# ANALYTICAL REPORT

Job Number: 410-53151-1

Job Description: fYNOP Monthly Surface Water

For:
Groundwater Sciences Corporation
2601 Market Place Street, Suite 310
Harrisburg, PA 17110-9307

Attention: Christopher O'Neil

Approved for release.
Marrissa C Williams
Project Manager
9/2/2021 12:33 PM

Marrissa C Williams, Project Manager
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09/02/2021



Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

# Table of Contents

# Table of Contents

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| FH | MS and/or MSD recovery above control limits. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## 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 |
| 1C | Result is from the primary column on a dual-column method. |
| 2C | Result is from the confirmation column on a dual-column method. |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

**Job Narrative**
**410-53151-1**

**Receipt**
The samples were received on 8/27/2021 3:29 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.1°C

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

# Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

## Client Sample ID: HD-COD-SW-6-0/1-0 — Lab Sample ID: 410-53151-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.5 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.14 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.12 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-7-0/1-0 — Lab Sample ID: 410-53151-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.7 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.17 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.19 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.17 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.19 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-8-0/1-0 — Lab Sample ID: 410-53151-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.6 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.10 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| Chloromethane | 0.061 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.24 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.099 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.20 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-9-0/1-0 — Lab Sample ID: 410-53151-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.4 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.22 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.072 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.094 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.072 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-13-0/1-0 — Lab Sample ID: 410-53151-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.8 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.094 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| Chloromethane | 0.060 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.24 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.14 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.22 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-15-0/1-0 — Lab Sample ID: 410-53151-6

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.19 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| 1,1-Dichloroethane | 0.095 | J | 0.50 | 0.070 | ug/L | 1 | | 8260D | Total/NA |
| 1,1-Dichloroethene | 0.13 | J FH | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.28 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.89 | | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 3.3 | FH | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 1.1 | | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

## Client Sample ID: HD-COD-SW-16-0/1-0 — Lab Sample ID: 410-53151-7

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.6 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.097 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.23 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.12 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Toluene | 0.084 | J | 0.50 | 0.070 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.19 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-17-0/1-0 — Lab Sample ID: 410-53151-8

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.33 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| 1,1-Dichloroethane | 0.19 | J | 0.50 | 0.070 | ug/L | 1 | | 8260D | Total/NA |
| 1,1-Dichloroethene | 0.22 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.23 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 1.7 | | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 8.4 | | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 3.4 | | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-26-0/1-0 — Lab Sample ID: 410-53151-9

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 0.13 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Acetone | 0.93 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.60 | | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.10 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 3.4 | | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.17 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-27-0/1-0 — Lab Sample ID: 410-53151-10

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 2.0 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.13 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.19 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.14 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Toluene | 0.085 | J | 0.50 | 0.070 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.17 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-28-0/1-0 — Lab Sample ID: 410-53151-11

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.7 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.22 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.081 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-COD-SW-29-0/1-0 — Lab Sample ID: 410-53151-12

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.5 | J | 5.0 | 0.90 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.12 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.21 | J | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.12 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.20 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

## Client Sample ID: HD-QC1-0/1-1 — Lab Sample ID: 410-53151-13

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.36 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| 1,1-Dichloroethane | 0.22 | J | 0.50 | 0.070 | ug/L | 1 | | 8260D | Total/NA |
| 1,1-Dichloroethene | 0.24 | J | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Chloroform | 0.25 | J | 0.50 | 0.090 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 1.8 | | 0.50 | 0.050 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 9.2 | | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 3.7 | | 0.50 | 0.060 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: HD-QC1-0/1-2 — Lab Sample ID: 410-53151-14

No Detections.

This Detection Summary does not include radiochemical test results.

## Client Sample ID: HD-COD-SW-6-0/1-0

**Date Collected: 08/26/21 11:00**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-1

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 13:48 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 13:48 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 13:48 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 13:48 | 1 |
| **Acetone** | **1.5** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 13:48 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 13:48 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 13:48 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 13:48 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 13:48 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| Chloroform | ND | | 0.50 | 0.090 | ug/L | | | 09/01/21 13:48 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| **cis-1,2-Dichloroethene** | **0.14** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 13:48 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 13:48 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 13:48 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 13:48 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 13:48 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| **Trichloroethene** | **0.12** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 13:48 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 13:48 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 13:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *80 - 120* | | *09/01/21 13:48* | *1* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *09/01/21 13:48* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *80 - 120* | | *09/01/21 13:48* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 13:48* | *1* |

## Client Sample ID: HD-COD-SW-7-0/1-0

**Date Collected: 08/26/21 11:40**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-2

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:09 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 14:09 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 14:09 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 14:09 | 1 |
| **Acetone** | **1.7** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 14:09 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:09 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:09 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:09 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 14:09 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| **Chloroform** | **0.17** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 14:09 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| **cis-1,2-Dichloroethene** | **0.19** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 14:09 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:09 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:09 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:09 | 1 |
| **Tetrachloroethene** | **0.17** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:09 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| **Trichloroethene** | **0.19** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 14:09 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 14:09 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 14:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *80 - 120* | | *09/01/21 14:09* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 14:09* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 120* | | *09/01/21 14:09* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 14:09* | *1* |

## Client Sample ID: HD-COD-SW-8-0/1-0

**Date Collected: 08/26/21 09:45**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-3

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:30 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 14:30 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 14:30 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 14:30 | 1 |
| **Acetone** | **1.6** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 14:30 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:30 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:30 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:30 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 14:30 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| **Chloroform** | **0.10** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 14:30 | 1 |
| **Chloromethane** | **0.061** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| **cis-1,2-Dichloroethene** | **0.24** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 14:30 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:30 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:30 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:30 | 1 |
| **Tetrachloroethene** | **0.099** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:30 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| **Trichloroethene** | **0.20** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 14:30 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 14:30 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 14:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *80 - 120* | | *09/01/21 14:30* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 14:30* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 120* | | *09/01/21 14:30* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 14:30* | *1* |

## Client Sample ID: HD-COD-SW-9-0/1-0

**Date Collected: 08/26/21 12:45**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-4

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:51 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 14:51 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 14:51 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 14:51 | 1 |
| **Acetone** | **2.4** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 14:51 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:51 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:51 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:51 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 14:51 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| **Chloroform** | **0.22** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 14:51 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| **cis-1,2-Dichloroethene** | **0.072** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 14:51 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:51 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:51 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 14:51 | 1 |
| **Tetrachloroethene** | **0.094** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 14:51 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| **Trichloroethene** | **0.072** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 14:51 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 14:51 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 14:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *80 - 120* | | *09/01/21 14:51* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 14:51* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 120* | | *09/01/21 14:51* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 14:51* | *1* |

## Client Sample ID: HD-COD-SW-13-0/1-0

**Date Collected: 08/26/21 09:57**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-5

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:12 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 15:12 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 15:12 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 15:12 | 1 |
| **Acetone** | **1.8** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 15:12 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:12 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:12 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:12 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 15:12 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| **Chloroform** | **0.094** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 15:12 | 1 |
| **Chloromethane** | **0.060** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| **cis-1,2-Dichloroethene** | **0.24** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 15:12 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:12 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:12 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:12 | 1 |
| **Tetrachloroethene** | **0.14** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:12 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| **Trichloroethene** | **0.22** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 15:12 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 15:12 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 15:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *80 - 120* | | *09/01/21 15:12* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 15:12* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *80 - 120* | | *09/01/21 15:12* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *09/01/21 15:12* | *1* |

## Client Sample ID: HD-COD-SW-15-0/1-0

**Date Collected: 08/26/21 12:10**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-6

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| **1,1,1-Trichloroethane** | **0.19** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| **1,1-Dichloroethane** | **0.095** | **J** | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| **1,1-Dichloroethene** | **0.13** | **J FH** | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 12:02 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 12:02 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 12:02 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 12:02 | 1 |
| Acetone | ND | | 5.0 | 0.90 | ug/L | | | 09/01/21 12:02 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 12:02 | 1 |
| Bromochloromethane | ND | FH | 0.50 | 0.050 | ug/L | | | 09/01/21 12:02 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 12:02 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 12:02 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| **Chloroform** | **0.28** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 12:02 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| **cis-1,2-Dichloroethene** | **0.89** | | 0.50 | 0.050 | ug/L | | | 09/01/21 12:02 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 12:02 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 12:02 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 12:02 | 1 |
| **Tetrachloroethene** | **3.3** | **FH** | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 12:02 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| **Trichloroethene** | **1.1** | | 0.50 | 0.060 | ug/L | | | 09/01/21 12:02 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 12:02 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 12:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *80 - 120* | | *09/01/21 12:02* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 12:02* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *80 - 120* | | *09/01/21 12:02* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 12:02* | *1* |

## Client Sample ID: HD-COD-SW-16-0/1-0

**Date Collected: 08/26/21 10:25**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-7

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:34 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 15:34 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 15:34 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 15:34 | 1 |
| **Acetone** | **1.6** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 15:34 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:34 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:34 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:34 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 15:34 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| **Chloroform** | **0.097** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 15:34 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| **cis-1,2-Dichloroethene** | **0.23** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 15:34 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:34 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:34 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:34 | 1 |
| **Tetrachloroethene** | **0.12** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| **Toluene** | **0.084** | **J** | 0.50 | 0.070 | ug/L | | | 09/01/21 15:34 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| **Trichloroethene** | **0.19** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 15:34 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 15:34 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 15:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *80 - 120* | | *09/01/21 15:34* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 15:34* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 120* | | *09/01/21 15:34* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 15:34* | *1* |

## Client Sample ID: HD-COD-SW-17-0/1-0

**Date Collected: 08/26/21 10:35**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-8

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| **1,1,1-Trichloroethane** | **0.33** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| **1,1-Dichloroethane** | **0.19** | **J** | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| **1,1-Dichloroethene** | **0.22** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:55 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 15:55 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 15:55 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 15:55 | 1 |
| Acetone | ND | | 5.0 | 0.90 | ug/L | | | 09/01/21 15:55 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:55 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:55 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:55 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 15:55 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| **Chloroform** | **0.23** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 15:55 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| **cis-1,2-Dichloroethene** | **1.7** | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:55 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:55 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:55 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 15:55 | 1 |
| **Tetrachloroethene** | **8.4** | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 15:55 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| **Trichloroethene** | **3.4** | | 0.50 | 0.060 | ug/L | | | 09/01/21 15:55 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 15:55 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 15:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *80 - 120* | | *09/01/21 15:55* | *1* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *80 - 120* | | *09/01/21 15:55* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *80 - 120* | | *09/01/21 15:55* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 15:55* | *1* |

## Client Sample ID: HD-COD-SW-26-0/1-0

**Date Collected: 08/26/21 11:20**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-9

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| **1,1-Dichloroethene** | **0.13** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:16 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 16:16 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 16:16 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 16:16 | 1 |
| **Acetone** | **0.93** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 16:16 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:16 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:16 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:16 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 16:16 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| **Chloroform** | **0.60** | | 0.50 | 0.090 | ug/L | | | 09/01/21 16:16 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| **cis-1,2-Dichloroethene** | **0.10** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 16:16 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:16 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:16 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:16 | 1 |
| **Tetrachloroethene** | **3.4** | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:16 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| **Trichloroethene** | **0.17** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 16:16 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 16:16 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 16:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *80 - 120* | | *09/01/21 16:16* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 16:16* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *80 - 120* | | *09/01/21 16:16* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 16:16* | *1* |

## Client Sample ID: HD-COD-SW-27-0/1-0

**Date Collected: 08/26/21 11:57**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-10

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:37 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 16:37 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 16:37 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 16:37 | 1 |
| **Acetone** | **2.0** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 16:37 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:37 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:37 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:37 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 16:37 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| **Chloroform** | **0.13** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 16:37 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| **cis-1,2-Dichloroethene** | **0.19** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 16:37 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:37 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:37 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:37 | 1 |
| **Tetrachloroethene** | **0.14** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| **Toluene** | **0.085** | **J** | 0.50 | 0.070 | ug/L | | | 09/01/21 16:37 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| **Trichloroethene** | **0.17** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 16:37 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 16:37 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 16:37 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *80 - 120* | | *09/01/21 16:37* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 16:37* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *80 - 120* | | *09/01/21 16:37* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 16:37* | *1* |

## Client Sample ID: HD-COD-SW-28-0/1-0

**Date Collected: 08/26/21 13:00**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-11

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:59 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 16:59 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 16:59 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 16:59 | 1 |
| **Acetone** | **1.7** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 16:59 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:59 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:59 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:59 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 16:59 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| **Chloroform** | **0.22** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 16:59 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:59 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:59 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:59 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 16:59 | 1 |
| **Tetrachloroethene** | **0.081** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 16:59 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| Trichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 16:59 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 16:59 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 16:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *80 - 120* | | *09/01/21 16:59* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 16:59* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 120* | | *09/01/21 16:59* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 16:59* | *1* |

## Client Sample ID: HD-COD-SW-29-0/1-0

**Date Collected: 08/26/21 09:35**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-12

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:20 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 17:20 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 17:20 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 17:20 | 1 |
| **Acetone** | **1.5** | **J** | 5.0 | 0.90 | ug/L | | | 09/01/21 17:20 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:20 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:20 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:20 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 17:20 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| **Chloroform** | **0.12** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 17:20 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| **cis-1,2-Dichloroethene** | **0.21** | **J** | 0.50 | 0.050 | ug/L | | | 09/01/21 17:20 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:20 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:20 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:20 | 1 |
| **Tetrachloroethene** | **0.12** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:20 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| **Trichloroethene** | **0.20** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 17:20 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 17:20 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 17:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *80 - 120* | | *09/01/21 17:20* | *1* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *80 - 120* | | *09/01/21 17:20* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 120* | | *09/01/21 17:20* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 17:20* | *1* |

## Client Sample ID: HD-QC1-0/1-1

**Date Collected: 08/26/21 12:00**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-13

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| **1,1,1-Trichloroethane** | **0.36** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| **1,1-Dichloroethane** | **0.22** | **J** | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| **1,1-Dichloroethene** | **0.24** | **J** | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:41 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 17:41 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 17:41 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 17:41 | 1 |
| Acetone | ND | | 5.0 | 0.90 | ug/L | | | 09/01/21 17:41 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:41 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:41 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:41 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 17:41 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| **Chloroform** | **0.25** | **J** | 0.50 | 0.090 | ug/L | | | 09/01/21 17:41 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| **cis-1,2-Dichloroethene** | **1.8** | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:41 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:41 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:41 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 17:41 | 1 |
| **Tetrachloroethene** | **9.2** | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 17:41 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| **Trichloroethene** | **3.7** | | 0.50 | 0.060 | ug/L | | | 09/01/21 17:41 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 17:41 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 17:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *103* | | *80 - 120* | | *09/01/21 17:41* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 17:41* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 120* | | *09/01/21 17:41* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 17:41* | *1* |

## Client Sample ID: HD-QC1-0/1-2

**Date Collected: 08/26/21 00:00**
**Date Received: 08/27/21 15:29**

## Lab Sample ID: 410-53151-14

**Matrix: Water**

### Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 11:41 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 11:41 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 11:41 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 11:41 | 1 |
| Acetone | ND | | 5.0 | 0.90 | ug/L | | | 09/01/21 11:41 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 11:41 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 11:41 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 11:41 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 11:41 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| Chloroform | ND | | 0.50 | 0.090 | ug/L | | | 09/01/21 11:41 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 11:41 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 11:41 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 11:41 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 11:41 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 11:41 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| Trichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 11:41 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 11:41 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 11:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *80 - 120* | | *09/01/21 11:41* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 11:41* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *80 - 120* | | *09/01/21 11:41* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* | | *09/01/21 11:41* | *1* |

# Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | RL | MDL | Units |
|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 0.50 | 0.070 | ug/L |
| 1,1,1-Trichloroethane | 0.50 | 0.060 | ug/L |
| 1,1,2,2-Tetrachloroethane | 0.50 | 0.070 | ug/L |
| 1,1,2-Trichloroethane | 0.50 | 0.060 | ug/L |
| 1,1-Dichloroethane | 0.50 | 0.070 | ug/L |
| 1,1-Dichloroethene | 0.50 | 0.060 | ug/L |
| 1,2-Dibromoethane (EDB) | 0.50 | 0.060 | ug/L |
| 1,2-Dichloroethane | 0.50 | 0.050 | ug/L |
| 1,2-Dichloropropane | 0.50 | 0.060 | ug/L |
| 2-Butanone (MEK) | 5.0 | 0.60 | ug/L |
| 2-Hexanone | 5.0 | 0.60 | ug/L |
| 4-Methyl-2-pentanone (MIBK) | 5.0 | 0.70 | ug/L |
| Acetone | 5.0 | 0.90 | ug/L |
| Benzene | 0.50 | 0.050 | ug/L |
| Bromochloromethane | 0.50 | 0.050 | ug/L |
| Bromodichloromethane | 0.50 | 0.050 | ug/L |
| Bromoform | 1.0 | 0.30 | ug/L |
| Bromomethane | 0.50 | 0.070 | ug/L |
| Carbon disulfide | 1.0 | 0.060 | ug/L |
| Carbon tetrachloride | 0.50 | 0.070 | ug/L |
| Chlorobenzene | 0.50 | 0.060 | ug/L |
| Chloroethane | 0.50 | 0.070 | ug/L |
| Chloroform | 0.50 | 0.090 | ug/L |
| Chloromethane | 0.50 | 0.060 | ug/L |
| cis-1,2-Dichloroethene | 0.50 | 0.050 | ug/L |
| cis-1,3-Dichloropropene | 0.50 | 0.050 | ug/L |
| Dibromochloromethane | 0.50 | 0.070 | ug/L |
| Ethylbenzene | 0.50 | 0.060 | ug/L |
| Methyl tert-butyl ether | 0.50 | 0.050 | ug/L |
| Methylene Chloride | 0.50 | 0.070 | ug/L |
| Styrene | 0.50 | 0.050 | ug/L |
| Tetrachloroethene | 0.50 | 0.060 | ug/L |
| Toluene | 0.50 | 0.070 | ug/L |
| trans-1,2-Dichloroethene | 0.50 | 0.060 | ug/L |
| trans-1,3-Dichloropropene | 0.50 | 0.060 | ug/L |
| Trichloroethene | 0.50 | 0.060 | ug/L |
| Vinyl chloride | 0.50 | 0.10 | ug/L |
| Xylenes, Total | 1.0 | 0.15 | ug/L |

# Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | DCA | BFB | DBFM | TOL |
| Lab Sample ID | Client Sample ID | (80-120) | (80-120) | (80-120) | (80-120) |
| 410-53151-1 | HD-COD-SW-6-0/1-0 | 101 | 100 | 100 | 98 |
| 410-53151-2 | HD-COD-SW-7-0/1-0 | 101 | 99 | 99 | 98 |
| 410-53151-3 | HD-COD-SW-8-0/1-0 | 102 | 99 | 99 | 98 |
| 410-53151-4 | HD-COD-SW-9-0/1-0 | 99 | 99 | 99 | 98 |
| 410-53151-5 | HD-COD-SW-13-0/1-0 | 102 | 99 | 100 | 97 |
| 410-53151-6 | HD-COD-SW-15-0/1-0 | 101 | 99 | 100 | 98 |
| 410-53151-6 MS | HD-COD-SW-15-0/1-0 MS | 100 | 98 | 100 | 97 |
| 410-53151-6 MSD | HD-COD-SW-15-0/1-0 MSD | 101 | 98 | 101 | 98 |
| 410-53151-7 | HD-COD-SW-16-0/1-0 | 99 | 99 | 99 | 98 |
| 410-53151-8 | HD-COD-SW-17-0/1-0 | 102 | 100 | 100 | 98 |
| 410-53151-9 | HD-COD-SW-26-0/1-0 | 101 | 99 | 100 | 98 |
| 410-53151-10 | HD-COD-SW-27-0/1-0 | 102 | 99 | 100 | 98 |
| 410-53151-11 | HD-COD-SW-28-0/1-0 | 102 | 99 | 99 | 98 |
| 410-53151-12 | HD-COD-SW-29-0/1-0 | 100 | 98 | 99 | 98 |
| 410-53151-13 | HD-QC1-0/1-1 | 103 | 99 | 99 | 98 |
| 410-53151-14 | HD-QC1-0/1-2 | 100 | 99 | 100 | 97 |
| LCS 410-166762/4 | Lab Control Sample | 101 | 97 | 101 | 97 |
| MB 410-166762/7 | Method Blank | 99 | 99 | 99 | 98 |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 410-166762/7**
**Matrix: Water**
**Analysis Batch: 166762**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| 1,1-Dichloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| 1,1-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| 1,2-Dichloroethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 10:58 | 1 |
| 1,2-Dichloropropane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| 2-Butanone (MEK) | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 10:58 | 1 |
| 2-Hexanone | ND | | 5.0 | 0.60 | ug/L | | | 09/01/21 10:58 | 1 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 | ug/L | | | 09/01/21 10:58 | 1 |
| Acetone | ND | | 5.0 | 0.90 | ug/L | | | 09/01/21 10:58 | 1 |
| Benzene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 10:58 | 1 |
| Bromochloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 10:58 | 1 |
| Bromodichloromethane | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 10:58 | 1 |
| Bromoform | ND | | 1.0 | 0.30 | ug/L | | | 09/01/21 10:58 | 1 |
| Bromomethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| Carbon disulfide | ND | | 1.0 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| Carbon tetrachloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| Chlorobenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| Chloroethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| Chloroform | ND | | 0.50 | 0.090 | ug/L | | | 09/01/21 10:58 | 1 |
| Chloromethane | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 10:58 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 10:58 | 1 |
| Dibromochloromethane | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| Ethylbenzene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| Methyl tert-butyl ether | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 10:58 | 1 |
| Methylene Chloride | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| Styrene | ND | | 0.50 | 0.050 | ug/L | | | 09/01/21 10:58 | 1 |
| Tetrachloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| Toluene | ND | | 0.50 | 0.070 | ug/L | | | 09/01/21 10:58 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| Trichloroethene | ND | | 0.50 | 0.060 | ug/L | | | 09/01/21 10:58 | 1 |
| Vinyl chloride | ND | | 0.50 | 0.10 | ug/L | | | 09/01/21 10:58 | 1 |
| Xylenes, Total | ND | | 1.0 | 0.15 | ug/L | | | 09/01/21 10:58 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *80 - 120* | | *09/01/21 10:58* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *80 - 120* | | *09/01/21 10:58* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *80 - 120* | | *09/01/21 10:58* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* | | *09/01/21 10:58* | *1* |

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 410-166762/4**
**Matrix: Water**
**Analysis Batch: 166762**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 5.00 | 5.42 | | ug/L | | 108 | 71 - 134 |
| 1,1,1-Trichloroethane | 5.00 | 5.52 | | ug/L | | 110 | 78 - 126 |
| 1,1,2,2-Tetrachloroethane | 5.00 | 5.28 | | ug/L | | 106 | 75 - 123 |
| 1,1,2-Trichloroethane | 5.00 | 5.39 | | ug/L | | 108 | 80 - 120 |
| 1,1-Dichloroethane | 5.00 | 5.31 | | ug/L | | 106 | 74 - 120 |
| 1,1-Dichloroethene | 5.00 | 5.90 | | ug/L | | 118 | 80 - 131 |
| 1,2-Dibromoethane (EDB) | 5.00 | 5.29 | | ug/L | | 106 | 80 - 120 |
| 1,2-Dichloroethane | 5.00 | 5.13 | | ug/L | | 103 | 69 - 122 |
| 1,2-Dichloropropane | 5.00 | 5.55 | | ug/L | | 111 | 80 - 120 |
| 2-Butanone (MEK) | 62.5 | 57.7 | | ug/L | | 92 | 59 - 141 |
| 2-Hexanone | 62.5 | 60.8 | | ug/L | | 97 | 52 - 140 |
| 4-Methyl-2-pentanone (MIBK) | 62.5 | 58.0 | | ug/L | | 93 | 55 - 140 |
| Acetone | 62.5 | 55.1 | | ug/L | | 88 | 60 - 146 |
| Benzene | 5.00 | 5.53 | | ug/L | | 111 | 80 - 120 |
| Bromochloromethane | 5.00 | 5.70 | | ug/L | | 114 | 80 - 120 |
| Bromodichloromethane | 5.00 | 5.49 | | ug/L | | 110 | 73 - 124 |
| Bromoform | 5.00 | 5.37 | | ug/L | | 107 | 49 - 144 |
| Bromomethane | 5.00 | 5.36 | | ug/L | | 107 | 60 - 136 |
| Carbon disulfide | 5.00 | 5.39 | | ug/L | | 108 | 67 - 130 |
| Carbon tetrachloride | 5.00 | 5.66 | | ug/L | | 113 | 64 - 141 |
| Chlorobenzene | 5.00 | 5.37 | | ug/L | | 107 | 80 - 120 |
| Chloroethane | 5.00 | 5.28 | | ug/L | | 106 | 63 - 120 |
| Chloroform | 5.00 | 5.48 | | ug/L | | 110 | 80 - 120 |
| Chloromethane | 5.00 | 5.42 | | ug/L | | 108 | 56 - 124 |
| cis-1,2-Dichloroethene | 5.00 | 5.65 | | ug/L | | 113 | 80 - 122 |
| cis-1,3-Dichloropropene | 5.00 | 5.42 | | ug/L | | 108 | 67 - 121 |
| Dibromochloromethane | 5.00 | 5.34 | | ug/L | | 107 | 64 - 138 |
| Ethylbenzene | 5.00 | 5.33 | | ug/L | | 107 | 80 - 120 |
| Methyl tert-butyl ether | 5.00 | 5.45 | | ug/L | | 109 | 69 - 120 |
| Methylene Chloride | 5.00 | 5.60 | | ug/L | | 112 | 80 - 120 |
| Styrene | 5.00 | 5.45 | | ug/L | | 109 | 80 - 120 |
| Tetrachloroethene | 5.00 | 5.50 | | ug/L | | 110 | 80 - 120 |
| Toluene | 5.00 | 5.26 | | ug/L | | 105 | 80 - 120 |
| trans-1,2-Dichloroethene | 5.00 | 5.53 | | ug/L | | 111 | 80 - 122 |
| trans-1,3-Dichloropropene | 5.00 | 5.37 | | ug/L | | 107 | 61 - 129 |
| Trichloroethene | 5.00 | 5.48 | | ug/L | | 110 | 80 - 120 |
| Vinyl chloride | 5.00 | 5.34 | | ug/L | | 107 | 60 - 125 |
| Xylenes, Total | 15.0 | 16.2 | | ug/L | | 108 | 80 - 120 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *97* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *101* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* |

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 410-53151-6 MS**
**Matrix: Water**
**Analysis Batch: 166762**

**Client Sample ID: HD-COD-SW-15-0/1-0 MS**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 5.00 | 5.44 | | ug/L | | 109 | 71 - 134 |
| 1,1,1-Trichloroethane | 0.19 | J | 5.00 | 5.99 | | ug/L | | 116 | 78 - 126 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.00 | 5.11 | | ug/L | | 102 | 75 - 123 |
| 1,1,2-Trichloroethane | ND | | 5.00 | 5.27 | | ug/L | | 105 | 80 - 120 |
| 1,1-Dichloroethane | 0.095 | J | 5.00 | 5.62 | | ug/L | | 110 | 74 - 120 |
| 1,1-Dichloroethene | 0.13 | J FH | 5.00 | 6.48 | | ug/L | | 127 | 80 - 131 |
| 1,2-Dibromoethane (EDB) | ND | | 5.00 | 5.26 | | ug/L | | 105 | 80 - 120 |
| 1,2-Dichloroethane | ND | | 5.00 | 5.30 | | ug/L | | 106 | 69 - 122 |
| 1,2-Dichloropropane | ND | | 5.00 | 5.59 | | ug/L | | 112 | 80 - 120 |
| 2-Butanone (MEK) | ND | | 62.6 | 55.6 | | ug/L | | 89 | 59 - 141 |
| 2-Hexanone | ND | | 62.6 | 58.1 | | ug/L | | 93 | 52 - 140 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 62.6 | 56.4 | | ug/L | | 90 | 55 - 140 |
| Acetone | ND | | 62.6 | 51.8 | | ug/L | | 83 | 60 - 146 |
| Benzene | ND | | 5.00 | 5.67 | | ug/L | | 113 | 80 - 120 |
| Bromochloromethane | ND | FH | 5.00 | 5.75 | | ug/L | | 115 | 80 - 120 |
| Bromodichloromethane | ND | | 5.00 | 5.55 | | ug/L | | 111 | 73 - 124 |
| Bromoform | ND | | 5.00 | 5.14 | | ug/L | | 103 | 49 - 144 |
| Bromomethane | ND | | 5.00 | 5.59 | | ug/L | | 112 | 60 - 136 |
| Carbon disulfide | ND | | 5.00 | 5.82 | | ug/L | | 116 | 67 - 130 |
| Carbon tetrachloride | ND | | 5.00 | 6.02 | | ug/L | | 120 | 64 - 141 |
| Chlorobenzene | ND | | 5.00 | 5.45 | | ug/L | | 109 | 80 - 120 |
| Chloroethane | ND | | 5.00 | 5.61 | | ug/L | | 112 | 63 - 120 |
| Chloroform | 0.28 | J | 5.00 | 5.87 | | ug/L | | 112 | 80 - 120 |
| Chloromethane | ND | | 5.00 | 5.67 | | ug/L | | 113 | 80 - 120 |
| cis-1,2-Dichloroethene | 0.89 | | 5.00 | 6.65 | | ug/L | | 115 | 80 - 122 |
| cis-1,3-Dichloropropene | ND | | 5.00 | 5.37 | | ug/L | | 107 | 67 - 121 |
| Dibromochloromethane | ND | | 5.00 | 5.24 | | ug/L | | 105 | 64 - 138 |
| Ethylbenzene | ND | | 5.00 | 5.49 | | ug/L | | 110 | 80 - 120 |
| Methyl tert-butyl ether | ND | | 5.00 | 5.39 | | ug/L | | 108 | 69 - 120 |
| Methylene Chloride | ND | | 5.00 | 5.67 | | ug/L | | 113 | 80 - 120 |
| Styrene | ND | | 5.00 | 5.48 | | ug/L | | 110 | 80 - 120 |
| Tetrachloroethene | 3.3 | FH | 5.00 | 9.01 | | ug/L | | 114 | 80 - 120 |
| Toluene | ND | | 5.00 | 5.47 | | ug/L | | 109 | 80 - 120 |
| trans-1,2-Dichloroethene | ND | | 5.00 | 5.74 | | ug/L | | 115 | 80 - 122 |
| trans-1,3-Dichloropropene | ND | | 5.00 | 5.23 | | ug/L | | 104 | 61 - 129 |
| Trichloroethene | 1.1 | | 5.00 | 6.82 | | ug/L | | 115 | 80 - 120 |
| Vinyl chloride | ND | | 5.00 | 5.83 | | ug/L | | 116 | 60 - 125 |
| Xylenes, Total | ND | | 15.0 | 16.6 | | ug/L | | 110 | 80 - 120 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *100* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *97* | | *80 - 120* |

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 410-53151-6 MSD**
**Matrix: Water**
**Analysis Batch: 166762**

**Client Sample ID: HD-COD-SW-15-0/1-0 MSD**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ND | | 5.00 | 5.66 | | ug/L | | 113 | 71 - 134 | 4 | 30 |
| 1,1,1-Trichloroethane | 0.19 | J | 5.00 | 6.18 | | ug/L | | 120 | 78 - 126 | 3 | 30 |
| 1,1,2,2-Tetrachloroethane | ND | | 5.00 | 5.38 | | ug/L | | 108 | 75 - 123 | 5 | 30 |
| 1,1,2-Trichloroethane | ND | | 5.00 | 5.50 | | ug/L | | 110 | 80 - 120 | 4 | 30 |
| 1,1-Dichloroethane | 0.095 | J | 5.00 | 5.90 | | ug/L | | 116 | 74 - 120 | 5 | 30 |
| 1,1-Dichloroethene | 0.13 | J FH | 5.00 | 6.77 | FH | ug/L | | 133 | 80 - 131 | 4 | 30 |
| 1,2-Dibromoethane (EDB) | ND | | 5.00 | 5.47 | | ug/L | | 109 | 80 - 120 | 4 | 30 |
| 1,2-Dichloroethane | ND | | 5.00 | 5.37 | | ug/L | | 107 | 69 - 122 | 1 | 30 |
| 1,2-Dichloropropane | ND | | 5.00 | 5.79 | | ug/L | | 116 | 80 - 120 | 4 | 30 |
| 2-Butanone (MEK) | ND | | 62.6 | 60.1 | | ug/L | | 96 | 59 - 141 | 8 | 30 |
| 2-Hexanone | ND | | 62.6 | 61.7 | | ug/L | | 99 | 52 - 140 | 6 | 30 |
| 4-Methyl-2-pentanone (MIBK) | ND | | 62.6 | 60.4 | | ug/L | | 97 | 55 - 140 | 7 | 30 |
| Acetone | ND | | 62.6 | 56.3 | | ug/L | | 90 | 60 - 146 | 8 | 30 |
| Benzene | ND | | 5.00 | 5.89 | | ug/L | | 118 | 80 - 120 | 4 | 30 |
| Bromochloromethane | ND | FH | 5.00 | 6.04 | FH | ug/L | | 121 | 80 - 120 | 5 | 30 |
| Bromodichloromethane | ND | | 5.00 | 5.77 | | ug/L | | 115 | 73 - 124 | 4 | 30 |
| Bromoform | ND | | 5.00 | 5.37 | | ug/L | | 107 | 49 - 144 | 4 | 30 |
| Bromomethane | ND | | 5.00 | 5.43 | | ug/L | | 109 | 60 - 136 | 3 | 30 |
| Carbon disulfide | ND | | 5.00 | 6.18 | | ug/L | | 124 | 67 - 130 | 6 | 30 |
| Carbon tetrachloride | ND | | 5.00 | 6.28 | | ug/L | | 125 | 64 - 141 | 4 | 30 |
| Chlorobenzene | ND | | 5.00 | 5.67 | | ug/L | | 113 | 80 - 120 | 4 | 30 |
| Chloroethane | ND | | 5.00 | 5.38 | | ug/L | | 108 | 63 - 120 | 4 | 30 |
| Chloroform | 0.28 | J | 5.00 | 6.04 | | ug/L | | 115 | 80 - 120 | 3 | 30 |
| Chloromethane | ND | | 5.00 | 5.66 | | ug/L | | 113 | 80 - 120 | 0 | 30 |
| cis-1,2-Dichloroethene | 0.89 | | 5.00 | 6.87 | | ug/L | | 119 | 80 - 122 | 3 | 30 |
| cis-1,3-Dichloropropene | ND | | 5.00 | 5.56 | | ug/L | | 111 | 67 - 121 | 4 | 30 |
| Dibromochloromethane | ND | | 5.00 | 5.44 | | ug/L | | 109 | 64 - 138 | 4 | 30 |
| Ethylbenzene | ND | | 5.00 | 5.72 | | ug/L | | 114 | 80 - 120 | 4 | 30 |
| Methyl tert-butyl ether | ND | | 5.00 | 5.51 | | ug/L | | 110 | 69 - 120 | 2 | 30 |
| Methylene Chloride | ND | | 5.00 | 5.82 | | ug/L | | 116 | 80 - 120 | 3 | 30 |
| Styrene | ND | | 5.00 | 5.69 | | ug/L | | 114 | 80 - 120 | 4 | 30 |
| Tetrachloroethene | 3.3 | FH | 5.00 | 9.50 | FH | ug/L | | 124 | 80 - 120 | 5 | 30 |
| Toluene | ND | | 5.00 | 5.65 | | ug/L | | 113 | 80 - 120 | 3 | 30 |
| trans-1,2-Dichloroethene | ND | | 5.00 | 6.02 | | ug/L | | 120 | 80 - 122 | 5 | 30 |
| trans-1,3-Dichloropropene | ND | | 5.00 | 5.50 | | ug/L | | 110 | 61 - 129 | 5 | 30 |
| Trichloroethene | 1.1 | | 5.00 | 7.10 | | ug/L | | 120 | 80 - 120 | 4 | 30 |
| Vinyl chloride | ND | | 5.00 | 5.69 | | ug/L | | 114 | 60 - 125 | 2 | 30 |
| Xylenes, Total | ND | | 15.0 | 17.1 | | ug/L | | 114 | 80 - 120 | 4 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *80 - 120* |
| *4-Bromofluorobenzene (Surr)* | *98* | | *80 - 120* |
| *Dibromofluoromethane (Surr)* | *101* | | *80 - 120* |
| *Toluene-d8 (Surr)* | *98* | | *80 - 120* |

# QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

## GC/MS VOA

### Analysis Batch: 166762

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 410-53151-1 | HD-COD-SW-6-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-2 | HD-COD-SW-7-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-3 | HD-COD-SW-8-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-4 | HD-COD-SW-9-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-5 | HD-COD-SW-13-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-6 | HD-COD-SW-15-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-7 | HD-COD-SW-16-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-8 | HD-COD-SW-17-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-9 | HD-COD-SW-26-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-10 | HD-COD-SW-27-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-11 | HD-COD-SW-28-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-12 | HD-COD-SW-29-0/1-0 | Total/NA | Water | 8260D | |
| 410-53151-13 | HD-QC1-0/1-1 | Total/NA | Water | 8260D | |
| 410-53151-14 | HD-QC1-0/1-2 | Total/NA | Water | 8260D | |
| MB 410-166762/7 | Method Blank | Total/NA | Water | 8260D | |
| LCS 410-166762/4 | Lab Control Sample | Total/NA | Water | 8260D | |
| 410-53151-6 MS | HD-COD-SW-15-0/1-0 MS | Total/NA | Water | 8260D | |
| 410-53151-6 MSD | HD-COD-SW-15-0/1-0 MSD | Total/NA | Water | 8260D | |

# Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

## Client Sample ID: HD-COD-SW-6-0/1-0
**Lab Sample ID: 410-53151-1**
**Date Collected: 08/26/21 11:00**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 13:48 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-7-0/1-0
**Lab Sample ID: 410-53151-2**
**Date Collected: 08/26/21 11:40**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 14:09 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-8-0/1-0
**Lab Sample ID: 410-53151-3**
**Date Collected: 08/26/21 09:45**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 14:30 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-9-0/1-0
**Lab Sample ID: 410-53151-4**
**Date Collected: 08/26/21 12:45**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 14:51 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-13-0/1-0
**Lab Sample ID: 410-53151-5**
**Date Collected: 08/26/21 09:57**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 15:12 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-15-0/1-0
**Lab Sample ID: 410-53151-6**
**Date Collected: 08/26/21 12:10**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 12:02 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-16-0/1-0
**Lab Sample ID: 410-53151-7**
**Date Collected: 08/26/21 10:25**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 15:34 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-17-0/1-0
**Lab Sample ID: 410-53151-8**
**Date Collected: 08/26/21 10:35**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 15:55 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-26-0/1-0
**Lab Sample ID: 410-53151-9**
**Date Collected: 08/26/21 11:20**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 16:16 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-27-0/1-0
**Lab Sample ID: 410-53151-10**
**Date Collected: 08/26/21 11:57**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 16:37 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-28-0/1-0
**Lab Sample ID: 410-53151-11**
**Date Collected: 08/26/21 13:00**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 16:59 | J5QQ | ELLE |

## Client Sample ID: HD-COD-SW-29-0/1-0
**Lab Sample ID: 410-53151-12**
**Date Collected: 08/26/21 09:35**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 17:20 | J5QQ | ELLE |

## Client Sample ID: HD-QC1-0/1-1
**Lab Sample ID: 410-53151-13**
**Date Collected: 08/26/21 12:00**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 17:41 | J5QQ | ELLE |

## Client Sample ID: HD-QC1-0/1-2
**Lab Sample ID: 410-53151-14**
**Date Collected: 08/26/21 00:00**
**Matrix: Water**
**Date Received: 08/27/21 15:29**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 166762 | 09/01/21 11:41 | J5QQ | ELLE |

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
Job ID: 410-53151-1
Project/Site: fYNOP Monthly Surface Water

## Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Pennsylvania | NELAP | 36-00037 | 01-31-22 |

# Method Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260D | Volatile Organic Compounds by GC/MS | SW846 | ELLE |
| 5030C | Purge and Trap | SW846 | ELLE |

**Protocol References:**

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

**Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-53151-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 410-53151-1 | HD-COD-SW-6-0/1-0 | Water | 08/26/21 11:00 | 08/27/21 15:29 |
| 410-53151-2 | HD-COD-SW-7-0/1-0 | Water | 08/26/21 11:40 | 08/27/21 15:29 |
| 410-53151-3 | HD-COD-SW-8-0/1-0 | Water | 08/26/21 09:45 | 08/27/21 15:29 |
| 410-53151-4 | HD-COD-SW-9-0/1-0 | Water | 08/26/21 12:45 | 08/27/21 15:29 |
| 410-53151-5 | HD-COD-SW-13-0/1-0 | Water | 08/26/21 09:57 | 08/27/21 15:29 |
| 410-53151-6 | HD-COD-SW-15-0/1-0 | Water | 08/26/21 12:10 | 08/27/21 15:29 |
| 410-53151-7 | HD-COD-SW-16-0/1-0 | Water | 08/26/21 10:25 | 08/27/21 15:29 |
| 410-53151-8 | HD-COD-SW-17-0/1-0 | Water | 08/26/21 10:35 | 08/27/21 15:29 |
| 410-53151-9 | HD-COD-SW-26-0/1-0 | Water | 08/26/21 11:20 | 08/27/21 15:29 |
| 410-53151-10 | HD-COD-SW-27-0/1-0 | Water | 08/26/21 11:57 | 08/27/21 15:29 |
| 410-53151-11 | HD-COD-SW-28-0/1-0 | Water | 08/26/21 13:00 | 08/27/21 15:29 |
| 410-53151-12 | HD-COD-SW-29-0/1-0 | Water | 08/26/21 09:35 | 08/27/21 15:29 |
| 410-53151-13 | HD-QC1-0/1-1 | Water | 08/26/21 12:00 | 08/27/21 15:29 |
| 410-53151-14 | HD-QC1-0/1-2 | Water | 08/26/21 00:00 | 08/27/21 15:29 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-53151-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 163707

Lab Sample ID: IC 410-163707/9 Client Sample ID:

Date Analyzed: 08/23/21 23:40 Lab File ID: IG23I17.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Cyclohexanone | 12.12 | Incomplete Integration | longj | 08/24/21 14:44 |

Lab Sample ID: IC 410-163707/12 Client Sample ID:

Date Analyzed: 08/24/21 00:45 Lab File ID: IG23I01.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.63 | Incomplete Integration | longj | 08/24/21 15:03 |

Lab Sample ID: IC 410-163707/14 Client Sample ID:

Date Analyzed: 08/24/21 01:27 Lab File ID: IG23I03.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.63 | Incomplete Integration | longj | 08/24/21 15:02 |

Lab Sample ID: IC 410-163707/15 Client Sample ID:

Date Analyzed: 08/24/21 01:48 Lab File ID: IG23I04.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| t-Butyl alcohol-d10 (IS) | 4.26 | Incomplete Integration | longj | 08/24/21 15:16 |
| 1,4-Dioxane | 8.64 | Split Peak | longj | 08/24/21 15:15 |

Lab Sample ID: IC 410-163707/16 Client Sample ID:

Date Analyzed: 08/24/21 02:09 Lab File ID: IG23I05.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetone | 3.62 | Baseline | longj | 08/24/21 15:05 |
| 1,4-Dioxane | 8.65 | Incomplete Integration | longj | 08/24/21 15:17 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-53151-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 163707

Lab Sample ID: IC 410-163707/17 Client Sample ID:

Date Analyzed: 08/24/21 02:30 Lab File ID: IG23I06.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Methyl acetate | 4.05 | Baseline | longj | 08/24/21 15:07 |
| 1,4-Dioxane | 8.64 | Incomplete Integration | longj | 08/24/21 15:07 |

Lab Sample ID: IC 410-163707/18 Client Sample ID:

Date Analyzed: 08/24/21 02:52 Lab File ID: IG23I07.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Methyl acetate | 4.03 | Split Peak | longj | 08/24/21 15:08 |

Lab Sample ID: ICV 410-163707/19 Client Sample ID:

Date Analyzed: 08/24/21 03:13 Lab File ID: IG23V01.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,4-Dioxane | 8.63 | Incomplete Integration | longj | 08/24/21 15:37 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-53151-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 166762

Lab Sample ID: CCVIS 410-166762/3 Client Sample ID:

Date Analyzed: 09/01/21 09:33 Lab File ID: IS01X02.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Acetone | 3.60 | Incomplete Integration | knouses | 09/01/21 10:20 |
| Methyl acetate | 4.02 | Incomplete Integration | knouses | 09/01/21 10:20 |

Lab Sample ID: 410-53151-6 Client Sample ID: HD-COD-SW-15-0/1-0

Date Analyzed: 09/01/21 12:02 Lab File ID: IS01X09.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2-Butanone (MEK) | | Invalid Compound ID | campbellme | 09/01/21 20:49 |

Lab Sample ID: 410-53151-3 Client Sample ID: HD-COD-SW-8-0/1-0

Date Analyzed: 09/01/21 14:30 Lab File ID: IS01X16.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2-Butanone (MEK) | | Invalid Compound ID | campbellme | 09/01/21 20:52 |

Lab Sample ID: 410-53151-5 Client Sample ID: HD-COD-SW-13-0/1-0

Date Analyzed: 09/01/21 15:12 Lab File ID: IS01X18.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Vinyl chloride | 2.29 | Incomplete Integration | campbellme | 09/01/21 20:53 |
| Acetone | 3.62 | Incomplete Integration | campbellme | 09/01/21 20:53 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-53151-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 166762

Lab Sample ID: 410-53151-11 Client Sample ID: HD-COD-SW-28-0/1-0

Date Analyzed: 09/01/21 16:59 Lab File ID: IS01X23.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Trichloroethene | 8.23 | Incomplete Integration | campbellme | 09/01/21 20:55 |
| Styrene | 11.76 | Incomplete Integration | campbellme | 09/01/21 20:55 |

Lab Sample ID: 410-53151-12 Client Sample ID: HD-COD-SW-29-0/1-0

Date Analyzed: 09/01/21 17:20 Lab File ID: IS01X24.D GC Column: R-624SilMS 30 ID: 0.25(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Trichloroethene | 8.21 | Incomplete Integration | campbellme | 09/01/21 20:55 |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **MSV_DME_00030** | 09/01/21 | Absolute Standards, Inc, Lot 081920 | | | (Purchased Reagent) | | Dimethyl ether | 1000 ug/mL |
| **MSV_LCS_VOC#1_00015** | 09/22/21 | 08/23/21 | Methanol, Lot DZ644 | 25 mL | MSV_M_MIX1SEC_00019 | 1 mL | 1,1,1,2-Tetrachloroethane | 40 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 40 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 40 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 40 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 40 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 40 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 40 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 40 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 40 ug/mL |
| | | | | | | | Benzene | 40 ug/mL |
| | | | | | | | Bromochloromethane | 40 ug/mL |
| | | | | | | | Bromodichloromethane | 40 ug/mL |
| | | | | | | | Bromoform | 40 ug/mL |
| | | | | | | | Carbon tetrachloride | 40 ug/mL |
| | | | | | | | Chlorobenzene | 40 ug/mL |
| | | | | | | | Chloroform | 40 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 40 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 40 ug/mL |
| | | | | | | | Dibromochloromethane | 40 ug/mL |
| | | | | | | | Ethylbenzene | 40 ug/mL |
| | | | | | | | Methylene Chloride | 40 ug/mL |
| | | | | | | | Styrene | 40 ug/mL |
| | | | | | | | Tetrachloroethene | 40 ug/mL |
| | | | | | | | Toluene | 40 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 40 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 40 ug/mL |
| | | | | | | | Trichloroethene | 40 ug/mL |
| | | | | | MSV_M_MIX2SEC_00028 | 1 mL | Carbon disulfide | 40 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 40 ug/mL |
| | | | | | MSV_Q_Ketones_00019 | 1 mL | 2-Butanone (MEK) | 500 ug/mL |
| | | | | | | | 2-Hexanone | 500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 500 ug/mL |
| | | | | | | | Acetone | 500 ug/mL |
| .MSV_M_MIX1SEC_00019 | 04/30/24 | Restek, Lot A0171815 | | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 1000 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 1000 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 1000 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 1000 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 1000 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 1000 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 1000 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 1000 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 1000 ug/mL |
| | | | | | | | Benzene | 1000 ug/mL |
| | | | | | | | Bromochloromethane | 1000 ug/mL |
| | | | | | | | Bromodichloromethane | 1000 ug/mL |
| | | | | | | | Bromoform | 1000 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Carbon tetrachloride | 1000 ug/mL |
| | | | | | | | Chlorobenzene | 1000 ug/mL |
| | | | | | | | Chloroform | 1000 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 1000 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 1000 ug/mL |
| | | | | | | | Dibromochloromethane | 1000 ug/mL |
| | | | | | | | Ethylbenzene | 1000 ug/mL |
| | | | | | | | Methylene Chloride | 1000 ug/mL |
| | | | | | | | Styrene | 1000 ug/mL |
| | | | | | | | Tetrachloroethene | 1000 ug/mL |
| | | | | | | | Toluene | 1000 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 1000 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 1000 ug/mL |
| | | | | | | | Trichloroethene | 1000 ug/mL |
| .MSV_M_MIX2SEC_00028 | 04/30/24 | | Restek, Lot A0171837 | | (Purchased Reagent) | | Carbon disulfide | 1000 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 1000 ug/mL |
| .MSV_Q_Ketones_00019 | 01/31/24 | | Restek, Lot A0167987 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| **MSV_LCS_VOC#1_00016** | 09/29/21 | 08/30/21 | Methanol, Lot DZ644 | 25 mL | MSV_M_MIX1SEC_00020 | 1 mL | 1,1,1,2-Tetrachloroethane | 40 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 40 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 40 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 40 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 40 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 40 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 40 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 40 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 40 ug/mL |
| | | | | | | | Benzene | 40 ug/mL |
| | | | | | | | Bromochloromethane | 40 ug/mL |
| | | | | | | | Bromodichloromethane | 40 ug/mL |
| | | | | | | | Bromoform | 40 ug/mL |
| | | | | | | | Carbon tetrachloride | 40 ug/mL |
| | | | | | | | Chlorobenzene | 40 ug/mL |
| | | | | | | | Chloroform | 40 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 40 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 40 ug/mL |
| | | | | | | | Dibromochloromethane | 40 ug/mL |
| | | | | | | | Ethylbenzene | 40 ug/mL |
| | | | | | | | Methylene Chloride | 40 ug/mL |
| | | | | | | | Styrene | 40 ug/mL |
| | | | | | | | Tetrachloroethene | 40 ug/mL |
| | | | | | | | Toluene | 40 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 40 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 40 ug/mL |
| | | | | | | | Trichloroethene | 40 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | MSV_M_MIX2SEC_00019 | 1 mL | Carbon disulfide | 40 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 40 ug/mL |
| | | | | | MSV_Q_Ketones_00021 | 1 mL | 2-Butanone (MEK) | 500 ug/mL |
| | | | | | | | 2-Hexanone | 500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 500 ug/mL |
| | | | | | | | Acetone | 500 ug/mL |
| .MSV_M_MIX1SEC_00020 | 04/30/24 | | Restek, Lot A0171815 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 1000 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 1000 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 1000 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 1000 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 1000 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 1000 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 1000 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 1000 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 1000 ug/mL |
| | | | | | | | Benzene | 1000 ug/mL |
| | | | | | | | Bromochloromethane | 1000 ug/mL |
| | | | | | | | Bromodichloromethane | 1000 ug/mL |
| | | | | | | | Bromoform | 1000 ug/mL |
| | | | | | | | Carbon tetrachloride | 1000 ug/mL |
| | | | | | | | Chlorobenzene | 1000 ug/mL |
| | | | | | | | Chloroform | 1000 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 1000 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 1000 ug/mL |
| | | | | | | | Dibromochloromethane | 1000 ug/mL |
| | | | | | | | Ethylbenzene | 1000 ug/mL |
| | | | | | | | Methylene Chloride | 1000 ug/mL |
| | | | | | | | Styrene | 1000 ug/mL |
| | | | | | | | Tetrachloroethene | 1000 ug/mL |
| | | | | | | | Toluene | 1000 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 1000 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 1000 ug/mL |
| | | | | | | | Trichloroethene | 1000 ug/mL |
| .MSV_M_MIX2SEC_00019 | 04/30/24 | | Restek, Lot A0171837 | | (Purchased Reagent) | | Carbon disulfide | 1000 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 1000 ug/mL |
| .MSV_Q_Ketones_00021 | 01/31/24 | | Restek, Lot A0167987 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| **MSV_LL_#1_826_00015** | 09/07/21 | 08/23/21 | Methanol, Lot DZ644 | 1 mL | MSV_CCV_VOC#1_00017 | 50 uL | Ethyl methacrylate | 50.0022 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromochloromethane | 50 ug/mL |
| | | | | | | | Bromodichloromethane | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Dibromochloromethane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 100 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3,5-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,4-Dioxane | 2500 ug/mL |
| | | | | | | | 1-Chlorohexane | 50 ug/mL |
| | | | | | | | 2-Chloro-1,3-butadiene | 50 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 1000 ug/mL |
| | | | | | | | 2-Nitropropane | 250 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 125 ug/mL |
| | | | | | | | Benzyl chloride | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 2500 ug/mL |
| | | | | | | | Isopropyl ether | 50 ug/mL |
| | | | | | | | Methacrylonitrile | 500 ug/mL |
| | | | | | | | Methyl acetate | 50 ug/mL |
| | | | | | | | Methyl methacrylate | 50 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | n-Butanol | 4375 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | Propionitrile | 1000 ug/mL |
| | | | | | | | Tert-amyl methyl ether | 50 ug/mL |
| | | | | | | | Tert-butyl ethyl ether | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 250 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 500 ug/mL |
| | | | | | MSV_CCV_VOC#3_00016 | 200 uL | 2-Butanone (MEK) | 500 ug/mL |
| | | | | | | | 2-Hexanone | 500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 500 ug/mL |
| | | | | | | | Acetone | 500 ug/mL |
| | | | | | | | Acrolein | 2499.93 ug/mL |
| | | | | | MSV_V_VOA2_00101 | 150 uL | 1,4-Dioxane | 2500 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 1000 ug/mL |
| | | | | | | | Isobutyl alcohol | 2500 ug/mL |
| | | | | | | | Methacrylonitrile | 500 ug/mL |
| | | | | | | | n-Butanol | 4375 ug/mL |
| | | | | | | | Propionitrile | 1000 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 500 ug/mL |
| .MSV_CCV_VOC#1_00017 | 09/22/21 | 08/23/21 | Methanol, Lot DZ644 | 5 mL | MSV_EM_Work_00001 | 1 mL | Ethyl methacrylate | 1000.04 ug/mL |
| | | | | | MSV_MegaMIX#1_00015 | 1 mL | 1,1,1,2-Tetrachloroethane | 1000 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 1000 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 1000 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 1000 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 1000 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 1000 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 1000 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trichlorobenzene | 1000 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 1000 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 1000 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 1000 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 1000 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 1000 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 1000 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 1000 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 1000 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 1000 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 1000 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 1000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 1000 ug/mL |
| | | | | | | | 2-Chlorotoluene | 1000 ug/mL |
| | | | | | | | 4-Chlorotoluene | 1000 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 1000 ug/mL |
| | | | | | | | Benzene | 1000 ug/mL |
| | | | | | | | Bromobenzene | 1000 ug/mL |
| | | | | | | | Bromochloromethane | 1000 ug/mL |
| | | | | | | | Bromodichloromethane | 1000 ug/mL |
| | | | | | | | Bromoform | 1000 ug/mL |
| | | | | | | | Carbon tetrachloride | 1000 ug/mL |
| | | | | | | | Chlorobenzene | 1000 ug/mL |
| | | | | | | | Chloroform | 1000 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 1000 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 1000 ug/mL |
| | | | | | | | Dibromochloromethane | 1000 ug/mL |
| | | | | | | | Dibromomethane | 1000 ug/mL |
| | | | | | | | Ethylbenzene | 1000 ug/mL |
| | | | | | | | Hexachlorobutadiene | 1000 ug/mL |
| | | | | | | | Isopropylbenzene | 1000 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2000 ug/mL |
| | | | | | | | Methylene Chloride | 1000 ug/mL |
| | | | | | | | n-Butylbenzene | 1000 ug/mL |
| | | | | | | | N-Propylbenzene | 1000 ug/mL |
| | | | | | | | Naphthalene | 1000 ug/mL |
| | | | | | | | o-Xylene | 1000 ug/mL |
| | | | | | | | sec-Butylbenzene | 1000 ug/mL |
| | | | | | | | Styrene | 1000 ug/mL |
| | | | | | | | tert-Butylbenzene | 1000 ug/mL |
| | | | | | | | Tetrachloroethene | 1000 ug/mL |
| | | | | | | | Toluene | 1000 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 1000 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 1000 ug/mL |
| | | | | | | | Trichloroethene | 1000 ug/mL |
| | | | | | MSV_MegaMix#2_00015 | 1 mL | 1,1,2-Trichloro-1,2,2-trifluoroethane | 1000 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2,3-Trimethylbenzene | 1000 ug/mL |
| | | | | | | | 1,3,5-Trichlorobenzene | 1000 ug/mL |
| | | | | | | | 1,4-Dioxane | 12500 ug/mL |
| | | | | | | | 1-Chlorohexane | 1000 ug/mL |
| | | | | | | | 2-Chloro-1,3-butadiene | 1000 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 5000 ug/mL |
| | | | | | | | 2-Nitropropane | 5000 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 1000 ug/mL |
| | | | | | | | Acrylonitrile | 2500 ug/mL |
| | | | | | | | Benzyl chloride | 1000 ug/mL |
| | | | | | | | Carbon disulfide | 1000 ug/mL |
| | | | | | | | Cyclohexane | 1000 ug/mL |
| | | | | | | | Hexane | 1000 ug/mL |
| | | | | | | | Iodomethane | 1000 ug/mL |
| | | | | | | | Isobutyl alcohol | 12500 ug/mL |
| | | | | | | | Isopropyl ether | 1000 ug/mL |
| | | | | | | | Methacrylonitrile | 2500 ug/mL |
| | | | | | | | Methyl acetate | 1000 ug/mL |
| | | | | | | | Methyl methacrylate | 1000 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 1000 ug/mL |
| | | | | | | | Methylcyclohexane | 1000 ug/mL |
| | | | | | | | n-Butanol | 12500 ug/mL |
| | | | | | | | n-Heptane | 1000 ug/mL |
| | | | | | | | Propionitrile | 5000 ug/mL |
| | | | | | | | Tert-amyl methyl ether | 1000 ug/mL |
| | | | | | | | Tert-butyl ethyl ether | 1000 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| ..MSV_EM_Work_00001 | 11/24/21 | 05/24/21 | Methanol, Lot DZ644 | 50 mL | MSV_EthylM_St_00001 | 4.938 mL | Ethyl methacrylate | 5000.22 ug/mL |
| ...MSV_EthylM_St_00001 | 11/24/21 | 05/24/21 | Methanol, Lot DZ644 | 10 mL | MSV_EthylMeth_00001 | 0.5063 g | Ethyl methacrylate | 50630 ug/mL |
| ....MSV_EthylMeth_00001 | 01/31/23 | Chem Service, Lot 11325900 | | | (Purchased Reagent) | | Ethyl methacrylate | 1 g/g |
| ..MSV_MegaMIX#1_00015 | 09/22/21 | Restek, Lot A0171634 | | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 5000 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 5000 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 5000 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 5000 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 5000 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 5000 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 5000 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 5000 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 5000 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 5000 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 5000 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 5000 ug/mL |
| | | | | | | | 1,2-Dibromoethane (EDB) | 5000 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 5000 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 5000 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 5000 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 5000 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,3-Dichlorobenzene | 5000 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 5000 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 5000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 5000 ug/mL |
| | | | | | | | 2-Chlorotoluene | 5000 ug/mL |
| | | | | | | | 4-Chlorotoluene | 5000 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 5000 ug/mL |
| | | | | | | | Benzene | 5000 ug/mL |
| | | | | | | | Bromobenzene | 5000 ug/mL |
| | | | | | | | Bromochloromethane | 5000 ug/mL |
| | | | | | | | Bromodichloromethane | 5000 ug/mL |
| | | | | | | | Bromoform | 5000 ug/mL |
| | | | | | | | Carbon tetrachloride | 5000 ug/mL |
| | | | | | | | Chlorobenzene | 5000 ug/mL |
| | | | | | | | Chloroform | 5000 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 5000 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 5000 ug/mL |
| | | | | | | | Dibromochloromethane | 5000 ug/mL |
| | | | | | | | Dibromomethane | 5000 ug/mL |
| | | | | | | | Ethylbenzene | 5000 ug/mL |
| | | | | | | | Hexachlorobutadiene | 5000 ug/mL |
| | | | | | | | Isopropylbenzene | 5000 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 10000 ug/mL |
| | | | | | | | Methylene Chloride | 5000 ug/mL |
| | | | | | | | n-Butylbenzene | 5000 ug/mL |
| | | | | | | | N-Propylbenzene | 5000 ug/mL |
| | | | | | | | Naphthalene | 5000 ug/mL |
| | | | | | | | o-Xylene | 5000 ug/mL |
| | | | | | | | sec-Butylbenzene | 5000 ug/mL |
| | | | | | | | Styrene | 5000 ug/mL |
| | | | | | | | tert-Butylbenzene | 5000 ug/mL |
| | | | | | | | Tetrachloroethene | 5000 ug/mL |
| | | | | | | | Toluene | 5000 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 5000 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 5000 ug/mL |
| | | | | | | | Trichloroethene | 5000 ug/mL |
| ..MSV_MegaMix#2_00015 | 09/22/21 | | Restek, Lot A0172089 | | (Purchased Reagent) | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5000 ug/mL |
| | | | | | | | 1,2,3-Trimethylbenzene | 5000 ug/mL |
| | | | | | | | 1,3,5-Trichlorobenzene | 5000 ug/mL |
| | | | | | | | 1,4-Dioxane | 62500 ug/mL |
| | | | | | | | 1-Chlorohexane | 5000 ug/mL |
| | | | | | | | 2-Chloro-1,3-butadiene | 5000 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 25000 ug/mL |
| | | | | | | | 2-Nitropropane | 25000 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 5000 ug/mL |
| | | | | | | | Acrylonitrile | 12500 ug/mL |
| | | | | | | | Benzyl chloride | 5000 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Carbon disulfide | 5000 ug/mL |
| | | | | | | | Cyclohexane | 5000 ug/mL |
| | | | | | | | Hexane | 5000 ug/mL |
| | | | | | | | Iodomethane | 5000 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropyl ether | 5000 ug/mL |
| | | | | | | | Methacrylonitrile | 12500 ug/mL |
| | | | | | | | Methyl acetate | 5000 ug/mL |
| | | | | | | | Methyl methacrylate | 5000 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 5000 ug/mL |
| | | | | | | | Methylcyclohexane | 5000 ug/mL |
| | | | | | | | n-Butanol | 62500 ug/mL |
| | | | | | | | n-Heptane | 5000 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | Tert-amyl methyl ether | 5000 ug/mL |
| | | | | | | | Tert-butyl ethyl ether | 5000 ug/mL |
| | | | | | | | Tetrahydrofuran | 25000 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 12500 ug/mL |
| .MSV_CCV_VOC#3_00016 | 09/07/21 | 08/23/21 | Methanol, Lot DZ644 | 5 mL | MSV_V_Ketones_00014 | 1 mL | 2-Butanone (MEK) | 2500 ug/mL |
| | | | | | | | 2-Hexanone | 2500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 2500 ug/mL |
| | | | | | | | Acetone | 2500 ug/mL |
| | | | | | MSV_VACR_00018 | 0.5 mL | Acrolein | 12499.6 ug/mL |
| ..MSV_V_Ketones_00014 | 01/31/24 | Restek, Lot A0168313 | | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..MSV_VACR_00018 | 09/08/21 | 07/09/21 | Methanol, Lot DZ644 | 10 mL | MSV_VACR_STK_00020 | 9.253 mL | Acrolein | 124996 ug/mL |
| ...MSV_VACR_STK_00020 | 09/08/21 | 07/09/21 | Methanol, Lot DZ644 | 10 mL | MSV_ACROLEIN_00013 | 1.4417 g | Acrolein | 135087 ug/mL |
| ....MSV_ACROLEIN_00013 | 09/30/21 | Chem Service, Lot 10804400 | | | (Purchased Reagent) | | Acrolein | 0.937 g/g |
| .MSV_V_VOA2_00101 | 09/22/21 | 08/23/21 | Methanol, Lot DZ644 | 5 mL | MSV_V#2B_00231 | 1 mL | 1,4-Dioxane | 12500 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 5000 ug/mL |
| | | | | | | | Isobutyl alcohol | 12500 ug/mL |
| | | | | | | | Methacrylonitrile | 2500 ug/mL |
| | | | | | | | n-Butanol | 25000 ug/mL |
| | | | | | | | Propionitrile | 5000 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| ..MSV_V#2B_00231 | 04/30/22 | Restek, Lot A0171518 | | | (Purchased Reagent) | | 1,4-Dioxane | 62500 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 25000 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Methacrylonitrile | 12500 ug/mL |
| | | | | | | | n-Butanol | 125000 ug/mL |
| | | | | | | | Propionitrile | 25000 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 12500 ug/mL |
| **MSV_LL_#2_826_00015** | 09/01/21 | 08/23/21 | Methanol, Lot DZ644 | 1 mL | MSV_V_EE_00005 | 50 uL | Ethyl ether | 50.0035 ug/mL |
| | | | | | MSV_V_PentaCL_00005 | 10 uL | Pentachloroethane | 50 ug/mL |
| .MSV_V_EE_00005 | 10/14/21 | 04/14/21 | Methanol, Lot DZ644 | 100 mL | MSV_EE_MISCSK_00006 | 1.989 mL | Ethyl ether | 1000.07 ug/mL |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| ..MSV_EE_MISCSK_00006 | 10/14/21 | 04/14/21 | Methanol, Lot DZ644 | 10 mL | MSV_EE_Neat_00005 | 0.5028 g | Ethyl ether | 50280 ug/mL |
| ...MSV_EE_Neat_00005 | 11/30/21 | Chem Service, Lot 11028800 | | | (Purchased Reagent) | | Ethyl ether | 1 g/g |
| .MSV_V_PentaCL_00005 | 09/15/21 | Restek, Lot A0171341 | | | (Purchased Reagent) | | Pentachloroethane | 5000 ug/mL |
| **MSV_LL_GAS826_00027** | 08/30/21 | 08/23/21 | Methanol, Lot DZ644 | 1 mL | MSV_CCV_GASES_00060 | 25 uL | 1,2-Dichloro-1,1,2-trifluoroethane | 50 ug/mL |
| | | | | | | | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| .MSV_CCV_GASES_00060 | 08/30/21 | Restek, Lot A0172364 | | | (Purchased Reagent) | | 1,2-Dichloro-1,1,2-trifluoroethane | 2000 ug/mL |
| | | | | | | | Bromomethane | 2000 ug/mL |
| | | | | | | | Butadiene | 2000 ug/mL |
| | | | | | | | Chloroethane | 2000 ug/mL |
| | | | | | | | Chloromethane | 2000 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2000 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2000 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2000 ug/mL |
| | | | | | | | Vinyl chloride | 2000 ug/mL |
| **MSV_LL_GAS826_00029** | 09/06/21 | 08/30/21 | Methanol, Lot DZ644 | 1 mL | MSV_CCV_GASES_00064 | 25 uL | Bromomethane | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| .MSV_CCV_GASES_00064 | 09/06/21 | Restek, Lot A0172364 | | | (Purchased Reagent) | | Bromomethane | 2000 ug/mL |
| | | | | | | | Chloroethane | 2000 ug/mL |
| | | | | | | | Chloromethane | 2000 ug/mL |
| | | | | | | | Vinyl chloride | 2000 ug/mL |
| **MSV_LLcentISO_00001** | 11/25/21 | 05/25/21 | Methanol, Lot DZ644 | 50 mL | MSV_Cus826_IS_00310 | 1 mL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 (IS) | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | | | t-Butyl alcohol-d10 (IS) | 250 ug/mL |
| .MSV_Cus826_IS_00310 | 05/31/23 | Restek, Lot A0160586 | | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 (IS) | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| | | | | | | | t-Butyl alcohol-d10 (IS) | 12500 ug/mL |
| **MSV_LLcentISS_00001** | 11/25/21 | 05/25/21 | Methanol, Lot DZ644 | 50 mL | MSV_8260_SS_00366 | 1 mL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| | | | | | MSV_Cus826_IS_00310 | 1 mL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 (IS) | 50 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 50 ug/mL |
| | | | | | | | t-Butyl alcohol-d10 (IS) | 250 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .MSV_8260_SS_00366 | 03/31/22 | | Restek, Lot A0146938 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| .MSV_Cus826_IS_00310 | 05/31/23 | | Restek, Lot A0160586 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 (IS) | 2500 ug/mL |
| | | | | | | | Fluorobenzene (IS) | 2500 ug/mL |
| | | | | | | | t-Butyl alcohol-d10 (IS) | 12500 ug/mL |
| **MSV_QC_Gas826_00026** | 08/30/21 | 08/23/21 | Methanol, Lot DZ644 | 1 mL | MSV_QC_2K_GAS_00030 | 20 uL | Bromomethane | 40 ug/mL |
| | | | | | | | Chloroethane | 40 ug/mL |
| | | | | | | | Chloromethane | 40 ug/mL |
| | | | | | | | Vinyl chloride | 40 ug/mL |
| .MSV_QC_2K_GAS_00030 | 08/30/21 | | Restek, Lot A0172021 | | (Purchased Reagent) | | Bromomethane | 2000 ug/mL |
| | | | | | | | Chloroethane | 2000 ug/mL |
| | | | | | | | Chloromethane | 2000 ug/mL |
| | | | | | | | Vinyl chloride | 2000 ug/mL |
| **MSV_QC_Gas826_00030** | 09/06/21 | 08/30/21 | Methanol, Lot DZ644 | 1 mL | MSV_QC_2K_GAS_00032 | 20 uL | Bromomethane | 40 ug/mL |
| | | | | | | | Chloroethane | 40 ug/mL |
| | | | | | | | Chloromethane | 40 ug/mL |
| | | | | | | | Vinyl chloride | 40 ug/mL |
| .MSV_QC_2K_GAS_00032 | 09/06/21 | | Restek, Lot A0172021 | | (Purchased Reagent) | | Bromomethane | 2000 ug/mL |
| | | | | | | | Chloroethane | 2000 ug/mL |
| | | | | | | | Chloromethane | 2000 ug/mL |
| | | | | | | | Vinyl chloride | 2000 ug/mL |
| **MSV_V_BFB_00006** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Xylenes, Total | |
| | | | | | MSV_VBFB_STK_00006 | 0.129 mL | BFB | 49.8611 ug/mL |
| .MSV_VBFB_STK_00006 | 01/07/22 | 07/07/21 | Methanol, Lot DZ644 | 10 mL | MSV_4BFB_NEAT_00006 | 0.9663 g | BFB | 96630 ug/mL |
| ..MSV_4BFB_NEAT_00006 | 02/28/25 | | Chem Service, Lot 10727100 | | (Purchased Reagent) | | BFB | 1 g/g |
| **MSV_V_SMRV4_00027** | 09/02/21 | 08/12/21 | Methanol, Lot DZ644 | 1 mL | MSV_CCV_2CEVE_00013 | 200 uL | 2-Chloroethyl vinyl ether | 200 ug/mL |
| | | | | | MSV_V_SMFreon_00001 | 100 uL | Chlorodifluoromethane | 200 ug/mL |
| | | | | | MSV_VLKB_00005 | 400 uL | cis-1,4-Dichloro-2-butene | 400.225 ug/mL |
| .MSV_CCV_2CEVE_00013 | 09/08/21 | 08/09/21 | Methanol, Lot DZ644 | 5 mL | MSV_V_2CLEVE_00013 | 1 mL | 2-Chloroethyl vinyl ether | 1000 ug/mL |
| ..MSV_V_2CLEVE_00013 | 04/30/24 | | Restek, Lot A0171422 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 5000 ug/mL |
| .MSV_V_SMFreon_00001 | 09/11/21 | | Restek, Lot A0172146 | | (Purchased Reagent) | | Chlorodifluoromethane | 2000 ug/mL |
| .MSV_VLKB_00005 | 09/02/21 | 03/02/21 | Methanol, Lot DZ644 | 50 mL | MSV_Vc14d_STK_00004 | 1.018 mL | cis-1,4-Dichloro-2-butene | 1000.56 ug/mL |
| ..MSV_Vc14d_STK_00004 | 09/02/21 | 03/02/21 | Methanol, Lot DX644 | 10 mL | MSV_c14dcb_Nt_00003 | 0.5173 g | cis-1,4-Dichloro-2-butene | 49143.5 ug/mL |
| ...MSV_c14dcb_Nt_00003 | 08/11/25 | | Aldrich, Lot SHBH4584V | | (Purchased Reagent) | | cis-1,4-Dichloro-2-butene | 0.95 g/g |
| **MSV_V_VOA5_00026** | 08/28/21 | 07/29/21 | Methanol, Lot DZ644 | 10 mL | MSV_V_Acetate_00031 | 1 mL | Ethyl acetate | 200 ug/mL |
| | | | | | | | Vinyl acetate | 200 ug/mL |
| .MSV_V_Acetate_00031 | 08/28/21 | | Restek, Lot A0165179 | | (Purchased Reagent) | | Ethyl acetate | 2000 ug/mL |
| | | | | | | | Vinyl acetate | 2000 ug/mL |
| **MSV_VAcet_00007** | 10/20/21 | 04/20/21 | Methanol, Lot DZ644 | 100 mL | MSV_Acet_MSTK_00006 | 2.199 mL | Acetonitrile | 4999.65 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .MSV_Acet_MSTK_00006 | 10/20/21 | 04/20/21 | Methanol, Lot DZ644 | 10 mL | MSV_Acet_00008 | 2.2736 g | Acetonitrile | 227360 ug/mL |
| ..MSV_Acet_00008 | 04/30/22 | Chem Service, Lot 10395900 | | | (Purchased Reagent) | | Acetonitrile | 1 g/g |
| **MSV_VCYC_00007** | 02/04/22 | 08/04/21 | 50/50 MeOH/Water, Lot DZ644 | 200 mL | MSV_VCYC_STK_00006 | 6.366 mL | Cyclohexanone | 6250.14 ug/mL |
| .MSV_VCYC_STK_00006 | 02/04/22 | 08/04/21 | 50/50 MeOH/Water, Lot DZ644 | 10 mL | MSV_CYC_00005 | 1.9636 g | Cyclohexanone | 196360 ug/mL |
| ..MSV_CYC_00005 | 05/31/23 | Chem Service, Lot 11845600 | | | (Purchased Reagent) | | Cyclohexanone | 1 g/g |

# Reagent

# MSV_8260_SS_00366

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 55671 **Lot No.:** A0146938

**Description :** 8260A Surrogate Mix

8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2022 **Storage:** 0°C or colder

**CERTIFIED VALUES**

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|
| 1 | Dibromofluoromethane | | 2,505.2 µg/mL | +/- 14.5653 | µg/mL | Gravimetric |
| | **CAS #** 1868-53-7 | (Lot 0012016) | | +/- 140.4622 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 143.7488 | µg/mL | Stressed |
| 2 | 1,2-Dichloroethane-d4 | | 2,517.2 µg/mL | +/- 14.6350 | µg/mL | Gravimetric |
| | **CAS #** 17060-07-0 | (Lot PR-26748) | | +/- 141.1350 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 144.4374 | µg/mL | Stressed |
| 3 | Toluene-d8 | | 2,507.7 µg/mL | +/- 14.5798 | µg/mL | Gravimetric |
| | **CAS #** 2037-26-5 | (Lot PR-27311) | | +/- 140.6024 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 143.8923 | µg/mL | Stressed |
| 4 | 1-Bromo-4-fluorobenzene (BFB) | | 2,507.7 µg/mL | +/- 14.5798 | µg/mL | Gravimetric |
| | **CAS #** 460-00-4 | (Lot 20401KO) | | +/- 140.6024 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 143.8923 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

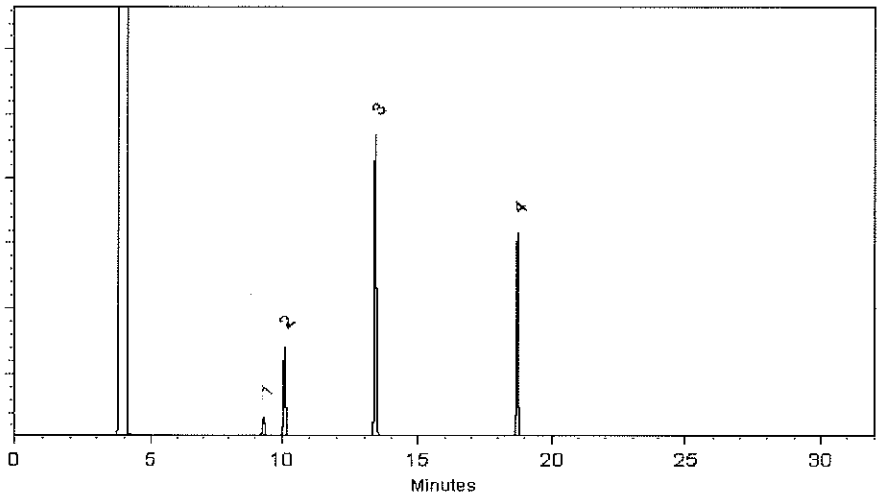
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Maggie Wang
Maggie Wang - Operations Technician I

**Date Mixed:** 12-Mar-2019 **Balance:** 1128342314

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 15-Mar-2019

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

# Reagent

# MSV_Acet_00008

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

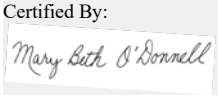
## Acetonitrile

| | |
|---|---|
| CATALOG NUMBER | N-11018-1G |
| LOT NUMBER | 10395900 |
| DATE CERTIFIED | 04/07/16 |
| EXPIRATION DATE | 04/30/22 |
| CAS NUMBER | 75-05-8 |
| MOLECULAR FORMULA | C2H3N |
| MOLECULAR WEIGHT | 41.06 |
| STORAGE | Store at room temperature (20 - 25 °C). |
| HANDLING | See Safety Data Sheet |
| INTENDED USE | For laboratory use only. |

| Analytical Test | Value |
|---|---|
| % PURITY (GC/FID) | 99.5 |

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:



N-12267-1G Mary Beth O'Donnell
CSM/TC

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

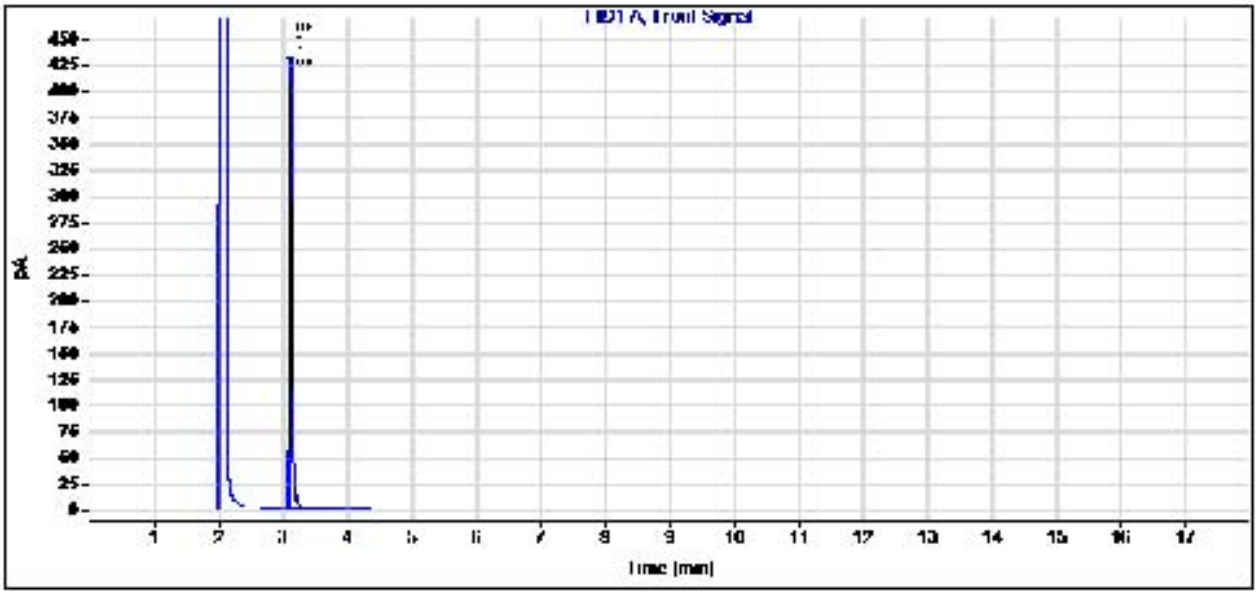
# CERTIFICATE OF ANALYSIS

## Gas Chromatography / Flame Ionization Detector (GC/FID)

**Data file:** C:\CHEM32\1\DATA\0316\SIG1007540.D

**Sample name:** Acetonitrile

| | | | |
|---|---|---|---|
| **Instrument:** | GC 1 | **Sample type:** | Sample |
| **Injection date:** | 4/6/2016 3:50:09 PM | **Location:** | Vial 1 |
| **Acq. method:** | MIX1.M | **Injection volume:** | 1.0uL |
| **Column name:** | DB-624 (30m x 0.53mm x 3.0um) | | |




**Signal:** FID1 A, Front Signal

| RT [min] | Type | Width [min] | Area | Height | Area% |
|---|---|---|---|---|---|
| 3.118 | BB | 0.0357 | 1013.4056 | 426.7031 | 100.0000 |
| | | Sum | 1013.4056 | | |

# Reagent

# MSV_c14dcb_Nt_00003

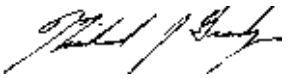
SIGMA-ALDRICH®
sigma-aldrich.com
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

# Certificate of Analysis

Product Name:
cis-1,4-Dichloro-2-butene - 95%


| | |
|---|---|
| **Product Number:** | **195707** |
| **Batch Number:** | **SHBH4584V** |
| Brand: | ALDRICH |
| CAS Number: | 1476-11-5 |
| MDL Number: | MFCD00062950 |
| Formula: | C4H6Cl2 |
| Formula Weight: | 125.00 g/mol |
| Storage Temperature: | Store at 2 - 8 °C |
| Quality Release Date: | 30 AUG 2016 |

| Test | Specification | Result |
|---|---|---|
| Appearance (Color) | Colorless to Light Yellow | Very Faint Yellow |
| Appearance (Form) | Liquid | Liquid |
| Infrared Spectrum | Conforms to Structure | Conforms |
| Purity (GC) | ≥ 94.5 % | 98.0 % |



Michael Grady, Manager
Quality Control
Sheboygan Falls, WI US

# Reagent

# MSV_CCV_GASES_00060

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577488 **Lot No.:** A0172364

**Description :** Custom Gases Standard

Custom Gases Standard 2,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L., K=2) | |
|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,001.0 µg/mL | +/- 15.5104 µg/mL | Gravimetric |
| | **CAS #** 75-71-8 (Lot 00012554) | | +/- 112.6642 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.2788 µg/mL | Stressed |
| 2 | Chloromethane (methyl chloride) | 2,000.2 µg/mL | +/- 19.3792 µg/mL | Gravimetric |
| | **CAS #** 74-87-3 (Lot SHBK6571) | | +/- 113.2161 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.8161 µg/mL | Stressed |
| 3 | Vinyl chloride | 2,003.2 µg/mL | +/- 20.1104 µg/mL | Gravimetric |
| | **CAS #** 75-01-4 (Lot 00015559) | | +/- 113.5093 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 116.1105 µg/mL | Stressed |
| 4 | 1,3-Butadiene | 1,999.6 µg/mL | +/- 14.5225 µg/mL | Gravimetric |
| | **CAS #** 106-99-0 (Lot 00019375) | | +/- 112.4545 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.0702 µg/mL | Stressed |
| 5 | Bromomethane (methyl bromide) | 2,002.8 µg/mL | +/- 14.8201 µg/mL | Gravimetric |
| | **CAS #** 74-83-9 (Lot 101604) | | +/- 112.6669 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.2859 µg/mL | Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,001.0 µg/mL | +/- 14.9955 µg/mL | Gravimetric |
| | **CAS #** 75-00-3 (Lot 107-401039114-1) | | +/- 112.5912 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.2073 µg/mL | Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,000.0 µg/mL | +/- 11.6282 µg/mL | Gravimetric |
| | **CAS #** 75-43-4 (Lot 11778600) | | +/- 112.1380 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 114.7619 µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Trichlorofluoromethane ( CFC-11 ) | | 2,000.0 | µg/mL | +/- | 11.6282 | µg/mL | Gravimetric |
| | **CAS #** 75-69-4 | (Lot MKCJ8658) | | | +/- | 112.1380 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 114.7619 | µg/mL | Stressed |
| 9 | 1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a) | | 2,000.2 | µg/mL | +/- | 17.2773 | µg/mL | Gravimetric |
| | **CAS #** 354-23-4 | (Lot Q9B-64) | | | +/- | 112.8726 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 115.4802 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**
Raw material may contain trace amounts of tert-Butanol.

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

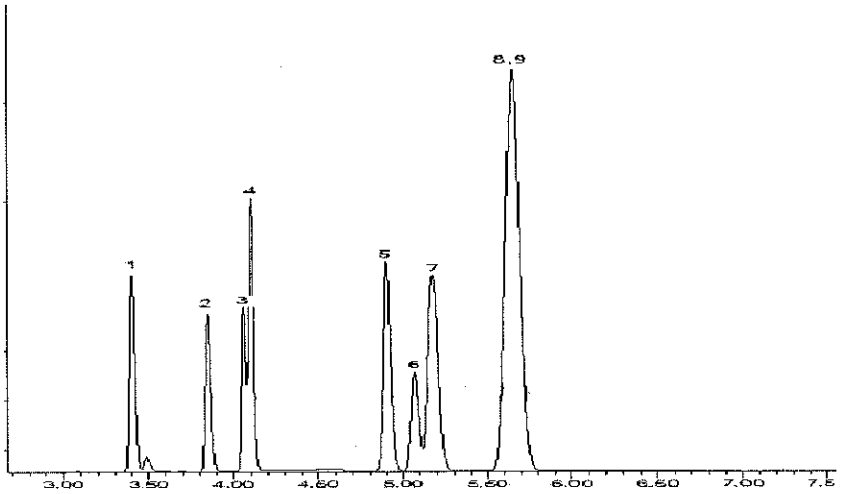
**Carrier Gas:**
helium-constant flow 2.0 mL/min.

**Temp. Program:**
40°C (hold 6 min.) to 100°C
@ 6°C/min.

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

**Date Mixed:** 13-May-2021 **Balance:** B251644995

Alexis Shelow - Operations Tech I

**Date Passed:** 17-May-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# MSV_CCV_GASES_00064

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ACCREDITED
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Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577488 **Lot No.:** A0172364

**Description :** Custom Gases Standard

Custom Gases Standard 2,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L., K=2) | |
|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,001.0 µg/mL | +/- 15.5104 µg/mL | Gravimetric |
| | **CAS #** 75-71-8 (Lot 00012554) | | +/- 112.6642 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.2788 µg/mL | Stressed |
| 2 | Chloromethane (methyl chloride) | 2,000.2 µg/mL | +/- 19.3792 µg/mL | Gravimetric |
| | **CAS #** 74-87-3 (Lot SHBK6571) | | +/- 113.2161 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.8161 µg/mL | Stressed |
| 3 | Vinyl chloride | 2,003.2 µg/mL | +/- 20.1104 µg/mL | Gravimetric |
| | **CAS #** 75-01-4 (Lot 00015559) | | +/- 113.5093 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 116.1105 µg/mL | Stressed |
| 4 | 1,3-Butadiene | 1,999.6 µg/mL | +/- 14.5225 µg/mL | Gravimetric |
| | **CAS #** 106-99-0 (Lot 00019375) | | +/- 112.4545 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.0702 µg/mL | Stressed |
| 5 | Bromomethane (methyl bromide) | 2,002.8 µg/mL | +/- 14.8201 µg/mL | Gravimetric |
| | **CAS #** 74-83-9 (Lot 101604) | | +/- 112.6669 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.2859 µg/mL | Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,001.0 µg/mL | +/- 14.9955 µg/mL | Gravimetric |
| | **CAS #** 75-00-3 (Lot 107-401039114-1) | | +/- 112.5912 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.2073 µg/mL | Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,000.0 µg/mL | +/- 11.6282 µg/mL | Gravimetric |
| | **CAS #** 75-43-4 (Lot 11778600) | | +/- 112.1380 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 114.7619 µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Trichlorofluoromethane ( CFC-11 ) | | 2,000.0 | µg/mL | +/- | 11.6282 | µg/mL | Gravimetric |
| | **CAS #** 75-69-4 | (Lot MKCJ8658) | | | +/- | 112.1380 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 114.7619 | µg/mL | Stressed |
| 9 | 1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a) | | 2,000.2 | µg/mL | +/- | 17.2773 | µg/mL | Gravimetric |
| | **CAS #** 354-23-4 | (Lot Q9B-64) | | | +/- | 112.8726 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 115.4802 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**
Raw material may contain trace amounts of tert-Butanol.

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

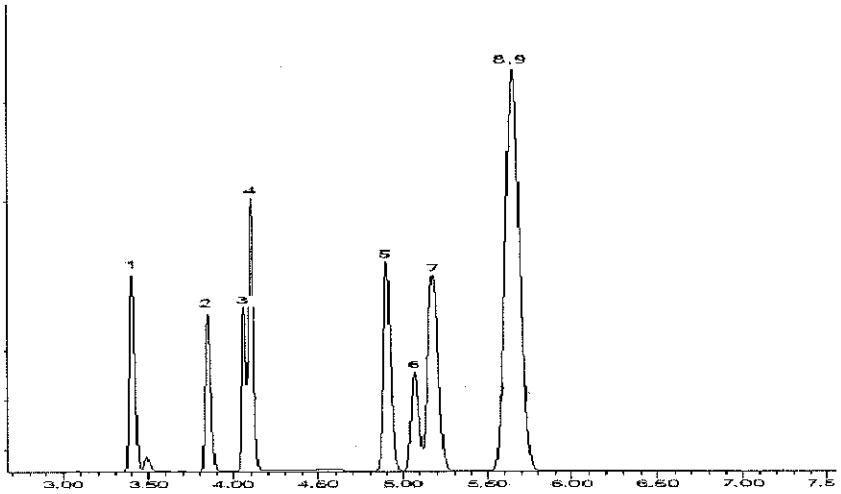
**Carrier Gas:**
helium-constant flow 2.0 mL/min.

**Temp. Program:**
40°C (hold 6 min.) to 100°C
@ 6°C/min.

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

**Date Mixed:** 13-May-2021 **Balance:** B251644995

Alexis Shelow - Operations Tech I

**Date Passed:** 17-May-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# MSV_Cus826_IS_00310

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 558267 **Lot No.:** A0160586

**Description :** Custom 8260A IS Mix

Custom 8260A IS Mix 2,500-12,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2023 **Storage:** 0°C or colder

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|---|
| 1 | tert-Butyl Alcohol-d10 | | 12,518.0 µg/mL | | +/- 73.2956 | µg/mL | Gravimetric |
| | **CAS #** 53001-22-2 | (Lot PR-27803B) | | | +/- 268.1522 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 275.9398 | µg/mL | Stressed |
| 2 | Fluorobenzene | | 2,506.0 µg/mL | | +/- 14.7066 | µg/mL | Gravimetric |
| | **CAS #** 462-06-6 | (Lot BCBZ5549) | | | +/- 53.6910 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 55.2497 | µg/mL | Stressed |
| 3 | Chlorobenzene-d5 | | 2,512.0 µg/mL | | +/- 14.7418 | µg/mL | Gravimetric |
| | **CAS #** 3114-55-4 | (Lot PR-29571) | | | +/- 53.8195 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 55.3820 | µg/mL | Stressed |
| 4 | 1,4-Dichlorobenzene-d4 | | 2,520.0 µg/mL | | +/- 14.7888 | µg/mL | Gravimetric |
| | **CAS #** 3855-82-1 | (Lot PR-30447) | | | +/- 53.9909 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 55.5584 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

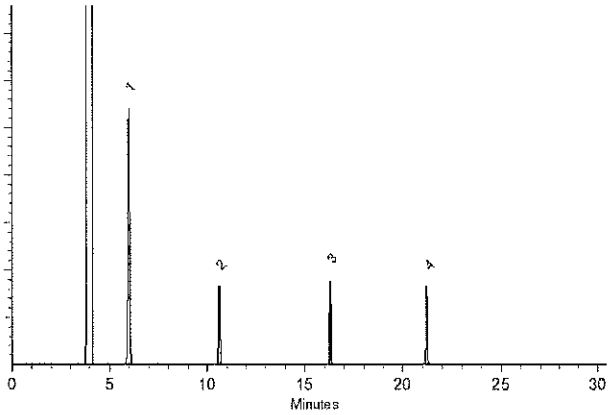
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

**Date Mixed:** 05-May-2020 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 06-May-2020

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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  $k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

# Reagent

# MSV_CYC_00005

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

## Cyclohexanone

| | |
|---|---|
| CATALOG NUMBER | N-11531-1G |
| LOT NUMBER | 11845600 |
| DATE CERTIFIED | 05/15/18 |
| EXPIRATION DATE | 05/31/23 |
| CAS NUMBER | 108-94-1 |
| MOLECULAR FORMULA | C6H10O |
| MOLECULAR WEIGHT | 98.16 |
| STORAGE | Store at room temperature (20 - 25 °C). |
| HANDLING | See Safety Data Sheet |
| INTENDED USE | For laboratory use only. |

| Analytical Test | Value |
|---|---|
| % PURITY (GC/FID) | 99.5 |
| FT-IR SPECTROSCOPY | CONFORMS TO STRUCTURE |
| PHYSICAL APPEARANCE | COLORLESS LIQUID |

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell
CSM/TC

COA Form
Revision 3 (3/2015)

PJLA Testing
Accreditation #63520

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info@chemservice.com • www.chemservice.com

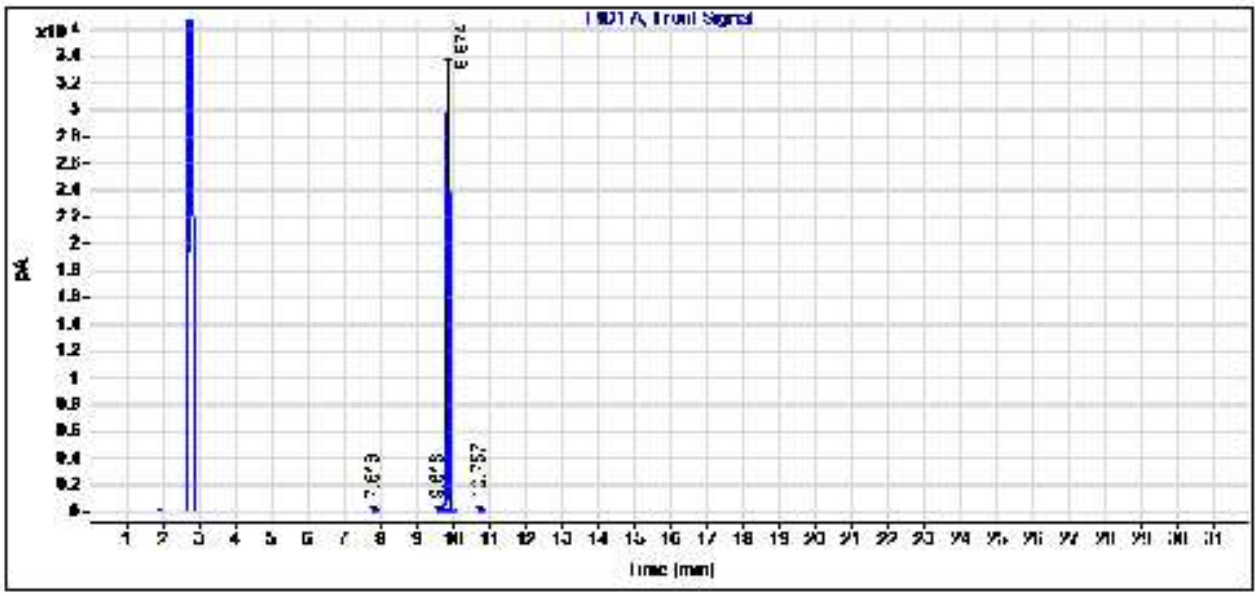
# CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

**Data file:** C:\CHEM32\1\DATA\2018 DATA\0518\SIG1010143.D

**Sample name:** N-11531/ACETONE

| | | | |
|---|---|---|---|
| **Instrument:** | GC 1 | **Sample type:** | Sample |
| **Injection date:** | 5/15/2018 8:14:17 AM | **Location:** | Vial 1 |
| **Acq. method:** | MIX1.M | **Injection volume:** | 1.0uL |
| **Column name:** | DB-624 (30m x 0.53mm x 3.0um) | | |




**Signal:** FID1 A, Front Signal

| RT [min] | Type | Width [min] | Area | Height | Area% |
|---|---|---|---|---|---|
| 7.818 | BB | 0.0567 | 12.4787 | 2.6631 | 0.0090 |
| 9.616 | BB | 0.0420 | 22.9558 | 6.9935 | 0.0165 |
| 9.874 | BB S | 0.0575 | 138838.7188 | 33378.9727 | 99.9600 |
| 10.757 | BB | 0.0524 | 20.1641 | 4.8068 | 0.0145 |
| | | Sum | 138894.3173 | | |

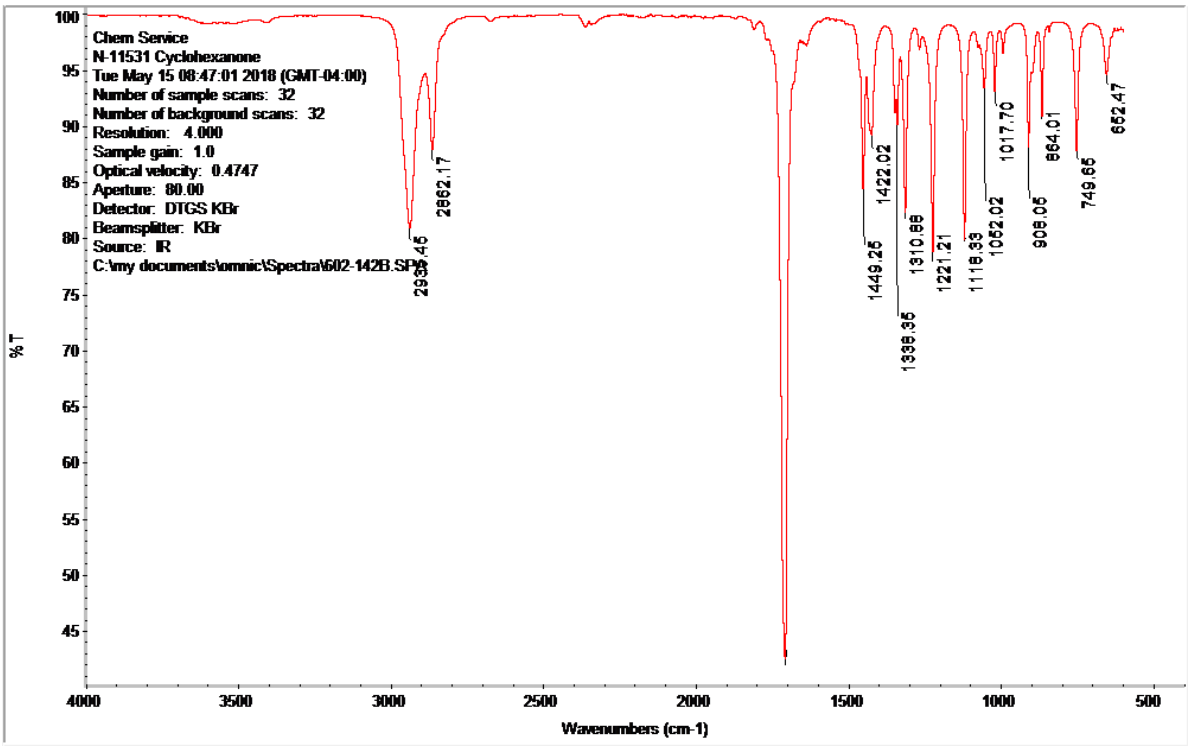
PJLA Testing
Accreditation #63520

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

**Analysis Method:**

| | |
|---|---|
| Catalog Number: | N-11531-1G |
| Description: | Cyclohexanone |
| Lot Number: | 11845600 |
| Expiration Date: | 05/31/23 |




PJLA Testing
Accreditation #63520

# Reagent

# MSV_DME_00030

**Absolute Standards, Inc.**
800-368-1131
www.absolutestandards.com

***Certified Reference Material CRM***

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

**Part Number:** 72297
Lot Number: 081920
Description: Methyl ether
[Dimethyl ether]
Expiration Date: 081925
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060

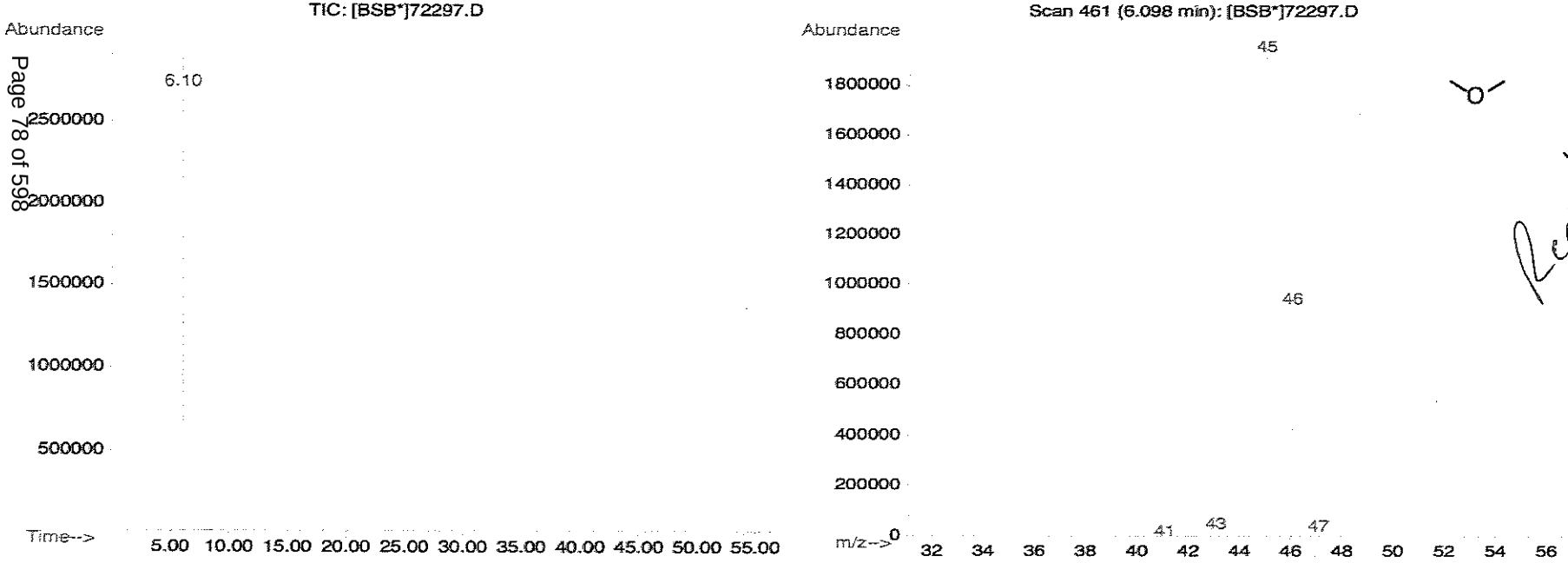
**Solvent(s):** **Lot#**
Methanol DX932-US

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

| | |
|---|---|
| | 081920 |
| Formulated By: Vincent K. Criscio, Jr. | DATE |
| | 081920 |
| Reviewed By: Pedro L. Rentas | DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) µg/mL | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Methyl ether | 2297 | 00225LO | 1000 | 99 | 0.2 | 0.10101 | 0.1020 | 1009.8 | 4.2 | 115-10-6 | N/A | N/A |

**Method:** GC6GAS. **Detector:** MSD (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1=35°C (9 min.), Temp. 2=200°C (1 min.), Rate=33°C/min., Injector Temp.=200°C, Detector Temp.=200°C. **Analyst:** Candice Warren.




- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Rec'd 9/8/2020

# Reagent

# MSV_EthylMeth_00001

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

# CERTIFICATE OF ANALYSIS

## Ethyl methacrylate

| | |
|---|---|
| CATALOG NUMBER | N-11903-1G |
| LOT NUMBER | 11325900 |
| DATE CERTIFIED | 01/03/19 |
| EXPIRATION DATE | 01/31/23 |
| CAS NUMBER | 97-63-2 |
| MOLECULAR FORMULA | C6H10O2 |
| MOLECULAR WEIGHT | 114.16 |
| STORAGE | Refrigerator storage (2 - 8 °C) |
| HANDLING | See Safety Data Sheet |
| INTENDED USE | For laboratory use only. |

✓ Rec'd 5/21/2021 JMcB

| Analytical Test | Value |
|---|---|
| % PURITY (GC/FID) | 99.5 |

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

COA Form
Revision 3 (3/2015)

PJLA Testing

Print Date: 05/20/21

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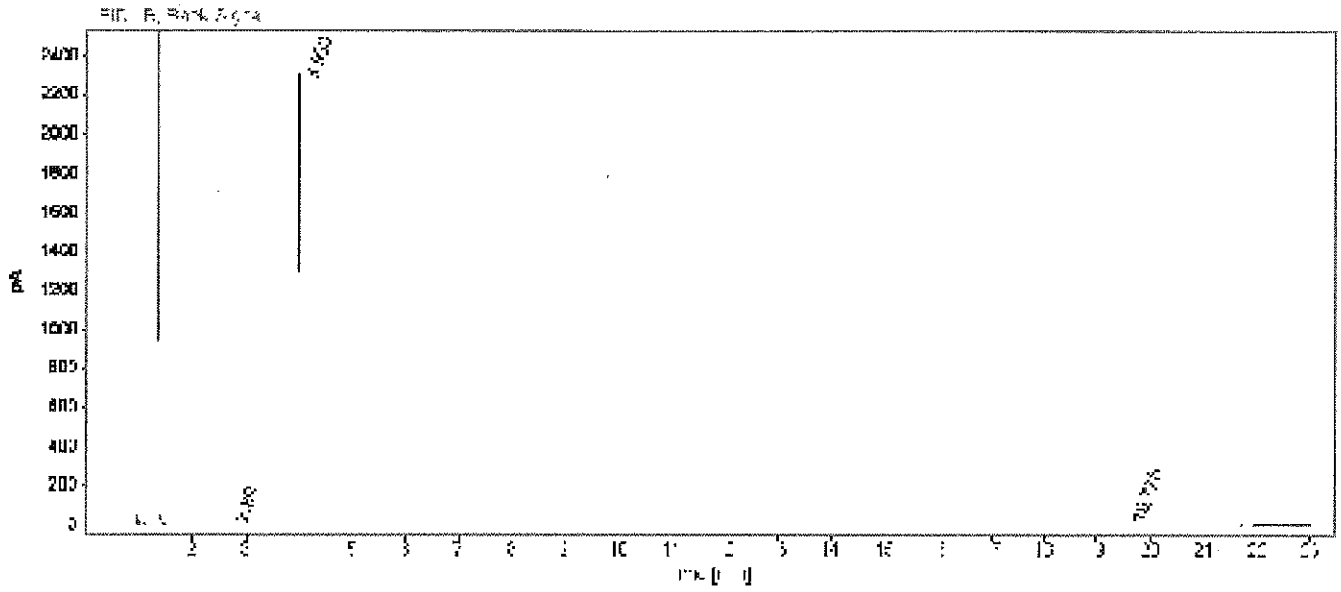
# CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

**Data file:** C:\CHEM32\1\DATA\2018 DATA\1118\N-11803.D
**Sample name:** ethyl methacrylate
**Description:**

**Acq. method:** MIX1.M

**Location:** 201
**Instrument:** GC3
**Injection Vol:** 1.000
**Injection date:** 1/3/2019 7:57:33 AM
**# Of Injections:** 1
**Column name:** HP-5ms Ultra Inert **Diameter** 250.000 **Length** 30.000 **Particle Size** 0.250




Signal: FID1 B, Back Signal

| RT [min] | Type | Width [min] | Area | Height | Area% |
|---|---|---|---|---|---|
| 2.890 | BB | 0.0199 | 3.0313 | 2.2234 | 0.0820 |
| 3.983 | BB | 0.0236 | 3687.9575 | 2288.7249 | 99.8245 |
| 19.775 | BB | 0.0395 | 3.4535 | 1.2477 | 0.0935 |
| | | Sum | 3694.4423 | | |

PJLA Testing

# Reagent

# MSV_M_MIX1SEC_00019

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577493 **Lot No.:** A0171815

**Description :** Custom VOC MegaMix®.SEC #1 Standard

Custom VOC MegaMix®.SEC #1 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 1,1-Dichloroethene<br>**CAS #** 75-35-4.SEC (Lot 9201700)<br>**Purity** 99% | 1,003.8 µg/mL | +/- 7.1628 µg/mL<br>+/- 56.4323 µg/mL<br>+/- 57.7457 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | Methylene chloride (dichloromethane)<br>**CAS #** 75-09-2.SEC (Lot FGM02)<br>**Purity** 99% | 1,001.8 µg/mL | +/- 7.1486 µg/mL<br>+/- 56.3199 µg/mL<br>+/- 57.6306 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | trans-1,2-Dichloroethene<br>**CAS #** 156-60-5.SEC (Lot TS5UB)<br>**Purity** 99% | 1,000.3 µg/mL | +/- 7.1382 µg/mL<br>+/- 56.2383 µg/mL<br>+/- 57.5472 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1,1-Dichloroethane<br>**CAS #** 75-34-3.SEC (Lot 7482000)<br>**Purity** 99% | 1,002.0 µg/mL | +/- 7.1503 µg/mL<br>+/- 56.3339 µg/mL<br>+/- 57.6450 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2,2-Dichloropropane<br>**CAS #** 594-20-7.SEC (Lot I7E8E)<br>**Purity** 98% | 1,000.0 µg/mL | +/- 7.1026 µg/mL<br>+/- 56.2188 µg/mL<br>+/- 57.5274 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | cis-1,2-Dichloroethene<br>**CAS #** 156-59-2.SEC (Lot YZO5O)<br>**Purity** 99% | 1,000.1 µg/mL | +/- 7.1028 µg/mL<br>+/- 56.2207 µg/mL<br>+/- 57.5294 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | Chloroform<br>**CAS #** 67-66-3.SEC (Lot 1297547)<br>**Purity** 99% | 1,000.8 µg/mL | +/- 7.1414 µg/mL<br>+/- 56.2636 µg/mL<br>+/- 57.5731 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Bromochloromethane | | 1,000.1 | µg/mL | +/- | 7.1033 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5.SEC | (Lot 8529200) | | | +/- | 56.2242 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5330 | µg/mL | Stressed |
| 9 | 1,1,1-trichloroethane | | 1,000.3 | µg/mL | +/- | 7.1383 | µg/mL | Gravimetric |
| | **CAS #** 71-55-6 | (Lot 190123CG) | | | +/- | 56.2391 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 57.5479 | µg/mL | Stressed |
| 10 | 1,1-Dichloropropene | | 1,002.5 | µg/mL | +/- | 7.1204 | µg/mL | Gravimetric |
| | **CAS #** 563-58-6.SEC | (Lot 8541600) | | | +/- | 56.3597 | µg/mL | Unstressed |
| | **Purity** 95% | | | | +/- | 57.6716 | µg/mL | Stressed |
| 11 | Carbon tetrachloride | | 1,000.8 | µg/mL | +/- | 7.1414 | µg/mL | Gravimetric |
| | **CAS #** 56-23-5.SEC | (Lot 11466) | | | +/- | 56.2636 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5731 | µg/mL | Stressed |
| 12 | 1,2-Dichloroethane | | 1,000.6 | µg/mL | +/- | 7.1407 | µg/mL | Gravimetric |
| | **CAS #** 107-06-2.SEC | (Lot 00016165) | | | +/- | 56.2576 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5669 | µg/mL | Stressed |
| 13 | Benzene | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 71-43-2.SEC | (Lot B28Y008) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 14 | Trichloroethene | | 1,000.9 | µg/mL | +/- | 7.1423 | µg/mL | Gravimetric |
| | **CAS #** 79-01-6.SEC | (Lot H04X050) | | | +/- | 56.2708 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5804 | µg/mL | Stressed |
| 15 | 1,2-Dichloropropane | | 1,000.1 | µg/mL | +/- | 7.1371 | µg/mL | Gravimetric |
| | **CAS #** 78-87-5.SEC | (Lot ERRBI-RH) | | | +/- | 56.2293 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5380 | µg/mL | Stressed |
| 16 | Bromodichloromethane | | 1,000.8 | µg/mL | +/- | 7.1418 | µg/mL | Gravimetric |
| | **CAS #** 75-27-4.SEC | (Lot 13780) | | | +/- | 56.2662 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5757 | µg/mL | Stressed |
| 17 | Dibromomethane | | 1,000.1 | µg/mL | +/- | 7.1033 | µg/mL | Gravimetric |
| | **CAS #** 74-95-3.SEC | (Lot MOKKJ) | | | +/- | 56.2242 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5330 | µg/mL | Stressed |
| 18 | cis-1,3-Dichloropropene | | 1,000.9 | µg/mL | +/- | 7.1425 | µg/mL | Gravimetric |
| | **CAS #** 10061-01-5.SEC | (Lot 487OA) | | | +/- | 56.2723 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 57.5819 | µg/mL | Stressed |
| 19 | Toluene | | 1,000.0 | µg/mL | +/- | 7.1026 | µg/mL | Gravimetric |
| | **CAS #** 108-88-3.SEC | (Lot YND2B-BD) | | | +/- | 56.2193 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5279 | µg/mL | Stressed |
| 20 | trans-1,3-Dichloropropene | | 1,002.1 | µg/mL | +/- | 7.1513 | µg/mL | Gravimetric |
| | **CAS #** 10061-02-6.SEC | (Lot ZDMSL) | | | +/- | 56.3417 | µg/mL | Unstressed |
| | **Purity** 96% | | | | +/- | 57.6530 | µg/mL | Stressed |
| 21 | 1,1,2-Trichloroethane | | 1,001.3 | µg/mL | +/- | 7.1450 | µg/mL | Gravimetric |
| | **CAS #** 79-00-5.SEC | (Lot 7871500) | | | +/- | 56.2917 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6018 | µg/mL | Stressed |
| 22 | 1,3-Dichloropropane | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 142-28-9.SEC | (Lot AGN01-EFPC) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 23 | Tetrachloroethene | | 1,000.2 | µg/mL | +/- | 7.1378 | µg/mL | Gravimetric |
| | **CAS #** 127-18-4.SEC | (Lot F09W014) | | | +/- | 56.2350 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5437 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 24 | Dibromochloromethane | | 1,000.5 | µg/mL | +/- | 7.1396 | µg/mL | Gravimetric |
| | **CAS #** 124-48-1.SEC | (Lot 10206360) | | | +/- | 56.2489 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 57.5580 | µg/mL | Stressed |
| 25 | 1,2-Dibromoethane (EDB) | | 1,000.1 | µg/mL | +/- | 7.1032 | µg/mL | Gravimetric |
| | **CAS #** 106-93-4.SEC | (Lot 7511900) | | | +/- | 56.2235 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5322 | µg/mL | Stressed |
| 26 | Chlorobenzene | | 1,001.4 | µg/mL | +/- | 7.1460 | µg/mL | Gravimetric |
| | **CAS #** 108-90-7.SEC | (Lot 1161936) | | | +/- | 56.2995 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6098 | µg/mL | Stressed |
| 27 | 1,1,1,2-Tetrachloroethane | | 1,000.1 | µg/mL | +/- | 7.1032 | µg/mL | Gravimetric |
| | **CAS #** 630-20-6.SEC | (Lot GC01) | | | +/- | 56.2235 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5322 | µg/mL | Stressed |
| 28 | Ethylbenzene | | 1,000.2 | µg/mL | +/- | 7.1035 | µg/mL | Gravimetric |
| | **CAS #** 100-41-4.SEC | (Lot PI4SE) | | | +/- | 56.2263 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5351 | µg/mL | Stressed |
| 29 | m-Xylene | | 1,000.2 | µg/mL | +/- | 7.1035 | µg/mL | Gravimetric |
| | **CAS #** 108-38-3.SEC | (Lot 7ZV6F) | | | +/- | 56.2263 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5351 | µg/mL | Stressed |
| 30 | p-Xylene | | 1,000.1 | µg/mL | +/- | 7.1027 | µg/mL | Gravimetric |
| | **CAS #** 106-42-3.SEC | (Lot D6UOA) | | | +/- | 56.2200 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5286 | µg/mL | Stressed |
| 31 | o-Xylene | | 1,000.1 | µg/mL | +/- | 7.1028 | µg/mL | Gravimetric |
| | **CAS #** 95-47-6.SEC | (Lot FGL01) | | | +/- | 56.2207 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5294 | µg/mL | Stressed |
| 32 | Styrene | | 1,000.1 | µg/mL | +/- | 7.1033 | µg/mL | Gravimetric |
| | **CAS #** 100-42-5.SEC | (Lot OFIOL-IA) | | | +/- | 56.2242 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5330 | µg/mL | Stressed |
| 33 | Isopropylbenzene (cumene) | | 1,000.0 | µg/mL | +/- | 7.1025 | µg/mL | Gravimetric |
| | **CAS #** 98-82-8.SEC | (Lot JN4EC) | | | +/- | 56.2179 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5265 | µg/mL | Stressed |
| 34 | Bromoform | | 1,001.7 | µg/mL | +/- | 7.1485 | µg/mL | Gravimetric |
| | **CAS #** 75-25-2.SEC | (Lot 9170700) | | | +/- | 56.3193 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6300 | µg/mL | Stressed |
| 35 | 1,1,2,2-Tetrachloroethane | | 1,001.6 | µg/mL | +/- | 7.1478 | µg/mL | Gravimetric |
| | **CAS #** 79-34-5.SEC | (Lot BCCB0724) | | | +/- | 56.3139 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 57.6245 | µg/mL | Stressed |
| 36 | 1,2,3-Trichloropropane | | 1,000.0 | µg/mL | +/- | 7.1026 | µg/mL | Gravimetric |
| | **CAS #** 96-18-4.SEC | (Lot GUHZN) | | | +/- | 56.2193 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5279 | µg/mL | Stressed |
| 37 | n-Propylbenzene | | 1,000.1 | µg/mL | +/- | 7.1027 | µg/mL | Gravimetric |
| | **CAS #** 103-65-1.SEC | (Lot T2HFC) | | | +/- | 56.2200 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5286 | µg/mL | Stressed |
| 38 | Bromobenzene | | 1,000.2 | µg/mL | +/- | 7.1034 | µg/mL | Gravimetric |
| | **CAS #** 108-86-1.SEC | (Lot 8DKWJ) | | | +/- | 56.2256 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5344 | µg/mL | Stressed |
| 39 | 1,3,5-Trimethylbenzene | | 1,000.1 | µg/mL | +/- | 7.1028 | µg/mL | Gravimetric |
| | **CAS #** 108-67-8.SEC | (Lot TOOOF) | | | +/- | 56.2207 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5294 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 40 | 2-Chlorotoluene | | 1,000.0 | µg/mL | +/- | 7.1025 | µg/mL | Gravimetric |
| | **CAS #** 95-49-8.SEC | (Lot BRHPM) | | | +/- | 56.2179 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5265 | µg/mL | Stressed |
| 41 | 4-Chlorotoluene | | 1,000.1 | µg/mL | +/- | 7.1030 | µg/mL | Gravimetric |
| | **CAS #** 106-43-4.SEC | (Lot S5SKD) | | | +/- | 56.2221 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5308 | µg/mL | Stressed |
| 42 | tert-Butylbenzene | | 1,000.1 | µg/mL | +/- | 7.1029 | µg/mL | Gravimetric |
| | **CAS #** 98-06-6.SEC | (Lot D6OHC) | | | +/- | 56.2214 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5301 | µg/mL | Stressed |
| 43 | 1,2,4-Trimethylbenzene | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 95-63-6.SEC | (Lot JMIYD) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 44 | sec-Butylbenzene | | 1,000.1 | µg/mL | +/- | 7.1029 | µg/mL | Gravimetric |
| | **CAS #** 135-98-8.SEC | (Lot O4HRF) | | | +/- | 56.2214 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5301 | µg/mL | Stressed |
| 45 | 4-Isopropyltoluene (p-cymene) | | 1,000.1 | µg/mL | +/- | 7.1029 | µg/mL | Gravimetric |
| | **CAS #** 99-87-6.SEC | (Lot 8380000) | | | +/- | 56.2214 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5301 | µg/mL | Stressed |
| 46 | 1,3-Dichlorobenzene | | 1,000.1 | µg/mL | +/- | 7.1365 | µg/mL | Gravimetric |
| | **CAS #** 541-73-1.SEC | (Lot FMDFD) | | | +/- | 56.2251 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5337 | µg/mL | Stressed |
| 47 | 1,4-Dichlorobenzene | | 1,002.5 | µg/mL | +/- | 7.1538 | µg/mL | Gravimetric |
| | **CAS #** 106-46-7.SEC | (Lot YWKDC-MK) | | | +/- | 56.3612 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6729 | µg/mL | Stressed |
| 48 | n-Butylbenzene | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 104-51-8.SEC | (Lot MMPGA) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 49 | 1,2-Dichlorobenzene | | 1,001.6 | µg/mL | +/- | 7.1475 | µg/mL | Gravimetric |
| | **CAS #** 95-50-1.SEC | (Lot R6QDM) | | | +/- | 56.3114 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6220 | µg/mL | Stressed |
| 50 | 1,2-Dibromo-3-chloropropane | | 1,000.0 | µg/mL | +/- | 7.1025 | µg/mL | Gravimetric |
| | **CAS #** 96-12-8.SEC | (Lot Q135-105) | | | +/- | 56.2179 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5265 | µg/mL | Stressed |
| 51 | 1,2,4-Trichlorobenzene | | 1,000.1 | µg/mL | +/- | 7.1027 | µg/mL | Gravimetric |
| | **CAS #** 120-82-1.SEC | (Lot IGLFA) | | | +/- | 56.2200 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5286 | µg/mL | Stressed |
| 52 | Hexachlorobutadiene | | 1,000.8 | µg/mL | +/- | 7.1079 | µg/mL | Gravimetric |
| | **CAS #** 87-68-3.SEC | (Lot 8532700) | | | +/- | 56.2614 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 57.5709 | µg/mL | Stressed |
| 53 | Naphthalene | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 91-20-3.SEC | (Lot SKZ5N) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 54 | 1,2,3-Trichlorobenzene | | 1,000.7 | µg/mL | +/- | 7.1076 | µg/mL | Gravimetric |
| | **CAS #** 87-61-6.SEC | (Lot A0043055) | | | +/- | 56.2588 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 57.5683 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

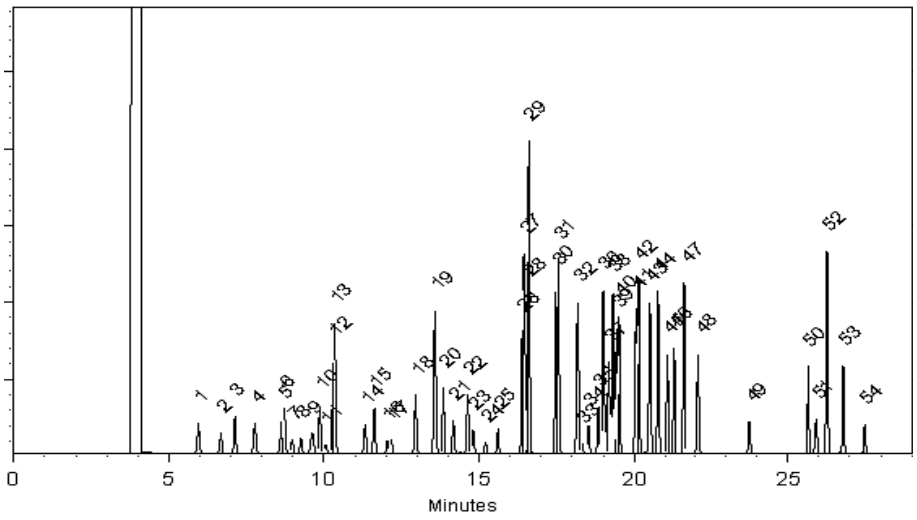
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bradley Meyer - Mix Technician

**Date Mixed:** 28-Apr-2021 **Balance:** 1127510105

Alexis Shelow - Operations Tech I

**Date Passed:** 30-Apr-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# MSV_M_MIX1SEC_00020

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577493 **Lot No.:** A0171815

**Description :** Custom VOC MegaMix®.SEC #1 Standard

Custom VOC MegaMix®.SEC #1 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 1,1-Dichloroethene | 1,003.8 µg/mL | +/- 7.1628 µg/mL | Gravimetric |
| | **CAS #** 75-35-4.SEC (Lot 9201700) | | +/- 56.4323 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.7457 µg/mL | Stressed |
| 2 | Methylene chloride (dichloromethane) | 1,001.8 µg/mL | +/- 7.1486 µg/mL | Gravimetric |
| | **CAS #** 75-09-2.SEC (Lot FGM02) | | +/- 56.3199 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.6306 µg/mL | Stressed |
| 3 | trans-1,2-Dichloroethene | 1,000.3 µg/mL | +/- 7.1382 µg/mL | Gravimetric |
| | **CAS #** 156-60-5.SEC (Lot TS5UB) | | +/- 56.2383 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.5472 µg/mL | Stressed |
| 4 | 1,1-Dichloroethane | 1,002.0 µg/mL | +/- 7.1503 µg/mL | Gravimetric |
| | **CAS #** 75-34-3.SEC (Lot 7482000) | | +/- 56.3339 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.6450 µg/mL | Stressed |
| 5 | 2,2-Dichloropropane | 1,000.0 µg/mL | +/- 7.1026 µg/mL | Gravimetric |
| | **CAS #** 594-20-7.SEC (Lot I7E8E) | | +/- 56.2188 µg/mL | Unstressed |
| | **Purity** 98% | | +/- 57.5274 µg/mL | Stressed |
| 6 | cis-1,2-Dichloroethene | 1,000.1 µg/mL | +/- 7.1028 µg/mL | Gravimetric |
| | **CAS #** 156-59-2.SEC (Lot YZO5O) | | +/- 56.2207 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.5294 µg/mL | Stressed |
| 7 | Chloroform | 1,000.8 µg/mL | +/- 7.1414 µg/mL | Gravimetric |
| | **CAS #** 67-66-3.SEC (Lot 1297547) | | +/- 56.2636 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 57.5731 µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Bromochloromethane | | 1,000.1 | µg/mL | +/- | 7.1033 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5.SEC | (Lot 8529200) | | | +/- | 56.2242 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5330 | µg/mL | Stressed |
| 9 | 1,1,1-trichloroethane | | 1,000.3 | µg/mL | +/- | 7.1383 | µg/mL | Gravimetric |
| | **CAS #** 71-55-6 | (Lot 190123CG) | | | +/- | 56.2391 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 57.5479 | µg/mL | Stressed |
| 10 | 1,1-Dichloropropene | | 1,002.5 | µg/mL | +/- | 7.1204 | µg/mL | Gravimetric |
| | **CAS #** 563-58-6.SEC | (Lot 8541600) | | | +/- | 56.3597 | µg/mL | Unstressed |
| | **Purity** 95% | | | | +/- | 57.6716 | µg/mL | Stressed |
| 11 | Carbon tetrachloride | | 1,000.8 | µg/mL | +/- | 7.1414 | µg/mL | Gravimetric |
| | **CAS #** 56-23-5.SEC | (Lot 11466) | | | +/- | 56.2636 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5731 | µg/mL | Stressed |
| 12 | 1,2-Dichloroethane | | 1,000.6 | µg/mL | +/- | 7.1407 | µg/mL | Gravimetric |
| | **CAS #** 107-06-2.SEC | (Lot 00016165) | | | +/- | 56.2576 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5669 | µg/mL | Stressed |
| 13 | Benzene | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 71-43-2.SEC | (Lot B28Y008) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 14 | Trichloroethene | | 1,000.9 | µg/mL | +/- | 7.1423 | µg/mL | Gravimetric |
| | **CAS #** 79-01-6.SEC | (Lot H04X050) | | | +/- | 56.2708 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5804 | µg/mL | Stressed |
| 15 | 1,2-Dichloropropane | | 1,000.1 | µg/mL | +/- | 7.1371 | µg/mL | Gravimetric |
| | **CAS #** 78-87-5.SEC | (Lot ERRBI-RH) | | | +/- | 56.2293 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5380 | µg/mL | Stressed |
| 16 | Bromodichloromethane | | 1,000.8 | µg/mL | +/- | 7.1418 | µg/mL | Gravimetric |
| | **CAS #** 75-27-4.SEC | (Lot 13780) | | | +/- | 56.2662 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5757 | µg/mL | Stressed |
| 17 | Dibromomethane | | 1,000.1 | µg/mL | +/- | 7.1033 | µg/mL | Gravimetric |
| | **CAS #** 74-95-3.SEC | (Lot MOKKJ) | | | +/- | 56.2242 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5330 | µg/mL | Stressed |
| 18 | cis-1,3-Dichloropropene | | 1,000.9 | µg/mL | +/- | 7.1425 | µg/mL | Gravimetric |
| | **CAS #** 10061-01-5.SEC | (Lot 487OA) | | | +/- | 56.2723 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 57.5819 | µg/mL | Stressed |
| 19 | Toluene | | 1,000.0 | µg/mL | +/- | 7.1026 | µg/mL | Gravimetric |
| | **CAS #** 108-88-3.SEC | (Lot YND2B-BD) | | | +/- | 56.2193 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5279 | µg/mL | Stressed |
| 20 | trans-1,3-Dichloropropene | | 1,002.1 | µg/mL | +/- | 7.1513 | µg/mL | Gravimetric |
| | **CAS #** 10061-02-6.SEC | (Lot ZDMSL) | | | +/- | 56.3417 | µg/mL | Unstressed |
| | **Purity** 96% | | | | +/- | 57.6530 | µg/mL | Stressed |
| 21 | 1,1,2-Trichloroethane | | 1,001.3 | µg/mL | +/- | 7.1450 | µg/mL | Gravimetric |
| | **CAS #** 79-00-5.SEC | (Lot 7871500) | | | +/- | 56.2917 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6018 | µg/mL | Stressed |
| 22 | 1,3-Dichloropropane | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 142-28-9.SEC | (Lot AGN01-EFPC) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 23 | Tetrachloroethene | | 1,000.2 | µg/mL | +/- | 7.1378 | µg/mL | Gravimetric |
| | **CAS #** 127-18-4.SEC | (Lot F09W014) | | | +/- | 56.2350 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5437 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 24 | Dibromochloromethane | | 1,000.5 | µg/mL | +/- | 7.1396 | µg/mL | Gravimetric |
| | **CAS #** 124-48-1.SEC | (Lot 10206360) | | | +/- | 56.2489 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 57.5580 | µg/mL | Stressed |
| 25 | 1,2-Dibromoethane (EDB) | | 1,000.1 | µg/mL | +/- | 7.1032 | µg/mL | Gravimetric |
| | **CAS #** 106-93-4.SEC | (Lot 7511900) | | | +/- | 56.2235 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5322 | µg/mL | Stressed |
| 26 | Chlorobenzene | | 1,001.4 | µg/mL | +/- | 7.1460 | µg/mL | Gravimetric |
| | **CAS #** 108-90-7.SEC | (Lot 1161936) | | | +/- | 56.2995 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6098 | µg/mL | Stressed |
| 27 | 1,1,1,2-Tetrachloroethane | | 1,000.1 | µg/mL | +/- | 7.1032 | µg/mL | Gravimetric |
| | **CAS #** 630-20-6.SEC | (Lot GC01) | | | +/- | 56.2235 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5322 | µg/mL | Stressed |
| 28 | Ethylbenzene | | 1,000.2 | µg/mL | +/- | 7.1035 | µg/mL | Gravimetric |
| | **CAS #** 100-41-4.SEC | (Lot PI4SE) | | | +/- | 56.2263 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5351 | µg/mL | Stressed |
| 29 | m-Xylene | | 1,000.2 | µg/mL | +/- | 7.1035 | µg/mL | Gravimetric |
| | **CAS #** 108-38-3.SEC | (Lot 7ZV6F) | | | +/- | 56.2263 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5351 | µg/mL | Stressed |
| 30 | p-Xylene | | 1,000.1 | µg/mL | +/- | 7.1027 | µg/mL | Gravimetric |
| | **CAS #** 106-42-3.SEC | (Lot D6UOA) | | | +/- | 56.2200 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5286 | µg/mL | Stressed |
| 31 | o-Xylene | | 1,000.1 | µg/mL | +/- | 7.1028 | µg/mL | Gravimetric |
| | **CAS #** 95-47-6.SEC | (Lot FGL01) | | | +/- | 56.2207 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5294 | µg/mL | Stressed |
| 32 | Styrene | | 1,000.1 | µg/mL | +/- | 7.1033 | µg/mL | Gravimetric |
| | **CAS #** 100-42-5.SEC | (Lot OFIOL-IA) | | | +/- | 56.2242 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5330 | µg/mL | Stressed |
| 33 | Isopropylbenzene (cumene) | | 1,000.0 | µg/mL | +/- | 7.1025 | µg/mL | Gravimetric |
| | **CAS #** 98-82-8.SEC | (Lot JN4EC) | | | +/- | 56.2179 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5265 | µg/mL | Stressed |
| 34 | Bromoform | | 1,001.7 | µg/mL | +/- | 7.1485 | µg/mL | Gravimetric |
| | **CAS #** 75-25-2.SEC | (Lot 9170700) | | | +/- | 56.3193 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6300 | µg/mL | Stressed |
| 35 | 1,1,2,2-Tetrachloroethane | | 1,001.6 | µg/mL | +/- | 7.1478 | µg/mL | Gravimetric |
| | **CAS #** 79-34-5.SEC | (Lot BCCB0724) | | | +/- | 56.3139 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 57.6245 | µg/mL | Stressed |
| 36 | 1,2,3-Trichloropropane | | 1,000.0 | µg/mL | +/- | 7.1026 | µg/mL | Gravimetric |
| | **CAS #** 96-18-4.SEC | (Lot GUHZN) | | | +/- | 56.2193 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5279 | µg/mL | Stressed |
| 37 | n-Propylbenzene | | 1,000.1 | µg/mL | +/- | 7.1027 | µg/mL | Gravimetric |
| | **CAS #** 103-65-1.SEC | (Lot T2HFC) | | | +/- | 56.2200 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5286 | µg/mL | Stressed |
| 38 | Bromobenzene | | 1,000.2 | µg/mL | +/- | 7.1034 | µg/mL | Gravimetric |
| | **CAS #** 108-86-1.SEC | (Lot 8DKWJ) | | | +/- | 56.2256 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5344 | µg/mL | Stressed |
| 39 | 1,3,5-Trimethylbenzene | | 1,000.1 | µg/mL | +/- | 7.1028 | µg/mL | Gravimetric |
| | **CAS #** 108-67-8.SEC | (Lot TOOOF) | | | +/- | 56.2207 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5294 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 40 | 2-Chlorotoluene | | 1,000.0 | µg/mL | +/- | 7.1025 | µg/mL | Gravimetric |
| | **CAS #** 95-49-8.SEC | (Lot BRHPM) | | | +/- | 56.2179 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5265 | µg/mL | Stressed |
| 41 | 4-Chlorotoluene | | 1,000.1 | µg/mL | +/- | 7.1030 | µg/mL | Gravimetric |
| | **CAS #** 106-43-4.SEC | (Lot S5SKD) | | | +/- | 56.2221 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5308 | µg/mL | Stressed |
| 42 | tert-Butylbenzene | | 1,000.1 | µg/mL | +/- | 7.1029 | µg/mL | Gravimetric |
| | **CAS #** 98-06-6.SEC | (Lot D6OHC) | | | +/- | 56.2214 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5301 | µg/mL | Stressed |
| 43 | 1,2,4-Trimethylbenzene | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 95-63-6.SEC | (Lot JMIYD) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 44 | sec-Butylbenzene | | 1,000.1 | µg/mL | +/- | 7.1029 | µg/mL | Gravimetric |
| | **CAS #** 135-98-8.SEC | (Lot O4HRF) | | | +/- | 56.2214 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5301 | µg/mL | Stressed |
| 45 | 4-Isopropyltoluene (p-cymene) | | 1,000.1 | µg/mL | +/- | 7.1029 | µg/mL | Gravimetric |
| | **CAS #** 99-87-6.SEC | (Lot 8380000) | | | +/- | 56.2214 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5301 | µg/mL | Stressed |
| 46 | 1,3-Dichlorobenzene | | 1,000.1 | µg/mL | +/- | 7.1365 | µg/mL | Gravimetric |
| | **CAS #** 541-73-1.SEC | (Lot FMDFD) | | | +/- | 56.2251 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5337 | µg/mL | Stressed |
| 47 | 1,4-Dichlorobenzene | | 1,002.5 | µg/mL | +/- | 7.1538 | µg/mL | Gravimetric |
| | **CAS #** 106-46-7.SEC | (Lot YWKDC-MK) | | | +/- | 56.3612 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6729 | µg/mL | Stressed |
| 48 | n-Butylbenzene | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 104-51-8.SEC | (Lot MMPGA) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 49 | 1,2-Dichlorobenzene | | 1,001.6 | µg/mL | +/- | 7.1475 | µg/mL | Gravimetric |
| | **CAS #** 95-50-1.SEC | (Lot R6QDM) | | | +/- | 56.3114 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.6220 | µg/mL | Stressed |
| 50 | 1,2-Dibromo-3-chloropropane | | 1,000.0 | µg/mL | +/- | 7.1025 | µg/mL | Gravimetric |
| | **CAS #** 96-12-8.SEC | (Lot Q135-105) | | | +/- | 56.2179 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5265 | µg/mL | Stressed |
| 51 | 1,2,4-Trichlorobenzene | | 1,000.1 | µg/mL | +/- | 7.1027 | µg/mL | Gravimetric |
| | **CAS #** 120-82-1.SEC | (Lot IGLFA) | | | +/- | 56.2200 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5286 | µg/mL | Stressed |
| 52 | Hexachlorobutadiene | | 1,000.8 | µg/mL | +/- | 7.1079 | µg/mL | Gravimetric |
| | **CAS #** 87-68-3.SEC | (Lot 8532700) | | | +/- | 56.2614 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 57.5709 | µg/mL | Stressed |
| 53 | Naphthalene | | 1,000.1 | µg/mL | +/- | 7.1031 | µg/mL | Gravimetric |
| | **CAS #** 91-20-3.SEC | (Lot SKZ5N) | | | +/- | 56.2228 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 57.5315 | µg/mL | Stressed |
| 54 | 1,2,3-Trichlorobenzene | | 1,000.7 | µg/mL | +/- | 7.1076 | µg/mL | Gravimetric |
| | **CAS #** 87-61-6.SEC | (Lot A0043055) | | | +/- | 56.2588 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 57.5683 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

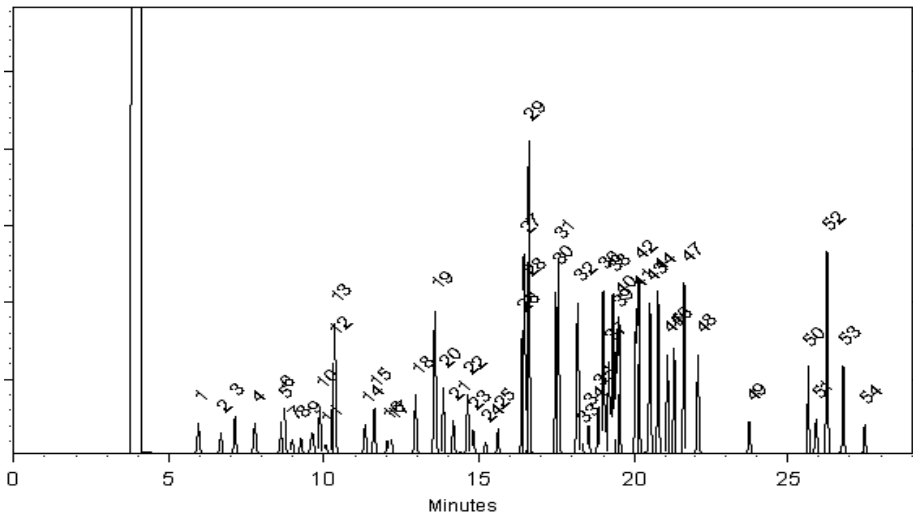
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bradley Meyer - Mix Technician

**Date Mixed:** 28-Apr-2021 **Balance:** 1127510105

Alexis Shelow - Operations Tech I

**Date Passed:** 30-Apr-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# MSV_M_MIX2SEC_00019

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577494 **Lot No.:** A0171837

**Description :** Custom VOC MegaMix®.SEC #2 Standard

Custom VOC MegaMix®.SEC #2 Standard 1,000-50,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | n-Pentane (C5) | 1,002.0 µg/mL | +/- 5.8803 µg/mL | Gravimetric |
| | **CAS #** 109-66-0.SEC (Lot FGH02) | | +/- 49.5732 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.8056 µg/mL | Stressed |
| 2 | 2-Propanol (isopropanol) | 7,501.5 µg/mL | +/- 43.9229 µg/mL | Gravimetric |
| | **CAS #** 67-63-0.SEC (Lot TFT5I) | | +/- 371.1195 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 380.3459 µg/mL | Stressed |
| 3 | 1,1,2-Trichlorotrifluoroethane (CFC-113) | 1,002.0 µg/mL | +/- 5.8803 µg/mL | Gravimetric |
| | **CAS #** 76-13-1.SEC (Lot 18342) | | +/- 49.5732 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.8056 µg/mL | Stressed |
| 4 | tert-Butanol (TBA) | 10,001.0 µg/mL | +/- 58.5581 µg/mL | Gravimetric |
| | **CAS #** 75-65-0.SEC (Lot 5REPK) | | +/- 494.7765 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 507.0771 µg/mL | Stressed |
| 5 | Methyl acetate | 1,002.5 µg/mL | +/- 5.8832 µg/mL | Gravimetric |
| | **CAS #** 79-20-9.SEC (Lot YDGVD) | | +/- 49.5980 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.8309 µg/mL | Stressed |
| 6 | Iodomethane (methyl iodide) | 1,001.5 µg/mL | +/- 5.8774 µg/mL | Gravimetric |
| | **CAS #** 74-88-4.SEC (Lot Y25A027) | | +/- 49.5485 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.7802 µg/mL | Stressed |
| 7 | Allyl chloride ( 3-chloropropene ) | 1,002.0 µg/mL | +/- 5.8803 µg/mL | Gravimetric |
| | **CAS #** 107-05-1.SEC (Lot H3HGC) | | +/- 49.5732 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.8056 µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Carbon disulfide | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 75-15-0.SEC | (Lot MKBL1376V) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 9 | Acrylonitrile | | 5,000.5 | µg/mL | +/- | 29.2790 | µg/mL | Gravimetric |
| | **CAS #** 107-13-1.SEC | (Lot V54AD) | | | +/- | 247.3882 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 253.5386 | µg/mL | Stressed |
| 10 | Methyl-tert-butyl ether ( MTBE ) | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 1634-04-4.SEC | (Lot ZHKYA) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 11 | n-Hexane (C6) | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 110-54-3.SEC | (Lot 10188491) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 12 | Diisopropyl ether ( DIPE ) | | 1,003.0 | µg/mL | +/- | 5.8862 | µg/mL | Gravimetric |
| | **CAS #** 108-20-3.SEC | (Lot LL7TN-SH) | | | +/- | 49.6227 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.8563 | µg/mL | Stressed |
| 13 | Chloroprene (2-chloro-1,3-butadiene) | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 126-99-8 | (Lot 210413JLM) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 14 | Ethyl-tert-butyl ether (ETBE) | | 1,002.1 | µg/mL | +/- | 5.8806 | µg/mL | Gravimetric |
| | **CAS #** 637-92-3.SEC | (Lot UCI5B) | | | +/- | 49.5757 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 50.8081 | µg/mL | Stressed |
| 15 | Propionitrile | | 7,501.5 | µg/mL | +/- | 43.9229 | µg/mL | Gravimetric |
| | **CAS #** 107-12-0.SEC | (Lot N44LF) | | | +/- | 371.1195 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 380.3459 | µg/mL | Stressed |
| 16 | Methacrylonitrile | | 7,501.5 | µg/mL | +/- | 43.9229 | µg/mL | Gravimetric |
| | **CAS #** 126-98-7 | (Lot 1012014) | | | +/- | 371.1195 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 380.3459 | µg/mL | Stressed |
| 17 | Isobutanol (2-Methyl-1-propanol) | | 25,001.0 | µg/mL | +/- | 146.3864 | µg/mL | Gravimetric |
| | **CAS #** 78-83-1.SEC | (Lot YNG3K) | | | +/- | 1,236.8670 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 1,267.6168 | µg/mL | Stressed |
| 18 | Tetrahydrofuran | | 5,000.5 | µg/mL | +/- | 29.2790 | µg/mL | Gravimetric |
| | **CAS #** 109-99-9.SEC | (Lot 3NYHE) | | | +/- | 247.3882 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 253.5386 | µg/mL | Stressed |
| 19 | Cyclohexane | | 1,000.0 | µg/mL | +/- | 5.8686 | µg/mL | Gravimetric |
| | **CAS #** 110-82-7.SEC | (Lot YADRA) | | | +/- | 49.4743 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7042 | µg/mL | Stressed |
| 20 | 1-Butanol | | 50,004.5 | µg/mL | +/- | 292.7722 | µg/mL | Gravimetric |
| | **CAS #** 71-36-3.SEC | (Lot 6B6UL) | | | +/- | 2,473.8558 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 2,535.3586 | µg/mL | Stressed |
| 21 | tert-Amyl methyl ether (TAME) | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 994-05-8.SEC | (Lot 11010100) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 22 | n-Heptane (C7) | | 1,002.5 | µg/mL | +/- | 5.8832 | µg/mL | Gravimetric |
| | **CAS #** 142-82-5.SEC | (Lot TFHUC) | | | +/- | 49.5980 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.8309 | µg/mL | Stressed |
| 23 | tert-Amyl ethyl ether (TAEE) | | 1,000.5 | µg/mL | +/- | 5.8715 | µg/mL | Gravimetric |
| | **CAS #** 919-94-8.SEC | (Lot 11370700) | | | +/- | 49.4990 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7295 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 24 | Methylcyclohexane | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 108-87-2.SEC | (Lot Q02QG) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 25 | Methyl methacrylate | | 1,000.5 | µg/mL | +/- | 5.8715 | µg/mL | Gravimetric |
| | **CAS #** 80-62-6.SEC | (Lot G01X021) | | | +/- | 49.4990 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7295 | µg/mL | Stressed |
| 26 | 1,4-Dioxane | | 25,004.0 | µg/mL | +/- | 146.4039 | µg/mL | Gravimetric |
| | **CAS #** 123-91-1.SEC | (Lot KLE2K) | | | +/- | 1,237.0154 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 1,267.7689 | µg/mL | Stressed |
| 27 | 2-Nitropropane | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 79-46-9.SEC | (Lot F43IA) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 28 | Ethyl methacrylate | | 1,000.0 | µg/mL | +/- | 5.8686 | µg/mL | Gravimetric |
| | **CAS #** 97-63-2.SEC | (Lot MLWYK-LS) | | | +/- | 49.4743 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7042 | µg/mL | Stressed |
| 29 | 1-Chlorohexane | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 544-10-5.SEC | (Lot 8171700) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 30 | trans-1,4-Dichloro-2-butene | | 5,000.4 | µg/mL | +/- | 29.2781 | µg/mL | Gravimetric |
| | **CAS #** 110-57-6.SEC | (Lot 100700-3) | | | +/- | 247.3808 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 253.5310 | µg/mL | Stressed |
| 31 | 1,2,3-Trimethylbenzene | | 1,001.1 | µg/mL | +/- | 5.8748 | µg/mL | Gravimetric |
| | **CAS #** 526-73-8.SEC | (Lot 11386600) | | | +/- | 49.5272 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 50.7584 | µg/mL | Stressed |
| 32 | 1,3-Diethylbenzene | | 1,003.5 | µg/mL | +/- | 5.8891 | µg/mL | Gravimetric |
| | **CAS #** 141-93-5.SEC | (Lot 113566-1) | | | +/- | 49.6474 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.8816 | µg/mL | Stressed |
| 33 | Benzyl chloride | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 100-44-7.SEC | (Lot H29N03) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 34 | 1,4-Diethylbenzene | | 1,002.1 | µg/mL | +/- | 5.8806 | µg/mL | Gravimetric |
| | **CAS #** 105-05-5.SEC | (Lot FBQ02) | | | +/- | 49.5757 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 50.8081 | µg/mL | Stressed |
| 35 | 1,2-Diethylbenzene | | 1,000.5 | µg/mL | +/- | 5.8715 | µg/mL | Gravimetric |
| | **CAS #** 135-01-3.SEC | (Lot BCBF3667V) | | | +/- | 49.4990 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7295 | µg/mL | Stressed |
| 36 | 1,3,5-Trichlorobenzene | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 108-70-3.SEC | (Lot I28U021) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 37 | 2-Methylnaphthalene | | 1,000.0 | µg/mL | +/- | 5.8686 | µg/mL | Gravimetric |
| | **CAS #** 91-57-6.SEC | (Lot 76023-1) | | | +/- | 49.4743 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7042 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

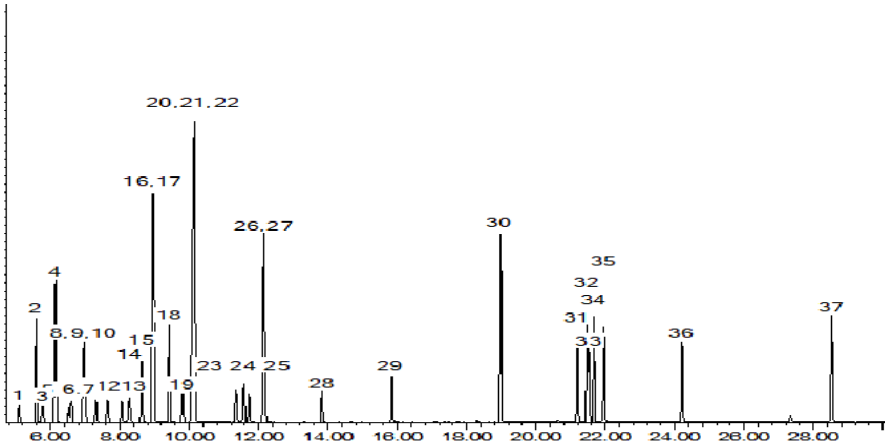
**Carrier Gas:**
helium-constant pressure 30 psi

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

**Date Mixed:** 28-Apr-2021 **Balance:** 1128353505

Alexis Shelow - Operations Tech I

**Date Passed:** 04-May-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# MSV_M_MIX2SEC_00028

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577494 **Lot No.:** A0171837

**Description :** Custom VOC MegaMix®.SEC #2 Standard

Custom VOC MegaMix®.SEC #2 Standard 1,000-50,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | n-Pentane (C5) | 1,002.0 µg/mL | +/- 5.8803 µg/mL | Gravimetric |
| | **CAS #** 109-66-0.SEC (Lot FGH02) | | +/- 49.5732 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.8056 µg/mL | Stressed |
| 2 | 2-Propanol (isopropanol) | 7,501.5 µg/mL | +/- 43.9229 µg/mL | Gravimetric |
| | **CAS #** 67-63-0.SEC (Lot TFT5I) | | +/- 371.1195 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 380.3459 µg/mL | Stressed |
| 3 | 1,1,2-Trichlorotrifluoroethane (CFC-113) | 1,002.0 µg/mL | +/- 5.8803 µg/mL | Gravimetric |
| | **CAS #** 76-13-1.SEC (Lot 18342) | | +/- 49.5732 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.8056 µg/mL | Stressed |
| 4 | tert-Butanol (TBA) | 10,001.0 µg/mL | +/- 58.5581 µg/mL | Gravimetric |
| | **CAS #** 75-65-0.SEC (Lot 5REPK) | | +/- 494.7765 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 507.0771 µg/mL | Stressed |
| 5 | Methyl acetate | 1,002.5 µg/mL | +/- 5.8832 µg/mL | Gravimetric |
| | **CAS #** 79-20-9.SEC (Lot YDGVD) | | +/- 49.5980 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.8309 µg/mL | Stressed |
| 6 | Iodomethane (methyl iodide) | 1,001.5 µg/mL | +/- 5.8774 µg/mL | Gravimetric |
| | **CAS #** 74-88-4.SEC (Lot Y25A027) | | +/- 49.5485 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.7802 µg/mL | Stressed |
| 7 | Allyl chloride ( 3-chloropropene ) | 1,002.0 µg/mL | +/- 5.8803 µg/mL | Gravimetric |
| | **CAS #** 107-05-1.SEC (Lot H3HGC) | | +/- 49.5732 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 50.8056 µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Carbon disulfide | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 75-15-0.SEC | (Lot MKBL1376V) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 9 | Acrylonitrile | | 5,000.5 | µg/mL | +/- | 29.2790 | µg/mL | Gravimetric |
| | **CAS #** 107-13-1.SEC | (Lot V54AD) | | | +/- | 247.3882 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 253.5386 | µg/mL | Stressed |
| 10 | Methyl-tert-butyl ether ( MTBE ) | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 1634-04-4.SEC | (Lot ZHKYA) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 11 | n-Hexane (C6) | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 110-54-3.SEC | (Lot 10188491) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 12 | Diisopropyl ether ( DIPE ) | | 1,003.0 | µg/mL | +/- | 5.8862 | µg/mL | Gravimetric |
| | **CAS #** 108-20-3.SEC | (Lot LL7TN-SH) | | | +/- | 49.6227 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.8563 | µg/mL | Stressed |
| 13 | Chloroprene (2-chloro-1,3-butadiene) | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 126-99-8 | (Lot 210413JLM) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 14 | Ethyl-tert-butyl ether (ETBE) | | 1,002.1 | µg/mL | +/- | 5.8806 | µg/mL | Gravimetric |
| | **CAS #** 637-92-3.SEC | (Lot UCI5B) | | | +/- | 49.5757 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 50.8081 | µg/mL | Stressed |
| 15 | Propionitrile | | 7,501.5 | µg/mL | +/- | 43.9229 | µg/mL | Gravimetric |
| | **CAS #** 107-12-0.SEC | (Lot N44LF) | | | +/- | 371.1195 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 380.3459 | µg/mL | Stressed |
| 16 | Methacrylonitrile | | 7,501.5 | µg/mL | +/- | 43.9229 | µg/mL | Gravimetric |
| | **CAS #** 126-98-7 | (Lot 1012014) | | | +/- | 371.1195 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 380.3459 | µg/mL | Stressed |
| 17 | Isobutanol (2-Methyl-1-propanol) | | 25,001.0 | µg/mL | +/- | 146.3864 | µg/mL | Gravimetric |
| | **CAS #** 78-83-1.SEC | (Lot YNG3K) | | | +/- | 1,236.8670 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 1,267.6168 | µg/mL | Stressed |
| 18 | Tetrahydrofuran | | 5,000.5 | µg/mL | +/- | 29.2790 | µg/mL | Gravimetric |
| | **CAS #** 109-99-9.SEC | (Lot 3NYHE) | | | +/- | 247.3882 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 253.5386 | µg/mL | Stressed |
| 19 | Cyclohexane | | 1,000.0 | µg/mL | +/- | 5.8686 | µg/mL | Gravimetric |
| | **CAS #** 110-82-7.SEC | (Lot YADRA) | | | +/- | 49.4743 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7042 | µg/mL | Stressed |
| 20 | 1-Butanol | | 50,004.5 | µg/mL | +/- | 292.7722 | µg/mL | Gravimetric |
| | **CAS #** 71-36-3.SEC | (Lot 6B6UL) | | | +/- | 2,473.8558 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 2,535.3586 | µg/mL | Stressed |
| 21 | tert-Amyl methyl ether (TAME) | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 994-05-8.SEC | (Lot 11010100) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 22 | n-Heptane (C7) | | 1,002.5 | µg/mL | +/- | 5.8832 | µg/mL | Gravimetric |
| | **CAS #** 142-82-5.SEC | (Lot TFHUC) | | | +/- | 49.5980 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.8309 | µg/mL | Stressed |
| 23 | tert-Amyl ethyl ether (TAEE) | | 1,000.5 | µg/mL | +/- | 5.8715 | µg/mL | Gravimetric |
| | **CAS #** 919-94-8.SEC | (Lot 11370700) | | | +/- | 49.4990 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7295 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 24 | Methylcyclohexane | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 108-87-2.SEC | (Lot Q02QG) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 25 | Methyl methacrylate | | 1,000.5 | µg/mL | +/- | 5.8715 | µg/mL | Gravimetric |
| | **CAS #** 80-62-6.SEC | (Lot G01X021) | | | +/- | 49.4990 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7295 | µg/mL | Stressed |
| 26 | 1,4-Dioxane | | 25,004.0 | µg/mL | +/- | 146.4039 | µg/mL | Gravimetric |
| | **CAS #** 123-91-1.SEC | (Lot KLE2K) | | | +/- | 1,237.0154 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 1,267.7689 | µg/mL | Stressed |
| 27 | 2-Nitropropane | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 79-46-9.SEC | (Lot F43IA) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 28 | Ethyl methacrylate | | 1,000.0 | µg/mL | +/- | 5.8686 | µg/mL | Gravimetric |
| | **CAS #** 97-63-2.SEC | (Lot MLWYK-LS) | | | +/- | 49.4743 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7042 | µg/mL | Stressed |
| 29 | 1-Chlorohexane | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 544-10-5.SEC | (Lot 8171700) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 30 | trans-1,4-Dichloro-2-butene | | 5,000.4 | µg/mL | +/- | 29.2781 | µg/mL | Gravimetric |
| | **CAS #** 110-57-6.SEC | (Lot 100700-3) | | | +/- | 247.3808 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 253.5310 | µg/mL | Stressed |
| 31 | 1,2,3-Trimethylbenzene | | 1,001.1 | µg/mL | +/- | 5.8748 | µg/mL | Gravimetric |
| | **CAS #** 526-73-8.SEC | (Lot 11386600) | | | +/- | 49.5272 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 50.7584 | µg/mL | Stressed |
| 32 | 1,3-Diethylbenzene | | 1,003.5 | µg/mL | +/- | 5.8891 | µg/mL | Gravimetric |
| | **CAS #** 141-93-5.SEC | (Lot 113566-1) | | | +/- | 49.6474 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.8816 | µg/mL | Stressed |
| 33 | Benzyl chloride | | 1,001.0 | µg/mL | +/- | 5.8744 | µg/mL | Gravimetric |
| | **CAS #** 100-44-7.SEC | (Lot H29N03) | | | +/- | 49.5238 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7549 | µg/mL | Stressed |
| 34 | 1,4-Diethylbenzene | | 1,002.1 | µg/mL | +/- | 5.8806 | µg/mL | Gravimetric |
| | **CAS #** 105-05-5.SEC | (Lot FBQ02) | | | +/- | 49.5757 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 50.8081 | µg/mL | Stressed |
| 35 | 1,2-Diethylbenzene | | 1,000.5 | µg/mL | +/- | 5.8715 | µg/mL | Gravimetric |
| | **CAS #** 135-01-3.SEC | (Lot BCBF3667V) | | | +/- | 49.4990 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7295 | µg/mL | Stressed |
| 36 | 1,3,5-Trichlorobenzene | | 1,001.5 | µg/mL | +/- | 5.8774 | µg/mL | Gravimetric |
| | **CAS #** 108-70-3.SEC | (Lot I28U021) | | | +/- | 49.5485 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7802 | µg/mL | Stressed |
| 37 | 2-Methylnaphthalene | | 1,000.0 | µg/mL | +/- | 5.8686 | µg/mL | Gravimetric |
| | **CAS #** 91-57-6.SEC | (Lot 76023-1) | | | +/- | 49.4743 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 50.7042 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

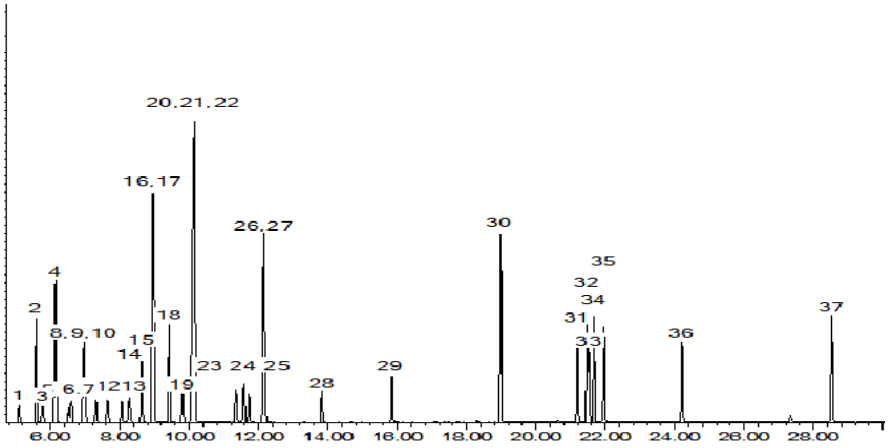
**Carrier Gas:**
helium-constant pressure 30 psi

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

**Date Mixed:** 28-Apr-2021 **Balance:** 1128353505

Alexis Shelow - Operations Tech I

**Date Passed:** 04-May-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

# MSV_MegaMIX#1_00015

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577486 **Lot No.:** A0171634

**Description :** Custom VOC MegaMix® #1 Standard

Custom VOC MegaMix® #1 Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 1,1-dichloroethene | 5,000.3 µg/mL | +/- 31.7051 µg/mL | Gravimetric |
| | **CAS #** 75-35-4 (Lot SHBK2437) | | +/- 280.6478 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.2014 µg/mL | Stressed |
| 2 | Methylene chloride (dichloromethane) | 5,000.3 µg/mL | +/- 31.7051 µg/mL | Gravimetric |
| | **CAS #** 75-09-2 (Lot SHBL6169) | | +/- 280.6478 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.2014 µg/mL | Stressed |
| 3 | trans-1,2-Dichloroethene | 5,000.3 µg/mL | +/- 31.7051 µg/mL | Gravimetric |
| | **CAS #** 156-60-5 (Lot MKBH9850V) | | +/- 280.6478 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.2014 µg/mL | Stressed |
| 4 | 1,1-Dichloroethane | 5,000.8 µg/mL | +/- 31.7079 µg/mL | Gravimetric |
| | **CAS #** 75-34-3 (Lot 580900) | | +/- 280.6723 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.2265 µg/mL | Stressed |
| 5 | 2,2-Dichloropropane | 5,000.8 µg/mL | +/- 31.8970 µg/mL | Gravimetric |
| | **CAS #** 594-20-7 (Lot RD201111) | | +/- 280.6965 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.2503 µg/mL | Stressed |
| 6 | cis-1,2-Dichloroethene | 5,000.6 µg/mL | +/- 31.8957 µg/mL | Gravimetric |
| | **CAS #** 156-59-2 (Lot MKCK1803) | | +/- 280.6853 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.2388 µg/mL | Stressed |
| 7 | chloroform | 5,000.6 µg/mL | +/- 31.7067 µg/mL | Gravimetric |
| | **CAS #** 67-66-3 (Lot SHBL6923) | | +/- 280.6618 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.2158 µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Bromochloromethane | | 5,000.9 | µg/mL | +/- | 31.8976 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5 | (Lot 00008541) | | | +/- | 280.7022 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2560 | µg/mL | Stressed |
| 9 | 1,1,1-trichloroethane | | 5,000.1 | µg/mL | +/- | 31.7041 | µg/mL | Gravimetric |
| | **CAS #** 71-55-6 | (Lot 190123CG) | | | +/- | 280.6383 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 287.1917 | µg/mL | Stressed |
| 10 | 1,1-Dichloropropene | | 5,000.9 | µg/mL | +/- | 31.8976 | µg/mL | Gravimetric |
| | **CAS #** 563-58-6 | (Lot 201106JLM) | | | +/- | 280.7022 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2560 | µg/mL | Stressed |
| 11 | carbon tetrachloride | | 5,000.5 | µg/mL | +/- | 31.7063 | µg/mL | Gravimetric |
| | **CAS #** 56-23-5 | (Lot SHBJ2110) | | | +/- | 280.6583 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2122 | µg/mL | Stressed |
| 12 | 1,2-Dichloroethane | | 5,000.4 | µg/mL | +/- | 31.7059 | µg/mL | Gravimetric |
| | **CAS #** 107-06-2 | (Lot MKCM8716) | | | +/- | 280.6548 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2086 | µg/mL | Stressed |
| 13 | Benzene | | 5,001.0 | µg/mL | +/- | 31.8982 | µg/mL | Gravimetric |
| | **CAS #** 71-43-2 | (Lot SHBM3620) | | | +/- | 280.7078 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2618 | µg/mL | Stressed |
| 14 | Trichloroethene | | 5,000.8 | µg/mL | +/- | 31.7079 | µg/mL | Gravimetric |
| | **CAS #** 79-01-6 | (Lot SHBL5816) | | | +/- | 280.6723 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2265 | µg/mL | Stressed |
| 15 | 1,2-Dichloropropane | | 5,001.1 | µg/mL | +/- | 31.7099 | µg/mL | Gravimetric |
| | **CAS #** 78-87-5 | (Lot BCBR0882V) | | | +/- | 280.6899 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2445 | µg/mL | Stressed |
| 16 | bromodichloromethane | | 5,000.2 | µg/mL | +/- | 31.7043 | µg/mL | Gravimetric |
| | **CAS #** 75-27-4 | (Lot MKCK3742) | | | +/- | 280.6408 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.1942 | µg/mL | Stressed |
| 17 | Dibromomethane | | 5,000.2 | µg/mL | +/- | 31.8931 | µg/mL | Gravimetric |
| | **CAS #** 74-95-3 | (Lot 10215970) | | | +/- | 280.6629 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2158 | µg/mL | Stressed |
| 18 | cis-1,3-Dichloropropene | | 5,001.9 | µg/mL | +/- | 31.7154 | µg/mL | Gravimetric |
| | **CAS #** 10061-01-5 | (Lot D26147-1217) | | | +/- | 280.7390 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2947 | µg/mL | Stressed |
| 19 | Toluene | | 5,001.3 | µg/mL | +/- | 31.9001 | µg/mL | Gravimetric |
| | **CAS #** 108-88-3 | (Lot SHBM6128) | | | +/- | 280.7246 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2790 | µg/mL | Stressed |
| 20 | trans-1,3-Dichloropropene | | 5,000.5 | µg/mL | +/- | 31.7063 | µg/mL | Gravimetric |
| | **CAS #** 10061-02-6 | (Lot RP201030) | | | +/- | 280.6583 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2122 | µg/mL | Stressed |
| 21 | 1,1,2-Trichloroethane | | 5,000.9 | µg/mL | +/- | 31.7087 | µg/mL | Gravimetric |
| | **CAS #** 79-00-5 | (Lot FGB01) | | | +/- | 280.6794 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2337 | µg/mL | Stressed |
| 22 | 1,3-Dichloropropane | | 5,000.5 | µg/mL | +/- | 31.8950 | µg/mL | Gravimetric |
| | **CAS #** 142-28-9 | (Lot BCBC6265) | | | +/- | 280.6797 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2331 | µg/mL | Stressed |
| 23 | Tetrachloroethene | | 5,000.8 | µg/mL | +/- | 31.7079 | µg/mL | Gravimetric |
| | **CAS #** 127-18-4 | (Lot SHBJ7422) | | | +/- | 280.6723 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2265 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 24 | dibromochloromethane | | 5,001.1 | µg/mL | +/- | 31.7099 | µg/mL | Gravimetric |
| | **CAS #** 124-48-1 | (Lot MKCK6472) | | | +/- | 280.6899 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2445 | µg/mL | Stressed |
| 25 | 1,2-Dibromoethane (EDB) | | 5,000.5 | µg/mL | +/- | 31.8950 | µg/mL | Gravimetric |
| | **CAS #** 106-93-4 | (Lot BCBP2268V) | | | +/- | 280.6797 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2331 | µg/mL | Stressed |
| 26 | Chlorobenzene | | 5,000.2 | µg/mL | +/- | 31.7043 | µg/mL | Gravimetric |
| | **CAS #** 108-90-7 | (Lot SHBL8110) | | | +/- | 280.6408 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.1942 | µg/mL | Stressed |
| 27 | 1,1,1,2-Tetrachloroethane | | 5,000.9 | µg/mL | +/- | 31.8976 | µg/mL | Gravimetric |
| | **CAS #** 630-20-6 | (Lot GC01) | | | +/- | 280.7022 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2560 | µg/mL | Stressed |
| 28 | Ethylbenzene | | 5,000.8 | µg/mL | +/- | 31.8970 | µg/mL | Gravimetric |
| | **CAS #** 100-41-4 | (Lot SHBL9192) | | | +/- | 280.6965 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2503 | µg/mL | Stressed |
| 29 | m-Xylene | | 5,001.8 | µg/mL | +/- | 31.9033 | µg/mL | Gravimetric |
| | **CAS #** 108-38-3 | (Lot SHBM4841) | | | +/- | 280.7527 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.3077 | µg/mL | Stressed |
| 30 | p-Xylene | | 5,000.5 | µg/mL | +/- | 31.8950 | µg/mL | Gravimetric |
| | **CAS #** 106-42-3 | (Lot SHBJ7329) | | | +/- | 280.6797 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2331 | µg/mL | Stressed |
| 31 | o-Xylene | | 5,001.8 | µg/mL | +/- | 31.9035 | µg/mL | Gravimetric |
| | **CAS #** 95-47-6 | (Lot SHBL3963) | | | +/- | 280.7539 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 287.3090 | µg/mL | Stressed |
| 32 | Styrene | | 5,001.7 | µg/mL | +/- | 31.9027 | µg/mL | Gravimetric |
| | **CAS #** 100-42-5 | (Lot MKCM3200) | | | +/- | 280.7471 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.3020 | µg/mL | Stressed |
| 33 | Isopropylbenzene (cumene) | | 5,001.0 | µg/mL | +/- | 31.8982 | µg/mL | Gravimetric |
| | **CAS #** 98-82-8 | (Lot P15E008) | | | +/- | 280.7078 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2618 | µg/mL | Stressed |
| 34 | bromoform | | 5,000.4 | µg/mL | +/- | 31.7055 | µg/mL | Gravimetric |
| | **CAS #** 75-25-2 | (Lot SHBJ4835) | | | +/- | 280.6513 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2050 | µg/mL | Stressed |
| 35 | 1,1,2,2-Tetrachloroethane | | 5,000.4 | µg/mL | +/- | 31.7059 | µg/mL | Gravimetric |
| | **CAS #** 79-34-5 | (Lot CFA4D) | | | +/- | 280.6548 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2086 | µg/mL | Stressed |
| 36 | 1,2,3-Trichloropropane | | 5,000.0 | µg/mL | +/- | 31.8918 | µg/mL | Gravimetric |
| | **CAS #** 96-18-4 | (Lot BCBH8722V) | | | +/- | 280.6516 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2044 | µg/mL | Stressed |
| 37 | n-Propylbenzene | | 5,001.6 | µg/mL | +/- | 31.9021 | µg/mL | Gravimetric |
| | **CAS #** 103-65-1 | (Lot MKCM4174) | | | +/- | 280.7414 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2963 | µg/mL | Stressed |
| 38 | Bromobenzene | | 5,001.1 | µg/mL | +/- | 31.8989 | µg/mL | Gravimetric |
| | **CAS #** 108-86-1 | (Lot WXBC5147V) | | | +/- | 280.7134 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2675 | µg/mL | Stressed |
| 39 | 1,3,5-Trimethylbenzene | | 5,001.6 | µg/mL | +/- | 31.9021 | µg/mL | Gravimetric |
| | **CAS #** 108-67-8 | (Lot BCCD0427) | | | +/- | 280.7414 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2963 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 40 | 2-Chlorotoluene | | 5,000.2 | µg/mL | +/- | 31.8931 | µg/mL | Gravimetric |
| | **CAS #** 95-49-8 | (Lot MKCF5243) | | | +/- | 280.6629 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2158 | µg/mL | Stressed |
| 41 | 4-Chlorotoluene | | 5,000.1 | µg/mL | +/- | 31.8925 | µg/mL | Gravimetric |
| | **CAS #** 106-43-4 | (Lot MKCC8496) | | | +/- | 280.6572 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2101 | µg/mL | Stressed |
| 42 | tert-Butylbenzene | | 5,001.3 | µg/mL | +/- | 31.9001 | µg/mL | Gravimetric |
| | **CAS #** 98-06-6 | (Lot STBJ1937) | | | +/- | 280.7246 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2790 | µg/mL | Stressed |
| 43 | 1,2,4-Trimethylbenzene | | 5,000.6 | µg/mL | +/- | 31.8960 | µg/mL | Gravimetric |
| | **CAS #** 95-63-6 | (Lot WXBC9428V) | | | +/- | 280.6879 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 287.2415 | µg/mL | Stressed |
| 44 | sec-Butylbenzene | | 5,000.2 | µg/mL | +/- | 31.8931 | µg/mL | Gravimetric |
| | **CAS #** 135-98-8 | (Lot MKCN2920) | | | +/- | 280.6629 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2158 | µg/mL | Stressed |
| 45 | p-Isopropyltoluene (p-Cymene) | | 5,001.1 | µg/mL | +/- | 31.8989 | µg/mL | Gravimetric |
| | **CAS #** 99-87-6 | (Lot MKCN1411) | | | +/- | 280.7134 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2675 | µg/mL | Stressed |
| 46 | 1,3-Dichlorobenzene | | 5,000.5 | µg/mL | +/- | 31.7063 | µg/mL | Gravimetric |
| | **CAS #** 541-73-1 | (Lot BCBZ7498) | | | +/- | 280.6583 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2122 | µg/mL | Stressed |
| 47 | 1,4-Dichlorobenzene | | 5,000.8 | µg/mL | +/- | 31.7083 | µg/mL | Gravimetric |
| | **CAS #** 106-46-7 | (Lot MKBS4401V) | | | +/- | 280.6759 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2301 | µg/mL | Stressed |
| 48 | n-Butylbenzene | | 5,001.6 | µg/mL | +/- | 31.9021 | µg/mL | Gravimetric |
| | **CAS #** 104-51-8 | (Lot 09804AE) | | | +/- | 280.7414 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2963 | µg/mL | Stressed |
| 49 | 1,2-Dichlorobenzene | | 5,000.1 | µg/mL | +/- | 31.7036 | µg/mL | Gravimetric |
| | **CAS #** 95-50-1 | (Lot SHBK7741) | | | +/- | 280.6338 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.1871 | µg/mL | Stressed |
| 50 | 1,2-Dibromo-3-chloropropane | | 5,000.3 | µg/mL | +/- | 31.8935 | µg/mL | Gravimetric |
| | **CAS #** 96-12-8 | (Lot FBL01) | | | +/- | 280.6658 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 287.2189 | µg/mL | Stressed |
| 51 | 1,2,4-Trichlorobenzene | | 5,000.8 | µg/mL | +/- | 31.8970 | µg/mL | Gravimetric |
| | **CAS #** 120-82-1 | (Lot SHBJ9215) | | | +/- | 280.6965 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2503 | µg/mL | Stressed |
| 52 | Hexachlorobutadiene | | 5,001.3 | µg/mL | +/- | 31.9001 | µg/mL | Gravimetric |
| | **CAS #** 87-68-3 | (Lot 664800) | | | +/- | 280.7246 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2790 | µg/mL | Stressed |
| 53 | Naphthalene | | 5,000.8 | µg/mL | +/- | 31.8970 | µg/mL | Gravimetric |
| | **CAS #** 91-20-3 | (Lot MKBZ8680V) | | | +/- | 280.6965 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2503 | µg/mL | Stressed |
| 54 | 1,2,3-Trichlorobenzene | | 5,000.4 | µg/mL | +/- | 31.8944 | µg/mL | Gravimetric |
| | **CAS #** 87-61-6 | (Lot MKBX7627V) | | | +/- | 280.6741 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 287.2273 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

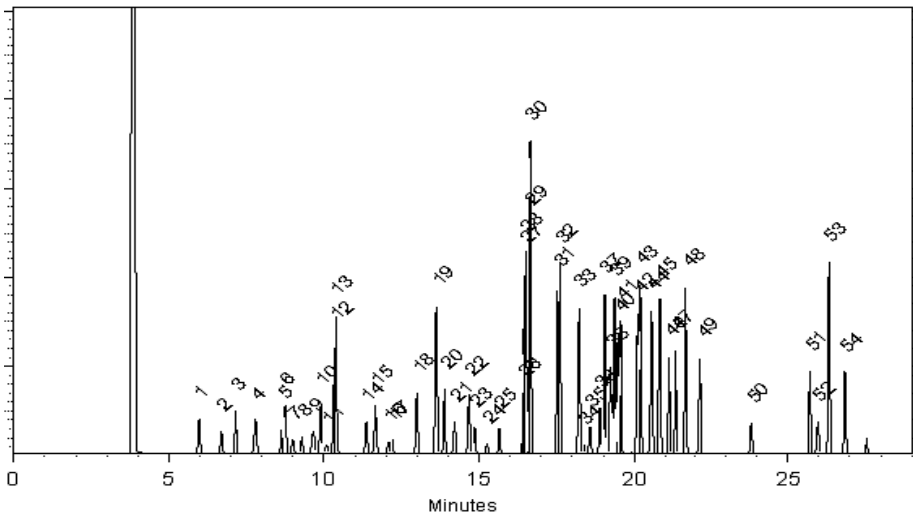
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

**Date Mixed:** 22-Apr-2021 **Balance:** 1128360905

Alexis Shelow - Operations Tech I

**Date Passed:** 26-Apr-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# MSV_MegaMix#2_00015

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577487 **Lot No.:** A0172089

**Description :** Custom VOC MegaMix® #2 Standard

Custom VOC MegaMix® #2 Standard 5000-62500µg/mL, P&T Methanol, 1mL/ampul

X8
5/12/21

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | n-Pentane (C5) | 5,015.5 µg/mL | +/- 31.9907 µg/mL | Gravimetric |
| | **CAS #** 109-66-0 (Lot SHBM2439) | | +/- 248.4545 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 254.6155 µg/mL | Stressed |
| 2 | 2-Propanol (isopropanol) | 25,058.5 µg/mL | +/- 146.7230 µg/mL | Gravimetric |
| | **CAS #** 67-63-0 (Lot SHBM4333) | | +/- 1,239.7116 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 1,270.5322 µg/mL | Stressed |
| 3 | 1,1,2-Trichlorotrifluoroethane (CFC-113) | 5,011.5 µg/mL | +/- 31.9652 µg/mL | Gravimetric |
| | **CAS #** 76-13-1 (Lot 00016133) | | +/- 248.2564 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 254.4124 µg/mL | Stressed |
| 4 | tert-Butanol (TBA) | 25,047.5 µg/mL | +/- 146.6586 µg/mL | Gravimetric |
| | **CAS #** 75-65-0 (Lot SHBM7694) | | +/- 1,239.1674 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 1,269.9744 µg/mL | Stressed |
| 5 | Methyl acetate | 5,006.8 µg/mL | +/- 31.9354 µg/mL | Gravimetric |
| | **CAS #** 79-20-9 (Lot SHBK5436) | | +/- 248.0252 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 254.1755 µg/mL | Stressed |
| 6 | Iodomethane (methyl iodide) | 5,011.2 µg/mL | +/- 31.9631 µg/mL | Gravimetric |
| | **CAS #** 74-88-4 (Lot RD210503) | | +/- 248.2399 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 254.3955 µg/mL | Stressed |
| 7 | Allyl chloride ( 3-chloropropene ) | 5,007.0 µg/mL | +/- 31.9365 µg/mL | Gravimetric |
| | **CAS #** 107-05-1 (Lot RD210402) | | +/- 248.0335 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 254.1839 µg/mL | Stressed |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 8 | Carbon disulfide | | 5,014.7 | µg/mL | +/- 31.9854 | µg/mL | Gravimetric |
| | **CAS #** 75-15-0 | (Lot N28F701) | | | +/- 248.4132 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.5731 | µg/mL | Stressed |
| 9 | Acrylonitrile | | 12,548.0 | µg/mL | +/- 73.4713 | µg/mL | Gravimetric |
| | **CAS #** 107-13-1 | (Lot M25F024) | | | +/- 620.7834 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 636.2168 | µg/mL | Stressed |
| 10 | Methyl-tert-butyl ether ( MTBE ) | | 5,010.0 | µg/mL | +/- 31.9556 | µg/mL | Gravimetric |
| | **CAS #** 1634-04-4 | (Lot SHBM3541) | | | +/- 248.1821 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.3362 | µg/mL | Stressed |
| 11 | n-Hexane (C6) | | 5,009.3 | µg/mL | +/- 31.9514 | µg/mL | Gravimetric |
| | **CAS #** 110-54-3 | (Lot SHBL9879) | | | +/- 248.1490 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.3024 | µg/mL | Stressed |
| 12 | Diisopropyl ether ( DIPE ) | | 5,015.0 | µg/mL | +/- 31.9875 | µg/mL | Gravimetric |
| | **CAS #** 108-20-3 | (Lot SHBH1927V) | | | +/- 248.4298 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.5901 | µg/mL | Stressed |
| 13 | Chloroprene (2-chloro-1,3-butadiene) | | 5,015.0 | µg/mL | +/- 31.9875 | µg/mL | Gravimetric |
| | **CAS #** 126-99-8 | (Lot 210413JLM) | | | +/- 248.4298 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.5901 | µg/mL | Stressed |
| 14 | Ethyl-tert-butyl ether (ETBE) | | 5,011.5 | µg/mL | +/- 31.9652 | µg/mL | Gravimetric |
| | **CAS #** 637-92-3 | (Lot MKCM3774) | | | +/- 248.2564 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.4124 | µg/mL | Stressed |
| 15 | Propionitrile | | 25,085.0 | µg/mL | +/- 146.8782 | µg/mL | Gravimetric |
| | **CAS #** 107-12-0 | (Lot BCBW0865) | | | +/- 1,241.0227 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 1,271.8758 | µg/mL | Stressed |
| 16 | Methacrylonitrile | | 12,528.0 | µg/mL | +/- 73.3542 | µg/mL | Gravimetric |
| | **CAS #** 126-98-7 | (Lot 1012014) | | | +/- 619.7940 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 635.2027 | µg/mL | Stressed |
| 17 | Isobutanol (2-Methyl-1-propanol) | | 62,555.0 | µg/mL | +/- 366.2544 | µg/mL | Gravimetric |
| | **CAS #** 78-83-1 | (Lot SHBM4836) | | | +/- 3,094.7625 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 3,171.7016 | µg/mL | Stressed |
| 18 | Tetrahydrofuran | | 25,050.5 | µg/mL | +/- 146.6762 | µg/mL | Gravimetric |
| | **CAS #** 109-99-9 | (Lot SHBM0434) | | | +/- 1,239.3159 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 1,270.1266 | µg/mL | Stressed |
| 19 | Cyclohexane | | 5,017.5 | µg/mL | +/- 32.0035 | µg/mL | Gravimetric |
| | **CAS #** 110-82-7 | (Lot MKCF5831) | | | +/- 248.5536 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.7170 | µg/mL | Stressed |
| 20 | 1-Butanol | | 62,574.0 | µg/mL | +/- 366.3656 | µg/mL | Gravimetric |
| | **CAS #** 71-36-3 | (Lot SHBM5061) | | | +/- 3,095.7025 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 3,172.6650 | µg/mL | Stressed |
| 21 | tert-Amyl methyl ether (TAME) | | 5,012.5 | µg/mL | +/- 31.9716 | µg/mL | Gravimetric |
| | **CAS #** 994-05-8 | (Lot HMBG7745V) | | | +/- 248.3059 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.4632 | µg/mL | Stressed |
| 22 | n-Heptane (C7) | | 5,012.5 | µg/mL | +/- 31.9716 | µg/mL | Gravimetric |
| | **CAS #** 142-82-5 | (Lot SHBL9221) | | | +/- 248.3059 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.4632 | µg/mL | Stressed |
| 23 | tert-Amyl ethyl ether (TAEE) | | 5,012.7 | µg/mL | +/- 31.9726 | µg/mL | Gravimetric |
| | **CAS #** 919-94-8 | (Lot 76U3A) | | | +/- 248.3142 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- 254.4716 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 24 | Methylcyclohexane | | 5,015.2 | µg/mL | +/- | 31.9886 | µg/mL | Gravimetric |
| | **CAS #** 108-87-2 | (Lot SHBL0078) | | | +/- | 248.4380 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 254.5985 | µg/mL | Stressed |
| 25 | Methyl methacrylate | | 5,016.5 | µg/mL | +/- | 31.9971 | µg/mL | Gravimetric |
| | **CAS #** 80-62-6 | (Lot MKCN3027) | | | +/- | 248.5041 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 254.6662 | µg/mL | Stressed |
| 26 | 1,4-Dioxane | | 62,582.5 | µg/mL | +/- | 366.4154 | µg/mL | Gravimetric |
| | **CAS #** 123-91-1 | (Lot SHBM5092) | | | +/- | 3,096.1230 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 3,173.0960 | µg/mL | Stressed |
| 27 | 2-Nitropropane | | 25,020.2 | µg/mL | +/- | 146.4987 | µg/mL | Gravimetric |
| | **CAS #** 79-46-9 | (Lot BCCB9352) | | | +/- | 1,237.8158 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 1,268.5893 | µg/mL | Stressed |
| 28 | 1-Chlorohexane | | 5,012.5 | µg/mL | +/- | 31.9718 | µg/mL | Gravimetric |
| | **CAS #** 544-10-5 | (Lot BCBS3368V) | | | +/- | 248.3077 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 254.4650 | µg/mL | Stressed |
| 29 | trans-1,4-dichloro-2-butene | | 12,532.9 | µg/mL | +/- | 73.3827 | µg/mL | Gravimetric |
| | **CAS #** 110-57-6 | (Lot RD210331) | | | +/- | 620.0352 | µg/mL | Unstressed |
| | **Purity** 95% | | | | +/- | 635.4499 | µg/mL | Stressed |
| 30 | 1,2,3-Trimethylbenzene | | 5,009.9 | µg/mL | +/- | 31.9551 | µg/mL | Gravimetric |
| | **CAS #** 526-73-8 | (Lot 8776.10-36) | | | +/- | 248.1783 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 254.3323 | µg/mL | Stressed |
| 31 | 1,3-Diethylbenzene | | 5,010.6 | µg/mL | +/- | 31.9593 | µg/mL | Gravimetric |
| | **CAS #** 141-93-5 | (Lot BCBT8967) | | | +/- | 248.2106 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 254.3655 | µg/mL | Stressed |
| 32 | Benzyl chloride | | 5,011.7 | µg/mL | +/- | 31.9663 | µg/mL | Gravimetric |
| | **CAS #** 100-44-7 | (Lot SHBH2102V) | | | +/- | 248.2646 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 254.4209 | µg/mL | Stressed |
| 33 | 1,4-Diethylbenzene | | 5,008.5 | µg/mL | +/- | 31.9458 | µg/mL | Gravimetric |
| | **CAS #** 105-05-5 | (Lot RLHJK) | | | +/- | 248.1055 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 254.2577 | µg/mL | Stressed |
| 34 | 1,2-Diethylbenzene | | 5,010.2 | µg/mL | +/- | 31.9567 | µg/mL | Gravimetric |
| | **CAS #** 135-01-3 | (Lot ECH2970181) | | | +/- | 248.1903 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 254.3447 | µg/mL | Stressed |
| 35 | 1,3,5-Trichlorobenzene | | 5,012.0 | µg/mL | +/- | 31.9684 | µg/mL | Gravimetric |
| | **CAS #** 108-70-3 | (Lot 11319AS) | | | +/- | 248.2811 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 254.4378 | µg/mL | Stressed |
| 36 | 2-Methylnaphthalene | | 5,009.0 | µg/mL | +/- | 31.9493 | µg/mL | Gravimetric |
| | **CAS #** 91-57-6 | (Lot STBG8884) | | | +/- | 248.1325 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 254.2855 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

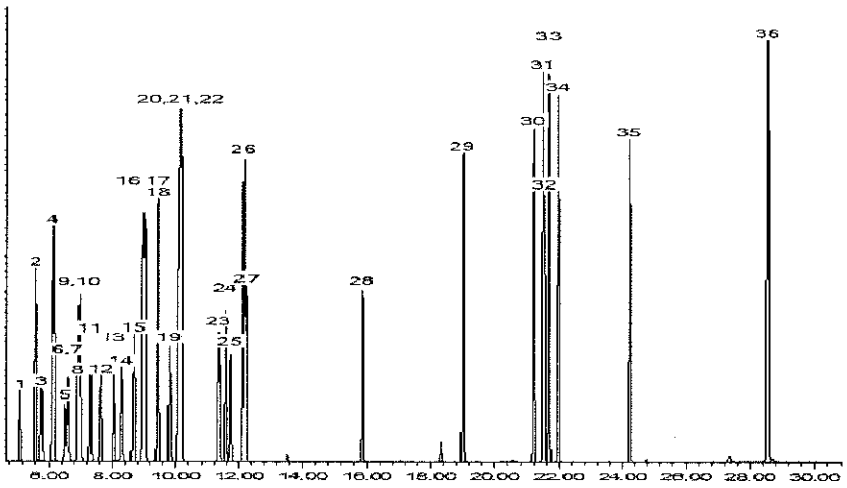
**Carrier Gas:**
hellum-constant pressure 30 psi

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Miranda Kline

Miranda Kline - Operations Technician I

**Date Mixed:** 05-May-2021 **Balance:** B251644995

Alexis Shelow - Operations Tech I

**Date Passed:** 11-May-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

# MSV_Q_Ketones_00019

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569721.SEC **Lot No.:** A0167987

**Description :** 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acetone | 12,567.5 µg/mL | +/- 73.5855 µg/mL | Gravimetric |
| | **CAS #** 67-64-1.SEC (Lot S25F025) | | +/- 758.3030 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 760.1031 µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,553.0 µg/mL | +/- 73.5006 µg/mL | Gravimetric |
| | **CAS #** 78-93-3.SEC (Lot RGZ2A) | | +/- 757.4280 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 759.2261 µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,563.5 µg/mL | +/- 73.5621 µg/mL | Gravimetric |
| | **CAS #** 108-10-1.SEC (Lot E29T040) | | +/- 758.0616 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 759.8611 µg/mL | Stressed |
| 4 | 2-Hexanone | 12,527.8 µg/mL | +/- 73.3532 µg/mL | Gravimetric |
| | **CAS #** 591-78-6.SEC (Lot Y3TUO) | | +/- 755.9093 µg/mL | Unstressed |
| | **Purity** 98% | | +/- 757.7037 µg/mL | Stressed |

**Solvent:** P&T Methanol/Water (90:10)
**CAS #** 67-56-1/7732-18-5
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

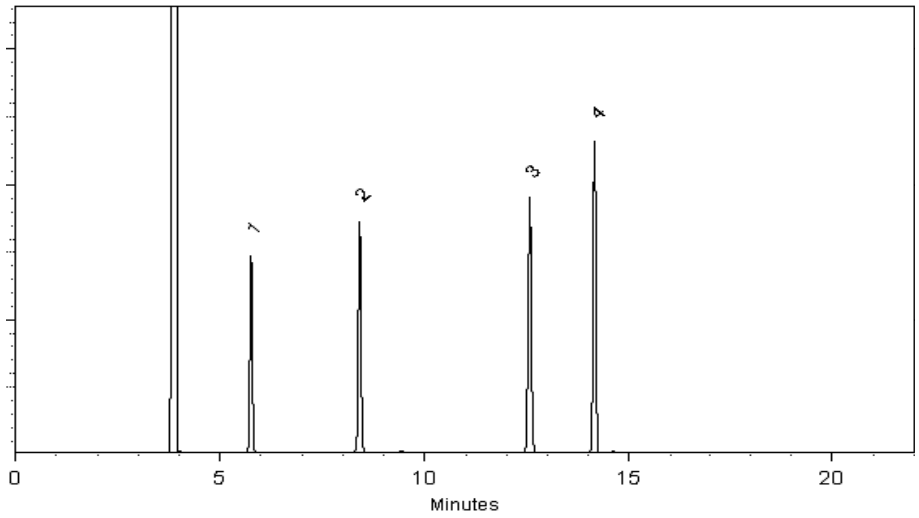
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cory Meyer - Operations Tech I

**Date Mixed:** 11-Jan-2021 **Balance:** 1127510105

Marlina Cowan - Operations Tech I

**Date Passed:** 14-Jan-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
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| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

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Reagent

# MSV_Q_Ketones_00021

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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**Catalog No. :** 569721.SEC **Lot No.:** A0167987

**Description :** 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acetone | 12,567.5 µg/mL | +/- 73.5855 µg/mL | Gravimetric |
| | **CAS #** 67-64-1.SEC (Lot S25F025) | | +/- 758.3030 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 760.1031 µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,553.0 µg/mL | +/- 73.5006 µg/mL | Gravimetric |
| | **CAS #** 78-93-3.SEC (Lot RGZ2A) | | +/- 757.4280 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 759.2261 µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,563.5 µg/mL | +/- 73.5621 µg/mL | Gravimetric |
| | **CAS #** 108-10-1.SEC (Lot E29T040) | | +/- 758.0616 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 759.8611 µg/mL | Stressed |
| 4 | 2-Hexanone | 12,527.8 µg/mL | +/- 73.3532 µg/mL | Gravimetric |
| | **CAS #** 591-78-6.SEC (Lot Y3TUO) | | +/- 755.9093 µg/mL | Unstressed |
| | **Purity** 98% | | +/- 757.7037 µg/mL | Stressed |

**Solvent:** P&T Methanol/Water (90:10)
**CAS #** 67-56-1/7732-18-5
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

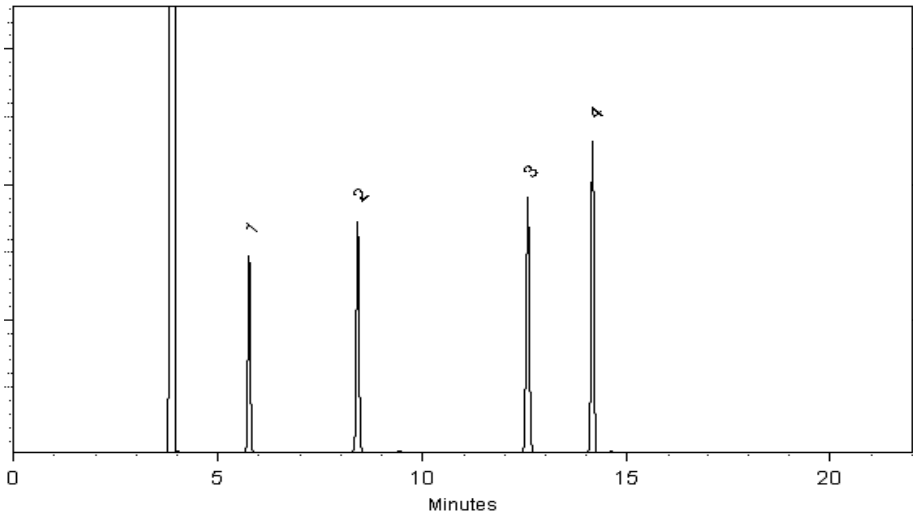
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cory Meyer - Operations Tech I

**Date Mixed:** 11-Jan-2021 **Balance:** 1127510105

Marlina Cowan - Operations Tech I

**Date Passed:** 14-Jan-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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**Certified Uncertainty Value Notes:**

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| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
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**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

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# Reagent

# MSV_QC_2K_GAS_00030

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577488.SEC **Lot No.:** A0172021

**Description :** Custom Gases.SEC Standard

Custom Gases.SEC Standard 2,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,014.7 µg/mL | +/- 21.3347 µg/mL | Gravimetric |
| | **CAS #** 75-71-8.SEC (Lot 26871) | | +/- 114.3626 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 116.9742 µg/mL | Stressed |
| 2 | Chloromethane (methyl chloride) | 2,018.4 µg/mL | +/- 22.6573 µg/mL | Gravimetric |
| | **CAS #** 74-87-3.SEC (Lot 18343) | | +/- 114.8157 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 117.4265 µg/mL | Stressed |
| 3 | Vinyl chloride | 2,011.6 µg/mL | +/- 18.1502 µg/mL | Gravimetric |
| | **CAS #** 75-01-4.SEC (Lot MKBK6872V) | | +/- 113.6387 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 116.2584 µg/mL | Stressed |
| 4 | 1,3-Butadiene | 2,020.9 µg/mL | +/- 15.6985 µg/mL | Gravimetric |
| | **CAS #** 106-99-0.SEC (Lot 26996) | | +/- 113.7849 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 116.4253 µg/mL | Stressed |
| 5 | Bromomethane (methyl bromide) | 2,014.3 µg/mL | +/- 52.5641 µg/mL | Gravimetric |
| | **CAS #** 74-83-9.SEC (Lot 00017022) | | +/- 124.0186 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 126.4297 µg/mL | Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,009.7 µg/mL | +/- 28.6335 µg/mL | Gravimetric |
| | **CAS #** 75-00-3.SEC (Lot 00004202) | | +/- 115.6738 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 118.2437 µg/mL | Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,000.0 µg/mL | +/- 11.7371 µg/mL | Gravimetric |
| | **CAS #** 75-43-4 * (Lot 10930400) | | +/- 112.1494 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 114.7730 µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Trichlorofluoromethane (CFC-11) | | 2,010.6 | µg/mL | +/- | 32.3019 | µg/mL | Gravimetric |
| | **CAS #** 75-69-4.SEC | (Lot 253600) | | | +/- | 116.6827 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 119.2330 | µg/mL | Stressed |
| 9 | 1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a) | | 2,020.4 | µg/mL | +/- | 21.8150 | µg/mL | Gravimetric |
| | **CAS #** 354-23-4 * | (Lot Q9B-64) | | | +/- | 114.7647 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 117.3819 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

**Tech Tips:**
Raw material may contain trace amounts of tert-Butanol.

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

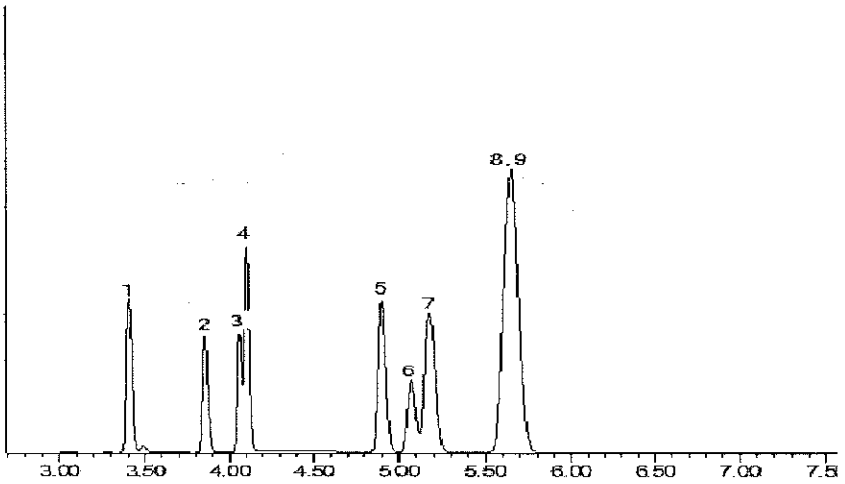
**Carrier Gas:**
helium-constant flow 2.0 mL/min.

**Temp. Program:**
40°C (hold 6 min.) to 100°C
@ 6°C/min.

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

**Date Mixed:** 04-May-2021 **Balance:** 1127510105

Alexis Shelow - Operations Tech I

**Date Passed:** 17-May-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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# Reagent

# MSV_QC_2K_GAS_00032

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577488.SEC **Lot No.:** A0172021

**Description :** Custom Gases.SEC Standard

Custom Gases.SEC Standard 2,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,014.7 µg/mL | +/- 21.3347 | µg/mL | Gravimetric |
| | **CAS #** 75-71-8.SEC (Lot 26871) | | +/- 114.3626 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 116.9742 | µg/mL | Stressed |
| 2 | Chloromethane (methyl chloride) | 2,018.4 µg/mL | +/- 22.6573 | µg/mL | Gravimetric |
| | **CAS #** 74-87-3.SEC (Lot 18343) | | +/- 114.8157 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 117.4265 | µg/mL | Stressed |
| 3 | Vinyl chloride | 2,011.6 µg/mL | +/- 18.1502 | µg/mL | Gravimetric |
| | **CAS #** 75-01-4.SEC (Lot MKBK6872V) | | +/- 113.6387 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 116.2584 | µg/mL | Stressed |
| 4 | 1,3-Butadiene | 2,020.9 µg/mL | +/- 15.6985 | µg/mL | Gravimetric |
| | **CAS #** 106-99-0.SEC (Lot 26996) | | +/- 113.7849 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 116.4253 | µg/mL | Stressed |
| 5 | Bromomethane (methyl bromide) | 2,014.3 µg/mL | +/- 52.5641 | µg/mL | Gravimetric |
| | **CAS #** 74-83-9.SEC (Lot 00017022) | | +/- 124.0186 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 126.4297 | µg/mL | Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,009.7 µg/mL | +/- 28.6335 | µg/mL | Gravimetric |
| | **CAS #** 75-00-3.SEC (Lot 00004202) | | +/- 115.6738 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 118.2437 | µg/mL | Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,000.0 µg/mL | +/- 11.7371 | µg/mL | Gravimetric |
| | **CAS #** 75-43-4 * (Lot 10930400) | | +/- 112.1494 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 114.7730 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Trichlorofluoromethane (CFC-11) | | 2,010.6 | µg/mL | +/- | 32.3019 | µg/mL | Gravimetric |
| | **CAS #** 75-69-4.SEC | (Lot 253600) | | | +/- | 116.6827 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 119.2330 | µg/mL | Stressed |
| 9 | 1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a) | | 2,020.4 | µg/mL | +/- | 21.8150 | µg/mL | Gravimetric |
| | **CAS #** 354-23-4 * | (Lot Q9B-64) | | | +/- | 114.7647 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 117.3819 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

**Tech Tips:**
Raw material may contain trace amounts of tert-Butanol.

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

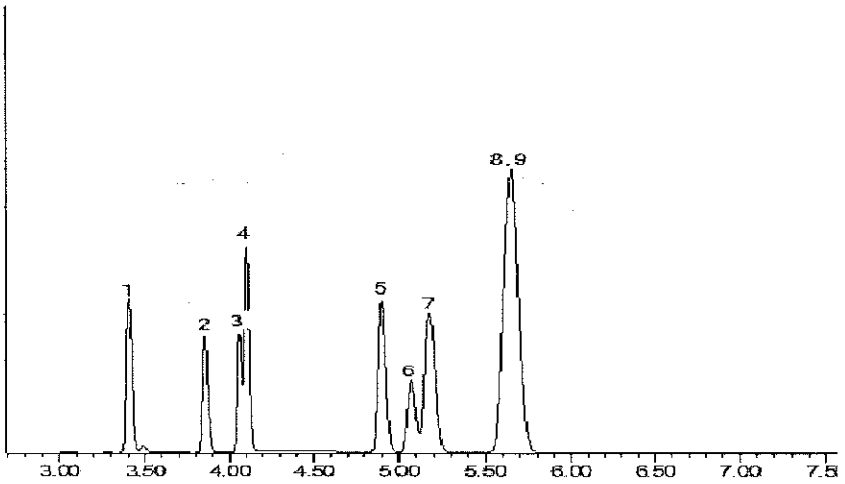
**Carrier Gas:**
helium-constant flow 2.0 mL/min.

**Temp. Program:**
40°C (hold 6 min.) to 100°C
@ 6°C/min.

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

**Date Mixed:** 04-May-2021 **Balance:** 1127510105

Alexis Shelow - Operations Tech I

**Date Passed:** 17-May-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# MSV_V#2B_00231

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# Certificate of Analysis

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 56734 **Lot No.:** A0171518

**Description :** Custom V # 2B Standard

Custom V #2B Standard 12,500-125,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2023 **Storage:** 0°C or colder

**Ship:** Ambient

| Elution Order | Compound | CAS # | Percent Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) |
|---|---|---|---|---|---|
| 1 | 2-Propanol (isopropanol) | 67-63-0 | 99% | 25,038.0 µg/mL | +/- 146.6030 µg/mL |
| 2 | tert-Butanol (TBA) | 75-65-0 | 99% | 25,047.0 µg/mL | +/- 146.6557 µg/mL |
| 3 | Propionitrile | 107-12-0 | 99% | 25,015.0 µg/mL | +/- 146.4683 µg/mL |
| 4 | Methacrylonitrile | 126-98-7 | 99% | 12,515.0 µg/mL | +/- 73.2781 µg/mL |
| 5 | Isobutanol (2-Methyl-1-propanol) | 78-83-1 | 99% | 62,529.0 µg/mL | +/- 366.1210 µg/mL |
| 6 | 1-Butanol | 71-36-3 | 99% | 125,072.0 µg/mL | +/- 732.2863 µg/mL |
| 7 | 1,4-Dioxane | 123-91-1 | 99% | 62,509.0 µg/mL | +/- 366.0039 µg/mL |
| 8 | trans-1,4-dichloro-2-butene | 110-57-6 | 95% | 12,504.9 µg/mL | +/- 73.2186 µg/mL |
| **Solvent:** | P&T Methanol | 67-56-1 | 99% | | |

**Specific Reference Material Notes:**

This RM (Reference Material) is not a CRM (Certified Reference Material) due to the 1-butanol concentration exceeding the maximum concentration on Restek's ISO Guide 34 scope of accreditation.

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

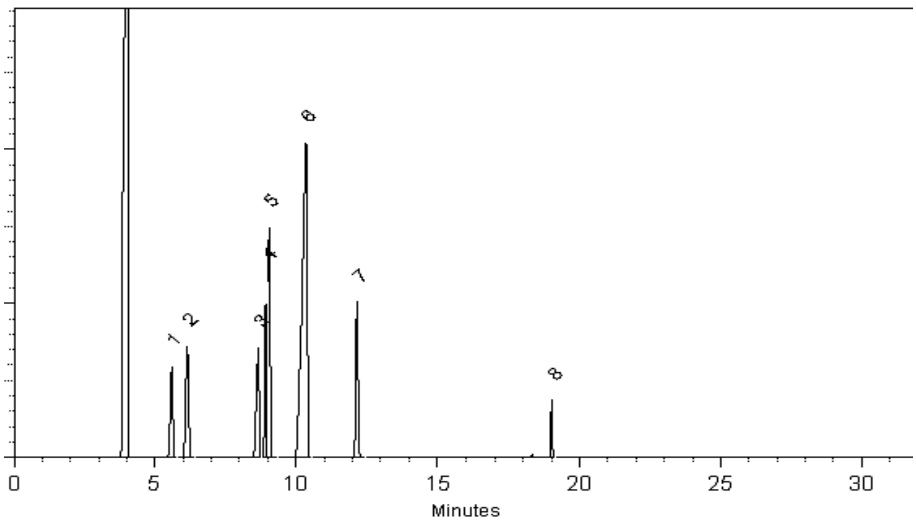
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Erik Strommer - Operations Tech I

**Date Mixed:** 20-Apr-2021 **Balance:** B707717271

Marlina Cowan - Operations Tech I

**Date Passed:** 23-Apr-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the RM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Uncertainty Value Notes:**

- Uncertainties are determined using data from balances and glassware, raw material purity, and, when significant, equipment tolerances or calibration results.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

# Reagent

# MSV_V_2CLEVE_00013

110 Benner Circle
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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577492 **Lot No.:** A0171422

**Description :** Custom 2-CEVE Standard

Custom 2-CEVE Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

**C E R T I F I E D V A L U E S**

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 2-Chloroethyl vinyl ether | 5,010.5 µg/mL | +/- 29.3376 µg/mL | Gravimetric |
| | **CAS #** 110-75-8 (Lot MKBS6526V) | | +/- 107.3316 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 110.4487 µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

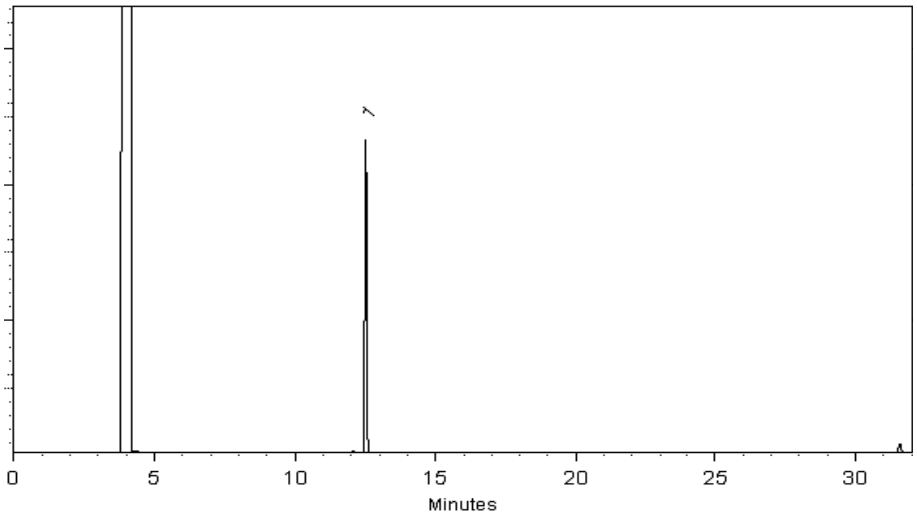
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

**Date Mixed:** 16-Apr-2021 **Balance:** 1128360905

Marlina Cowan - Operations Tech I

**Date Passed:** 26-Apr-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

# MSV_V_Acetate_00031

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 54590 **Lot No.:** A0165179

**Description :** Custom V Acetate Standard

Custom V Acetate Standard 2,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2022 **Storage:** -20°C or colder

**Handling:** This product is photosensitive. **Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Vinyl acetate | 2,012.0 µg/mL | +/- 11.9507 µg/mL | Gravimetric |
| | **CAS #** 108-05-4 (Lot RD200601) | | +/- 121.4175 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 121.7056 µg/mL | Stressed |
| 2 | Ethyl acetate | 2,010.0 µg/mL | +/- 11.9388 µg/mL | Gravimetric |
| | **CAS #** 141-78-6 (Lot SHBL1336) | | +/- 121.2968 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 121.5847 µg/mL | Stressed |
| 3 | Isopropyl acetate | 2,016.0 µg/mL | +/- 11.9744 µg/mL | Gravimetric |
| | **CAS #** 108-21-4 (Lot BCBZ4645) | | +/- 121.6589 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 121.9476 µg/mL | Stressed |
| 4 | Propyl acetate | 2,016.0 µg/mL | +/- 11.9744 µg/mL | Gravimetric |
| | **CAS #** 109-60-4 (Lot ZJZVG) | | +/- 121.6589 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 121.9476 µg/mL | Stressed |
| 5 | Butyl acetate | 2,016.0 µg/mL | +/- 11.9744 µg/mL | Gravimetric |
| | **CAS #** 123-86-4 (Lot SHBL9111) | | +/- 121.6589 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 121.9476 µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

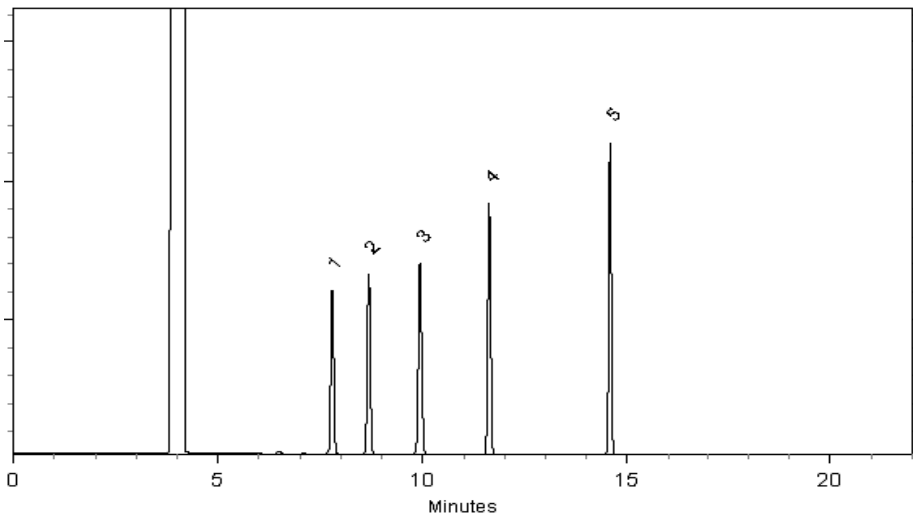
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

**Date Mixed:** 09-Oct-2020 **Balance:** B707717271

Marlina Cowan - Operations Tech I

**Date Passed:** 20-Oct-2020

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

# MSV_V_Ketones_00014

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569721 **Lot No.:** A0168313

**Description :** 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acetone | 12,516.4 µg/mL | +/- 73.2863 µg/mL | Gravimetric |
| | **CAS #** 67-64-1 (Lot SHBM6699) | | +/- 755.2197 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 757.0124 µg/mL | Stressed |
| 2 | 2-Butanone (MEK) | 12,515.2 µg/mL | +/- 73.2792 µg/mL | Gravimetric |
| | **CAS #** 78-93-3 (Lot SHBL6194) | | +/- 755.1473 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 756.9399 µg/mL | Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK) | 12,512.0 µg/mL | +/- 73.2605 µg/mL | Gravimetric |
| | **CAS #** 108-10-1 (Lot SHBM2797) | | +/- 754.9542 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 756.7463 µg/mL | Stressed |
| 4 | 2-Hexanone | 12,504.4 µg/mL | +/- 73.2160 µg/mL | Gravimetric |
| | **CAS #** 591-78-6 (Lot MKCL1599) | | +/- 754.4956 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 756.2867 µg/mL | Stressed |

**Solvent:** P&T Methanol/Water (90:10)
**CAS #** 67-56-1/7732-18-5
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

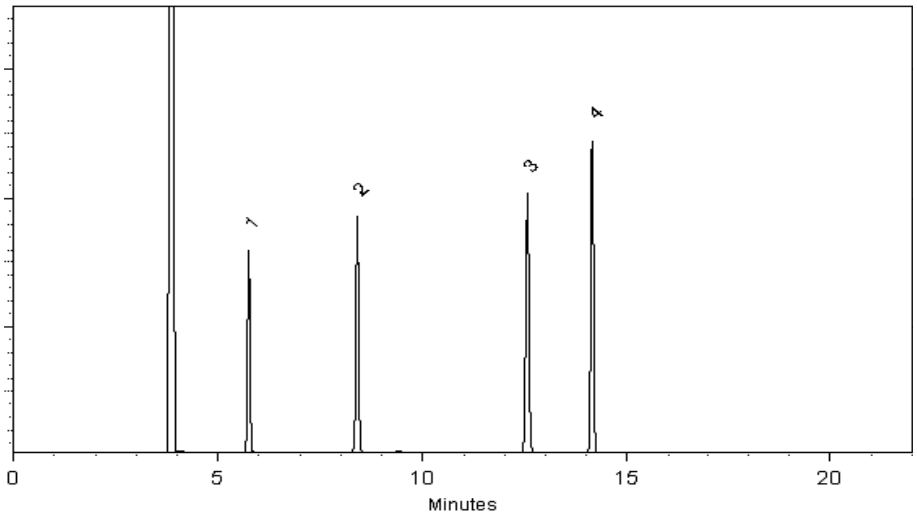
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis - Mix Technician

**Date Mixed:** 20-Jan-2021 **Balance:** B251644995

Alexis Shelow - Operations Tech I

**Date Passed:** 21-Jan-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

# MSV_V_PentaCL_00005

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577491 **Lot No.:** A0171341

**Description :** Custom Pentachloroethane Standard

Custom Pentachloroethane Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## C E R T I F I E D V A L U E S

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Pentachloroethane | 5,006.0 µg/mL | +/- 29.3780 µg/mL | Gravimetric |
| | **CAS #** 76-01-7 (Lot 10518800) | | +/- 280.7099 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 287.2768 µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

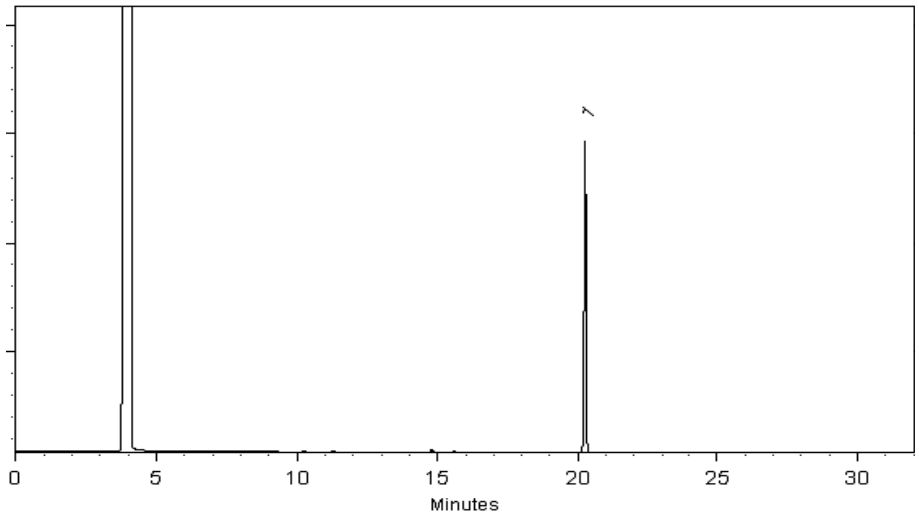
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jeremy Warefield - Operations Tech I

**Date Mixed:** 14-Apr-2021 **Balance:** 1127510105

Alexis Shelow - Operations Tech I

**Date Passed:** 19-Apr-2021

**Manufactured under Restek's ISO 9001:2015**
**Registered Quality System**
**Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

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

**Certified Uncertainty Value Notes:**

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

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

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# MSV_V_SMFreon_00001

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 577490 **Lot No.:** A0172146

**Description :** Custom SM Freons Standard

Custom SM Freons Standard 2,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Chlorotrifluoroethylene | 1,998.3 µg/mL | +/- 31.1209 µg/mL | Gravimetric |
| | **CAS #** 79-38-9 (Lot 199600) | | +/- 115.7047 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 118.2453 µg/mL | Stressed |
| 2 | Chlorodifluoromethane (CFC-22) | 2,003.6 µg/mL | +/- 77.8648 µg/mL | Gravimetric |
| | **CAS #** 75-45-6 (Lot Q162-44) | | +/- 136.1895 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 138.3658 µg/mL | Stressed |
| 3 | 2-Chloro-1,1,1-trifluoroethane (HCFC-133a) | 2,001.9 µg/mL | +/- 77.7991 µg/mL | Gravimetric |
| | **CAS #** 75-88-7 (Lot Q157-146) | | +/- 136.0747 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 138.2491 µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

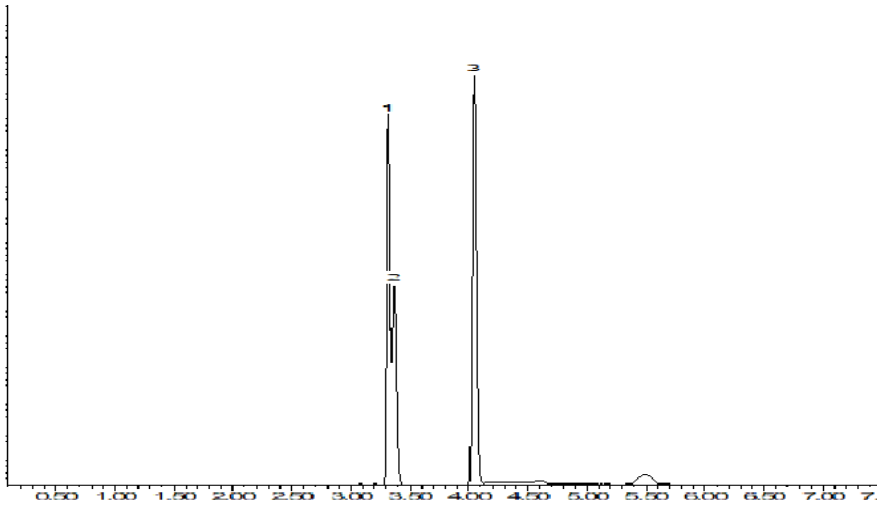
**Carrier Gas:**
helium-constant flow 2.0 mL/min.

**Temp. Program:**
40°C (hold 6 min.) to 100°C
@ 6°C/min.

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

**Date Mixed:** 07-May-2021 **Balance:** B251644995

Alexis Shelow - Operations Tech I

**Date Passed:** 10-May-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

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# Method 8260D Low Level

## Volatile Organic Compounds (GC/MS) by Method 8260D Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories  Job No.: 410-53151-1

SDG No.:

Matrix: Water  Level: Low

GC Column (1): R-624SilMS  ID: 0.25(mm)

| Client Sample ID | Lab Sample ID | DBFM # | DCA # | TOL # | BFB # |
|---|---|---|---|---|---|
| HD-COD-SW-6-0/1-0 | 410-53151-1 | 100 | 101 | 98 | 100 |
| HD-COD-SW-7-0/1-0 | 410-53151-2 | 99 | 101 | 98 | 99 |
| HD-COD-SW-8-0/1-0 | 410-53151-3 | 99 | 102 | 98 | 99 |
| HD-COD-SW-9-0/1-0 | 410-53151-4 | 99 | 99 | 98 | 99 |
| HD-COD-SW-13-0/1-0 | 410-53151-5 | 100 | 102 | 97 | 99 |
| HD-COD-SW-15-0/1-0 | 410-53151-6 | 100 | 101 | 98 | 99 |
| HD-COD-SW-16-0/1-0 | 410-53151-7 | 99 | 99 | 98 | 99 |
| HD-COD-SW-17-0/1-0 | 410-53151-8 | 100 | 102 | 98 | 100 |
| HD-COD-SW-26-0/1-0 | 410-53151-9 | 100 | 101 | 98 | 99 |
| HD-COD-SW-27-0/1-0 | 410-53151-10 | 100 | 102 | 98 | 99 |
| HD-COD-SW-28-0/1-0 | 410-53151-11 | 99 | 102 | 98 | 99 |
| HD-COD-SW-29-0/1-0 | 410-53151-12 | 99 | 100 | 98 | 98 |
| HD-QC1-0/1-1 | 410-53151-13 | 99 | 103 | 98 | 99 |
| HD-QC1-0/1-2 | 410-53151-14 | 100 | 100 | 97 | 99 |
| | MB 410-166762/7 | 99 | 99 | 98 | 99 |
| | LCS 410-166762/4 | 101 | 101 | 97 | 97 |
| HD-COD-SW-15-0/1-0 MS MS | 410-53151-6 MS | 100 | 100 | 97 | 98 |
| HD-COD-SW-15-0/1-0 MSD MSD | 410-53151-6 MSD | 101 | 101 | 98 | 98 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 80-120 |
| DCA = 1,2-Dichloroethane-d4 (Surr) | 80-120 |
| TOL = Toluene-d8 (Surr) | 80-120 |
| BFB = 4-Bromofluorobenzene (Surr) | 80-120 |

# Column to be used to flag recovery values

FORM II 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-53151-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IS01X04.D

Lab ID: LCS 410-166762/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 5.00 | 5.42 | 108 | 71-134 | |
| 1,1,1-Trichloroethane | 5.00 | 5.52 | 110 | 78-126 | |
| 1,1,2,2-Tetrachloroethane | 5.00 | 5.28 | 106 | 75-123 | |
| 1,1,2-Trichloroethane | 5.00 | 5.39 | 108 | 80-120 | |
| 1,1-Dichloroethane | 5.00 | 5.31 | 106 | 74-120 | |
| 1,1-Dichloroethene | 5.00 | 5.90 | 118 | 80-131 | |
| 1,2-Dibromoethane (EDB) | 5.00 | 5.29 | 106 | 80-120 | |
| 1,2-Dichloroethane | 5.00 | 5.13 | 103 | 69-122 | |
| 1,2-Dichloropropane | 5.00 | 5.55 | 111 | 80-120 | |
| 2-Butanone (MEK) | 62.5 | 57.7 | 92 | 59-141 | |
| 2-Hexanone | 62.5 | 60.8 | 97 | 52-140 | |
| 4-Methyl-2-pentanone (MIBK) | 62.5 | 58.0 | 93 | 55-140 | |
| Acetone | 62.5 | 55.1 | 88 | 60-146 | |
| Benzene | 5.00 | 5.53 | 111 | 80-120 | |
| Bromochloromethane | 5.00 | 5.70 | 114 | 80-120 | |
| Bromodichloromethane | 5.00 | 5.49 | 110 | 73-124 | |
| Bromoform | 5.00 | 5.37 | 107 | 49-144 | |
| Bromomethane | 5.00 | 5.36 | 107 | 60-136 | |
| Carbon disulfide | 5.00 | 5.39 | 108 | 67-130 | |
| Carbon tetrachloride | 5.00 | 5.66 | 113 | 64-141 | |
| Chlorobenzene | 5.00 | 5.37 | 107 | 80-120 | |
| Chloroethane | 5.00 | 5.28 | 106 | 63-120 | |
| Chloroform | 5.00 | 5.48 | 110 | 80-120 | |
| Chloromethane | 5.00 | 5.42 | 108 | 56-124 | |
| cis-1,2-Dichloroethene | 5.00 | 5.65 | 113 | 80-122 | |
| cis-1,3-Dichloropropene | 5.00 | 5.42 | 108 | 67-121 | |
| Dibromochloromethane | 5.00 | 5.34 | 107 | 64-138 | |
| Ethylbenzene | 5.00 | 5.33 | 107 | 80-120 | |
| Methyl tert-butyl ether | 5.00 | 5.45 | 109 | 69-120 | |
| Methylene Chloride | 5.00 | 5.60 | 112 | 80-120 | |
| Styrene | 5.00 | 5.45 | 109 | 80-120 | |
| Tetrachloroethene | 5.00 | 5.50 | 110 | 80-120 | |
| Toluene | 5.00 | 5.26 | 105 | 80-120 | |
| trans-1,2-Dichloroethene | 5.00 | 5.53 | 111 | 80-122 | |
| trans-1,3-Dichloropropene | 5.00 | 5.37 | 107 | 61-129 | |
| Trichloroethene | 5.00 | 5.48 | 110 | 80-120 | |
| Vinyl chloride | 5.00 | 5.34 | 107 | 60-125 | |
| Xylenes, Total | 15.0 | 16.2 | 108 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-53151-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IS01X10.D

Lab ID: 410-53151-6 MS Client ID: HD-COD-SW-15-0/1-0 MS MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 5.00 | ND | 5.44 | 109 | 71-134 | |
| 1,1,1-Trichloroethane | 5.00 | 0.19 J | 5.99 | 116 | 78-126 | |
| 1,1,2,2-Tetrachloroethane | 5.00 | ND | 5.11 | 102 | 75-123 | |
| 1,1,2-Trichloroethane | 5.00 | ND | 5.27 | 105 | 80-120 | |
| 1,1-Dichloroethane | 5.00 | 0.095 J | 5.62 | 110 | 74-120 | |
| 1,1-Dichloroethene | 5.00 | 0.13 J | 6.48 | 127 | 80-131 | |
| 1,2-Dibromoethane (EDB) | 5.00 | ND | 5.26 | 105 | 80-120 | |
| 1,2-Dichloroethane | 5.00 | ND | 5.30 | 106 | 69-122 | |
| 1,2-Dichloropropane | 5.00 | ND | 5.59 | 112 | 80-120 | |
| 2-Butanone (MEK) | 62.6 | ND | 55.6 | 89 | 59-141 | |
| 2-Hexanone | 62.6 | ND | 58.1 | 93 | 52-140 | |
| 4-Methyl-2-pentanone (MIBK) | 62.6 | ND | 56.4 | 90 | 55-140 | |
| Acetone | 62.6 | ND | 51.8 | 83 | 60-146 | |
| Benzene | 5.00 | ND | 5.67 | 113 | 80-120 | |
| Bromochloromethane | 5.00 | ND | 5.75 | 115 | 80-120 | |
| Bromodichloromethane | 5.00 | ND | 5.55 | 111 | 73-124 | |
| Bromoform | 5.00 | ND | 5.14 | 103 | 49-144 | |
| Bromomethane | 5.00 | ND | 5.59 | 112 | 60-136 | |
| Carbon disulfide | 5.00 | ND | 5.82 | 116 | 67-130 | |
| Carbon tetrachloride | 5.00 | ND | 6.02 | 120 | 64-141 | |
| Chlorobenzene | 5.00 | ND | 5.45 | 109 | 80-120 | |
| Chloroethane | 5.00 | ND | 5.61 | 112 | 63-120 | |
| Chloroform | 5.00 | 0.28 J | 5.87 | 112 | 80-120 | |
| Chloromethane | 5.00 | ND | 5.67 | 113 | 80-120 | |
| cis-1,2-Dichloroethene | 5.00 | 0.89 | 6.65 | 115 | 80-122 | |
| cis-1,3-Dichloropropene | 5.00 | ND | 5.37 | 107 | 67-121 | |
| Dibromochloromethane | 5.00 | ND | 5.24 | 105 | 64-138 | |
| Ethylbenzene | 5.00 | ND | 5.49 | 110 | 80-120 | |
| Methyl tert-butyl ether | 5.00 | ND | 5.39 | 108 | 69-120 | |
| Methylene Chloride | 5.00 | ND | 5.67 | 113 | 80-120 | |
| Styrene | 5.00 | ND | 5.48 | 110 | 80-120 | |
| Tetrachloroethene | 5.00 | 3.3 | 9.01 | 114 | 80-120 | |
| Toluene | 5.00 | ND | 5.47 | 109 | 80-120 | |
| trans-1,2-Dichloroethene | 5.00 | ND | 5.74 | 115 | 80-122 | |
| trans-1,3-Dichloropropene | 5.00 | ND | 5.23 | 104 | 61-129 | |
| Trichloroethene | 5.00 | 1.1 | 6.82 | 115 | 80-120 | |
| Vinyl chloride | 5.00 | ND | 5.83 | 116 | 60-125 | |
| Xylenes, Total | 15.0 | ND | 16.6 | 110 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-53151-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IS01X11.D

Lab ID: 410-53151-6 MSD Client ID: HD-COD-SW-15-0/1-0 MSD MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 5.00 | 5.66 | 113 | 4 | 30 | 71-134 | |
| 1,1,1-Trichloroethane | 5.00 | 6.18 | 120 | 3 | 30 | 78-126 | |
| 1,1,2,2-Tetrachloroethane | 5.00 | 5.38 | 108 | 5 | 30 | 75-123 | |
| 1,1,2-Trichloroethane | 5.00 | 5.50 | 110 | 4 | 30 | 80-120 | |
| 1,1-Dichloroethane | 5.00 | 5.90 | 116 | 5 | 30 | 74-120 | |
| 1,1-Dichloroethene | 5.00 | 6.77 | 133 | 4 | 30 | 80-131 | FH |
| 1,2-Dibromoethane (EDB) | 5.00 | 5.47 | 109 | 4 | 30 | 80-120 | |
| 1,2-Dichloroethane | 5.00 | 5.37 | 107 | 1 | 30 | 69-122 | |
| 1,2-Dichloropropane | 5.00 | 5.79 | 116 | 4 | 30 | 80-120 | |
| 2-Butanone (MEK) | 62.6 | 60.1 | 96 | 8 | 30 | 59-141 | |
| 2-Hexanone | 62.6 | 61.7 | 99 | 6 | 30 | 52-140 | |
| 4-Methyl-2-pentanone (MIBK) | 62.6 | 60.4 | 97 | 7 | 30 | 55-140 | |
| Acetone | 62.6 | 56.3 | 90 | 8 | 30 | 60-146 | |
| Benzene | 5.00 | 5.89 | 118 | 4 | 30 | 80-120 | |
| Bromochloromethane | 5.00 | 6.04 | 121 | 5 | 30 | 80-120 | FH |
| Bromodichloromethane | 5.00 | 5.77 | 115 | 4 | 30 | 73-124 | |
| Bromoform | 5.00 | 5.37 | 107 | 4 | 30 | 49-144 | |
| Bromomethane | 5.00 | 5.43 | 109 | 3 | 30 | 60-136 | |
| Carbon disulfide | 5.00 | 6.18 | 124 | 6 | 30 | 67-130 | |
| Carbon tetrachloride | 5.00 | 6.28 | 125 | 4 | 30 | 64-141 | |
| Chlorobenzene | 5.00 | 5.67 | 113 | 4 | 30 | 80-120 | |
| Chloroethane | 5.00 | 5.38 | 108 | 4 | 30 | 63-120 | |
| Chloroform | 5.00 | 6.04 | 115 | 3 | 30 | 80-120 | |
| Chloromethane | 5.00 | 5.66 | 113 | 0 | 30 | 80-120 | |
| cis-1,2-Dichloroethene | 5.00 | 6.87 | 119 | 3 | 30 | 80-122 | |
| cis-1,3-Dichloropropene | 5.00 | 5.56 | 111 | 4 | 30 | 67-121 | |
| Dibromochloromethane | 5.00 | 5.44 | 109 | 4 | 30 | 64-138 | |
| Ethylbenzene | 5.00 | 5.72 | 114 | 4 | 30 | 80-120 | |
| Methyl tert-butyl ether | 5.00 | 5.51 | 110 | 2 | 30 | 69-120 | |
| Methylene Chloride | 5.00 | 5.82 | 116 | 3 | 30 | 80-120 | |
| Styrene | 5.00 | 5.69 | 114 | 4 | 30 | 80-120 | |
| Tetrachloroethene | 5.00 | 9.50 | 124 | 5 | 30 | 80-120 | FH |
| Toluene | 5.00 | 5.65 | 113 | 3 | 30 | 80-120 | |
| trans-1,2-Dichloroethene | 5.00 | 6.02 | 120 | 5 | 30 | 80-122 | |
| trans-1,3-Dichloropropene | 5.00 | 5.50 | 110 | 5 | 30 | 61-129 | |
| Trichloroethene | 5.00 | 7.10 | 120 | 4 | 30 | 80-120 | |
| Vinyl chloride | 5.00 | 5.69 | 114 | 2 | 30 | 60-125 | |
| Xylenes, Total | 15.0 | 17.1 | 114 | 4 | 30 | 80-120 | |

# Column to be used to flag recovery and RPD values

FORM III 8260D

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-53151-1

SDG No.:

Lab File ID: IS01X06.D Lab Sample ID: MB 410-166762/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 19930 Date Analyzed: 09/01/2021 10:58

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 410-166762/4 | IS01X04.D | 09/01/2021 10:16 |
| HD-QC1-0/1-2 | 410-53151-14 | IS01X08.D | 09/01/2021 11:41 |
| HD-COD-SW-15-0/1-0 | 410-53151-6 | IS01X09.D | 09/01/2021 12:02 |
| HD-COD-SW-15-0/1-0 MS MS | 410-53151-6 MS | IS01X10.D | 09/01/2021 12:23 |
| HD-COD-SW-15-0/1-0 MSD MSD | 410-53151-6 MSD | IS01X11.D | 09/01/2021 12:44 |
| HD-COD-SW-6-0/1-0 | 410-53151-1 | IS01X14.D | 09/01/2021 13:48 |
| HD-COD-SW-7-0/1-0 | 410-53151-2 | IS01X15.D | 09/01/2021 14:09 |
| HD-COD-SW-8-0/1-0 | 410-53151-3 | IS01X16.D | 09/01/2021 14:30 |
| HD-COD-SW-9-0/1-0 | 410-53151-4 | IS01X17.D | 09/01/2021 14:51 |
| HD-COD-SW-13-0/1-0 | 410-53151-5 | IS01X18.D | 09/01/2021 15:12 |
| HD-COD-SW-16-0/1-0 | 410-53151-7 | IS01X19.D | 09/01/2021 15:34 |
| HD-COD-SW-17-0/1-0 | 410-53151-8 | IS01X20.D | 09/01/2021 15:55 |
| HD-COD-SW-26-0/1-0 | 410-53151-9 | IS01X21.D | 09/01/2021 16:16 |
| HD-COD-SW-27-0/1-0 | 410-53151-10 | IS01X22.D | 09/01/2021 16:37 |
| HD-COD-SW-28-0/1-0 | 410-53151-11 | IS01X23.D | 09/01/2021 16:59 |
| HD-COD-SW-29-0/1-0 | 410-53151-12 | IS01X24.D | 09/01/2021 17:20 |
| HD-QC1-0/1-1 | 410-53151-13 | IS01X25.D | 09/01/2021 17:41 |

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

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Lab File ID: IG23T01.D  BFB Injection Date: 08/23/2021

Instrument ID: 19930  BFB Injection Time: 20:56

Analysis Batch No.: 163707

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 16.7 | |
| 75 | 30.0 - 60.0 % of mass 95 | 46.5 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.9 | |
| 173 | Less than 2.0 % of mass 174 | 1.1 | (1.2) 1 |
| 174 | Greater than 50% of mass 95 | 92.2 | |
| 175 | 5.0 - 9.0 % of mass 174 | 7.2 | (7.8) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 87.7 | (95.2) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.6 | (6.4) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | IC 410-163707/3 | IG23I11.D | 08/23/2021 | 21:31 |
| | IC 410-163707/4 | IG23I12.D | 08/23/2021 | 21:52 |
| | IC 410-163707/5 | IG23I13.D | 08/23/2021 | 22:14 |
| | IC 410-163707/6 | IG23I14.D | 08/23/2021 | 22:35 |
| | IC 410-163707/7 | IG23I15.D | 08/23/2021 | 22:57 |
| | IC 410-163707/8 | IG23I16.D | 08/23/2021 | 23:18 |
| | IC 410-163707/9 | IG23I17.D | 08/23/2021 | 23:40 |
| | IC 410-163707/12 | IG23I01.D | 08/24/2021 | 0:45 |
| | ICIS 410-163707/13 | IG23I02.D | 08/24/2021 | 1:06 |
| | IC 410-163707/14 | IG23I03.D | 08/24/2021 | 1:27 |
| | IC 410-163707/15 | IG23I04.D | 08/24/2021 | 1:48 |
| | IC 410-163707/16 | IG23I05.D | 08/24/2021 | 2:09 |
| | IC 410-163707/17 | IG23I06.D | 08/24/2021 | 2:30 |
| | IC 410-163707/18 | IG23I07.D | 08/24/2021 | 2:52 |
| | ICV 410-163707/19 | IG23V01.D | 08/24/2021 | 3:13 |

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

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Lab File ID: IS01T01.D  BFB Injection Date: 09/01/2021

Instrument ID: 19930  BFB Injection Time: 08:46

Analysis Batch No.: 166762

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 15.3 |
| 75 | 30.0 - 60.0 % of mass 95 | 46.0 |
| 95 | Base Peak, 100% relative abundance | 100.0 |
| 96 | 5.0 - 9.0 % of mass 95 | 6.7 |
| 173 | Less than 2.0 % of mass 174 | 1.2 (1.2) 1 |
| 174 | Greater than 50% of mass 95 | 94.3 |
| 175 | 5.0 - 9.0 % of mass 174 | 6.9 (7.3) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 91.9 (97.4) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.1 (6.6) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCVIS 410-166762/3 | IS01X02.D | 09/01/2021 | 9:33 |
| | LCS 410-166762/4 | IS01X04.D | 09/01/2021 | 10:16 |
| | MB 410-166762/7 | IS01X06.D | 09/01/2021 | 10:58 |
| HD-QC1-0/1-2 | 410-53151-14 | IS01X08.D | 09/01/2021 | 11:41 |
| HD-COD-SW-15-0/1-0 | 410-53151-6 | IS01X09.D | 09/01/2021 | 12:02 |
| HD-COD-SW-15-0/1-0 MS MS | 410-53151-6 MS | IS01X10.D | 09/01/2021 | 12:23 |
| HD-COD-SW-15-0/1-0 MSD MSD | 410-53151-6 MSD | IS01X11.D | 09/01/2021 | 12:44 |
| HD-COD-SW-6-0/1-0 | 410-53151-1 | IS01X14.D | 09/01/2021 | 13:48 |
| HD-COD-SW-7-0/1-0 | 410-53151-2 | IS01X15.D | 09/01/2021 | 14:09 |
| HD-COD-SW-8-0/1-0 | 410-53151-3 | IS01X16.D | 09/01/2021 | 14:30 |
| HD-COD-SW-9-0/1-0 | 410-53151-4 | IS01X17.D | 09/01/2021 | 14:51 |
| HD-COD-SW-13-0/1-0 | 410-53151-5 | IS01X18.D | 09/01/2021 | 15:12 |
| HD-COD-SW-16-0/1-0 | 410-53151-7 | IS01X19.D | 09/01/2021 | 15:34 |
| HD-COD-SW-17-0/1-0 | 410-53151-8 | IS01X20.D | 09/01/2021 | 15:55 |
| HD-COD-SW-26-0/1-0 | 410-53151-9 | IS01X21.D | 09/01/2021 | 16:16 |
| HD-COD-SW-27-0/1-0 | 410-53151-10 | IS01X22.D | 09/01/2021 | 16:37 |
| HD-COD-SW-28-0/1-0 | 410-53151-11 | IS01X23.D | 09/01/2021 | 16:59 |
| HD-COD-SW-29-0/1-0 | 410-53151-12 | IS01X24.D | 09/01/2021 | 17:20 |
| HD-QC1-0/1-1 | 410-53151-13 | IS01X25.D | 09/01/2021 | 17:41 |

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

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Sample No.: ICIS 410-163707/13  Date Analyzed: 08/24/2021 01:06

Instrument ID: 19930  GC Column: R-624SilMS 30m  ID: 0.25(mm)

Lab File ID (Standard): IG23I02.D  Heated Purge: (Y/N) N

Calibration ID: 29976

| | | TBAd10 | | FB | | CBZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 165205 | 4.27 | 2122537 | 7.74 | 1640634 | 11.18 |
| UPPER LIMIT | | 330410 | 4.77 | 4245074 | 8.24 | 3281268 | 11.68 |
| LOWER LIMIT | | 82603 | 3.77 | 1061269 | 7.24 | 820317 | 10.68 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 410-163707/19 | | 170769 | 4.26 | 2182088 | 7.74 | 1693972 | 11.18 |
| CCVIS 410-166762/3 | | 206126 | 4.25 | 2356249 | 7.73 | 1873355 | 11.18 |

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

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 8260D

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

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Sample No.: ICIS 410-163707/13  Date Analyzed: 08/24/2021 01:06

Instrument ID: 19930  GC Column: R-624SilMS 30m  ID: 0.25(mm)

Lab File ID (Standard): IG23I02.D  Heated Purge: (Y/N) N

Calibration ID: 29976

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| INITIAL CALIBRATION MID-POINT | | 963407 | 13.06 | | | | |
| UPPER LIMIT | | 1926814 | 13.56 | | | | |
| LOWER LIMIT | | 481704 | 12.56 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 410-163707/19 | | 994893 | 13.06 | | | | |
| CCVIS 410-166762/3 | | 1105410 | 13.06 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

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 8260D

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

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Sample No.: CCVIS 410-166762/3  Date Analyzed: 09/01/2021 09:33

Instrument ID: 19930  GC Column: R-624SilMS 30m  ID: 0.25(mm)

Lab File ID (Standard): IS01X02.D  Heated Purge: (Y/N) N

Calibration ID: 29976

| | | TBAd10 | | FB | | CBZd5 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 206126 | 4.25 | 2356249 | 7.73 | 1873355 | 11.18 |
| UPPER LIMIT | | 412252 | 4.75 | 4712498 | 8.23 | 3746710 | 11.68 |
| LOWER LIMIT | | 103063 | 3.75 | 1178125 | 7.23 | 936678 | 10.68 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| LCS 410-166762/4 | | 187044 | 4.27 | 2222286 | 7.74 | 1784573 | 11.18 |
| MB 410-166762/7 | | 203215 | 4.28 | 2393428 | 7.74 | 1881472 | 11.18 |
| 410-53151-14 | HD-QC1-0/1-2 | 198603 | 4.26 | 2291817 | 7.74 | 1816347 | 11.18 |
| 410-53151-6 | HD-COD-SW-15-0/1-0 | 179341 | 4.26 | 2285238 | 7.74 | 1804155 | 11.18 |
| 410-53151-6 MS | HD-COD-SW-15-0/1-0 MS MS | 189019 | 4.26 | 2240398 | 7.74 | 1783570 | 11.18 |
| 410-53151-6 MSD | HD-COD-SW-15-0/1-0 MSD MSD | 177085 | 4.27 | 2208810 | 7.74 | 1751440 | 11.18 |
| 410-53151-1 | HD-COD-SW-6-0/1-0 | 199572 | 4.26 | 2338937 | 7.73 | 1850342 | 11.18 |
| 410-53151-2 | HD-COD-SW-7-0/1-0 | 196565 | 4.25 | 2253950 | 7.74 | 1775656 | 11.18 |
| 410-53151-3 | HD-COD-SW-8-0/1-0 | 199210 | 4.26 | 2259962 | 7.74 | 1787305 | 11.18 |
| 410-53151-4 | HD-COD-SW-9-0/1-0 | 205426 | 4.25 | 2273199 | 7.73 | 1788070 | 11.18 |
| 410-53151-5 | HD-COD-SW-13-0/1-0 | 205473 | 4.26 | 2251196 | 7.74 | 1794638 | 11.18 |
| 410-53151-7 | HD-COD-SW-16-0/1-0 | 207346 | 4.28 | 2293990 | 7.74 | 1814483 | 11.18 |
| 410-53151-8 | HD-COD-SW-17-0/1-0 | 197104 | 4.26 | 2423279 | 7.73 | 1914383 | 11.18 |
| 410-53151-9 | HD-COD-SW-26-0/1-0 | 190180 | 4.26 | 2211980 | 7.74 | 1752979 | 11.18 |
| 410-53151-10 | HD-COD-SW-27-0/1-0 | 204598 | 4.26 | 2234788 | 7.74 | 1768879 | 11.18 |
| 410-53151-11 | HD-COD-SW-28-0/1-0 | 217472 | 4.26 | 2290117 | 7.74 | 1812391 | 11.18 |
| 410-53151-12 | HD-COD-SW-29-0/1-0 | 199136 | 4.26 | 2233498 | 7.74 | 1760921 | 11.18 |
| 410-53151-13 | HD-QC1-0/1-1 | 168317 | 4.26 | 2222050 | 7.74 | 1759354 | 11.18 |

TBAd10 = t-Butyl alcohol-d10 (IS)
TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
FB = Fluorobenzene (IS)
Area Limit = 50%-200% of internal standard area
CBZd5 = Chlorobenzene-d5 (IS)
RT Limit = ± 0.5 minutes of internal standard RT
CBZd5 = Chlorobenzene-d5 (IS)

# Column used to flag values outside QC limits

FORM VIII 8260D

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

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Sample No.: CCVIS 410-166762/3  Date Analyzed: 09/01/2021 09:33

Instrument ID: 19930  GC Column: R-624SilMS 30m  ID: 0.25(mm)

Lab File ID (Standard): IS01X02.D  Heated Purge: (Y/N) N

Calibration ID: 29976

| | | DCBd4 | | | | | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | # | RT # | # | RT # |
| 12/24 HOUR STD | | 1105410 | 13.06 | | | | |
| UPPER LIMIT | | 2210820 | 13.56 | | | | |
| LOWER LIMIT | | 552705 | 12.56 | | | | |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| LCS 410-166762/4 | | 1051411 | 13.06 | | | | |
| MB 410-166762/7 | | 1129540 | 13.06 | | | | |
| 410-53151-14 | HD-QC1-0/1-2 | 1089219 | 13.06 | | | | |
| 410-53151-6 | HD-COD-SW-15-0/1-0 | 1085454 | 13.06 | | | | |
| 410-53151-6 MS | HD-COD-SW-15-0/1-0 MS MS | 1050529 | 13.06 | | | | |
| 410-53151-6 MSD | HD-COD-SW-15-0/1-0 MSD MSD | 1036326 | 13.06 | | | | |
| 410-53151-1 | HD-COD-SW-6-0/1-0 | 1116948 | 13.06 | | | | |
| 410-53151-2 | HD-COD-SW-7-0/1-0 | 1066653 | 13.06 | | | | |
| 410-53151-3 | HD-COD-SW-8-0/1-0 | 1070891 | 13.06 | | | | |
| 410-53151-4 | HD-COD-SW-9-0/1-0 | 1078070 | 13.06 | | | | |
| 410-53151-5 | HD-COD-SW-13-0/1-0 | 1074671 | 13.06 | | | | |
| 410-53151-7 | HD-COD-SW-16-0/1-0 | 1082774 | 13.06 | | | | |
| 410-53151-8 | HD-COD-SW-17-0/1-0 | 1152891 | 13.06 | | | | |
| 410-53151-9 | HD-COD-SW-26-0/1-0 | 1058630 | 13.06 | | | | |
| 410-53151-10 | HD-COD-SW-27-0/1-0 | 1055396 | 13.06 | | | | |
| 410-53151-11 | HD-COD-SW-28-0/1-0 | 1100236 | 13.06 | | | | |
| 410-53151-12 | HD-COD-SW-29-0/1-0 | 1051930 | 13.06 | | | | |
| 410-53151-13 | HD-QC1-0/1-1 | 1048572 | 13.06 | | | | |

DCBd4 = 1,4-Dichlorobenzene-d4

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 8260D

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0  Lab Sample ID: 410-53151-1

Matrix: Water  Lab File ID: IS01X14.D

Analysis Method: 8260D  Date Collected: 08/26/2021 11:00

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 13:48

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 1.5 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.14 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.12 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0  Lab Sample ID: 410-53151-1

Matrix: Water  Lab File ID: IS01X14.D

Analysis Method: 8260D  Date Collected: 08/26/2021 11:00

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 13:48

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 101 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X14.D
Lims ID: 410-53151-A-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 13:48:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-015
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:52:14

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 4 Chloromethane | 50 | 2.172 | 2.178 | -0.006 | 96 | 3235 | 0.0388 | |
| | 5 Vinyl chloride | 62 | | 2.294 | | | | ND | 7 |
| | 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| | 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| | 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| | 15 Acetone | 43 | 3.605 | 3.599 | 0.007 | 94 | 16181 | 1.46 | |
| | 19 Carbon disulfide | 76 | | 3.879 | | | | ND | 7 |
| | 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * | 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.251 | 0.012 | 22 | 199572 | 50.0 | |
| | 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| | 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| | 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| | 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| | 37 cis-1,2-Dichloroethene | 96 | 6.165 | 6.153 | 0.012 | 77 | 10124 | 0.1433 | |
| | 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| | 45 Chloroform | 83 | 6.647 | 6.634 | 0.013 | 91 | 10022 | 0.0879 | |
| $ | 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.842 | 0.006 | 94 | 586883 | 9.96 | |
| | 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| | 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ | 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 119571 | 10.1 | |
| | 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| | 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * | 58 Fluorobenzene (IS) | 96 | 7.732 | 7.732 | 0.000 | 99 | 2338937 | 10.0 | |
| | 61 Trichloroethene | 95 | 8.220 | 8.213 | 0.007 | 94 | 8570 | 0.1213 | |
| | 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| | 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | |
| | 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| | 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ | 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2350976 | 9.83 | |
| | 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 99 | 8031 | 0.0453 | |
| | 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| | 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 95 | 4782 | 0.0566 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | 7 |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1850342 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | | 11.408 | | | | ND | 7 |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | 7 |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 910719 | 9.97 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1116948 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

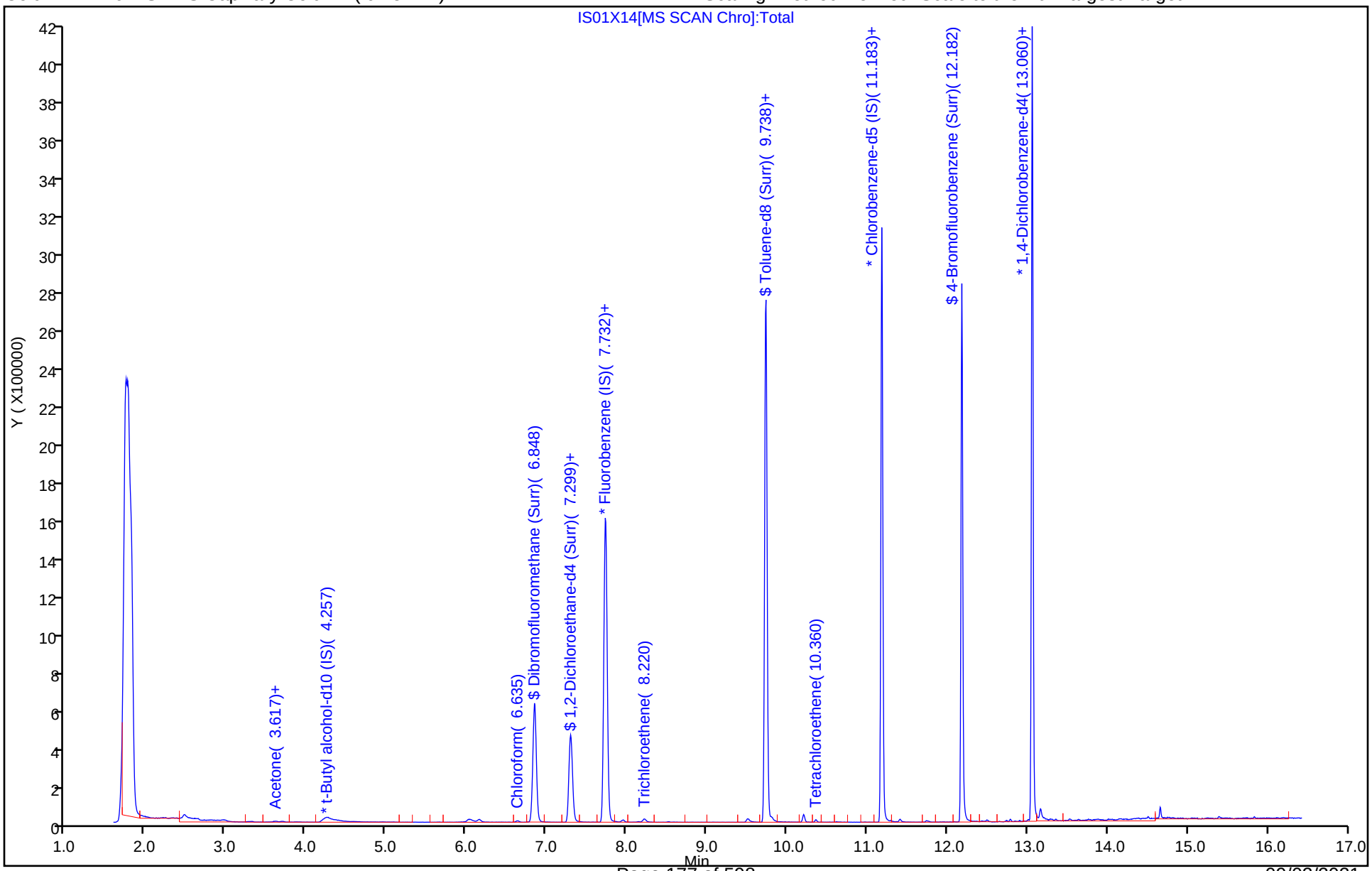
Report Date: 01-Sep-2021 20:57:50 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X14.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 13:48:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-1 | Lab Sample ID: | 410-53151-1 | Worklist Smp#: | 15 |
| Client ID: | HD-COD-SW-6-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X14.D | | | | |
| Lims ID: | 410-53151-A-1 | | | | |
| Client ID: | HD-COD-SW-6-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 13:48:30 | ALS Bottle#: | 14 | Worklist Smp#: | 15 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-015 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

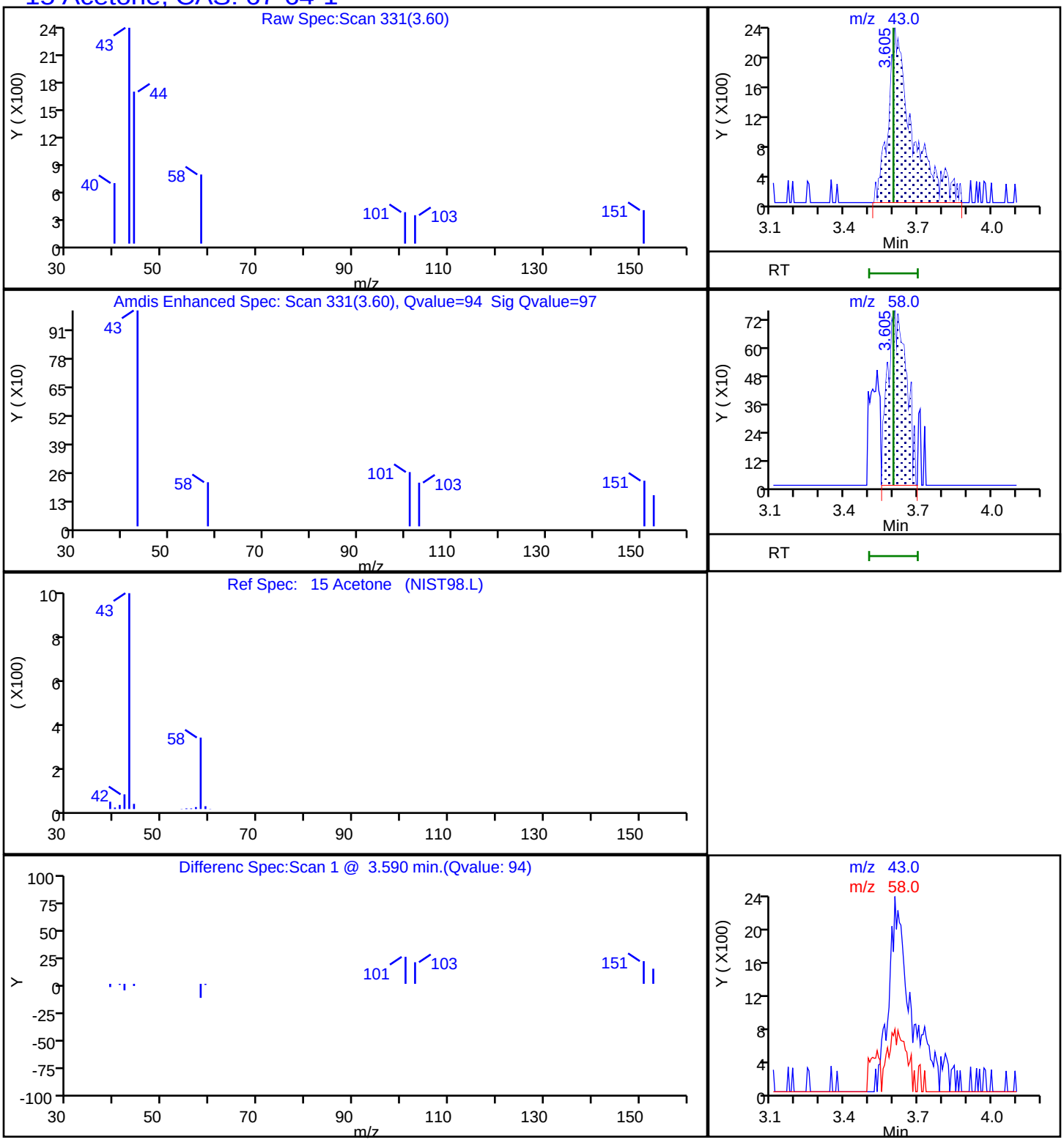
First Level Reviewer: campbellme Date: 01-Sep-2021 20:52:14

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.96 | 99.61 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.1 | 101.44 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.83 | 98.32 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.97 | 99.65 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X14.D | | | | |
| Injection Date: | 01-Sep-2021 13:48:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-1 | Lab Sample ID: | 410-53151-1 | | |
| Client ID: | HD-COD-SW-6-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 14 | Worklist Smp#: | 15 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

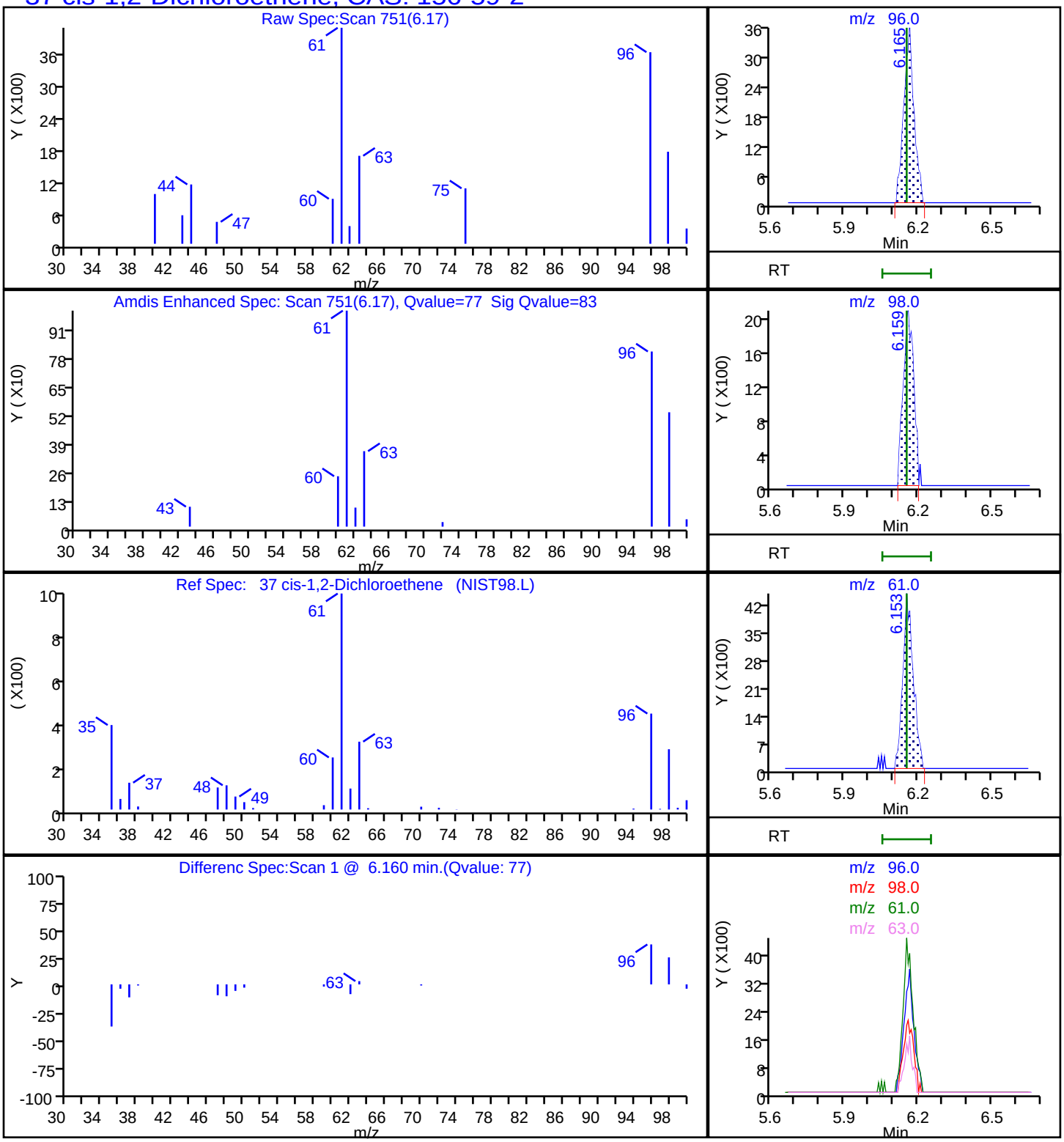
## 15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X14.D | | | | |
| Injection Date: | 01-Sep-2021 13:48:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-1 | Lab Sample ID: | 410-53151-1 | | |
| Client ID: | HD-COD-SW-6-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 14 | Worklist Smp#: | 15 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 37 cis-1,2-Dichloroethene, CAS: 156-59-2

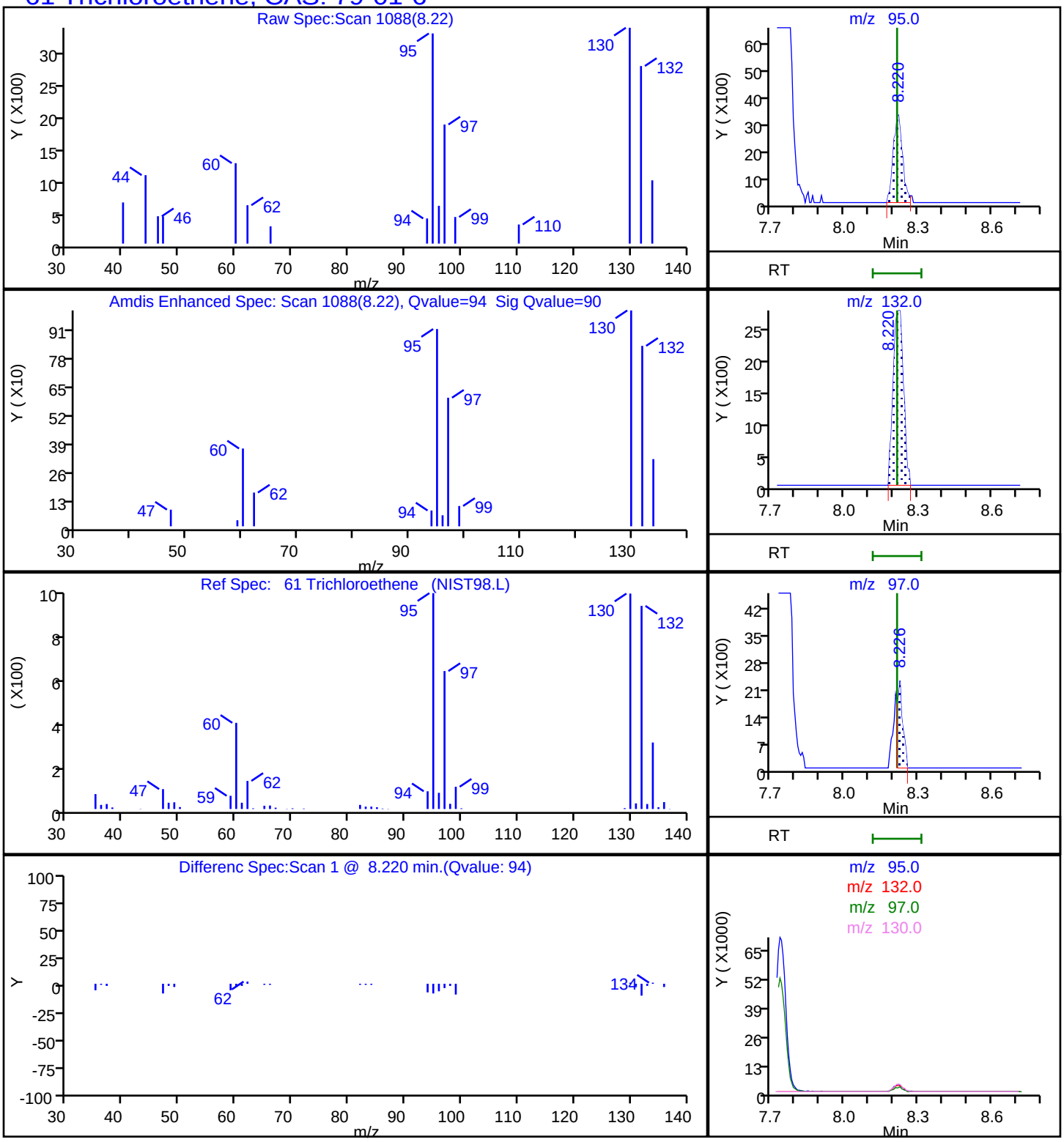


Report Date: 01-Sep-2021 20:57:50 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X14.D | | | | |
| Injection Date: | 01-Sep-2021 13:48:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-1 | Lab Sample ID: | 410-53151-1 | | |
| Client ID: | HD-COD-SW-6-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 14 | Worklist Smp#: | 15 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0  Lab Sample ID: 410-53151-2

Matrix: Water  Lab File ID: IS01X15.D

Analysis Method: 8260D  Date Collected: 08/26/2021 11:40

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 14:09

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 1.7 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.17 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.19 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 0.17 | J | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.19 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0  Lab Sample ID: 410-53151-2

Matrix: Water  Lab File ID: IS01X15.D

Analysis Method: 8260D  Date Collected: 08/26/2021 11:40

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 14:09

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 101 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X15.D
Lims ID: 410-53151-A-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 14:09:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-016
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:52:31

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| | 4 Chloromethane | 50 | 2.178 | 2.178 | 0.000 | 93 | 4117 | 0.0513 | |
| | 5 Vinyl chloride | 62 | | 2.294 | | | | ND | 7 |
| | 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| | 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| | 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| | 15 Acetone | 43 | 3.623 | 3.599 | 0.025 | 98 | 18830 | 1.72 | |
| | 19 Carbon disulfide | 76 | 3.885 | 3.879 | 0.006 | 95 | 5715 | 0.0385 | |
| | 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * | 24 t-Butyl alcohol-d10 (IS) | 65 | 4.251 | 4.251 | 0.000 | 22 | 196565 | 50.0 | |
| | 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| | 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| | 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| | 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| | 37 cis-1,2-Dichloroethene | 96 | 6.165 | 6.153 | 0.012 | 76 | 12698 | 0.1865 | |
| | 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| | 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 93 | 19048 | 0.1734 | |
| $ | 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.842 | 0.006 | 94 | 563396 | 9.92 | |
| | 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| | 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ | 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 114543 | 10.1 | |
| | 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| | 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * | 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2253950 | 10.0 | |
| | 61 Trichloroethene | 95 | 8.220 | 8.213 | 0.007 | 95 | 12706 | 0.1866 | |
| | 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| | 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | 7 |
| | 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| | 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ | 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2257731 | 9.84 | |
| | 76 Toluene | 92 | 9.817 | 9.811 | 0.006 | 99 | 10241 | 0.0602 | |
| | 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| | 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.359 | 10.359 | 0.000 | 95 | 14098 | 0.1738 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.182 | 0.000 | 85 | 1775656 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | 11.414 | 11.408 | 0.006 | 99 | 6033 | 0.0466 | |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | 7 |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 867099 | 9.89 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1066653 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

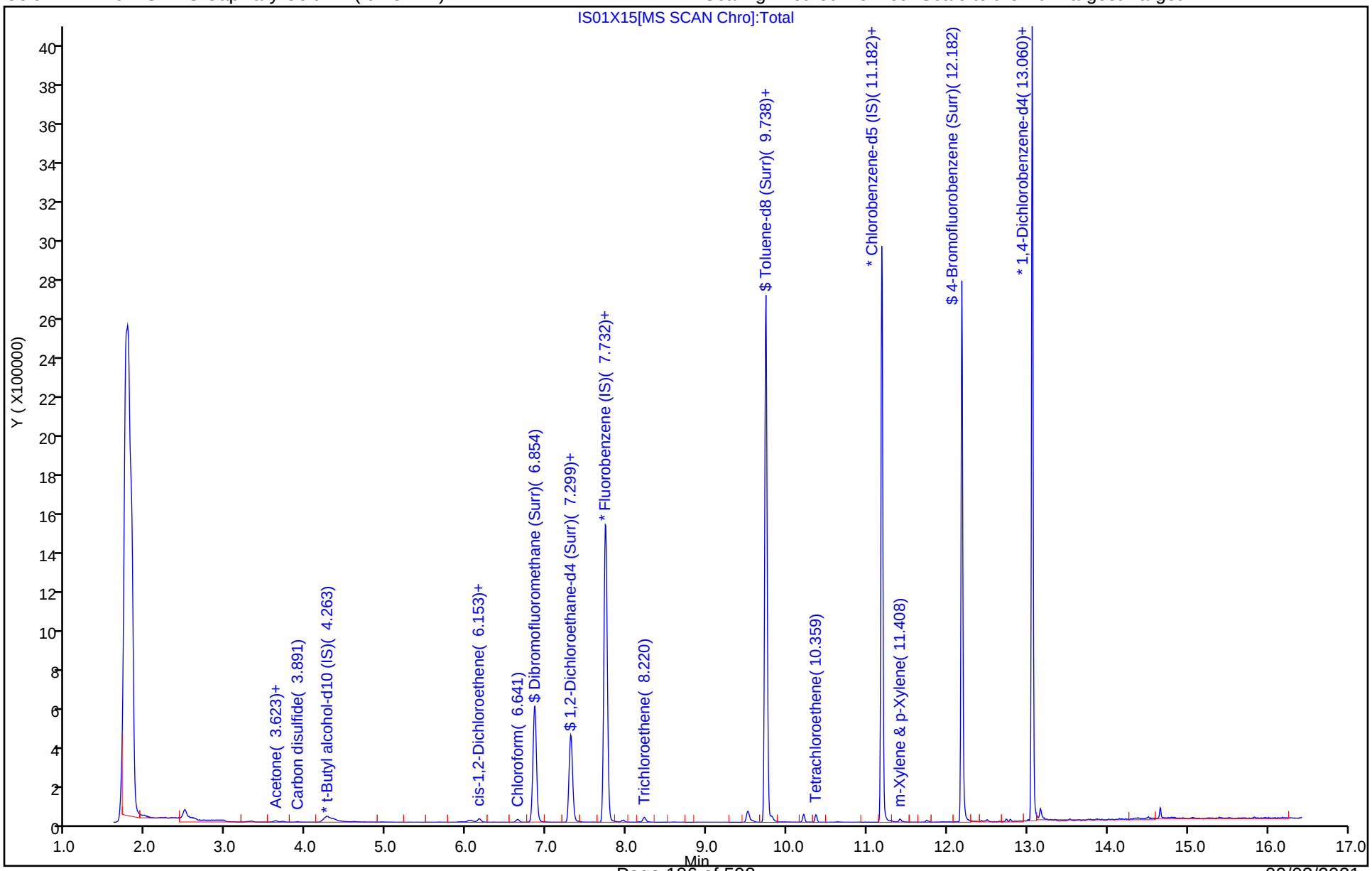
Report Date: 01-Sep-2021 20:57:51 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X15.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 14:09:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-2 | Lab Sample ID: | 410-53151-2 | Worklist Smp#: | 16 |
| Client ID: | HD-COD-SW-7-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X15.D
Lims ID: 410-53151-A-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 14:09:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-016
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

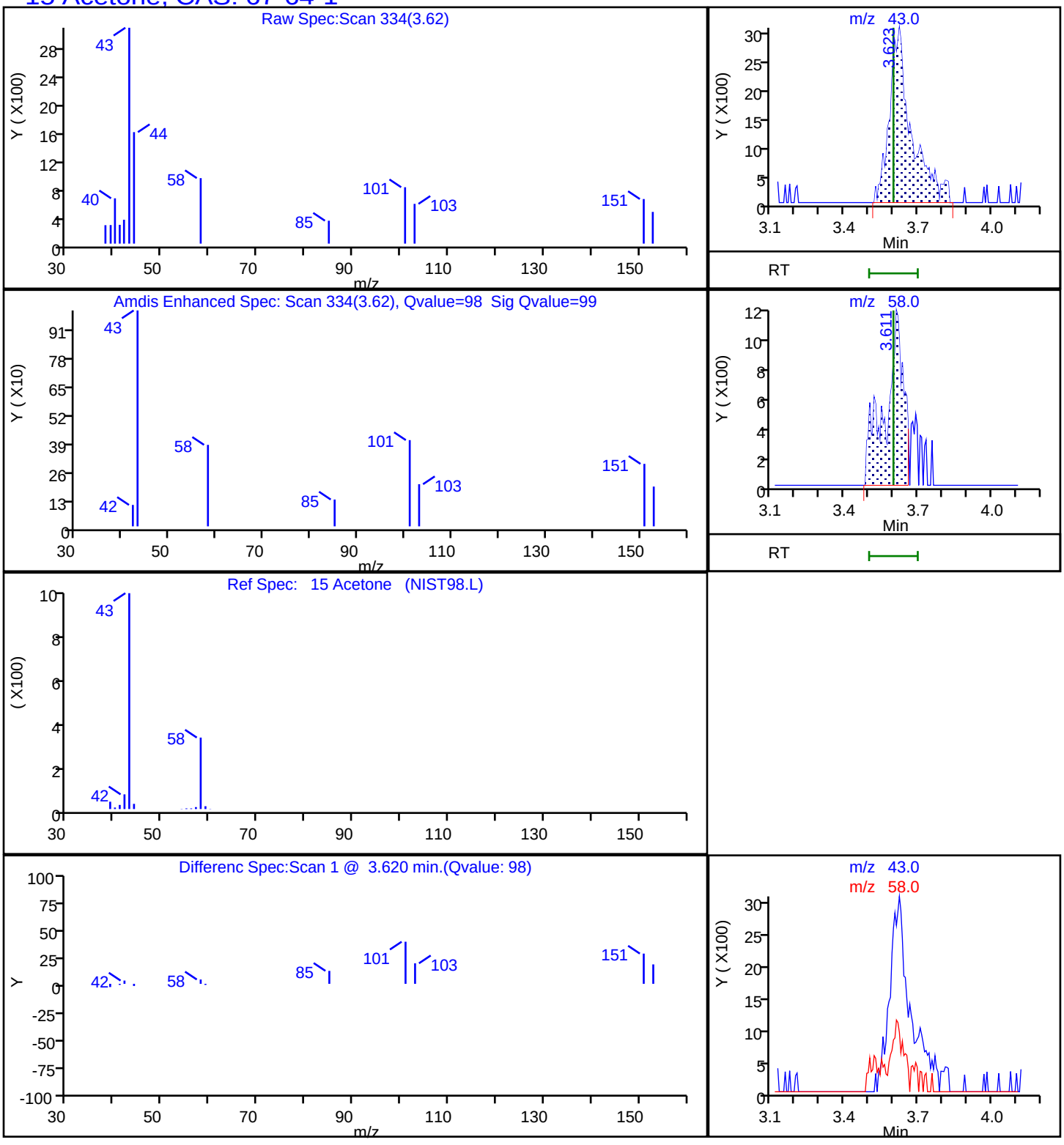
First Level Reviewer: campbellme Date: 01-Sep-2021 20:52:31

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.92 | 99.23 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.1 | 100.84 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.84 | 98.39 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.89 | 98.87 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X15.D | | | | |
| Injection Date: | 01-Sep-2021 14:09:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-2 | Lab Sample ID: | 410-53151-2 | | |
| Client ID: | HD-COD-SW-7-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 15 | Worklist Smp#: | 16 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

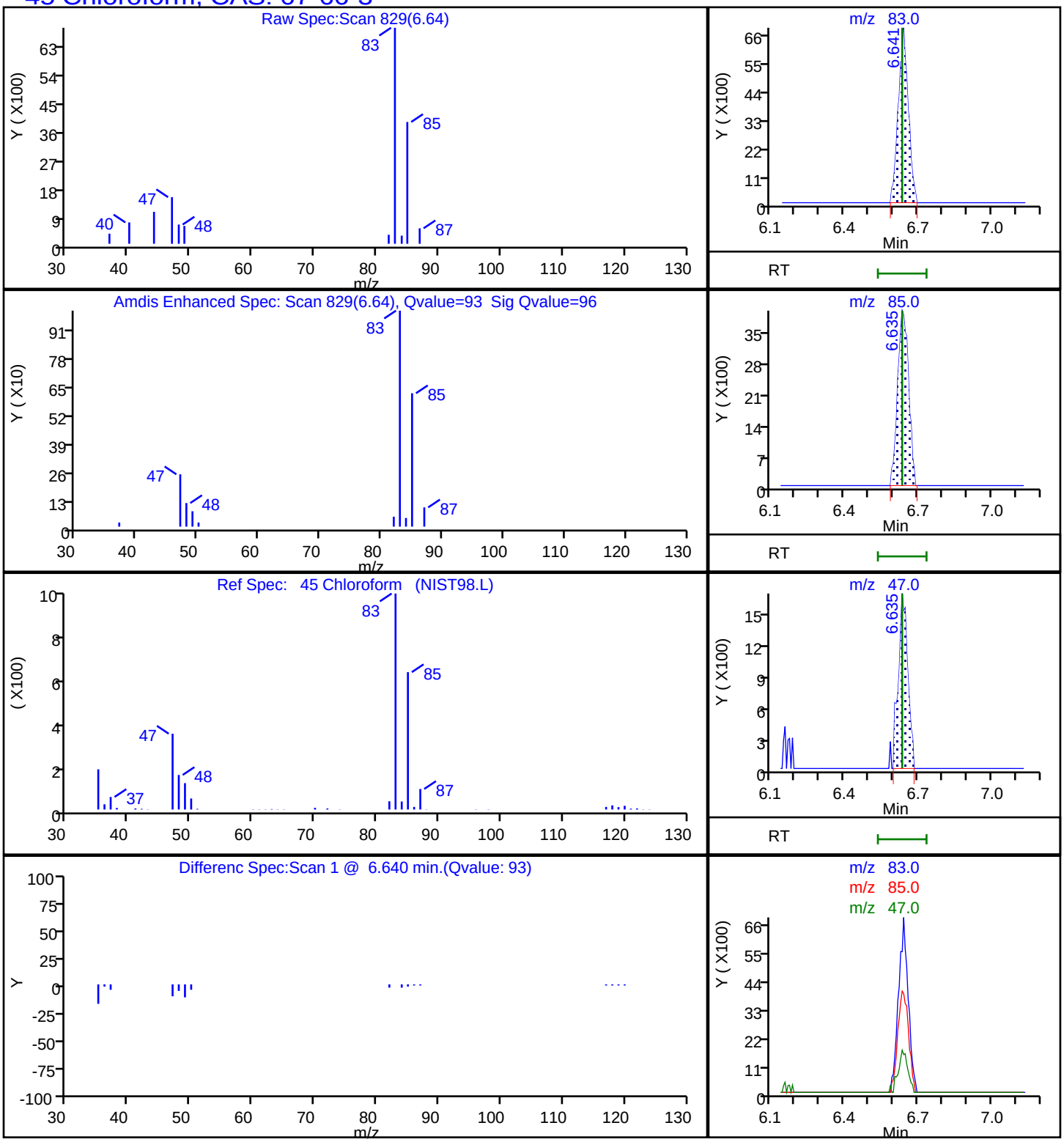
## 15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X15.D | | | | |
| Injection Date: | 01-Sep-2021 14:09:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-2 | Lab Sample ID: | 410-53151-2 | | |
| Client ID: | HD-COD-SW-7-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 15 | Worklist Smp#: | 16 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

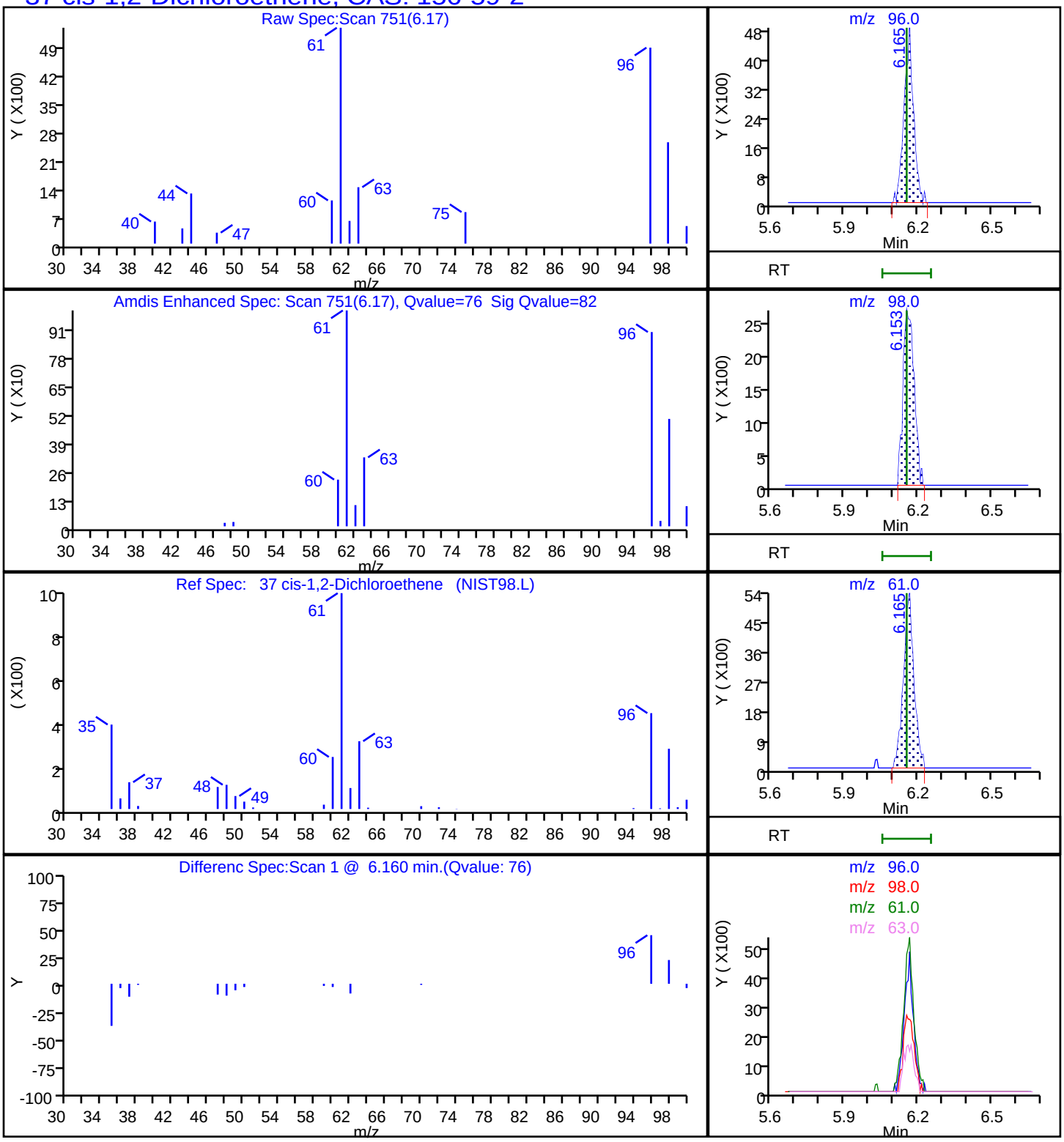
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X15.D | | | | |
| Injection Date: | 01-Sep-2021 14:09:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-2 | Lab Sample ID: | 410-53151-2 | | |
| Client ID: | HD-COD-SW-7-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 15 | Worklist Smp#: | 16 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

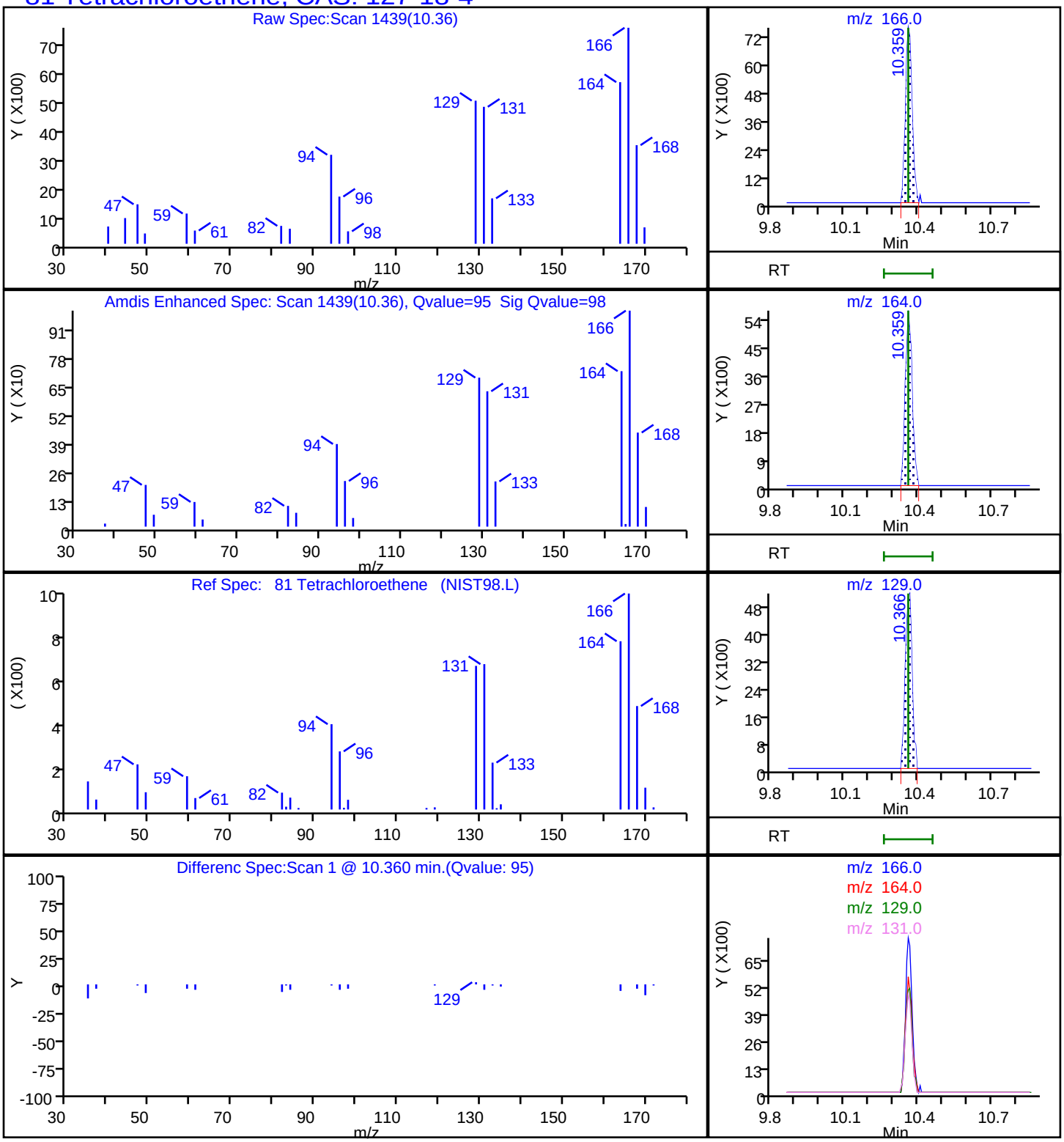
## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X15.D | | | | |
| Injection Date: | 01-Sep-2021 14:09:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-2 | Lab Sample ID: | 410-53151-2 | | |
| Client ID: | HD-COD-SW-7-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 15 | Worklist Smp#: | 16 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 81 Tetrachloroethene, CAS: 127-18-4

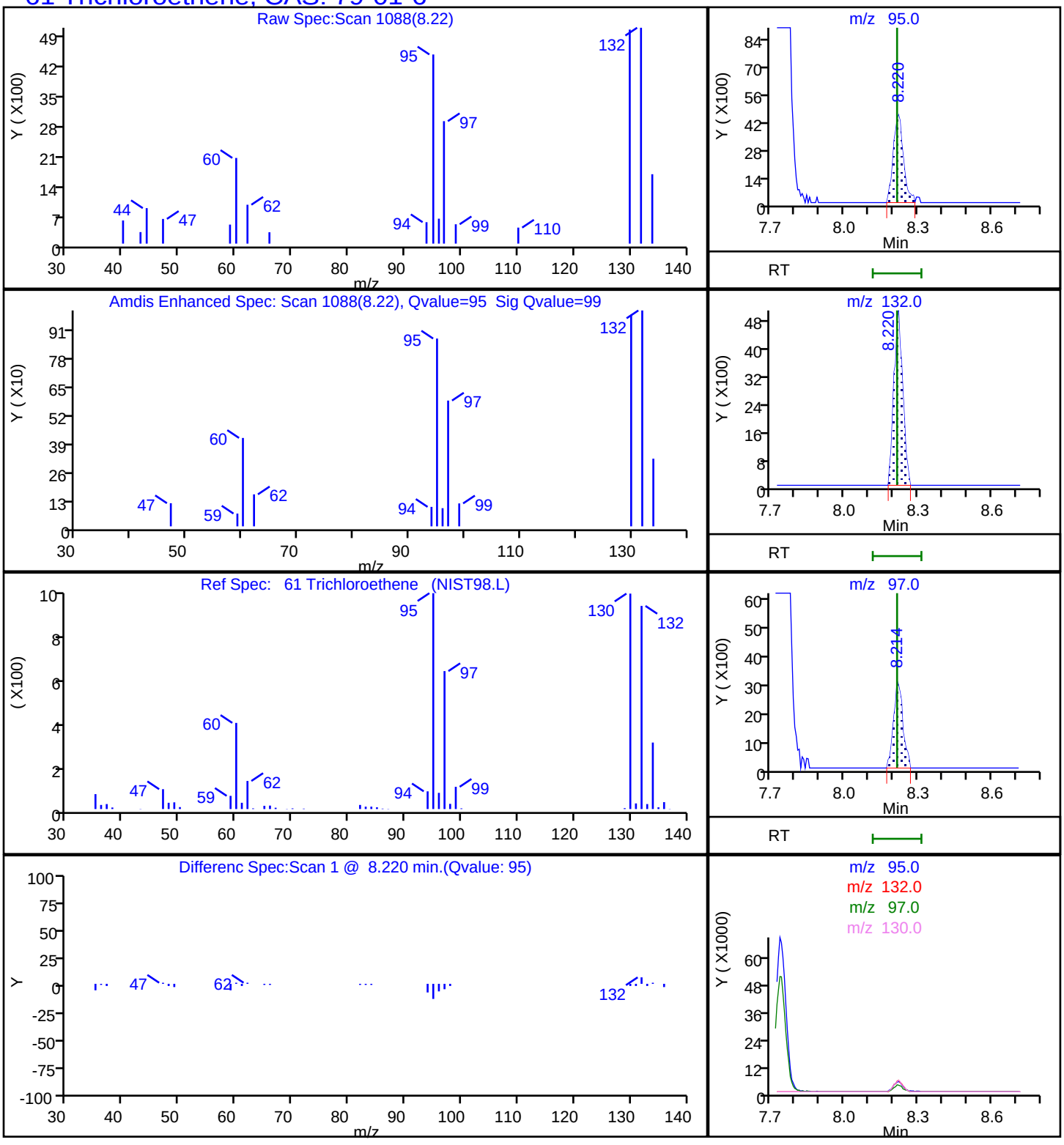


Report Date: 01-Sep-2021 20:57:51 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X15.D | | | | |
| Injection Date: | 01-Sep-2021 14:09:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-2 | Lab Sample ID: | 410-53151-2 | | |
| Client ID: | HD-COD-SW-7-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 15 | Worklist Smp#: | 16 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0  Lab Sample ID: 410-53151-3

Matrix: Water  Lab File ID: IS01X16.D

Analysis Method: 8260D  Date Collected: 08/26/2021 09:45

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 14:30

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 1.6 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.10 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | 0.061 | J | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.24 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 0.099 | J | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.20 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0  Lab Sample ID: 410-53151-3

Matrix: Water  Lab File ID: IS01X16.D

Analysis Method: 8260D  Date Collected: 08/26/2021 09:45

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 14:30

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 102 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D
Lims ID: 410-53151-A-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 14:30:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-017
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:52:48

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | 2.184 | 2.178 | 0.006 | 92 | 4938 | 0.0613 | |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | 7 |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | 7 |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| 15 Acetone | 43 | 3.605 | 3.599 | 0.007 | 99 | 17500 | 1.58 | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | ND | 7 |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.251 | 0.012 | 18 | 199210 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | U |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.153 | 0.006 | 76 | 16191 | 0.2372 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 92 | 11216 | 0.1019 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 565744 | 9.94 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 115869 | 10.2 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2259962 | 10.0 | |
| 61 Trichloroethene | 95 | 8.220 | 8.213 | 0.007 | 97 | 13694 | 0.2005 | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2273653 | 9.84 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 99 | 11843 | 0.0691 | |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 95 | 8091 | 0.0991 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | 7 |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.000 | 85 | 1787305 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | 11.414 | 11.408 | 0.006 | 98 | 6457 | 0.0495 | |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | 7 |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 872289 | 9.88 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1070891 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

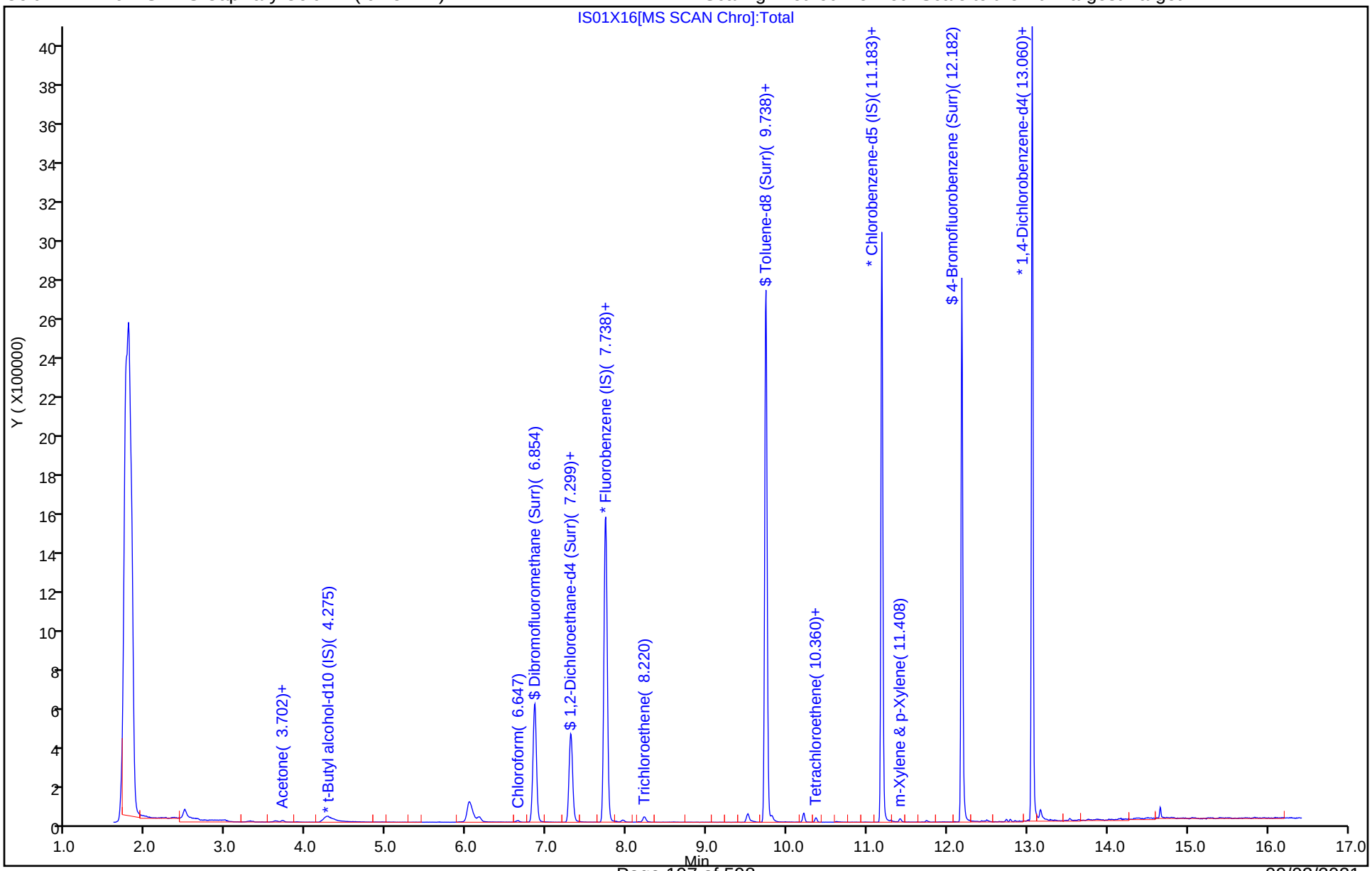
Report Date: 01-Sep-2021 20:57:52 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 14:30:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-3 | Lab Sample ID: | 410-53151-3 | Worklist Smp#: | 17 |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D | | | | |
| Lims ID: | 410-53151-A-3 | | | | |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 14:30:30 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-017 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

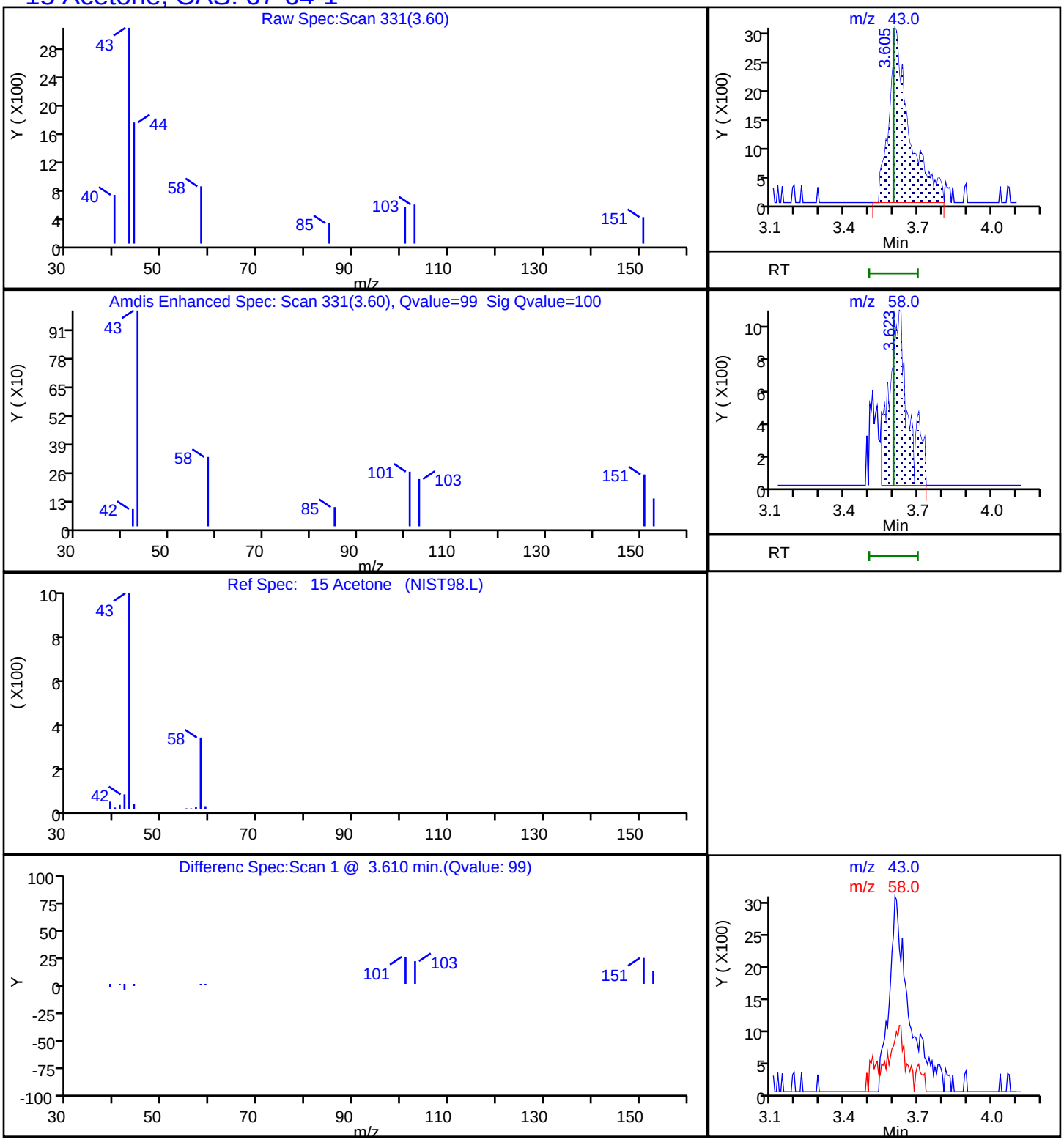
First Level Reviewer: campbellme Date: 01-Sep-2021 20:52:48

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.94 | 99.37 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.2 | 101.74 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.84 | 98.44 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.88 | 98.81 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D | | | | |
| Injection Date: | 01-Sep-2021 14:30:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-3 | Lab Sample ID: | 410-53151-3 | | |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

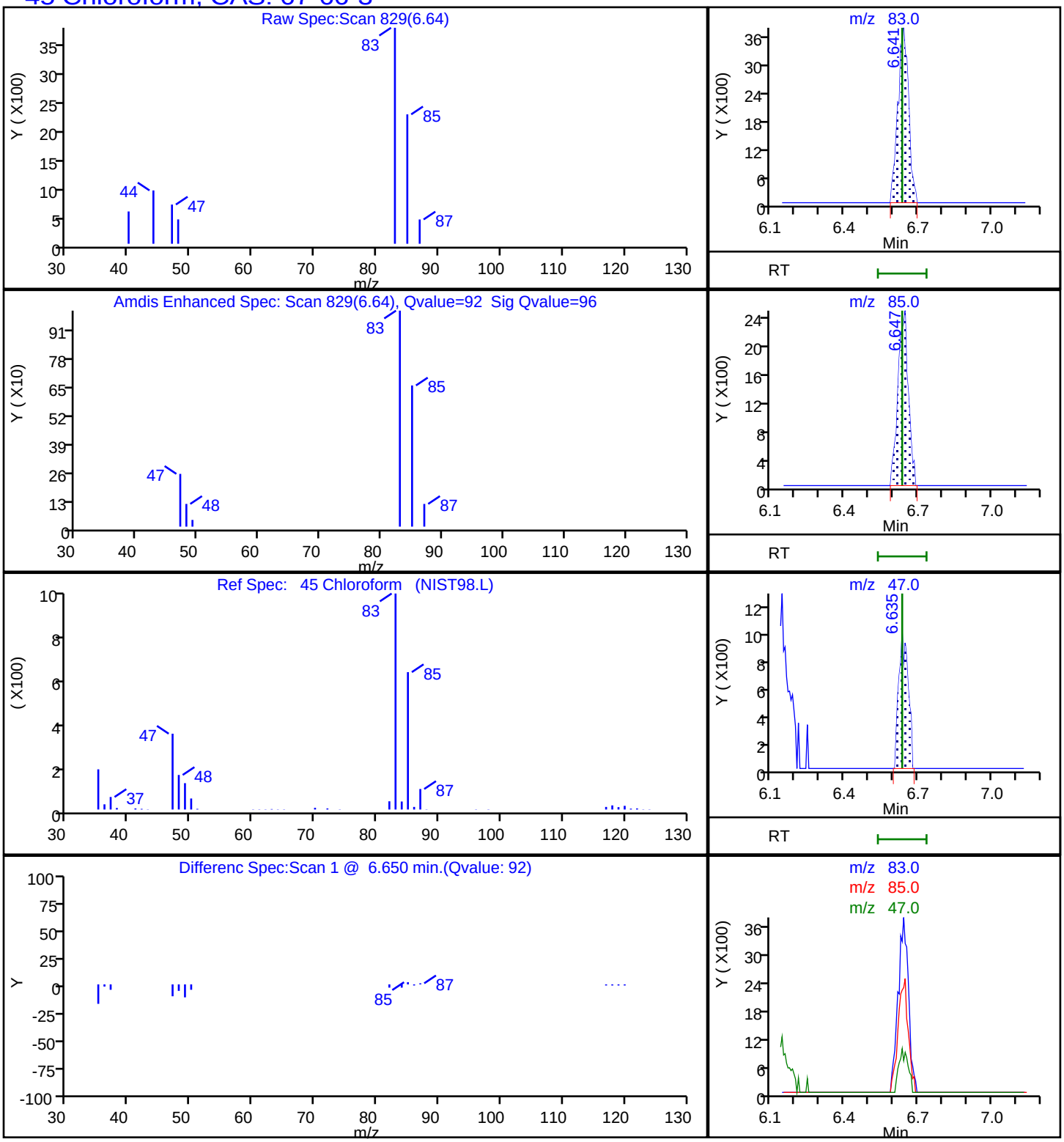
## 15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D | | | | |
| Injection Date: | 01-Sep-2021 14:30:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-3 | Lab Sample ID: | 410-53151-3 | | |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

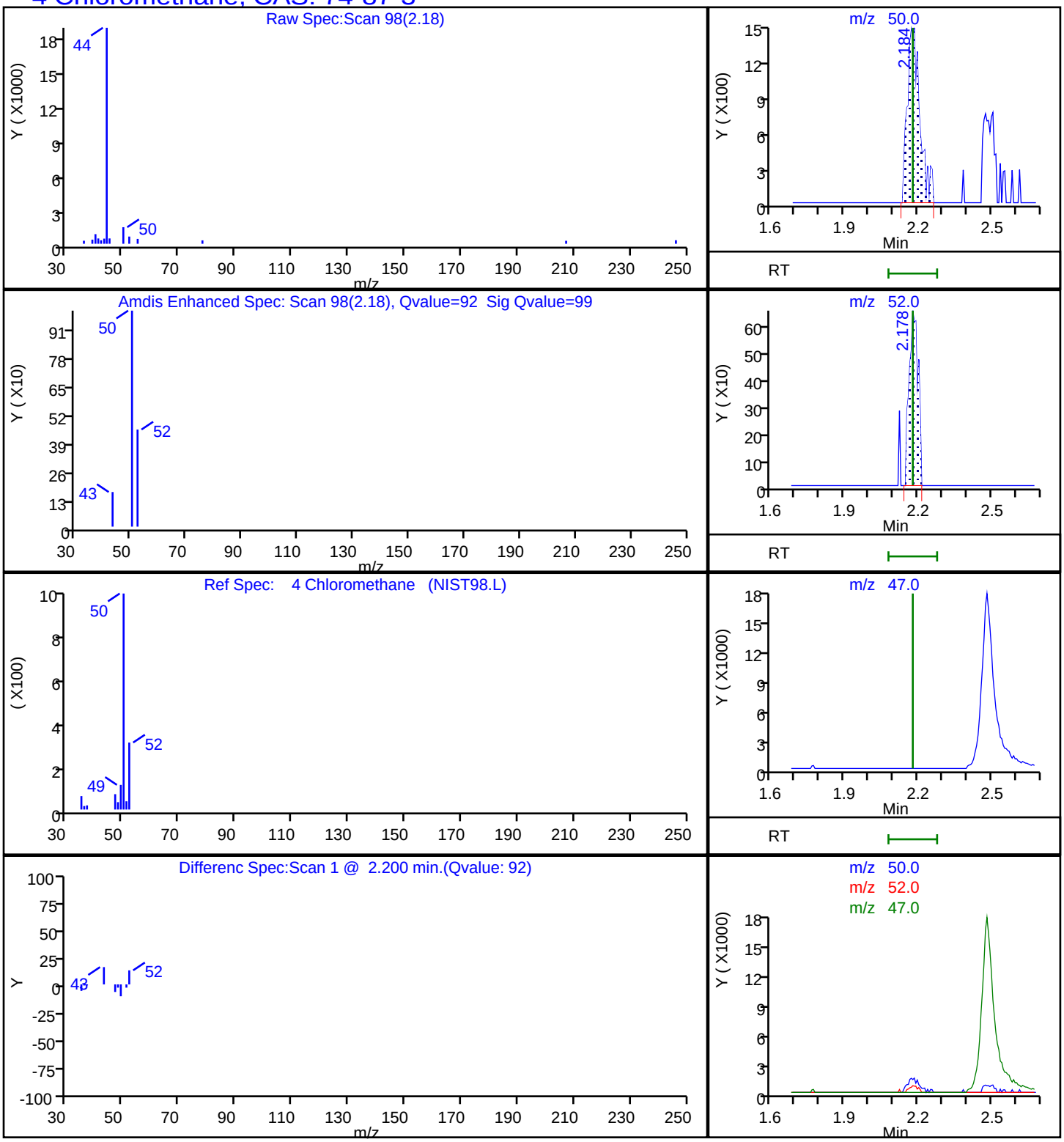
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D | | | | |
| Injection Date: | 01-Sep-2021 14:30:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-3 | Lab Sample ID: | 410-53151-3 | | |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

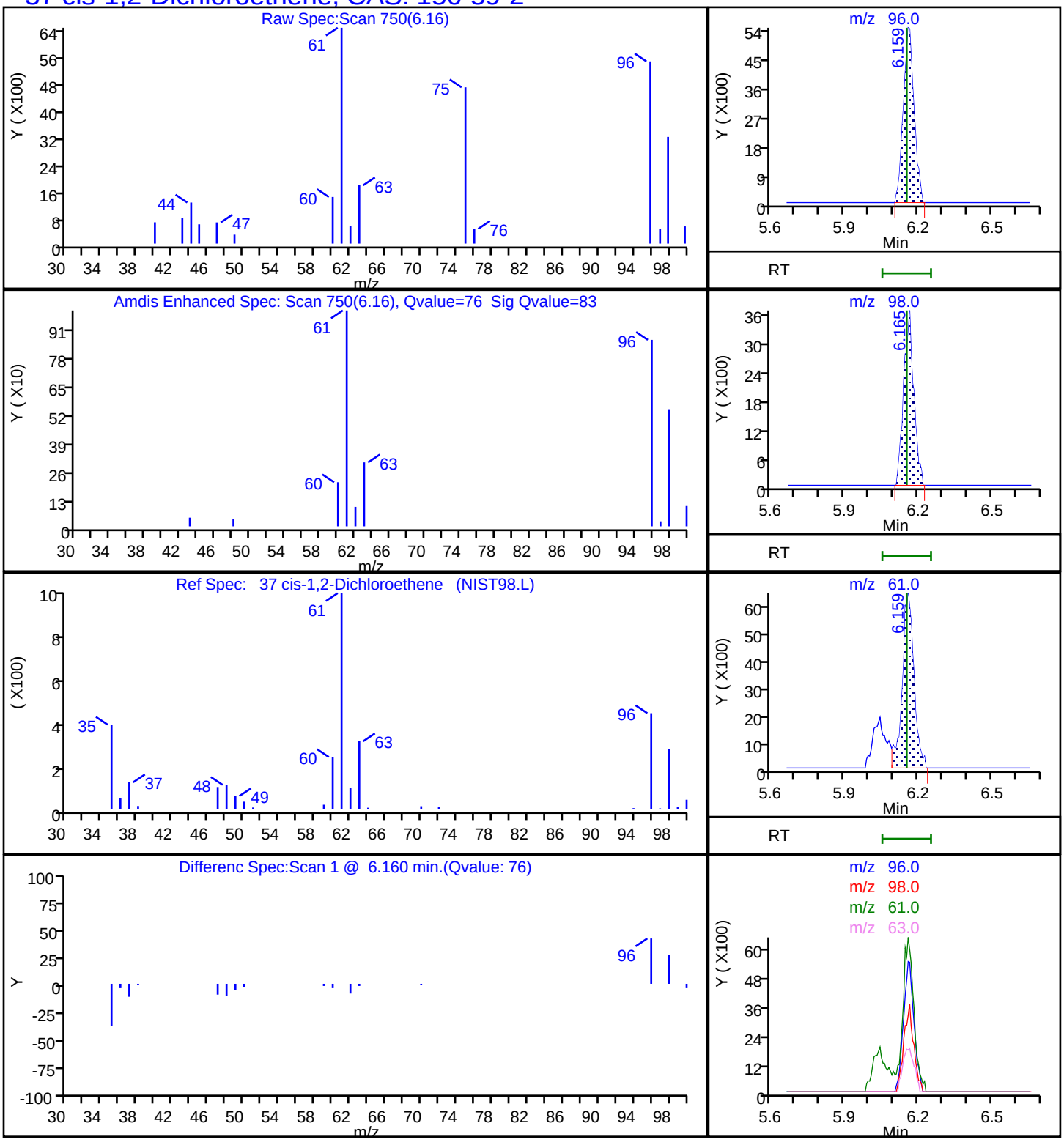
## 4 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D | | | | |
| Injection Date: | 01-Sep-2021 14:30:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-3 | Lab Sample ID: | 410-53151-3 | | |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

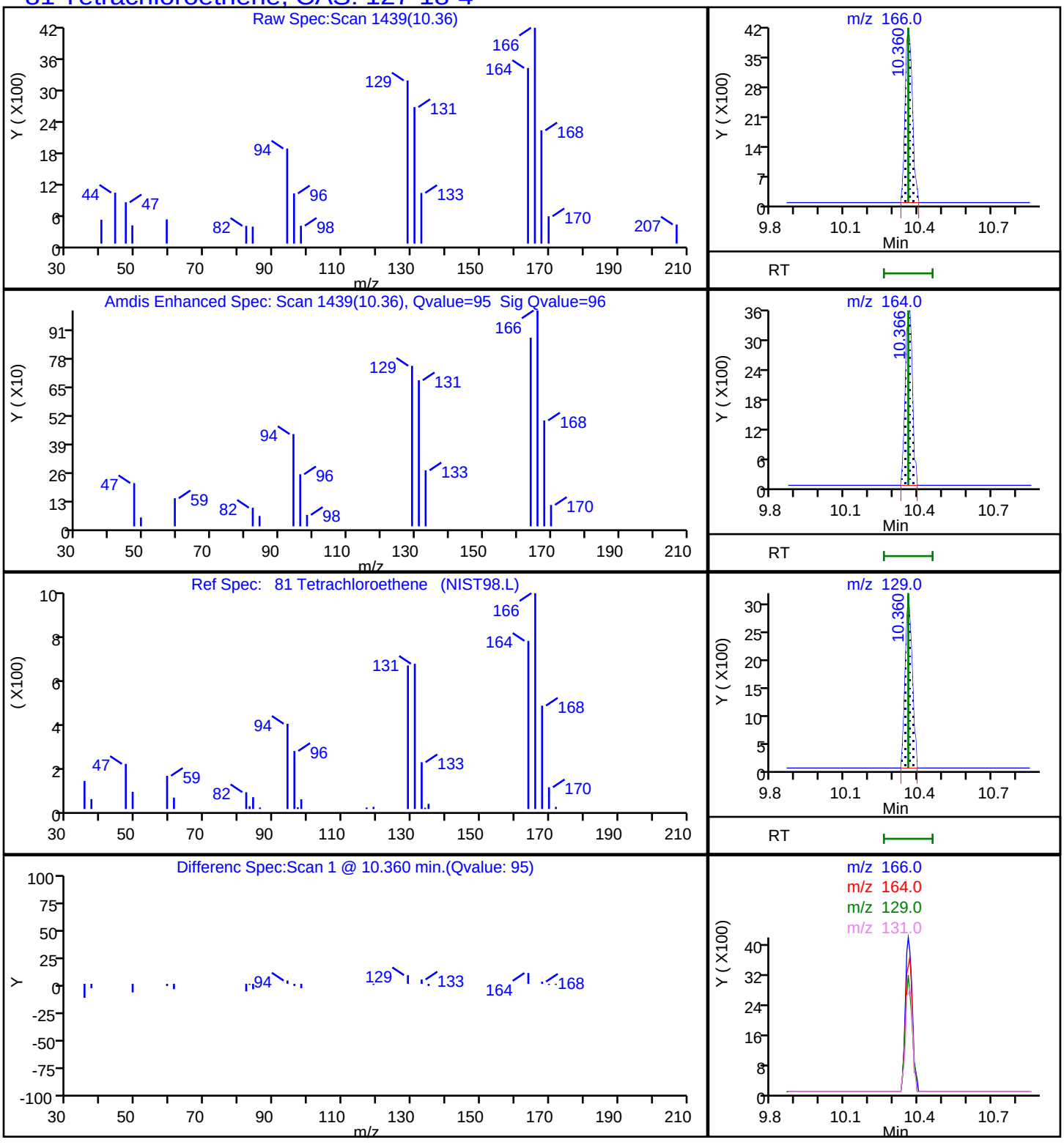
## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D | | | | |
| Injection Date: | 01-Sep-2021 14:30:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-3 | Lab Sample ID: | 410-53151-3 | | |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

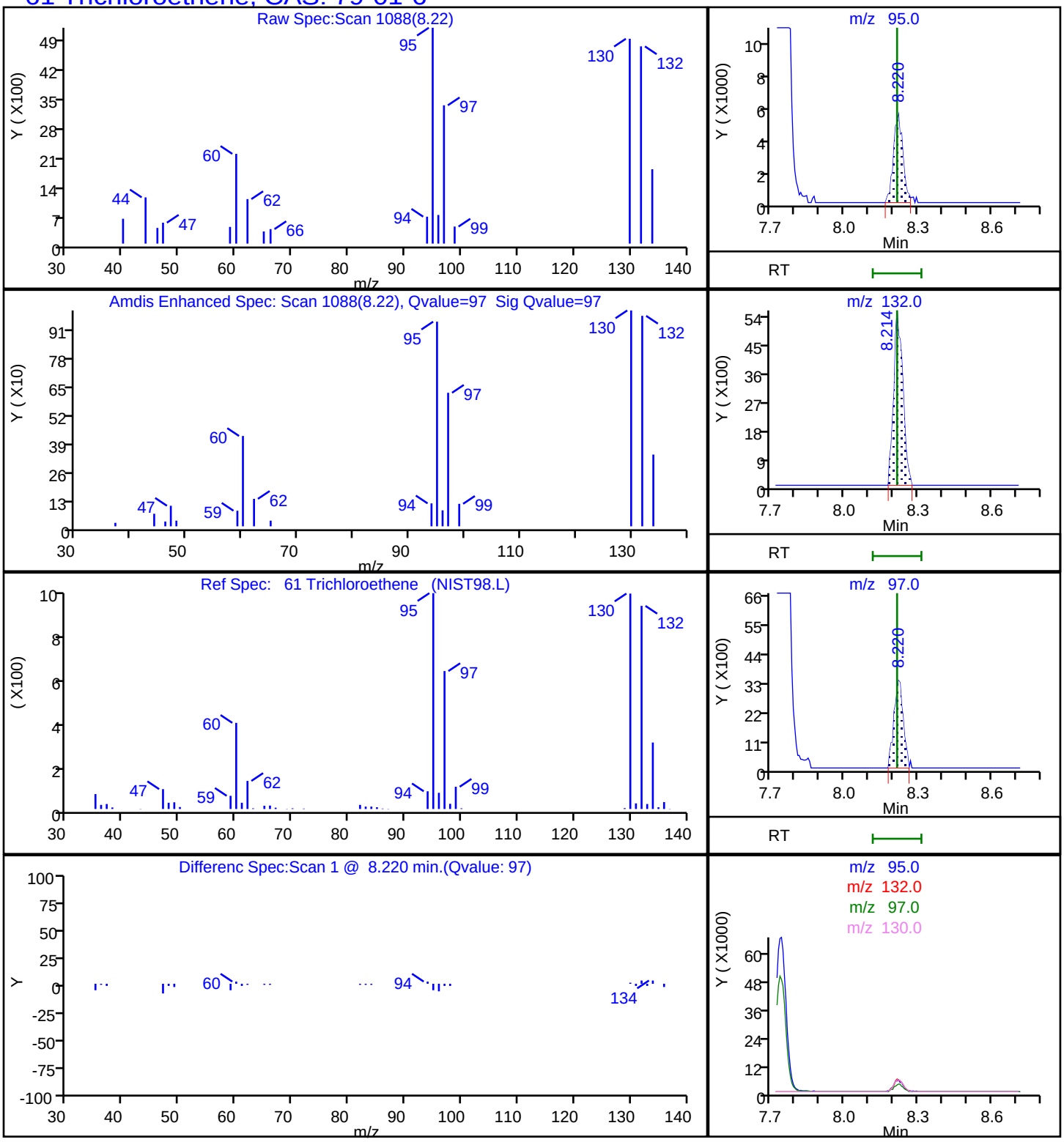
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D | | | | |
| Injection Date: | 01-Sep-2021 14:30:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-3 | Lab Sample ID: | 410-53151-3 | | |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



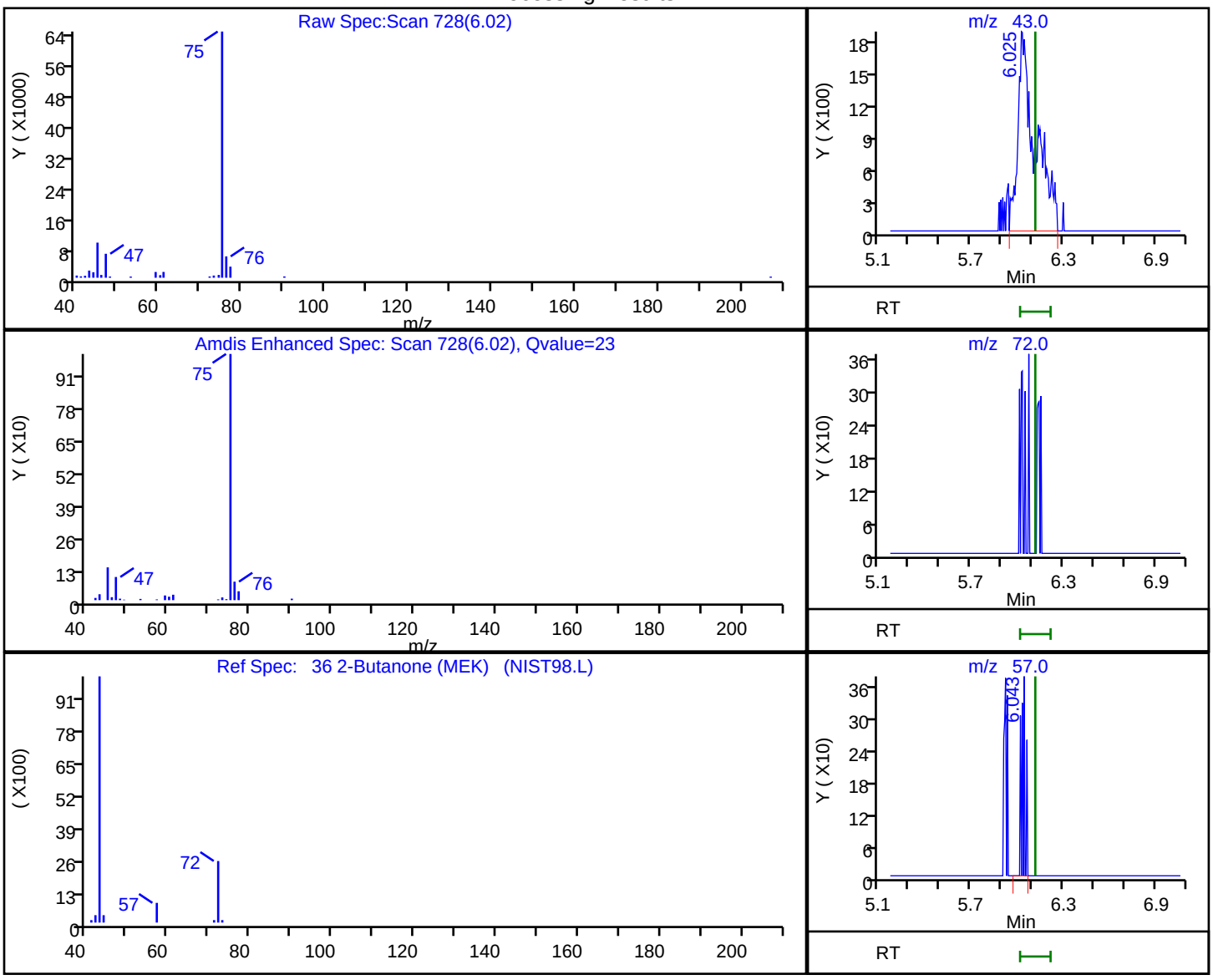
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X16.D | | | | |
| Injection Date: | 01-Sep-2021 14:30:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-3 | Lab Sample ID: | 410-53151-3 | | |
| Client ID: | HD-COD-SW-8-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 36 2-Butanone (MEK), CAS: 78-93-3

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 6.02 | 43.00 | 14795 | 0.765650 |
| 6.04 | 57.00 | 462 | |
| 6.12 | 72.00 | 0 | |

Reviewer: campbellme, 01-Sep-2021 20:52:38

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0  Lab Sample ID: 410-53151-4

Matrix: Water  Lab File ID: IS01X17.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:45

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 14:51

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 2.4 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.22 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.072 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 0.094 | J | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.072 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0  Lab Sample ID: 410-53151-4

Matrix: Water  Lab File ID: IS01X17.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:45

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 14:51

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 99 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X17.D
Lims ID: 410-53151-A-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 14:51:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-018
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:53:12

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | | 2.178 | | | | ND | |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| 15 Acetone | 43 | 3.617 | 3.599 | 0.019 | 97 | 27013 | 2.37 | |
| 19 Carbon disulfide | 76 | 3.879 | 3.879 | 0.000 | 96 | 6059 | 0.0405 | |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.251 | 4.251 | 0.000 | 25 | 205426 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | 6.141 | 6.116 | 0.025 | 83 | 6199 | 0.3111 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.153 | 0.006 | 82 | 4961 | 0.0723 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.635 | 6.634 | 0.001 | 93 | 23861 | 0.2154 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.842 | 0.006 | 94 | 566331 | 9.89 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 113501 | 9.91 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.732 | 7.732 | 0.000 | 99 | 2273199 | 10.0 | |
| 61 Trichloroethene | 95 | 8.214 | 8.213 | 0.001 | 95 | 4966 | 0.0723 | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | 7 |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2264634 | 9.80 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 98 | 11458 | 0.0668 | |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 97 | 7711 | 0.0944 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | 7 |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1788070 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | | | 0 | | 0.0865 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 98 | 7620 | 0.0584 | |
| 94 o-Xylene | 106 | 11.744 | 11.737 | 0.007 | 95 | 3610 | 0.0281 | |
| 95 Styrene | 104 | | 11.749 | | | | ND | 7 |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 875733 | 9.92 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1078070 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

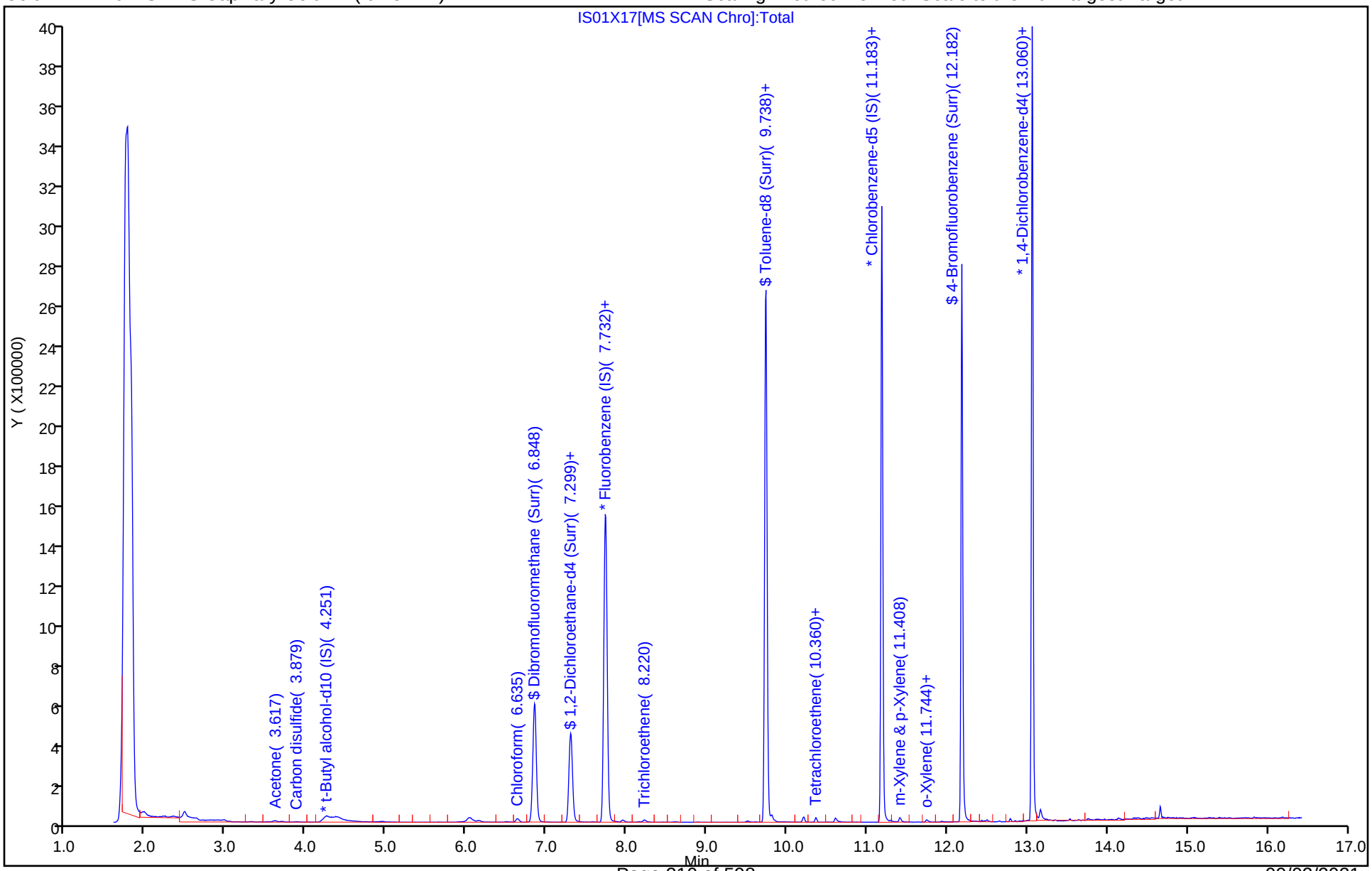
Report Date: 01-Sep-2021 20:57:54 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X17.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 14:51:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-4 | Lab Sample ID: | 410-53151-4 | Worklist Smp#: | 18 |
| Client ID: | HD-COD-SW-9-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X17.D | | | | |
| Lims ID: | 410-53151-A-4 | | | | |
| Client ID: | HD-COD-SW-9-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 14:51:30 | ALS Bottle#: | 17 | Worklist Smp#: | 18 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-018 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

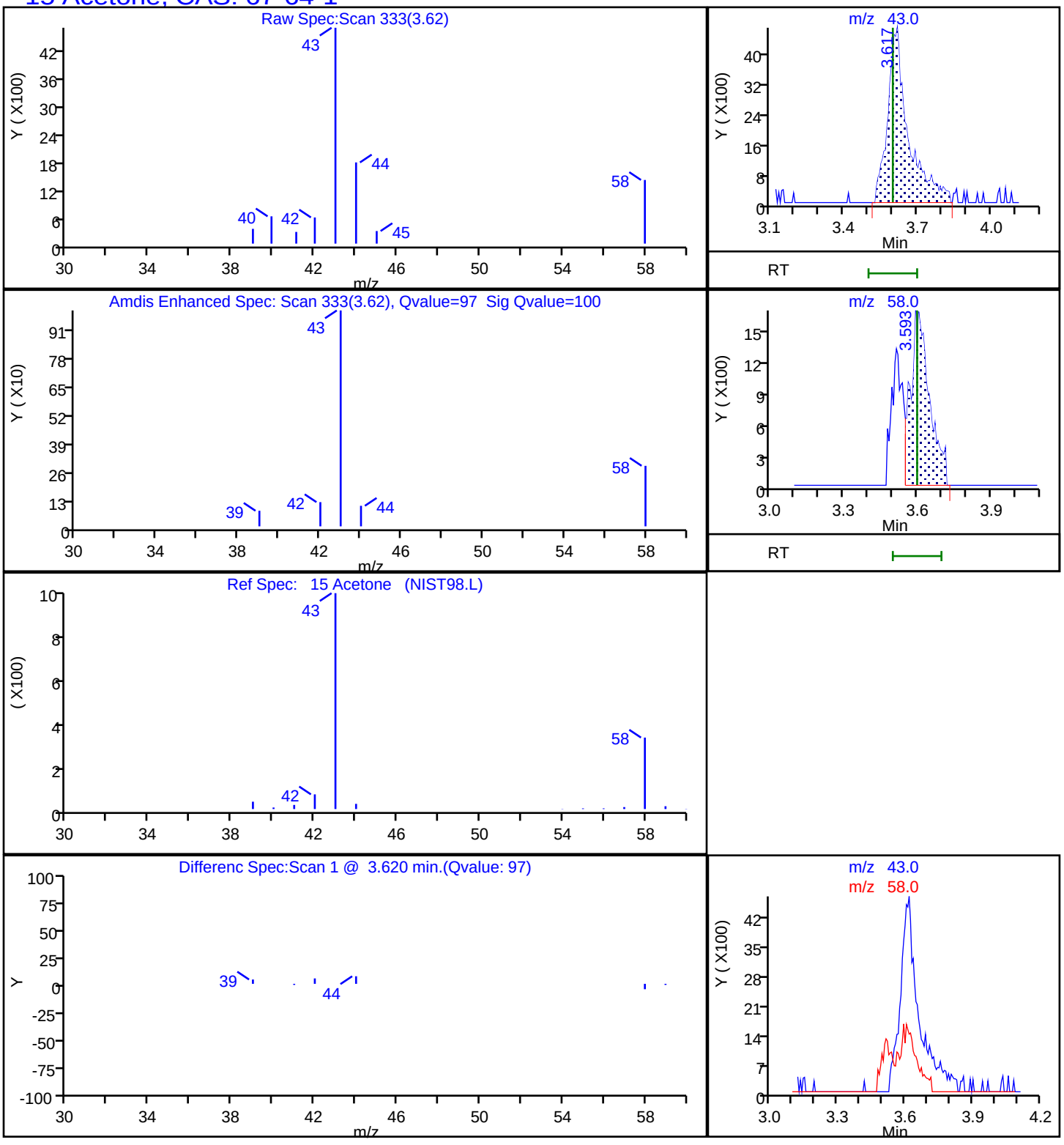
First Level Reviewer: campbellme Date: 01-Sep-2021 20:53:12

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.89 | 98.90 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 9.91 | 99.08 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.80 | 98.00 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.92 | 99.16 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X17.D | | | | |
| Injection Date: | 01-Sep-2021 14:51:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-4 | Lab Sample ID: | 410-53151-4 | | |
| Client ID: | HD-COD-SW-9-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 17 | Worklist Smp#: | 18 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

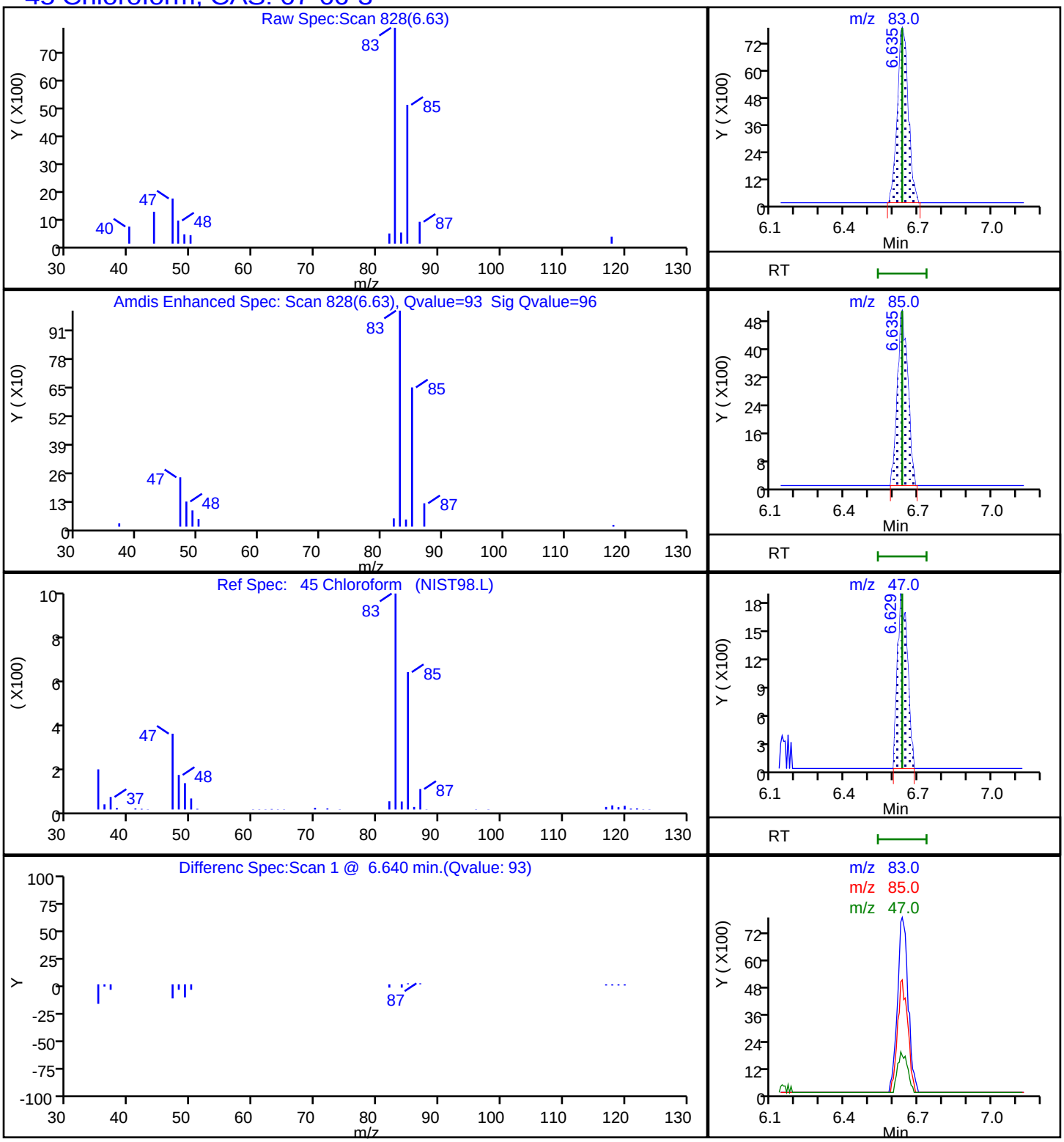
## 15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X17.D | | | | |
| Injection Date: | 01-Sep-2021 14:51:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-4 | Lab Sample ID: | 410-53151-4 | | |
| Client ID: | HD-COD-SW-9-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 17 | Worklist Smp#: | 18 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

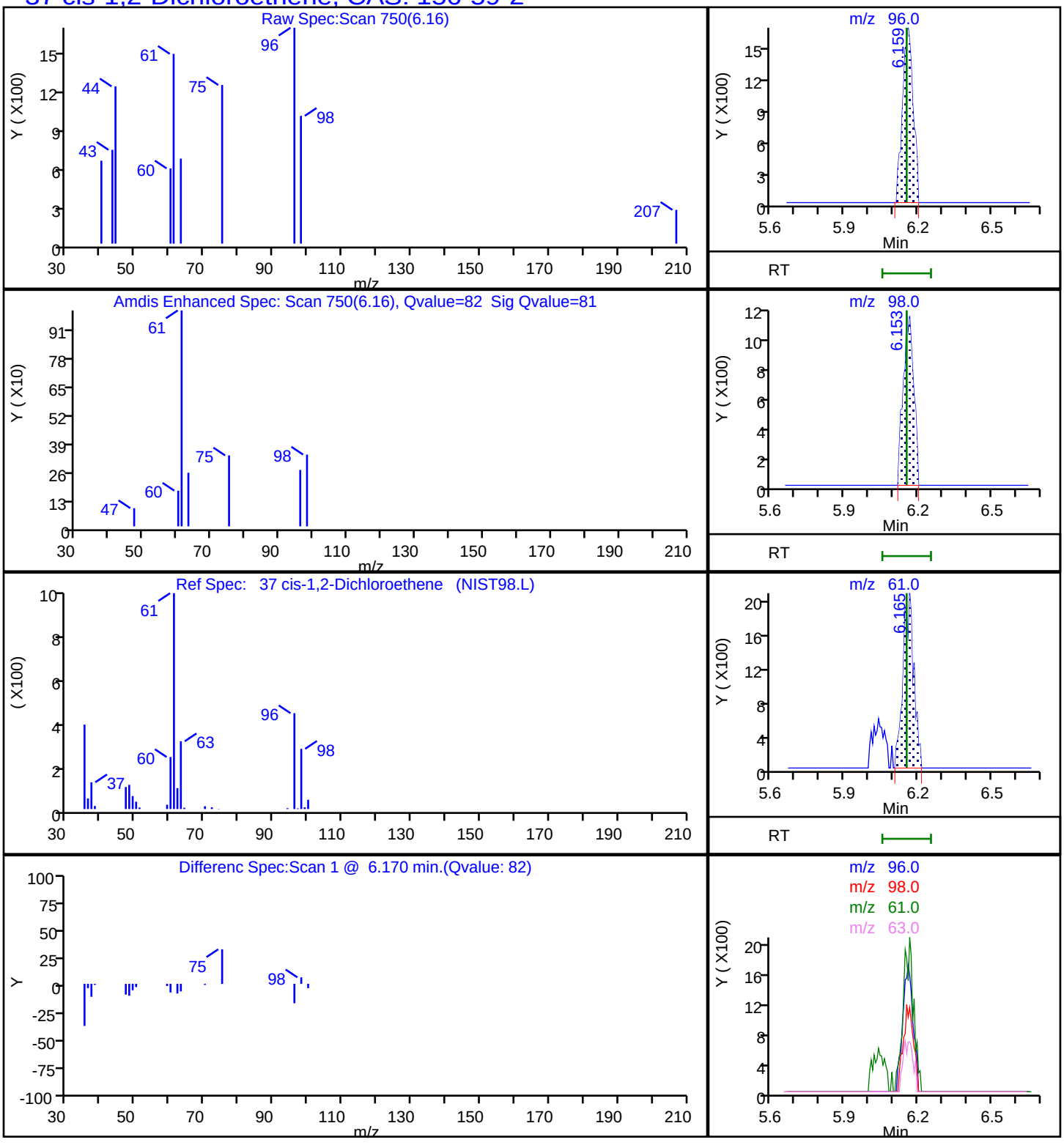
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X17.D | | | | |
| Injection Date: | 01-Sep-2021 14:51:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-4 | Lab Sample ID: | 410-53151-4 | | |
| Client ID: | HD-COD-SW-9-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 17 | Worklist Smp#: | 18 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 01-Sep-2021 20:57:54 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X17.D

Injection Date: 01-Sep-2021 14:51:30 Instrument ID: 19930

Lims ID: 410-53151-A-4 Lab Sample ID: 410-53151-4

Client ID: HD-COD-SW-9-0/1-0

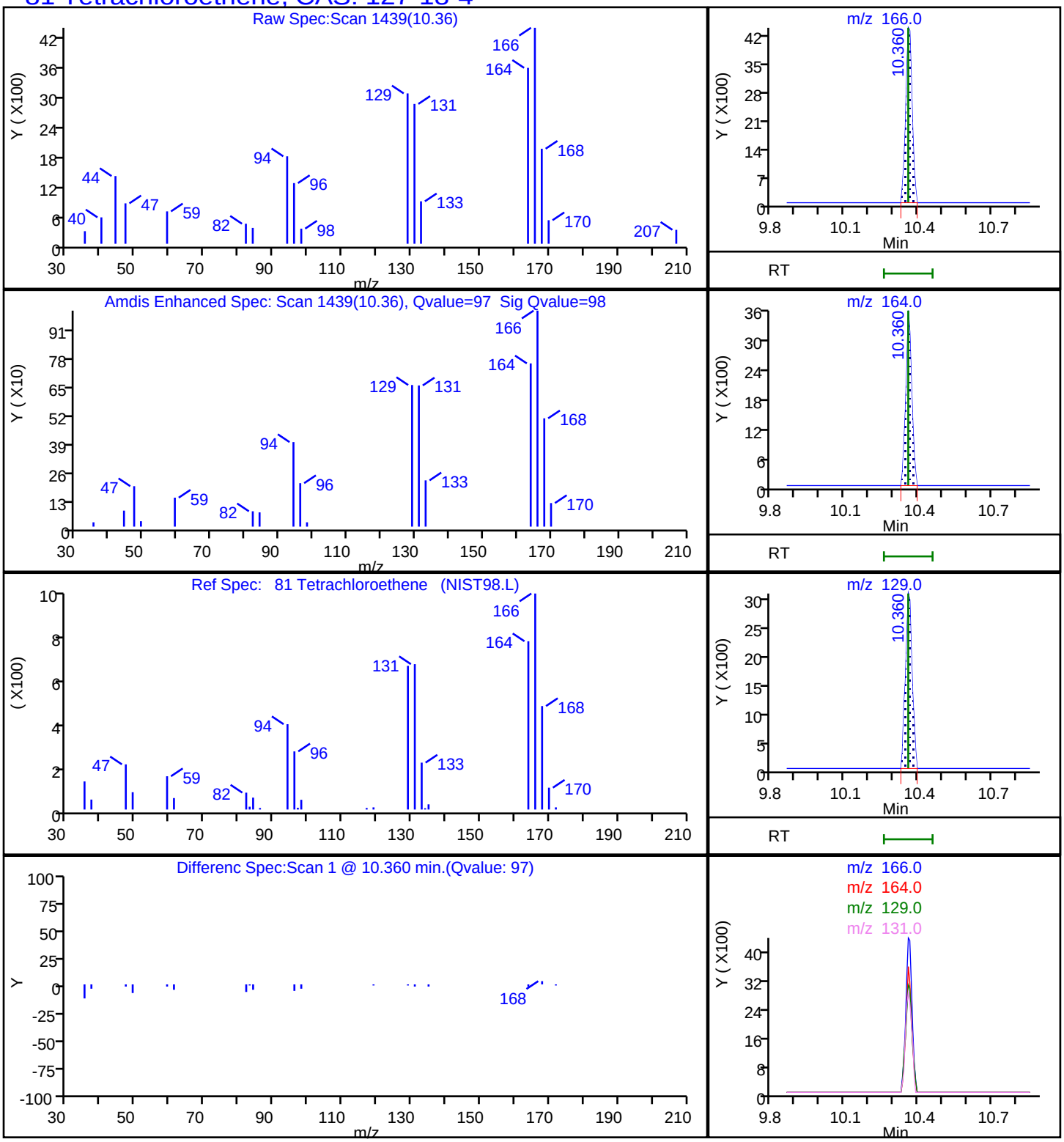
Operator ID: SRK36897 ALS Bottle#: 17 Worklist Smp#: 18

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Detector MS Quad

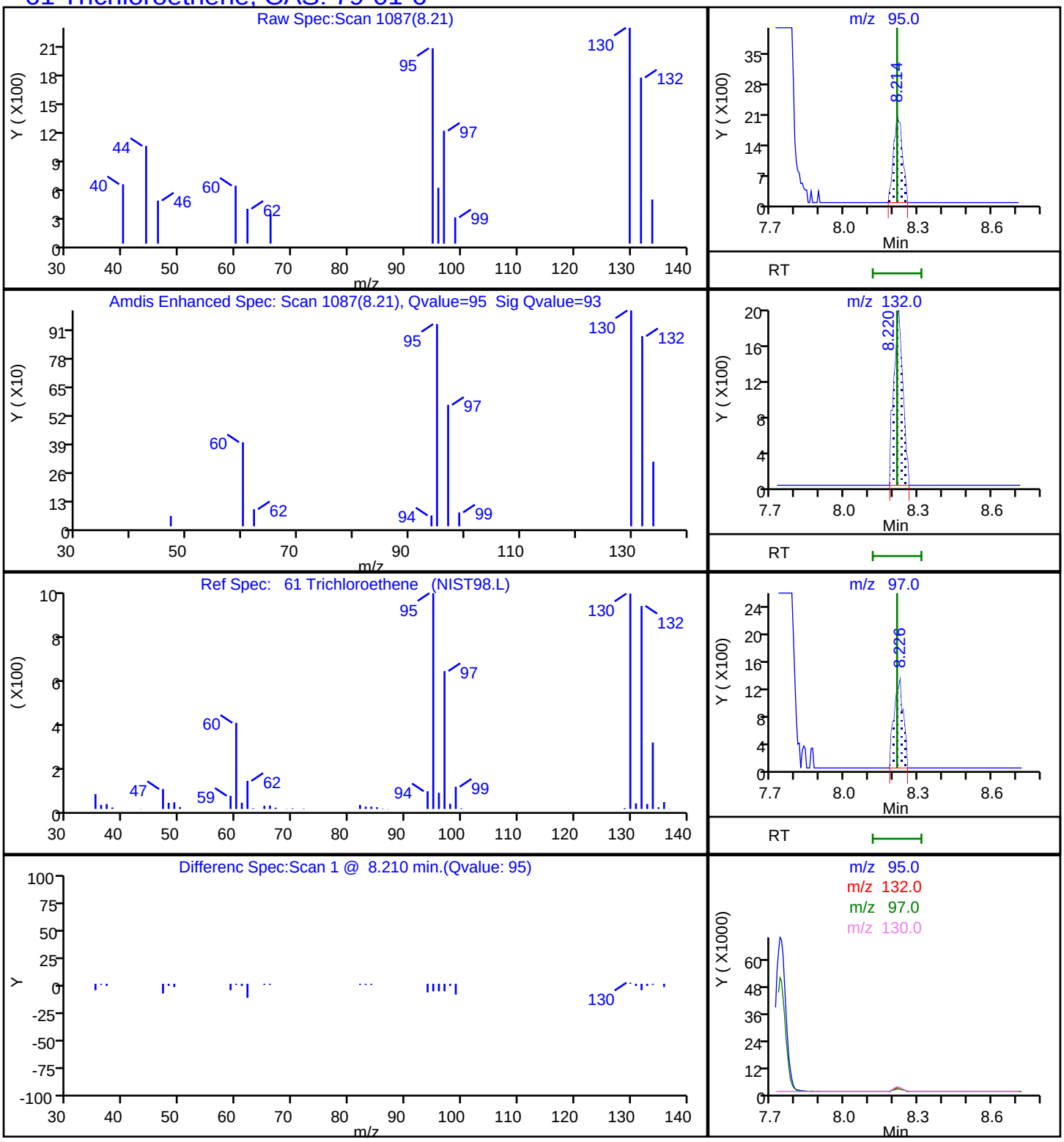
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X17.D | | | | |
| Injection Date: | 01-Sep-2021 14:51:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-4 | Lab Sample ID: | 410-53151-4 | | |
| Client ID: | HD-COD-SW-9-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 17 | Worklist Smp#: | 18 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0  Lab Sample ID: 410-53151-5

Matrix: Water  Lab File ID: IS01X18.D

Analysis Method: 8260D  Date Collected: 08/26/2021 09:57

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 15:12

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 1.8 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.094 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | 0.060 | J | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.24 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 0.14 | J | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.22 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0  Lab Sample ID: 410-53151-5

Matrix: Water  Lab File ID: IS01X18.D

Analysis Method: 8260D  Date Collected: 08/26/2021 09:57

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 15:12

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 102 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 97 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D
Lims ID: 410-53151-A-5
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 15:12:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-019
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:53:38

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | 2.172 | 2.178 | -0.006 | 96 | 4803 | 0.0599 | |
| 5 Vinyl chloride | 62 | 2.288 | 2.294 | -0.006 | 1 | 1318 | 0.0163 | 7M |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| 15 Acetone | 43 | 3.617 | 3.599 | 0.019 | 97 | 20192 | 1.77 | M |
| 19 Carbon disulfide | 76 | 3.885 | 3.879 | 0.006 | 97 | 6830 | 0.0461 | |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.251 | 0.006 | 17 | 205473 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.153 | 0.006 | 76 | 16132 | 0.2373 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 91 | 10325 | 0.0941 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.842 | 0.006 | 94 | 565438 | 9.97 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 115177 | 10.2 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2251196 | 10.0 | |
| 61 Trichloroethene | 95 | 8.220 | 8.213 | 0.007 | 95 | 14654 | 0.2154 | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2256730 | 9.73 | |
| 76 Toluene | 92 | 9.817 | 9.811 | 0.006 | 96 | 10700 | 0.0622 | |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 95 | 11720 | 0.1430 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 84 | 1794638 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | 11.414 | 11.408 | 0.006 | 97 | 5770 | 0.0441 | |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | 7 |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 877833 | 9.90 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1074671 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

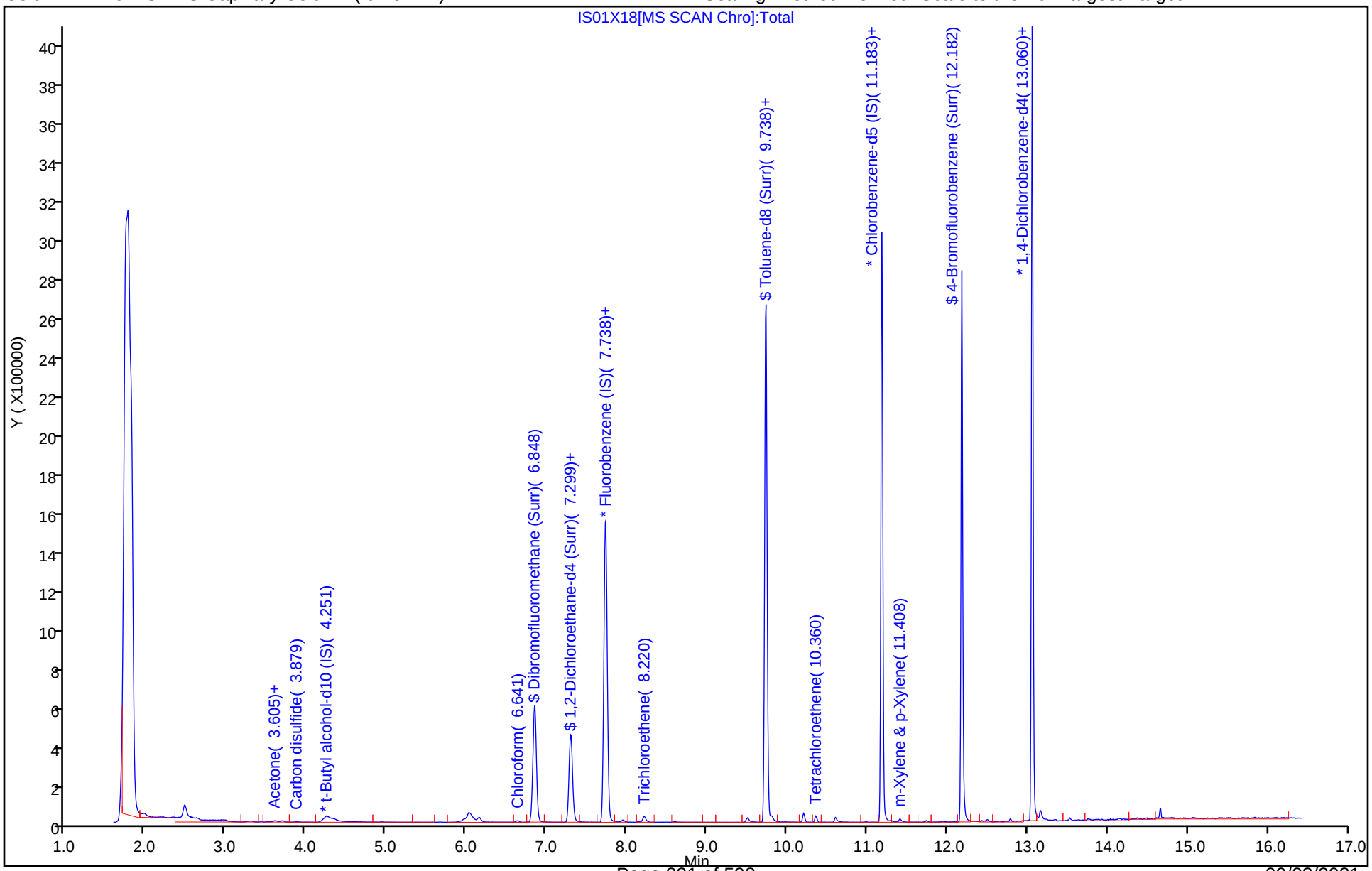
Report Date: 01-Sep-2021 20:57:55 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 15:12:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-5 | Lab Sample ID: | 410-53151-5 | Worklist Smp#: | 19 |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D | | | | |
| Lims ID: | 410-53151-A-5 | | | | |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 15:12:30 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-019 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

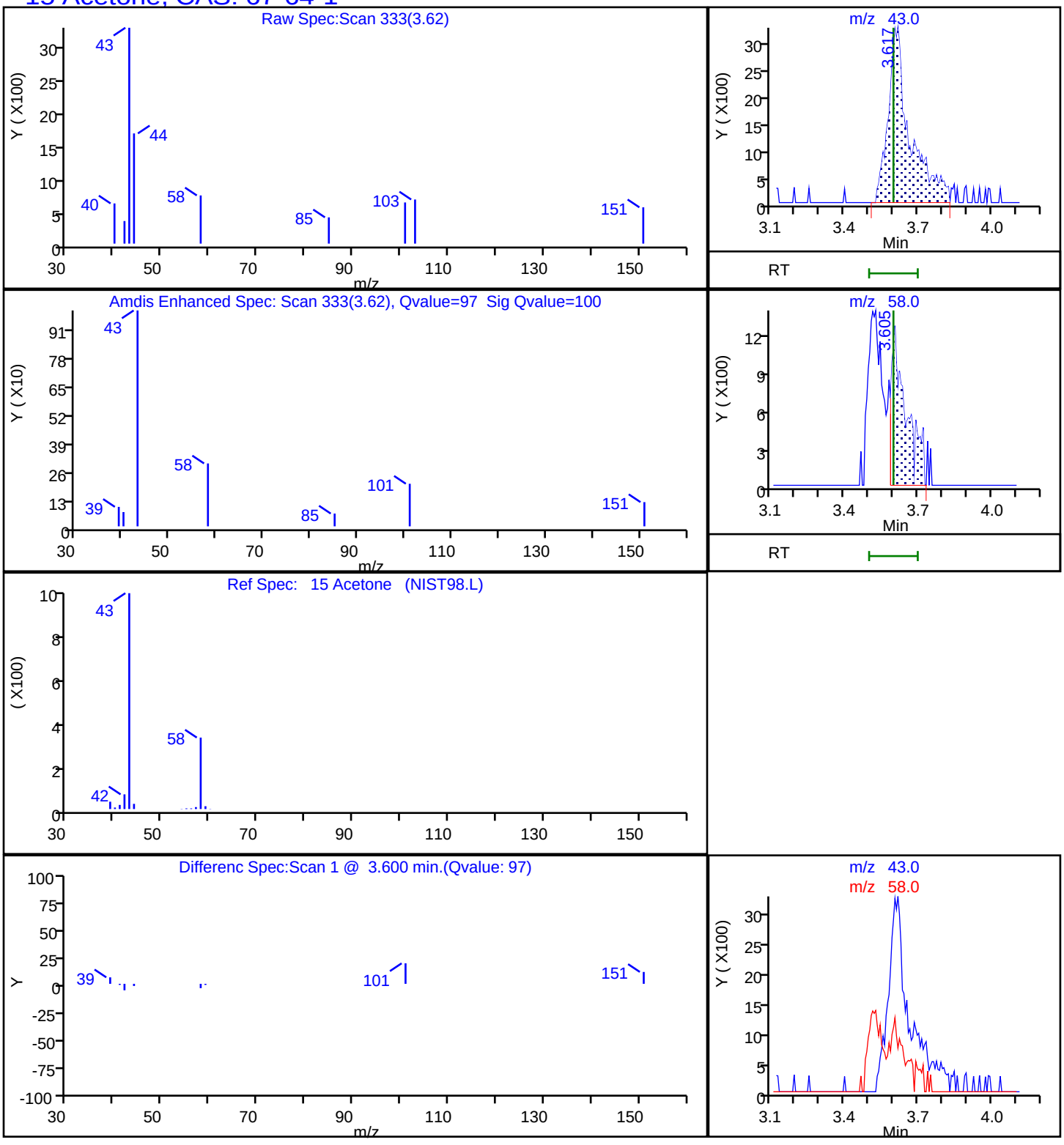
First Level Reviewer: campbellme Date: 01-Sep-2021 20:53:38

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.97 | 99.71 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.2 | 101.52 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.73 | 97.31 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.90 | 99.04 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D | | | | |
| Injection Date: | 01-Sep-2021 15:12:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-5 | Lab Sample ID: | 410-53151-5 | | |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 15 Acetone, CAS: 67-64-1



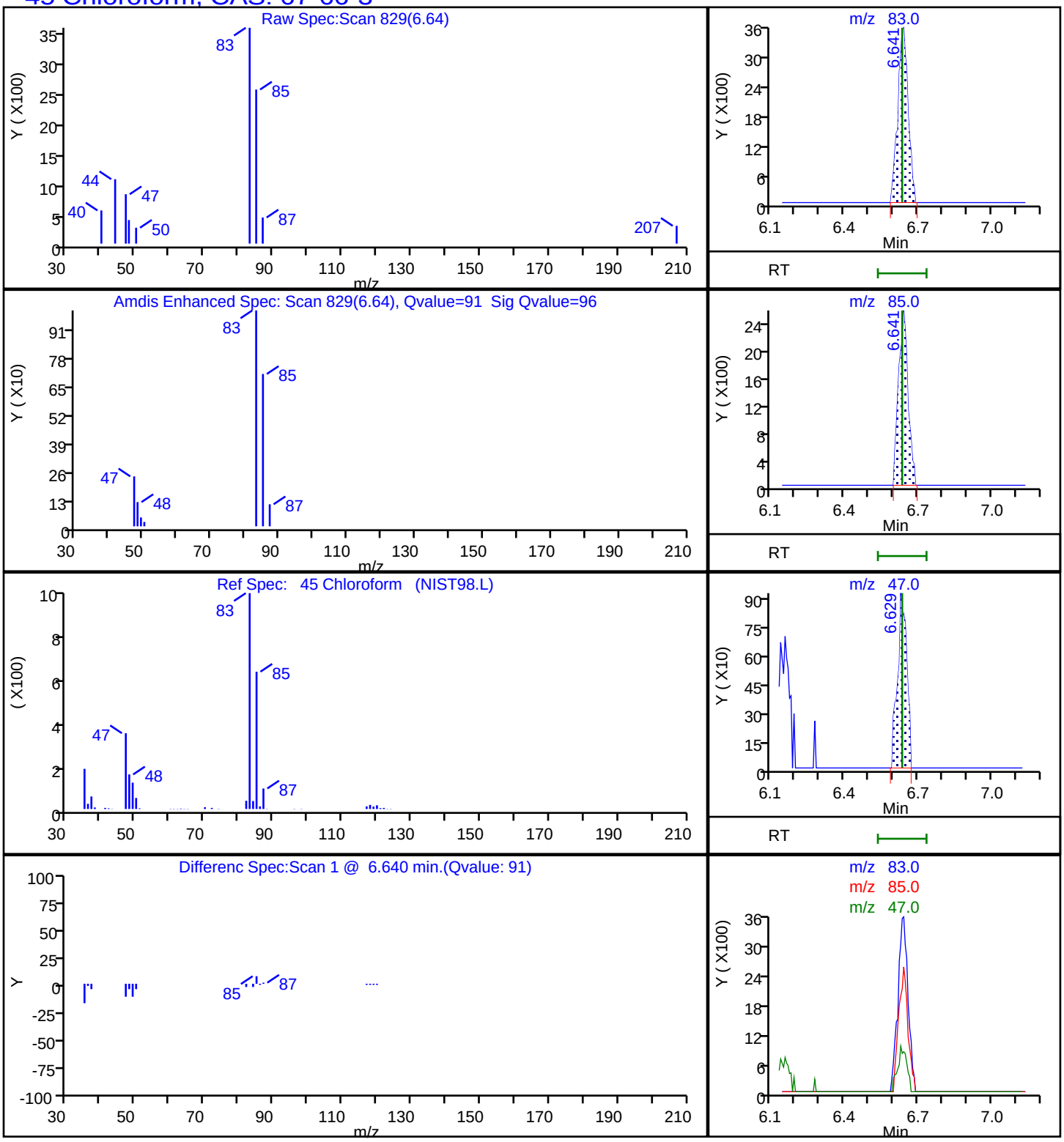
Report Date: 01-Sep-2021 20:57:55 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 15:12:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-5 | Lab Sample ID: | 410-53151-5 | | |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

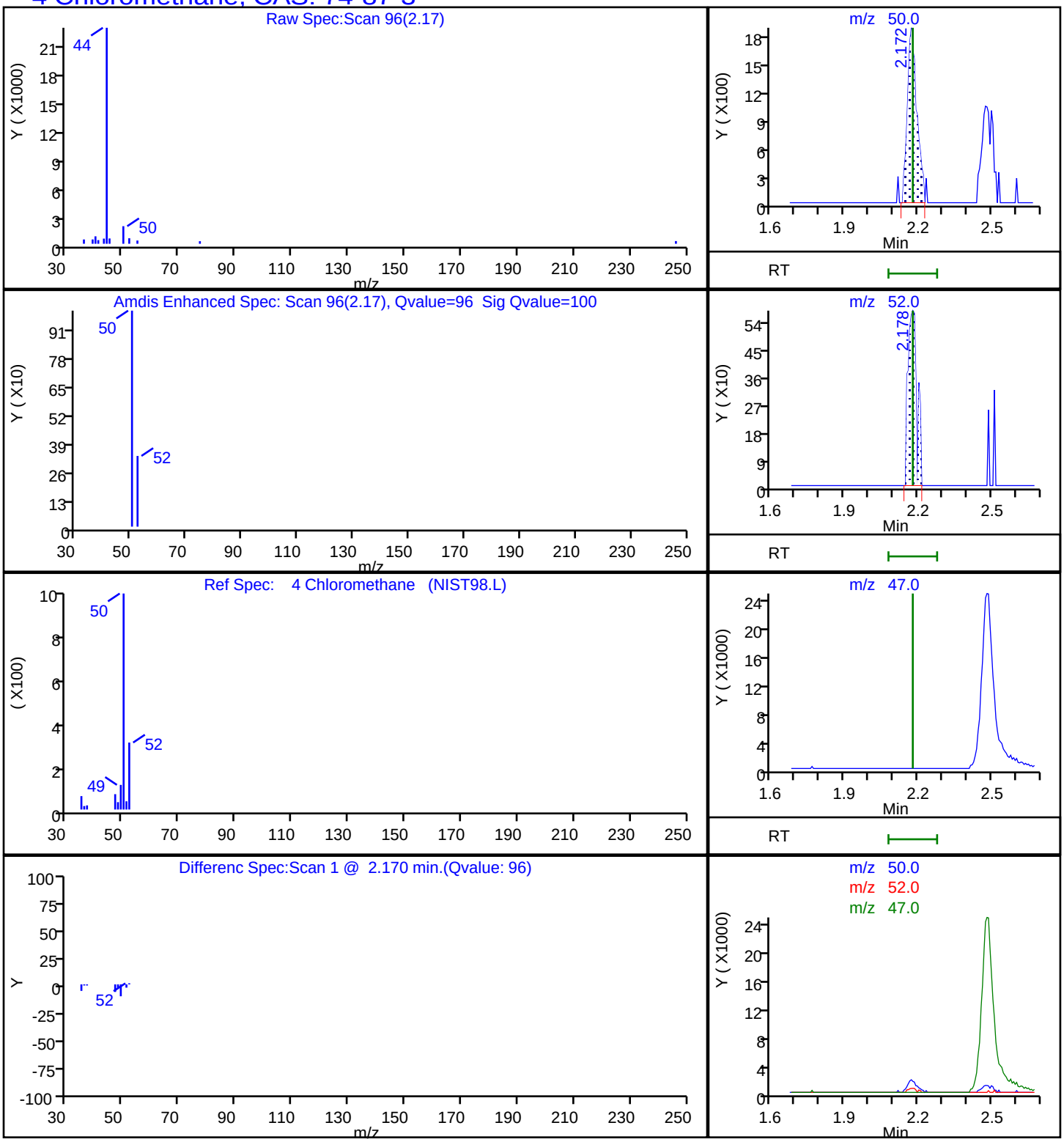
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D | | | | |
| Injection Date: | 01-Sep-2021 15:12:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-5 | Lab Sample ID: | 410-53151-5 | | |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

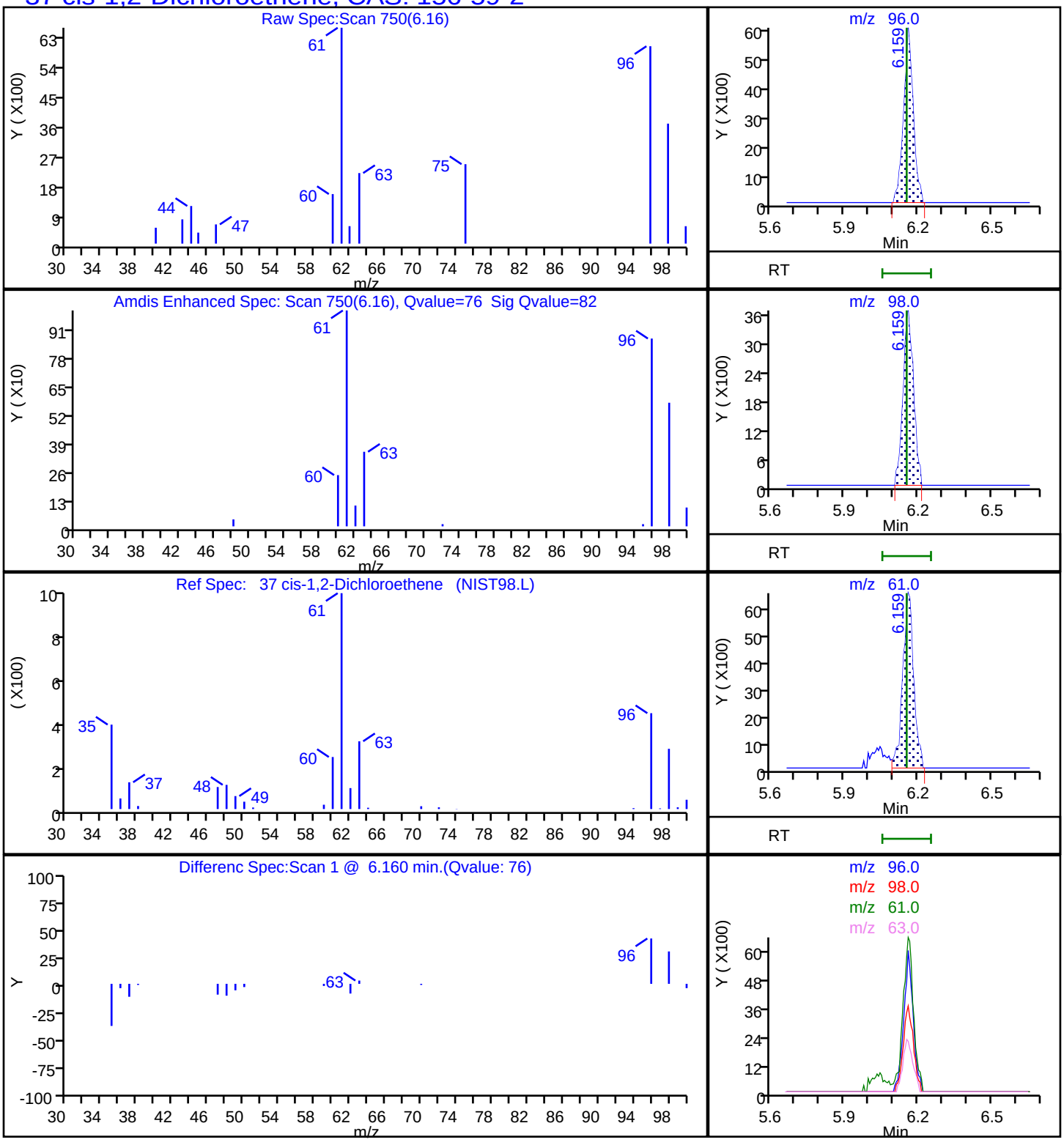
## 4 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D | | | | |
| Injection Date: | 01-Sep-2021 15:12:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-5 | Lab Sample ID: | 410-53151-5 | | |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 01-Sep-2021 20:57:56 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D

Injection Date: 01-Sep-2021 15:12:30 Instrument ID: 19930

Lims ID: 410-53151-A-5 Lab Sample ID: 410-53151-5

Client ID: HD-COD-SW-13-0/1-0

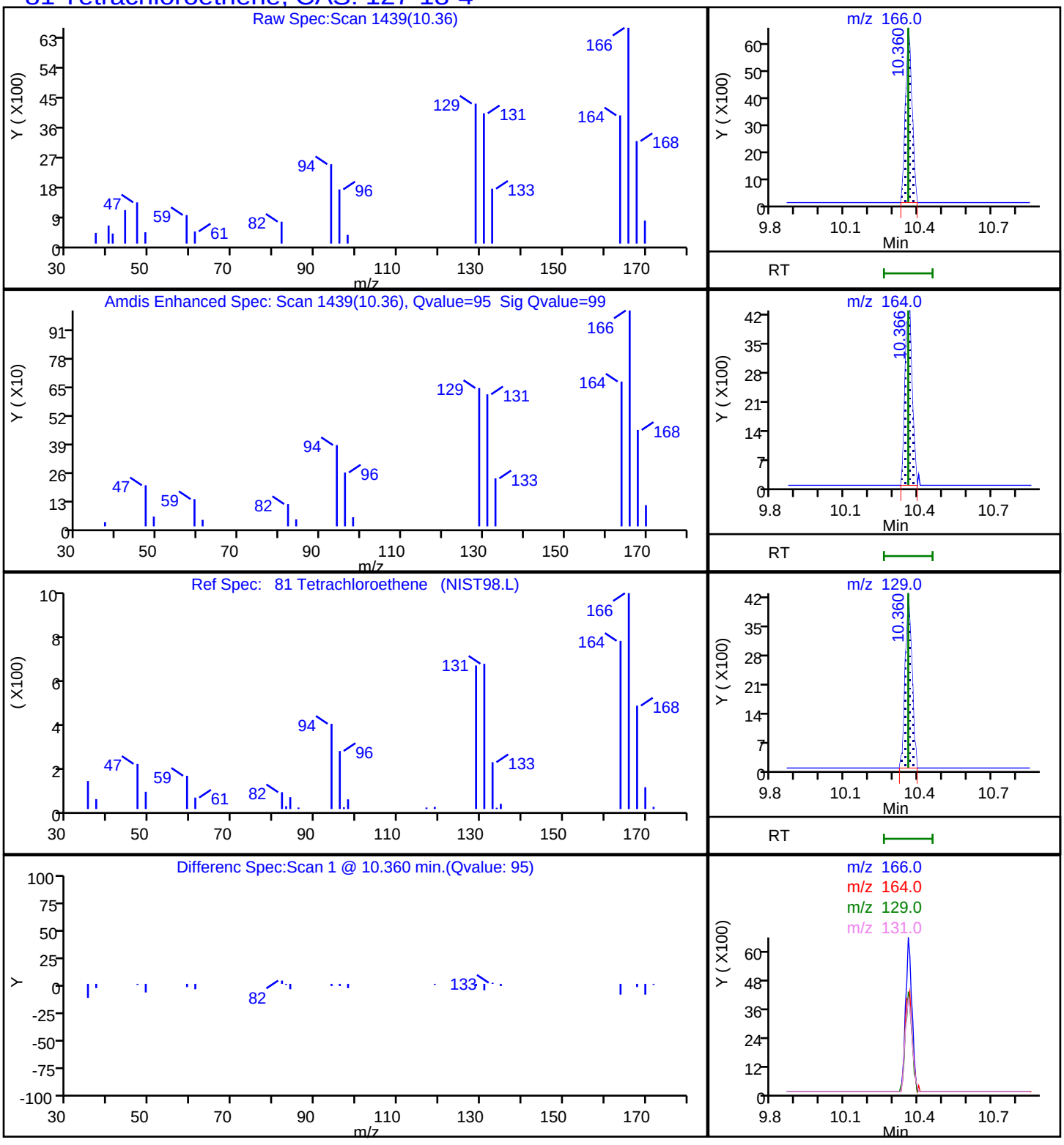
Operator ID: SRK36897 ALS Bottle#: 18 Worklist Smp#: 19

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Detector MS Quad

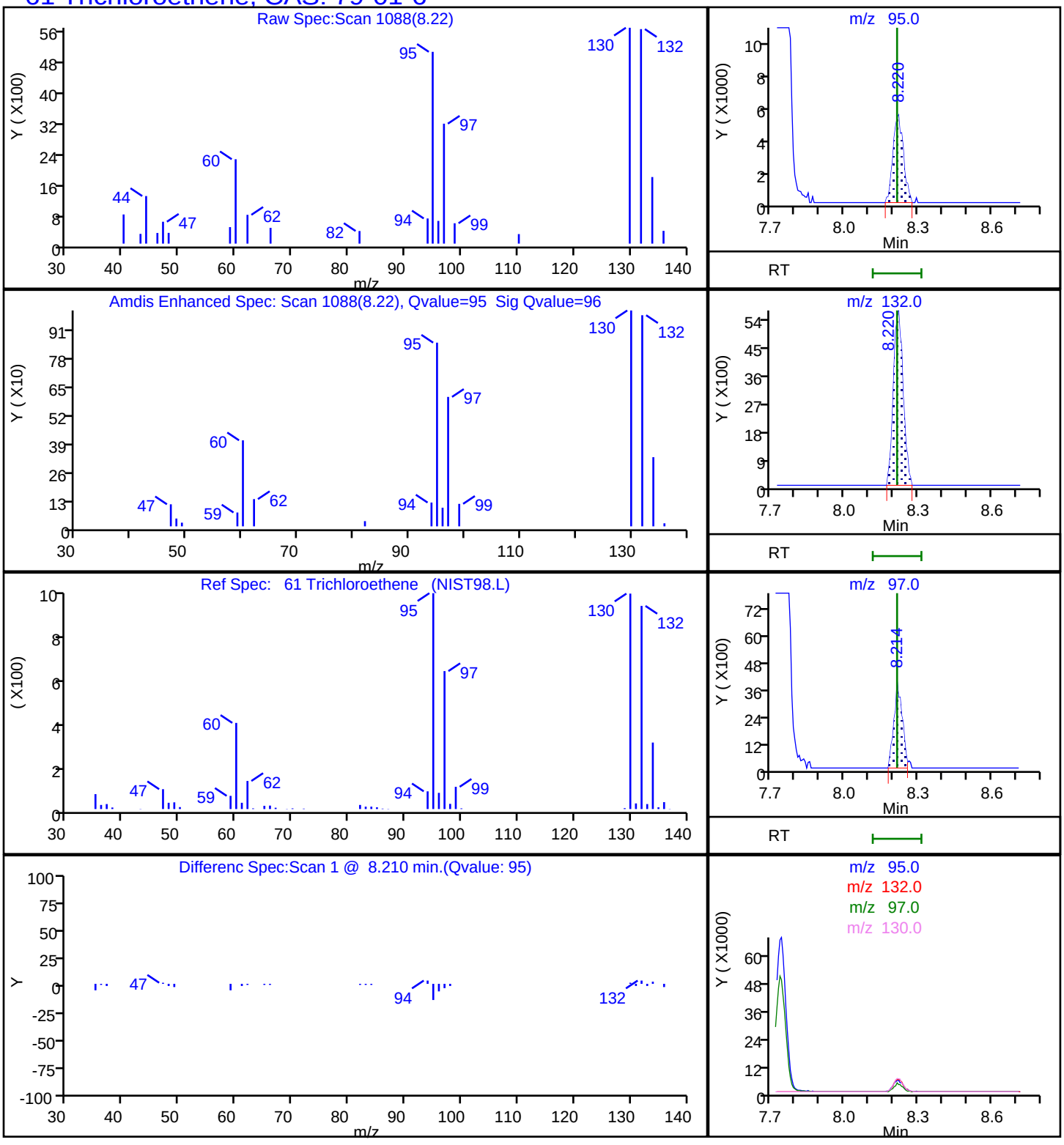
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D | | | | |
| Injection Date: | 01-Sep-2021 15:12:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-5 | Lab Sample ID: | 410-53151-5 | | |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

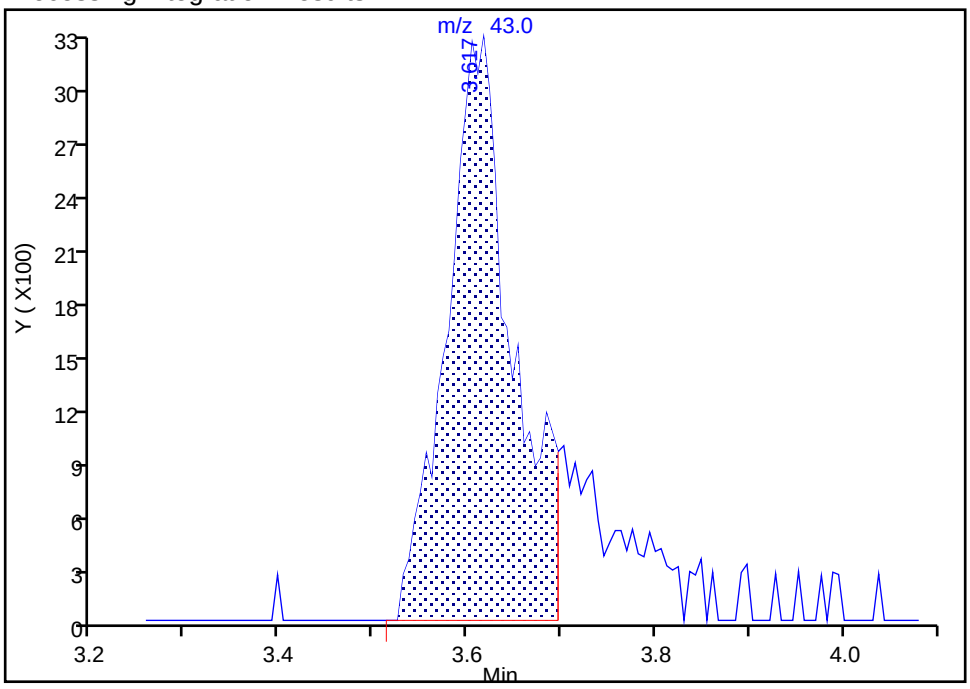
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D | | | | |
| Injection Date: | 01-Sep-2021 15:12:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-5 | Lab Sample ID: | 410-53151-5 | | |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 15 Acetone, CAS: 67-64-1

Signal: 1

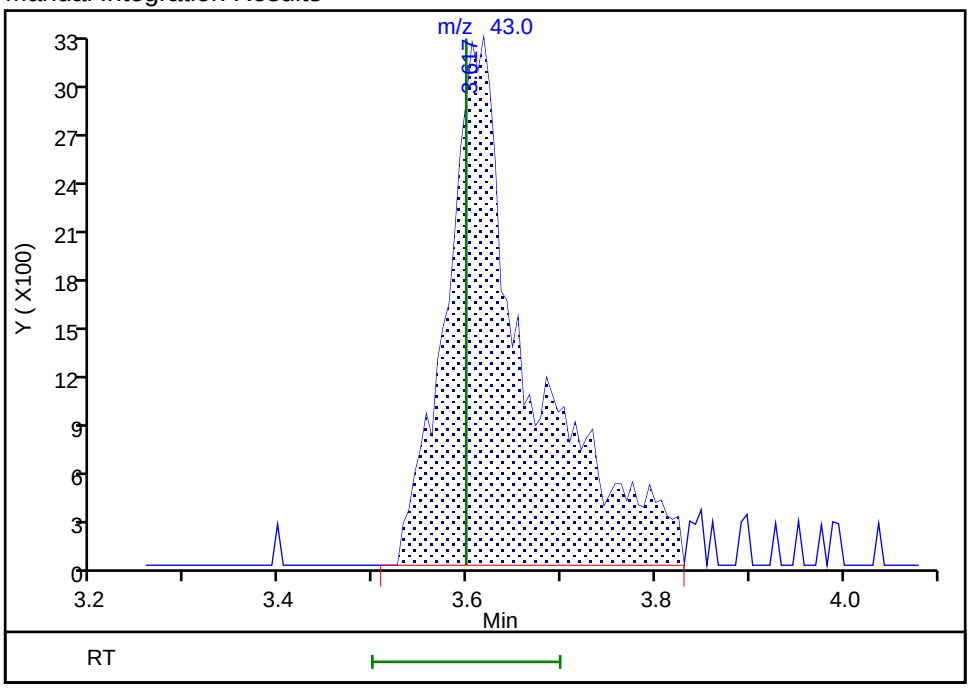
Processing Integration Results

RT: 3.62
Area: 16098
Amount: 1.410317
Amount Units: ug/l




Manual Integration Results

RT: 3.62
Area: 20192
Amount: 1.768985
Amount Units: ug/l




Reviewer: campbellme, 01-Sep-2021 20:53:26

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

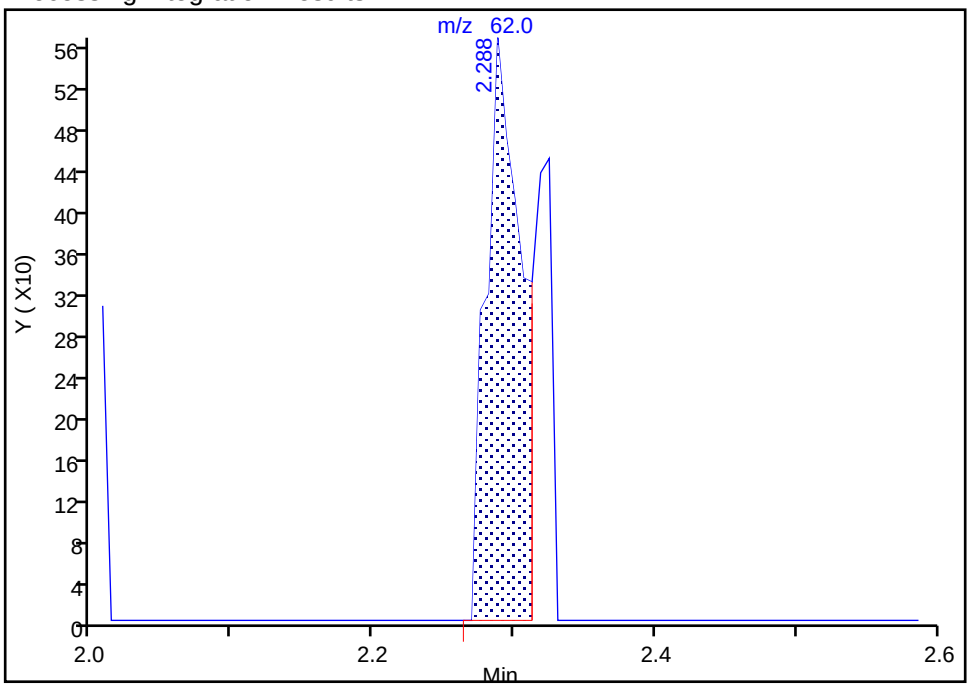
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X18.D | | | | |
| Injection Date: | 01-Sep-2021 15:12:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-5 | Lab Sample ID: | 410-53151-5 | | |
| Client ID: | HD-COD-SW-13-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 5 Vinyl chloride, CAS: 75-01-4

Signal: 1

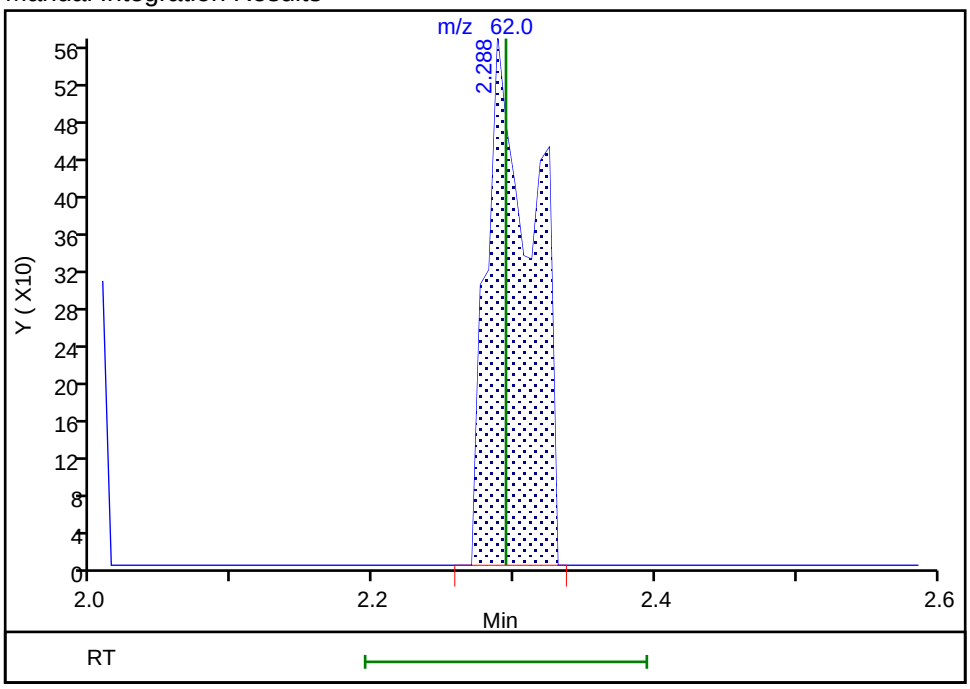
Processing Integration Results

RT: 2.29
Area: 995
Amount: 0.012303
Amount Units: ug/l




Manual Integration Results

RT: 2.29
Area: 1318
Amount: 0.016297
Amount Units: ug/l




Reviewer: campbellme, 01-Sep-2021 20:53:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0  Lab Sample ID: 410-53151-6

Matrix: Water  Lab File ID: IS01X09.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:10

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 12:02

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.19 | J | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | 0.095 | J | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | 0.13 | J FH | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | ND | | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | FH | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.28 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.89 | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 3.3 | FH | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 1.1 | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0  Lab Sample ID: 410-53151-6

Matrix: Water  Lab File ID: IS01X09.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:10

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 12:02

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 101 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X09.D
Lims ID: 410-53151-A-6
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 12:02:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-010
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:50:31

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | | 1.977 | | | | ND | |
| 2 Chlorodifluoromethane | 51 | | 1.989 | | | | ND | |
| 3 Dimethyl ether | 45 | | 2.050 | | | | ND | |
| 4 Chloromethane | 50 | | 2.178 | | | | ND | |
| 6 Butadiene | 39 | | 2.294 | | | | ND | 7 |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 9 Dichlorofluoromethane | 67 | | 2.952 | | | | ND | 7 |
| 10 Trichlorofluoromethane | 101 | | 3.019 | | | | ND | |
| 11 Ethyl ether | 59 | | 3.257 | | | | ND | |
| T 200 Ethanol TIC | 45 | | 3.288 | | | | ND | 7 |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | | 3.349 | | | | ND | |
| 13 Acrolein | 56 | | 3.428 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | 3.586 | 3.574 | 0.012 | 96 | 7235 | 0.1326 | |
| 15 Acetone | 43 | 3.623 | 3.599 | 0.025 | 98 | 7800 | 0.7829 | |
| 16 112TCTFE | 101 | | 3.617 | | | | ND | |
| 17 Iodomethane | 142 | | 3.769 | | | | ND | |
| 18 Ethyl bromide | 108 | | 3.800 | | | | ND | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | ND | 7 |
| 20 Acetonitrile | 41 | | 3.995 | | | | ND | |
| 21 Methyl acetate | 43 | | 4.019 | | | | ND | |
| 22 3-Chloro-1-propene | 41 | | 4.050 | | | | ND | |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.251 | 0.012 | 31 | 179341 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | | 4.379 | | | | ND | |
| 26 Acrylonitrile | 53 | | 4.586 | | | | ND | |
| 27 Methyl tert-butyl ether | 73 | 4.653 | 4.653 | 0.000 | 27 | 6229 | 0.0400 | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 29 Hexane | 57 | | 5.092 | | | | ND | |
| 30 Vinyl acetate | 43 | | 5.312 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | 5.330 | 5.324 | 0.006 | 94 | 10727 | 0.0954 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| T 208 Vinyl acetate (TIC) | 43 | | 5.336 | | | | ND | |
| 32 Isopropyl ether | 45 | | 5.379 | | | | ND | |
| 33 2-Chloro-1,3-butadiene | 53 | | 5.434 | | | | ND | |
| 34 Tert-butyl ethyl ether | 59 | | 5.915 | | | | ND | U |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | U |
| 37 cis-1,2-Dichloroethene | 96 | 6.165 | 6.153 | 0.012 | 78 | 61499 | 0.8911 | |
| S 35 1,2-Dichloroethene, Total | 100 | | | | 0 | | 0.8911 | |
| 38 2,2-Dichloropropane | 77 | | 6.171 | | | | ND | |
| 39 Ethyl acetate | 43 | | 6.190 | | | | ND | 7 |
| 40 Propionitrile | 54 | | 6.208 | | | | ND | |
| 41 Methyl acrylate | 55 | | 6.220 | | | | ND | |
| 42 Methacrylonitrile | 67 | | 6.421 | | | | ND | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 44 Tetrahydrofuran | 71 | | 6.488 | | | | ND | |
| 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 93 | 30894 | 0.2775 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 575693 | 10.0 | |
| 47 1,1,1-Trichloroethane | 97 | 6.872 | 6.860 | 0.012 | 95 | 19831 | 0.1917 | |
| 48 Cyclohexane | 56 | | 6.958 | | | | ND | |
| 49 1-Chlorobutane | 56 | | 7.019 | | | | ND | |
| 50 Carbon tetrachloride | 117 | 7.092 | 7.067 | 0.025 | 92 | 3443 | 0.0386 | |
| 51 1,1-Dichloropropene | 75 | | 7.073 | | | | ND | |
| 52 Isobutyl alcohol | 41 | | 7.214 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 116371 | 10.1 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| 55 Isopropyl acetate | 43 | | 7.415 | | | | ND | |
| 57 Tert-amyl methyl ether | 73 | | 7.518 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2285238 | 10.0 | |
| 59 n-Heptane | 43 | 7.750 | 7.744 | 0.006 | 42 | 2257 | 0.0254 | |
| 60 n-Butanol | 56 | | 8.085 | | | | ND | |
| 61 Trichloroethene | 95 | 8.220 | 8.213 | 0.007 | 97 | 74702 | 1.08 | |
| 62 Methylcyclohexane | 83 | | 8.518 | | | | ND | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 64 Methyl methacrylate | 69 | | 8.622 | | | | ND | |
| 65 1,4-Dioxane | 88 | | 8.634 | | | | ND | |
| 66 Dibromomethane | 93 | | 8.652 | | | | ND | |
| 67 n-Propyl acetate | 43 | | 8.707 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | |
| 69 2-Nitropropane | 41 | | 9.152 | | | | ND | |
| 70 Chloroacetonitrile | 75 | | 9.226 | | | | ND | |
| 71 2-Chloroethyl vinyl ether | 63 | | 9.256 | | | | ND | |
| 72 1-Bromo-2-chloroethane | 63 | | 9.274 | | | | ND | |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2278666 | 9.77 | |
| 76 Toluene | 92 | | 9.811 | | | | ND | 7 |
| T 150 Epibromohydrin TIC | 57 | | 10.000 | | | | ND | U |
| T 152 Vinyl bromide TIC | 106 | | 10.000 | | | | ND | U |
| T 153 Epichlorohydrin TIC | 57 | | 10.000 | | | | ND | U |
| T 154 2-Bromo-3-chloropropene TIC | 75 | | 10.000 | | | | ND | U |
| T 148 Monochloroacetic acid TIC | 50 | | 10.000 | | | | ND | U |
| T 155 Ethylene oxide TIC | 44 | | 10.000 | | | | ND | U |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| T 149 2-Chloroethanol TIC | 44 | | 10.000 | | | | ND | U |
| T 156 2,3-Dibromopropene TIC | 119 | | 10.000 | | | | ND | U |
| T 147 2-Bromoethanol TIC | 45 | | 10.000 | | | | ND | U |
| T 151 Chloroacetaldehyde TIC | 50 | | 10.000 | | | | ND | U |
| T 146 2,3-Dibromo-1-propanol TIC | 57 | | 10.000 | | | | ND | |
| T 157 3-Chloro-1,2-propanediol TIC | 44 | | 10.000 | | | | ND | U |
| S 77 1,3-Dichloropropene, Total | 100 | | 10.060 | | | | ND | 7 |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 79 Ethyl methacrylate | 69 | | 10.122 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | 7 |
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 98 | 270891 | 3.29 | |
| 82 1,3-Dichloropropane | 76 | | 10.426 | | | | ND | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | |
| 84 n-Butyl acetate | 43 | | 10.603 | | | | ND | |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1804155 | 10.0 | |
| 88 1-Chlorohexane | 91 | | 11.188 | | | | ND | 7 |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | | 11.408 | | | | ND | 7 |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | 7 |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| 97 Isopropylbenzene | 105 | | 12.036 | | | | ND | |
| 98 cis-1,4-Dichloro-2-butene | 88 | | 12.079 | | | | ND | |
| 99 Cyclohexanone | 55 | | 12.121 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 883347 | 9.91 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| 102 Bromobenzene | 156 | | 12.298 | | | | ND | |
| 103 trans-1,4-Dichloro-2-butene | 53 | | 12.304 | | | | ND | |
| 104 1,2,3-Trichloropropane | 110 | | 12.329 | | | | ND | |
| 105 N-Propylbenzene | 91 | | 12.365 | | | | ND | 7 |
| 106 2-Chlorotoluene | 126 | | 12.444 | | | | ND | |
| 107 1,3,5-Trimethylbenzene | 105 | | 12.499 | | | | ND | 7 |
| 108 4-Chlorotoluene | 126 | | 12.536 | | | | ND | |
| 109 tert-Butylbenzene | 134 | | 12.743 | | | | ND | |
| 110 Pentachloroethane | 167 | | 12.774 | | | | ND | |
| 111 1,2,4-Trimethylbenzene | 105 | | 12.786 | | | | ND | 7 |
| 112 sec-Butylbenzene | 105 | | 12.908 | | | | ND | |
| 113 1,3-Dichlorobenzene | 146 | | 13.005 | | | | ND | 7 |
| 114 4-Isopropyltoluene | 119 | | 13.011 | | | | ND | 7 |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1085454 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | | 13.078 | | | | ND | 7 |
| 117 1,2,3-Trimethylbenzene | 120 | | 13.091 | | | | ND | 7 |
| 118 Benzyl chloride | 126 | | 13.158 | | | | ND | 7 |
| 119 n-Butylbenzene | 92 | | 13.304 | | | | ND | 7 |
| 120 1,2-Dichlorobenzene | 146 | | 13.341 | | | | ND | 7 |
| 121 Hexachloroethane | 117 | | 13.542 | | | | ND | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.877 | 13.883 | -0.006 | 56 | 819 | 0.0928 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 123 1,3,5-Trichlorobenzene | 180 | | 14.005 | | | | ND | 7 |
| 124 1,2,4-Trichlorobenzene | 180 | | 14.432 | | | | ND | 7 |
| 125 Hexachlorobutadiene | 225 | | 14.511 | | | | ND | 7 |
| 126 Naphthalene | 128 | | 14.609 | | | | ND | 7 |
| 127 1,2,3-Trichlorobenzene | 180 | | 14.755 | | | | ND | 7 |
| 128 Dodecane | 57 | | 0.000 | | | | ND | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | |
| 141 1-Chloropropane | 1 | | 0.000 | | | | ND | |
| 129 Propene oxide | 1 | | 0.000 | | | | ND | |
| 207 Acetonitrile TIC | 1 | | 0.000 | | | | ND | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | ND | |
| 206 Pentachloroethane TIC | 1 | | 0.000 | | | | ND | |
| 142 2-Bromo-1-chloropropane | 1 | | 0.000 | | | | ND | |
| 131 tert-Butyl Formate | 1 | | 0.000 | | | | ND | |
| 132 Methylal | 1 | | 0.000 | | | | ND | |
| 133 t-Amyl alcohol | 1 | | 0.000 | | | | ND | |
| T 201 Isopropyl alcohol TIC | 45 | | 0.000 | | | | ND | U |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | |
| 138 1,1-Dichloro-1-fluoroethane | 1 | | 0.000 | | | | ND | |
| 202 1,3-Dichloro-2-propanol TIC | 1 | | 0.000 | | | | ND | |
| 203 Propargyl alcohol TIC | 1 | | 0.000 | | | | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | |
| 143 n-Decane | 57 | | 0.000 | | | | ND | |
| 139 1-Bromo-3-Chloropropane | 1 | | 0.000 | | | | ND | |
| 205 1,1-Dichloroacetone | 1 | | 0.000 | | | | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | |
| 140 Ethanol | 45 | | 3.269 | | | | ND | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 01-Sep-2021 20:58:13 Chrom Revision: 2.3 03-Aug-2021 10:08:16

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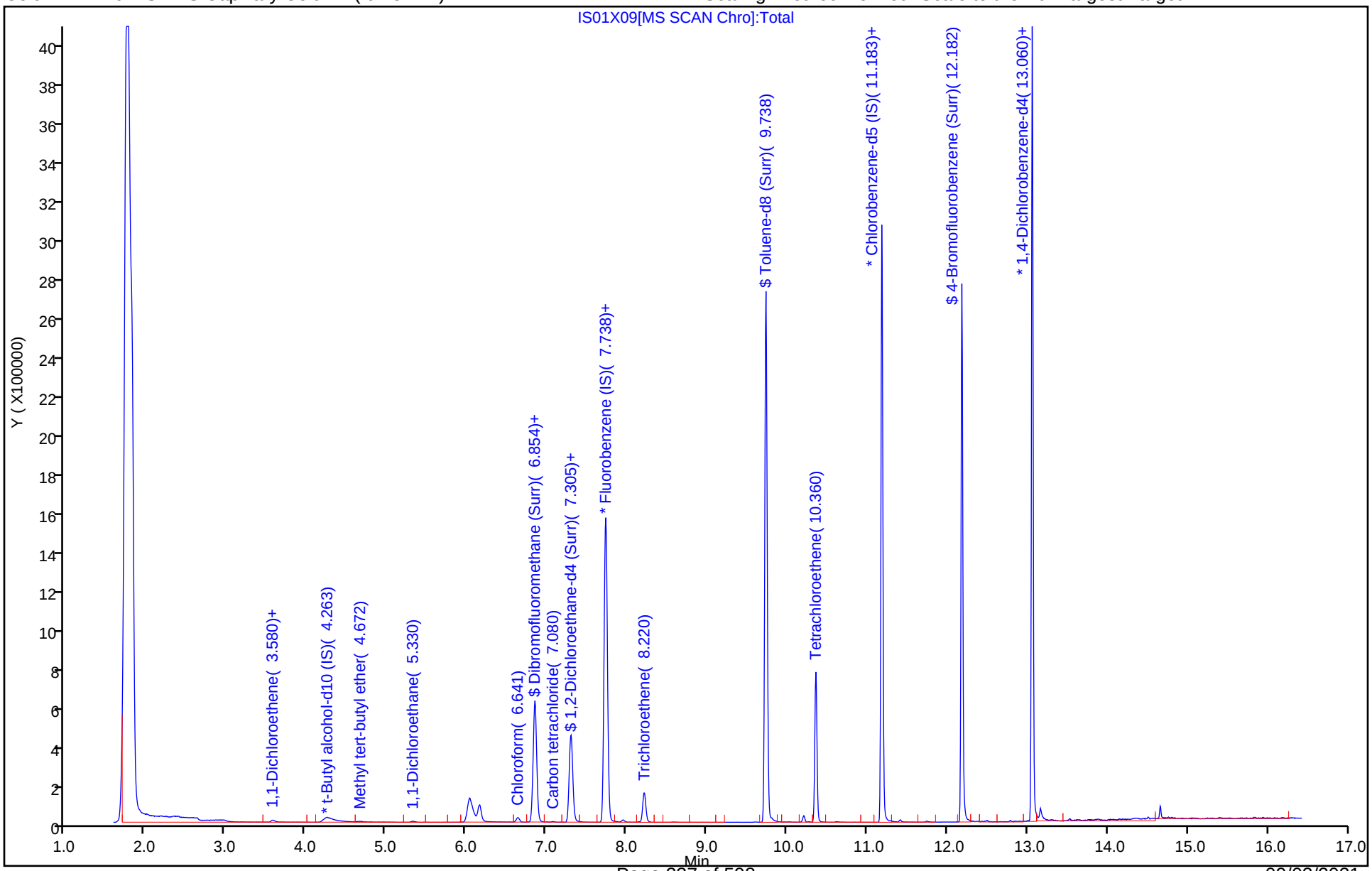
Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X09.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | Worklist Smp#: | 10 |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
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| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X09.D | | | | |
| Lims ID: | 410-53151-A-6 | | | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 12:02:30 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-010 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

First Level Reviewer: campbellme Date: 01-Sep-2021 20:50:31

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 10.0 | 100.00 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.1 | 101.05 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.77 | 97.73 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.91 | 99.13 |

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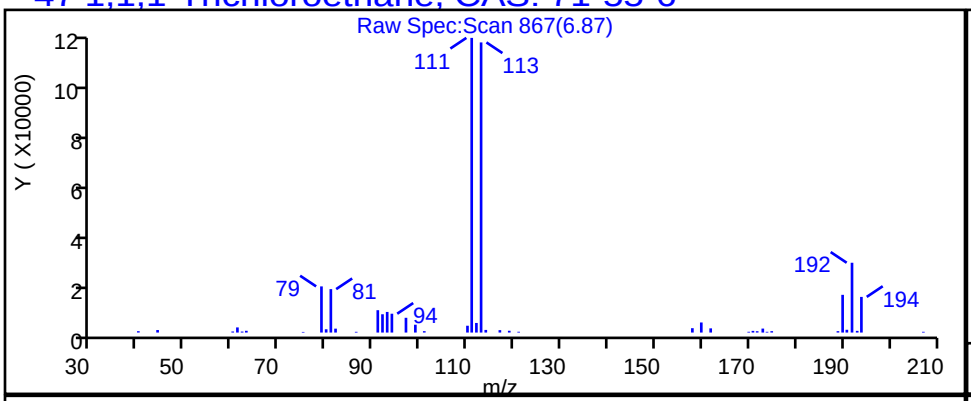
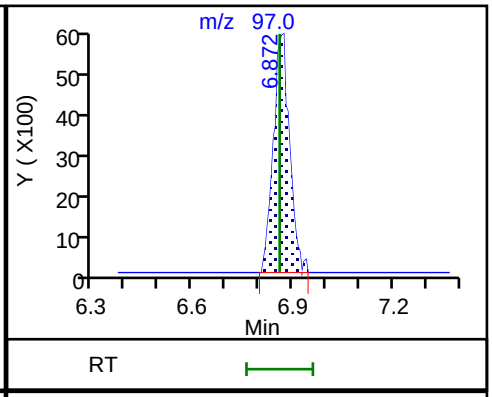
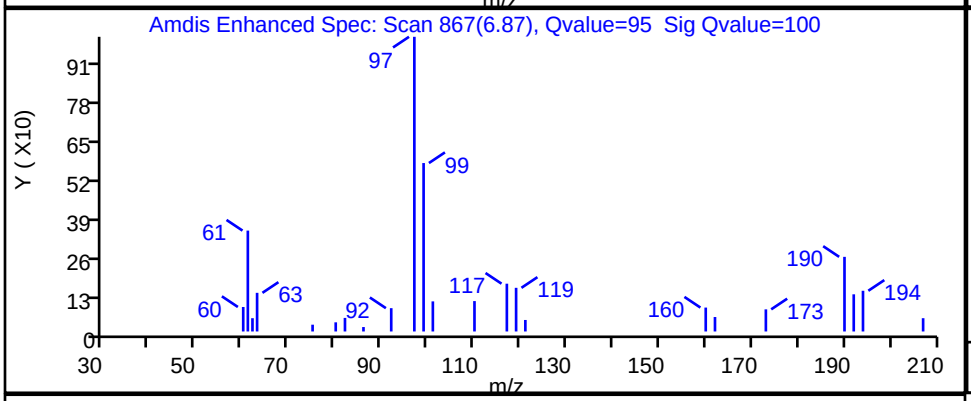
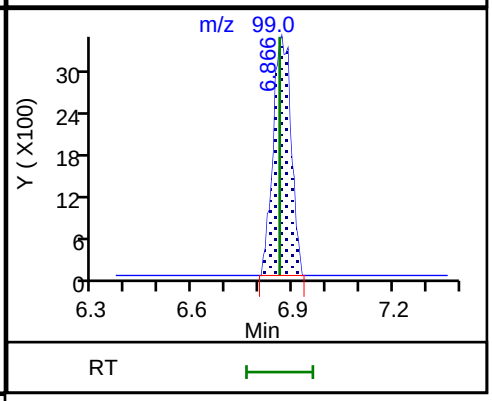
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X09.D | | | | |
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

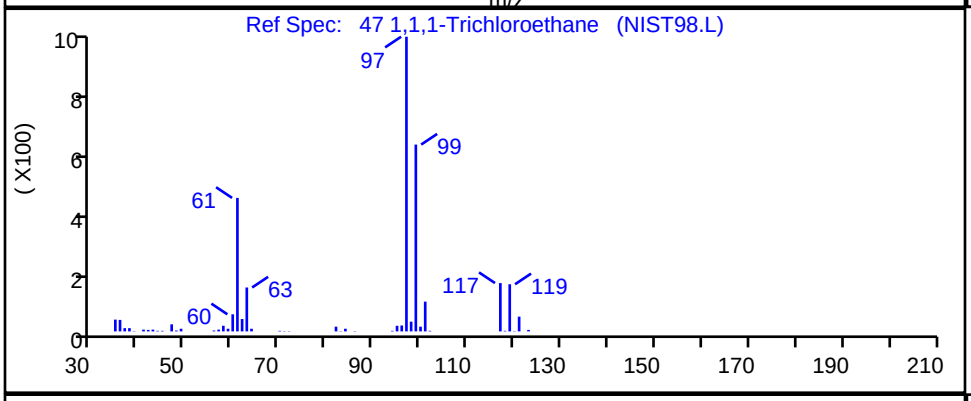
## 47 1,1,1-Trichloroethane, CAS: 71-55-6

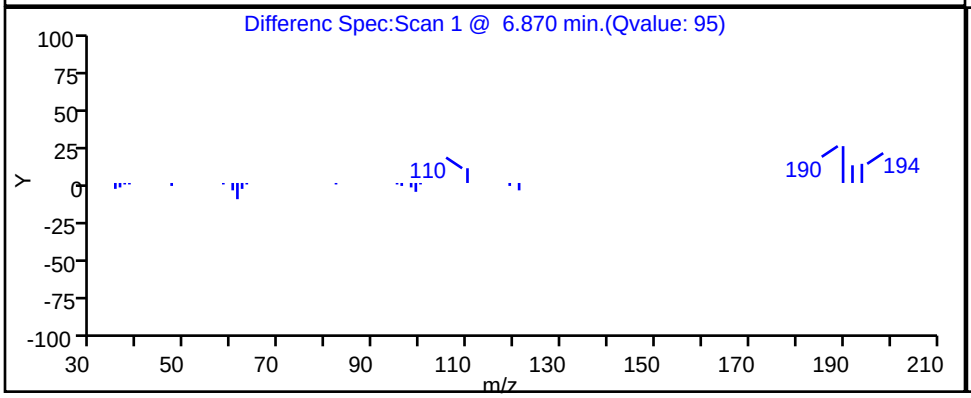


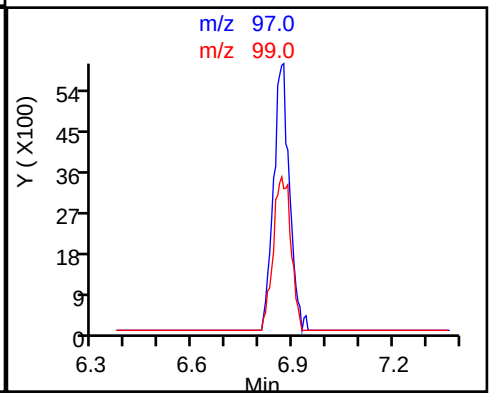



Eurofins Lancaster Laboratories Env, LLC

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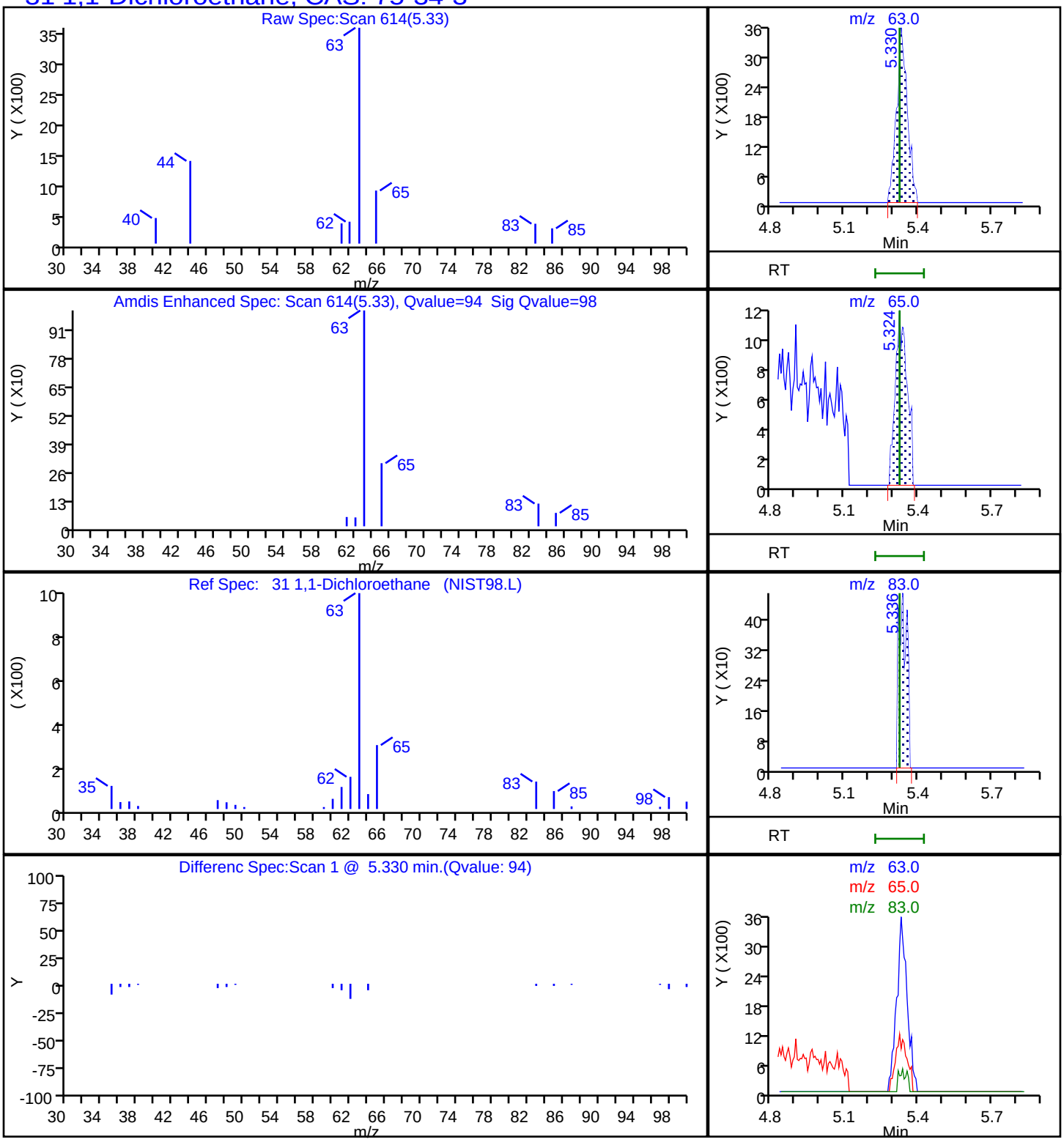
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

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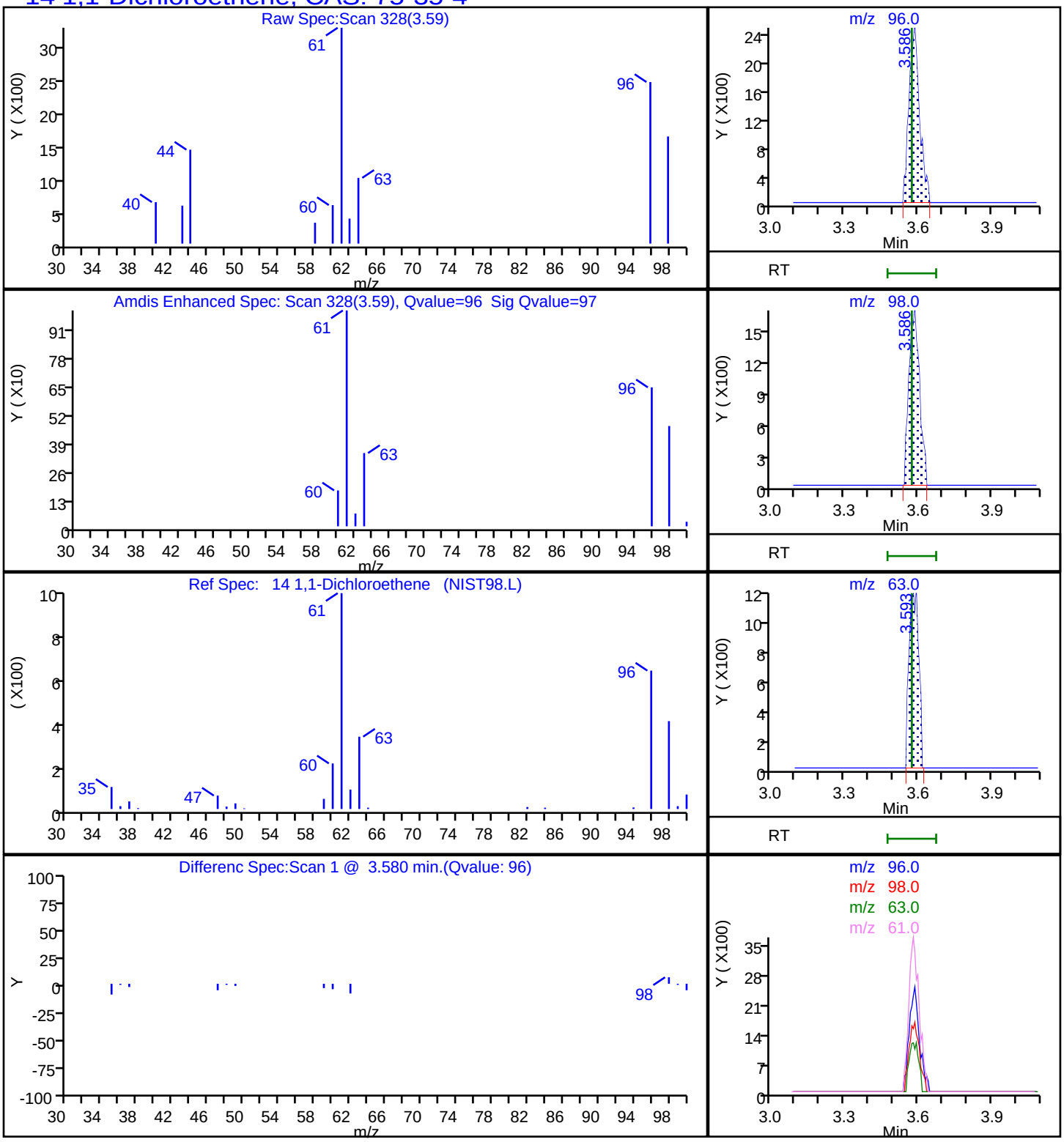
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
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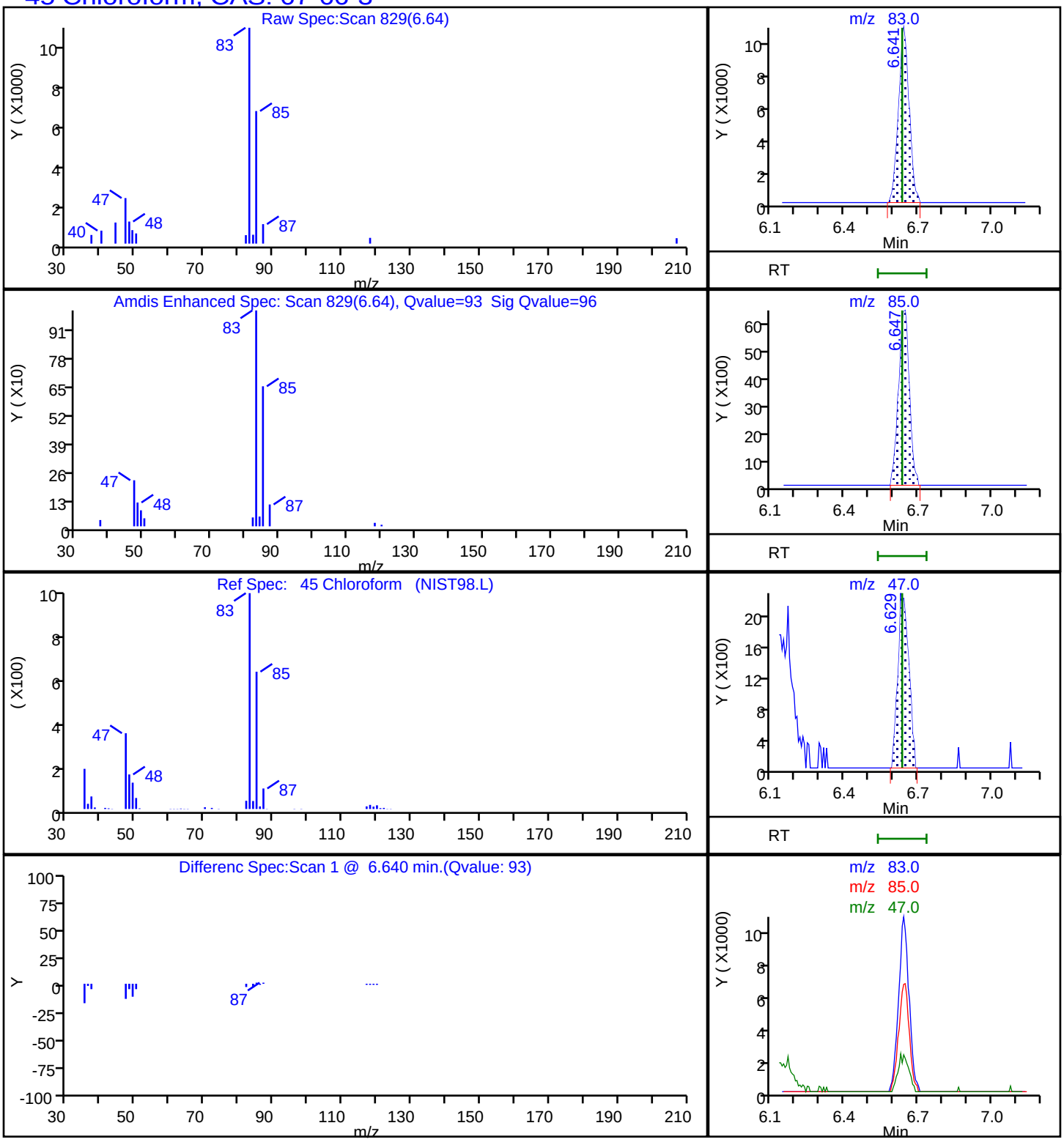
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 45 Chloroform, CAS: 67-66-3



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| | | | | | |
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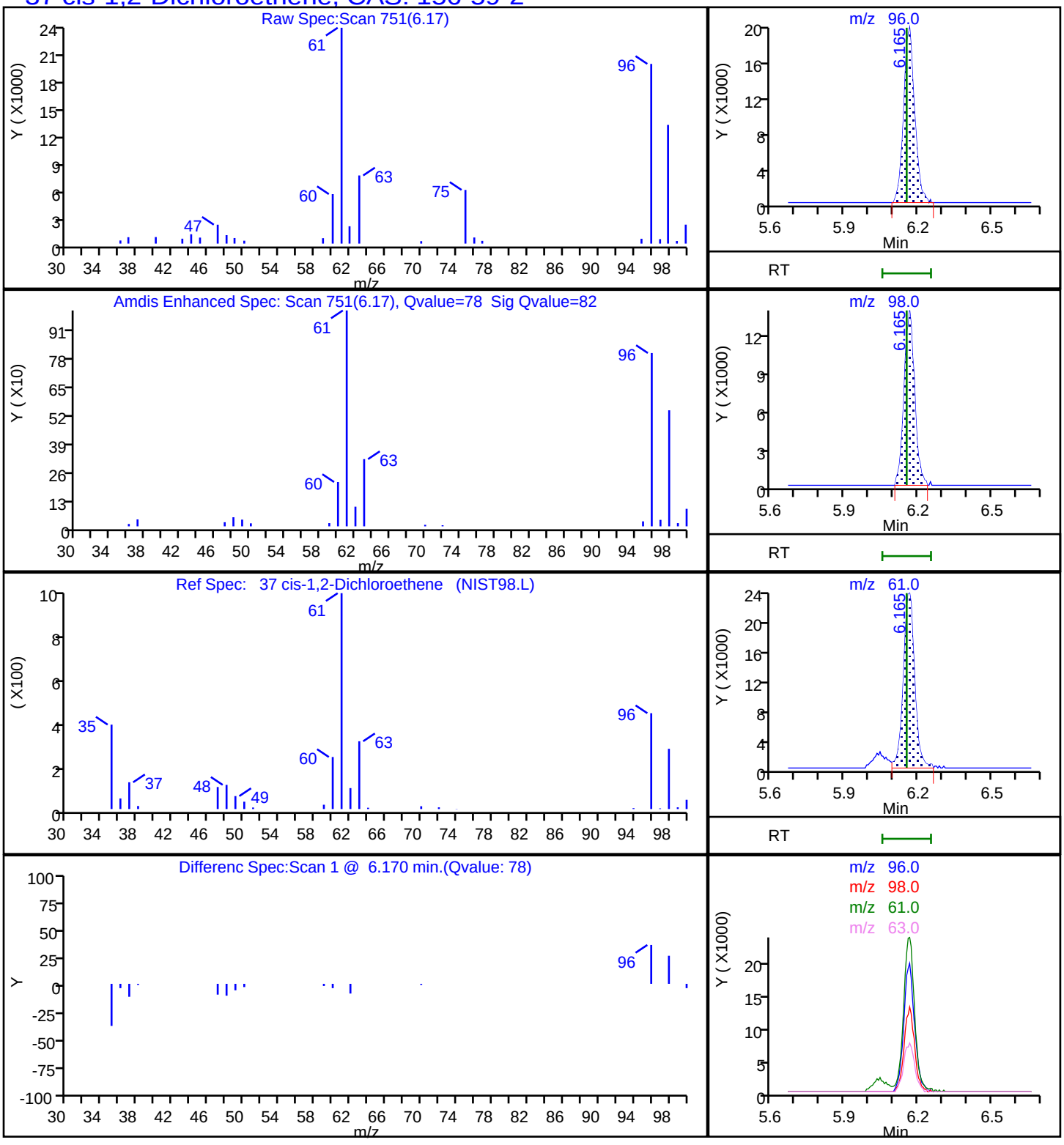
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
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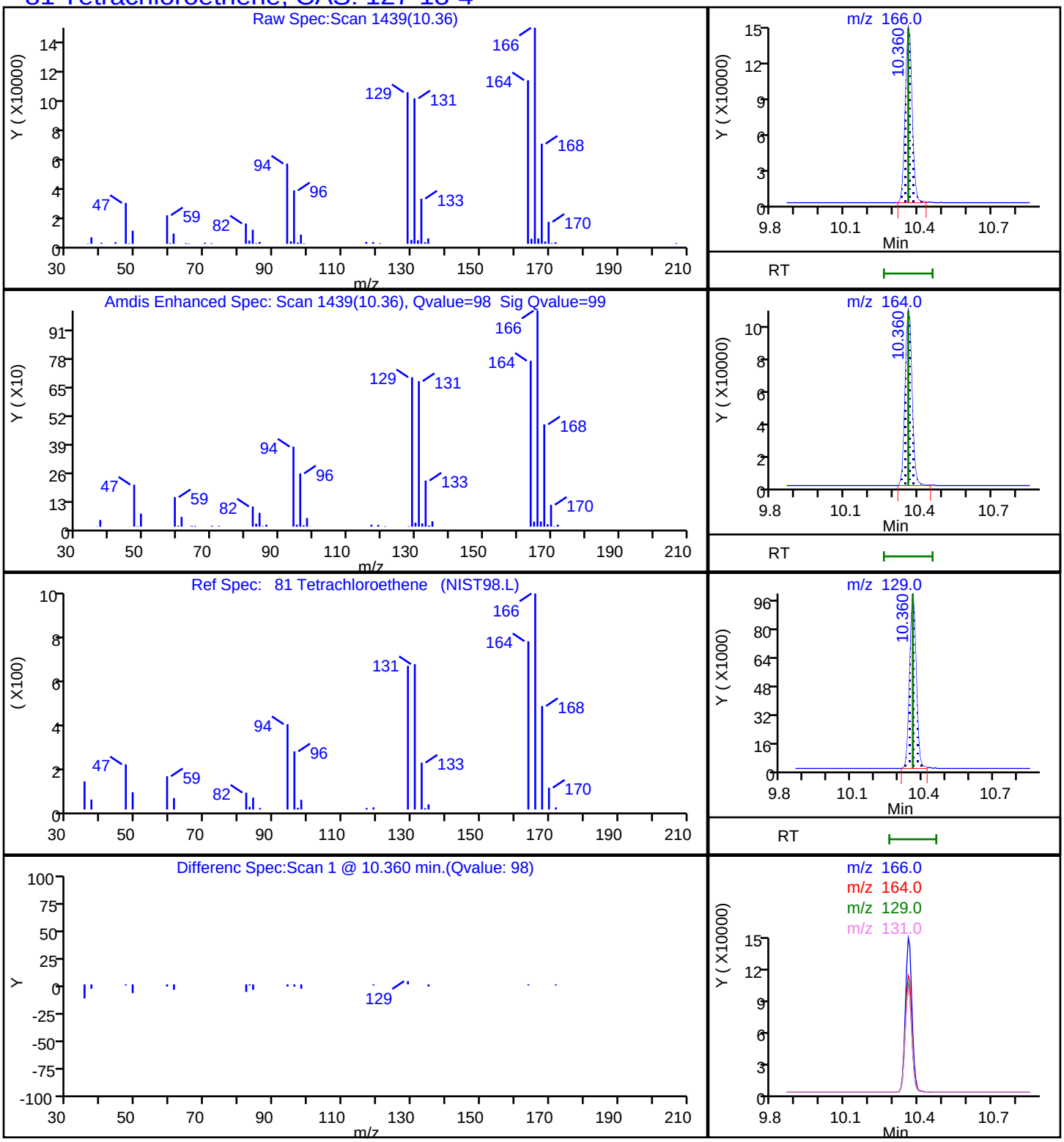
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 81 Tetrachloroethene, CAS: 127-18-4

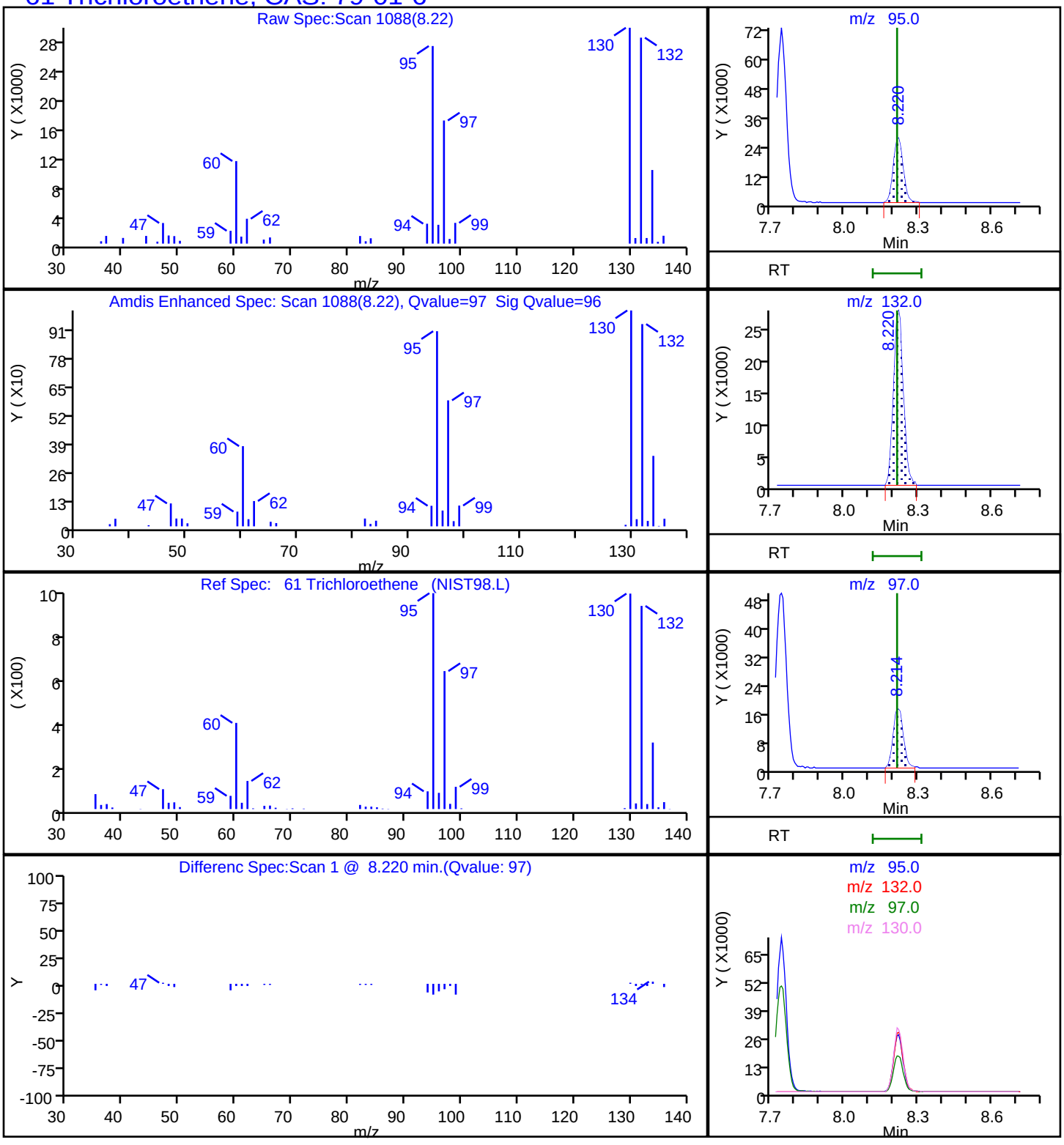


Report Date: 01-Sep-2021 20:58:13 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X09.D | | | | |
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



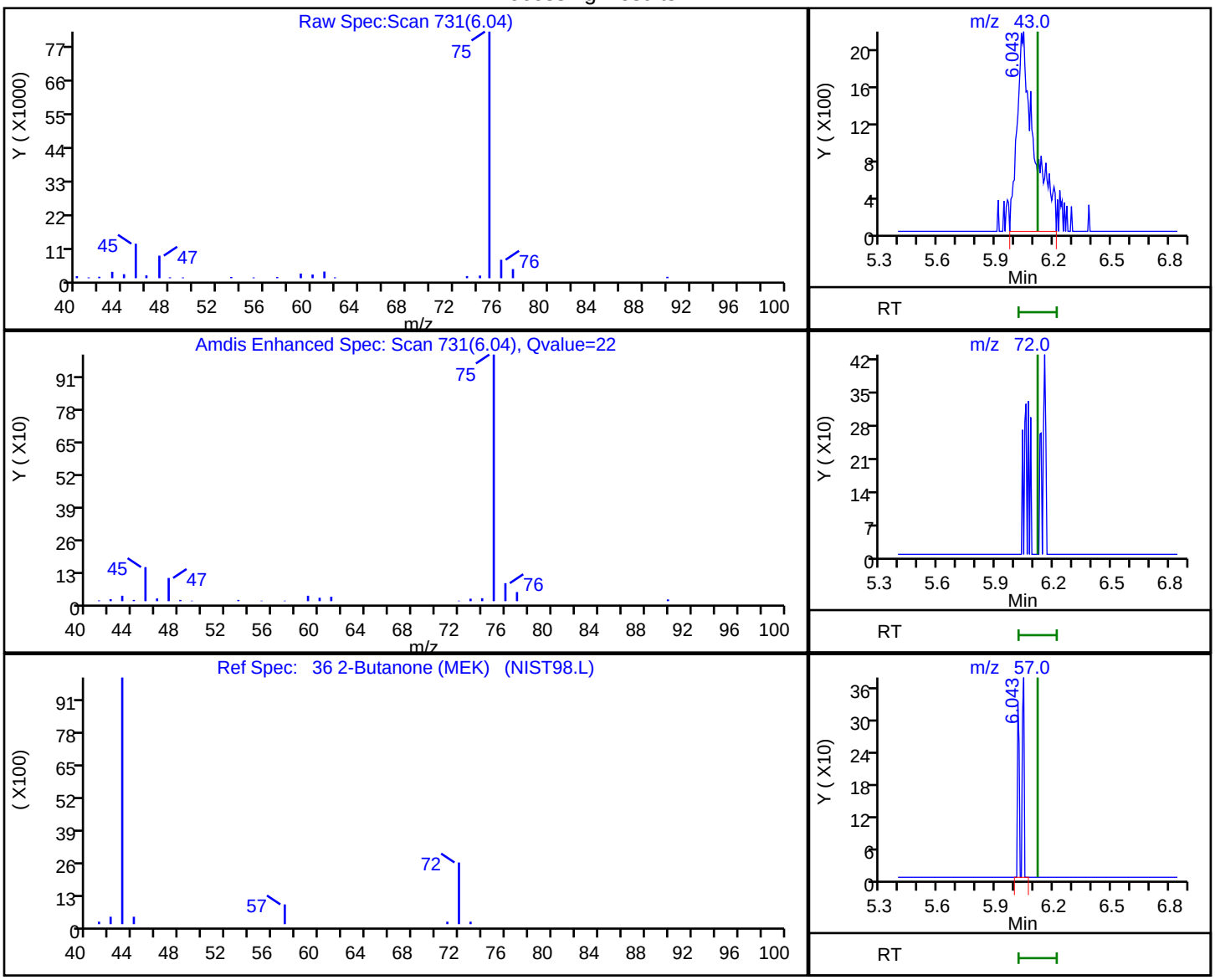
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X09.D | | | | |
| Injection Date: | 01-Sep-2021 12:02:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-6 | Lab Sample ID: | 410-53151-6 | | |
| Client ID: | HD-COD-SW-15-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 9 | Worklist Smp#: | 10 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 36 2-Butanone (MEK), CAS: 78-93-3

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 6.04 | 43.00 | 13221 | 0.759995 |
| 6.04 | 57.00 | 458 | |
| 6.12 | 72.00 | 0 | |

Reviewer: campbellme, 01-Sep-2021 20:49:53

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0  Lab Sample ID: 410-53151-7

Matrix: Water  Lab File ID: IS01X19.D

Analysis Method: 8260D  Date Collected: 08/26/2021 10:25

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 15:34

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 1.6 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.097 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.23 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 0.12 | J | 0.50 | 0.060 |
| 108-88-3 | Toluene | 0.084 | J | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.19 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0  Lab Sample ID: 410-53151-7

Matrix: Water  Lab File ID: IS01X19.D

Analysis Method: 8260D  Date Collected: 08/26/2021 10:25

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 15:34

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 99 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D
Lims ID: 410-53151-A-7
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 15:34:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-020
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:54:00

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | 2.178 | 2.178 | 0.000 | 85 | 3823 | 0.0468 | |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | 7 |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| 15 Acetone | 43 | 3.611 | 3.599 | 0.013 | 99 | 18765 | 1.63 | |
| 19 Carbon disulfide | 76 | 3.885 | 3.879 | 0.006 | 33 | 5674 | 0.0375 | |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.275 | 4.251 | 0.024 | 23 | 207346 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| 37 cis-1,2-Dichloroethene | 96 | 6.153 | 6.153 | 0.000 | 78 | 16012 | 0.2311 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.635 | 6.634 | 0.001 | 92 | 10884 | 0.0974 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 569737 | 9.86 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 114134 | 9.87 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2293990 | 10.0 | |
| 61 Trichloroethene | 95 | 8.220 | 8.213 | 0.007 | 95 | 12853 | 0.1854 | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2298343 | 9.80 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 99 | 14601 | 0.0839 | |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 97 | 10074 | 0.1216 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | 7 |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1814483 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | | | 0 | | 0.1029 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 98 | 9346 | 0.0706 | |
| 94 o-Xylene | 106 | 11.744 | 11.737 | 0.007 | 95 | 4213 | 0.0323 | |
| 95 Styrene | 104 | | 11.749 | | | | ND | 7 |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 886234 | 9.89 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1082774 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

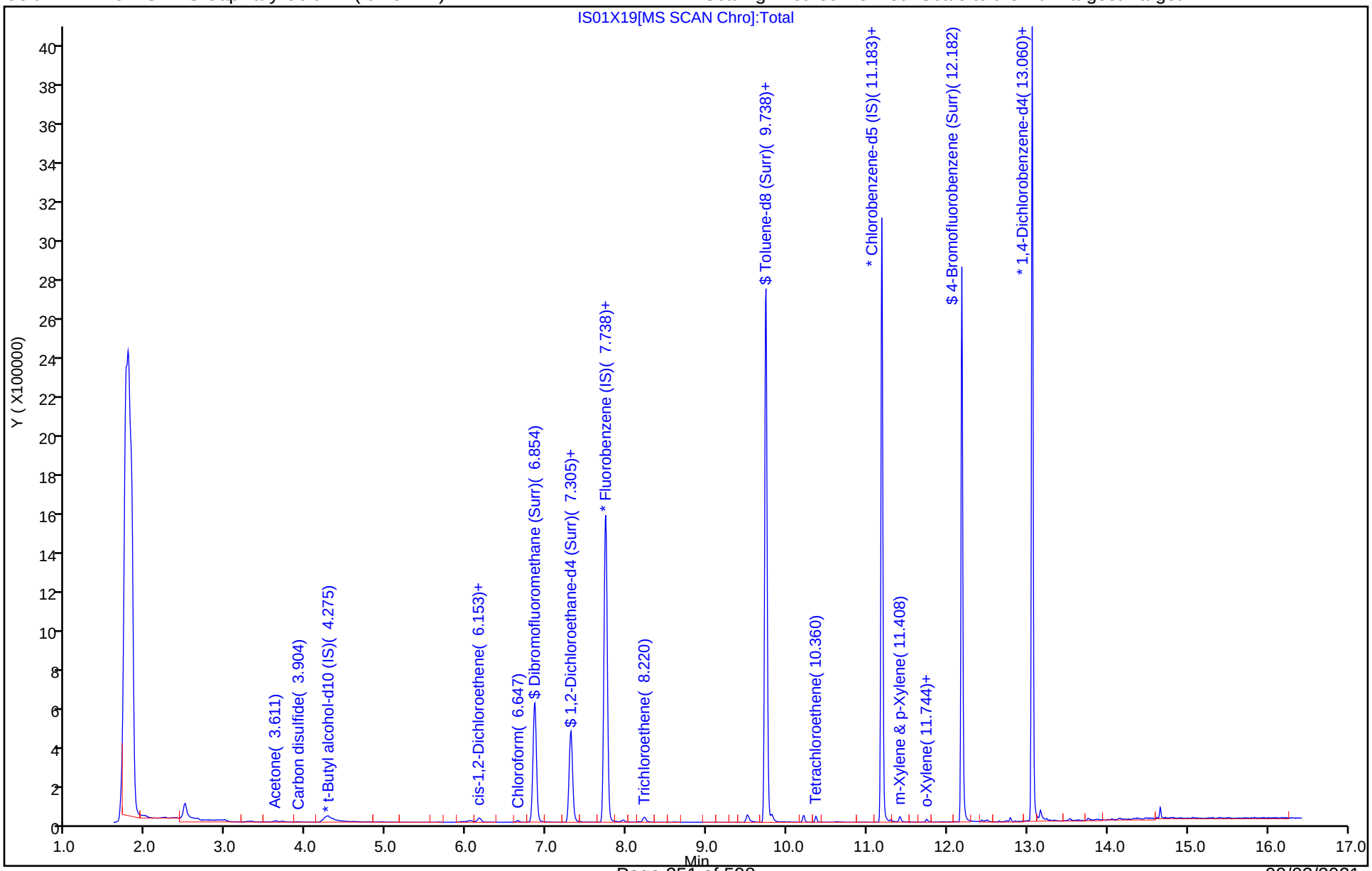
Report Date: 01-Sep-2021 20:57:57 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 15:34:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-7 | Lab Sample ID: | 410-53151-7 | Worklist Smp#: | 20 |
| Client ID: | HD-COD-SW-16-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D | | | | |
| Lims ID: | 410-53151-A-7 | | | | |
| Client ID: | HD-COD-SW-16-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 15:34:30 | ALS Bottle#: | 19 | Worklist Smp#: | 20 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-020 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

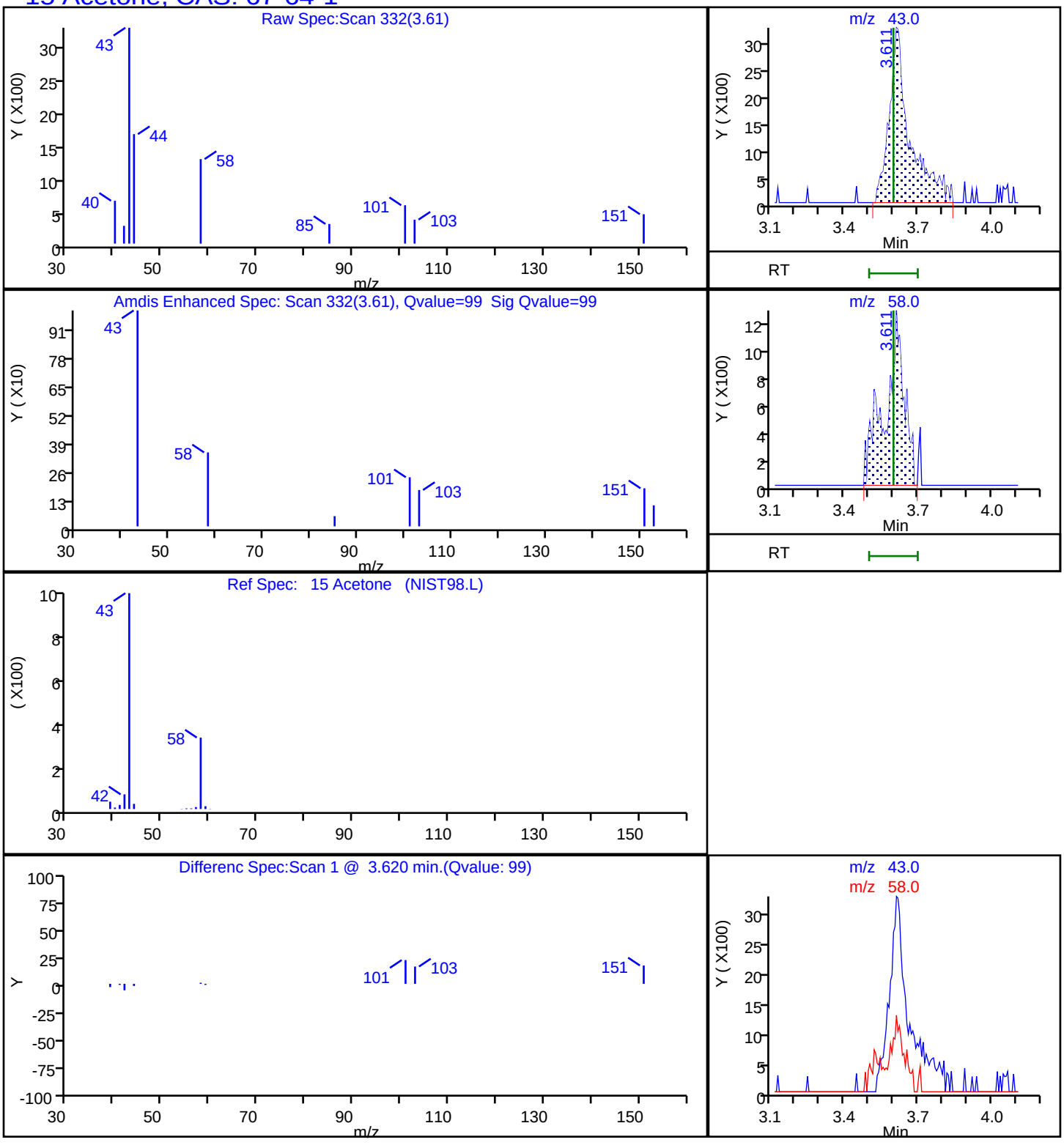
First Level Reviewer: campbellme Date: 01-Sep-2021 20:54:00

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.86 | 98.59 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 9.87 | 98.73 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.80 | 98.02 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.89 | 98.89 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D | | | | |
| Injection Date: | 01-Sep-2021 15:34:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-7 | Lab Sample ID: | 410-53151-7 | | |
| Client ID: | HD-COD-SW-16-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 19 | Worklist Smp#: | 20 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 15 Acetone, CAS: 67-64-1



Report Date: 01-Sep-2021 20:57:57 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D

Injection Date: 01-Sep-2021 15:34:30 Instrument ID: 19930

Lims ID: 410-53151-A-7 Lab Sample ID: 410-53151-7

Client ID: HD-COD-SW-16-0/1-0

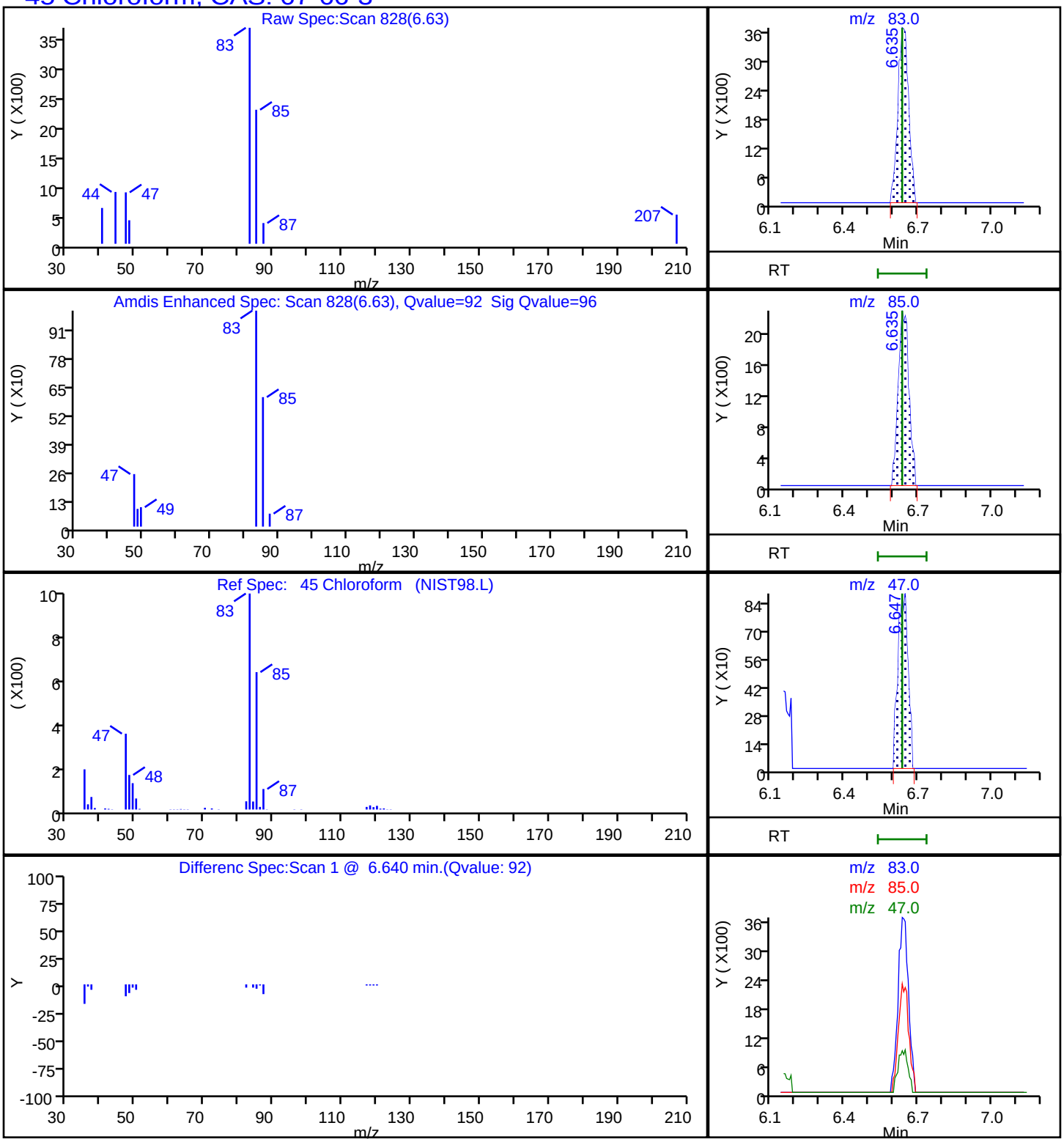
Operator ID: SRK36897 ALS Bottle#: 19 Worklist Smp#: 20

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column ( 0.25mm) Detector MS Quad

## 45 Chloroform, CAS: 67-66-3



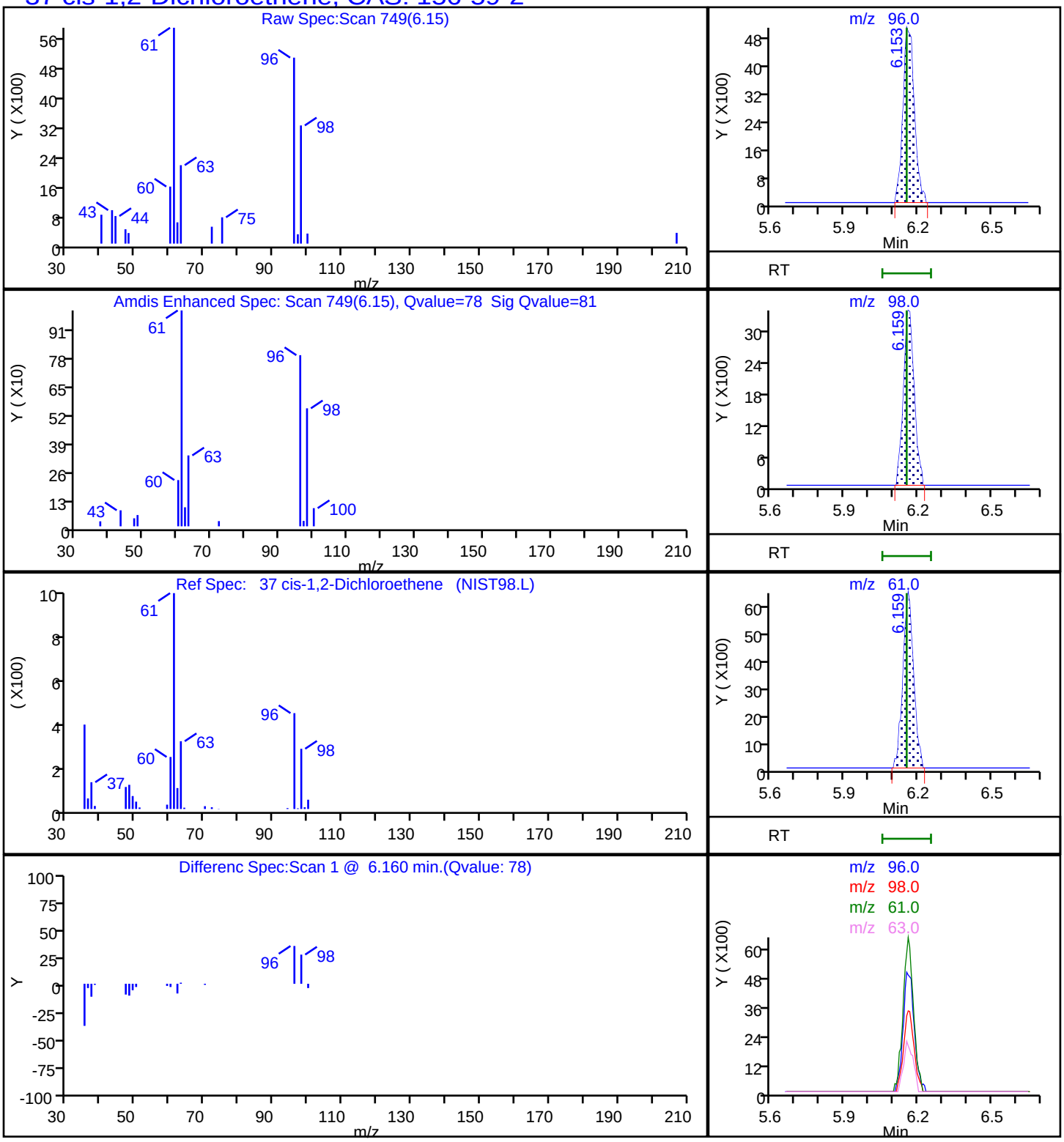
Report Date: 01-Sep-2021 20:57:57 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 15:34:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-7 | Lab Sample ID: | 410-53151-7 | | |
| Client ID: | HD-COD-SW-16-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 19 | Worklist Smp#: | 20 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

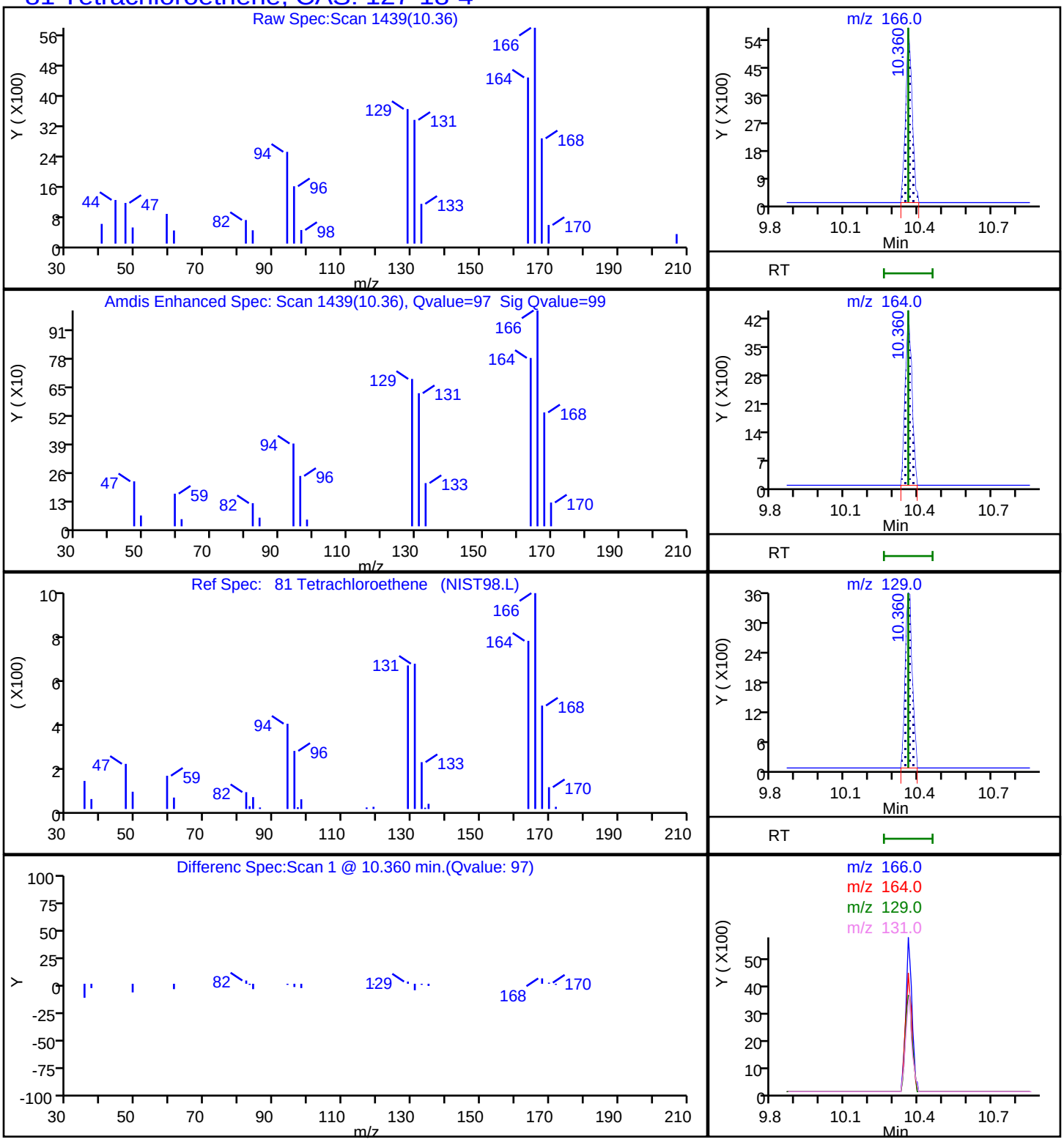
## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D | | | | |
| Injection Date: | 01-Sep-2021 15:34:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-7 | Lab Sample ID: | 410-53151-7 | | |
| Client ID: | HD-COD-SW-16-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 19 | Worklist Smp#: | 20 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

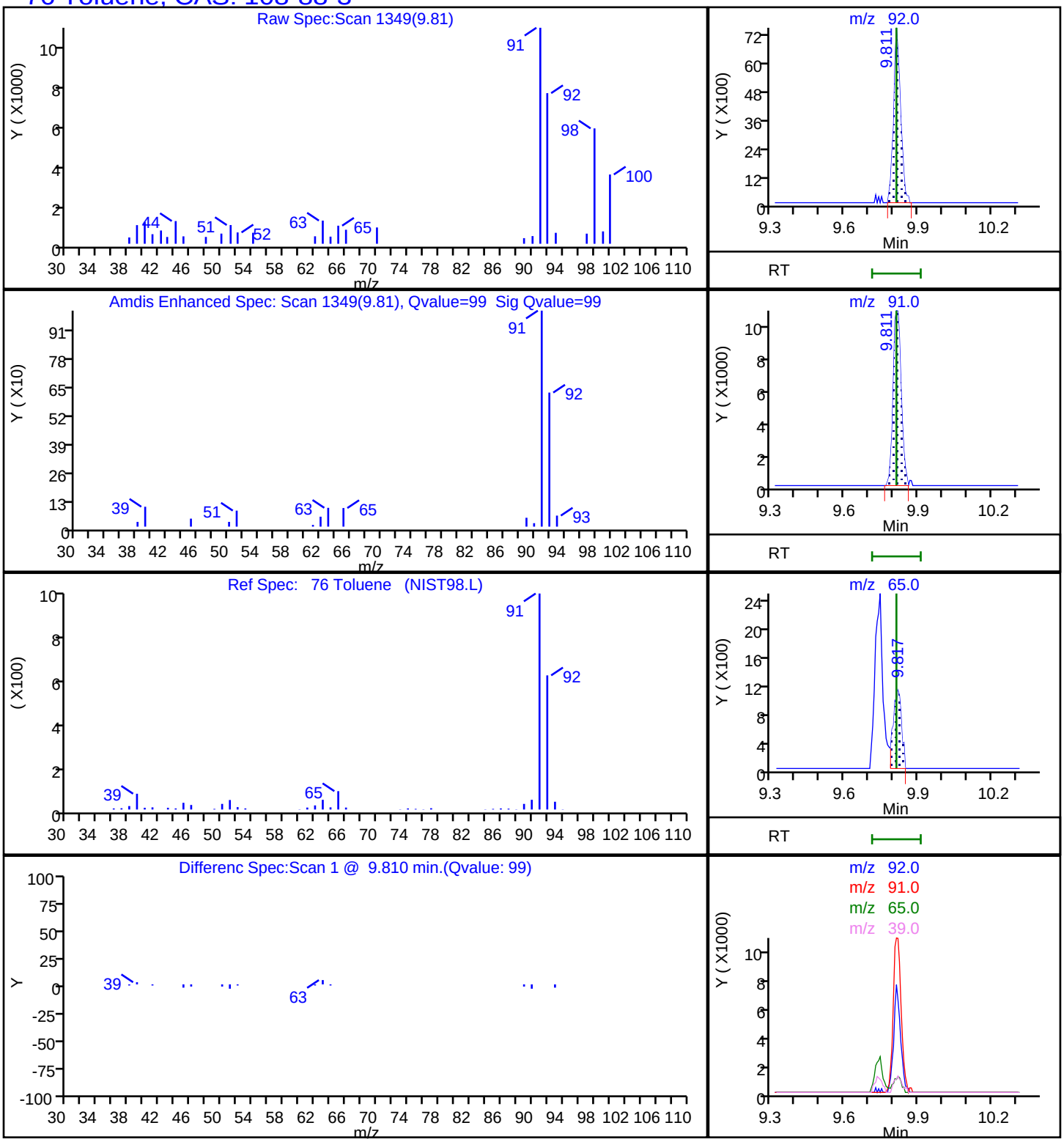
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D | | | | |
| Injection Date: | 01-Sep-2021 15:34:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-7 | Lab Sample ID: | 410-53151-7 | | |
| Client ID: | HD-COD-SW-16-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 19 | Worklist Smp#: | 20 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

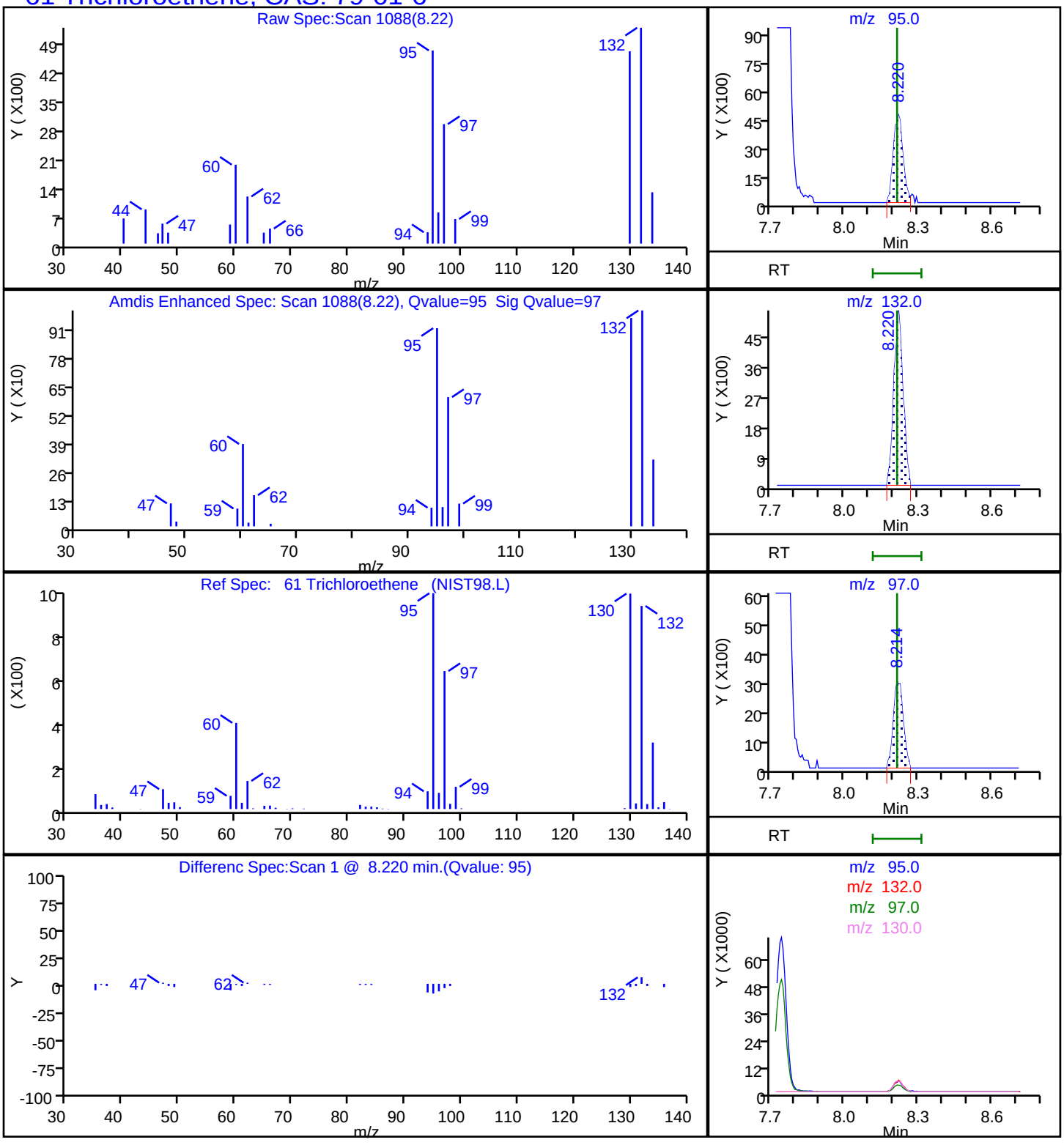
## 76 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X19.D | | | | |
| Injection Date: | 01-Sep-2021 15:34:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-7 | Lab Sample ID: | 410-53151-7 | | |
| Client ID: | HD-COD-SW-16-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 19 | Worklist Smp#: | 20 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0  Lab Sample ID: 410-53151-8

Matrix: Water  Lab File ID: IS01X20.D

Analysis Method: 8260D  Date Collected: 08/26/2021 10:35

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 15:55

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.33 | J | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | 0.19 | J | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | 0.22 | J | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | ND | | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.23 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.7 | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 8.4 | | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 3.4 | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0  Lab Sample ID: 410-53151-8

Matrix: Water  Lab File ID: IS01X20.D

Analysis Method: 8260D  Date Collected: 08/26/2021 10:35

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 15:55

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 102 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 100 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D
Lims ID: 410-53151-A-8
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 15:55:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-021
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:54:18

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | | 2.178 | | | | ND | 7 |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | 7 |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | 3.568 | 3.574 | -0.006 | 97 | 12506 | 0.2162 | |
| 15 Acetone | 43 | 3.617 | 3.599 | 0.019 | 20 | 6713 | 0.6131 | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | ND | |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.251 | 0.006 | 24 | 197104 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | 4.641 | 4.653 | -0.012 | 94 | 6335 | 0.0384 | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | 5.330 | 5.324 | 0.006 | 95 | 23065 | 0.1935 | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.153 | 0.006 | 78 | 126154 | 1.72 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.635 | 6.634 | 0.001 | 92 | 27000 | 0.2287 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.842 | 0.006 | 94 | 608638 | 9.97 | |
| 47 1,1,1-Trichloroethane | 97 | 6.854 | 6.860 | -0.006 | 89 | 36516 | 0.3328 | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | 7 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 124158 | 10.2 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.732 | 7.732 | 0.000 | 99 | 2423279 | 10.0 | |
| 61 Trichloroethene | 95 | 8.214 | 8.213 | 0.001 | 97 | 248559 | 3.39 | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2424178 | 9.80 | |
| 76 Toluene | 92 | | 9.811 | | | | ND | 7 |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | 7 |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.359 | 10.359 | 0.000 | 98 | 734987 | 8.41 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.182 | 0.000 | 85 | 1914383 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | | 11.408 | | | | ND | 7 |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 943059 | 9.97 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1152891 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

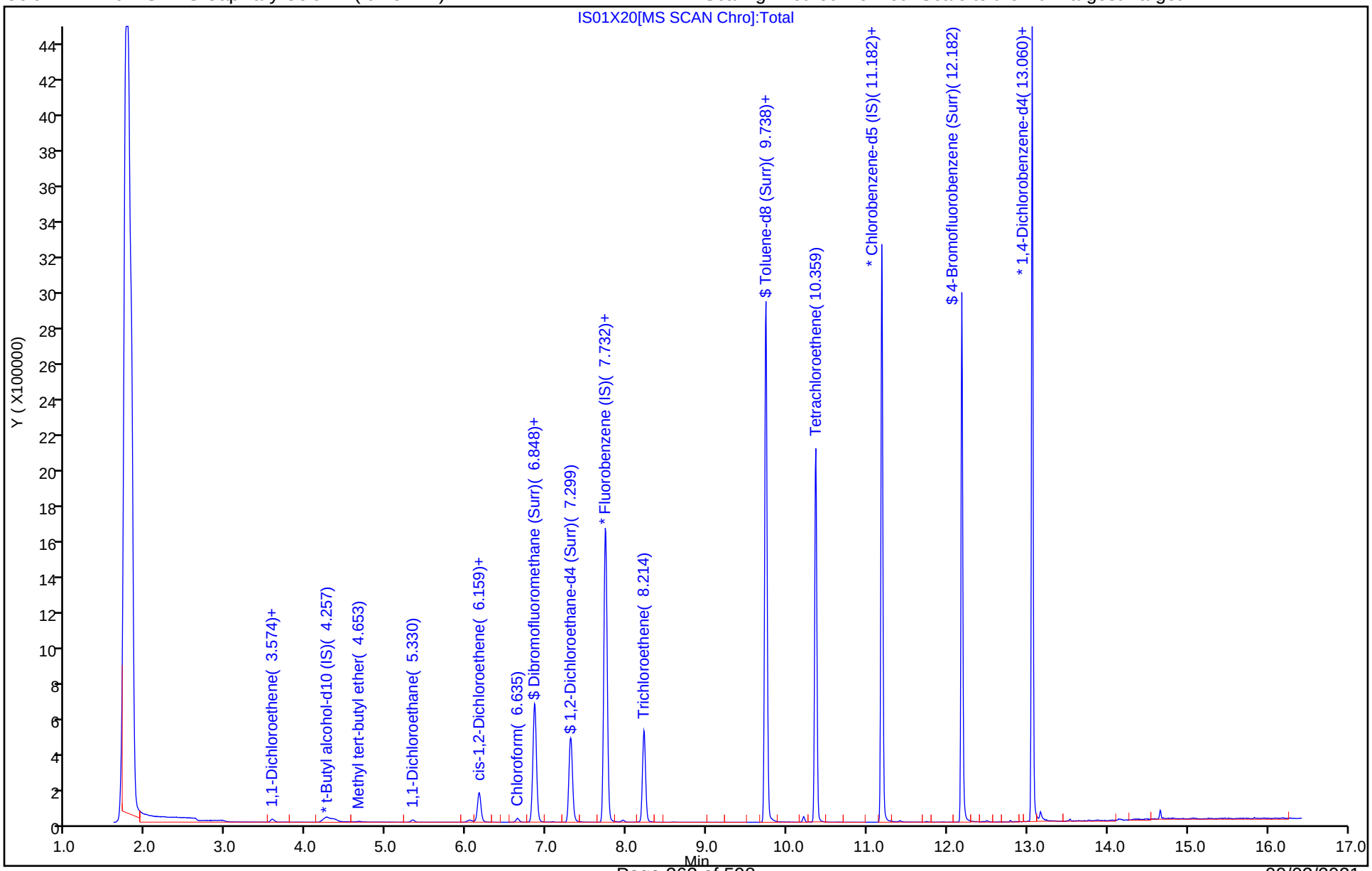
Report Date: 01-Sep-2021 20:57:58 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 15:55:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-8 | Lab Sample ID: | 410-53151-8 | Worklist Smp#: | 21 |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D | | | | |
| Lims ID: | 410-53151-A-8 | | | | |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 15:55:30 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-021 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

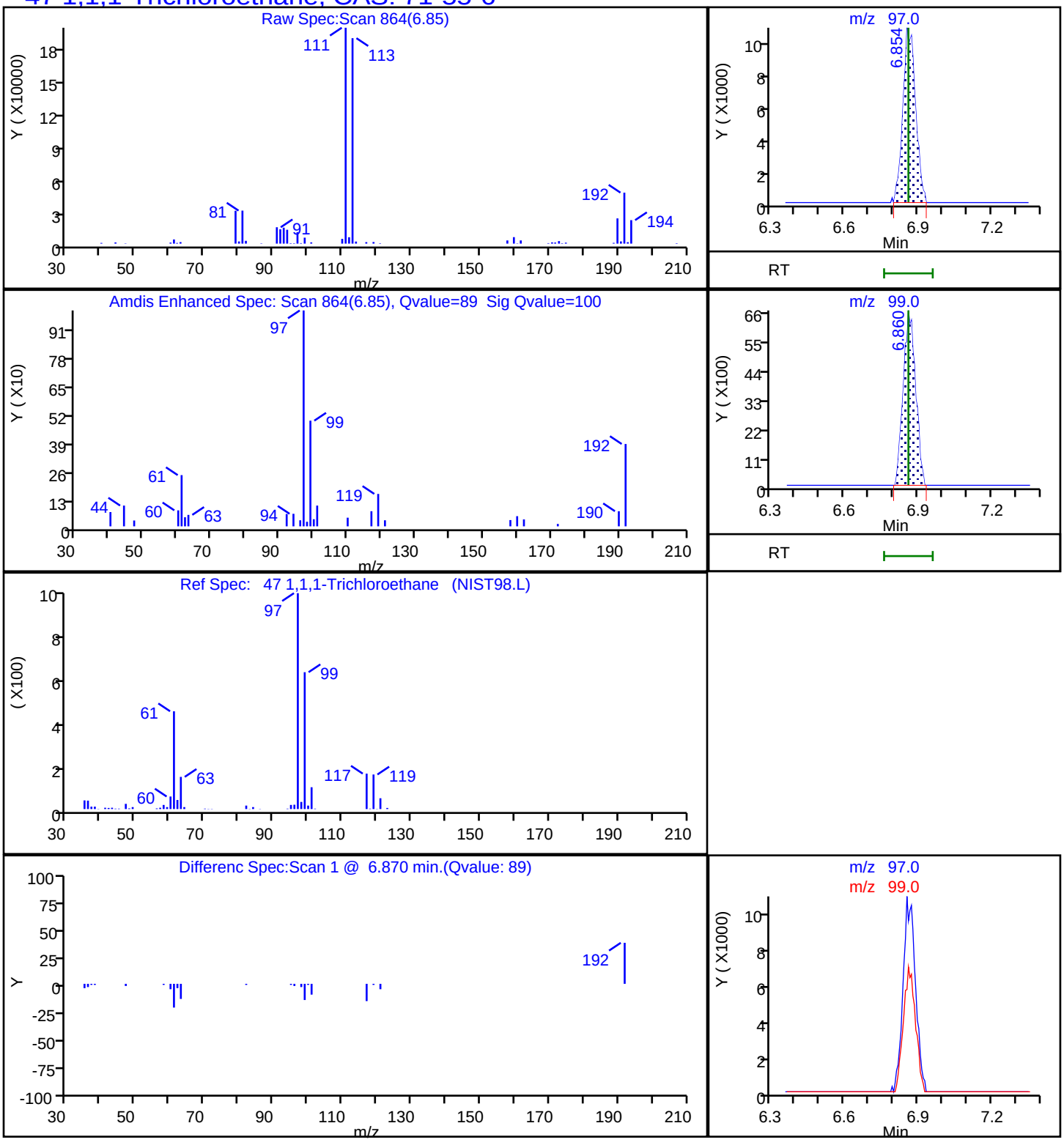
First Level Reviewer: campbellme Date: 01-Sep-2021 20:54:18

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.97 | 99.70 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.2 | 101.67 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.80 | 97.99 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.97 | 99.74 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D | | | | |
| Injection Date: | 01-Sep-2021 15:55:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-8 | Lab Sample ID: | 410-53151-8 | | |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

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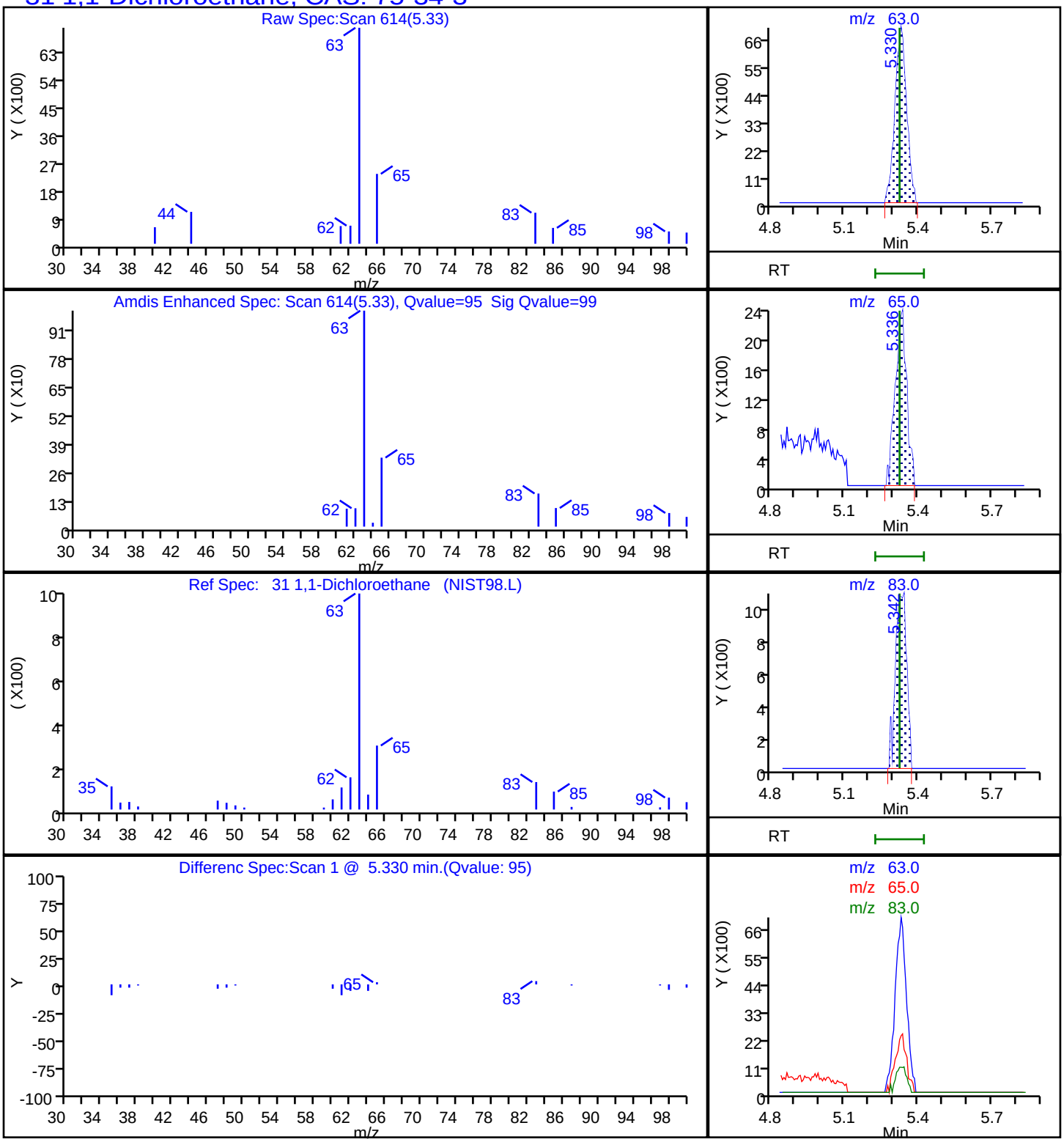
| Injection Date: | 01-Sep-2021 15:55:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-8 | Lab Sample ID: | 410-53151-8 | | |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

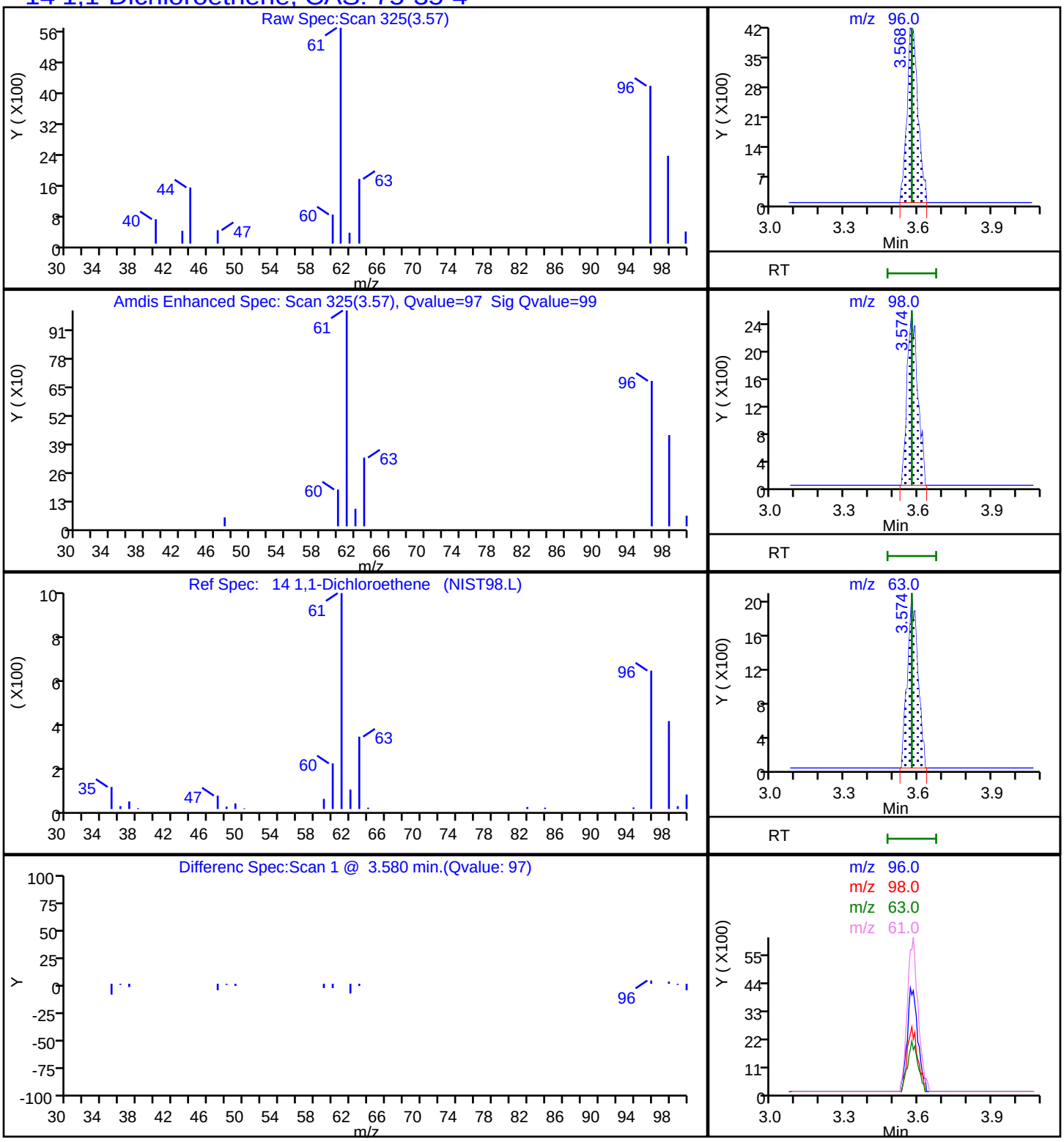
## 31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D | | | | |
| Injection Date: | 01-Sep-2021 15:55:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-8 | Lab Sample ID: | 410-53151-8 | | |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

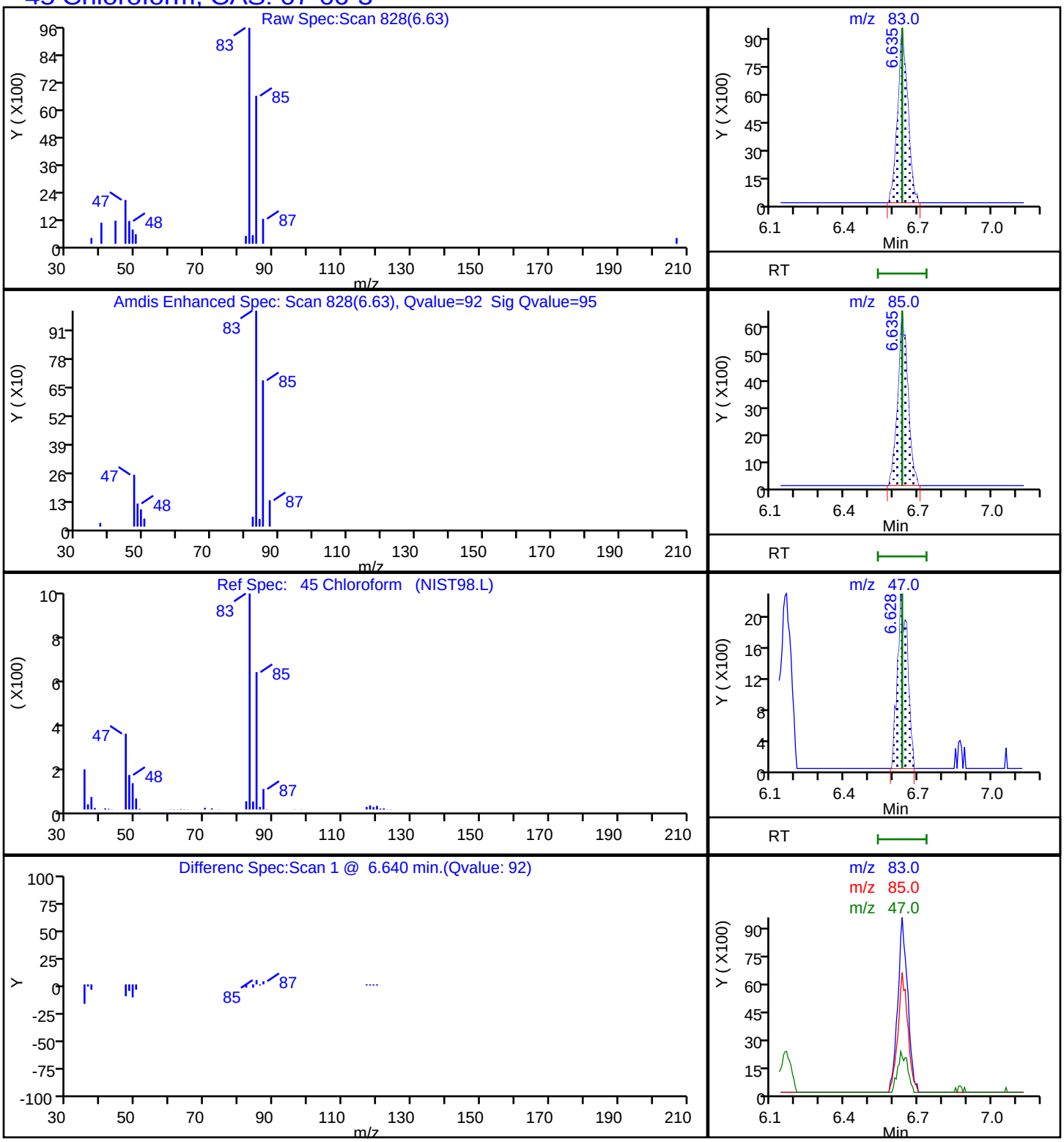
## 14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D | | | | |
| Injection Date: | 01-Sep-2021 15:55:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-8 | Lab Sample ID: | 410-53151-8 | | |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

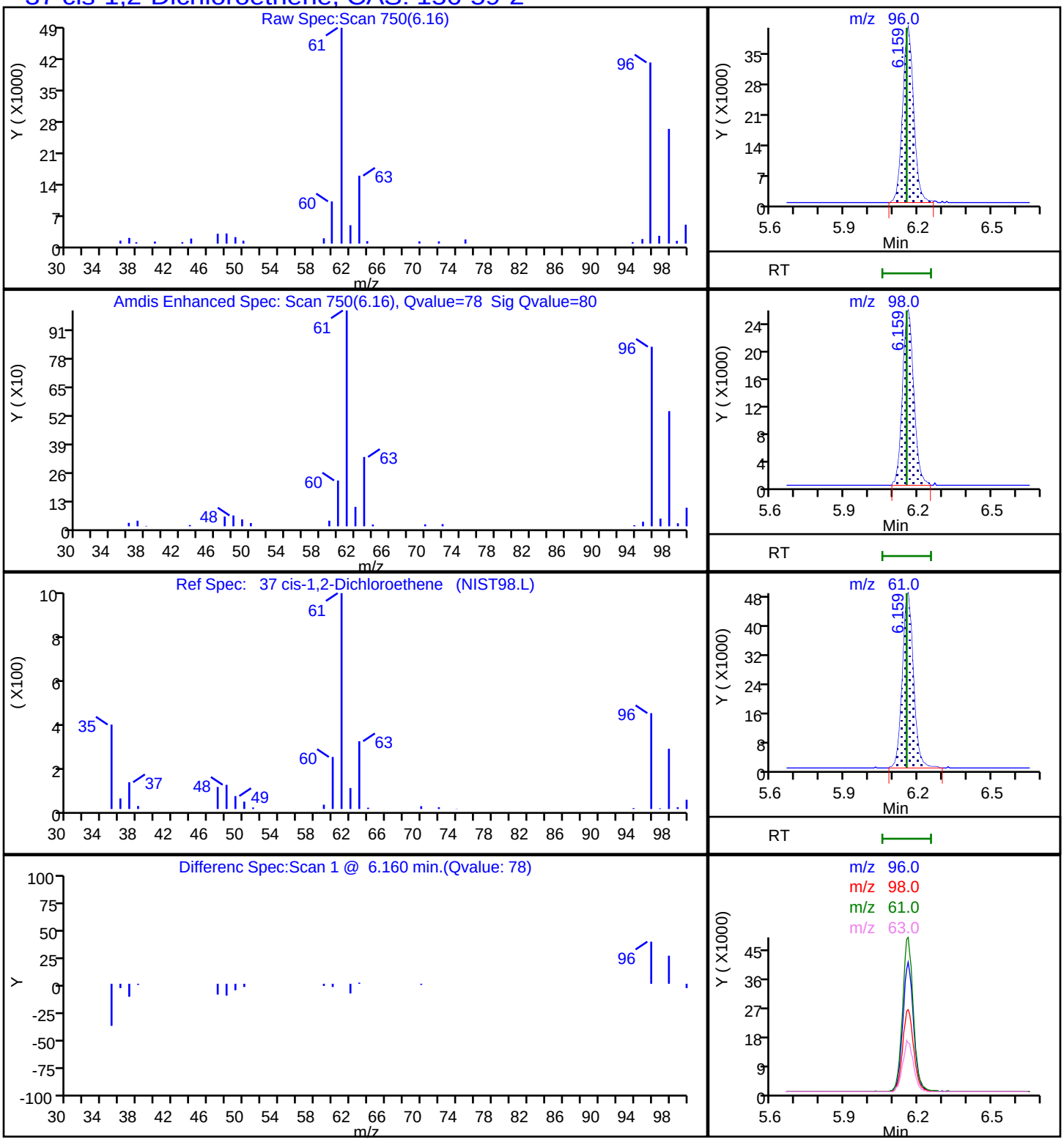
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D | | | | |
| Injection Date: | 01-Sep-2021 15:55:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-8 | Lab Sample ID: | 410-53151-8 | | |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

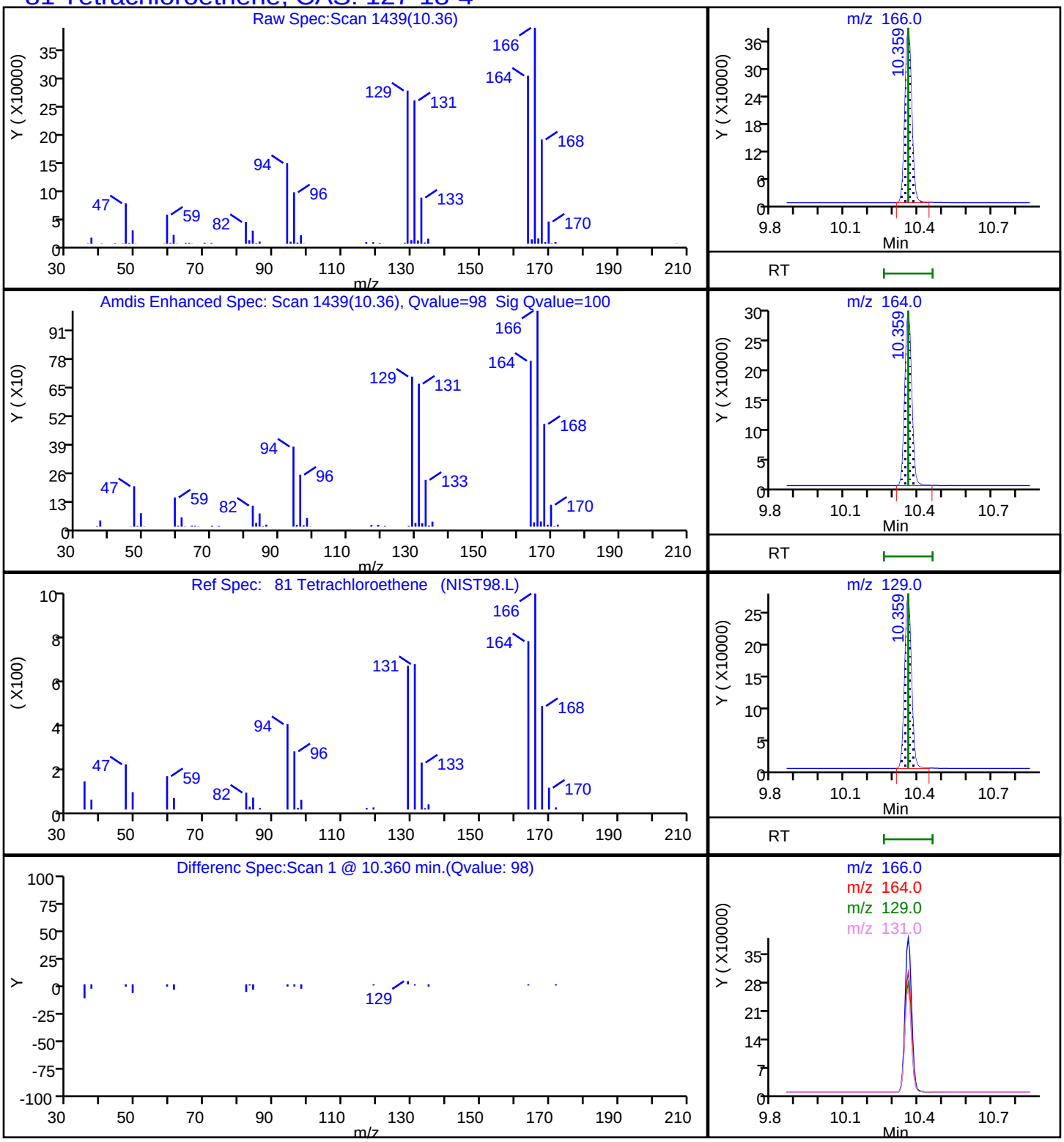
## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D | | | | |
| Injection Date: | 01-Sep-2021 15:55:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-8 | Lab Sample ID: | 410-53151-8 | | |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

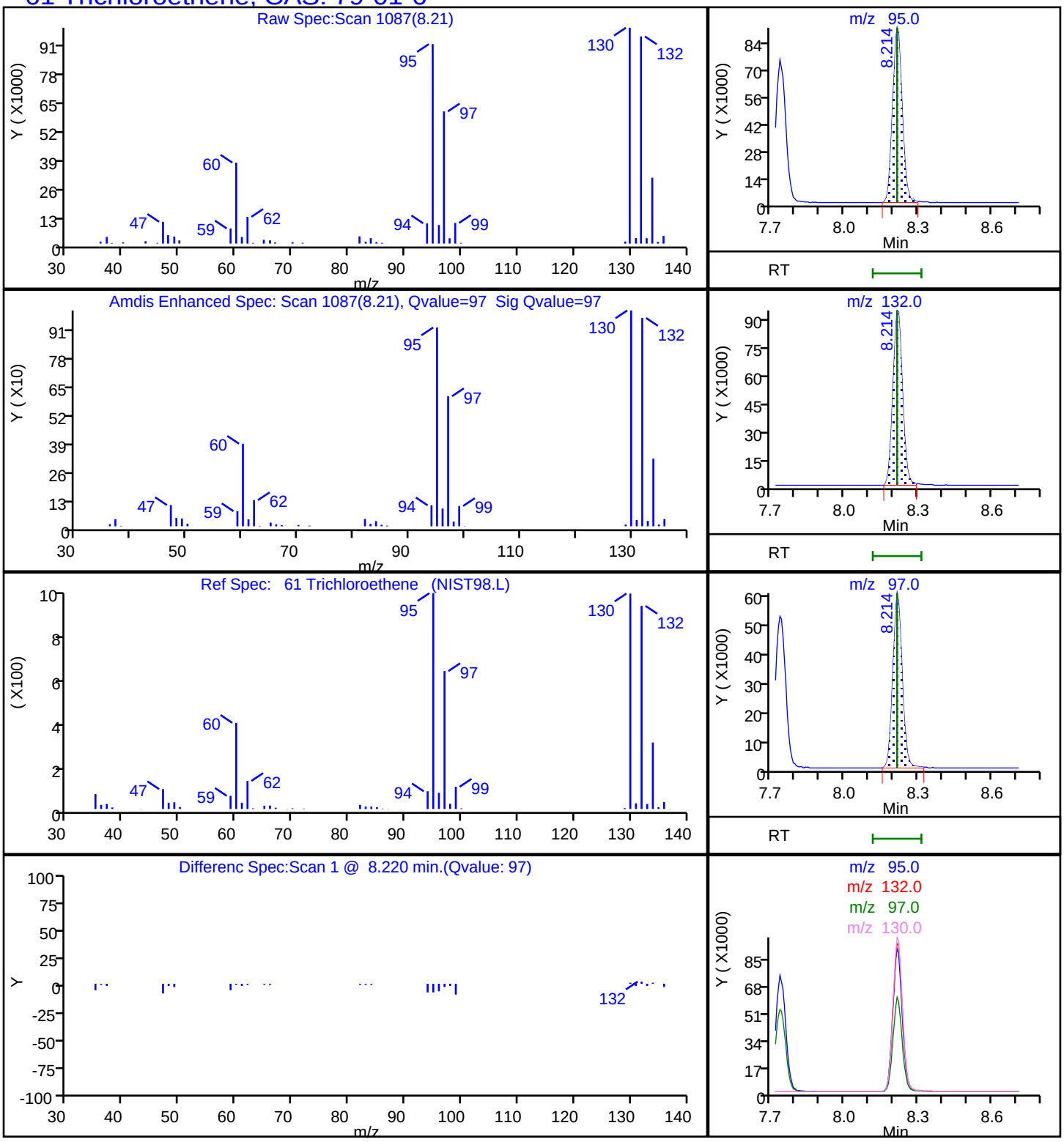
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X20.D | | | | |
| Injection Date: | 01-Sep-2021 15:55:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-8 | Lab Sample ID: | 410-53151-8 | | |
| Client ID: | HD-COD-SW-17-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0  Lab Sample ID: 410-53151-9

Matrix: Water  Lab File ID: IS01X21.D

Analysis Method: 8260D  Date Collected: 08/26/2021 11:20

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 16:16

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | 0.13 | J | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 0.93 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.60 | | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.10 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 3.4 | | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.17 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0  Lab Sample ID: 410-53151-9

Matrix: Water  Lab File ID: IS01X21.D

Analysis Method: 8260D  Date Collected: 08/26/2021 11:20

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 16:16

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 101 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D
Lims ID: 410-53151-A-9
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 16:16:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-022
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:54:34

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | | 2.178 | | | | ND | 7 |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | 3.586 | 3.574 | 0.012 | 97 | 7047 | 0.1335 | |
| 15 Acetone | 43 | 3.623 | 3.599 | 0.025 | 96 | 9849 | 0.9322 | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | ND | 7 |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.251 | 0.006 | 17 | 190180 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| 37 cis-1,2-Dichloroethene | 96 | 6.165 | 6.153 | 0.012 | 74 | 6951 | 0.1041 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.647 | 6.634 | 0.013 | 92 | 64341 | 0.5970 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 559740 | 10.0 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | 7 |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 113052 | 10.1 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2211980 | 10.0 | |
| 61 Trichloroethene | 95 | 8.214 | 8.213 | 0.001 | 90 | 11643 | 0.1742 | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | 8.903 | 8.884 | 0.018 | 45 | 2170 | 0.0293 | |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2218713 | 9.79 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 98 | 10036 | 0.0597 | |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 98 | 273408 | 3.42 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1752979 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 98 | 7129 | 0.0558 | |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | 7 |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 858720 | 9.92 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1058630 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

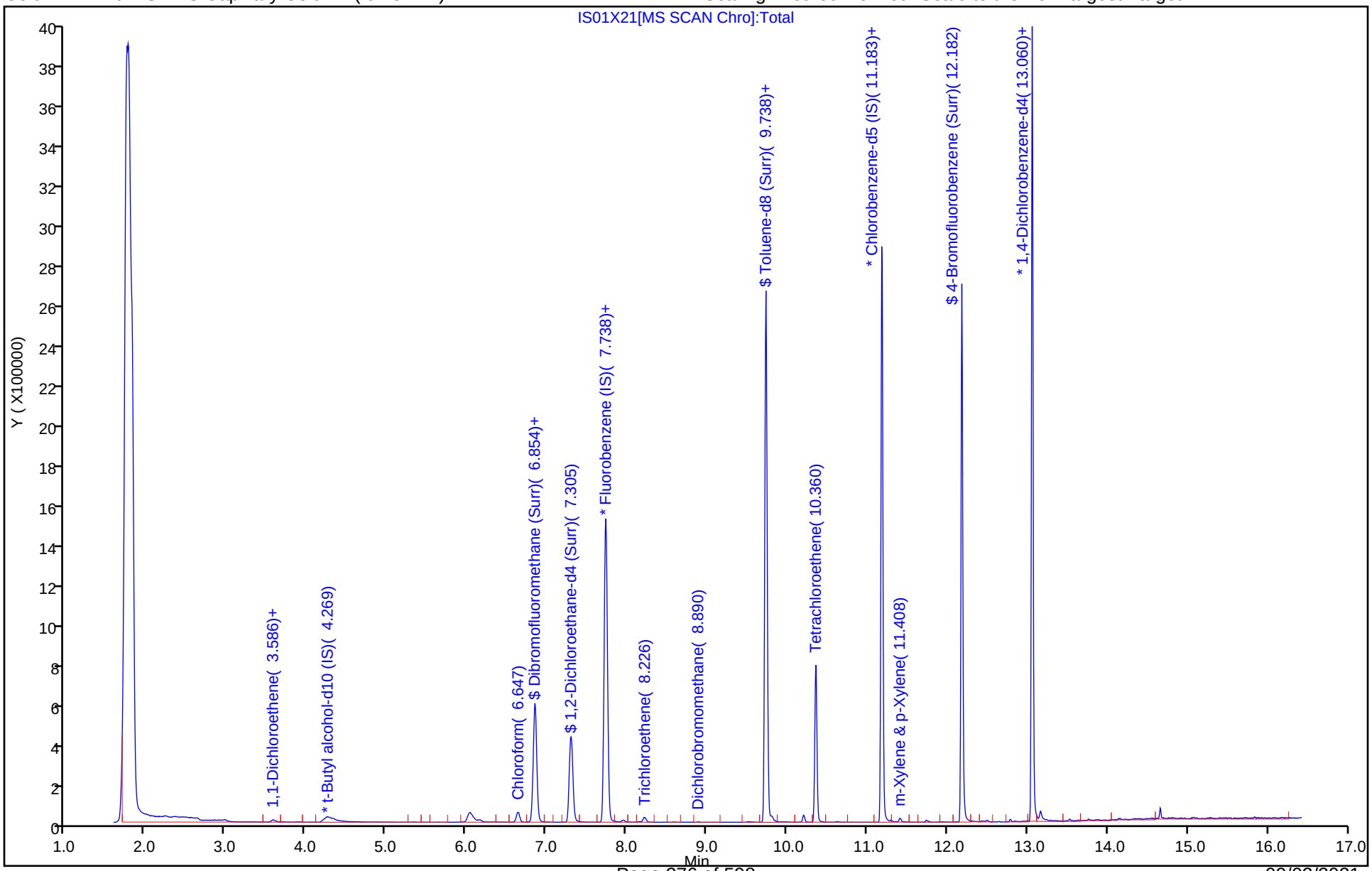
Report Date: 01-Sep-2021 20:58:00 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 16:16:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-9 | Lab Sample ID: | 410-53151-9 | Worklist Smp#: | 22 |
| Client ID: | HD-COD-SW-26-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 21 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D | | | | |
| Lims ID: | 410-53151-A-9 | | | | |
| Client ID: | HD-COD-SW-26-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 16:16:30 | ALS Bottle#: | 21 | Worklist Smp#: | 22 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-022 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

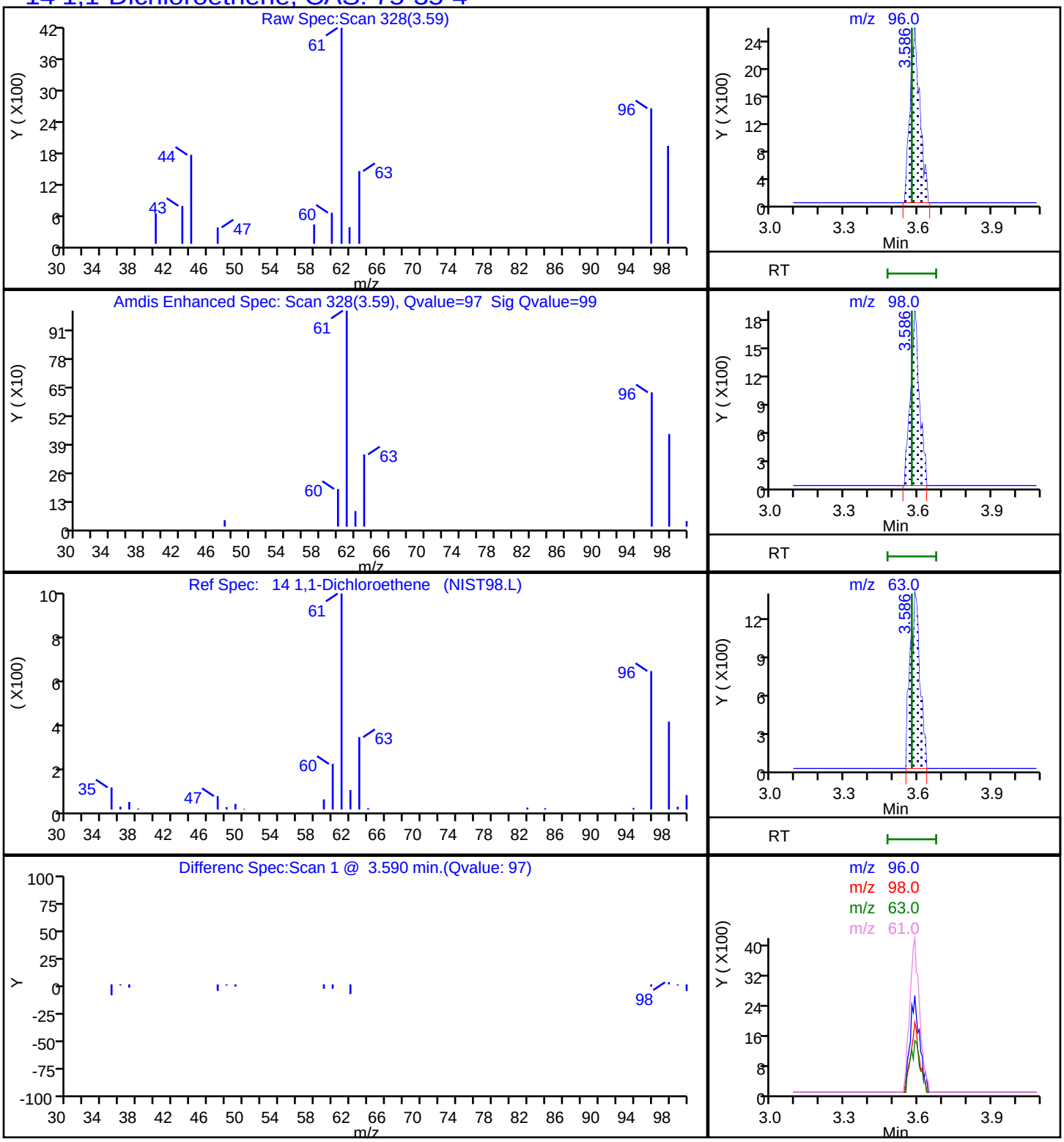
First Level Reviewer: campbellme Date: 01-Sep-2021 20:54:34

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 10.0 | 100.45 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.1 | 101.42 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.79 | 97.94 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.92 | 99.18 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D | | | | |
| Injection Date: | 01-Sep-2021 16:16:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-9 | Lab Sample ID: | 410-53151-9 | | |
| Client ID: | HD-COD-SW-26-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 21 | Worklist Smp#: | 22 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

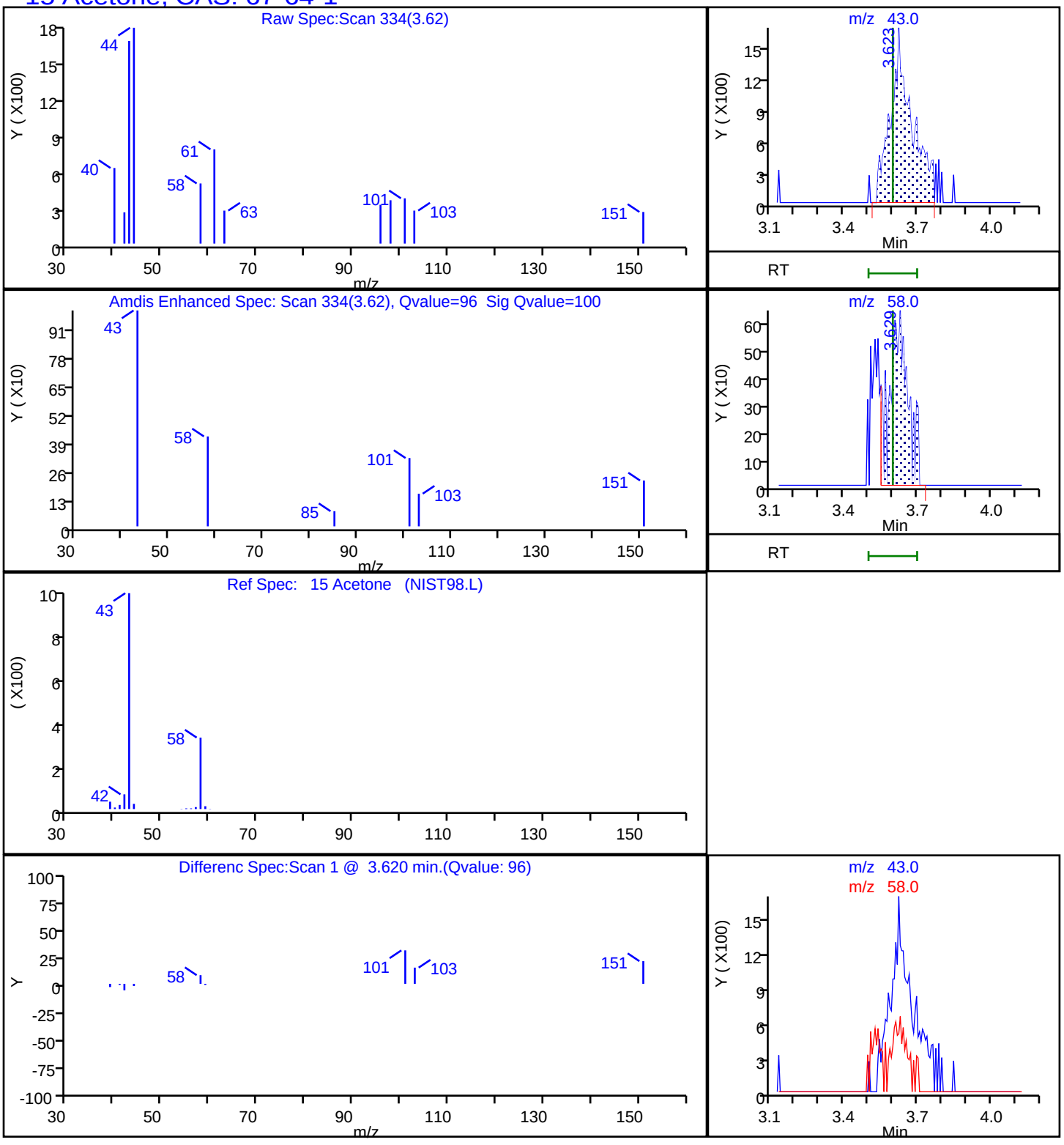
## 14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D | | | | |
| Injection Date: | 01-Sep-2021 16:16:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-9 | Lab Sample ID: | 410-53151-9 | | |
| Client ID: | HD-COD-SW-26-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 21 | Worklist Smp#: | 22 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

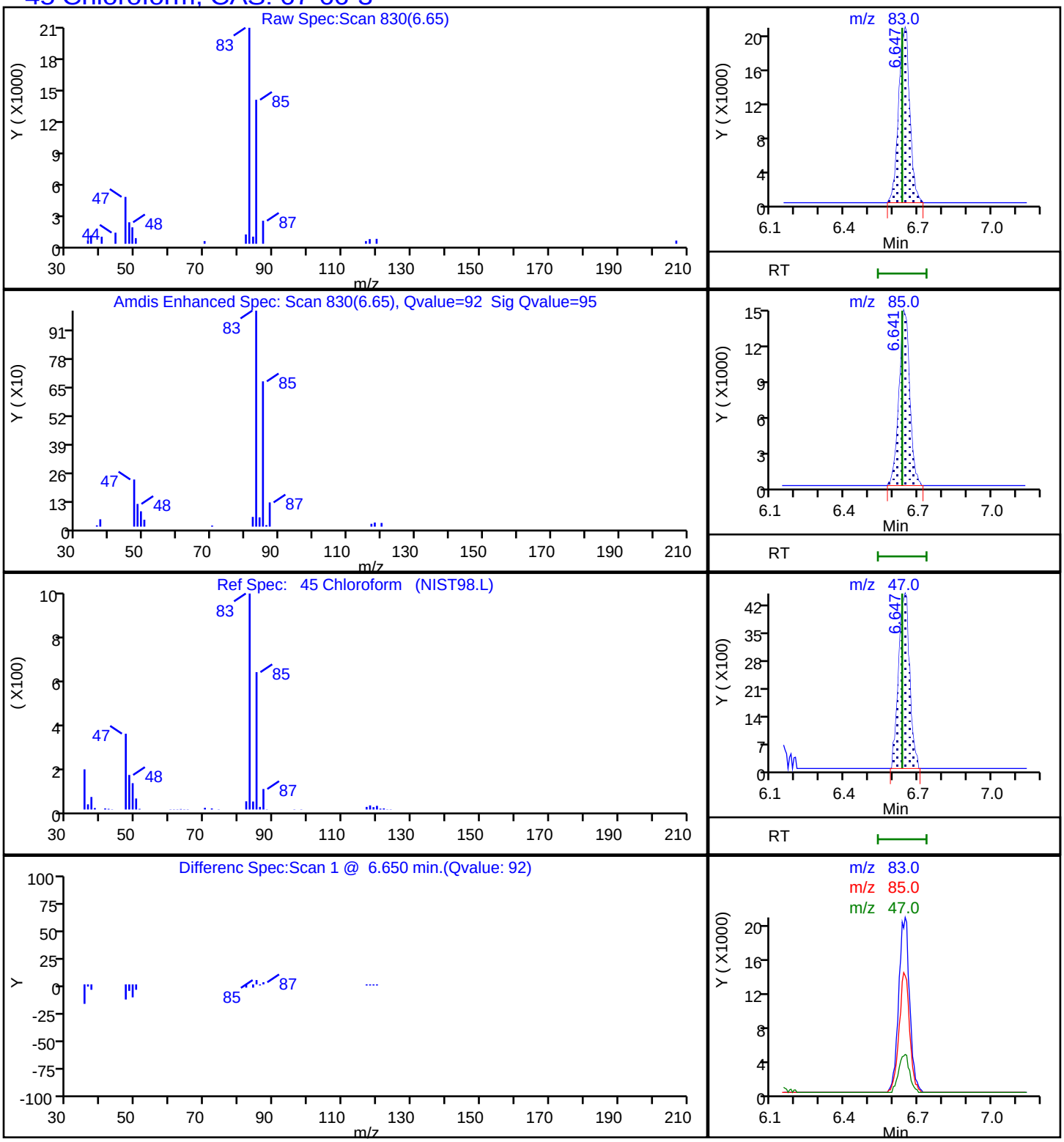
## 15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D | | | | |
| Injection Date: | 01-Sep-2021 16:16:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-9 | Lab Sample ID: | 410-53151-9 | | |
| Client ID: | HD-COD-SW-26-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 21 | Worklist Smp#: | 22 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

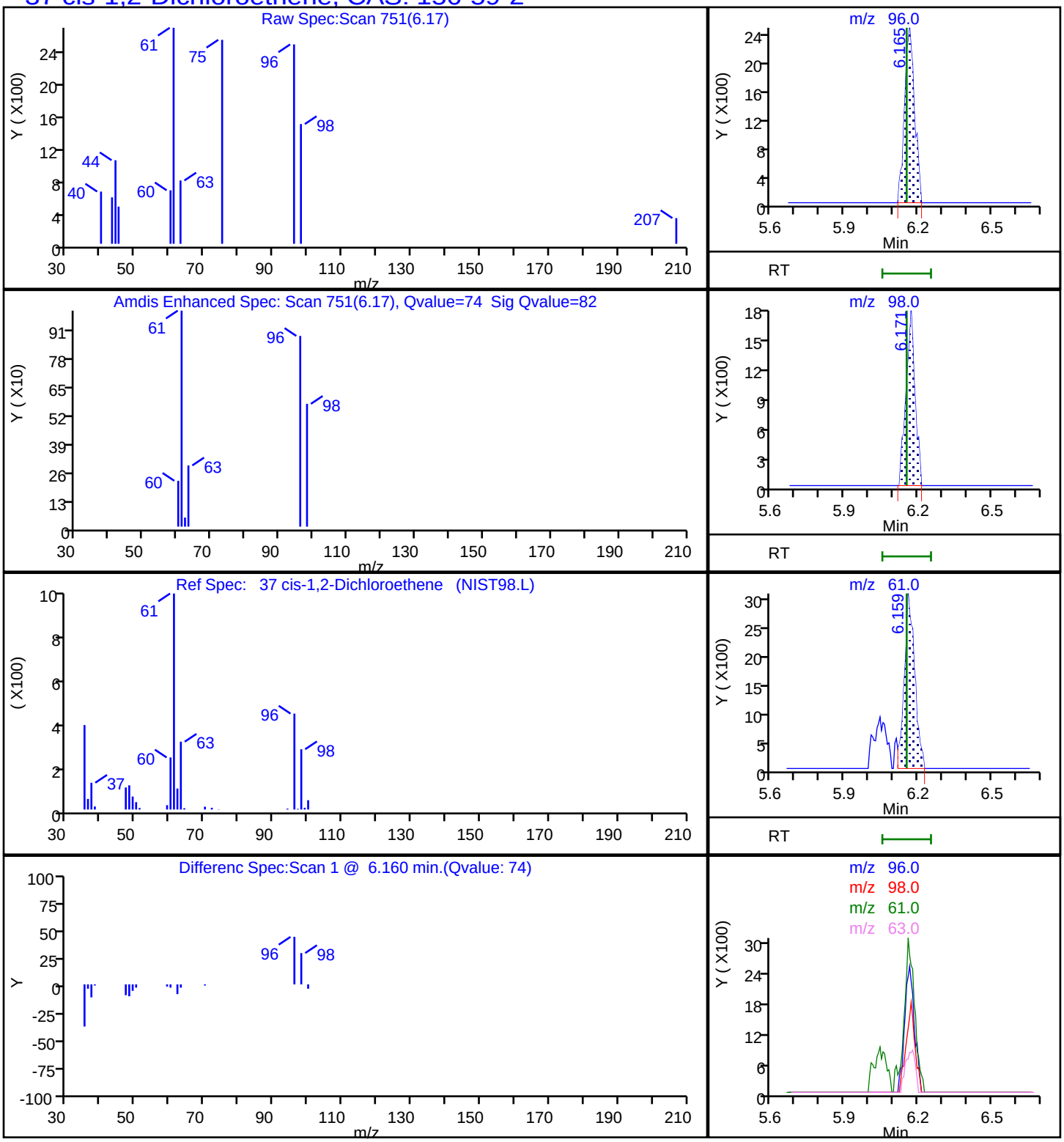
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D | | | | |
| Injection Date: | 01-Sep-2021 16:16:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-9 | Lab Sample ID: | 410-53151-9 | | |
| Client ID: | HD-COD-SW-26-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 21 | Worklist Smp#: | 22 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

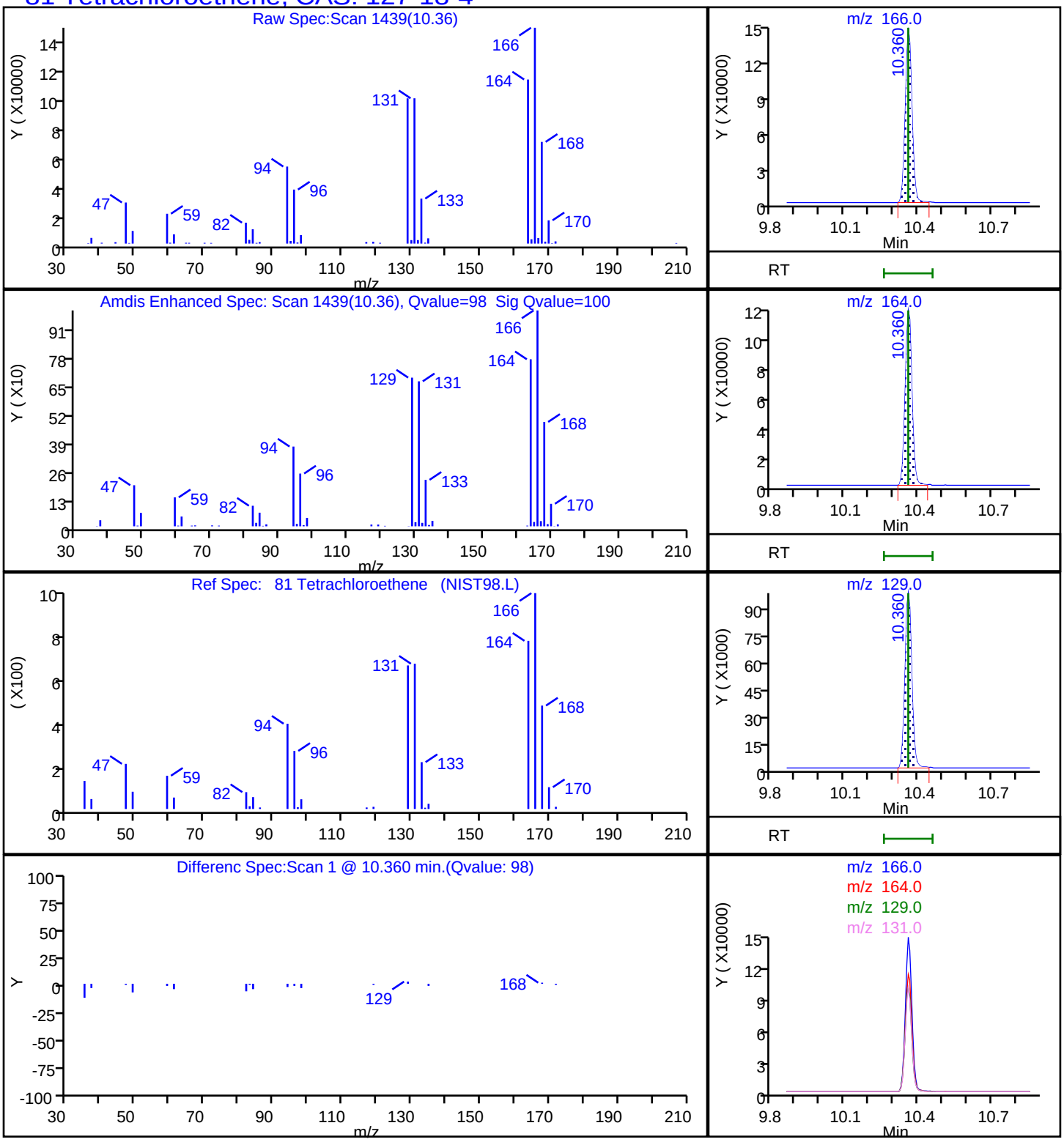
## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D | | | | |
| Injection Date: | 01-Sep-2021 16:16:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-9 | Lab Sample ID: | 410-53151-9 | | |
| Client ID: | HD-COD-SW-26-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 21 | Worklist Smp#: | 22 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

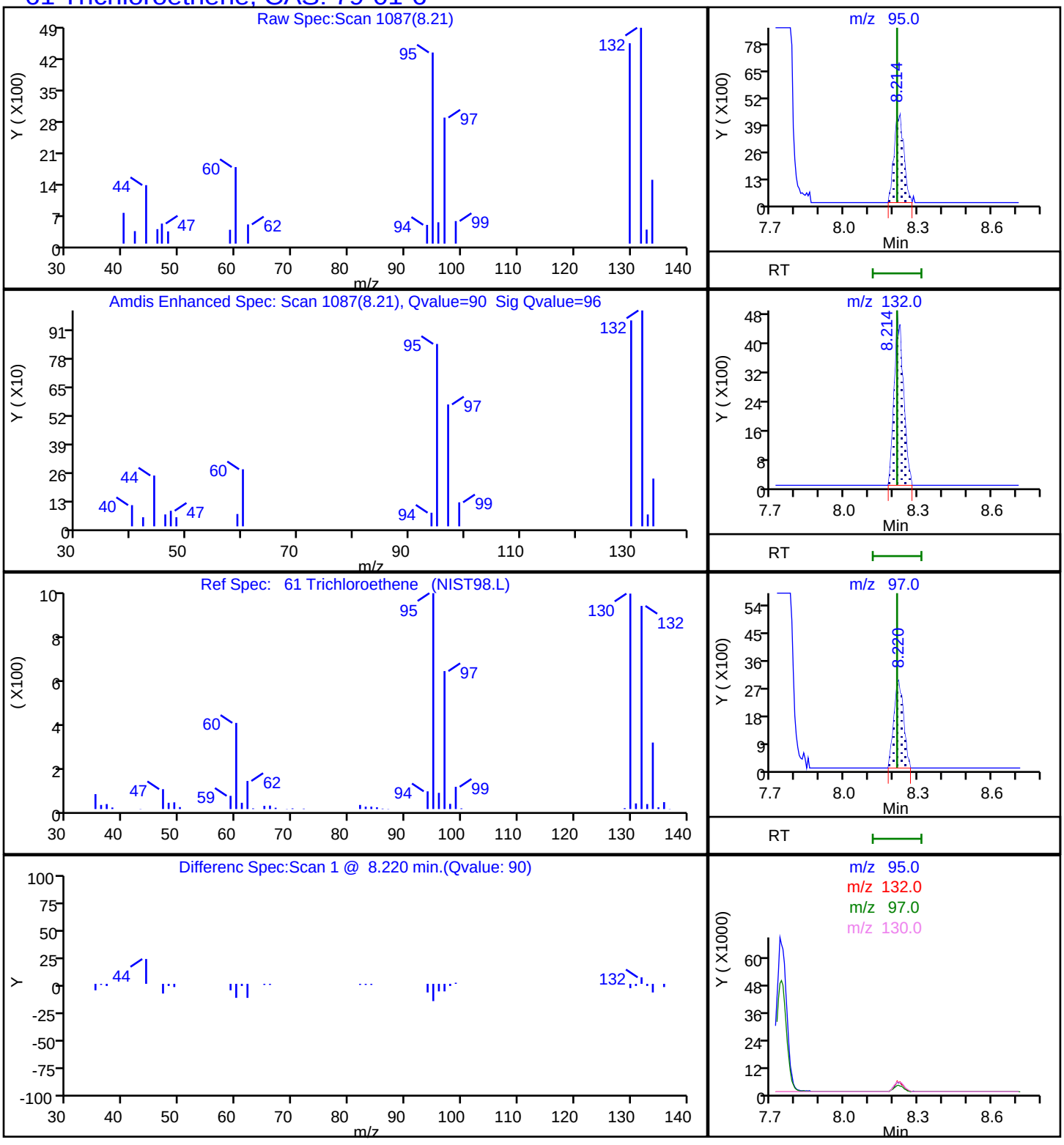
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X21.D | | | | |
| Injection Date: | 01-Sep-2021 16:16:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-9 | Lab Sample ID: | 410-53151-9 | | |
| Client ID: | HD-COD-SW-26-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 21 | Worklist Smp#: | 22 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0  Lab Sample ID: 410-53151-10

Matrix: Water  Lab File ID: IS01X22.D

Analysis Method: 8260D  Date Collected: 08/26/2021 11:57

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 16:37

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 2.0 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.13 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.19 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 0.14 | J | 0.50 | 0.060 |
| 108-88-3 | Toluene | 0.085 | J | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.17 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0  Lab Sample ID: 410-53151-10

Matrix: Water  Lab File ID: IS01X22.D

Analysis Method: 8260D  Date Collected: 08/26/2021 11:57

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 16:37

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 102 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D
Lims ID: 410-53151-A-10
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 16:37:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-023
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:54:52

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | 2.178 | 2.178 | 0.000 | 51 | 3592 | 0.0451 | |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | 7 |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| 15 Acetone | 43 | 3.623 | 3.599 | 0.025 | 99 | 23102 | 2.03 | |
| 19 Carbon disulfide | 76 | 3.891 | 3.879 | 0.012 | 98 | 6417 | 0.0436 | |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.251 | 0.012 | 22 | 204598 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | 6.141 | 6.116 | 0.025 | 37 | 9589 | 0.4832 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.153 | 0.006 | 78 | 12849 | 0.1904 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.629 | 6.634 | -0.005 | 93 | 14447 | 0.1327 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.842 | 0.006 | 94 | 561011 | 9.97 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 114683 | 10.2 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2234788 | 10.0 | |
| 61 Trichloroethene | 95 | 8.220 | 8.213 | 0.007 | 97 | 11484 | 0.1701 | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | 7 |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2246849 | 9.83 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 97 | 14429 | 0.0851 | |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.366 | 10.359 | 0.007 | 95 | 10909 | 0.1350 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | 7 |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1768879 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | | | 0 | | 0.1098 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | 11.414 | 11.408 | 0.006 | 98 | 9691 | 0.0751 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 95 | 4417 | 0.0347 | |
| 95 Styrene | 104 | | 11.749 | | | | ND | |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 867176 | 9.93 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1055396 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

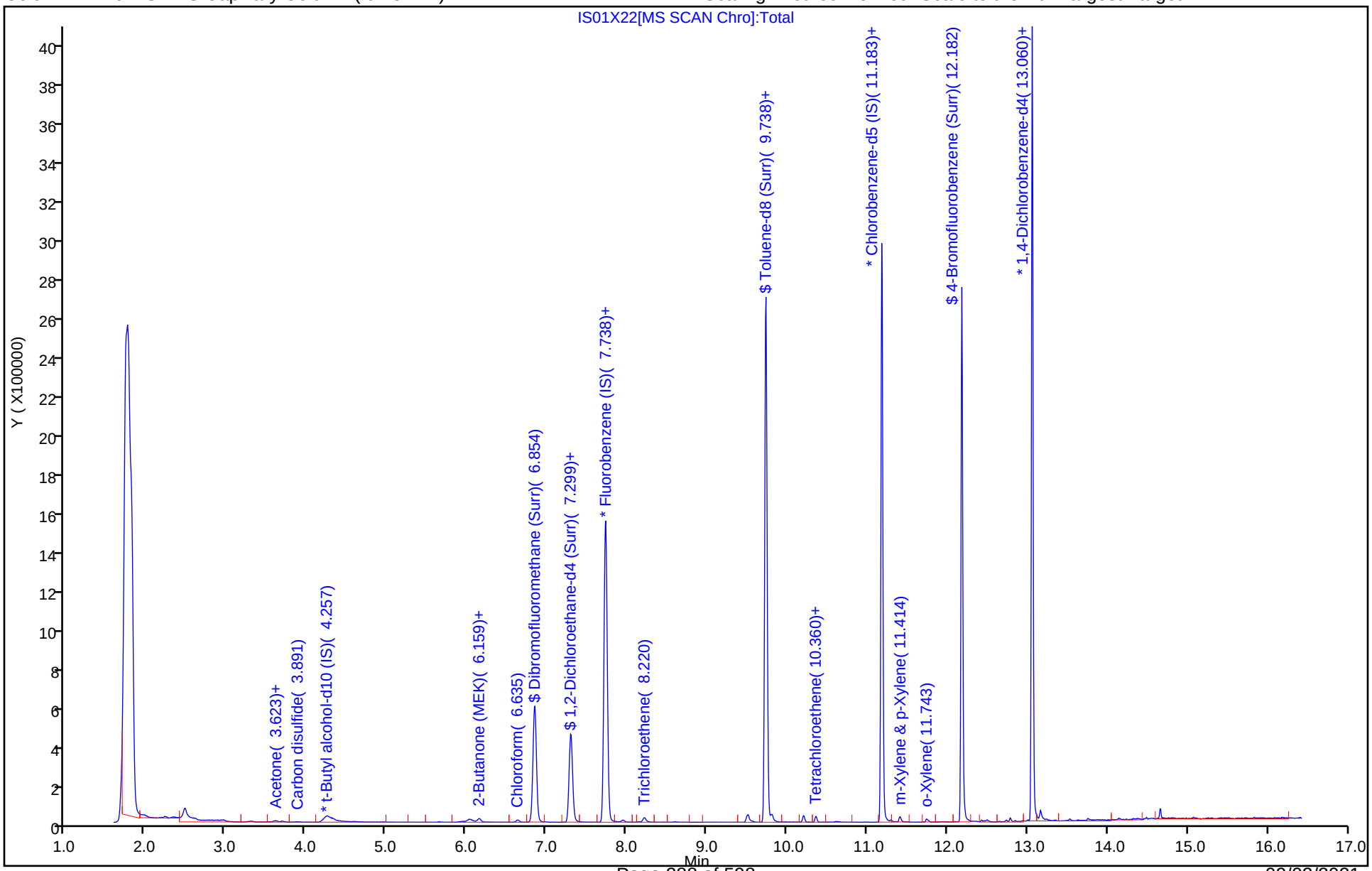
Report Date: 01-Sep-2021 20:58:01 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 16:37:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-10 | Lab Sample ID: | 410-53151-10 | Worklist Smp#: | 23 |
| Client ID: | HD-COD-SW-27-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 22 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D | | | | |
| Lims ID: | 410-53151-A-10 | | | | |
| Client ID: | HD-COD-SW-27-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 16:37:30 | ALS Bottle#: | 22 | Worklist Smp#: | 23 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-023 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

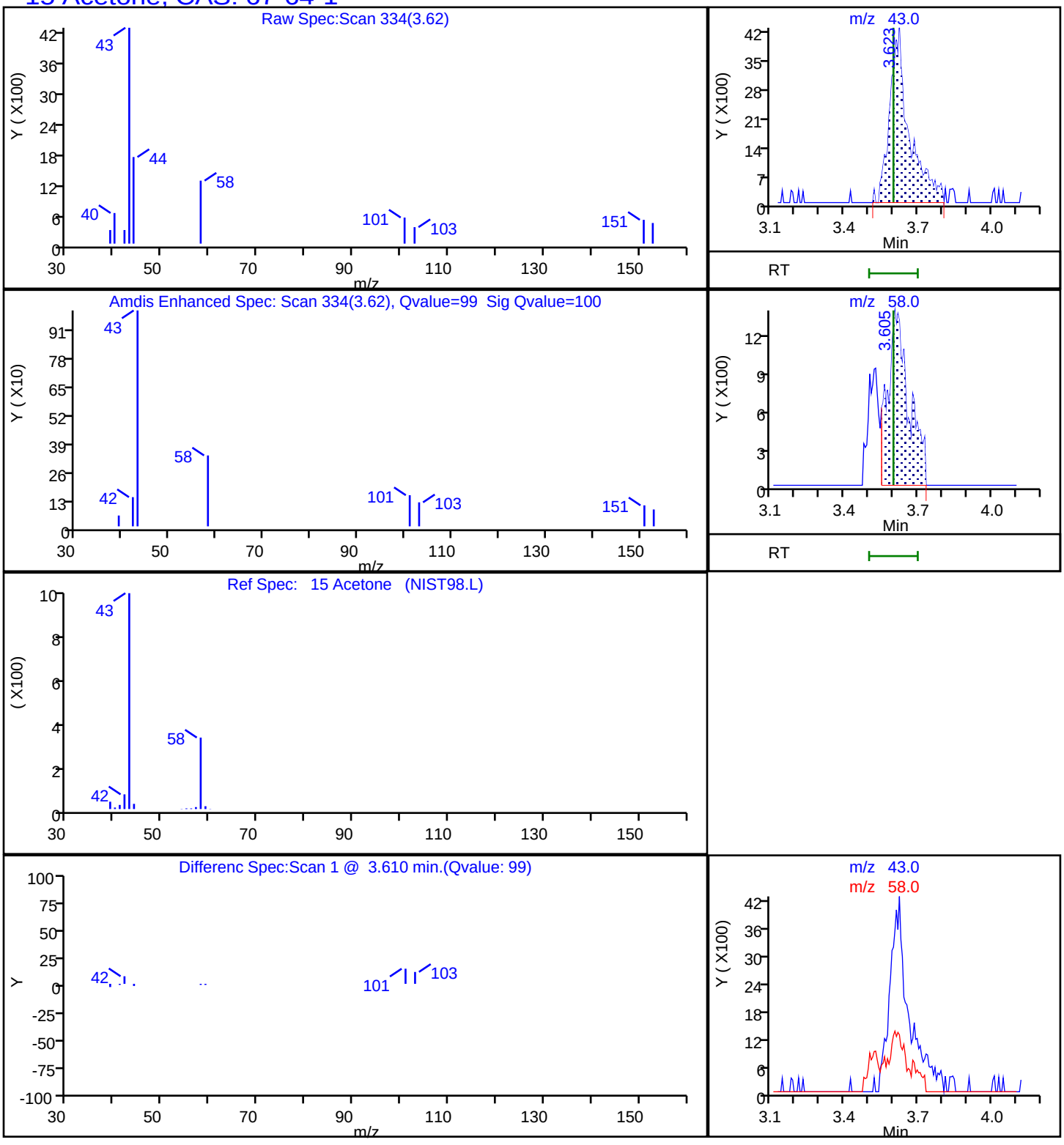
First Level Reviewer: campbellme Date: 01-Sep-2021 20:54:52

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.97 | 99.65 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.2 | 101.83 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.83 | 98.29 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.93 | 99.26 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D | | | | |
| Injection Date: | 01-Sep-2021 16:37:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-10 | Lab Sample ID: | 410-53151-10 | | |
| Client ID: | HD-COD-SW-27-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 22 | Worklist Smp#: | 23 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

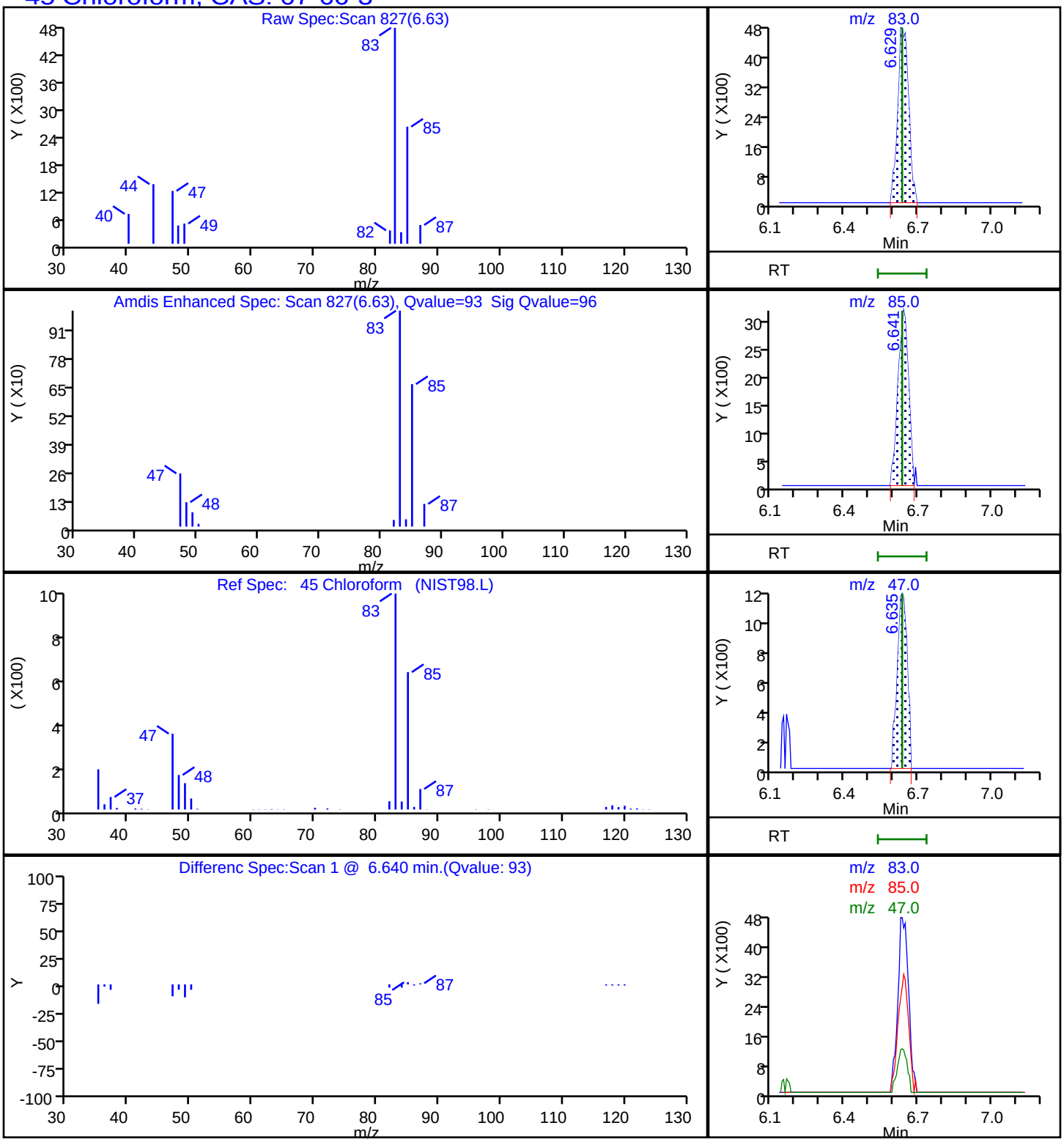
## 15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D | | | | |
| Injection Date: | 01-Sep-2021 16:37:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-10 | Lab Sample ID: | 410-53151-10 | | |
| Client ID: | HD-COD-SW-27-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 22 | Worklist Smp#: | 23 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

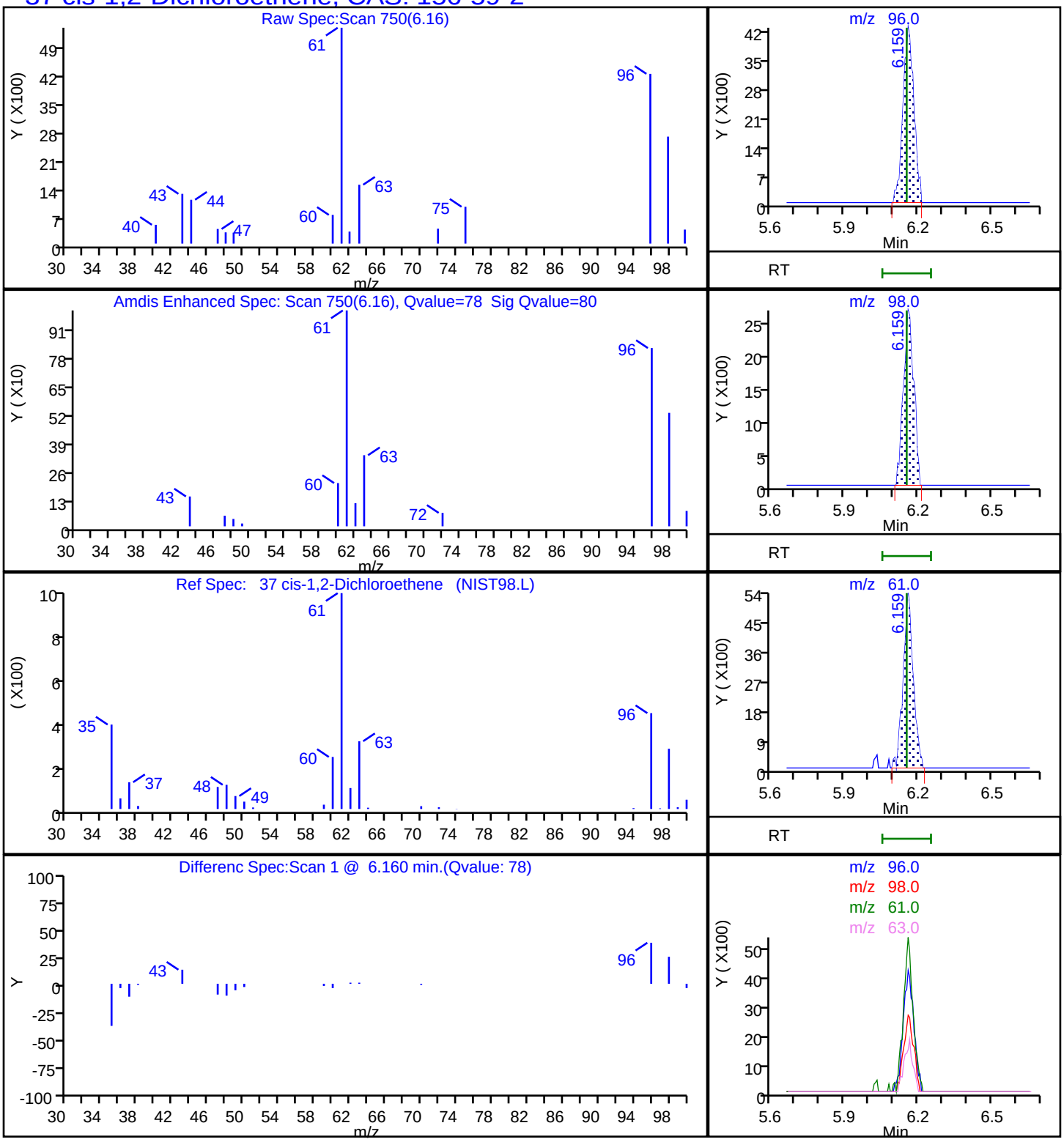
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D | | | | |
| Injection Date: | 01-Sep-2021 16:37:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-10 | Lab Sample ID: | 410-53151-10 | | |
| Client ID: | HD-COD-SW-27-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 22 | Worklist Smp#: | 23 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



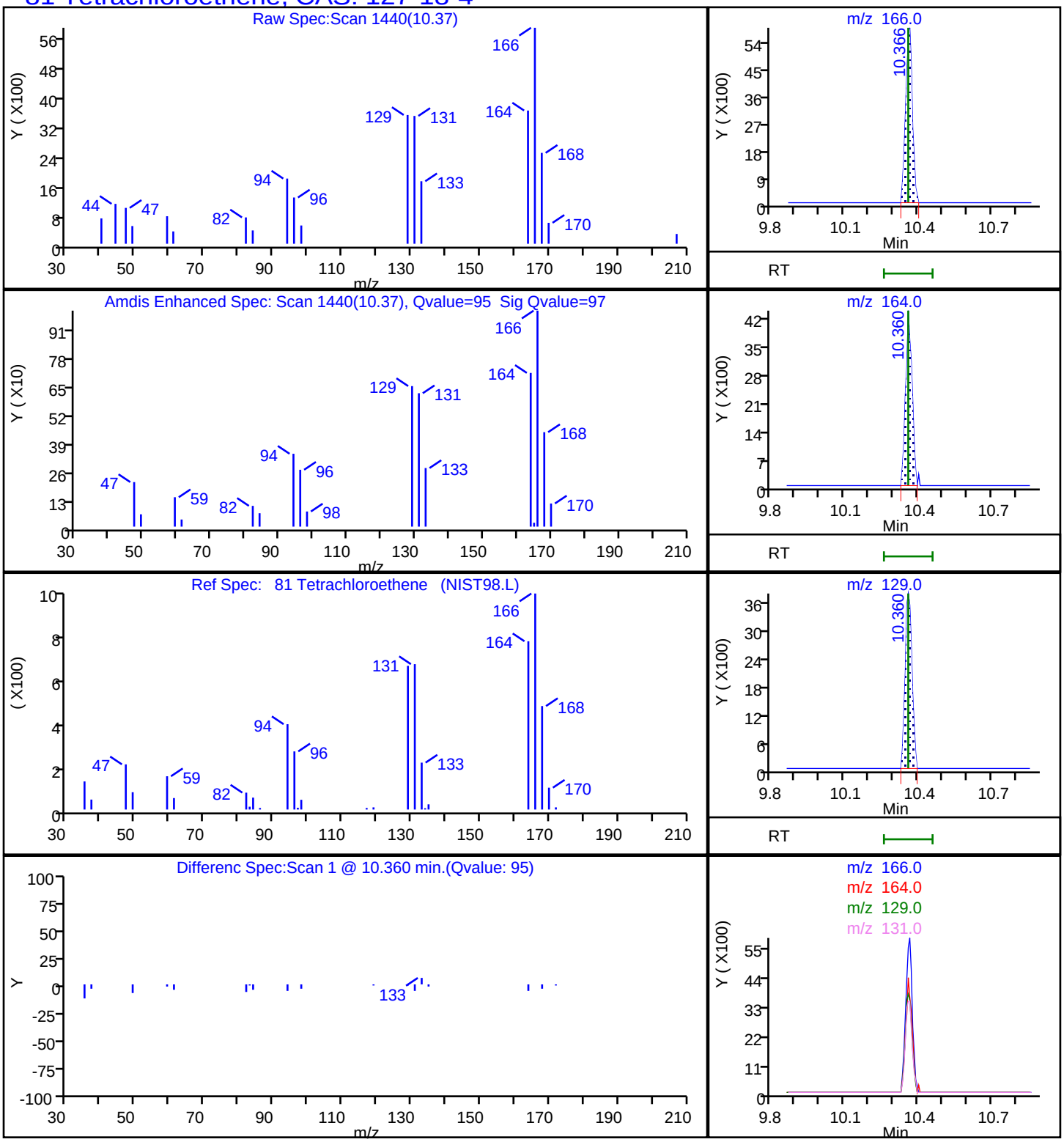
Report Date: 01-Sep-2021 20:58:01 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 16:37:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-10 | Lab Sample ID: | 410-53151-10 | | |
| Client ID: | HD-COD-SW-27-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 22 | Worklist Smp#: | 23 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

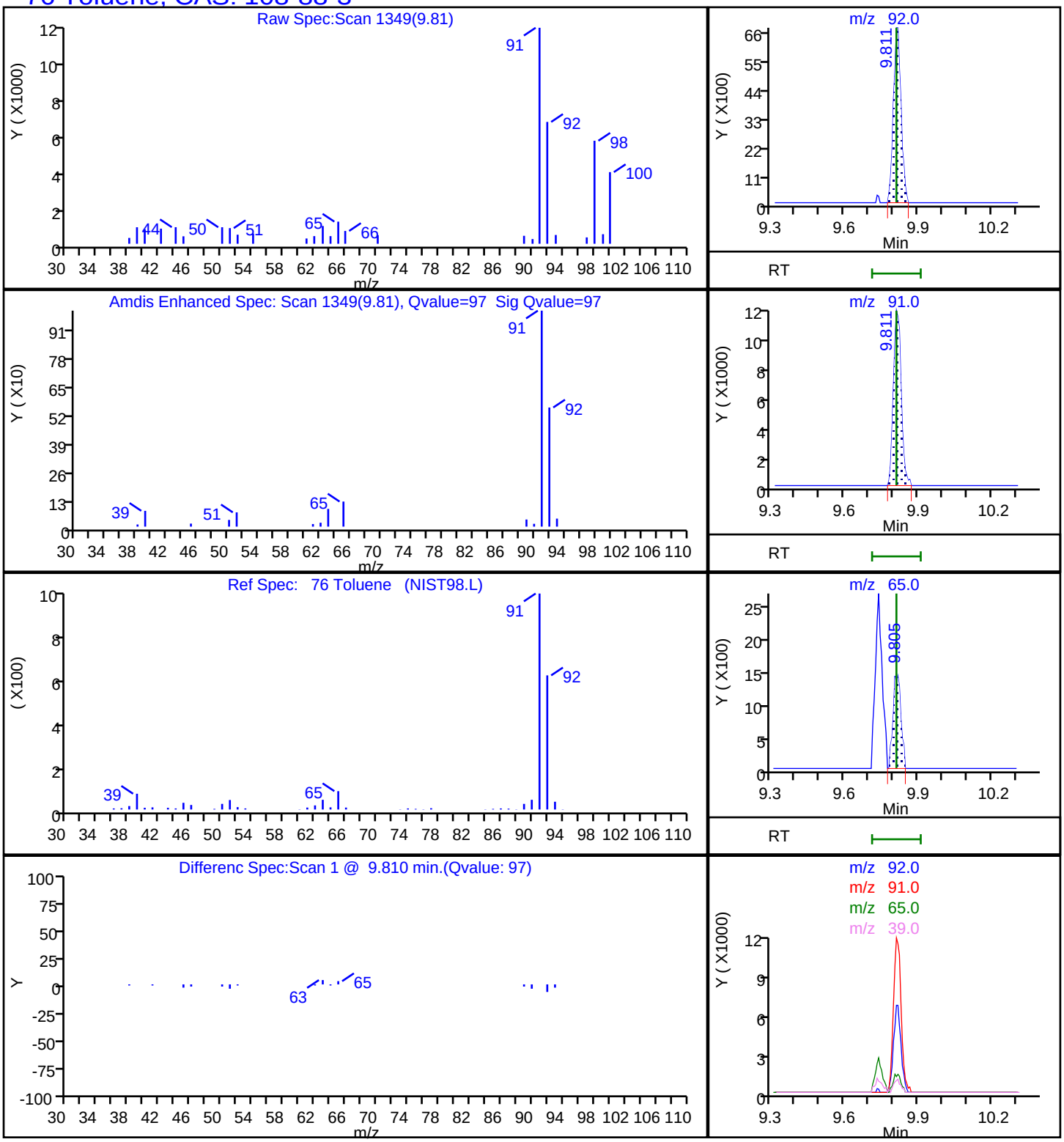
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D | | | | |
| Injection Date: | 01-Sep-2021 16:37:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-10 | Lab Sample ID: | 410-53151-10 | | |
| Client ID: | HD-COD-SW-27-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 22 | Worklist Smp#: | 23 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 76 Toluene, CAS: 108-88-3

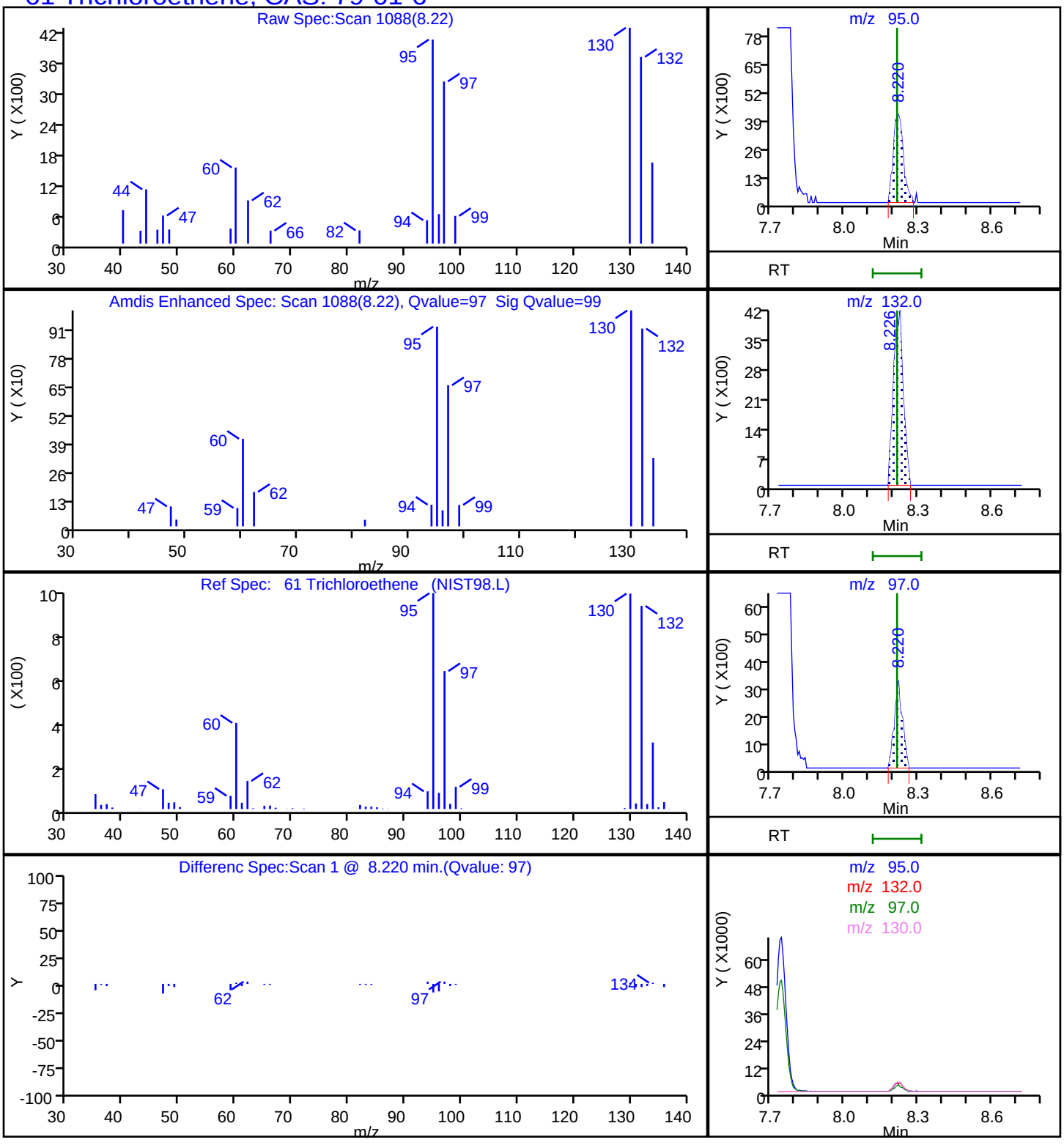


Report Date: 01-Sep-2021 20:58:01 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X22.D | | | | |
| Injection Date: | 01-Sep-2021 16:37:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-10 | Lab Sample ID: | 410-53151-10 | | |
| Client ID: | HD-COD-SW-27-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 22 | Worklist Smp#: | 23 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0  Lab Sample ID: 410-53151-11

Matrix: Water  Lab File ID: IS01X23.D

Analysis Method: 8260D  Date Collected: 08/26/2021 13:00

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 16:59

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 1.7 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.22 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 0.081 | J | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0  Lab Sample ID: 410-53151-11

Matrix: Water  Lab File ID: IS01X23.D

Analysis Method: 8260D  Date Collected: 08/26/2021 13:00

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 16:59

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 102 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X23.D
Lims ID: 410-53151-A-11
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 16:59:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-024
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:55:23

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | | 2.178 | | | | ND | |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| 15 Acetone | 43 | 3.623 | 3.599 | 0.025 | 99 | 20797 | 1.72 | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | ND | 7 |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.251 | 0.006 | 22 | 217472 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| 37 cis-1,2-Dichloroethene | 96 | 6.165 | 6.153 | 0.012 | 75 | 3246 | 0.0469 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 93 | 24932 | 0.2234 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 571221 | 9.90 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 117532 | 10.2 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2290117 | 10.0 | |
| 61 Trichloroethene | 95 | 8.226 | 8.213 | 0.013 | 93 | 3920 | 0.0566 | M |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | 7 |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2299261 | 9.82 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 97 | 11979 | 0.0690 | |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.366 | 10.359 | 0.007 | 94 | 6677 | 0.0807 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | 7 |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.182 | 0.000 | 85 | 1812391 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | | | 0 | | 0.1105 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 98 | 10131 | 0.0767 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 95 | 4416 | 0.0339 | |
| 95 Styrene | 104 | 11.762 | 11.749 | 0.013 | 89 | 5421 | 0.0257 | Ma |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 890611 | 9.95 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1100236 | 10.0 | |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
a - User Assigned ID

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

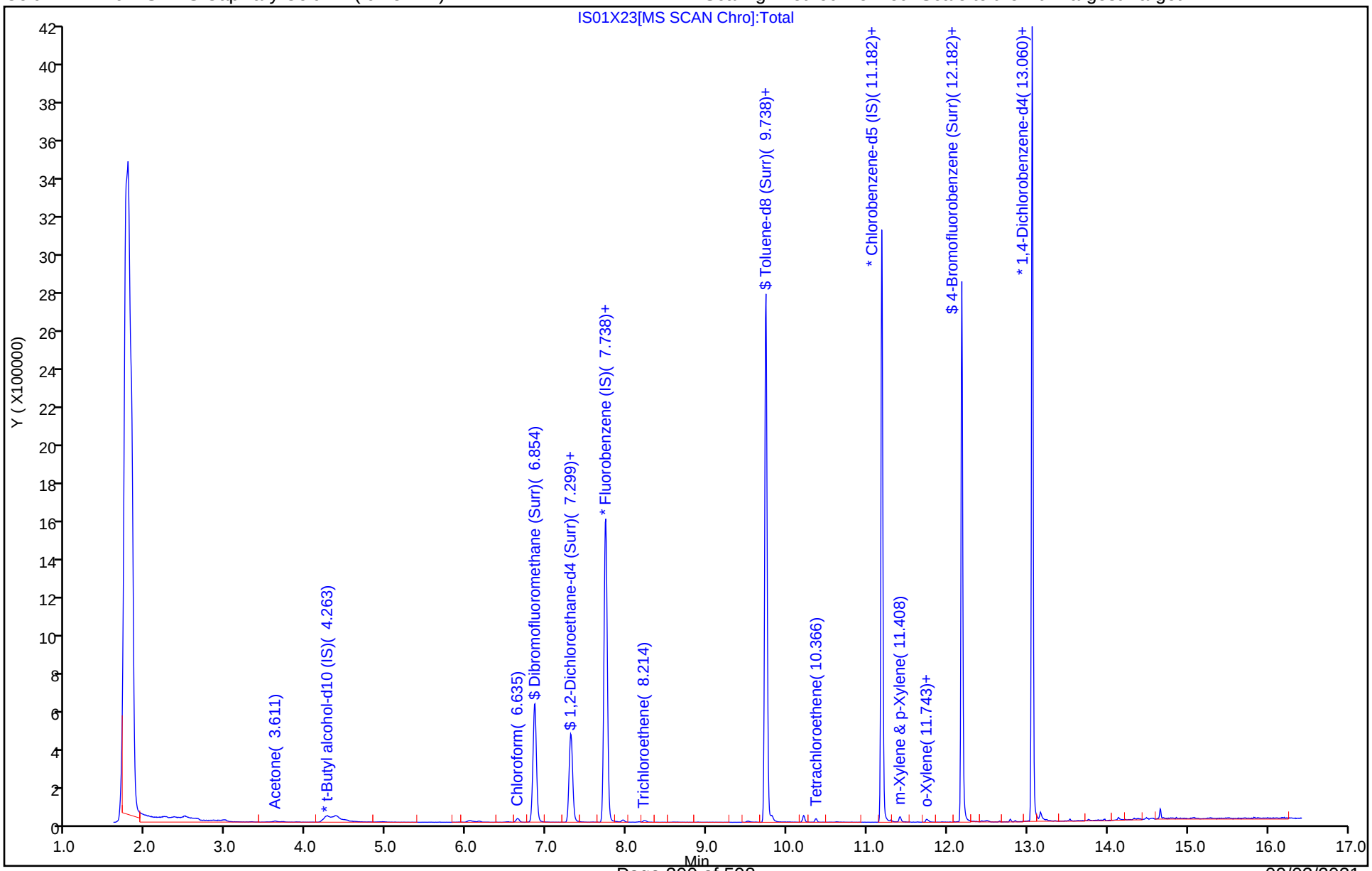
Report Date: 01-Sep-2021 20:58:03 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X23.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 16:59:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-11 | Lab Sample ID: | 410-53151-11 | Worklist Smp#: | 24 |
| Client ID: | HD-COD-SW-28-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 23 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X23.D | | | | |
| Lims ID: | 410-53151-A-11 | | | | |
| Client ID: | HD-COD-SW-28-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 16:59:30 | ALS Bottle#: | 23 | Worklist Smp#: | 24 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-024 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

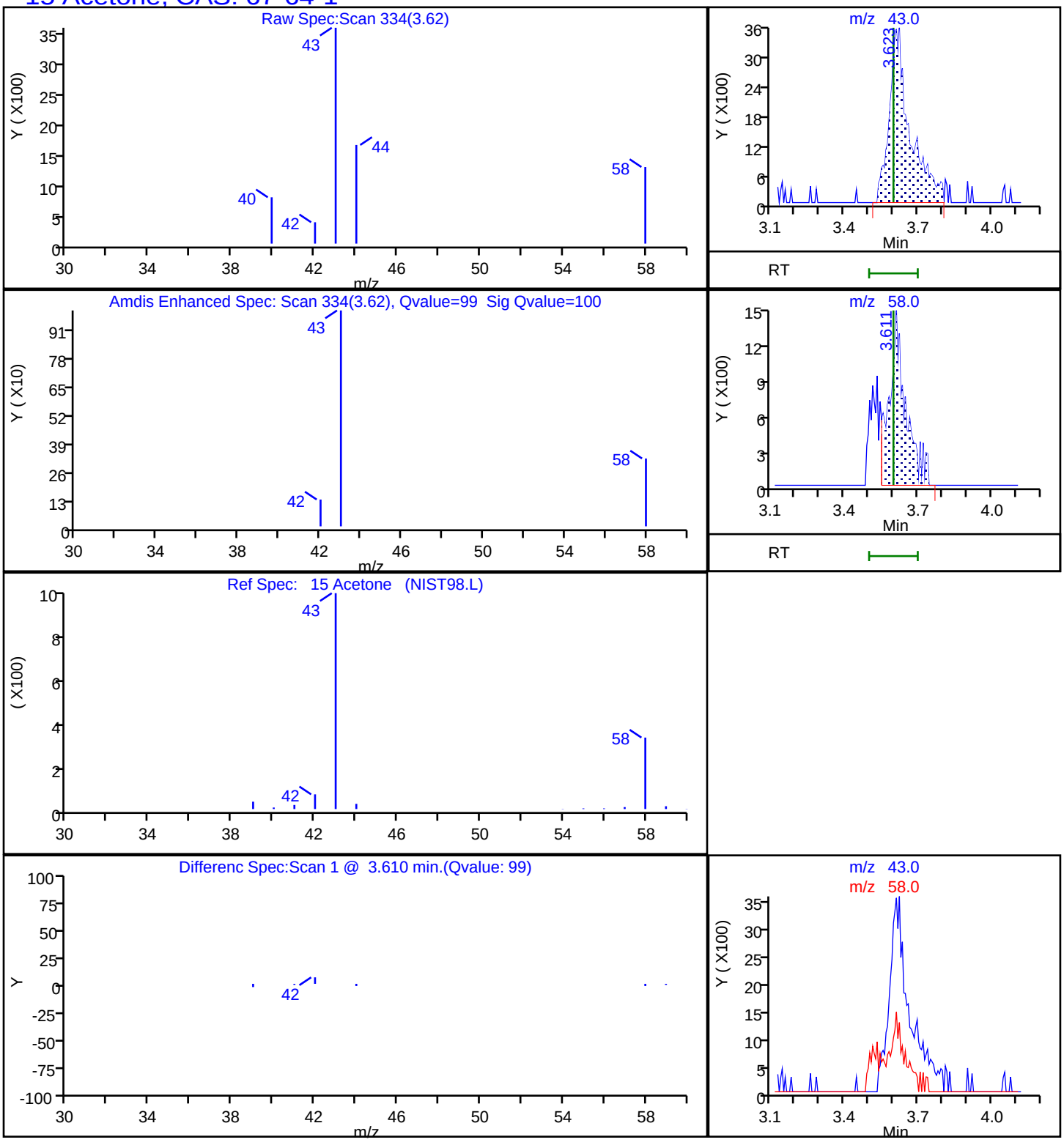
First Level Reviewer: campbellme Date: 01-Sep-2021 20:55:23

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.90 | 99.02 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.2 | 101.84 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.82 | 98.17 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.95 | 99.49 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X23.D | | | | |
| Injection Date: | 01-Sep-2021 16:59:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-11 | Lab Sample ID: | 410-53151-11 | | |
| Client ID: | HD-COD-SW-28-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 23 | Worklist Smp#: | 24 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

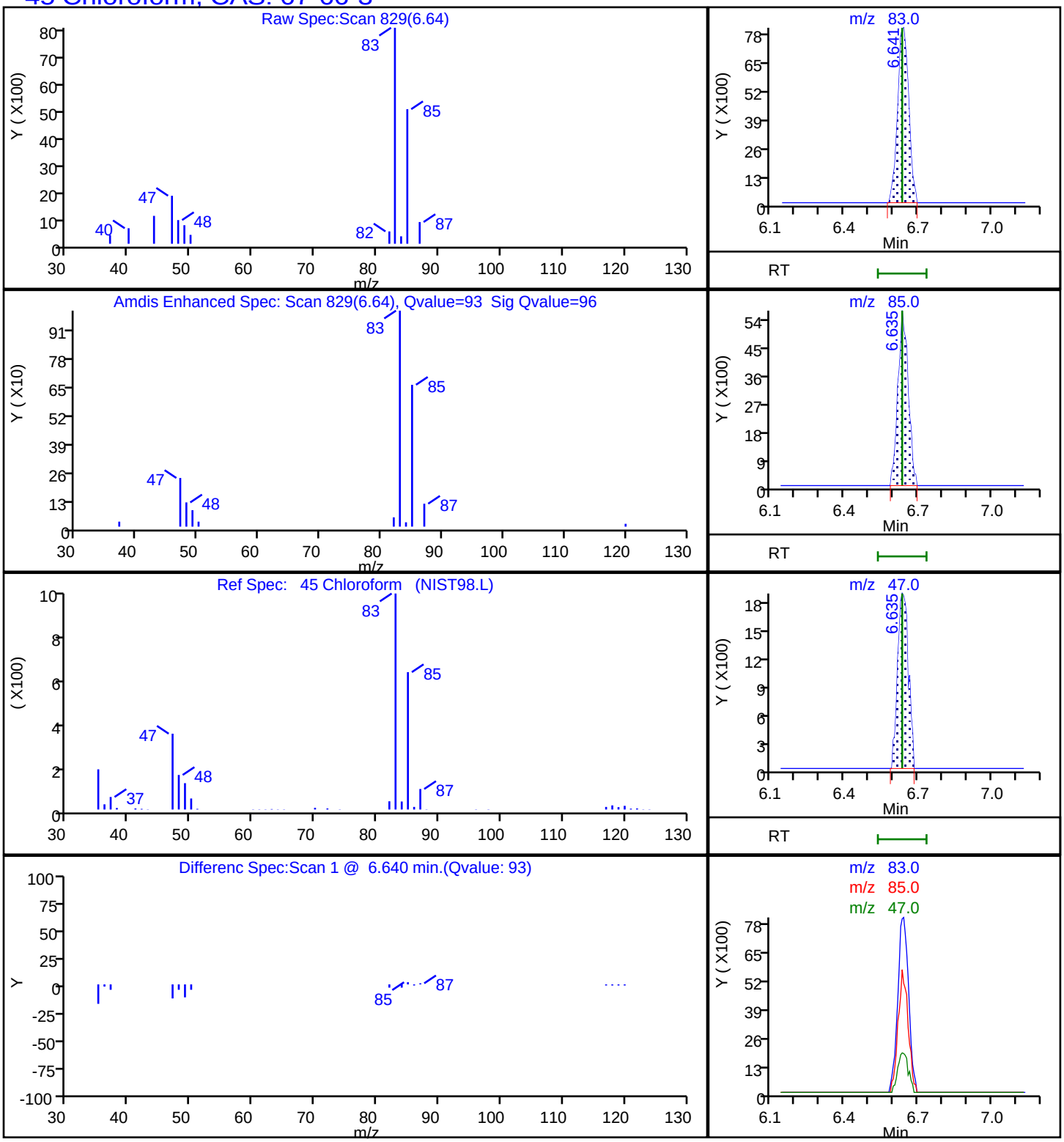
## 15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X23.D | | | | |
| Injection Date: | 01-Sep-2021 16:59:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-11 | Lab Sample ID: | 410-53151-11 | | |
| Client ID: | HD-COD-SW-28-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 23 | Worklist Smp#: | 24 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 45 Chloroform, CAS: 67-66-3



Report Date: 01-Sep-2021 20:58:03 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X23.D

Injection Date: 01-Sep-2021 16:59:30 Instrument ID: 19930

Lims ID: 410-53151-A-11 Lab Sample ID: 410-53151-11

Client ID: HD-COD-SW-28-0/1-0

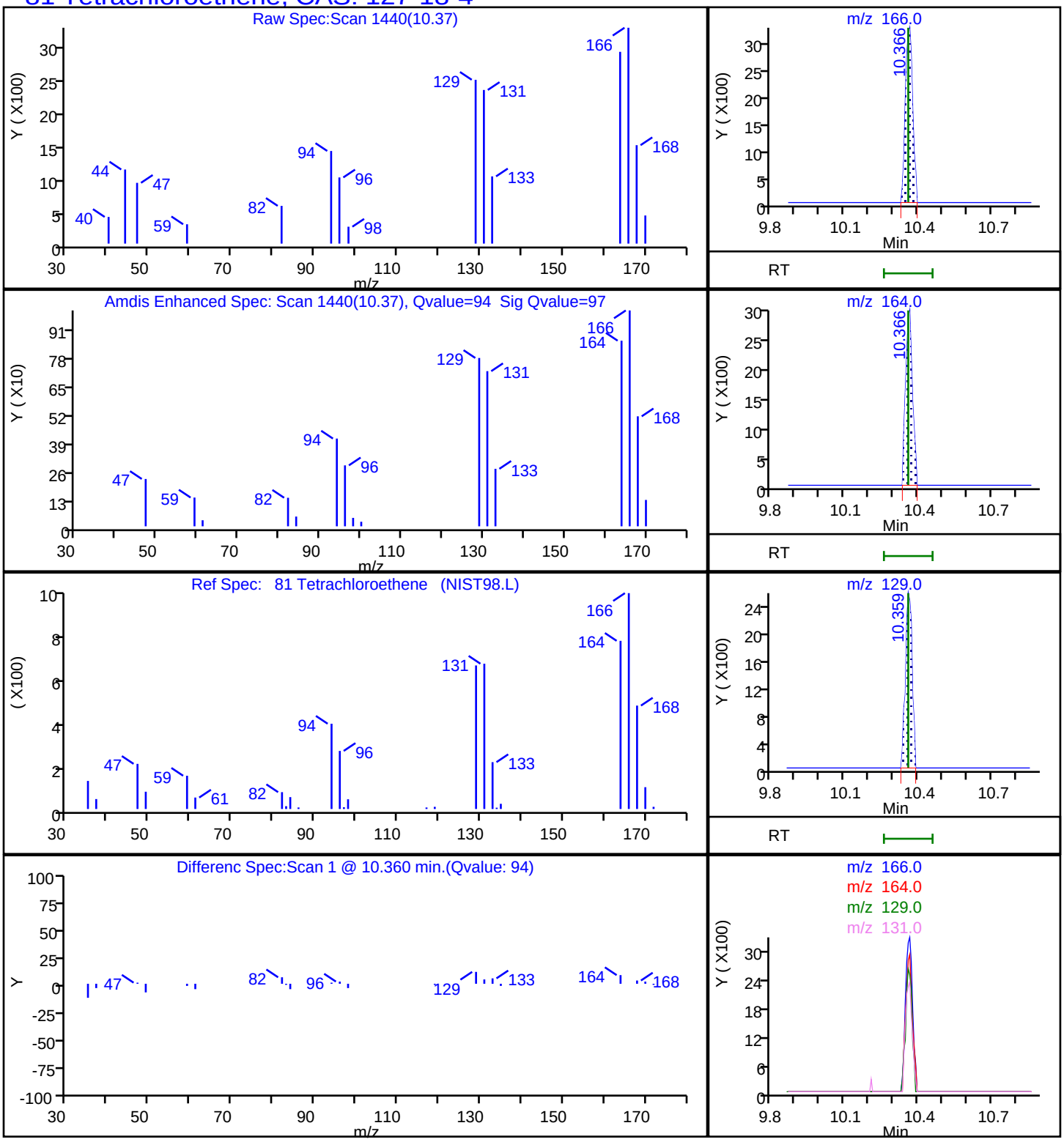
Operator ID: SRK36897 ALS Bottle#: 23 Worklist Smp#: 24

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Detector MS Quad

## 81 Tetrachloroethene, CAS: 127-18-4



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

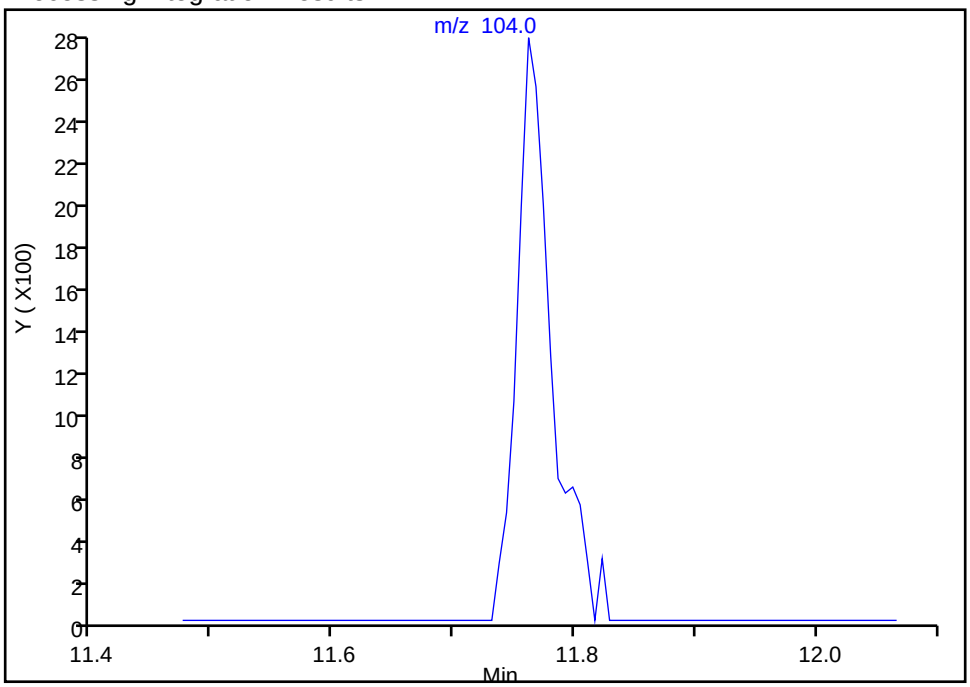
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X23.D | | | | |
| Injection Date: | 01-Sep-2021 16:59:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-11 | Lab Sample ID: | 410-53151-11 | | |
| Client ID: | HD-COD-SW-28-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 23 | Worklist Smp#: | 24 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 95 Styrene, CAS: 100-42-5

Signal: 1

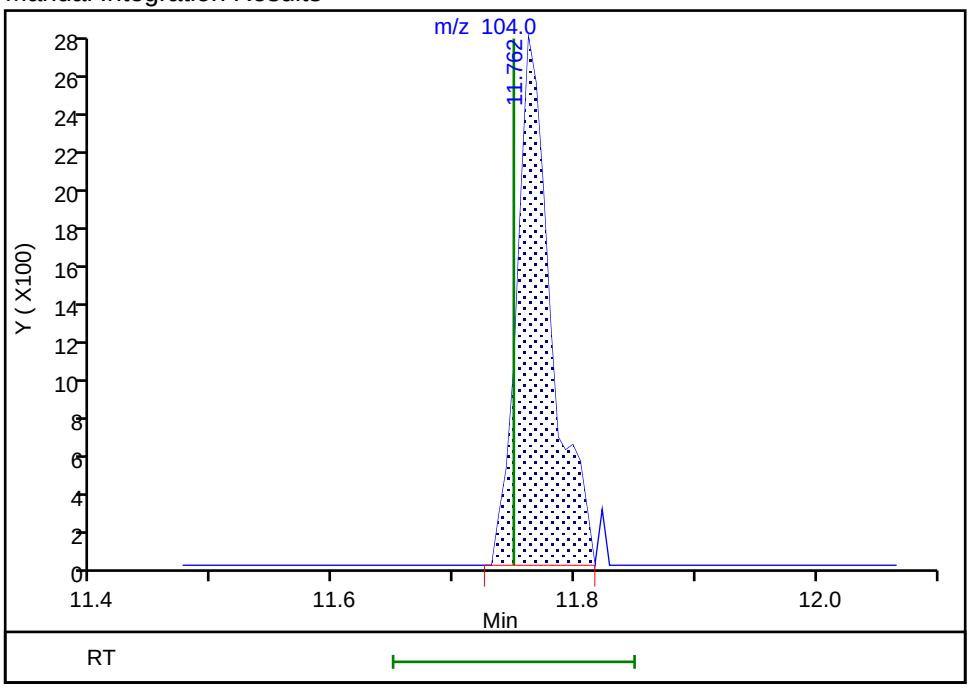
Not Detected
Expected RT: 11.75

Processing Integration Results




Manual Integration Results

RT: 11.76
Area: 5421
Amount: 0.025745
Amount Units: ug/l




Reviewer: campbellme, 01-Sep-2021 20:55:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

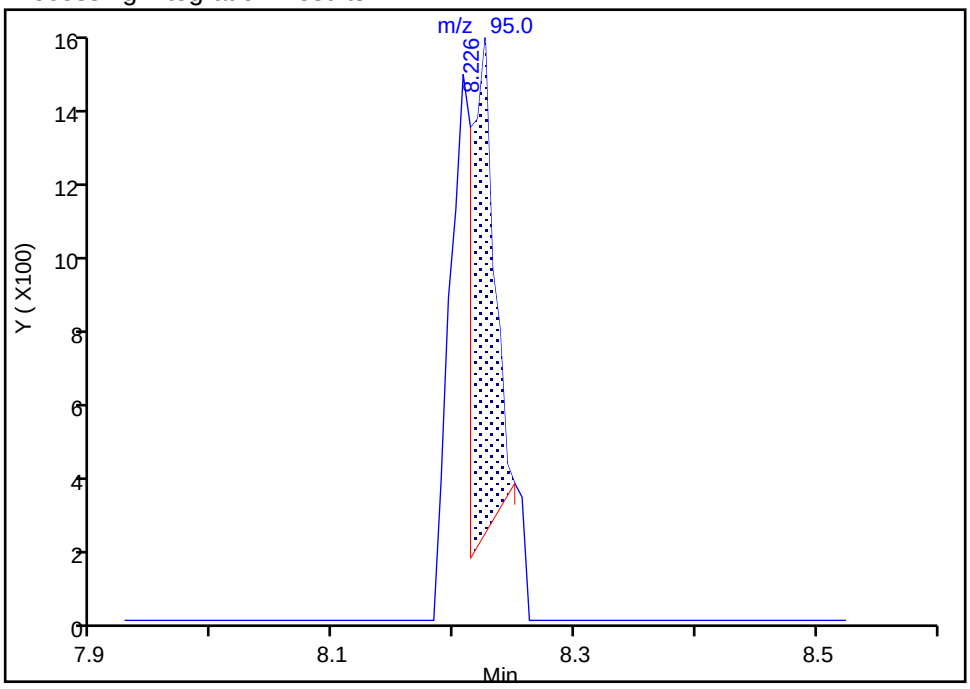
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X23.D | | | | |
| Injection Date: | 01-Sep-2021 16:59:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-11 | Lab Sample ID: | 410-53151-11 | | |
| Client ID: | HD-COD-SW-28-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 23 | Worklist Smp#: | 24 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6

Signal: 1

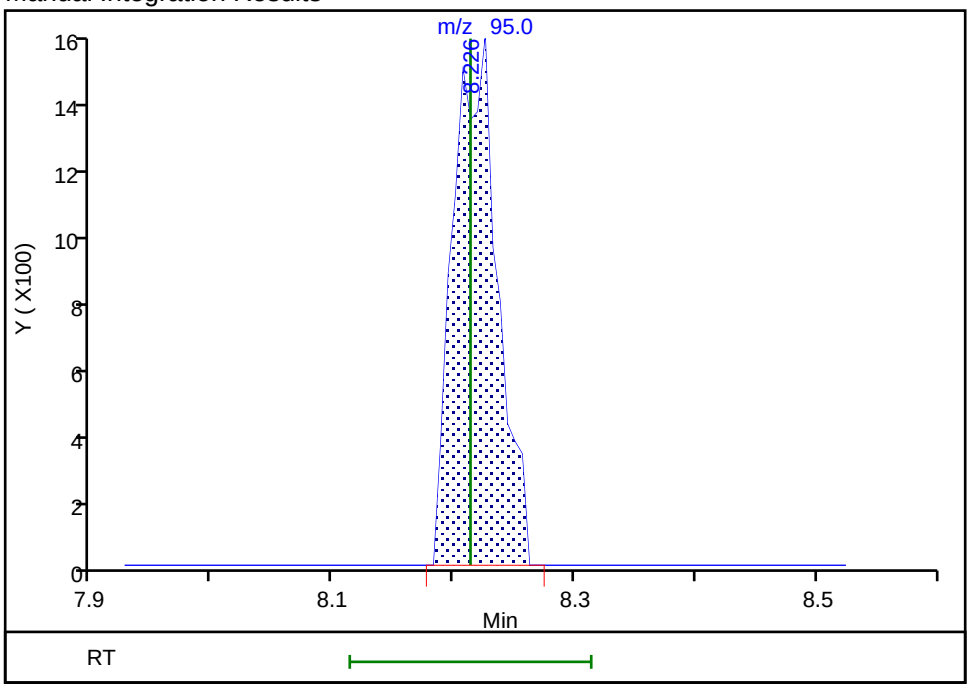
Processing Integration Results

RT: 8.23
Area: 1756
Amount: 0.025375
Amount Units: ug/l




Manual Integration Results

RT: 8.23
Area: 3920
Amount: 0.056647
Amount Units: ug/l




Reviewer: campbellme, 01-Sep-2021 20:55:08

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0  Lab Sample ID: 410-53151-12

Matrix: Water  Lab File ID: IS01X24.D

Analysis Method: 8260D  Date Collected: 08/26/2021 09:35

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 17:20

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 1.5 | J | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.12 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.21 | J | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 0.12 | J | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 0.20 | J | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0  Lab Sample ID: 410-53151-12

Matrix: Water  Lab File ID: IS01X24.D

Analysis Method: 8260D  Date Collected: 08/26/2021 09:35

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 17:20

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 100 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 98 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D
Lims ID: 410-53151-A-12
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 01-Sep-2021 17:20:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-025
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:55:47

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | 2.166 | 2.178 | -0.012 | 1 | 4098 | 0.0515 | |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | 7 |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| 15 Acetone | 43 | 3.605 | 3.599 | 0.007 | 94 | 16793 | 1.52 | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | ND | 7 |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.251 | 0.006 | 25 | 199136 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| 37 cis-1,2-Dichloroethene | 96 | 6.153 | 6.153 | 0.000 | 76 | 14014 | 0.2078 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.635 | 6.634 | 0.001 | 90 | 12812 | 0.1177 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.842 | 0.006 | 94 | 556055 | 9.88 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 113045 | 10.0 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | 7 |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2233498 | 10.0 | |
| 61 Trichloroethene | 95 | 8.208 | 8.213 | -0.005 | 95 | 13637 | 0.2021 | M |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | 7 |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2237716 | 9.83 | |
| 76 Toluene | 92 | 9.817 | 9.811 | 0.006 | 98 | 8290 | 0.0491 | |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.366 | 10.359 | 0.007 | 97 | 9722 | 0.1209 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | 7 |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1760921 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | | 11.408 | | | | ND | 7 |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 94 | 855609 | 9.84 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1051930 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

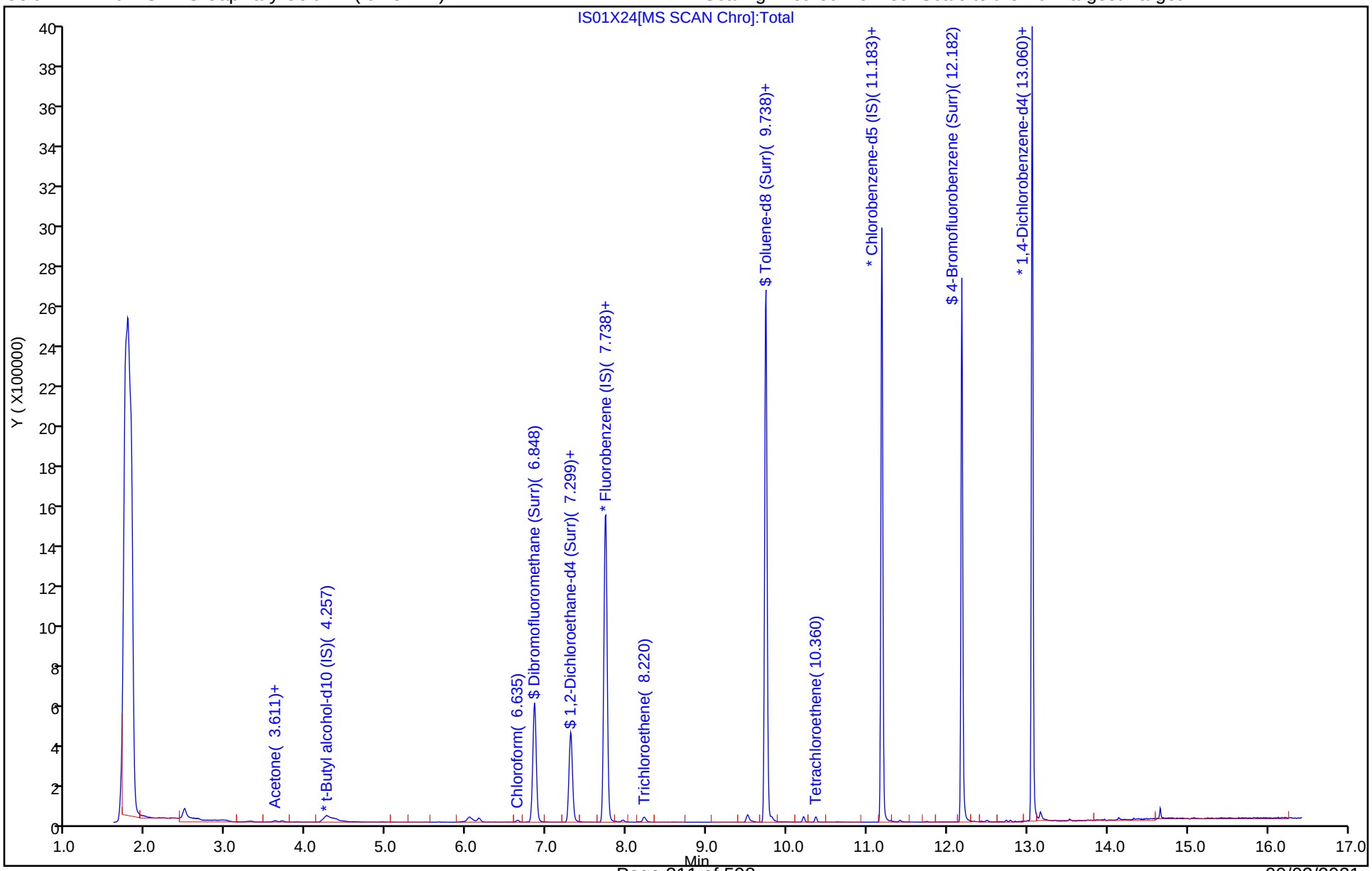
Report Date: 01-Sep-2021 20:58:04 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 17:20:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-12 | Lab Sample ID: | 410-53151-12 | Worklist Smp#: | 25 |
| Client ID: | HD-COD-SW-29-0/1-0 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D | | | | |
| Lims ID: | 410-53151-A-12 | | | | |
| Client ID: | HD-COD-SW-29-0/1-0 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 17:20:30 | ALS Bottle#: | 24 | Worklist Smp#: | 25 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-025 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

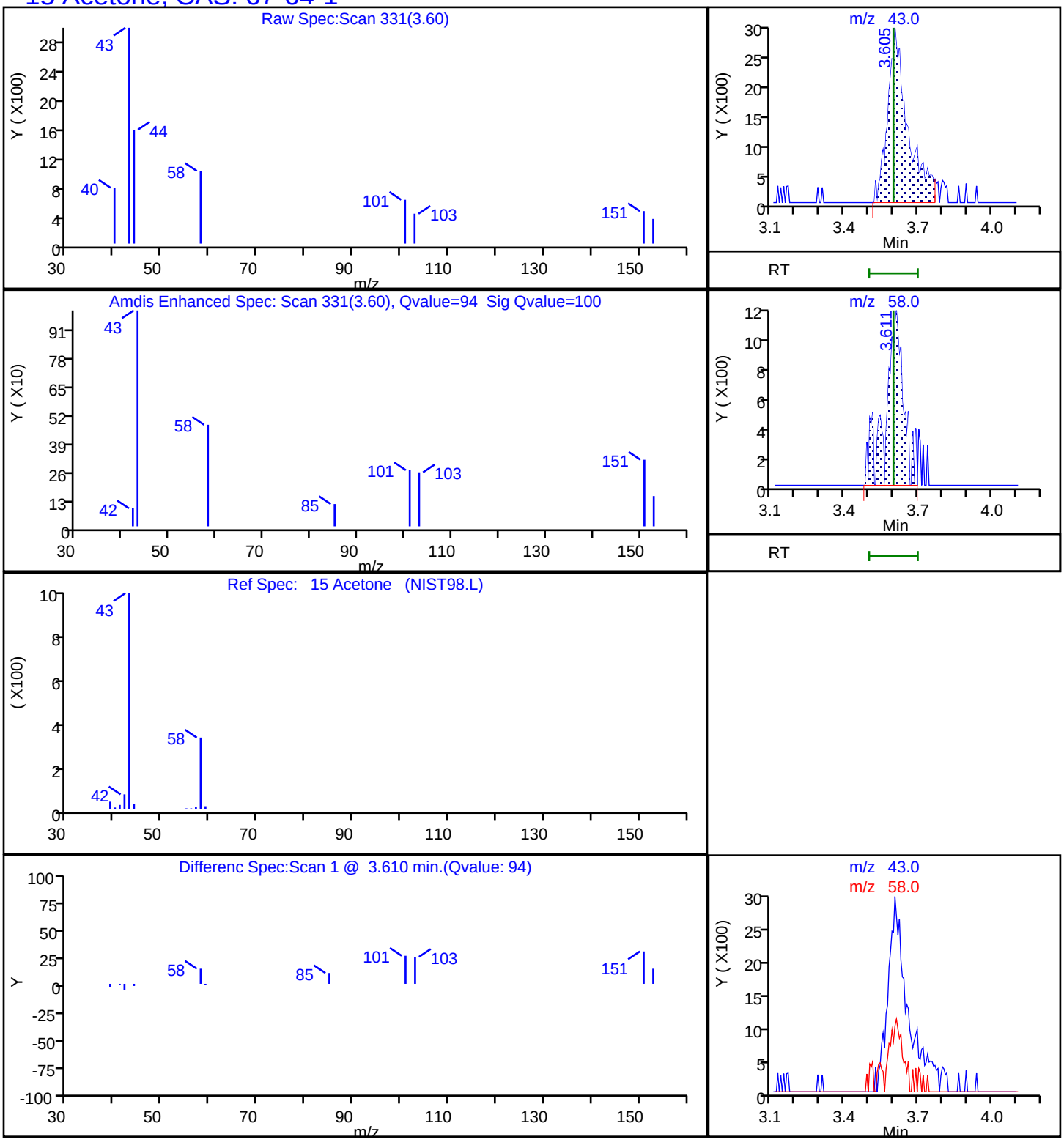
First Level Reviewer: campbellme Date: 01-Sep-2021 20:55:47

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.88 | 98.83 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.0 | 100.43 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.83 | 98.33 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.84 | 98.38 |

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D | | | | |
| Injection Date: | 01-Sep-2021 17:20:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-12 | Lab Sample ID: | 410-53151-12 | | |
| Client ID: | HD-COD-SW-29-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 24 | Worklist Smp#: | 25 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

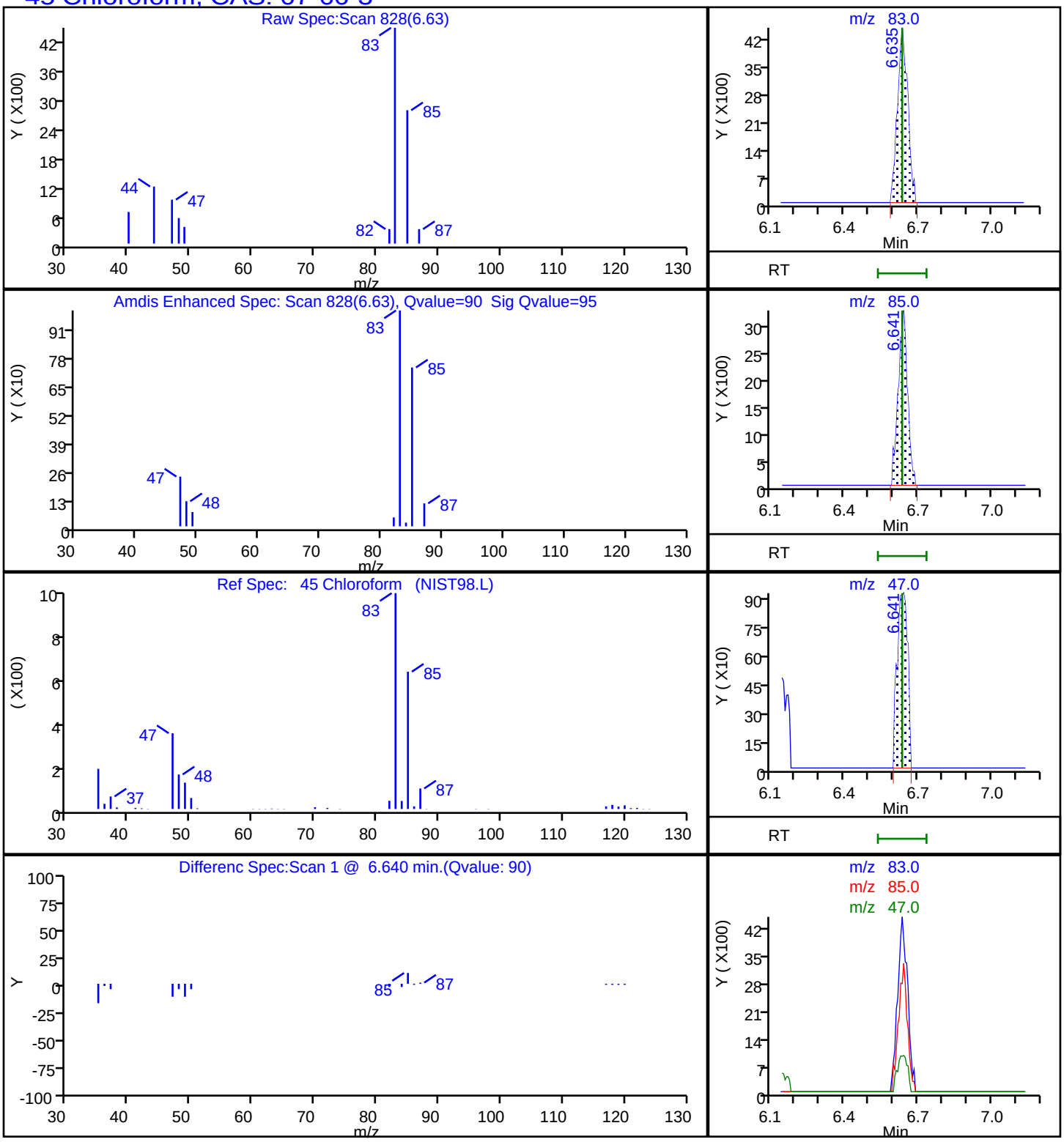
## 15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D | | | | |
| Injection Date: | 01-Sep-2021 17:20:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-12 | Lab Sample ID: | 410-53151-12 | | |
| Client ID: | HD-COD-SW-29-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 24 | Worklist Smp#: | 25 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

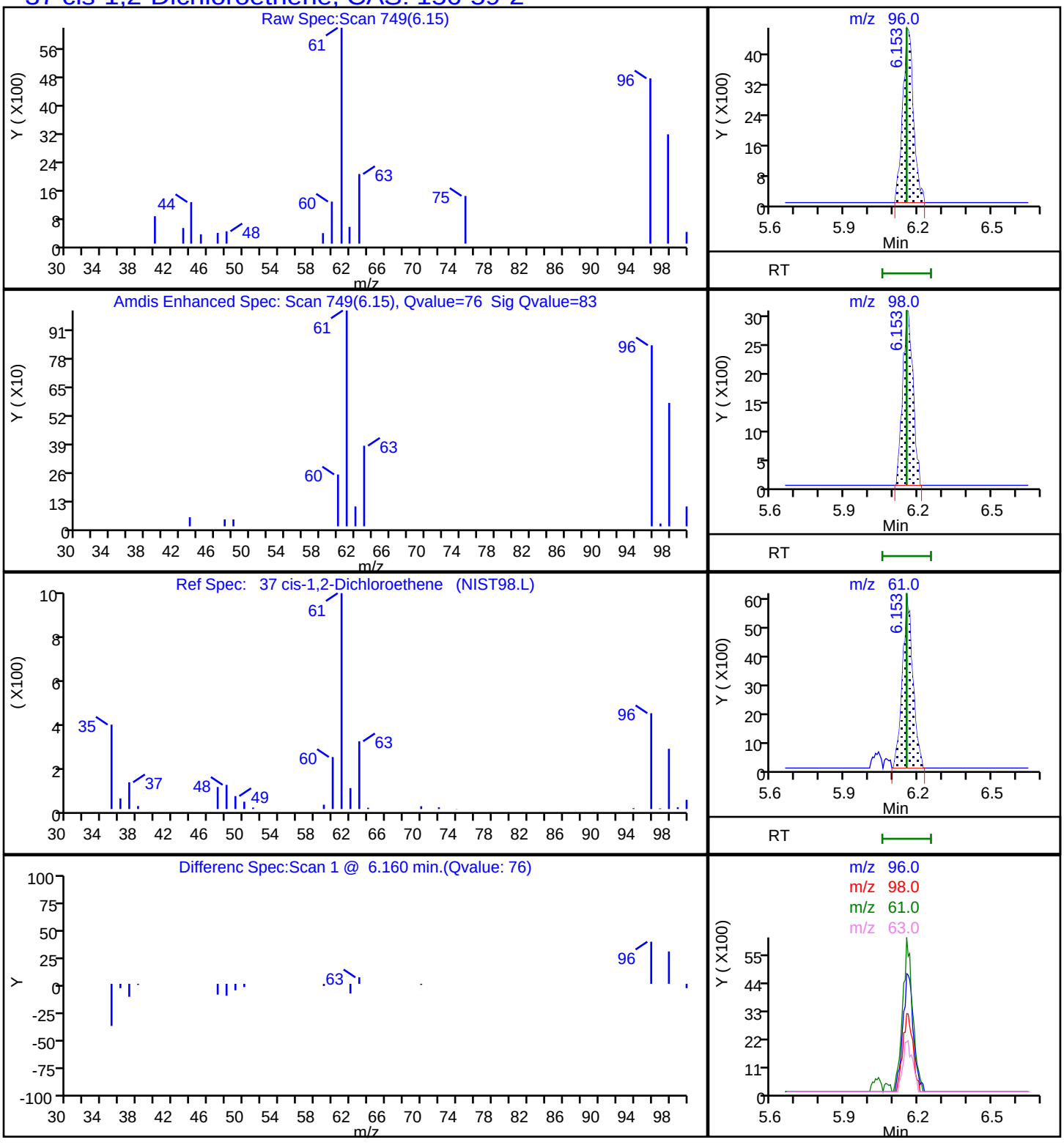
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D | | | | |
| Injection Date: | 01-Sep-2021 17:20:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-12 | Lab Sample ID: | 410-53151-12 | | |
| Client ID: | HD-COD-SW-29-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 24 | Worklist Smp#: | 25 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 01-Sep-2021 20:58:04 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D

Injection Date: 01-Sep-2021 17:20:30 Instrument ID: 19930

Lims ID: 410-53151-A-12 Lab Sample ID: 410-53151-12

Client ID: HD-COD-SW-29-0/1-0

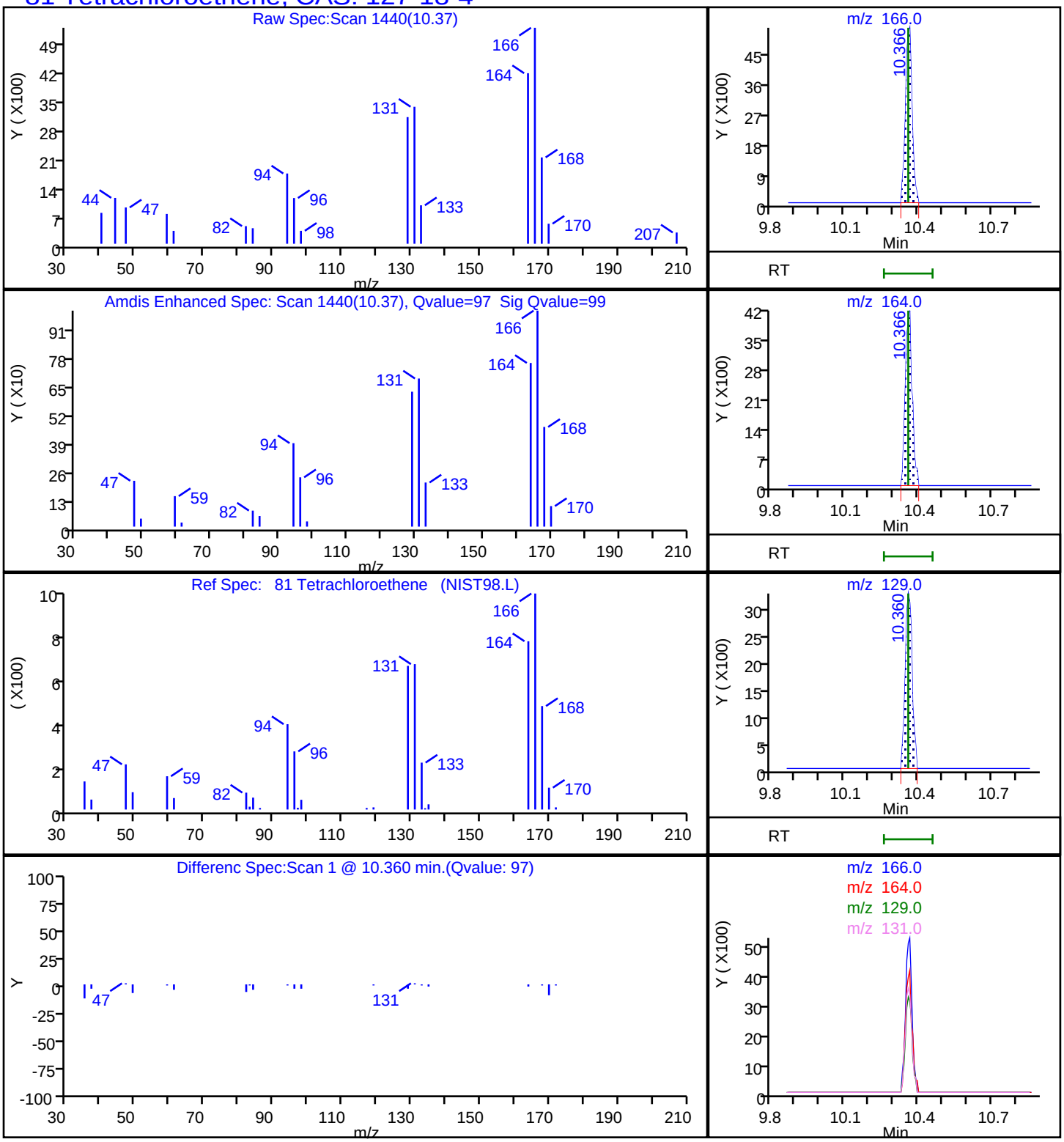
Operator ID: SRK36897 ALS Bottle#: 24 Worklist Smp#: 25

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column ( 0.25mm) Detector MS Quad

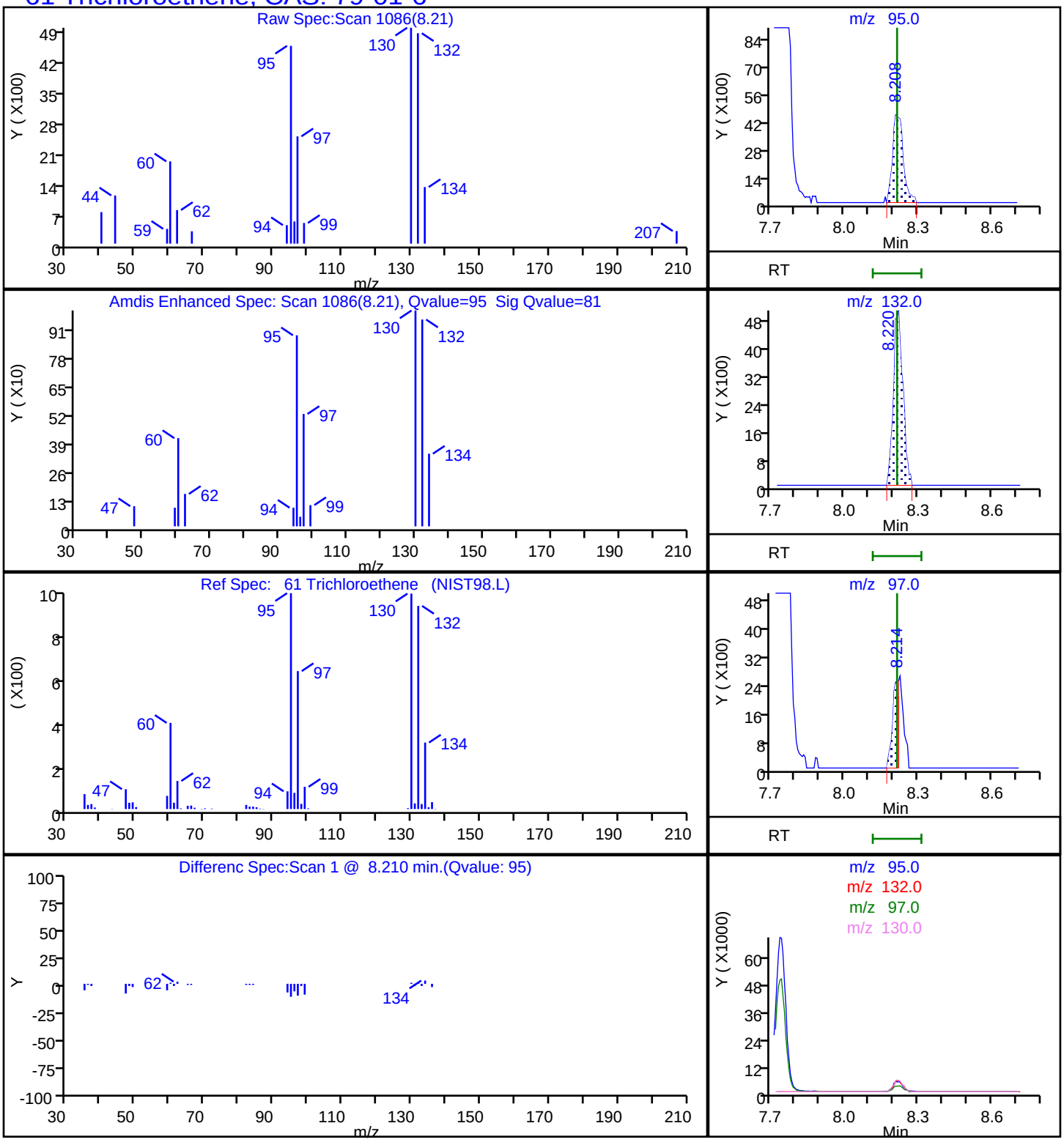
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D | | | | |
| Injection Date: | 01-Sep-2021 17:20:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-12 | Lab Sample ID: | 410-53151-12 | | |
| Client ID: | HD-COD-SW-29-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 24 | Worklist Smp#: | 25 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

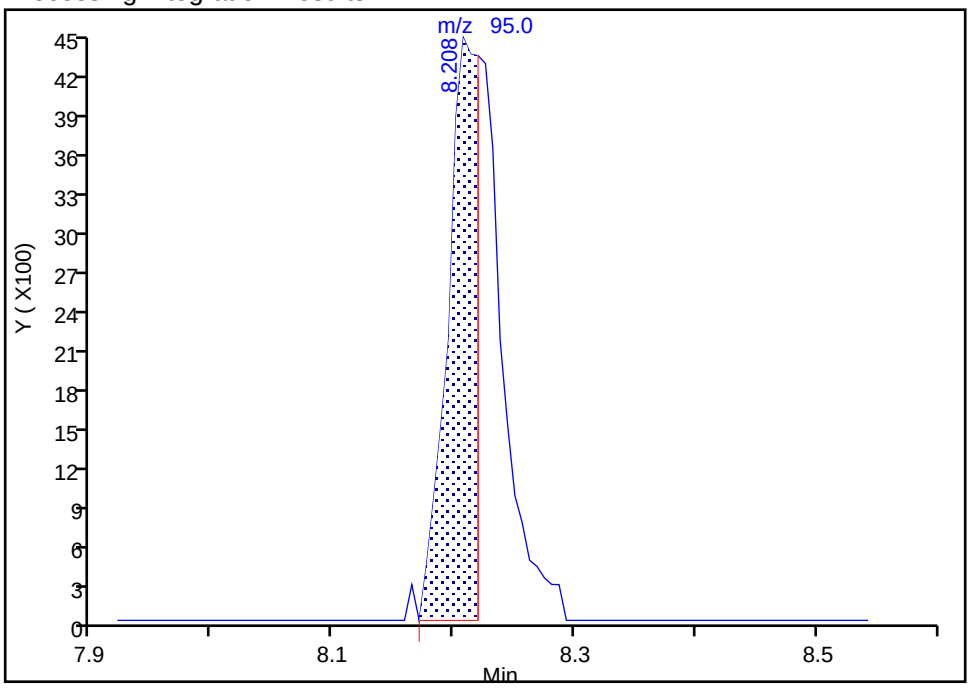
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X24.D | | | | |
| Injection Date: | 01-Sep-2021 17:20:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-12 | Lab Sample ID: | 410-53151-12 | | |
| Client ID: | HD-COD-SW-29-0/1-0 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 24 | Worklist Smp#: | 25 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6

Signal: 1

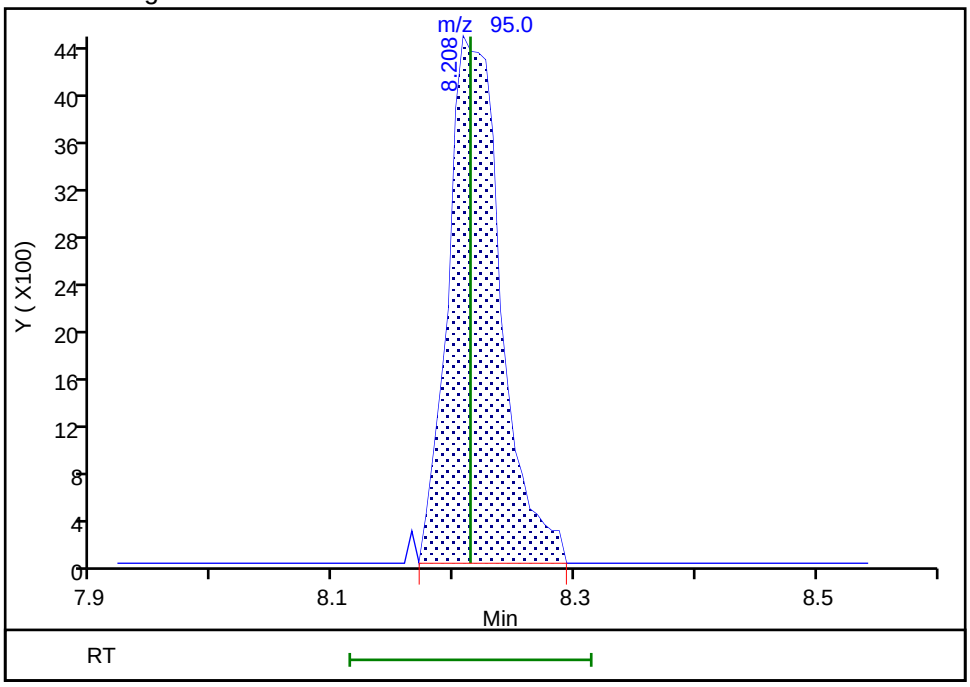
Processing Integration Results

RT: 8.21
Area: 8113
Amount: 0.120210
Amount Units: ug/l




Manual Integration Results

RT: 8.21
Area: 13637
Amount: 0.202059
Amount Units: ug/l




Reviewer: campbellme, 01-Sep-2021 20:55:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1  Lab Sample ID: 410-53151-13

Matrix: Water  Lab File ID: IS01X25.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:00

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 17:41

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | 0.36 | J | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | 0.22 | J | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | 0.24 | J | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | ND | | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 0.25 | J | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.8 | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 9.2 | | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 3.7 | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1  Lab Sample ID: 410-53151-13

Matrix: Water  Lab File ID: IS01X25.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:00

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 17:41

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 103 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D
Lims ID: 410-53151-A-13
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 01-Sep-2021 17:41:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-026
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:56:04

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | | 2.178 | | | | ND | |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | 7 |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | 3.574 | 3.574 | 0.000 | 97 | 12515 | 0.2360 | |
| 15 Acetone | 43 | 3.629 | 3.599 | 0.031 | 54 | 7122 | 0.7617 | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | ND | |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.251 | 0.012 | 23 | 168317 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | 4.653 | 4.653 | 0.000 | 91 | 6101 | 0.0403 | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | 7 |
| 31 1,1-Dichloroethane | 63 | 5.336 | 5.324 | 0.012 | 95 | 23536 | 0.2153 | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.153 | 0.006 | 78 | 123443 | 1.84 | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 93 | 27031 | 0.2497 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 556897 | 9.95 | |
| 47 1,1,1-Trichloroethane | 97 | 6.872 | 6.860 | 0.012 | 97 | 35984 | 0.3577 | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | 7 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 115654 | 10.3 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2222050 | 10.0 | |
| 61 Trichloroethene | 95 | 8.214 | 8.213 | 0.001 | 97 | 251102 | 3.74 | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2230444 | 9.81 | |
| 76 Toluene | 92 | | 9.811 | | | | ND | 7 |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | 7 |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 98 | 742392 | 9.24 | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1759354 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | 7 |
| 93 m-Xylene & p-Xylene | 106 | | 11.408 | | | | ND | 7 |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | 7 |
| 95 Styrene | 104 | | 11.749 | | | | ND | |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 94 | 857618 | 9.87 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1048572 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

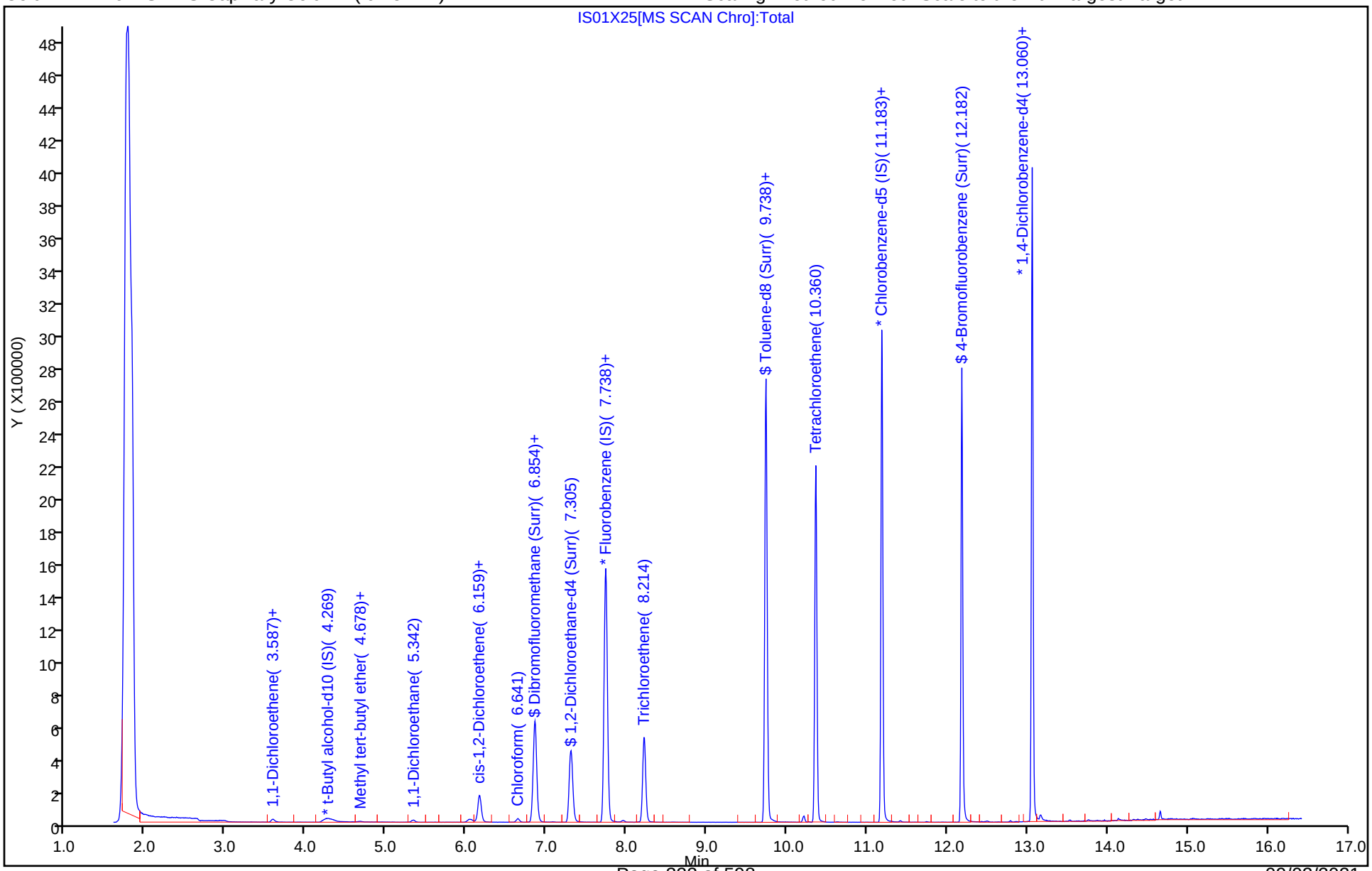
Report Date: 01-Sep-2021 20:58:05 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 17:41:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-13 | Lab Sample ID: | 410-53151-13 | Worklist Smp#: | 26 |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 25 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D | | | | |
| Lims ID: | 410-53151-A-13 | | | | |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 17:41:30 | ALS Bottle#: | 25 | Worklist Smp#: | 26 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-026 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

First Level Reviewer: campbellme Date: 01-Sep-2021 20:56:04

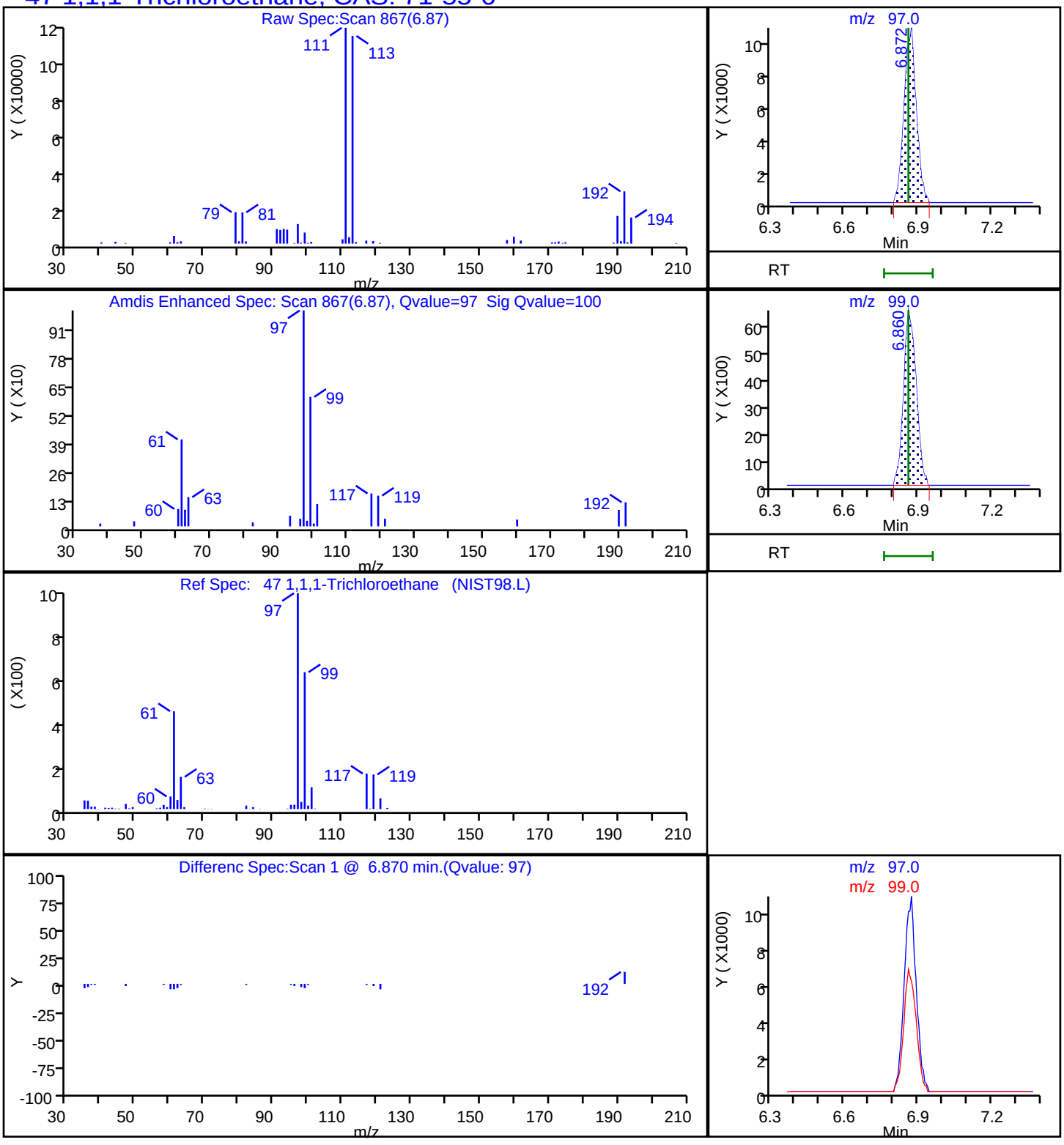
| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.95 | 99.49 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.3 | 103.28 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.81 | 98.10 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.87 | 98.70 |

Report Date: 01-Sep-2021 20:58:05 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D | | | | |
| Injection Date: | 01-Sep-2021 17:41:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-13 | Lab Sample ID: | 410-53151-13 | | |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 25 | Worklist Smp#: | 26 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

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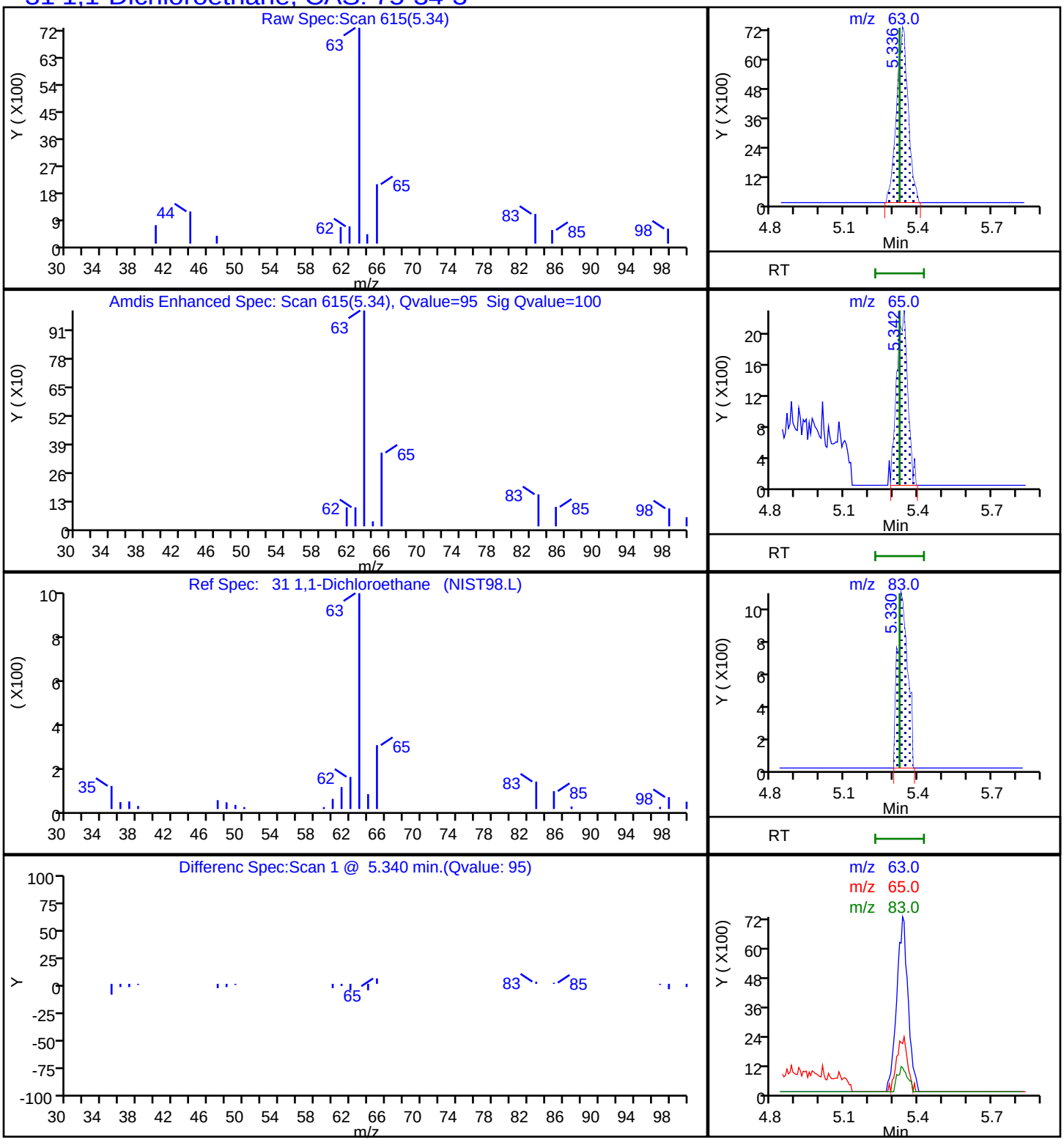
| Injection Date: | 01-Sep-2021 17:41:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-13 | Lab Sample ID: | 410-53151-13 | | |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 25 | Worklist Smp#: | 26 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

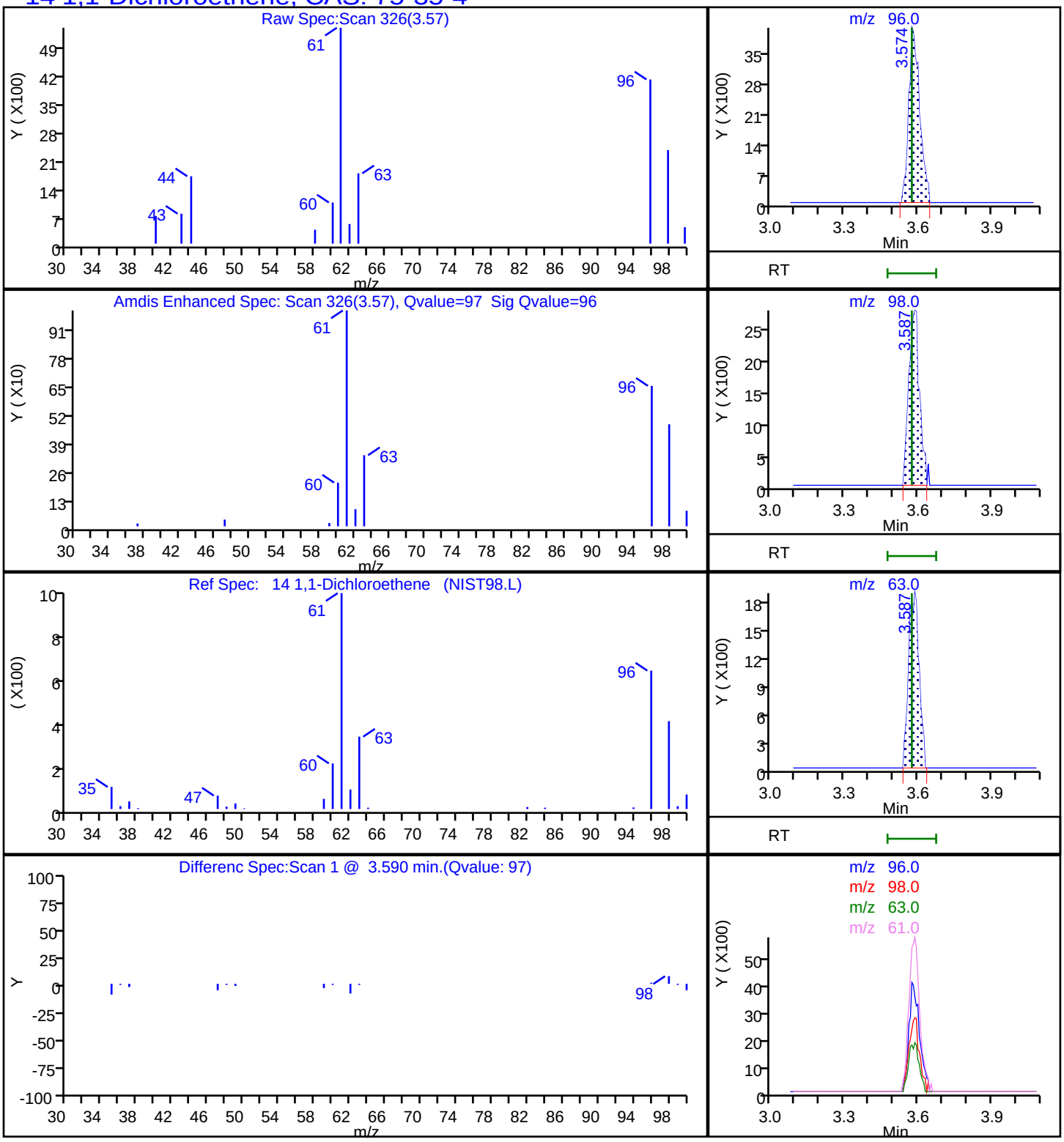
## 31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D | | | | |
| Injection Date: | 01-Sep-2021 17:41:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-13 | Lab Sample ID: | 410-53151-13 | | |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 25 | Worklist Smp#: | 26 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
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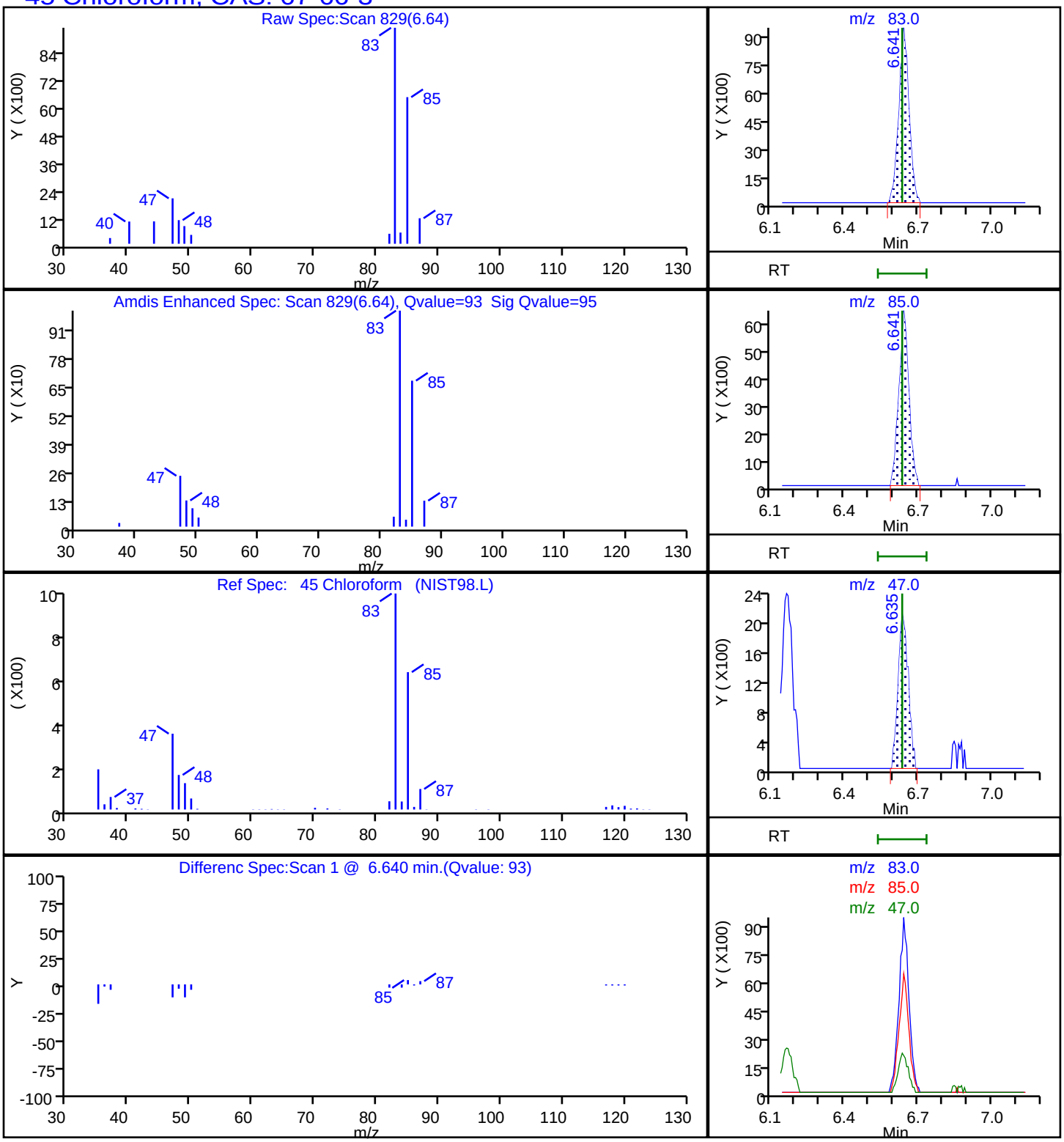
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D | | | | |
| Injection Date: | 01-Sep-2021 17:41:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-13 | Lab Sample ID: | 410-53151-13 | | |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 25 | Worklist Smp#: | 26 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

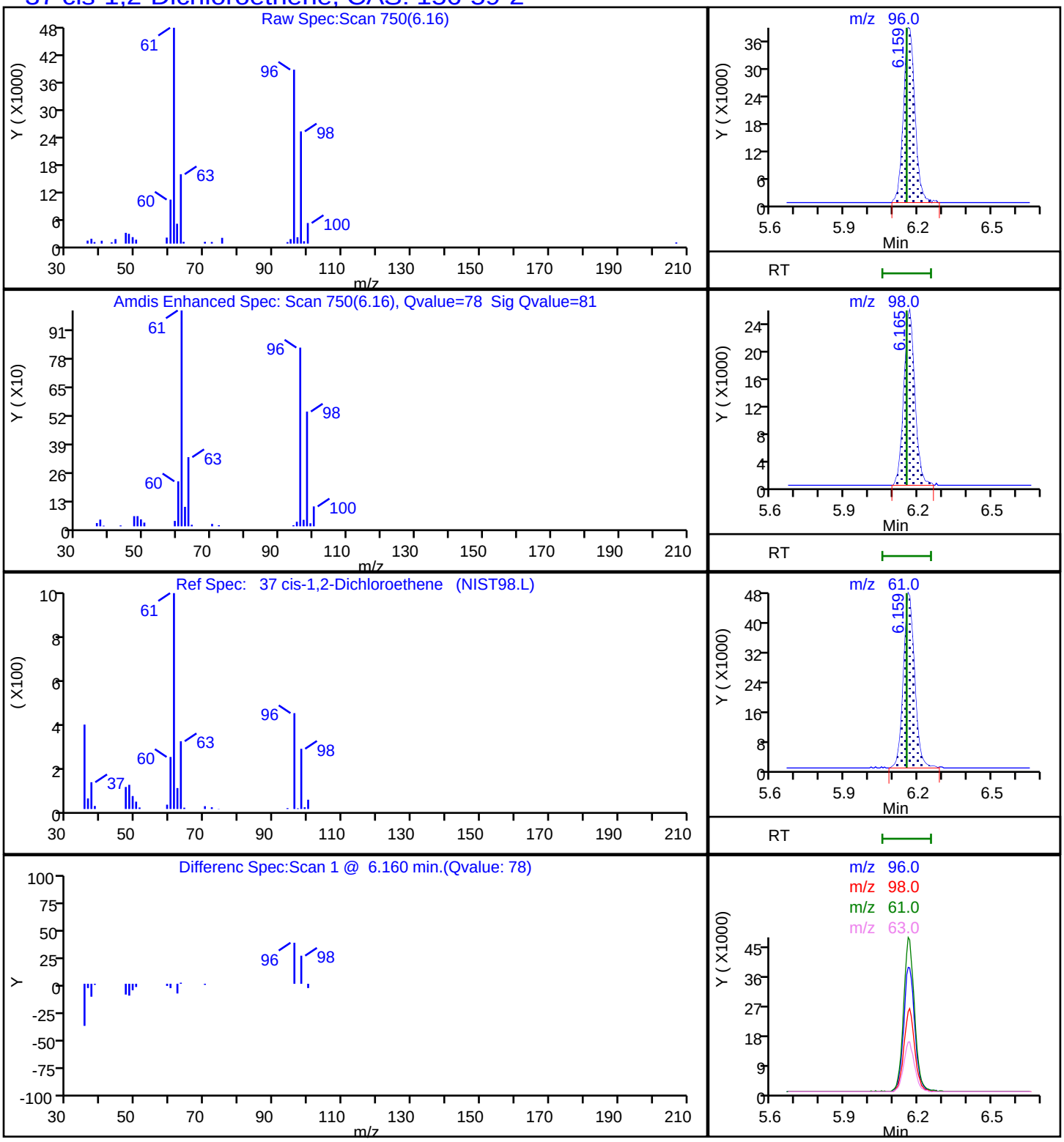
## 45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D | | | | |
| Injection Date: | 01-Sep-2021 17:41:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-13 | Lab Sample ID: | 410-53151-13 | | |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 25 | Worklist Smp#: | 26 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

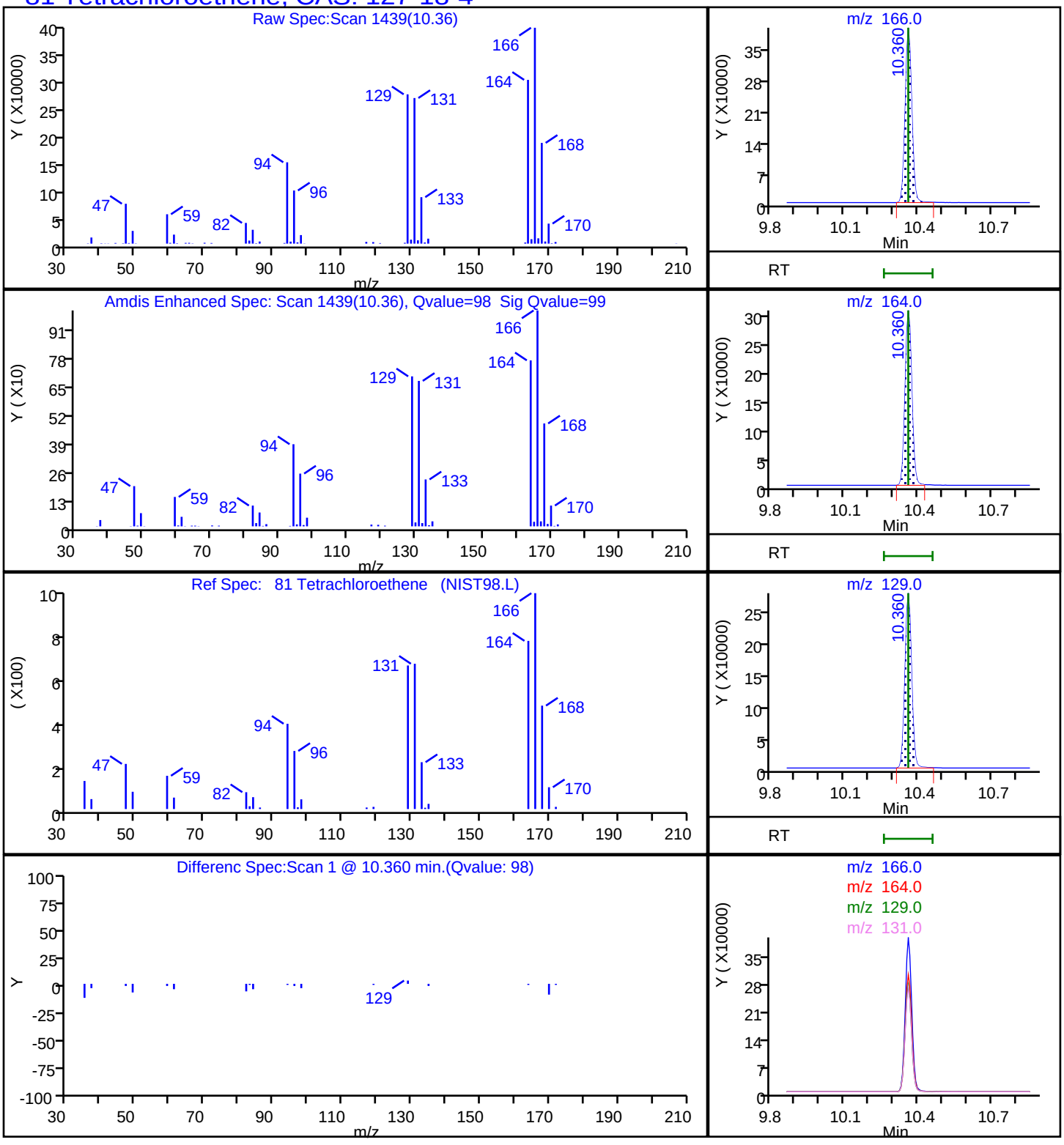
## 37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D | | | | |
| Injection Date: | 01-Sep-2021 17:41:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-13 | Lab Sample ID: | 410-53151-13 | | |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 25 | Worklist Smp#: | 26 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

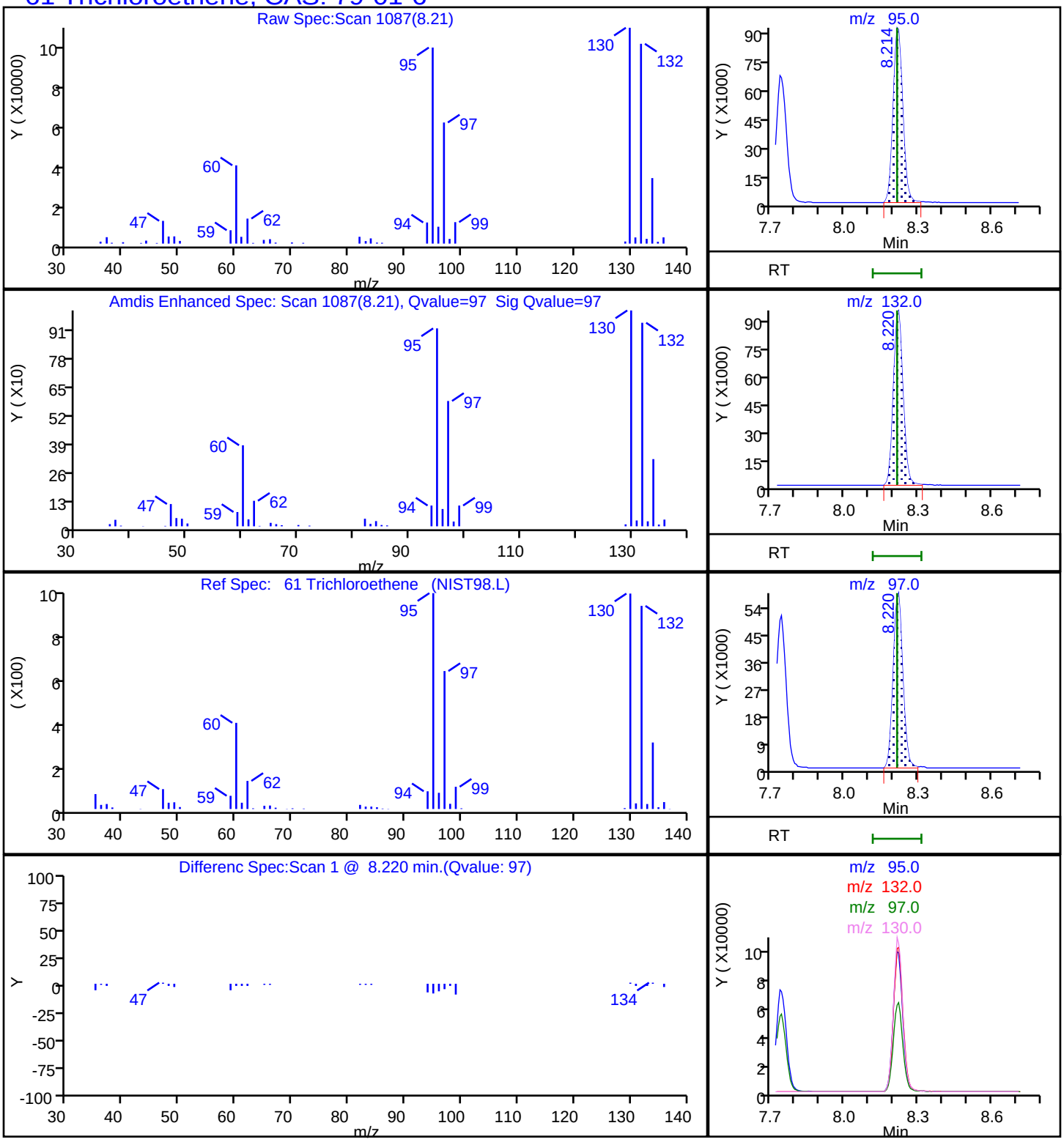
## 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X25.D | | | | |
| Injection Date: | 01-Sep-2021 17:41:30 | Instrument ID: | 19930 | | |
| Lims ID: | 410-53151-A-13 | Lab Sample ID: | 410-53151-13 | | |
| Client ID: | HD-QC1-0/1-1 | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 25 | Worklist Smp#: | 26 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25 mm) | Detector | MS Quad | | |

## 61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2  Lab Sample ID: 410-53151-14

Matrix: Water  Lab File ID: IS01X08.D

Analysis Method: 8260D  Date Collected: 08/26/2021 00:00

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 11:41

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | ND | | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2  Lab Sample ID: 410-53151-14

Matrix: Water  Lab File ID: IS01X08.D

Analysis Method: 8260D  Date Collected: 08/26/2021 00:00

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 11:41

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 100 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 97 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X08.D
Lims ID: 410-53151-A-14
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 01-Sep-2021 11:41:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-009
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:49:37

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 4 Chloromethane | 50 | | 2.178 | | | | ND | |
| 5 Vinyl chloride | 62 | | 2.294 | | | | ND | |
| 7 Bromomethane | 94 | | 2.629 | | | | ND | |
| 8 Chloroethane | 64 | | 2.708 | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | ND | |
| 15 Acetone | 43 | 3.635 | 3.599 | 0.037 | 21 | 6046 | 0.5480 | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | ND | 7 |
| 23 Methylene Chloride | 84 | | 4.239 | | | | ND | 7 |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.251 | 0.012 | 49 | 198603 | 50.0 | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | ND | |
| 36 2-Butanone (MEK) | 43 | | 6.116 | | | | ND | 7 |
| 37 cis-1,2-Dichloroethene | 96 | | 6.153 | | | | ND | |
| 43 Chlorobromomethane | 128 | | 6.482 | | | | ND | |
| 45 Chloroform | 83 | | 6.634 | | | | ND | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 574729 | 9.95 | |
| 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | ND | |
| 50 Carbon tetrachloride | 117 | | 7.067 | | | | ND | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 115107 | 9.97 | |
| 54 Benzene | 78 | | 7.329 | | | | ND | |
| 56 1,2-Dichloroethane | 62 | | 7.403 | | | | ND | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2291817 | 10.0 | |
| 61 Trichloroethene | 95 | | 8.213 | | | | ND | |
| 63 1,2-Dichloropropane | 63 | | 8.543 | | | | ND | |
| 68 Dichlorobromomethane | 83 | | 8.884 | | | | ND | |
| 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | ND | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | ND | 7 |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2287212 | 9.74 | |
| 76 Toluene | 92 | | 9.811 | | | | ND | 7 |
| 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | ND | |
| 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| 81 Tetrachloroethene | 166 | | 10.359 | | | | ND | |
| 83 2-Hexanone | 43 | | 10.475 | | | | ND | |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.182 | 0.000 | 85 | 1816347 | 10.0 | |
| 90 Chlorobenzene | 112 | | 11.213 | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | ND | |
| 93 m-Xylene & p-Xylene | 106 | | 11.408 | | | | ND | |
| 94 o-Xylene | 106 | | 11.737 | | | | ND | |
| 95 Styrene | 104 | | 11.749 | | | | ND | |
| 96 Bromoform | 173 | | 11.914 | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 889702 | 9.92 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | ND | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1089219 | 10.0 | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

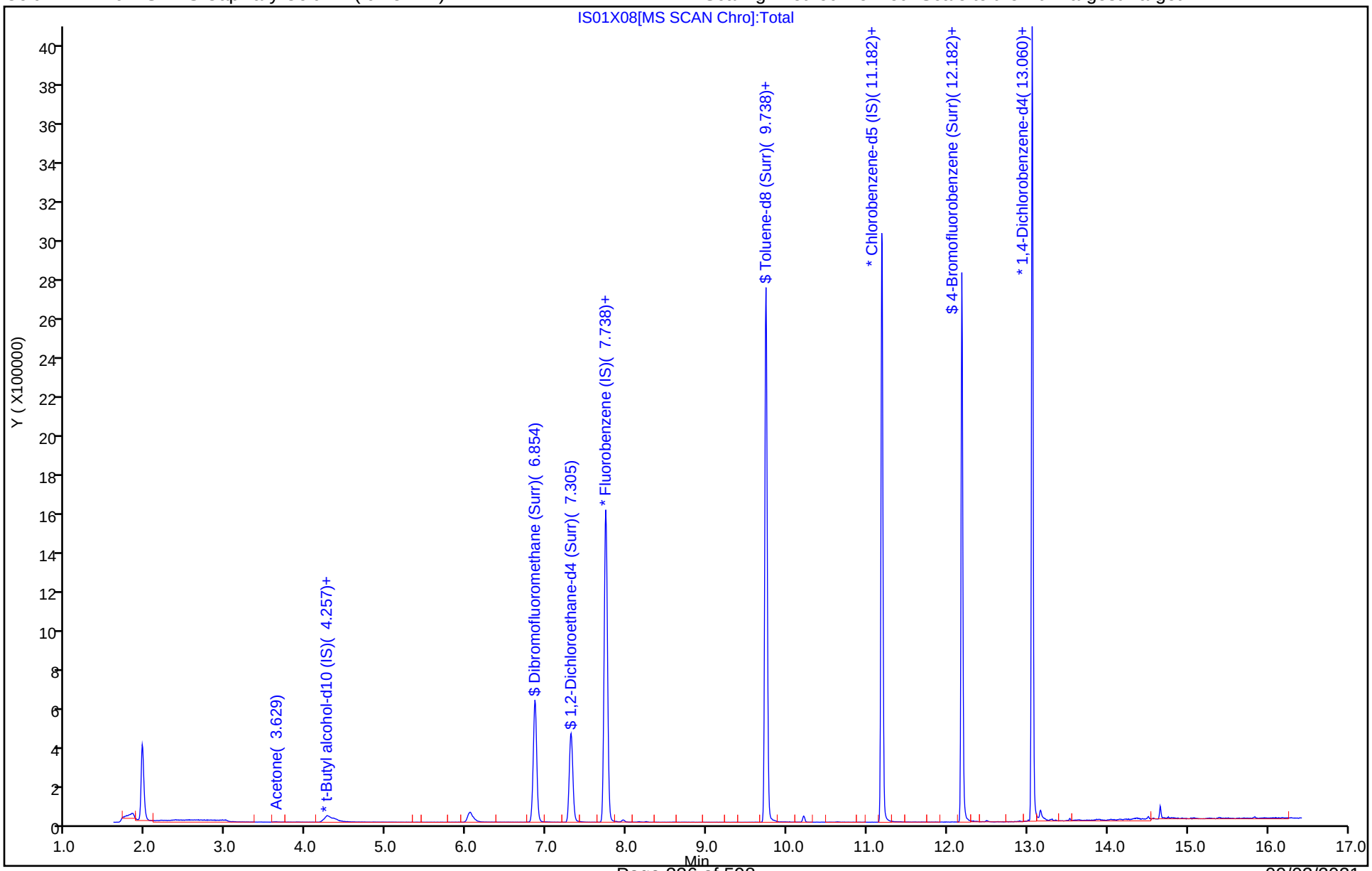
Report Date: 01-Sep-2021 20:58:12 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X08.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 11:41:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-14 | Lab Sample ID: | 410-53151-14 | Worklist Smp#: | 9 |
| Client ID: | HD-QC1-0/1-2 | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X08.D | | | | |
| Lims ID: | 410-53151-A-14 | | | | |
| Client ID: | HD-QC1-0/1-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 01-Sep-2021 11:41:30 | ALS Bottle#: | 8 | Worklist Smp#: | 9 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-009 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

First Level Reviewer: campbellme Date: 01-Sep-2021 20:49:37

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.95 | 99.55 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 9.97 | 99.66 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.74 | 97.44 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.92 | 99.18 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2021 21:31 Calibration End Date: 08/23/2021 23:40 Calibration ID: 29979

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-163707/9 | IG23I17.D |
| Level 2 | IC 410-163707/8 | IG23I16.D |
| Level 3 | IC 410-163707/7 | IG23I15.D |
| Level 4 | IC 410-163707/6 | IG23I14.D |
| Level 5 | IC 410-163707/5 | IG23I13.D |
| Level 6 | IC 410-163707/4 | IG23I12.D |
| Level 7 | IC 410-163707/3 | IG23I11.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | 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 | | | | | | | | |
| Chlorodifluoromethane | 0.3988 0.4162 | 0.3629 0.3836 | 0.4281 | 0.4116 | 0.4096 | Ave | | 0.4016 | | | | 5.5 | | 20.0 | | | |
| Methoxymethane | 0.3489 0.2640 | 0.2528 0.2693 | 0.2911 | 0.2763 | 0.2649 | Ave | | 0.2810 | | | | 11.4 | | 20.0 | | | |
| Acetonitrile | 0.0151 0.0129 | 0.0112 0.0149 | 0.0142 | 0.0137 | 0.0132 | Ave | | 0.0136 | | | | 10.0 | | 20.0 | | | |
| Vinyl acetate | 0.4535 0.4149 | 0.3465 0.4112 | 0.3908 | 0.3824 | 0.4022 | Ave | | 0.4002 | | | | 8.2 | | 20.0 | | | |
| Ethyl acetate | 0.2035 0.1666 | 0.1593 0.1701 | 0.1786 | 0.1473 | 0.1628 | Ave | | 0.1697 | | | | 10.5 | | 20.0 | | | |
| 2-Chloroethyl vinyl ether | +++++ 0.0370 | 0.0297 0.0369 | 0.0363 | 0.0350 | 0.0391 | Ave | | 0.0357 | | | | 9.0 | | 20.0 | | | |
| cis-1,4-Dichloro-2-butene | +++++ 0.1171 | 0.0769 0.1153 | 0.0883 | 0.0904 | 0.1101 | Ave | | 0.0997 | | | | 16.7 | | 20.0 | | | |
| Cyclohexanone | 0.4432 0.4148 | 0.3707 0.2783 | 0.4739 | 0.4017 | 0.4286 | Ave | | 0.4016 | | | | 15.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2021 21:31 Calibration End Date: 08/23/2021 23:40 Calibration ID: 29979

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-163707/9 | IG23I17.D |
| Level 2 | IC 410-163707/8 | IG23I16.D |
| Level 3 | IC 410-163707/7 | IG23I15.D |
| Level 4 | IC 410-163707/6 | IG23I14.D |
| Level 5 | IC 410-163707/5 | IG23I13.D |
| Level 6 | IC 410-163707/4 | IG23I12.D |
| Level 7 | IC 410-163707/3 | IG23I11.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Chlorodifluoromethane | FB | Ave | 16972<br>877994 | 39978<br>2144682 | 91980 | 181776 | 438441 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Methoxymethane | FB | Ave | 14845<br>556899 | 27847<br>1505467 | 62531 | 122021 | 283520 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Acetonitrile | FB | Ave | 25766<br>1085348 | 49174<br>3334238 | 121709 | 242356 | 565733 | 8.00<br>400 | 20.0<br>1000 | 40.0 | 80.0 | 200 |
| Vinyl acetate | FB | Ave | 19297<br>875253 | 38174<br>2298538 | 83967 | 168882 | 430481 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Ethyl acetate | FB | Ave | 8659<br>351385 | 17544<br>950912 | 38378 | 65039 | 174288 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 2-Chloroethyl vinyl ether | FB | Ave | +++++<br>78070 | 3276<br>206528 | 7800 | 15471 | 41882 | +++++<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| cis-1,4-Dichloro-2-butene | CBZd 5 | Ave | +++++<br>379184 | 13099<br>1001053 | 29362 | 61697 | 180815 | +++++<br>20.0 | 1.00<br>50.0 | 2.00 | 4.00 | 10.0 |
| Cyclohexanone | TBAd 10 | Ave | 11155<br>582540 | 23407<br>1246167 | 65764 | 123752 | 305790 | 10.0<br>500 | 25.0<br>1250 | 50.0 | 100 | 250 |

Curve Type Legend
Ave = Average ISTD

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/23/2021 21:31 Calibration End Date: 08/23/2021 23:40 Calibration ID: 29979

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-163707/9 | IG23I17.D |
| Level 2 | IC 410-163707/8 | IG23I16.D |
| Level 3 | IC 410-163707/7 | IG23I15.D |
| Level 4 | IC 410-163707/6 | IG23I14.D |
| Level 5 | IC 410-163707/5 | IG23I13.D |
| Level 6 | IC 410-163707/4 | IG23I12.D |
| Level 7 | IC 410-163707/3 | IG23I11.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 |
| Chlorodifluoromethane | -0.7<br>-4.5 | -9.6 | 6.6 | 2.5 | 2.0 | 3.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Methoxymethane | 24.1<br>-4.2 | -10.0 | 3.6 | -1.7 | -5.7 | -6.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Acetonitrile | 11.3<br>9.7 | -17.9 | 4.2 | 0.9 | -2.8 | -5.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Vinyl acetate | 13.3<br>2.7 | -13.4 | -2.3 | -4.5 | 0.5 | 3.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Ethyl acetate | 19.9<br>0.2 | -6.2 | 5.2 | -13.2 | -4.1 | -1.9 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 2-Chloroethyl vinyl ether | +++++<br>3.5 | -16.7 | 1.7 | -1.9 | 9.6 | 3.7 | <br>30 | 50 | 30 | 30 | 30 | 30 |
| cis-1,4-Dichloro-2-butene | +++++<br>15.7 | -22.8 | -11.4 | -9.3 | 10.4 | 17.5 | <br>30 | 50 | 30 | 30 | 30 | 30 |
| Cyclohexanone | 10.4<br>-30.7 * | -7.7 | 18.0 | 0.0 | 6.7 | 3.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I11.D
Lims ID: IC std7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Aug-2021 21:31:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-003
Misc. Info.: IC STD7
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub44

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:54:52 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:40:46

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 2 Chlorodifluoromethane | 51 | 2.001 | 1.989 | 0.012 | 97 | 2144682 | 25.0 | 23.9 | |
| 3 Dimethyl ether | 45 | 2.062 | 2.050 | 0.012 | 99 | 1505467 | 25.0 | 24.0 | |
| 20 Acetonitrile | 41 | 3.989 | 3.995 | -0.006 | 99 | 3334238 | 999.9 | 1096.7 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.257 | 0.006 | 18 | 179078 | 50.0 | 50.0 | |
| 30 Vinyl acetate | 43 | 5.330 | 5.312 | 0.018 | 97 | 2298538 | 25.0 | 25.7 | |
| 39 Ethyl acetate | 43 | 6.190 | 6.190 | 0.000 | 99 | 950912 | 25.0 | 25.1 | |
| 55 Isopropyl acetate | 43 | 7.409 | 7.415 | -0.006 | 98 | 2067391 | 25.0 | 25.5 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2236090 | 10.0 | 10.0 | |
| 67 n-Propyl acetate | 43 | 8.701 | 8.707 | -0.006 | 98 | 1571258 | 25.0 | 26.6 | |
| 71 2-Chloroethyl vinyl ether | 63 | 9.250 | 9.256 | -0.006 | 92 | 206528 | 25.0 | 25.9 | |
| 84 n-Butyl acetate | 43 | 10.597 | 10.603 | -0.006 | 98 | 1897963 | 25.0 | 26.3 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.183 | -0.001 | 85 | 1734932 | 10.0 | 10.0 | |
| 98 cis-1,4-Dichloro-2-butene | 88 | 12.079 | 12.079 | 0.000 | 82 | 1001053 | 50.0 | 57.9 | |
| 99 Cyclohexanone | 55 | 12.121 | 12.121 | 0.000 | 91 | 1246167 | 1250.0 | 866.4 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1041552 | 10.0 | 10.0 | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | ND | ND | |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

| | | | |
|---|---|---|---|
| MSV_V_VOA5_00026 | Amount Added: | 12.50 | Units: uL |
| MSV_VAcet_00007 | Amount Added: | 20.00 | Units: uL |
| MSV_DME_00030 | Amount Added: | 2.50 | Units: uL |
| MSV_VCYC_00007 | Amount Added: | 20.00 | Units: uL |
| MSV_V_SMRV4_00027 | Amount Added: | 12.50 | Units: uL |
| MSV_LLcentISO_00001 | Amount Added: | 5.00 | Units: uL |

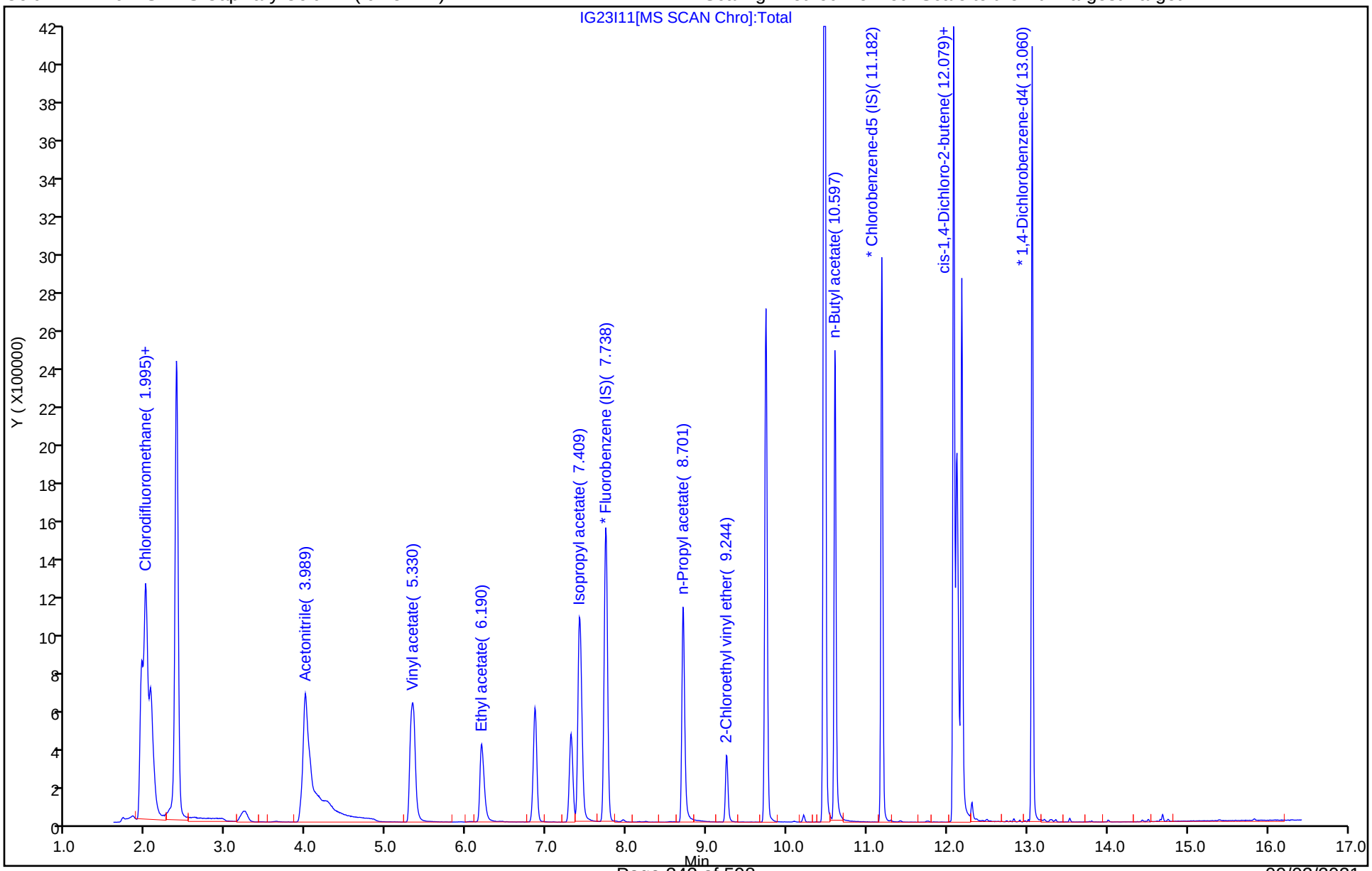
Report Date: 24-Aug-2021 15:54:52 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I11.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Aug-2021 21:31:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std7 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I12.D
Lims ID: IC std6 SM
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Aug-2021 21:52:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-004
Misc. Info.: IC STD6 SM
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub44

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:54:53 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:32:49

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 2 Chlorodifluoromethane | 51 | 1.989 | 1.989 | 0.000 | 97 | 877994 | 10.0 | 10.4 | |
| 3 Dimethyl ether | 45 | 2.050 | 2.050 | 0.000 | 99 | 556899 | 10.0 | 9.39 | |
| 20 Acetonitrile | 41 | 3.983 | 3.983 | 0.000 | 99 | 1085348 | 400.0 | 378.4 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.263 | 0.000 | 23 | 140432 | 50.0 | 50.0 | |
| 30 Vinyl acetate | 43 | 5.324 | 5.324 | 0.000 | 97 | 875253 | 10.0 | 10.4 | |
| 39 Ethyl acetate | 43 | 6.183 | 6.183 | 0.000 | 99 | 351385 | 10.0 | 9.81 | |
| 55 Isopropyl acetate | 43 | 7.409 | 7.409 | 0.000 | 98 | 779648 | 10.0 | 10.2 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.738 | 0.000 | 99 | 2109366 | 10.0 | 10.0 | |
| 67 n-Propyl acetate | 43 | 8.701 | 8.701 | 0.000 | 98 | 592909 | 10.0 | 10.7 | |
| 71 2-Chloroethyl vinyl ether | 63 | 9.250 | 9.250 | 0.000 | 93 | 78070 | 10.0 | 10.4 | |
| 84 n-Butyl acetate | 43 | 10.597 | 10.597 | 0.000 | 98 | 724734 | 10.0 | 10.7 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.182 | 0.000 | 85 | 1618038 | 10.0 | 10.0 | |
| 98 cis-1,4-Dichloro-2-butene | 88 | 12.085 | 12.085 | 0.000 | 82 | 379184 | 20.0 | 23.5 | |
| 99 Cyclohexanone | 55 | 12.121 | 12.121 | 0.000 | 91 | 582540 | 500.0 | 516.5 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 95 | 954717 | 10.0 | 10.0 | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | ND | ND | |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

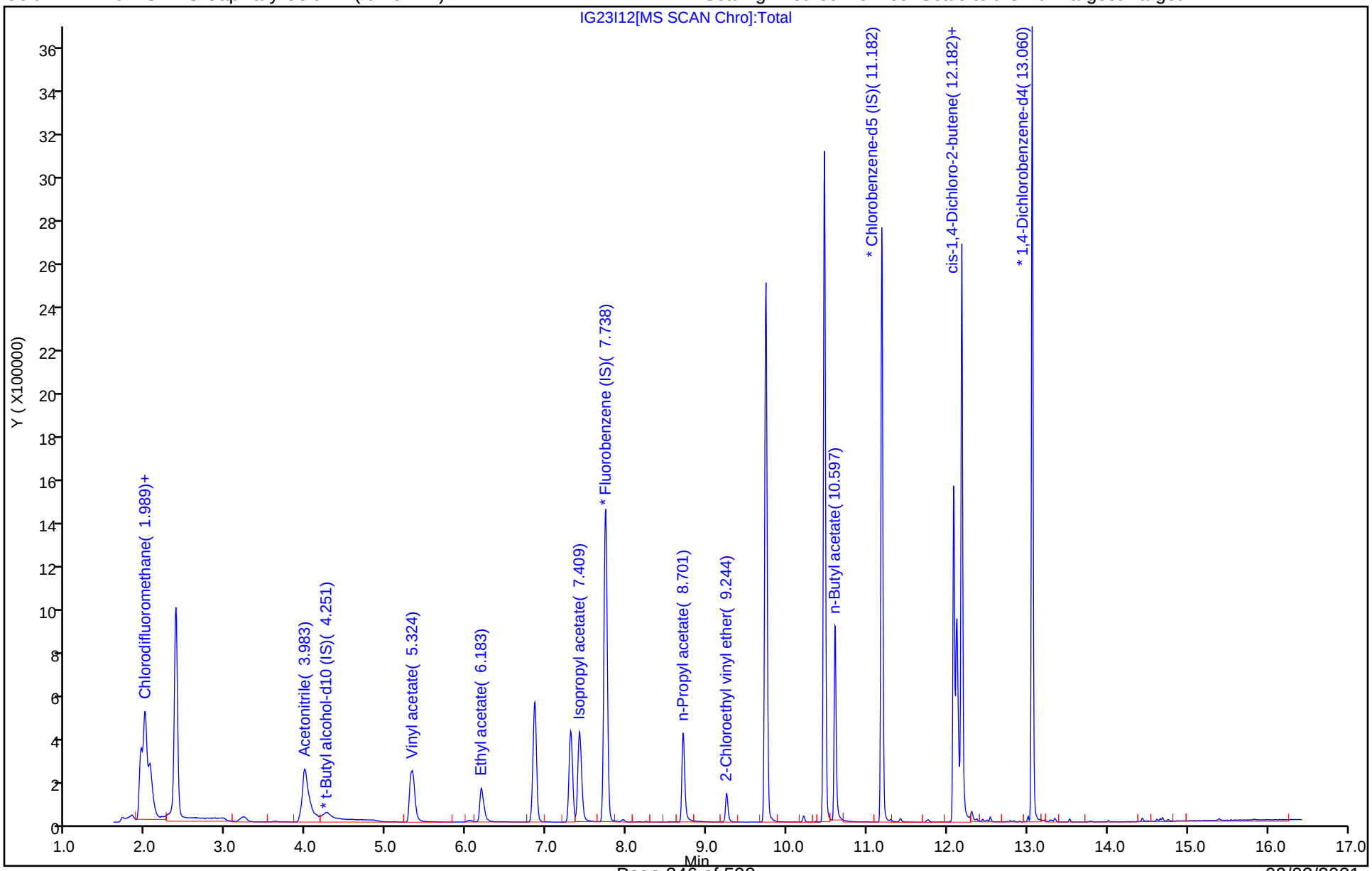
| | | | |
|---|---|---|---|
| MSV_V_VOA5_00026 | Amount Added: | 5.00 | Units: uL |
| MSV_VAcet_00007 | Amount Added: | 8.00 | Units: uL |
| MSV_DME_00030 | Amount Added: | 1.00 | Units: uL |
| MSV_VCYC_00007 | Amount Added: | 8.00 | Units: uL |
| MSV_V_SMRV4_00027 | Amount Added: | 5.00 | Units: uL |
| MSV_LLcentISO_00001 | Amount Added: | 5.00 | Units: uL |

Report Date: 24-Aug-2021 15:54:54 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I12.D | | | | |
| Injection Date: | 23-Aug-2021 21:52:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std6 SM | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I13.D
Lims ID: IC std5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 23-Aug-2021 22:14:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-005
Misc. Info.: IC STD5
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub44

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:54:55 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:41:04

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 2 Chlorodifluoromethane | 51 | 1.995 | 1.989 | 0.006 | 97 | 438441 | 5.00 | 5.10 | |
| 3 Dimethyl ether | 45 | 2.050 | 2.050 | 0.000 | 100 | 283520 | 5.00 | 4.71 | |
| 20 Acetonitrile | 41 | 3.995 | 3.983 | 0.012 | 99 | 565733 | 200.0 | 194.4 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.263 | 0.000 | 25 | 142702 | 50.0 | 50.0 | |
| 30 Vinyl acetate | 43 | 5.330 | 5.324 | 0.006 | 97 | 430481 | 5.00 | 5.02 | |
| 39 Ethyl acetate | 43 | 6.190 | 6.183 | 0.007 | 99 | 174288 | 5.00 | 4.80 | |
| 55 Isopropyl acetate | 43 | 7.415 | 7.409 | 0.006 | 98 | 397639 | 5.00 | 5.12 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.738 | 0.000 | 99 | 2140656 | 10.0 | 10.0 | |
| 67 n-Propyl acetate | 43 | 8.708 | 8.701 | 0.007 | 98 | 292673 | 5.00 | 5.18 | |
| 71 2-Chloroethyl vinyl ether | 63 | 9.250 | 9.250 | 0.000 | 93 | 41882 | 5.00 | 5.48 | |
| 84 n-Butyl acetate | 43 | 10.603 | 10.597 | 0.006 | 99 | 362084 | 5.00 | 5.29 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1641562 | 10.0 | 10.0 | |
| 98 cis-1,4-Dichloro-2-butene | 88 | 12.085 | 12.085 | 0.000 | 83 | 180815 | 10.0 | 11.0 | |
| 99 Cyclohexanone | 55 | 12.121 | 12.121 | 0.000 | 91 | 305790 | 250.0 | 266.8 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 971867 | 10.0 | 10.0 | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | ND | ND | |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

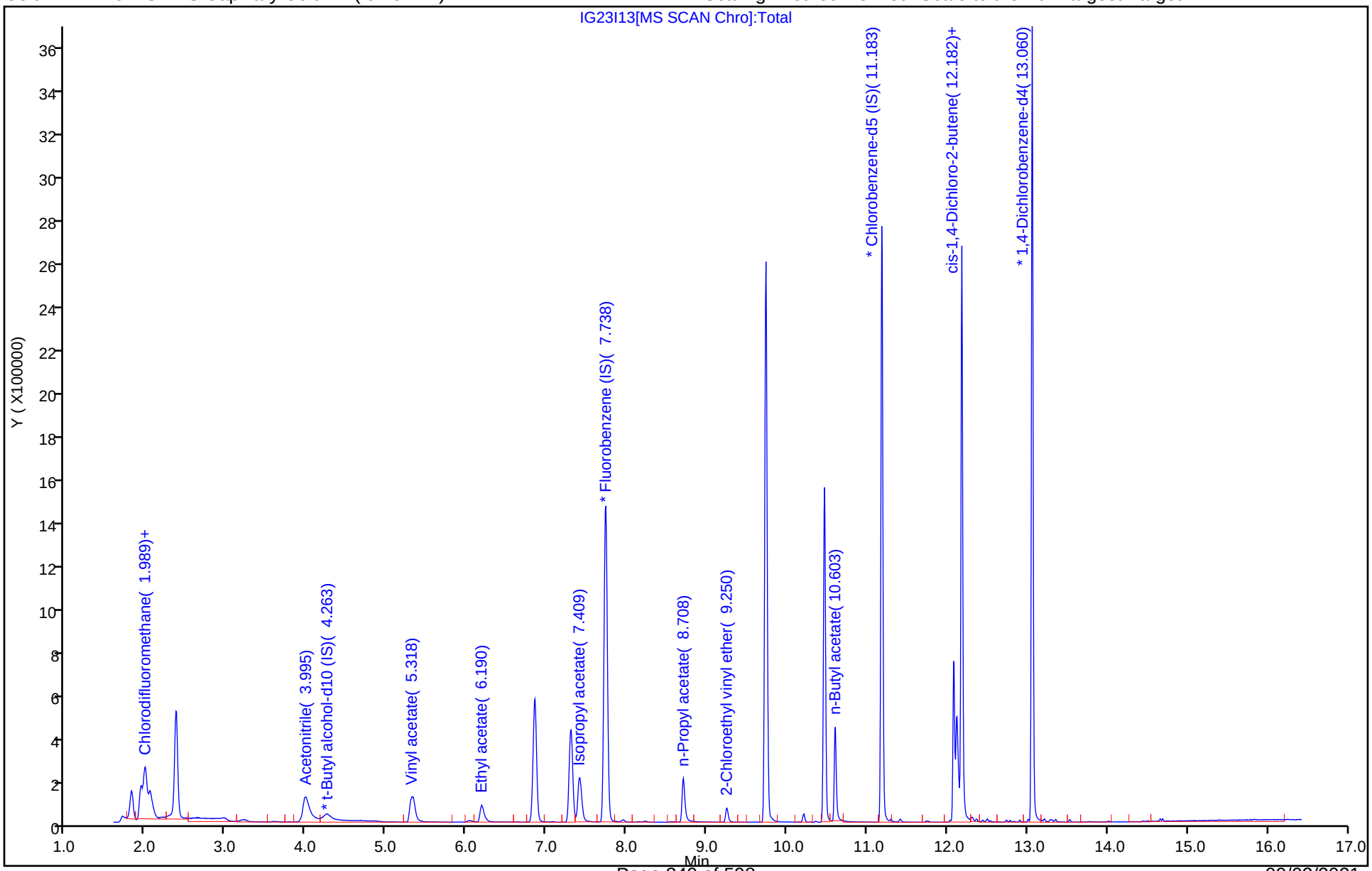
| | | | |
|---|---|---|---|
| MSV_V_VOA5_00026 | Amount Added: | 5.00 | Units: uL |
| MSV_VAcet_00007 | Amount Added: | 8.00 | Units: uL |
| MSV_DME_00030 | Amount Added: | 1.00 | Units: uL |
| MSV_VCYC_00007 | Amount Added: | 8.00 | Units: uL |
| MSV_V_SMRV4_00027 | Amount Added: | 5.00 | Units: uL |
| MSV_LLcentISO_00001 | Amount Added: | 5.00 | Units: uL |

Report Date: 24-Aug-2021 15:54:55 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I13.D | | | | |
| Injection Date: | 23-Aug-2021 22:14:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std5 | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I14.D
Lims ID: IC std4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Aug-2021 22:35:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-006
Misc. Info.: IC STD4
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub44

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:54:57 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:40:35

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 2 Chlorodifluoromethane | 51 | 1.989 | 1.989 | 0.000 | 97 | 181776 | 2.00 | 2.05 | |
| 3 Dimethyl ether | 45 | 2.050 | 2.050 | 0.000 | 99 | 122021 | 2.00 | 1.97 | |
| 20 Acetonitrile | 41 | 3.995 | 3.995 | 0.000 | 100 | 242356 | 80.0 | 80.7 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.263 | 0.000 | 18 | 154029 | 50.0 | 50.0 | |
| 30 Vinyl acetate | 43 | 5.312 | 5.312 | 0.000 | 97 | 168882 | 2.00 | 1.91 | |
| 39 Ethyl acetate | 43 | 6.190 | 6.190 | 0.000 | 99 | 65039 | 2.00 | 1.74 | |
| 55 Isopropyl acetate | 43 | 7.415 | 7.415 | 0.000 | 98 | 154736 | 2.00 | 1.93 | |
| * 58 Fluorobenzene (IS) | 96 | 7.732 | 7.732 | 0.000 | 99 | 2208361 | 10.0 | 10.0 | |
| 67 n-Propyl acetate | 43 | 8.707 | 8.707 | 0.000 | 99 | 115192 | 2.00 | 1.98 | |
| 71 2-Chloroethyl vinyl ether | 63 | 9.256 | 9.256 | 0.000 | 93 | 15471 | 2.00 | 1.96 | |
| 84 n-Butyl acetate | 43 | 10.603 | 10.603 | 0.000 | 98 | 138312 | 2.00 | 1.95 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.183 | 0.000 | 85 | 1704830 | 10.0 | 10.0 | |
| 98 cis-1,4-Dichloro-2-butene | 88 | 12.079 | 12.079 | 0.000 | 84 | 61697 | 4.00 | 3.63 | |
| 99 Cyclohexanone | 55 | 12.121 | 12.121 | 0.000 | 90 | 123752 | 100.0 | 100.0 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1010911 | 10.0 | 10.0 | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | ND | ND | |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

| | | | |
|---|---|---|---|
| MSV_V_VOA5_00026 | Amount Added: | 5.00 | Units: uL |
| MSV_VAcet_00007 | Amount Added: | 8.00 | Units: uL |
| MSV_DME_00030 | Amount Added: | 1.00 | Units: uL |
| MSV_VCYC_00007 | Amount Added: | 8.00 | Units: uL |
| MSV_V_SMRV4_00027 | Amount Added: | 5.00 | Units: uL |
| MSV_LLcentISO_00001 | Amount Added: | 5.00 | Units: uL |

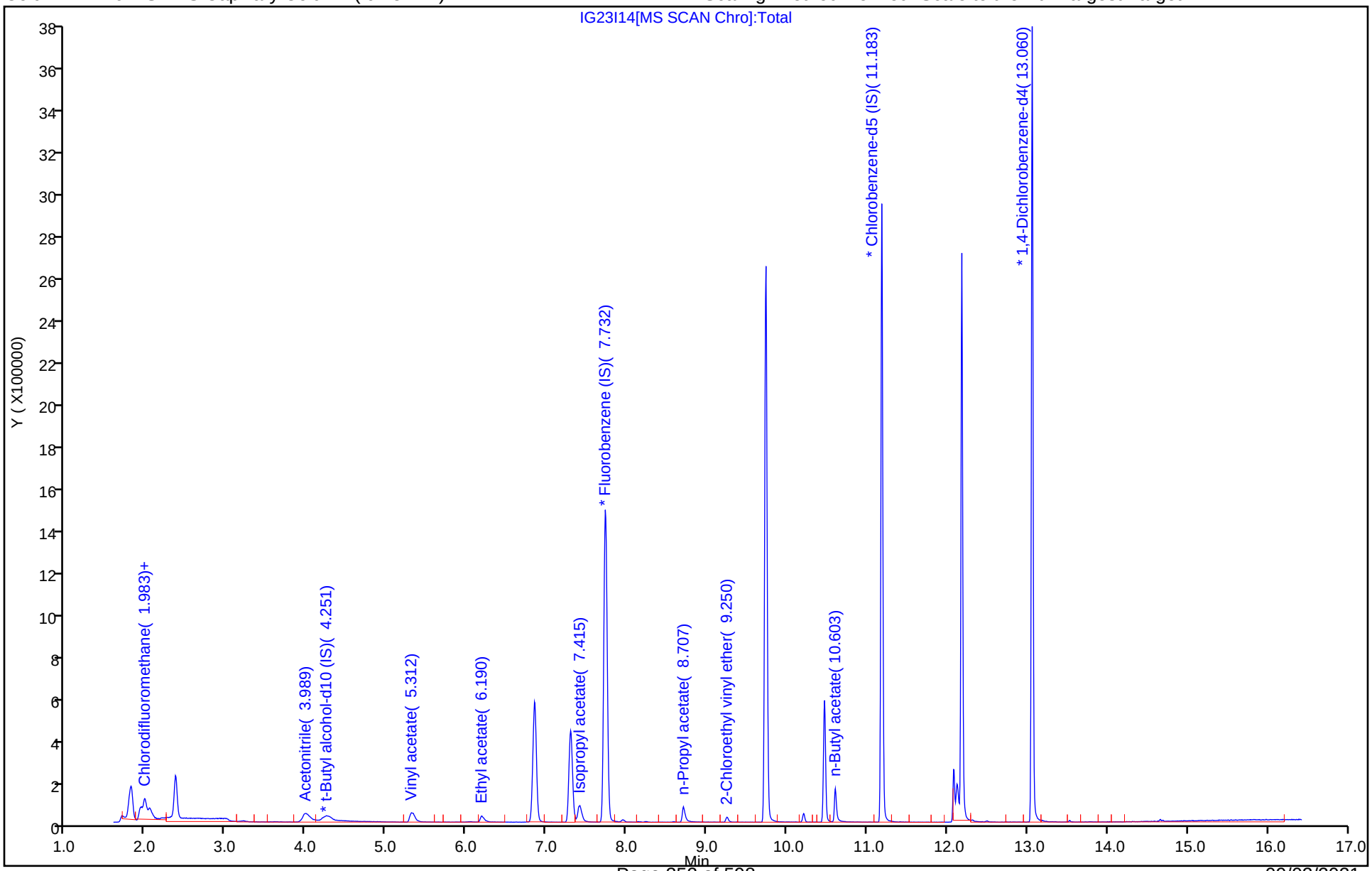
Report Date: 24-Aug-2021 15:54:57 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I14.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Aug-2021 22:35:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std4 | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I15.D
Lims ID: IC std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Aug-2021 22:57:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-007
Misc. Info.: IC STD3
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub44

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:57:03 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:57:03

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 2 Chlorodifluoromethane | 51 | 1.989 | 1.989 | 0.000 | 97 | 91980 | 1.00 | 1.07 | |
| 3 Dimethyl ether | 45 | 2.056 | 2.050 | 0.006 | 100 | 62531 | 1.00 | 1.04 | |
| 20 Acetonitrile | 41 | 3.983 | 3.995 | -0.012 | 98 | 121709 | 40.0 | 41.7 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.257 | 0.000 | 19 | 138783 | 50.0 | 50.0 | |
| 30 Vinyl acetate | 43 | 5.324 | 5.312 | 0.012 | 97 | 83967 | 1.00 | 0.9766 | |
| 39 Ethyl acetate | 43 | 6.196 | 6.190 | 0.006 | 99 | 38378 | 1.00 | 1.05 | |
| 55 Isopropyl acetate | 43 | 7.409 | 7.415 | -0.006 | 97 | 78077 | 1.00 | 1.00 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2148385 | 10.0 | 10.0 | |
| 67 n-Propyl acetate | 43 | 8.713 | 8.707 | 0.006 | 98 | 56578 | 1.00 | 1.00 | |
| 71 2-Chloroethyl vinyl ether | 63 | 9.256 | 9.256 | 0.000 | 88 | 7800 | 1.00 | 1.02 | |
| 84 n-Butyl acetate | 43 | 10.603 | 10.603 | 0.000 | 98 | 72146 | 1.00 | 1.04 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.183 | -0.001 | 85 | 1661418 | 10.0 | 10.0 | |
| 98 cis-1,4-Dichloro-2-butene | 88 | 12.085 | 12.079 | 0.006 | 84 | 29362 | 2.00 | 1.77 | |
| 99 Cyclohexanone | 55 | 12.121 | 12.121 | 0.000 | 91 | 65764 | 50.0 | 59.0 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 95 | 982851 | 10.0 | 10.0 | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | ND | ND | |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

| | | | |
|---|---|---|---|
| MSV_V_VOA5_00026 | Amount Added: | 5.00 | Units: uL |
| MSV_VAcet_00007 | Amount Added: | 8.00 | Units: uL |
| MSV_DME_00030 | Amount Added: | 1.00 | Units: uL |
| MSV_VCYC_00007 | Amount Added: | 8.00 | Units: uL |
| MSV_V_SMRV4_00027 | Amount Added: | 5.00 | Units: uL |
| MSV_LLcentISO_00001 | Amount Added: | 5.00 | Units: uL |

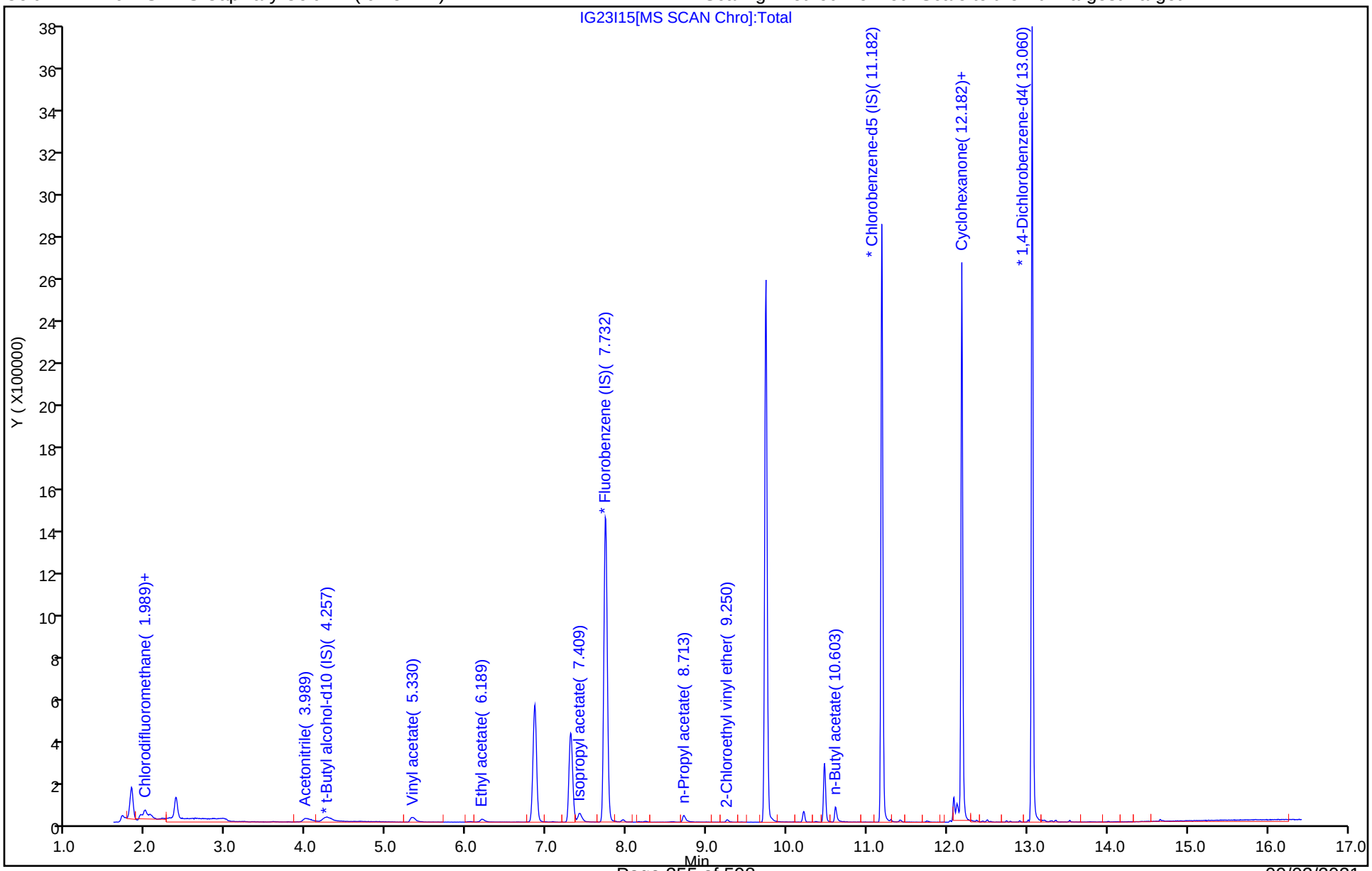
Report Date: 24-Aug-2021 15:57:03 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I15.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Aug-2021 22:57:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std3 | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I16.D
Lims ID: IC std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Aug-2021 23:18:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-008
Misc. Info.: IC STD2
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub44

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:54:58 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:41:48

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 2 Chlorodifluoromethane | 51 | 1.989 | 1.989 | 0.000 | 97 | 39978 | 0.5000 | 0.4519 | |
| 3 Dimethyl ether | 45 | 2.050 | 2.050 | 0.000 | 73 | 27847 | 0.5000 | 0.4498 | |
| 20 Acetonitrile | 41 | 4.001 | 3.995 | 0.006 | 96 | 49174 | 20.0 | 16.4 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.263 | 0.000 | 17 | 126292 | 50.0 | 50.0 | |
| 30 Vinyl acetate | 43 | 5.330 | 5.312 | 0.018 | 97 | 38174 | 0.5000 | 0.4329 | |
| 39 Ethyl acetate | 43 | 6.196 | 6.190 | 0.006 | 98 | 17544 | 0.5000 | 0.4691 | |
| 55 Isopropyl acetate | 43 | 7.415 | 7.415 | 0.000 | 98 | 35869 | 0.5000 | 0.4484 | |
| * 58 Fluorobenzene (IS) | 96 | 7.732 | 7.732 | 0.000 | 99 | 2203167 | 10.0 | 10.0 | |
| 67 n-Propyl acetate | 43 | 8.713 | 8.707 | 0.006 | 97 | 24250 | 0.5000 | 0.4172 | |
| 71 2-Chloroethyl vinyl ether | 63 | 9.250 | 9.256 | -0.006 | 91 | 3276 | 0.5000 | 0.4166 | |
| 84 n-Butyl acetate | 43 | 10.609 | 10.603 | 0.006 | 97 | 32713 | 0.5000 | 0.4614 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.183 | -0.001 | 86 | 1701586 | 10.0 | 10.0 | |
| 98 cis-1,4-Dichloro-2-butene | 88 | 12.085 | 12.079 | 0.006 | 85 | 13099 | 1.00 | 0.7721 | |
| 99 Cyclohexanone | 55 | 12.127 | 12.121 | 0.006 | 89 | 23407 | 25.0 | 23.1 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1006266 | 10.0 | 10.0 | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | ND | ND | |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

| | | | |
|---|---|---|---|
| MSV_V_VOA5_00026 | Amount Added: | 2.50 | Units: uL |
| MSV_VAcet_00007 | Amount Added: | 4.00 | Units: uL |
| MSV_DME_00030 | Amount Added: | 0.50 | Units: uL |
| MSV_VCYC_00007 | Amount Added: | 4.00 | Units: uL |
| MSV_V_SMRV4_00027 | Amount Added: | 2.50 | Units: uL |
| MSV_LLcentISO_00001 | Amount Added: | 5.00 | Units: uL |

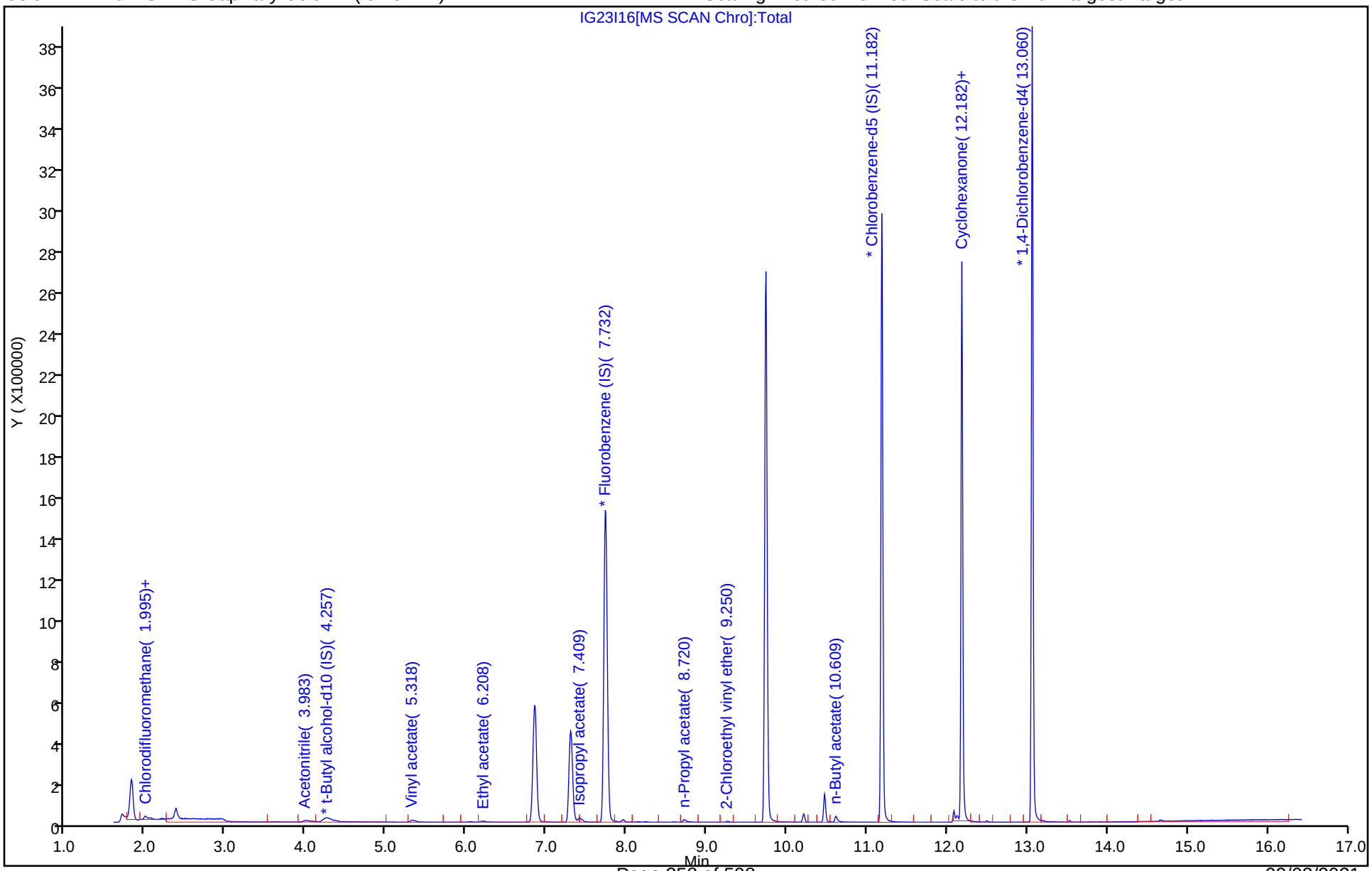
Report Date: 24-Aug-2021 15:54:59 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I16.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Aug-2021 23:18:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std2 | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I17.D
Lims ID: IC std1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Aug-2021 23:40:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-009
Misc. Info.: IC STD1
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub44

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:00 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:39:38

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 2 Chlorodifluoromethane | 51 | 2.001 | 1.989 | 0.012 | 55 | 16972 | 0.2000 | 0.1986 | |
| 3 Dimethyl ether | 45 | 2.056 | 2.050 | 0.006 | 99 | 14845 | 0.2000 | 0.2483 | |
| 20 Acetonitrile | 41 | 4.074 | 3.995 | 0.079 | 72 | 25766 | 8.00 | 8.91 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.263 | 0.000 | 26 | 125844 | 50.0 | 50.0 | |
| 30 Vinyl acetate | 43 | 5.342 | 5.312 | 0.030 | 98 | 19297 | 0.2000 | 0.2266 | |
| 39 Ethyl acetate | 43 | 6.202 | 6.190 | 0.012 | 92 | 8659 | 0.2000 | 0.2398 | |
| 55 Isopropyl acetate | 43 | 7.421 | 7.415 | 0.006 | 96 | 16655 | 0.2000 | 0.2156 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2127642 | 10.0 | 10.0 | |
| 67 n-Propyl acetate | 43 | 8.726 | 8.707 | 0.019 | 96 | 11352 | 0.2000 | 0.2022 | |
| 71 2-Chloroethyl vinyl ether | 63 | 9.268 | 9.256 | 0.012 | 64 | 775 | 0.2000 | 0.1021 | |
| 84 n-Butyl acetate | 43 | 10.615 | 10.603 | 0.012 | 97 | 12079 | 0.2000 | 0.1756 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.183 | -0.001 | 85 | 1651012 | 10.0 | 10.0 | |
| 98 cis-1,4-Dichloro-2-butene | 88 | 12.085 | 12.079 | 0.006 | 83 | 4563 | 0.4002 | 0.2772 | |
| 99 Cyclohexanone | 55 | 12.121 | 12.121 | 0.000 | 87 | 11155 | 10.0 | 11.0 | M |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 975272 | 10.0 | 10.0 | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | ND | ND | |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

## Reagents:

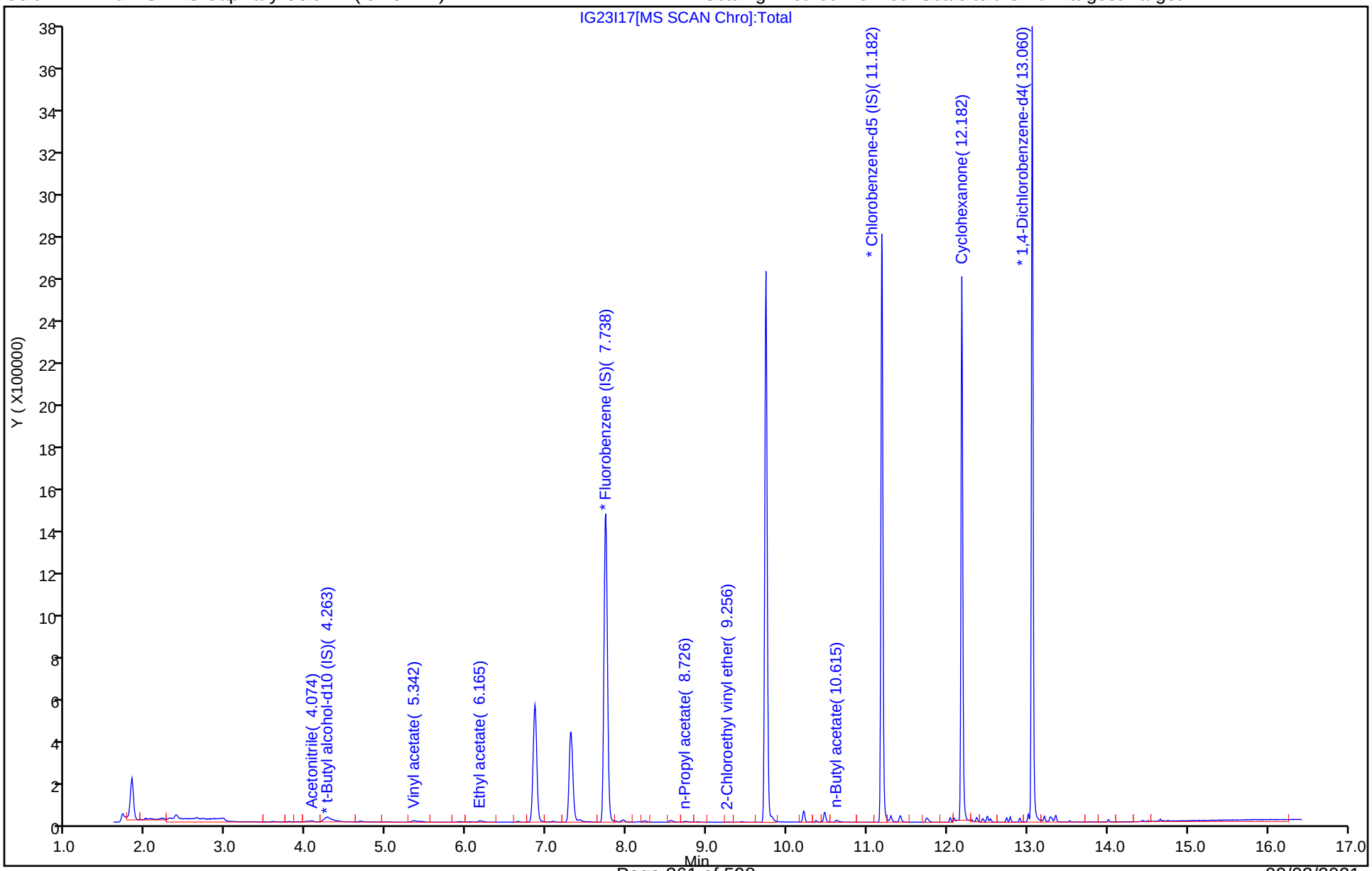
| | | | |
|---|---|---|---|
| MSV_V_VOA5_00026 | Amount Added: | 1.00 | Units: uL |
| MSV_VAcet_00007 | Amount Added: | 1.60 | Units: uL |
| MSV_DME_00030 | Amount Added: | 0.20 | Units: uL |
| MSV_VCYC_00007 | Amount Added: | 1.60 | Units: uL |
| MSV_V_SMRV4_00027 | Amount Added: | 1.00 | Units: uL |
| MSV_LLcentISO_00001 | Amount Added: | 5.00 | Units: uL |

Report Date: 24-Aug-2021 15:55:00 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I17.D | | | | |
| Injection Date: | 23-Aug-2021 23:40:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std1 | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

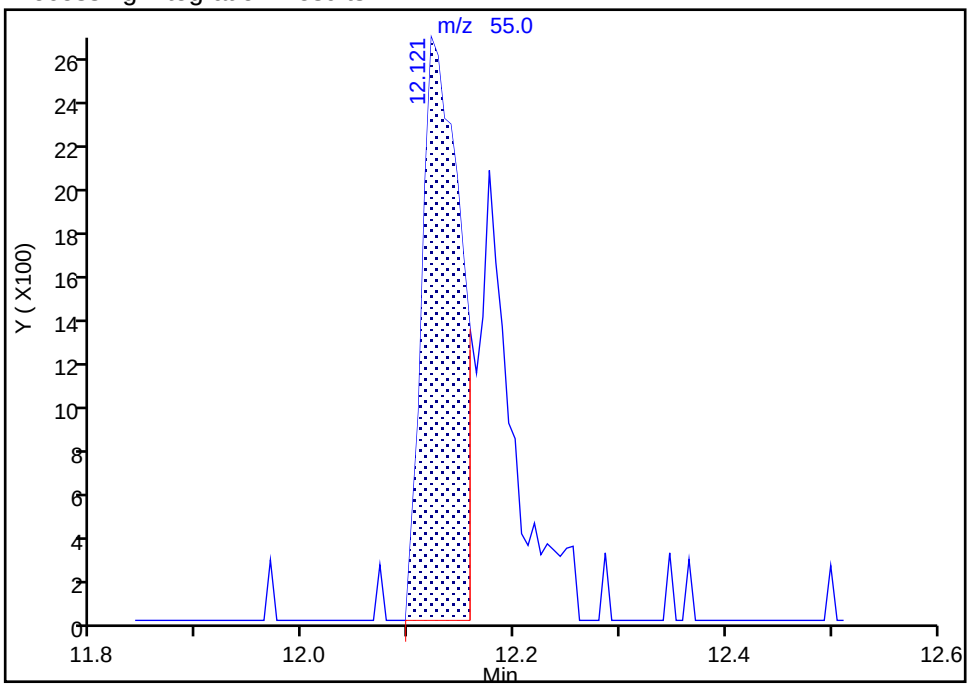
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I17.D | | | | |
| Injection Date: | 23-Aug-2021 23:40:30 | Instrument ID: | 19930 | | |
| Lims ID: | IC std1 | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 8 | Worklist Smp#: | 9 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 99 Cyclohexanone, CAS: 108-94-1

Signal: 1

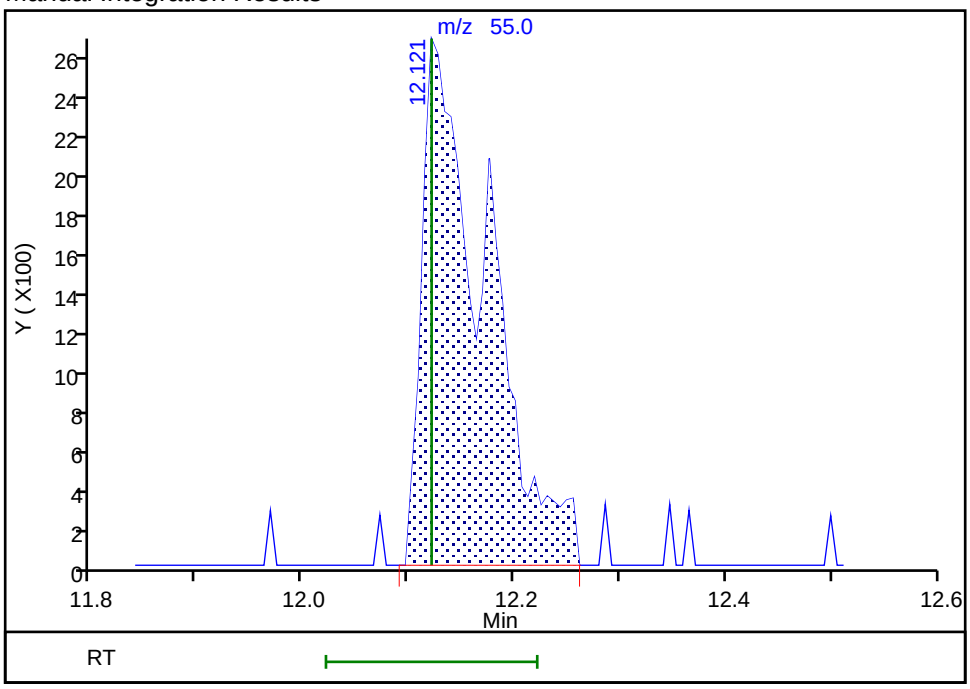
Processing Integration Results

RT: 12.12
Area: 6643
Amount: 13.337332
Amount Units: ug/l




Manual Integration Results

RT: 12.12
Area: 11155
Amount: 11.036249
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 14:44:55

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

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

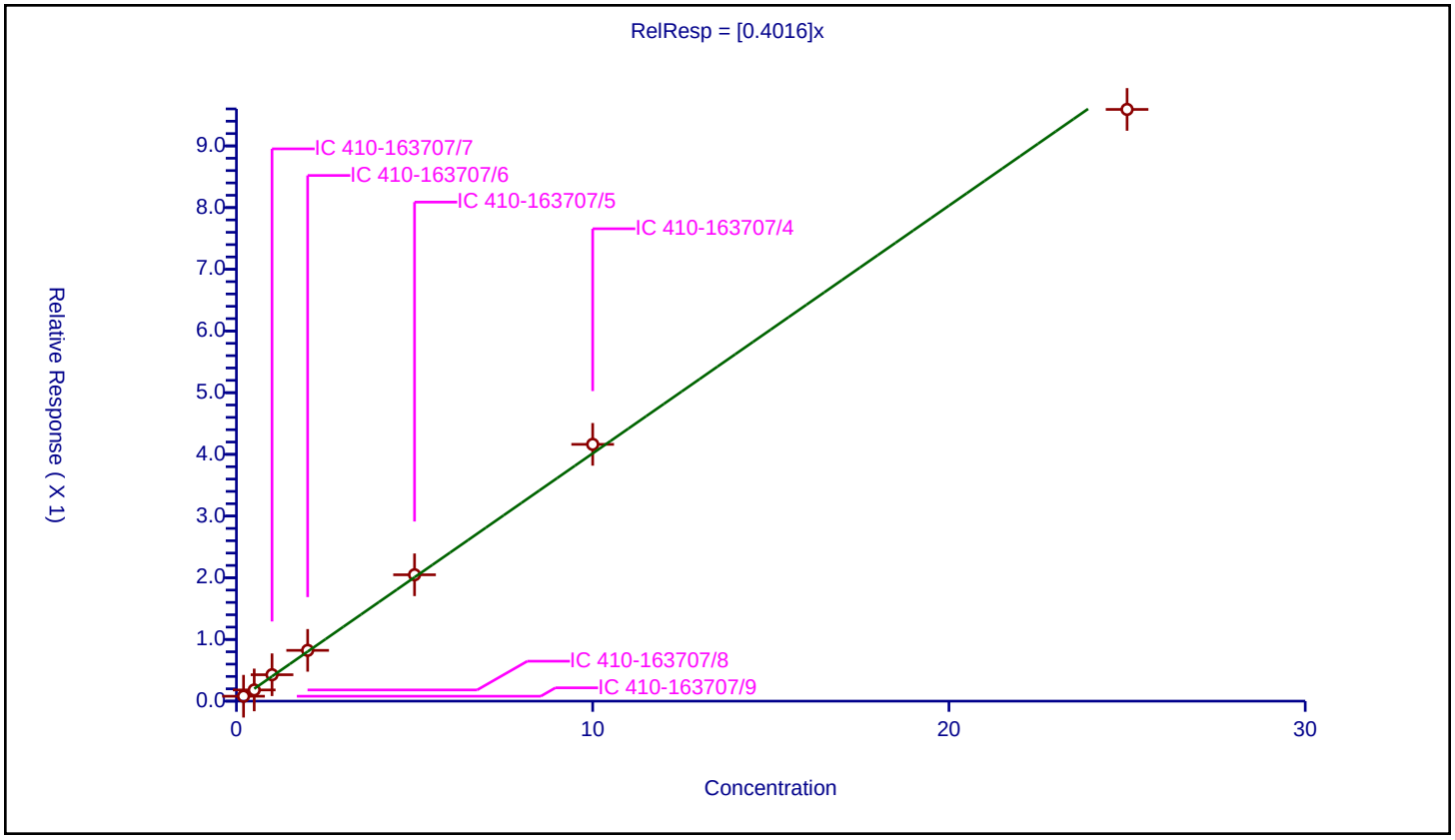
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4016 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 967000 |
| **Relative Standard Error:** | 5.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/9 | 0.2 | 0.079769 | 10.0 | 2127642.0 | 0.398845 | Y |
| 2 | IC 410-163707/8 | 0.5 | 0.181457 | 10.0 | 2203167.0 | 0.362914 | Y |
| 3 | IC 410-163707/7 | 1.0 | 0.428136 | 10.0 | 2148385.0 | 0.428136 | Y |
| 4 | IC 410-163707/6 | 2.0 | 0.823126 | 10.0 | 2208361.0 | 0.411563 | Y |
| 5 | IC 410-163707/5 | 5.0 | 2.048162 | 10.0 | 2140656.0 | 0.409632 | Y |
| 6 | IC 410-163707/4 | 10.0 | 4.16236 | 10.0 | 2109366.0 | 0.416236 | Y |
| 7 | IC 410-163707/3 | 25.0 | 9.591215 | 10.0 | 2236090.0 | 0.383649 | Y |



## Calibration / Dimethyl ether

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

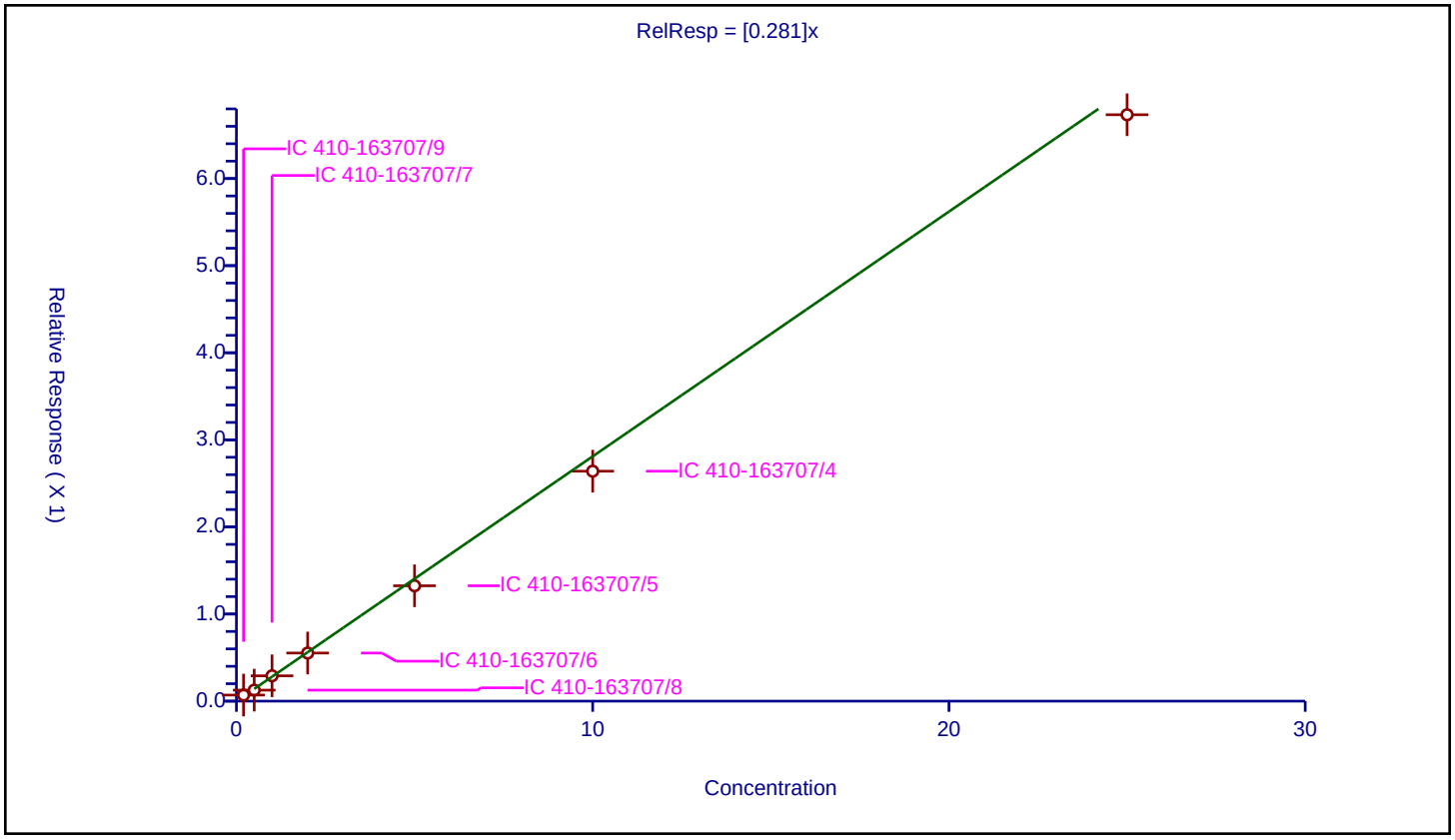
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.281 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 668000 |
| **Relative Standard Error:** | 11.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.980 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/9 | 0.2 | 0.069772 | 10.0 | 2127642.0 | 0.34886 | Y |
| 2 | IC 410-163707/8 | 0.5 | 0.126395 | 10.0 | 2203167.0 | 0.252791 | Y |
| 3 | IC 410-163707/7 | 1.0 | 0.29106 | 10.0 | 2148385.0 | 0.29106 | Y |
| 4 | IC 410-163707/6 | 2.0 | 0.552541 | 10.0 | 2208361.0 | 0.276271 | Y |
| 5 | IC 410-163707/5 | 5.0 | 1.324454 | 10.0 | 2140656.0 | 0.264891 | Y |
| 6 | IC 410-163707/4 | 10.0 | 2.640125 | 10.0 | 2109366.0 | 0.264013 | Y |
| 7 | IC 410-163707/3 | 25.0 | 6.732587 | 10.0 | 2236090.0 | 0.269303 | Y |



## Calibration / Acetonitrile

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

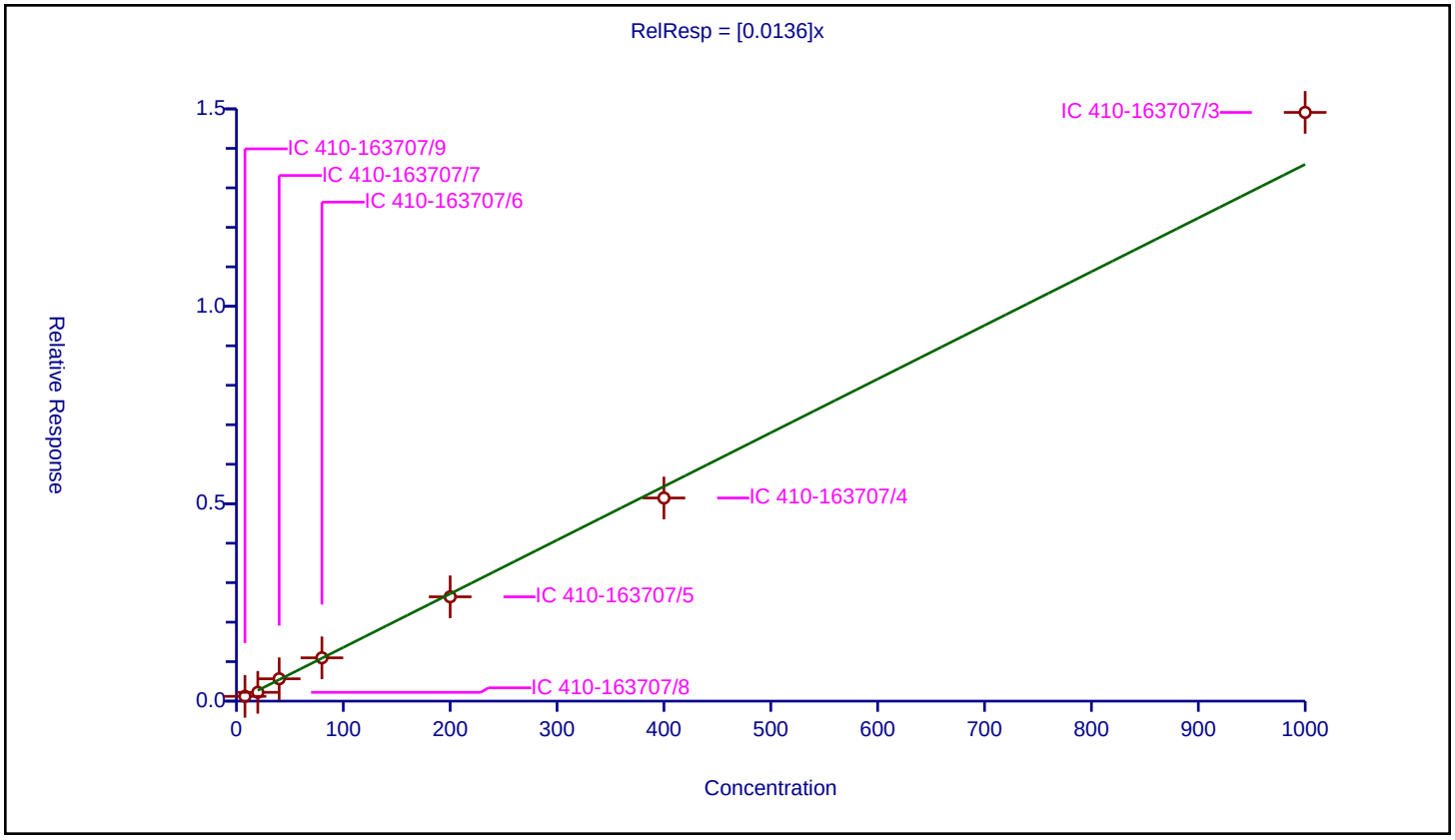
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.0136 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1450000 |
| **Relative Standard Error:** | 10.0 |
| **Correlation Coefficient:** | 0.994 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/9 | 7.999434 | 0.121101 | 10.0 | 2127642.0 | 0.015139 | Y |
| 2 | IC 410-163707/8 | 19.998586 | 0.223197 | 10.0 | 2203167.0 | 0.011161 | Y |
| 3 | IC 410-163707/7 | 39.997171 | 0.566514 | 10.0 | 2148385.0 | 0.014164 | Y |
| 4 | IC 410-163707/6 | 79.994342 | 1.097447 | 10.0 | 2208361.0 | 0.013719 | Y |
| 5 | IC 410-163707/5 | 199.985856 | 2.642802 | 10.0 | 2140656.0 | 0.013215 | Y |
| 6 | IC 410-163707/4 | 399.971712 | 5.145375 | 10.0 | 2109366.0 | 0.012864 | Y |
| 7 | IC 410-163707/3 | 999.92928 | 14.911019 | 10.0 | 2236090.0 | 0.014912 | Y |



## Calibration / Vinyl acetate

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

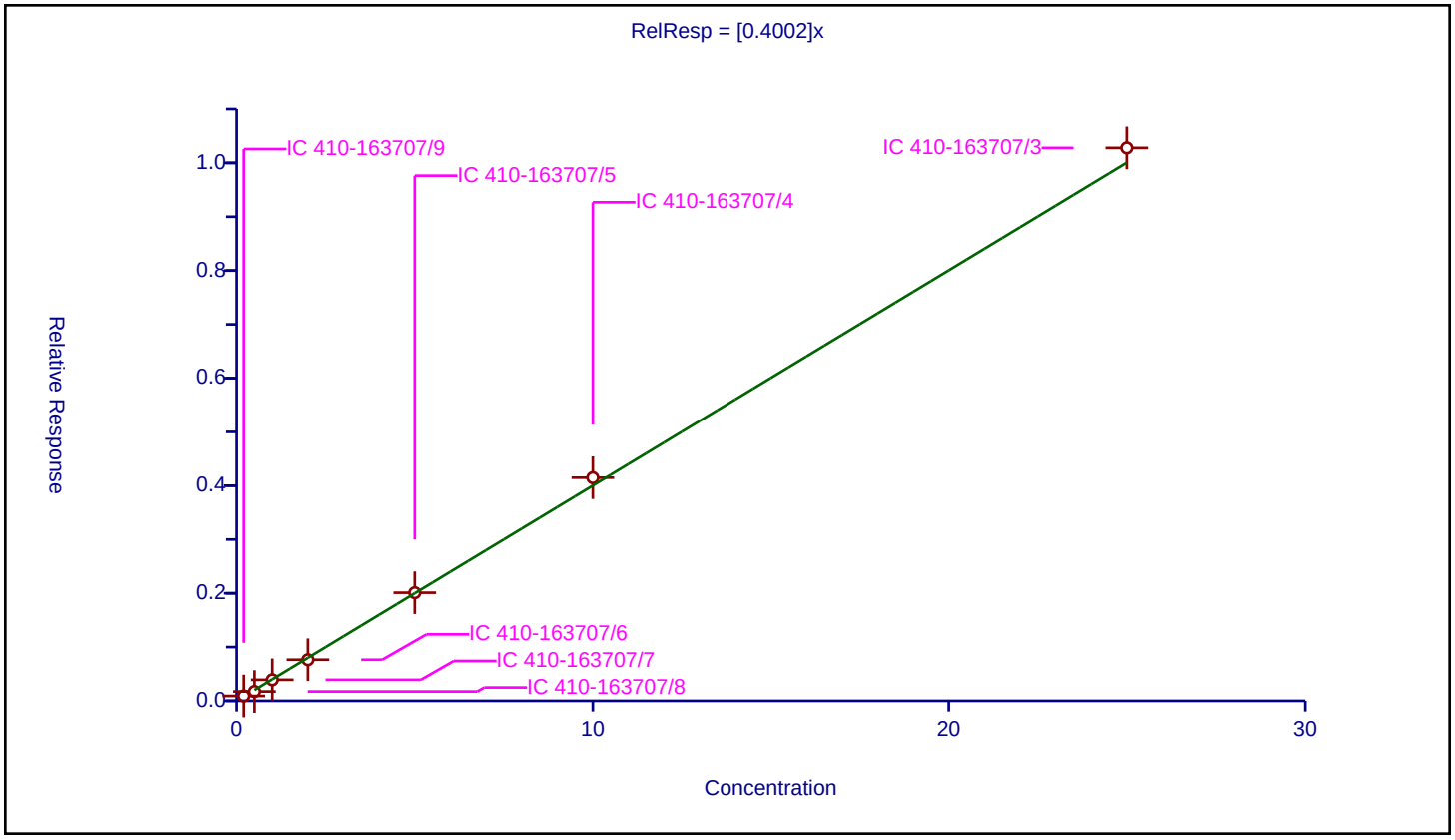
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4002 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1020000 |
| **Relative Standard Error:** | 8.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/9 | 0.2 | 0.090697 | 10.0 | 2127642.0 | 0.453483 | Y |
| 2 | IC 410-163707/8 | 0.5 | 0.173269 | 10.0 | 2203167.0 | 0.346538 | Y |
| 3 | IC 410-163707/7 | 1.0 | 0.390838 | 10.0 | 2148385.0 | 0.390838 | Y |
| 4 | IC 410-163707/6 | 2.0 | 0.764739 | 10.0 | 2208361.0 | 0.38237 | Y |
| 5 | IC 410-163707/5 | 5.0 | 2.010977 | 10.0 | 2140656.0 | 0.402195 | Y |
| 6 | IC 410-163707/4 | 10.0 | 4.149365 | 10.0 | 2109366.0 | 0.414937 | Y |
| 7 | IC 410-163707/3 | 25.0 | 10.279273 | 10.0 | 2236090.0 | 0.411171 | Y |



## Calibration / Ethyl acetate

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

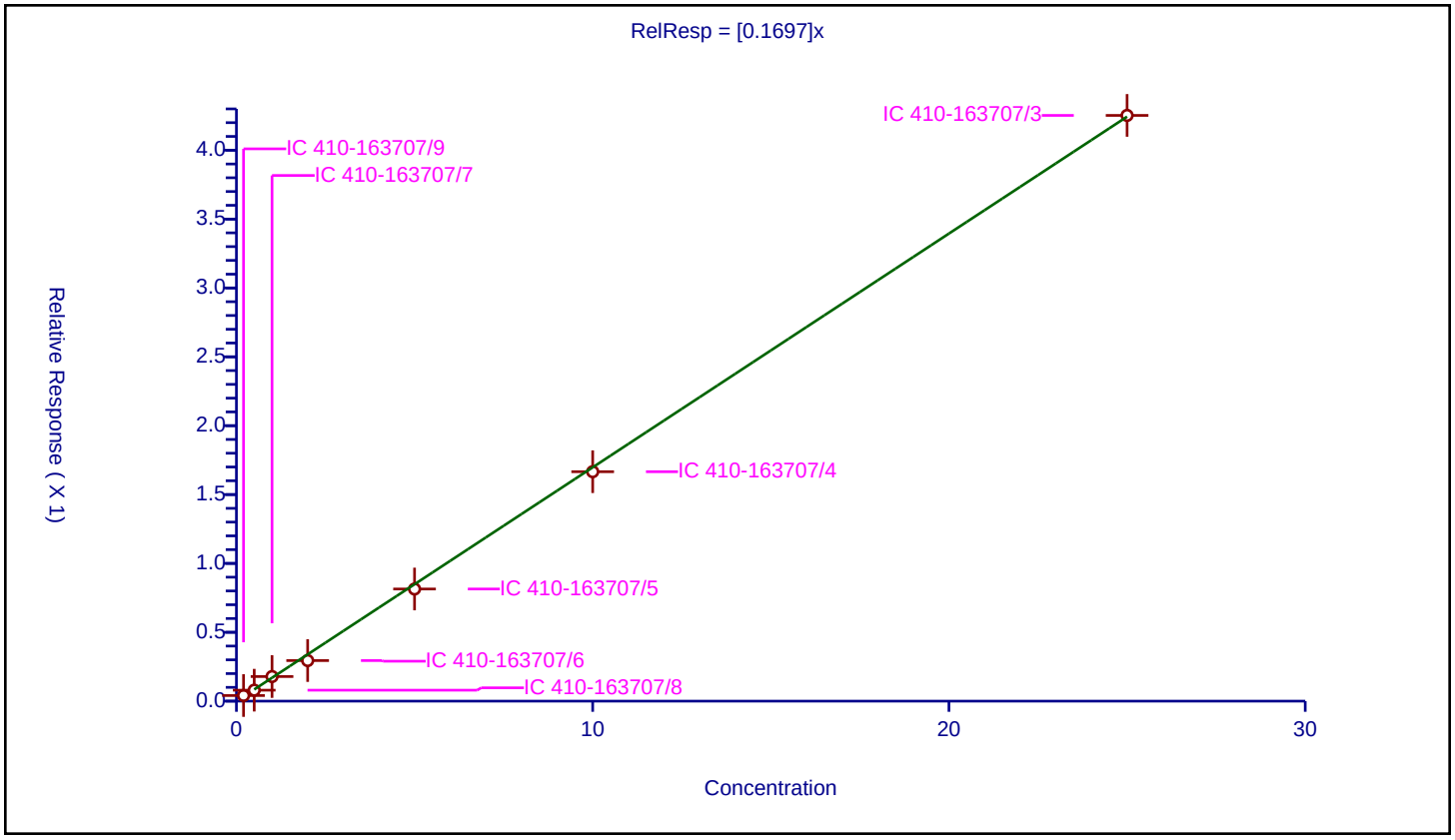
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1697 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 421000 |
| **Relative Standard Error:** | 10.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/9 | 0.2 | 0.040698 | 10.0 | 2127642.0 | 0.203488 | Y |
| 2 | IC 410-163707/8 | 0.5 | 0.079631 | 10.0 | 2203167.0 | 0.159262 | Y |
| 3 | IC 410-163707/7 | 1.0 | 0.178637 | 10.0 | 2148385.0 | 0.178637 | Y |
| 4 | IC 410-163707/6 | 2.0 | 0.294513 | 10.0 | 2208361.0 | 0.147256 | Y |
| 5 | IC 410-163707/5 | 5.0 | 0.81418 | 10.0 | 2140656.0 | 0.162836 | Y |
| 6 | IC 410-163707/4 | 10.0 | 1.665832 | 10.0 | 2109366.0 | 0.166583 | Y |
| 7 | IC 410-163707/3 | 25.0 | 4.252566 | 10.0 | 2236090.0 | 0.170103 | Y |



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

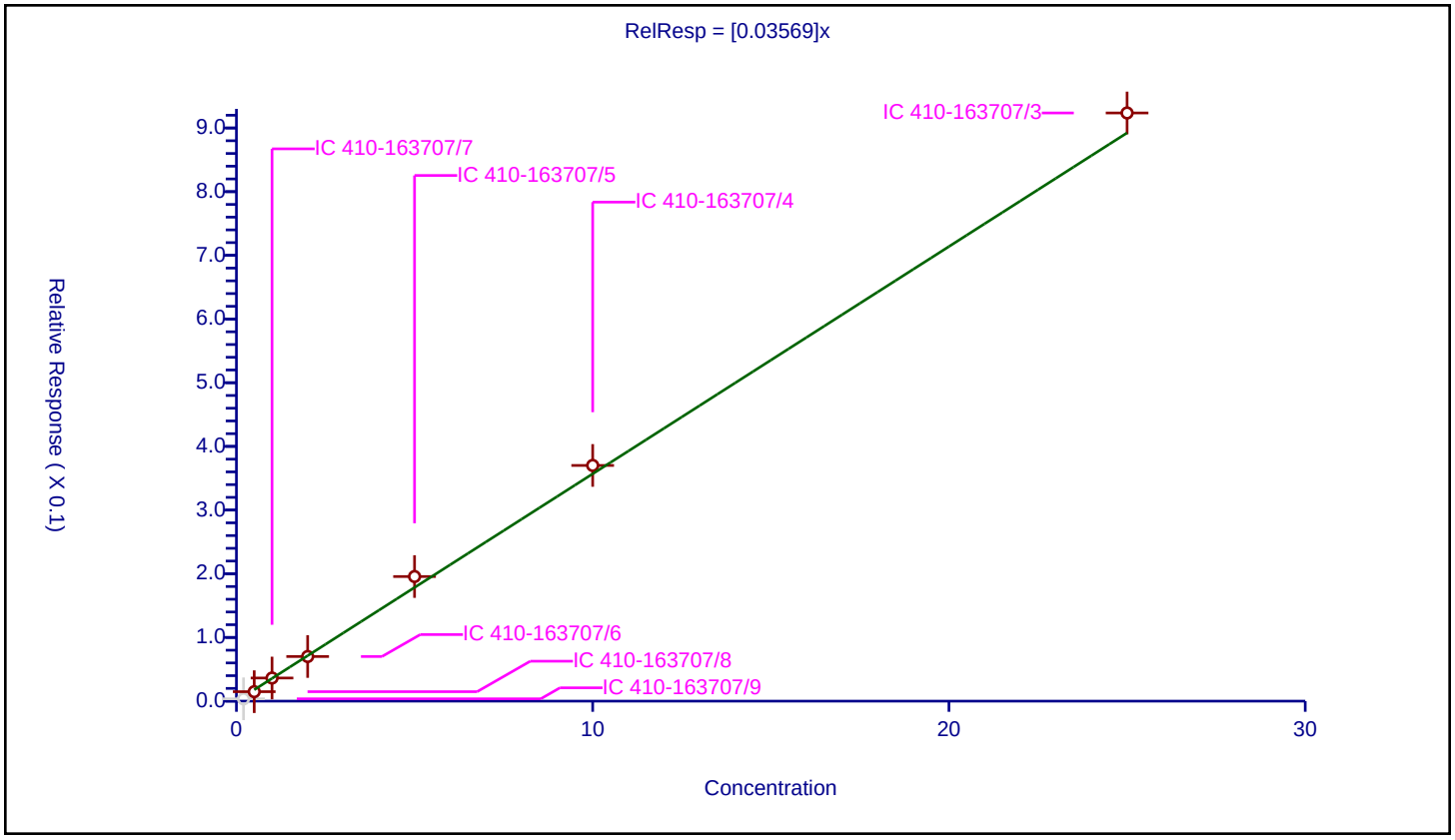
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.03569 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 101000 |
| **Relative Standard Error:** | 9.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/9 | 0.2 | 0.003643 | 10.0 | 2127642.0 | 0.018213 | N |
| 2 | IC 410-163707/8 | 0.5 | 0.01487 | 10.0 | 2203167.0 | 0.029739 | Y |
| 3 | IC 410-163707/7 | 1.0 | 0.036306 | 10.0 | 2148385.0 | 0.036306 | Y |
| 4 | IC 410-163707/6 | 2.0 | 0.070056 | 10.0 | 2208361.0 | 0.035028 | Y |
| 5 | IC 410-163707/5 | 5.0 | 0.19565 | 10.0 | 2140656.0 | 0.03913 | Y |
| 6 | IC 410-163707/4 | 10.0 | 0.370111 | 10.0 | 2109366.0 | 0.037011 | Y |
| 7 | IC 410-163707/3 | 25.0 | 0.923612 | 10.0 | 2236090.0 | 0.036944 | Y |



## Calibration / cis-1,4-Dichloro-2-butene

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

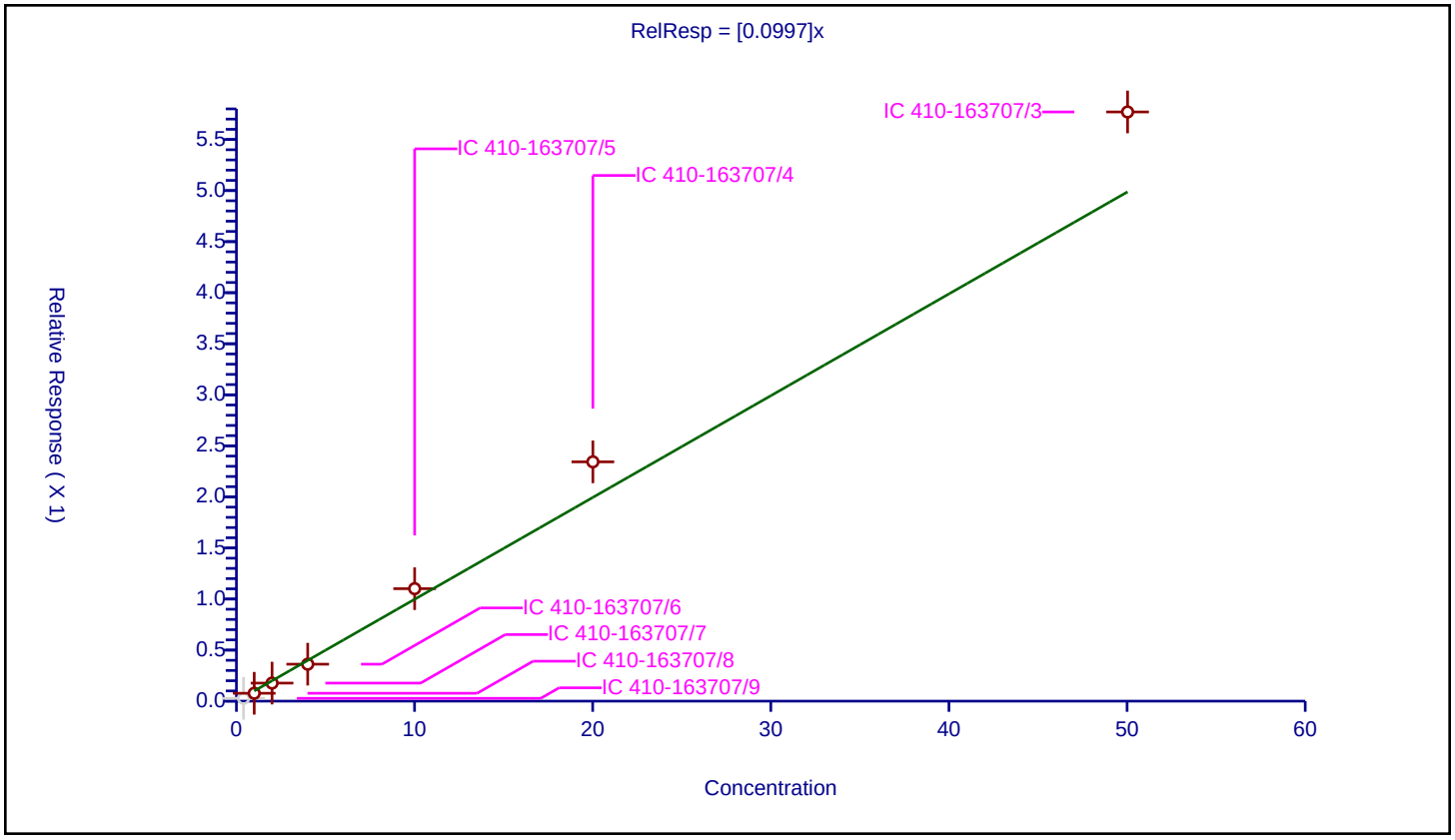
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.0997 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 486000 |
| **Relative Standard Error:** | 16.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.966 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/9 | 0.400225 | 0.027638 | 10.0 | 1651012.0 | 0.069055 | N |
| 2 | IC 410-163707/8 | 1.000562 | 0.076981 | 10.0 | 1701586.0 | 0.076938 | Y |
| 3 | IC 410-163707/7 | 2.001123 | 0.176729 | 10.0 | 1661418.0 | 0.088315 | Y |
| 4 | IC 410-163707/6 | 4.002247 | 0.361895 | 10.0 | 1704830.0 | 0.090423 | Y |
| 5 | IC 410-163707/5 | 10.005617 | 1.101481 | 10.0 | 1641562.0 | 0.110086 | Y |
| 6 | IC 410-163707/4 | 20.011233 | 2.34348 | 10.0 | 1618038.0 | 0.117108 | Y |
| 7 | IC 410-163707/3 | 50.028083 | 5.769984 | 10.0 | 1734932.0 | 0.115335 | Y |



## Calibration / Cyclohexanone

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

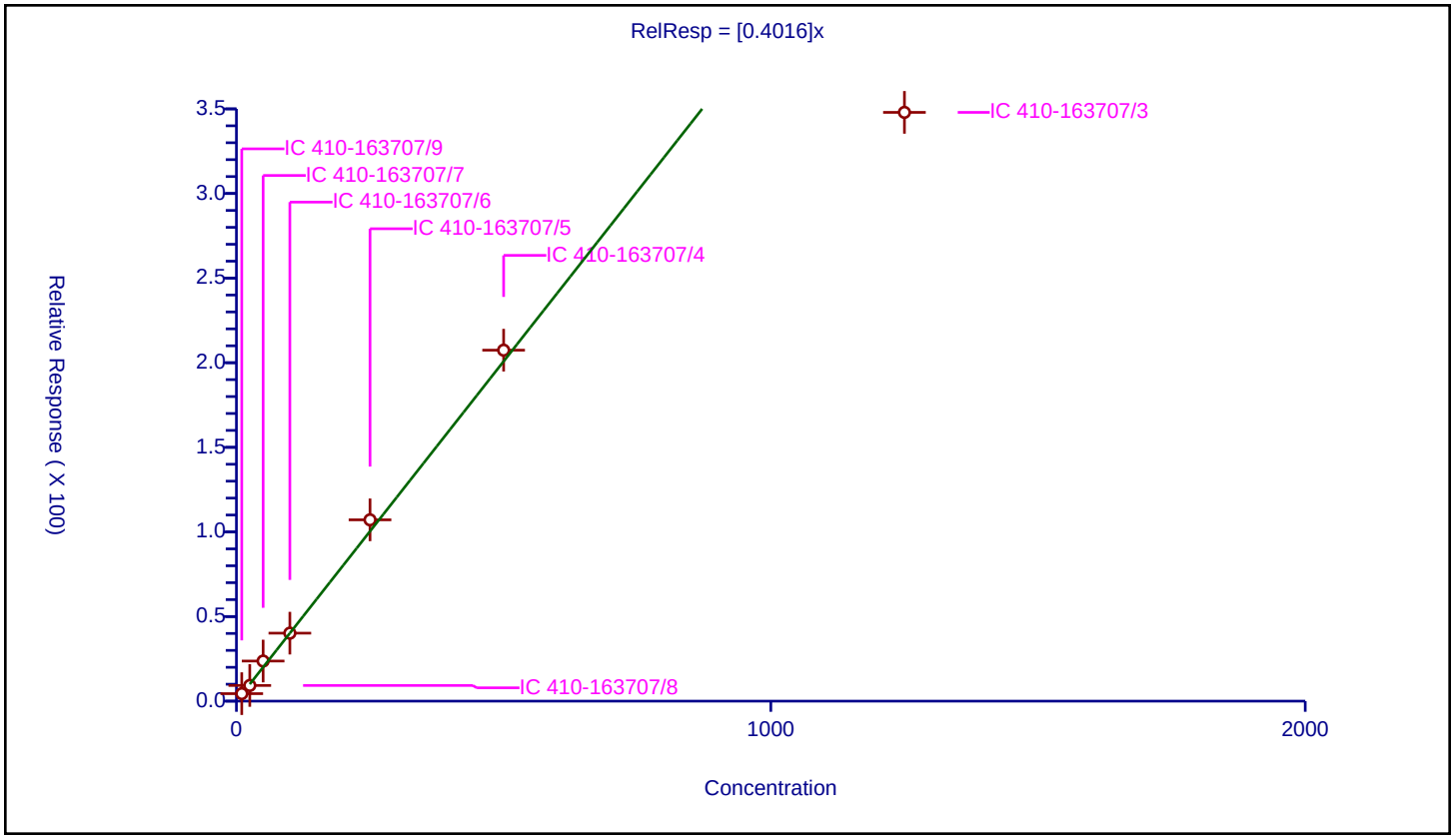
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4016 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 578000 |
| **Relative Standard Error:** | 15.7 |
| **Correlation Coefficient:** | 0.995 |
| **Coefficient of Determination (Adjusted):** | 0.965 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/9 | 10.000222 | 4.432075 | 50.0 | 125844.0 | 0.443198 | Y |
| 2 | IC 410-163707/8 | 25.000555 | 9.267016 | 50.0 | 126292.0 | 0.370672 | Y |
| 3 | IC 410-163707/7 | 50.00111 | 23.693104 | 50.0 | 138783.0 | 0.473852 | Y |
| 4 | IC 410-163707/6 | 100.002221 | 40.171656 | 50.0 | 154029.0 | 0.401708 | Y |
| 5 | IC 410-163707/5 | 250.005552 | 107.142857 | 50.0 | 142702.0 | 0.428562 | Y |
| 6 | IC 410-163707/4 | 500.011104 | 207.409992 | 50.0 | 140432.0 | 0.414811 | Y |
| 7 | IC 410-163707/3 | 1250.02776 | 347.939725 | 50.0 | 179078.0 | 0.278346 | Y |



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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-163707/18 | IG23I07.D |
| Level 2 | IC 410-163707/17 | IG23I06.D |
| Level 3 | IC 410-163707/16 | IG23I05.D |
| Level 4 | IC 410-163707/15 | IG23I04.D |
| Level 5 | IC 410-163707/14 | IG23I03.D |
| Level 6 | ICIS 410-163707/13 | IG23I02.D |
| Level 7 | IC 410-163707/12 | IG23I01.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | +++++<br>0.3627 | 0.1956<br>0.3416 | 0.3040 | 0.3114 | 0.3614 | Ave | | 0.3128 | | | 0.1000 | 20.0 | | 20.0 | | | |
| Chloromethane | 0.3737<br>0.3692 | 0.3520<br>0.3545 | 0.3277 | 0.3398 | 0.3774 | Ave | | 0.3563 | | | 0.1000 | 5.2 | | 20.0 | | | |
| 1,3-Butadiene | 0.3583<br>0.3381 | 0.2781<br>0.3239 | 0.3216 | 0.3194 | 0.3521 | Ave | | 0.3273 | | | | 8.1 | | 20.0 | | | |
| Vinyl chloride | 0.3684<br>0.3847 | 0.3183<br>0.3656 | 0.3364 | 0.3472 | 0.3941 | Ave | | 0.3592 | | | 0.1000 | 7.5 | | 20.0 | | | |
| Bromomethane | 0.2807<br>0.2701 | 0.2528<br>0.2477 | 0.2440 | 0.2517 | 0.2754 | Ave | | 0.2603 | | | 0.1000 | 5.6 | | 20.0 | | | |
| Chloroethane | 0.2262<br>0.2246 | 0.2056<br>0.2112 | 0.2036 | 0.2037 | 0.2325 | Ave | | 0.2153 | | | 0.1000 | 5.6 | | 20.0 | | | |
| Dichlorofluoromethane | 0.5615<br>0.5385 | 0.4859<br>0.5023 | 0.4850 | 0.4979 | 0.5538 | Ave | | 0.5179 | | | 0.1000 | 6.3 | | 20.0 | | | |
| Trichlorofluoromethane | 0.4066<br>0.5339 | 0.3297<br>0.4864 | 0.4638 | 0.4671 | 0.5530 | Ave | | 0.4629 | | | 0.1000 | 16.4 | | 20.0 | | | |
| Ethyl ether | 0.1835<br>0.2078 | 0.1655<br>0.1915 | 0.1744 | 0.1885 | 0.2053 | Ave | | 0.1881 | | | | 8.2 | | 20.0 | | | |
| Freon 123a | 0.3286<br>0.3668 | 0.2778<br>0.3340 | 0.3179 | 0.3278 | 0.3686 | Ave | | 0.3316 | | | | 9.3 | | 20.0 | | | |
| Acrolein | 2.0754<br>2.1510 | 2.0273<br>2.2464 | 2.2746 | 1.9732 | 2.5490 | Ave | | 2.1853 | | | | 8.9 | | 20.0 | | | |
| 1,1-Dichloroethene | 0.2236<br>0.2614 | 0.2129<br>0.2407 | 0.2396 | 0.2214 | 0.2711 | Ave | | 0.2387 | | | 0.1000 | 9.0 | | 20.0 | | | |
| Acetone | 3.3948<br>2.6081 | 2.6279<br>2.6013 | 2.5719 | 2.6885 | 2.9507 | Ave | | 2.7776 | | | 0.1000 | 10.8 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Freon 113 | 0.1793<br>0.2949 | 0.1939<br>0.2778 | 0.2561 | 0.2365 | 0.3061 | Ave | | 0.2492 | | | 0.1000 | 19.6 | | 20.0 | | | |
| Methyl iodide | 0.4365<br>0.5164 | 0.4581<br>0.4791 | 0.4744 | 0.4472 | 0.5281 | Ave | | 0.4771 | | | | 7.2 | | 20.0 | | | |
| Carbon disulfide | 0.6241<br>0.7230 | 0.6085<br>0.6809 | 0.6272 | 0.6081 | 0.7397 | Ave | | 0.6588 | | | 0.1000 | 8.4 | | 20.0 | | | |
| Methyl acetate | 10.223<br>7.9164 | 6.6486<br>7.6664 | 7.2485 | 8.2644 | 9.2657 | Ave | | 8.1762 | | | 0.1000 | 14.9 | | 20.0 | | | |
| Allyl chloride | 0.4039<br>0.4122 | 0.3756<br>0.3872 | 0.3811 | 0.3562 | 0.4244 | Ave | | 0.3915 | | | | 6.0 | | 20.0 | | | |
| Methylene Chloride | 0.2524<br>0.2798 | 0.2487<br>0.2570 | 0.2549 | 0.2470 | 0.2837 | Ave | | 0.2605 | | | 0.1000 | 5.7 | | 20.0 | | | |
| t-Butyl alcohol | 1.0156<br>1.1288 | 0.9511<br>0.9655 | 1.0279 | 1.1110 | 1.1697 | Ave | | 1.0528 | | | | 8.0 | | 20.0 | | | |
| Acrylonitrile | 3.3547<br>3.7261 | 3.2482<br>3.8697 | 3.8210 | 3.4385 | 4.4580 | Ave | | 3.7023 | | | | 11.1 | | 20.0 | | | |
| Methyl tert-butyl ether | 0.6479<br>0.7420 | 0.6277<br>0.6762 | 0.6717 | 0.6482 | 0.7521 | Ave | | 0.6808 | | | 0.1000 | 7.1 | | 20.0 | | | |
| trans-1,2-Dichloroethene | 0.2636<br>0.2920 | 0.2568<br>0.2706 | 0.2670 | 0.2508 | 0.2967 | Ave | | 0.2711 | | | 0.1000 | 6.4 | | 20.0 | | | |
| n-Hexane | 0.2986<br>0.4503 | 0.2876<br>0.4202 | 0.3712 | 0.3567 | 0.4652 | Ave | | 0.3785 | | | | 18.5 | | 20.0 | | | |
| 1,1-Dichloroethane | 0.4529<br>0.5299 | 0.4771<br>0.4952 | 0.4797 | 0.4692 | 0.5393 | Ave | | 0.4919 | | | 0.2000 | 6.5 | | 20.0 | | | |
| di-Isopropyl ether | 0.7902<br>0.8812 | 0.7740<br>0.8214 | 0.8046 | 0.7810 | 0.8994 | Ave | | 0.8217 | | | | 6.0 | | 20.0 | | | |
| 2-Chloro-1,3-butadiene | 0.3795<br>0.4481 | 0.3757<br>0.4209 | 0.4011 | 0.3850 | 0.4606 | Ave | | 0.4101 | | | | 8.3 | | 20.0 | | | |
| Ethyl t-butyl ether | 0.7755<br>0.8660 | 0.7525<br>0.7962 | 0.7910 | 0.7665 | 0.8768 | Ave | | 0.8035 | | | | 6.1 | | 20.0 | | | |
| 2-Butanone (MEK) | 4.4727<br>4.7324 | 4.7875<br>4.9530 | 5.0137 | 4.4128 | 5.5781 | Ave | | 4.8500 | | | 0.1000 | 8.1 | | 20.0 | | | |
| cis-1,2-Dichloroethene | 0.3085<br>0.3204 | 0.2792<br>0.2984 | 0.2962 | 0.2831 | 0.3282 | Ave | | 0.3020 | | | 0.1000 | 6.0 | | 20.0 | | | |
| 2,2-Dichloropropane | 0.3889<br>0.4654 | 0.4050<br>0.4361 | 0.4203 | 0.4002 | 0.4780 | Ave | | 0.4277 | | | | 7.9 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Propionitrile | 1.0665<br>1.3670 | 1.1664<br>1.3682 | 1.3168 | 1.2026 | 1.5295 | Ave | | 1.2882 | | | | 12.0 | | 20.0 | | | |
| Methacrylonitrile | 4.4612<br>4.7621 | 4.5433<br>5.1194 | 5.0070 | 4.3591 | 5.8587 | Ave | | 4.8730 | | | | 10.6 | | 20.0 | | | |
| Bromochloromethane | 0.1221<br>0.1403 | 0.1231<br>0.1291 | 0.1294 | 0.1262 | 0.1421 | Ave | | 0.1303 | | | | 6.1 | | 20.0 | | | |
| Tetrahydrofuran | 1.3973<br>1.4262 | 1.2691<br>1.4530 | 1.4982 | 1.3139 | 1.7126 | Ave | | 1.4386 | | | | 10.0 | | 20.0 | | | |
| Chloroform | 0.4692<br>0.5205 | 0.4652<br>0.4830 | 0.4841 | 0.4582 | 0.5306 | Ave | | 0.4873 | | | 0.2000 | 5.7 | | 20.0 | | | |
| 1,1,1-Trichloroethane | 0.4073<br>0.4942 | 0.4194<br>0.4640 | 0.4484 | 0.4274 | 0.5086 | Ave | | 0.4528 | | | 0.1000 | 8.5 | | 20.0 | | | |
| Cyclohexane | 0.3570<br>0.5244 | 0.3518<br>0.4941 | 0.4506 | 0.4210 | 0.5435 | Ave | | 0.4489 | | | 0.1000 | 17.1 | | 20.0 | | | |
| 1,1-Dichloropropene | 0.3433<br>0.4231 | 0.3424<br>0.3973 | 0.3762 | 0.3598 | 0.4316 | Ave | | 0.3820 | | | | 9.5 | | 20.0 | | | |
| Carbon tetrachloride | 0.3364<br>0.4445 | 0.3351<br>0.4154 | 0.3838 | 0.3693 | 0.4512 | Ave | | 0.3908 | | | 0.1000 | 12.2 | | 20.0 | | | |
| Isobutyl alcohol | 0.3505<br>0.3456 | 0.3053<br>0.3093 | 0.3476 | 0.3308 | 0.3625 | Ave | | 0.3359 | | | | 6.5 | | 20.0 | | | |
| Benzene | 1.0786<br>1.2043 | 1.0806<br>1.1169 | 1.1054 | 1.0522 | 1.2324 | Ave | | 1.1243 | | | 0.5000 | 6.0 | | 20.0 | | | |
| 1,2-Dichloroethane | 0.3196<br>0.3205 | 0.2889<br>0.2988 | 0.3010 | 0.2768 | 0.3267 | Ave | | 0.3046 | | | 0.1000 | 6.0 | | 20.0 | | | |
| t-Amyl methyl ether | 0.7373<br>0.8084 | 0.6853<br>0.7420 | 0.7269 | 0.7135 | 0.8081 | Ave | | 0.7459 | | | | 6.2 | | 20.0 | | | |
| n-Heptane | 0.3735<br>0.4318 | 0.3278<br>0.4065 | 0.3870 | 0.3498 | 0.4481 | Ave | | 0.3892 | | | | 11.1 | | 20.0 | | | |
| n-Butanol | 0.2672<br>0.3373 | 0.2899<br>0.2908 | 0.3219 | 0.3041 | 0.3716 | Ave | | 0.3118 | | | | 11.2 | | 20.0 | | | |
| Trichloroethene | 0.2830<br>0.3275 | 0.2877<br>0.3071 | 0.2935 | 0.2799 | 0.3365 | Ave | | 0.3022 | | | 0.2000 | 7.4 | | 20.0 | | | |
| Methylcyclohexane | 0.4104<br>0.5911 | 0.3880<br>0.5530 | 0.4960 | 0.4766 | 0.6030 | Ave | | 0.5026 | | | 0.1000 | 16.8 | | 20.0 | | | |
| 1,2-Dichloropropane | 0.2449<br>0.3041 | 0.2530<br>0.2850 | 0.2751 | 0.2653 | 0.3056 | Ave | | 0.2761 | | | 0.1000 | 8.6 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Methyl methacrylate | 8.2957<br>9.7081 | 7.9901<br>10.530 | 10.080 | 8.6383 | 11.802 | Ave | | 9.5777 | | | | 14.2 | | 20.0 | | | |
| 1,4-Dioxane | +++++<br>0.0928 | 0.0580<br>0.0531 | 0.0734 | 0.0840 | 0.0900 | Qua | -2.625 | 0.1219 | -0.000053 | | 0.0050 | | | | 0.9980 | | 0.9900 |
| Dibromomethane | 0.1367<br>0.1448 | 0.1222<br>0.1357 | 0.1296 | 0.1288 | 0.1470 | Ave | | 0.1350 | | | | 6.6 | | 20.0 | | | |
| Bromodichloromethane | 0.3016<br>0.3705 | 0.3121<br>0.3529 | 0.3183 | 0.3156 | 0.3722 | Ave | | 0.3347 | | | 0.2000 | 8.8 | | 20.0 | | | |
| 2-Nitropropane | 2.4224<br>2.6776 | 2.5126<br>2.9919 | 2.8529 | 2.4822 | 3.2402 | Ave | | 2.7400 | | | | 11.0 | | 20.0 | | | |
| cis-1,3-Dichloropropene | 0.3774<br>0.4708 | 0.3700<br>0.4485 | 0.4057 | 0.4003 | 0.4712 | Ave | | 0.4206 | | | 0.2000 | 10.1 | | 20.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | 11.172<br>12.055 | 11.105<br>12.848 | 12.660 | 11.139 | 14.512 | Ave | | 12.213 | | | 0.1000 | 10.2 | | 20.0 | | | |
| Toluene | 0.9391<br>1.0243 | 0.9229<br>0.9386 | 0.9435 | 0.8884 | 1.0533 | Ave | | 0.9586 | | | 0.4000 | 6.1 | | 20.0 | | | |
| trans-1,3-Dichloropropene | 0.3935<br>0.5015 | 0.3900<br>0.4685 | 0.4231 | 0.4193 | 0.4982 | Ave | | 0.4420 | | | 0.1000 | 10.7 | | 20.0 | | | |
| Ethyl methacrylate | 0.3292<br>0.4153 | 0.3108<br>0.3888 | 0.3532 | 0.3657 | 0.4193 | Ave | | 0.3689 | | | | 11.2 | | 20.0 | | | |
| 1,1,2-Trichloroethane | 0.2499<br>0.2775 | 0.2390<br>0.2510 | 0.2485 | 0.2458 | 0.2782 | Ave | | 0.2557 | | | 0.1000 | 6.1 | | 20.0 | | | |
| Tetrachloroethene | 0.4216<br>0.5030 | 0.4243<br>0.4609 | 0.4444 | 0.4314 | 0.5113 | Ave | | 0.4567 | | | 0.2000 | 8.1 | | 20.0 | | | |
| 1,3-Dichloropropane | 0.4271<br>0.4684 | 0.3991<br>0.4306 | 0.4298 | 0.4146 | 0.4743 | Ave | | 0.4348 | | | | 6.3 | | 20.0 | | | |
| 2-Hexanone | 7.1827<br>8.6184 | 7.7352<br>9.2473 | 8.7474 | 7.7260 | 10.621 | Ave | | 8.5540 | | | 0.1000 | 13.5 | | 20.0 | | | |
| Dibromochloromethane | 0.2708<br>0.3553 | 0.2672<br>0.3375 | 0.3010 | 0.2956 | 0.3536 | Ave | | 0.3116 | | | | 12.0 | | 20.0 | | | |
| 1,2-Dibromoethane (EDB) | 0.2369<br>0.2698 | 0.2170<br>0.2484 | 0.2455 | 0.2352 | 0.2740 | Ave | | 0.2467 | | | 0.1000 | 8.1 | | 20.0 | | | |
| 1-Chlorohexane | 0.5866<br>0.6070 | 0.5028<br>0.5563 | 0.5366 | 0.5151 | 0.6198 | Ave | | 0.5606 | | | | 8.1 | | 20.0 | | | |
| Chlorobenzene | 1.0341<br>1.1413 | 0.9999<br>1.0474 | 1.0475 | 1.0015 | 1.1613 | Ave | | 1.0619 | | | 0.5000 | 6.1 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 0.3534<br>0.4134 | 0.3288<br>0.3804 | 0.3561 | 0.3538 | 0.4095 | Ave | | 0.3708 | | | | 8.5 | | 20.0 | | | |
| Ethylbenzene | 1.7775<br>1.9981 | 1.7418<br>1.8269 | 1.8103 | 1.7297 | 2.0370 | Ave | | 1.8459 | | | 0.1000 | 6.6 | | 20.0 | | | |
| m&p-Xylene | 0.6807<br>0.7933 | 0.6907<br>0.7223 | 0.7223 | 0.6883 | 0.8070 | Ave | | 0.7292 | | | 0.1000 | 7.0 | | 20.0 | | | |
| o-Xylene | 0.6801<br>0.7828 | 0.6824<br>0.7198 | 0.6941 | 0.6804 | 0.7980 | Ave | | 0.7197 | | | 0.3000 | 7.0 | | 20.0 | | | |
| Styrene | 1.0572<br>1.2839 | 1.0757<br>1.1766 | 1.1444 | 1.1001 | 1.2948 | Ave | | 1.1618 | | | 0.3000 | 8.3 | | 20.0 | | | |
| Bromoform | 0.1542<br>0.2215 | 0.1570<br>0.2127 | 0.1737 | 0.1730 | 0.2145 | Ave | | 0.1867 | | | 0.1000 | 15.4 | | 20.0 | | | |
| Isopropylbenzene | 1.7707<br>2.0794 | 1.7890<br>1.8647 | 1.8702 | 1.8099 | 2.1154 | Ave | | 1.8999 | | | 0.1000 | 7.4 | | 20.0 | | | |
| 1,1,2,2-Tetrachloroethane | 0.5284<br>0.6088 | 0.5040<br>0.5492 | 0.5500 | 0.5207 | 0.6085 | Ave | | 0.5528 | | | 0.3000 | 7.5 | | 20.0 | | | |
| Bromobenzene | 0.7239<br>0.8313 | 0.7007<br>0.7595 | 0.7325 | 0.7127 | 0.8423 | Ave | | 0.7576 | | | | 7.5 | | 20.0 | | | |
| trans-1,4-Dichloro-2-butene | 3.6060<br>4.4989 | 3.8773<br>5.0332 | 4.4651 | 3.9395 | 5.5047 | Ave | | 4.4178 | | | | 15.3 | | 20.0 | | | |
| 1,2,3-Trichloropropane | 0.1459<br>0.1691 | 0.1352<br>0.1485 | 0.1493 | 0.1459 | 0.1700 | Ave | | 0.1520 | | | | 8.5 | | 20.0 | | | |
| N-Propylbenzene | 3.4241<br>4.1059 | 3.4158<br>3.5771 | 3.6026 | 3.4783 | 4.1391 | Ave | | 3.6775 | | | | 8.5 | | 20.0 | | | |
| 2-Chlorotoluene | 0.6886<br>0.8261 | 0.6965<br>0.7589 | 0.7527 | 0.7210 | 0.8383 | Ave | | 0.7546 | | | | 7.8 | | 20.0 | | | |
| 1,3,5-Trimethylbenzene | 2.4877<br>3.0046 | 2.4892<br>2.6889 | 2.6091 | 2.5128 | 3.0071 | Ave | | 2.6856 | | | | 8.6 | | 20.0 | | | |
| 4-Chlorotoluene | 0.7206<br>0.8363 | 0.7144<br>0.7728 | 0.7625 | 0.7264 | 0.8610 | Ave | | 0.7706 | | | | 7.5 | | 20.0 | | | |
| tert-Butylbenzene | 0.5220<br>0.6578 | 0.5491<br>0.5957 | 0.5757 | 0.5601 | 0.6625 | Ave | | 0.5890 | | | | 9.1 | | 20.0 | | | |
| Pentachloroethane | 0.4318<br>0.5591 | 0.3812<br>0.5124 | 0.4425 | 0.4642 | 0.5385 | Ave | | 0.4757 | | | | 13.4 | | 20.0 | | | |
| 1,2,4-Trimethylbenzene | 2.5034<br>3.0669 | 2.5332<br>2.7532 | 2.7222 | 2.5837 | 3.1073 | Ave | | 2.7528 | | | | 9.0 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD | # | MAX %RSD | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| sec-Butylbenzene | 3.0988<br>3.7882 | 3.1067<br>3.3969 | 3.3230 | 3.2189 | 3.8259 | Ave | | 3.3941 | | | | 8.9 | | 20.0 | | | |
| 1,3-Dichlorobenzene | 1.4232<br>1.7010 | 1.3877<br>1.5496 | 1.5218 | 1.4220 | 1.6882 | Ave | | 1.5277 | | | 0.6000 | 8.4 | | 20.0 | | | |
| p-Isopropyltoluene | 2.7768<br>3.3546 | 2.7485<br>2.9902 | 2.9177 | 2.8376 | 3.3892 | Ave | | 3.0021 | | | | 8.9 | | 20.0 | | | |
| 1,4-Dichlorobenzene | 1.5011<br>1.7091 | 1.4485<br>1.5576 | 1.5299 | 1.4598 | 1.7250 | Ave | | 1.5616 | | | 0.5000 | 7.2 | | 20.0 | | | |
| 1,2,3-Trimethylbenzene | 1.1533<br>1.3366 | 1.1447<br>1.2073 | 1.2071 | 1.1607 | 1.3161 | Ave | | 1.2180 | | | | 6.4 | | 20.0 | | | |
| Benzyl chloride | 0.1628<br>0.2764 | 0.1957<br>0.2557 | 0.2131 | 0.2136 | 0.2660 | Ave | | 0.2262 | | | | 18.3 | | 20.0 | | | |
| n-Butylbenzene | 1.2960<br>1.5824 | 1.2462<br>1.4394 | 1.3589 | 1.3122 | 1.5855 | Ave | | 1.4029 | | | | 9.8 | | 20.0 | | | |
| 1,2-Dichlorobenzene | 1.3272<br>1.5336 | 1.2611<br>1.3757 | 1.3800 | 1.3430 | 1.5513 | Ave | | 1.3960 | | | 0.4000 | 7.7 | | 20.0 | | | |
| 1,2-Dibromo-3-Chloropropane | 0.0593<br>0.1030 | 0.0659<br>0.0884 | 0.0775 | 0.0818 | 0.0933 | Ave | | 0.0813 | | | 0.0500 | 18.8 | | 20.0 | | | |
| 1,3,5-Trichlorobenzene | 1.0011<br>1.2847 | 1.0067<br>1.1450 | 1.0702 | 1.0496 | 1.2682 | Ave | | 1.1179 | | | | 10.6 | | 20.0 | | | |
| 1,2,4-Trichlorobenzene | 0.8399<br>1.0952 | 0.8063<br>0.9601 | 0.9241 | 0.9014 | 1.0764 | Ave | | 0.9433 | | | 0.2000 | 11.7 | | 20.0 | | | |
| Hexachlorobutadiene | 0.4823<br>0.4373 | 0.3756<br>0.3936 | 0.3835 | 0.3656 | 0.4307 | Ave | | 0.4098 | | | | 10.2 | | 20.0 | | | |
| Naphthalene | 1.7619<br>2.0429 | 1.5776<br>1.6639 | 1.7607 | 1.7878 | 1.9900 | Ave | | 1.7978 | | | | 9.3 | | 20.0 | | | |
| 1,2,3-Trichlorobenzene | 0.8050<br>0.9264 | 0.7050<br>0.7725 | 0.7921 | 0.7919 | 0.9136 | Ave | | 0.8152 | | | | 9.7 | | 20.0 | | | |
| Dibromofluoromethane (Surr) | 0.2500<br>0.2511 | 0.2526<br>0.2515 | 0.2525 | 0.2532 | 0.2524 | Ave | | 0.2519 | | | | 0.4 | | 20.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.0506<br>0.0506 | 0.0495<br>0.0507 | 0.0502 | 0.0508 | 0.0504 | Ave | | 0.0504 | | | | 0.9 | | 20.0 | | | |
| Toluene-d8 (Surr) | 1.3069<br>1.2913 | 1.2928<br>1.2642 | 1.3038 | 1.3008 | 1.2863 | Ave | | 1.2923 | | | | 1.1 | | 20.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.4980<br>0.4916 | 0.4938<br>0.4919 | 0.4982 | 0.4929 | 0.4908 | Ave | | 0.4939 | | | | 0.6 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-163707/18 | IG23I07.D |
| Level 2 | IC 410-163707/17 | IG23I06.D |
| Level 3 | IC 410-163707/16 | IG23I05.D |
| Level 4 | IC 410-163707/15 | IG23I04.D |
| Level 5 | IC 410-163707/14 | IG23I03.D |
| Level 6 | ICIS 410-163707/13 | IG23I02.D |
| Level 7 | IC 410-163707/12 | IG23I01.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| Dichlorodifluoromethane | FB | Ave | +++++<br>769929 | 23341<br>1976750 | 65891 | 133370 | 382263 | +++++<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Chloromethane | FB | Ave | 16469<br>783649 | 42004<br>2051431 | 71033 | 145518 | 399273 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,3-Butadiene | FB | Ave | 15788<br>717606 | 33180<br>1874306 | 69705 | 136810 | 372442 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Vinyl chloride | FB | Ave | 16237<br>816639 | 37981<br>2115370 | 72933 | 148690 | 416864 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Bromomethane | FB | Ave | 12369<br>573256 | 30163<br>1433103 | 52904 | 107796 | 291289 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Chloroethane | FB | Ave | 9968<br>476638 | 24539<br>1221840 | 44138 | 87256 | 245993 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Dichlorofluoromethane | FB | Ave | 24746<br>1143054 | 57981<br>2906691 | 105130 | 213271 | 585859 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Trichlorofluoromethane | FB | Ave | 17920<br>1133164 | 39345<br>2814367 | 100534 | 200068 | 585022 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Ethyl ether | FB | Ave | 8085<br>440991 | 19745<br>1108291 | 37819 | 80725 | 217146 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Freon 123a | FB | Ave | 14481<br>778462 | 33147<br>1932434 | 68921 | 140380 | 389865 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Acrolein | TBAd 10 | Ave | 67296<br>3553431 | 164868<br>8611114 | 325453 | 642849 | 1712613 | 10.00<br>500 | 25.0<br>1250 | 50.0 | 100.0 | 250 |
| 1,1-Dichloroethene | FB | Ave | 9853<br>554846 | 25406<br>1392957 | 51944 | 94828 | 286821 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Acetone | TBAd 10 | Ave | 22016 | 42743 | 73600 | 175187 | 396518 | 2.00 | 5.00 | 10.0 | 20.0 | 50.0 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| | | | 861750 | 1994344 | | | | 100 | 250 | | | |
| Freon 113 | FB | Ave | 7902<br>625953 | 23135<br>1607495 | 55518 | 101316 | 323788 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Methyl iodide | FB | Ave | 19236<br>1095984 | 54663<br>2772320 | 102843 | 191541 | 558589 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Carbon disulfide | FB | Ave | 27501<br>1534600 | 72614<br>3939815 | 135959 | 260459 | 782475 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Methyl acetate | TBAd 10 | Ave | 6630<br>261567 | 10814<br>587766 | 20743 | 53852 | 124512 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Allyl chloride | FB | Ave | 17799<br>874837 | 44817<br>2240583 | 82613 | 152579 | 448975 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Methylene Chloride | FB | Ave | 11123<br>593991 | 29677<br>1487176 | 55257 | 105792 | 300072 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| t-Butyl alcohol | TBAd 10 | Ave | 13173<br>745936 | 30939<br>1480411 | 58831 | 144787 | 314368 | 4.00<br>200 | 10.0<br>500 | 20.0 | 40.0 | 100 |
| Acrylonitrile | TBAd 10 | Ave | 5439<br>307786 | 13208<br>741706 | 27336 | 56014 | 149768 | 0.500<br>25.0 | 1.25<br>62.5 | 2.50 | 5.00 | 12.5 |
| Methyl tert-butyl ether | FB | Ave | 28552<br>1574902 | 74896<br>3912928 | 145601 | 277645 | 795636 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| trans-1,2-Dichloroethene | FB | Ave | 11615<br>619693 | 30641<br>1566059 | 57886 | 107403 | 313872 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| n-Hexane | FB | Ave | 13158<br>955763 | 34316<br>2431187 | 80465 | 152797 | 492058 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,1-Dichloroethane | FB | Ave | 19958<br>1124834 | 56931<br>2865291 | 103998 | 200971 | 570521 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| di-Isopropyl ether | FB | Ave | 34823<br>1870451 | 92363<br>4752763 | 174418 | 334487 | 951429 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 2-Chloro-1,3-butadiene | FB | Ave | 16724<br>951023 | 44829<br>2435652 | 86951 | 164913 | 487276 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Ethyl t-butyl ether | FB | Ave | 34174<br>1838180 | 89795<br>4606991 | 171468 | 328284 | 927469 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 2-Butanone (MEK) | TBAd 10 | Ave | 29007 | 77869 | 143475 | 287542 | 749581 | 2.00 | 5.00 | 10.0 | 20.0 | 50.0 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| | | | 1563634 | 3797344 | | | | 100 | 250 | | | |
| cis-1,2-Dichloroethene | FB | Ave | 13593<br>679972 | 33313<br>1726698 | 64220 | 121250 | 347207 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 2,2-Dichloropropane | FB | Ave | 17139<br>987902 | 48330<br>2523281 | 91101 | 171411 | 505614 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Propionitrile | TBAd 10 | Ave | 13833<br>903317 | 37944<br>2097921 | 75368 | 156726 | 411078 | 4.00<br>200 | 10.0<br>500 | 20.0 | 40.0 | 100 |
| Methacrylonitrile | TBAd 10 | Ave | 28932<br>1573429 | 73898<br>3924933 | 143284 | 284046 | 787287 | 2.00<br>100 | 5.00<br>250 | 10.0 | 20.0 | 50.0 |
| Bromochloromethane | FB | Ave | 5382<br>297719 | 14686<br>746910 | 28049 | 54068 | 150285 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Tetrahydrofuran | TBAd 10 | Ave | 4531<br>235618 | 10321<br>557004 | 21437 | 42808 | 115070 | 1.00<br>50.0 | 2.50<br>125 | 5.00 | 10.0 | 25.0 |
| Chloroform | FB | Ave | 20677<br>1104772 | 55513<br>2794705 | 104933 | 196244 | 561287 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,1,1-Trichloroethane | FB | Ave | 17947<br>1048975 | 50051<br>2684937 | 97208 | 183060 | 537958 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Cyclohexane | FB | Ave | 15734<br>1113121 | 41983<br>2858999 | 97677 | 180314 | 574963 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,1-Dichloropropene | FB | Ave | 15129<br>898023 | 40862<br>2298795 | 81553 | 154095 | 456566 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Carbon tetrachloride | FB | Ave | 14826<br>943497 | 39984<br>2403582 | 83203 | 158160 | 477332 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Isobutyl alcohol | TBAd 10 | Ave | 11365<br>570979 | 24830<br>1185567 | 49738 | 107772 | 243578 | 10.0<br>500 | 25.0<br>1250 | 50.0 | 100 | 250 |
| Benzene | FB | Ave | 47533<br>2556166 | 128948<br>6462549 | 239616 | 450649 | 1303704 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,2-Dichloroethane | FB | Ave | 14085<br>680372 | 34473<br>1729238 | 65256 | 118544 | 345575 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| t-Amyl methyl ether | FB | Ave | 32493<br>1715769 | 81778<br>4293680 | 157576 | 305576 | 854837 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| n-Heptane | FB | Ave | 16461 | 39115 | 83896 | 149822 | 473994 | 0.200 | 0.500 | 1.00 | 2.00 | 5.00 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| | | | 916472 | 2352079 | | | | 10.0 | 25.0 | | | |
| n-Butanol | TBAd 10 | Ave | 15162<br>975208 | 41262<br>1950741 | 80599 | 173400 | 436929 | 17.5<br>875 | 43.8<br>2188 | 87.5 | 175 | 438 |
| Trichloroethene | FB | Ave | 12472<br>695086 | 34329<br>1777081 | 63618 | 119880 | 356004 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Methylcyclohexane | FB | Ave | 18086<br>1254685 | 46295<br>3199658 | 107529 | 204137 | 637877 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,2-Dichloropropane | FB | Ave | 10792<br>645492 | 30184<br>1648952 | 59643 | 113623 | 323309 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Methyl methacrylate | TBAd 10 | Ave | 5380<br>320765 | 12996<br>807321 | 28845 | 56288 | 158597 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,4-Dioxane | TBAd 10 | Qua | +++++<br>153335 | 4720<br>203588 | 10496 | 27358 | 60485 | +++++<br>500 | 25.0<br>1250 | 50.0 | 100 | 250 |
| Dibromomethane | FB | Ave | 6024<br>307242 | 14579<br>785220 | 28100 | 55146 | 155460 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Bromodichloromethane | FB | Ave | 13292<br>786321 | 37237<br>2042180 | 68991 | 135182 | 393721 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 2-Nitropropane | TBAd 10 | Ave | 7855<br>442348 | 20434<br>1146903 | 40821 | 80872 | 217711 | 1.00<br>50.0 | 2.50<br>125 | 5.00 | 10.0 | 25.0 |
| cis-1,3-Dichloropropene | FB | Ave | 16632<br>999345 | 44155<br>2594937 | 87948 | 171443 | 498450 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 4-Methyl-2-pentanone (MIBK) | TBAd 10 | Ave | 72451<br>3982955 | 180620<br>9850003 | 362286 | 725808 | 1950081 | 2.00<br>100 | 5.00<br>250 | 10.0 | 20.0 | 50.0 |
| Toluene | CBZd 5 | Ave | 31541<br>1680421 | 85173<br>4295450 | 156583 | 294006 | 865208 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| trans-1,3-Dichloropropene | CBZd 5 | Ave | 13216<br>822825 | 35995<br>2144165 | 70216 | 138743 | 409218 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Ethyl methacrylate | CBZd 5 | Ave | 11059 | 28685 | 58617 | 121040 | 344439 | 0.200 | 0.500 | 1.00 | 2.00 | 5.00 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| | | | 681452 | 1779294 | | | | 10.0 | 25.0 | | | |
| 1,1,2-Trichloroethane | CBZd 5 | Ave | 8395<br>455229 | 22055<br>1148961 | 41236 | 81343 | 228498 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Tetrachloroethene | CBZd 5 | Ave | 14161<br>825293 | 39159<br>2109166 | 73750 | 142779 | 419950 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,3-Dichloropropane | CBZd 5 | Ave | 14346<br>768446 | 36830<br>1970914 | 71333 | 137217 | 389560 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 2-Hexanone | TBAd 10 | Ave | 46582<br>2847614 | 125813<br>7089653 | 250322 | 503437 | 1427211 | 2.00<br>100 | 5.00<br>250 | 10.0 | 20.0 | 50.0 |
| Dibromochloromethane | CBZd 5 | Ave | 9097<br>582989 | 24663<br>1544832 | 49956 | 97832 | 290417 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,2-Dibromoethane (EDB) | CBZd 5 | Ave | 7956<br>442687 | 20030<br>1136711 | 40746 | 77838 | 225049 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1-Chlorohexane | CBZd 5 | Ave | 19704<br>995910 | 46401<br>2545795 | 89057 | 170447 | 509095 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Chlorobenzene | CBZd 5 | Ave | 34732<br>1872527 | 92274<br>4793510 | 173851 | 331442 | 953872 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,1,1,2-Tetrachloroethane | CBZd 5 | Ave | 11871<br>678162 | 30345<br>1740796 | 59106 | 117075 | 336401 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Ethylbenzene | CBZd 5 | Ave | 59702<br>3278221 | 160740<br>8361092 | 300446 | 572417 | 1673213 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| m&p-Xylene | CBZd 5 | Ave | 45724<br>2602971 | 127477<br>6611583 | 239751 | 455535 | 1325681 | 0.400<br>20.0 | 1.00<br>50.0 | 2.00 | 4.00 | 10.0 |
| o-Xylene | CBZd 5 | Ave | 22844 | 62976 | 115204 | 225160 | 655445 | 0.200 | 0.500 | 1.00 | 2.00 | 5.00 |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| | | | 1284350 | 3294215 | | | | 10.0 | 25.0 | | | |
| Styrene | CBZd 5 | Ave | 35508<br>2106471 | 99275<br>5384777 | 189931 | 364056 | 1063582 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Bromoform | CBZd 5 | Ave | 5180<br>363441 | 14486<br>973418 | 28833 | 57249 | 176181 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Isopropylbenzene | CBZd 5 | Ave | 59476<br>3411517 | 165096<br>8533967 | 310386 | 598946 | 1737611 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,1,2,2-Tetrachloroethane | DCBd 4 | Ave | 10699<br>586534 | 27777<br>1493325 | 54325 | 102513 | 293036 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Bromobenzene | DCBd 4 | Ave | 14657<br>800922 | 38617<br>2065190 | 72358 | 140306 | 405579 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| trans-1,4-Dichloro-2-butene | TBAd 10 | Ave | 23386<br>1486472 | 63065<br>3858821 | 127777 | 256704 | 739718 | 2.00<br>100 | 5.00<br>250 | 10.0 | 20.0 | 50.0 |
| 1,2,3-Trichloropropane | DCBd 4 | Ave | 2954<br>162926 | 7449<br>403698 | 14746 | 28724 | 81857 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| N-Propylbenzene | DCBd 4 | Ave | 69326<br>3955616 | 188239<br>9726346 | 355852 | 684747 | 1993107 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 2-Chlorotoluene | DCBd 4 | Ave | 13941<br>795839 | 38383<br>2063363 | 74353 | 141927 | 403661 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,3,5-Trimethylbenzene | DCBd 4 | Ave | 50366<br>2894636 | 137180<br>7311288 | 257721 | 494667 | 1448018 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 4-Chlorotoluene | DCBd 4 | Ave | 14590<br>805714 | 39370<br>2101375 | 75316 | 142990 | 414612 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| tert-Butylbenzene | DCBd 4 | Ave | 10568 | 30260 | 56868 | 110262 | 319038 | 0.200 | 0.500 | 1.00 | 2.00 | 5.00 |

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| | | | 633713 | 1619763 | | | | 10.0 | 25.0 | | | |
| Pentachloroethane | DCBd 4 | Ave | 8742<br>538681 | 21010<br>1393099 | 43712 | 91381 | 259289 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,2,4-Trimethylbenzene | DCBd 4 | Ave | 50685<br>2954664 | 139600<br>7486072 | 268890 | 508634 | 1496260 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| sec-Butylbenzene | DCBd 4 | Ave | 62740<br>3649559 | 171209<br>9236299 | 328234 | 633668 | 1842298 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,3-Dichlorobenzene | DCBd 4 | Ave | 28815<br>1638792 | 76475<br>4213523 | 150321 | 279932 | 812939 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| p-Isopropyltoluene | DCBd 4 | Ave | 56219<br>3231863 | 151465<br>8130505 | 288208 | 558603 | 1632038 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,4-Dichlorobenzene | DCBd 4 | Ave | 30392<br>1646605 | 79823<br>4235116 | 151116 | 287369 | 830653 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,2,3-Trimethylbenzene | DCBd 4 | Ave | 23351<br>1287655 | 63083<br>3282745 | 119238 | 228500 | 633734 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Benzyl chloride | DCBd 4 | Ave | 3297<br>266255 | 10785<br>695344 | 21047 | 42047 | 128109 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| n-Butylbenzene | DCBd 4 | Ave | 26239<br>1524448 | 68676<br>3913754 | 134228 | 258320 | 763485 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,2-Dichlorobenzene | DCBd 4 | Ave | 26871<br>1477507 | 69498<br>3740715 | 136312 | 264385 | 746995 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,2-Dibromo-3-Chloropropane | DCBd 4 | Ave | 1200<br>99189 | 3634<br>240431 | 7659 | 16104 | 44921 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,3,5-Trichlorobenzene | DCBd 4 | Ave | 20269 | 55476 | 105716 | 206620 | 610685 | 0.200 | 0.500 | 1.00 | 2.00 | 5.00 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3 | LVL 4 | LVL 5 |
| | | | 1237730 | 3113277 | | | | 10.0 | 25.0 | | | |
| 1,2,4-Trichlorobenzene | DCBd 4 | Ave | 17004<br>1055085 | 44434<br>2610571 | 91280 | 177445 | 518320 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Hexachlorobutadiene | DCBd 4 | Ave | 9764<br>421345 | 20700<br>1070139 | 37885 | 71973 | 207395 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Naphthalene | DCBd 4 | Ave | 35671<br>1968173 | 86939<br>4524102 | 173919 | 351951 | 958252 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| 1,2,3-Trichlorobenzene | DCBd 4 | Ave | 16298<br>892480 | 38854<br>2100548 | 78245 | 155892 | 439919 | 0.200<br>10.0 | 0.500<br>25.0 | 1.00 | 2.00 | 5.00 |
| Dibromofluoromethane (Surr) | FB | Ave | 550850<br>533065 | 602854<br>582034 | 547419 | 542329 | 533947 | 10.0<br>10.0 | 10.0<br>10.0 | 10.0 | 10.0 | 10.0 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 111473<br>107464 | 118060<br>117327 | 108914 | 108754 | 106534 | 10.0<br>10.0 | 10.0<br>10.0 | 10.0 | 10.0 | 10.0 |
| Toluene-d8 (Surr) | CBZd 5 | Ave | 2194797<br>2118631 | 2386226<br>2314329 | 2163909 | 2152292 | 2113101 | 10.0<br>10.0 | 10.0<br>10.0 | 10.0 | 10.0 | 10.0 |
| 4-Bromofluorobenzene (Surr) | CBZd 5 | Ave | 836413<br>806596 | 911479<br>900526 | 826851 | 815520 | 806331 | 10.0<br>10.0 | 10.0<br>10.0 | 10.0 | 10.0 | 10.0 |

Curve Type Legend
Ave = Average ISTD
Qua = Quadratic ISTD

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 410-163707/18 | IG23I07.D |
| Level 2 | IC 410-163707/17 | IG23I06.D |
| Level 3 | IC 410-163707/16 | IG23I05.D |
| Level 4 | IC 410-163707/15 | IG23I04.D |
| Level 5 | IC 410-163707/14 | IG23I03.D |
| Level 6 | ICIS 410-163707/13 | IG23I02.D |
| Level 7 | IC 410-163707/12 | IG23I01.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 |
| Dichlorodifluoromethane | +++++ 9.2 | -37.5 | -2.8 | -0.4 | 15.5 | 16.0 | 30 | 50 | 30 | 30 | 30 | 30 |
| Chloromethane | 4.9 -0.5 | -1.2 | -8.0 | -4.7 | 5.9 | 3.6 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| 1,3-Butadiene | 9.4 -1.0 | -15.1 | -1.8 | -2.4 | 7.6 | 3.3 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Vinyl chloride | 2.6 1.8 | -11.4 | -6.3 | -3.4 | 9.7 | 7.1 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Bromomethane | 7.8 -4.9 | -2.9 | -6.3 | -3.3 | 5.8 | 3.7 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Chloroethane | 5.0 -1.9 | -4.5 | -5.5 | -5.4 | 8.0 | 4.3 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Dichlorofluoromethane | 8.4 -3.0 | -6.2 | -6.4 | -3.8 | 6.9 | 4.0 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Trichlorofluoromethane | -12.2 5.1 | -28.8 | 0.2 | 0.9 | 19.5 | 15.3 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Ethyl ether | -2.4 1.8 | -12.0 | -7.2 | 0.2 | 9.2 | 10.5 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Freon 123a | -0.9 0.7 | -16.2 | -4.1 | -1.2 | 11.1 | 10.6 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Acrolein | -5.0 2.8 | -7.2 | 4.1 | -9.7 | 16.6 | -1.6 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| 1,1-Dichloroethene | -6.3 0.9 | -10.8 | 0.4 | -7.2 | 13.6 | 9.5 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Acetone | 22.2 -6.3 | -5.4 | -7.4 | -3.2 | 6.2 | -6.1 | 50 30 | 30 | 30 | 30 | 30 | 30 |
| Freon 113 | -28.1 11.5 | -22.2 | 2.8 | -5.1 | 22.8 | 18.3 | 50 30 | 30 | 30 | 30 | 30 | 30 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| 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 |
| Methyl iodide | -8.5<br>0.4 | -4.0 | -0.6 | -6.3 | 10.7 | 8.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Carbon disulfide | -5.3<br>3.4 | -7.6 | -4.8 | -7.7 | 12.3 | 9.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Methyl acetate | 25.0<br>-6.2 | -18.7 | -11.3 | 1.1 | 13.3 | -3.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Allyl chloride | 3.2<br>-1.1 | -4.1 | -2.7 | -9.0 | 8.4 | 5.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Methylene Chloride | -3.1<br>-1.3 | -4.5 | -2.2 | -5.2 | 8.9 | 7.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| t-Butyl alcohol | -3.5<br>-8.3 | -9.7 | -2.4 | 5.5 | 11.1 | 7.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Acrylonitrile | -9.4<br>4.5 | -12.3 | 3.2 | -7.1 | 20.4 | 0.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Methyl tert-butyl ether | -4.8<br>-0.7 | -7.8 | -1.3 | -4.8 | 10.5 | 9.0 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| trans-1,2-Dichloroethene | -2.8<br>-0.2 | -5.3 | -1.5 | -7.5 | 9.5 | 7.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| n-Hexane | -21.1<br>11.0 | -24.0 | -1.9 | -5.8 | 22.9 | 19.0 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,1-Dichloroethane | -7.9<br>0.7 | -3.0 | -2.5 | -4.6 | 9.6 | 7.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| di-Isopropyl ether | -3.8<br>0.0 | -5.8 | -2.1 | -5.0 | 9.5 | 7.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 2-Chloro-1,3-butadiene | -7.5<br>2.6 | -8.4 | -2.2 | -6.1 | 12.3 | 9.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Ethyl t-butyl ether | -3.5<br>-0.9 | -6.3 | -1.6 | -4.6 | 9.1 | 7.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 2-Butanone (MEK) | -7.8<br>2.1 | -1.3 | 3.4 | -9.0 | 15.0 | -2.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| cis-1,2-Dichloroethene | 2.1<br>-1.2 | -7.6 | -1.9 | -6.3 | 8.7 | 6.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 2,2-Dichloropropane | -9.1<br>2.0 | -5.3 | -1.7 | -6.4 | 11.8 | 8.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Propionitrile | -17.2<br>6.2 | -9.4 | 2.2 | -6.6 | 18.7 | 6.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Methacrylonitrile | -8.5<br>5.1 | -6.8 | 2.8 | -10.5 | 20.2 | -2.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| 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 |
| Bromochloromethane | -6.3<br>-1.0 | -5.6 | -0.7 | -3.1 | 9.0 | 7.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Tetrahydrofuran | -2.9<br>1.0 | -11.8 | 4.1 | -8.7 | 19.0 | -0.9 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Chloroform | -3.7<br>-0.9 | -4.5 | -0.7 | -6.0 | 8.9 | 6.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,1,1-Trichloroethane | -10.1<br>2.5 | -7.4 | -1.0 | -5.6 | 12.3 | 9.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Cyclohexane | -20.5<br>10.1 | -21.6 | 0.4 | -6.2 | 21.1 | 16.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,1-Dichloropropene | -10.1<br>4.0 | -10.3 | -1.5 | -5.8 | 13.0 | 10.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Carbon tetrachloride | -13.9<br>6.3 | -14.3 | -1.8 | -5.5 | 15.5 | 13.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Isobutyl alcohol | 4.3<br>-7.9 | -9.1 | 3.5 | -1.5 | 7.9 | 2.9 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Benzene | -4.1<br>-0.7 | -3.9 | -1.7 | -6.4 | 9.6 | 7.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2-Dichloroethane | 4.9<br>-1.9 | -5.2 | -1.2 | -9.1 | 7.2 | 5.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| t-Amyl methyl ether | -1.2<br>-0.5 | -8.1 | -2.6 | -4.4 | 8.3 | 8.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| n-Heptane | -4.0<br>4.4 | -15.8 | -0.6 | -10.1 | 15.1 | 10.9 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| n-Butanol | -14.3<br>-6.7 | -7.0 | 3.2 | -2.5 | 19.2 | 8.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Trichloroethene | -6.3<br>1.6 | -4.8 | -2.9 | -7.4 | 11.4 | 8.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Methylcyclohexane | -18.3<br>10.0 | -22.8 | -1.3 | -5.2 | 20.0 | 17.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2-Dichloropropane | -11.3<br>3.2 | -8.4 | -0.4 | -3.9 | 10.7 | 10.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Methyl methacrylate | -13.4<br>9.9 | -16.6 | 5.2 | -9.8 | 23.2 | 1.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,4-Dioxane | +++++<br>-17.8 | 35.8 | 5.7 | -5.7 | -8.4 | 4.1 | <br>30 | 50 | 30 | 30 | 30 | 30 |
| Dibromomethane | 1.3<br>0.6 | -9.5 | -3.9 | -4.6 | 8.9 | 7.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| 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 |
| Bromodichloromethane | -9.9<br>5.4 | -6.8 | -4.9 | -5.7 | 11.2 | 10.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 2-Nitropropane | -11.6<br>9.2 | -8.3 | 4.1 | -9.4 | 18.3 | -2.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| cis-1,3-Dichloropropene | -10.3<br>6.6 | -12.0 | -3.5 | -4.8 | 12.0 | 12.0 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 4-Methyl-2-pentanone (MIBK) | -8.5<br>5.2 | -9.1 | 3.7 | -8.8 | 18.8 | -1.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Toluene | -2.0<br>-2.1 | -3.7 | -1.6 | -7.3 | 9.9 | 6.9 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| trans-1,3-Dichloropropene | -11.0<br>6.0 | -11.8 | -4.3 | -5.1 | 12.7 | 13.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Ethyl methacrylate | -10.8<br>5.4 | -15.7 | -4.3 | -0.9 | 13.7 | 12.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,1,2-Trichloroethane | -2.3<br>-1.8 | -6.5 | -2.8 | -3.9 | 8.8 | 8.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Tetrachloroethene | -7.7<br>0.9 | -7.1 | -2.7 | -5.5 | 11.9 | 10.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,3-Dichloropropane | -1.8<br>-1.0 | -8.2 | -1.2 | -4.6 | 9.1 | 7.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 2-Hexanone | -16.0<br>8.1 | -9.6 | 2.3 | -9.7 | 24.2 | 0.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Dibromochloromethane | -13.1<br>8.3 | -14.2 | -3.4 | -5.1 | 13.5 | 14.0 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2-Dibromoethane (EDB) | -4.0<br>0.7 | -12.0 | -0.5 | -4.7 | 11.1 | 9.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1-Chlorohexane | 4.6<br>-0.8 | -10.3 | -4.3 | -8.1 | 10.6 | 8.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Chlorobenzene | -2.6<br>-1.4 | -5.8 | -1.4 | -5.7 | 9.4 | 7.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,1,1,2-Tetrachloroethane | -4.7<br>2.6 | -11.3 | -3.9 | -4.6 | 10.5 | 11.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Ethylbenzene | -3.7<br>-1.0 | -5.6 | -1.9 | -6.3 | 10.4 | 8.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| m&p-Xylene | -6.7<br>-0.9 | -5.3 | -0.9 | -5.6 | 10.7 | 8.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| o-Xylene | -5.5<br>0.0 | -5.2 | -3.5 | -5.5 | 10.9 | 8.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| 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 |
| Styrene | -9.0<br>1.3 | -7.4 | -1.5 | -5.3 | 11.4 | 10.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Bromoform | -17.4<br>13.9 | -15.9 | -6.9 | -7.3 | 14.9 | 18.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Isopropylbenzene | -6.8<br>-1.9 | -5.8 | -1.6 | -4.7 | 11.3 | 9.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,1,2,2-Tetrachloroethane | -4.4<br>-0.7 | -8.8 | -0.5 | -5.8 | 10.1 | 10.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Bromobenzene | -4.4<br>0.3 | -7.5 | -3.3 | -5.9 | 11.2 | 9.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| trans-1,4-Dichloro-2-butene | -18.4<br>13.9 | -12.2 | 1.1 | -10.8 | 24.6 | 1.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2,3-Trichloropropane | -4.0<br>-2.3 | -11.1 | -1.8 | -4.0 | 11.9 | 11.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| N-Propylbenzene | -6.9<br>-2.7 | -7.1 | -2.0 | -5.4 | 12.5 | 11.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 2-Chlorotoluene | -8.7<br>0.6 | -7.7 | -0.2 | -4.5 | 11.1 | 9.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,3,5-Trimethylbenzene | -7.4<br>0.1 | -7.3 | -2.8 | -6.4 | 12.0 | 11.9 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 4-Chlorotoluene | -6.5<br>0.3 | -7.3 | -1.1 | -5.7 | 11.7 | 8.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| tert-Butylbenzene | -11.4<br>1.1 | -6.8 | -2.3 | -4.9 | 12.5 | 11.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Pentachloroethane | -9.2<br>7.7 | -19.9 | -7.0 | -2.4 | 13.2 | 17.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2,4-Trimethylbenzene | -9.1<br>0.0 | -8.0 | -1.1 | -6.1 | 12.9 | 11.4 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| sec-Butylbenzene | -8.7<br>0.1 | -8.5 | -2.1 | -5.2 | 12.7 | 11.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,3-Dichlorobenzene | -6.8<br>1.4 | -9.2 | -0.4 | -6.9 | 10.5 | 11.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| p-Isopropyltoluene | -7.5<br>-0.4 | -8.4 | -2.8 | -5.5 | 12.9 | 11.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,4-Dichlorobenzene | -3.9<br>-0.3 | -7.2 | -2.0 | -6.5 | 10.5 | 9.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2,3-Trimethylbenzene | -5.3<br>-0.9 | -6.0 | -0.9 | -4.7 | 8.1 | 9.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-53151-1 Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

| 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 |
| Benzyl chloride | -28.0<br>13.1 | -13.5 | -5.8 | -5.6 | 17.6 | 22.2 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| n-Butylbenzene | -7.6<br>2.6 | -11.2 | -3.1 | -6.5 | 13.0 | 12.8 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2-Dichlorobenzene | -4.9<br>-1.5 | -9.7 | -1.1 | -3.8 | 11.1 | 9.9 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2-Dibromo-3-Chloropropane | -27.1<br>8.7 | -18.9 | -4.6 | 0.6 | 14.7 | 26.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,3,5-Trichlorobenzene | -10.4<br>2.4 | -10.0 | -4.3 | -6.1 | 13.4 | 14.9 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2,4-Trichlorobenzene | -11.0<br>1.8 | -14.5 | -2.0 | -4.4 | 14.1 | 16.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Hexachlorobutadiene | 17.7<br>-4.0 | -8.3 | -6.4 | -10.8 | 5.1 | 6.7 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Naphthalene | -2.0<br>-7.5 | -12.3 | -2.1 | -0.6 | 10.7 | 13.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2,3-Trichlorobenzene | -1.3<br>-5.2 | -13.5 | -2.8 | -2.9 | 12.1 | 13.6 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Dibromofluoromethane (Surr) | -0.8<br>-0.2 | 0.3 | 0.2 | 0.5 | 0.2 | -0.3 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 1,2-Dichloroethane-d4 (Surr) | 0.4<br>0.6 | -1.8 | -0.3 | 0.8 | -0.1 | 0.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| Toluene-d8 (Surr) | 1.1<br>-2.2 | 0.0 | 0.9 | 0.7 | -0.5 | -0.1 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |
| 4-Bromofluorobenzene (Surr) | 0.8<br>-0.4 | 0.0 | 0.9 | -0.2 | -0.6 | -0.5 | 50<br>30 | 30 | 30 | 30 | 30 | 30 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I01.D
Lims ID: IC std7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Aug-2021 00:45:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-012
Misc. Info.: IC STD7
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:02 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:00:56

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.977 | 1.965 | 0.012 | 99 | 1976750 | 25.0 | 27.3 | |
| 4 Chloromethane | 50 | 2.172 | 2.172 | 0.000 | 99 | 2051431 | 25.0 | 24.9 | |
| 6 Butadiene | 39 | 2.294 | 2.288 | 0.006 | 90 | 1874306 | 25.0 | 24.7 | |
| 5 Vinyl chloride | 62 | 2.294 | 2.294 | 0.000 | 96 | 2115370 | 25.0 | 25.4 | |
| 7 Bromomethane | 94 | 2.623 | 2.623 | 0.000 | 91 | 1433103 | 25.0 | 23.8 | |
| 8 Chloroethane | 64 | 2.709 | 2.709 | 0.000 | 100 | 1221840 | 25.0 | 24.5 | |
| 9 Dichlorofluoromethane | 67 | 2.946 | 2.946 | 0.000 | 97 | 2906691 | 25.0 | 24.3 | |
| 10 Trichlorofluoromethane | 101 | 3.013 | 3.020 | -0.007 | 97 | 2814367 | 25.0 | 26.3 | |
| 11 Ethyl ether | 59 | 3.263 | 3.257 | 0.006 | 90 | 1108291 | 25.0 | 25.5 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.355 | 3.343 | 0.012 | 91 | 1932434 | 25.0 | 25.2 | |
| 13 Acrolein | 56 | 3.434 | 3.428 | 0.006 | 99 | 8611114 | 1250.0 | 1284.9 | |
| 14 1,1-Dichloroethene | 96 | 3.574 | 3.568 | 0.006 | 98 | 1392957 | 25.0 | 25.2 | |
| 15 Acetone | 43 | 3.605 | 3.599 | 0.006 | 100 | 1994344 | 250.0 | 234.1 | |
| 16 112TCTFE | 101 | 3.617 | 3.611 | 0.006 | 91 | 1607495 | 25.0 | 27.9 | |
| 17 Iodomethane | 142 | 3.776 | 3.769 | 0.007 | 99 | 2772320 | 25.0 | 25.1 | |
| 18 Ethyl bromide | 108 | 3.806 | 3.794 | 0.012 | 99 | 1256154 | 25.0 | 25.0 | |
| 19 Carbon disulfide | 76 | 3.885 | 3.879 | 0.006 | 99 | 3939815 | 25.0 | 25.8 | |
| 21 Methyl acetate | 43 | 4.032 | 4.038 | -0.006 | 97 | 587766 | 25.0 | 23.4 | |
| 22 3-Chloro-1-propene | 41 | 4.056 | 4.056 | 0.000 | 91 | 2240583 | 25.0 | 24.7 | |
| 23 Methylene Chloride | 84 | 4.245 | 4.239 | 0.006 | 91 | 1487176 | 25.0 | 24.7 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.263 | -0.006 | 95 | 153335 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.391 | 4.397 | -0.006 | 100 | 1480411 | 500.0 | 458.5 | |
| 26 Acrylonitrile | 53 | 4.586 | 4.592 | -0.006 | 100 | 741706 | 62.5 | 65.3 | |
| 27 Methyl tert-butyl ether | 73 | 4.653 | 4.659 | -0.006 | 95 | 3912928 | 25.0 | 24.8 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.672 | 4.672 | 0.000 | 99 | 1566059 | 25.0 | 25.0 | |
| 29 Hexane | 57 | 5.092 | 5.086 | 0.006 | 91 | 2431187 | 25.0 | 27.7 | |
| 31 1,1-Dichloroethane | 63 | 5.330 | 5.330 | 0.000 | 96 | 2865291 | 25.0 | 25.2 | |
| 32 Isopropyl ether | 45 | 5.385 | 5.385 | 0.000 | 94 | 4752763 | 25.0 | 25.0 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.440 | 5.434 | 0.006 | 91 | 2435652 | 25.0 | 25.7 | |
| 34 Tert-butyl ethyl ether | 59 | 5.921 | 5.915 | 0.006 | 97 | 4606991 | 25.0 | 24.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.129 | 6.116 | 0.013 | 99 | 3797344 | 250.0 | 255.3 | |
| S 35 1,2-Dichloroethene, Total | 100 | | | | 0 | | | 49.7 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.159 | 0.000 | 82 | 1726698 | 25.0 | 24.7 | |
| 38 2,2-Dichloropropane | 77 | 6.177 | 6.171 | 0.006 | 86 | 2523281 | 25.0 | 25.5 | |
| 40 Propionitrile | 54 | 6.208 | 6.208 | 0.000 | 99 | 2097921 | 500.0 | 531.1 | |
| 42 Methacrylonitrile | 67 | 6.427 | 6.415 | 0.012 | 91 | 3924933 | 250.0 | 262.6 | |
| 43 Chlorobromomethane | 128 | 6.488 | 6.482 | 0.006 | 89 | 746910 | 25.0 | 24.8 | |
| 44 Tetrahydrofuran | 71 | 6.501 | 6.494 | 0.007 | 79 | 557004 | 125.0 | 126.3 | |
| 45 Chloroform | 83 | 6.641 | 6.635 | 0.006 | 93 | 2794705 | 25.0 | 24.8 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.848 | 0.006 | 94 | 582034 | 10.0 | 9.98 | |
| 47 1,1,1-Trichloroethane | 97 | 6.866 | 6.860 | 0.006 | 98 | 2684937 | 25.0 | 25.6 | |
| 48 Cyclohexane | 56 | 6.964 | 6.964 | 0.000 | 89 | 2858999 | 25.0 | 27.5 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.067 | 0.013 | 87 | 2403582 | 25.0 | 26.6 | |
| 51 1,1-Dichloropropene | 75 | 7.074 | 7.074 | 0.000 | 96 | 2298795 | 25.0 | 26.0 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 95 | 1185567 | 1250.0 | 1150.8 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 84 | 117327 | 10.0 | 10.1 | |
| 54 Benzene | 78 | 7.336 | 7.336 | 0.000 | 96 | 6462549 | 25.0 | 24.8 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.409 | 0.000 | 98 | 1729238 | 25.0 | 24.5 | |
| 57 Tert-amyl methyl ether | 73 | 7.525 | 7.519 | 0.006 | 98 | 4293680 | 25.0 | 24.9 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2314551 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.750 | 7.744 | 0.006 | 90 | 2352079 | 25.0 | 26.1 | |
| 60 n-Butanol | 56 | 8.092 | 8.098 | -0.006 | 87 | 1950741 | 2187.5 | 2039.9 | |
| 61 Trichloroethene | 95 | 8.220 | 8.214 | 0.006 | 97 | 1777081 | 25.0 | 25.4 | |
| 62 Methylcyclohexane | 83 | 8.525 | 8.525 | 0.000 | 93 | 3199658 | 25.0 | 27.5 | |
| 63 1,2-Dichloropropane | 63 | 8.549 | 8.543 | 0.006 | 93 | 1648952 | 25.0 | 25.8 | |
| 64 Methyl methacrylate | 69 | 8.622 | 8.628 | -0.006 | 89 | 807321 | 25.0 | 27.5 | |
| 65 1,4-Dioxane | 88 | 8.634 | 8.640 | -0.006 | 32 | 203588 | 1250.0 | 1026.9 | M |
| 66 Dibromomethane | 93 | 8.659 | 8.653 | 0.006 | 93 | 785220 | 25.0 | 25.1 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.890 | 0.000 | 99 | 2042180 | 25.0 | 26.4 | |
| 69 2-Nitropropane | 41 | 9.153 | 9.152 | 0.000 | 97 | 1146903 | 125.0 | 136.5 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.281 | 9.280 | 0.001 | 98 | 1613213 | 25.0 | 25.7 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.433 | 0.000 | 98 | 2594937 | 25.0 | 26.7 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.604 | 9.597 | 0.007 | 95 | 9850003 | 250.0 | 263.0 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2314329 | 10.0 | 9.78 | |
| 76 Toluene | 92 | 9.817 | 9.811 | 0.006 | 98 | 4295450 | 25.0 | 24.5 | |
| S 77 1,3-Dichloropropene, Total | 100 | | | | 0 | | | 53.2 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 2144165 | 25.0 | 26.5 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.128 | 0.000 | 88 | 1779294 | 25.0 | 26.3 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 91 | 1148961 | 25.0 | 24.5 | |
| 81 Tetrachloroethene | 166 | 10.360 | 10.360 | 0.000 | 98 | 2109166 | 25.0 | 25.2 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.433 | 0.000 | 88 | 1970914 | 25.0 | 24.8 | |
| 83 2-Hexanone | 43 | 10.482 | 10.481 | 0.001 | 96 | 7089653 | 250.0 | 270.3 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 90 | 1544832 | 25.0 | 27.1 | |
| 86 Ethylene Dibromide | 107 | 10.762 | 10.756 | 0.006 | 99 | 1136711 | 25.0 | 25.2 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.183 | 0.000 | 86 | 1830649 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.189 | 11.189 | 0.000 | 96 | 2545795 | 25.0 | 24.8 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 95 | 4793510 | 25.0 | 24.7 | |
| S 89 Xylenes, Total | 106 | | | | 0 | | | 74.5 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 97 | 1740796 | 25.0 | 25.6 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.298 | 0.000 | 98 | 8361092 | 25.0 | 24.7 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 99 | 6611583 | 50.0 | 49.5 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 3294215 | 25.0 | 25.0 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 95 Styrene | 104 | 11.756 | 11.756 | 0.000 | 95 | 5384777 | 25.0 | 25.3 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 98 | 973418 | 25.0 | 28.5 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 96 | 8533967 | 25.0 | 24.5 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 92 | 900526 | 10.0 | 9.96 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 93 | 1493325 | 25.0 | 24.8 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 95 | 2065190 | 25.0 | 25.1 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 91 | 3858821 | 250.0 | 284.8 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.000 | 81 | 403698 | 25.0 | 24.4 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 98 | 9726346 | 25.0 | 24.3 | |
| 106 2-Chlorotoluene | 126 | 12.445 | 12.444 | 0.001 | 97 | 2063363 | 25.0 | 25.1 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 7311288 | 25.0 | 25.0 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 2101375 | 25.0 | 25.1 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 93 | 1619763 | 25.0 | 25.3 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 94 | 1393099 | 25.0 | 26.9 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 7486072 | 25.0 | 25.0 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.902 | 0.006 | 96 | 9236299 | 25.0 | 25.0 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 4213523 | 25.0 | 25.4 | |
| 114 4-Isopropyltoluene | 119 | 13.012 | 13.011 | 0.001 | 96 | 8130505 | 25.0 | 24.9 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 93 | 1087615 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.079 | 13.079 | 0.000 | 94 | 4235116 | 25.0 | 24.9 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.085 | 0.006 | 98 | 3282745 | 25.0 | 24.8 | |
| 118 Benzyl chloride | 126 | 13.152 | 13.158 | -0.006 | 98 | 695344 | 25.0 | 28.3 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 3913754 | 25.0 | 25.6 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.000 | 99 | 3740715 | 25.0 | 24.6 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 90 | 240431 | 25.0 | 27.2 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 3113277 | 25.0 | 25.6 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 2610571 | 25.0 | 25.4 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 1070139 | 25.0 | 24.0 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 4524102 | 25.0 | 23.1 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.749 | 14.755 | -0.006 | 96 | 2100548 | 25.0 | 23.7 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| MSV_LL_#1_826_00015 | Amount Added: 25.00 | Units: uL | |
| MSV_LL_#2_826_00015 | Amount Added: 25.00 | Units: uL | |
| MSV_LL_GAS826_00027 | Amount Added: 25.00 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: 5.00 | Units: uL | Run Reagent |

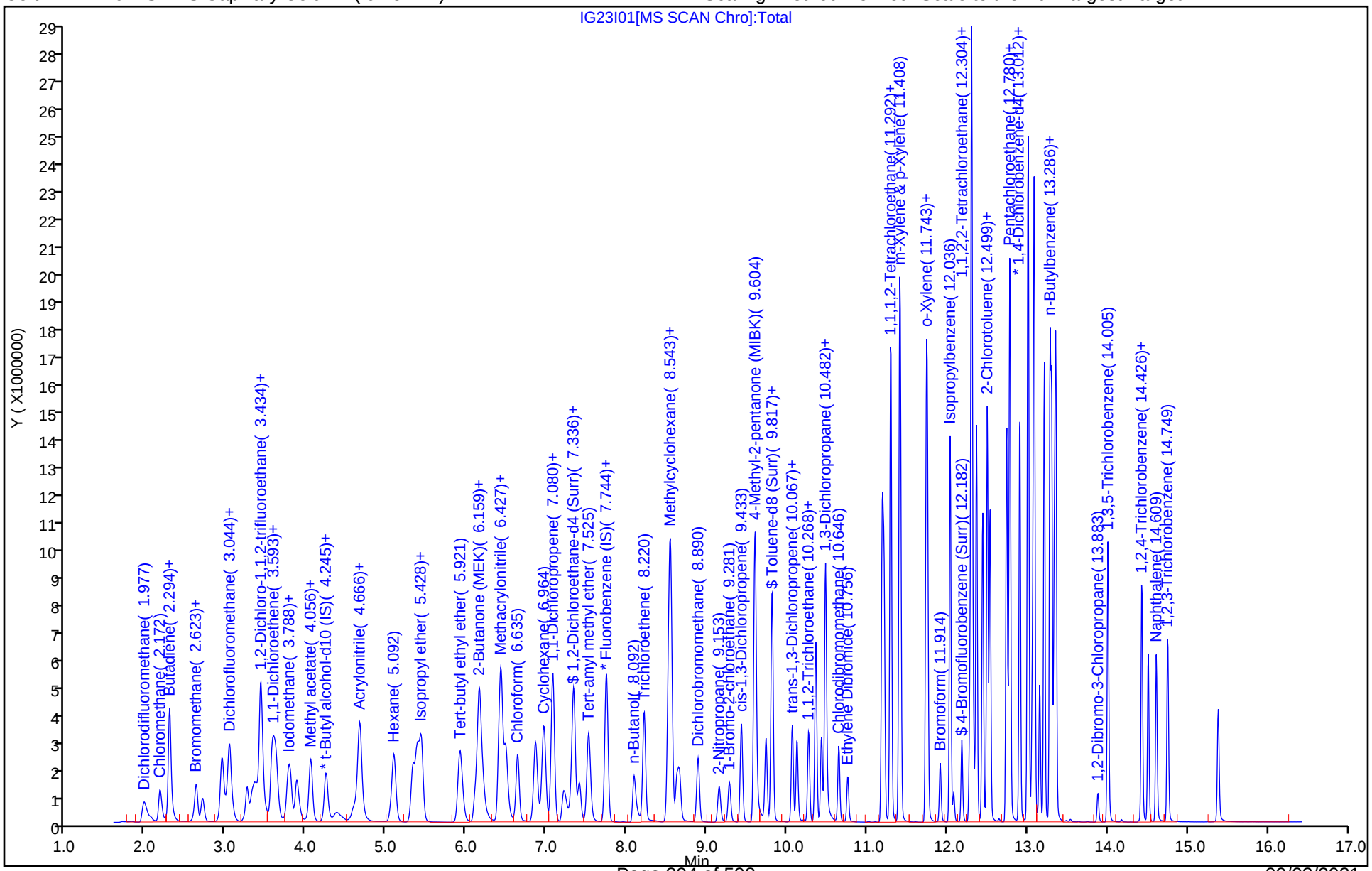
Report Date: 24-Aug-2021 15:55:02 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I01.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Aug-2021 00:45:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std7 | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

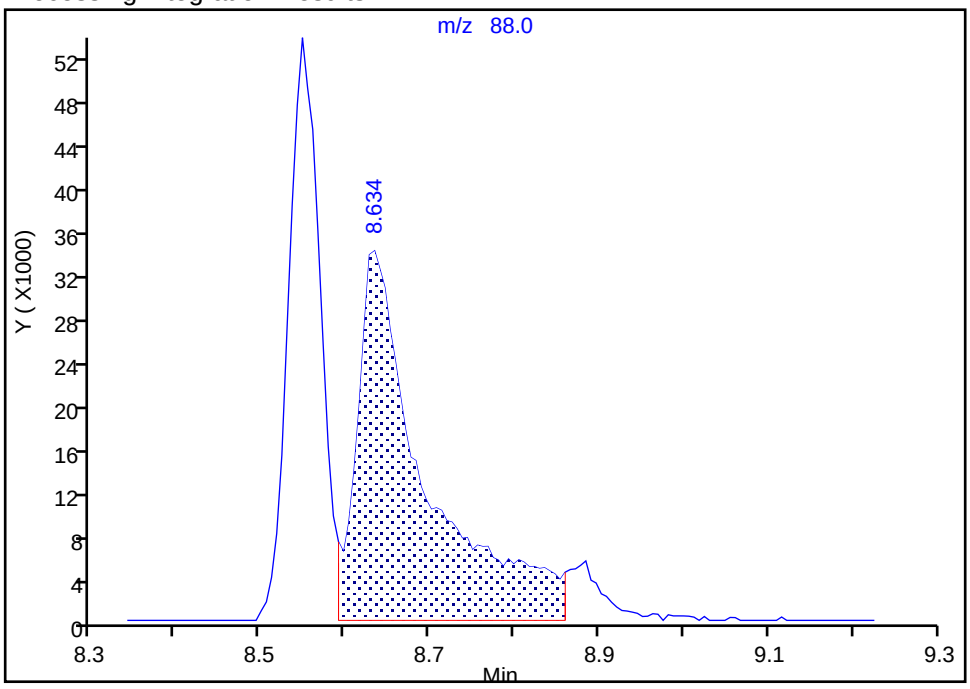
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I01.D | | | | |
| Injection Date: | 24-Aug-2021 00:45:30 | Instrument ID: | 19930 | | |
| Lims ID: | IC std7 | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 11 | Worklist Smp#: | 12 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

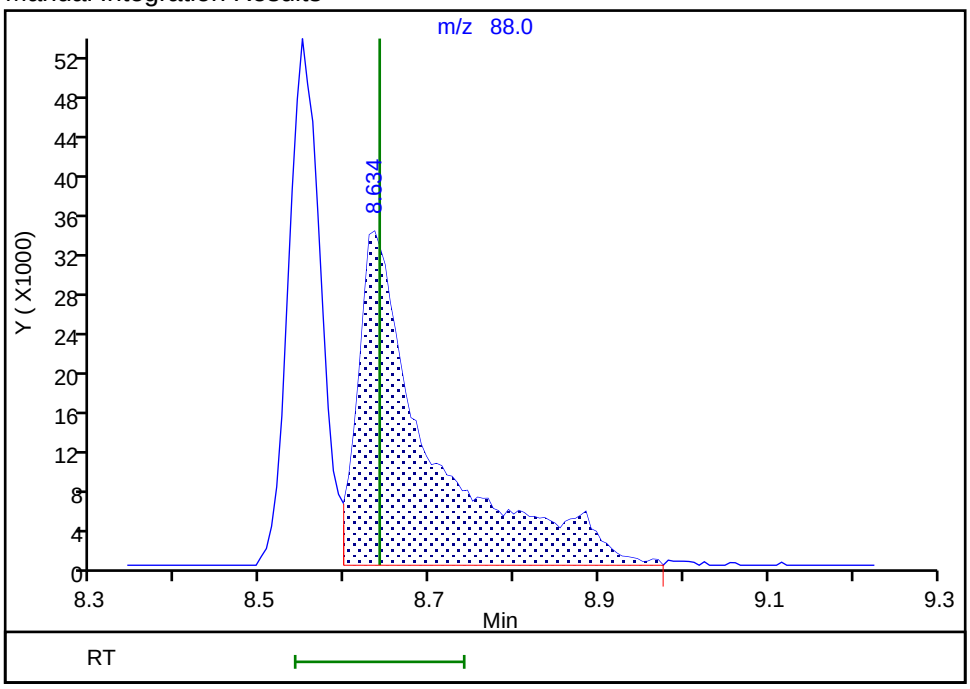
Processing Integration Results

RT: 8.63
Area: 191805
Amount: 912.6603
Amount Units: ug/l




Manual Integration Results

RT: 8.63
Area: 203588
Amount: 1026.9040
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:03:46
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I02.D
Lims ID: ICIS - LG
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 24-Aug-2021 01:06:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-013
Misc. Info.: ICIS - LG
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:07 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: spositok Date: 24-Aug-2021 14:22:38

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.983 | 1.983 | 0.000 | 99 | 769929 | 10.0 | 11.6 | |
| 4 Chloromethane | 50 | 2.184 | 2.184 | 0.000 | 99 | 783649 | 10.0 | 10.4 | |
| 6 Butadiene | 39 | 2.300 | 2.300 | 0.000 | 90 | 717606 | 10.0 | 10.3 | |
| 5 Vinyl chloride | 62 | 2.300 | 2.300 | 0.000 | 97 | 816639 | 10.0 | 10.7 | |
| 7 Bromomethane | 94 | 2.635 | 2.635 | 0.000 | 90 | 573256 | 10.0 | 10.4 | |
| 8 Chloroethane | 64 | 2.715 | 2.715 | 0.000 | 100 | 476638 | 10.0 | 10.4 | |
| 9 Dichlorofluoromethane | 67 | 2.952 | 2.952 | 0.000 | 97 | 1143054 | 10.0 | 10.4 | |
| 10 Trichlorofluoromethane | 101 | 3.026 | 3.026 | 0.000 | 97 | 1133164 | 10.0 | 11.5 | |
| 11 Ethyl ether | 59 | 3.269 | 3.269 | 0.000 | 90 | 440991 | 10.0 | 11.0 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.355 | 3.355 | 0.000 | 91 | 778462 | 10.0 | 11.1 | |
| 13 Acrolein | 56 | 3.440 | 3.440 | 0.000 | 99 | 3553431 | 500.0 | 492.1 | |
| 14 1,1-Dichloroethene | 96 | 3.580 | 3.580 | 0.000 | 98 | 554846 | 10.0 | 11.0 | |
| 15 Acetone | 43 | 3.611 | 3.611 | 0.000 | 100 | 861750 | 100.0 | 93.9 | |
| 16 112TCTFE | 101 | 3.623 | 3.623 | 0.000 | 91 | 625953 | 10.0 | 11.8 | |
| 17 Iodomethane | 142 | 3.781 | 3.781 | 0.000 | 99 | 1095984 | 10.0 | 10.8 | |
| 18 Ethyl bromide | 108 | 3.812 | 3.812 | 0.000 | 99 | 498873 | 10.0 | 10.8 | |
| 19 Carbon disulfide | 76 | 3.891 | 3.891 | 0.000 | 99 | 1534600 | 10.0 | 11.0 | |
| 21 Methyl acetate | 43 | 4.031 | 4.031 | 0.000 | 97 | 261567 | 10.0 | 9.68 | |
| 22 3-Chloro-1-propene | 41 | 4.068 | 4.068 | 0.000 | 91 | 874837 | 10.0 | 10.5 | |
| 23 Methylene Chloride | 84 | 4.257 | 4.257 | 0.000 | 91 | 593991 | 10.0 | 10.7 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.269 | 4.269 | 0.000 | 96 | 165205 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.385 | 4.385 | 0.000 | 100 | 745936 | 200.0 | 214.4 | |
| 26 Acrylonitrile | 53 | 4.592 | 4.592 | 0.000 | 100 | 307786 | 25.0 | 25.2 | |
| 27 Methyl tert-butyl ether | 73 | 4.665 | 4.665 | 0.000 | 94 | 1574902 | 10.0 | 10.9 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.678 | 4.678 | 0.000 | 100 | 619693 | 10.0 | 10.8 | |
| 29 Hexane | 57 | 5.104 | 5.104 | 0.000 | 91 | 955763 | 10.0 | 11.9 | |
| 31 1,1-Dichloroethane | 63 | 5.336 | 5.336 | 0.000 | 96 | 1124834 | 10.0 | 10.8 | |
| 32 Isopropyl ether | 45 | 5.391 | 5.391 | 0.000 | 94 | 1870451 | 10.0 | 10.7 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.446 | 5.446 | 0.000 | 90 | 951023 | 10.0 | 10.9 | |
| 34 Tert-butyl ethyl ether | 59 | 5.921 | 5.921 | 0.000 | 97 | 1838180 | 10.0 | 10.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.122 | 6.122 | 0.000 | 99 | 1563634 | 100.0 | 97.6 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.159 | 0.000 | 82 | 679972 | 10.0 | 10.6 | |
| 38 2,2-Dichloropropane | 77 | 6.177 | 6.177 | 0.000 | 86 | 987902 | 10.0 | 10.9 | |
| 40 Propionitrile | 54 | 6.208 | 6.208 | 0.000 | 99 | 903317 | 200.0 | 212.2 | |
| 42 Methacrylonitrile | 67 | 6.427 | 6.427 | 0.000 | 90 | 1573429 | 100.0 | 97.7 | |
| 43 Chlorobromomethane | 128 | 6.488 | 6.488 | 0.000 | 91 | 297719 | 10.0 | 10.8 | |
| 44 Tetrahydrofuran | 71 | 6.500 | 6.500 | 0.000 | 77 | 235618 | 50.0 | 49.6 | |
| 45 Chloroform | 83 | 6.641 | 6.641 | 0.000 | 93 | 1104772 | 10.0 | 10.7 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.854 | 0.000 | 94 | 533065 | 10.0 | 9.97 | |
| 47 1,1,1-Trichloroethane | 97 | 6.866 | 6.866 | 0.000 | 98 | 1048975 | 10.0 | 10.9 | |
| 48 Cyclohexane | 56 | 6.970 | 6.970 | 0.000 | 89 | 1113121 | 10.0 | 11.7 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.080 | 0.000 | 89 | 943497 | 10.0 | 11.4 | |
| 51 1,1-Dichloropropene | 75 | 7.080 | 7.080 | 0.000 | 96 | 898023 | 10.0 | 11.1 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 95 | 570979 | 500.0 | 514.4 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.305 | 0.000 | 83 | 107464 | 10.0 | 10.0 | |
| 54 Benzene | 78 | 7.342 | 7.342 | 0.000 | 96 | 2556166 | 10.0 | 10.7 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.409 | 0.000 | 98 | 680372 | 10.0 | 10.5 | |
| 57 Tert-amyl methyl ether | 73 | 7.525 | 7.525 | 0.000 | 99 | 1715769 | 10.0 | 10.8 | |
| * 58 Fluorobenzene (IS) | 96 | 7.744 | 7.744 | 0.000 | 99 | 2122537 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.750 | 7.750 | 0.000 | 92 | 916472 | 10.0 | 11.1 | |
| 60 n-Butanol | 56 | 8.098 | 8.098 | 0.000 | 87 | 975208 | 875.0 | 946.5 | |
| 61 Trichloroethene | 95 | 8.220 | 8.220 | 0.000 | 97 | 695086 | 10.0 | 10.8 | |
| 62 Methylcyclohexane | 83 | 8.524 | 8.524 | 0.000 | 93 | 1254685 | 10.0 | 11.8 | |
| 63 1,2-Dichloropropane | 63 | 8.549 | 8.549 | 0.000 | 77 | 645492 | 10.0 | 11.0 | |
| 64 Methyl methacrylate | 69 | 8.628 | 8.628 | 0.000 | 89 | 320765 | 10.0 | 10.1 | |
| 65 1,4-Dioxane | 88 | 8.640 | 8.640 | 0.000 | 42 | 153335 | 500.0 | 520.7 | |
| 66 Dibromomethane | 93 | 8.659 | 8.659 | 0.000 | 93 | 307242 | 10.0 | 10.7 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.890 | 0.000 | 99 | 786321 | 10.0 | 11.1 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 98 | 442348 | 50.0 | 48.9 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.280 | 9.280 | 0.000 | 99 | 642543 | 10.0 | 11.2 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.433 | 0.000 | 97 | 999345 | 10.0 | 11.2 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.603 | 9.603 | 0.000 | 96 | 3982955 | 100.0 | 98.7 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2118631 | 10.0 | 10.0 | |
| 76 Toluene | 92 | 9.817 | 9.817 | 0.000 | 98 | 1680421 | 10.0 | 10.7 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 822825 | 10.0 | 11.3 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.128 | 0.000 | 88 | 681452 | 10.0 | 11.3 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 90 | 455229 | 10.0 | 10.9 | |
| 81 Tetrachloroethene | 166 | 10.359 | 10.359 | 0.000 | 98 | 825293 | 10.0 | 11.0 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.433 | 0.000 | 88 | 768446 | 10.0 | 10.8 | |
| 83 2-Hexanone | 43 | 10.481 | 10.481 | 0.000 | 96 | 2847614 | 100.0 | 100.8 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 90 | 582989 | 10.0 | 11.4 | |
| 86 Ethylene Dibromide | 107 | 10.762 | 10.762 | 0.000 | 98 | 442687 | 10.0 | 10.9 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.182 | 0.000 | 85 | 1640634 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.189 | 11.189 | 0.000 | 95 | 995910 | 10.0 | 10.8 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 95 | 1872527 | 10.0 | 10.7 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 96 | 678162 | 10.0 | 11.1 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.298 | 0.000 | 98 | 3278221 | 10.0 | 10.8 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 100 | 2602971 | 20.0 | 21.8 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 1284350 | 10.0 | 10.9 | |
| 95 Styrene | 104 | 11.756 | 11.756 | 0.000 | 95 | 2106471 | 10.0 | 11.1 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 98 | 363441 | 10.0 | 11.9 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 3411517 | 10.0 | 10.9 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 806596 | 10.0 | 9.95 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 93 | 586534 | 10.0 | 11.0 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 94 | 800922 | 10.0 | 11.0 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 91 | 1486472 | 100.0 | 101.8 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.000 | 83 | 162926 | 10.0 | 11.1 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 3955616 | 10.0 | 11.2 | |
| 106 2-Chlorotoluene | 126 | 12.444 | 12.444 | 0.000 | 97 | 795839 | 10.0 | 10.9 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 2894636 | 10.0 | 11.2 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 805714 | 10.0 | 10.9 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 93 | 633713 | 10.0 | 11.2 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 92 | 538681 | 10.0 | 11.8 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 2954664 | 10.0 | 11.1 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.908 | 0.000 | 94 | 3649559 | 10.0 | 11.2 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 1638792 | 10.0 | 11.1 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 3231863 | 10.0 | 11.2 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 963407 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.078 | 13.078 | 0.000 | 95 | 1646605 | 10.0 | 10.9 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.091 | 0.000 | 98 | 1287655 | 10.0 | 11.0 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 266255 | 10.0 | 12.2 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 1524448 | 10.0 | 11.3 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.000 | 99 | 1477507 | 10.0 | 11.0 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 89 | 99189 | 10.0 | 12.7 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 1237730 | 10.0 | 11.5 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 1055085 | 10.0 | 11.6 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 421345 | 10.0 | 10.7 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 1968173 | 10.0 | 11.4 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 892480 | 10.0 | 11.4 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

| | | | |
|---|---|---|---|
| MSV_LL_#1_826_00015 | Amount Added: 10.00 | Units: uL | |
| MSV_LL_#2_826_00015 | Amount Added: 10.00 | Units: uL | |
| MSV_LL_GAS826_00027 | Amount Added: 10.00 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: 5.00 | Units: uL | Run Reagent |

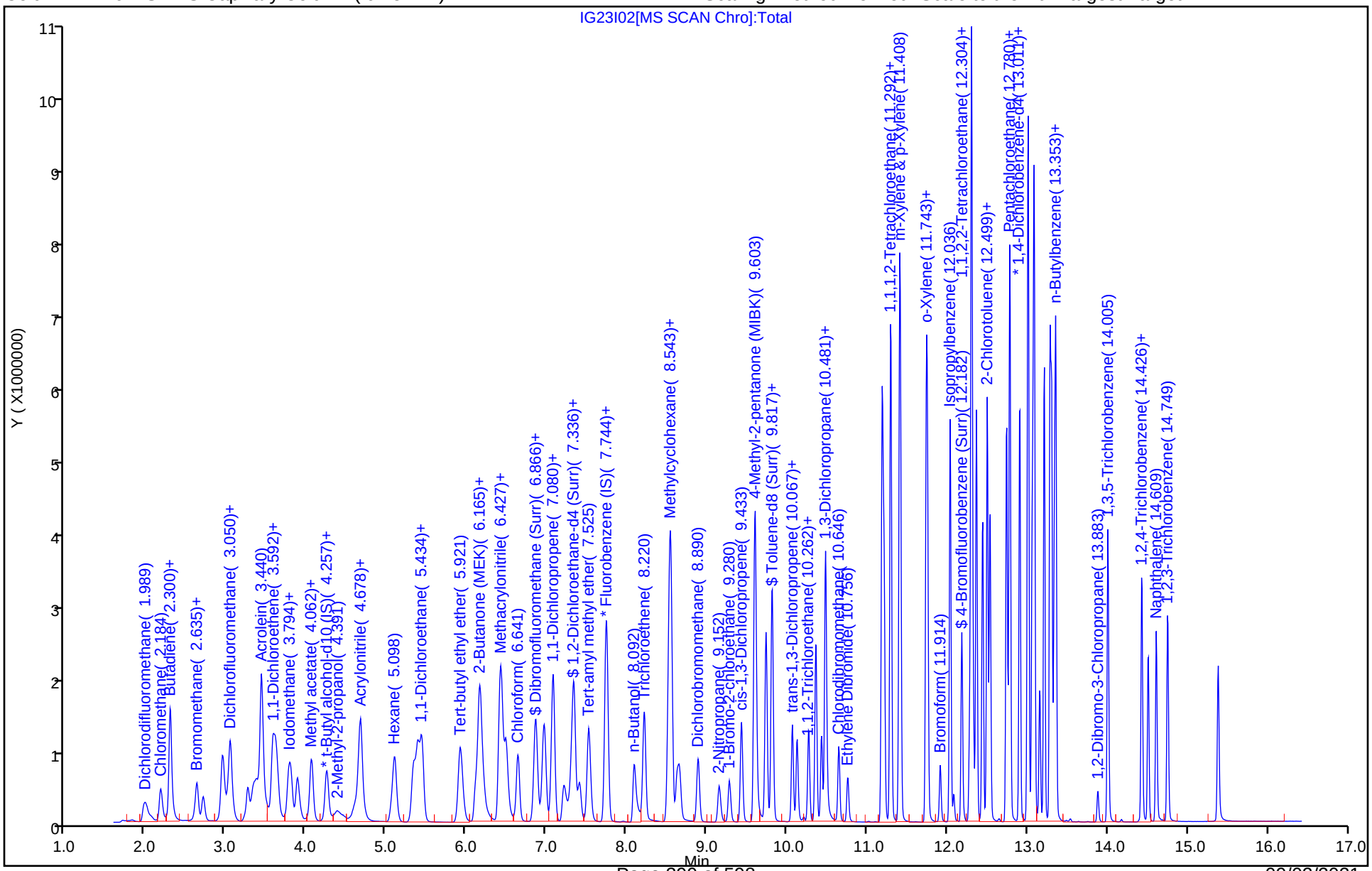
Report Date: 24-Aug-2021 15:55:07 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I02.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Aug-2021 01:06:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | ICIS - LG | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.D
Lims ID: IC std5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Aug-2021 01:27:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-014
Misc. Info.: IC STD5
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:11 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:02:47

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.977 | 1.983 | -0.006 | 99 | 382263 | 5.00 | 5.78 | |
| 4 Chloromethane | 50 | 2.178 | 2.184 | -0.006 | 99 | 399273 | 5.00 | 5.30 | |
| 6 Butadiene | 39 | 2.294 | 2.300 | -0.006 | 89 | 372442 | 5.00 | 5.38 | |
| 5 Vinyl chloride | 62 | 2.294 | 2.300 | -0.006 | 98 | 416864 | 5.00 | 5.48 | |
| 7 Bromomethane | 94 | 2.623 | 2.635 | -0.012 | 92 | 291289 | 5.00 | 5.29 | |
| 8 Chloroethane | 64 | 2.709 | 2.715 | -0.006 | 100 | 245993 | 5.00 | 5.40 | |
| 9 Dichlorofluoromethane | 67 | 2.946 | 2.952 | -0.006 | 97 | 585859 | 5.00 | 5.35 | |
| 10 Trichlorofluoromethane | 101 | 3.019 | 3.026 | -0.007 | 97 | 585022 | 5.00 | 5.97 | |
| 11 Ethyl ether | 59 | 3.257 | 3.269 | -0.012 | 91 | 217146 | 5.00 | 5.46 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.349 | 3.355 | -0.006 | 92 | 389865 | 5.00 | 5.56 | |
| 13 Acrolein | 56 | 3.434 | 3.440 | -0.006 | 99 | 1712613 | 250.0 | 291.6 | |
| 14 1,1-Dichloroethene | 96 | 3.574 | 3.580 | -0.006 | 98 | 286821 | 5.00 | 5.68 | |
| 15 Acetone | 43 | 3.605 | 3.611 | -0.006 | 100 | 396518 | 50.0 | 53.1 | |
| 16 112TCTFE | 101 | 3.617 | 3.623 | -0.006 | 90 | 323788 | 5.00 | 6.14 | |
| 17 Iodomethane | 142 | 3.775 | 3.781 | -0.006 | 99 | 558589 | 5.00 | 5.53 | |
| 18 Ethyl bromide | 108 | 3.800 | 3.812 | -0.012 | 98 | 254448 | 5.00 | 5.53 | |
| 19 Carbon disulfide | 76 | 3.885 | 3.891 | -0.006 | 99 | 782475 | 5.00 | 5.61 | |
| 21 Methyl acetate | 43 | 4.031 | 4.031 | 0.000 | 97 | 124512 | 5.00 | 5.67 | |
| 22 3-Chloro-1-propene | 41 | 4.056 | 4.068 | -0.012 | 91 | 448975 | 5.00 | 5.42 | |
| 23 Methylene Chloride | 84 | 4.245 | 4.257 | -0.012 | 91 | 300072 | 5.00 | 5.44 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.251 | 4.269 | -0.018 | 95 | 134380 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.385 | 4.385 | 0.000 | 100 | 314368 | 100.0 | 111.1 | |
| 26 Acrylonitrile | 53 | 4.592 | 4.592 | 0.000 | 99 | 149768 | 12.5 | 15.1 | |
| 27 Methyl tert-butyl ether | 73 | 4.653 | 4.665 | -0.012 | 94 | 795636 | 5.00 | 5.52 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.672 | 4.678 | -0.006 | 99 | 313872 | 5.00 | 5.47 | |
| 29 Hexane | 57 | 5.098 | 5.104 | -0.006 | 91 | 492058 | 5.00 | 6.14 | |
| 31 1,1-Dichloroethane | 63 | 5.330 | 5.336 | -0.006 | 96 | 570521 | 5.00 | 5.48 | |
| 32 Isopropyl ether | 45 | 5.385 | 5.391 | -0.006 | 94 | 951429 | 5.00 | 5.47 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.440 | 5.446 | -0.006 | 90 | 487276 | 5.00 | 5.62 | |
| 34 Tert-butyl ethyl ether | 59 | 5.915 | 5.921 | -0.006 | 97 | 927469 | 5.00 | 5.46 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.116 | 6.122 | -0.006 | 99 | 749581 | 50.0 | 57.5 | |
| S 35 1,2-Dichloroethene, Total | 100 | | | | 0 | | | 10.9 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.153 | 6.159 | -0.006 | 82 | 347207 | 5.00 | 5.43 | |
| 38 2,2-Dichloropropane | 77 | 6.171 | 6.177 | -0.006 | 90 | 505614 | 5.00 | 5.59 | |
| 40 Propionitrile | 54 | 6.208 | 6.208 | 0.000 | 99 | 411078 | 100.0 | 118.7 | |
| 42 Methacrylonitrile | 67 | 6.421 | 6.427 | -0.006 | 90 | 787287 | 50.0 | 60.1 | |
| 43 Chlorobromomethane | 128 | 6.488 | 6.488 | 0.000 | 91 | 150285 | 5.00 | 5.45 | |
| 44 Tetrahydrofuran | 71 | 6.500 | 6.500 | 0.000 | 77 | 115070 | 25.0 | 29.8 | |
| 45 Chloroform | 83 | 6.635 | 6.641 | -0.006 | 93 | 561287 | 5.00 | 5.44 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.854 | -0.006 | 94 | 533947 | 10.0 | 10.0 | |
| 47 1,1,1-Trichloroethane | 97 | 6.860 | 6.866 | -0.006 | 98 | 537958 | 5.00 | 5.62 | |
| 48 Cyclohexane | 56 | 6.964 | 6.970 | -0.006 | 89 | 574963 | 5.00 | 6.05 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.080 | 0.000 | 91 | 477332 | 5.00 | 5.77 | |
| 51 1,1-Dichloropropene | 75 | 7.074 | 7.080 | -0.006 | 95 | 456566 | 5.00 | 5.65 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 94 | 243578 | 250.0 | 269.8 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.305 | -0.006 | 98 | 106534 | 10.0 | 10.0 | |
| 54 Benzene | 78 | 7.336 | 7.342 | -0.006 | 97 | 1303704 | 5.00 | 5.48 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.409 | 0.000 | 98 | 345575 | 5.00 | 5.36 | |
| 57 Tert-amyl methyl ether | 73 | 7.519 | 7.525 | -0.006 | 98 | 854837 | 5.00 | 5.42 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.744 | -0.006 | 99 | 2115642 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.750 | 7.750 | 0.000 | 90 | 473994 | 5.00 | 5.76 | |
| 60 n-Butanol | 56 | 8.092 | 8.098 | -0.006 | 87 | 436929 | 437.5 | 521.3 | |
| 61 Trichloroethene | 95 | 8.214 | 8.220 | -0.006 | 98 | 356004 | 5.00 | 5.57 | |
| 62 Methylcyclohexane | 83 | 8.524 | 8.524 | 0.000 | 93 | 637877 | 5.00 | 6.00 | |
| 63 1,2-Dichloropropane | 63 | 8.543 | 8.549 | -0.006 | 85 | 323309 | 5.00 | 5.53 | |
| 64 Methyl methacrylate | 69 | 8.622 | 8.628 | -0.006 | 89 | 158597 | 5.00 | 6.16 | |
| 65 1,4-Dioxane | 88 | 8.628 | 8.640 | -0.012 | 61 | 60485 | 250.0 | 229.1 | M |
| 66 Dibromomethane | 93 | 8.653 | 8.659 | -0.006 | 93 | 155460 | 5.00 | 5.44 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.890 | 0.000 | 99 | 393721 | 5.00 | 5.56 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 98 | 217711 | 25.0 | 29.6 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.280 | 9.280 | 0.000 | 98 | 317759 | 5.00 | 5.54 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.433 | 0.000 | 97 | 498450 | 5.00 | 5.60 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.597 | 9.603 | -0.006 | 96 | 1950081 | 50.0 | 59.4 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2113101 | 10.0 | 9.95 | |
| 76 Toluene | 92 | 9.811 | 9.817 | -0.006 | 98 | 865208 | 5.00 | 5.49 | |
| S 77 1,3-Dichloropropene, Total | 100 | | | | 0 | | | 11.2 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 409218 | 5.00 | 5.64 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.128 | 0.000 | 88 | 344439 | 5.00 | 5.68 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 91 | 228498 | 5.00 | 5.44 | |
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 98 | 419950 | 5.00 | 5.60 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.433 | 0.000 | 88 | 389560 | 5.00 | 5.45 | |
| 83 2-Hexanone | 43 | 10.481 | 10.481 | 0.000 | 96 | 1427211 | 50.0 | 62.1 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 90 | 290417 | 5.00 | 5.67 | |
| 86 Ethylene Dibromide | 107 | 10.762 | 10.762 | 0.000 | 98 | 225049 | 5.00 | 5.55 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.000 | 86 | 1642811 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.189 | 11.189 | 0.000 | 95 | 509095 | 5.00 | 5.53 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 96 | 953872 | 5.00 | 5.47 | |
| S 89 Xylenes, Total | 106 | | | | 0 | | | 16.6 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 95 | 336401 | 5.00 | 5.52 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.298 | 0.000 | 98 | 1673213 | 5.00 | 5.52 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 99 | 1325681 | 10.0 | 11.1 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 655445 | 5.00 | 5.54 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 95 Styrene | 104 | 11.756 | 11.756 | 0.000 | 95 | 1063582 | 5.00 | 5.57 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 98 | 176181 | 5.00 | 5.75 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 1737611 | 5.00 | 5.57 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 806331 | 10.0 | 9.94 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 93 | 293036 | 5.00 | 5.50 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 95 | 405579 | 5.00 | 5.56 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 93 | 739718 | 50.0 | 62.3 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.000 | 81 | 81857 | 5.00 | 5.59 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 1993107 | 5.00 | 5.63 | |
| 106 2-Chlorotoluene | 126 | 12.444 | 12.444 | 0.000 | 97 | 403661 | 5.00 | 5.55 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 1448018 | 5.00 | 5.60 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 414612 | 5.00 | 5.59 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 93 | 319038 | 5.00 | 5.62 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 92 | 259289 | 5.00 | 5.66 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 1496260 | 5.00 | 5.64 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.908 | 0.000 | 94 | 1842298 | 5.00 | 5.64 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 812939 | 5.00 | 5.53 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 1632038 | 5.00 | 5.64 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 97 | 963071 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.078 | 13.078 | 0.000 | 96 | 830653 | 5.00 | 5.52 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.091 | 0.000 | 98 | 633734 | 5.00 | 5.40 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 128109 | 5.00 | 5.88 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 98 | 763485 | 5.00 | 5.65 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.000 | 99 | 746995 | 5.00 | 5.56 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 89 | 44921 | 5.00 | 5.74 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 610685 | 5.00 | 5.67 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 518320 | 5.00 | 5.71 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 207395 | 5.00 | 5.25 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 958252 | 5.00 | 5.53 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 439919 | 5.00 | 5.60 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| MSV_LL_#1_826_00015 | Amount Added: | 5.00 | Units: uL | |
| MSV_LL_#2_826_00015 | Amount Added: | 5.00 | Units: uL | |
| MSV_LL_GAS826_00027 | Amount Added: | 5.00 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: | 5.00 | Units: uL | Run Reagent |

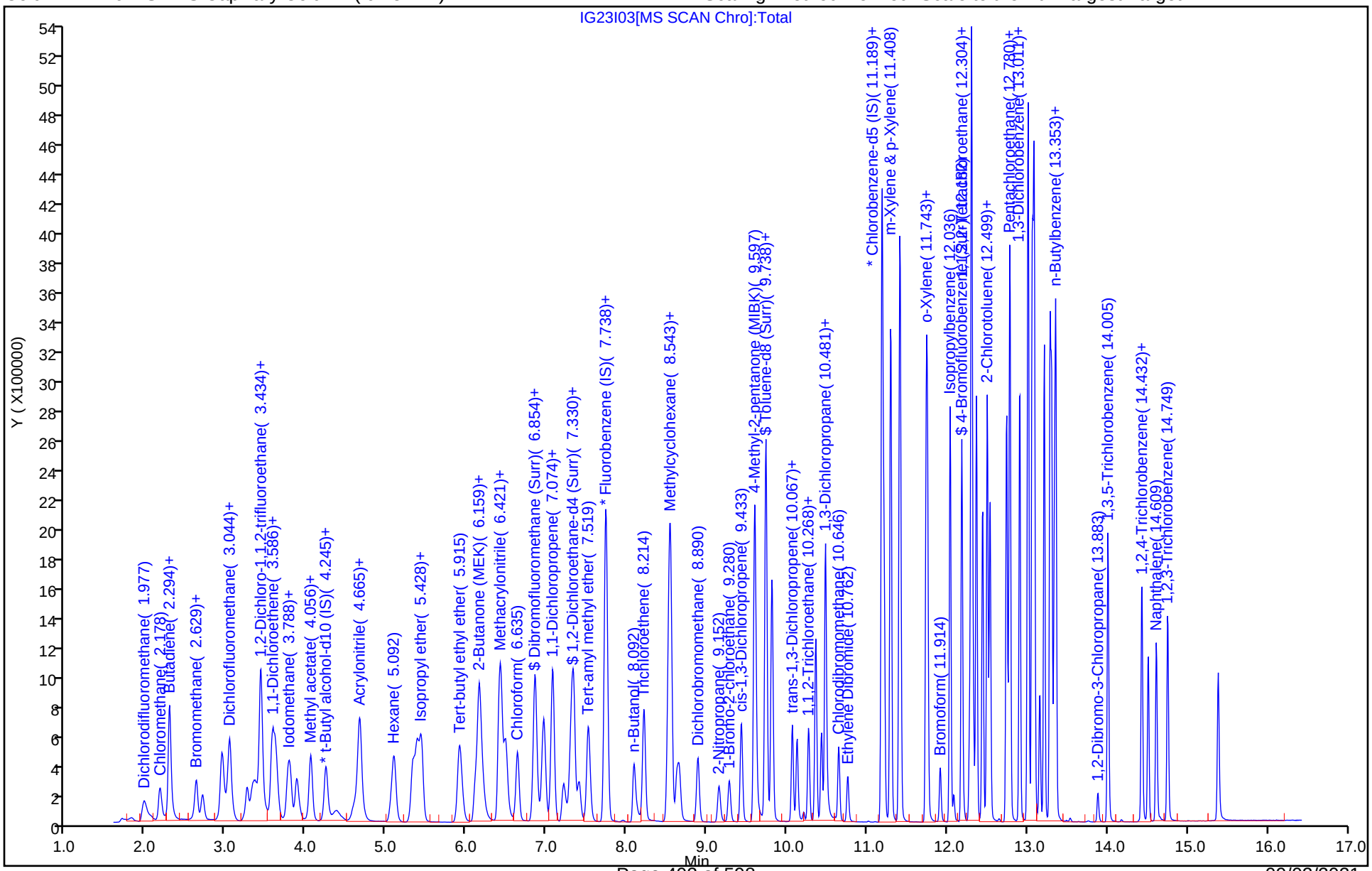
Report Date: 24-Aug-2021 15:55:12 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Aug-2021 01:27:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std5 | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

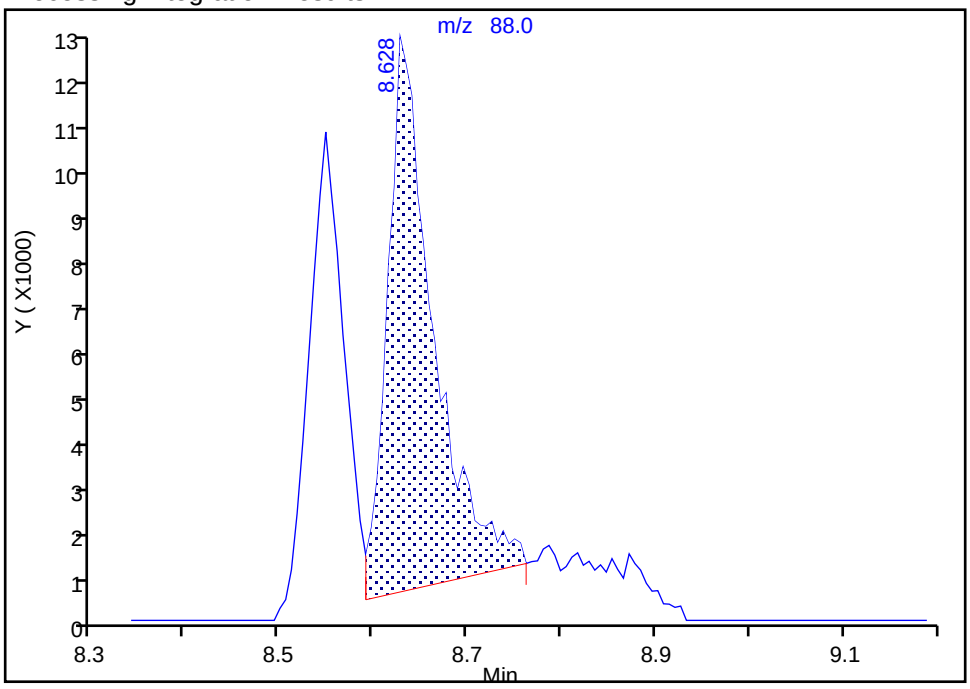
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.D
Injection Date: 24-Aug-2021 01:27:30 Instrument ID: 19930
Lims ID: IC std5
Client ID:
Operator ID: mec29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column ( 0.25mm) Detector MS Quad

## 65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

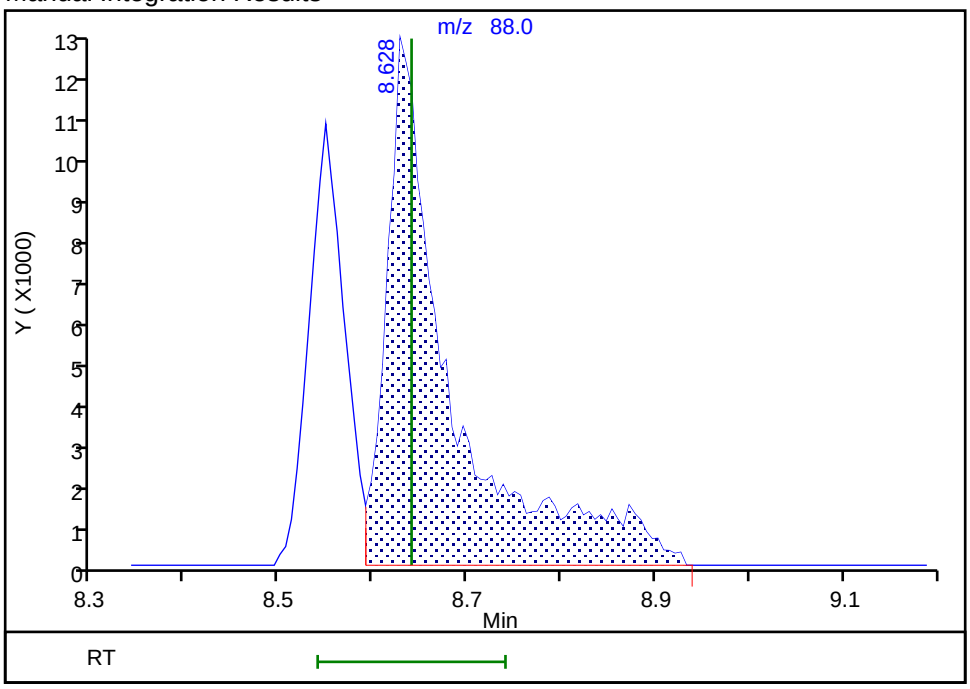
Processing Integration Results

RT: 8.63
Area: 40941
Amount: 236.6358
Amount Units: ug/l




Manual Integration Results

RT: 8.63
Area: 60485
Amount: 229.0877
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:02:20
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D
Lims ID: IC std4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Aug-2021 01:48:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-015
Misc. Info.: IC STD4
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:16 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:04:44

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.965 | 1.965 | 0.000 | 99 | 133370 | 2.00 | 1.99 | |
| 4 Chloromethane | 50 | 2.172 | 2.172 | 0.000 | 99 | 145518 | 2.00 | 1.91 | |
| 6 Butadiene | 39 | 2.288 | 2.288 | 0.000 | 89 | 136810 | 2.00 | 1.95 | |
| 5 Vinyl chloride | 62 | 2.294 | 2.294 | 0.000 | 75 | 148690 | 2.00 | 1.93 | |
| 7 Bromomethane | 94 | 2.623 | 2.623 | 0.000 | 92 | 107796 | 2.00 | 1.93 | |
| 8 Chloroethane | 64 | 2.709 | 2.709 | 0.000 | 99 | 87256 | 2.00 | 1.89 | |
| 9 Dichlorofluoromethane | 67 | 2.946 | 2.946 | 0.000 | 97 | 213271 | 2.00 | 1.92 | |
| 10 Trichlorofluoromethane | 101 | 3.020 | 3.020 | 0.000 | 96 | 200068 | 2.00 | 2.02 | |
| 11 Ethyl ether | 59 | 3.257 | 3.257 | 0.000 | 90 | 80725 | 2.00 | 2.00 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.343 | 3.343 | 0.000 | 91 | 140380 | 2.00 | 1.98 | |
| 13 Acrolein | 56 | 3.428 | 3.428 | 0.000 | 99 | 642849 | 100.0 | 90.3 | |
| 14 1,1-Dichloroethene | 96 | 3.568 | 3.568 | 0.000 | 99 | 94828 | 2.00 | 1.86 | |
| 15 Acetone | 43 | 3.599 | 3.599 | 0.000 | 100 | 175187 | 20.0 | 19.4 | |
| 16 112TCTFE | 101 | 3.611 | 3.611 | 0.000 | 90 | 101316 | 2.00 | 1.90 | |
| 17 Iodomethane | 142 | 3.769 | 3.769 | 0.000 | 99 | 191541 | 2.00 | 1.87 | |
| 18 Ethyl bromide | 108 | 3.794 | 3.794 | 0.000 | 98 | 90853 | 2.00 | 1.95 | |
| 19 Carbon disulfide | 76 | 3.879 | 3.879 | 0.000 | 99 | 260459 | 2.00 | 1.85 | |
| 21 Methyl acetate | 43 | 4.038 | 4.038 | 0.000 | 96 | 53852 | 2.00 | 2.02 | |
| 22 3-Chloro-1-propene | 41 | 4.056 | 4.056 | 0.000 | 92 | 152579 | 2.00 | 1.82 | |
| 23 Methylene Chloride | 84 | 4.239 | 4.239 | 0.000 | 91 | 105792 | 2.00 | 1.90 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.257 | 0.000 | 94 | 162903 | 50.0 | 50.0 | M |
| 25 2-Methyl-2-propanol | 59 | 4.397 | 4.397 | 0.000 | 99 | 144787 | 40.0 | 42.2 | |
| 26 Acrylonitrile | 53 | 4.592 | 4.592 | 0.000 | 97 | 56014 | 5.00 | 4.64 | |
| 27 Methyl tert-butyl ether | 73 | 4.659 | 4.659 | 0.000 | 88 | 277645 | 2.00 | 1.90 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.672 | 4.672 | 0.000 | 99 | 107403 | 2.00 | 1.85 | |
| 29 Hexane | 57 | 5.086 | 5.086 | 0.000 | 91 | 152797 | 2.00 | 1.88 | |
| 31 1,1-Dichloroethane | 63 | 5.330 | 5.330 | 0.000 | 96 | 200971 | 2.00 | 1.91 | |
| 32 Isopropyl ether | 45 | 5.385 | 5.385 | 0.000 | 94 | 334487 | 2.00 | 1.90 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.434 | 5.434 | 0.000 | 91 | 164913 | 2.00 | 1.88 | |
| 34 Tert-butyl ethyl ether | 59 | 5.915 | 5.915 | 0.000 | 96 | 328284 | 2.00 | 1.91 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.116 | 6.116 | 0.000 | 99 | 287542 | 20.0 | 18.2 | |
| S 35 1,2-Dichloroethene, Total | 100 | | | | 0 | | | 3.72 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.159 | 0.000 | 83 | 121250 | 2.00 | 1.87 | |
| 38 2,2-Dichloropropane | 77 | 6.171 | 6.171 | 0.000 | 77 | 171411 | 2.00 | 1.87 | |
| 40 Propionitrile | 54 | 6.208 | 6.208 | 0.000 | 99 | 156726 | 40.0 | 37.3 | |
| 42 Methacrylonitrile | 67 | 6.415 | 6.415 | 0.000 | 91 | 284046 | 20.0 | 17.9 | |
| 43 Chlorobromomethane | 128 | 6.482 | 6.482 | 0.000 | 91 | 54068 | 2.00 | 1.94 | |
| 44 Tetrahydrofuran | 71 | 6.494 | 6.494 | 0.000 | 77 | 42808 | 10.0 | 9.13 | |
| 45 Chloroform | 83 | 6.635 | 6.635 | 0.000 | 93 | 196244 | 2.00 | 1.88 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.848 | 0.000 | 94 | 542329 | 10.0 | 10.1 | |
| 47 1,1,1-Trichloroethane | 97 | 6.860 | 6.860 | 0.000 | 97 | 183060 | 2.00 | 1.89 | |
| 48 Cyclohexane | 56 | 6.964 | 6.964 | 0.000 | 88 | 180314 | 2.00 | 1.88 | |
| 50 Carbon tetrachloride | 117 | 7.067 | 7.067 | 0.000 | 90 | 158160 | 2.00 | 1.89 | |
| 51 1,1-Dichloropropene | 75 | 7.074 | 7.074 | 0.000 | 95 | 154095 | 2.00 | 1.88 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 95 | 107772 | 100.0 | 98.5 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 91 | 108754 | 10.0 | 10.1 | |
| 54 Benzene | 78 | 7.336 | 7.336 | 0.000 | 96 | 450649 | 2.00 | 1.87 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.409 | 0.000 | 98 | 118544 | 2.00 | 1.82 | |
| 57 Tert-amyl methyl ether | 73 | 7.519 | 7.519 | 0.000 | 99 | 305576 | 2.00 | 1.91 | |
| * 58 Fluorobenzene (IS) | 96 | 7.732 | 7.732 | 0.000 | 98 | 2141536 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.744 | 7.744 | 0.000 | 74 | 149822 | 2.00 | 1.80 | |
| 60 n-Butanol | 56 | 8.098 | 8.098 | 0.000 | 87 | 173400 | 175.0 | 170.7 | |
| 61 Trichloroethene | 95 | 8.214 | 8.214 | 0.000 | 97 | 119880 | 2.00 | 1.85 | |
| 62 Methylcyclohexane | 83 | 8.525 | 8.525 | 0.000 | 91 | 204137 | 2.00 | 1.90 | |
| 63 1,2-Dichloropropane | 63 | 8.543 | 8.543 | 0.000 | 83 | 113623 | 2.00 | 1.92 | |
| 64 Methyl methacrylate | 69 | 8.628 | 8.628 | 0.000 | 86 | 56288 | 2.00 | 1.80 | |
| 65 1,4-Dioxane | 88 | 8.640 | 8.640 | 0.000 | 38 | 27358 | 100.0 | 94.3 | M |
| 66 Dibromomethane | 93 | 8.653 | 8.653 | 0.000 | 93 | 55146 | 2.00 | 1.91 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.890 | 0.000 | 99 | 135182 | 2.00 | 1.89 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 99 | 80872 | 10.0 | 9.06 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.280 | 9.280 | 0.000 | 99 | 116897 | 2.00 | 2.01 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.433 | 0.000 | 96 | 171443 | 2.00 | 1.90 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.597 | 9.597 | 0.000 | 96 | 725808 | 20.0 | 18.2 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2152292 | 10.0 | 10.1 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 98 | 294006 | 2.00 | 1.85 | |
| S 77 1,3-Dichloropropene, Total | 100 | | | | 0 | | | 3.80 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 138743 | 2.00 | 1.90 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.128 | 0.000 | 88 | 121040 | 2.00 | 1.98 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 91 | 81343 | 2.00 | 1.92 | |
| 81 Tetrachloroethene | 166 | 10.360 | 10.360 | 0.000 | 98 | 142779 | 2.00 | 1.89 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.433 | 0.000 | 89 | 137217 | 2.00 | 1.91 | |
| 83 2-Hexanone | 43 | 10.481 | 10.481 | 0.000 | 96 | 503437 | 20.0 | 18.1 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 89 | 97832 | 2.00 | 1.90 | |
| 86 Ethylene Dibromide | 107 | 10.756 | 10.756 | 0.000 | 98 | 77838 | 2.00 | 1.91 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.183 | 0.000 | 86 | 1654646 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.189 | 11.189 | 0.000 | 95 | 170447 | 2.00 | 1.84 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 97 | 331442 | 2.00 | 1.89 | |
| S 89 Xylenes, Total | 106 | | | | 0 | | | 5.67 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 94 | 117075 | 2.00 | 1.91 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.298 | 0.000 | 98 | 572417 | 2.00 | 1.87 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 100 | 455535 | 4.00 | 3.78 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 225160 | 2.00 | 1.89 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 95 Styrene | 104 | 11.756 | 11.756 | 0.000 | 95 | 364056 | 2.00 | 1.89 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 97 | 57249 | 2.00 | 1.85 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 96 | 598946 | 2.00 | 1.91 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 815520 | 10.0 | 9.98 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 93 | 102513 | 2.00 | 1.88 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 95 | 140306 | 2.00 | 1.88 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 93 | 256704 | 20.0 | 17.8 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.000 | 81 | 28724 | 2.00 | 1.92 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 684747 | 2.00 | 1.89 | |
| 106 2-Chlorotoluene | 126 | 12.444 | 12.444 | 0.000 | 98 | 141927 | 2.00 | 1.91 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 93 | 494667 | 2.00 | 1.87 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 142990 | 2.00 | 1.89 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 93 | 110262 | 2.00 | 1.90 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 90 | 91381 | 2.00 | 1.95 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 508634 | 2.00 | 1.88 | |
| 112 sec-Butylbenzene | 105 | 12.902 | 12.902 | 0.000 | 94 | 633668 | 2.00 | 1.90 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 279932 | 2.00 | 1.86 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 558603 | 2.00 | 1.89 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 984300 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.079 | 13.079 | 0.000 | 96 | 287369 | 2.00 | 1.87 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.085 | 13.085 | 0.000 | 98 | 228500 | 2.00 | 1.91 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 42047 | 2.00 | 1.89 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 258320 | 2.00 | 1.87 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.000 | 99 | 264385 | 2.00 | 1.92 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 87 | 16104 | 2.00 | 2.01 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 97 | 206620 | 2.00 | 1.88 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 177445 | 2.00 | 1.91 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 71973 | 2.00 | 1.78 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 351951 | 2.00 | 1.99 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 155892 | 2.00 | 1.94 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| MSV_LL_#1_826_00015 | Amount Added: | 2.00 | Units: uL | |
| MSV_LL_#2_826_00015 | Amount Added: | 2.00 | Units: uL | |
| MSV_LL_GAS826_00027 | Amount Added: | 2.00 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: | 5.00 | Units: uL | Run Reagent |

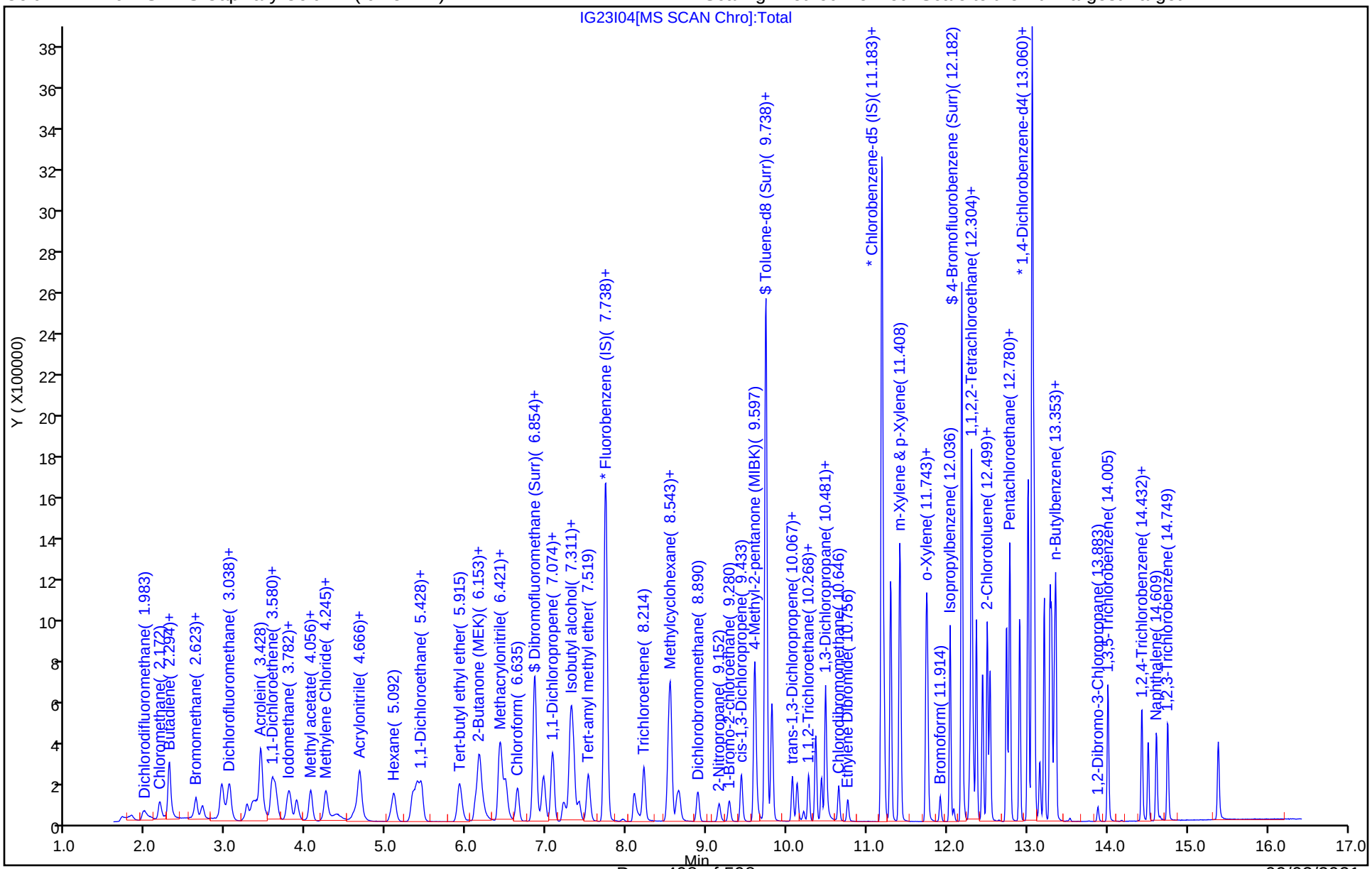
Report Date: 24-Aug-2021 15:55:17 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Aug-2021 01:48:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std4 | | | Worklist Smp#: | 15 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 14 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

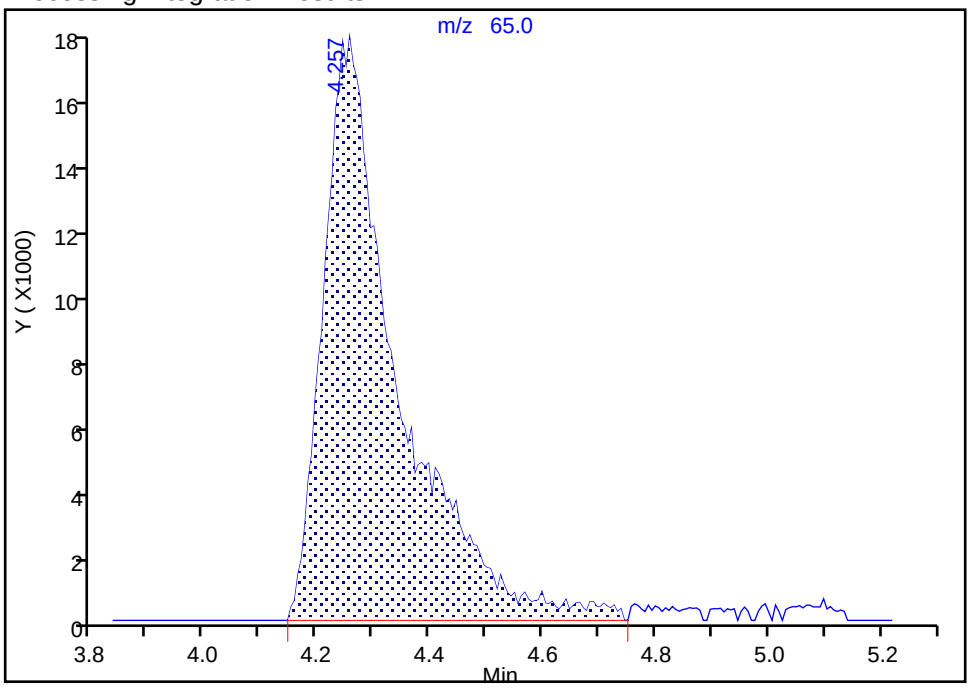
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D | | | | |
| Injection Date: | 24-Aug-2021 01:48:30 | Instrument ID: | 19930 | | |
| Lims ID: | IC std4 | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 14 | Worklist Smp#: | 15 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## * 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

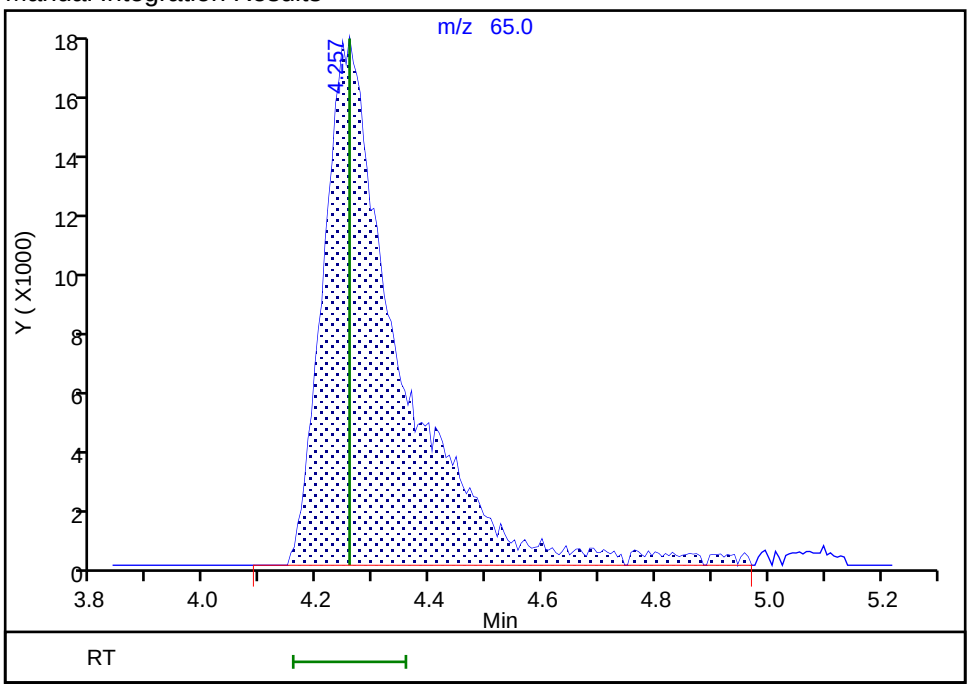
Processing Integration Results

RT: 4.26
Area: 158849
Amount: 50.000000
Amount Units: ug/l




Manual Integration Results

RT: 4.26
Area: 162903
Amount: 50.000000
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:16:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

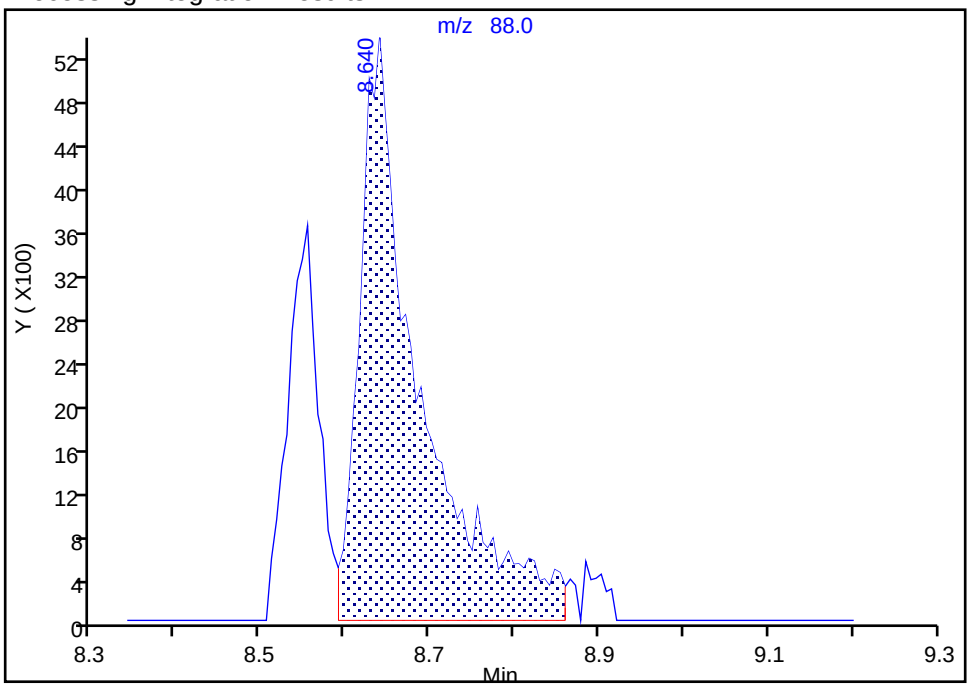
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D | | | | |
| Injection Date: | 24-Aug-2021 01:48:30 | Instrument ID: | 19930 | | |
| Lims ID: | IC std4 | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 14 | Worklist Smp#: | 15 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

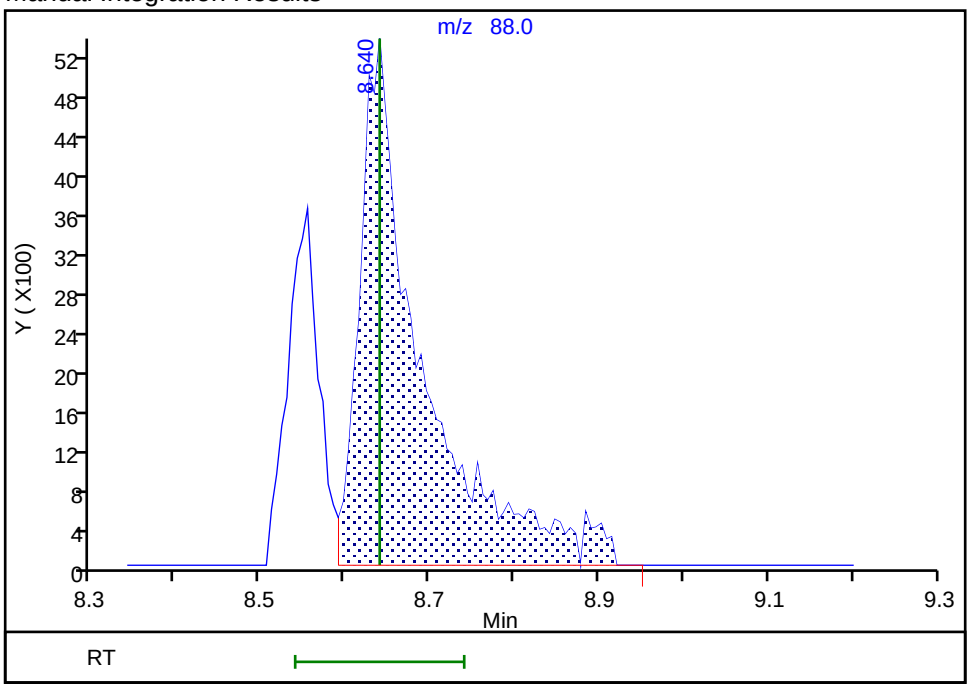
Processing Integration Results

RT: 8.64
Area: 26261
Amount: 119.8515
Amount Units: ug/l




Manual Integration Results

RT: 8.64
Area: 27358
Amount: 94.303495
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:15:48
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D
Lims ID: IC std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Aug-2021 02:09:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-016
Misc. Info.: IC STD3
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:22 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:07:06

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.977 | 1.965 | 0.012 | 99 | 65891 | 1.00 | 0.9718 | |
| 4 Chloromethane | 50 | 2.178 | 2.172 | 0.006 | 99 | 71033 | 1.00 | 0.9196 | |
| 6 Butadiene | 39 | 2.294 | 2.288 | 0.006 | 91 | 69705 | 1.00 | 0.9823 | |
| 5 Vinyl chloride | 62 | 2.294 | 2.294 | 0.000 | 72 | 72933 | 1.00 | 0.9365 | |
| 7 Bromomethane | 94 | 2.629 | 2.623 | 0.006 | 91 | 52904 | 1.00 | 0.9375 | |
| 8 Chloroethane | 64 | 2.709 | 2.709 | 0.000 | 99 | 44138 | 1.00 | 0.9455 | |
| 9 Dichlorofluoromethane | 67 | 2.946 | 2.946 | 0.000 | 97 | 105130 | 1.00 | 0.9365 | |
| 10 Trichlorofluoromethane | 101 | 3.019 | 3.020 | -0.001 | 97 | 100534 | 1.00 | 1.00 | |
| 11 Ethyl ether | 59 | 3.263 | 3.257 | 0.006 | 90 | 37819 | 1.00 | 0.9277 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.361 | 3.343 | 0.018 | 91 | 68921 | 1.00 | 0.9587 | |
| 13 Acrolein | 56 | 3.434 | 3.428 | 0.006 | 99 | 325453 | 50.0 | 52.0 | |
| 14 1,1-Dichloroethene | 96 | 3.574 | 3.568 | 0.006 | 98 | 51944 | 1.00 | 1.00 | |
| 15 Acetone | 43 | 3.617 | 3.599 | 0.018 | 97 | 73600 | 10.0 | 9.26 | M |
| 16 112TCTFE | 101 | 3.623 | 3.611 | 0.012 | 90 | 55518 | 1.00 | 1.03 | |
| 17 Iodomethane | 142 | 3.775 | 3.769 | 0.006 | 99 | 102843 | 1.00 | 0.99 | |
| 18 Ethyl bromide | 108 | 3.800 | 3.794 | 0.006 | 99 | 43980 | 1.00 | 0.9328 | |
| 19 Carbon disulfide | 76 | 3.885 | 3.879 | 0.006 | 99 | 135959 | 1.00 | 0.9520 | |
| 21 Methyl acetate | 43 | 4.044 | 4.038 | 0.006 | 40 | 20743 | 1.00 | 0.8865 | |
| 22 3-Chloro-1-propene | 41 | 4.062 | 4.056 | 0.006 | 90 | 82613 | 1.00 | 0.9734 | |
| 23 Methylene Chloride | 84 | 4.245 | 4.239 | 0.006 | 91 | 55257 | 1.00 | 0.9785 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.257 | 0.006 | 92 | 143084 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.385 | 4.397 | -0.012 | 99 | 58831 | 20.0 | 19.5 | |
| 26 Acrylonitrile | 53 | 4.611 | 4.592 | 0.019 | 98 | 27336 | 2.50 | 2.58 | |
| 27 Methyl tert-butyl ether | 73 | 4.647 | 4.659 | -0.012 | 94 | 145601 | 1.00 | 0.9865 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.672 | 4.672 | 0.000 | 99 | 57886 | 1.00 | 0.9851 | |
| 29 Hexane | 57 | 5.104 | 5.086 | 0.018 | 91 | 80465 | 1.00 | 0.9806 | |
| 31 1,1-Dichloroethane | 63 | 5.330 | 5.330 | 0.000 | 96 | 103998 | 1.00 | 0.9753 | |
| 32 Isopropyl ether | 45 | 5.385 | 5.385 | 0.000 | 94 | 174418 | 1.00 | 0.9792 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.440 | 5.434 | 0.006 | 90 | 86951 | 1.00 | 0.9780 | |
| 34 Tert-butyl ethyl ether | 59 | 5.909 | 5.915 | -0.006 | 97 | 171468 | 1.00 | 0.9844 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.116 | 6.116 | 0.000 | 100 | 143475 | 10.0 | 10.3 | |
| S 35 1,2-Dichloroethene, Total | 100 | | | | 0 | | | 1.97 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.159 | 0.000 | 82 | 64220 | 1.00 | 0.9810 | |
| 38 2,2-Dichloropropane | 77 | 6.171 | 6.171 | 0.000 | 88 | 91101 | 1.00 | 0.9826 | |
| 40 Propionitrile | 54 | 6.214 | 6.208 | 0.006 | 98 | 75368 | 20.0 | 20.4 | |
| 42 Methacrylonitrile | 67 | 6.421 | 6.415 | 0.006 | 92 | 143284 | 10.0 | 10.3 | |
| 43 Chlorobromomethane | 128 | 6.488 | 6.482 | 0.006 | 86 | 28049 | 1.00 | 0.99 | |
| 44 Tetrahydrofuran | 71 | 6.494 | 6.494 | 0.000 | 69 | 21437 | 5.00 | 5.21 | |
| 45 Chloroform | 83 | 6.641 | 6.635 | 0.006 | 93 | 104933 | 1.00 | 0.99 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.848 | 0.006 | 94 | 547419 | 10.0 | 10.0 | |
| 47 1,1,1-Trichloroethane | 97 | 6.860 | 6.860 | 0.000 | 97 | 97208 | 1.00 | 0.99 | |
| 48 Cyclohexane | 56 | 6.964 | 6.964 | 0.000 | 89 | 97677 | 1.00 | 1.00 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.067 | 0.013 | 92 | 83203 | 1.00 | 0.9821 | |
| 51 1,1-Dichloropropene | 75 | 7.080 | 7.074 | 0.006 | 95 | 81553 | 1.00 | 0.9849 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 92 | 49738 | 50.0 | 51.7 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 85 | 108914 | 10.0 | 9.97 | |
| 54 Benzene | 78 | 7.336 | 7.336 | 0.000 | 94 | 239616 | 1.00 | 0.9831 | |
| 56 1,2-Dichloroethane | 62 | 7.403 | 7.409 | -0.006 | 98 | 65256 | 1.00 | 0.9882 | |
| 57 Tert-amyl methyl ether | 73 | 7.525 | 7.519 | 0.006 | 98 | 157576 | 1.00 | 0.9745 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2167768 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.744 | 7.744 | 0.000 | 82 | 83896 | 1.00 | 0.99 | |
| 60 n-Butanol | 56 | 8.098 | 8.098 | 0.000 | 88 | 80599 | 87.5 | 90.3 | |
| 61 Trichloroethene | 95 | 8.220 | 8.214 | 0.006 | 97 | 63618 | 1.00 | 0.9712 | |
| 62 Methylcyclohexane | 83 | 8.525 | 8.525 | -0.001 | 93 | 107529 | 1.00 | 0.9870 | |
| 63 1,2-Dichloropropane | 63 | 8.543 | 8.543 | 0.000 | 72 | 59643 | 1.00 | 1.00 | |
| 64 Methyl methacrylate | 69 | 8.628 | 8.628 | 0.000 | 87 | 28845 | 1.00 | 1.05 | |
| 65 1,4-Dioxane | 88 | 8.646 | 8.640 | 0.006 | 37 | 10496 | 50.0 | 52.8 | M |
| 66 Dibromomethane | 93 | 8.659 | 8.653 | 0.006 | 93 | 28100 | 1.00 | 0.9605 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.890 | 0.000 | 99 | 68991 | 1.00 | 0.9508 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 99 | 40821 | 5.00 | 5.21 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.280 | 9.280 | 0.000 | 98 | 54880 | 1.00 | 0.9343 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.433 | 0.000 | 96 | 87948 | 1.00 | 0.9647 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.597 | 9.597 | 0.000 | 96 | 362286 | 10.0 | 10.4 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2163909 | 10.0 | 10.1 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 98 | 156583 | 1.00 | 0.9842 | |
| S 77 1,3-Dichloropropene, Total | 100 | | | | 0 | | | 1.92 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 70216 | 1.00 | 0.9572 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.128 | 0.000 | 88 | 58617 | 1.00 | 0.9574 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 91 | 41236 | 1.00 | 0.9717 | |
| 81 Tetrachloroethene | 166 | 10.360 | 10.360 | 0.000 | 98 | 73750 | 1.00 | 0.9730 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.433 | 0.000 | 91 | 71333 | 1.00 | 0.9884 | |
| 83 2-Hexanone | 43 | 10.481 | 10.481 | 0.000 | 95 | 250322 | 10.0 | 10.2 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 90 | 49956 | 1.00 | 0.9660 | |
| 86 Ethylene Dibromide | 107 | 10.762 | 10.756 | 0.006 | 98 | 40746 | 1.00 | 1.00 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.183 | 0.000 | 87 | 1659651 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.189 | 11.189 | 0.000 | 96 | 89057 | 1.00 | 0.9572 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 95 | 173851 | 1.00 | 0.9865 | |
| S 89 Xylenes, Total | 106 | | | | 0 | | | 2.95 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 95 | 59106 | 1.00 | 0.9605 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.298 | 0.000 | 98 | 300446 | 1.00 | 0.9807 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 99 | 239751 | 2.00 | 1.98 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 115204 | 1.00 | 0.9645 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 95 Styrene | 104 | 11.756 | 11.756 | 0.000 | 94 | 189931 | 1.00 | 0.9850 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 97 | 28833 | 1.00 | 0.9307 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 310386 | 1.00 | 0.9844 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 92 | 826851 | 10.0 | 10.1 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 92 | 54325 | 1.00 | 0.99 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 95 | 72358 | 1.00 | 0.9669 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 91 | 127777 | 10.0 | 10.1 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.000 | 80 | 14746 | 1.00 | 0.9823 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 355852 | 1.00 | 0.9796 | |
| 106 2-Chlorotoluene | 126 | 12.444 | 12.444 | 0.000 | 97 | 74353 | 1.00 | 1.00 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 95 | 257721 | 1.00 | 0.9715 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 75316 | 1.00 | 0.9895 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 93 | 56868 | 1.00 | 0.9775 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 78 | 43712 | 1.00 | 0.9303 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 268890 | 1.00 | 0.9889 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.902 | 0.006 | 94 | 328234 | 1.00 | 0.9791 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 150321 | 1.00 | 1.00 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 288208 | 1.00 | 0.9719 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 987778 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.078 | 13.079 | -0.001 | 95 | 151116 | 1.00 | 0.9797 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.085 | 0.006 | 97 | 119238 | 1.00 | 0.99 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 21047 | 1.00 | 0.9420 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 98 | 134228 | 1.00 | 0.9686 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.000 | 98 | 136312 | 1.00 | 0.9885 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 85 | 7659 | 1.00 | 0.9535 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 105716 | 1.00 | 0.9573 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 91280 | 1.00 | 0.9796 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 37885 | 1.00 | 0.9359 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 173919 | 1.00 | 0.9794 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 78245 | 1.00 | 0.9717 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| MSV_LL_#1_826_00015 | Amount Added: | 2.00 | Units: uL | |
| MSV_LL_#2_826_00015 | Amount Added: | 2.00 | Units: uL | |
| MSV_LL_GAS826_00027 | Amount Added: | 2.00 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: | 5.00 | Units: uL | Run Reagent |

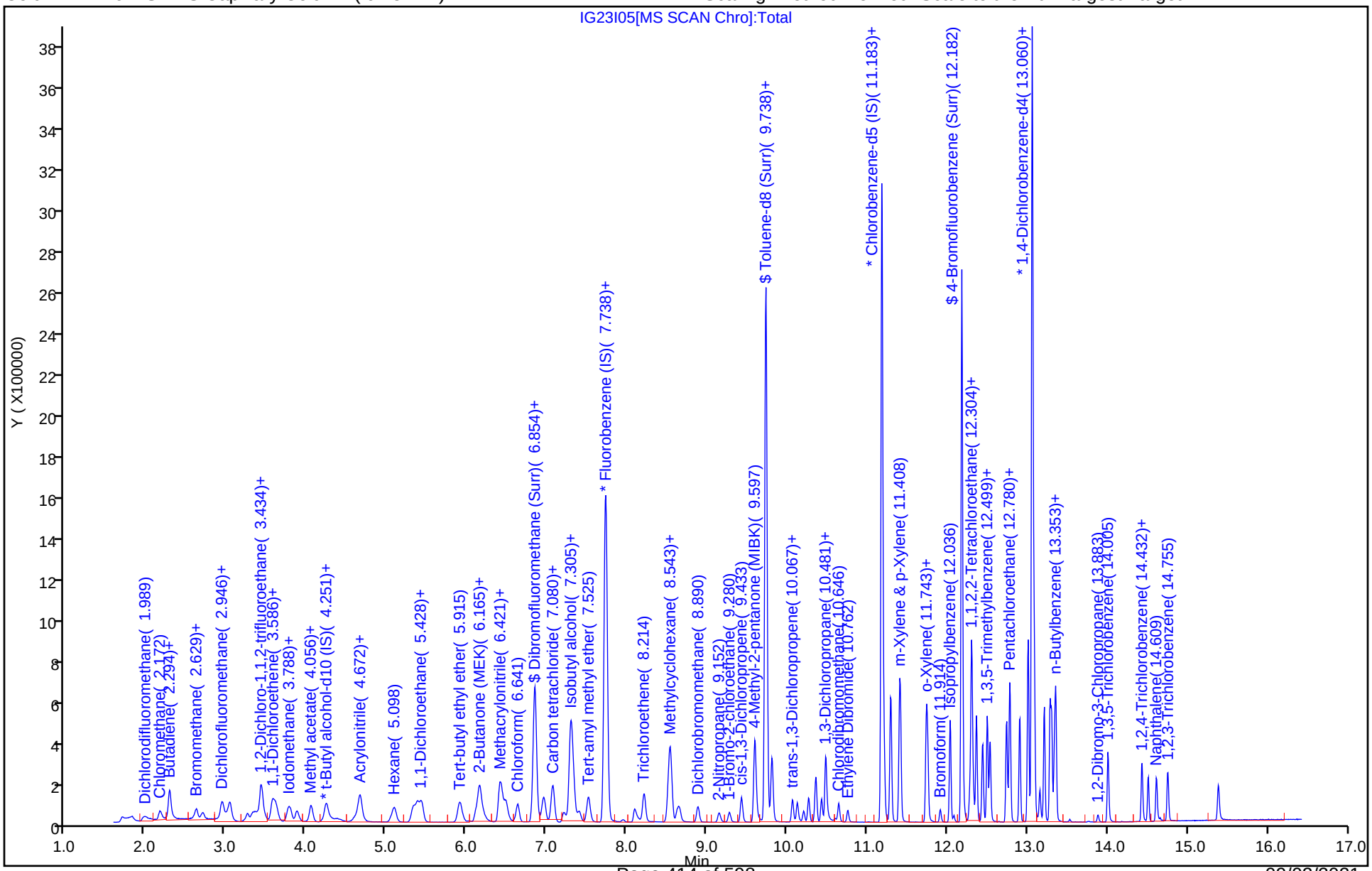
Report Date: 24-Aug-2021 15:55:22 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Aug-2021 02:09:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std3 | | | Worklist Smp#: | 16 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 15 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

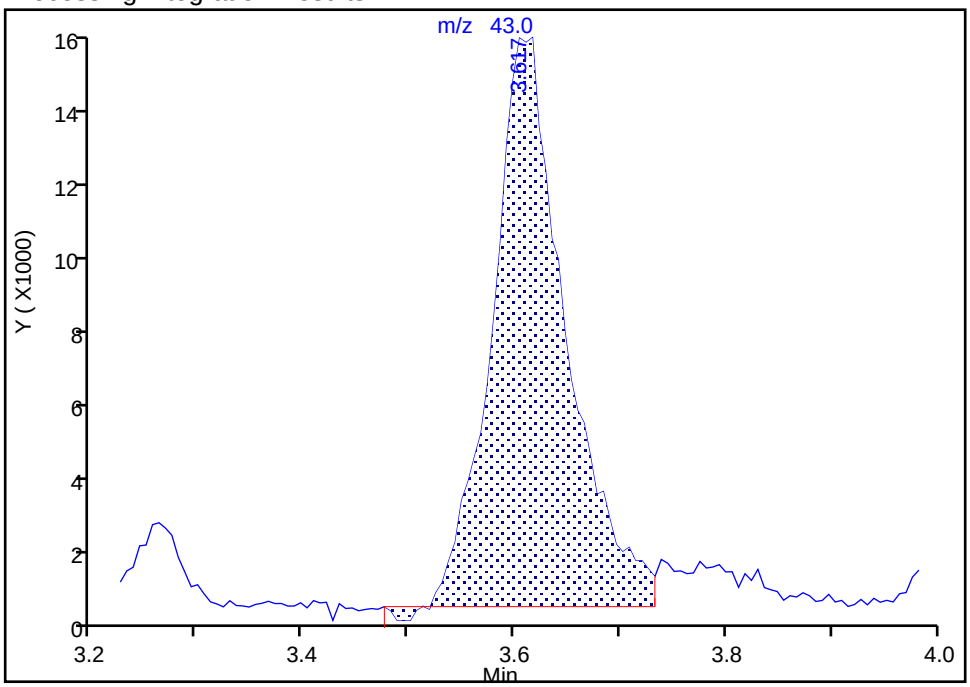
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D | | | | |
| Injection Date: | 24-Aug-2021 02:09:30 | Instrument ID: | 19930 | | |
| Lims ID: | IC std3 | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 15 | Worklist Smp#: | 16 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 15 Acetone, CAS: 67-64-1

Signal: 1

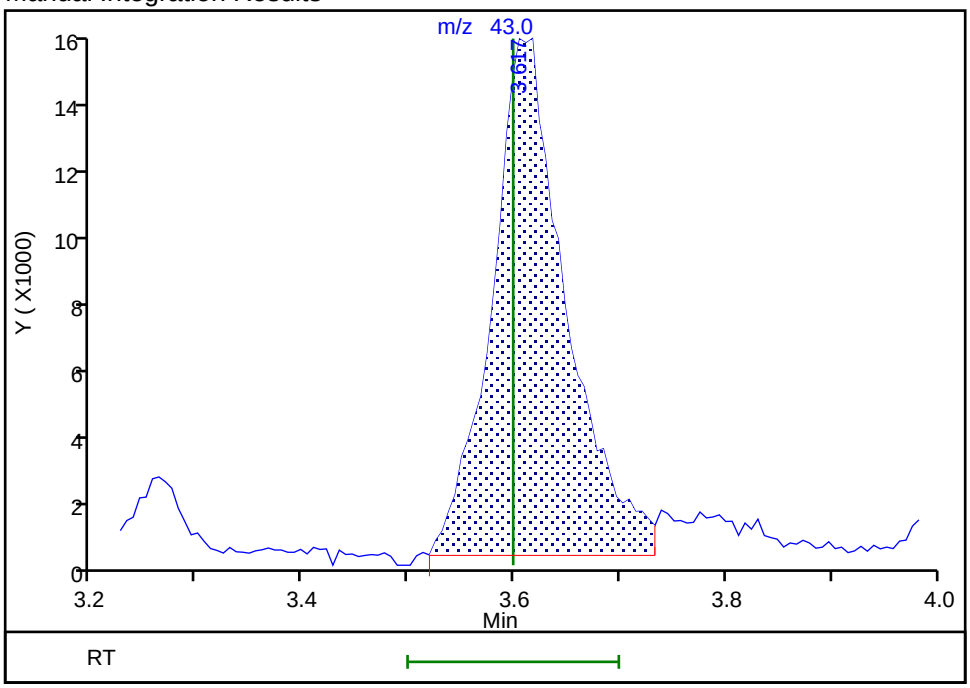
Processing Integration Results

RT: 3.62
Area: 72163
Amount: 9.070107
Amount Units: ug/l




Manual Integration Results

RT: 3.62
Area: 73600
Amount: 9.259476
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:05:40
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

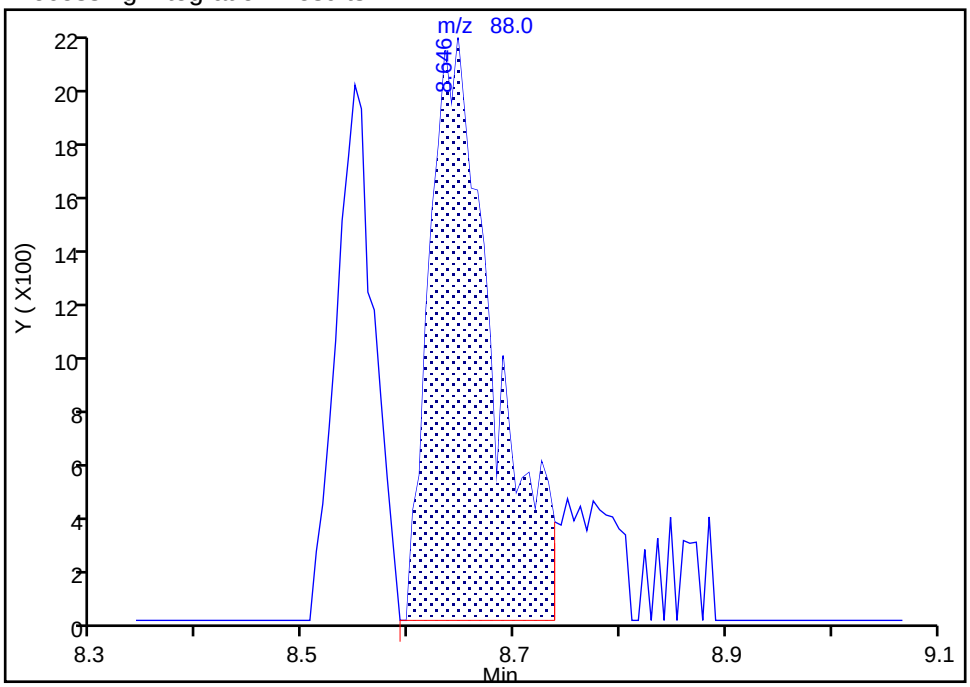
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D | | | | |
| Injection Date: | 24-Aug-2021 02:09:30 | Instrument ID: | 19930 | | |
| Lims ID: | IC std3 | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 15 | Worklist Smp#: | 16 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

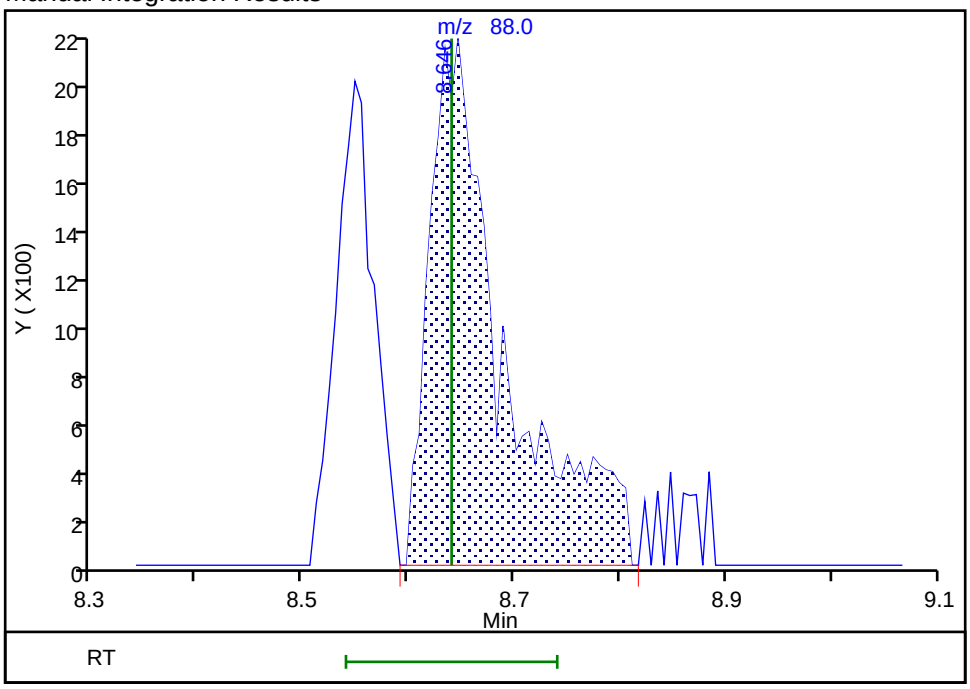
Processing Integration Results

RT: 8.65
Area: 8965
Amount: 45.300089
Amount Units: ug/l




Manual Integration Results

RT: 8.65
Area: 10496
Amount: 52.840483
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:17:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D
Lims ID: IC std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Aug-2021 02:30:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-017
Misc. Info.: IC STD2
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:27 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:08:05

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Dichlorodifluoromethane | 85 | 1.983 | 1.965 | 0.018 | 98 | 23341 | 0.5000 | 0.3127 | |
| 4 | Chloromethane | 50 | 2.178 | 2.172 | 0.006 | 99 | 42004 | 0.5000 | 0.4939 | |
| 6 | Butadiene | 39 | 2.300 | 2.288 | 0.012 | 93 | 33180 | 0.5000 | 0.4247 | |
| 5 | Vinyl chloride | 62 | 2.294 | 2.294 | 0.000 | 81 | 37981 | 0.5000 | 0.4430 | |
| 7 | Bromomethane | 94 | 2.629 | 2.623 | 0.006 | 91 | 30163 | 0.5000 | 0.4855 | |
| 8 | Chloroethane | 64 | 2.715 | 2.709 | 0.006 | 99 | 24539 | 0.5000 | 0.4775 | |
| 9 | Dichlorofluoromethane | 67 | 2.952 | 2.946 | 0.006 | 97 | 57981 | 0.5000 | 0.4691 | |
| 10 | Trichlorofluoromethane | 101 | 3.026 | 3.020 | 0.006 | 96 | 39345 | 0.5000 | 0.3561 | |
| 11 | Ethyl ether | 59 | 3.269 | 3.257 | 0.012 | 90 | 19745 | 0.5000 | 0.4400 | |
| 12 | 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.349 | 3.343 | 0.006 | 91 | 33147 | 0.5000 | 0.4188 | |
| 13 | Acrolein | 56 | 3.446 | 3.428 | 0.018 | 98 | 164868 | 25.0 | 23.2 | |
| 14 | 1,1-Dichloroethene | 96 | 3.580 | 3.568 | 0.012 | 98 | 25406 | 0.5000 | 0.4460 | |
| 15 | Acetone | 43 | 3.617 | 3.599 | 0.018 | 99 | 42743 | 5.00 | 4.73 | |
| 16 | 112TCTFE | 101 | 3.629 | 3.611 | 0.018 | 87 | 23135 | 0.5000 | 0.3890 | |
| 17 | Iodomethane | 142 | 3.775 | 3.769 | 0.006 | 99 | 54663 | 0.5000 | 0.4801 | |
| 18 | Ethyl bromide | 108 | 3.812 | 3.794 | 0.018 | 97 | 23524 | 0.4997 | 0.4532 | |
| 19 | Carbon disulfide | 76 | 3.891 | 3.879 | 0.012 | 99 | 72614 | 0.5000 | 0.4619 | |
| 21 | Methyl acetate | 43 | 4.050 | 4.038 | 0.012 | 90 | 10814 | 0.5000 | 0.4066 | M |
| 22 | 3-Chloro-1-propene | 41 | 4.068 | 4.056 | 0.012 | 91 | 44817 | 0.5000 | 0.4797 | |
| 23 | Methylene Chloride | 84 | 4.251 | 4.239 | 0.012 | 90 | 29677 | 0.5000 | 0.4774 | |
| * 24 | t-Butyl alcohol-d10 (IS) | 65 | 4.263 | 4.257 | 0.006 | 99 | 162651 | 50.0 | 50.0 | |
| 25 | 2-Methyl-2-propanol | 59 | 4.410 | 4.397 | 0.013 | 100 | 30939 | 10.0 | 9.03 | |
| 26 | Acrylonitrile | 53 | 4.623 | 4.592 | 0.031 | 81 | 13208 | 1.25 | 1.10 | |
| 27 | Methyl tert-butyl ether | 73 | 4.659 | 4.659 | 0.000 | 87 | 74896 | 0.5000 | 0.4610 | |
| 28 | trans-1,2-Dichloroethene | 96 | 4.678 | 4.672 | 0.006 | 99 | 30641 | 0.5000 | 0.4737 | |
| 29 | Hexane | 57 | 5.105 | 5.086 | 0.018 | 91 | 34316 | 0.5000 | 0.3799 | |
| 31 | 1,1-Dichloroethane | 63 | 5.336 | 5.330 | 0.006 | 96 | 56931 | 0.5000 | 0.4849 | |
| 32 | Isopropyl ether | 45 | 5.391 | 5.385 | 0.006 | 97 | 92363 | 0.5000 | 0.4710 | |
| 33 | 2-Chloro-1,3-butadiene | 53 | 5.452 | 5.434 | 0.018 | 91 | 44829 | 0.5000 | 0.4580 | |
| 34 | Tert-butyl ethyl ether | 59 | 5.921 | 5.915 | 0.006 | 97 | 89795 | 0.5000 | 0.4683 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.129 | 6.116 | 0.013 | 99 | 77869 | 5.00 | 4.94 | |
| S 35 1,2-Dichloroethene, Total | 100 | | | | 0 | | | 0.9359 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.165 | 6.159 | 0.006 | 82 | 33313 | 0.5000 | 0.4622 | |
| 38 2,2-Dichloropropane | 77 | 6.171 | 6.171 | 0.000 | 69 | 48330 | 0.5000 | 0.4735 | |
| 40 Propionitrile | 54 | 6.226 | 6.208 | 0.018 | 91 | 37944 | 10.0 | 9.06 | |
| 42 Methacrylonitrile | 67 | 6.427 | 6.415 | 0.012 | 90 | 73898 | 5.00 | 4.66 | |
| 43 Chlorobromomethane | 128 | 6.494 | 6.482 | 0.012 | 89 | 14686 | 0.5000 | 0.4722 | |
| 44 Tetrahydrofuran | 71 | 6.494 | 6.494 | 0.000 | 76 | 10321 | 2.50 | 2.21 | |
| 45 Chloroform | 83 | 6.641 | 6.635 | 0.006 | 93 | 55513 | 0.5000 | 0.4774 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.848 | 0.006 | 94 | 602854 | 10.0 | 10.0 | |
| 47 1,1,1-Trichloroethane | 97 | 6.872 | 6.860 | 0.012 | 97 | 50051 | 0.5000 | 0.4632 | |
| 48 Cyclohexane | 56 | 6.964 | 6.964 | 0.000 | 89 | 41983 | 0.5000 | 0.3919 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.067 | 0.013 | 88 | 39984 | 0.5000 | 0.4287 | |
| 51 1,1-Dichloropropene | 75 | 7.080 | 7.074 | 0.006 | 95 | 40862 | 0.5000 | 0.4483 | |
| 52 Isobutyl alcohol | 41 | 7.232 | 7.214 | 0.018 | 95 | 24830 | 25.0 | 22.7 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 118060 | 10.0 | 9.82 | |
| 54 Benzene | 78 | 7.336 | 7.336 | 0.000 | 95 | 128948 | 0.5000 | 0.4806 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.409 | 0.000 | 96 | 34473 | 0.5000 | 0.4742 | |
| 57 Tert-amyl methyl ether | 73 | 7.525 | 7.519 | 0.006 | 99 | 81778 | 0.5000 | 0.4594 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2386508 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.744 | 7.744 | 0.000 | 48 | 39115 | 0.5000 | 0.4211 | |
| 60 n-Butanol | 56 | 8.104 | 8.098 | 0.006 | 87 | 41262 | 43.8 | 40.7 | |
| 61 Trichloroethene | 95 | 8.220 | 8.214 | 0.006 | 98 | 34329 | 0.5000 | 0.4760 | |
| 62 Methylcyclohexane | 83 | 8.531 | 8.525 | 0.006 | 92 | 46295 | 0.5000 | 0.3860 | |
| 63 1,2-Dichloropropane | 63 | 8.543 | 8.543 | 0.000 | 73 | 30184 | 0.5000 | 0.4580 | |
| 64 Methyl methacrylate | 69 | 8.634 | 8.628 | 0.006 | 90 | 12996 | 0.5000 | 0.4171 | |
| 65 1,4-Dioxane | 88 | 8.640 | 8.640 | 0.000 | 38 | 4720 | 25.0 | 33.9 | M |
| 66 Dibromomethane | 93 | 8.653 | 8.653 | 0.000 | 92 | 14579 | 0.5000 | 0.4527 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.890 | 0.000 | 99 | 37237 | 0.5000 | 0.4661 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 98 | 20434 | 2.50 | 2.29 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.281 | 9.280 | 0.001 | 98 | 27429 | 0.5000 | 0.4241 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.433 | 0.000 | 96 | 44155 | 0.5000 | 0.4399 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.604 | 9.597 | 0.007 | 96 | 180620 | 5.00 | 4.55 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2386226 | 10.0 | 10.0 | |
| 76 Toluene | 92 | 9.817 | 9.811 | 0.006 | 98 | 85173 | 0.5000 | 0.4814 | |
| S 77 1,3-Dichloropropene, Total | 100 | | | | 0 | | | 0.8811 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.073 | 10.067 | 0.006 | 92 | 35995 | 0.5000 | 0.4412 | |
| 79 Ethyl methacrylate | 69 | 10.134 | 10.128 | 0.006 | 89 | 28685 | 0.5000 | 0.4213 | |
| 80 1,1,2-Trichloroethane | 97 | 10.274 | 10.268 | 0.006 | 90 | 22055 | 0.5000 | 0.4673 | |
| 81 Tetrachloroethene | 166 | 10.360 | 10.360 | 0.000 | 98 | 39159 | 0.5000 | 0.4646 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.433 | 0.000 | 88 | 36830 | 0.5000 | 0.4589 | |
| 83 2-Hexanone | 43 | 10.482 | 10.481 | 0.001 | 96 | 125813 | 5.00 | 4.52 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 89 | 24663 | 0.5000 | 0.4288 | |
| 86 Ethylene Dibromide | 107 | 10.756 | 10.756 | 0.000 | 99 | 20030 | 0.5000 | 0.4399 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.183 | 0.000 | 85 | 1845718 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.189 | 11.189 | 0.000 | 94 | 46401 | 0.5000 | 0.4484 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 96 | 92274 | 0.5000 | 0.4708 | |
| S 89 Xylenes, Total | 106 | | | | 0 | | | 1.42 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 95 | 30345 | 0.5000 | 0.4434 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.298 | 0.000 | 98 | 160740 | 0.5000 | 0.4718 | |
| 93 m-Xylene & p-Xylene | 106 | 11.414 | 11.408 | 0.006 | 99 | 127477 | 1.00 | 0.9471 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 62976 | 0.5000 | 0.4741 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 95 Styrene | 104 | 11.756 | 11.756 | 0.000 | 94 | 99275 | 0.5000 | 0.4630 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 96 | 14486 | 0.5000 | 0.4205 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 96 | 165096 | 0.5000 | 0.4708 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 92 | 911479 | 10.0 | 10.0 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 93 | 27777 | 0.5000 | 0.4559 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 96 | 38617 | 0.5000 | 0.4625 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.310 | 12.304 | 0.006 | 94 | 63065 | 5.00 | 4.39 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.000 | 80 | 7449 | 0.5000 | 0.4447 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 188239 | 0.5000 | 0.4644 | |
| 106 2-Chlorotoluene | 126 | 12.445 | 12.444 | 0.001 | 97 | 38383 | 0.5000 | 0.4615 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 137180 | 0.5000 | 0.4634 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 98 | 39370 | 0.5000 | 0.4635 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 92 | 30260 | 0.5000 | 0.4661 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 89 | 21010 | 0.5000 | 0.4007 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 139600 | 0.5000 | 0.4601 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.902 | 0.006 | 94 | 171209 | 0.5000 | 0.4577 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 76475 | 0.5000 | 0.4542 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 151465 | 0.5000 | 0.4578 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1102182 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.079 | 13.079 | 0.000 | 95 | 79823 | 0.5000 | 0.4638 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.085 | 13.085 | 0.000 | 95 | 63083 | 0.5000 | 0.4699 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 10785 | 0.5000 | 0.4326 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 98 | 68676 | 0.5000 | 0.4441 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.000 | 98 | 69498 | 0.5000 | 0.4517 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 88 | 3634 | 0.5000 | 0.4055 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.011 | 14.005 | 0.006 | 95 | 55476 | 0.5000 | 0.4502 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 95 | 44434 | 0.5000 | 0.4274 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 20700 | 0.5000 | 0.4583 | |
| 126 Naphthalene | 128 | 14.615 | 14.609 | 0.006 | 97 | 86939 | 0.5000 | 0.4387 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 94 | 38854 | 0.5000 | 0.4324 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| MSV_LL_#1_826_00015 | Amount Added: | 2.00 | Units: uL | |
| MSV_LL_#2_826_00015 | Amount Added: | 2.00 | Units: uL | |
| MSV_LL_GAS826_00027 | Amount Added: | 2.00 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: | 5.00 | Units: uL | Run Reagent |

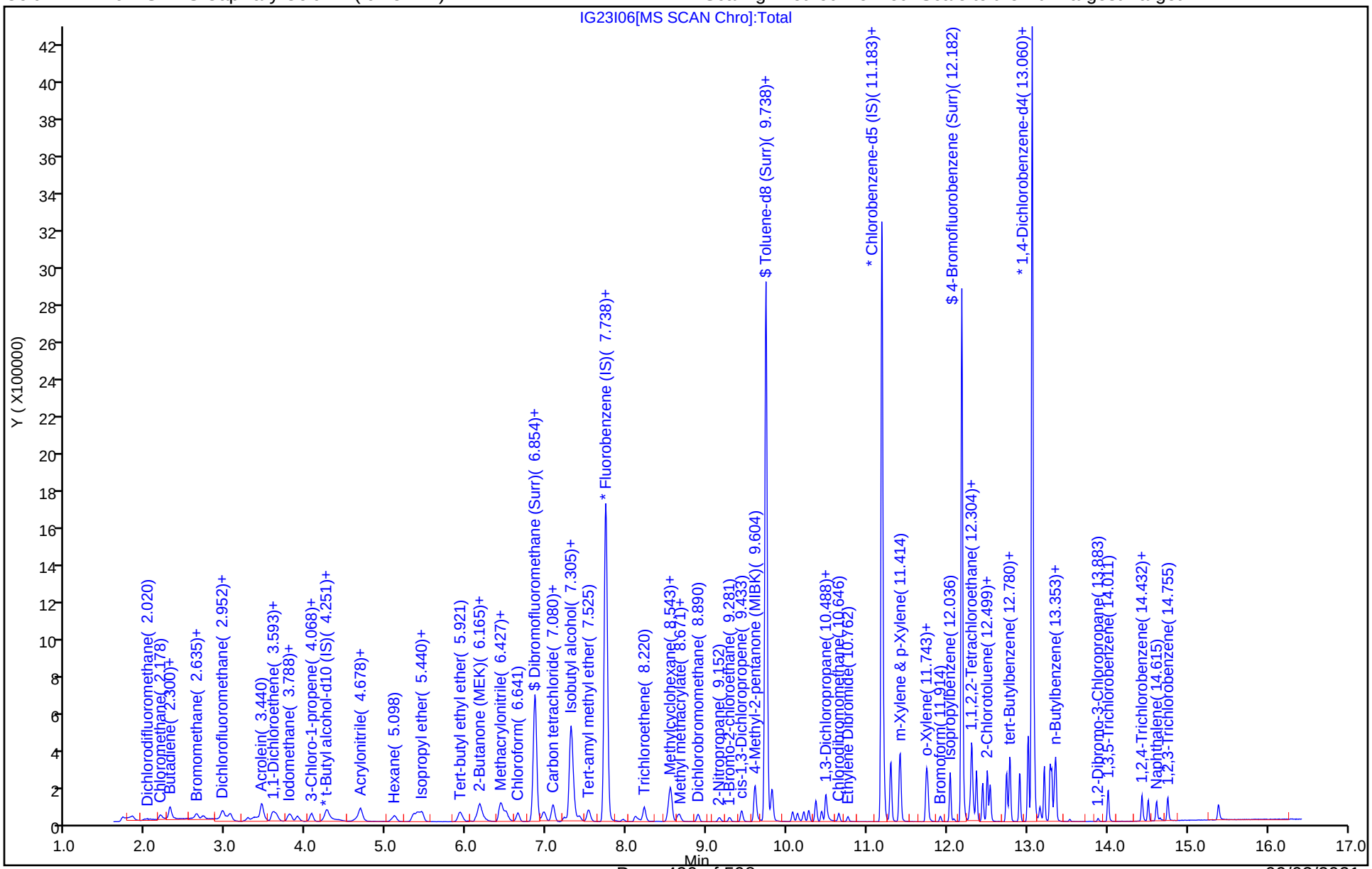
Report Date: 24-Aug-2021 15:55:28 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Aug-2021 02:30:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std2 | | | Worklist Smp#: | 17 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 16 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

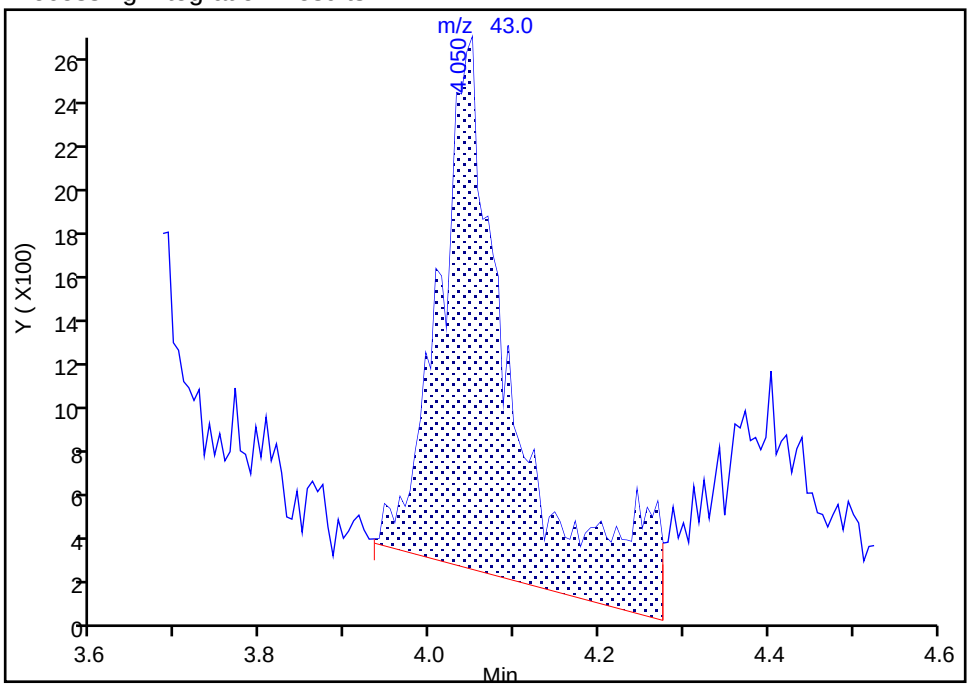
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D
Injection Date: 24-Aug-2021 02:30:30 Instrument ID: 19930
Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column ( 0.25mm) Detector MS Quad

## 21 Methyl acetate, CAS: 79-20-9

Signal: 1

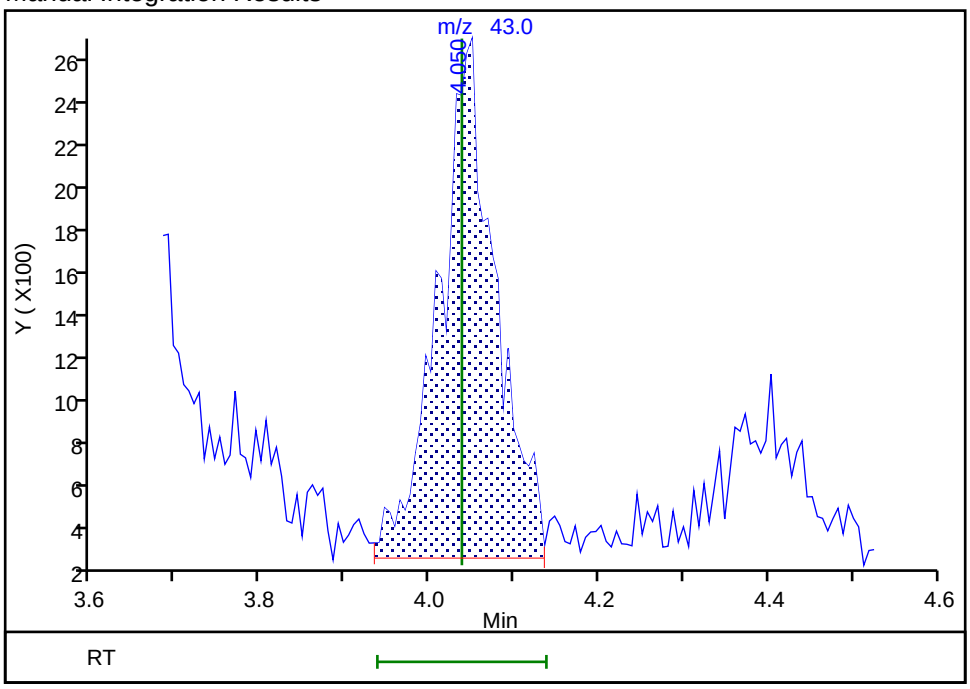
Processing Integration Results

RT: 4.05
Area: 14429
Amount: 0.507597
Amount Units: ug/l




Manual Integration Results

RT: 4.05
Area: 10814
Amount: 0.406583
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:07:57
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

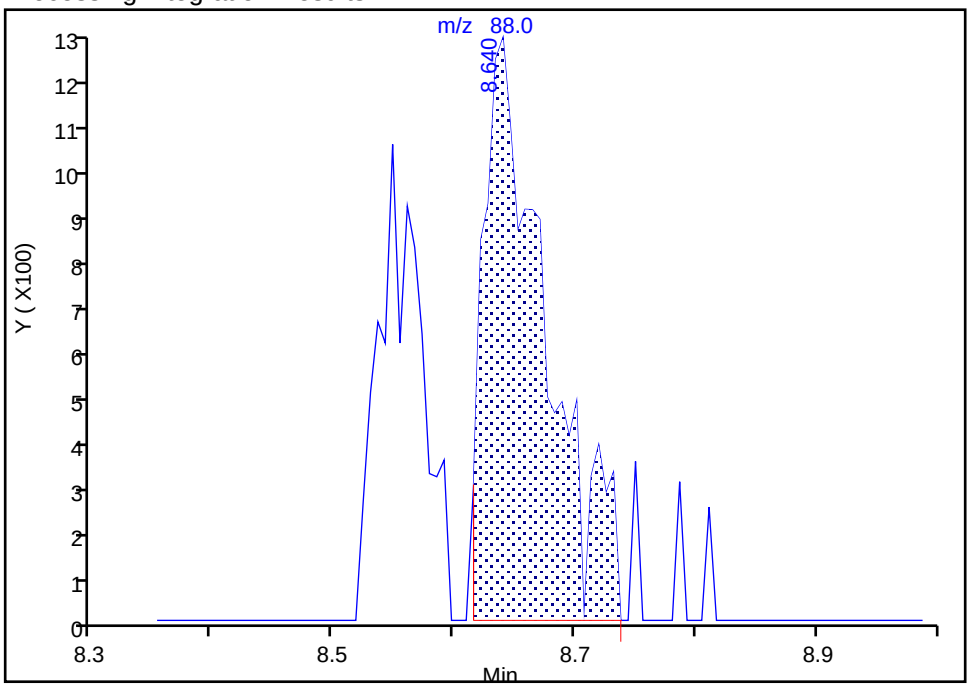
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D | | | | |
| Injection Date: | 24-Aug-2021 02:30:30 | Instrument ID: | 19930 | | |
| Lims ID: | IC std2 | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 16 | Worklist Smp#: | 17 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

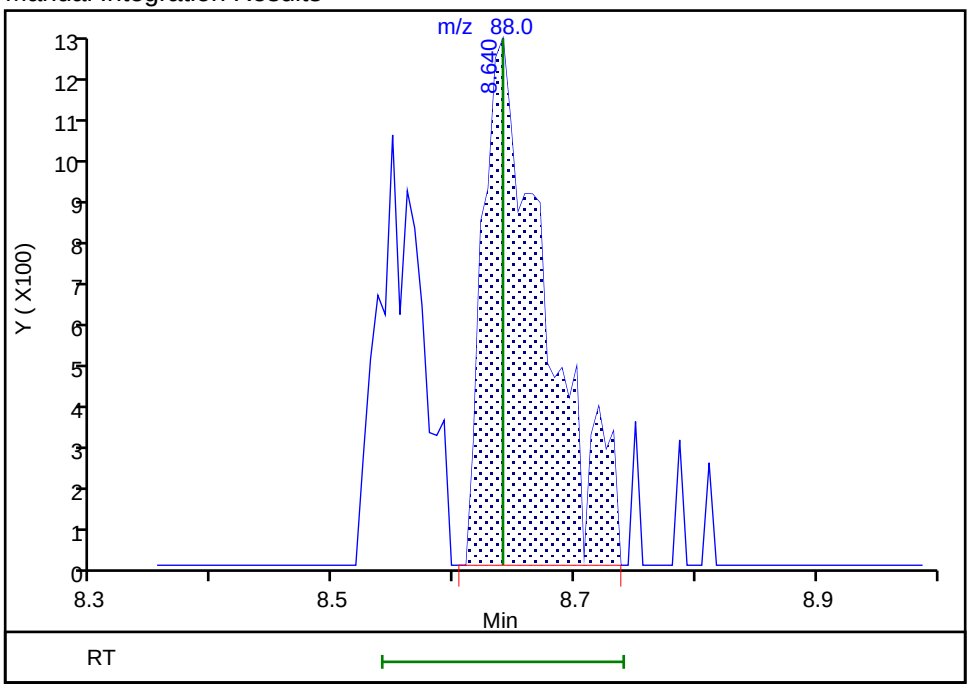
Processing Integration Results

RT: 8.64
Area: 4720
Amount: 19.712558
Amount Units: ug/l




Manual Integration Results

RT: 8.64
Area: 4720
Amount: 33.937684
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:07:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
Lims ID: IC std1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Aug-2021 02:52:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-018
Misc. Info.: IC STD1
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:32 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:55:08

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.983 | 1.965 | 0.018 | 98 | 10622 | 0.2000 | 0.1541 | |
| 4 Chloromethane | 50 | 2.172 | 2.172 | 0.000 | 98 | 16469 | 0.2000 | 0.2098 | |
| 6 Butadiene | 39 | 2.294 | 2.288 | 0.006 | 89 | 15788 | 0.2000 | 0.2189 | |
| 5 Vinyl chloride | 62 | 2.294 | 2.294 | 0.000 | 79 | 16237 | 0.2000 | 0.2051 | |
| 7 Bromomethane | 94 | 2.617 | 2.623 | -0.006 | 93 | 12369 | 0.2000 | 0.2156 | |
| 8 Chloroethane | 64 | 2.702 | 2.709 | -0.007 | 98 | 9968 | 0.2000 | 0.2101 | |
| 9 Dichlorofluoromethane | 67 | 2.952 | 2.946 | 0.006 | 96 | 24746 | 0.2000 | 0.2169 | |
| 10 Trichlorofluoromethane | 101 | 3.019 | 3.020 | -0.001 | 94 | 17920 | 0.2000 | 0.1757 | |
| 11 Ethyl ether | 59 | 3.263 | 3.257 | 0.006 | 89 | 8085 | 0.2000 | 0.1951 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.349 | 3.343 | 0.006 | 91 | 14481 | 0.2000 | 0.1982 | |
| 13 Acrolein | 56 | 3.434 | 3.428 | 0.006 | 99 | 67296 | 10.0 | 9.50 | |
| 14 1,1-Dichloroethene | 96 | 3.568 | 3.568 | 0.000 | 97 | 9853 | 0.2000 | 0.1873 | |
| 15 Acetone | 43 | 3.623 | 3.599 | 0.024 | 91 | 22016 | 2.00 | 2.44 | |
| 16 112TCTFE | 101 | 3.623 | 3.611 | 0.012 | 67 | 7902 | 0.2000 | 0.1439 | |
| 17 Iodomethane | 142 | 3.769 | 3.769 | 0.000 | 99 | 19236 | 0.2000 | 0.1830 | |
| 18 Ethyl bromide | 108 | 3.800 | 3.794 | 0.006 | 97 | 9559 | 0.1999 | 0.1995 | |
| 19 Carbon disulfide | 76 | 3.885 | 3.879 | 0.006 | 98 | 27501 | 0.2000 | 0.1895 | |
| 21 Methyl acetate | 43 | 4.025 | 4.038 | -0.013 | 24 | 6630 | 0.2000 | 0.2501 | M |
| 22 3-Chloro-1-propene | 41 | 4.062 | 4.056 | 0.006 | 91 | 17799 | 0.2000 | 0.2063 | |
| 23 Methylene Chloride | 84 | 4.251 | 4.239 | 0.012 | 92 | 11123 | 0.2000 | 0.1938 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.257 | 0.000 | 87 | 162132 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.385 | 4.397 | -0.012 | 96 | 13173 | 4.00 | 3.86 | |
| 26 Acrylonitrile | 53 | 4.598 | 4.592 | 0.006 | 93 | 5439 | 0.5000 | 0.4531 | |
| 27 Methyl tert-butyl ether | 73 | 4.672 | 4.659 | 0.013 | 94 | 28552 | 0.2000 | 0.1903 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.672 | 4.672 | 0.000 | 98 | 11615 | 0.2000 | 0.1945 | |
| 29 Hexane | 57 | 5.092 | 5.086 | 0.006 | 89 | 13158 | 0.2000 | 0.1578 | |
| 31 1,1-Dichloroethane | 63 | 5.330 | 5.330 | 0.000 | 94 | 19958 | 0.2000 | 0.1841 | |
| 32 Isopropyl ether | 45 | 5.379 | 5.385 | -0.006 | 92 | 34823 | 0.2000 | 0.1923 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.434 | 5.434 | 0.000 | 90 | 16724 | 0.2000 | 0.1851 | |
| 34 Tert-butyl ethyl ether | 59 | 5.915 | 5.915 | 0.000 | 95 | 34174 | 0.2000 | 0.1930 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.135 | 6.116 | 0.019 | 99 | 29007 | 2.00 | 1.84 | |
| S 35 1,2-Dichloroethene, Total | 100 | | | | 0 | | | 0.3987 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.159 | 0.000 | 80 | 13593 | 0.2000 | 0.2043 | |
| 38 2,2-Dichloropropane | 77 | 6.165 | 6.171 | -0.006 | 75 | 17139 | 0.2000 | 0.1819 | |
| 40 Propionitrile | 54 | 6.226 | 6.208 | 0.018 | 96 | 13833 | 4.00 | 3.31 | |
| 42 Methacrylonitrile | 67 | 6.433 | 6.415 | 0.018 | 91 | 28932 | 2.00 | 1.83 | |
| 43 Chlorobromomethane | 128 | 6.494 | 6.482 | 0.012 | 89 | 5382 | 0.2000 | 0.1874 | |
| 44 Tetrahydrofuran | 71 | 6.500 | 6.494 | 0.006 | 73 | 4531 | 1.00 | 0.9713 | |
| 45 Chloroform | 83 | 6.641 | 6.635 | 0.006 | 93 | 20677 | 0.2000 | 0.1926 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.848 | 0.000 | 94 | 550850 | 10.0 | 9.92 | |
| 47 1,1,1-Trichloroethane | 97 | 6.860 | 6.860 | 0.000 | 37 | 17947 | 0.2000 | 0.1799 | |
| 48 Cyclohexane | 56 | 6.964 | 6.964 | 0.000 | 88 | 15734 | 0.2000 | 0.1591 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.067 | 0.013 | 89 | 14826 | 0.2000 | 0.1722 | |
| 51 1,1-Dichloropropene | 75 | 7.074 | 7.074 | 0.000 | 92 | 15129 | 0.2000 | 0.1798 | |
| 52 Isobutyl alcohol | 41 | 7.238 | 7.214 | 0.024 | 98 | 11365 | 10.0 | 10.4 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 111473 | 10.0 | 10.0 | |
| 54 Benzene | 78 | 7.342 | 7.336 | 0.006 | 92 | 47533 | 0.2000 | 0.1919 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.409 | 0.000 | 96 | 14085 | 0.2000 | 0.2098 | |
| 57 Tert-amyl methyl ether | 73 | 7.519 | 7.519 | 0.000 | 98 | 32493 | 0.2000 | 0.1977 | |
| * 58 Fluorobenzene (IS) | 96 | 7.732 | 7.732 | 0.000 | 99 | 2203428 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.744 | 7.744 | 0.000 | 37 | 16461 | 0.2000 | 0.1919 | |
| 60 n-Butanol | 56 | 8.110 | 8.098 | 0.012 | 88 | 15162 | 17.5 | 15.0 | |
| 61 Trichloroethene | 95 | 8.214 | 8.214 | 0.000 | 97 | 12472 | 0.2000 | 0.1873 | |
| 62 Methylcyclohexane | 83 | 8.518 | 8.525 | -0.007 | 90 | 18086 | 0.2000 | 0.1633 | |
| 63 1,2-Dichloropropane | 63 | 8.549 | 8.543 | 0.006 | 72 | 10792 | 0.2000 | 0.1774 | |
| 64 Methyl methacrylate | 69 | 8.634 | 8.628 | 0.006 | 69 | 5380 | 0.2000 | 0.1732 | |
| 65 1,4-Dioxane | 88 | 8.659 | 8.640 | 0.019 | 36 | 1410 | 10.0 | 25.4 | |
| 66 Dibromomethane | 93 | 8.665 | 8.653 | 0.012 | 96 | 6024 | 0.2000 | 0.2026 | |
| 68 Dichlorobromomethane | 83 | 8.884 | 8.890 | -0.006 | 98 | 13292 | 0.2000 | 0.1802 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 98 | 7855 | 1.00 | 0.8841 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.280 | 9.280 | 0.000 | 95 | 11412 | 0.2000 | 0.1911 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.433 | 0.000 | 96 | 16632 | 0.2000 | 0.1795 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.604 | 9.597 | 0.007 | 95 | 72451 | 2.00 | 1.83 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2194797 | 10.0 | 10.1 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 97 | 31541 | 0.2000 | 0.1959 | |
| S 77 1,3-Dichloropropene, Total | 100 | | | | 0 | | | 0.3575 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.073 | 10.067 | 0.006 | 93 | 13216 | 0.2000 | 0.1780 | |
| 79 Ethyl methacrylate | 69 | 10.140 | 10.128 | 0.012 | 86 | 11059 | 0.2000 | 0.1785 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 88 | 8395 | 0.2000 | 0.1955 | |
| 81 Tetrachloroethene | 166 | 10.366 | 10.360 | 0.006 | 97 | 14161 | 0.2000 | 0.1846 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.433 | 0.000 | 86 | 14346 | 0.2000 | 0.1964 | |
| 83 2-Hexanone | 43 | 10.487 | 10.481 | 0.006 | 96 | 46582 | 2.00 | 1.68 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 91 | 9097 | 0.2000 | 0.1738 | |
| 86 Ethylene Dibromide | 107 | 10.762 | 10.756 | 0.006 | 96 | 7956 | 0.2000 | 0.1920 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.183 | -0.001 | 86 | 1679409 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.195 | 11.189 | 0.006 | 74 | 19704 | 0.2000 | 0.2093 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 96 | 34732 | 0.2000 | 0.1948 | |
| S 89 Xylenes, Total | 106 | | | | 0 | | | 0.5624 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 92 | 11871 | 0.2000 | 0.1906 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.298 | 0.000 | 98 | 59702 | 0.2000 | 0.1926 | |
| 93 m-Xylene & p-Xylene | 106 | 11.414 | 11.408 | 0.006 | 100 | 45724 | 0.4000 | 0.3734 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 22844 | 0.2000 | 0.1890 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 95 Styrene | 104 | 11.756 | 11.756 | 0.000 | 94 | 35508 | 0.2000 | 0.1820 | |
| 96 Bromoform | 173 | 11.920 | 11.914 | 0.006 | 96 | 5180 | 0.2000 | 0.1652 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 59476 | 0.2000 | 0.1864 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 92 | 836413 | 10.0 | 10.1 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 91 | 10699 | 0.2000 | 0.1912 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 94 | 14657 | 0.2000 | 0.1911 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.310 | 12.304 | 0.006 | 94 | 23386 | 2.00 | 1.63 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.000 | 79 | 2954 | 0.2000 | 0.1920 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 69326 | 0.2000 | 0.1862 | |
| 106 2-Chlorotoluene | 126 | 12.444 | 12.444 | 0.000 | 97 | 13941 | 0.2000 | 0.1825 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 95 | 50366 | 0.2000 | 0.1853 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 96 | 14590 | 0.2000 | 0.1870 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 92 | 10568 | 0.2000 | 0.1772 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 81 | 8742 | 0.2000 | 0.1815 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 50685 | 0.2000 | 0.1819 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.902 | 0.006 | 94 | 62740 | 0.2000 | 0.1826 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 97 | 28815 | 0.2000 | 0.1863 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 56219 | 0.2000 | 0.1850 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1012314 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.078 | 13.079 | -0.001 | 94 | 30392 | 0.2000 | 0.1923 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.085 | 0.006 | 96 | 23351 | 0.2000 | 0.1894 | |
| 118 Benzyl chloride | 126 | 13.164 | 13.158 | 0.006 | 98 | 3297 | 0.2000 | 0.1440 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 26239 | 0.2000 | 0.1848 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.000 | 97 | 26871 | 0.2000 | 0.1901 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.889 | 13.883 | 0.006 | 79 | 1200 | 0.2000 | 0.1458 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 97 | 20269 | 0.2000 | 0.1791 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 17004 | 0.2000 | 0.1781 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 94 | 9764 | 0.2000 | 0.2354 | |
| 126 Naphthalene | 128 | 14.615 | 14.609 | 0.006 | 97 | 35671 | 0.2000 | 0.1960 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 16298 | 0.2000 | 0.1975 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| MSV_LL_#1_826_00015 | Amount Added: | 2.00 | Units: uL | |
| MSV_LL_#2_826_00015 | Amount Added: | 2.00 | Units: uL | |
| MSV_LL_GAS826_00027 | Amount Added: | 2.00 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: | 5.00 | Units: uL | Run Reagent |

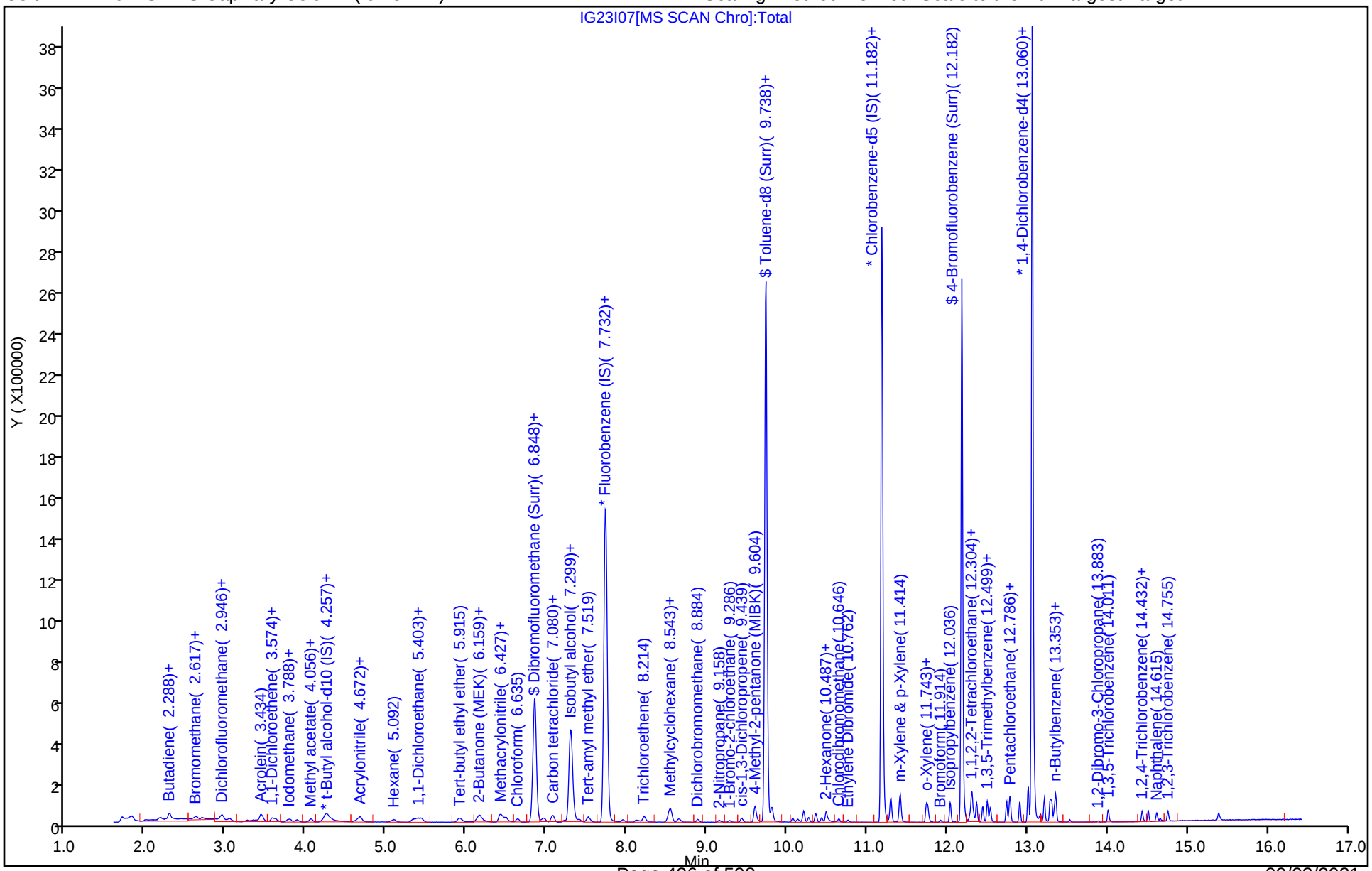
Report Date: 24-Aug-2021 15:55:32 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Aug-2021 02:52:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | IC std1 | | | Worklist Smp#: | 18 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 17 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

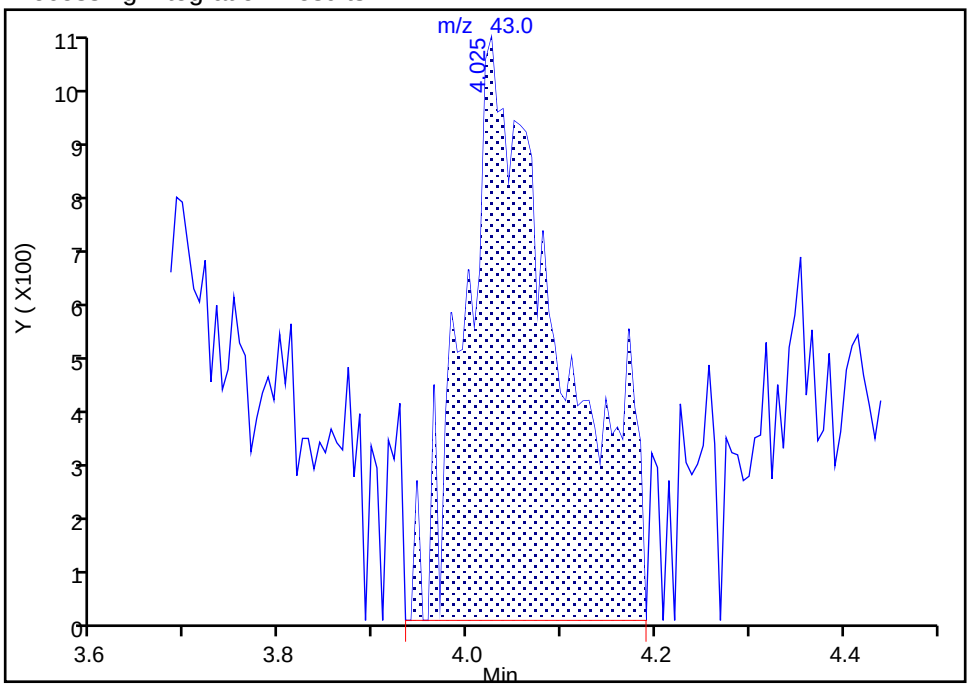
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Injection Date: | 24-Aug-2021 02:52:30 | Instrument ID: | 19930 | | |
| Lims ID: | IC std1 | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 17 | Worklist Smp#: | 18 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 21 Methyl acetate, CAS: 79-20-9

Signal: 1

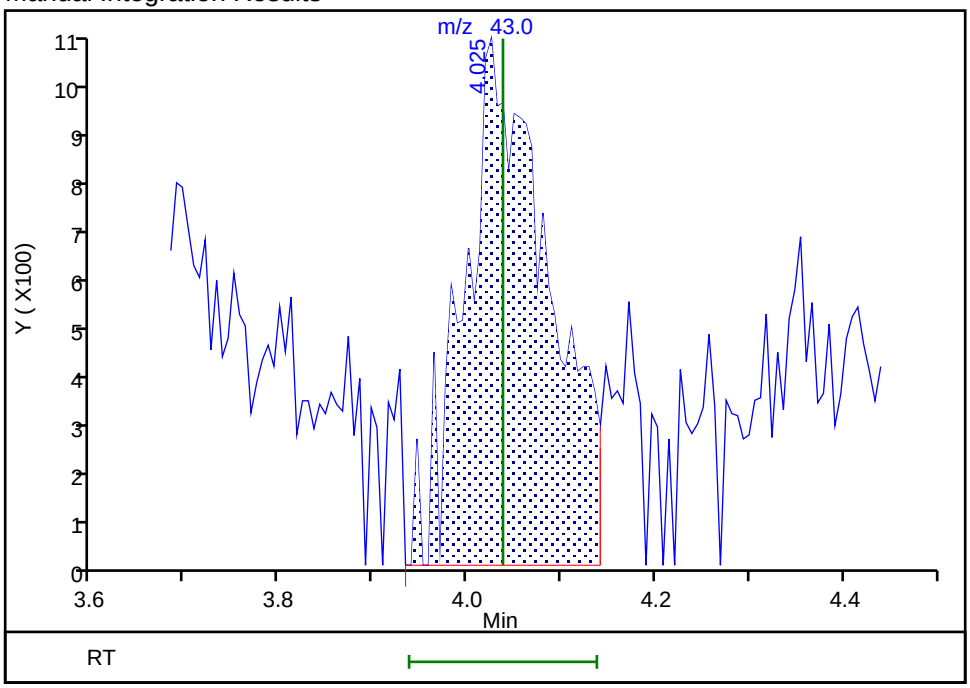
Processing Integration Results

RT: 4.03
Area: 7604
Amount: 0.278475
Amount Units: ug/l




Manual Integration Results

RT: 4.03
Area: 6630
Amount: 0.250072
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:08:28
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

## Calibration / Dichlorodifluoromethane

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

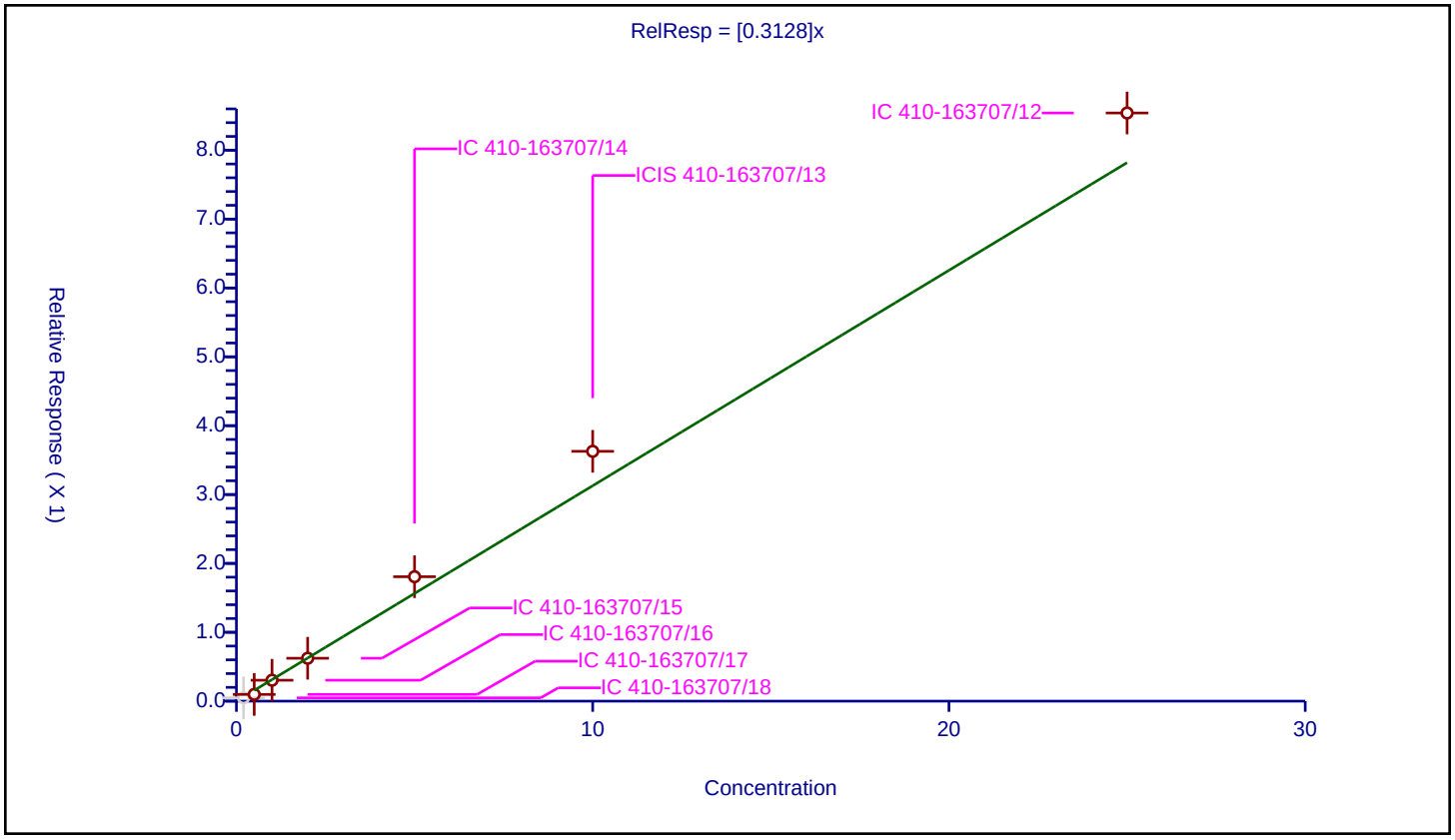
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3128 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 966000 |
| **Relative Standard Error:** | 20.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.954 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.048207 | 10.0 | 2203428.0 | 0.241034 | N |
| 2 | IC 410-163707/17 | 0.5 | 0.097804 | 10.0 | 2386508.0 | 0.195608 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.303958 | 10.0 | 2167768.0 | 0.303958 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.622777 | 10.0 | 2141536.0 | 0.311389 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.806842 | 10.0 | 2115642.0 | 0.361368 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.6274 | 10.0 | 2122537.0 | 0.36274 | Y |
| 7 | IC 410-163707/12 | 25.0 | 8.540533 | 10.0 | 2314551.0 | 0.341621 | Y |



## Calibration / Chloromethane

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

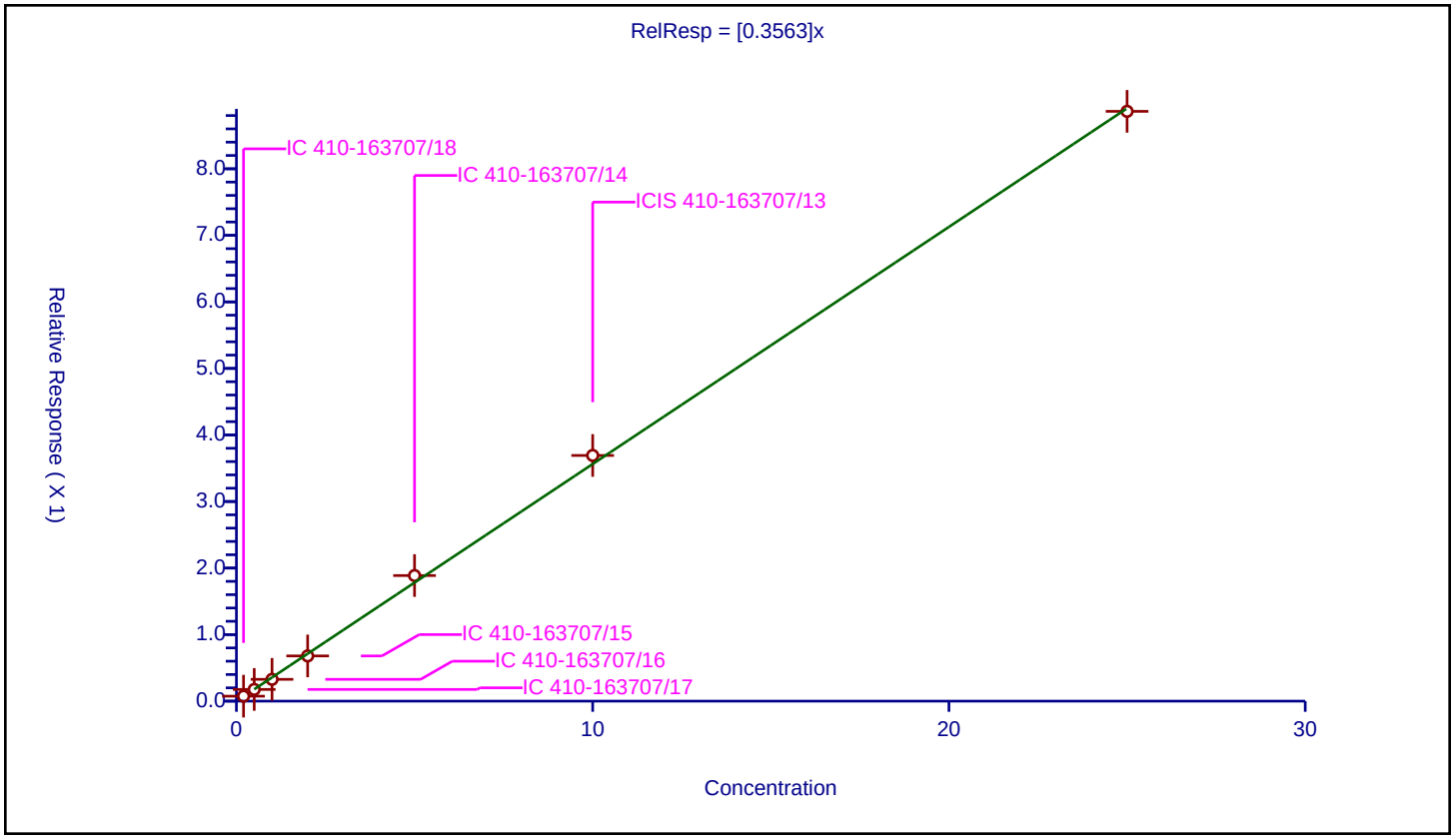
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3563 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 914000 |
| **Relative Standard Error:** | 5.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.074743 | 10.0 | 2203428.0 | 0.373713 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.176006 | 10.0 | 2386508.0 | 0.352012 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.327678 | 10.0 | 2167768.0 | 0.327678 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.679503 | 10.0 | 2141536.0 | 0.339751 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.887243 | 10.0 | 2115642.0 | 0.377449 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.692039 | 10.0 | 2122537.0 | 0.369204 | Y |
| 7 | IC 410-163707/12 | 25.0 | 8.863192 | 10.0 | 2314551.0 | 0.354528 | Y |



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

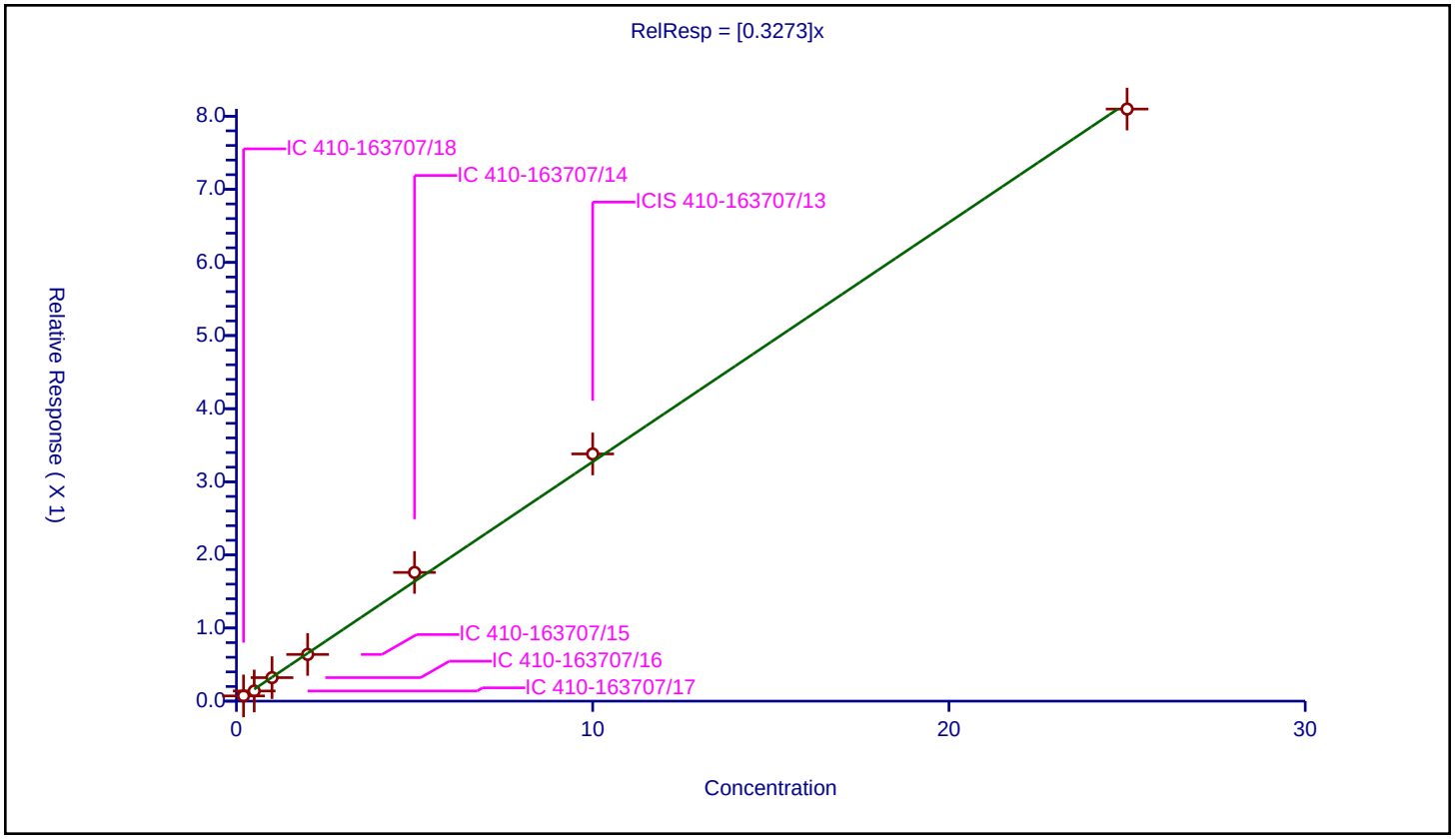
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3273 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 836000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.071652 | 10.0 | 2203428.0 | 0.35826 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.139032 | 10.0 | 2386508.0 | 0.278063 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.321552 | 10.0 | 2167768.0 | 0.321552 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.638841 | 10.0 | 2141536.0 | 0.31942 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.760421 | 10.0 | 2115642.0 | 0.352084 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.380888 | 10.0 | 2122537.0 | 0.338089 | Y |
| 7 | IC 410-163707/12 | 25.0 | 8.097925 | 10.0 | 2314551.0 | 0.323917 | Y |



## Calibration / Vinyl chloride

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

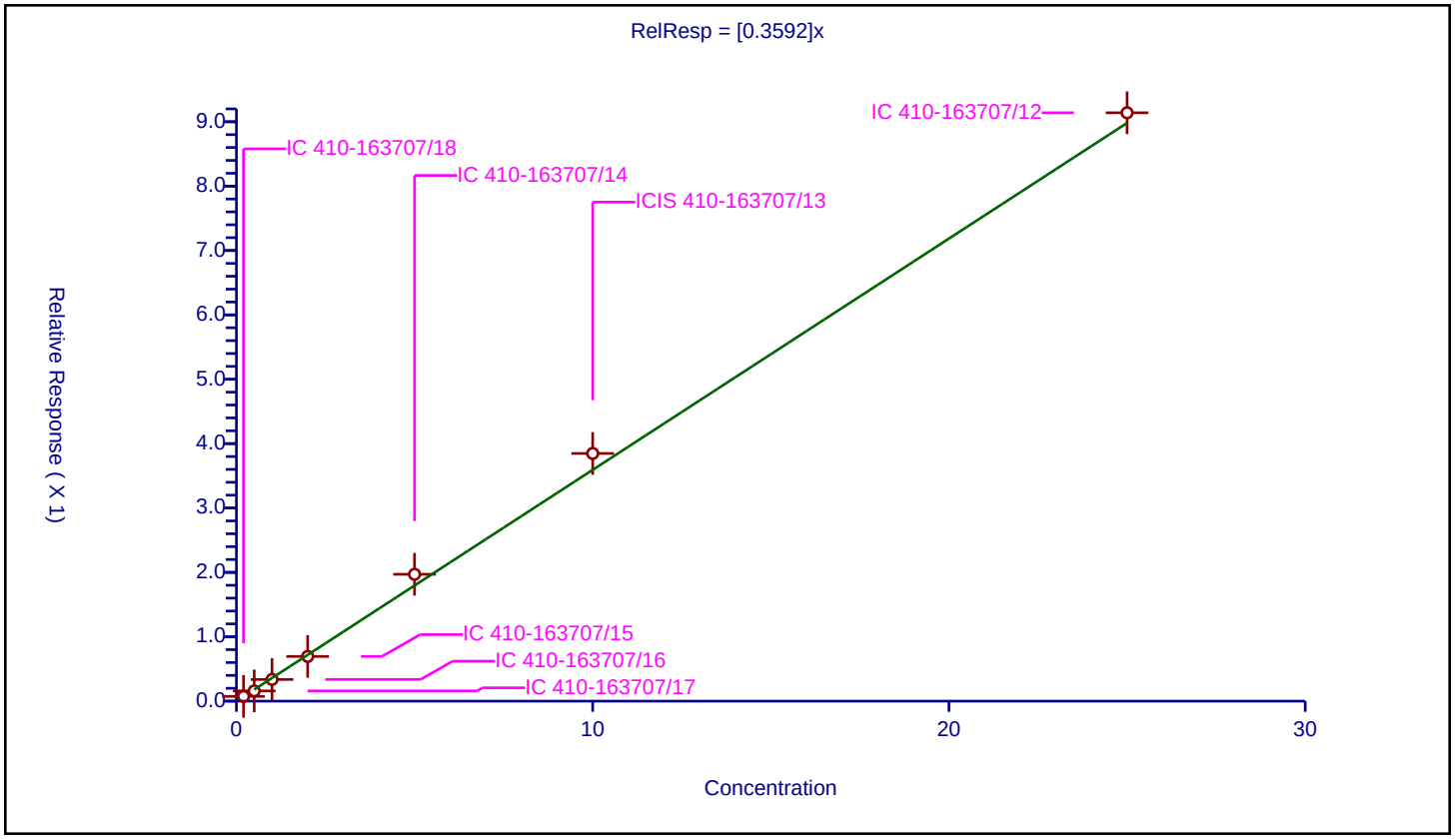
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3592 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 944000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.07369 | 10.0 | 2203428.0 | 0.368449 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.159149 | 10.0 | 2386508.0 | 0.318298 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.336443 | 10.0 | 2167768.0 | 0.336443 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.694315 | 10.0 | 2141536.0 | 0.347157 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.97039 | 10.0 | 2115642.0 | 0.394078 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.847466 | 10.0 | 2122537.0 | 0.384747 | Y |
| 7 | IC 410-163707/12 | 25.0 | 9.13944 | 10.0 | 2314551.0 | 0.365578 | Y |



## Calibration / Bromomethane

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

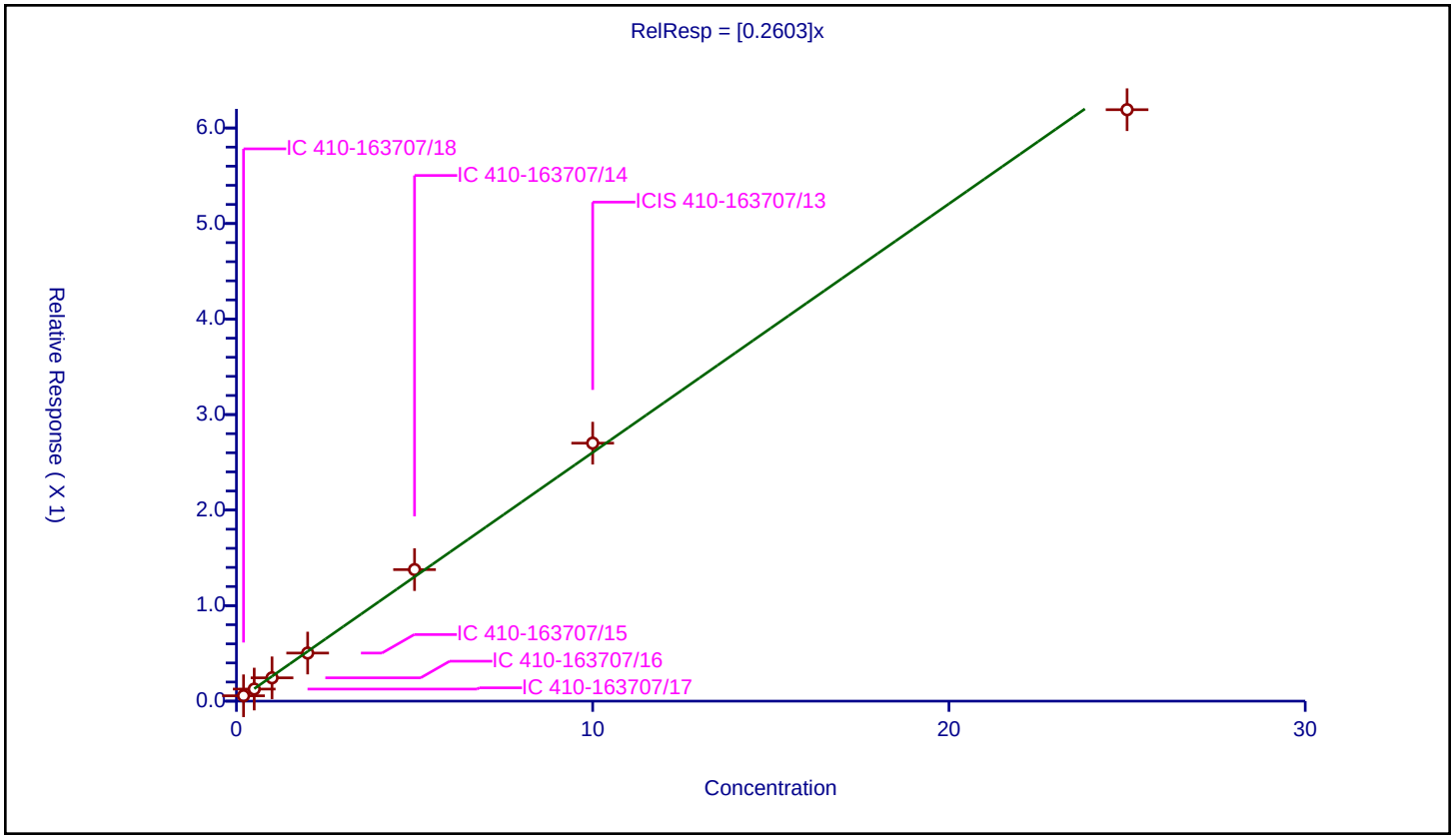
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2603 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 643000 |
| **Relative Standard Error:** | 5.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.056135 | 10.0 | 2203428.0 | 0.280676 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.12639 | 10.0 | 2386508.0 | 0.252779 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.244048 | 10.0 | 2167768.0 | 0.244048 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.503358 | 10.0 | 2141536.0 | 0.251679 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.376835 | 10.0 | 2115642.0 | 0.275367 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.700806 | 10.0 | 2122537.0 | 0.270081 | Y |
| 7 | IC 410-163707/12 | 25.0 | 6.191711 | 10.0 | 2314551.0 | 0.247668 | Y |



## Calibration / Chloroethane

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

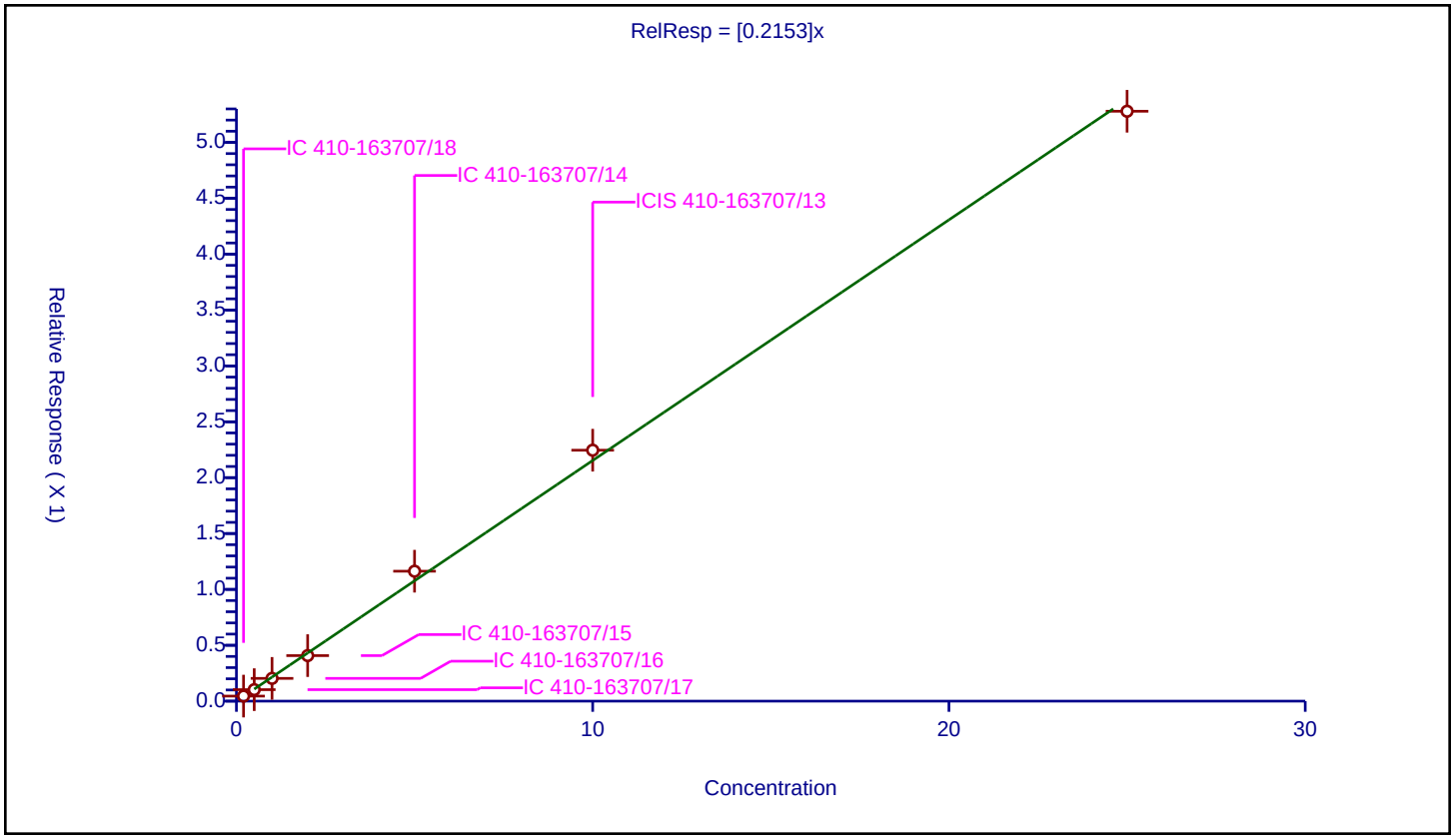
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2153 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 546000 |
| **Relative Standard Error:** | 5.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.045239 | 10.0 | 2203428.0 | 0.226193 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.102824 | 10.0 | 2386508.0 | 0.205648 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.20361 | 10.0 | 2167768.0 | 0.20361 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.407446 | 10.0 | 2141536.0 | 0.203723 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.162735 | 10.0 | 2115642.0 | 0.232547 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.245605 | 10.0 | 2122537.0 | 0.224561 | Y |
| 7 | IC 410-163707/12 | 25.0 | 5.27895 | 10.0 | 2314551.0 | 0.211158 | Y |



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

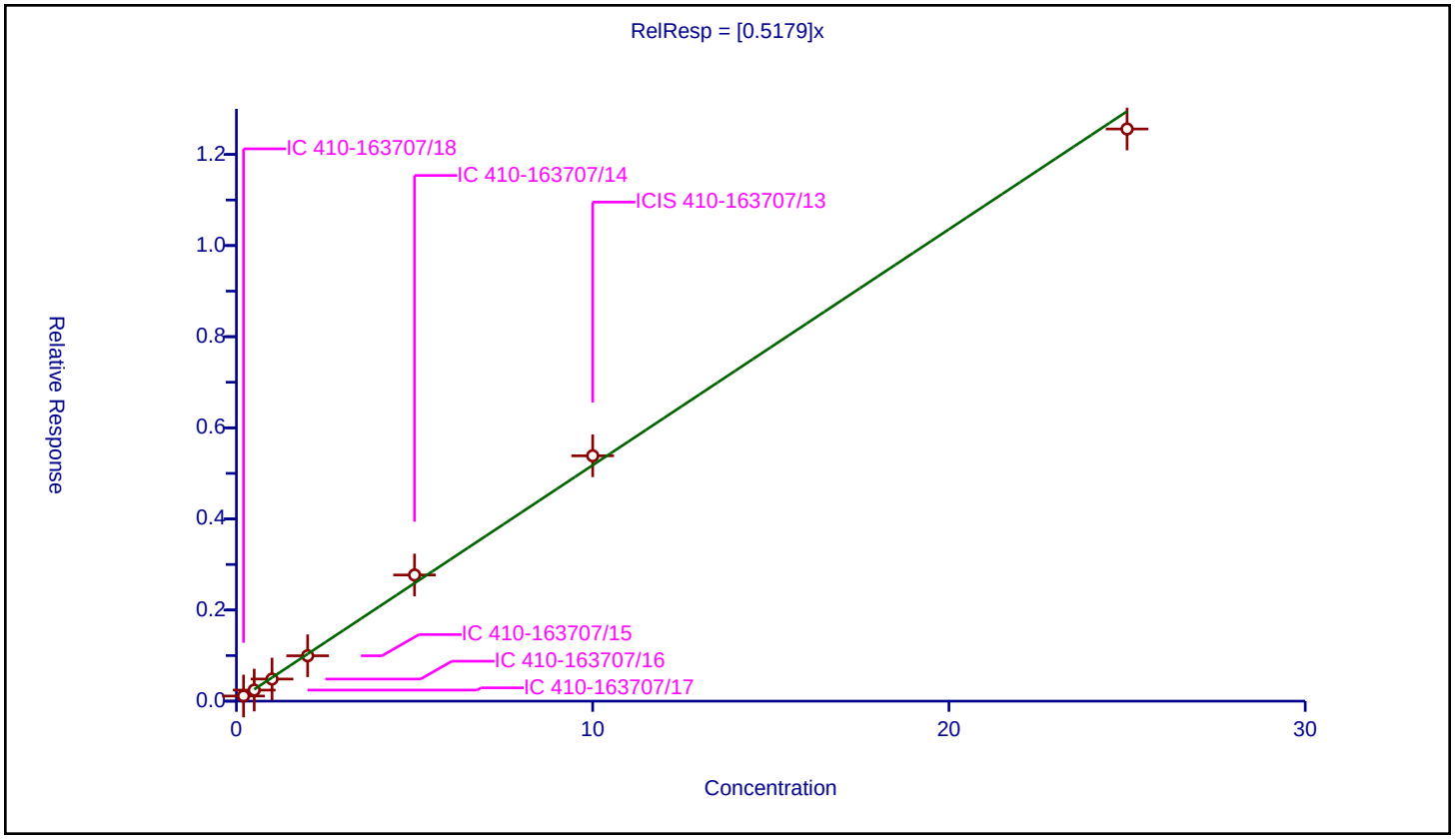
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5179 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1300000 |
| **Relative Standard Error:** | 6.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.112307 | 10.0 | 2203428.0 | 0.561534 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.242953 | 10.0 | 2386508.0 | 0.485907 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.484969 | 10.0 | 2167768.0 | 0.484969 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.995879 | 10.0 | 2141536.0 | 0.497939 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.769178 | 10.0 | 2115642.0 | 0.553836 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.38532 | 10.0 | 2122537.0 | 0.538532 | Y |
| 7 | IC 410-163707/12 | 25.0 | 12.558336 | 10.0 | 2314551.0 | 0.502333 | Y |



## Calibration / Trichlorofluoromethane

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

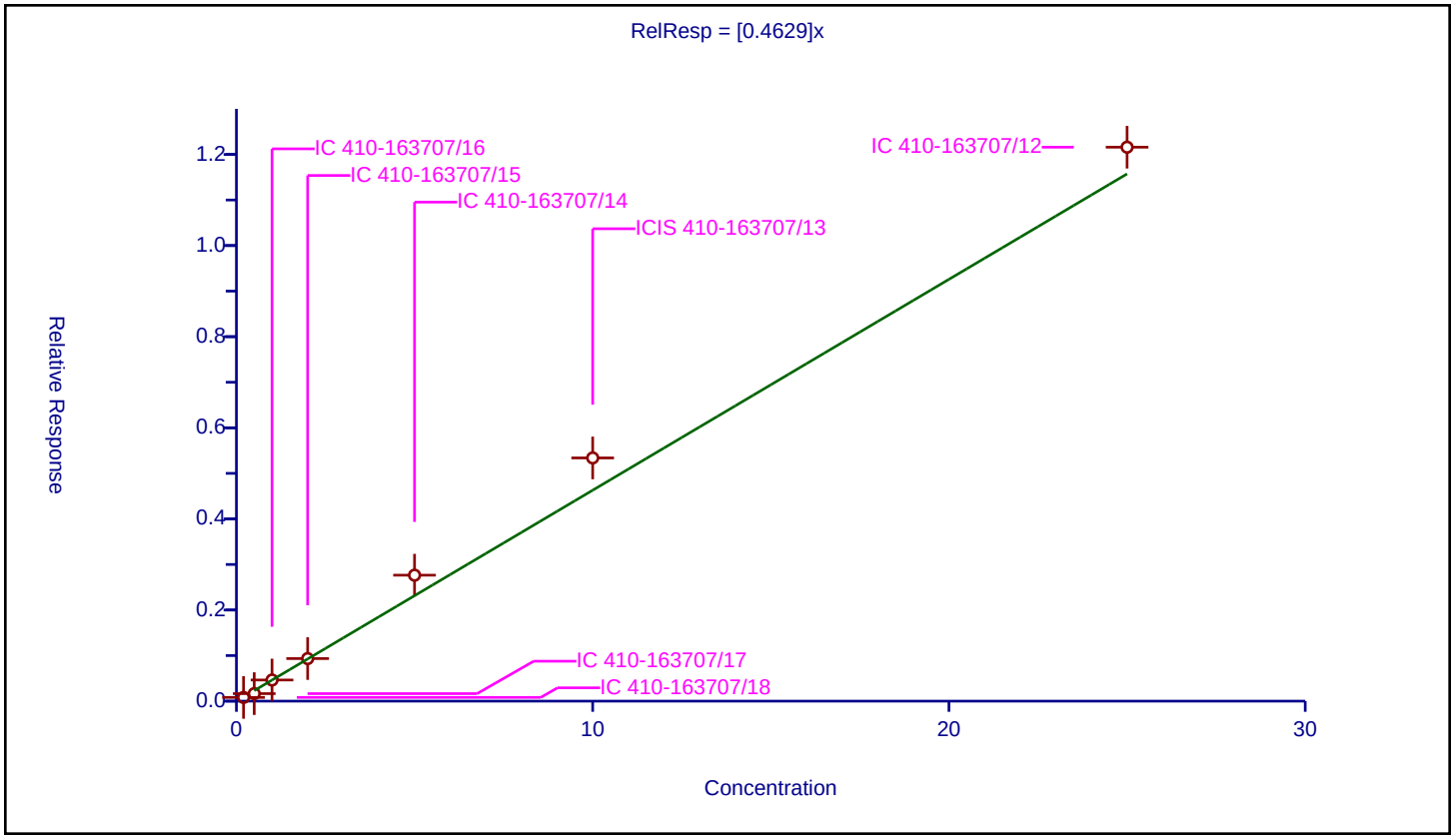
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4629 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1260000 |
| **Relative Standard Error:** | 16.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.969 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.081328 | 10.0 | 2203428.0 | 0.406639 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.164864 | 10.0 | 2386508.0 | 0.329729 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.463767 | 10.0 | 2167768.0 | 0.463767 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.934227 | 10.0 | 2141536.0 | 0.467113 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.765222 | 10.0 | 2115642.0 | 0.553044 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.338724 | 10.0 | 2122537.0 | 0.533872 | Y |
| 7 | IC 410-163707/12 | 25.0 | 12.159451 | 10.0 | 2314551.0 | 0.486378 | Y |



## Calibration / Ethyl ether

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

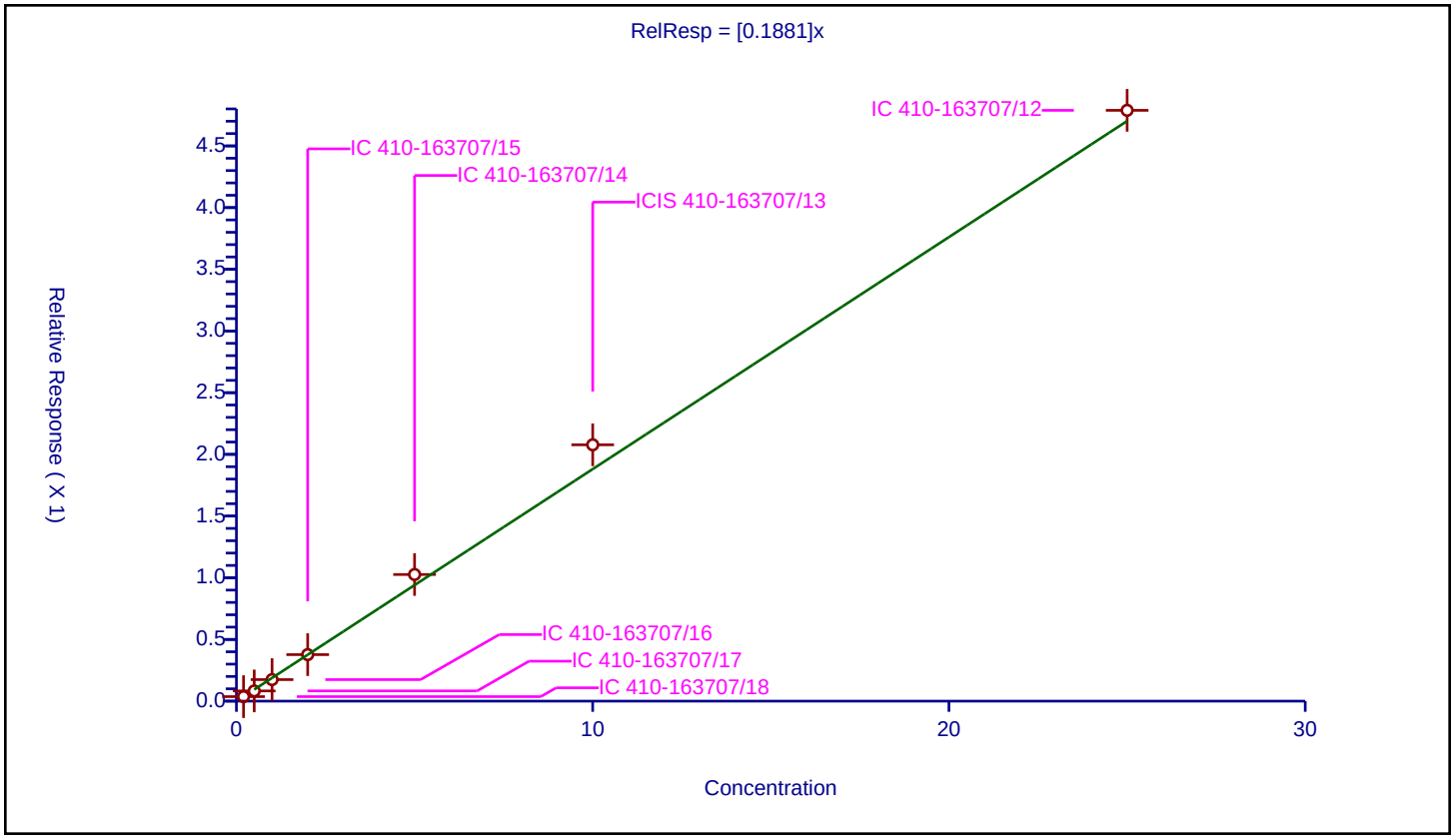
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1881 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 496000 |
| **Relative Standard Error:** | 8.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.200014 | 0.036693 | 10.0 | 2203428.0 | 0.183451 | Y |
| 2 | IC 410-163707/17 | 0.500035 | 0.082736 | 10.0 | 2386508.0 | 0.16546 | Y |
| 3 | IC 410-163707/16 | 1.000069 | 0.174461 | 10.0 | 2167768.0 | 0.174448 | Y |
| 4 | IC 410-163707/15 | 2.000138 | 0.376949 | 10.0 | 2141536.0 | 0.188461 | Y |
| 5 | IC 410-163707/14 | 5.000346 | 1.026383 | 10.0 | 2115642.0 | 0.205262 | Y |
| 6 | ICIS 410-163707/13 | 10.000692 | 2.07766 | 10.0 | 2122537.0 | 0.207752 | Y |
| 7 | IC 410-163707/12 | 25.00173 | 4.788363 | 10.0 | 2314551.0 | 0.191521 | Y |



## Calibration / 1,2-Dichloro-1,1,2-trifluoroethane

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

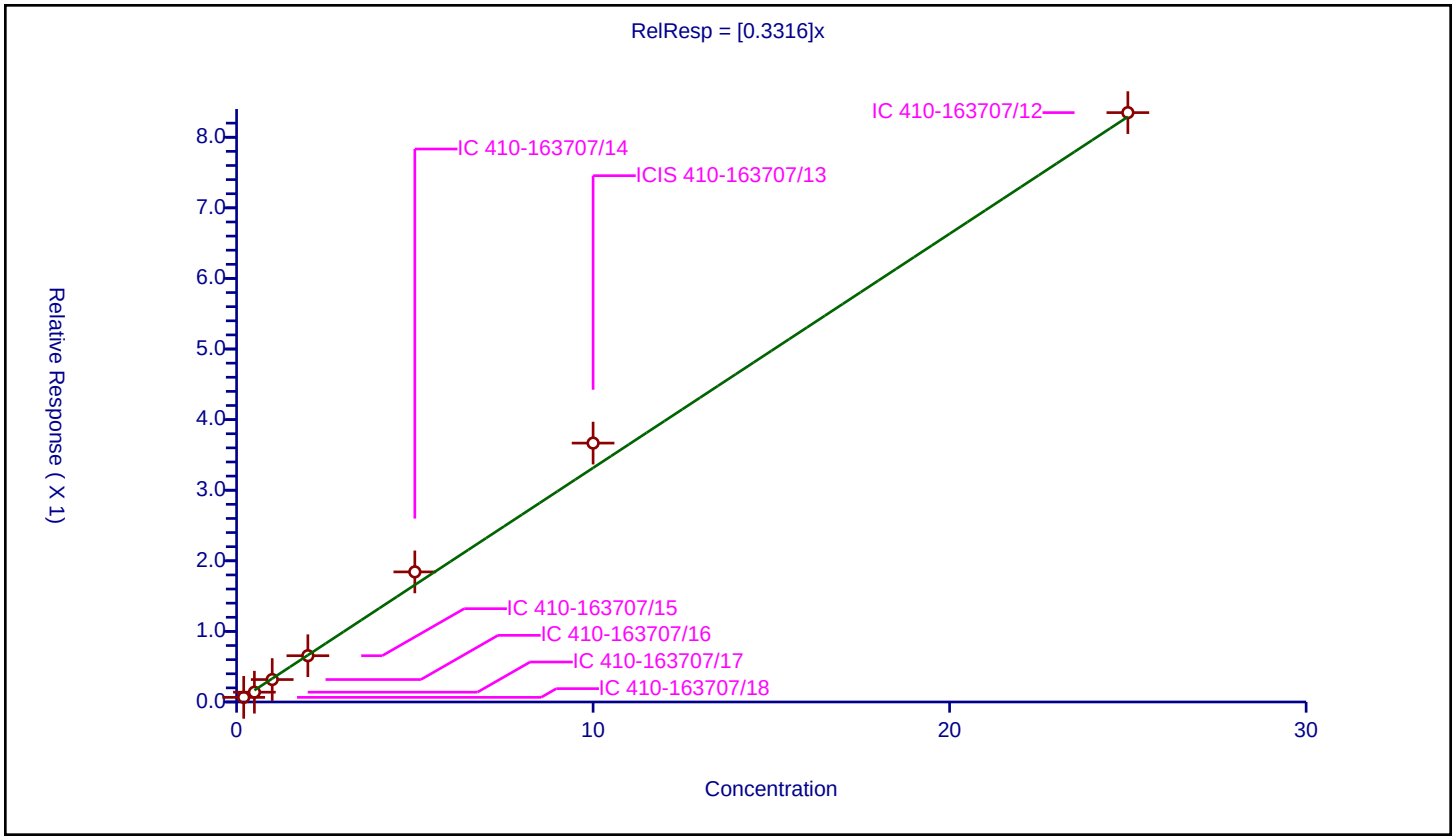
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3316 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 868000 |
| **Relative Standard Error:** | 9.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.06572 | 10.0 | 2203428.0 | 0.328602 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.138893 | 10.0 | 2386508.0 | 0.277787 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.317935 | 10.0 | 2167768.0 | 0.317935 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.655511 | 10.0 | 2141536.0 | 0.327755 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.842774 | 10.0 | 2115642.0 | 0.368555 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.667602 | 10.0 | 2122537.0 | 0.36676 | Y |
| 7 | IC 410-163707/12 | 25.0 | 8.349066 | 10.0 | 2314551.0 | 0.333963 | Y |



## Calibration / Acrolein

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

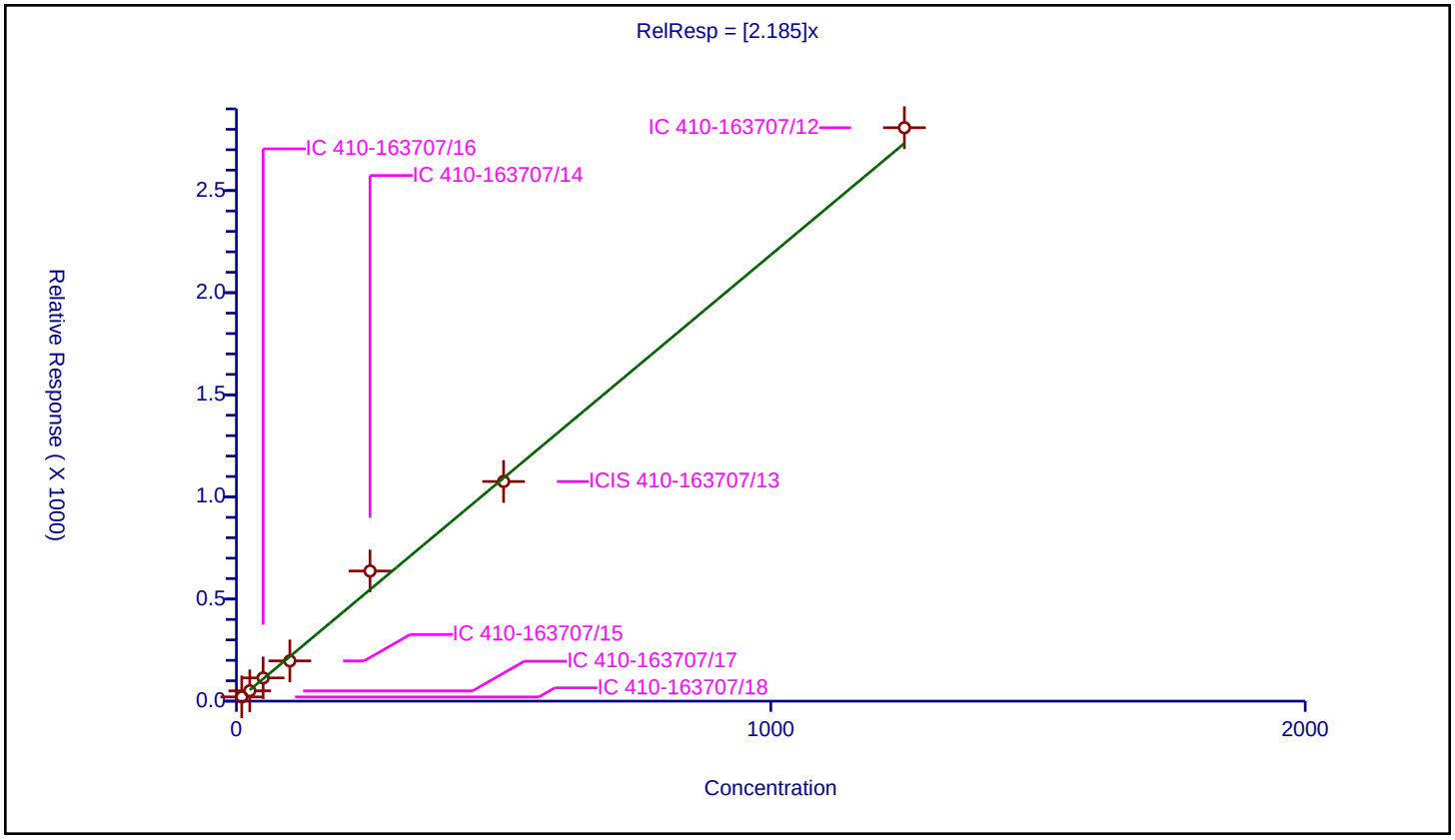
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.185 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3880000 |
| **Relative Standard Error:** | 8.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 9.999702 | 20.75346 | 50.0 | 162132.0 | 2.075408 | Y |
| 2 | IC 410-163707/17 | 24.999254 | 50.681521 | 50.0 | 162651.0 | 2.027321 | Y |
| 3 | IC 410-163707/16 | 49.998508 | 113.72795 | 50.0 | 143084.0 | 2.274627 | Y |
| 4 | IC 410-163707/15 | 99.997016 | 197.310363 | 50.0 | 162903.0 | 1.973163 | Y |
| 5 | IC 410-163707/14 | 249.992539 | 637.227638 | 50.0 | 134380.0 | 2.548987 | Y |
| 6 | ICIS 410-163707/13 | 499.985078 | 1075.461094 | 50.0 | 165205.0 | 2.150986 | Y |
| 7 | IC 410-163707/12 | 1249.962694 | 2807.941435 | 50.0 | 153335.0 | 2.24642 | Y |



## Calibration / 1,1-Dichloroethene

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

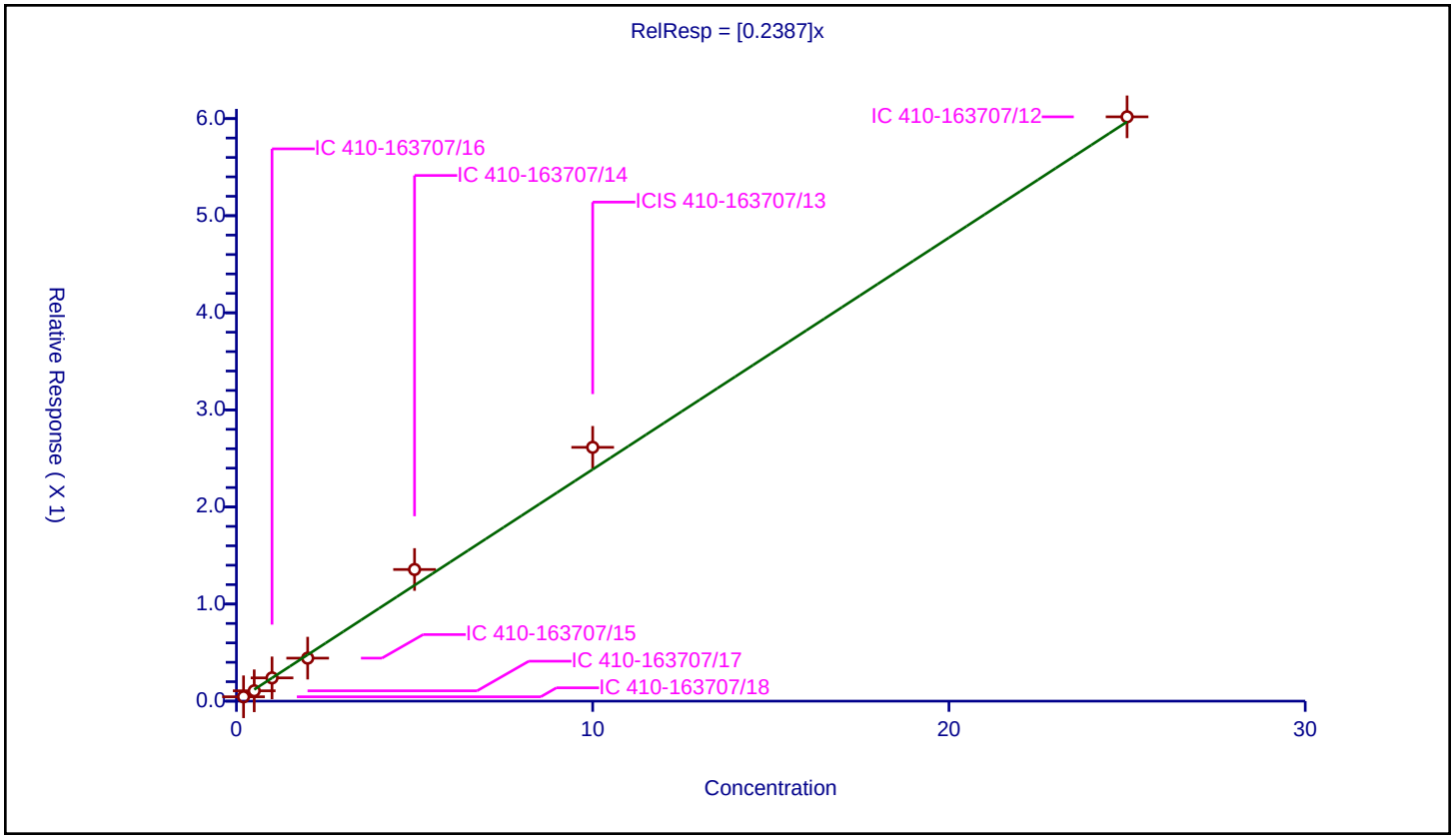
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2387 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 625000 |
| **Relative Standard Error:** | 9.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.044717 | 10.0 | 2203428.0 | 0.223583 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.106457 | 10.0 | 2386508.0 | 0.212914 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.23962 | 10.0 | 2167768.0 | 0.23962 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.442804 | 10.0 | 2141536.0 | 0.221402 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.355716 | 10.0 | 2115642.0 | 0.271143 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.61407 | 10.0 | 2122537.0 | 0.261407 | Y |
| 7 | IC 410-163707/12 | 25.0 | 6.01826 | 10.0 | 2314551.0 | 0.24073 | Y |



## Calibration / Acetone

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

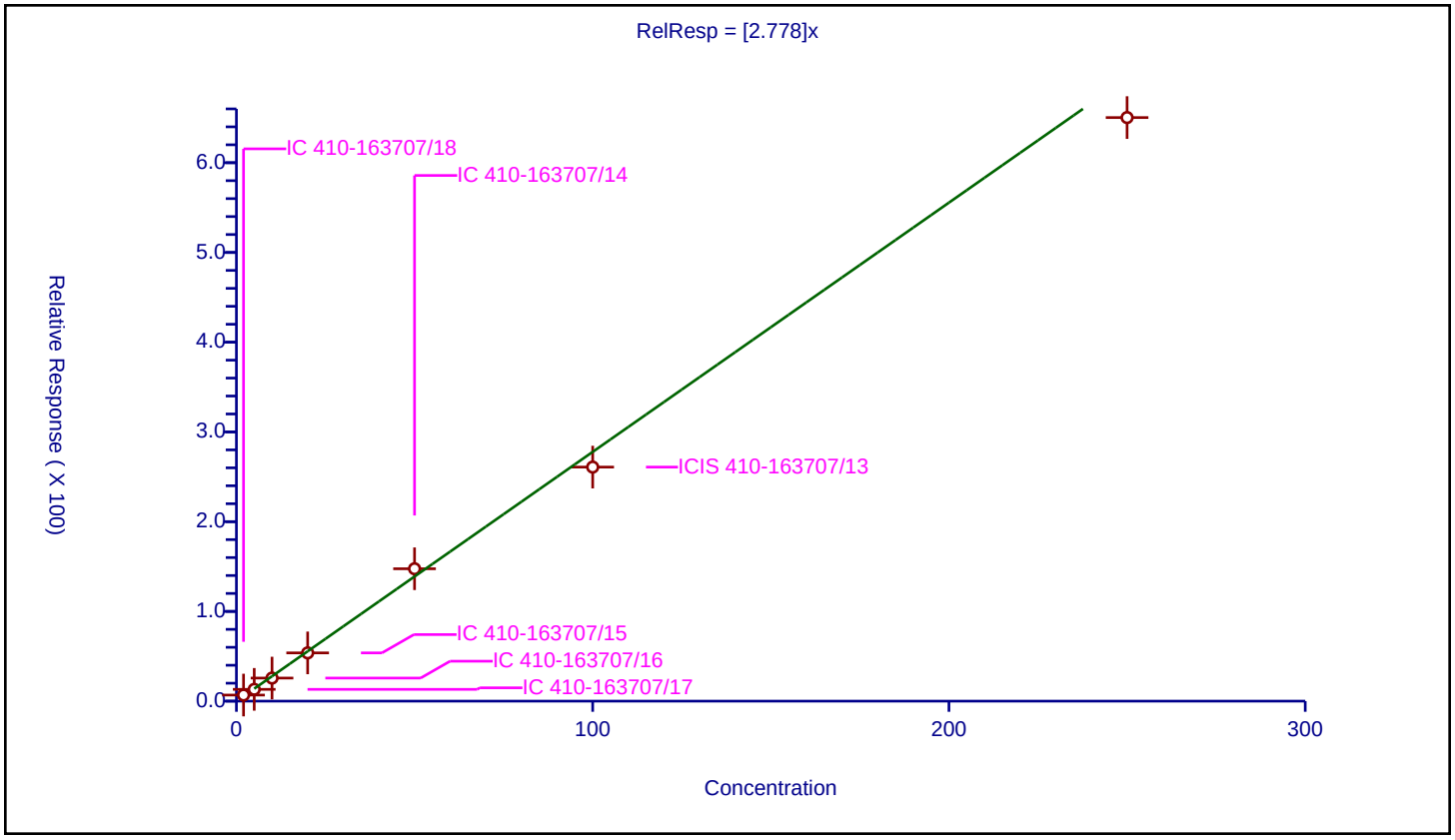
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.778 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 905000 |
| **Relative Standard Error:** | 10.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 2.0 | 6.78953 | 50.0 | 162132.0 | 3.394765 | Y |
| 2 | IC 410-163707/17 | 5.0 | 13.139483 | 50.0 | 162651.0 | 2.627897 | Y |
| 3 | IC 410-163707/16 | 10.0 | 25.719158 | 50.0 | 143084.0 | 2.571916 | Y |
| 4 | IC 410-163707/15 | 20.0 | 53.770342 | 50.0 | 162903.0 | 2.688517 | Y |
| 5 | IC 410-163707/14 | 50.0 | 147.536092 | 50.0 | 134380.0 | 2.950722 | Y |
| 6 | ICIS 410-163707/13 | 100.0 | 260.812324 | 50.0 | 165205.0 | 2.608123 | Y |
| 7 | IC 410-163707/12 | 250.0 | 650.322496 | 50.0 | 153335.0 | 2.60129 | Y |



## Calibration / 1,1,2-Trichloro-1,2,2-trifluoroethane

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

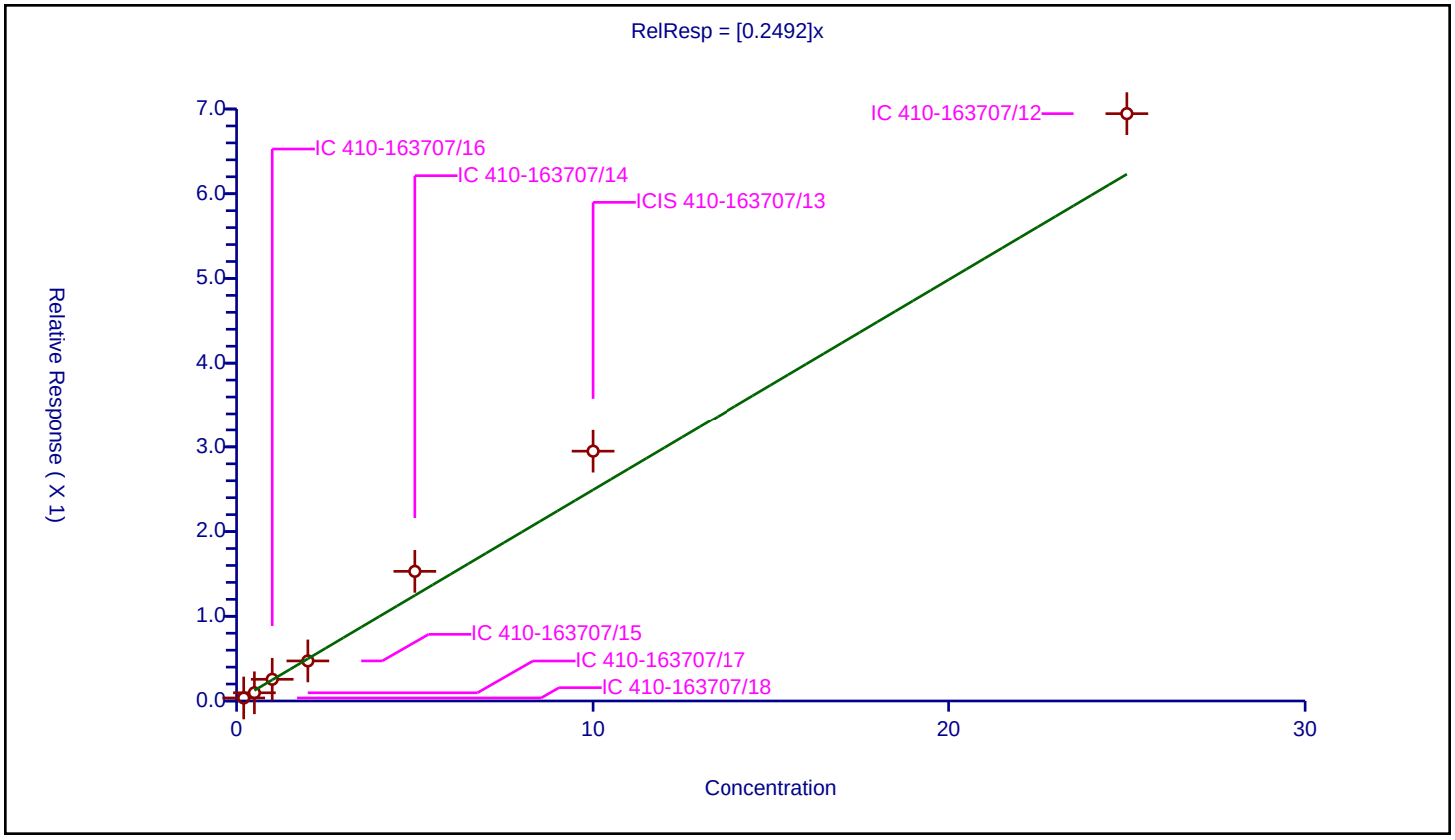
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2492 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 718000 |
| **Relative Standard Error:** | 19.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.959 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.035862 | 10.0 | 2203428.0 | 0.179312 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.096941 | 10.0 | 2386508.0 | 0.193882 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.256107 | 10.0 | 2167768.0 | 0.256107 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.4731 | 10.0 | 2141536.0 | 0.23655 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.530448 | 10.0 | 2115642.0 | 0.30609 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.949079 | 10.0 | 2122537.0 | 0.294908 | Y |
| 7 | IC 410-163707/12 | 25.0 | 6.94517 | 10.0 | 2314551.0 | 0.277807 | Y |



## Calibration / Iodomethane

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

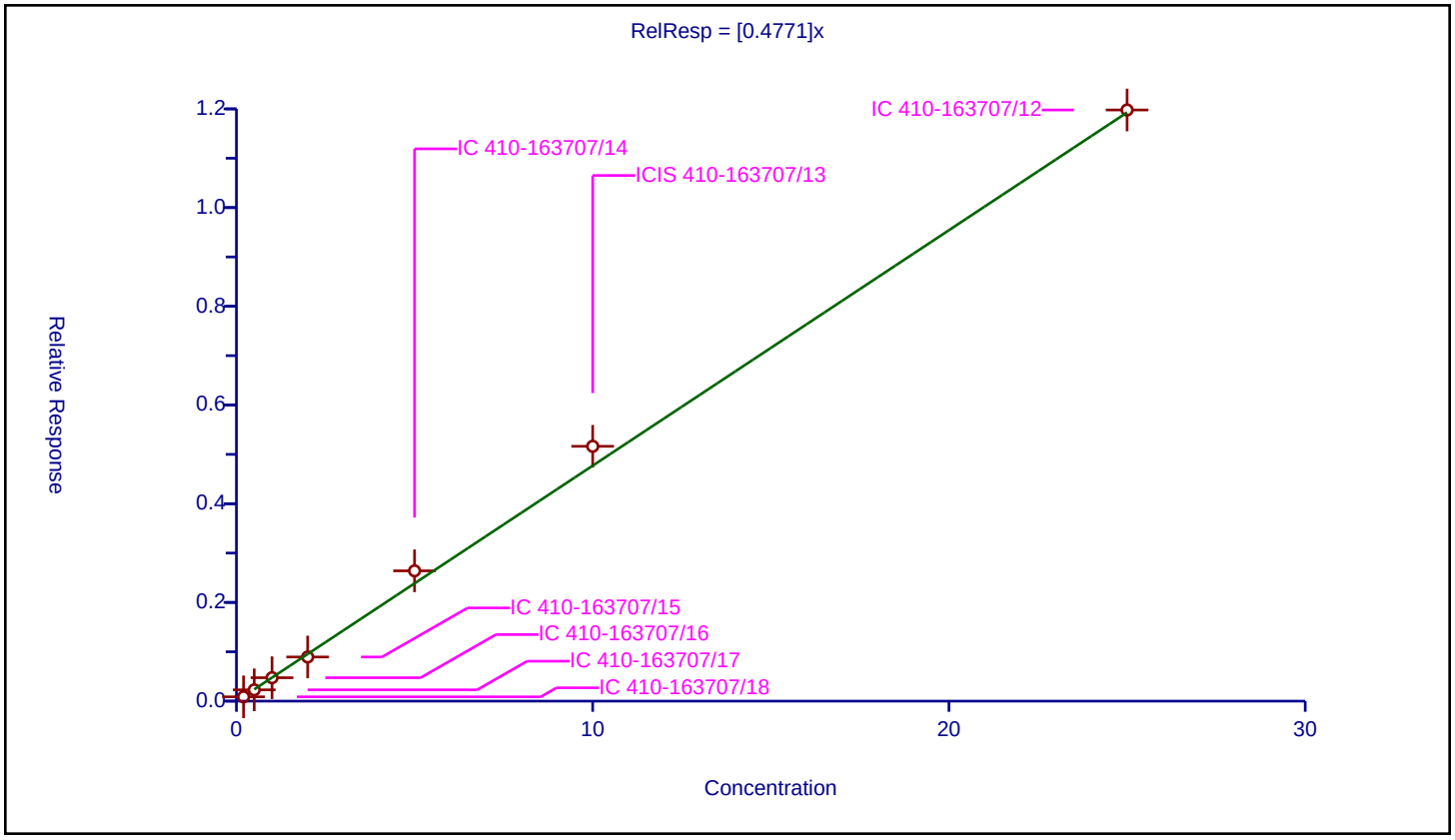
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4771 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1240000 |
| **Relative Standard Error:** | 7.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.0873 | 10.0 | 2203428.0 | 0.436502 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.22905 | 10.0 | 2386508.0 | 0.4581 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.474419 | 10.0 | 2167768.0 | 0.474419 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.894409 | 10.0 | 2141536.0 | 0.447205 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.640281 | 10.0 | 2115642.0 | 0.528056 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.163557 | 10.0 | 2122537.0 | 0.516356 | Y |
| 7 | IC 410-163707/12 | 25.0 | 11.977787 | 10.0 | 2314551.0 | 0.479111 | Y |



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

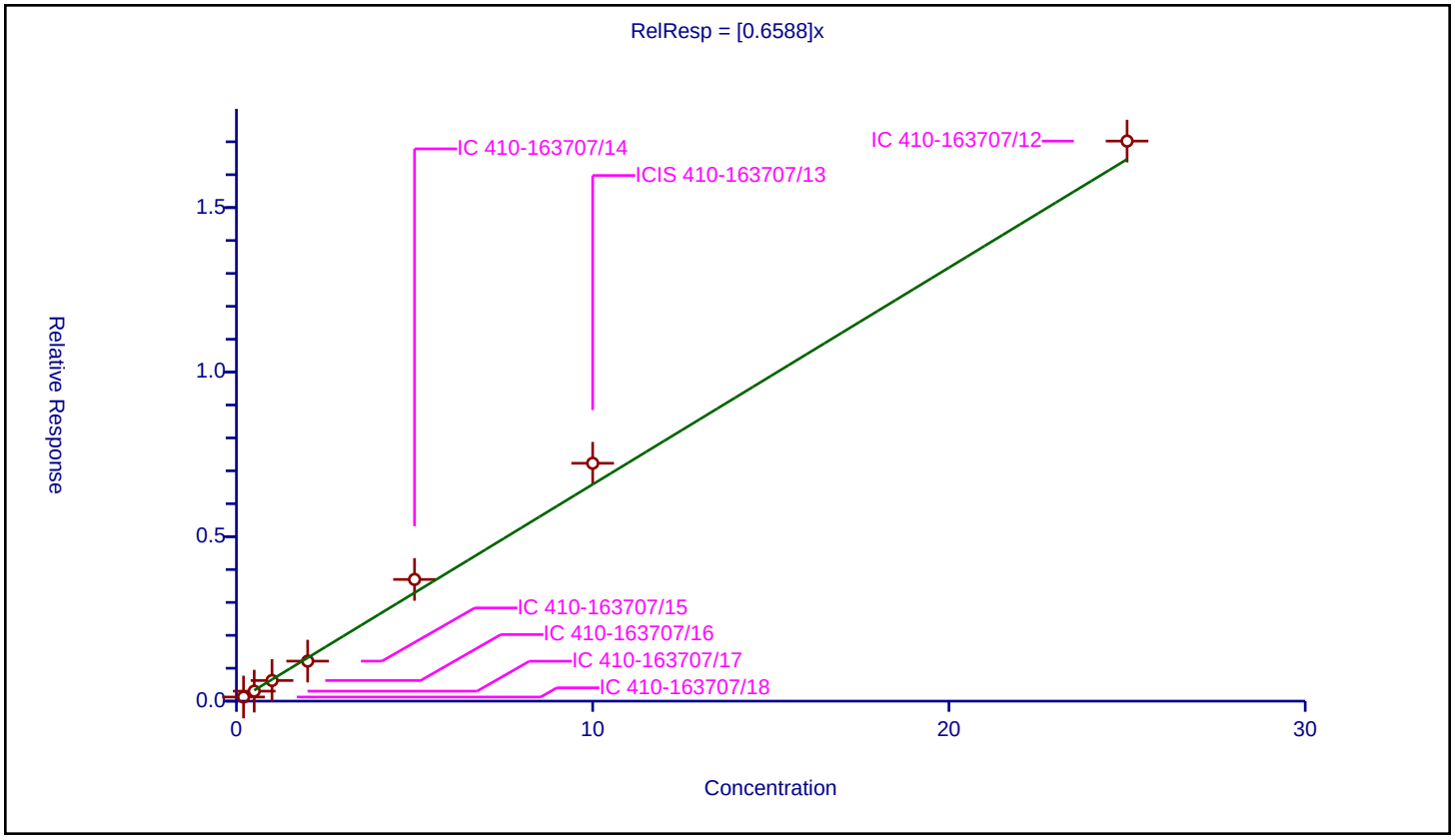
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6588 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1760000 |
| **Relative Standard Error:** | 8.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.12481 | 10.0 | 2203428.0 | 0.62405 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.304269 | 10.0 | 2386508.0 | 0.608538 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.627184 | 10.0 | 2167768.0 | 0.627184 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.216225 | 10.0 | 2141536.0 | 0.608113 | Y |
| 5 | IC 410-163707/14 | 5.0 | 3.698523 | 10.0 | 2115642.0 | 0.739705 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 7.230027 | 10.0 | 2122537.0 | 0.723003 | Y |
| 7 | IC 410-163707/12 | 25.0 | 17.021941 | 10.0 | 2314551.0 | 0.680878 | Y |



## Calibration / Methyl acetate

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

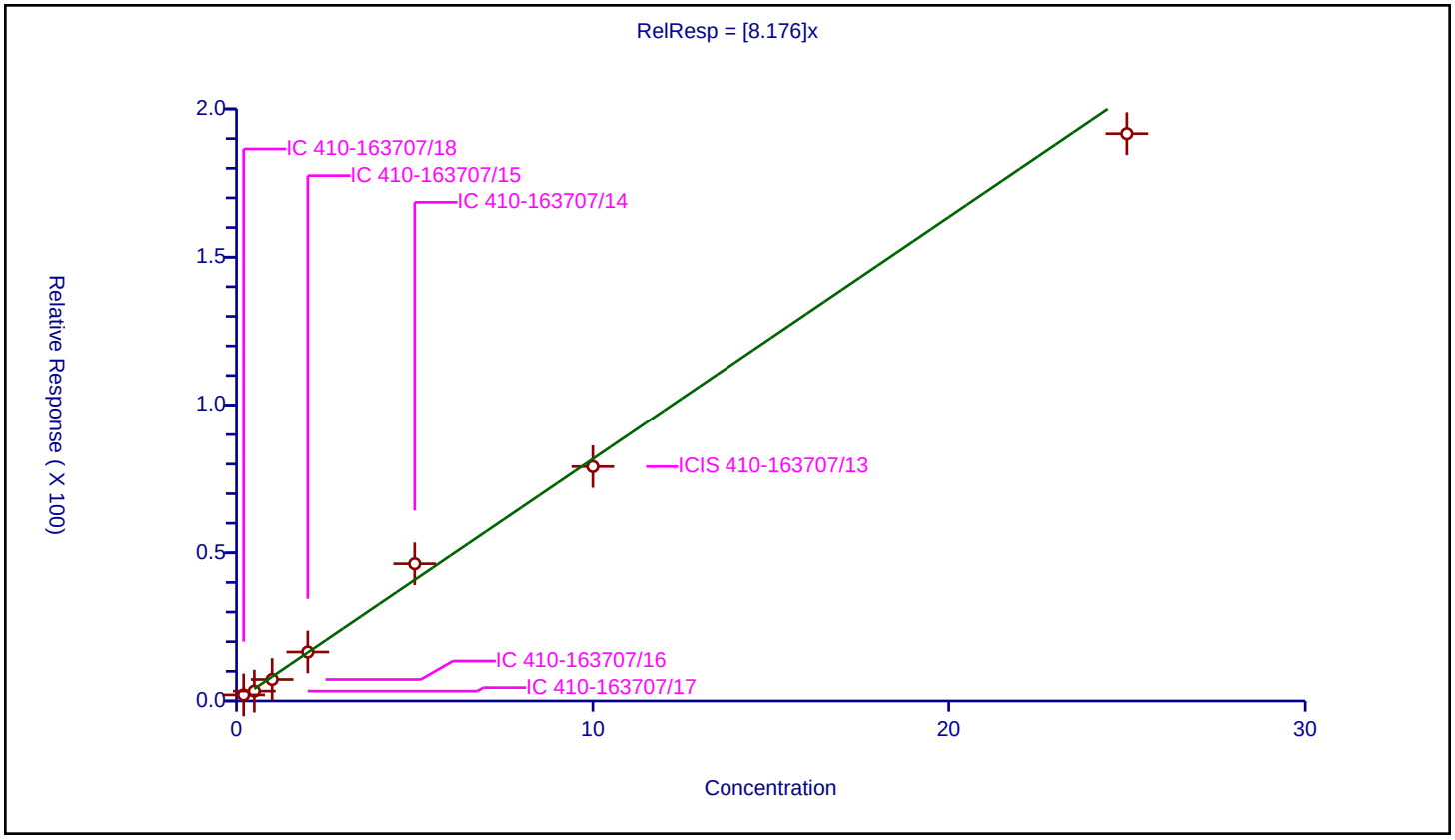
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 8.176 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 269000 |
| **Relative Standard Error:** | 14.9 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.967 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 2.04463 | 50.0 | 162132.0 | 10.223152 | Y |
| 2 | IC 410-163707/17 | 0.5 | 3.324296 | 50.0 | 162651.0 | 6.648591 | Y |
| 3 | IC 410-163707/16 | 1.0 | 7.248539 | 50.0 | 143084.0 | 7.248539 | Y |
| 4 | IC 410-163707/15 | 2.0 | 16.528855 | 50.0 | 162903.0 | 8.264427 | Y |
| 5 | IC 410-163707/14 | 5.0 | 46.328323 | 50.0 | 134380.0 | 9.265665 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 79.164372 | 50.0 | 165205.0 | 7.916437 | Y |
| 7 | IC 410-163707/12 | 25.0 | 191.660743 | 50.0 | 153335.0 | 7.66643 | Y |



## Calibration / 3-Chloro-1-propene

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

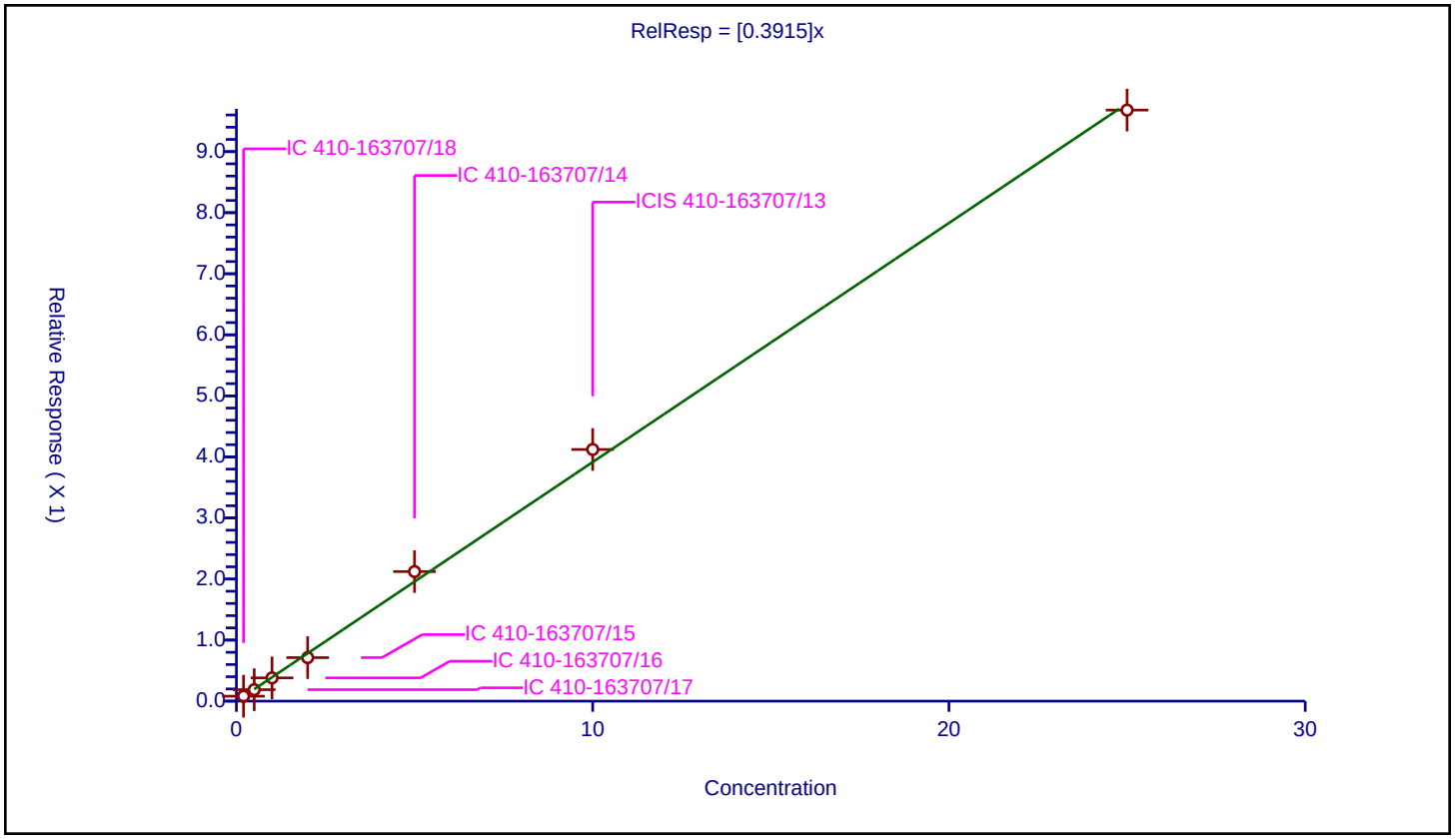
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3915 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1000000 |
| **Relative Standard Error:** | 6.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.080779 | 10.0 | 2203428.0 | 0.403893 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.187793 | 10.0 | 2386508.0 | 0.375586 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.381097 | 10.0 | 2167768.0 | 0.381097 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.712475 | 10.0 | 2141536.0 | 0.356237 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.122169 | 10.0 | 2115642.0 | 0.424434 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.121657 | 10.0 | 2122537.0 | 0.412166 | Y |
| 7 | IC 410-163707/12 | 25.0 | 9.680422 | 10.0 | 2314551.0 | 0.387217 | Y |



## Calibration / Methylene Chloride

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

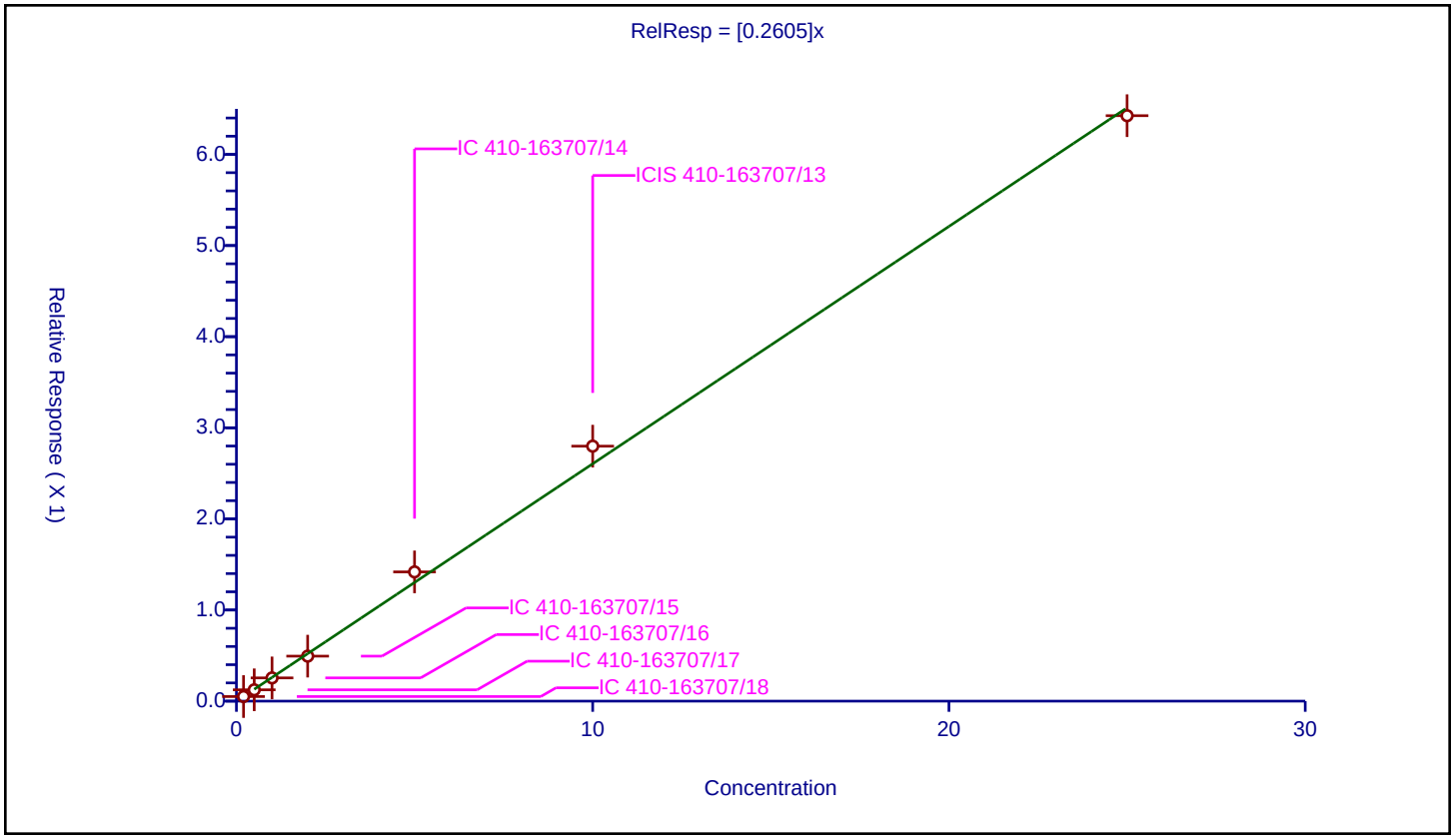
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2605 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 667000 |
| **Relative Standard Error:** | 5.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.05048 | 10.0 | 2203428.0 | 0.252402 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.124353 | 10.0 | 2386508.0 | 0.248706 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.254903 | 10.0 | 2167768.0 | 0.254903 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.494001 | 10.0 | 2141536.0 | 0.247 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.41835 | 10.0 | 2115642.0 | 0.28367 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.798495 | 10.0 | 2122537.0 | 0.27985 | Y |
| 7 | IC 410-163707/12 | 25.0 | 6.425333 | 10.0 | 2314551.0 | 0.257013 | Y |



## Calibration / 2-Methyl-2-propanol

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

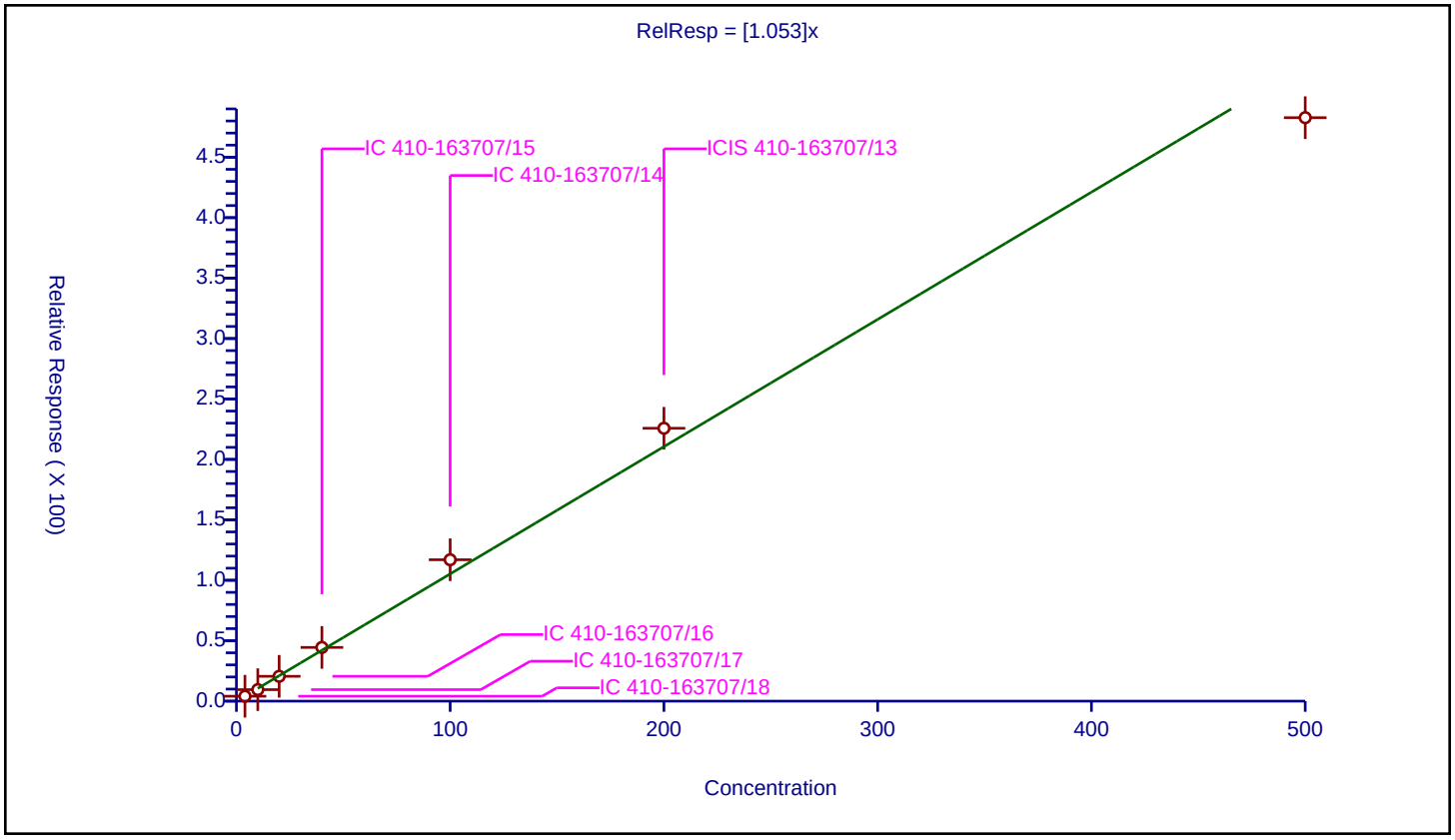
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.053 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 692000 |
| **Relative Standard Error:** | 8.0 |
| **Correlation Coefficient:** | 0.989 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 4.0 | 4.062431 | 50.0 | 162132.0 | 1.015608 | Y |
| 2 | IC 410-163707/17 | 10.0 | 9.510855 | 50.0 | 162651.0 | 0.951085 | Y |
| 3 | IC 410-163707/16 | 20.0 | 20.558204 | 50.0 | 143084.0 | 1.02791 | Y |
| 4 | IC 410-163707/15 | 40.0 | 44.439636 | 50.0 | 162903.0 | 1.110991 | Y |
| 5 | IC 410-163707/14 | 100.0 | 116.969787 | 50.0 | 134380.0 | 1.169698 | Y |
| 6 | ICIS 410-163707/13 | 200.0 | 225.760722 | 50.0 | 165205.0 | 1.128804 | Y |
| 7 | IC 410-163707/12 | 500.0 | 482.73747 | 50.0 | 153335.0 | 0.965475 | Y |



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

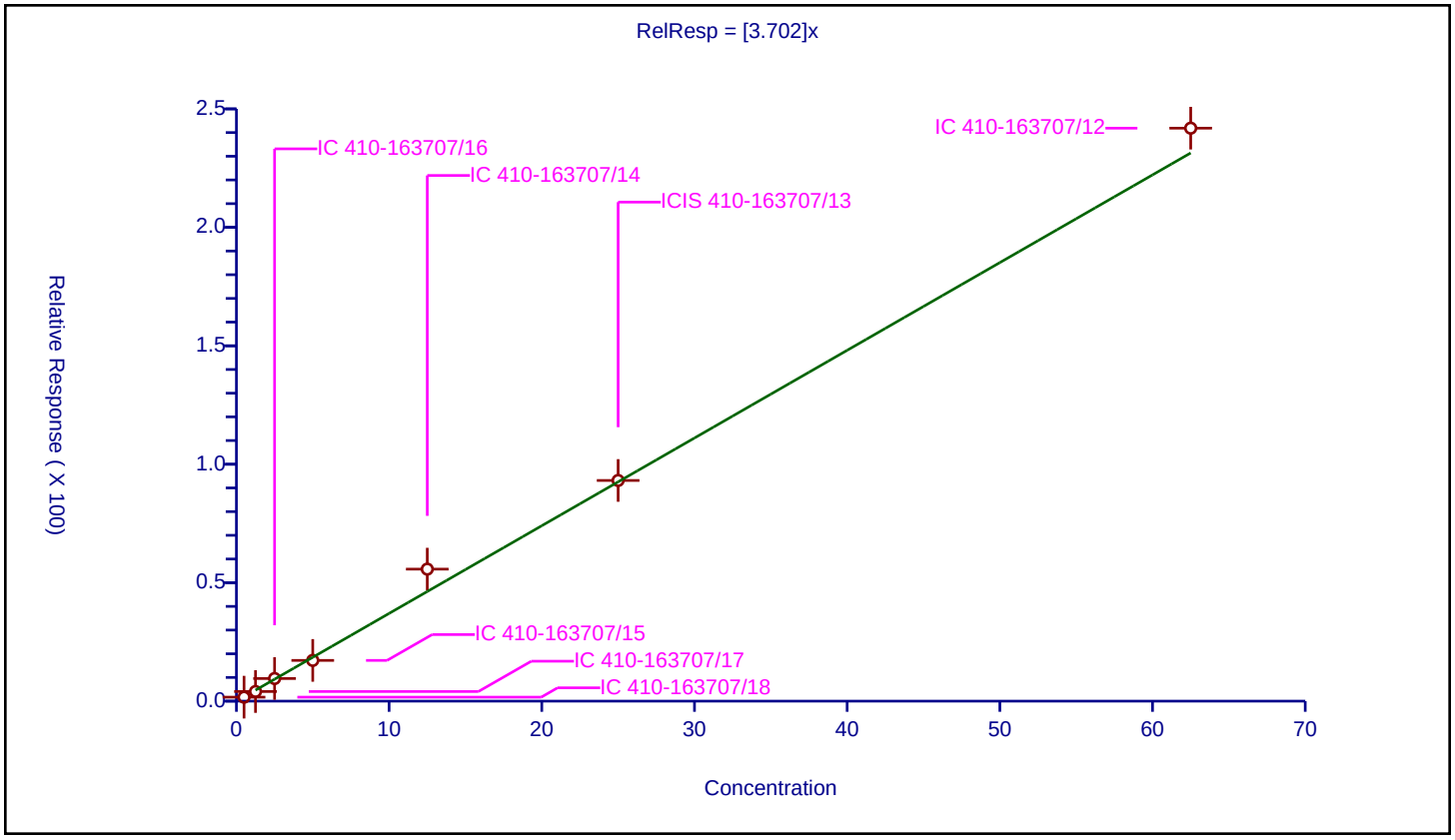
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.702 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 334000 |
| **Relative Standard Error:** | 11.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.5 | 1.677337 | 50.0 | 162132.0 | 3.354674 | Y |
| 2 | IC 410-163707/17 | 1.25 | 4.060227 | 50.0 | 162651.0 | 3.248182 | Y |
| 3 | IC 410-163707/16 | 2.5 | 9.552431 | 50.0 | 143084.0 | 3.820972 | Y |
| 4 | IC 410-163707/15 | 5.0 | 17.19244 | 50.0 | 162903.0 | 3.438488 | Y |
| 5 | IC 410-163707/14 | 12.5 | 55.725554 | 50.0 | 134380.0 | 4.458044 | Y |
| 6 | ICIS 410-163707/13 | 25.0 | 93.15275 | 50.0 | 165205.0 | 3.72611 | Y |
| 7 | IC 410-163707/12 | 62.5 | 241.858023 | 50.0 | 153335.0 | 3.869728 | Y |



## Calibration / Methyl tert-butyl ether

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

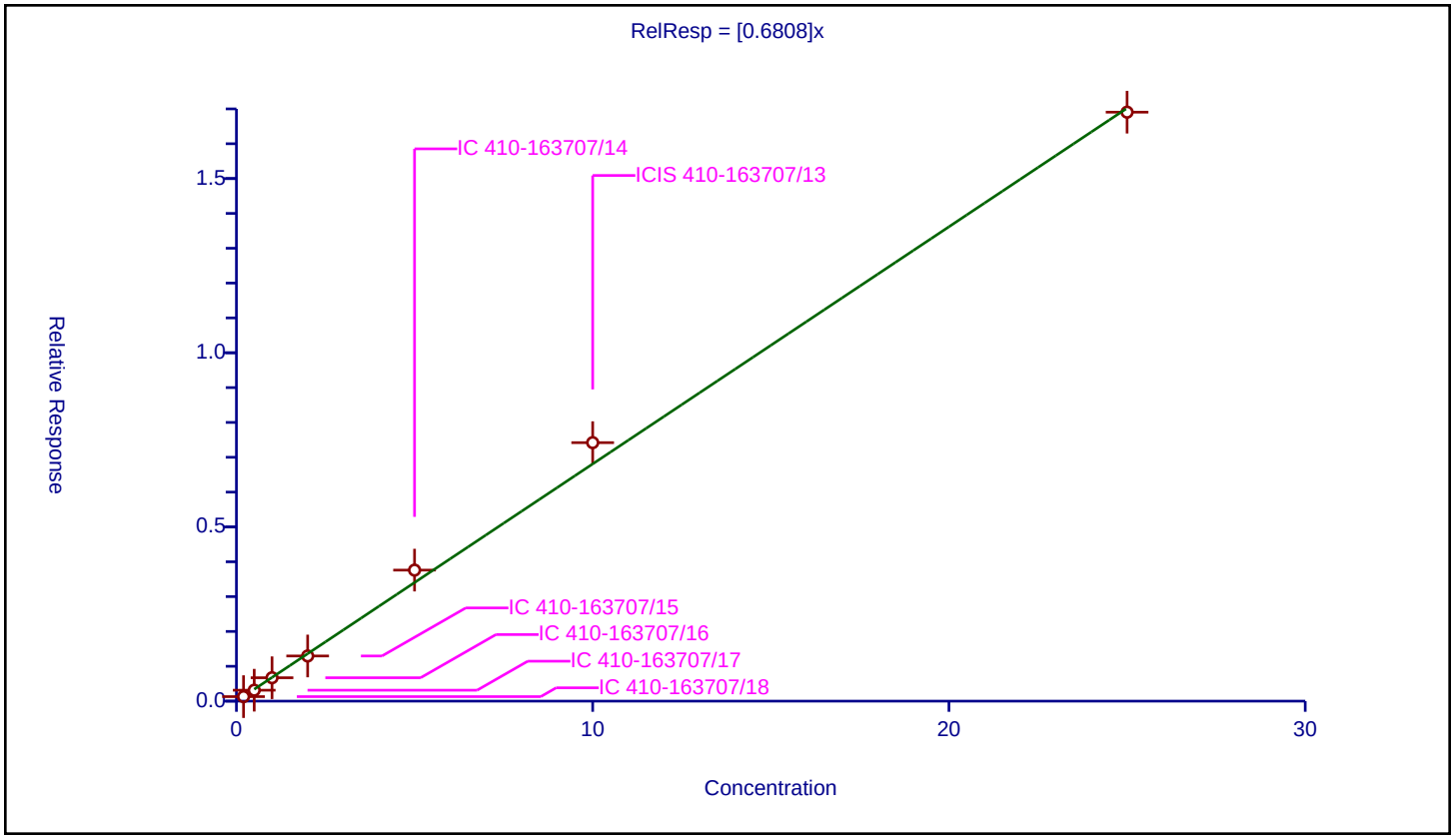
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6808 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1760000 |
| **Relative Standard Error:** | 7.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.12958 | 10.0 | 2203428.0 | 0.6479 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.313831 | 10.0 | 2386508.0 | 0.627662 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.671663 | 10.0 | 2167768.0 | 0.671663 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.296476 | 10.0 | 2141536.0 | 0.648238 | Y |
| 5 | IC 410-163707/14 | 5.0 | 3.760731 | 10.0 | 2115642.0 | 0.752146 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 7.419904 | 10.0 | 2122537.0 | 0.74199 | Y |
| 7 | IC 410-163707/12 | 25.0 | 16.905776 | 10.0 | 2314551.0 | 0.676231 | Y |



## Calibration / trans-1,2-Dichloroethene

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

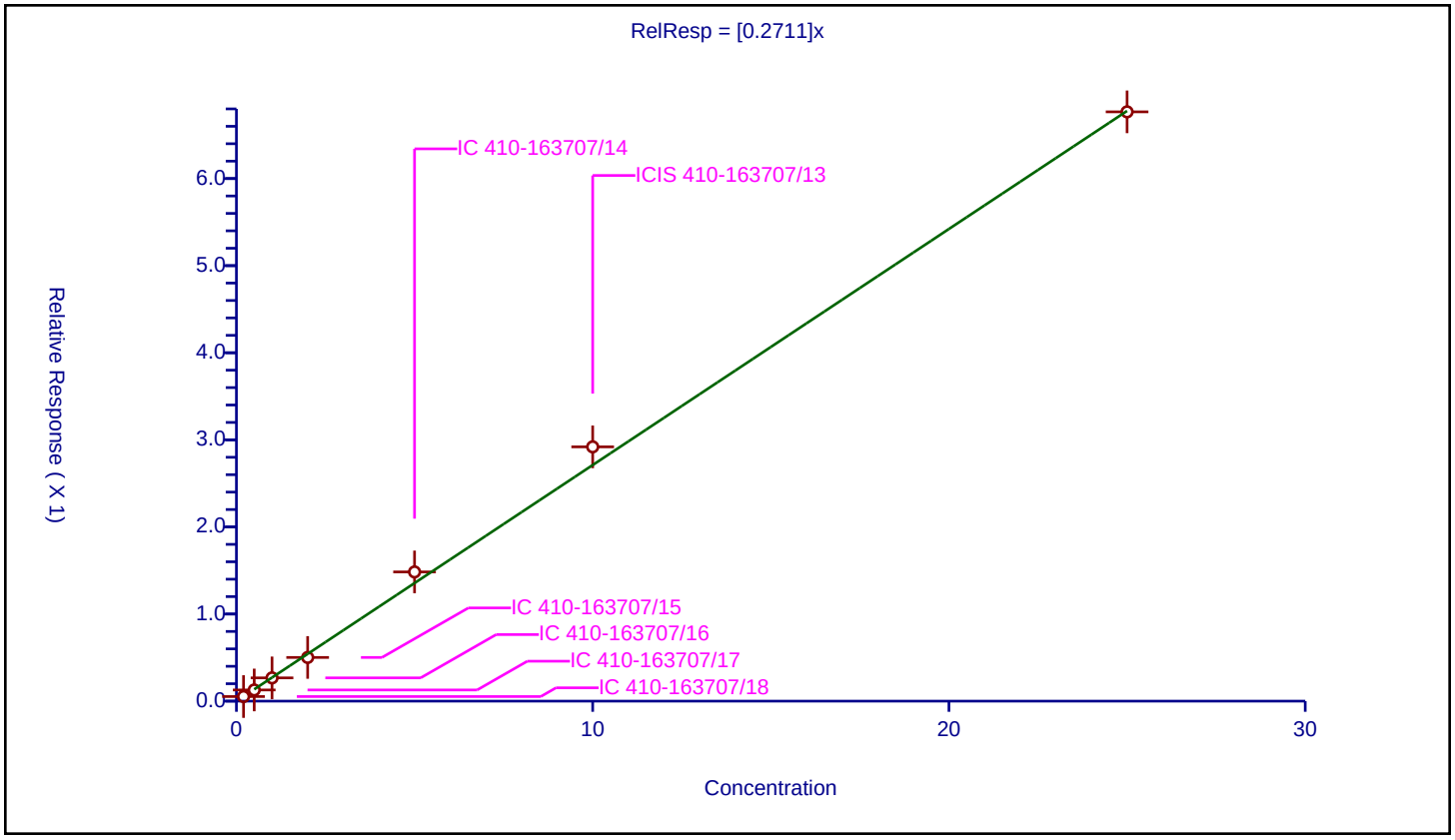
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2711 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 701000 |
| **Relative Standard Error:** | 6.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.052713 | 10.0 | 2203428.0 | 0.263567 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.128393 | 10.0 | 2386508.0 | 0.256785 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.26703 | 10.0 | 2167768.0 | 0.26703 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.501523 | 10.0 | 2141536.0 | 0.250762 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.483578 | 10.0 | 2115642.0 | 0.296716 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.919586 | 10.0 | 2122537.0 | 0.291959 | Y |
| 7 | IC 410-163707/12 | 25.0 | 6.766146 | 10.0 | 2314551.0 | 0.270646 | Y |



## Calibration / Hexane

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

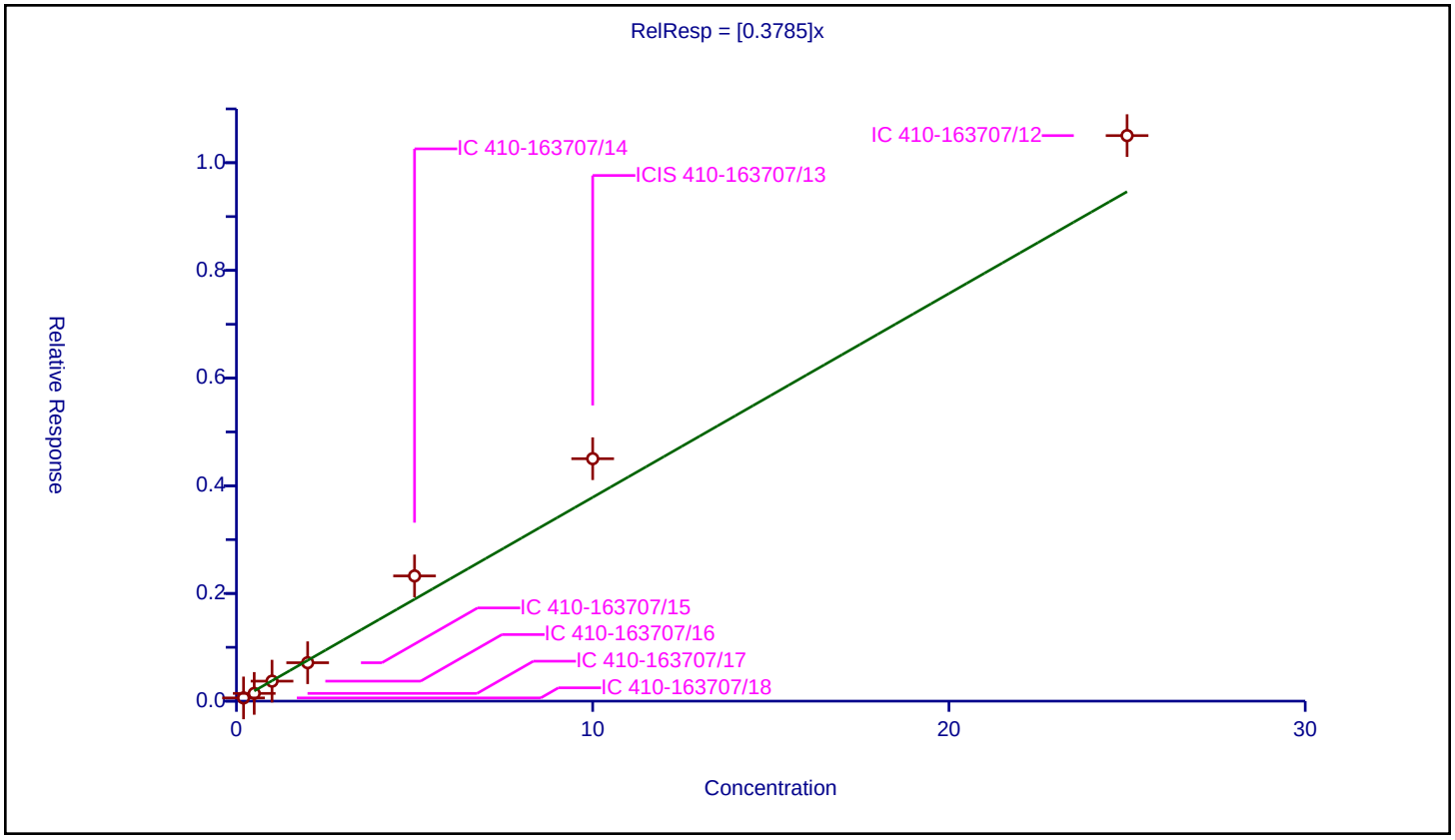
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3785 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1090000 |
| **Relative Standard Error:** | 18.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.962 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.059716 | 10.0 | 2203428.0 | 0.29858 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.143792 | 10.0 | 2386508.0 | 0.287583 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.371188 | 10.0 | 2167768.0 | 0.371188 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.713493 | 10.0 | 2141536.0 | 0.356746 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.325809 | 10.0 | 2115642.0 | 0.465162 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.502927 | 10.0 | 2122537.0 | 0.450293 | Y |
| 7 | IC 410-163707/12 | 25.0 | 10.503925 | 10.0 | 2314551.0 | 0.420157 | Y |



## Calibration / 1,1-Dichloroethane

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

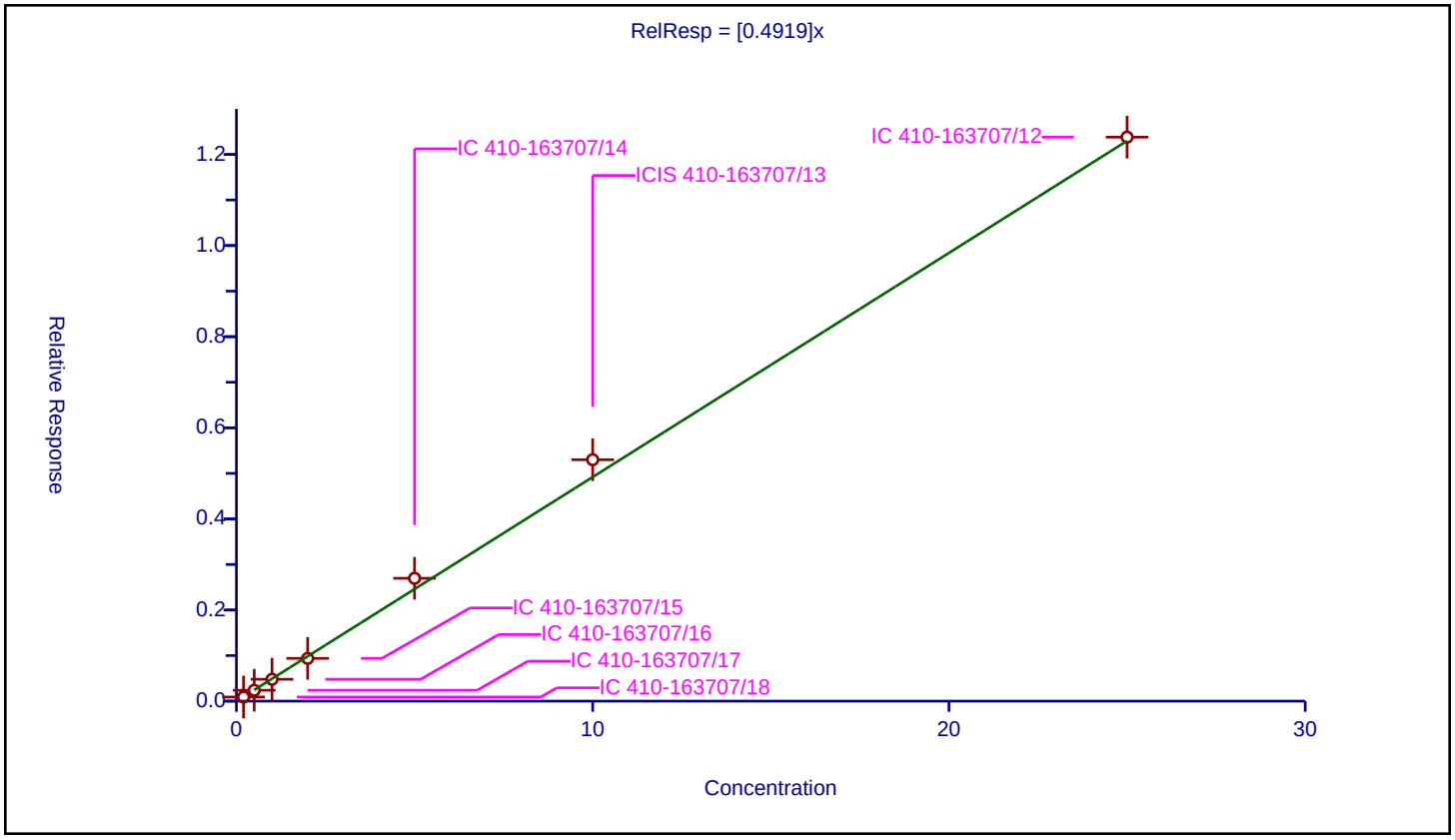
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4919 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1280000 |
| **Relative Standard Error:** | 6.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.090577 | 10.0 | 2203428.0 | 0.452885 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.238554 | 10.0 | 2386508.0 | 0.477107 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.479747 | 10.0 | 2167768.0 | 0.479747 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.938443 | 10.0 | 2141536.0 | 0.469222 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.69668 | 10.0 | 2115642.0 | 0.539336 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.299479 | 10.0 | 2122537.0 | 0.529948 | Y |
| 7 | IC 410-163707/12 | 25.0 | 12.379468 | 10.0 | 2314551.0 | 0.495179 | Y |



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

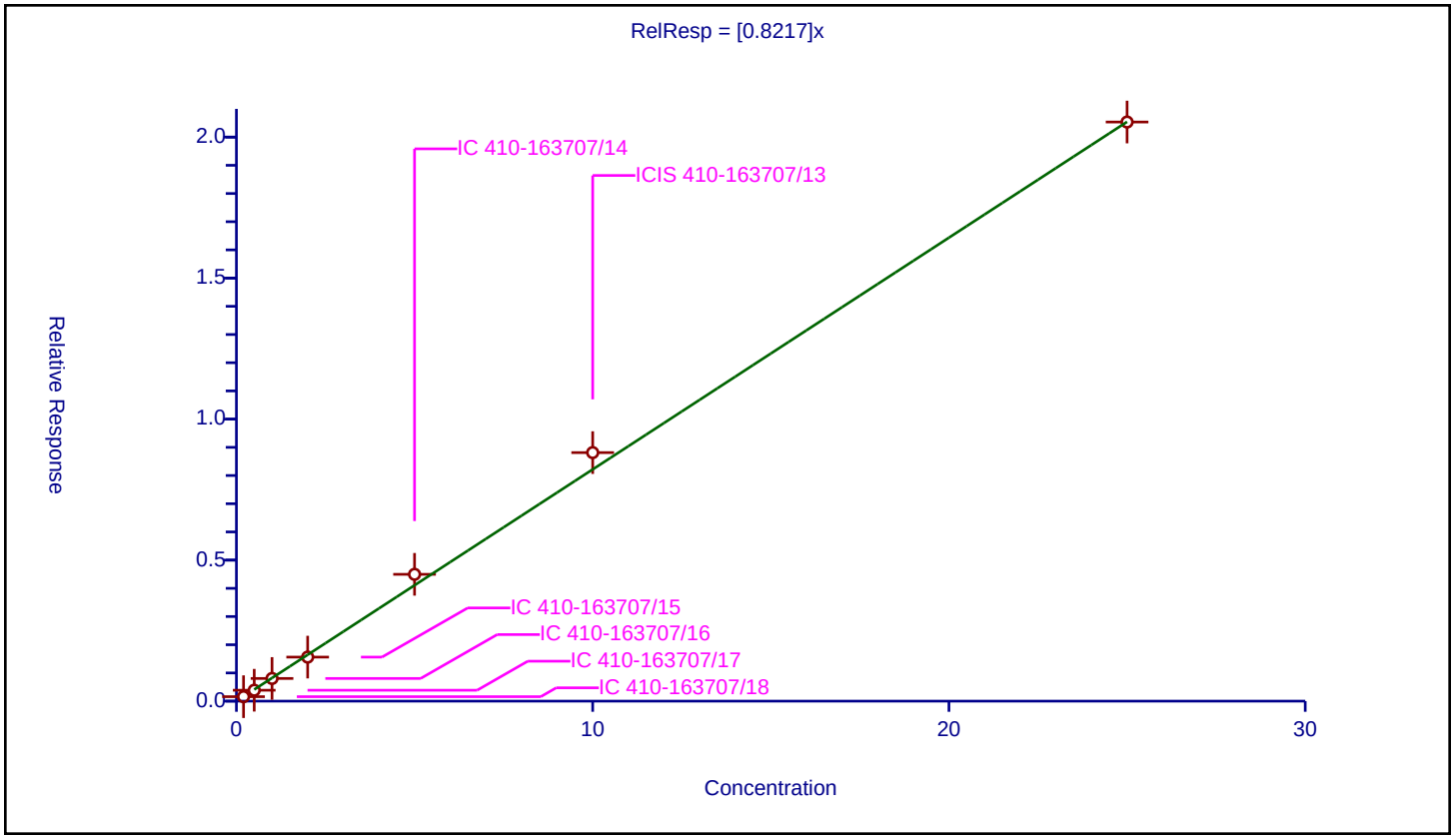
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8217 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2130000 |
| **Relative Standard Error:** | 6.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.15804 | 10.0 | 2203428.0 | 0.790201 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.387022 | 10.0 | 2386508.0 | 0.774043 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.804597 | 10.0 | 2167768.0 | 0.804597 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.561902 | 10.0 | 2141536.0 | 0.780951 | Y |
| 5 | IC 410-163707/14 | 5.0 | 4.497117 | 10.0 | 2115642.0 | 0.899423 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 8.812336 | 10.0 | 2122537.0 | 0.881234 | Y |
| 7 | IC 410-163707/12 | 25.0 | 20.534276 | 10.0 | 2314551.0 | 0.821371 | Y |



## Calibration / 2-Chloro-1,3-butadiene

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

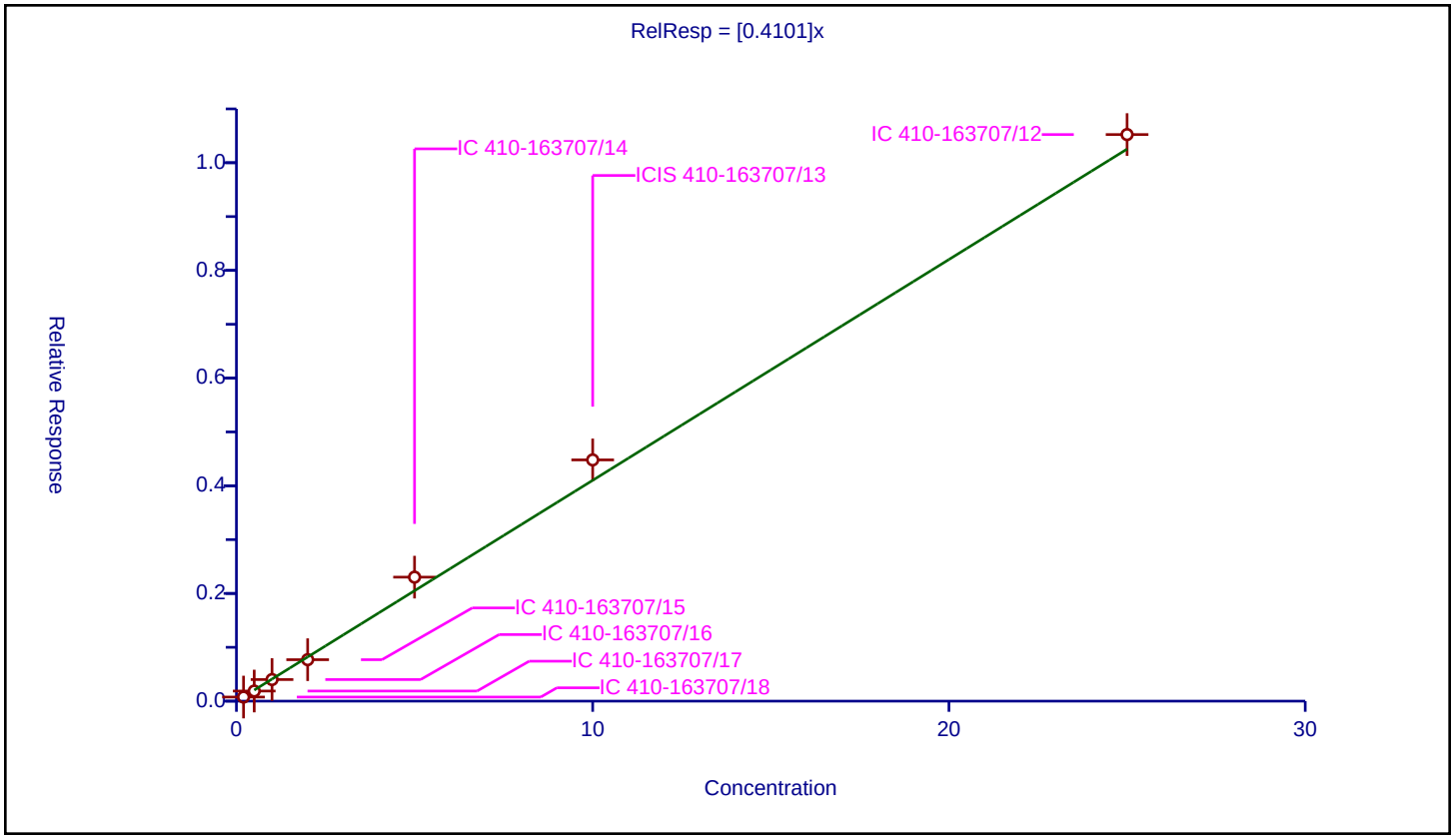
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4101 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1090000 |
| **Relative Standard Error:** | 8.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.0759 | 10.0 | 2203428.0 | 0.3795 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.187843 | 10.0 | 2386508.0 | 0.375687 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.401108 | 10.0 | 2167768.0 | 0.401108 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.770069 | 10.0 | 2141536.0 | 0.385034 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.303206 | 10.0 | 2115642.0 | 0.460641 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.480596 | 10.0 | 2122537.0 | 0.44806 | Y |
| 7 | IC 410-163707/12 | 25.0 | 10.523216 | 10.0 | 2314551.0 | 0.420929 | Y |



## Calibration / Tert-butyl ethyl ether

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

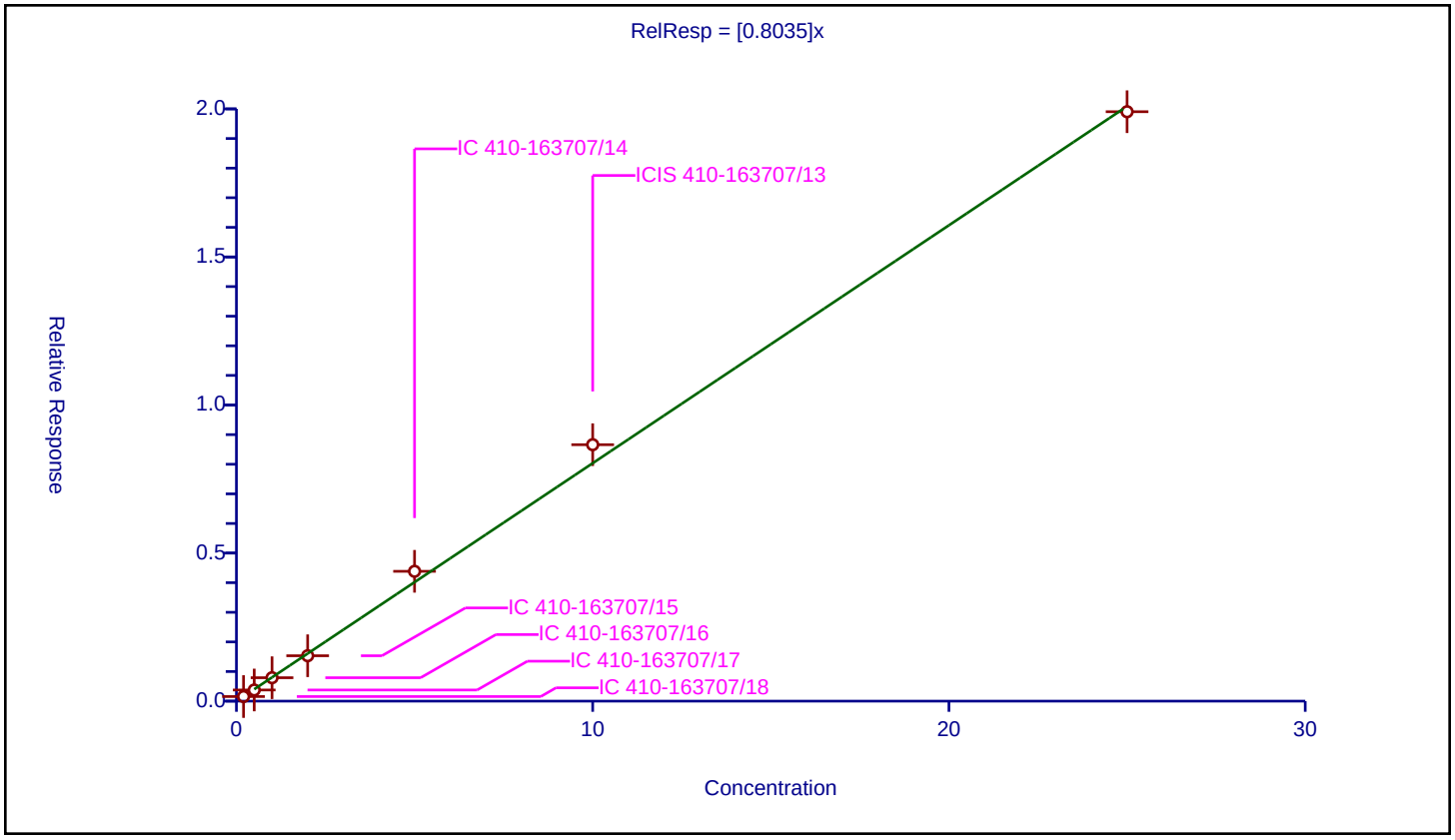
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8035 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2070000 |
| **Relative Standard Error:** | 6.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.155095 | 10.0 | 2203428.0 | 0.775473 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.376261 | 10.0 | 2386508.0 | 0.752522 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.790989 | 10.0 | 2167768.0 | 0.790989 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.532937 | 10.0 | 2141536.0 | 0.766469 | Y |
| 5 | IC 410-163707/14 | 5.0 | 4.383866 | 10.0 | 2115642.0 | 0.876773 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 8.660297 | 10.0 | 2122537.0 | 0.86603 | Y |
| 7 | IC 410-163707/12 | 25.0 | 19.90447 | 10.0 | 2314551.0 | 0.796179 | Y |



## Calibration / 2-Butanone (MEK)

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

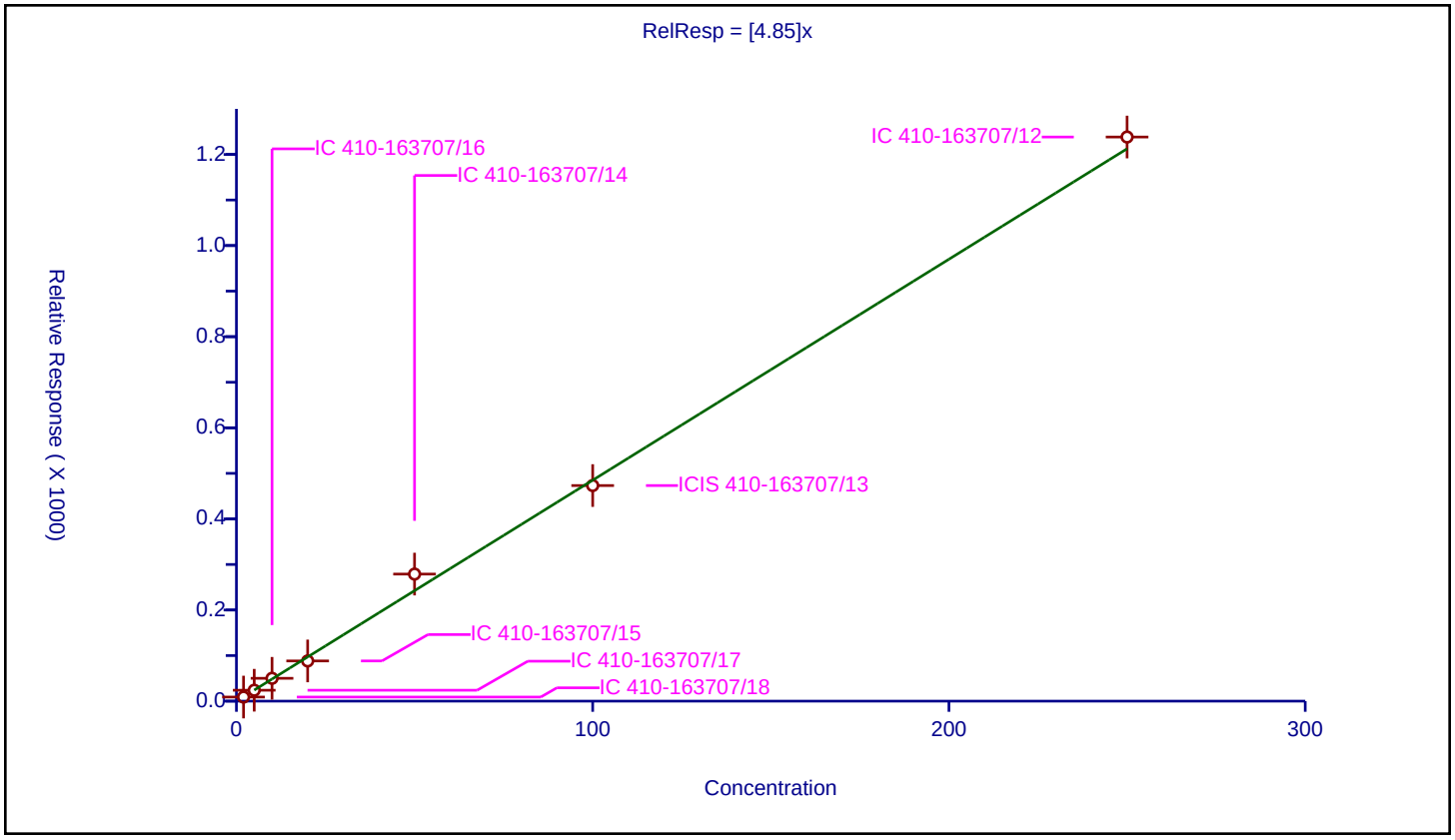
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 4.85 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1710000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 2.0 | 8.945489 | 50.0 | 162132.0 | 4.472744 | Y |
| 2 | IC 410-163707/17 | 5.0 | 23.937449 | 50.0 | 162651.0 | 4.78749 | Y |
| 3 | IC 410-163707/16 | 10.0 | 50.136633 | 50.0 | 143084.0 | 5.013663 | Y |
| 4 | IC 410-163707/15 | 20.0 | 88.255588 | 50.0 | 162903.0 | 4.412779 | Y |
| 5 | IC 410-163707/14 | 50.0 | 278.903483 | 50.0 | 134380.0 | 5.57807 | Y |
| 6 | ICIS 410-163707/13 | 100.0 | 473.240519 | 50.0 | 165205.0 | 4.732405 | Y |
| 7 | IC 410-163707/12 | 250.0 | 1238.250889 | 50.0 | 153335.0 | 4.953004 | Y |



## Calibration / cis-1,2-Dichloroethene

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

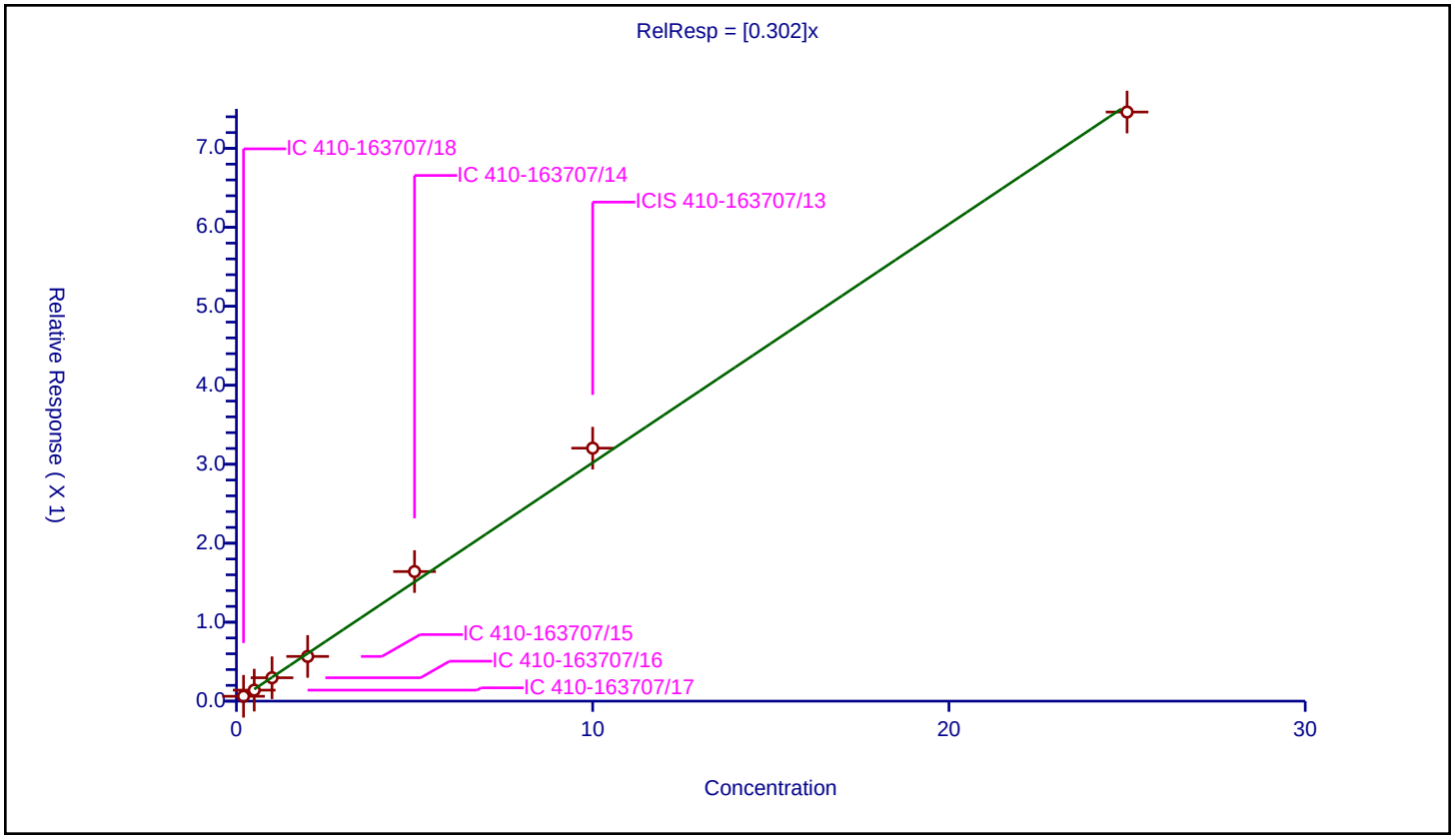
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.302 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 773000 |
| **Relative Standard Error:** | 6.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.06169 | 10.0 | 2203428.0 | 0.308451 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.139589 | 10.0 | 2386508.0 | 0.279178 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.296249 | 10.0 | 2167768.0 | 0.296249 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.566182 | 10.0 | 2141536.0 | 0.283091 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.641142 | 10.0 | 2115642.0 | 0.328228 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.203581 | 10.0 | 2122537.0 | 0.320358 | Y |
| 7 | IC 410-163707/12 | 25.0 | 7.460186 | 10.0 | 2314551.0 | 0.298407 | Y |



## Calibration / 2,2-Dichloropropane

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

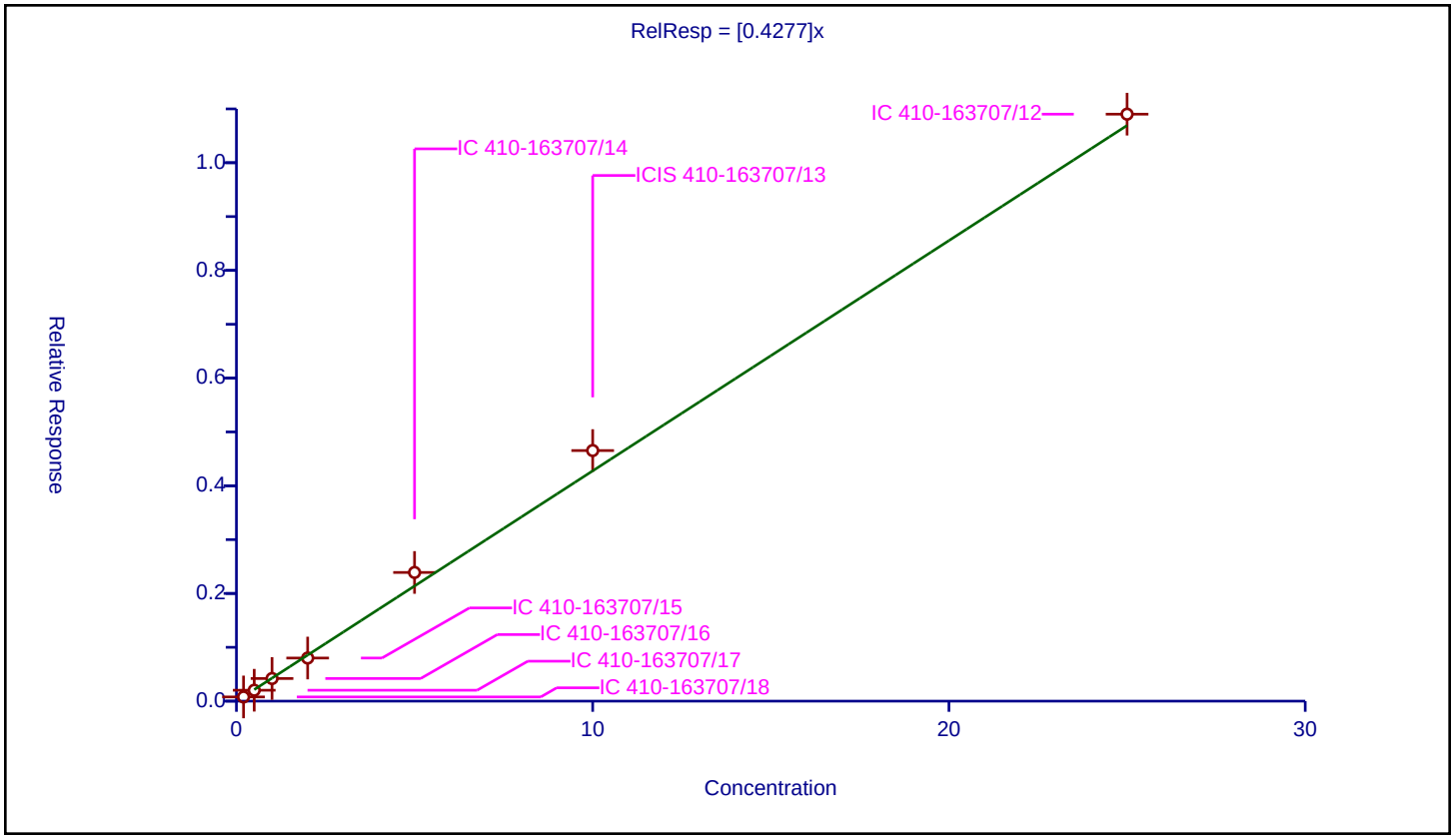
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4277 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1130000 |
| **Relative Standard Error:** | 7.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.077783 | 10.0 | 2203428.0 | 0.388917 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.202513 | 10.0 | 2386508.0 | 0.405027 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.420253 | 10.0 | 2167768.0 | 0.420253 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.800411 | 10.0 | 2141536.0 | 0.400206 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.389884 | 10.0 | 2115642.0 | 0.477977 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.654345 | 10.0 | 2122537.0 | 0.465435 | Y |
| 7 | IC 410-163707/12 | 25.0 | 10.901816 | 10.0 | 2314551.0 | 0.436073 | Y |



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

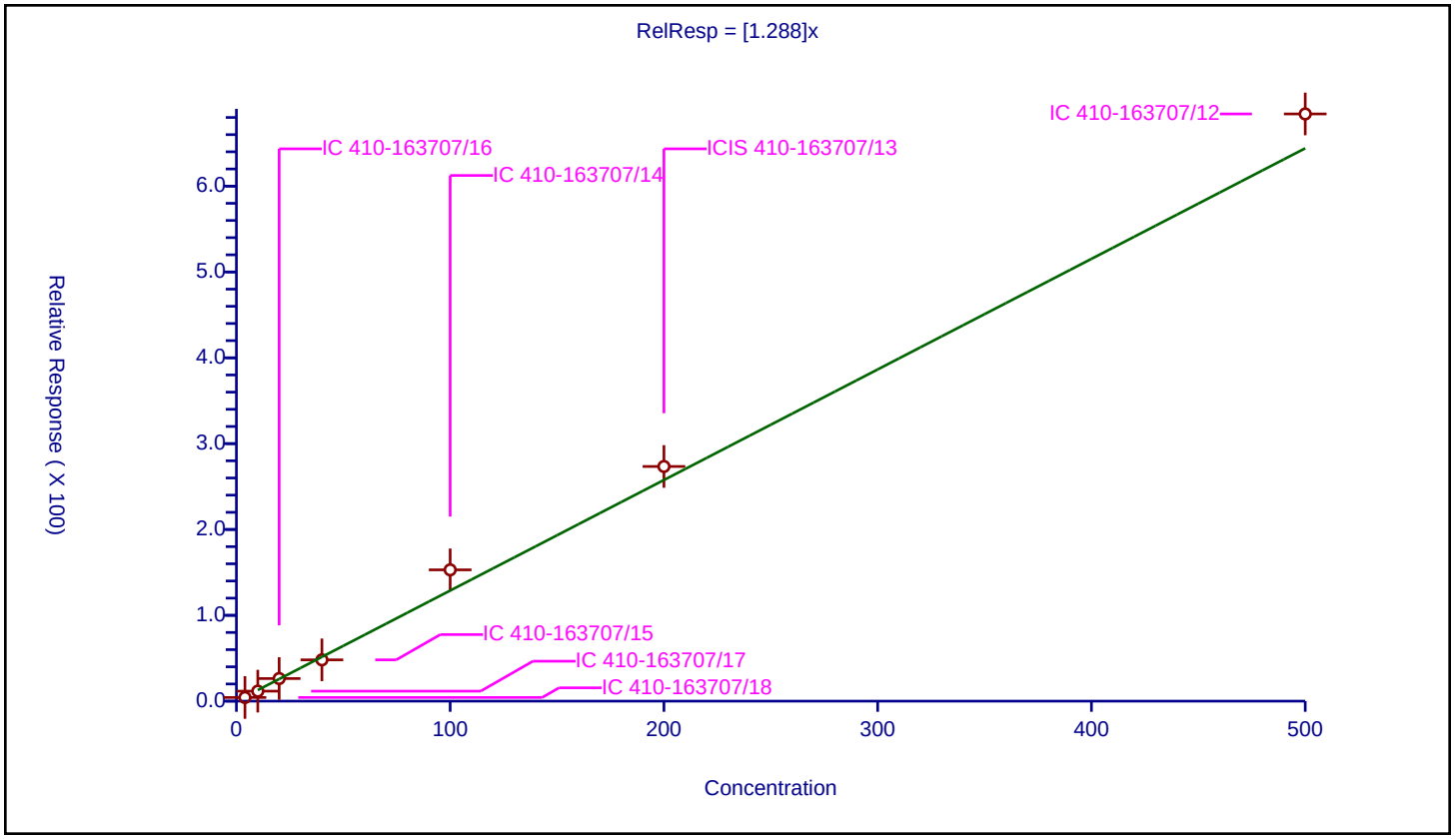
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.288 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 950000 |
| **Relative Standard Error:** | 12.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 4.0 | 4.265968 | 50.0 | 162132.0 | 1.066492 | Y |
| 2 | IC 410-163707/17 | 10.0 | 11.664238 | 50.0 | 162651.0 | 1.166424 | Y |
| 3 | IC 410-163707/16 | 20.0 | 26.336977 | 50.0 | 143084.0 | 1.316849 | Y |
| 4 | IC 410-163707/15 | 40.0 | 48.104086 | 50.0 | 162903.0 | 1.202602 | Y |
| 5 | IC 410-163707/14 | 100.0 | 152.953565 | 50.0 | 134380.0 | 1.529536 | Y |
| 6 | ICIS 410-163707/13 | 200.0 | 273.392754 | 50.0 | 165205.0 | 1.366964 | Y |
| 7 | IC 410-163707/12 | 500.0 | 684.097238 | 50.0 | 153335.0 | 1.368194 | Y |



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

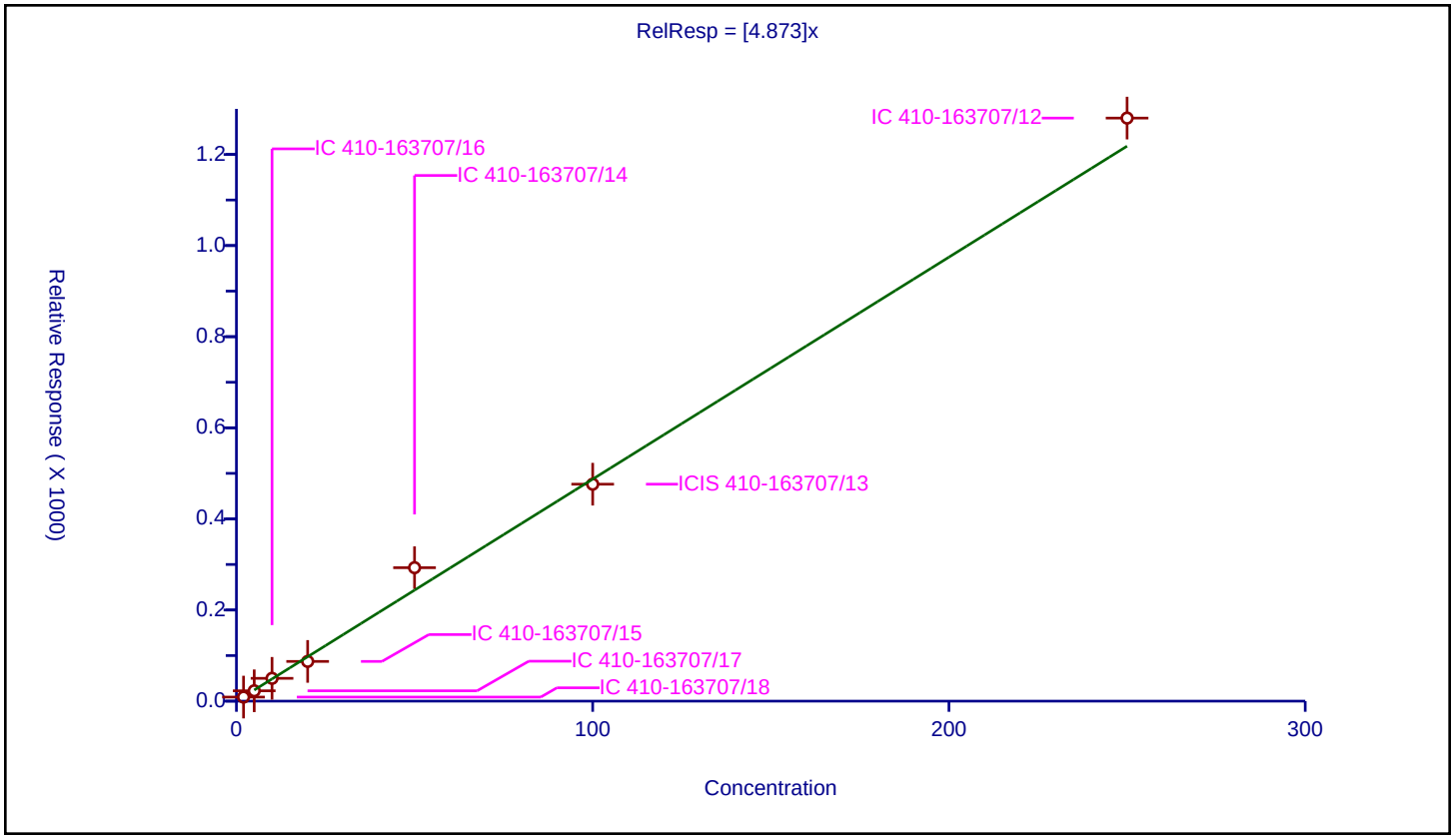
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 4.873 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1760000 |
| **Relative Standard Error:** | 10.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 2.0 | 8.92236 | 50.0 | 162132.0 | 4.46118 | Y |
| 2 | IC 410-163707/17 | 5.0 | 22.716737 | 50.0 | 162651.0 | 4.543347 | Y |
| 3 | IC 410-163707/16 | 10.0 | 50.069889 | 50.0 | 143084.0 | 5.006989 | Y |
| 4 | IC 410-163707/15 | 20.0 | 87.182556 | 50.0 | 162903.0 | 4.359128 | Y |
| 5 | IC 410-163707/14 | 50.0 | 292.9331 | 50.0 | 134380.0 | 5.858662 | Y |
| 6 | ICIS 410-163707/13 | 100.0 | 476.205018 | 50.0 | 165205.0 | 4.76205 | Y |
| 7 | IC 410-163707/12 | 250.0 | 1279.855545 | 50.0 | 153335.0 | 5.119422 | Y |



## Calibration / Chlorobromomethane

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

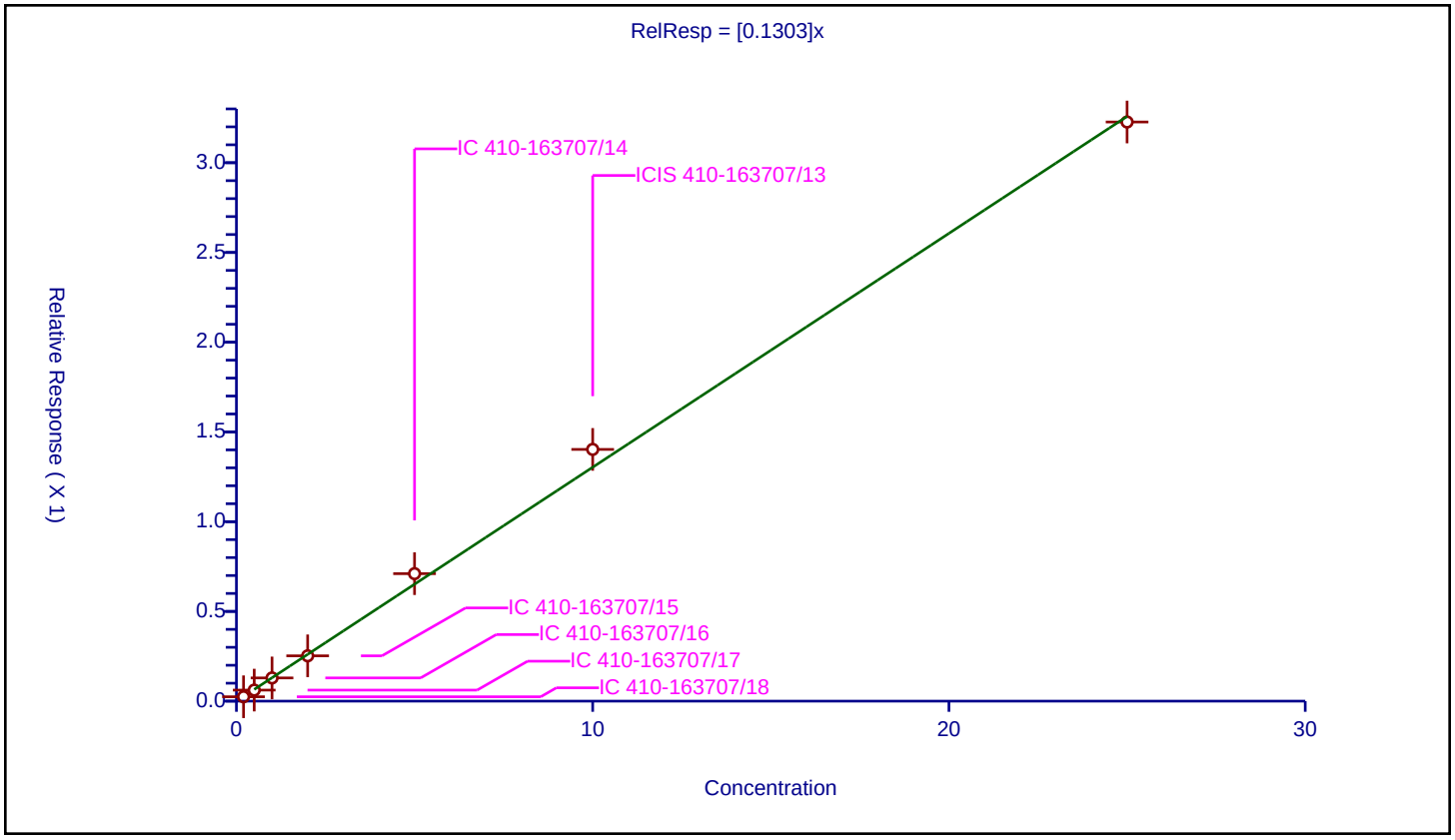
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1303 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 335000 |
| **Relative Standard Error:** | 6.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.024426 | 10.0 | 2203428.0 | 0.122128 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.061538 | 10.0 | 2386508.0 | 0.123075 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.129391 | 10.0 | 2167768.0 | 0.129391 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.252473 | 10.0 | 2141536.0 | 0.126236 | Y |
| 5 | IC 410-163707/14 | 5.0 | 0.710352 | 10.0 | 2115642.0 | 0.14207 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 1.402656 | 10.0 | 2122537.0 | 0.140266 | Y |
| 7 | IC 410-163707/12 | 25.0 | 3.227019 | 10.0 | 2314551.0 | 0.129081 | Y |



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

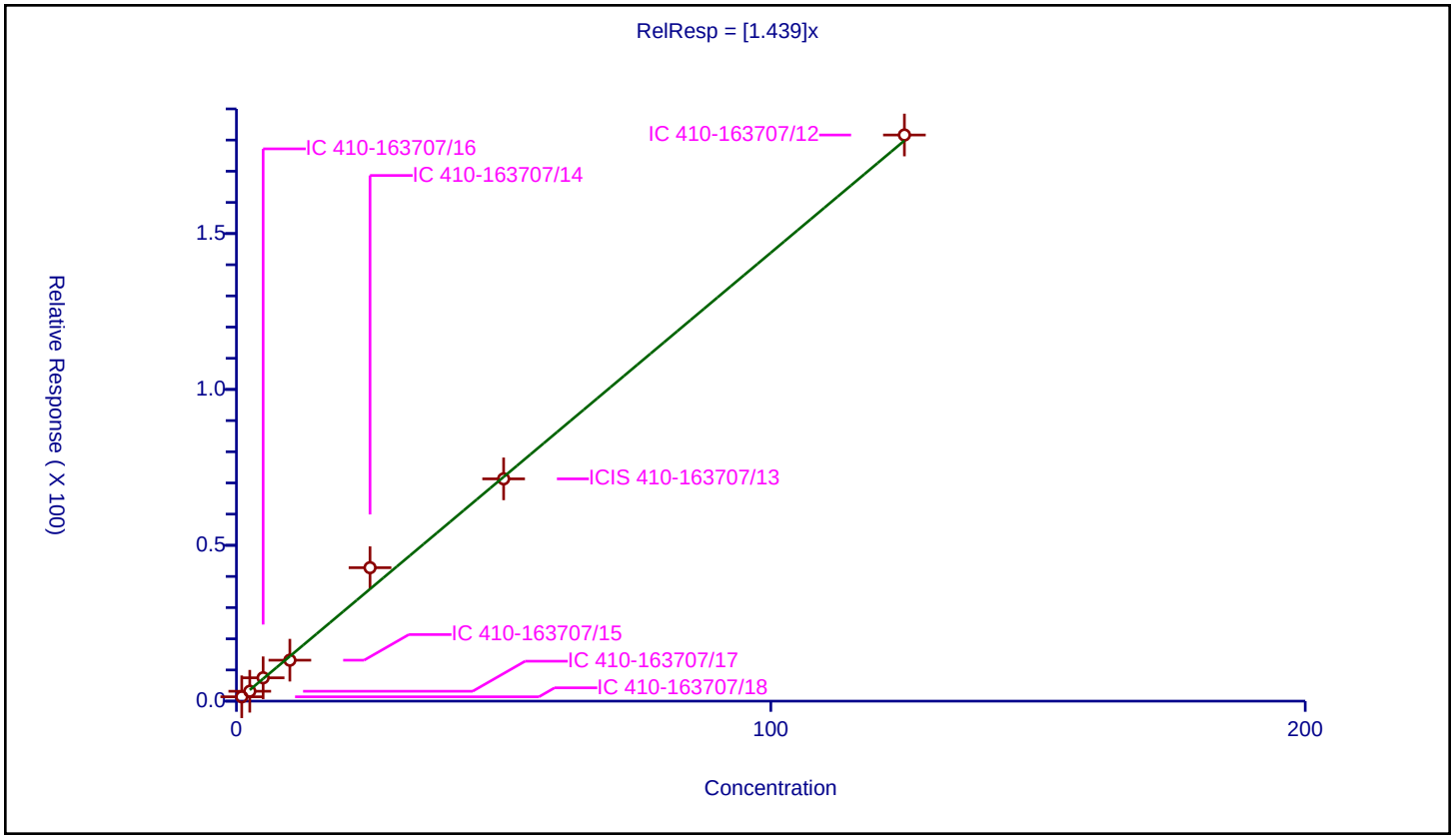
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.439 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 252000 |
| **Relative Standard Error:** | 10.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 1.0 | 1.397318 | 50.0 | 162132.0 | 1.397318 | Y |
| 2 | IC 410-163707/17 | 2.5 | 3.172744 | 50.0 | 162651.0 | 1.269098 | Y |
| 3 | IC 410-163707/16 | 5.0 | 7.491054 | 50.0 | 143084.0 | 1.498211 | Y |
| 4 | IC 410-163707/15 | 10.0 | 13.139107 | 50.0 | 162903.0 | 1.313911 | Y |
| 5 | IC 410-163707/14 | 25.0 | 42.815151 | 50.0 | 134380.0 | 1.712606 | Y |
| 6 | ICIS 410-163707/13 | 50.0 | 71.310796 | 50.0 | 165205.0 | 1.426216 | Y |
| 7 | IC 410-163707/12 | 125.0 | 181.629765 | 50.0 | 153335.0 | 1.453038 | Y |



## Calibration / Chloroform

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

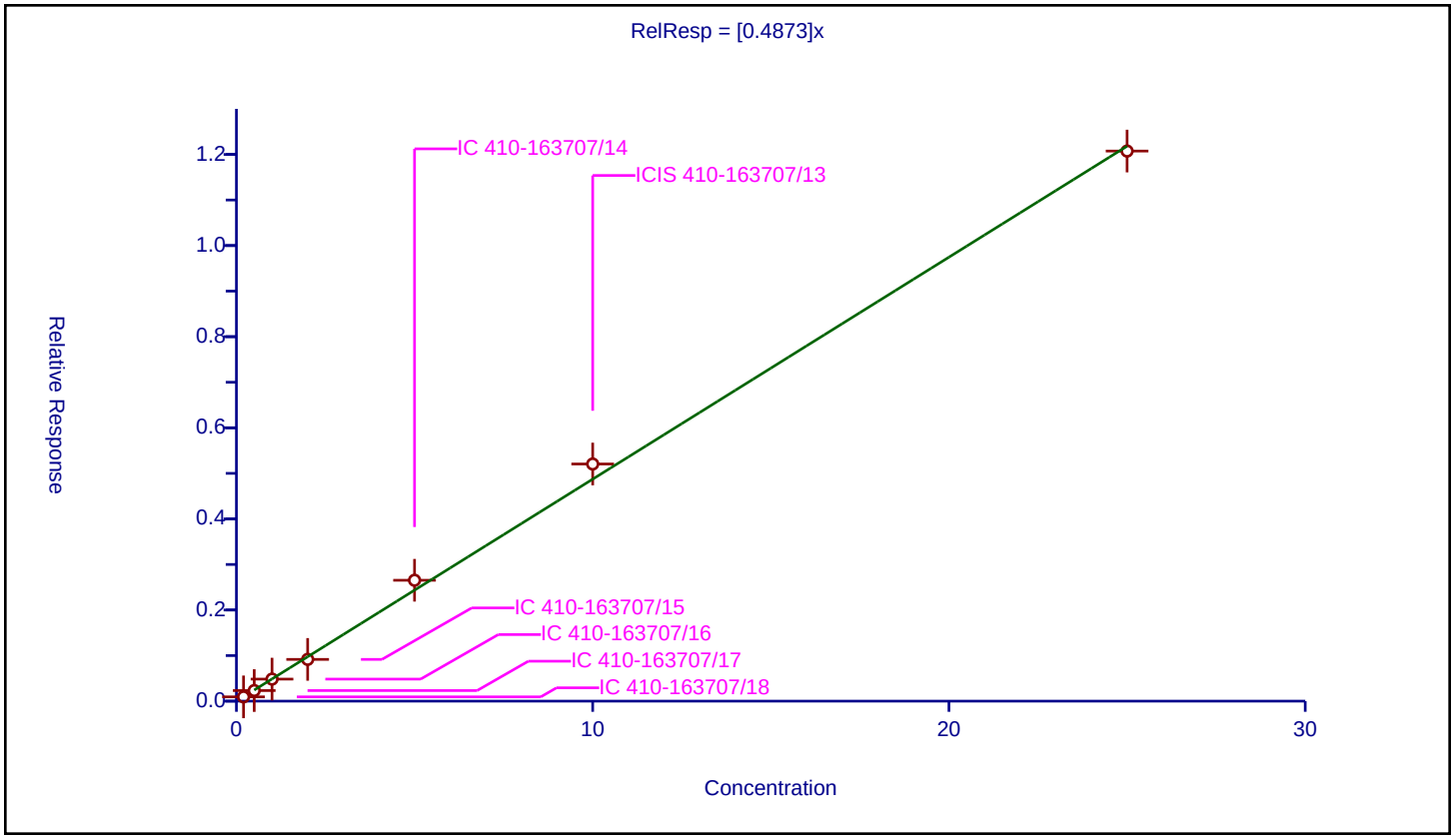
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4873 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1250000 |
| **Relative Standard Error:** | 5.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.09384 | 10.0 | 2203428.0 | 0.469201 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.232612 | 10.0 | 2386508.0 | 0.465224 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.48406 | 10.0 | 2167768.0 | 0.48406 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.91637 | 10.0 | 2141536.0 | 0.458185 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.653034 | 10.0 | 2115642.0 | 0.530607 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.20496 | 10.0 | 2122537.0 | 0.520496 | Y |
| 7 | IC 410-163707/12 | 25.0 | 12.074502 | 10.0 | 2314551.0 | 0.48298 | Y |



## Calibration / Dibromofluoromethane (Surr)

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

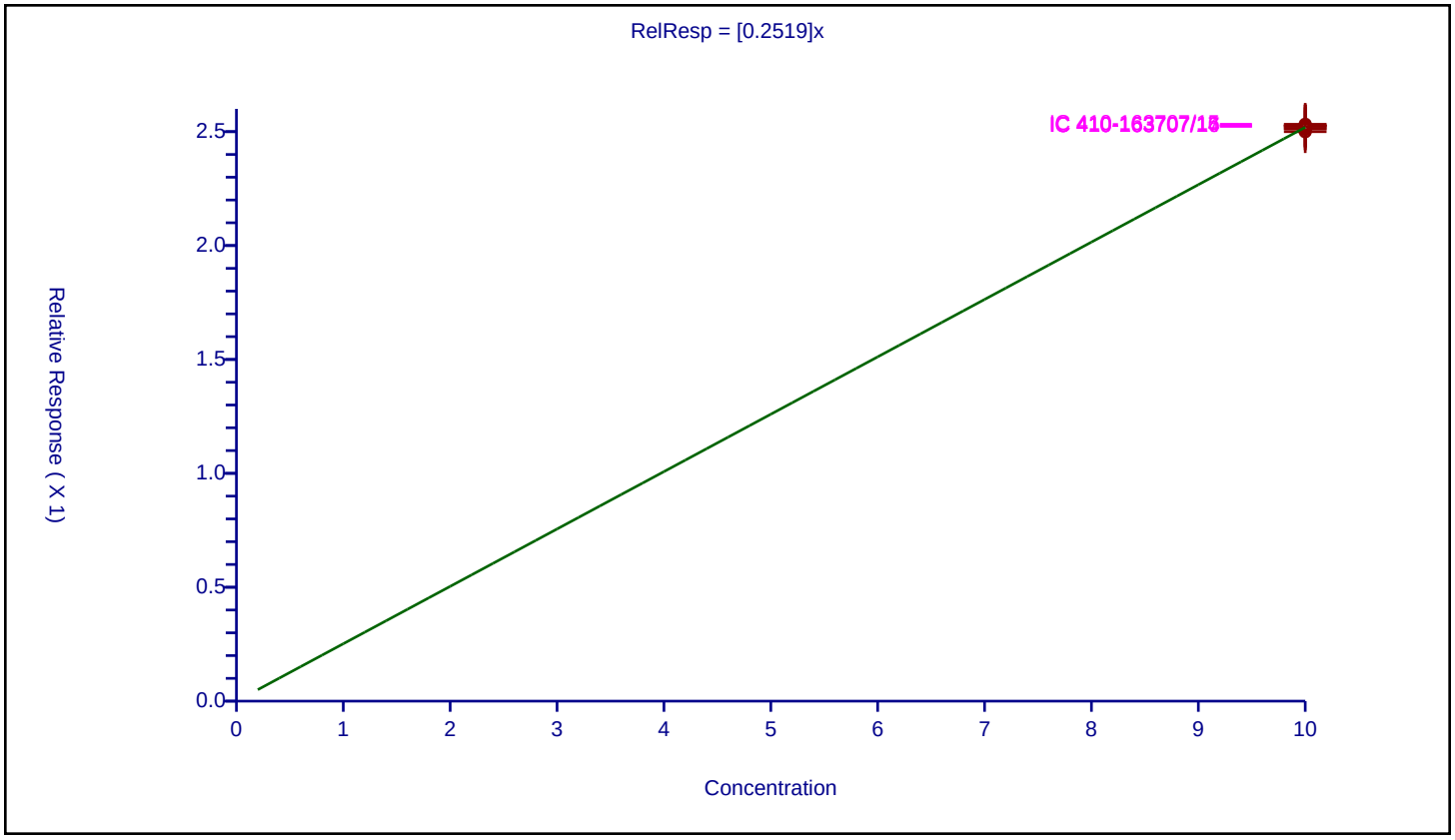
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2519 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 601000 |
| **Relative Standard Error:** | 0.4 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/12 | 10.0 | 2.514673 | 10.0 | 2314551.0 | 0.251467 | Y |
| 2 | ICIS 410-163707/13 | 10.0 | 2.511452 | 10.0 | 2122537.0 | 0.251145 | Y |
| 3 | IC 410-163707/14 | 10.0 | 2.523806 | 10.0 | 2115642.0 | 0.252381 | Y |
| 4 | IC 410-163707/15 | 10.0 | 2.53243 | 10.0 | 2141536.0 | 0.253243 | Y |
| 5 | IC 410-163707/16 | 10.0 | 2.525266 | 10.0 | 2167768.0 | 0.252527 | Y |
| 6 | IC 410-163707/17 | 10.0 | 2.526093 | 10.0 | 2386508.0 | 0.252609 | Y |
| 7 | IC 410-163707/18 | 10.0 | 2.499968 | 10.0 | 2203428.0 | 0.249997 | Y |



## Calibration / 1,1,1-Trichloroethane

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

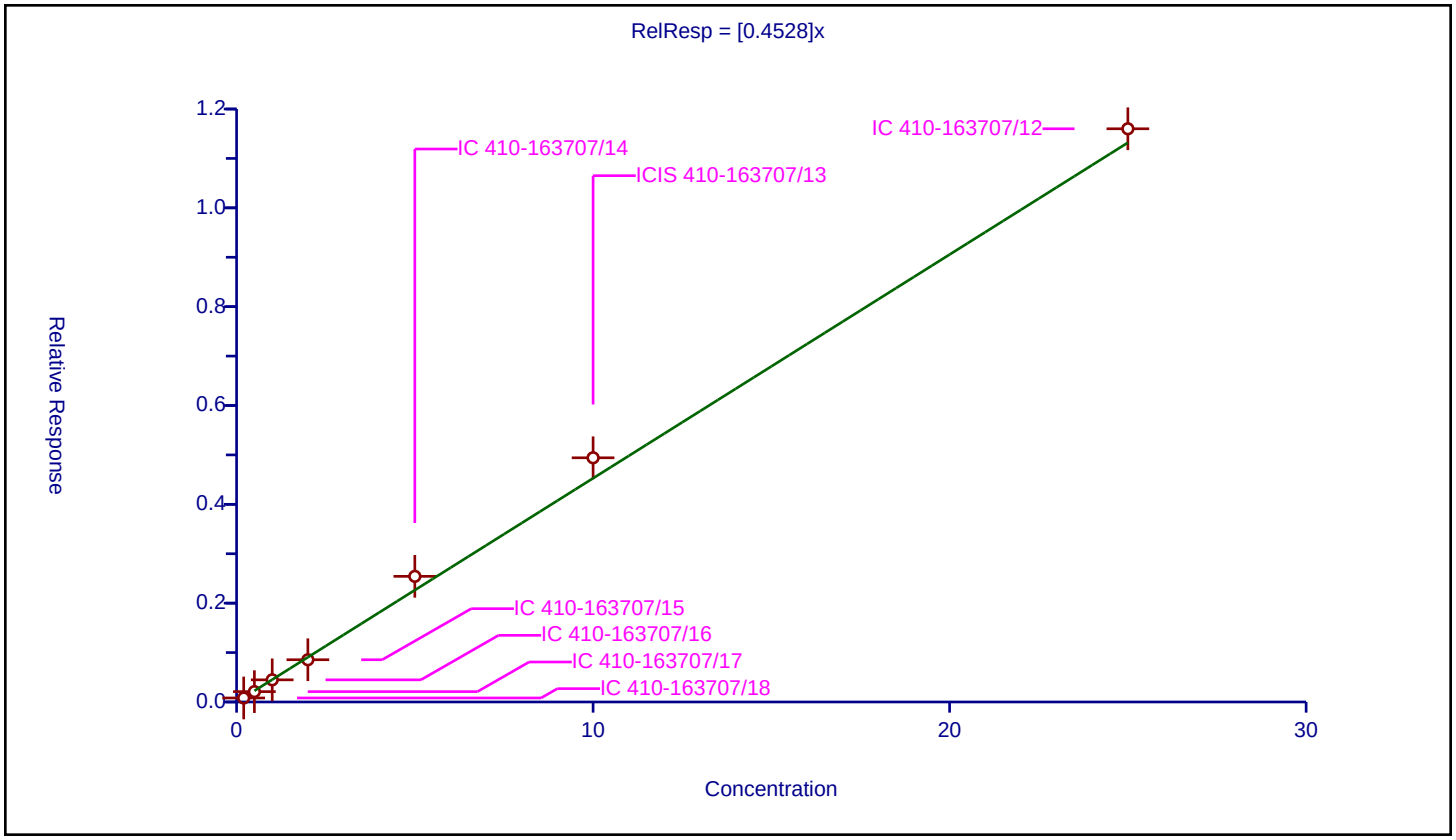
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4528 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1200000 |
| **Relative Standard Error:** | 8.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.08145 | 10.0 | 2203428.0 | 0.407252 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.209725 | 10.0 | 2386508.0 | 0.41945 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.448424 | 10.0 | 2167768.0 | 0.448424 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.854807 | 10.0 | 2141536.0 | 0.427404 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.542765 | 10.0 | 2115642.0 | 0.508553 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.942081 | 10.0 | 2122537.0 | 0.494208 | Y |
| 7 | IC 410-163707/12 | 25.0 | 11.60025 | 10.0 | 2314551.0 | 0.46401 | Y |



## Calibration / Cyclohexane

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

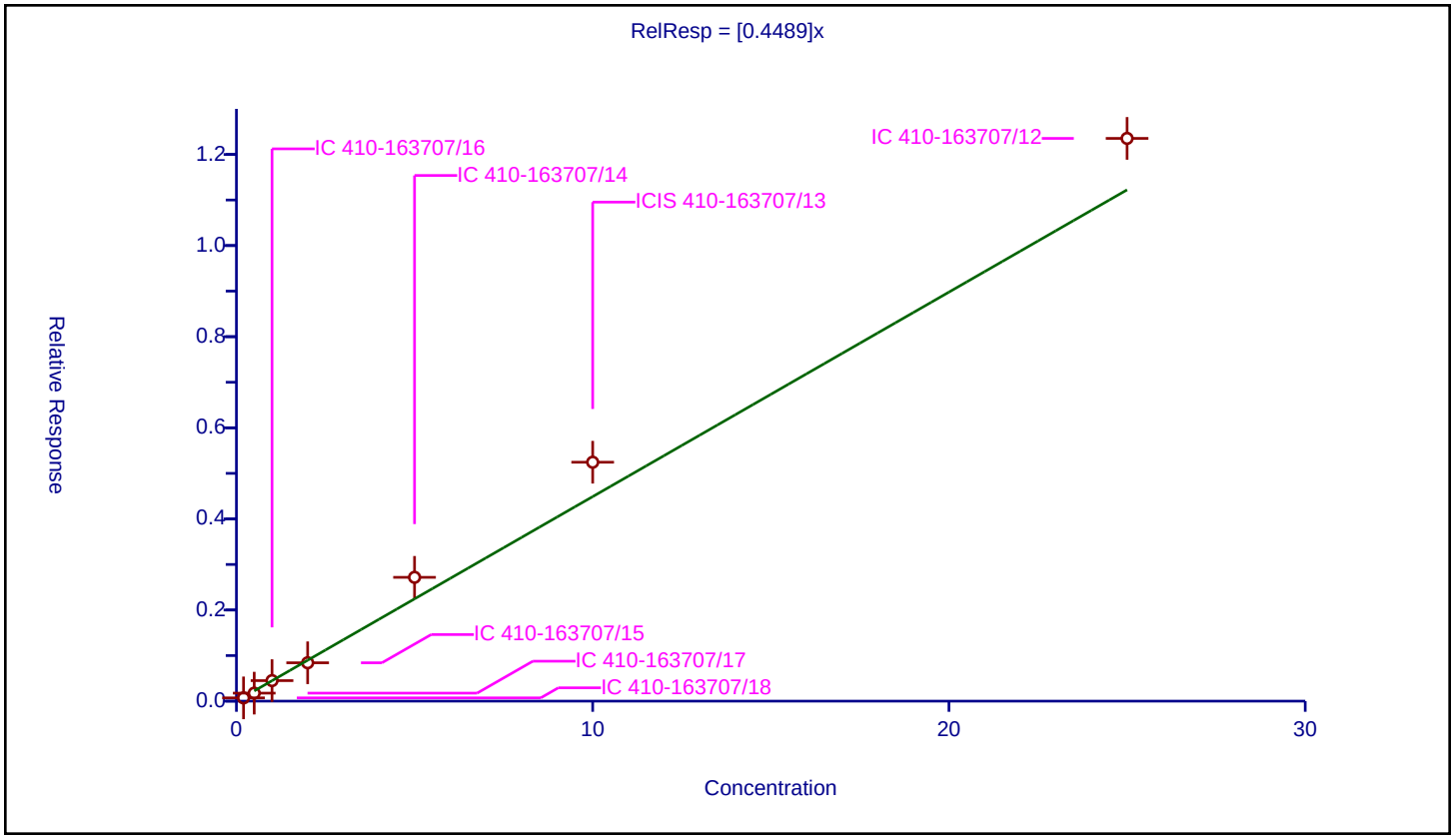
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4489 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1280000 |
| **Relative Standard Error:** | 17.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.967 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.071407 | 10.0 | 2203428.0 | 0.357035 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.175918 | 10.0 | 2386508.0 | 0.351836 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.450588 | 10.0 | 2167768.0 | 0.450588 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.841984 | 10.0 | 2141536.0 | 0.420992 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.717676 | 10.0 | 2115642.0 | 0.543535 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.244295 | 10.0 | 2122537.0 | 0.524429 | Y |
| 7 | IC 410-163707/12 | 25.0 | 12.352283 | 10.0 | 2314551.0 | 0.494091 | Y |



## Calibration / Carbon tetrachloride

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

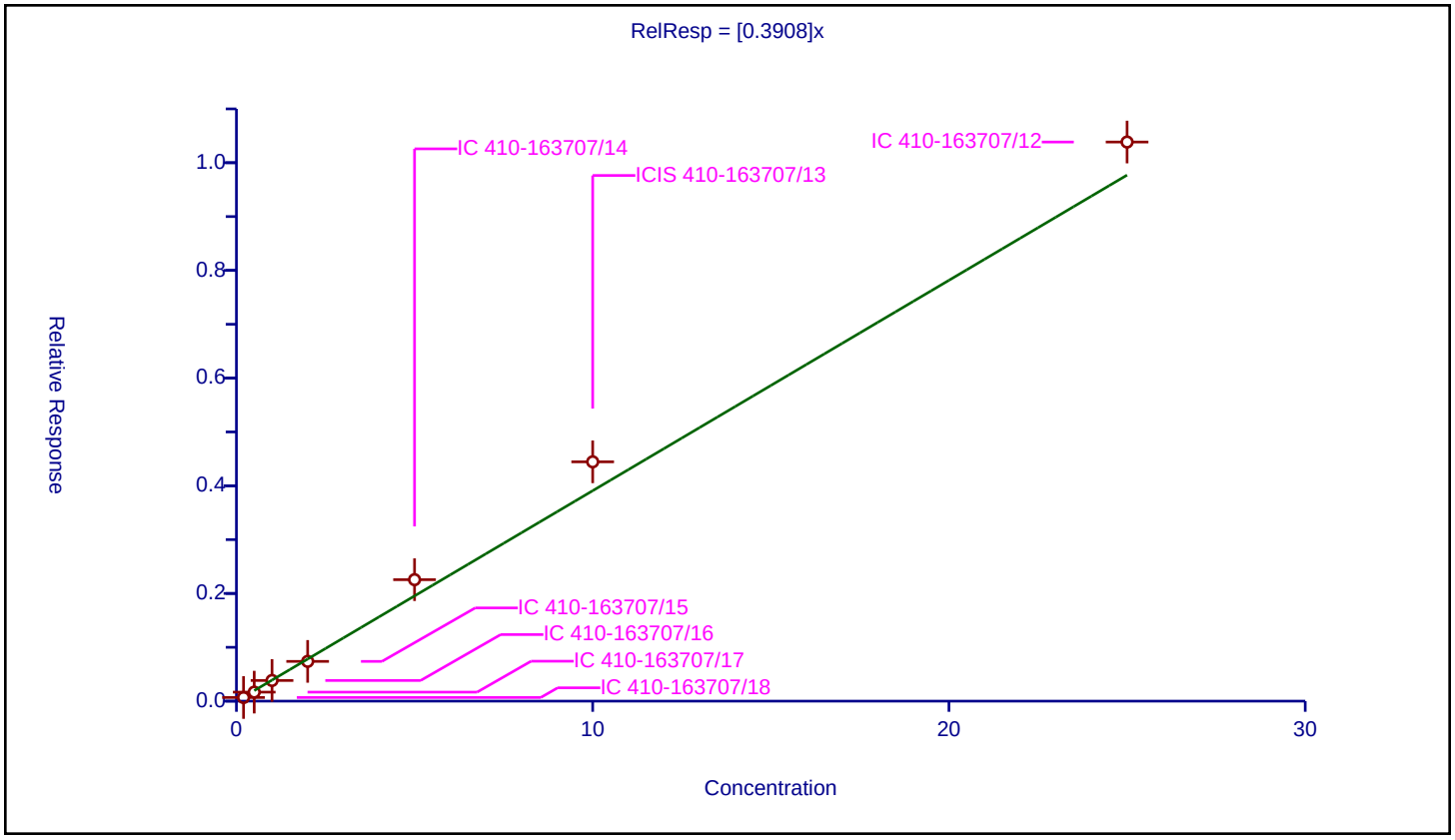
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3908 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1070000 |
| **Relative Standard Error:** | 12.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.067286 | 10.0 | 2203428.0 | 0.33643 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.167542 | 10.0 | 2386508.0 | 0.335084 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.383819 | 10.0 | 2167768.0 | 0.383819 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.738535 | 10.0 | 2141536.0 | 0.369268 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.256204 | 10.0 | 2115642.0 | 0.451241 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.445138 | 10.0 | 2122537.0 | 0.444514 | Y |
| 7 | IC 410-163707/12 | 25.0 | 10.384658 | 10.0 | 2314551.0 | 0.415386 | Y |



## Calibration / 1,1-Dichloropropene

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

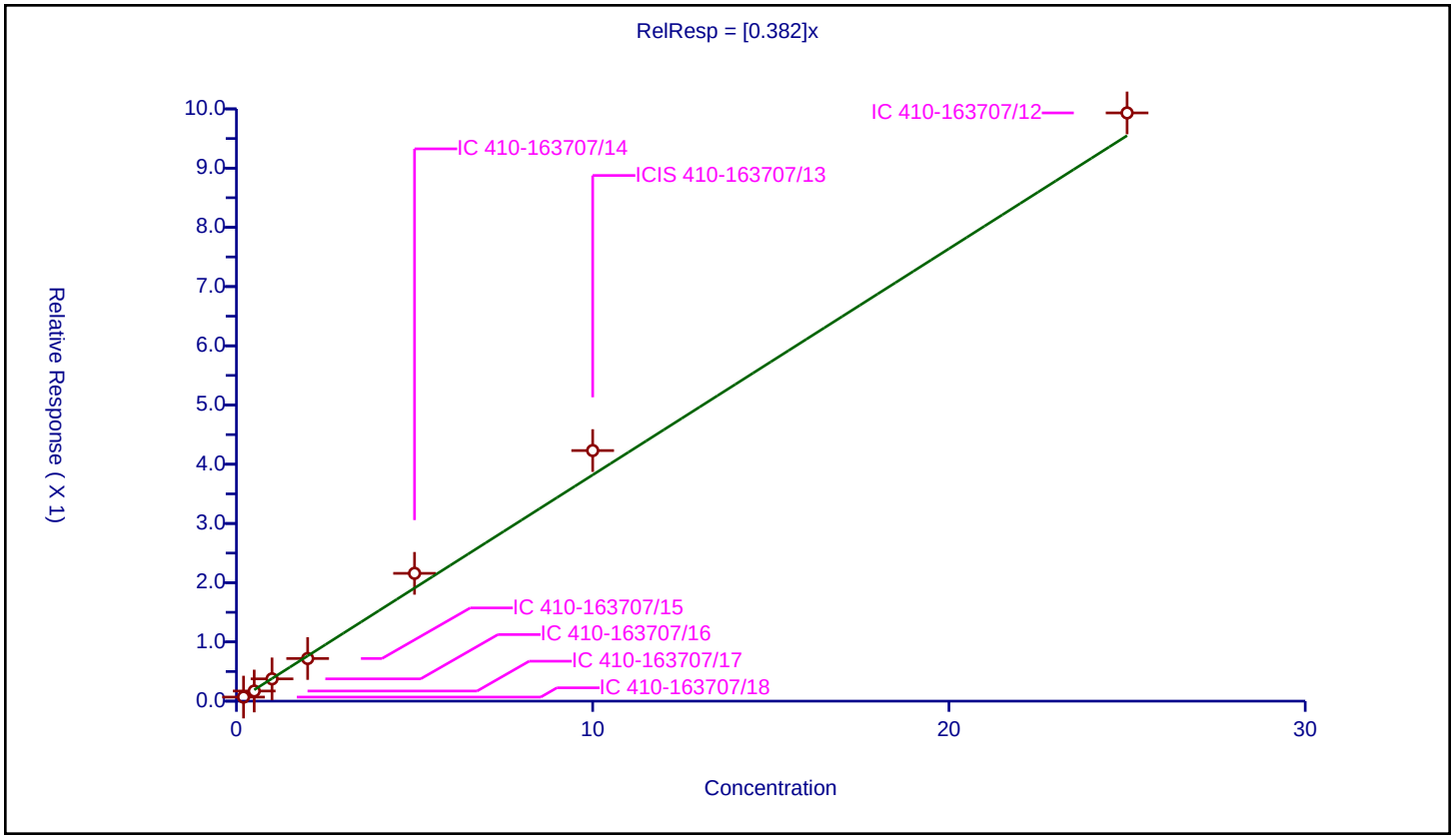
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.382 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1030000 |
| **Relative Standard Error:** | 9.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.068661 | 10.0 | 2203428.0 | 0.343306 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.171221 | 10.0 | 2386508.0 | 0.342442 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.376207 | 10.0 | 2167768.0 | 0.376207 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.719554 | 10.0 | 2141536.0 | 0.359777 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.158049 | 10.0 | 2115642.0 | 0.43161 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.230894 | 10.0 | 2122537.0 | 0.423089 | Y |
| 7 | IC 410-163707/12 | 25.0 | 9.931926 | 10.0 | 2314551.0 | 0.397277 | Y |



## Calibration / Isobutyl alcohol

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

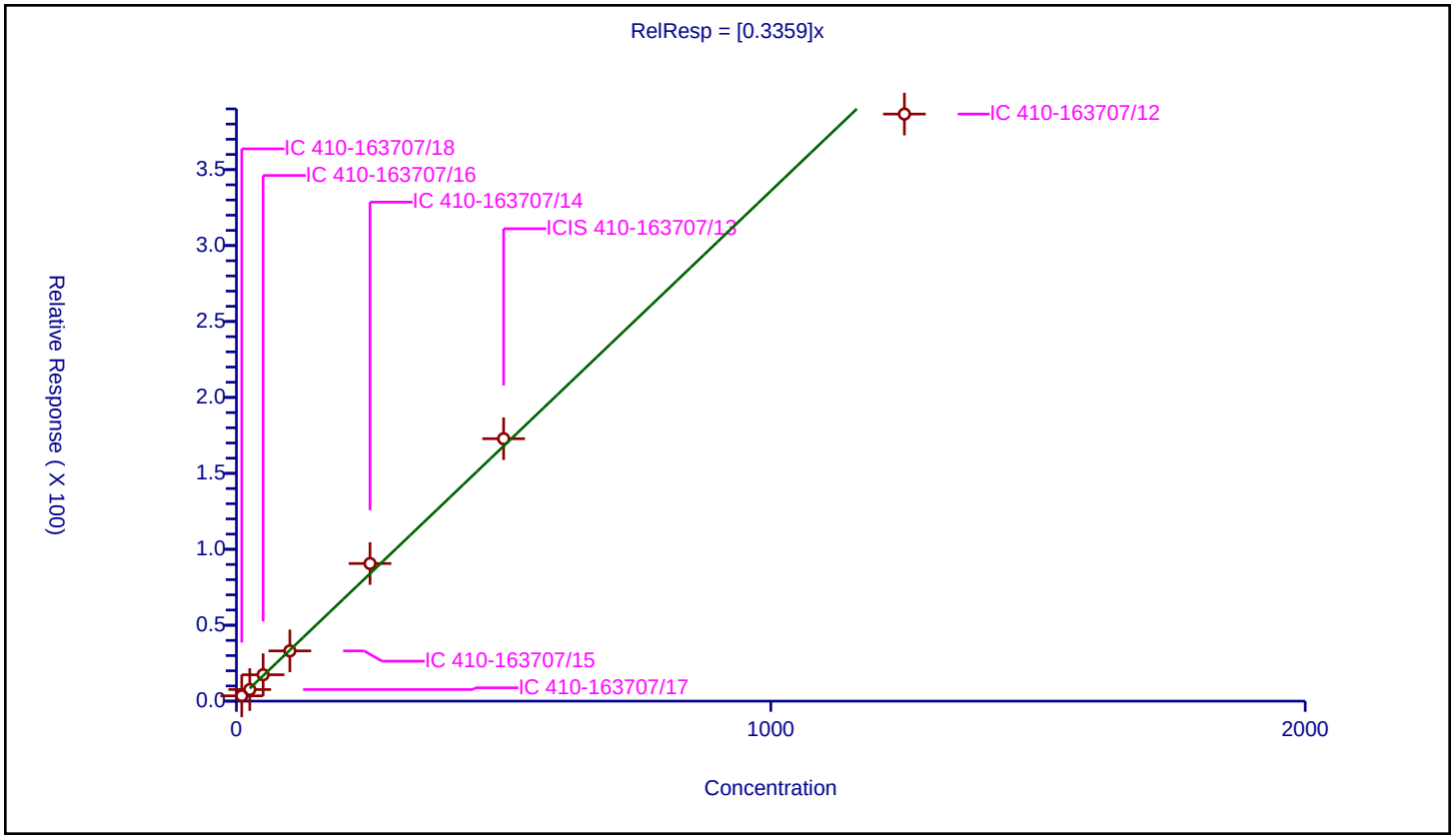
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3359 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 548000 |
| **Relative Standard Error:** | 6.5 |
| **Correlation Coefficient:** | 0.993 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 10.0 | 3.50486 | 50.0 | 162132.0 | 0.350486 | Y |
| 2 | IC 410-163707/17 | 25.0 | 7.632907 | 50.0 | 162651.0 | 0.305316 | Y |
| 3 | IC 410-163707/16 | 50.0 | 17.380699 | 50.0 | 143084.0 | 0.347614 | Y |
| 4 | IC 410-163707/15 | 100.0 | 33.078581 | 50.0 | 162903.0 | 0.330786 | Y |
| 5 | IC 410-163707/14 | 250.0 | 90.630302 | 50.0 | 134380.0 | 0.362521 | Y |
| 6 | ICIS 410-163707/13 | 500.0 | 172.809237 | 50.0 | 165205.0 | 0.345618 | Y |
| 7 | IC 410-163707/12 | 1250.0 | 386.593733 | 50.0 | 153335.0 | 0.309275 | Y |



## Calibration / 1,2-Dichloroethane-d4 (Surr)

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

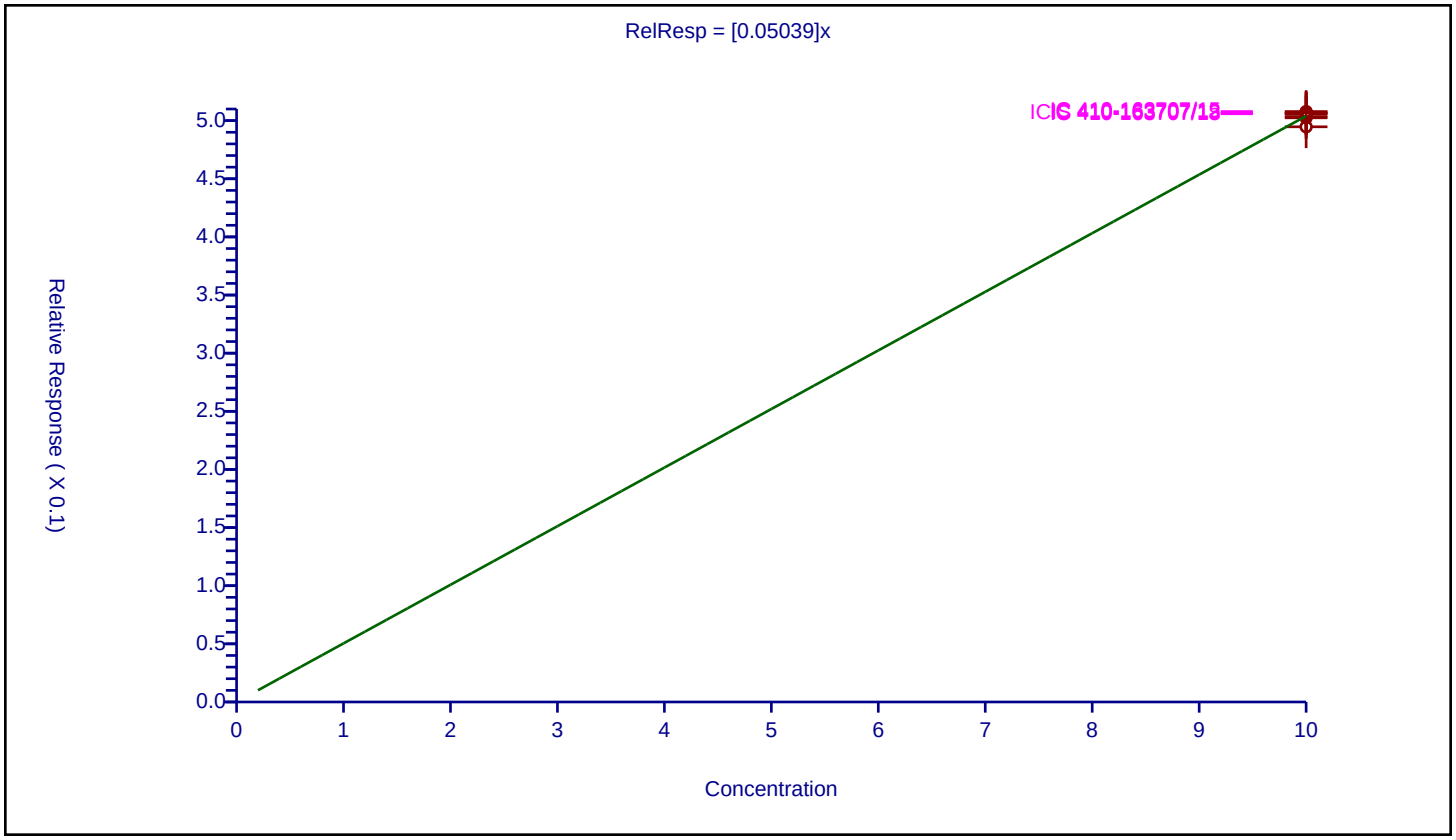
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.05039 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 120000 |
| **Relative Standard Error:** | 0.9 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/12 | 10.0 | 0.50691 | 10.0 | 2314551.0 | 0.050691 | Y |
| 2 | ICIS 410-163707/13 | 10.0 | 0.5063 | 10.0 | 2122537.0 | 0.05063 | Y |
| 3 | IC 410-163707/14 | 10.0 | 0.503554 | 10.0 | 2115642.0 | 0.050355 | Y |
| 4 | IC 410-163707/15 | 10.0 | 0.507832 | 10.0 | 2141536.0 | 0.050783 | Y |
| 5 | IC 410-163707/16 | 10.0 | 0.502425 | 10.0 | 2167768.0 | 0.050242 | Y |
| 6 | IC 410-163707/17 | 10.0 | 0.494698 | 10.0 | 2386508.0 | 0.04947 | Y |
| 7 | IC 410-163707/18 | 10.0 | 0.505907 | 10.0 | 2203428.0 | 0.050591 | Y |



## Calibration / Benzene

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

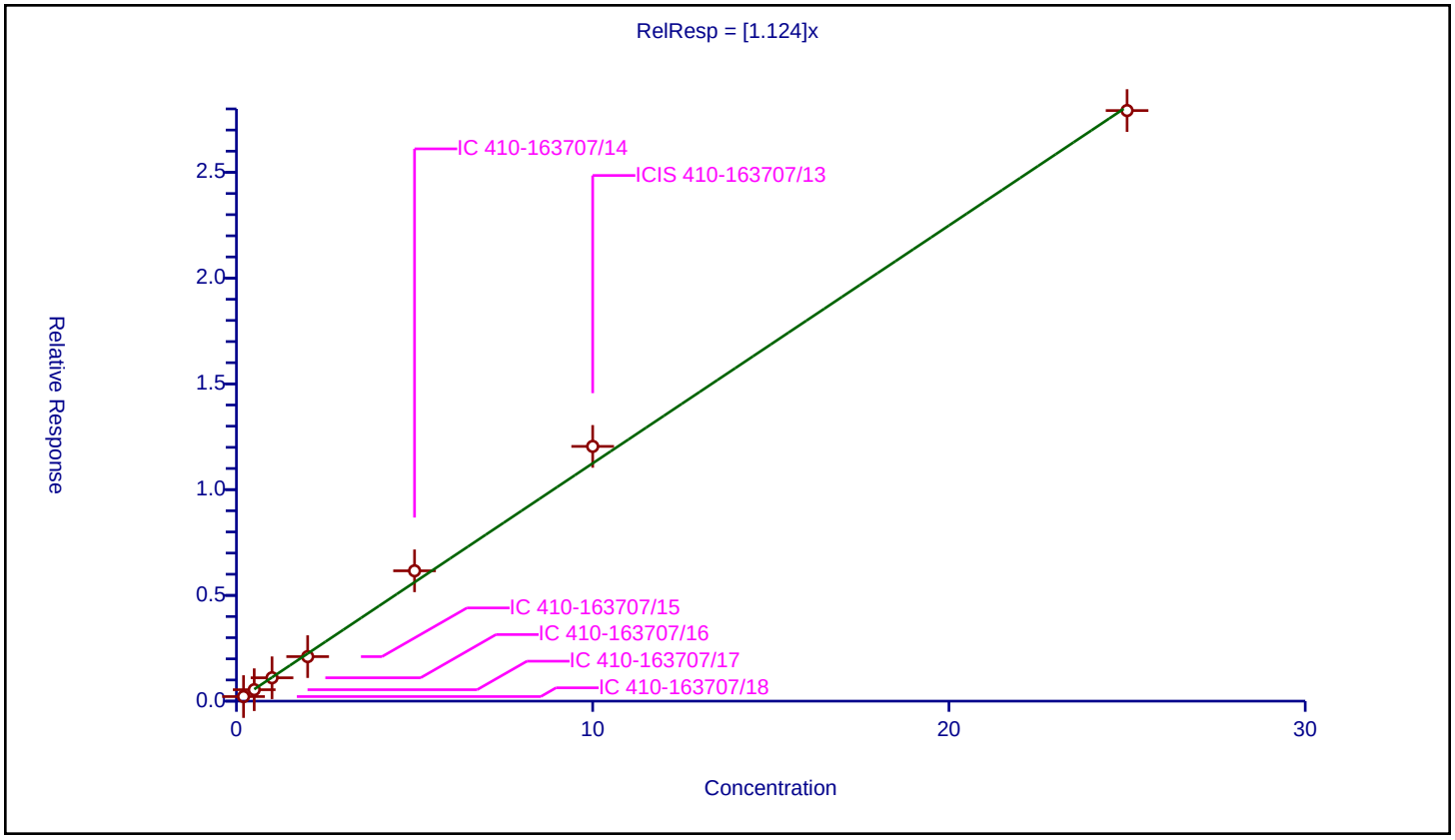
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.124 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2890000 |
| **Relative Standard Error:** | 6.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.215723 | 10.0 | 2203428.0 | 1.078615 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.540321 | 10.0 | 2386508.0 | 1.080642 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.105358 | 10.0 | 2167768.0 | 1.105358 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.104326 | 10.0 | 2141536.0 | 1.052163 | Y |
| 5 | IC 410-163707/14 | 5.0 | 6.162215 | 10.0 | 2115642.0 | 1.232443 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 12.042975 | 10.0 | 2122537.0 | 1.204297 | Y |
| 7 | IC 410-163707/12 | 25.0 | 27.921394 | 10.0 | 2314551.0 | 1.116856 | Y |



## Calibration / 1,2-Dichloroethane

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

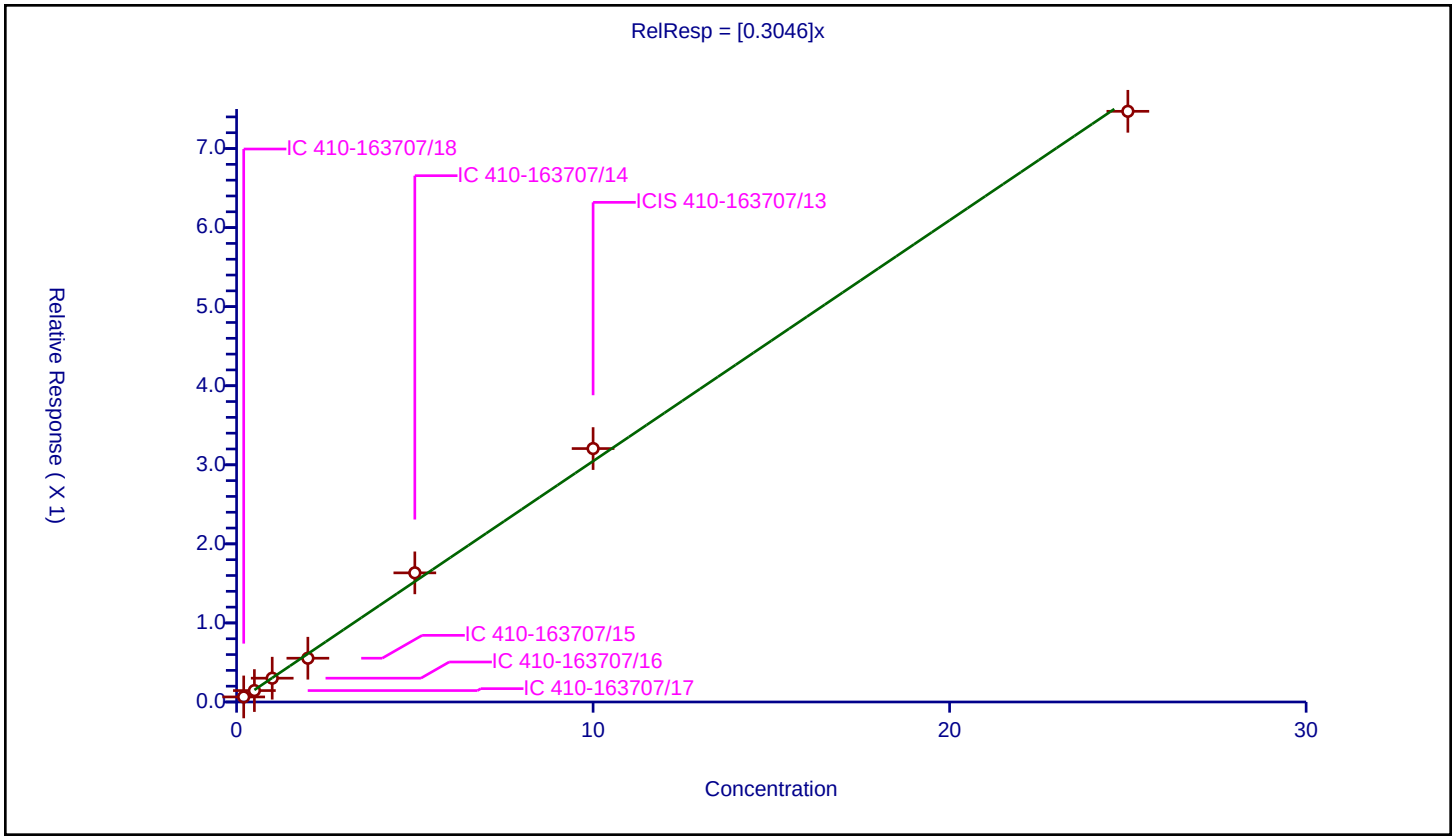
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3046 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 774000 |
| **Relative Standard Error:** | 6.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.063923 | 10.0 | 2203428.0 | 0.319616 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.14445 | 10.0 | 2386508.0 | 0.288899 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.301029 | 10.0 | 2167768.0 | 0.301029 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.553547 | 10.0 | 2141536.0 | 0.276773 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.633429 | 10.0 | 2115642.0 | 0.326686 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.205466 | 10.0 | 2122537.0 | 0.320547 | Y |
| 7 | IC 410-163707/12 | 25.0 | 7.47116 | 10.0 | 2314551.0 | 0.298846 | Y |



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

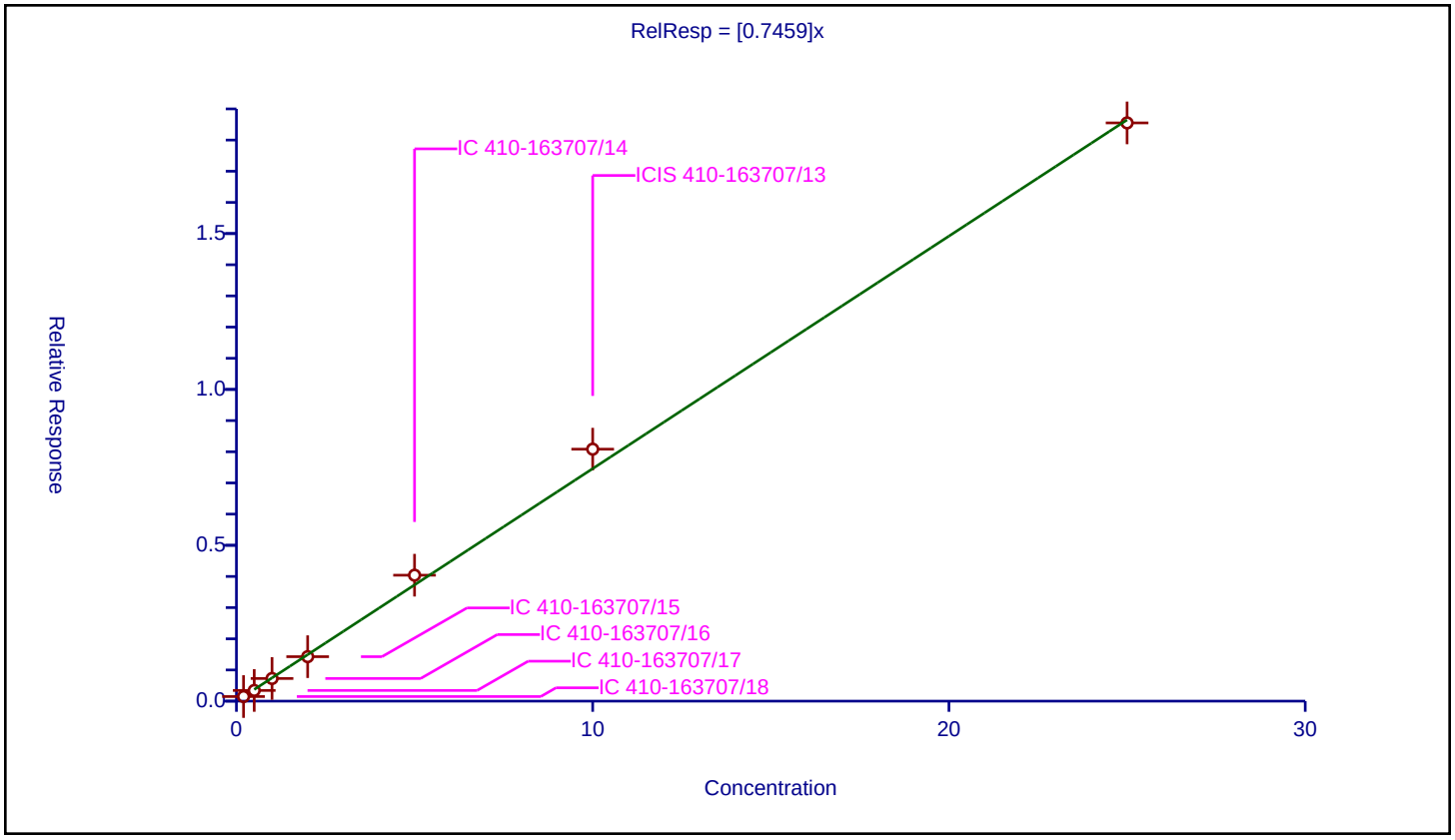
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7459 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1930000 |
| **Relative Standard Error:** | 6.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.147466 | 10.0 | 2203428.0 | 0.737328 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.342668 | 10.0 | 2386508.0 | 0.685336 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.726904 | 10.0 | 2167768.0 | 0.726904 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.426901 | 10.0 | 2141536.0 | 0.713451 | Y |
| 5 | IC 410-163707/14 | 5.0 | 4.040556 | 10.0 | 2115642.0 | 0.808111 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 8.083576 | 10.0 | 2122537.0 | 0.808358 | Y |
| 7 | IC 410-163707/12 | 25.0 | 18.550812 | 10.0 | 2314551.0 | 0.742032 | Y |



## Calibration / n-Heptane

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

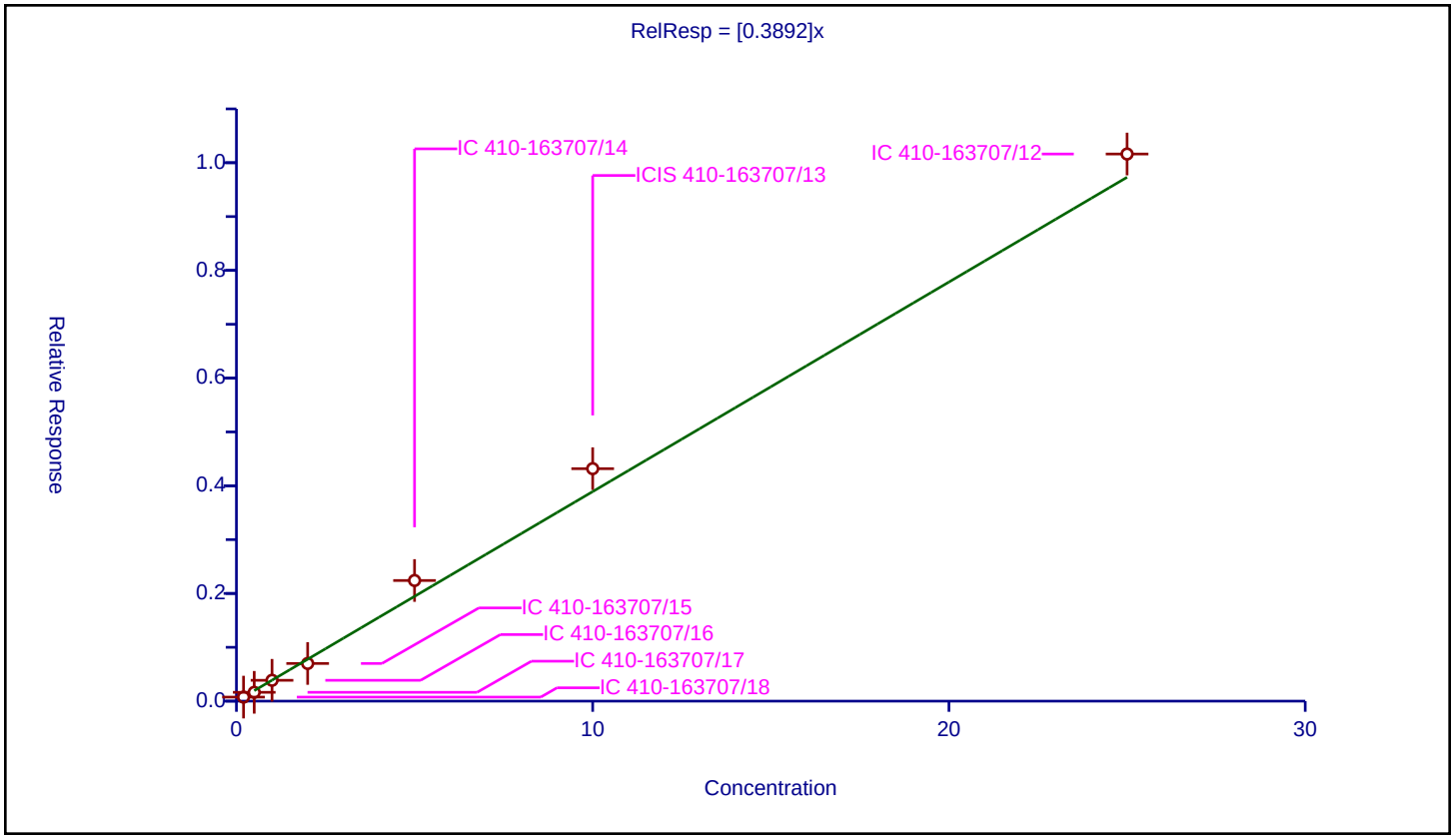
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3892 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1050000 |
| **Relative Standard Error:** | 11.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.074706 | 10.0 | 2203428.0 | 0.373532 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.163901 | 10.0 | 2386508.0 | 0.327801 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.387016 | 10.0 | 2167768.0 | 0.387016 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.699601 | 10.0 | 2141536.0 | 0.3498 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.240426 | 10.0 | 2115642.0 | 0.448085 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.317814 | 10.0 | 2122537.0 | 0.431781 | Y |
| 7 | IC 410-163707/12 | 25.0 | 10.162139 | 10.0 | 2314551.0 | 0.406486 | Y |



## Calibration / n-Butanol

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

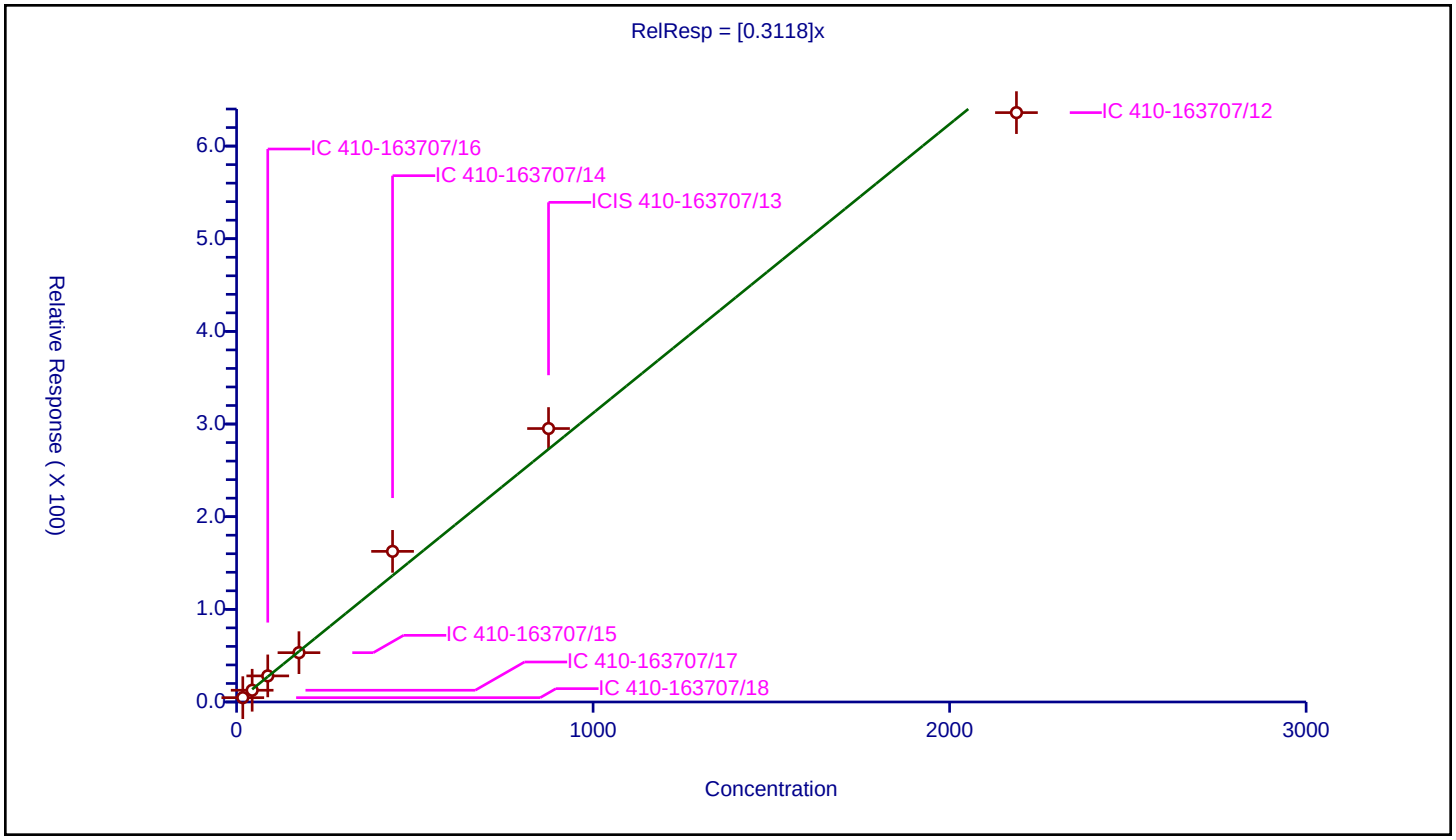
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3118 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 911000 |
| **Relative Standard Error:** | 11.2 |
| **Correlation Coefficient:** | 0.990 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 17.5 | 4.67582 | 50.0 | 162132.0 | 0.26719 | Y |
| 2 | IC 410-163707/17 | 43.75 | 12.684213 | 50.0 | 162651.0 | 0.289925 | Y |
| 3 | IC 410-163707/16 | 87.5 | 28.164924 | 50.0 | 143084.0 | 0.321885 | Y |
| 4 | IC 410-163707/15 | 175.0 | 53.221856 | 50.0 | 162903.0 | 0.304125 | Y |
| 5 | IC 410-163707/14 | 437.5 | 162.572183 | 50.0 | 134380.0 | 0.371594 | Y |
| 6 | ICIS 410-163707/13 | 875.0 | 295.150873 | 50.0 | 165205.0 | 0.337315 | Y |
| 7 | IC 410-163707/12 | 2187.5 | 636.104281 | 50.0 | 153335.0 | 0.290791 | Y |



## Calibration / Trichloroethene

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

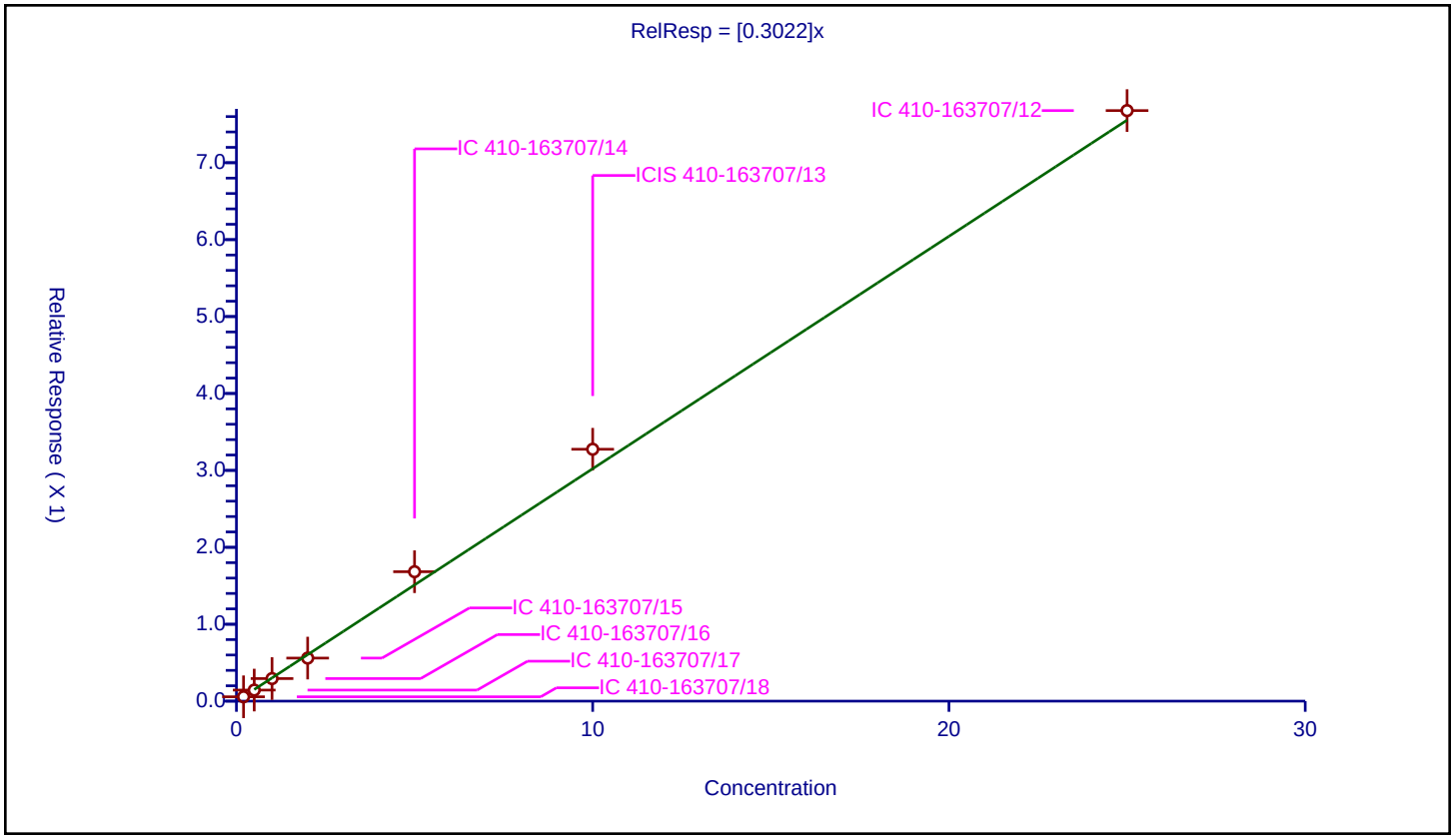
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3022 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 795000 |
| **Relative Standard Error:** | 7.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.056603 | 10.0 | 2203428.0 | 0.283014 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.143846 | 10.0 | 2386508.0 | 0.287692 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.293472 | 10.0 | 2167768.0 | 0.293472 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.559785 | 10.0 | 2141536.0 | 0.279893 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.682723 | 10.0 | 2115642.0 | 0.336545 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.274789 | 10.0 | 2122537.0 | 0.327479 | Y |
| 7 | IC 410-163707/12 | 25.0 | 7.677865 | 10.0 | 2314551.0 | 0.307115 | Y |



## Calibration / Methylcyclohexane

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

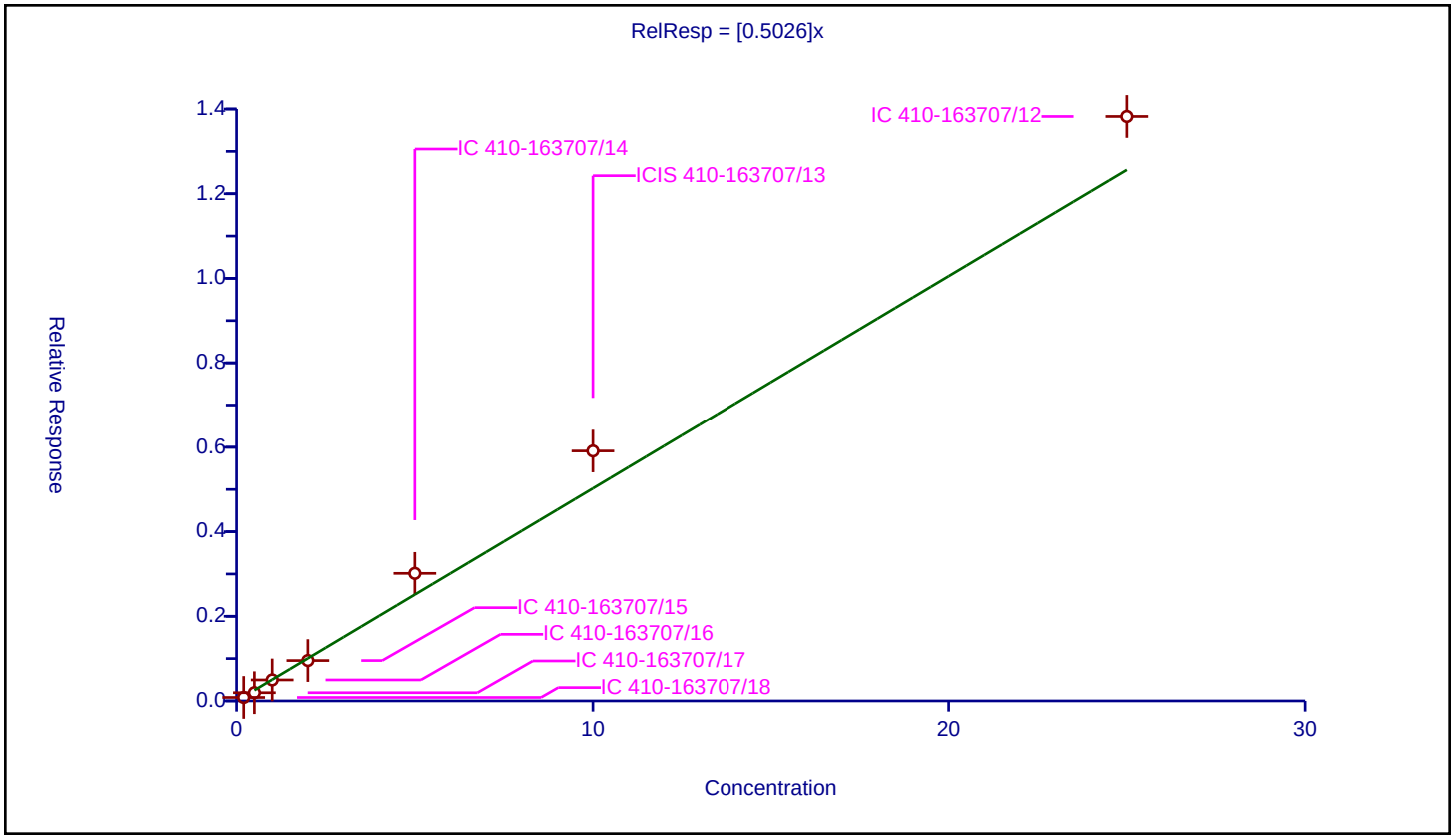
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5026 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1430000 |
| **Relative Standard Error:** | 16.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.968 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.082081 | 10.0 | 2203428.0 | 0.410406 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.193986 | 10.0 | 2386508.0 | 0.387973 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.496036 | 10.0 | 2167768.0 | 0.496036 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.953227 | 10.0 | 2141536.0 | 0.476614 | Y |
| 5 | IC 410-163707/14 | 5.0 | 3.015052 | 10.0 | 2115642.0 | 0.60301 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.911251 | 10.0 | 2122537.0 | 0.591125 | Y |
| 7 | IC 410-163707/12 | 25.0 | 13.824098 | 10.0 | 2314551.0 | 0.552964 | Y |



## Calibration / 1,2-Dichloropropane

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

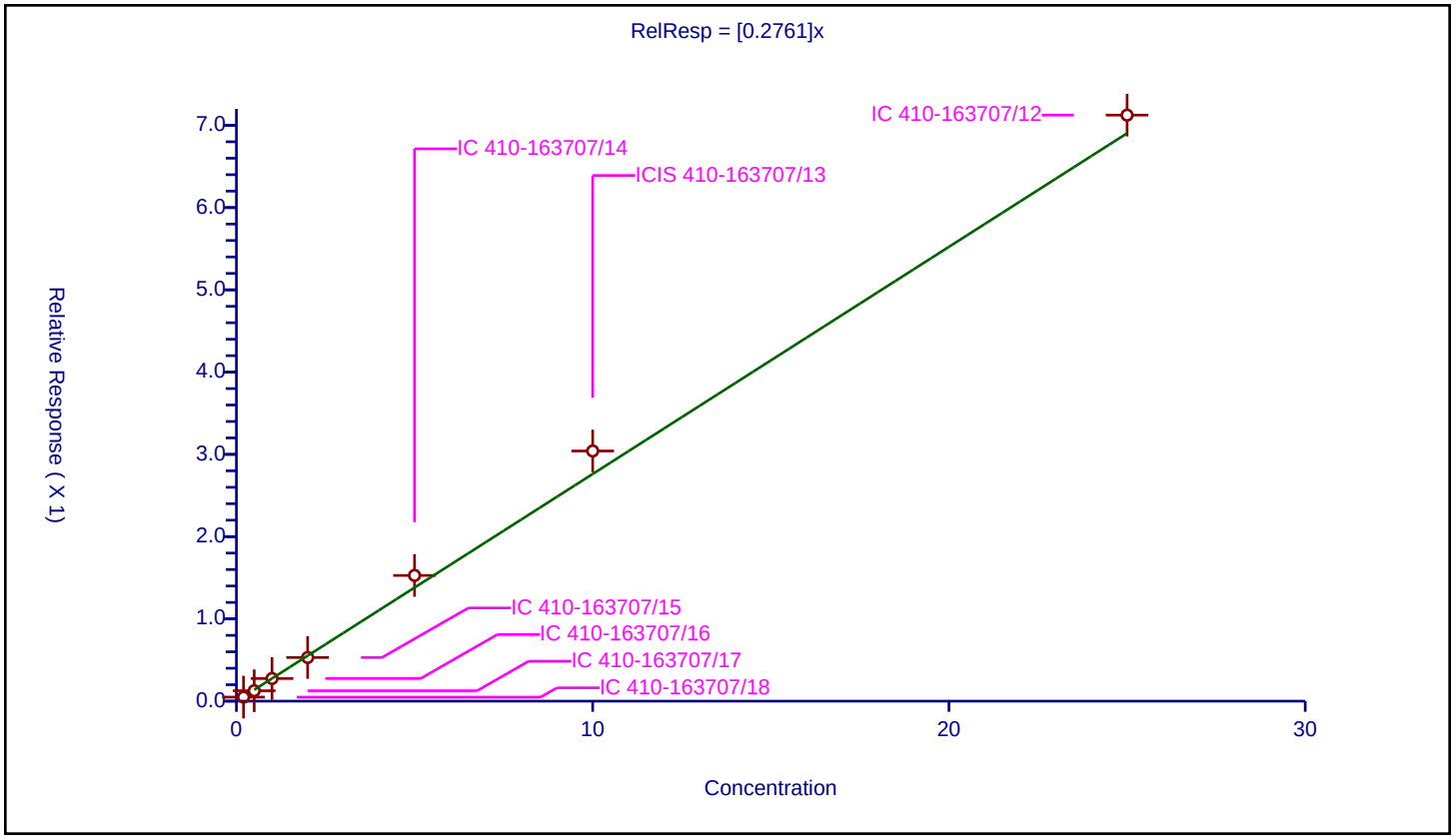
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2761 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 737000 |
| **Relative Standard Error:** | 8.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.048978 | 10.0 | 2203428.0 | 0.244891 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.126478 | 10.0 | 2386508.0 | 0.252955 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.275136 | 10.0 | 2167768.0 | 0.275136 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.530568 | 10.0 | 2141536.0 | 0.265284 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.528184 | 10.0 | 2115642.0 | 0.305637 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.041134 | 10.0 | 2122537.0 | 0.304113 | Y |
| 7 | IC 410-163707/12 | 25.0 | 7.124285 | 10.0 | 2314551.0 | 0.284971 | Y |



## Calibration / Methyl methacrylate

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

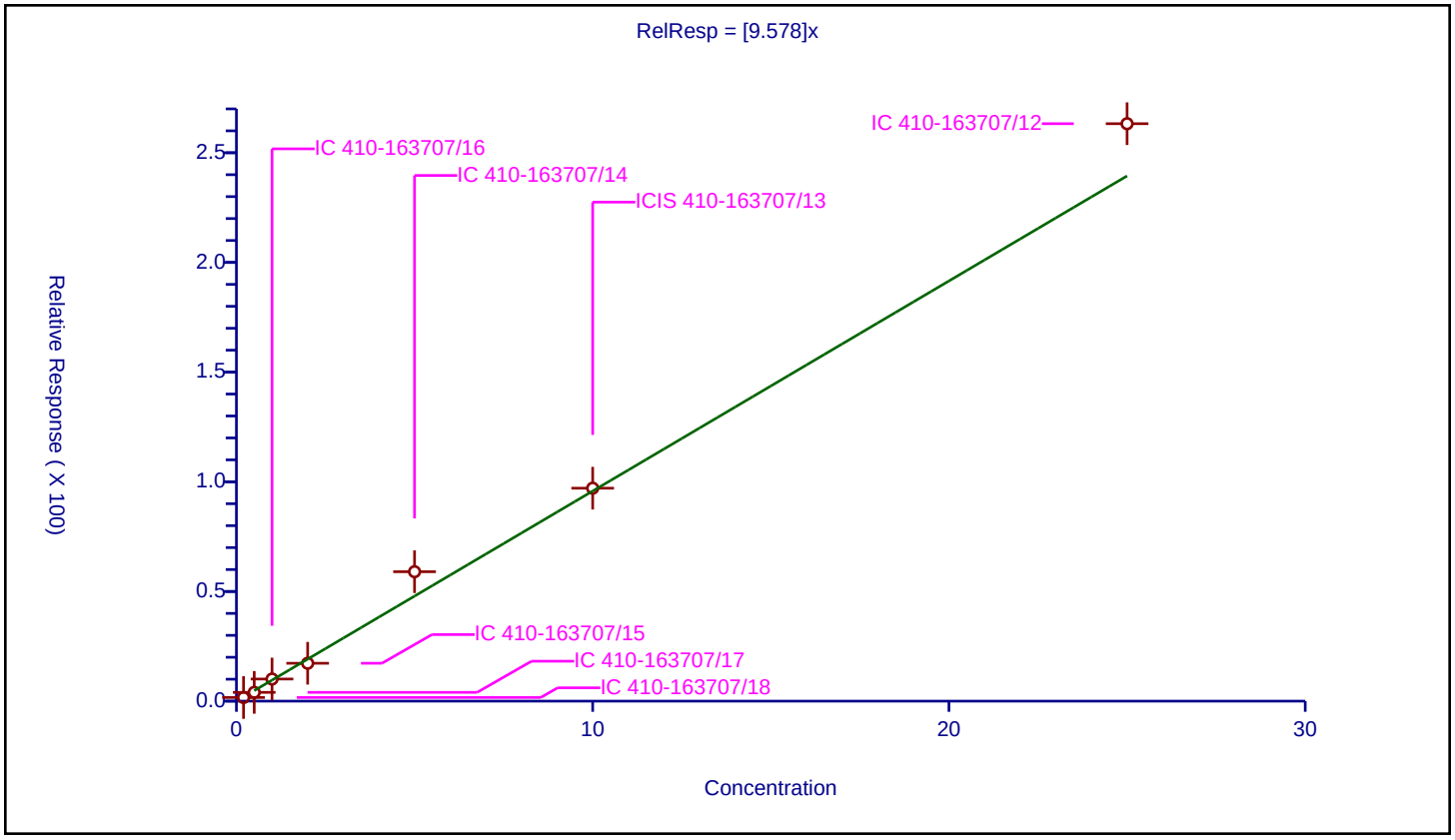
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 9.578 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 361000 |
| **Relative Standard Error:** | 14.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.976 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 1.659142 | 50.0 | 162132.0 | 8.29571 | Y |
| 2 | IC 410-163707/17 | 0.5 | 3.995057 | 50.0 | 162651.0 | 7.990114 | Y |
| 3 | IC 410-163707/16 | 1.0 | 10.079743 | 50.0 | 143084.0 | 10.079743 | Y |
| 4 | IC 410-163707/15 | 2.0 | 17.276539 | 50.0 | 162903.0 | 8.638269 | Y |
| 5 | IC 410-163707/14 | 5.0 | 59.010641 | 50.0 | 134380.0 | 11.802128 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 97.080899 | 50.0 | 165205.0 | 9.70809 | Y |
| 7 | IC 410-163707/12 | 25.0 | 263.253986 | 50.0 | 153335.0 | 10.530159 | Y |



## Calibration / 1,4-Dioxane

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

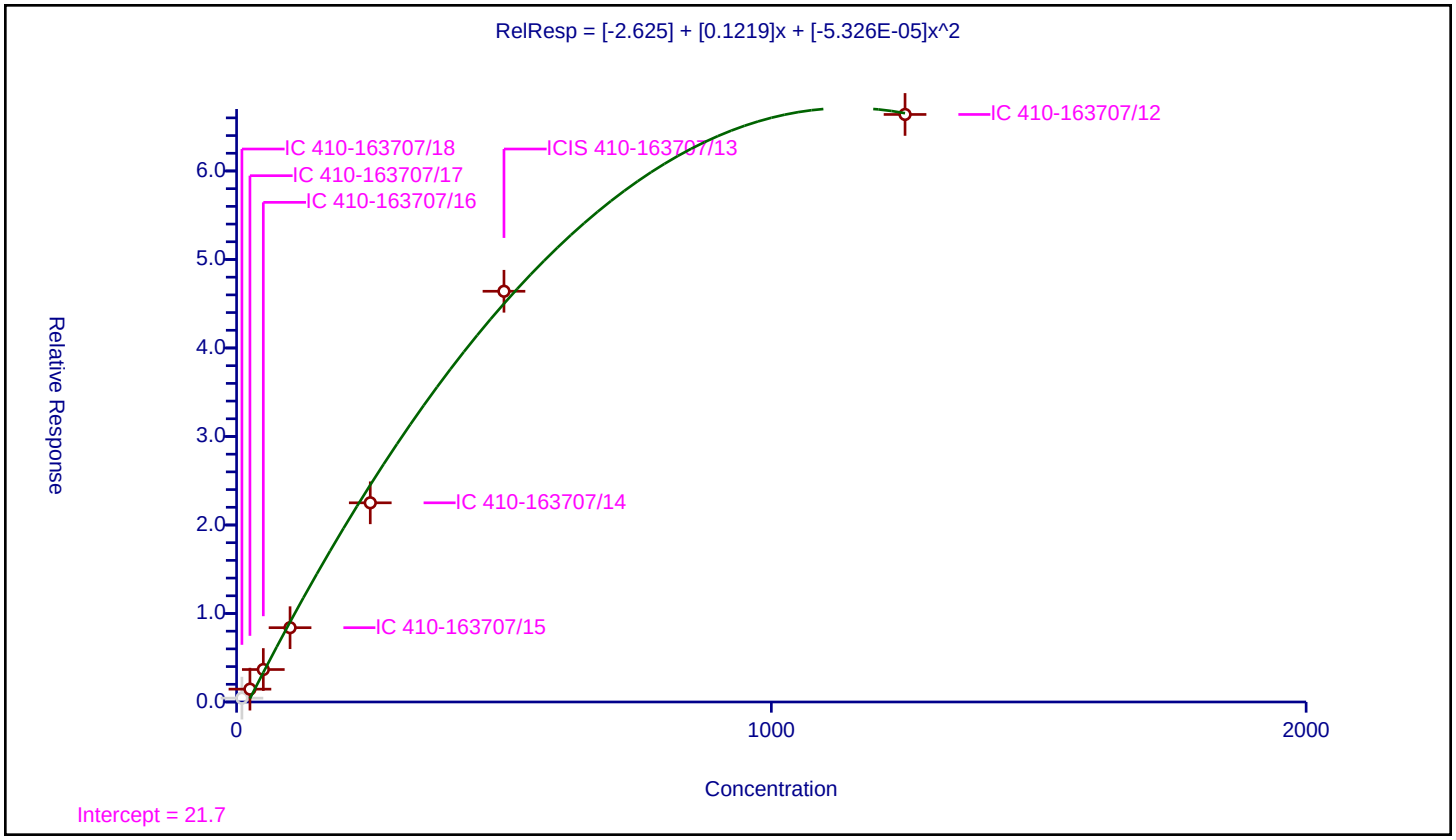
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | -2.625 |
| **Slope:** | 0.1219 |
| **Second Order:** | -5.326E-05 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 152000 |
| **Relative Standard Error:** | 24.1 |
| **Correlation Coefficient:** | 0.987 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 10.0 | 0.434831 | 50.0 | 162132.0 | 0.043483 | N |
| 2 | IC 410-163707/17 | 25.0 | 1.450959 | 50.0 | 162651.0 | 0.058038 | Y |
| 3 | IC 410-163707/16 | 50.0 | 3.667776 | 50.0 | 143084.0 | 0.073356 | Y |
| 4 | IC 410-163707/15 | 100.0 | 8.397022 | 50.0 | 162903.0 | 0.08397 | Y |
| 5 | IC 410-163707/14 | 250.0 | 22.505209 | 50.0 | 134380.0 | 0.090021 | Y |
| 6 | ICIS 410-163707/13 | 500.0 | 46.407494 | 50.0 | 165205.0 | 0.092815 | Y |
| 7 | IC 410-163707/12 | 1250.0 | 66.38667 | 50.0 | 153335.0 | 0.053109 | Y |



## Calibration / Dibromomethane

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

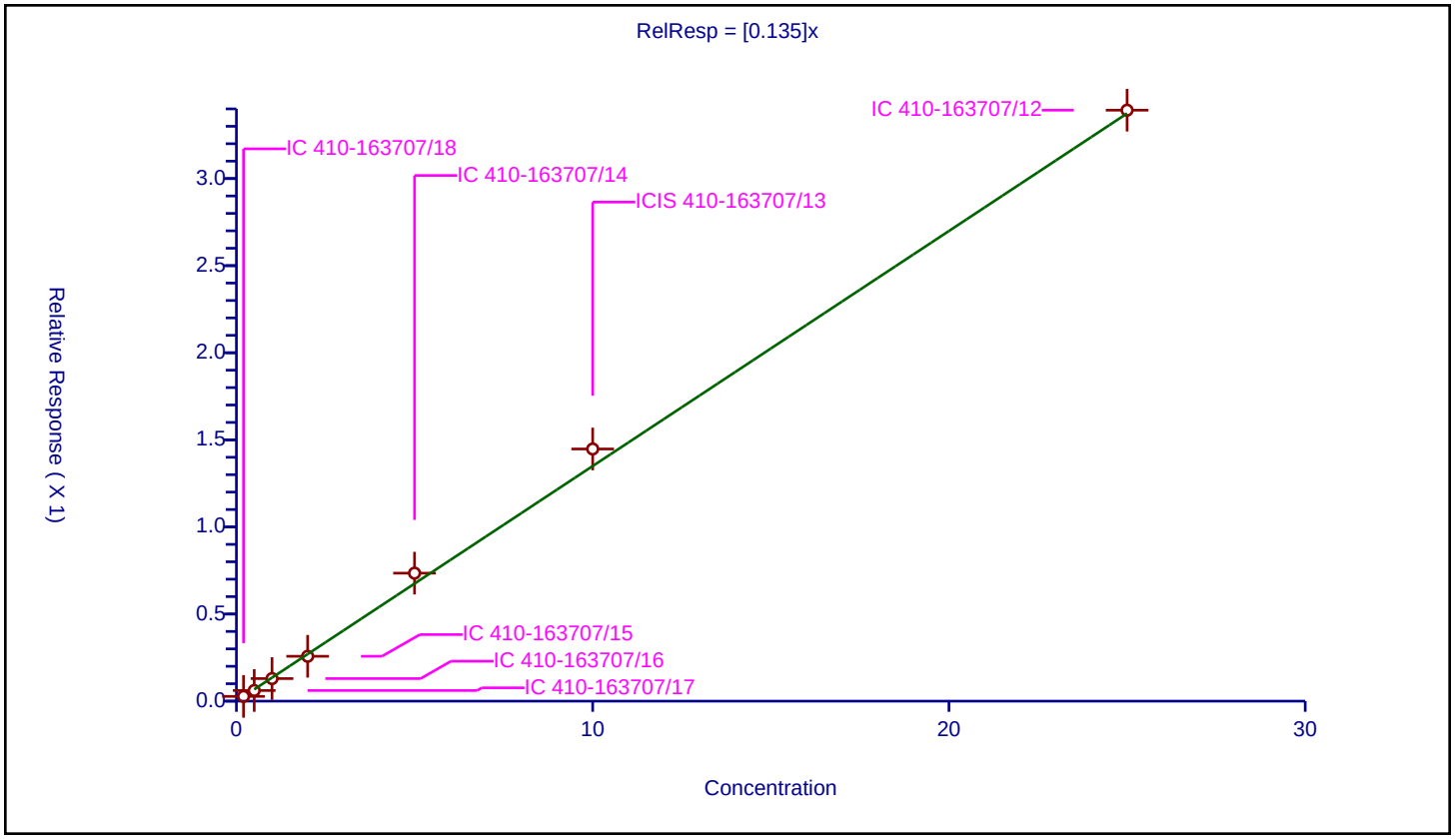
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.135 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 351000 |
| **Relative Standard Error:** | 6.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.027339 | 10.0 | 2203428.0 | 0.136696 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.061089 | 10.0 | 2386508.0 | 0.122179 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.129626 | 10.0 | 2167768.0 | 0.129626 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.257507 | 10.0 | 2141536.0 | 0.128753 | Y |
| 5 | IC 410-163707/14 | 5.0 | 0.734812 | 10.0 | 2115642.0 | 0.146962 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 1.447522 | 10.0 | 2122537.0 | 0.144752 | Y |
| 7 | IC 410-163707/12 | 25.0 | 3.392537 | 10.0 | 2314551.0 | 0.135701 | Y |



## Calibration / Dichlorobromomethane

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

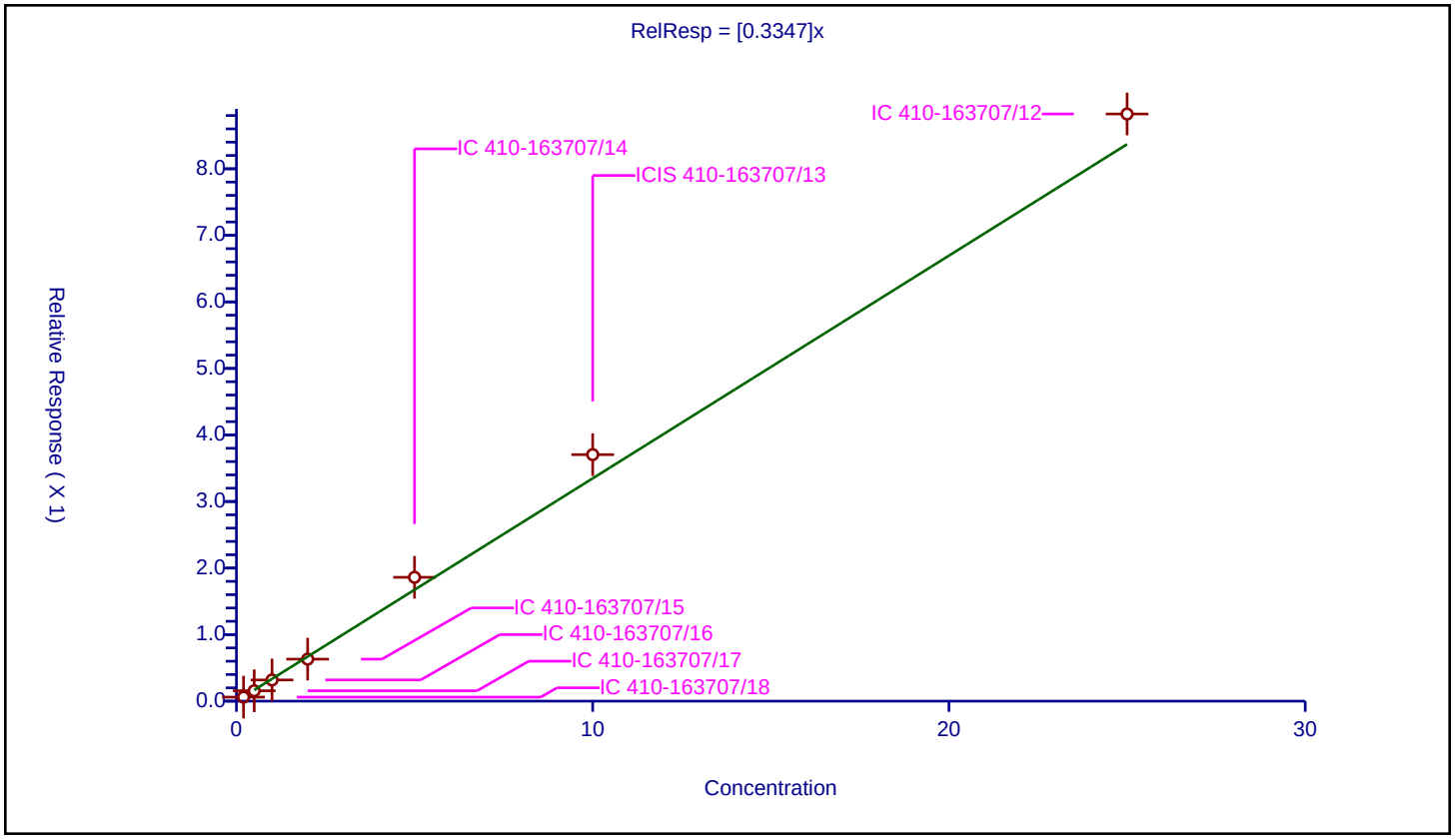
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3347 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 910000 |
| **Relative Standard Error:** | 8.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.060324 | 10.0 | 2203428.0 | 0.301621 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.156031 | 10.0 | 2386508.0 | 0.312063 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.318258 | 10.0 | 2167768.0 | 0.318258 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.631239 | 10.0 | 2141536.0 | 0.315619 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.861 | 10.0 | 2115642.0 | 0.3722 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.704628 | 10.0 | 2122537.0 | 0.370463 | Y |
| 7 | IC 410-163707/12 | 25.0 | 8.823223 | 10.0 | 2314551.0 | 0.352929 | Y |



## Calibration / 2-Nitropropane

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

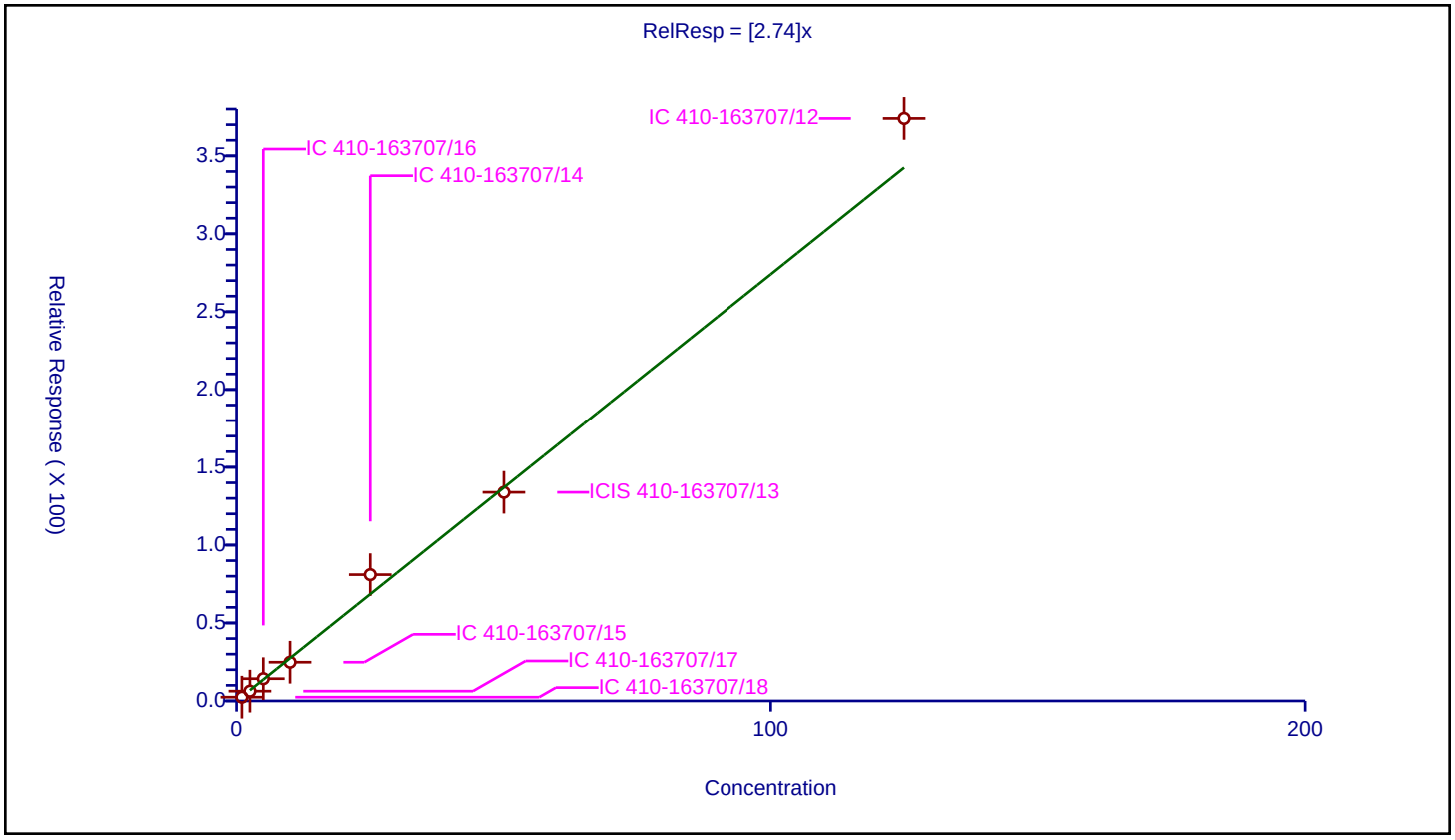
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.74 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 511000 |
| **Relative Standard Error:** | 11.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 1.0 | 2.422409 | 50.0 | 162132.0 | 2.422409 | Y |
| 2 | IC 410-163707/17 | 2.5 | 6.281548 | 50.0 | 162651.0 | 2.512619 | Y |
| 3 | IC 410-163707/16 | 5.0 | 14.264698 | 50.0 | 143084.0 | 2.85294 | Y |
| 4 | IC 410-163707/15 | 10.0 | 24.822133 | 50.0 | 162903.0 | 2.482213 | Y |
| 5 | IC 410-163707/14 | 25.0 | 81.00573 | 50.0 | 134380.0 | 3.240229 | Y |
| 6 | ICIS 410-163707/13 | 50.0 | 133.878515 | 50.0 | 165205.0 | 2.67757 | Y |
| 7 | IC 410-163707/12 | 125.0 | 373.986044 | 50.0 | 153335.0 | 2.991888 | Y |



## Calibration / cis-1,3-Dichloropropene

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

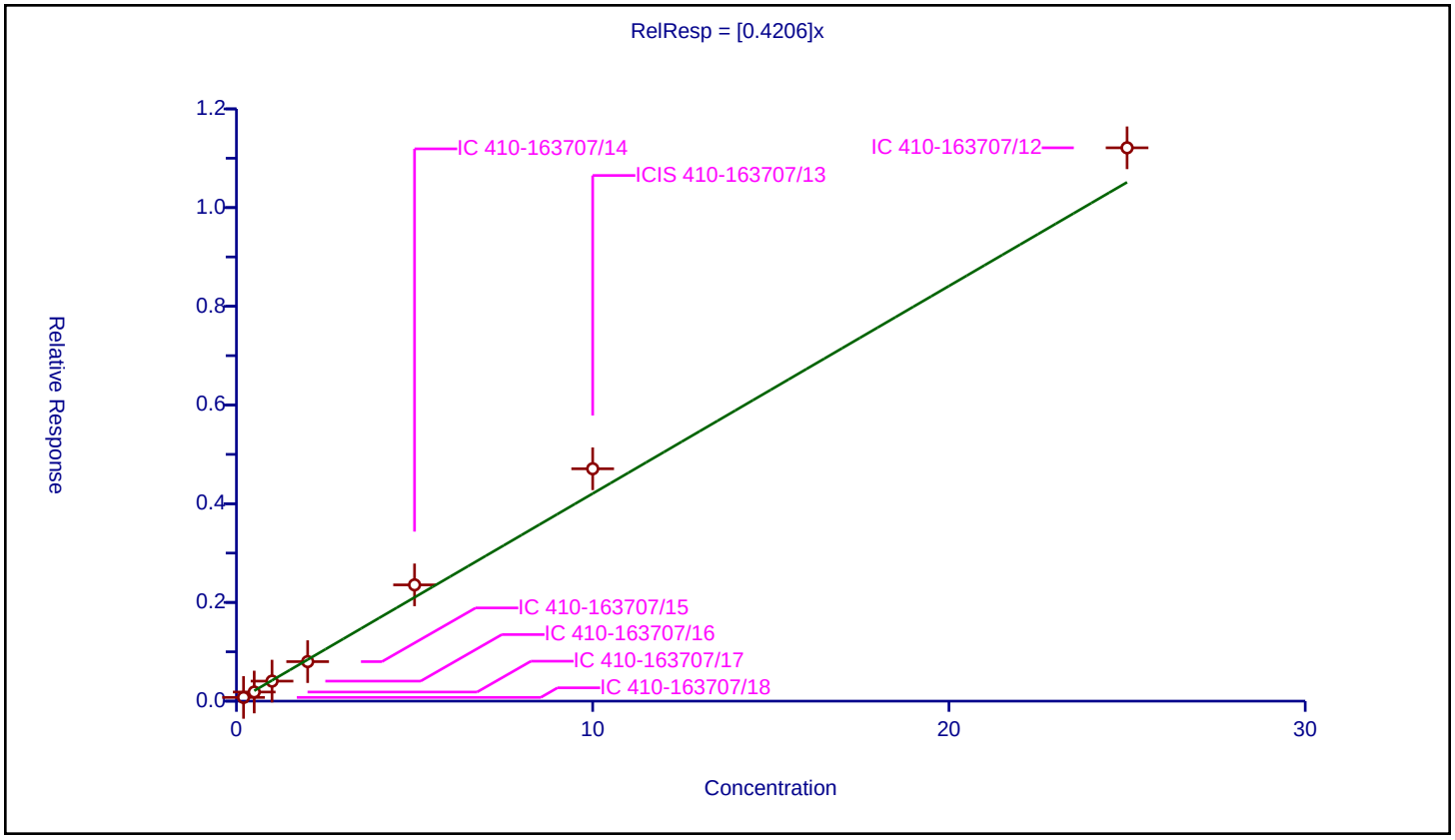
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4206 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1160000 |
| **Relative Standard Error:** | 10.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.075482 | 10.0 | 2203428.0 | 0.377412 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.185019 | 10.0 | 2386508.0 | 0.370039 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.405708 | 10.0 | 2167768.0 | 0.405708 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.800561 | 10.0 | 2141536.0 | 0.40028 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.356022 | 10.0 | 2115642.0 | 0.471204 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.708257 | 10.0 | 2122537.0 | 0.470826 | Y |
| 7 | IC 410-163707/12 | 25.0 | 11.211406 | 10.0 | 2314551.0 | 0.448456 | Y |



## Calibration / 4-Methyl-2-pentanone (MIBK)

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

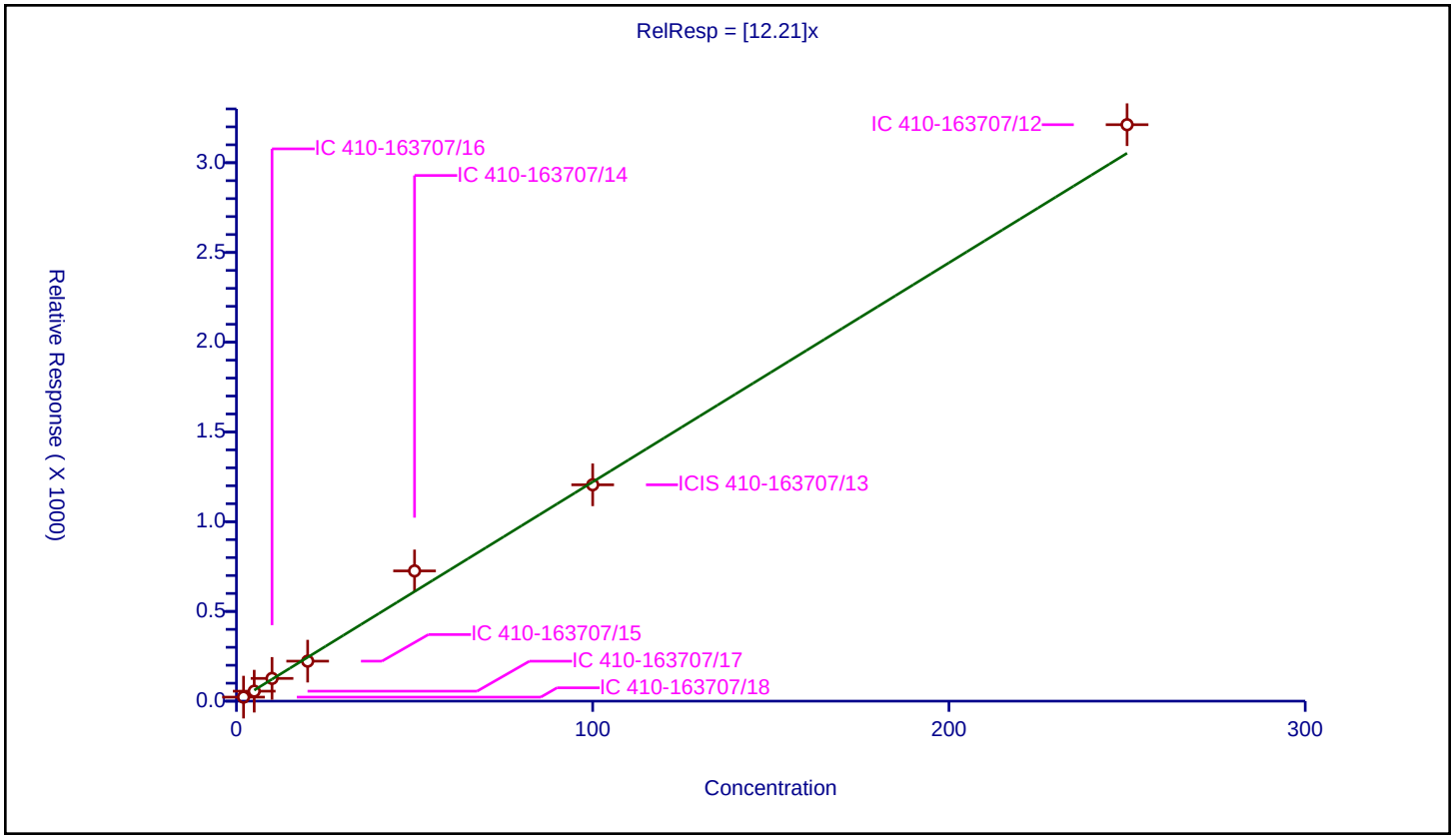
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 12.21 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4420000 |
| **Relative Standard Error:** | 10.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 2.0 | 22.343214 | 50.0 | 162132.0 | 11.171607 | Y |
| 2 | IC 410-163707/17 | 5.0 | 55.52379 | 50.0 | 162651.0 | 11.104758 | Y |
| 3 | IC 410-163707/16 | 10.0 | 126.599061 | 50.0 | 143084.0 | 12.659906 | Y |
| 4 | IC 410-163707/15 | 20.0 | 222.773061 | 50.0 | 162903.0 | 11.138653 | Y |
| 5 | IC 410-163707/14 | 50.0 | 725.584536 | 50.0 | 134380.0 | 14.511691 | Y |
| 6 | ICIS 410-163707/13 | 100.0 | 1205.45837 | 50.0 | 165205.0 | 12.054584 | Y |
| 7 | IC 410-163707/12 | 250.0 | 3211.922588 | 50.0 | 153335.0 | 12.84769 | Y |



## Calibration / Toluene-d8 (Surr)

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

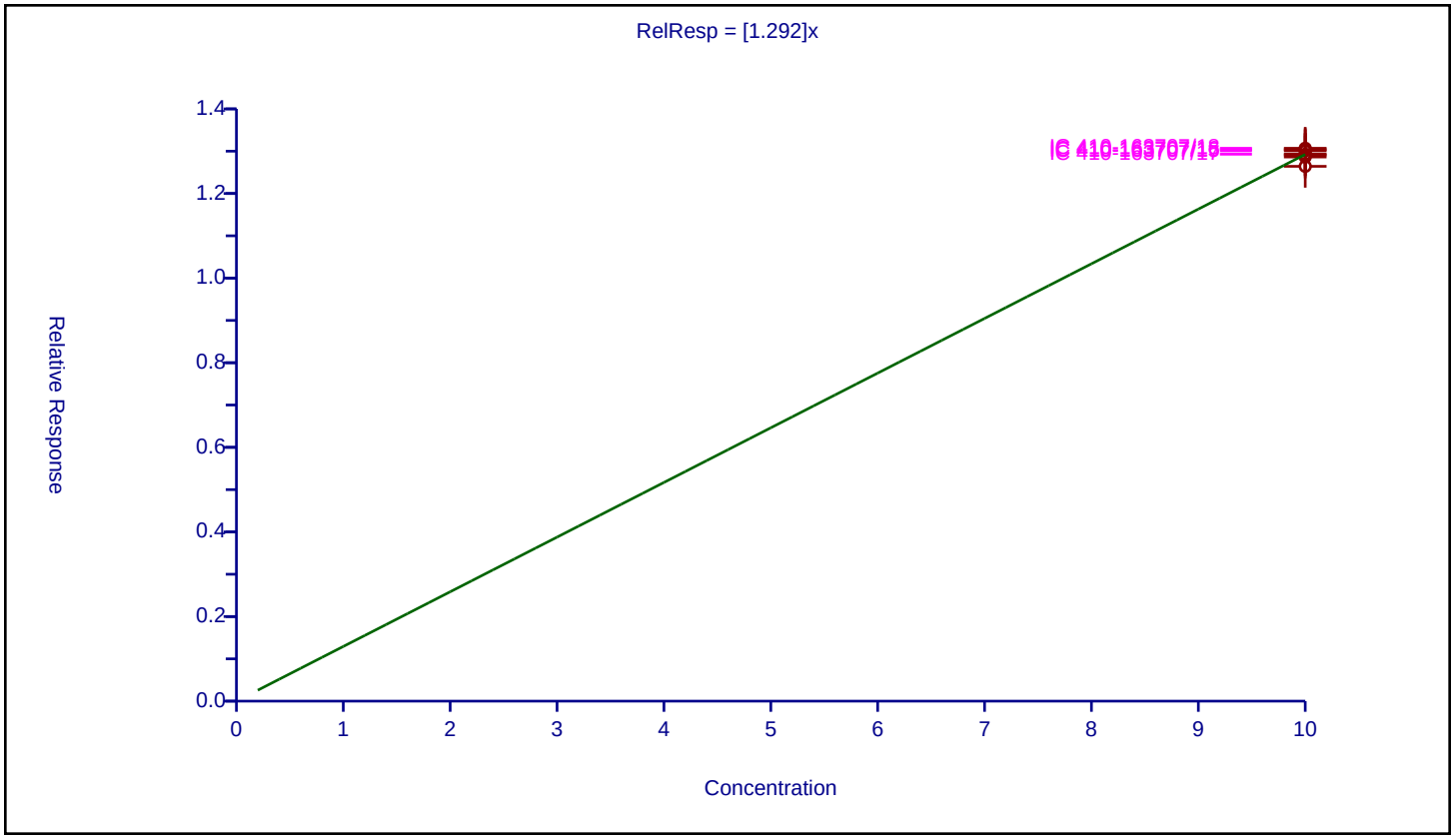
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.292 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2390000 |
| **Relative Standard Error:** | 1.1 |
| **Correlation Coefficient:** | 0.00000000000000000000 |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/12 | 10.0 | 12.642123 | 10.0 | 1830649.0 | 1.264212 | Y |
| 2 | ICIS 410-163707/13 | 10.0 | 12.91349 | 10.0 | 1640634.0 | 1.291349 | Y |
| 3 | IC 410-163707/14 | 10.0 | 12.862715 | 10.0 | 1642811.0 | 1.286272 | Y |
| 4 | IC 410-163707/15 | 10.0 | 13.007568 | 10.0 | 1654646.0 | 1.300757 | Y |
| 5 | IC 410-163707/16 | 10.0 | 13.038338 | 10.0 | 1659651.0 | 1.303834 | Y |
| 6 | IC 410-163707/17 | 10.0 | 12.928443 | 10.0 | 1845718.0 | 1.292844 | Y |
| 7 | IC 410-163707/18 | 10.0 | 13.068865 | 10.0 | 1679409.0 | 1.306887 | Y |



## Calibration / Toluene

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

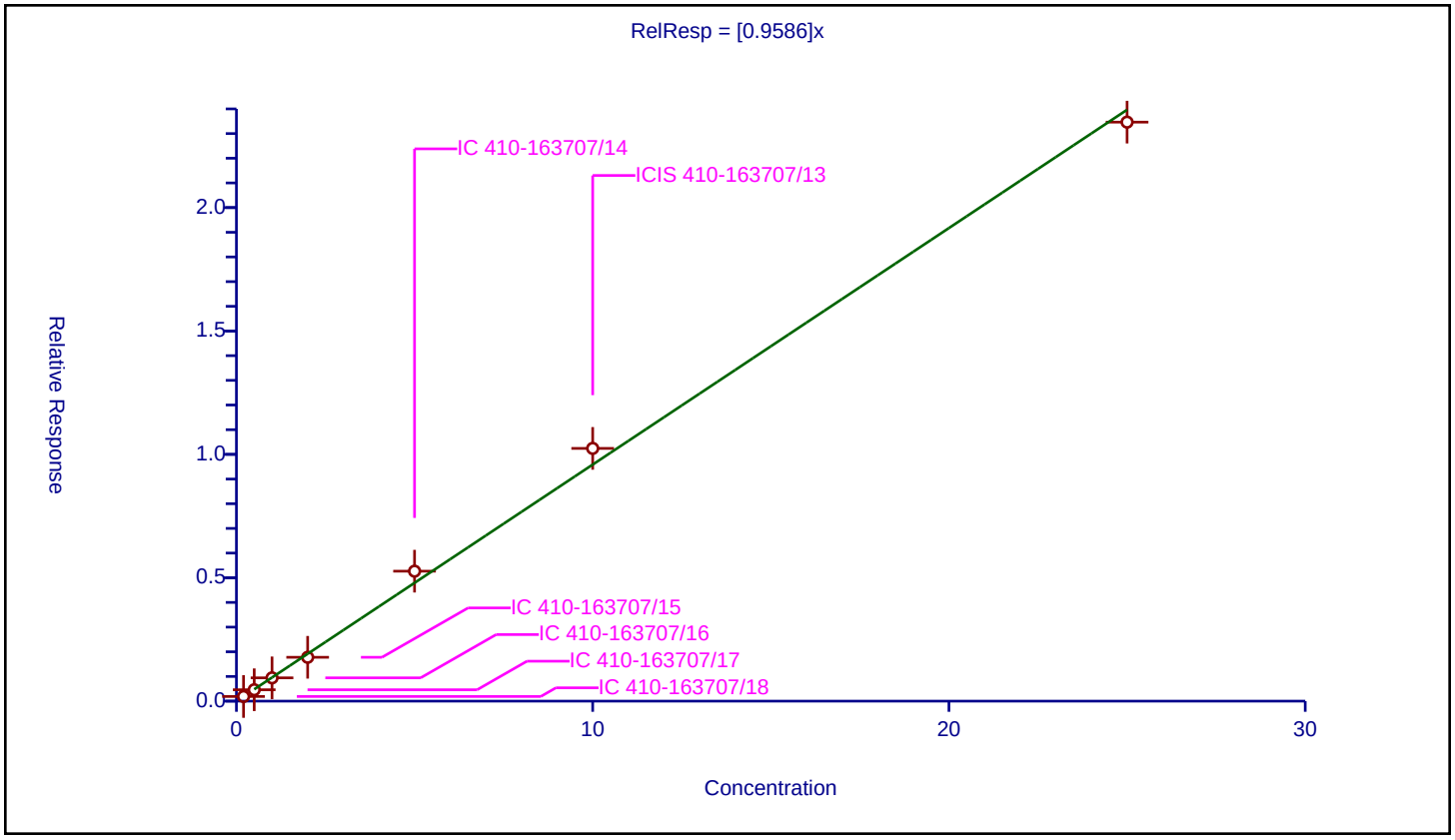
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9586 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1920000 |
| **Relative Standard Error:** | 6.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.18781 | 10.0 | 1679409.0 | 0.939051 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.461463 | 10.0 | 1845718.0 | 0.922925 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.943469 | 10.0 | 1659651.0 | 0.943469 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.776851 | 10.0 | 1654646.0 | 0.888426 | Y |
| 5 | IC 410-163707/14 | 5.0 | 5.266631 | 10.0 | 1642811.0 | 1.053326 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 10.24251 | 10.0 | 1640634.0 | 1.024251 | Y |
| 7 | IC 410-163707/12 | 25.0 | 23.464083 | 10.0 | 1830649.0 | 0.938563 | Y |



## Calibration / trans-1,3-Dichloropropene

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

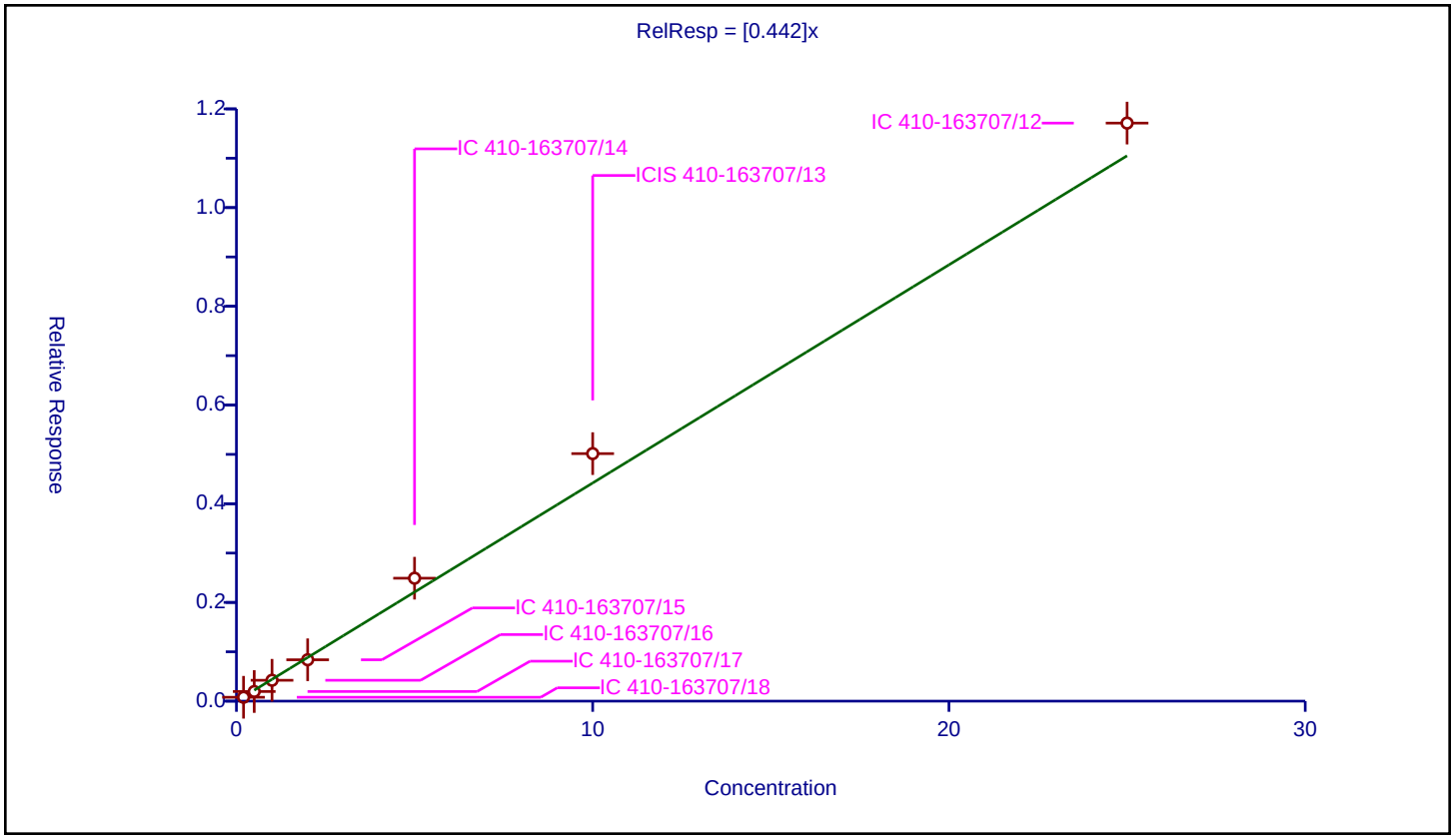
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.442 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 955000 |
| **Relative Standard Error:** | 10.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.078694 | 10.0 | 1679409.0 | 0.393472 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.195019 | 10.0 | 1845718.0 | 0.390038 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.423077 | 10.0 | 1659651.0 | 0.423077 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.838506 | 10.0 | 1654646.0 | 0.419253 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.490962 | 10.0 | 1642811.0 | 0.498192 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.015287 | 10.0 | 1640634.0 | 0.501529 | Y |
| 7 | IC 410-163707/12 | 25.0 | 11.712595 | 10.0 | 1830649.0 | 0.468504 | Y |



## Calibration / Ethyl methacrylate

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

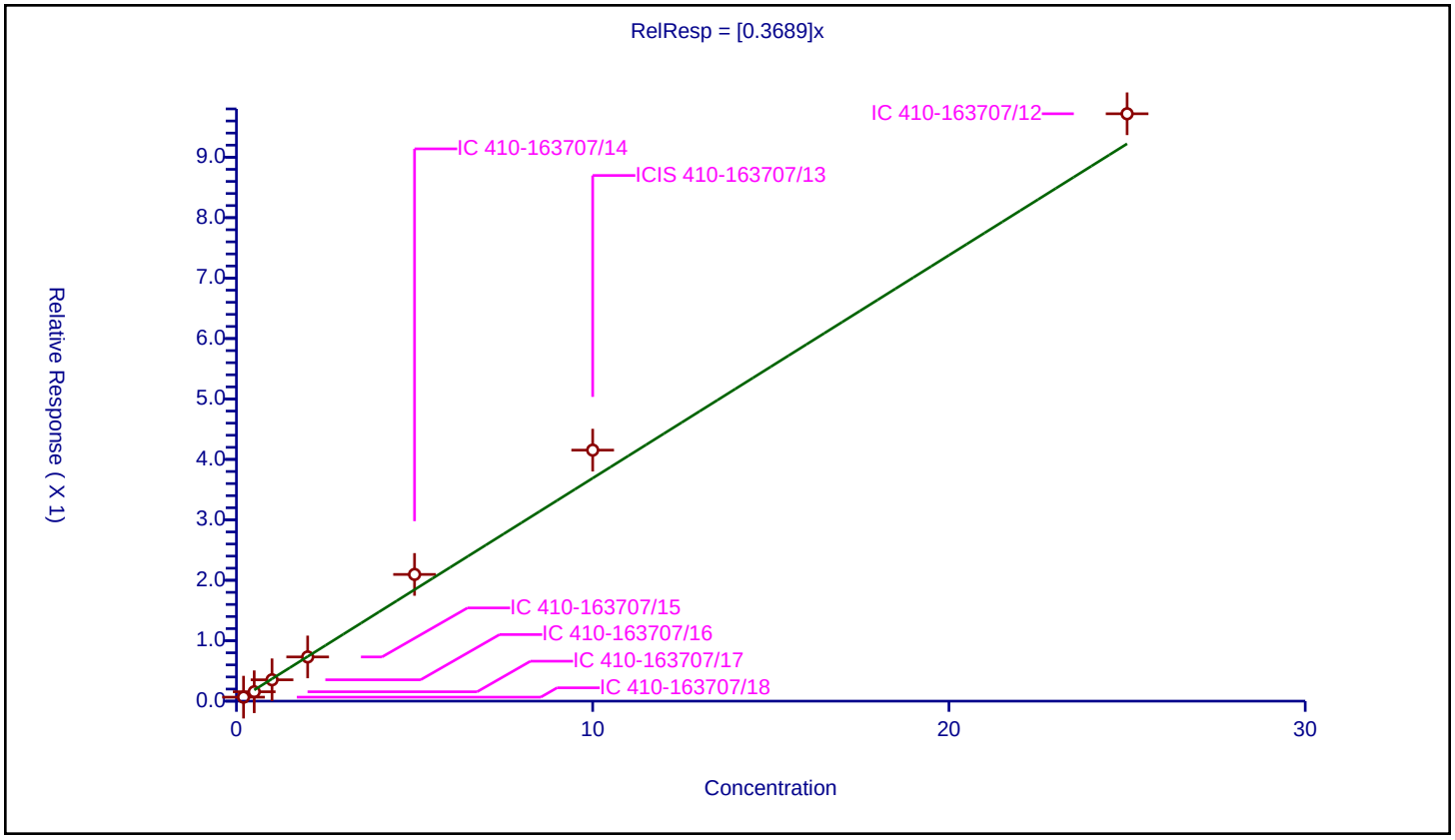
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3689 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 792000 |
| **Relative Standard Error:** | 11.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.200009 | 0.065851 | 10.0 | 1679409.0 | 0.329238 | Y |
| 2 | IC 410-163707/17 | 0.500022 | 0.155414 | 10.0 | 1845718.0 | 0.310814 | Y |
| 3 | IC 410-163707/16 | 1.000044 | 0.353189 | 10.0 | 1659651.0 | 0.353173 | Y |
| 4 | IC 410-163707/15 | 2.000088 | 0.731516 | 10.0 | 1654646.0 | 0.365742 | Y |
| 5 | IC 410-163707/14 | 5.000219 | 2.096644 | 10.0 | 1642811.0 | 0.41931 | Y |
| 6 | ICIS 410-163707/13 | 10.000438 | 4.153589 | 10.0 | 1640634.0 | 0.415341 | Y |
| 7 | IC 410-163707/12 | 25.001094 | 9.719471 | 10.0 | 1830649.0 | 0.388762 | Y |



## Calibration / 1,1,2-Trichloroethane

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

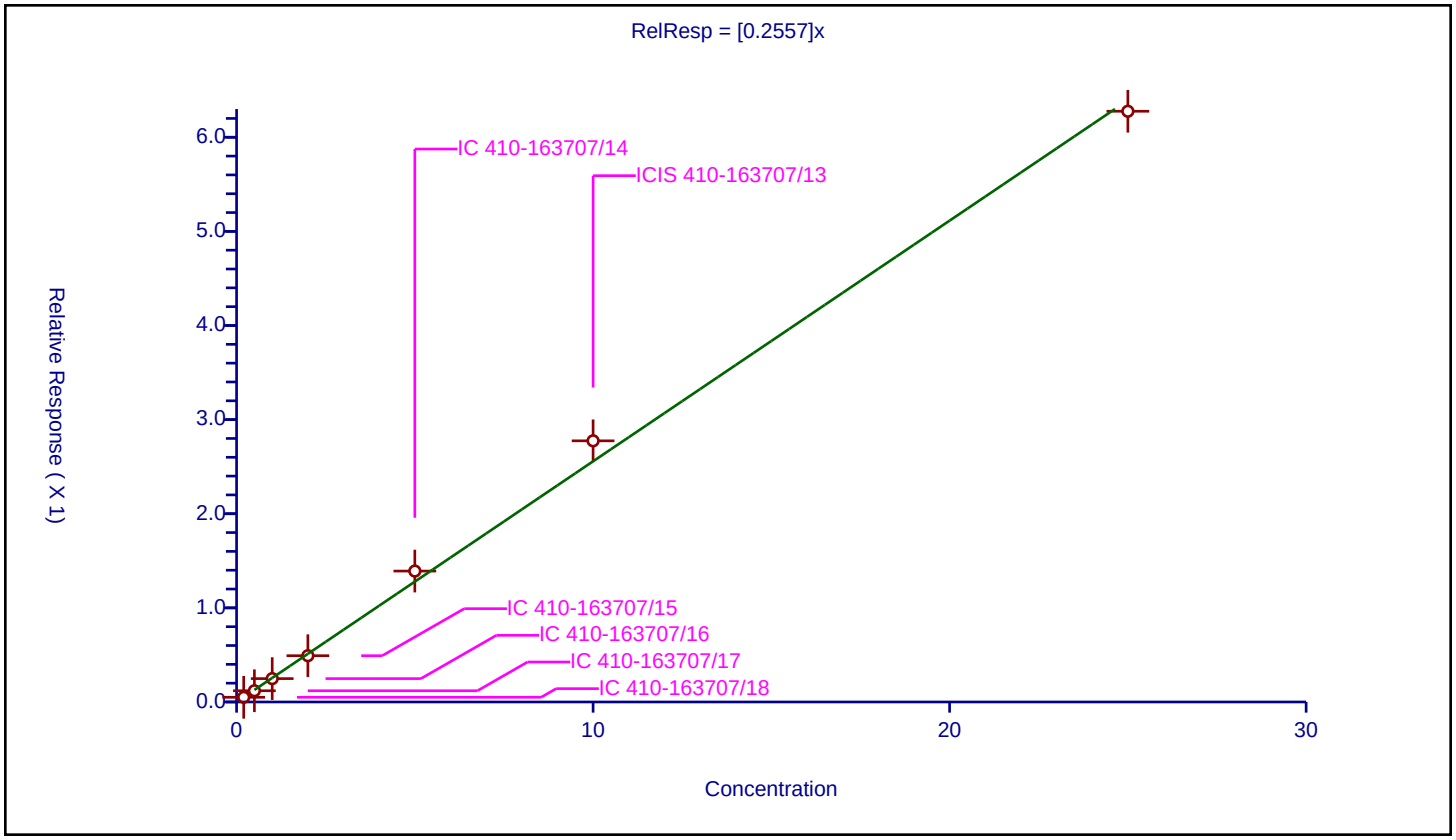
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2557 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 515000 |
| **Relative Standard Error:** | 6.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.049988 | 10.0 | 1679409.0 | 0.249939 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.119493 | 10.0 | 1845718.0 | 0.238986 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.248462 | 10.0 | 1659651.0 | 0.248462 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.491604 | 10.0 | 1654646.0 | 0.245802 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.390896 | 10.0 | 1642811.0 | 0.278179 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.774714 | 10.0 | 1640634.0 | 0.277471 | Y |
| 7 | IC 410-163707/12 | 25.0 | 6.27625 | 10.0 | 1830649.0 | 0.25105 | Y |



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

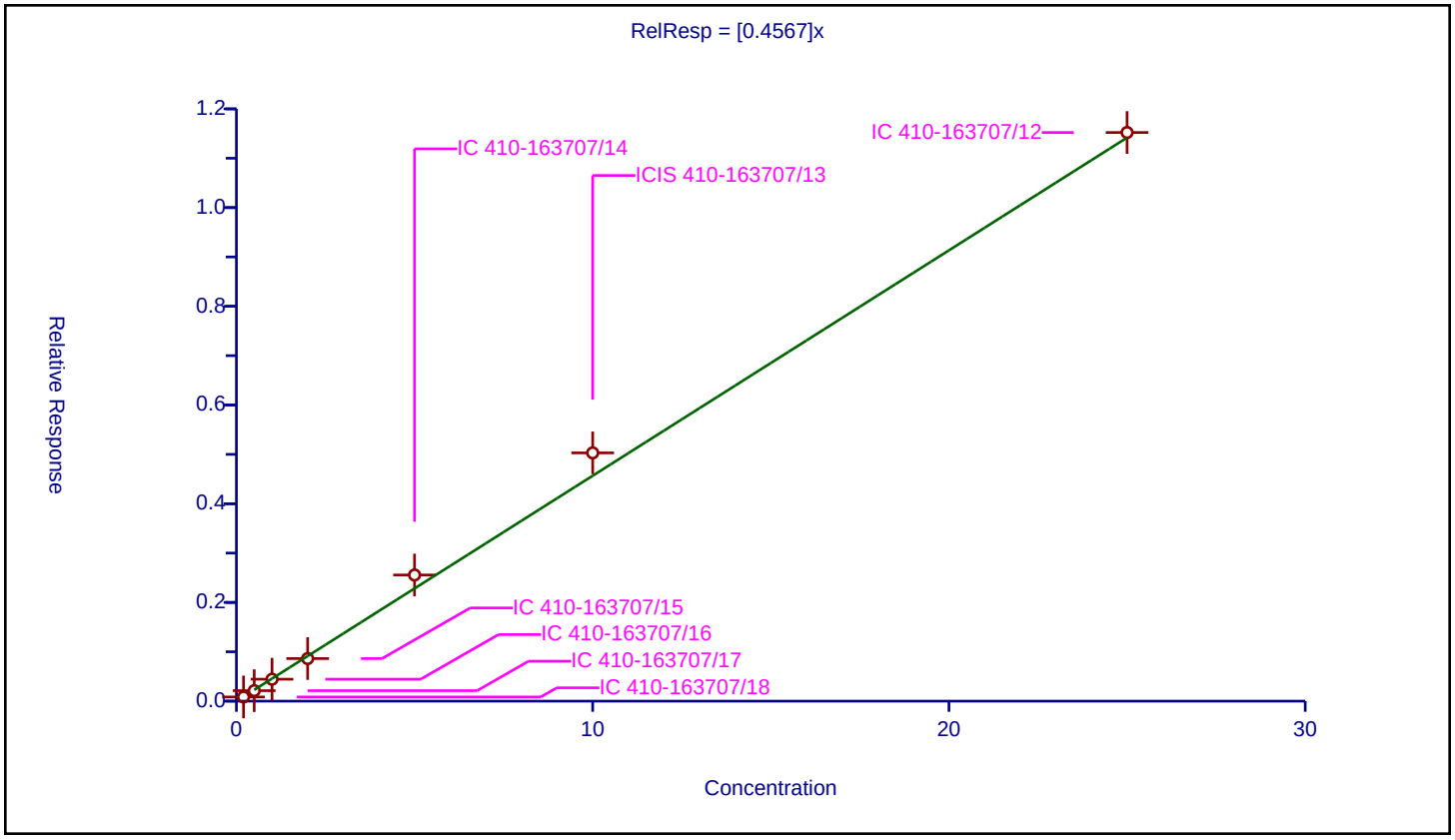
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4567 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 943000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.084321 | 10.0 | 1679409.0 | 0.421607 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.212161 | 10.0 | 1845718.0 | 0.424323 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.444371 | 10.0 | 1659651.0 | 0.444371 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.862898 | 10.0 | 1654646.0 | 0.431449 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.556289 | 10.0 | 1642811.0 | 0.511258 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.03033 | 10.0 | 1640634.0 | 0.503033 | Y |
| 7 | IC 410-163707/12 | 25.0 | 11.521411 | 10.0 | 1830649.0 | 0.460856 | Y |



## Calibration / 1,3-Dichloropropane

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

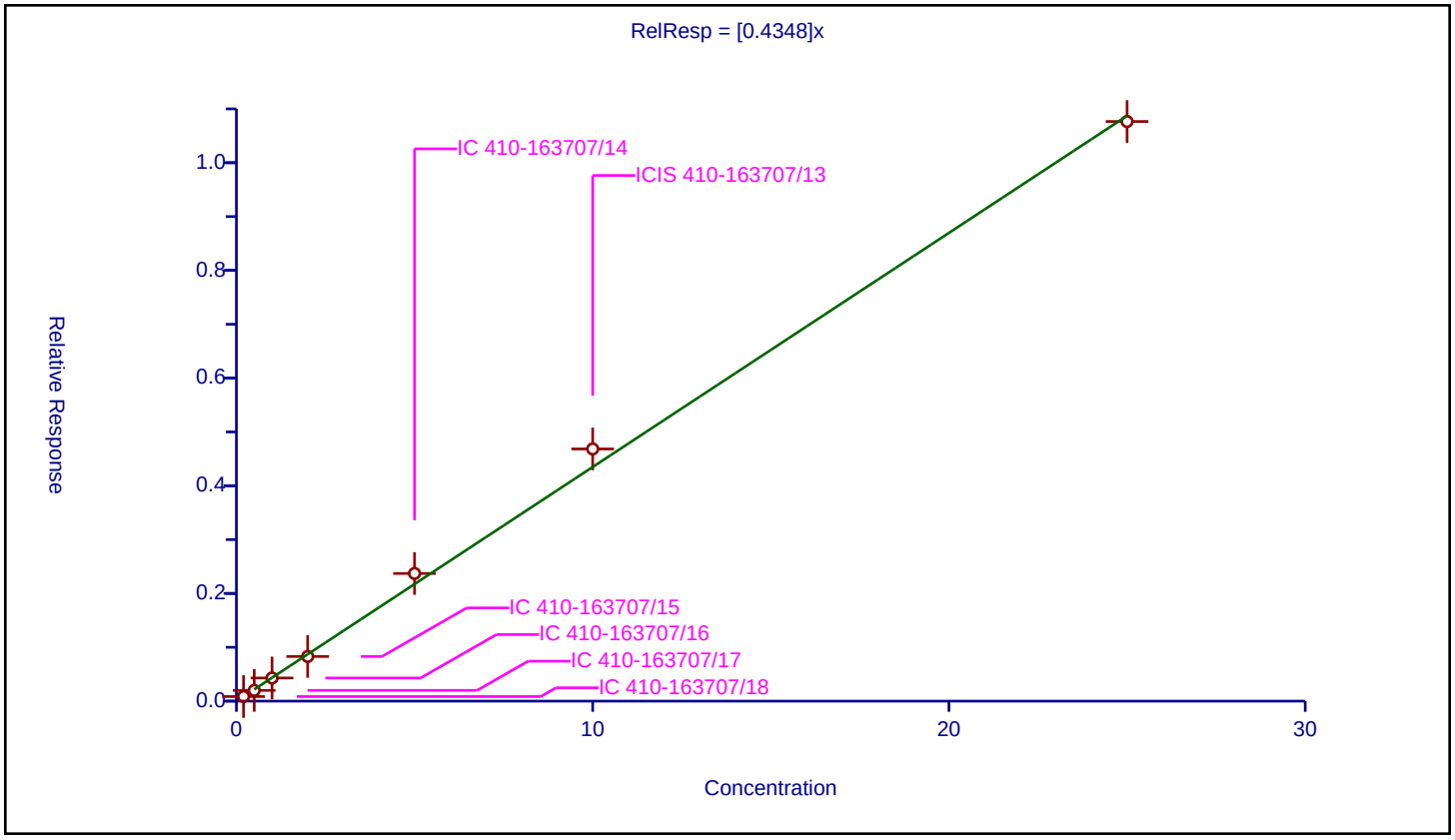
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4348 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 881000 |
| **Relative Standard Error:** | 6.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.085423 | 10.0 | 1679409.0 | 0.427115 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.199543 | 10.0 | 1845718.0 | 0.399086 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.429807 | 10.0 | 1659651.0 | 0.429807 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.829283 | 10.0 | 1654646.0 | 0.414642 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.371301 | 10.0 | 1642811.0 | 0.47426 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.683836 | 10.0 | 1640634.0 | 0.468384 | Y |
| 7 | IC 410-163707/12 | 25.0 | 10.766204 | 10.0 | 1830649.0 | 0.430648 | Y |



## Calibration / 2-Hexanone

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

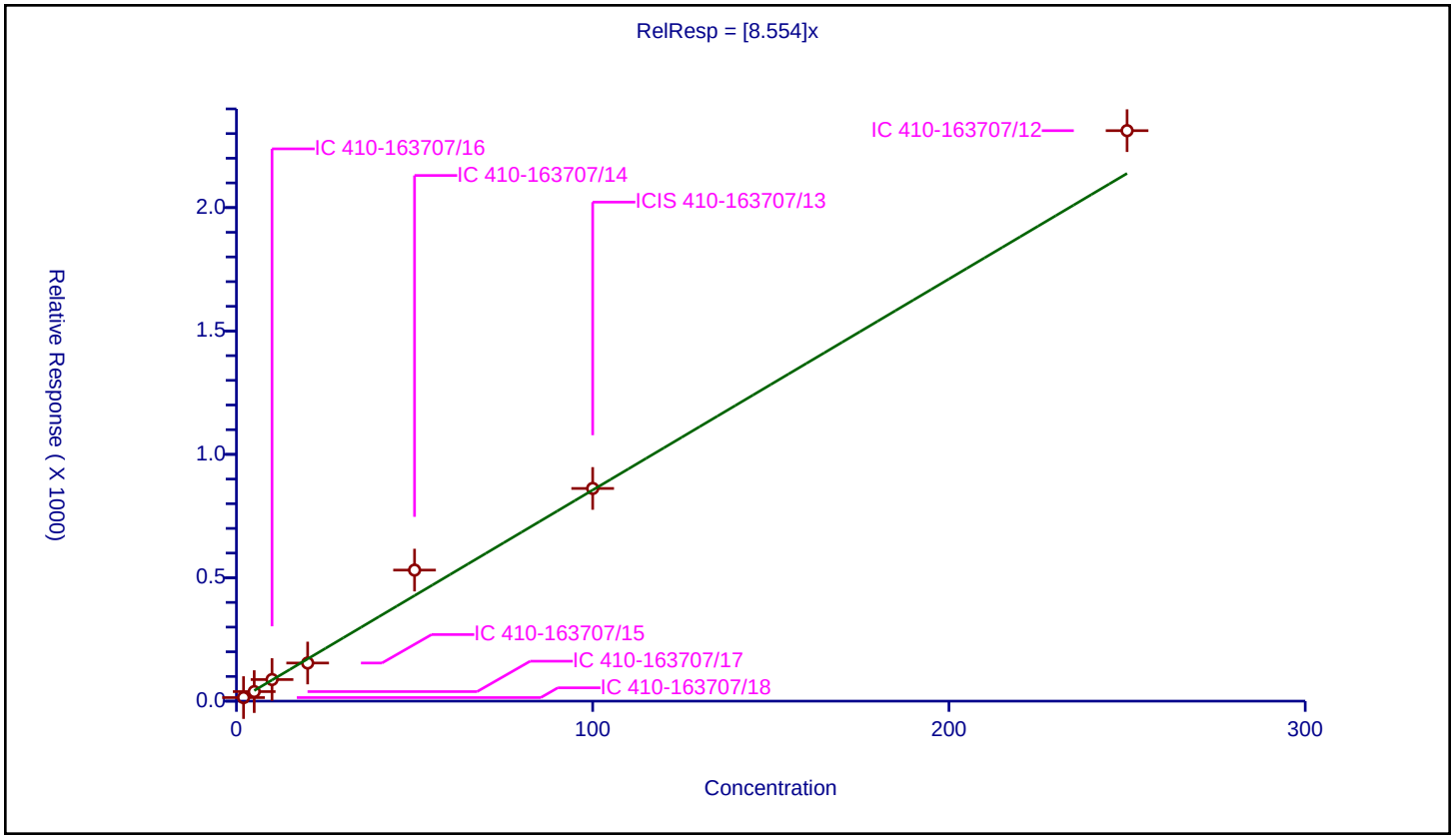
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 8.554 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3180000 |
| **Relative Standard Error:** | 13.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.978 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 2.0 | 14.365455 | 50.0 | 162132.0 | 7.182728 | Y |
| 2 | IC 410-163707/17 | 5.0 | 38.675754 | 50.0 | 162651.0 | 7.735151 | Y |
| 3 | IC 410-163707/16 | 10.0 | 87.473792 | 50.0 | 143084.0 | 8.747379 | Y |
| 4 | IC 410-163707/15 | 20.0 | 154.520482 | 50.0 | 162903.0 | 7.726024 | Y |
| 5 | IC 410-163707/14 | 50.0 | 531.035496 | 50.0 | 134380.0 | 10.62071 | Y |
| 6 | ICIS 410-163707/13 | 100.0 | 861.842559 | 50.0 | 165205.0 | 8.618426 | Y |
| 7 | IC 410-163707/12 | 250.0 | 2311.818241 | 50.0 | 153335.0 | 9.247273 | Y |



## Calibration / Chlorodibromomethane

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

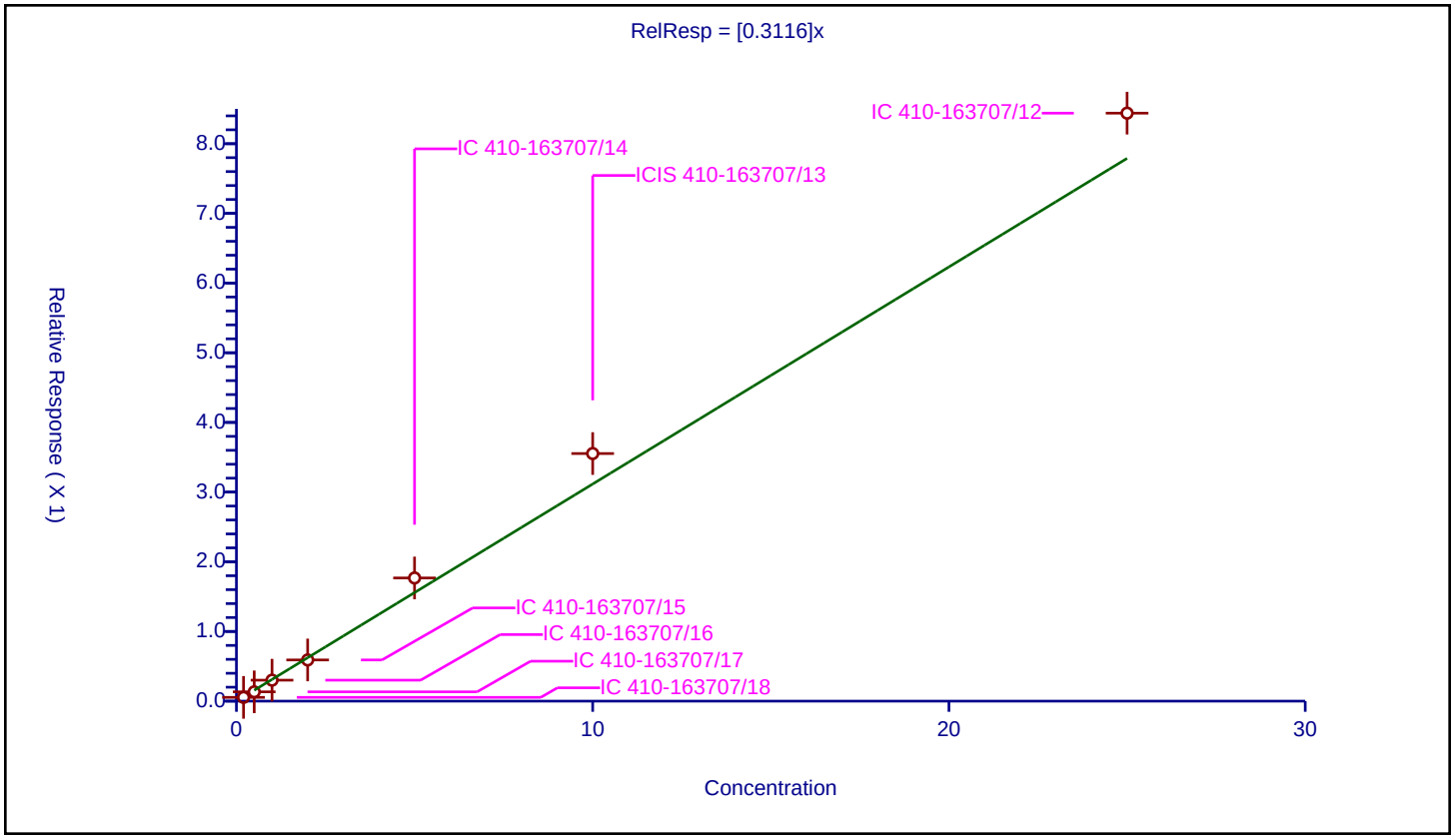
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3116 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 686000 |
| **Relative Standard Error:** | 12.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.054168 | 10.0 | 1679409.0 | 0.270839 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.133623 | 10.0 | 1845718.0 | 0.267246 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.301003 | 10.0 | 1659651.0 | 0.301003 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.591256 | 10.0 | 1654646.0 | 0.295628 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.767805 | 10.0 | 1642811.0 | 0.353561 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 3.553437 | 10.0 | 1640634.0 | 0.355344 | Y |
| 7 | IC 410-163707/12 | 25.0 | 8.438712 | 10.0 | 1830649.0 | 0.337548 | Y |



## Calibration / Ethylene Dibromide

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

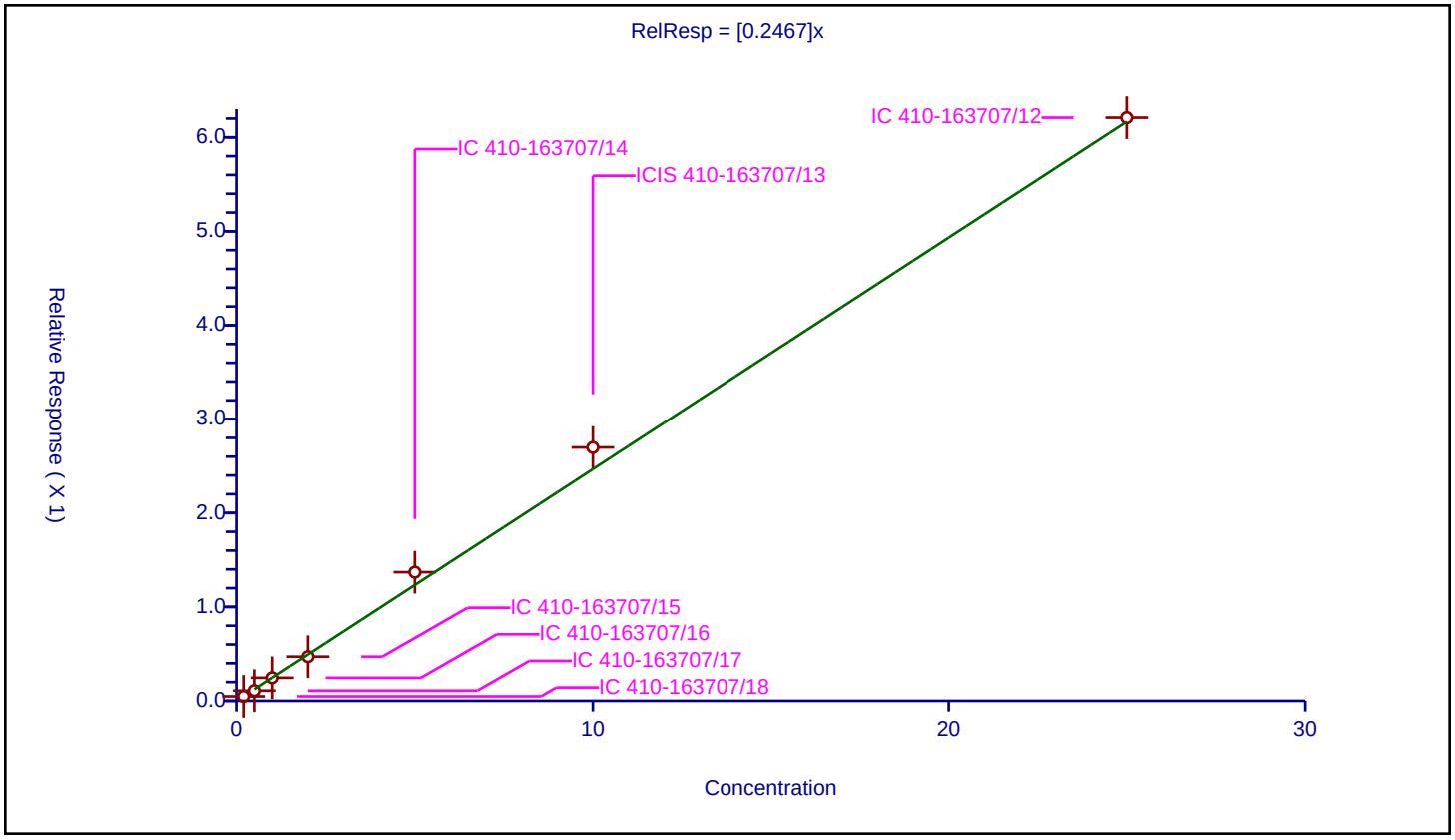
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2467 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 508000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.047374 | 10.0 | 1679409.0 | 0.236869 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.108521 | 10.0 | 1845718.0 | 0.217043 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.245509 | 10.0 | 1659651.0 | 0.245509 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.470421 | 10.0 | 1654646.0 | 0.23521 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.369902 | 10.0 | 1642811.0 | 0.27398 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.698268 | 10.0 | 1640634.0 | 0.269827 | Y |
| 7 | IC 410-163707/12 | 25.0 | 6.209333 | 10.0 | 1830649.0 | 0.248373 | Y |



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

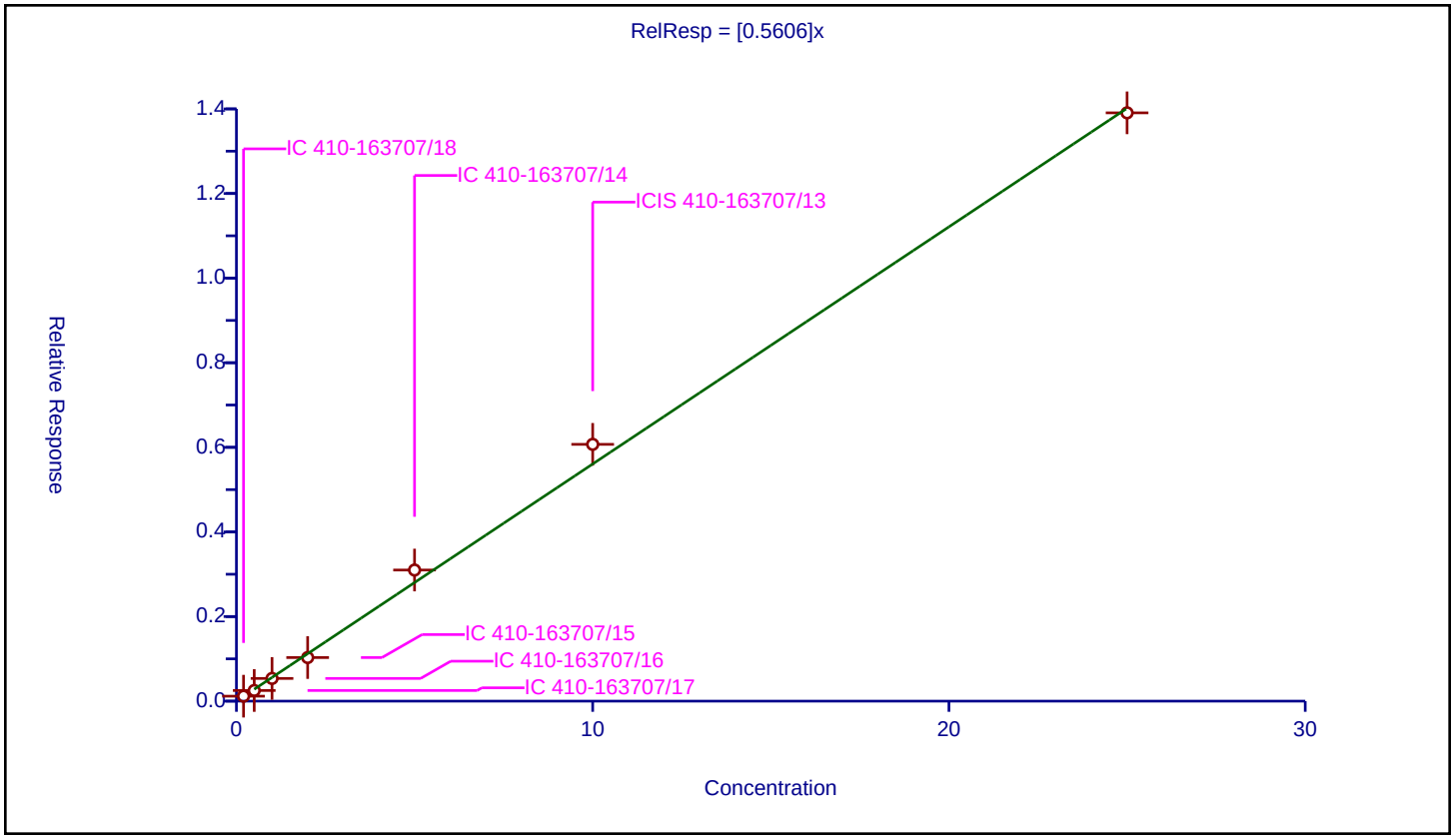
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5606 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1140000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.117327 | 10.0 | 1679409.0 | 0.586635 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.251398 | 10.0 | 1845718.0 | 0.502796 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.536601 | 10.0 | 1659651.0 | 0.536601 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.030112 | 10.0 | 1654646.0 | 0.515056 | Y |
| 5 | IC 410-163707/14 | 5.0 | 3.098926 | 10.0 | 1642811.0 | 0.619785 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 6.070275 | 10.0 | 1640634.0 | 0.607028 | Y |
| 7 | IC 410-163707/12 | 25.0 | 13.906516 | 10.0 | 1830649.0 | 0.556261 | Y |



## Calibration / Chlorobenzene

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

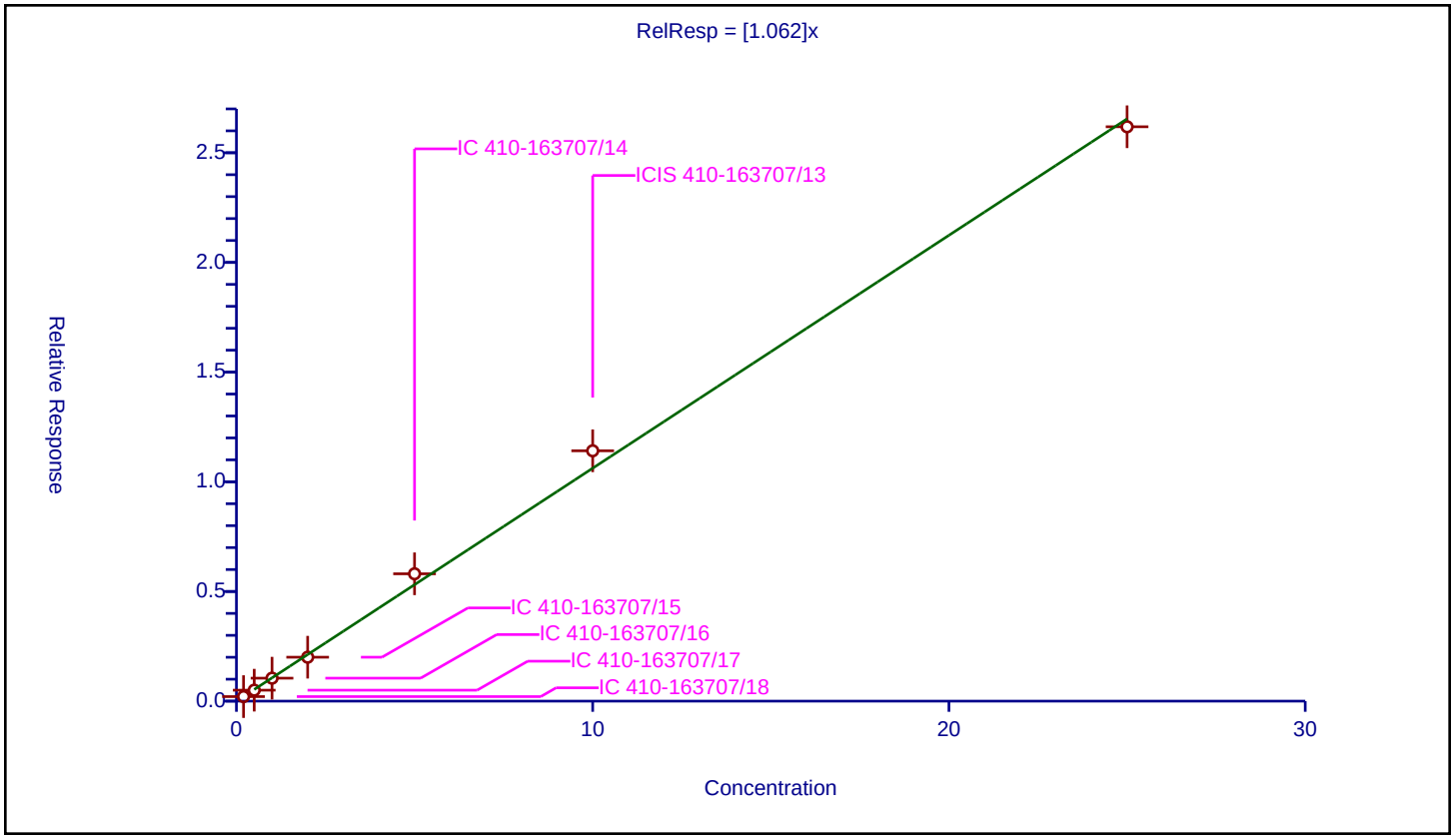
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.062 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2140000 |
| **Relative Standard Error:** | 6.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.206811 | 10.0 | 1679409.0 | 1.034054 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.499936 | 10.0 | 1845718.0 | 0.999871 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.047515 | 10.0 | 1659651.0 | 1.047515 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.003099 | 10.0 | 1654646.0 | 1.00155 | Y |
| 5 | IC 410-163707/14 | 5.0 | 5.80634 | 10.0 | 1642811.0 | 1.161268 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 11.413435 | 10.0 | 1640634.0 | 1.141344 | Y |
| 7 | IC 410-163707/12 | 25.0 | 26.184757 | 10.0 | 1830649.0 | 1.04739 | Y |



## Calibration / 1,1,1,2-Tetrachloroethane

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

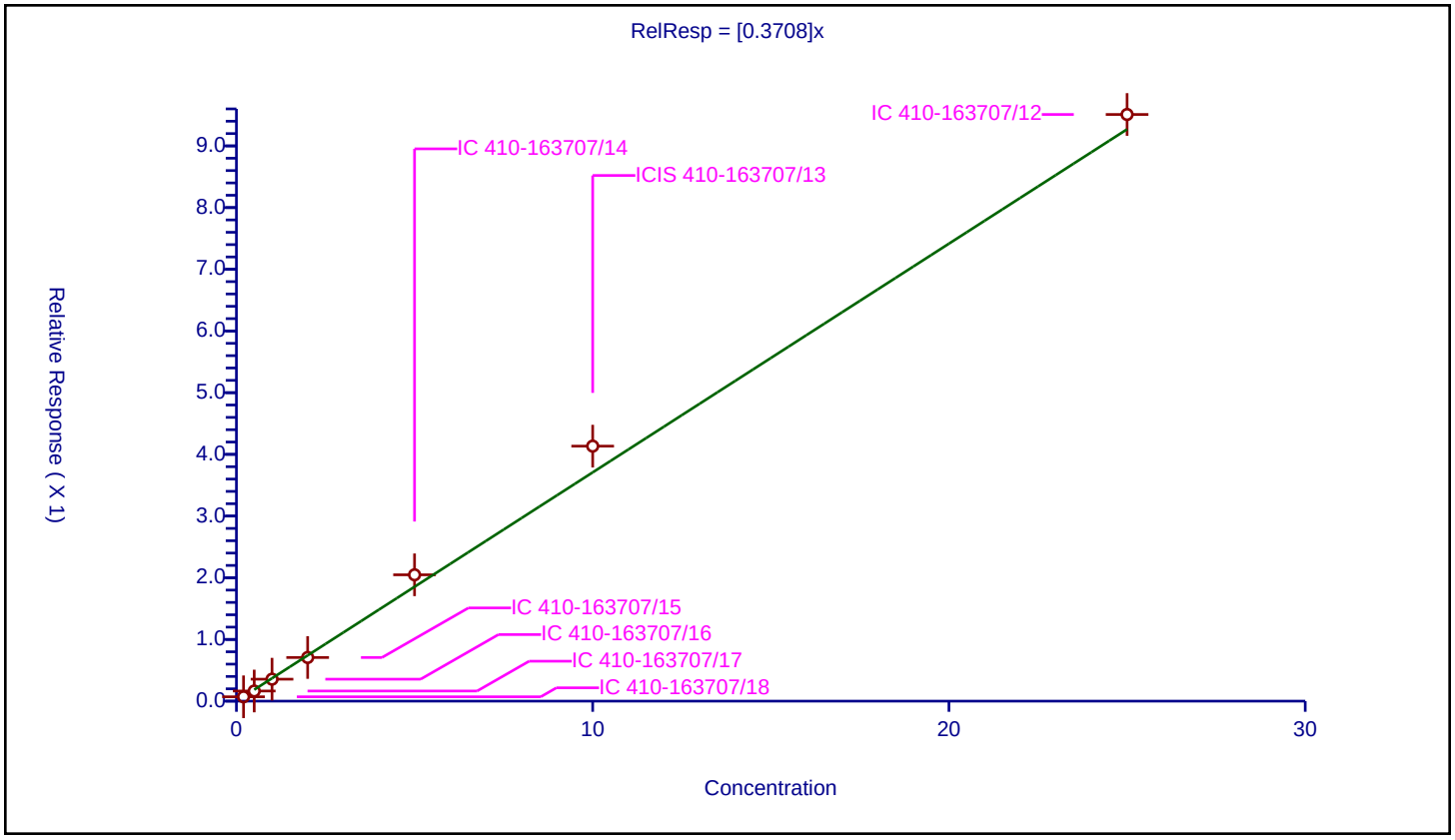
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3708 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 777000 |
| **Relative Standard Error:** | 8.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.070686 | 10.0 | 1679409.0 | 0.353428 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.164408 | 10.0 | 1845718.0 | 0.328815 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.356135 | 10.0 | 1659651.0 | 0.356135 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.707553 | 10.0 | 1654646.0 | 0.353777 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.047716 | 10.0 | 1642811.0 | 0.409543 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.133536 | 10.0 | 1640634.0 | 0.413354 | Y |
| 7 | IC 410-163707/12 | 25.0 | 9.509174 | 10.0 | 1830649.0 | 0.380367 | Y |



## Calibration / Ethylbenzene

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

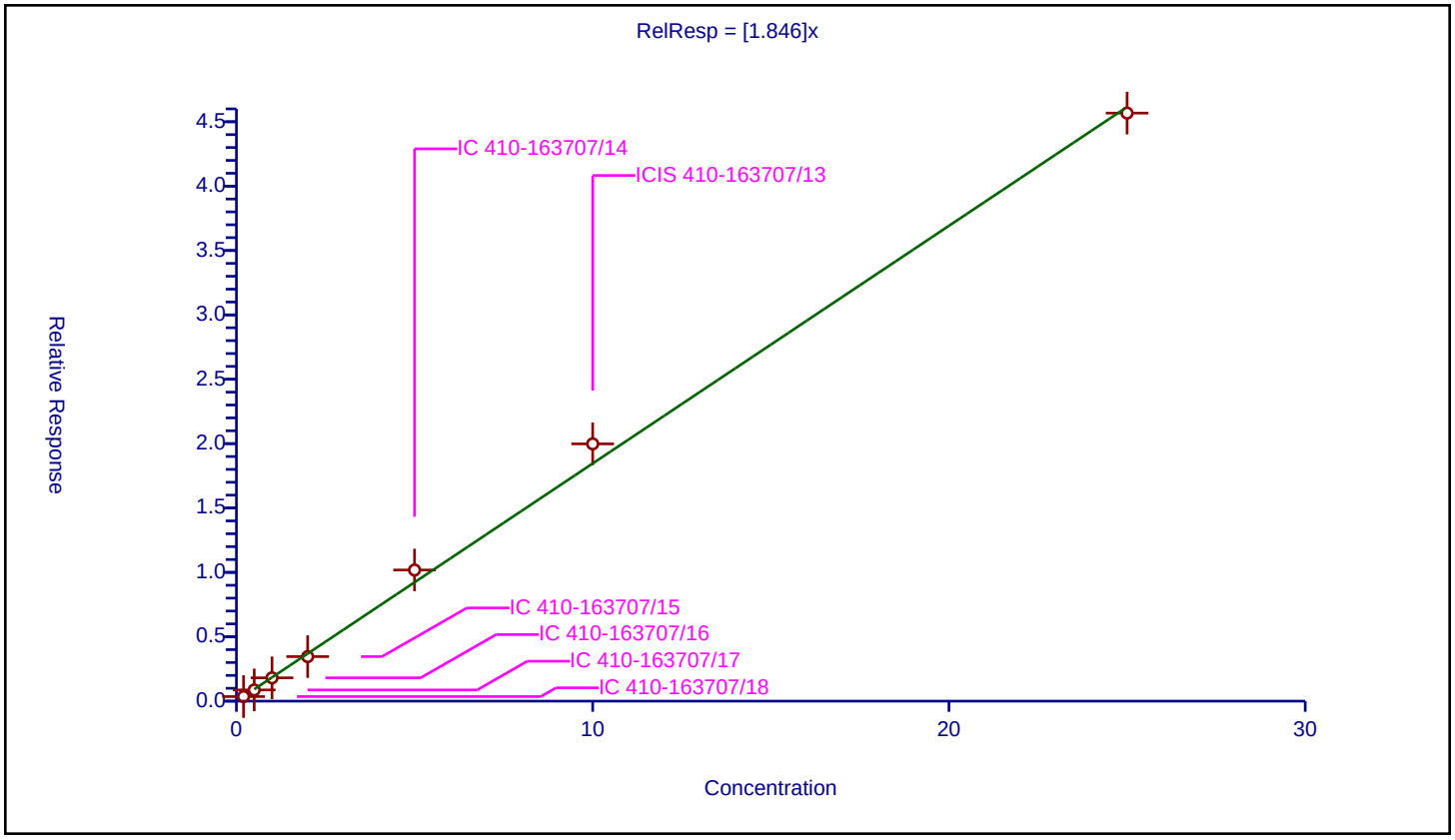
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.846 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3740000 |
| **Relative Standard Error:** | 6.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.355494 | 10.0 | 1679409.0 | 1.777471 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.870881 | 10.0 | 1845718.0 | 1.741761 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.810296 | 10.0 | 1659651.0 | 1.810296 | Y |
| 4 | IC 410-163707/15 | 2.0 | 3.459453 | 10.0 | 1654646.0 | 1.729726 | Y |
| 5 | IC 410-163707/14 | 5.0 | 10.185061 | 10.0 | 1642811.0 | 2.037012 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 19.981428 | 10.0 | 1640634.0 | 1.998143 | Y |
| 7 | IC 410-163707/12 | 25.0 | 45.67283 | 10.0 | 1830649.0 | 1.826913 | Y |



## Calibration / m-Xylene & p-Xylene

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

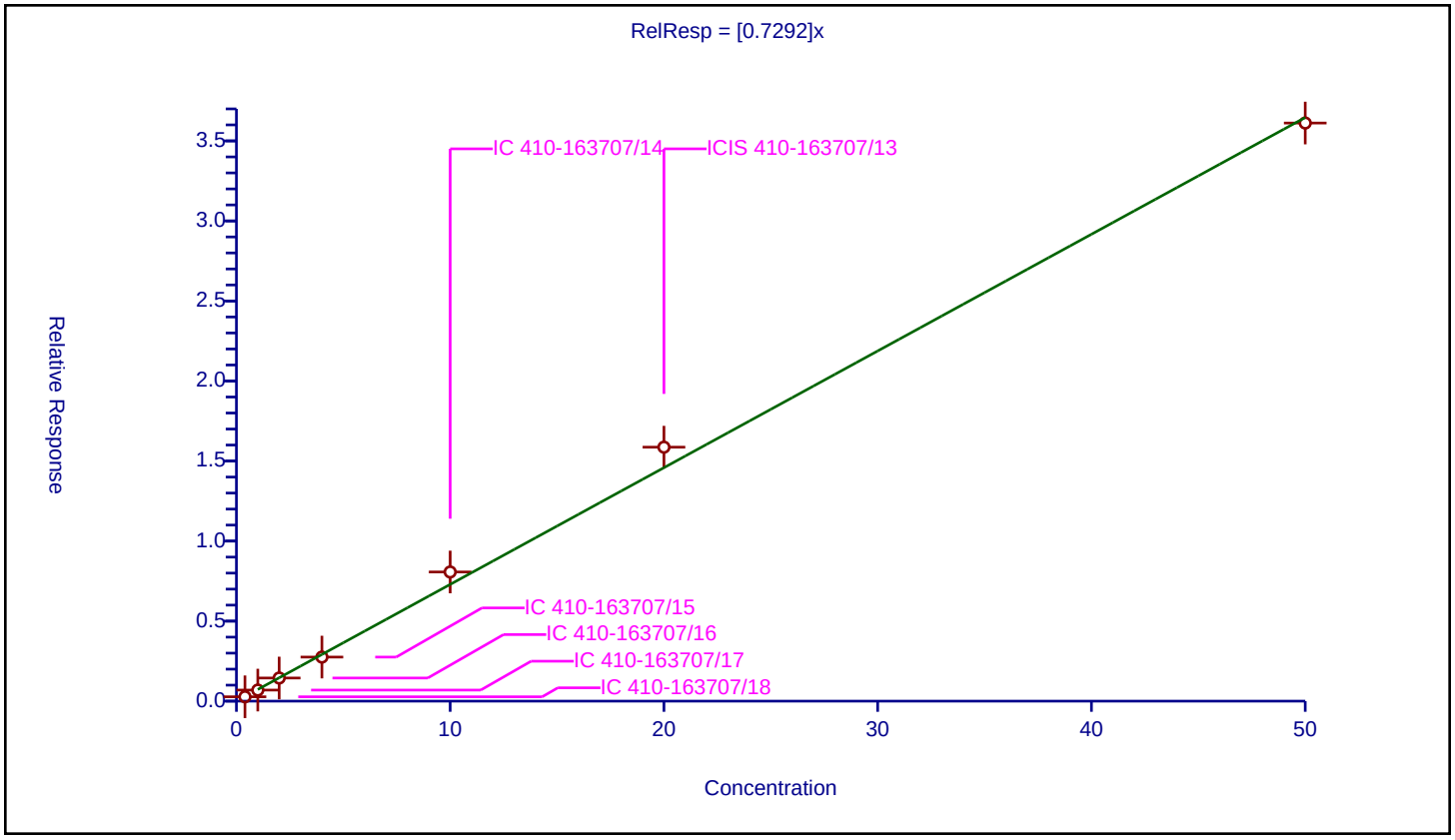
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7292 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2960000 |
| **Relative Standard Error:** | 7.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.4 | 0.272262 | 10.0 | 1679409.0 | 0.680656 | Y |
| 2 | IC 410-163707/17 | 1.0 | 0.690663 | 10.0 | 1845718.0 | 0.690663 | Y |
| 3 | IC 410-163707/16 | 2.0 | 1.444587 | 10.0 | 1659651.0 | 0.722293 | Y |
| 4 | IC 410-163707/15 | 4.0 | 2.753066 | 10.0 | 1654646.0 | 0.688267 | Y |
| 5 | IC 410-163707/14 | 10.0 | 8.069589 | 10.0 | 1642811.0 | 0.806959 | Y |
| 6 | ICIS 410-163707/13 | 20.0 | 15.865641 | 10.0 | 1640634.0 | 0.793282 | Y |
| 7 | IC 410-163707/12 | 50.0 | 36.11606 | 10.0 | 1830649.0 | 0.722321 | Y |



## Calibration / o-Xylene

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

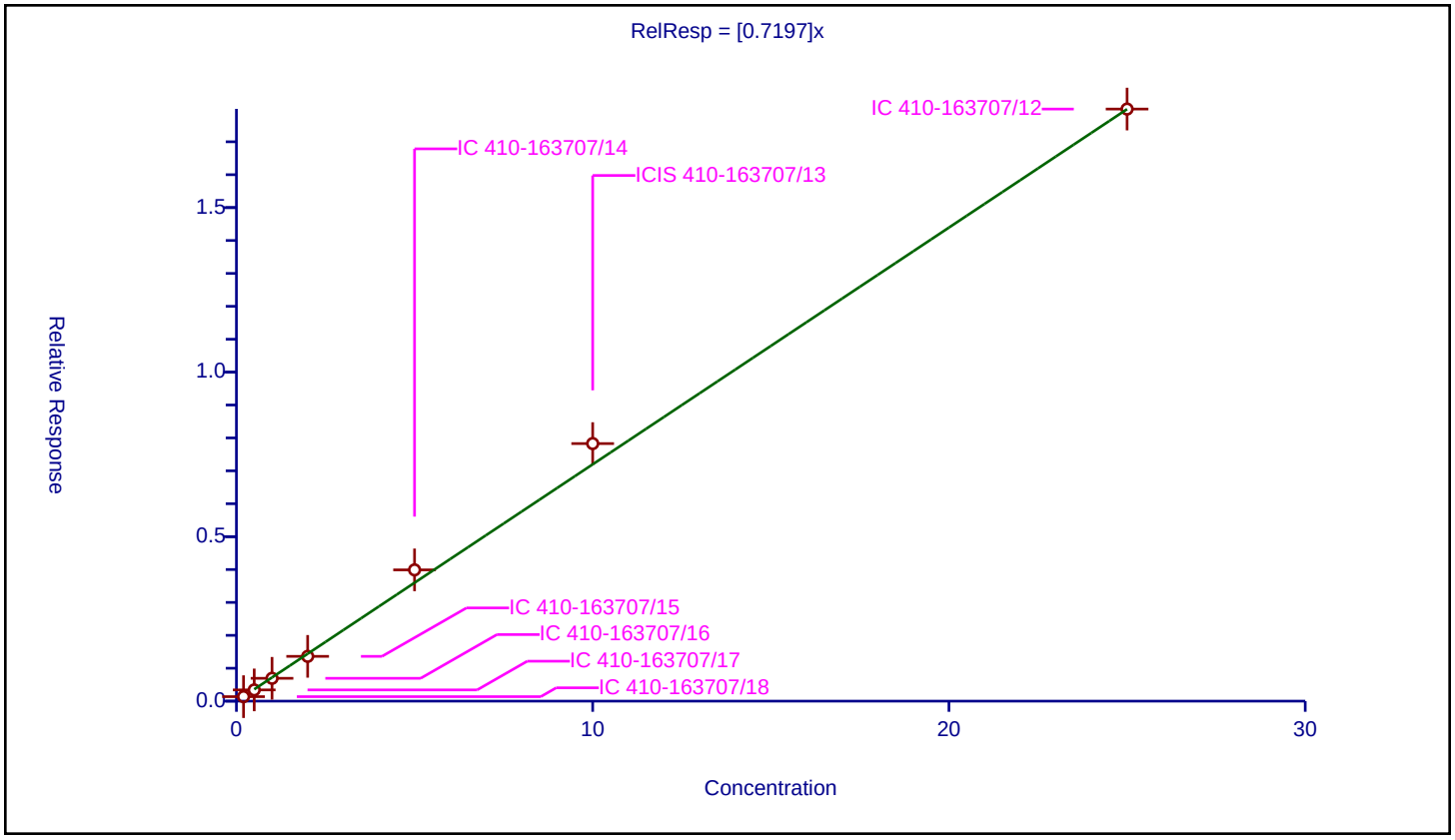
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7197 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1470000 |
| **Relative Standard Error:** | 7.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.136024 | 10.0 | 1679409.0 | 0.68012 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.341201 | 10.0 | 1845718.0 | 0.682401 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.694146 | 10.0 | 1659651.0 | 0.694146 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.360774 | 10.0 | 1654646.0 | 0.680387 | Y |
| 5 | IC 410-163707/14 | 5.0 | 3.989777 | 10.0 | 1642811.0 | 0.797955 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 7.828376 | 10.0 | 1640634.0 | 0.782838 | Y |
| 7 | IC 410-163707/12 | 25.0 | 17.994793 | 10.0 | 1830649.0 | 0.719792 | Y |



## Calibration / Styrene

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

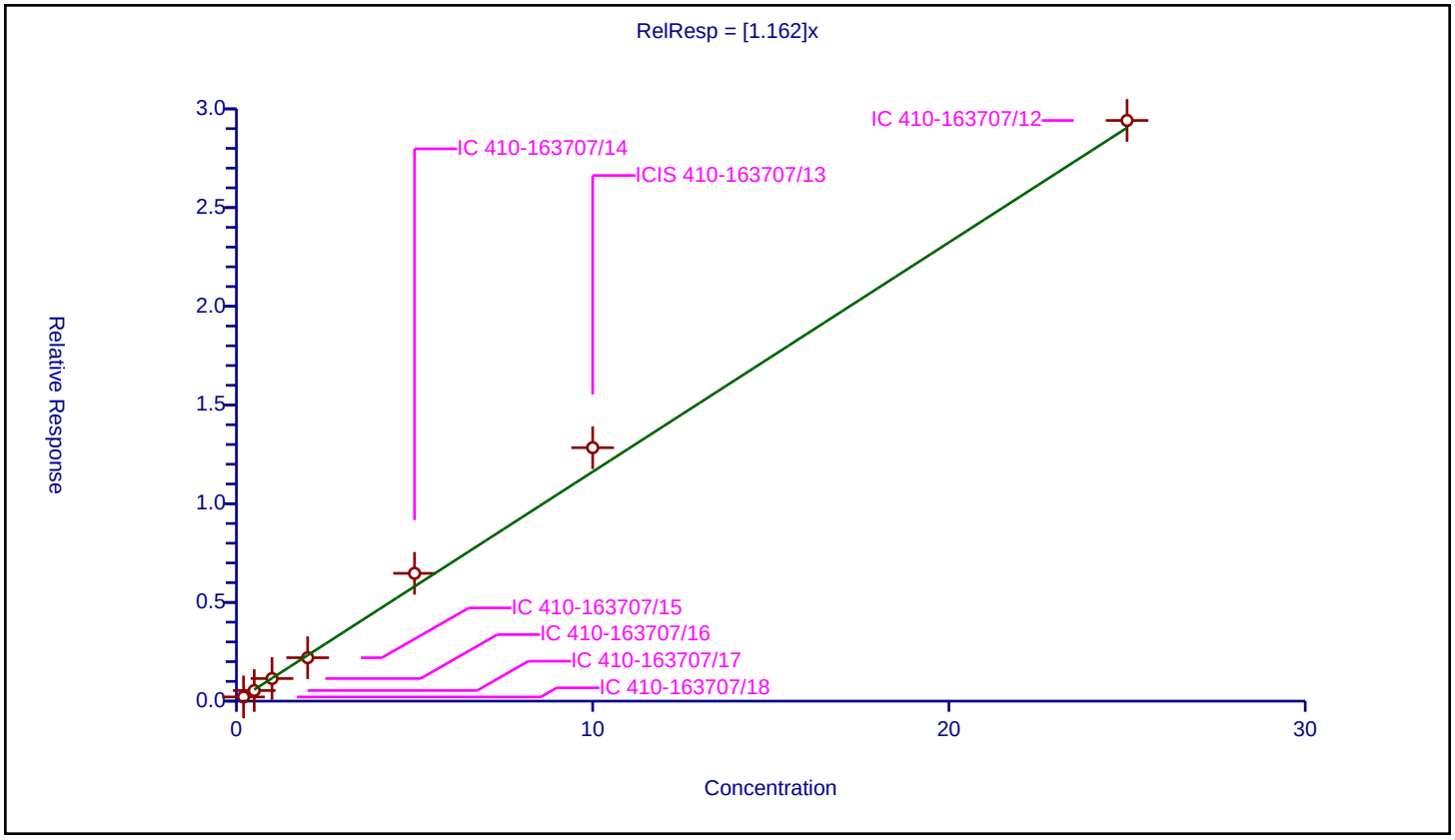
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.162 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2410000 |
| **Relative Standard Error:** | 8.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.211432 | 10.0 | 1679409.0 | 1.057158 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.537867 | 10.0 | 1845718.0 | 1.075733 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.144403 | 10.0 | 1659651.0 | 1.144403 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.200205 | 10.0 | 1654646.0 | 1.100102 | Y |
| 5 | IC 410-163707/14 | 5.0 | 6.474159 | 10.0 | 1642811.0 | 1.294832 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 12.839372 | 10.0 | 1640634.0 | 1.283937 | Y |
| 7 | IC 410-163707/12 | 25.0 | 29.414579 | 10.0 | 1830649.0 | 1.176583 | Y |



## Calibration / Bromoform

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

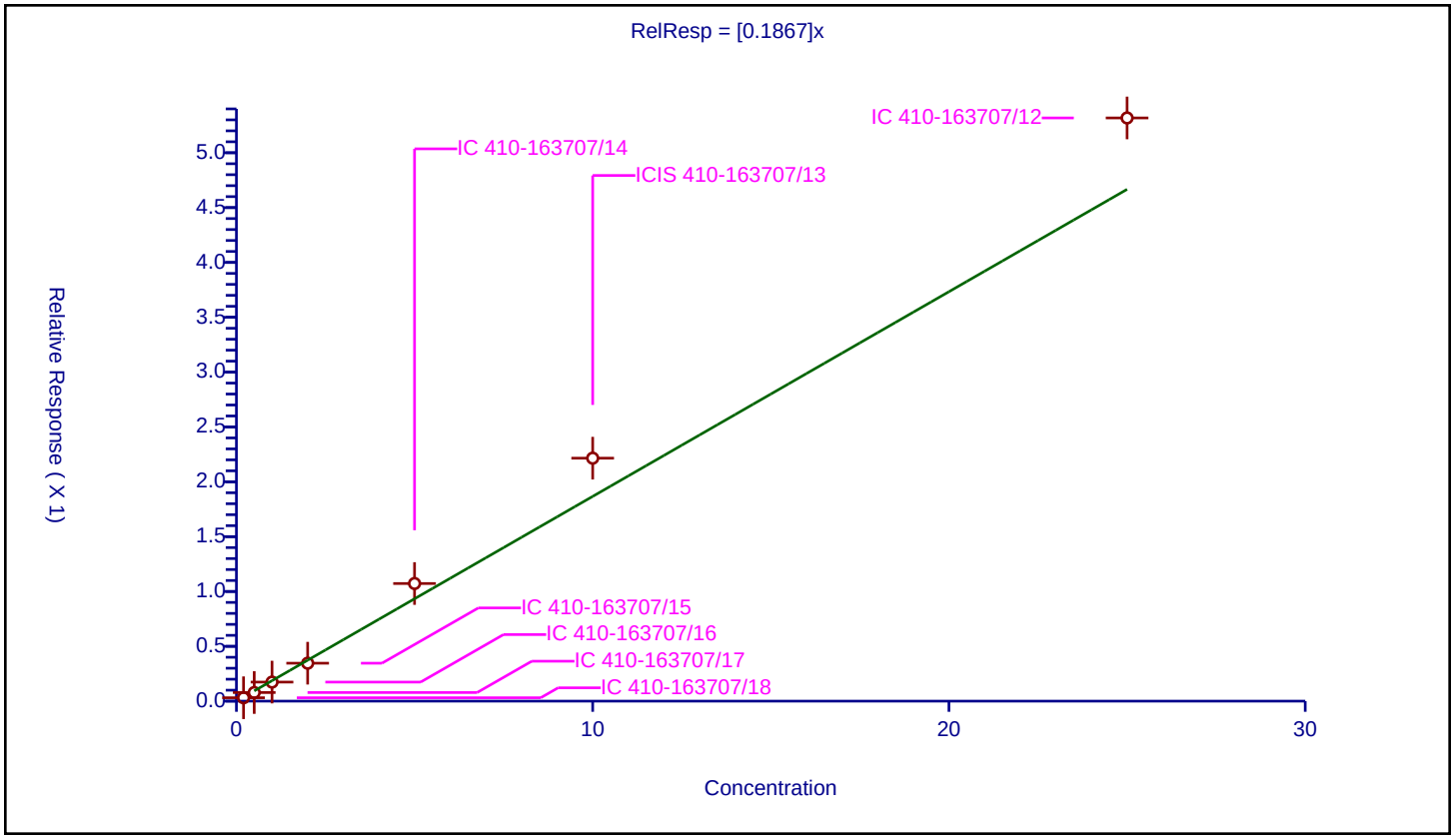
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1867 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 431000 |
| **Relative Standard Error:** | 15.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.973 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.030844 | 10.0 | 1679409.0 | 0.154221 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.078484 | 10.0 | 1845718.0 | 0.156969 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.173729 | 10.0 | 1659651.0 | 0.173729 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.345989 | 10.0 | 1654646.0 | 0.172995 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.072436 | 10.0 | 1642811.0 | 0.214487 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.215247 | 10.0 | 1640634.0 | 0.221525 | Y |
| 7 | IC 410-163707/12 | 25.0 | 5.317338 | 10.0 | 1830649.0 | 0.212694 | Y |



## Calibration / Isopropylbenzene

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

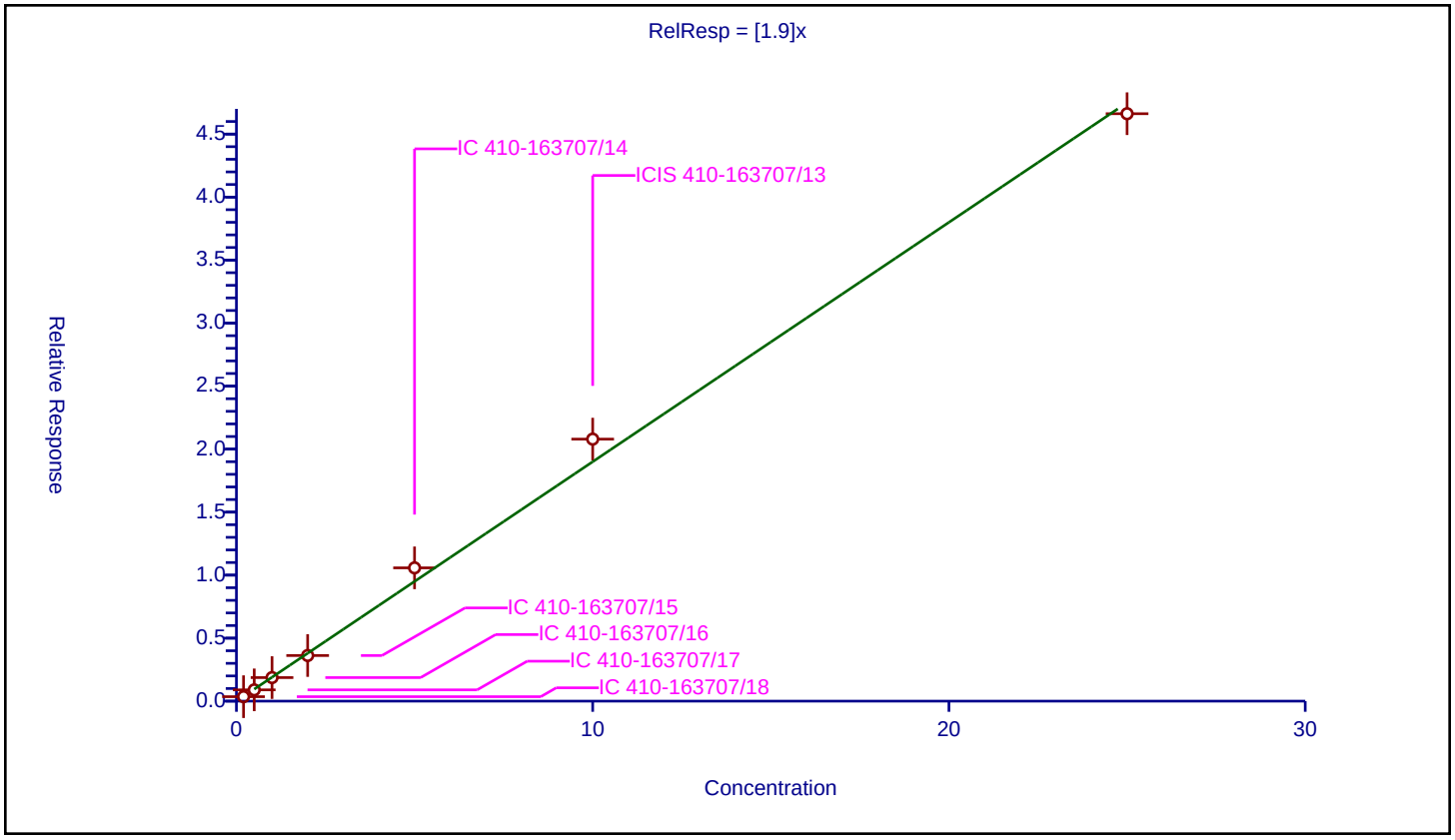
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.9 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3830000 |
| **Relative Standard Error:** | 7.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.354148 | 10.0 | 1679409.0 | 1.770742 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.894481 | 10.0 | 1845718.0 | 1.788962 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.870188 | 10.0 | 1659651.0 | 1.870188 | Y |
| 4 | IC 410-163707/15 | 2.0 | 3.619783 | 10.0 | 1654646.0 | 1.809892 | Y |
| 5 | IC 410-163707/14 | 5.0 | 10.57706 | 10.0 | 1642811.0 | 2.115412 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 20.793894 | 10.0 | 1640634.0 | 2.079389 | Y |
| 7 | IC 410-163707/12 | 25.0 | 46.617167 | 10.0 | 1830649.0 | 1.864687 | Y |



## Calibration / 4-Bromofluorobenzene (Surr)

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

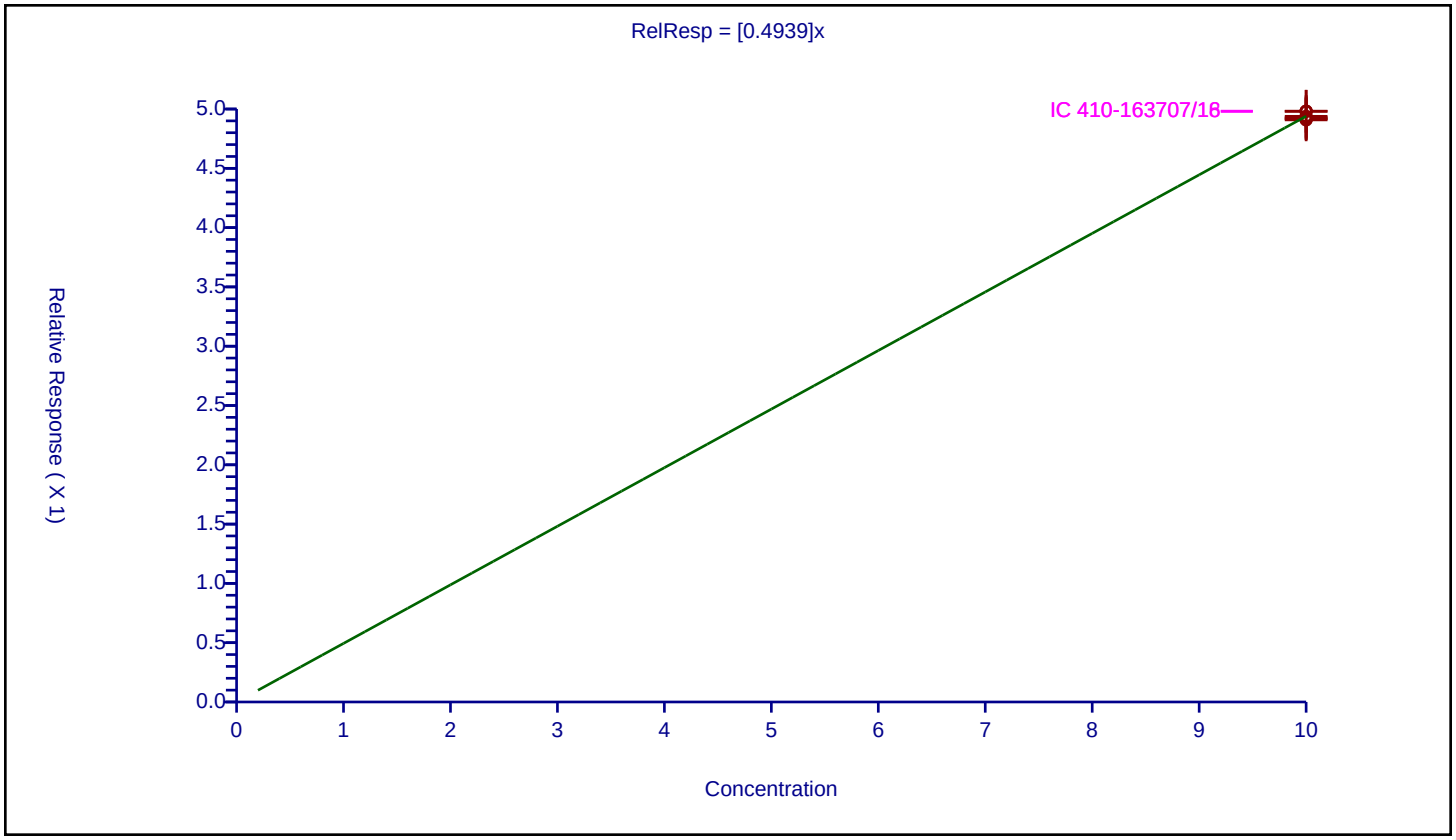
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4939 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 912000 |
| **Relative Standard Error:** | 0.6 |
| **Correlation Coefficient:** | 0 |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/12 | 10.0 | 4.919163 | 10.0 | 1830649.0 | 0.491916 | Y |
| 2 | ICIS 410-163707/13 | 10.0 | 4.916368 | 10.0 | 1640634.0 | 0.491637 | Y |
| 3 | IC 410-163707/14 | 10.0 | 4.90824 | 10.0 | 1642811.0 | 0.490824 | Y |
| 4 | IC 410-163707/15 | 10.0 | 4.928668 | 10.0 | 1654646.0 | 0.492867 | Y |
| 5 | IC 410-163707/16 | 10.0 | 4.982078 | 10.0 | 1659651.0 | 0.498208 | Y |
| 6 | IC 410-163707/17 | 10.0 | 4.938344 | 10.0 | 1845718.0 | 0.493834 | Y |
| 7 | IC 410-163707/18 | 10.0 | 4.980401 | 10.0 | 1679409.0 | 0.49804 | Y |



## Calibration / 1,1,2,2-Tetrachloroethane

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

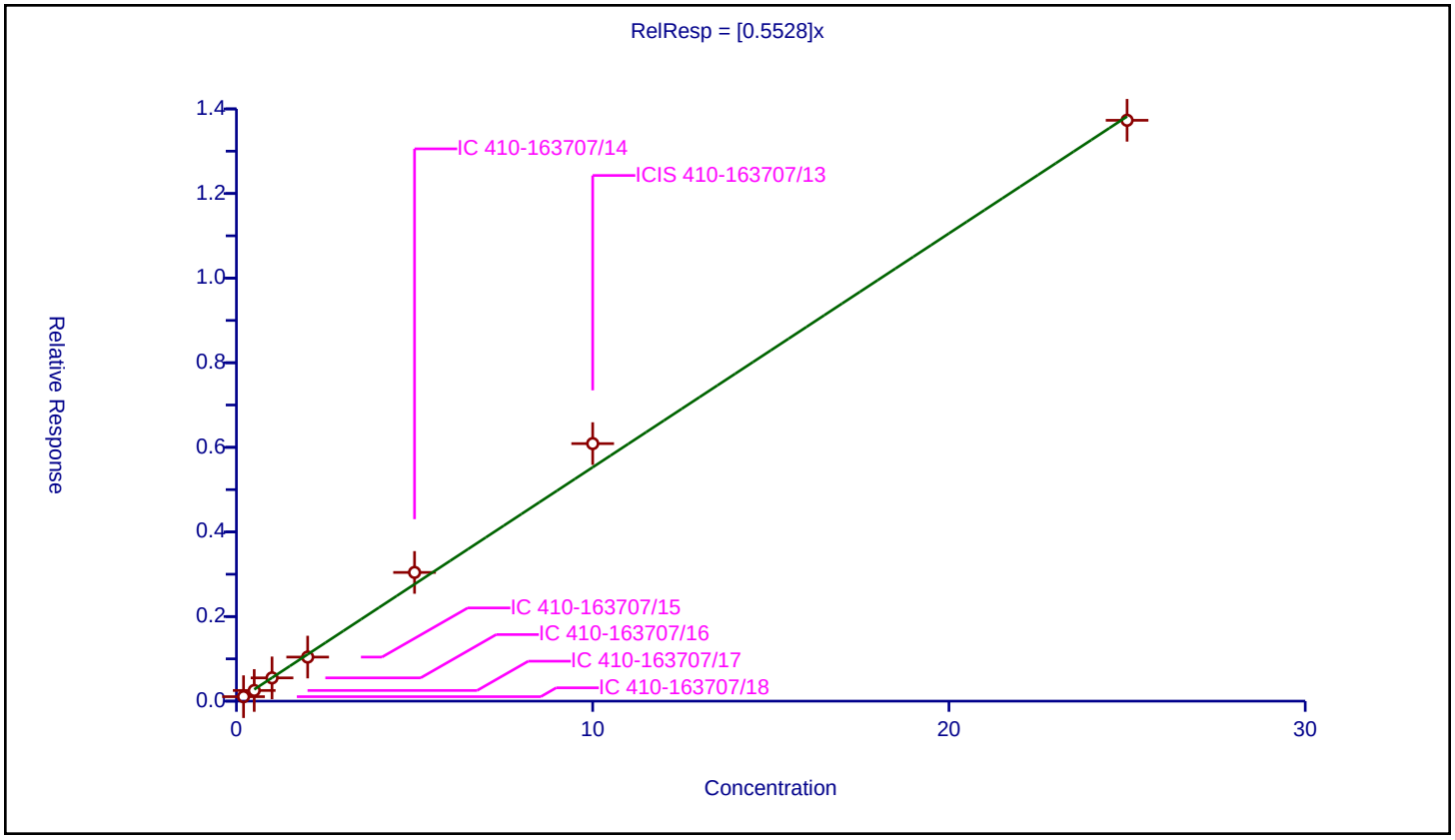
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5528 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 668000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.105689 | 10.0 | 1012314.0 | 0.528443 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.252018 | 10.0 | 1102182.0 | 0.504037 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.549972 | 10.0 | 987778.0 | 0.549972 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.041481 | 10.0 | 984300.0 | 0.520741 | Y |
| 5 | IC 410-163707/14 | 5.0 | 3.042725 | 10.0 | 963071.0 | 0.608545 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 6.088123 | 10.0 | 963407.0 | 0.608812 | Y |
| 7 | IC 410-163707/12 | 25.0 | 13.730272 | 10.0 | 1087615.0 | 0.549211 | Y |



## Calibration / Bromobenzene

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

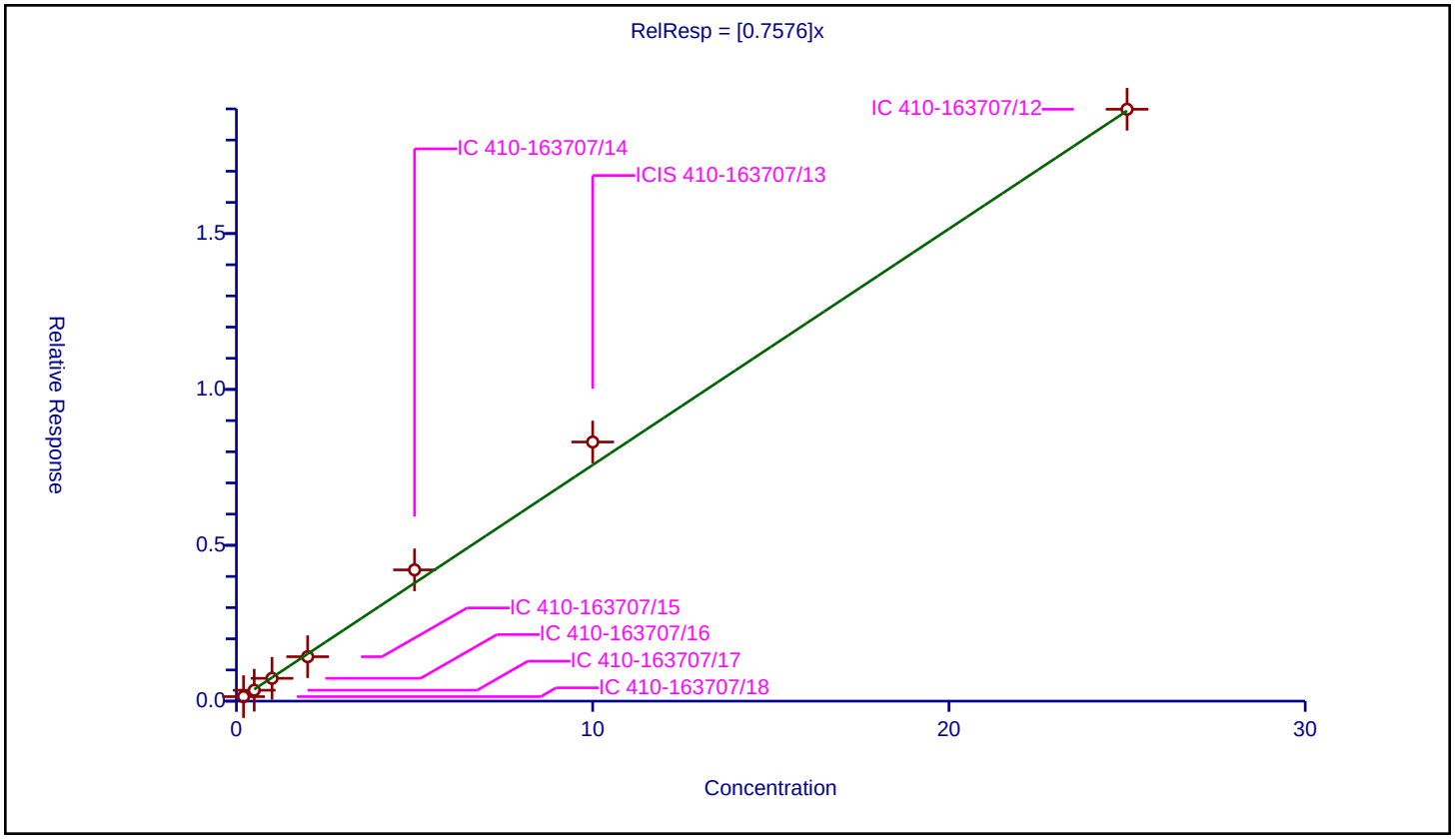
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7576 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 922000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.144787 | 10.0 | 1012314.0 | 0.723935 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.350369 | 10.0 | 1102182.0 | 0.700737 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.732533 | 10.0 | 987778.0 | 0.732533 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.425439 | 10.0 | 984300.0 | 0.71272 | Y |
| 5 | IC 410-163707/14 | 5.0 | 4.211309 | 10.0 | 963071.0 | 0.842262 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 8.313433 | 10.0 | 963407.0 | 0.831343 | Y |
| 7 | IC 410-163707/12 | 25.0 | 18.988245 | 10.0 | 1087615.0 | 0.75953 | Y |



## Calibration / trans-1,4-Dichloro-2-butene

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

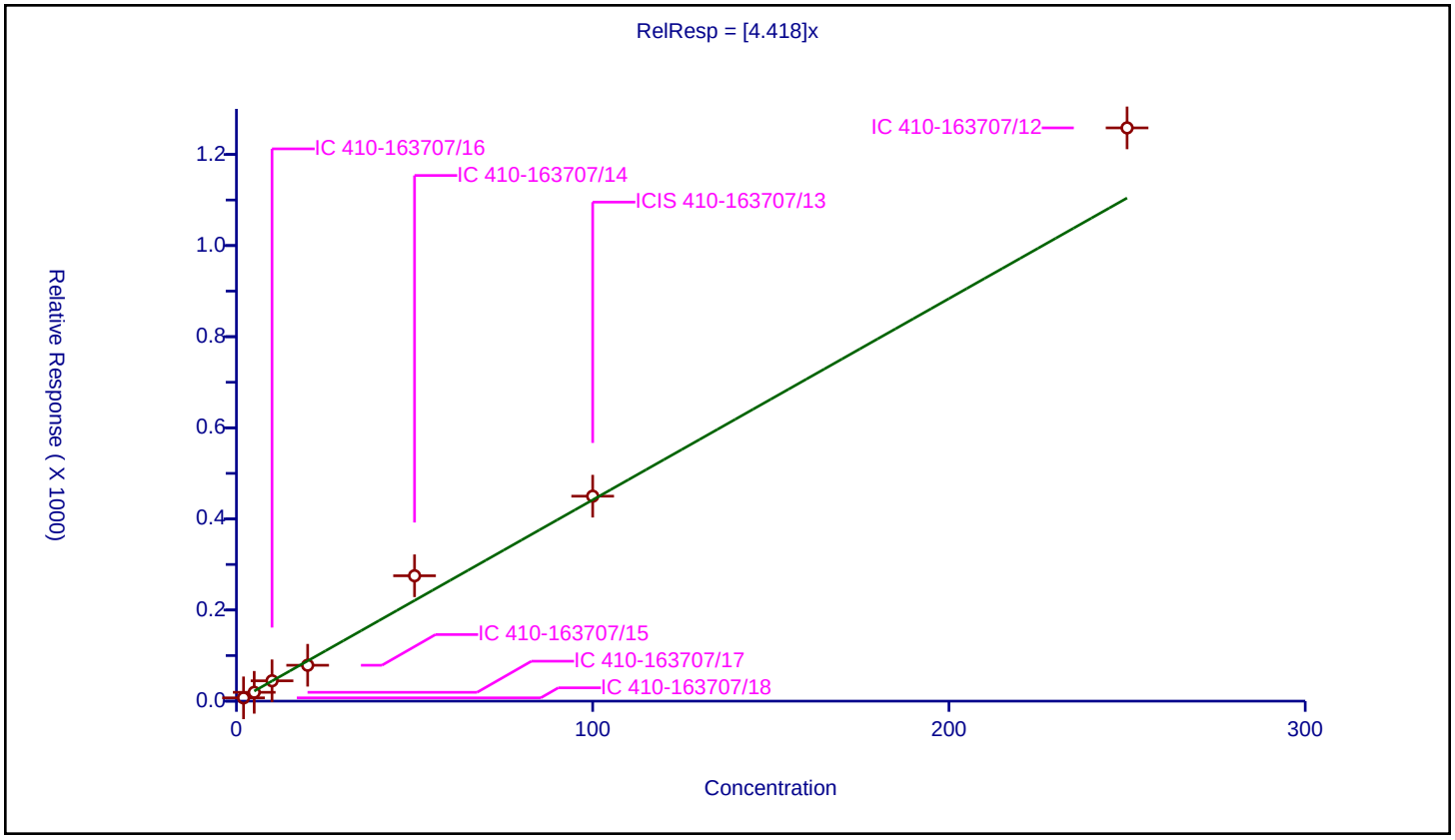
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 4.418 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1720000 |
| **Relative Standard Error:** | 15.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.973 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 2.0 | 7.212025 | 50.0 | 162132.0 | 3.606012 | Y |
| 2 | IC 410-163707/17 | 5.0 | 19.386601 | 50.0 | 162651.0 | 3.87732 | Y |
| 3 | IC 410-163707/16 | 10.0 | 44.651044 | 50.0 | 143084.0 | 4.465104 | Y |
| 4 | IC 410-163707/15 | 20.0 | 78.790446 | 50.0 | 162903.0 | 3.939522 | Y |
| 5 | IC 410-163707/14 | 50.0 | 275.233666 | 50.0 | 134380.0 | 5.504673 | Y |
| 6 | ICIS 410-163707/13 | 100.0 | 449.88711 | 50.0 | 165205.0 | 4.498871 | Y |
| 7 | IC 410-163707/12 | 250.0 | 1258.297519 | 50.0 | 153335.0 | 5.03319 | Y |



## Calibration / 1,2,3-Trichloropropane

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

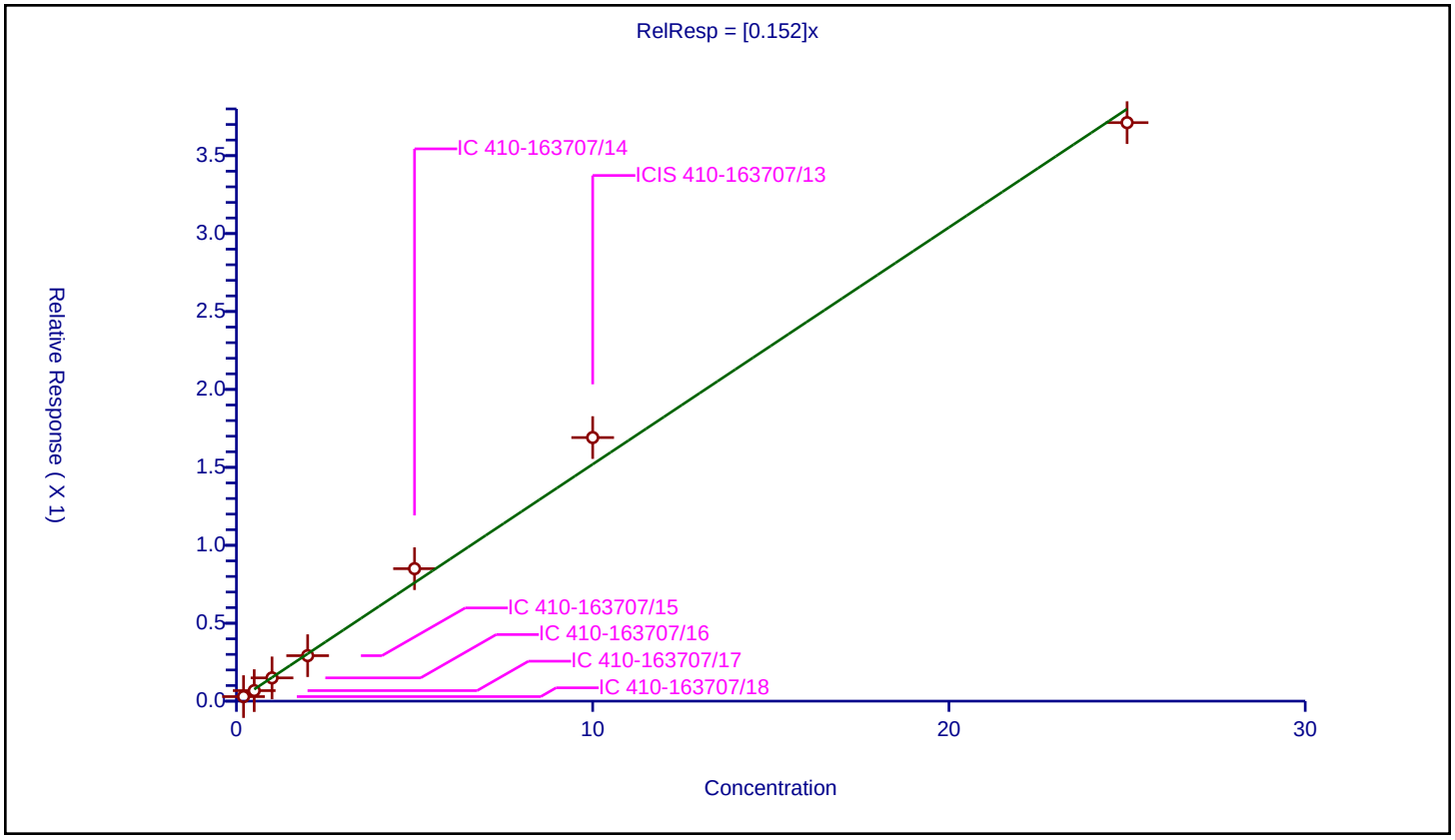
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.152 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 181000 |
| **Relative Standard Error:** | 8.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.029181 | 10.0 | 1012314.0 | 0.145903 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.067584 | 10.0 | 1102182.0 | 0.135168 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.149285 | 10.0 | 987778.0 | 0.149285 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.291822 | 10.0 | 984300.0 | 0.145911 | Y |
| 5 | IC 410-163707/14 | 5.0 | 0.849958 | 10.0 | 963071.0 | 0.169992 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 1.691144 | 10.0 | 963407.0 | 0.169114 | Y |
| 7 | IC 410-163707/12 | 25.0 | 3.711773 | 10.0 | 1087615.0 | 0.148471 | Y |



## Calibration / N-Propylbenzene

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

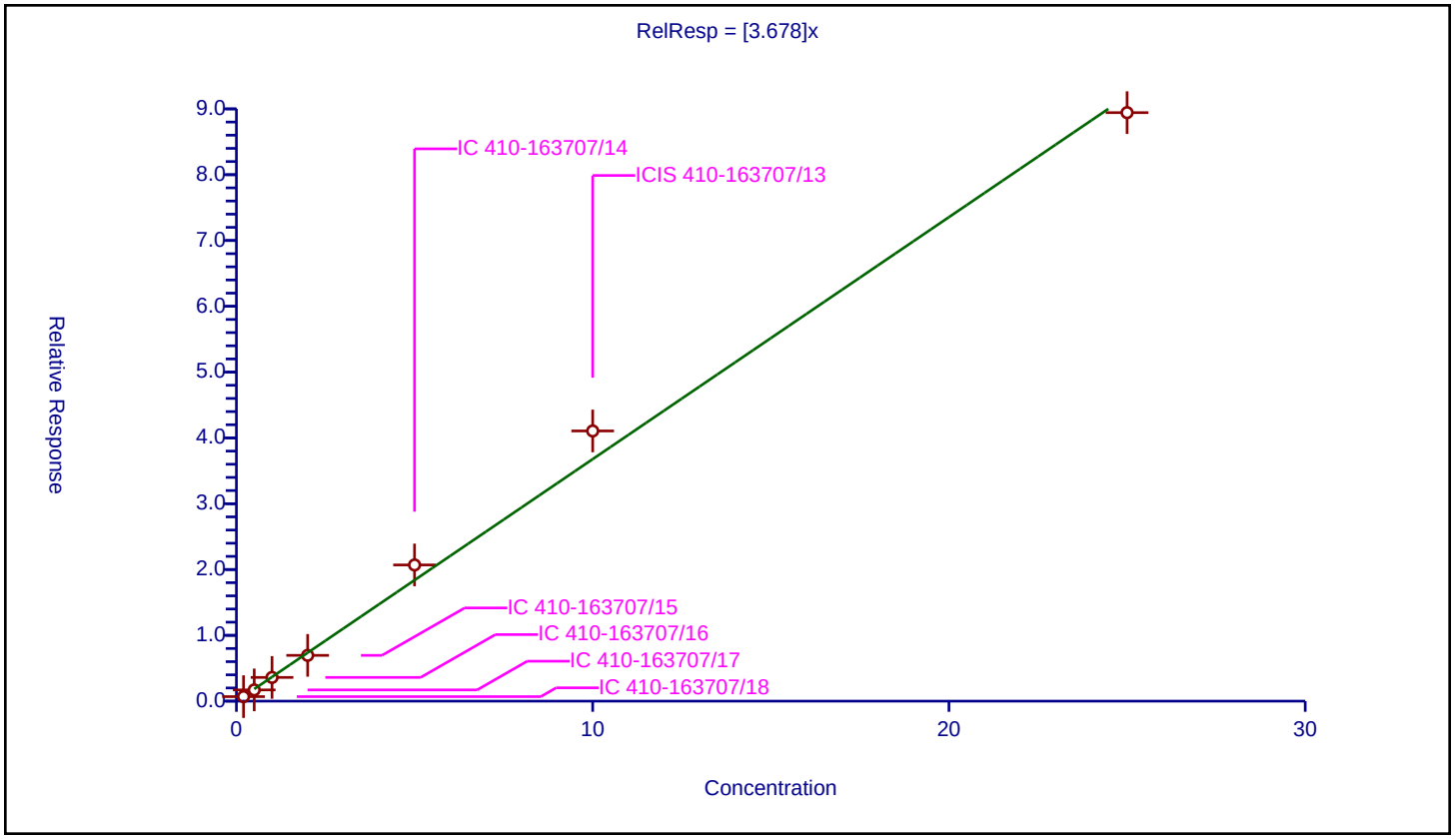
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.678 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4380000 |
| **Relative Standard Error:** | 8.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.684827 | 10.0 | 1012314.0 | 3.424135 | Y |
| 2 | IC 410-163707/17 | 0.5 | 1.707876 | 10.0 | 1102182.0 | 3.415752 | Y |
| 3 | IC 410-163707/16 | 1.0 | 3.60255 | 10.0 | 987778.0 | 3.60255 | Y |
| 4 | IC 410-163707/15 | 2.0 | 6.95669 | 10.0 | 984300.0 | 3.478345 | Y |
| 5 | IC 410-163707/14 | 5.0 | 20.695328 | 10.0 | 963071.0 | 4.139066 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 41.058618 | 10.0 | 963407.0 | 4.105862 | Y |
| 7 | IC 410-163707/12 | 25.0 | 89.428208 | 10.0 | 1087615.0 | 3.577128 | Y |



## Calibration / 2-Chlorotoluene

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

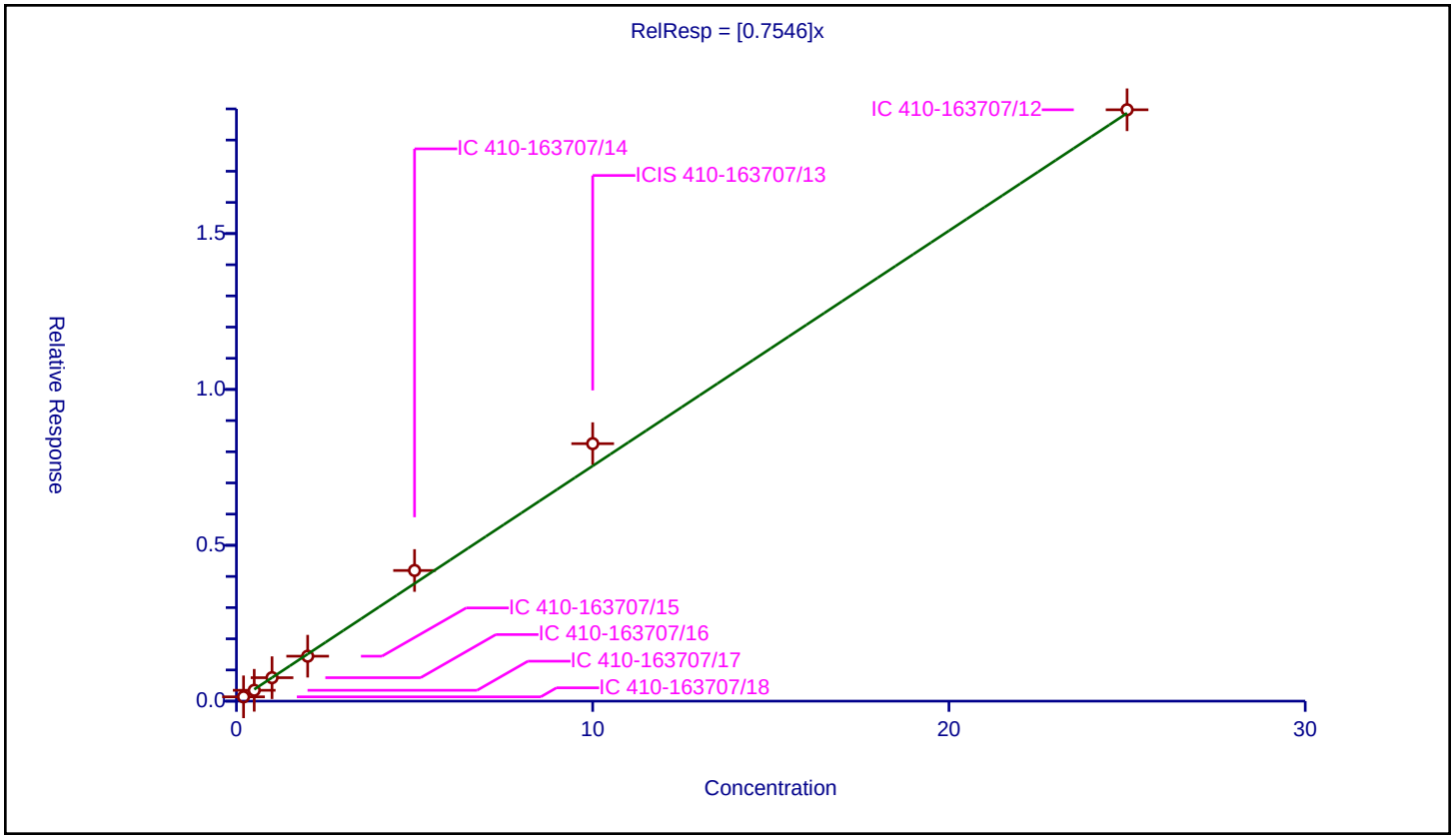
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7546 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 920000 |
| **Relative Standard Error:** | 7.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.137714 | 10.0 | 1012314.0 | 0.688571 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.348246 | 10.0 | 1102182.0 | 0.696491 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.75273 | 10.0 | 987778.0 | 0.75273 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.441908 | 10.0 | 984300.0 | 0.720954 | Y |
| 5 | IC 410-163707/14 | 5.0 | 4.191394 | 10.0 | 963071.0 | 0.838279 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 8.260673 | 10.0 | 963407.0 | 0.826067 | Y |
| 7 | IC 410-163707/12 | 25.0 | 18.971447 | 10.0 | 1087615.0 | 0.758858 | Y |



## Calibration / 1,3,5-Trimethylbenzene

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

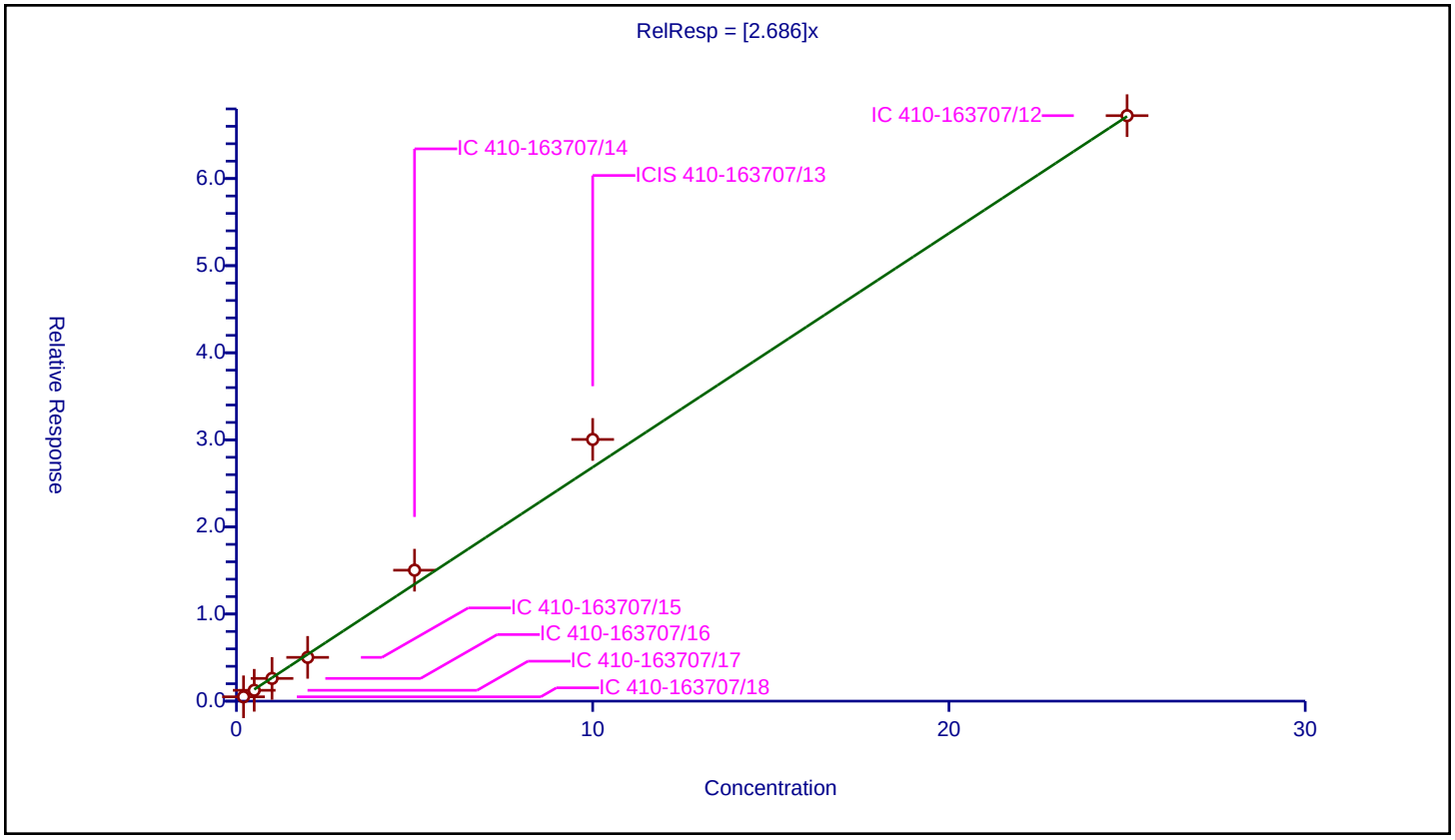
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.686 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3270000 |
| **Relative Standard Error:** | 8.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.497533 | 10.0 | 1012314.0 | 2.487667 | Y |
| 2 | IC 410-163707/17 | 0.5 | 1.244622 | 10.0 | 1102182.0 | 2.489244 | Y |
| 3 | IC 410-163707/16 | 1.0 | 2.609098 | 10.0 | 987778.0 | 2.609098 | Y |
| 4 | IC 410-163707/15 | 2.0 | 5.025571 | 10.0 | 984300.0 | 2.512786 | Y |
| 5 | IC 410-163707/14 | 5.0 | 15.035423 | 10.0 | 963071.0 | 3.007085 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 30.045827 | 10.0 | 963407.0 | 3.004583 | Y |
| 7 | IC 410-163707/12 | 25.0 | 67.223126 | 10.0 | 1087615.0 | 2.688925 | Y |



## Calibration / 4-Chlorotoluene

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

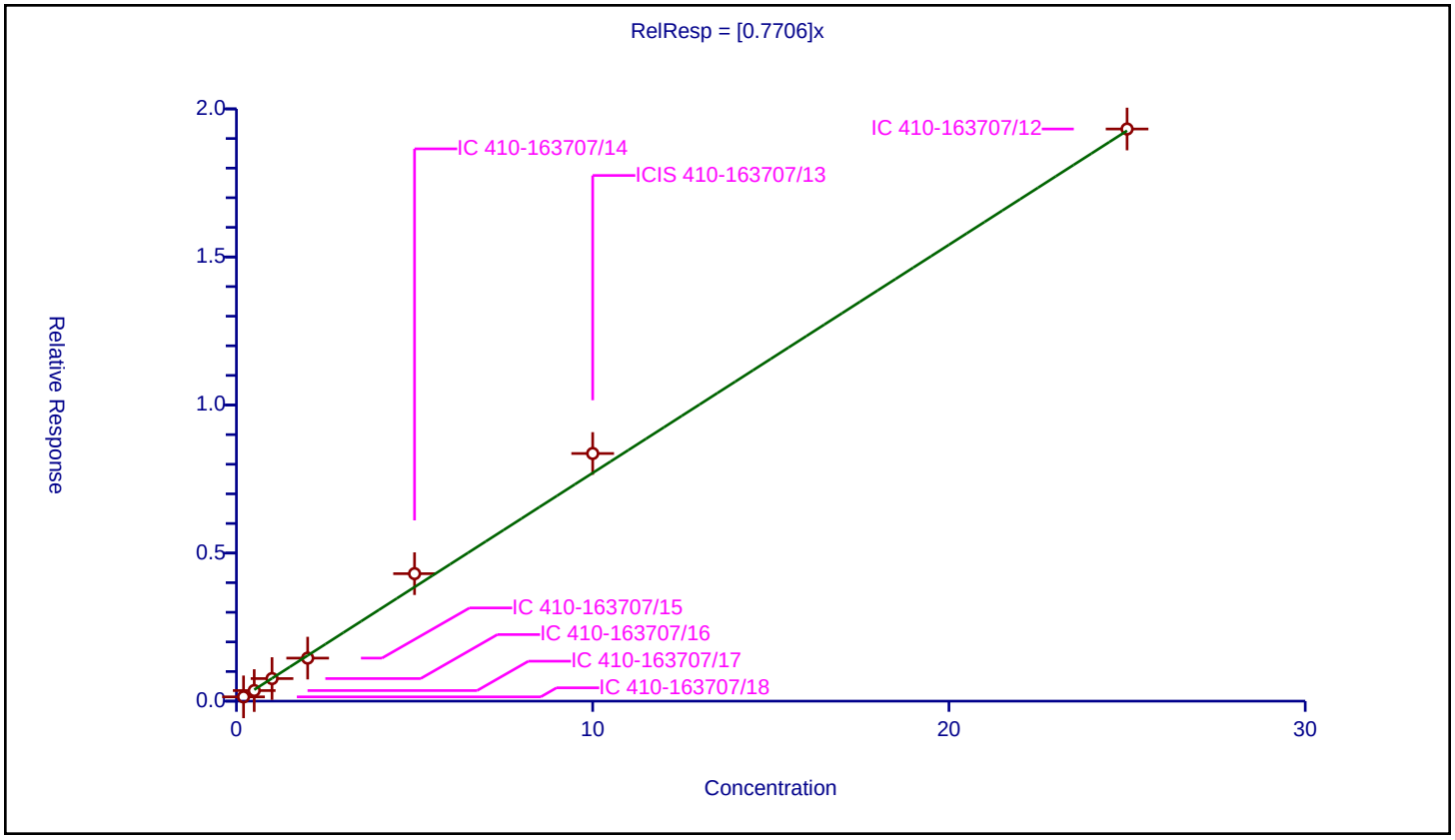
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7706 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 937000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.144125 | 10.0 | 1012314.0 | 0.720626 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.357201 | 10.0 | 1102182.0 | 0.714401 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.762479 | 10.0 | 987778.0 | 0.762479 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.452708 | 10.0 | 984300.0 | 0.726354 | Y |
| 5 | IC 410-163707/14 | 5.0 | 4.305103 | 10.0 | 963071.0 | 0.861021 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 8.363174 | 10.0 | 963407.0 | 0.836317 | Y |
| 7 | IC 410-163707/12 | 25.0 | 19.320945 | 10.0 | 1087615.0 | 0.772838 | Y |



## Calibration / tert-Butylbenzene

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

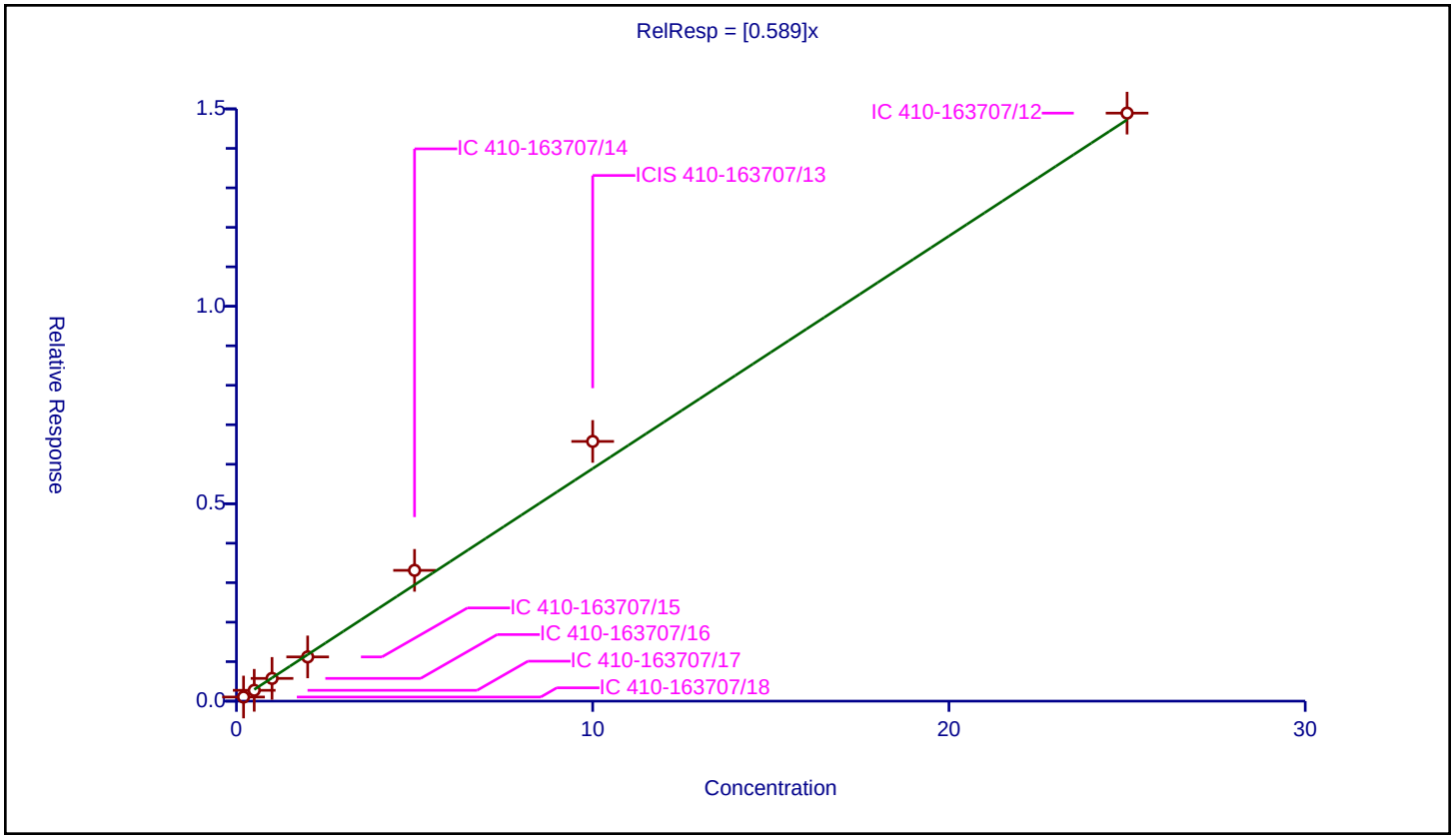
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.589 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 724000 |
| **Relative Standard Error:** | 9.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.104394 | 10.0 | 1012314.0 | 0.521972 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.274546 | 10.0 | 1102182.0 | 0.549093 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.575716 | 10.0 | 987778.0 | 0.575716 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.120207 | 10.0 | 984300.0 | 0.560104 | Y |
| 5 | IC 410-163707/14 | 5.0 | 3.312715 | 10.0 | 963071.0 | 0.662543 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 6.577833 | 10.0 | 963407.0 | 0.657783 | Y |
| 7 | IC 410-163707/12 | 25.0 | 14.892798 | 10.0 | 1087615.0 | 0.595712 | Y |



## Calibration / Pentachloroethane

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

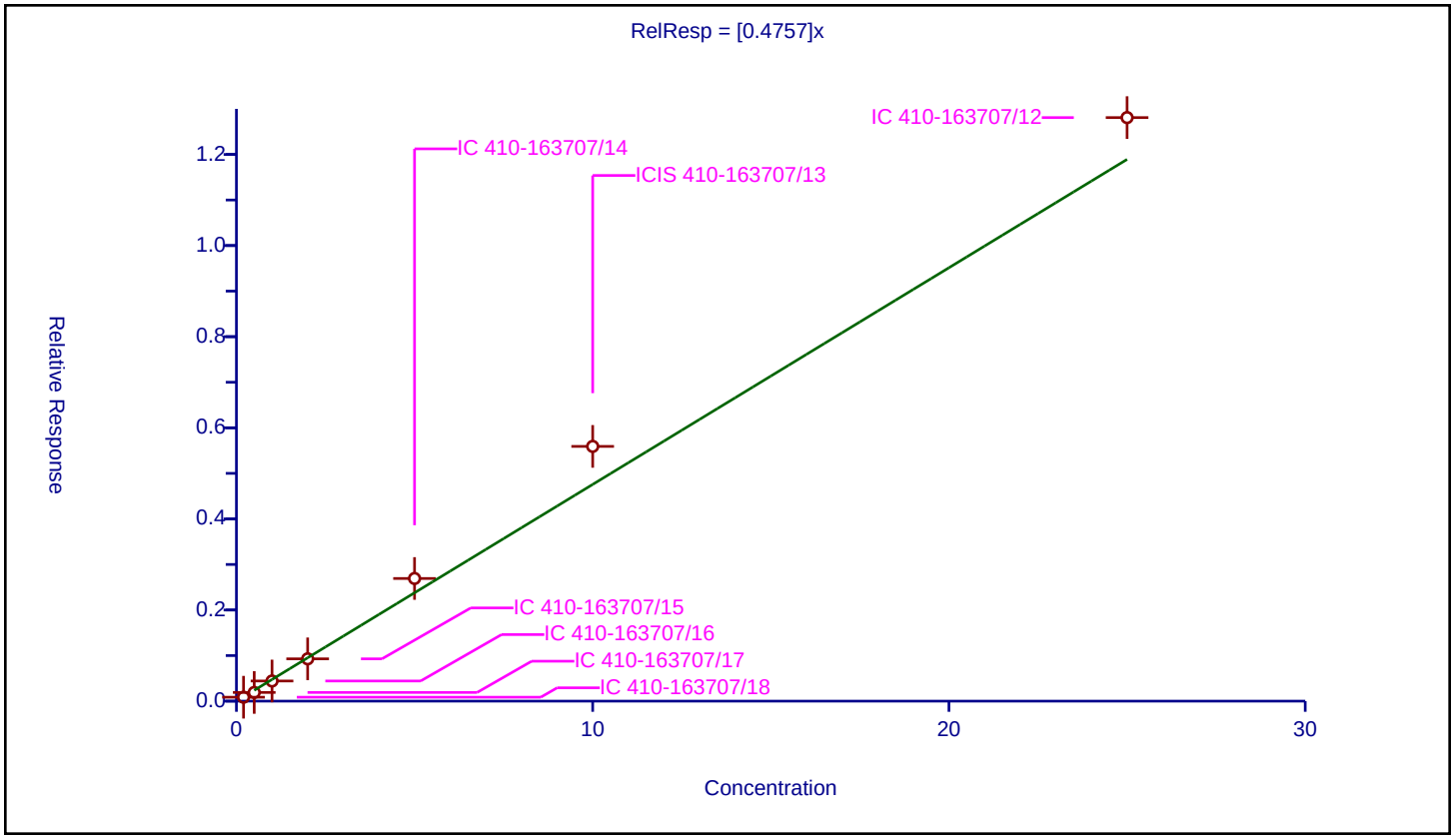
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4757 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 620000 |
| **Relative Standard Error:** | 13.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.086357 | 10.0 | 1012314.0 | 0.431783 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.190622 | 10.0 | 1102182.0 | 0.381244 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.442529 | 10.0 | 987778.0 | 0.442529 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.928386 | 10.0 | 984300.0 | 0.464193 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.692314 | 10.0 | 963071.0 | 0.538463 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 5.591417 | 10.0 | 963407.0 | 0.559142 | Y |
| 7 | IC 410-163707/12 | 25.0 | 12.808751 | 10.0 | 1087615.0 | 0.51235 | Y |



## Calibration / 1,2,4-Trimethylbenzene

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

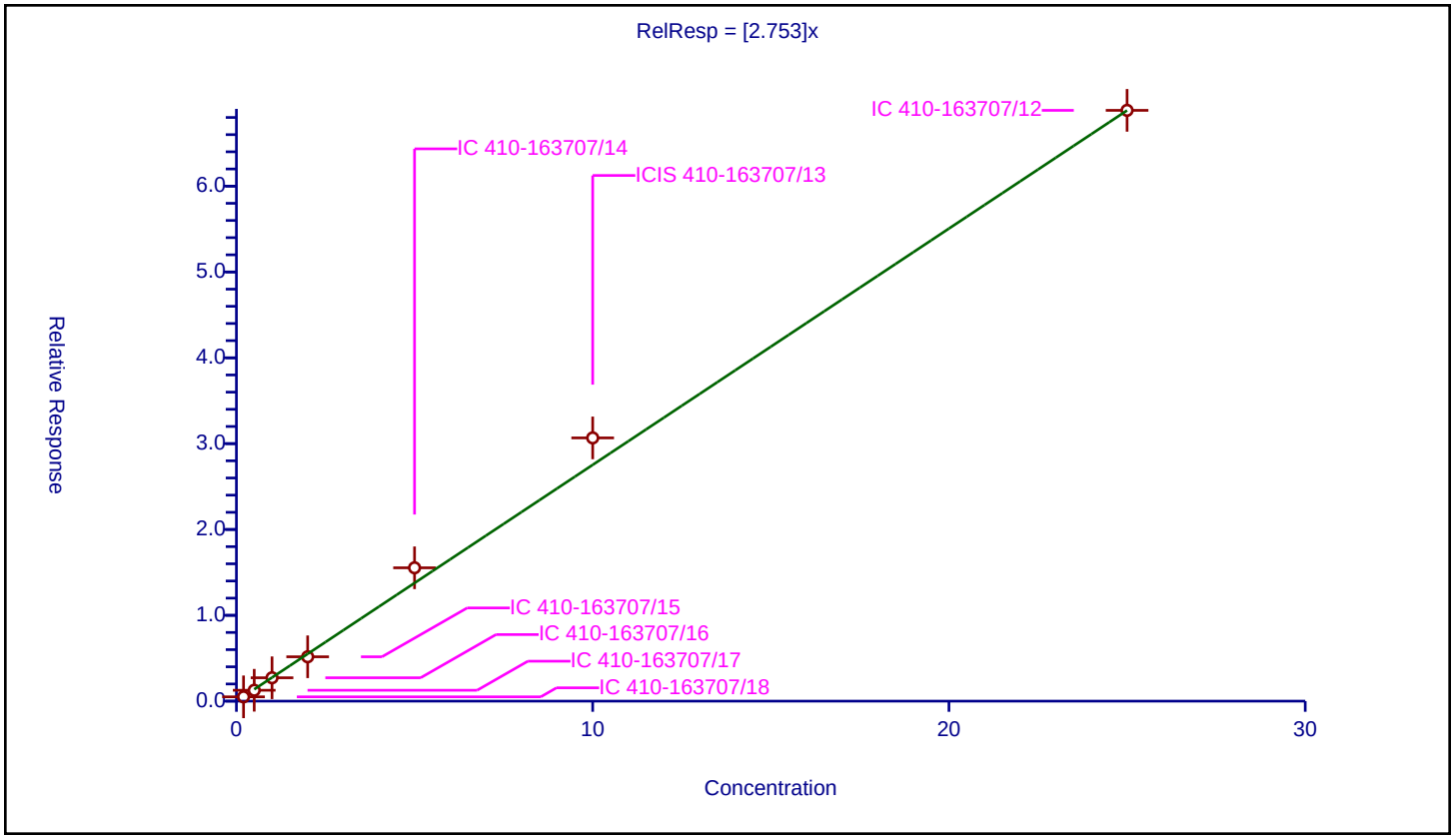
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.753 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3350000 |
| **Relative Standard Error:** | 9.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.500685 | 10.0 | 1012314.0 | 2.503423 | Y |
| 2 | IC 410-163707/17 | 0.5 | 1.266578 | 10.0 | 1102182.0 | 2.533157 | Y |
| 3 | IC 410-163707/16 | 1.0 | 2.72217 | 10.0 | 987778.0 | 2.72217 | Y |
| 4 | IC 410-163707/15 | 2.0 | 5.167469 | 10.0 | 984300.0 | 2.583735 | Y |
| 5 | IC 410-163707/14 | 5.0 | 15.536342 | 10.0 | 963071.0 | 3.107268 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 30.668907 | 10.0 | 963407.0 | 3.066891 | Y |
| 7 | IC 410-163707/12 | 25.0 | 68.830165 | 10.0 | 1087615.0 | 2.753207 | Y |



## Calibration / sec-Butylbenzene

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

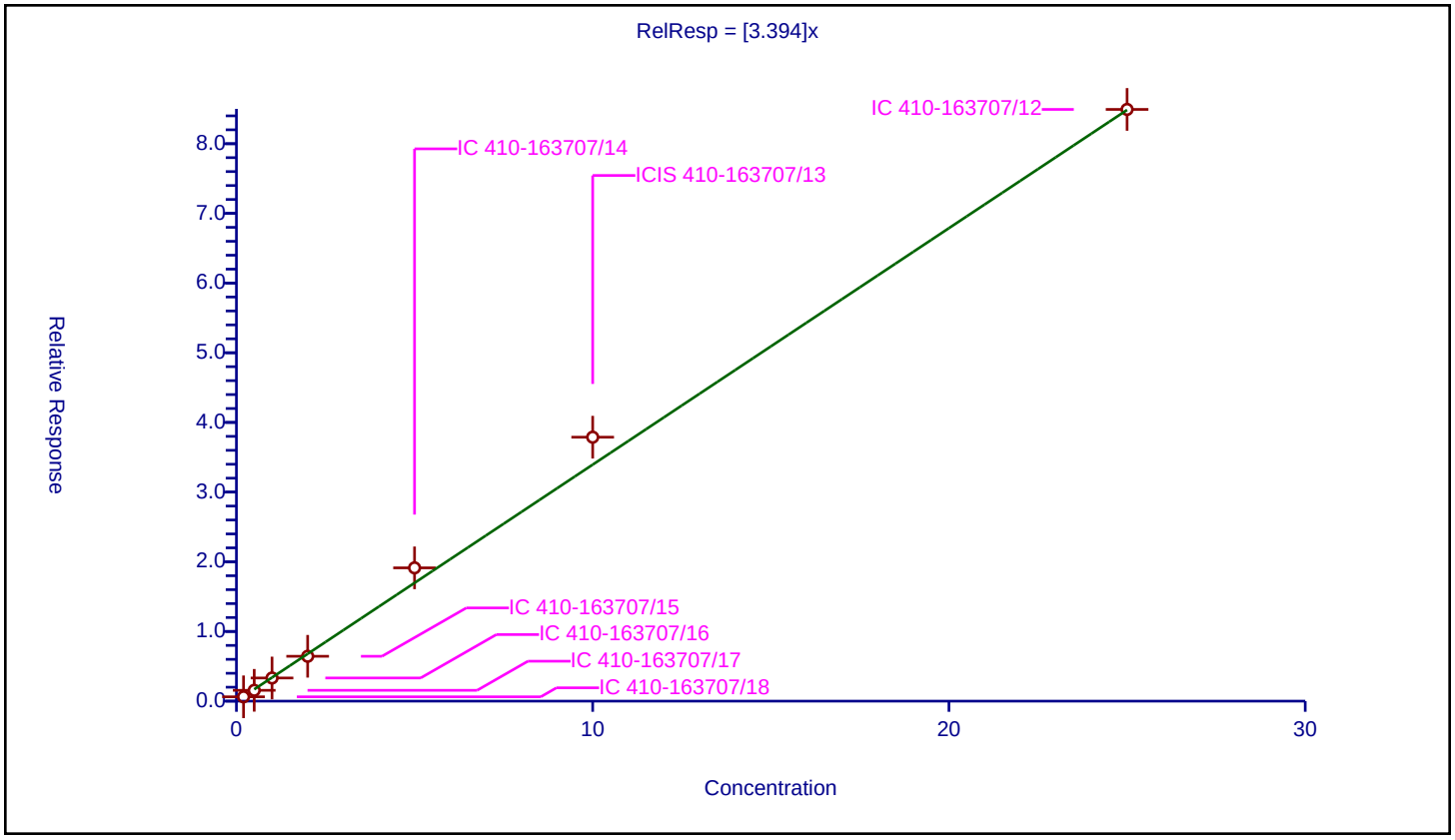
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.394 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 4130000 |
| **Relative Standard Error:** | 8.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.619768 | 10.0 | 1012314.0 | 3.098841 | Y |
| 2 | IC 410-163707/17 | 0.5 | 1.553364 | 10.0 | 1102182.0 | 3.106728 | Y |
| 3 | IC 410-163707/16 | 1.0 | 3.322953 | 10.0 | 987778.0 | 3.322953 | Y |
| 4 | IC 410-163707/15 | 2.0 | 6.437753 | 10.0 | 984300.0 | 3.218876 | Y |
| 5 | IC 410-163707/14 | 5.0 | 19.12941 | 10.0 | 963071.0 | 3.825882 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 37.881799 | 10.0 | 963407.0 | 3.78818 | Y |
| 7 | IC 410-163707/12 | 25.0 | 84.922505 | 10.0 | 1087615.0 | 3.3969 | Y |



## Calibration / 1,3-Dichlorobenzene

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

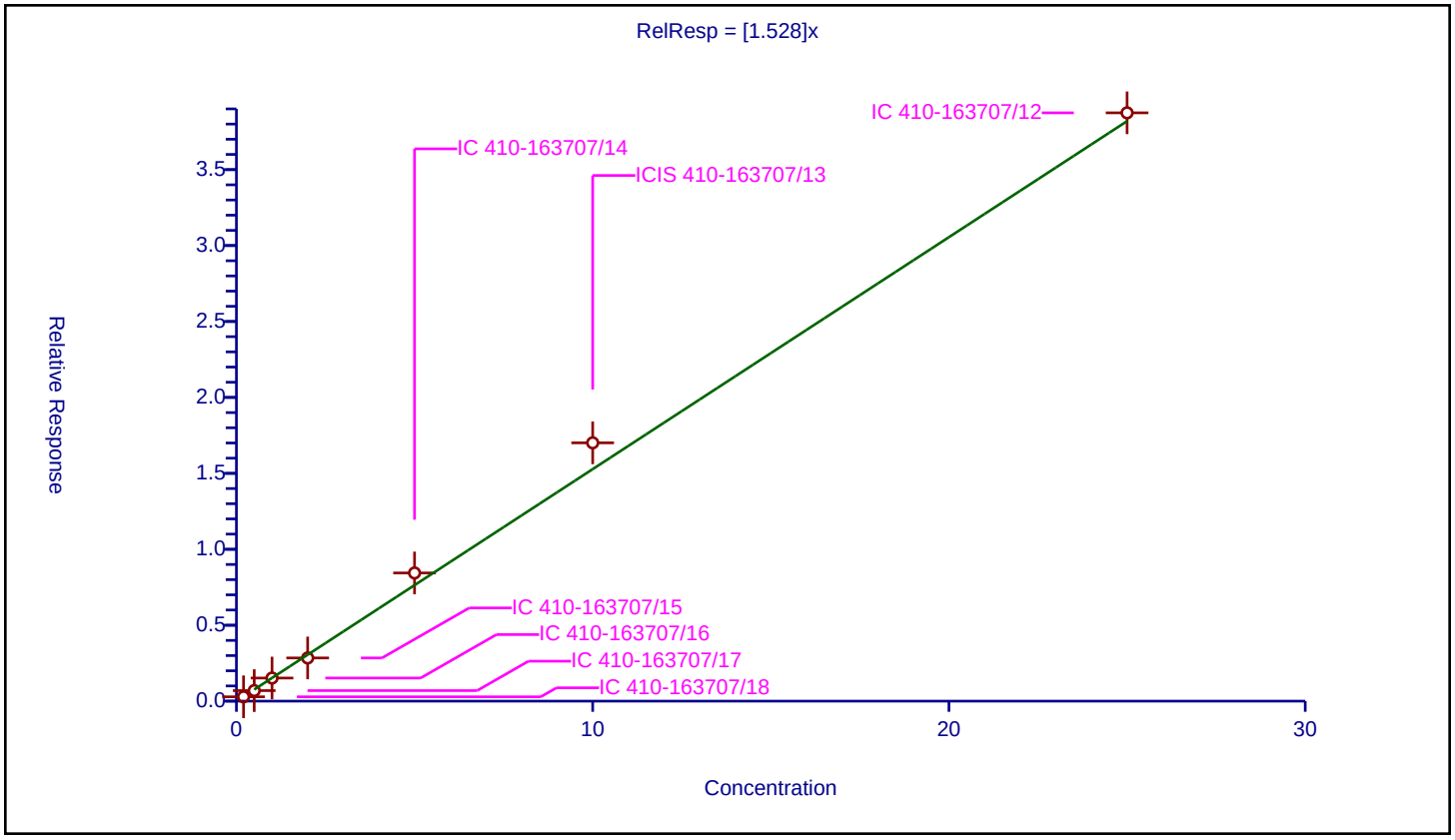
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.528 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1880000 |
| **Relative Standard Error:** | 8.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.284645 | 10.0 | 1012314.0 | 1.423224 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.693851 | 10.0 | 1102182.0 | 1.387702 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.52181 | 10.0 | 987778.0 | 1.52181 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.84397 | 10.0 | 984300.0 | 1.421985 | Y |
| 5 | IC 410-163707/14 | 5.0 | 8.441112 | 10.0 | 963071.0 | 1.688222 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 17.010381 | 10.0 | 963407.0 | 1.701038 | Y |
| 7 | IC 410-163707/12 | 25.0 | 38.740942 | 10.0 | 1087615.0 | 1.549638 | Y |



## Calibration / 4-Isopropyltoluene

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

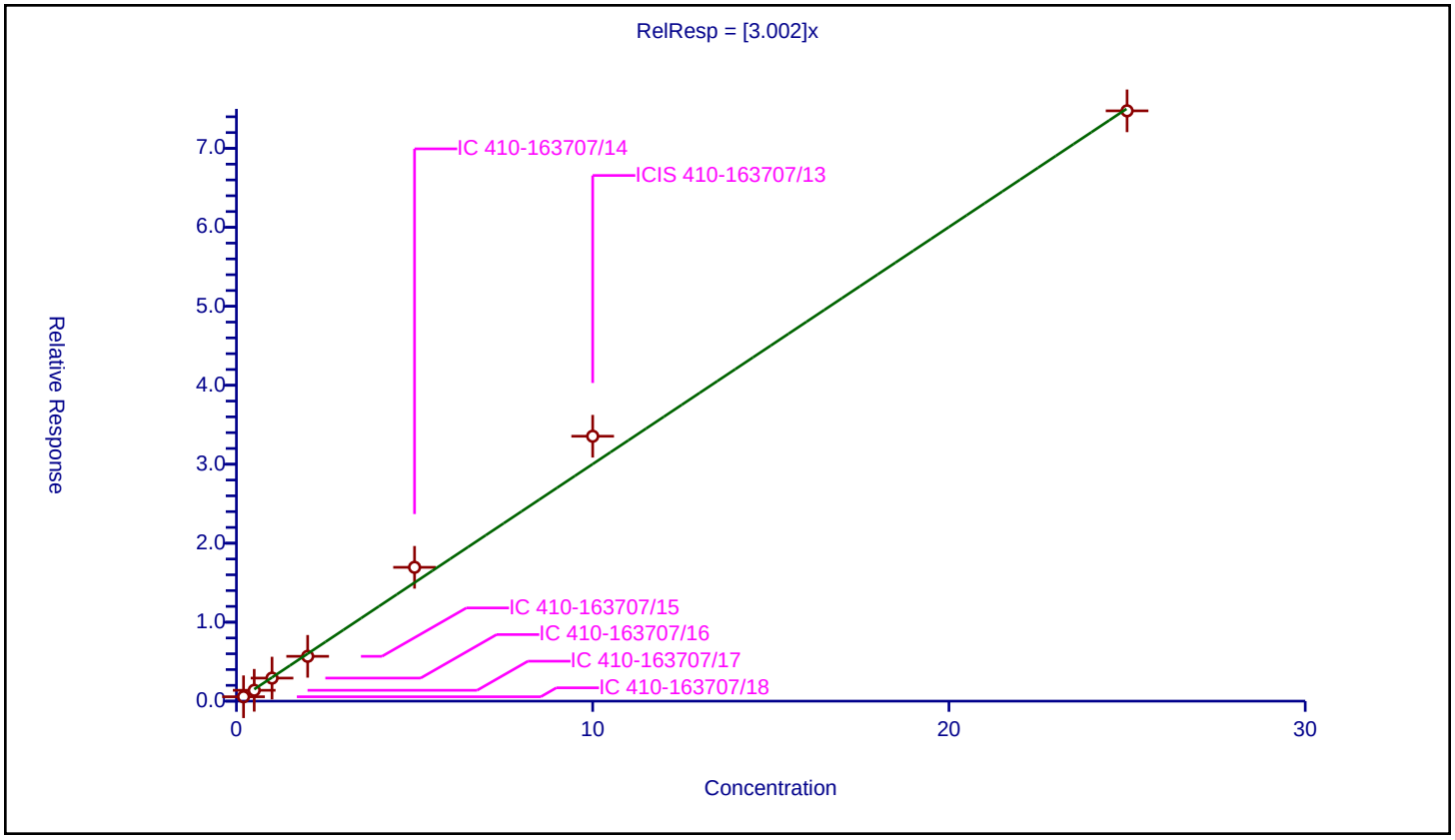
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.002 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3640000 |
| **Relative Standard Error:** | 8.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.555351 | 10.0 | 1012314.0 | 2.776757 | Y |
| 2 | IC 410-163707/17 | 0.5 | 1.374229 | 10.0 | 1102182.0 | 2.748457 | Y |
| 3 | IC 410-163707/16 | 1.0 | 2.917741 | 10.0 | 987778.0 | 2.917741 | Y |
| 4 | IC 410-163707/15 | 2.0 | 5.67513 | 10.0 | 984300.0 | 2.837565 | Y |
| 5 | IC 410-163707/14 | 5.0 | 16.946186 | 10.0 | 963071.0 | 3.389237 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 33.546186 | 10.0 | 963407.0 | 3.354619 | Y |
| 7 | IC 410-163707/12 | 25.0 | 74.755359 | 10.0 | 1087615.0 | 2.990214 | Y |



## Calibration / 1,4-Dichlorobenzene

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

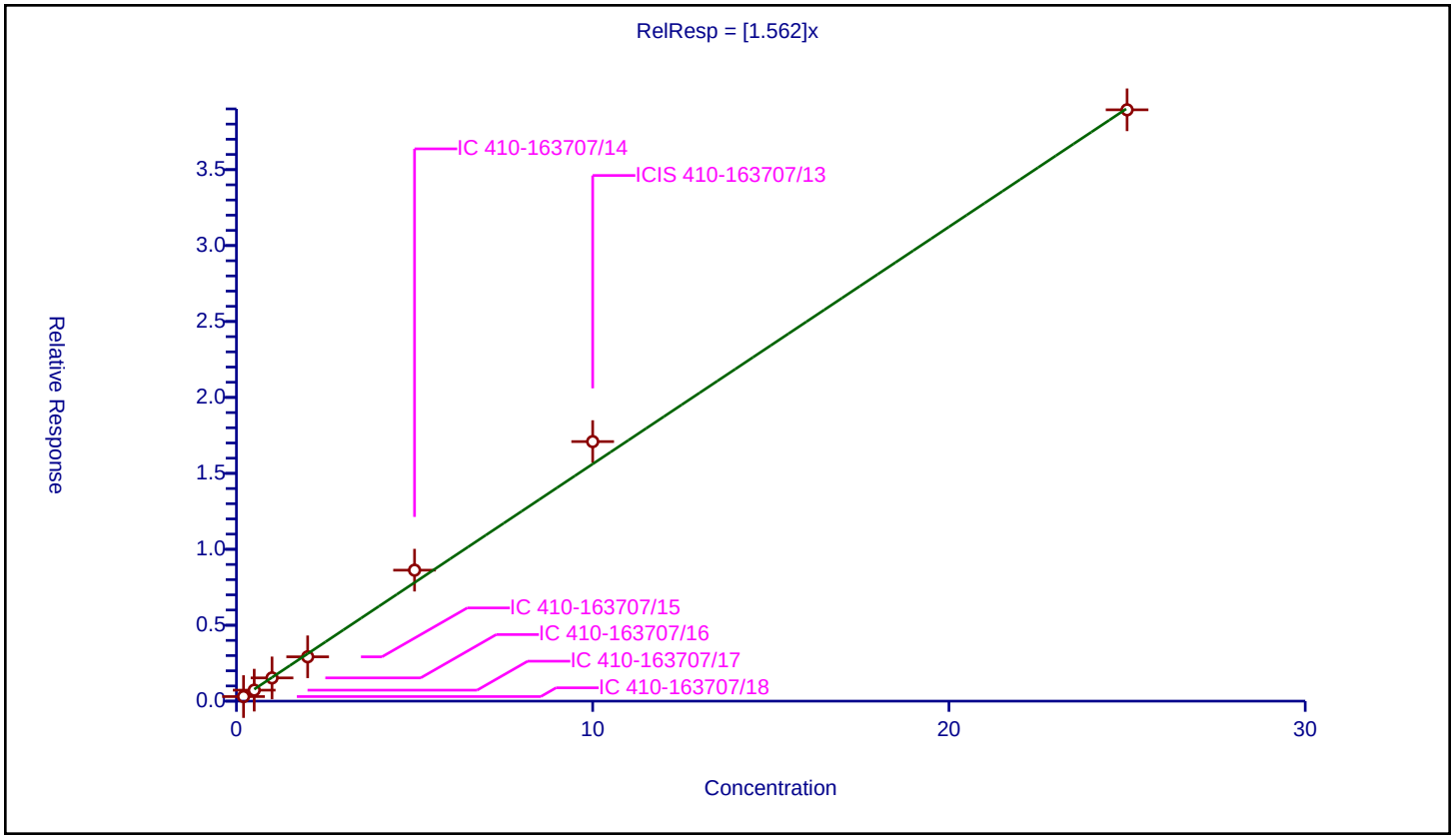
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.562 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1890000 |
| **Relative Standard Error:** | 7.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.300223 | 10.0 | 1012314.0 | 1.501115 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.724227 | 10.0 | 1102182.0 | 1.448454 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.529858 | 10.0 | 987778.0 | 1.529858 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.919527 | 10.0 | 984300.0 | 1.459763 | Y |
| 5 | IC 410-163707/14 | 5.0 | 8.625044 | 10.0 | 963071.0 | 1.725009 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 17.091478 | 10.0 | 963407.0 | 1.709148 | Y |
| 7 | IC 410-163707/12 | 25.0 | 38.939478 | 10.0 | 1087615.0 | 1.557579 | Y |



## Calibration / 1,2,3-Trimethylbenzene

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

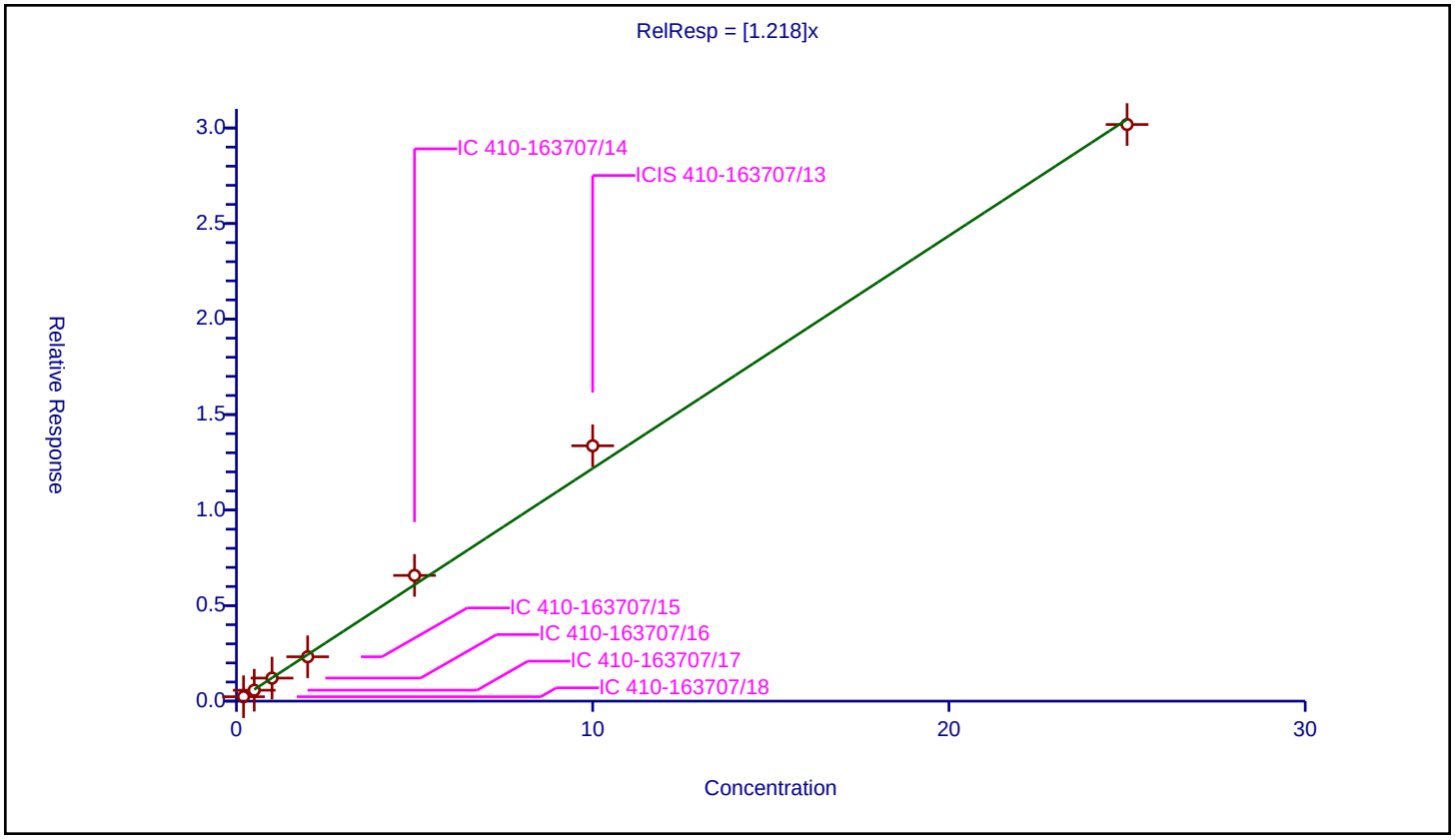
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.218 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1470000 |
| **Relative Standard Error:** | 6.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.23067 | 10.0 | 1012314.0 | 1.153348 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.572346 | 10.0 | 1102182.0 | 1.144693 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.207134 | 10.0 | 987778.0 | 1.207134 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.321447 | 10.0 | 984300.0 | 1.160723 | Y |
| 5 | IC 410-163707/14 | 5.0 | 6.580346 | 10.0 | 963071.0 | 1.316069 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 13.365639 | 10.0 | 963407.0 | 1.336564 | Y |
| 7 | IC 410-163707/12 | 25.0 | 30.182969 | 10.0 | 1087615.0 | 1.207319 | Y |



## Calibration / Benzyl chloride

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

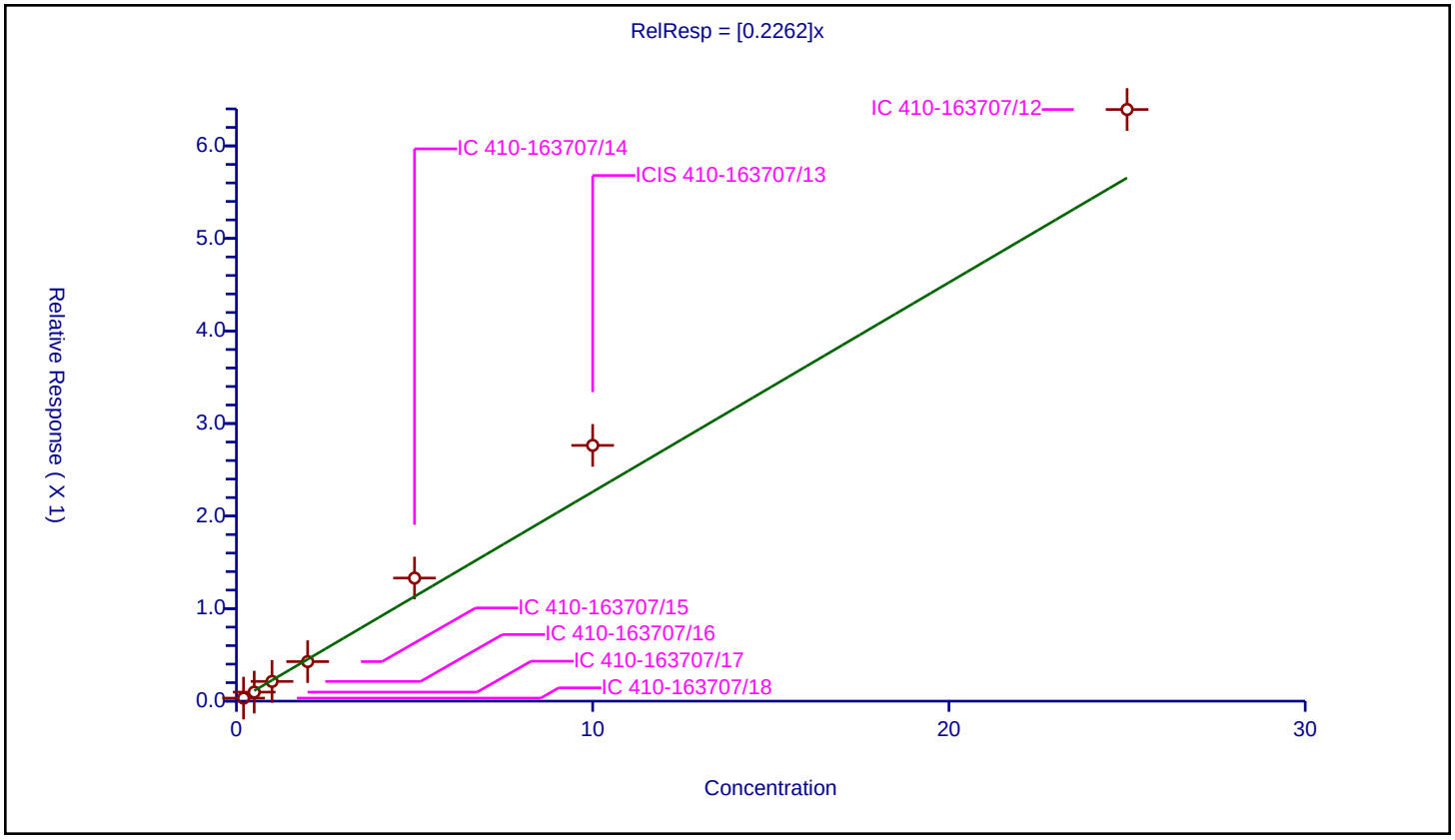
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2262 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 309000 |
| **Relative Standard Error:** | 18.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.964 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.032569 | 10.0 | 1012314.0 | 0.162845 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.097851 | 10.0 | 1102182.0 | 0.195703 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.213074 | 10.0 | 987778.0 | 0.213074 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.427177 | 10.0 | 984300.0 | 0.213588 | Y |
| 5 | IC 410-163707/14 | 5.0 | 1.330213 | 10.0 | 963071.0 | 0.266043 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 2.763681 | 10.0 | 963407.0 | 0.276368 | Y |
| 7 | IC 410-163707/12 | 25.0 | 6.393292 | 10.0 | 1087615.0 | 0.255732 | Y |



## Calibration / n-Butylbenzene

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

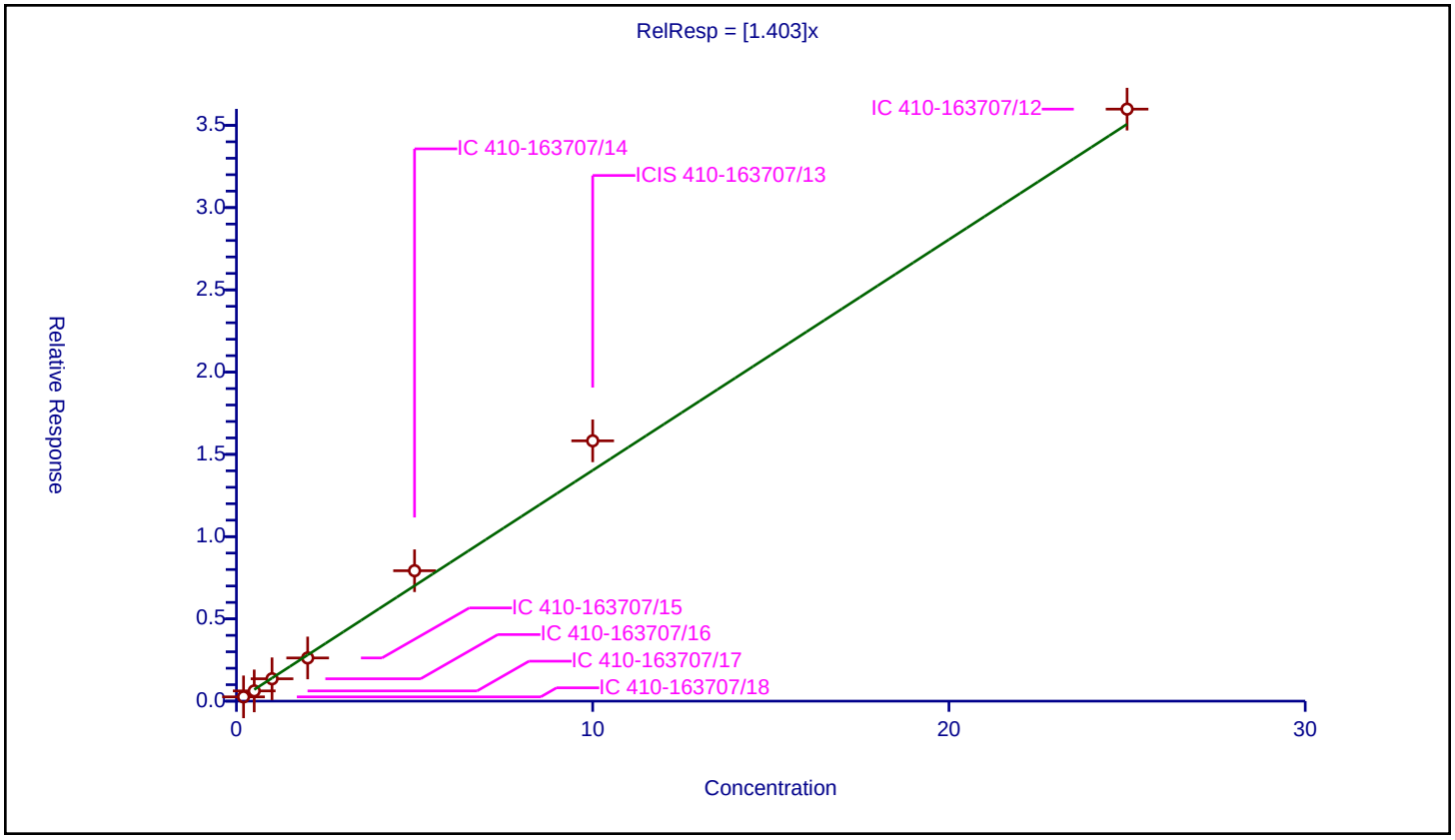
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.403 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1750000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.259198 | 10.0 | 1012314.0 | 1.295991 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.623091 | 10.0 | 1102182.0 | 1.246183 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.358888 | 10.0 | 987778.0 | 1.358888 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.624403 | 10.0 | 984300.0 | 1.312202 | Y |
| 5 | IC 410-163707/14 | 5.0 | 7.927609 | 10.0 | 963071.0 | 1.585522 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 15.82351 | 10.0 | 963407.0 | 1.582351 | Y |
| 7 | IC 410-163707/12 | 25.0 | 35.984737 | 10.0 | 1087615.0 | 1.439389 | Y |



## Calibration / 1,2-Dichlorobenzene

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

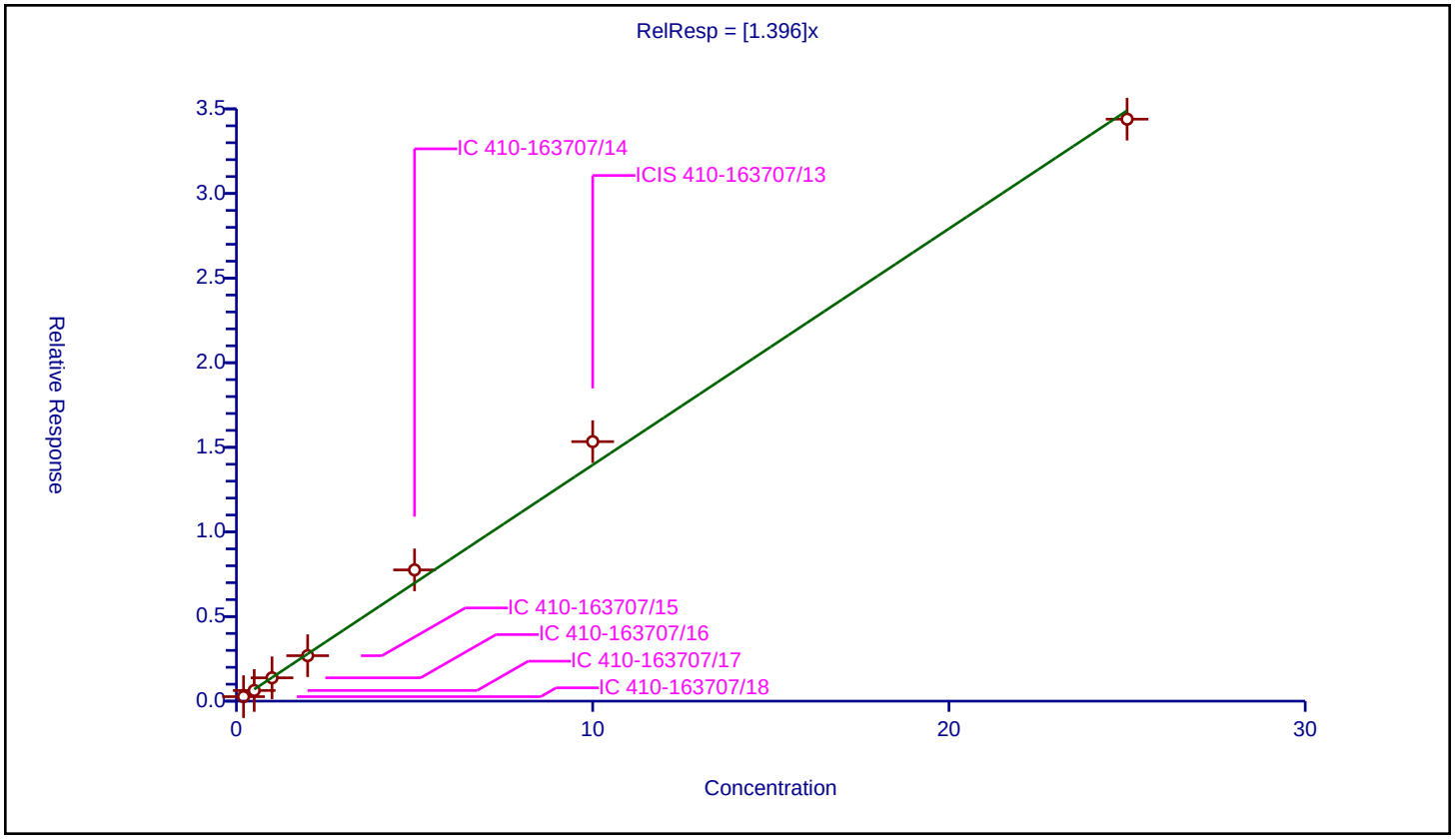
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.396 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1670000 |
| **Relative Standard Error:** | 7.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.265441 | 10.0 | 1012314.0 | 1.327207 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.630549 | 10.0 | 1102182.0 | 1.261098 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.379986 | 10.0 | 987778.0 | 1.379986 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.686021 | 10.0 | 984300.0 | 1.34301 | Y |
| 5 | IC 410-163707/14 | 5.0 | 7.756386 | 10.0 | 963071.0 | 1.551277 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 15.33627 | 10.0 | 963407.0 | 1.533627 | Y |
| 7 | IC 410-163707/12 | 25.0 | 34.393742 | 10.0 | 1087615.0 | 1.37575 | Y |



## Calibration / 1,2-Dibromo-3-Chloropropane

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

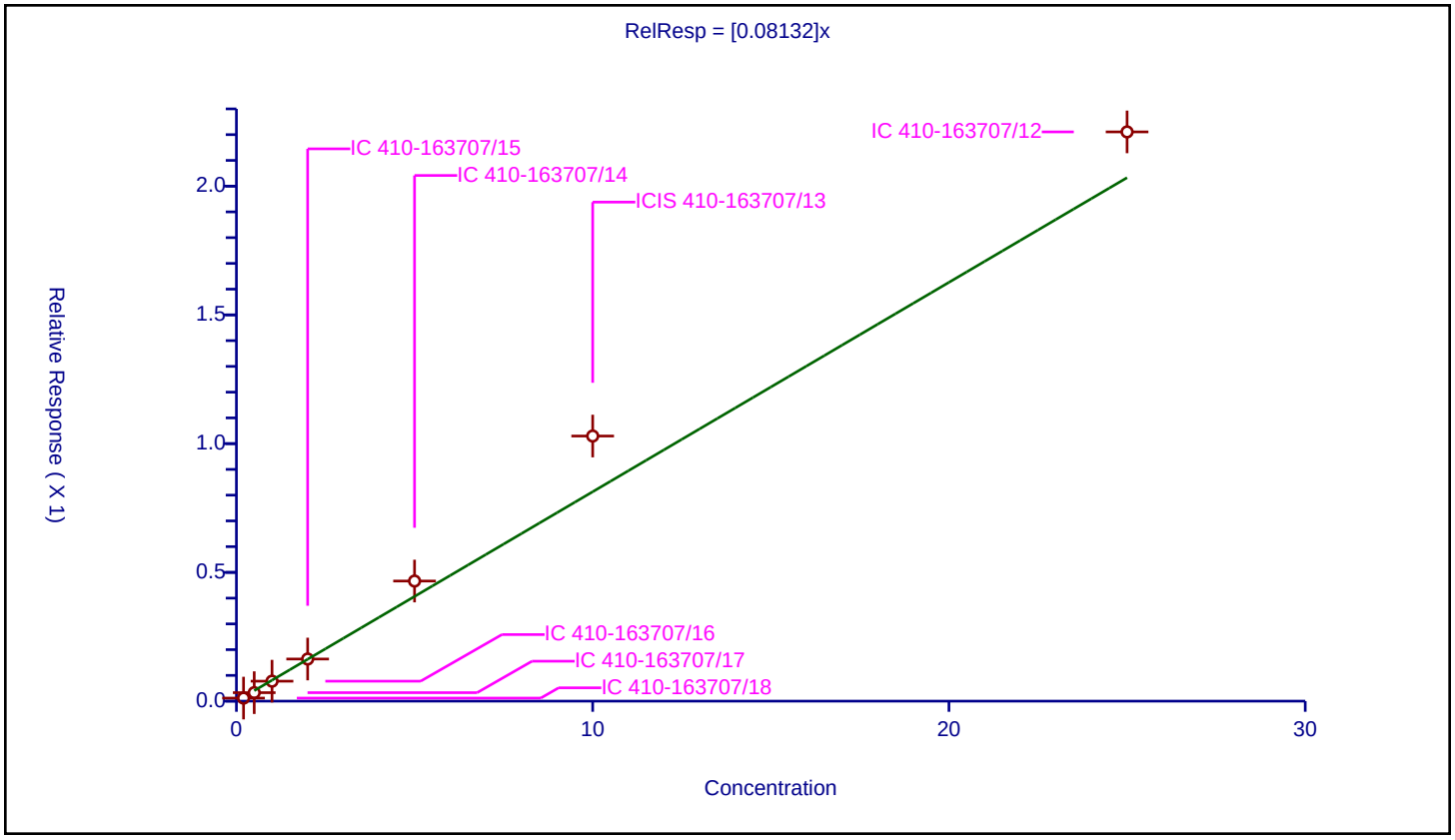
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.08132 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 108000 |
| **Relative Standard Error:** | 18.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.962 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.011854 | 10.0 | 1012314.0 | 0.05927 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.032971 | 10.0 | 1102182.0 | 0.065942 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.077538 | 10.0 | 987778.0 | 0.077538 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.163609 | 10.0 | 984300.0 | 0.081804 | Y |
| 5 | IC 410-163707/14 | 5.0 | 0.466435 | 10.0 | 963071.0 | 0.093287 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 1.029565 | 10.0 | 963407.0 | 0.102956 | Y |
| 7 | IC 410-163707/12 | 25.0 | 2.210626 | 10.0 | 1087615.0 | 0.088425 | Y |



## Calibration / 1,3,5-Trichlorobenzene

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

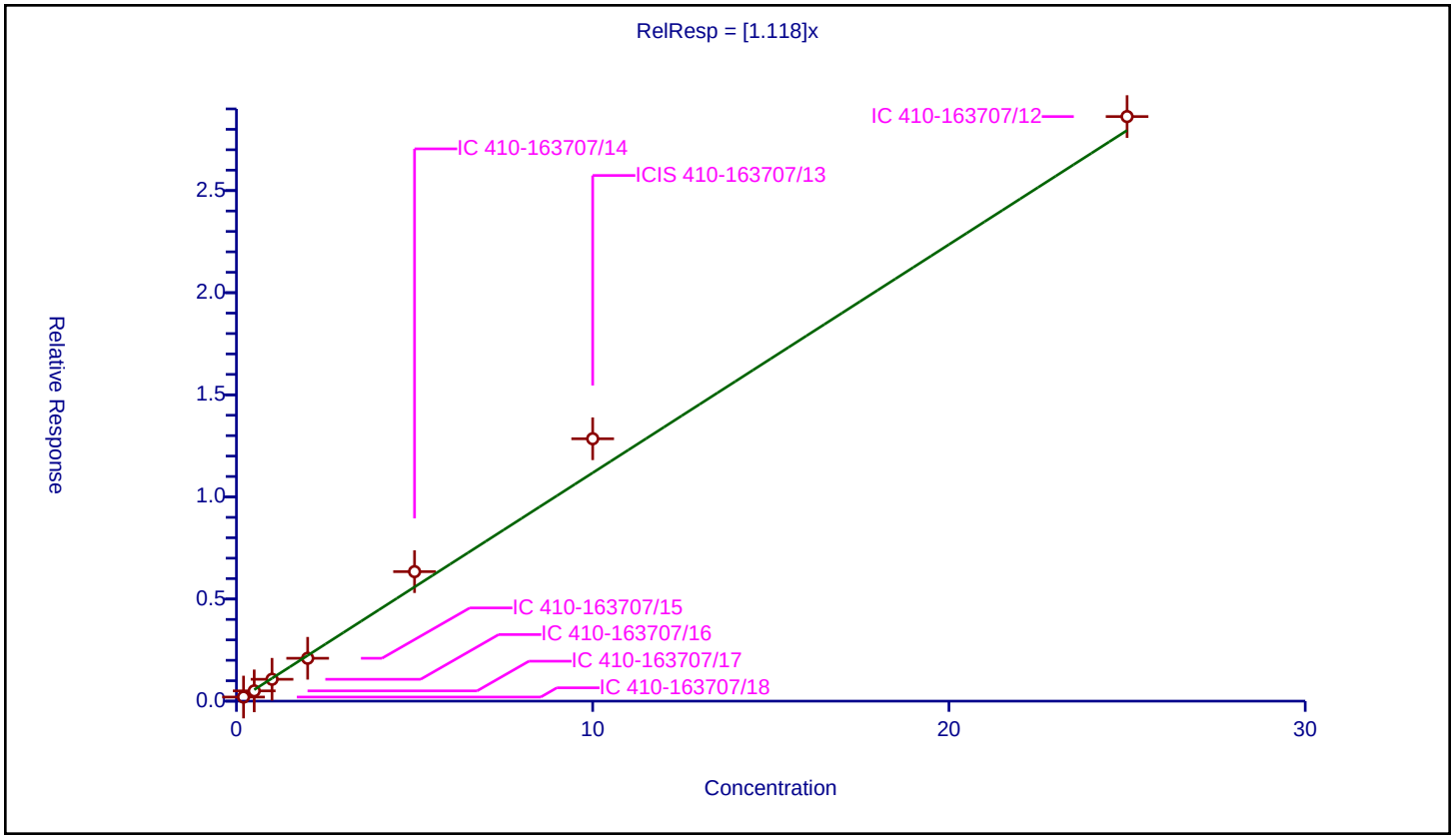
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.118 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1390000 |
| **Relative Standard Error:** | 10.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.200224 | 10.0 | 1012314.0 | 1.001122 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.503329 | 10.0 | 1102182.0 | 1.006658 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.07024 | 10.0 | 987778.0 | 1.07024 | Y |
| 4 | IC 410-163707/15 | 2.0 | 2.099157 | 10.0 | 984300.0 | 1.049578 | Y |
| 5 | IC 410-163707/14 | 5.0 | 6.341017 | 10.0 | 963071.0 | 1.268203 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 12.847426 | 10.0 | 963407.0 | 1.284743 | Y |
| 7 | IC 410-163707/12 | 25.0 | 28.624807 | 10.0 | 1087615.0 | 1.144992 | Y |



## Calibration / 1,2,4-Trichlorobenzene

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

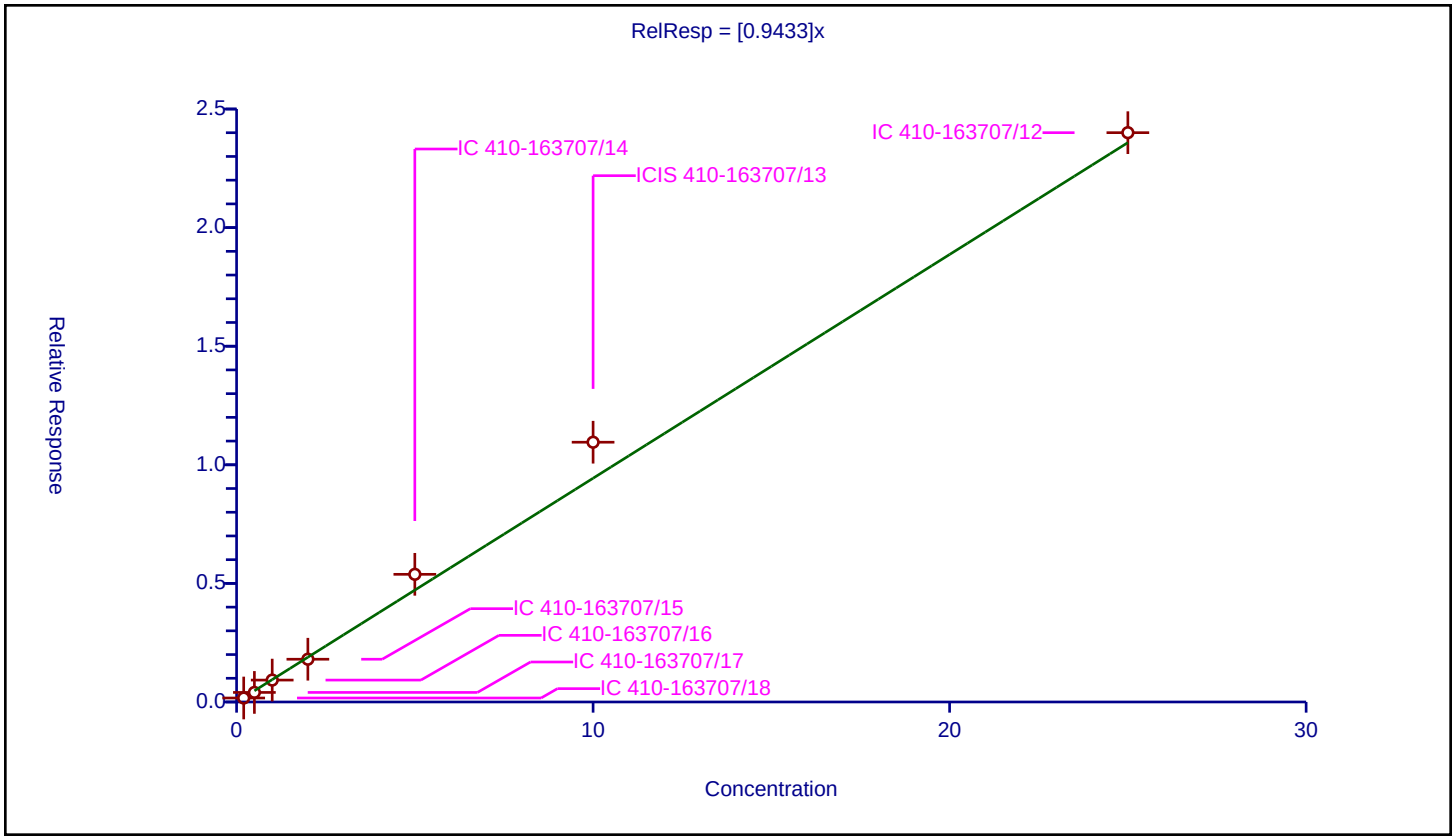
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9433 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1170000 |
| **Relative Standard Error:** | 11.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.984 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.167972 | 10.0 | 1012314.0 | 0.839858 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.403146 | 10.0 | 1102182.0 | 0.806292 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.924094 | 10.0 | 987778.0 | 0.924094 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.802753 | 10.0 | 984300.0 | 0.901377 | Y |
| 5 | IC 410-163707/14 | 5.0 | 5.38195 | 10.0 | 963071.0 | 1.07639 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 10.951602 | 10.0 | 963407.0 | 1.09516 | Y |
| 7 | IC 410-163707/12 | 25.0 | 24.002712 | 10.0 | 1087615.0 | 0.960108 | Y |



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

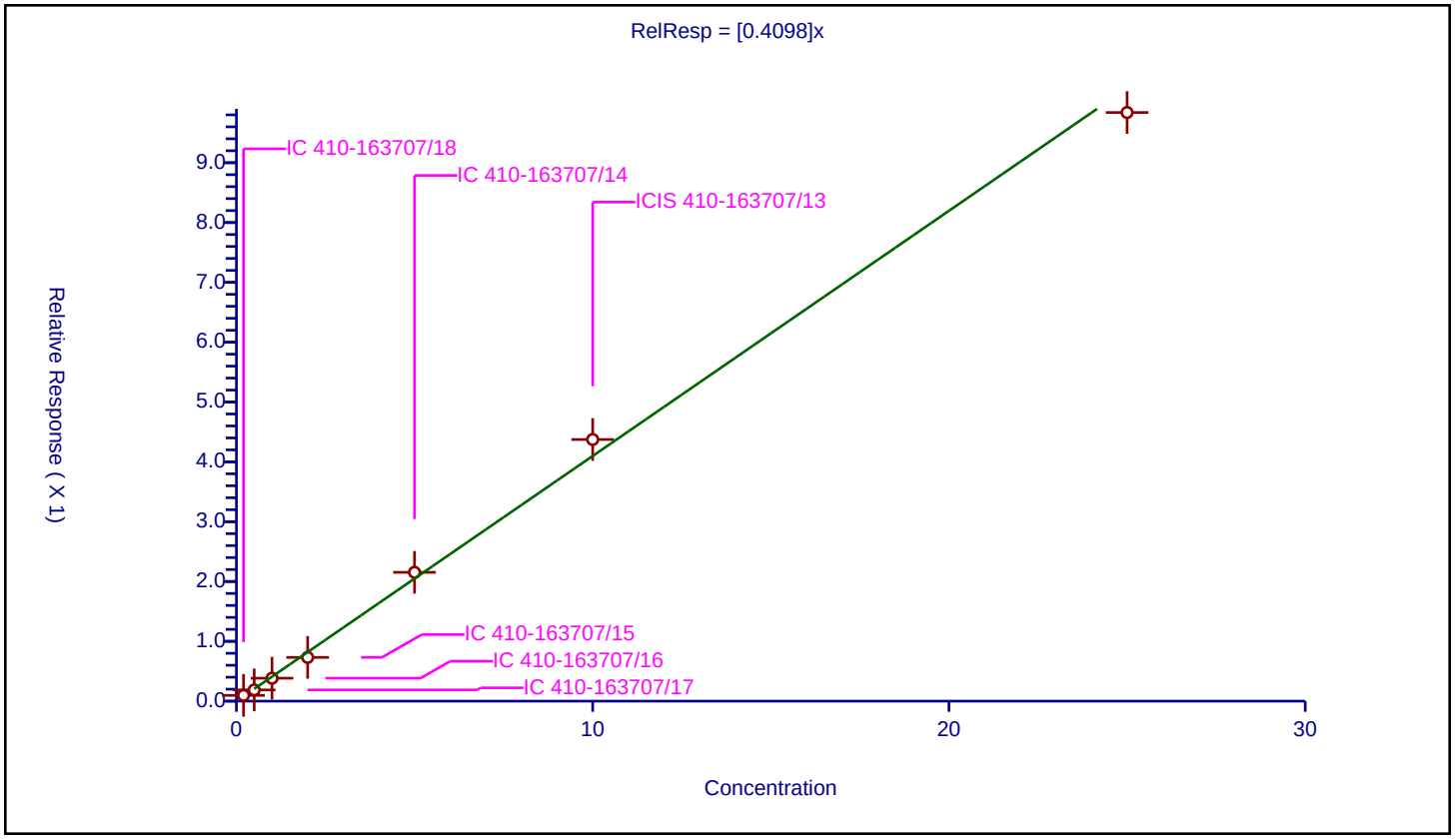
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4098 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 478000 |
| **Relative Standard Error:** | 10.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.096452 | 10.0 | 1012314.0 | 0.482261 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.187809 | 10.0 | 1102182.0 | 0.375619 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.383538 | 10.0 | 987778.0 | 0.383538 | Y |
| 4 | IC 410-163707/15 | 2.0 | 0.73121 | 10.0 | 984300.0 | 0.365605 | Y |
| 5 | IC 410-163707/14 | 5.0 | 2.153476 | 10.0 | 963071.0 | 0.430695 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 4.373489 | 10.0 | 963407.0 | 0.437349 | Y |
| 7 | IC 410-163707/12 | 25.0 | 9.839318 | 10.0 | 1087615.0 | 0.393573 | Y |



## Calibration / Naphthalene

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

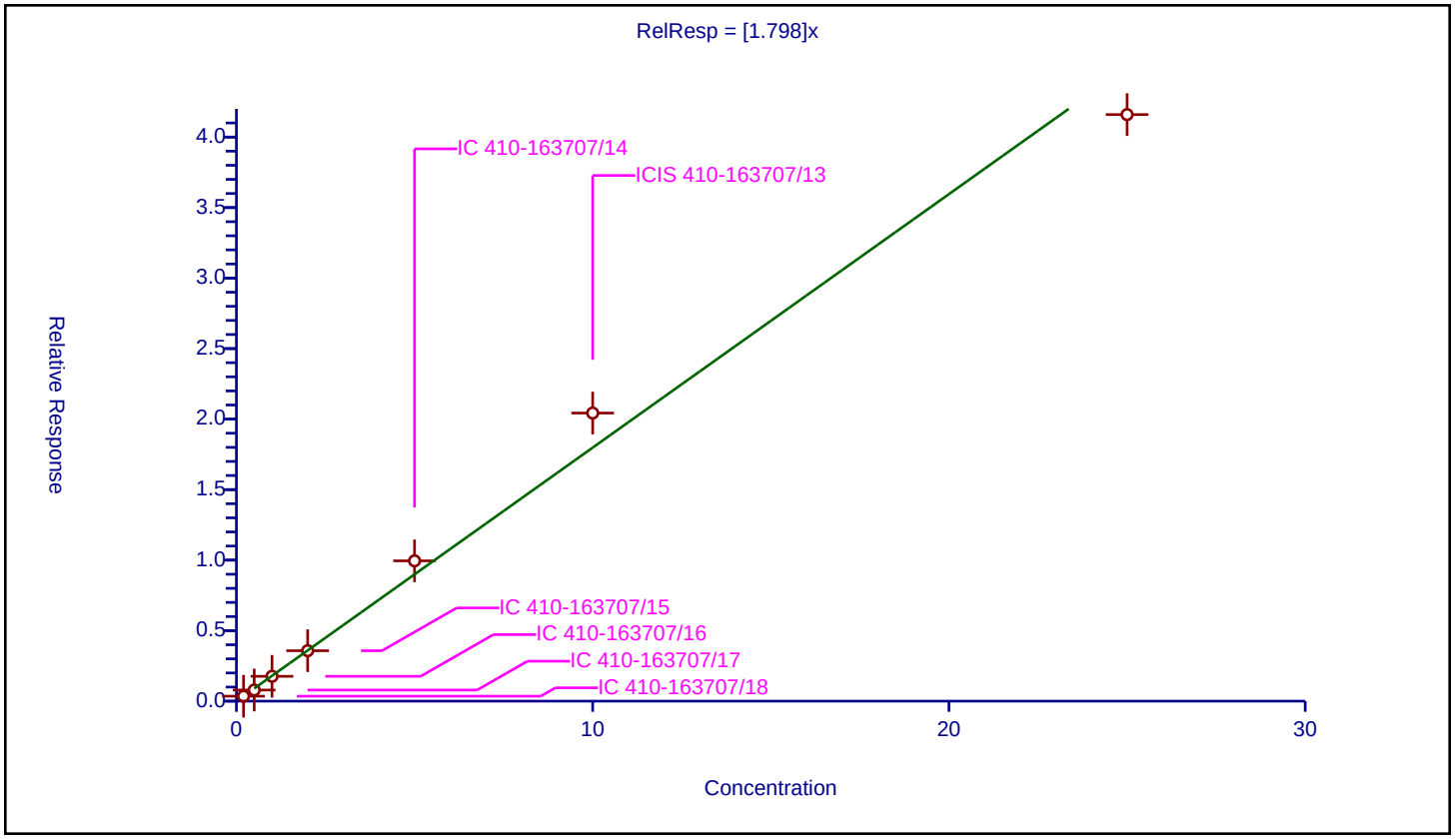
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.798 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2060000 |
| **Relative Standard Error:** | 9.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.352371 | 10.0 | 1012314.0 | 1.761855 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.78879 | 10.0 | 1102182.0 | 1.57758 | Y |
| 3 | IC 410-163707/16 | 1.0 | 1.760709 | 10.0 | 987778.0 | 1.760709 | Y |
| 4 | IC 410-163707/15 | 2.0 | 3.575648 | 10.0 | 984300.0 | 1.787824 | Y |
| 5 | IC 410-163707/14 | 5.0 | 9.949962 | 10.0 | 963071.0 | 1.989992 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 20.429299 | 10.0 | 963407.0 | 2.04293 | Y |
| 7 | IC 410-163707/12 | 25.0 | 41.596539 | 10.0 | 1087615.0 | 1.663862 | Y |



## Calibration / 1,2,3-Trichlorobenzene

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

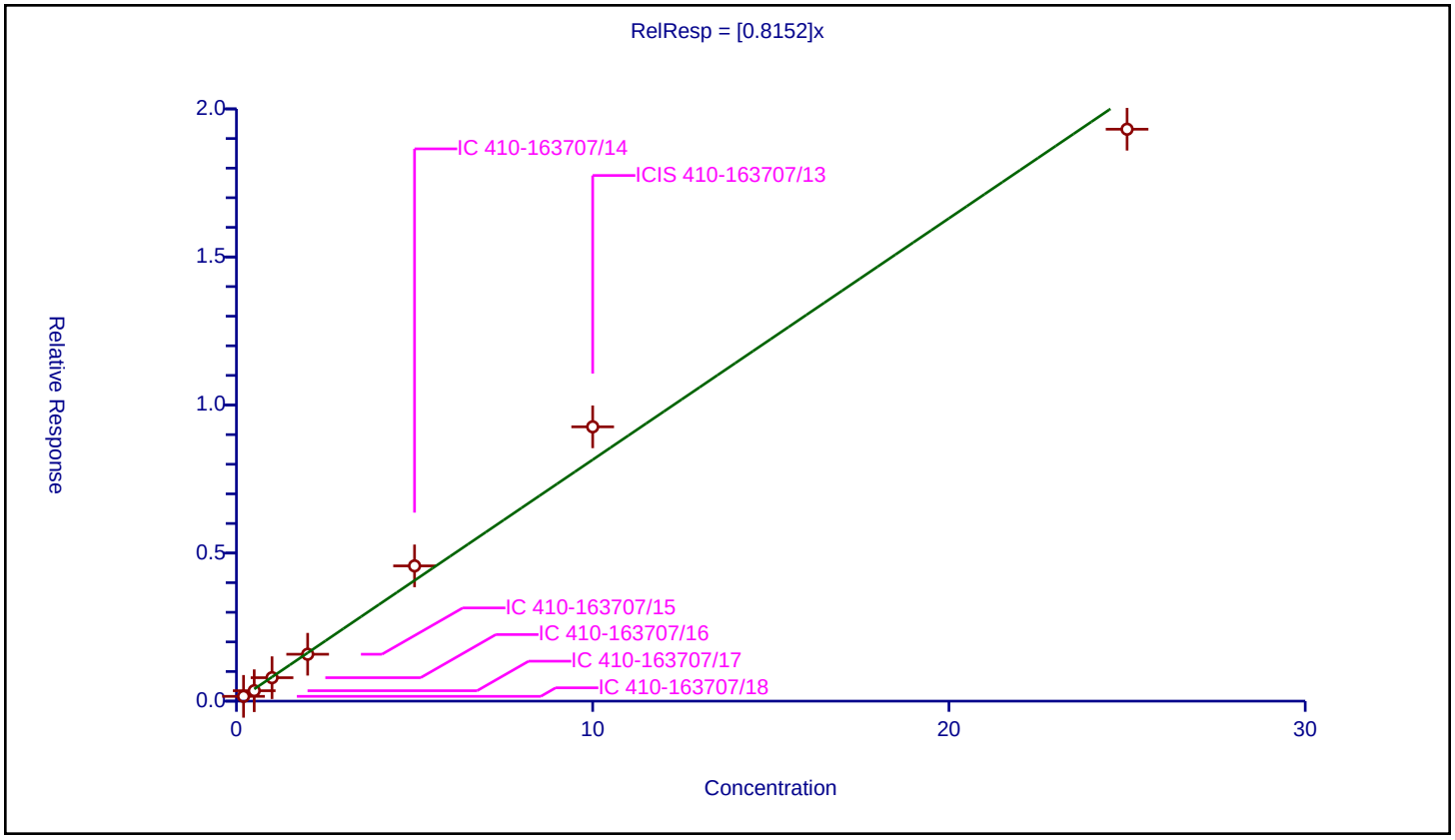
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8152 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 952000 |
| **Relative Standard Error:** | 9.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 410-163707/18 | 0.2 | 0.160997 | 10.0 | 1012314.0 | 0.804987 | Y |
| 2 | IC 410-163707/17 | 0.5 | 0.352519 | 10.0 | 1102182.0 | 0.705038 | Y |
| 3 | IC 410-163707/16 | 1.0 | 0.792131 | 10.0 | 987778.0 | 0.792131 | Y |
| 4 | IC 410-163707/15 | 2.0 | 1.583785 | 10.0 | 984300.0 | 0.791893 | Y |
| 5 | IC 410-163707/14 | 5.0 | 4.567877 | 10.0 | 963071.0 | 0.913575 | Y |
| 6 | ICIS 410-163707/13 | 10.0 | 9.26379 | 10.0 | 963407.0 | 0.926379 | Y |
| 7 | IC 410-163707/12 | 25.0 | 19.313342 | 10.0 | 1087615.0 | 0.772534 | Y |



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-53151-1

SDG No.:

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3128 | 0.4012 | 0.1000 | 6.41 | 5.00 | 28.3 | 30.0 |
| Chloromethane | Ave | 0.3563 | 0.4028 | 0.1000 | 5.65 | 5.00 | 13.1 | 30.0 |
| 1,3-Butadiene | Ave | 0.3273 | 0.3543 | | 5.41 | 5.00 | 8.2 | 30.0 |
| Vinyl chloride | Ave | 0.3592 | 0.4047 | 0.1000 | 5.63 | 5.00 | 12.7 | 30.0 |
| Bromomethane | Ave | 0.2603 | 0.2760 | 0.1000 | 5.30 | 5.00 | 6.0 | 30.0 |
| Chloroethane | Ave | 0.2153 | 0.2327 | 0.1000 | 5.40 | 5.00 | 8.0 | 30.0 |
| Dichlorofluoromethane | Ave | 0.5179 | 0.5713 | | 5.52 | 5.00 | 10.3 | 30.0 |
| Trichlorofluoromethane | Ave | 0.4629 | 0.5399 | 0.1000 | 5.83 | 5.00 | 16.6 | 30.0 |
| Ethyl ether | Ave | 0.1881 | 0.2057 | | 5.49 | 5.02 | 9.4 | 30.0 |
| Freon 123a | Ave | 0.3316 | 0.3652 | | 5.51 | 5.00 | 10.1 | 30.0 |
| Acrolein | Ave | 2.185 | 1.997 | | 34.3 | 37.5 | -8.6 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2387 | 0.2623 | 0.1000 | 5.49 | 5.00 | 9.9 | 30.0 |
| Acetone | Ave | 2.778 | 2.636 | 0.1000 | 59.3 | 62.5 | -5.1 | 30.0 |
| Freon 113 | Ave | 0.2492 | 0.2962 | 0.1000 | 5.94 | 5.00 | 18.9 | 30.0 |
| Methyl iodide | Ave | 0.4771 | 0.4962 | | 5.20 | 5.00 | 4.0 | 30.0 |
| Ethyl bromide | Ave | 0.2175 | 0.2179 | | 5.08 | 5.07 | 0.2 | 30.0 |
| Carbon disulfide | Ave | 0.6588 | 0.6766 | 0.1000 | 5.13 | 5.00 | 2.7 | 30.0 |
| Methyl acetate | Ave | 8.176 | 7.833 | 0.1000 | 4.79 | 5.00 | -4.2 | 30.0 |
| Allyl chloride | Ave | 0.3915 | 0.4032 | | 5.15 | 5.00 | 3.0 | 30.0 |
| Methylene Chloride | Ave | 0.2605 | 0.2761 | 0.1000 | 5.30 | 5.00 | 6.0 | 30.0 |
| t-Butyl alcohol | Ave | 1.053 | 1.191 | | 56.5 | 50.0 | 13.1 | 30.0 |
| Acrylonitrile | Ave | 3.702 | 3.627 | | 24.5 | 25.0 | -2.0 | 30.0 |
| Methyl tert-butyl ether | Ave | 0.6808 | 0.7048 | 0.1000 | 5.18 | 5.00 | 3.5 | 30.0 |
| trans-1,2-Dichloroethene | Ave | 0.2711 | 0.2791 | 0.1000 | 5.15 | 5.00 | 3.0 | 30.0 |
| n-Hexane | Ave | 0.3785 | 0.4044 | | 5.34 | 5.00 | 6.8 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4919 | 0.5032 | 0.2000 | 5.11 | 5.00 | 2.3 | 30.0 |
| di-Isopropyl ether | Ave | 0.8217 | 0.8382 | | 5.10 | 5.00 | 2.0 | 30.0 |
| 2-Chloro-1,3-butadiene | Ave | 0.4101 | 0.4431 | | 5.40 | 5.00 | 8.0 | 30.0 |
| Ethyl t-butyl ether | Ave | 0.8035 | 0.8446 | | 5.26 | 5.00 | 5.1 | 30.0 |
| 2-Butanone (MEK) | Ave | 4.850 | 4.673 | 0.1000 | 60.2 | 62.5 | -3.6 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.3020 | 0.3231 | 0.1000 | 5.35 | 5.00 | 7.0 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.4277 | 0.4657 | | 5.44 | 5.00 | 8.9 | 30.0 |
| Propionitrile | Ave | 1.288 | 1.276 | | 37.1 | 37.5 | -1.0 | 30.0 |
| Methacrylonitrile | Ave | 4.873 | 4.712 | | 36.3 | 37.5 | -3.3 | 30.0 |
| Bromochloromethane | Ave | 0.1303 | 0.1399 | | 5.37 | 5.00 | 7.4 | 30.0 |
| Tetrahydrofuran | Ave | 1.439 | 1.378 | | 24.0 | 25.0 | -4.2 | 30.0 |
| Chloroform | Ave | 0.4873 | 0.5033 | 0.2000 | 5.16 | 5.00 | 3.3 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.4528 | 0.4766 | 0.1000 | 5.26 | 5.00 | 5.3 | 30.0 |
| Cyclohexane | Ave | 0.4489 | 0.4960 | 0.1000 | 5.52 | 5.00 | 10.5 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.3820 | 0.4120 | | 5.39 | 5.00 | 7.9 | 30.0 |
| Carbon tetrachloride | Ave | 0.3908 | 0.4267 | 0.1000 | 5.46 | 5.00 | 9.2 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-53151-1

SDG No.:

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Isobutyl alcohol | Ave | 0.3359 | 0.3165 | | 118 | 125 | -5.8 | 30.0 |
| Benzene | Ave | 1.124 | 1.170 | 0.5000 | 5.20 | 5.00 | 4.1 | 30.0 |
| 1,2-Dichloroethane | Ave | 0.3046 | 0.3151 | 0.1000 | 5.17 | 5.00 | 3.4 | 30.0 |
| t-Amyl methyl ether | Ave | 0.7459 | 0.7680 | | 5.15 | 5.00 | 3.0 | 30.0 |
| n-Heptane | Ave | 0.3892 | 0.3904 | | 5.02 | 5.00 | 0.3 | 30.0 |
| n-Butanol | Ave | 0.3118 | 0.2802 | | 225 | 250 | -10.1 | 30.0 |
| Trichloroethene | Ave | 0.3022 | 0.3091 | 0.2000 | 5.11 | 5.00 | 2.3 | 30.0 |
| Methylcyclohexane | Ave | 0.5026 | 0.5536 | 0.1000 | 5.51 | 5.00 | 10.2 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2761 | 0.2930 | 0.1000 | 5.30 | 5.00 | 6.1 | 30.0 |
| Methyl methacrylate | Ave | 9.578 | 8.737 | | 4.56 | 5.00 | -8.8 | 30.0 |
| 1,4-Dioxane | Qua | | 0.0634 | 0.0050 | 90.1 | 125 | -27.9 | 30.0 |
| Dibromomethane | Ave | 0.1350 | 0.1409 | | 5.22 | 5.00 | 4.4 | 30.0 |
| Bromodichloromethane | Ave | 0.3347 | 0.3576 | 0.2000 | 5.34 | 5.00 | 6.8 | 30.0 |
| 2-Nitropropane | Ave | 2.740 | 2.491 | | 4.55 | 5.00 | -9.1 | 30.0 |
| 1-Bromo-2-chloroethane | Ave | 0.2710 | 0.2981 | | 5.50 | 5.00 | 10.0 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.4206 | 0.4319 | 0.2000 | 5.14 | 5.00 | 2.7 | 30.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 12.21 | 11.92 | 0.1000 | 61.0 | 62.5 | -2.4 | 30.0 |
| Toluene | Ave | 0.9586 | 0.9823 | 0.4000 | 5.12 | 5.00 | 2.5 | 30.0 |
| trans-1,3-Dichloropropene | Ave | 0.4420 | 0.4752 | 0.1000 | 5.38 | 5.00 | 7.5 | 30.0 |
| Ethyl methacrylate | Ave | 0.3689 | 0.3973 | | 5.38 | 5.00 | 7.7 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2557 | 0.2675 | 0.1000 | 5.23 | 5.00 | 4.6 | 30.0 |
| Tetrachloroethene | Ave | 0.4567 | 0.4774 | 0.2000 | 5.23 | 5.00 | 4.5 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.4348 | 0.4514 | | 5.19 | 5.00 | 3.8 | 30.0 |
| 2-Hexanone | Ave | 8.554 | 8.599 | 0.1000 | 62.8 | 62.5 | 0.5 | 30.0 |
| Dibromochloromethane | Ave | 0.3116 | 0.3290 | | 5.28 | 5.00 | 5.6 | 30.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2467 | 0.2581 | 0.1000 | 5.23 | 5.00 | 4.6 | 30.0 |
| 1-Chlorohexane | Ave | 0.5606 | 0.5563 | | 4.96 | 5.00 | -0.8 | 30.0 |
| Chlorobenzene | Ave | 1.062 | 1.085 | 0.5000 | 5.11 | 5.00 | 2.2 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3708 | 0.3938 | | 5.31 | 5.00 | 6.2 | 30.0 |
| Ethylbenzene | Ave | 1.846 | 1.912 | 0.1000 | 5.18 | 5.00 | 3.6 | 30.0 |
| m&p-Xylene | Ave | 0.7292 | 0.7597 | 0.1000 | 10.4 | 10.0 | 4.2 | 30.0 |
| o-Xylene | Ave | 0.7197 | 0.7348 | 0.3000 | 5.11 | 5.00 | 2.1 | 30.0 |
| Styrene | Ave | 1.162 | 1.221 | 0.3000 | 5.26 | 5.00 | 5.1 | 30.0 |
| Bromoform | Ave | 0.1867 | 0.1983 | 0.1000 | 5.31 | 5.00 | 6.2 | 30.0 |
| Isopropylbenzene | Ave | 1.900 | 2.013 | 0.1000 | 5.30 | 5.00 | 6.0 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5528 | 0.5817 | 0.3000 | 5.26 | 5.00 | 5.2 | 30.0 |
| Bromobenzene | Ave | 0.7576 | 0.8189 | | 5.40 | 5.00 | 8.1 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 4.418 | 4.184 | | 23.7 | 25.0 | -5.3 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1520 | 0.1646 | | 5.42 | 5.00 | 8.3 | 30.0 |
| N-Propylbenzene | Ave | 3.678 | 3.868 | | 5.26 | 5.00 | 5.2 | 30.0 |
| 2-Chlorotoluene | Ave | 0.7546 | 0.7854 | | 5.20 | 5.00 | 4.1 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-53151-1

SDG No.:

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | Ave | 2.686 | 2.787 | | 5.19 | 5.00 | 3.8 | 30.0 |
| 4-Chlorotoluene | Ave | 0.7706 | 0.7862 | | 5.10 | 5.00 | 2.0 | 30.0 |
| tert-Butylbenzene | Ave | 0.5890 | 0.6160 | | 5.23 | 5.00 | 4.6 | 30.0 |
| Pentachloroethane | Ave | 0.4757 | 0.5156 | | 5.42 | 5.00 | 8.4 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.753 | 2.852 | | 5.18 | 5.00 | 3.6 | 30.0 |
| sec-Butylbenzene | Ave | 3.394 | 3.596 | | 5.30 | 5.00 | 5.9 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.528 | 1.566 | 0.6000 | 5.12 | 5.00 | 2.5 | 30.0 |
| p-Isopropyltoluene | Ave | 3.002 | 3.128 | | 5.21 | 5.00 | 4.2 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.562 | 1.579 | 0.5000 | 5.06 | 5.00 | 1.1 | 30.0 |
| 1,2,3-Trimethylbenzene | Ave | 1.218 | 1.249 | | 5.13 | 5.00 | 2.5 | 30.0 |
| Benzyl chloride | Ave | 0.2262 | 0.2392 | | 5.29 | 5.00 | 5.7 | 30.0 |
| n-Butylbenzene | Ave | 1.403 | 1.417 | | 5.05 | 5.00 | 1.0 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.396 | 1.438 | 0.4000 | 5.15 | 5.00 | 3.0 | 30.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.0813 | 0.0870 | 0.0500 | 5.35 | 5.00 | 7.0 | 30.0 |
| 1,3,5-Trichlorobenzene | Ave | 1.118 | 1.122 | | 5.02 | 5.00 | 0.3 | 30.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.9433 | 0.9382 | 0.2000 | 4.97 | 5.00 | -0.5 | 30.0 |
| Hexachlorobutadiene | Ave | 0.4098 | 0.3745 | | 4.57 | 5.00 | -8.6 | 30.0 |
| Naphthalene | Ave | 1.798 | 1.746 | | 4.85 | 5.00 | -2.9 | 30.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.8152 | 0.7774 | | 4.77 | 5.00 | -4.6 | 30.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2519 | 0.2541 | | 10.1 | 10.0 | 0.9 | 30.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.0504 | 0.0504 | | 10.0 | 10.0 | 0.0 | 30.0 |
| Toluene-d8 (Surr) | Ave | 1.292 | 1.296 | | 10.0 | 10.0 | 0.3 | 30.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.4939 | 0.4907 | | 9.94 | 10.0 | -0.6 | 30.0 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D
Lims ID: ICV LG
Client ID:
Sample Type: ICV
Inject. Date: 24-Aug-2021 03:13:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-019
Misc. Info.: ICV LG
Operator ID: mec29284 Instrument ID: 19930
Sublist:

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:57:03 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 16:07:55

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.977 | 1.965 | 0.012 | 99 | 437699 | 5.00 | 6.41 | |
| 4 Chloromethane | 50 | 2.178 | 2.172 | 0.006 | 99 | 439513 | 5.00 | 5.65 | |
| 6 Butadiene | 39 | 2.294 | 2.288 | 0.006 | 90 | 386504 | 5.00 | 5.41 | |
| 5 Vinyl chloride | 62 | 2.300 | 2.294 | 0.006 | 73 | 441552 | 5.00 | 5.63 | |
| 7 Bromomethane | 94 | 2.623 | 2.623 | 0.000 | 90 | 301136 | 5.00 | 5.30 | |
| 8 Chloroethane | 64 | 2.708 | 2.709 | -0.001 | 100 | 253839 | 5.00 | 5.40 | |
| 9 Dichlorofluoromethane | 67 | 2.946 | 2.946 | 0.000 | 97 | 623302 | 5.00 | 5.52 | |
| 10 Trichlorofluoromethane | 101 | 3.013 | 3.020 | -0.007 | 97 | 589092 | 5.00 | 5.83 | |
| 11 Ethyl ether | 59 | 3.263 | 3.257 | 0.006 | 90 | 225441 | 5.02 | 5.49 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.349 | 3.343 | 0.006 | 91 | 398432 | 5.00 | 5.51 | |
| 13 Acrolein | 56 | 3.440 | 3.428 | 0.012 | 98 | 255737 | 37.5 | 34.3 | |
| 14 1,1-Dichloroethene | 96 | 3.574 | 3.568 | 0.006 | 98 | 286176 | 5.00 | 5.49 | |
| 15 Acetone | 43 | 3.611 | 3.599 | 0.012 | 100 | 562768 | 62.5 | 59.3 | |
| 16 112TCTFE | 101 | 3.617 | 3.611 | 0.006 | 91 | 323206 | 5.00 | 5.94 | |
| 17 Iodomethane | 142 | 3.775 | 3.769 | 0.006 | 100 | 541414 | 5.00 | 5.20 | |
| 18 Ethyl bromide | 108 | 3.806 | 3.794 | 0.012 | 99 | 240936 | 5.07 | 5.08 | |
| 19 Carbon disulfide | 76 | 3.885 | 3.879 | 0.006 | 99 | 738164 | 5.00 | 5.13 | |
| 21 Methyl acetate | 43 | 4.037 | 4.038 | -0.001 | 97 | 133771 | 5.00 | 4.79 | |
| 22 3-Chloro-1-propene | 41 | 4.056 | 4.056 | 0.000 | 91 | 439940 | 5.00 | 5.15 | |
| 23 Methylene Chloride | 84 | 4.245 | 4.239 | 0.006 | 90 | 301185 | 5.00 | 5.30 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.257 | 0.000 | 95 | 170769 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.397 | 4.397 | 0.000 | 99 | 203324 | 50.0 | 56.5 | |
| 26 Acrylonitrile | 53 | 4.586 | 4.592 | -0.006 | 99 | 309652 | 25.0 | 24.5 | |
| 27 Methyl tert-butyl ether | 73 | 4.659 | 4.659 | 0.000 | 94 | 768950 | 5.00 | 5.18 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.671 | 4.672 | -0.001 | 99 | 304528 | 5.00 | 5.15 | |
| 29 Hexane | 57 | 5.092 | 5.086 | 0.006 | 91 | 441246 | 5.00 | 5.34 | |
| 31 1,1-Dichloroethane | 63 | 5.330 | 5.330 | 0.000 | 96 | 549029 | 5.00 | 5.11 | |
| 32 Isopropyl ether | 45 | 5.385 | 5.385 | 0.000 | 94 | 914534 | 5.00 | 5.10 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.440 | 5.434 | 0.006 | 91 | 483480 | 5.00 | 5.40 | |
| 34 Tert-butyl ethyl ether | 59 | 5.921 | 5.915 | 0.006 | 97 | 921451 | 5.00 | 5.26 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.116 | 6.116 | 0.000 | 99 | 997599 | 62.5 | 60.2 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.159 | 0.000 | 82 | 352537 | 5.00 | 5.35 | |
| 38 2,2-Dichloropropane | 77 | 6.171 | 6.171 | 0.000 | 90 | 508145 | 5.00 | 5.44 | |
| 40 Propionitrile | 54 | 6.208 | 6.208 | 0.000 | 98 | 163382 | 37.5 | 37.1 | |
| 42 Methacrylonitrile | 67 | 6.421 | 6.415 | 0.006 | 91 | 603546 | 37.5 | 36.3 | |
| 43 Chlorobromomethane | 128 | 6.494 | 6.482 | 0.012 | 91 | 152671 | 5.00 | 5.37 | |
| 44 Tetrahydrofuran | 71 | 6.494 | 6.494 | 0.000 | 80 | 117689 | 25.0 | 24.0 | |
| 45 Chloroform | 83 | 6.641 | 6.635 | 0.006 | 93 | 549073 | 5.00 | 5.16 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.848 | 6.848 | 0.000 | 94 | 554531 | 10.0 | 10.1 | |
| 47 1,1,1-Trichloroethane | 97 | 6.866 | 6.860 | 0.006 | 98 | 519977 | 5.00 | 5.26 | |
| 48 Cyclohexane | 56 | 6.964 | 6.964 | 0.000 | 89 | 541150 | 5.00 | 5.52 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.067 | 0.013 | 90 | 465504 | 5.00 | 5.46 | |
| 51 1,1-Dichloropropene | 75 | 7.073 | 7.074 | -0.001 | 96 | 449547 | 5.00 | 5.39 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 94 | 135141 | 125.0 | 117.8 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 93 | 110057 | 10.0 | 10.0 | |
| 54 Benzene | 78 | 7.336 | 7.336 | 0.000 | 96 | 1276844 | 5.00 | 5.20 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.409 | 0.000 | 97 | 343788 | 5.00 | 5.17 | |
| 57 Tert-amyl methyl ether | 73 | 7.518 | 7.519 | -0.001 | 99 | 837925 | 5.00 | 5.15 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2182088 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.744 | 7.744 | 0.000 | 92 | 425979 | 5.00 | 5.02 | |
| 60 n-Butanol | 56 | 8.092 | 8.098 | -0.006 | 88 | 239239 | 250.0 | 224.6 | |
| 61 Trichloroethene | 95 | 8.213 | 8.214 | -0.001 | 97 | 337234 | 5.00 | 5.11 | |
| 62 Methylcyclohexane | 83 | 8.524 | 8.525 | -0.001 | 93 | 604005 | 5.00 | 5.51 | |
| 63 1,2-Dichloropropane | 63 | 8.543 | 8.543 | 0.000 | 82 | 319656 | 5.00 | 5.30 | |
| 64 Methyl methacrylate | 69 | 8.628 | 8.628 | 0.000 | 88 | 149196 | 5.00 | 4.56 | |
| 65 1,4-Dioxane | 88 | 8.634 | 8.640 | -0.006 | 31 | 27070 | 125.0 | 90.1 | M |
| 66 Dibromomethane | 93 | 8.652 | 8.653 | -0.001 | 93 | 153739 | 5.00 | 5.22 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.890 | 0.000 | 99 | 390138 | 5.00 | 5.34 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 98 | 42545 | 5.00 | 4.55 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.280 | 9.280 | 0.000 | 99 | 325188 | 5.00 | 5.50 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.433 | 0.000 | 96 | 471258 | 5.00 | 5.14 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.597 | 9.597 | 0.000 | 96 | 2543694 | 62.5 | 61.0 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2195010 | 10.0 | 10.0 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 98 | 831998 | 5.00 | 5.12 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 402527 | 5.00 | 5.38 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.128 | 0.000 | 88 | 336492 | 5.00 | 5.38 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 90 | 226603 | 5.00 | 5.23 | |
| 81 Tetrachloroethene | 166 | 10.359 | 10.360 | -0.001 | 98 | 404374 | 5.00 | 5.23 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.433 | 0.000 | 88 | 382334 | 5.00 | 5.19 | |
| 83 2-Hexanone | 43 | 10.481 | 10.481 | 0.000 | 96 | 1835506 | 62.5 | 62.8 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 90 | 278622 | 5.00 | 5.28 | |
| 86 Ethylene Dibromide | 107 | 10.756 | 10.756 | 0.000 | 98 | 218638 | 5.00 | 5.23 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.183 | -0.001 | 86 | 1693972 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.188 | 11.189 | -0.001 | 96 | 471211 | 5.00 | 4.96 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 95 | 919057 | 5.00 | 5.11 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 95 | 333557 | 5.00 | 5.31 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.298 | 0.000 | 98 | 1619334 | 5.00 | 5.18 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 100 | 1286861 | 10.0 | 10.4 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 622361 | 5.00 | 5.11 | |
| 95 Styrene | 104 | 11.755 | 11.756 | -0.001 | 95 | 1034424 | 5.00 | 5.26 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 97 | 167946 | 5.00 | 5.31 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 1705372 | 5.00 | 5.30 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 831259 | 10.0 | 9.94 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 94 | 289381 | 5.00 | 5.26 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 97 | 407348 | 5.00 | 5.40 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 89 | 357283 | 25.0 | 23.7 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | -0.001 | 83 | 81877 | 5.00 | 5.42 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 1924114 | 5.00 | 5.26 | |
| 106 2-Chlorotoluene | 126 | 12.444 | 12.444 | 0.000 | 97 | 390702 | 5.00 | 5.20 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 1386314 | 5.00 | 5.19 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 391109 | 5.00 | 5.10 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 93 | 306426 | 5.00 | 5.23 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 93 | 256460 | 5.00 | 5.42 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 1418708 | 5.00 | 5.18 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.902 | 0.006 | 94 | 1788570 | 5.00 | 5.30 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 778901 | 5.00 | 5.12 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 1555925 | 5.00 | 5.21 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 994893 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.078 | 13.079 | -0.001 | 95 | 785427 | 5.00 | 5.06 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.085 | 0.006 | 98 | 621165 | 5.00 | 5.13 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 118974 | 5.00 | 5.29 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 704682 | 5.00 | 5.05 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | -0.001 | 99 | 715454 | 5.00 | 5.15 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 88 | 43268 | 5.00 | 5.35 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 557931 | 5.00 | 5.02 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 466716 | 5.00 | 4.97 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 186275 | 5.00 | 4.57 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 868382 | 5.00 | 4.85 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 95 | 386694 | 5.00 | 4.77 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| MSV_Q_EE_00004 | Amount Added: 12.50 | Units: uL | |
| MSV_LCS_VOC#1_00015 | Amount Added: 12.50 | Units: uL | |
| MSV_LCS_ACROL_00017 | Amount Added: 12.50 | Units: uL | |
| MSV_LCS_Penta_00006 | Amount Added: 12.50 | Units: uL | |
| MSV_QC_Gas826_00026 | Amount Added: 12.50 | Units: uL | |
| MSV_Q_ETBR_00008 | Amount Added: 12.50 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: 5.00 | Units: uL | Run Reagent |

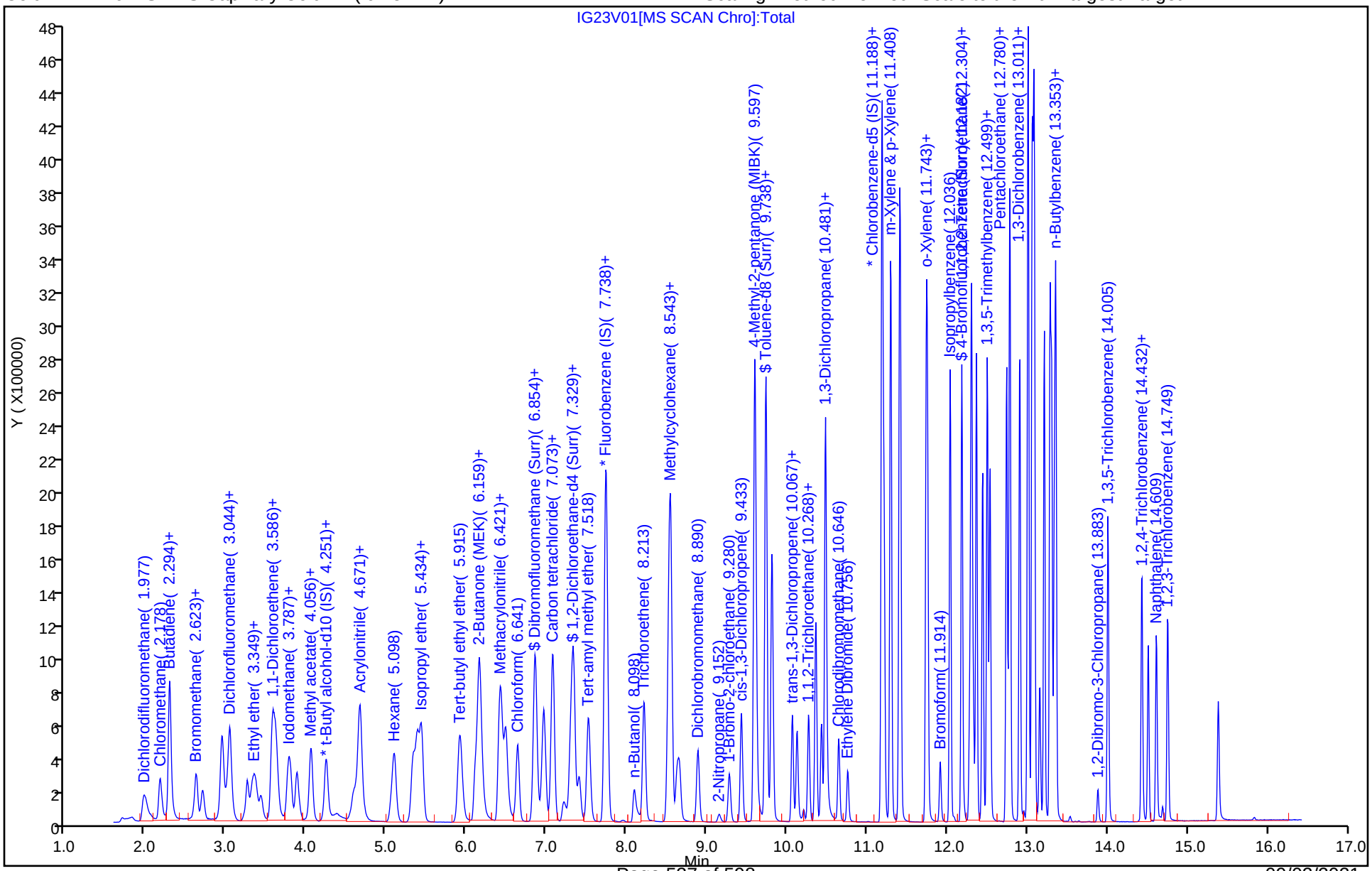
Report Date: 24-Aug-2021 16:07:56 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 24-Aug-2021 03:13:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | ICV LG | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

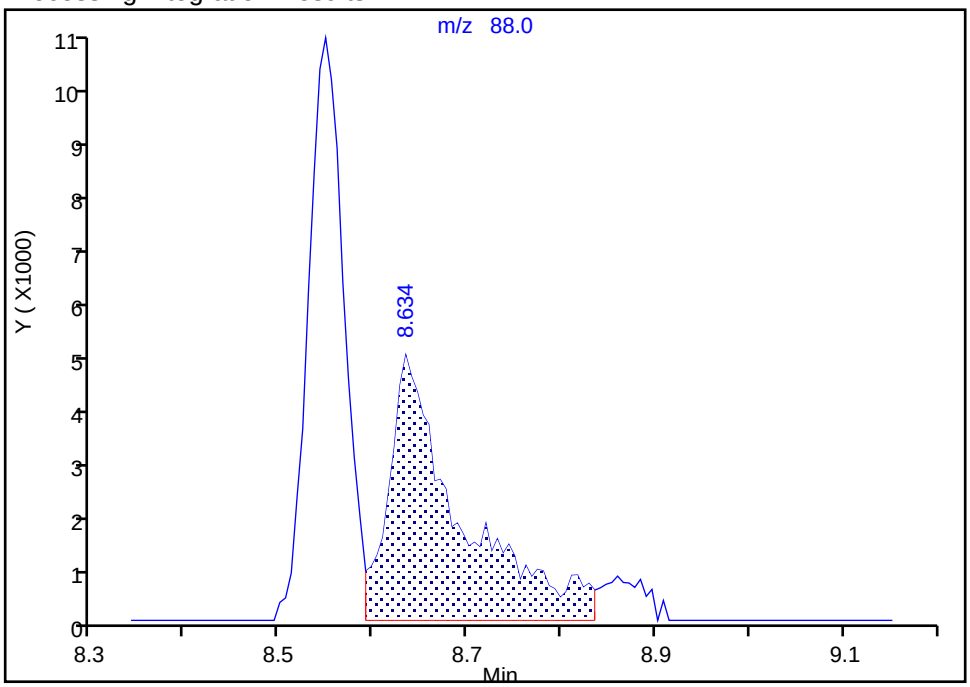
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D | | | | |
| Injection Date: | 24-Aug-2021 03:13:30 | Instrument ID: | 19930 | | |
| Lims ID: | ICV LG | | | | |
| Client ID: | | | | | |
| Operator ID: | mec29284 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

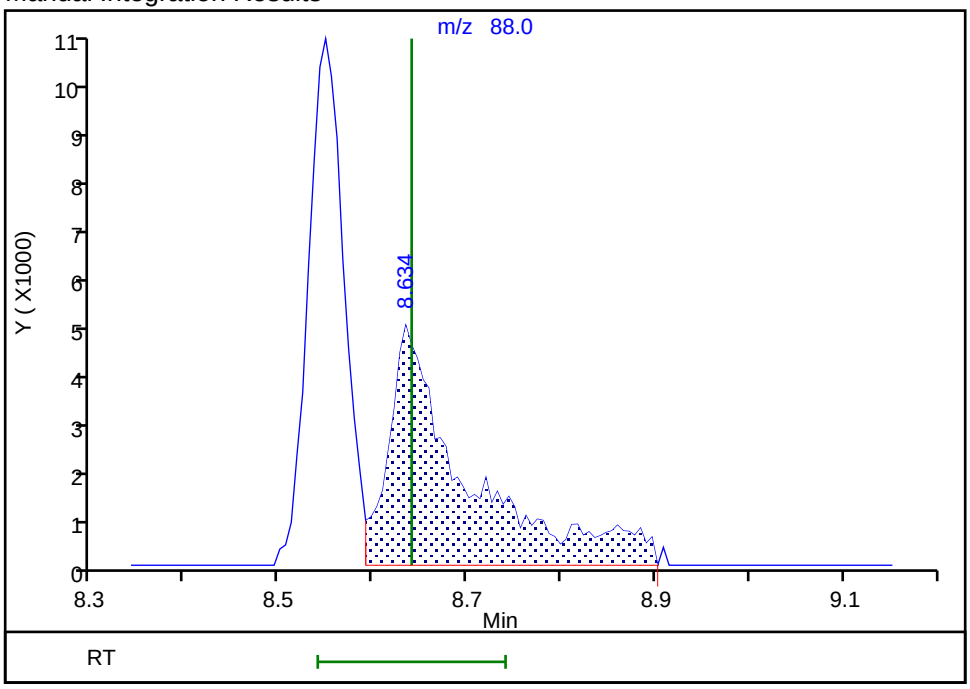
Processing Integration Results

RT: 8.63
Area: 24779
Amount: 87.218368
Amount Units: ug/l




Manual Integration Results

RT: 8.63
Area: 27070
Amount: 90.099969
Amount Units: ug/l




Reviewer: longj, 24-Aug-2021 15:37:39
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-53151-1

SDG No.:

Lab Sample ID: CCVIS 410-166762/3 Calibration Date: 09/01/2021 09:33

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IS01X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.3128 | 0.3383 | 0.1000 | 10.8 | 10.0 | 8.2 | 20.0 |
| Chloromethane | Ave | 0.3563 | 0.3639 | 0.1000 | 10.2 | 10.0 | 2.1 | 20.0 |
| 1,3-Butadiene | Ave | 0.3273 | 0.4309 | | 13.2 | 10.0 | 31.6* | 20.0 |
| Vinyl chloride | Ave | 0.3592 | 0.3693 | 0.1000 | 10.3 | 10.0 | 2.8 | 20.0 |
| Bromomethane | Ave | 0.2603 | 0.2683 | 0.1000 | 10.3 | 10.0 | 3.1 | 20.0 |
| Chloroethane | Ave | 0.2153 | 0.2195 | 0.1000 | 10.2 | 10.0 | 1.9 | 20.0 |
| Dichlorofluoromethane | Ave | 0.5179 | 0.5219 | | 10.1 | 10.0 | 0.8 | 20.0 |
| Trichlorofluoromethane | Ave | 0.4629 | 0.5242 | 0.1000 | 11.3 | 10.0 | 13.2 | 20.0 |
| Ethyl ether | Ave | 0.1881 | 0.2014 | | 10.7 | 10.0 | 7.1 | 20.0 |
| Freon 123a | Ave | 0.3316 | 0.3459 | | 10.4 | 10.0 | 4.3 | 20.0 |
| Acrolein | Ave | 2.185 | 1.900 | | 435 | 500 | -13.1 | 20.0 |
| 1,1-Dichloroethene | Ave | 0.2387 | 0.2493 | 0.1000 | 10.4 | 10.0 | 4.4 | 20.0 |
| Acetone | Ave | 2.778 | 2.370 | 0.1000 | 85.3 | 100 | -14.7 | 20.0 |
| Freon 113 | Ave | 0.2492 | 0.2914 | 0.1000 | 11.7 | 10.0 | 16.9 | 20.0 |
| Methyl iodide | Ave | 0.4771 | 0.5044 | | 10.6 | 10.0 | 5.7 | 20.0 |
| Ethyl bromide | Ave | 0.2175 | 0.2294 | | 10.5 | 9.99 | 5.4 | 20.0 |
| Carbon disulfide | Ave | 0.6588 | 0.6507 | 0.1000 | 9.88 | 10.0 | -1.2 | 20.0 |
| Methyl acetate | Ave | 8.176 | 7.391 | 0.1000 | 9.04 | 10.0 | -9.6 | 20.0 |
| Allyl chloride | Ave | 0.3915 | 0.3803 | | 9.71 | 10.0 | -2.9 | 20.0 |
| Methylene Chloride | Ave | 0.2605 | 0.2686 | 0.1000 | 10.3 | 10.0 | 3.1 | 20.0 |
| t-Butyl alcohol | Ave | 1.053 | 1.001 | | 190 | 200 | -5.0 | 20.0 |
| Acrylonitrile | Ave | 3.702 | 3.349 | | 22.6 | 25.0 | -9.5 | 20.0 |
| Methyl tert-butyl ether | Ave | 0.6808 | 0.7199 | 0.1000 | 10.6 | 10.0 | 5.7 | 20.0 |
| trans-1,2-Dichloroethene | Ave | 0.2711 | 0.2799 | 0.1000 | 10.3 | 10.0 | 3.2 | 20.0 |
| n-Hexane | Ave | 0.3785 | 0.4128 | | 10.9 | 10.0 | 9.0 | 20.0 |
| 1,1-Dichloroethane | Ave | 0.4919 | 0.5079 | 0.2000 | 10.3 | 10.0 | 3.2 | 20.0 |
| di-Isopropyl ether | Ave | 0.8217 | 0.8440 | | 10.3 | 10.0 | 2.7 | 20.0 |
| 2-Chloro-1,3-butadiene | Ave | 0.4101 | 0.4314 | | 10.5 | 10.0 | 5.2 | 20.0 |
| Ethyl t-butyl ether | Ave | 0.8035 | 0.8419 | | 10.5 | 10.0 | 4.8 | 20.0 |
| 2-Butanone (MEK) | Ave | 4.850 | 4.299 | 0.1000 | 88.6 | 100 | -11.4 | 20.0 |
| cis-1,2-Dichloroethene | Ave | 0.3020 | 0.3135 | 0.1000 | 10.4 | 10.0 | 3.8 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.4277 | 0.4429 | | 10.4 | 10.0 | 3.6 | 20.0 |
| Propionitrile | Ave | 1.288 | 1.249 | | 194 | 200 | -3.0 | 20.0 |
| Methacrylonitrile | Ave | 4.873 | 4.273 | | 87.7 | 100 | -12.3 | 20.0 |
| Bromochloromethane | Ave | 0.1303 | 0.1394 | | 10.7 | 10.0 | 6.9 | 20.0 |
| Tetrahydrofuran | Ave | 1.439 | 1.281 | | 44.5 | 50.0 | -10.9 | 20.0 |
| Chloroform | Ave | 0.4873 | 0.5071 | 0.2000 | 10.4 | 10.0 | 4.1 | 20.0 |
| 1,1,1-Trichloroethane | Ave | 0.4528 | 0.4756 | 0.1000 | 10.5 | 10.0 | 5.1 | 20.0 |
| Cyclohexane | Ave | 0.4489 | 0.5009 | 0.1000 | 11.2 | 10.0 | 11.6 | 20.0 |
| Carbon tetrachloride | Ave | 0.3908 | 0.4244 | 0.1000 | 10.9 | 10.0 | 8.6 | 20.0 |
| 1,1-Dichloropropene | Ave | 0.3820 | 0.4086 | | 10.7 | 10.0 | 7.0 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-53151-1

SDG No.:

Lab Sample ID: CCVIS 410-166762/3 Calibration Date: 09/01/2021 09:33

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IS01X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Isobutyl alcohol | Ave | 0.3359 | 0.3162 | | 471 | 500 | -5.9 | 20.0 |
| Benzene | Ave | 1.124 | 1.177 | 0.5000 | 10.5 | 10.0 | 4.7 | 20.0 |
| 1,2-Dichloroethane | Ave | 0.3046 | 0.3123 | 0.1000 | 10.3 | 10.0 | 2.5 | 20.0 |
| t-Amyl methyl ether | Ave | 0.7459 | 0.7826 | | 10.5 | 10.0 | 4.9 | 20.0 |
| n-Heptane | Ave | 0.3892 | 0.3948 | | 10.1 | 10.0 | 1.4 | 20.0 |
| n-Butanol | Ave | 0.3118 | 0.3020 | | 847 | 875 | -3.1 | 20.0 |
| Trichloroethene | Ave | 0.3022 | 0.3248 | 0.2000 | 10.8 | 10.0 | 7.5 | 20.0 |
| Methylcyclohexane | Ave | 0.5026 | 0.5724 | 0.1000 | 11.4 | 10.0 | 13.9 | 20.0 |
| 1,2-Dichloropropane | Ave | 0.2761 | 0.2964 | 0.1000 | 10.7 | 10.0 | 7.3 | 20.0 |
| Methyl methacrylate | Ave | 9.578 | 8.643 | | 9.02 | 10.0 | -9.8 | 20.0 |
| 1,4-Dioxane | Qua | | 0.0714 | 0.0050 | 376 | 500 | -24.7* | 20.0 |
| Dibromomethane | Ave | 0.1350 | 0.1449 | | 10.7 | 10.0 | 7.4 | 20.0 |
| Bromodichloromethane | Ave | 0.3347 | 0.3589 | 0.2000 | 10.7 | 10.0 | 7.2 | 20.0 |
| 2-Nitropropane | Ave | 2.740 | 2.185 | | 39.9 | 50.0 | -20.3* | 20.0 |
| 1-Bromo-2-chloroethane | Ave | 0.2710 | 0.2900 | | 10.7 | 10.0 | 7.0 | 20.0 |
| cis-1,3-Dichloropropene | Ave | 0.4206 | 0.4566 | 0.2000 | 10.9 | 10.0 | 8.6 | 20.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 12.21 | 10.93 | 0.1000 | 89.5 | 100 | -10.5 | 20.0 |
| Toluene | Ave | 0.9586 | 0.9749 | 0.4000 | 10.2 | 10.0 | 1.7 | 20.0 |
| trans-1,3-Dichloropropene | Ave | 0.4420 | 0.4693 | 0.1000 | 10.6 | 10.0 | 6.2 | 20.0 |
| Ethyl methacrylate | Ave | 0.3689 | 0.4056 | | 11.0 | 10.0 | 10.0 | 20.0 |
| 1,1,2-Trichloroethane | Ave | 0.2557 | 0.2680 | 0.1000 | 10.5 | 10.0 | 4.8 | 20.0 |
| Tetrachloroethene | Ave | 0.4567 | 0.4920 | 0.2000 | 10.8 | 10.0 | 7.7 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.4348 | 0.4538 | | 10.4 | 10.0 | 4.3 | 20.0 |
| 2-Hexanone | Ave | 8.554 | 7.636 | 0.1000 | 89.3 | 100 | -10.7 | 20.0 |
| Dibromochloromethane | Ave | 0.3116 | 0.3395 | | 10.9 | 10.0 | 9.0 | 20.0 |
| 1,2-Dibromoethane (EDB) | Ave | 0.2467 | 0.2623 | 0.1000 | 10.6 | 10.0 | 6.3 | 20.0 |
| 1-Chlorohexane | Ave | 0.5606 | 0.5842 | | 10.4 | 10.0 | 4.2 | 20.0 |
| Chlorobenzene | Ave | 1.062 | 1.107 | 0.5000 | 10.4 | 10.0 | 4.2 | 20.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3708 | 0.3956 | | 10.7 | 10.0 | 6.7 | 20.0 |
| Ethylbenzene | Ave | 1.846 | 1.897 | 0.1000 | 10.3 | 10.0 | 2.8 | 20.0 |
| m&p-Xylene | Ave | 0.7292 | 0.7619 | 0.1000 | 20.9 | 20.0 | 4.5 | 20.0 |
| o-Xylene | Ave | 0.7197 | 0.7510 | 0.3000 | 10.4 | 10.0 | 4.4 | 20.0 |
| Styrene | Ave | 1.162 | 1.229 | 0.3000 | 10.6 | 10.0 | 5.8 | 20.0 |
| Bromoform | Ave | 0.1867 | 0.2069 | 0.1000 | 11.1 | 10.0 | 10.8 | 20.0 |
| Isopropylbenzene | Ave | 1.900 | 1.983 | 0.1000 | 10.4 | 10.0 | 4.4 | 20.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.5528 | 0.5847 | 0.3000 | 10.6 | 10.0 | 5.8 | 20.0 |
| Bromobenzene | Ave | 0.7576 | 0.8051 | | 10.6 | 10.0 | 6.3 | 20.0 |
| trans-1,4-Dichloro-2-butene | Ave | 4.418 | 3.456 | | 78.2 | 100 | -21.8* | 20.0 |
| 1,2,3-Trichloropropane | Ave | 0.1520 | 0.1590 | | 10.5 | 10.0 | 4.6 | 20.0 |
| N-Propylbenzene | Ave | 3.678 | 3.750 | | 10.2 | 10.0 | 2.0 | 20.0 |
| 2-Chlorotoluene | Ave | 0.7546 | 0.7958 | | 10.5 | 10.0 | 5.5 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-53151-1

SDG No.:

Lab Sample ID: CCVIS 410-166762/3 Calibration Date: 09/01/2021 09:33

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IS01X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | Ave | 2.686 | 2.796 | | 10.4 | 10.0 | 4.1 | 20.0 |
| 4-Chlorotoluene | Ave | 0.7706 | 0.8097 | | 10.5 | 10.0 | 5.1 | 20.0 |
| tert-Butylbenzene | Ave | 0.5890 | 0.6236 | | 10.6 | 10.0 | 5.9 | 20.0 |
| Pentachloroethane | Ave | 0.4757 | 0.4969 | | 10.4 | 10.0 | 4.5 | 20.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.753 | 2.844 | | 10.3 | 10.0 | 3.3 | 20.0 |
| sec-Butylbenzene | Ave | 3.394 | 3.519 | | 10.4 | 10.0 | 3.7 | 20.0 |
| 1,3-Dichlorobenzene | Ave | 1.528 | 1.603 | 0.6000 | 10.5 | 10.0 | 5.0 | 20.0 |
| p-Isopropyltoluene | Ave | 3.002 | 3.086 | | 10.3 | 10.0 | 2.8 | 20.0 |
| 1,4-Dichlorobenzene | Ave | 1.562 | 1.620 | 0.5000 | 10.4 | 10.0 | 3.7 | 20.0 |
| 1,2,3-Trimethylbenzene | Ave | 1.218 | 1.261 | | 10.4 | 10.0 | 3.5 | 20.0 |
| Benzyl chloride | Ave | 0.2262 | 0.2502 | | 11.1 | 10.0 | 10.6 | 20.0 |
| n-Butylbenzene | Ave | 1.403 | 1.434 | | 10.2 | 10.0 | 2.2 | 20.0 |
| 1,2-Dichlorobenzene | Ave | 1.396 | 1.452 | 0.4000 | 10.4 | 10.0 | 4.0 | 20.0 |
| 1,2-Dibromo-3-Chloropropane | Ave | 0.0813 | 0.0931 | 0.0500 | 11.4 | 10.0 | 14.5 | 20.0 |
| 1,3,5-Trichlorobenzene | Ave | 1.118 | 1.141 | | 10.2 | 10.0 | 2.1 | 20.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.9433 | 0.9070 | 0.2000 | 9.61 | 10.0 | -3.9 | 20.0 |
| Hexachlorobutadiene | Ave | 0.4098 | 0.3774 | | 9.21 | 10.0 | -7.9 | 20.0 |
| Naphthalene | Ave | 1.798 | 1.578 | | 8.78 | 10.0 | -12.2 | 20.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.8152 | 0.6813 | | 8.36 | 10.0 | -16.4 | 20.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2519 | 0.2528 | | 10.0 | 10.0 | 0.3 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.0504 | 0.0509 | | 10.1 | 10.0 | 1.0 | 20.0 |
| Toluene-d8 (Surr) | Ave | 1.292 | 1.268 | | 9.81 | 10.0 | -1.9 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.4939 | 0.4850 | | 9.82 | 10.0 | -1.8 | 20.0 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X02.D
Lims ID: CCVIS VSTD10
Client ID:
Sample Type: CCVIS
Inject. Date: 01-Sep-2021 09:33:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-003
Misc. Info.: CCVIS VSTD10
Operator ID: SRK36897 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 11:35:58 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1679

First Level Reviewer: knouses Date: 01-Sep-2021 10:22:11

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.977 | 1.977 | 0.000 | 99 | 797078 | 10.0 | 10.8 | |
| 4 Chloromethane | 50 | 2.178 | 2.178 | 0.000 | 99 | 857455 | 10.0 | 10.2 | |
| 6 Butadiene | 39 | 2.294 | 2.294 | 0.000 | 89 | 1015223 | 10.0 | 13.2 | |
| 5 Vinyl chloride | 62 | 2.294 | 2.294 | 0.000 | 98 | 870051 | 10.0 | 10.3 | |
| 7 Bromomethane | 94 | 2.629 | 2.629 | 0.000 | 91 | 632182 | 10.0 | 10.3 | |
| 8 Chloroethane | 64 | 2.708 | 2.708 | 0.000 | 100 | 517190 | 10.0 | 10.2 | |
| 9 Dichlorofluoromethane | 67 | 2.952 | 2.952 | 0.000 | 97 | 1229617 | 10.0 | 10.1 | |
| 10 Trichlorofluoromethane | 101 | 3.019 | 3.019 | 0.000 | 98 | 1235159 | 10.0 | 11.3 | |
| 11 Ethyl ether | 59 | 3.257 | 3.257 | 0.000 | 90 | 474551 | 10.0 | 10.7 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.349 | 3.349 | 0.000 | 91 | 814955 | 10.0 | 10.4 | |
| 13 Acrolein | 56 | 3.428 | 3.428 | 0.000 | 100 | 3915701 | 500.0 | 434.7 | |
| 14 1,1-Dichloroethene | 96 | 3.574 | 3.574 | 0.000 | 98 | 587411 | 10.0 | 10.4 | |
| 15 Acetone | 43 | 3.599 | 3.599 | 0.000 | 100 | 977058 | 100.0 | 85.3 | M |
| 16 112TCTFE | 101 | 3.617 | 3.617 | 0.000 | 90 | 686573 | 10.0 | 11.7 | |
| 17 Iodomethane | 142 | 3.769 | 3.769 | 0.000 | 99 | 1188405 | 10.0 | 10.6 | |
| 18 Ethyl bromide | 108 | 3.800 | 3.800 | 0.000 | 99 | 540115 | 10.0 | 10.5 | |
| 19 Carbon disulfide | 76 | 3.879 | 3.879 | 0.000 | 99 | 1533273 | 10.0 | 9.88 | |
| 21 Methyl acetate | 43 | 4.019 | 4.019 | 0.000 | 97 | 304700 | 10.0 | 9.04 | M |
| 22 3-Chloro-1-propene | 41 | 4.050 | 4.050 | 0.000 | 91 | 896083 | 10.0 | 9.71 | |
| 23 Methylene Chloride | 84 | 4.239 | 4.239 | 0.000 | 90 | 632921 | 10.0 | 10.3 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.251 | 4.251 | 0.000 | 96 | 206126 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.379 | 4.379 | 0.000 | 100 | 825013 | 200.0 | 190.1 | |
| 26 Acrylonitrile | 53 | 4.586 | 4.586 | 0.000 | 98 | 345140 | 25.0 | 22.6 | |
| 27 Methyl tert-butyl ether | 73 | 4.653 | 4.653 | 0.000 | 94 | 1696152 | 10.0 | 10.6 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.665 | 4.665 | 0.000 | 99 | 659441 | 10.0 | 10.3 | |
| 29 Hexane | 57 | 5.092 | 5.092 | 0.000 | 91 | 972584 | 10.0 | 10.9 | |
| 31 1,1-Dichloroethane | 63 | 5.324 | 5.324 | 0.000 | 96 | 1196733 | 10.0 | 10.3 | |
| 32 Isopropyl ether | 45 | 5.379 | 5.379 | 0.000 | 94 | 1988606 | 10.0 | 10.3 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.434 | 5.434 | 0.000 | 90 | 1016595 | 10.0 | 10.5 | |
| 34 Tert-butyl ethyl ether | 59 | 5.915 | 5.915 | 0.000 | 97 | 1983760 | 10.0 | 10.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 36 2-Butanone (MEK) | 43 | 6.116 | 6.116 | 0.000 | 99 | 1772297 | 100.0 | 88.6 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.153 | 6.153 | 0.000 | 81 | 738643 | 10.0 | 10.4 | |
| 38 2,2-Dichloropropane | 77 | 6.171 | 6.171 | 0.000 | 86 | 1043649 | 10.0 | 10.4 | |
| 40 Propionitrile | 54 | 6.208 | 6.208 | 0.000 | 99 | 1030061 | 200.0 | 194.0 | |
| 42 Methacrylonitrile | 67 | 6.421 | 6.421 | 0.000 | 90 | 1761349 | 100.0 | 87.7 | |
| 43 Chlorobromomethane | 128 | 6.482 | 6.482 | 0.000 | 90 | 328352 | 10.0 | 10.7 | |
| 44 Tetrahydrofuran | 71 | 6.488 | 6.488 | 0.000 | 77 | 264123 | 50.0 | 44.5 | |
| 45 Chloroform | 83 | 6.634 | 6.634 | 0.000 | 93 | 1194835 | 10.0 | 10.4 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.842 | 6.842 | 0.000 | 94 | 595622 | 10.0 | 10.0 | |
| 47 1,1,1-Trichloroethane | 97 | 6.860 | 6.860 | 0.000 | 98 | 1120721 | 10.0 | 10.5 | |
| 48 Cyclohexane | 56 | 6.958 | 6.958 | 0.000 | 88 | 1180248 | 10.0 | 11.2 | |
| 50 Carbon tetrachloride | 117 | 7.067 | 7.067 | 0.000 | 87 | 999883 | 10.0 | 10.9 | |
| 51 1,1-Dichloropropene | 75 | 7.073 | 7.073 | 0.000 | 96 | 962692 | 10.0 | 10.7 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 95 | 651775 | 500.0 | 470.6 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 83 | 119937 | 10.0 | 10.1 | |
| 54 Benzene | 78 | 7.329 | 7.329 | 0.000 | 96 | 2772776 | 10.0 | 10.5 | |
| 56 1,2-Dichloroethane | 62 | 7.403 | 7.403 | 0.000 | 98 | 735875 | 10.0 | 10.3 | |
| 57 Tert-amyl methyl ether | 73 | 7.518 | 7.518 | 0.000 | 98 | 1844061 | 10.0 | 10.5 | |
| * 58 Fluorobenzene (IS) | 96 | 7.732 | 7.732 | 0.000 | 99 | 2356249 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.744 | 7.744 | 0.000 | 89 | 930354 | 10.0 | 10.1 | |
| 60 n-Butanol | 56 | 8.085 | 8.085 | 0.000 | 86 | 1089435 | 875.0 | 847.5 | |
| 61 Trichloroethene | 95 | 8.213 | 8.213 | 0.000 | 97 | 765402 | 10.0 | 10.8 | |
| 62 Methylcyclohexane | 83 | 8.518 | 8.518 | 0.000 | 93 | 1348800 | 10.0 | 11.4 | |
| 63 1,2-Dichloropropane | 63 | 8.543 | 8.543 | 0.000 | 96 | 698435 | 10.0 | 10.7 | |
| 64 Methyl methacrylate | 69 | 8.622 | 8.622 | 0.000 | 87 | 356326 | 10.0 | 9.02 | |
| 65 1,4-Dioxane | 88 | 8.634 | 8.634 | 0.000 | 82 | 147186 | 500.0 | 376.3 | |
| 66 Dibromomethane | 93 | 8.652 | 8.652 | 0.000 | 93 | 341467 | 10.0 | 10.7 | |
| 68 Dichlorobromomethane | 83 | 8.884 | 8.884 | 0.000 | 100 | 845693 | 10.0 | 10.7 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 99 | 450362 | 50.0 | 39.9 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.274 | 9.274 | 0.000 | 98 | 683340 | 10.0 | 10.7 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.427 | 9.427 | 0.000 | 97 | 1075938 | 10.0 | 10.9 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.597 | 9.597 | 0.000 | 95 | 4506845 | 100.0 | 89.5 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2375294 | 10.0 | 9.81 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 98 | 1826367 | 10.0 | 10.2 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 91 | 879084 | 10.0 | 10.6 | |
| 79 Ethyl methacrylate | 69 | 10.122 | 10.122 | 0.000 | 88 | 759923 | 10.0 | 11.0 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 90 | 502138 | 10.0 | 10.5 | |
| 81 Tetrachloroethene | 166 | 10.359 | 10.359 | 0.000 | 98 | 921748 | 10.0 | 10.8 | |
| 82 1,3-Dichloropropane | 76 | 10.426 | 10.426 | 0.000 | 88 | 850037 | 10.0 | 10.4 | |
| 83 2-Hexanone | 43 | 10.475 | 10.475 | 0.000 | 95 | 3147767 | 100.0 | 89.3 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 89 | 636047 | 10.0 | 10.9 | |
| 86 Ethylene Dibromide | 107 | 10.756 | 10.756 | 0.000 | 99 | 491442 | 10.0 | 10.6 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.182 | 0.000 | 85 | 1873355 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.188 | 11.188 | 0.000 | 94 | 1094408 | 10.0 | 10.4 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 96 | 2073439 | 10.0 | 10.4 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 95 | 741056 | 10.0 | 10.7 | |
| 92 Ethylbenzene | 91 | 11.292 | 11.292 | 0.000 | 98 | 3554581 | 10.0 | 10.3 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 100 | 2854570 | 20.0 | 20.9 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 95 | 1406856 | 10.0 | 10.4 | |
| 95 Styrene | 104 | 11.749 | 11.749 | 0.000 | 95 | 2302237 | 10.0 | 10.6 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 98 | 387563 | 10.0 | 11.1 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 3714783 | 10.0 | 10.4 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 94 | 908505 | 10.0 | 9.82 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 93 | 646369 | 10.0 | 10.6 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 96 | 889925 | 10.0 | 10.6 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 92 | 1424621 | 100.0 | 78.2 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.000 | 82 | 175764 | 10.0 | 10.5 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 98 | 4145603 | 10.0 | 10.2 | |
| 106 2-Chlorotoluene | 126 | 12.444 | 12.444 | 0.000 | 97 | 879738 | 10.0 | 10.5 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 3090508 | 10.0 | 10.4 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 895051 | 10.0 | 10.5 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 92 | 689372 | 10.0 | 10.6 | |
| 110 Pentachloroethane | 167 | 12.774 | 12.774 | 0.000 | 93 | 549289 | 10.0 | 10.4 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 3143455 | 10.0 | 10.3 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.908 | 0.000 | 94 | 3890347 | 10.0 | 10.4 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 1772501 | 10.0 | 10.5 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 3411711 | 10.0 | 10.3 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 93 | 1105410 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.078 | 13.078 | 0.000 | 96 | 1790223 | 10.0 | 10.4 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.091 | 0.000 | 98 | 1393537 | 10.0 | 10.4 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 276582 | 10.0 | 11.1 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 1585349 | 10.0 | 10.2 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.000 | 99 | 1604625 | 10.0 | 10.4 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 90 | 102879 | 10.0 | 11.4 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 1261743 | 10.0 | 10.2 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 1002561 | 10.0 | 9.61 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 417165 | 10.0 | 9.21 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 1744601 | 10.0 | 8.78 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 753116 | 10.0 | 8.36 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | |
|---|---|---|---|
| MSV_LL_GAS826_00029 | Amount Added: 20.00 | Units: uL | |
| MSV_LL_#1_826_00015 | Amount Added: 20.00 | Units: uL | |
| MSV_LL_#2_826_00015 | Amount Added: 20.00 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: 5.00 | Units: uL | Run Reagent |

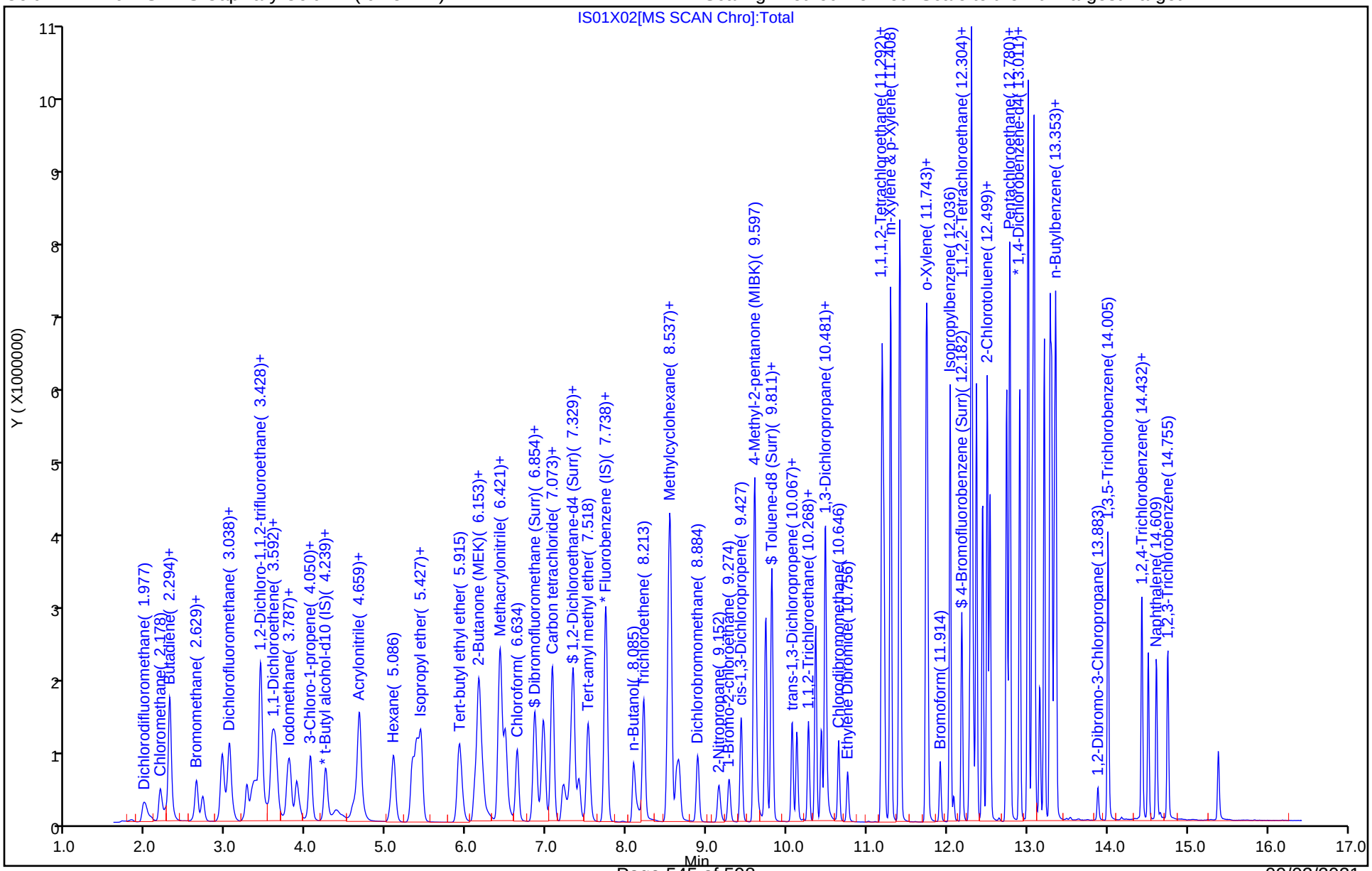
Report Date: 01-Sep-2021 11:35:58 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X02.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 09:33:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | CCVIS VSTD10 | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

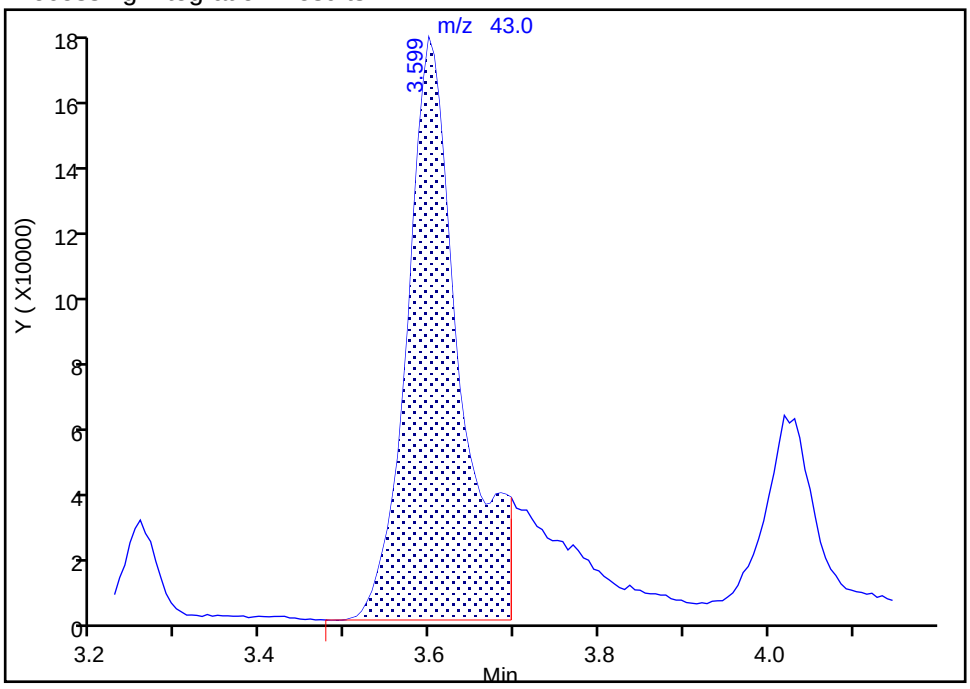
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X02.D | | | | |
| Injection Date: | 01-Sep-2021 09:33:30 | Instrument ID: | 19930 | | |
| Lims ID: | CCVIS VSTD10 | | | | |
| Client ID: | | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 15 Acetone, CAS: 67-64-1

Signal: 1

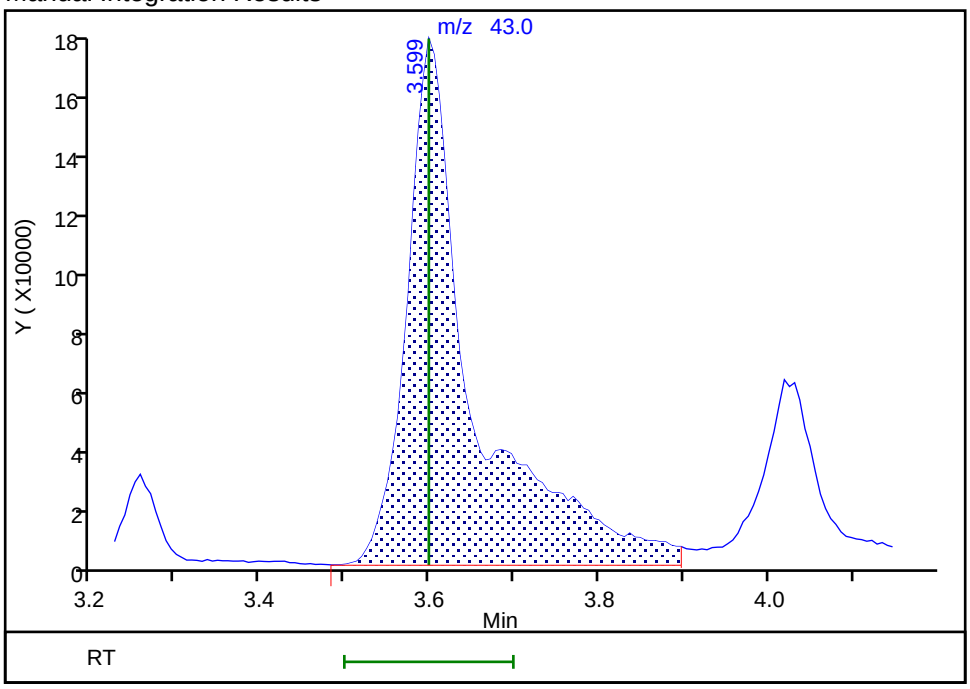
RT: 3.60
Area: 766030
Amount: 66.897925
Amount Units: ug/l

Processing Integration Results




Manual Integration Results

RT: 3.60
Area: 977058
Amount: 85.327145
Amount Units: ug/l




Reviewer: knouses, 01-Sep-2021 10:20:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

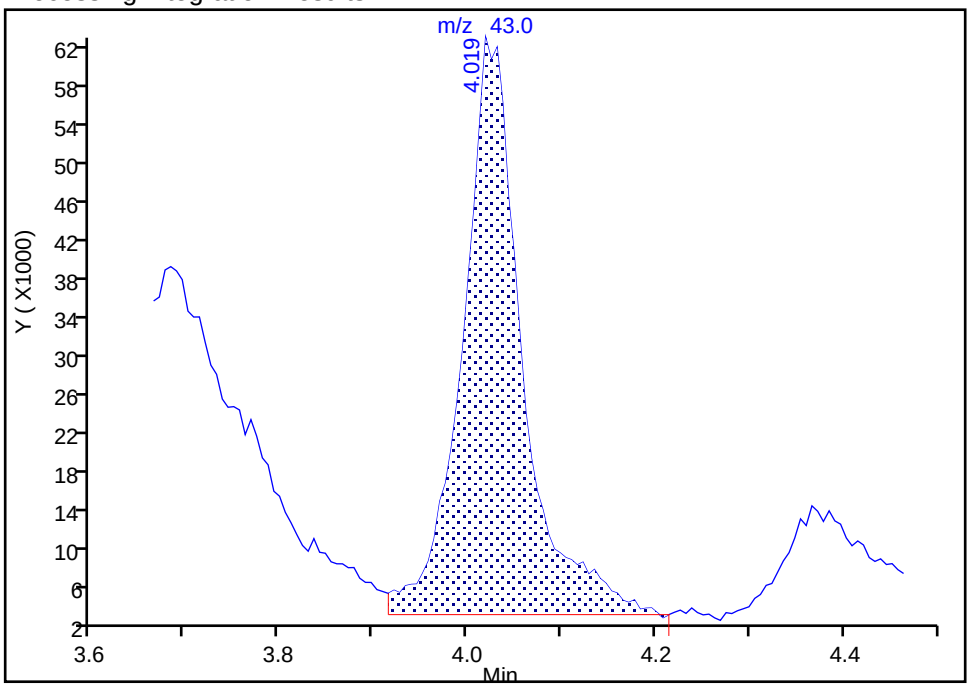
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X02.D | | | | |
| Injection Date: | 01-Sep-2021 09:33:30 | Instrument ID: | 19930 | | |
| Lims ID: | CCVIS VSTD10 | | | | |
| Client ID: | | | | | |
| Operator ID: | SRK36897 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |
| Column: | Rxi-624Sil MS Capillary Column ( 0.25mm) | Detector | MS Quad | | |

## 21 Methyl acetate, CAS: 79-20-9

Signal: 1

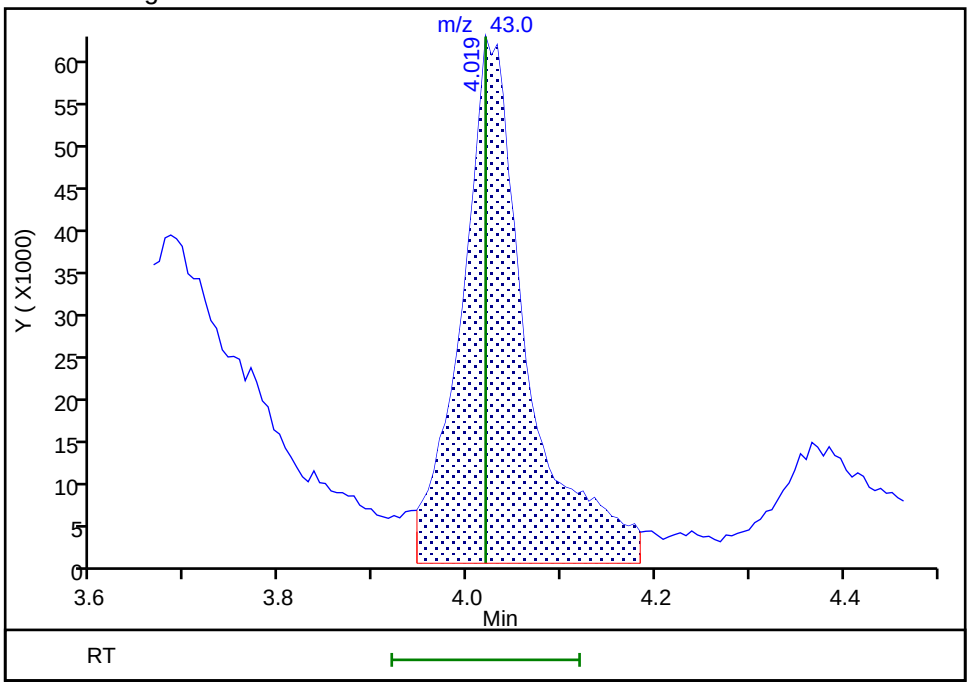
Processing Integration Results

RT: 4.02
Area: 263736
Amount: 7.824496
Amount Units: ug/l




Manual Integration Results

RT: 4.02
Area: 304700
Amount: 9.039812
Amount Units: ug/l




Reviewer: knouses, 01-Sep-2021 10:20:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D | | | | |
| Lims ID: | bfb | | | | |
| Client ID: | | | | | |
| Sample Type: | BFB | | | | |
| Inject. Date: | 23-Aug-2021 20:56:30 | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 1.0 uL | Dil. Factor: | 1.0000 | | |
| Sample Info: | | | | | |
| Misc. Info.: | BFB | | | | |
| Operator ID: | mec29284 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 24-Aug-2021 15:42:34 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1646 | | | | |
| First Level Reviewer: campbellme | | Date: | 23-Aug-2021 21:08:40 | | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 145 BFB | 95 | 5.190 | 5.190 | 0.000 | 0 | 215193 | NR | NR | |

## QC Flag Legend

Processing Flags

NR - Missing Quant Standard

## Reagents:

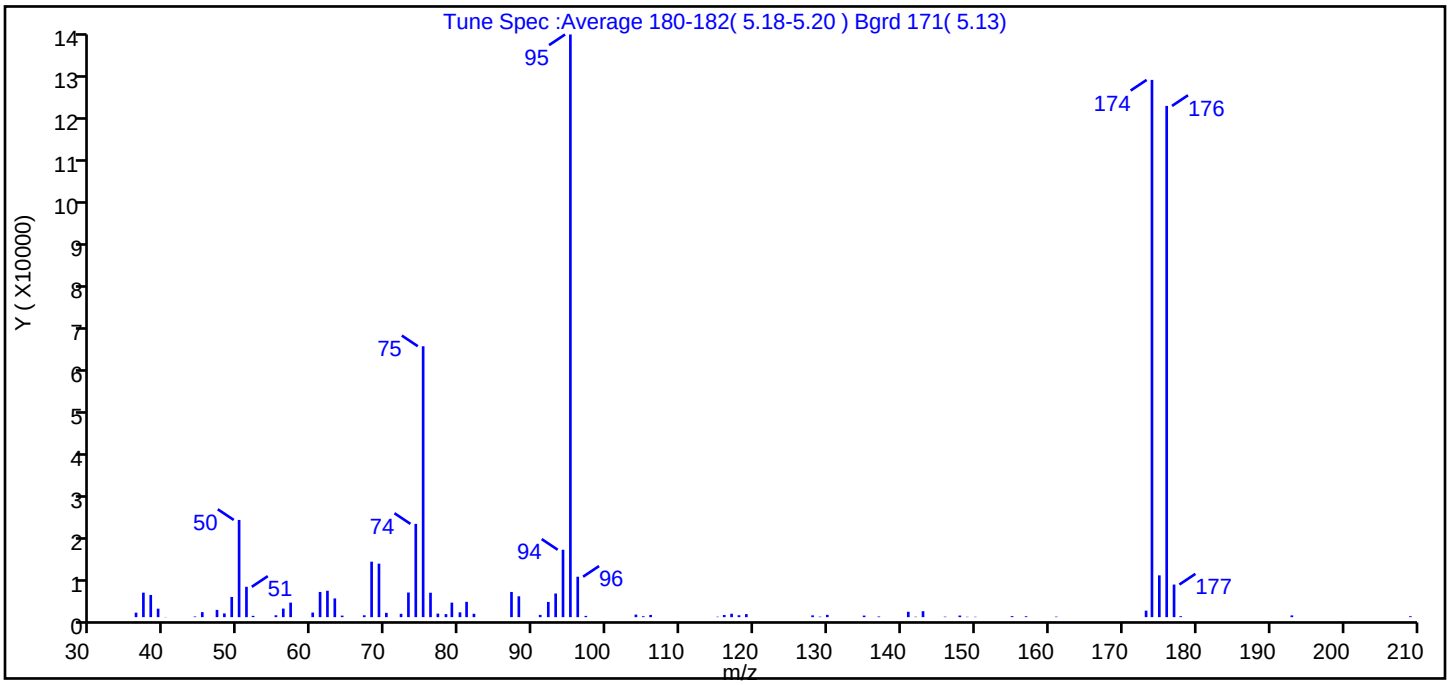
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D
Injection Date: 23-Aug-2021 20:56:30 Instrument ID: 19930
Lims ID: bfb
Client ID:
Operator ID: mec29284 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 1624

$ 145 BFB




| m/z | Ion Abundance Criteria | % Relative Abundance |
|---|---|---|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 16.7 |
| 75 | 30 to 60% of m/z 95 | 46.5 |
| 96 | 5 to 9% of m/z 95 | 6.9 |
| 173 | Less than 2% of m/z 174 | 1.1 (1.2) |
| 174 | 50 to 120% of m/z 95 | 92.2 |
| 175 | 5 to 9% of m/z 174 | 7.2 (7.8) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 87.7 (95.2) |
| 177 | 5 to 9% of m/z 176 | 5.6 (6.4) |

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D\8260 25ml HP31.rslt\spectra.d
Injection Date: 23-Aug-2021 20:56:30
Spectrum: Tune Spec :Average 180-182( 5.18-5.20 ) Bgrd 171( 5.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 76

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1061 | 63.00 | 4393 | 91.00 | 527 | 137.00 | 156 |
| 37.00 | 5748 | 64.00 | 362 | 92.00 | 3571 | 141.00 | 1257 |
| 38.00 | 5208 | 67.00 | 438 | 93.00 | 5550 | 142.00 | 96 |
| 39.00 | 1992 | 68.00 | 13018 | 94.00 | 15820 | 143.00 | 1399 |
| 40.00 | 38 | 69.00 | 12555 | 95.00 | 136768 | 146.00 | 111 |
| 44.00 | 148 | 70.00 | 1011 | 96.00 | 9487 | 148.00 | 376 |
| 45.00 | 1176 | 72.00 | 785 | 97.00 | 292 | 149.00 | 83 |
| 47.00 | 1700 | 73.00 | 5782 | 104.00 | 590 | 150.00 | 88 |
| 48.00 | 866 | 74.00 | 21888 | 105.00 | 210 | 155.00 | 237 |
| 49.00 | 4735 | 75.00 | 63592 | 106.00 | 514 | 157.00 | 206 |
| 50.00 | 22816 | 76.00 | 5733 | 115.00 | 97 | 161.00 | 118 |
| 51.00 | 7117 | 77.00 | 836 | 116.00 | 504 | 173.00 | 1521 |
| 52.00 | 304 | 78.00 | 708 | 117.00 | 803 | 174.00 | 126104 |
| 55.00 | 442 | 79.00 | 3409 | 118.00 | 451 | 175.00 | 9808 |
| 56.00 | 2008 | 80.00 | 1125 | 119.00 | 708 | 176.00 | 120000 |
| 57.00 | 3411 | 81.00 | 3594 | 128.00 | 418 | 177.00 | 7653 |
| 60.00 | 1079 | 82.00 | 794 | 129.00 | 110 | 178.00 | 217 |
| 61.00 | 5915 | 87.00 | 5915 | 130.00 | 532 | 193.00 | 410 |
| 62.00 | 6198 | 88.00 | 4892 | 135.00 | 365 | 209.00 | 208 |

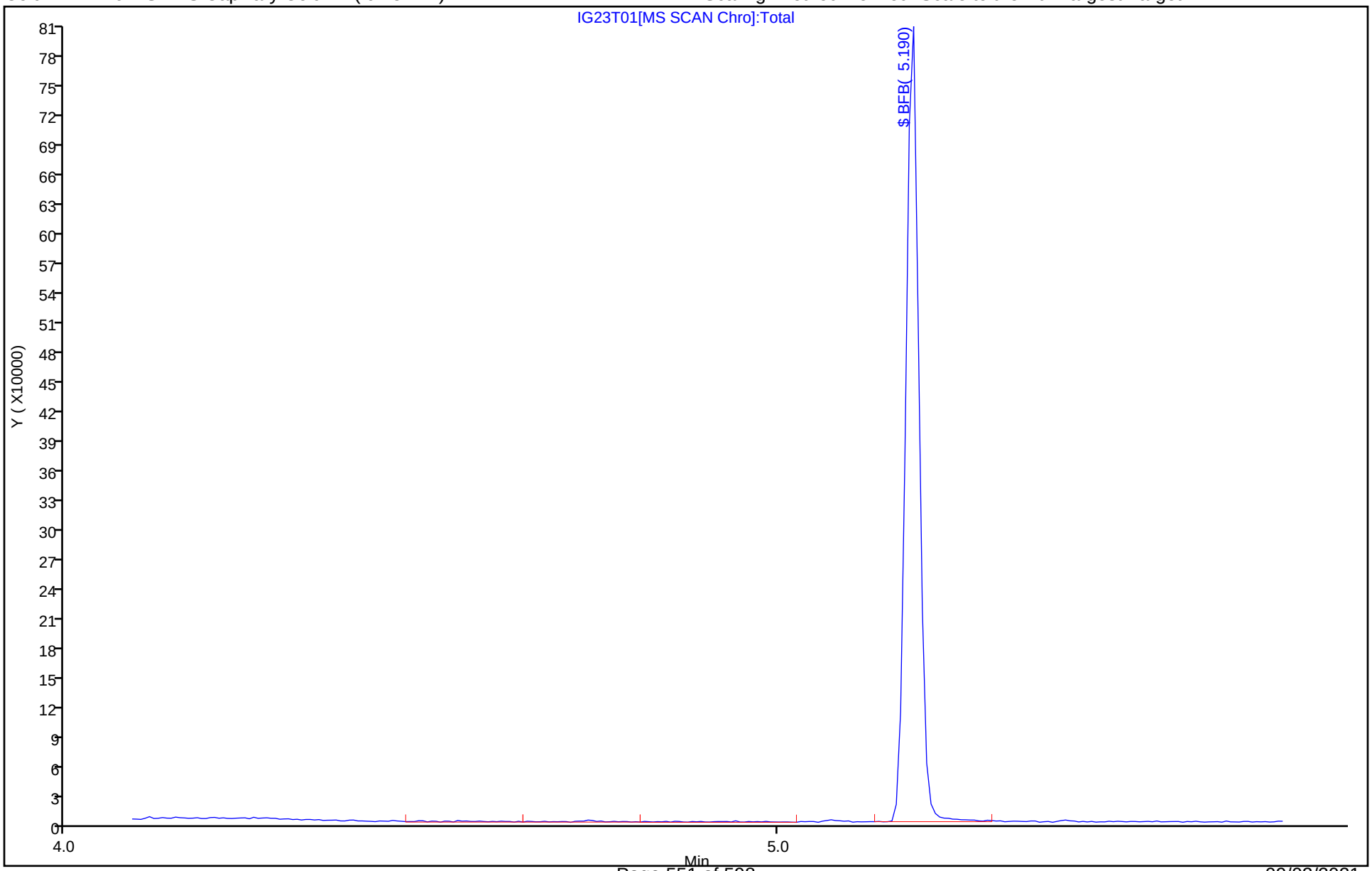
Report Date: 24-Aug-2021 15:42:35 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 23-Aug-2021 20:56:30 | Instrument ID: | 19930 | Operator ID: | mec29284 |
| Lims ID: | bfb | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 uL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01T01.D | | | | |
| Lims ID: | BFB | | | | |
| Client ID: | | | | | |
| Sample Type: | BFB | | | | |
| Inject. Date: | 01-Sep-2021 08:46:30 | ALS Bottle#: | 1 | Worklist Smp#: | 1 |
| Injection Vol: | 1.0 uL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-001 | | | | |
| Misc. Info.: | BFB | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 11:36:16 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1679 | | | | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 145 BFB | 95 | 5.190 | 5.190 | 0.000 | 0 | 277580 | NR | NR | |

## QC Flag Legend

Processing Flags
NR - Missing Quant Standard

## Reagents:

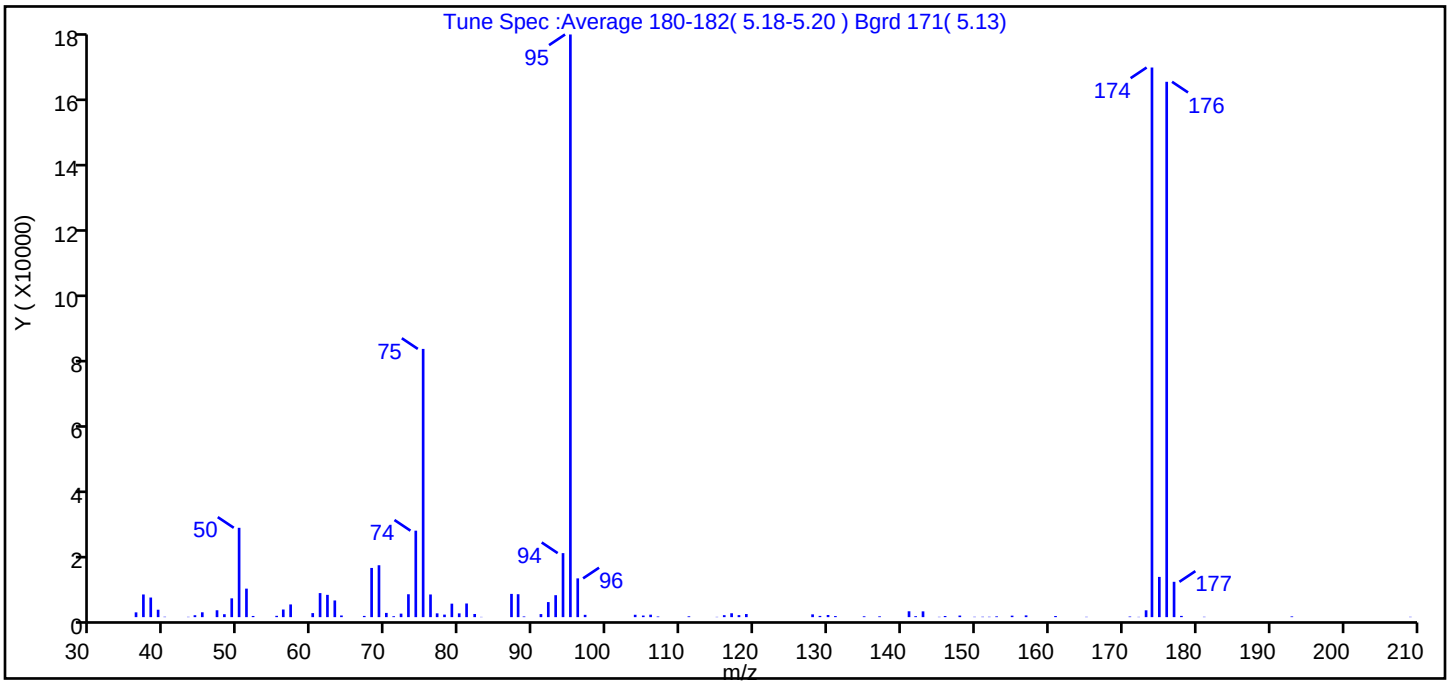
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01T01.D
Injection Date: 01-Sep-2021 08:46:30 Instrument ID: 19930
Lims ID: BFB
Client ID:
Operator ID: SRK36897 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 1624

$ 145 BFB




| m/z | Ion Abundance Criteria | % Relative Abundance |
|---|---|---|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 15.3 |
| 75 | 30 to 60% of m/z 95 | 46.0 |
| 96 | 5 to 9% of m/z 95 | 6.7 |
| 173 | Less than 2% of m/z 174 | 1.2 (1.2) |
| 174 | 50 to 120% of m/z 95 | 94.3 |
| 175 | 5 to 9% of m/z 174 | 6.9 (7.3) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 91.9 (97.4) |
| 177 | 5 to 9% of m/z 176 | 6.1 (6.6) |

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01T01.D\8260 25ml HP31.rslt\spectra.d
Injection Date: 01-Sep-2021 08:46:30
Spectrum: Tune Spec :Average 180-182( 5.18-5.20 ) Bgrd 171( 5.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 90

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1441 | 68.00 | 14776 | 95.00 | 174976 | 146.00 | 344 |
| 37.00 | 6811 | 69.00 | 15584 | 96.00 | 11644 | 148.00 | 477 |
| 38.00 | 5890 | 70.00 | 1273 | 97.00 | 694 | 150.00 | 107 |
| 39.00 | 2230 | 71.00 | 276 | 104.00 | 713 | 151.00 | 121 |
| 40.00 | 117 | 72.00 | 1058 | 105.00 | 478 | 152.00 | 114 |
| 43.00 | 93 | 73.00 | 6876 | 106.00 | 741 | 153.00 | 238 |
| 44.00 | 574 | 74.00 | 25968 | 107.00 | 185 | 155.00 | 447 |
| 45.00 | 1456 | 75.00 | 80552 | 111.00 | 252 | 157.00 | 528 |
| 47.00 | 2065 | 76.00 | 6809 | 115.00 | 80 | 161.00 | 343 |
| 48.00 | 879 | 77.00 | 1141 | 116.00 | 593 | 165.00 | 97 |
| 49.00 | 5646 | 78.00 | 760 | 117.00 | 1168 | 171.00 | 183 |
| 50.00 | 26832 | 79.00 | 4051 | 118.00 | 610 | 172.00 | 84 |
| 51.00 | 8560 | 80.00 | 1134 | 119.00 | 933 | 173.00 | 2054 |
| 52.00 | 355 | 81.00 | 4100 | 128.00 | 839 | 174.00 | 165056 |
| 55.00 | 396 | 82.00 | 950 | 129.00 | 374 | 175.00 | 12083 |
| 56.00 | 2294 | 83.00 | 73 | 130.00 | 642 | 176.00 | 160768 |
| 57.00 | 3817 | 87.00 | 6983 | 131.00 | 325 | 177.00 | 10612 |
| 60.00 | 1210 | 88.00 | 6886 | 135.00 | 255 | 178.00 | 375 |
| 61.00 | 7221 | 89.00 | 205 | 137.00 | 242 | 181.00 | 104 |
| 62.00 | 6693 | 91.00 | 918 | 141.00 | 1765 | 193.00 | 220 |
| 63.00 | 5012 | 92.00 | 4524 | 142.00 | 294 | 209.00 | 95 |
| 64.00 | 498 | 93.00 | 6592 | 143.00 | 1738 | | |
| 67.00 | 368 | 94.00 | 19224 | 145.00 | 93 | | |

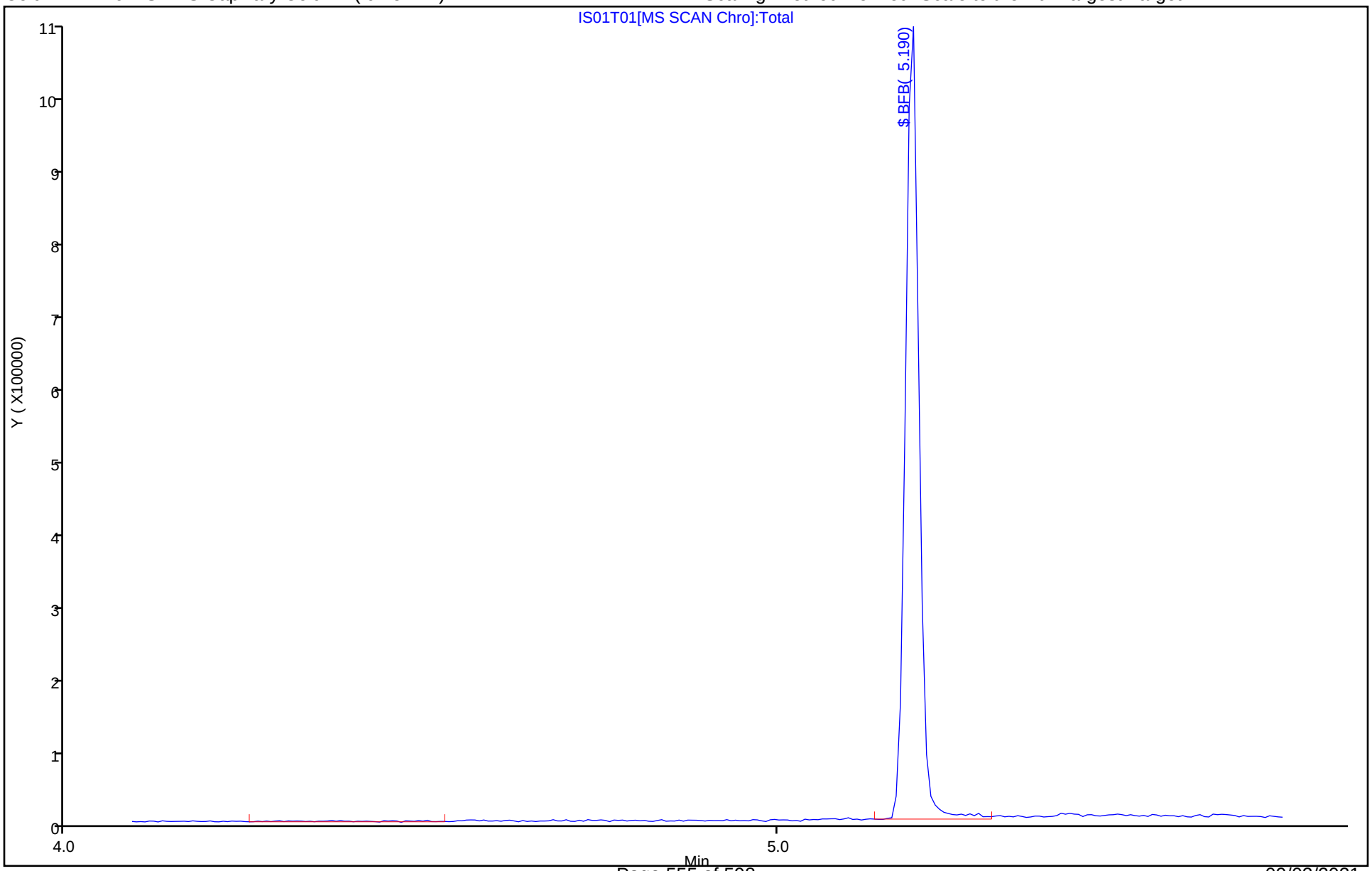
Report Date: 01-Sep-2021 11:36:16 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01T01.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 08:46:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | BFB | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 1.0 uL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 410-166762/7

Matrix: Water  Lab File ID: IS01X06.D

Analysis Method: 8260D  Date Collected:

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 10:58

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | ND | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | ND | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | ND | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | ND | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | ND | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | ND | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | ND | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | ND | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | ND | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | | 5.0 | 0.70 |
| 67-64-1 | Acetone | ND | | 5.0 | 0.90 |
| 71-43-2 | Benzene | ND | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | ND | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | ND | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | ND | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | ND | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | ND | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | ND | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | ND | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | ND | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | ND | | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | ND | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | ND | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | ND | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | ND | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | ND | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | ND | | 0.50 | 0.070 |
| 100-42-5 | Styrene | ND | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | ND | | 0.50 | 0.060 |
| 108-88-3 | Toluene | ND | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | ND | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | ND | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 410-166762/7

Matrix: Water  Lab File ID: IS01X06.D

Analysis Method: 8260D  Date Collected:

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 10:58

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | ND | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | ND | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 99 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 99 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 01-Sep-2021 10:58:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-007
Misc. Info.: MB
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 11:35:58 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1679

First Level Reviewer: knouses Date: 01-Sep-2021 11:35:04

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | | 1.977 | | | | | ND | |
| 2 Chlorodifluoromethane | 51 | | 1.989 | | | | | ND | |
| 3 Dimethyl ether | 45 | | 2.050 | | | | | ND | |
| 4 Chloromethane | 50 | | 2.178 | | | | | ND | |
| 6 Butadiene | 39 | 2.440 | 2.294 | 0.146 | 1 | 5747 | | 0.0734 | M |
| 5 Vinyl chloride | 62 | | 2.294 | | | | | ND | |
| 7 Bromomethane | 94 | | 2.629 | | | | | ND | 7 |
| 8 Chloroethane | 64 | | 2.708 | | | | | ND | |
| 9 Dichlorofluoromethane | 67 | | 2.952 | | | | | ND | |
| 10 Trichlorofluoromethane | 101 | | 3.019 | | | | | ND | |
| 11 Ethyl ether | 59 | | 3.257 | | | | | ND | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | | 3.349 | | | | | ND | |
| 13 Acrolein | 56 | | 3.428 | | | | | ND | |
| 14 1,1-Dichloroethene | 96 | | 3.574 | | | | | ND | |
| 15 Acetone | 43 | | 3.599 | | | | | ND | 7 |
| 16 112TCTFE | 101 | | 3.617 | | | | | ND | |
| 17 Iodomethane | 142 | | 3.769 | | | | | ND | |
| 18 Ethyl bromide | 108 | | 3.800 | | | | | ND | |
| 19 Carbon disulfide | 76 | | 3.879 | | | | | ND | 7 |
| 20 Acetonitrile | 41 | | 3.995 | | | | | ND | |
| 21 Methyl acetate | 43 | | 4.019 | | | | | ND | |
| 22 3-Chloro-1-propene | 41 | | 4.050 | | | | | ND | |
| 23 Methylene Chloride | 84 | | 4.239 | | | | | ND | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.275 | 4.251 | 0.024 | 17 | 203215 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | | 4.379 | | | | | ND | |
| 26 Acrylonitrile | 53 | | 4.586 | | | | | ND | |
| 27 Methyl tert-butyl ether | 73 | | 4.653 | | | | | ND | |
| 28 trans-1,2-Dichloroethene | 96 | | 4.665 | | | | | ND | |
| 29 Hexane | 57 | | 5.092 | | | | | ND | 7 |
| 30 Vinyl acetate | 43 | | 5.312 | | | | | ND | |
| 31 1,1-Dichloroethane | 63 | | 5.324 | | | | | ND | |

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|---|
| | 32 Isopropyl ether | 45 | | 5.379 | | | | | ND | |
| | 33 2-Chloro-1,3-butadiene | 53 | | 5.434 | | | | | ND | |
| | 34 Tert-butyl ethyl ether | 59 | | 5.915 | | | | | ND | |
| | 36 2-Butanone (MEK) | 43 | | 6.116 | | | | | ND | |
| | 37 cis-1,2-Dichloroethene | 96 | | 6.153 | | | | | ND | |
| S | 35 1,2-Dichloroethene, Total | 100 | | 6.155 | | | | | ND | 7 |
| | 38 2,2-Dichloropropane | 77 | | 6.171 | | | | | ND | |
| | 39 Ethyl acetate | 43 | | 6.190 | | | | | ND | |
| | 40 Propionitrile | 54 | | 6.208 | | | | | ND | |
| | 41 Methyl acrylate | 55 | | 6.220 | | | | | ND | |
| | 42 Methacrylonitrile | 67 | | 6.421 | | | | | ND | |
| | 43 Chlorobromomethane | 128 | | 6.482 | | | | | ND | |
| | 44 Tetrahydrofuran | 71 | | 6.488 | | | | | ND | |
| | 45 Chloroform | 83 | | 6.634 | | | | | ND | |
| $ | 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 596845 | 10.0 | 9.90 | |
| | 47 1,1,1-Trichloroethane | 97 | | 6.860 | | | | | ND | |
| | 48 Cyclohexane | 56 | | 6.958 | | | | | ND | |
| | 49 1-Chlorobutane | 56 | | 7.019 | | | | | ND | |
| | 50 Carbon tetrachloride | 117 | | 7.067 | | | | | ND | |
| | 51 1,1-Dichloropropene | 75 | | 7.073 | | | | | ND | |
| | 52 Isobutyl alcohol | 41 | | 7.214 | | | | | ND | |
| $ | 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 83 | 119786 | 10.0 | 9.93 | |
| | 54 Benzene | 78 | | 7.329 | | | | | ND | |
| | 56 1,2-Dichloroethane | 62 | | 7.403 | | | | | ND | |
| | 55 Isopropyl acetate | 43 | | 7.415 | | | | | ND | |
| | 57 Tert-amyl methyl ether | 73 | | 7.518 | | | | | ND | |
| * | 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2393428 | 10.0 | 10.0 | |
| | 59 n-Heptane | 43 | 7.756 | 7.744 | 0.012 | 36 | 5012 | | 0.0538 | |
| | 60 n-Butanol | 56 | | 8.085 | | | | | ND | |
| | 61 Trichloroethene | 95 | | 8.213 | | | | | ND | |
| | 62 Methylcyclohexane | 83 | | 8.518 | | | | | ND | 7 |
| | 63 1,2-Dichloropropane | 63 | | 8.543 | | | | | ND | |
| | 64 Methyl methacrylate | 69 | | 8.622 | | | | | ND | 7 |
| | 65 1,4-Dioxane | 88 | | 8.634 | | | | | ND | |
| | 66 Dibromomethane | 93 | | 8.652 | | | | | ND | |
| | 67 n-Propyl acetate | 43 | | 8.707 | | | | | ND | |
| | 68 Dichlorobromomethane | 83 | | 8.884 | | | | | ND | |
| | 69 2-Nitropropane | 41 | | 9.152 | | | | | ND | |
| | 70 Chloroacetonitrile | 75 | | 9.226 | | | | | ND | |
| | 71 2-Chloroethyl vinyl ether | 63 | | 9.256 | | | | | ND | |
| | 72 1-Bromo-2-chloroethane | 63 | | 9.274 | | | | | ND | |
| | 73 cis-1,3-Dichloropropene | 75 | | 9.427 | | | | | ND | |
| | 74 4-Methyl-2-pentanone (MIBK) | 43 | | 9.597 | | | | | ND | 7 |
| $ | 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2383631 | 10.0 | 9.80 | |
| | 76 Toluene | 92 | | 9.811 | | | | | ND | |
| S | 77 1,3-Dichloropropene, Total | 100 | | 10.060 | | | | | ND | 7 |
| | 78 trans-1,3-Dichloropropene | 75 | | 10.067 | | | | | ND | |
| | 79 Ethyl methacrylate | 69 | | 10.122 | | | | | ND | |
| | 80 1,1,2-Trichloroethane | 97 | | 10.268 | | | | | ND | |
| | 81 Tetrachloroethene | 166 | | 10.359 | | | | | ND | |
| | 82 1,3-Dichloropropane | 76 | | 10.426 | | | | | ND | |
| | 83 2-Hexanone | 43 | | 10.475 | | | | | ND | 7 |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 84 n-Butyl acetate | 43 | | 10.603 | | | | | ND | |
| 85 Chlorodibromomethane | 129 | | 10.646 | | | | | ND | |
| 86 Ethylene Dibromide | 107 | | 10.756 | | | | | ND | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1881472 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | | 11.188 | | | | | ND | 7 |
| 90 Chlorobenzene | 112 | | 11.213 | | | | | ND | |
| S 89 Xylenes, Total | 106 | | 11.245 | | | | | ND | 7 |
| 91 1,1,1,2-Tetrachloroethane | 131 | | 11.292 | | | | | ND | |
| 92 Ethylbenzene | 91 | | 11.292 | | | | | ND | |
| 93 m-Xylene & p-Xylene | 106 | | 11.408 | | | | | ND | |
| 94 o-Xylene | 106 | | 11.737 | | | | | ND | |
| 95 Styrene | 104 | | 11.749 | | | | | ND | |
| 96 Bromoform | 173 | | 11.914 | | | | | ND | |
| 97 Isopropylbenzene | 105 | | 12.036 | | | | | ND | |
| 98 cis-1,4-Dichloro-2-butene | 88 | | 12.079 | | | | | ND | |
| 99 Cyclohexanone | 55 | | 12.121 | | | | | ND | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 93 | 917850 | 10.0 | 9.88 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | | 12.280 | | | | | ND | |
| 102 Bromobenzene | 156 | | 12.298 | | | | | ND | |
| 103 trans-1,4-Dichloro-2-butene | 53 | | 12.304 | | | | | ND | |
| 104 1,2,3-Trichloropropane | 110 | | 12.329 | | | | | ND | |
| 105 N-Propylbenzene | 91 | | 12.365 | | | | | ND | 7 |
| 106 2-Chlorotoluene | 126 | | 12.444 | | | | | ND | |
| 107 1,3,5-Trimethylbenzene | 105 | | 12.499 | | | | | ND | 7 |
| 108 4-Chlorotoluene | 126 | | 12.536 | | | | | ND | |
| 109 tert-Butylbenzene | 134 | | 12.743 | | | | | ND | 7 |
| 110 Pentachloroethane | 167 | | 12.774 | | | | | ND | |
| 111 1,2,4-Trimethylbenzene | 105 | | 12.786 | | | | | ND | 7 |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.908 | 0.000 | 94 | 10192 | | 0.0266 | |
| 113 1,3-Dichlorobenzene | 146 | | 13.005 | | | | | ND | 7 |
| 114 4-Isopropyltoluene | 119 | | 13.011 | | | | | ND | 7 |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1129540 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | | 13.078 | | | | | ND | 7 |
| 117 1,2,3-Trimethylbenzene | 120 | | 13.091 | | | | | ND | 7 |
| 118 Benzyl chloride | 126 | | 13.158 | | | | | ND | 7 |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 5735 | | 0.0362 | |
| 120 1,2-Dichlorobenzene | 146 | | 13.341 | | | | | ND | 7 |
| 121 Hexachloroethane | 117 | | 13.542 | | | | | ND | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.877 | 13.883 | -0.006 | 1 | 2074 | | 0.2258 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.011 | 14.005 | 0.006 | 95 | 5374 | | 0.0426 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.438 | 14.432 | 0.006 | 93 | 4729 | | 0.0444 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 93 | 4953 | | 0.1070 | |
| 126 Naphthalene | 128 | 14.615 | 14.609 | 0.006 | 96 | 12107 | | 0.0596 | M |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 95 | 6986 | | 0.0759 | |
| 128 Dodecane | 57 | | 0.000 | | | | | ND | |
| 133 t-Amyl alcohol | 1 | | 0.000 | | | | | ND | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | | ND | |
| 141 1-Chloropropane | 1 | | 0.000 | | | | | ND | |
| 129 Propene oxide | 1 | | 0.000 | | | | | ND | |
| 207 Acetonitrile TIC | 1 | | 0.000 | | | | | ND | |
| 130 Chlorotrifluoroethene | 1 | | 0.000 | | | | | ND | |
| 206 Pentachloroethane TIC | 1 | | 0.000 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 142 2-Bromo-1-chloropropane | 1 | | 0.000 | | | | | ND | |
| 131 tert-Butyl Formate | 1 | | 0.000 | | | | | ND | |
| 132 Methylal | 1 | | 0.000 | | | | | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | | ND | |
| 138 1,1-Dichloro-1-fluoroethane | 1 | | 0.000 | | | | | ND | |
| 202 1,3-Dichloro-2-propanol TIC | 1 | | 0.000 | | | | | ND | |
| 203 Propargyl alcohol TIC | 1 | | 0.000 | | | | | ND | |
| 204 Pentane | 43 | | 0.000 | | | | | ND | |
| 143 n-Decane | 57 | | 0.000 | | | | | ND | |
| 139 1-Bromo-3-Chloropropane | 1 | | 0.000 | | | | | ND | |
| 205 1,1-Dichloroacetone | 1 | | 0.000 | | | | | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | | ND | |
| 136 2-Chloro-1,1,1-Trifluoroethane | 1 | | 0.000 | | | | | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | | ND | |
| 140 Ethanol | 45 | | 3.269 | | | | | ND | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

## Reagents:

MSV_LLcentISS_00001 Amount Added: 5.00 Units: uL Run Reagent

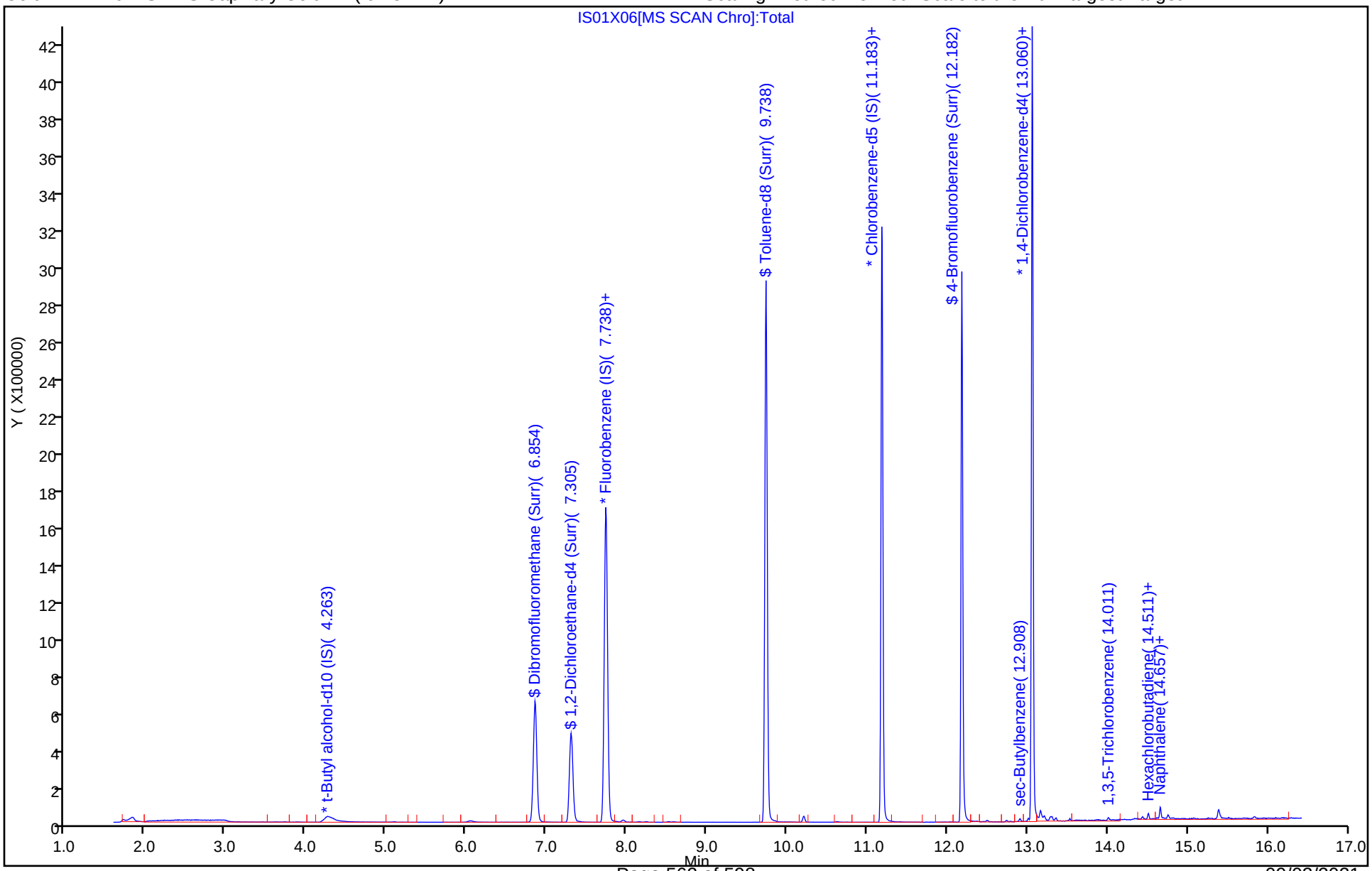
Report Date: 01-Sep-2021 11:36:12 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X06.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 10:58:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | MB | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 01-Sep-2021 10:58:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-007
Misc. Info.: MB
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 11:35:58 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1679

First Level Reviewer: knouses Date: 01-Sep-2021 11:35:04

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 9.90 | 98.99 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 9.93 | 99.31 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.80 | 98.03 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.88 | 98.77 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 410-166762/4

Matrix: Water  Lab File ID: IS01X04.D

Analysis Method: 8260D  Date Collected:

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 10:16

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 5.42 | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | 5.52 | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.28 | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | 5.39 | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | 5.31 | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | 5.90 | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 5.29 | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | 5.13 | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | 5.55 | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | 57.7 | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | 60.8 | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 58.0 | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 55.1 | | 5.0 | 0.90 |
| 71-43-2 | Benzene | 5.53 | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | 5.70 | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | 5.49 | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | 5.37 | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | 5.36 | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | 5.39 | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | 5.66 | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | 5.37 | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | 5.28 | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 5.48 | | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | 5.42 | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 5.65 | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.42 | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | 5.34 | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | 5.33 | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | 5.45 | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | 5.60 | | 0.50 | 0.070 |
| 100-42-5 | Styrene | 5.45 | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 5.50 | | 0.50 | 0.060 |
| 108-88-3 | Toluene | 5.26 | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | 5.53 | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.37 | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 5.48 | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID:  Lab Sample ID: LCS 410-166762/4

Matrix: Water  Lab File ID: IS01X04.D

Analysis Method: 8260D  Date Collected:

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 10:16

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | 5.34 | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | 16.2 | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 101 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 97 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 97 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X04.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Sep-2021 10:16:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-004
Misc. Info.: LCS
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 11:35:58 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1679

First Level Reviewer: knouses Date: 01-Sep-2021 10:47:42

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.989 | 1.977 | 0.012 | 99 | 444388 | 5.00 | 6.39 | |
| 4 Chloromethane | 50 | 2.184 | 2.178 | 0.006 | 99 | 429146 | 5.00 | 5.42 | |
| 6 Butadiene | 39 | 2.306 | 2.294 | 0.012 | 90 | 427974 | 5.00 | 5.88 | |
| 5 Vinyl chloride | 62 | 2.300 | 2.294 | 0.006 | 75 | 426564 | 5.00 | 5.34 | |
| 7 Bromomethane | 94 | 2.635 | 2.629 | 0.006 | 91 | 309936 | 5.00 | 5.36 | |
| 8 Chloroethane | 64 | 2.721 | 2.708 | 0.013 | 99 | 252502 | 5.00 | 5.28 | |
| 9 Dichlorofluoromethane | 67 | 2.959 | 2.952 | 0.007 | 97 | 610127 | 5.00 | 5.30 | |
| 10 Trichlorofluoromethane | 101 | 3.026 | 3.019 | 0.007 | 96 | 585265 | 5.00 | 5.69 | |
| 11 Ethyl ether | 59 | 3.269 | 3.257 | 0.012 | 90 | 213046 | 5.02 | 5.10 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.361 | 3.349 | 0.012 | 91 | 396041 | 5.00 | 5.37 | |
| 13 Acrolein | 56 | 3.446 | 3.428 | 0.018 | 98 | 278219 | 37.5 | 34.0 | |
| 14 1,1-Dichloroethene | 96 | 3.587 | 3.574 | 0.012 | 98 | 312702 | 5.00 | 5.90 | |
| 15 Acetone | 43 | 3.617 | 3.599 | 0.019 | 100 | 572628 | 62.5 | 55.1 | |
| 16 112TCTFE | 101 | 3.635 | 3.617 | 0.018 | 90 | 350103 | 5.00 | 6.32 | |
| 17 Iodomethane | 142 | 3.782 | 3.769 | 0.013 | 99 | 592237 | 5.00 | 5.59 | |
| 18 Ethyl bromide | 108 | 3.812 | 3.800 | 0.012 | 99 | 283723 | 5.07 | 5.87 | |
| 19 Carbon disulfide | 76 | 3.891 | 3.879 | 0.012 | 99 | 789110 | 5.00 | 5.39 | |
| 21 Methyl acetate | 43 | 4.044 | 4.019 | 0.025 | 97 | 137610 | 5.00 | 4.50 | |
| 22 3-Chloro-1-propene | 41 | 4.068 | 4.050 | 0.018 | 91 | 456847 | 5.00 | 5.25 | |
| 23 Methylene Chloride | 84 | 4.257 | 4.239 | 0.018 | 90 | 323990 | 5.00 | 5.60 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.269 | 4.251 | 0.018 | 96 | 187044 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.397 | 4.379 | 0.018 | 99 | 202811 | 50.0 | 51.5 | |
| 26 Acrylonitrile | 53 | 4.592 | 4.586 | 0.006 | 98 | 321032 | 25.0 | 23.2 | |
| 27 Methyl tert-butyl ether | 73 | 4.659 | 4.653 | 0.006 | 94 | 823996 | 5.00 | 5.45 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.672 | 4.665 | 0.007 | 99 | 332922 | 5.00 | 5.53 | |
| 29 Hexane | 57 | 5.098 | 5.092 | 0.006 | 91 | 479604 | 5.00 | 5.70 | |
| 31 1,1-Dichloroethane | 63 | 5.336 | 5.324 | 0.012 | 96 | 580178 | 5.00 | 5.31 | |
| 32 Isopropyl ether | 45 | 5.391 | 5.379 | 0.012 | 94 | 967855 | 5.00 | 5.30 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.446 | 5.434 | 0.012 | 90 | 515017 | 5.00 | 5.65 | |
| 34 Tert-butyl ethyl ether | 59 | 5.921 | 5.915 | 0.006 | 97 | 986322 | 5.00 | 5.52 | |
| 36 2-Butanone (MEK) | 43 | 6.123 | 6.116 | 0.007 | 99 | 1047256 | 62.5 | 57.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 37 cis-1,2-Dichloroethene | 96 | 6.165 | 6.153 | 0.012 | 81 | 379287 | 5.00 | 5.65 | |
| 38 2,2-Dichloropropane | 77 | 6.177 | 6.171 | 0.006 | 89 | 532552 | 5.00 | 5.60 | |
| 40 Propionitrile | 54 | 6.220 | 6.208 | 0.012 | 99 | 188804 | 37.5 | 39.2 | |
| 42 Methacrylonitrile | 67 | 6.427 | 6.421 | 0.006 | 90 | 637142 | 37.5 | 35.0 | |
| 43 Chlorobromomethane | 128 | 6.494 | 6.482 | 0.012 | 90 | 164963 | 5.00 | 5.70 | |
| 44 Tetrahydrofuran | 71 | 6.501 | 6.488 | 0.013 | 77 | 128063 | 25.0 | 23.8 | |
| 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 93 | 593400 | 5.00 | 5.48 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 565568 | 10.0 | 10.1 | |
| 47 1,1,1-Trichloroethane | 97 | 6.872 | 6.860 | 0.012 | 98 | 555061 | 5.00 | 5.52 | |
| 48 Cyclohexane | 56 | 6.964 | 6.958 | 0.006 | 89 | 582052 | 5.00 | 5.83 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.067 | 0.013 | 88 | 491384 | 5.00 | 5.66 | |
| 51 1,1-Dichloropropene | 75 | 7.074 | 7.073 | 0.001 | 96 | 483637 | 5.00 | 5.70 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 95 | 155143 | 125.0 | 123.4 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 95 | 113114 | 10.0 | 10.1 | |
| 54 Benzene | 78 | 7.342 | 7.329 | 0.013 | 96 | 1381417 | 5.00 | 5.53 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.403 | 0.006 | 97 | 347026 | 5.00 | 5.13 | |
| 57 Tert-amyl methyl ether | 73 | 7.525 | 7.518 | 0.007 | 99 | 892477 | 5.00 | 5.38 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2222286 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.750 | 7.744 | 0.006 | 90 | 459397 | 5.00 | 5.31 | |
| 60 n-Butanol | 56 | 8.098 | 8.085 | 0.013 | 87 | 295486 | 250.0 | 253.3 | |
| 61 Trichloroethene | 95 | 8.214 | 8.213 | 0.001 | 97 | 367842 | 5.00 | 5.48 | |
| 62 Methylcyclohexane | 83 | 8.525 | 8.518 | 0.007 | 92 | 668359 | 5.00 | 5.98 | |
| 63 1,2-Dichloropropane | 63 | 8.549 | 8.543 | 0.006 | 85 | 340281 | 5.00 | 5.55 | |
| 64 Methyl methacrylate | 69 | 8.628 | 8.622 | 0.006 | 90 | 166267 | 5.00 | 4.64 | |
| 65 1,4-Dioxane | 88 | 8.634 | 8.634 | 0.000 | 31 | 39577 | 125.0 | 114.0 | M |
| 66 Dibromomethane | 93 | 8.665 | 8.652 | 0.013 | 93 | 166658 | 5.00 | 5.56 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.884 | 0.006 | 99 | 408662 | 5.00 | 5.49 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 98 | 40116 | 5.00 | 3.91 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.281 | 9.274 | 0.006 | 99 | 330393 | 5.00 | 5.49 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.427 | 0.006 | 97 | 506654 | 5.00 | 5.42 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.598 | 9.597 | 0.001 | 95 | 2648147 | 62.5 | 58.0 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2240566 | 10.0 | 9.72 | |
| 76 Toluene | 92 | 9.817 | 9.811 | 0.006 | 98 | 900460 | 5.00 | 5.26 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 423478 | 5.00 | 5.37 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.122 | 0.006 | 88 | 361093 | 5.00 | 5.48 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 90 | 245839 | 5.00 | 5.39 | |
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 98 | 447991 | 5.00 | 5.50 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.426 | 0.007 | 87 | 415862 | 5.00 | 5.36 | |
| 83 2-Hexanone | 43 | 10.481 | 10.475 | 0.006 | 96 | 1946041 | 62.5 | 60.8 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 89 | 296932 | 5.00 | 5.34 | |
| 86 Ethylene Dibromide | 107 | 10.762 | 10.756 | 0.006 | 99 | 232795 | 5.00 | 5.29 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1784573 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.189 | 11.188 | 0.001 | 95 | 527135 | 5.00 | 5.27 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 96 | 1017576 | 5.00 | 5.37 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 94 | 358919 | 5.00 | 5.42 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.292 | 0.006 | 98 | 1754580 | 5.00 | 5.33 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 100 | 1403457 | 10.0 | 10.8 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 690392 | 5.00 | 5.38 | |
| 95 Styrene | 104 | 11.756 | 11.749 | 0.007 | 95 | 1130765 | 5.00 | 5.45 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 98 | 178764 | 5.00 | 5.37 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 1856788 | 5.00 | 5.48 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 94 | 858198 | 10.0 | 9.74 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 94 | 306672 | 5.00 | 5.28 | |
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 94 | 442523 | 5.00 | 5.56 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 93 | 325434 | 25.0 | 19.7 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.001 | 83 | 86191 | 5.00 | 5.39 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 98 | 2095687 | 5.00 | 5.42 | |
| 106 2-Chlorotoluene | 126 | 12.445 | 12.444 | 0.001 | 97 | 434630 | 5.00 | 5.48 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 1522753 | 5.00 | 5.39 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 437796 | 5.00 | 5.40 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 91 | 334802 | 5.00 | 5.41 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 1541306 | 5.00 | 5.33 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.908 | 0.000 | 94 | 1971230 | 5.00 | 5.52 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 861305 | 5.00 | 5.36 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 1707838 | 5.00 | 5.41 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 93 | 1051411 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.079 | 13.078 | 0.001 | 96 | 875718 | 5.00 | 5.33 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.091 | 0.000 | 98 | 677165 | 5.00 | 5.29 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 125130 | 5.00 | 5.26 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 770433 | 5.00 | 5.22 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.001 | 99 | 782478 | 5.00 | 5.33 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 89 | 47935 | 5.00 | 5.61 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 619836 | 5.00 | 5.27 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 492748 | 5.00 | 4.97 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 215641 | 5.00 | 5.00 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 870751 | 5.00 | 4.61 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 387040 | 5.00 | 4.52 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| MSV_LCS_VOC#1_00016 | Amount Added: | 12.50 | Units: uL | |
| MSV_Q_ETBR_00008 | Amount Added: | 12.50 | Units: uL | |
| MSV_Q_EE_00004 | Amount Added: | 12.50 | Units: uL | |
| MSV_LCS_ACROL_00018 | Amount Added: | 12.50 | Units: uL | |
| MSV_QC_Gas826_00030 | Amount Added: | 12.50 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: | 5.00 | Units: uL | Run Reagent |

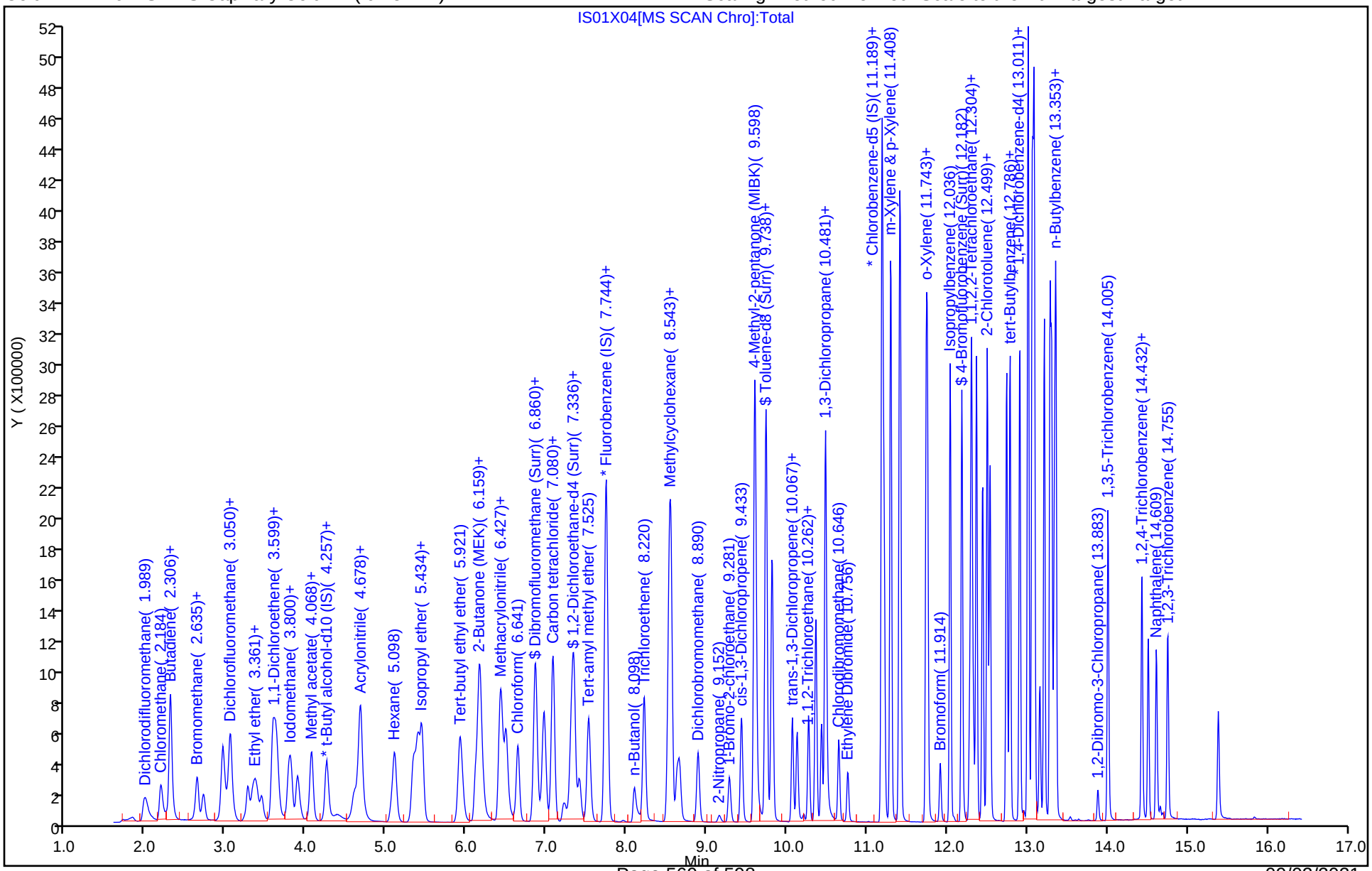
Report Date: 01-Sep-2021 11:36:04 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X04.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 10:16:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | LCS | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X04.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Sep-2021 10:16:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-004
Misc. Info.: LCS
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 11:35:58 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1679

First Level Reviewer: knouses Date: 01-Sep-2021 10:47:42

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 10.1 | 101.03 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.1 | 101.00 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.72 | 97.15 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.74 | 97.37 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MS MS  Lab Sample ID: 410-53151-6 MS

Matrix: Water  Lab File ID: IS01X10.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:10

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 12:23

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 5.44 | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | 5.99 | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.11 | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | 5.27 | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | 5.62 | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | 6.48 | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 5.26 | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | 5.30 | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | 5.59 | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | 55.6 | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | 58.1 | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 56.4 | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 51.8 | | 5.0 | 0.90 |
| 71-43-2 | Benzene | 5.67 | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | 5.75 | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | 5.55 | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | 5.14 | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | 5.59 | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | 5.82 | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | 6.02 | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | 5.45 | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | 5.61 | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 5.87 | | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | 5.67 | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 6.65 | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.37 | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | 5.24 | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | 5.49 | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | 5.39 | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | 5.67 | | 0.50 | 0.070 |
| 100-42-5 | Styrene | 5.48 | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 9.01 | | 0.50 | 0.060 |
| 108-88-3 | Toluene | 5.47 | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | 5.74 | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.23 | | 0.50 | 0.060 |
| 79-01-6 | Trichloroethene | 6.82 | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MS MS  Lab Sample ID: 410-53151-6 MS

Matrix: Water  Lab File ID: IS01X10.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:10

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 12:23

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 75-01-4 | Vinyl chloride | 5.83 | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | 16.6 | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 100 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 98 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 97 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X10.D
Lims ID: 410-53151-A-6 MS
Client ID: HD-COD-SW-15-0/1-0 MS
Sample Type: MS
Inject. Date: 01-Sep-2021 12:23:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-011
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:51:03

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.983 | 1.977 | 0.006 | 99 | 485137 | 5.00 | 6.92 | |
| 4 Chloromethane | 50 | 2.184 | 2.178 | 0.006 | 99 | 452432 | 5.00 | 5.67 | |
| 6 Butadiene | 39 | 2.300 | 2.294 | 0.006 | 89 | 486501 | 5.00 | 6.63 | |
| 5 Vinyl chloride | 62 | 2.300 | 2.294 | 0.006 | 76 | 468976 | 5.00 | 5.83 | |
| 7 Bromomethane | 94 | 2.635 | 2.629 | 0.006 | 90 | 326089 | 5.00 | 5.59 | |
| 8 Chloroethane | 64 | 2.721 | 2.708 | 0.013 | 100 | 270744 | 5.00 | 5.61 | |
| 9 Dichlorofluoromethane | 67 | 2.958 | 2.952 | 0.006 | 97 | 652059 | 5.00 | 5.62 | |
| 10 Trichlorofluoromethane | 101 | 3.025 | 3.019 | 0.006 | 98 | 639314 | 5.00 | 6.16 | |
| 11 Ethyl ether | 59 | 3.269 | 3.257 | 0.012 | 90 | 216335 | 5.03 | 5.13 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.361 | 3.349 | 0.012 | 91 | 423568 | 5.00 | 5.70 | |
| 13 Acrolein | 56 | 3.446 | 3.428 | 0.018 | 99 | 249366 | 37.5 | 30.2 | |
| 14 1,1-Dichloroethene | 96 | 3.586 | 3.574 | 0.012 | 98 | 346550 | 5.00 | 6.48 | |
| 15 Acetone | 43 | 3.611 | 3.599 | 0.013 | 100 | 543838 | 62.6 | 51.8 | |
| 16 112TCTFE | 101 | 3.623 | 3.617 | 0.006 | 90 | 391592 | 5.00 | 7.01 | |
| 17 Iodomethane | 142 | 3.781 | 3.769 | 0.012 | 98 | 628581 | 5.00 | 5.88 | |
| 18 Ethyl bromide | 108 | 3.812 | 3.800 | 0.012 | 98 | 283996 | 5.07 | 5.83 | |
| 19 Carbon disulfide | 76 | 3.891 | 3.879 | 0.012 | 99 | 858403 | 5.00 | 5.82 | |
| 21 Methyl acetate | 43 | 4.037 | 4.019 | 0.018 | 96 | 154441 | 5.00 | 5.00 | |
| 22 3-Chloro-1-propene | 41 | 4.062 | 4.050 | 0.012 | 91 | 482255 | 5.00 | 5.50 | |
| 23 Methylene Chloride | 84 | 4.251 | 4.239 | 0.012 | 90 | 330806 | 5.00 | 5.67 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.257 | 4.251 | 0.006 | 96 | 189019 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.385 | 4.379 | 0.006 | 99 | 184826 | 50.0 | 46.4 | |
| 26 Acrylonitrile | 53 | 4.592 | 4.586 | 0.006 | 99 | 308569 | 25.0 | 22.0 | |
| 27 Methyl tert-butyl ether | 73 | 4.665 | 4.653 | 0.012 | 94 | 822834 | 5.00 | 5.39 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.678 | 4.665 | 0.013 | 99 | 348627 | 5.00 | 5.74 | |
| 29 Hexane | 57 | 5.098 | 5.092 | 0.006 | 91 | 533974 | 5.00 | 6.30 | |
| 31 1,1-Dichloroethane | 63 | 5.336 | 5.324 | 0.012 | 96 | 619217 | 5.00 | 5.62 | |
| 32 Isopropyl ether | 45 | 5.391 | 5.379 | 0.012 | 94 | 969621 | 5.00 | 5.27 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.446 | 5.434 | 0.012 | 91 | 549942 | 5.00 | 5.98 | |
| 34 Tert-butyl ethyl ether | 59 | 5.921 | 5.915 | 0.006 | 97 | 980790 | 5.00 | 5.45 | |
| 36 2-Butanone (MEK) | 43 | 6.122 | 6.116 | 0.006 | 99 | 1020313 | 62.6 | 55.6 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.165 | 6.153 | 0.012 | 81 | 449772 | 5.00 | 6.65 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 38 2,2-Dichloropropane | 77 | 6.177 | 6.171 | 0.006 | 87 | 572759 | 5.00 | 5.98 | |
| 40 Propionitrile | 54 | 6.220 | 6.208 | 0.012 | 99 | 165962 | 37.5 | 34.1 | |
| 42 Methacrylonitrile | 67 | 6.427 | 6.421 | 0.006 | 90 | 626789 | 37.5 | 34.0 | |
| 43 Chlorobromomethane | 128 | 6.494 | 6.482 | 0.012 | 90 | 167962 | 5.00 | 5.75 | |
| 44 Tetrahydrofuran | 71 | 6.494 | 6.488 | 0.006 | 74 | 123606 | 25.0 | 22.7 | |
| 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 93 | 640415 | 5.00 | 5.87 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 565072 | 10.0 | 10.0 | |
| 47 1,1,1-Trichloroethane | 97 | 6.866 | 6.860 | 0.006 | 98 | 607981 | 5.00 | 5.99 | |
| 48 Cyclohexane | 56 | 6.970 | 6.958 | 0.012 | 88 | 636104 | 5.00 | 6.32 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.067 | 0.013 | 96 | 526860 | 5.00 | 6.02 | |
| 51 1,1-Dichloropropene | 75 | 7.080 | 7.073 | 0.007 | 96 | 515532 | 5.00 | 6.02 | |
| 52 Isobutyl alcohol | 41 | 7.214 | 7.214 | 0.000 | 94 | 143387 | 125.1 | 112.9 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.305 | 7.299 | 0.006 | 94 | 112975 | 10.0 | 10.0 | |
| 54 Benzene | 78 | 7.342 | 7.329 | 0.013 | 97 | 1427628 | 5.00 | 5.67 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.403 | 0.006 | 98 | 362011 | 5.00 | 5.30 | |
| 57 Tert-amyl methyl ether | 73 | 7.525 | 7.518 | 0.007 | 99 | 887145 | 5.00 | 5.31 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2240398 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.750 | 7.744 | 0.006 | 89 | 504783 | 5.00 | 5.79 | |
| 60 n-Butanol | 56 | 8.092 | 8.085 | 0.007 | 86 | 278491 | 250.2 | 236.2 | |
| 61 Trichloroethene | 95 | 8.220 | 8.213 | 0.007 | 97 | 461992 | 5.00 | 6.82 | |
| 62 Methylcyclohexane | 83 | 8.524 | 8.518 | 0.006 | 92 | 726703 | 5.00 | 6.45 | |
| 63 1,2-Dichloropropane | 63 | 8.549 | 8.543 | 0.006 | 85 | 345816 | 5.00 | 5.59 | |
| 64 Methyl methacrylate | 69 | 8.628 | 8.622 | 0.006 | 88 | 163087 | 5.00 | 4.50 | |
| 65 1,4-Dioxane | 88 | 8.634 | 8.634 | 0.000 | 30 | 35314 | 125.1 | 102.8 | |
| 66 Dibromomethane | 93 | 8.659 | 8.652 | 0.006 | 93 | 163821 | 5.00 | 5.42 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.884 | 0.006 | 99 | 416250 | 5.00 | 5.55 | |
| 69 2-Nitropropane | 41 | 9.152 | 9.152 | 0.000 | 97 | 37387 | 5.00 | 3.61 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.280 | 9.274 | 0.006 | 98 | 325915 | 5.00 | 5.37 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.427 | 0.006 | 97 | 505645 | 5.00 | 5.37 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.603 | 9.597 | 0.006 | 96 | 2601999 | 62.6 | 56.4 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2236883 | 10.0 | 9.70 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 98 | 934366 | 5.00 | 5.47 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 412027 | 5.00 | 5.23 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.122 | 0.006 | 88 | 350201 | 5.00 | 5.32 | |
| 80 1,1,2-Trichloroethane | 97 | 10.274 | 10.268 | 0.006 | 90 | 240563 | 5.00 | 5.27 | |
| 81 Tetrachloroethene | 166 | 10.359 | 10.359 | 0.000 | 98 | 733953 | 5.00 | 9.01 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.426 | 0.007 | 88 | 407177 | 5.00 | 5.25 | |
| 83 2-Hexanone | 43 | 10.481 | 10.475 | 0.006 | 95 | 1877975 | 62.6 | 58.1 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 89 | 290984 | 5.00 | 5.24 | |
| 86 Ethylene Dibromide | 107 | 10.756 | 10.756 | 0.000 | 99 | 231581 | 5.00 | 5.26 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.182 | 11.182 | 0.000 | 85 | 1783570 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.195 | 11.188 | 0.007 | 95 | 554853 | 5.00 | 5.55 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 96 | 1032918 | 5.00 | 5.45 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 94 | 359751 | 5.00 | 5.44 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.292 | 0.006 | 98 | 1808450 | 5.00 | 5.49 | |
| 93 m-Xylene & p-Xylene | 106 | 11.414 | 11.408 | 0.006 | 100 | 1437395 | 10.0 | 11.1 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 699081 | 5.00 | 5.45 | |
| 95 Styrene | 104 | 11.755 | 11.749 | 0.006 | 95 | 1135942 | 5.00 | 5.48 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 98 | 171265 | 5.00 | 5.14 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 1932515 | 5.00 | 5.70 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 94 | 862192 | 10.0 | 9.79 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 94 | 296549 | 5.00 | 5.11 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 94 | 444577 | 5.00 | 5.59 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 92 | 306900 | 25.0 | 18.4 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.001 | 83 | 84051 | 5.00 | 5.26 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 2161540 | 5.00 | 5.59 | |
| 106 2-Chlorotoluene | 126 | 12.444 | 12.444 | 0.000 | 97 | 439344 | 5.00 | 5.54 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 1566975 | 5.00 | 5.55 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 440797 | 5.00 | 5.45 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 92 | 346571 | 5.00 | 5.60 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 1570949 | 5.00 | 5.43 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.908 | 0.000 | 94 | 2044413 | 5.00 | 5.73 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 868410 | 5.00 | 5.41 | |
| 114 4-Isopropyltoluene | 119 | 13.011 | 13.011 | 0.000 | 97 | 1748019 | 5.00 | 5.54 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 94 | 1050529 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.078 | 13.078 | 0.000 | 96 | 882751 | 5.00 | 5.38 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.091 | 0.000 | 98 | 678914 | 5.00 | 5.31 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 124783 | 5.00 | 5.25 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 96 | 798616 | 5.00 | 5.42 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.001 | 99 | 781089 | 5.00 | 5.33 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 90 | 47250 | 5.00 | 5.53 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 611873 | 5.00 | 5.21 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 482642 | 5.00 | 4.87 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 94 | 220732 | 5.00 | 5.13 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 813579 | 5.00 | 4.31 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 362867 | 5.00 | 4.24 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

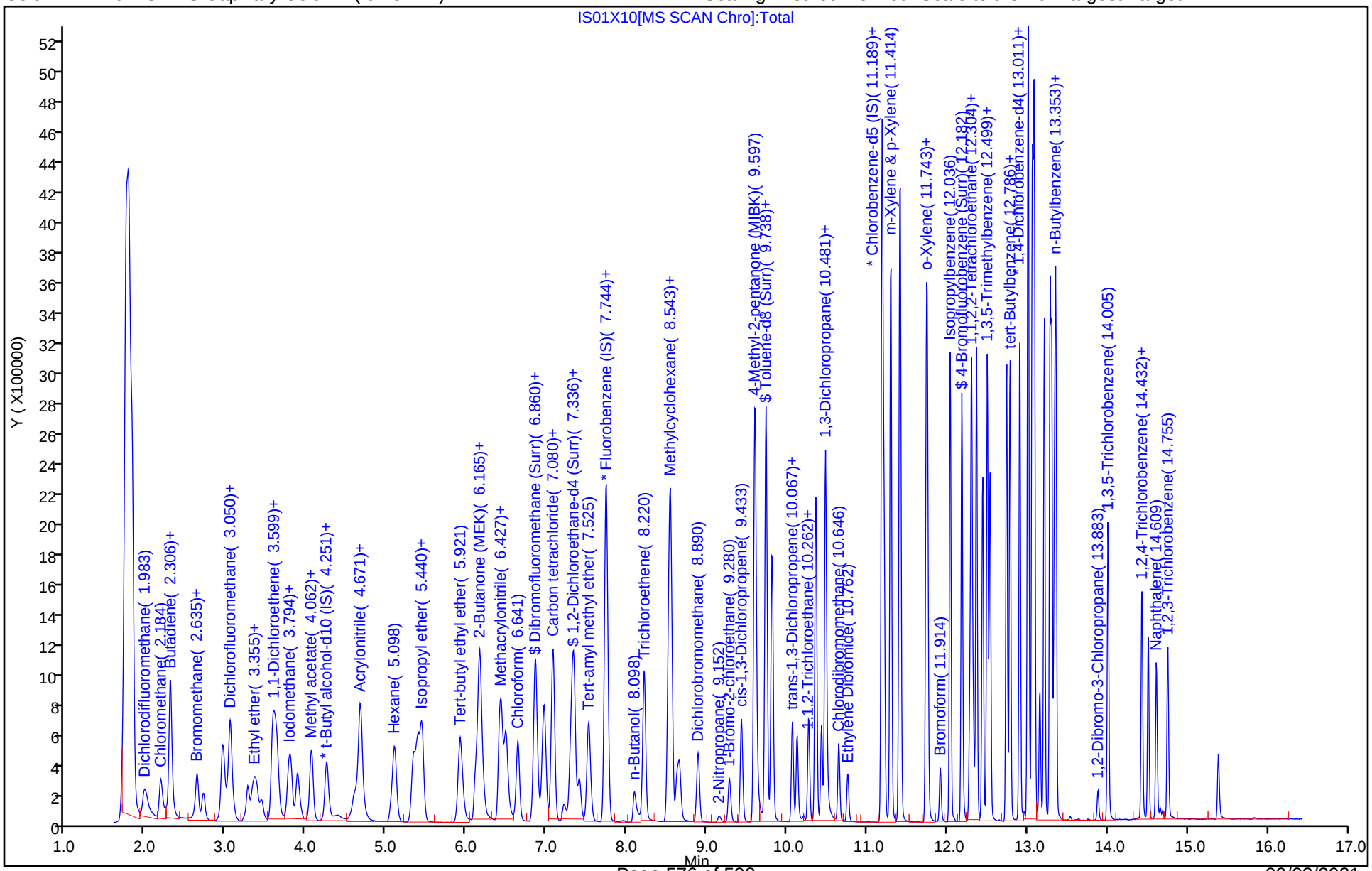
| | | | | |
|---|---|---|---|---|
| MSV_LCS_VOC#1_00016 | Amount Added: | 5.38 | Units: uL | |
| MSV_Q_ETBR_00008 | Amount Added: | 5.38 | Units: uL | |
| MSV_Q_EE_00004 | Amount Added: | 5.38 | Units: uL | |
| MSV_LCS_ACROL_00018 | Amount Added: | 5.38 | Units: uL | |
| MSV_QC_Gas826_00030 | Amount Added: | 5.38 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: | 5.00 | Units: uL | Run Reagent |

Report Date: 01-Sep-2021 20:58:16 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X10.D | | | | |
| Injection Date: | 01-Sep-2021 12:23:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-6 MS | | | Worklist Smp#: | 11 |
| Client ID: | HD-COD-SW-15-0/1-0 MS | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X10.D
Lims ID: 410-53151-A-6 MS
Client ID: HD-COD-SW-15-0/1-0 MS
Sample Type: MS
Inject. Date: 01-Sep-2021 12:23:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-011
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:51:03

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 10.0 | 100.12 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.0 | 100.06 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.70 | 97.05 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.79 | 97.87 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSD  Lab Sample ID: 410-53151-6 MSD

Matrix: Water  Lab File ID: IS01X11.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:10

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 12:44

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 630-20-6 | 1,1,1,2-Tetrachloroethane | 5.66 | | 0.50 | 0.070 |
| 71-55-6 | 1,1,1-Trichloroethane | 6.18 | | 0.50 | 0.060 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.38 | | 0.50 | 0.070 |
| 79-00-5 | 1,1,2-Trichloroethane | 5.50 | | 0.50 | 0.060 |
| 75-34-3 | 1,1-Dichloroethane | 5.90 | | 0.50 | 0.070 |
| 75-35-4 | 1,1-Dichloroethene | 6.77 | | 0.50 | 0.060 |
| 106-93-4 | 1,2-Dibromoethane (EDB) | 5.47 | | 0.50 | 0.060 |
| 107-06-2 | 1,2-Dichloroethane | 5.37 | | 0.50 | 0.050 |
| 78-87-5 | 1,2-Dichloropropane | 5.79 | | 0.50 | 0.060 |
| 78-93-3 | 2-Butanone (MEK) | 60.1 | | 5.0 | 0.60 |
| 591-78-6 | 2-Hexanone | 61.7 | | 5.0 | 0.60 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | 60.4 | | 5.0 | 0.70 |
| 67-64-1 | Acetone | 56.3 | | 5.0 | 0.90 |
| 71-43-2 | Benzene | 5.89 | | 0.50 | 0.050 |
| 74-97-5 | Bromochloromethane | 6.04 | | 0.50 | 0.050 |
| 75-27-4 | Bromodichloromethane | 5.77 | | 0.50 | 0.050 |
| 75-25-2 | Bromoform | 5.37 | | 1.0 | 0.30 |
| 74-83-9 | Bromomethane | 5.43 | | 0.50 | 0.070 |
| 75-15-0 | Carbon disulfide | 6.18 | | 1.0 | 0.060 |
| 56-23-5 | Carbon tetrachloride | 6.28 | | 0.50 | 0.070 |
| 108-90-7 | Chlorobenzene | 5.67 | | 0.50 | 0.060 |
| 75-00-3 | Chloroethane | 5.38 | | 0.50 | 0.070 |
| 67-66-3 | Chloroform | 6.04 | | 0.50 | 0.090 |
| 74-87-3 | Chloromethane | 5.66 | | 0.50 | 0.060 |
| 156-59-2 | cis-1,2-Dichloroethene | 6.87 | | 0.50 | 0.050 |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.56 | | 0.50 | 0.050 |
| 124-48-1 | Dibromochloromethane | 5.44 | | 0.50 | 0.070 |
| 100-41-4 | Ethylbenzene | 5.72 | | 0.50 | 0.060 |
| 1634-04-4 | Methyl tert-butyl ether | 5.51 | | 0.50 | 0.050 |
| 75-09-2 | Methylene Chloride | 5.82 | | 0.50 | 0.070 |
| 100-42-5 | Styrene | 5.69 | | 0.50 | 0.050 |
| 127-18-4 | Tetrachloroethene | 9.50 | | 0.50 | 0.060 |
| 108-88-3 | Toluene | 5.65 | | 0.50 | 0.070 |
| 156-60-5 | trans-1,2-Dichloroethene | 6.02 | | 0.50 | 0.060 |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.50 | | 0.50 | 0.060 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E  Job No.: 410-53151-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSD  Lab Sample ID: 410-53151-6 MSD

Matrix: Water  Lab File ID: IS01X11.D

Analysis Method: 8260D  Date Collected: 08/26/2021 12:10

Sample wt/vol: 25(mL)  Date Analyzed: 09/01/2021 12:44

Soil Aliquot Vol:  Dilution Factor: 1

Soil Extract Vol.:  GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture:  Level: (low/med) Low

Analysis Batch No.: 166762  Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 7.10 | | 0.50 | 0.060 |
| 75-01-4 | Vinyl chloride | 5.69 | | 0.50 | 0.10 |
| 1330-20-7 | Xylenes, Total | 17.1 | | 1.0 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 101 | | 80-120 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 98 | | 80-120 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 80-120 |
| 2037-26-5 | Toluene-d8 (Surr) | 98 | | 80-120 |

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X11.D
Lims ID: 410-53151-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0 MSD
Sample Type: MSD
Inject. Date: 01-Sep-2021 12:44:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0038237-012
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Sep-2021 20:57:29 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: campbellme Date: 01-Sep-2021 20:51:45

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 Dichlorodifluoromethane | 85 | 1.989 | 1.977 | 0.012 | 99 | 459614 | 5.00 | 6.65 | |
| 4 Chloromethane | 50 | 2.184 | 2.178 | 0.006 | 99 | 445120 | 5.00 | 5.66 | |
| 6 Butadiene | 39 | 2.300 | 2.294 | 0.006 | 90 | 458592 | 5.00 | 6.34 | |
| 5 Vinyl chloride | 62 | 2.306 | 2.294 | 0.012 | 76 | 451742 | 5.00 | 5.69 | |
| 7 Bromomethane | 94 | 2.635 | 2.629 | 0.006 | 91 | 312477 | 5.00 | 5.43 | |
| 8 Chloroethane | 64 | 2.715 | 2.708 | 0.007 | 99 | 255935 | 5.00 | 5.38 | |
| 9 Dichlorofluoromethane | 67 | 2.959 | 2.952 | 0.007 | 97 | 620549 | 5.00 | 5.43 | |
| 10 Trichlorofluoromethane | 101 | 3.026 | 3.019 | 0.007 | 96 | 610735 | 5.00 | 5.97 | |
| 11 Ethyl ether | 59 | 3.270 | 3.257 | 0.013 | 90 | 195949 | 5.03 | 4.72 | |
| 12 1,2-Dichloro-1,1,2-trifluoroetha | 67 | 3.361 | 3.349 | 0.012 | 92 | 409451 | 5.00 | 5.59 | |
| 13 Acrolein | 56 | 3.440 | 3.428 | 0.012 | 100 | 262426 | 37.5 | 33.9 | |
| 14 1,1-Dichloroethene | 96 | 3.580 | 3.574 | 0.006 | 98 | 357078 | 5.00 | 6.77 | |
| 15 Acetone | 43 | 3.611 | 3.599 | 0.013 | 100 | 554222 | 62.6 | 56.3 | |
| 16 112TCTFE | 101 | 3.629 | 3.617 | 0.012 | 91 | 401211 | 5.00 | 7.29 | |
| 17 Iodomethane | 142 | 3.782 | 3.769 | 0.013 | 99 | 639601 | 5.00 | 6.07 | |
| 18 Ethyl bromide | 108 | 3.812 | 3.800 | 0.012 | 98 | 291274 | 5.07 | 6.06 | |
| 19 Carbon disulfide | 76 | 3.891 | 3.879 | 0.012 | 99 | 899988 | 5.00 | 6.18 | |
| 21 Methyl acetate | 43 | 4.038 | 4.019 | 0.019 | 97 | 138195 | 5.00 | 4.77 | |
| 22 3-Chloro-1-propene | 41 | 4.062 | 4.050 | 0.012 | 91 | 492155 | 5.00 | 5.69 | |
| 23 Methylene Chloride | 84 | 4.257 | 4.239 | 0.018 | 90 | 334794 | 5.00 | 5.82 | |
| * 24 t-Butyl alcohol-d10 (IS) | 65 | 4.269 | 4.251 | 0.018 | 97 | 177085 | 50.0 | 50.0 | |
| 25 2-Methyl-2-propanol | 59 | 4.397 | 4.379 | 0.018 | 100 | 192209 | 50.0 | 51.5 | |
| 26 Acrylonitrile | 53 | 4.592 | 4.586 | 0.006 | 100 | 311273 | 25.0 | 23.7 | |
| 27 Methyl tert-butyl ether | 73 | 4.666 | 4.653 | 0.013 | 94 | 828400 | 5.00 | 5.51 | |
| 28 trans-1,2-Dichloroethene | 96 | 4.678 | 4.665 | 0.013 | 99 | 360288 | 5.00 | 6.02 | |
| 29 Hexane | 57 | 5.105 | 5.092 | 0.012 | 90 | 548721 | 5.00 | 6.56 | |
| 31 1,1-Dichloroethane | 63 | 5.336 | 5.324 | 0.012 | 96 | 641380 | 5.00 | 5.90 | |
| 32 Isopropyl ether | 45 | 5.391 | 5.379 | 0.012 | 94 | 991848 | 5.00 | 5.46 | |
| 33 2-Chloro-1,3-butadiene | 53 | 5.446 | 5.434 | 0.012 | 90 | 564922 | 5.00 | 6.24 | |
| 34 Tert-butyl ethyl ether | 59 | 5.921 | 5.915 | 0.006 | 97 | 996567 | 5.00 | 5.62 | |
| 36 2-Butanone (MEK) | 43 | 6.123 | 6.116 | 0.007 | 99 | 1033135 | 62.6 | 60.1 | |
| 37 cis-1,2-Dichloroethene | 96 | 6.159 | 6.153 | 0.006 | 81 | 458363 | 5.00 | 6.87 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 38 2,2-Dichloropropane | 77 | 6.177 | 6.171 | 0.006 | 86 | 579853 | 5.00 | 6.14 | |
| 40 Propionitrile | 54 | 6.208 | 6.208 | 0.000 | 99 | 165308 | 37.5 | 36.2 | |
| 42 Methacrylonitrile | 67 | 6.421 | 6.421 | 0.000 | 91 | 633662 | 37.5 | 36.7 | |
| 43 Chlorobromomethane | 128 | 6.494 | 6.482 | 0.012 | 89 | 173939 | 5.00 | 6.04 | |
| 44 Tetrahydrofuran | 71 | 6.507 | 6.488 | 0.019 | 73 | 124712 | 25.0 | 24.5 | |
| 45 Chloroform | 83 | 6.641 | 6.634 | 0.007 | 93 | 649769 | 5.00 | 6.04 | |
| $ 46 Dibromofluoromethane (Surr) | 113 | 6.854 | 6.842 | 0.012 | 94 | 559654 | 10.0 | 10.1 | |
| 47 1,1,1-Trichloroethane | 97 | 6.866 | 6.860 | 0.006 | 98 | 618082 | 5.00 | 6.18 | |
| 48 Cyclohexane | 56 | 6.964 | 6.958 | 0.006 | 89 | 647568 | 5.00 | 6.53 | |
| 50 Carbon tetrachloride | 117 | 7.080 | 7.067 | 0.013 | 88 | 541745 | 5.00 | 6.28 | |
| 51 1,1-Dichloropropene | 75 | 7.080 | 7.073 | 0.007 | 96 | 525763 | 5.00 | 6.23 | |
| 52 Isobutyl alcohol | 41 | 7.220 | 7.214 | 0.006 | 95 | 140053 | 125.1 | 117.7 | |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 102 | 7.299 | 7.299 | 0.000 | 98 | 112969 | 10.0 | 10.1 | |
| 54 Benzene | 78 | 7.342 | 7.329 | 0.013 | 97 | 1462178 | 5.00 | 5.89 | |
| 56 1,2-Dichloroethane | 62 | 7.409 | 7.403 | 0.006 | 97 | 361338 | 5.00 | 5.37 | |
| 57 Tert-amyl methyl ether | 73 | 7.525 | 7.518 | 0.007 | 99 | 895575 | 5.00 | 5.44 | |
| * 58 Fluorobenzene (IS) | 96 | 7.738 | 7.732 | 0.006 | 99 | 2208810 | 10.0 | 10.0 | |
| 59 n-Heptane | 43 | 7.750 | 7.744 | 0.006 | 89 | 523694 | 5.00 | 6.09 | |
| 60 n-Butanol | 56 | 8.098 | 8.085 | 0.013 | 88 | 268558 | 250.2 | 243.2 | |
| 61 Trichloroethene | 95 | 8.214 | 8.213 | 0.001 | 97 | 473768 | 5.00 | 7.10 | |
| 62 Methylcyclohexane | 83 | 8.525 | 8.518 | 0.007 | 92 | 746922 | 5.00 | 6.73 | |
| 63 1,2-Dichloropropane | 63 | 8.549 | 8.543 | 0.006 | 96 | 353423 | 5.00 | 5.79 | |
| 64 Methyl methacrylate | 69 | 8.628 | 8.622 | 0.006 | 88 | 160475 | 5.00 | 4.73 | |
| 65 1,4-Dioxane | 88 | 8.640 | 8.634 | 0.006 | 30 | 33970 | 125.1 | 105.0 | M |
| 66 Dibromomethane | 93 | 8.659 | 8.652 | 0.007 | 93 | 166325 | 5.00 | 5.58 | |
| 68 Dichlorobromomethane | 83 | 8.890 | 8.884 | 0.006 | 99 | 426772 | 5.00 | 5.77 | |
| 69 2-Nitropropane | 41 | 9.153 | 9.152 | 0.000 | 99 | 41297 | 5.00 | 4.26 | |
| 72 1-Bromo-2-chloroethane | 63 | 9.281 | 9.274 | 0.007 | 98 | 313866 | 5.00 | 5.24 | |
| 73 cis-1,3-Dichloropropene | 75 | 9.433 | 9.427 | 0.006 | 96 | 516589 | 5.00 | 5.56 | |
| 74 4-Methyl-2-pentanone (MIBK) | 43 | 9.598 | 9.597 | 0.001 | 96 | 2612367 | 62.6 | 60.4 | |
| $ 75 Toluene-d8 (Surr) | 98 | 9.738 | 9.738 | 0.000 | 93 | 2221737 | 10.0 | 9.82 | |
| 76 Toluene | 92 | 9.811 | 9.811 | 0.000 | 98 | 949071 | 5.00 | 5.65 | |
| 78 trans-1,3-Dichloropropene | 75 | 10.067 | 10.067 | 0.000 | 92 | 425838 | 5.00 | 5.50 | |
| 79 Ethyl methacrylate | 69 | 10.128 | 10.122 | 0.006 | 88 | 353135 | 5.00 | 5.47 | |
| 80 1,1,2-Trichloroethane | 97 | 10.268 | 10.268 | 0.000 | 91 | 246322 | 5.00 | 5.50 | |
| 81 Tetrachloroethene | 166 | 10.360 | 10.359 | 0.001 | 98 | 759675 | 5.00 | 9.50 | |
| 82 1,3-Dichloropropane | 76 | 10.433 | 10.426 | 0.007 | 88 | 413034 | 5.00 | 5.42 | |
| 83 2-Hexanone | 43 | 10.482 | 10.475 | 0.007 | 95 | 1869637 | 62.6 | 61.7 | |
| 85 Chlorodibromomethane | 129 | 10.646 | 10.646 | 0.000 | 90 | 296738 | 5.00 | 5.44 | |
| 86 Ethylene Dibromide | 107 | 10.756 | 10.756 | 0.000 | 98 | 236358 | 5.00 | 5.47 | |
| * 87 Chlorobenzene-d5 (IS) | 117 | 11.183 | 11.182 | 0.001 | 85 | 1751440 | 10.0 | 10.0 | |
| 88 1-Chlorohexane | 91 | 11.189 | 11.188 | 0.001 | 94 | 568356 | 5.00 | 5.79 | |
| 90 Chlorobenzene | 112 | 11.213 | 11.213 | 0.000 | 96 | 1055202 | 5.00 | 5.67 | |
| 91 1,1,1,2-Tetrachloroethane | 131 | 11.292 | 11.292 | 0.000 | 95 | 367327 | 5.00 | 5.66 | |
| 92 Ethylbenzene | 91 | 11.298 | 11.292 | 0.006 | 98 | 1849422 | 5.00 | 5.72 | |
| 93 m-Xylene & p-Xylene | 106 | 11.408 | 11.408 | 0.000 | 100 | 1469166 | 10.0 | 11.5 | |
| 94 o-Xylene | 106 | 11.737 | 11.737 | 0.000 | 96 | 710977 | 5.00 | 5.64 | |
| 95 Styrene | 104 | 11.756 | 11.749 | 0.007 | 95 | 1158650 | 5.00 | 5.69 | |
| 96 Bromoform | 173 | 11.914 | 11.914 | 0.000 | 98 | 175560 | 5.00 | 5.37 | |
| 97 Isopropylbenzene | 105 | 12.036 | 12.036 | 0.000 | 95 | 1976182 | 5.00 | 5.94 | |
| $ 100 4-Bromofluorobenzene (Surr) | 95 | 12.182 | 12.182 | 0.000 | 94 | 849056 | 10.0 | 9.82 | |
| 101 1,1,2,2-Tetrachloroethane | 83 | 12.280 | 12.280 | 0.000 | 94 | 308378 | 5.00 | 5.38 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 102 Bromobenzene | 156 | 12.298 | 12.298 | 0.000 | 95 | 451106 | 5.00 | 5.75 | |
| 103 trans-1,4-Dichloro-2-butene | 53 | 12.304 | 12.304 | 0.000 | 91 | 308155 | 25.0 | 19.7 | |
| 104 1,2,3-Trichloropropane | 110 | 12.329 | 12.329 | 0.001 | 83 | 83662 | 5.00 | 5.31 | |
| 105 N-Propylbenzene | 91 | 12.365 | 12.365 | 0.000 | 99 | 2228087 | 5.00 | 5.85 | |
| 106 2-Chlorotoluene | 126 | 12.445 | 12.444 | 0.001 | 97 | 450674 | 5.00 | 5.76 | |
| 107 1,3,5-Trimethylbenzene | 105 | 12.499 | 12.499 | 0.000 | 94 | 1591184 | 5.00 | 5.72 | |
| 108 4-Chlorotoluene | 126 | 12.536 | 12.536 | 0.000 | 97 | 454762 | 5.00 | 5.69 | |
| 109 tert-Butylbenzene | 134 | 12.743 | 12.743 | 0.000 | 92 | 355440 | 5.00 | 5.82 | |
| 111 1,2,4-Trimethylbenzene | 105 | 12.786 | 12.786 | 0.000 | 97 | 1610127 | 5.00 | 5.64 | |
| 112 sec-Butylbenzene | 105 | 12.908 | 12.908 | 0.000 | 94 | 2100549 | 5.00 | 5.97 | |
| 113 1,3-Dichlorobenzene | 146 | 13.005 | 13.005 | 0.000 | 98 | 886650 | 5.00 | 5.60 | |
| 114 4-Isopropyltoluene | 119 | 13.012 | 13.011 | 0.001 | 97 | 1794835 | 5.00 | 5.77 | |
| * 115 1,4-Dichlorobenzene-d4 | 152 | 13.060 | 13.060 | 0.000 | 93 | 1036326 | 10.0 | 10.0 | |
| 116 1,4-Dichlorobenzene | 146 | 13.079 | 13.078 | 0.001 | 95 | 902870 | 5.00 | 5.58 | |
| 117 1,2,3-Trimethylbenzene | 120 | 13.091 | 13.091 | 0.000 | 98 | 698575 | 5.00 | 5.53 | |
| 118 Benzyl chloride | 126 | 13.158 | 13.158 | 0.000 | 98 | 125085 | 5.00 | 5.34 | |
| 119 n-Butylbenzene | 92 | 13.304 | 13.304 | 0.000 | 97 | 822851 | 5.00 | 5.66 | |
| 120 1,2-Dichlorobenzene | 146 | 13.341 | 13.341 | 0.001 | 99 | 805881 | 5.00 | 5.57 | |
| 122 1,2-Dibromo-3-Chloropropane | 155 | 13.883 | 13.883 | 0.000 | 89 | 44682 | 5.00 | 5.30 | |
| 123 1,3,5-Trichlorobenzene | 180 | 14.005 | 14.005 | 0.000 | 98 | 644982 | 5.00 | 5.57 | |
| 124 1,2,4-Trichlorobenzene | 180 | 14.432 | 14.432 | 0.000 | 94 | 509625 | 5.00 | 5.21 | |
| 125 Hexachlorobutadiene | 225 | 14.511 | 14.511 | 0.000 | 96 | 227072 | 5.00 | 5.35 | |
| 126 Naphthalene | 128 | 14.609 | 14.609 | 0.000 | 97 | 870945 | 5.00 | 4.67 | |
| 127 1,2,3-Trichlorobenzene | 180 | 14.755 | 14.755 | 0.000 | 96 | 398902 | 5.00 | 4.72 | |
| 134 Isopropyl alcohol | 45 | | 0.000 | | | | ND | ND | |
| 135 p-Diethylbenzene | 1 | | 0.000 | | | | ND | ND | |
| 137 2-Methylnaphthalene | 142 | | 0.000 | | | | ND | ND | |
| 204 Pentane | 43 | | 0.000 | | | | ND | ND | |
| 144 2-ethoxy-2-methyl butane | 1 | | 0.000 | | | | ND | ND | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| MSV_LCS_VOC#1_00016 | Amount Added: | 5.38 | Units: uL | |
| MSV_Q_ETBR_00008 | Amount Added: | 5.38 | Units: uL | |
| MSV_Q_EE_00004 | Amount Added: | 5.38 | Units: uL | |
| MSV_LCS_ACROL_00018 | Amount Added: | 5.38 | Units: uL | |
| MSV_QC_Gas826_00030 | Amount Added: | 5.38 | Units: uL | |
| MSV_LLcentISS_00001 | Amount Added: | 5.00 | Units: uL | Run Reagent |

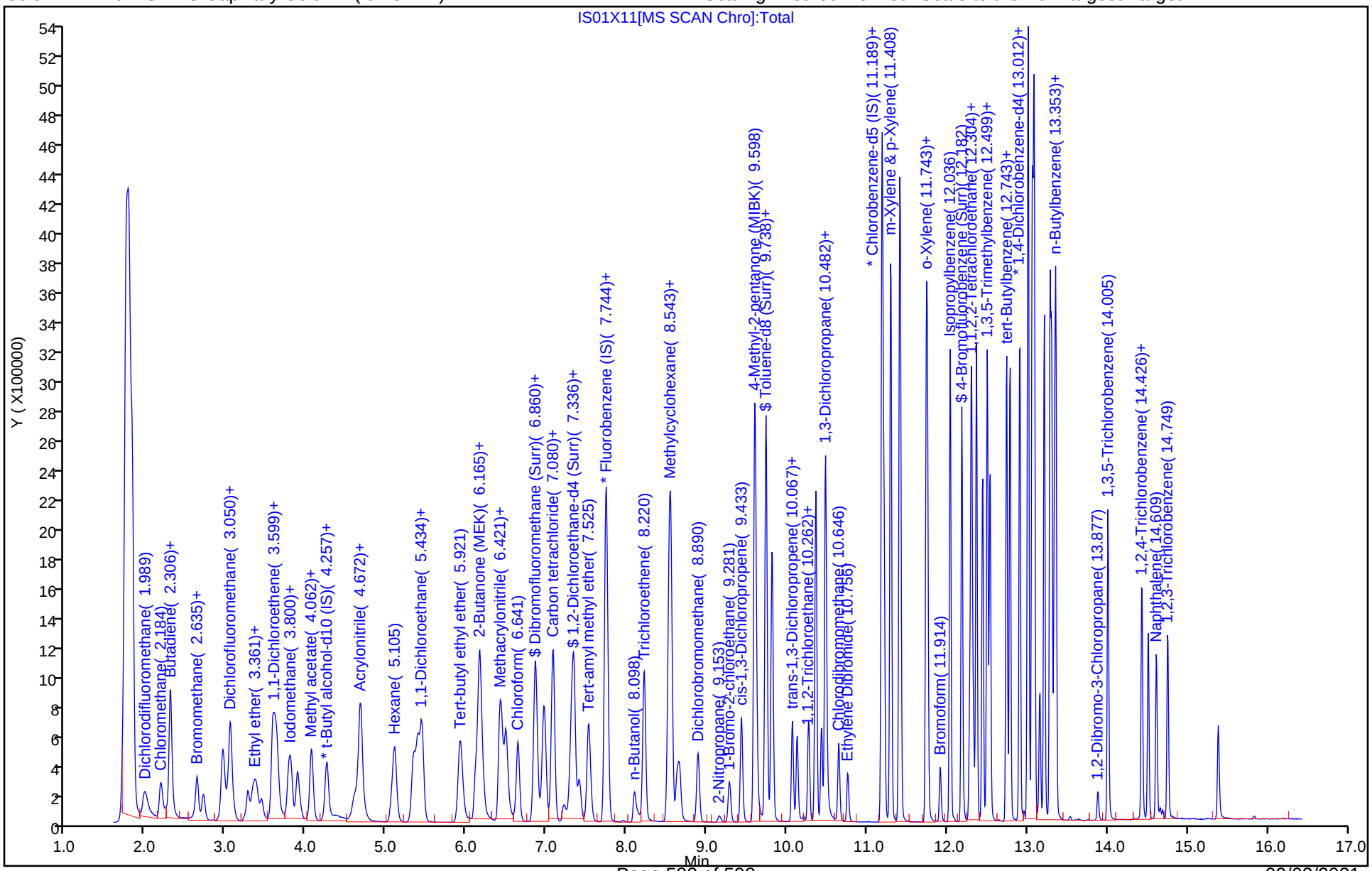
Report Date: 01-Sep-2021 20:58:18 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X11.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 01-Sep-2021 12:44:30 | Instrument ID: | 19930 | Operator ID: | SRK36897 |
| Lims ID: | 410-53151-A-6 MSD | | | Worklist Smp#: | 12 |
| Client ID: | HD-COD-SW-15-0/1-0 MSD | | | | |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8260 25ml HP31 | Limit Group: | MSV - 8260C_D | | |

Column: Rxi-624Sil MS Capillary Column ( 0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\IS01X11.D | | | | |
| Lims ID: | 410-53151-A-6 MSD | | | | |
| Client ID: | HD-COD-SW-15-0/1-0 MSD | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 01-Sep-2021 12:44:30 | ALS Bottle#: | 11 | Worklist Smp#: | 12 |
| Purge Vol: | 25.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 410-0038237-012 | | | | |
| Operator ID: | SRK36897 | Instrument ID: | 19930 | | |
| Method: | \\chromfs\Lancaster\ChromData\19930\20210901-38237.b\8260 25ml HP31.m | | | | |
| Limit Group: | MSV - 8260C_D | | | | |
| Last Update: | 01-Sep-2021 20:57:29 | Calib Date: | 24-Aug-2021 02:52:30 | | |
| Integrator: | RTE | ID Type: | Deconvolution ID | | |
| Quant Method: | Internal Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D | | | | |
| Column 1 : | Rxi-624Sil MS Capillary Column ( 0.25 mm) | | Det: MS Quad | | |
| Process Host: | CTX1604 | | | | |

First Level Reviewer: campbellme Date: 01-Sep-2021 20:51:45

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 46 Dibromofluoromethane (Surr) | 10.0 | 10.1 | 100.58 |
| $ 53 1,2-Dichloroethane-d4 (Surr) | 10.0 | 10.1 | 101.49 |
| $ 75 Toluene-d8 (Surr) | 10.0 | 9.82 | 98.16 |
| $ 100 4-Bromofluorobenzene (Surr) | 10.0 | 9.82 | 98.15 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-53151-1

SDG No.:

Instrument ID: 19930 Start Date: 08/23/2021 20:56

Analysis Batch Number: 163707 End Date: 08/24/2021 03:13

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 410-163707/1 | | 08/23/2021 20:56 | 1 | IG23T01.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/3 | | 08/23/2021 21:31 | 1 | IG23I11.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/4 | | 08/23/2021 21:52 | 1 | IG23I12.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/5 | | 08/23/2021 22:14 | 1 | IG23I13.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/6 | | 08/23/2021 22:35 | 1 | IG23I14.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/7 | | 08/23/2021 22:57 | 1 | IG23I15.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/8 | | 08/23/2021 23:18 | 1 | IG23I16.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/9 | | 08/23/2021 23:40 | 1 | IG23I17.D | R-624SilMS 30m 0.25(mm) |
| ICV 410-163707/10 | | 08/24/2021 00:02 | 1 | | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/12 | | 08/24/2021 00:45 | 1 | IG23I01.D | R-624SilMS 30m 0.25(mm) |
| ICIS 410-163707/13 | | 08/24/2021 01:06 | 1 | IG23I02.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/14 | | 08/24/2021 01:27 | 1 | IG23I03.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/15 | | 08/24/2021 01:48 | 1 | IG23I04.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/16 | | 08/24/2021 02:09 | 1 | IG23I05.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/17 | | 08/24/2021 02:30 | 1 | IG23I06.D | R-624SilMS 30m 0.25(mm) |
| IC 410-163707/18 | | 08/24/2021 02:52 | 1 | IG23I07.D | R-624SilMS 30m 0.25(mm) |
| ICV 410-163707/19 | | 08/24/2021 03:13 | 1 | IG23V01.D | R-624SilMS 30m 0.25(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-53151-1

SDG No.:

Instrument ID: 19930 Start Date: 09/01/2021 08:46

Analysis Batch Number: 166762 End Date: 09/01/2021 18:45

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 410-166762/1 | | 09/01/2021 08:46 | 1 | IS01T01.D | R-624SilMS 30m 0.25(mm) |
| CCVIS 410-166762/3 | | 09/01/2021 09:33 | 1 | IS01X02.D | R-624SilMS 30m 0.25(mm) |
| LCS 410-166762/4 | | 09/01/2021 10:16 | 1 | IS01X04.D | R-624SilMS 30m 0.25(mm) |
| ZZZZZ | | 09/01/2021 10:37 | 1 | | R-624SilMS 30m 0.25(mm) |
| MB 410-166762/7 | | 09/01/2021 10:58 | 1 | IS01X06.D | R-624SilMS 30m 0.25(mm) |
| ZZZZZ | | 09/01/2021 11:19 | 1 | | R-624SilMS 30m 0.25(mm) |
| 410-53151-14 | HD-QC1-0/1-2 | 09/01/2021 11:41 | 1 | IS01X08.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-6 | HD-COD-SW-15-0/1-0 | 09/01/2021 12:02 | 1 | IS01X09.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-6 MS | HD-COD-SW-15-0/1-0 MS MS | 09/01/2021 12:23 | 1 | IS01X10.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-6 MSD | HD-COD-SW-15-0/1-0 MSD MSD | 09/01/2021 12:44 | 1 | IS01X11.D | R-624SilMS 30m 0.25(mm) |
| ZZZZZ | | 09/01/2021 13:26 | 50 | | R-624SilMS 30m 0.25(mm) |
| 410-53151-1 | HD-COD-SW-6-0/1-0 | 09/01/2021 13:48 | 1 | IS01X14.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-2 | HD-COD-SW-7-0/1-0 | 09/01/2021 14:09 | 1 | IS01X15.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-3 | HD-COD-SW-8-0/1-0 | 09/01/2021 14:30 | 1 | IS01X16.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-4 | HD-COD-SW-9-0/1-0 | 09/01/2021 14:51 | 1 | IS01X17.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-5 | HD-COD-SW-13-0/1-0 | 09/01/2021 15:12 | 1 | IS01X18.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-7 | HD-COD-SW-16-0/1-0 | 09/01/2021 15:34 | 1 | IS01X19.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-8 | HD-COD-SW-17-0/1-0 | 09/01/2021 15:55 | 1 | IS01X20.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-9 | HD-COD-SW-26-0/1-0 | 09/01/2021 16:16 | 1 | IS01X21.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-10 | HD-COD-SW-27-0/1-0 | 09/01/2021 16:37 | 1 | IS01X22.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-11 | HD-COD-SW-28-0/1-0 | 09/01/2021 16:59 | 1 | IS01X23.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-12 | HD-COD-SW-29-0/1-0 | 09/01/2021 17:20 | 1 | IS01X24.D | R-624SilMS 30m 0.25(mm) |
| 410-53151-13 | HD-QC1-0/1-1 | 09/01/2021 17:41 | 1 | IS01X25.D | R-624SilMS 30m 0.25(mm) |
| ZZZZZ | | 09/01/2021 18:02 | 50 | | R-624SilMS 30m 0.25(mm) |
| ZZZZZ | | 09/01/2021 18:24 | 500 | | R-624SilMS 30m 0.25(mm) |
| ZZZZZ | | 09/01/2021 18:45 | 5 | | R-624SilMS 30m 0.25(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-53151-1

SDG No.:

Batch Number: 163707  Batch Start Date: 08/23/21 20:56  Batch Analyst: Campbell, Miranda E

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Lot#Vial | MSV_DME 00030 | MSV_LCS_ACROL 00017 | MSV_LCS_Penta 00006 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 410-163707/1 | | 8260D | | 1 uL | 1 uL | | | | |
| IC 410-163707/3 | | 8260D | | 25 mL | 25 mL | 2602 | 2.5 uL | | |
| IC 410-163707/4 | | 8260D | | 25 mL | 25 mL | 2602 | 1 uL | | |
| IC 410-163707/5 | | 8260D | | 25 mL | 25 mL | 2602 | 1 uL | | |
| IC 410-163707/6 | | 8260D | | 25 mL | 25 mL | 2602 | 1 uL | | |
| IC 410-163707/7 | | 8260D | | 25 mL | 25 mL | 2602 | 1 uL | | |
| IC 410-163707/8 | | 8260D | | 25 mL | 25 mL | 2602 | 0.5 uL | | |
| IC 410-163707/9 | | 8260D | | 25 mL | 25 mL | 2602 | 0.2 uL | | |
| IC 410-163707/12 | | 8260D | | 25 mL | 25 mL | 2602 | | | |
| ICIS 410-163707/13 | | 8260D | | 25 mL | 25 mL | 2602 | | | |
| IC 410-163707/14 | | 8260D | | 25 mL | 25 mL | 2602 | | | |
| IC 410-163707/15 | | 8260D | | 25 mL | 25 mL | 2602 | | | |
| IC 410-163707/16 | | 8260D | | 25 mL | 25 mL | 2602 | | | |
| IC 410-163707/17 | | 8260D | | 25 mL | 25 mL | 2602 | | | |
| IC 410-163707/18 | | 8260D | | 25 mL | 25 mL | 2602 | | | |
| ICV 410-163707/19 | | 8260D | | 25 mL | 25 mL | 2602 | | 12.5 uL | 12.5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_LCS_VOC#1 00015 | MSV_LL_#1_826 00015 | MSV_LL_#2_826 00015 | MSV_LL_GAS826 00027 | MSV_LLcentISO 00001 | MSV_LLcentISS 00001 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 410-163707/1 | | 8260D | | | | | | | |
| IC 410-163707/3 | | 8260D | | | | | | 5 uL | |
| IC 410-163707/4 | | 8260D | | | | | | 5 uL | |
| IC 410-163707/5 | | 8260D | | | | | | 5 uL | |
| IC 410-163707/6 | | 8260D | | | | | | 5 uL | |
| IC 410-163707/7 | | 8260D | | | | | | 5 uL | |
| IC 410-163707/8 | | 8260D | | | | | | 5 uL | |

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

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-53151-1

SDG No.:

Batch Number: 163707  Batch Start Date: 08/23/21 20:56  Batch Analyst: Campbell, Miranda E

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_LCS_VOC#1 00015 | MSV_LL_#1_826 00015 | MSV_LL_#2_826 00015 | MSV_LL_GAS826 00027 | MSV_LLcentISO 00001 | MSV_LLcentISS 00001 |
|---|---|---|---|---|---|---|---|---|---|
| IC 410-163707/9 | | 8260D | | | | | | 5 uL | |
| IC 410-163707/12 | | 8260D | | | 25 uL | 25 uL | 25 uL | | 5 uL |
| ICIS 410-163707/13 | | 8260D | | | 10 uL | 10 uL | 10 uL | | 5 uL |
| IC 410-163707/14 | | 8260D | | | 5 uL | 5 uL | 5 uL | | 5 uL |
| IC 410-163707/15 | | 8260D | | | 2 uL | 2 uL | 2 uL | | 5 uL |
| IC 410-163707/16 | | 8260D | | | 2 uL | 2 uL | 2 uL | | 5 uL |
| IC 410-163707/17 | | 8260D | | | 2 uL | 2 uL | 2 uL | | 5 uL |
| IC 410-163707/18 | | 8260D | | | 2 uL | 2 uL | 2 uL | | 5 uL |
| ICV 410-163707/19 | | 8260D | | 12.5 uL | | | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_Q_EE 00004 | MSV_Q_ETBR 00008 | MSV_QC_Gas826 00026 | MSV_V_BFB 00006 | MSV_V_SMRV4 00027 | MSV_V_VOA5 00026 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 410-163707/1 | | 8260D | | | | | 1 uL | | |
| IC 410-163707/3 | | 8260D | | | | | | 12.5 uL | 12.5 uL |
| IC 410-163707/4 | | 8260D | | | | | | 5 uL | 5 uL |
| IC 410-163707/5 | | 8260D | | | | | | 5 uL | 5 uL |
| IC 410-163707/6 | | 8260D | | | | | | 5 uL | 5 uL |
| IC 410-163707/7 | | 8260D | | | | | | 5 uL | 5 uL |
| IC 410-163707/8 | | 8260D | | | | | | 2.5 uL | 2.5 uL |
| IC 410-163707/9 | | 8260D | | | | | | 1 uL | 1 uL |
| IC 410-163707/12 | | 8260D | | | | | | | |
| ICIS 410-163707/13 | | 8260D | | | | | | | |
| IC 410-163707/14 | | 8260D | | | | | | | |
| IC 410-163707/15 | | 8260D | | | | | | | |

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

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-53151-1

SDG No.:

Batch Number: 163707  Batch Start Date: 08/23/21 20:56  Batch Analyst: Campbell, Miranda E

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_Q_EE 00004 | MSV_Q_ETBR 00008 | MSV_QC_Gas826 00026 | MSV_V_BFB 00006 | MSV_V_SMRV4 00027 | MSV_V_VOA5 00026 |
|---|---|---|---|---|---|---|---|---|---|
| IC 410-163707/16 | | 8260D | | | | | | | |
| IC 410-163707/17 | | 8260D | | | | | | | |
| IC 410-163707/18 | | 8260D | | | | | | | |
| ICV 410-163707/19 | | 8260D | | 12.5 uL | 12.5 uL | 12.5 uL | | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_VAcet 00007 | MSV_VCYC 00007 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 410-163707/1 | | 8260D | | | | | | | |
| IC 410-163707/3 | | 8260D | | 20 uL | 20 uL | | | | |
| IC 410-163707/4 | | 8260D | | 8 uL | 8 uL | | | | |
| IC 410-163707/5 | | 8260D | | 8 uL | 8 uL | | | | |
| IC 410-163707/6 | | 8260D | | 8 uL | 8 uL | | | | |
| IC 410-163707/7 | | 8260D | | 8 uL | 8 uL | | | | |
| IC 410-163707/8 | | 8260D | | 4 uL | 4 uL | | | | |
| IC 410-163707/9 | | 8260D | | 1.6 uL | 1.6 uL | | | | |
| IC 410-163707/12 | | 8260D | | | | | | | |
| ICIS 410-163707/13 | | 8260D | | | | | | | |
| IC 410-163707/14 | | 8260D | | | | | | | |
| IC 410-163707/15 | | 8260D | | | | | | | |
| IC 410-163707/16 | | 8260D | | | | | | | |
| IC 410-163707/17 | | 8260D | | | | | | | |
| IC 410-163707/18 | | 8260D | | | | | | | |
| ICV 410-163707/19 | | 8260D | | | | | | | |

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

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-53151-1

SDG No.:

Batch Number: 163707  Batch Start Date: 08/23/21 20:56  Batch Analyst: Campbell, Miranda E

Batch Method: 8260D  Batch End Date:

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

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

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

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-53151-1

SDG No.:

Batch Number: 166762  Batch Start Date: 09/01/21 08:46  Batch Analyst: Knouse, Shian

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | ResidualChloCheck | Headspace | Lot#Vial |
|---|---|---|---|---|---|---|---|---|---|
| BFB 410-166762/1 | | 8260D | | 1 uL | 1 uL | | | | |
| CCVIS 410-166762/3 | | 8260D | | 25 mL | 25 mL | | | | 2602 |
| LCS 410-166762/4 | | 8260D | | 25 mL | 25 mL | | | | 2602 |
| MB 410-166762/7 | | 8260D | | 25 mL | 25 mL | | | | 2602 |
| 410-53151-A-14 | HD-QC1-0/1-2 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-6 | HD-COD-SW-15-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-6 MS | HD-COD-SW-15-0/1-0 MS | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-6 MSD | HD-COD-SW-15-0/1-0 MSD | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-1 | HD-COD-SW-6-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-2 | HD-COD-SW-7-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-3 | HD-COD-SW-8-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-4 | HD-COD-SW-9-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-5 | HD-COD-SW-13-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-7 | HD-COD-SW-16-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-8 | HD-COD-SW-17-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-9 | HD-COD-SW-26-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-10 | HD-COD-SW-27-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-11 | HD-COD-SW-28-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-12 | HD-COD-SW-29-0/1-0 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |
| 410-53151-A-13 | HD-QC1-0/1-1 | 8260D | T | 25 mL | 25 mL | <2 SU | N | N | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_LCS_ACROL 00018 | MSV_LCS_VOC#1 00016 | MSV_LL_#1_826 00015 | MSV_LL_#2_826 00015 | MSV_LL_GAS826 00029 | MSV_LLcentISS 00001 |
|---|---|---|---|---|---|---|---|---|---|

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

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-53151-1

SDG No.:

Batch Number: 166762  Batch Start Date: 09/01/21 08:46  Batch Analyst: Knouse, Shian

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_LCS_ACROL 00018 | MSV_LCS_VOC#1 00016 | MSV_LL_#1_826 00015 | MSV_LL_#2_826 00015 | MSV_LL_GAS826 00029 | MSV_LLcentISS 00001 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 410-166762/1 | | 8260D | | | | | | | |
| CCVIS 410-166762/3 | | 8260D | | | | 20 uL | 20 uL | 20 uL | 5 uL |
| LCS 410-166762/4 | | 8260D | | 12.5 uL | 12.5 uL | | | | 5 uL |
| MB 410-166762/7 | | 8260D | | | | | | | 5 uL |
| 410-53151-A-14 | HD-QC1-0/1-2 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-6 | HD-COD-SW-15-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-6 MS | HD-COD-SW-15-0/1-0 MS | 8260D | T | 5.38 uL | 5.38 uL | | | | 5 uL |
| 410-53151-A-6 MSD | HD-COD-SW-15-0/1-0 MSD | 8260D | T | 5.38 uL | 5.38 uL | | | | 5 uL |
| 410-53151-A-1 | HD-COD-SW-6-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-2 | HD-COD-SW-7-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-3 | HD-COD-SW-8-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-4 | HD-COD-SW-9-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-5 | HD-COD-SW-13-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-7 | HD-COD-SW-16-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-8 | HD-COD-SW-17-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-9 | HD-COD-SW-26-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-10 | HD-COD-SW-27-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-11 | HD-COD-SW-28-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-12 | HD-COD-SW-29-0/1-0 | 8260D | T | | | | | | 5 uL |
| 410-53151-A-13 | HD-QC1-0/1-1 | 8260D | T | | | | | | 5 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_Q_EE 00004 | MSV_Q_ETBR 00008 | MSV_QC_Gas826 00030 | MSV_V_BFB 00006 | | |
|---|---|---|---|---|---|---|---|---|---|

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

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-53151-1

SDG No.:

Batch Number: 166762  Batch Start Date: 09/01/21 08:46  Batch Analyst: Knouse, Shian

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | MSV_Q_EE 00004 | MSV_Q_ETBR 00008 | MSV_QC_Gas826 00030 | MSV_V_BFB 00006 | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 410-166762/1 | | 8260D | | | | | 1 uL | | |
| CCVIS 410-166762/3 | | 8260D | | | | | | | |
| LCS 410-166762/4 | | 8260D | | 12.5 uL | 12.5 uL | 12.5 uL | | | |
| MB 410-166762/7 | | 8260D | | | | | | | |
| 410-53151-A-14 | HD-QC1-0/1-2 | 8260D | T | | | | | | |
| 410-53151-A-6 | HD-COD-SW-15-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-6 MS | HD-COD-SW-15-0/1-0 MS | 8260D | T | 5.38 uL | 5.38 uL | 5.38 uL | | | |
| 410-53151-A-6 MSD | HD-COD-SW-15-0/1-0 MSD | 8260D | T | 5.38 uL | 5.38 uL | 5.38 uL | | | |
| 410-53151-A-1 | HD-COD-SW-6-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-2 | HD-COD-SW-7-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-3 | HD-COD-SW-8-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-4 | HD-COD-SW-9-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-5 | HD-COD-SW-13-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-7 | HD-COD-SW-16-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-8 | HD-COD-SW-17-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-9 | HD-COD-SW-26-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-10 | HD-COD-SW-27-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-11 | HD-COD-SW-28-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-12 | HD-COD-SW-29-0/1-0 | 8260D | T | | | | | | |
| 410-53151-A-13 | HD-QC1-0/1-1 | 8260D | T | | | | | | |

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

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

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie  Job No.: 410-53151-1

SDG No.:

Batch Number: 166762  Batch Start Date: 09/01/21  08:46  Batch Analyst: Knouse, Shian

Batch Method: 8260D  Batch End Date:

| Basis | Basis Description |
|---|---|
| T | Total/NA |

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

# Shipping and Receiving Documents

# Envir ... s Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

410-53151 Chain of Custody



Sample # _____

| | | | |
|---|---|---|---|
| Client: | Groundwater Sciences Corporation | | |
| Project Name/#: | fYNOP Monthly Surface Water | Site ID #: | fYNOP, York PA |
| Project Manager: | Chris O'Neil | P.O. #: | 10012.42 |
| Sampler: | Casey Littlefield / Erin Peeling | PWSID #: | N/A |
| Phone #: | (717) 901-8176 / (717) 756-1246 | Quote #: | |
| State where samples were collected: York, PA | | For Compliance: Yes ☐ No ☑ | |

| Sample Identification | Collection Date | Collection Time | Grab | Composite | Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☑ | Other: | Total # of Containers | Analyses Requested: Aqueous VOCs via 8260D (low level - 25 ml purge) | Preservation Codes: H |
|---|---|---|---|---|---|---|---|---|---|---|
| HD-COD-SW-6-0/1-0 | 8/26/21 | 1100 | X | | | X | | 3 | X | |
| HD-COD-SW-7-0/1-0 | | 1140 | X | | | X | | 3 | X | |
| HD-COD-SW-8-0/1-0 | | 0945 | X | | | X | | 3 | X | |
| HD-COD-SW-9-0/1-0 | | 1245 | X | | | X | | 3 | X | |
| HD-COD-SW-13-0/1-0 | | 0957 | X | | | X | | 3 | X | |
| HD-COD-SW-15-0/1-0 | | 1210 | X | | | X | | 3 | X | |
| HD-COD-SW-15-0/1-0 MS | | 1210 | X | | | X | | 3 | X | |
| HD-COD-SW-15-0/1-0 MSD | | 1210 | X | | | X | | 3 | X | |
| HD-COD-SW-16-0/1-0 | | 1025 | X | | | X | | 3 | X | |
| HD-COD-SW-17-0/1-0 | | 1035 | X | | | X | | 3 | X | |

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes
H = HCl | T = Thiosulfate
N = $HNO_3$ | B = NaOH
S = $H_2SO_4$ | P = $H_3PO_4$
O = Other

Remarks

**Turnaround Time Requested (TAT)** (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address:

Phone:

**Data Package Options** (please check if required)

| | | | |
|---|---|---|---|
| Type I (Validation/non-CLP) | ☐ | MA MCP | ☐ |
| Type III (Reduced non-CLP) | ☐ | CT RCP | ☐ |
| Type VI (Raw Data Only) | ☐ | TX TRRP-13 | ☐ |
| NJ DKQP | ☐ | NYSDEC Category | ☐ A or ☐ B |

**EDD Required?** Yes ☑ No ☐ If yes, format: CLP Like Deliverables, Project Specific Analyte List

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| | 8/27/21 | 1041 | | 8/27/21 | 1041 |
| | 8/27/21 | 1334 | | | |
| | | | | | |
| | | | | | |
| | | | | 8/27/21 | 1529 |

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other X

Temperature upon receipt -0.1 °C

# Environmental Analysis Request/Chain of Custody



eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

| | | | |
|---|---|---|---|
| Client: | Groundwater Sciences Corporation | | |
| Project Name/#: | fYNOP Monthly Surface Water | Site ID #: | fYNOP, York PA |
| Project Manager: | Chris O'Neil | P.O. #: | 10012.42 |
| Sampler: | Casey Littlefield / Erin Peeling | PWSID #: | N/A |
| Phone #: | (717) 901-8176 / (717) 756-1246 | Quote #: | |
| State where samples were collected: York, PA | | For Compliance: Yes ☐ No ☑ | |

| Sample Identification | Collection Date | Collection Time | Grab | Composite | Matrix: Soil | Sediment | Tissue | Water: Potable | Ground | Surface | NPDES | Other: Trip Blank | Total # of Containers | Analyses Requested: Preservation Codes H: Aqueous VOCs via 8260D (low level - 25 ml purge) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HD-COD-SW-26-0/1-0 | 8/26/21 | 1120 | X | | | | | X | | | | | 3 | X | |
| HD-COD-SW-27-0/1-0 | | 1157 | X | | | | | X | | | | | 3 | X | |
| HD-COD-SW-28-0/1-0 | | 1300 | X | | | | | X | | | | | 3 | X | |
| HD-COD-SW-29-0/1-0 | | 0935 | X | | | | | X | | | | | 3 | X | |
| HD-QC1-0/1-1 | | 1200 | X | | | | | X | | | | | 3 | X | |
| HD-QC1-0/1-2 | | — | X | | | | | | | | | X | 2 | X | |

**For Lab Use Only**

SF #: _____

SCR #: _____

**Preservation Codes**

H = HCl; T = Thiosulfate; N = $HNO_3$; B = NaOH; S = $H_2SO_4$; P = $H_3PO_4$; O = Other

**Turnaround Time Requested (TAT)** (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address:

Phone:

**Data Package Options** (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type VI (Raw Data Only) ☐ TX TRRP-13 ☐

NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

**EDD Required?** Yes ☑ No ☐ If yes, format: _ CLP Like Deliverables, Project Specific Analyte List

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| [signature] | 8/27/21 | 1041 | [signature] | 8/27/21 | 1041 |
| [signature] | 8/27/21 | 1334 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | [signature] | 8/27/21 | 15:29 |

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other X

Temperature upon receipt -0.1 °C

# Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-53151-1

**Login Number: 53151**
**List Number: 1**
**Creator: Reiff, Nicole L**

**List Source: Eurofins Lancaster Laboratories Env, LLC**

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