

## ANALYTICAL REPORT

Job Number: 410-92859-1

Job Description: fYNOP Monthly Surface Water

For:

Groundwater Sciences Corporation  
2550 Interstate Drive  
Suite 303  
Harrisburg, PA 17110

Attention: Christopher O'Neil



Approved for release.  
Marrison C Williams  
Project Manager  
8/11/2022 12:42 PM

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08/11/2022

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.

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# Definitions/Glossary

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

Job ID: 410-92859-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
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.
α	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**  
**410-92859-1**

**Receipt**

The samples were received on 7/29/2022 3:31 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 1.2°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: 410-92859-1

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

## Lab Sample ID: 410-92859-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.2	J	5.0	1.0	ug/L	1		8260D	Total/NA
Trichloroethene	0.081	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

## Lab Sample ID: 410-92859-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.1	J	5.0	1.0	ug/L	1		8260D	Total/NA
Chloroform	0.15	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.13	J	0.50	0.080	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

## Lab Sample ID: 410-92859-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.6	J	5.0	1.0	ug/L	1		8260D	Total/NA
Acetone	3.5	J	5.0	1.0	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.14	J	0.50	0.080	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.32	J	0.50	0.20	ug/L	1		8260D	Total/NA
Trichloroethene	0.13	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

## Lab Sample ID: 410-92859-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.9	J	5.0	1.0	ug/L	1		8260D	Total/NA
Chloroform	0.096	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.11	J	0.50	0.080	ug/L	1		8260D	Total/NA
Toluene	0.091	J	0.50	0.080	ug/L	1		8260D	Total/NA
Trichloroethene	0.11	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

## Lab Sample ID: 410-92859-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.3	J	5.0	1.0	ug/L	1		8260D	Total/NA
Acetone	3.3	J	5.0	1.0	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.16	J	0.50	0.080	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.95	J	0.50	0.20	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

## Lab Sample ID: 410-92859-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.27	J	0.50	0.080	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.12	J	0.50	0.10	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.16	J	0.50	0.10	ug/L	1		8260D	Total/NA
Chloroform	0.35	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.4	J	0.50	0.080	ug/L	1		8260D	Total/NA
Tetrachloroethene	5.0	J	0.50	0.20	ug/L	1		8260D	Total/NA
Trichloroethene	1.4	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

## Lab Sample ID: 410-92859-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.12	J	0.50	0.080	ug/L	1		8260D	Total/NA
Acetone	2.9	J	5.0	1.0	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: 410-92859-1

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

Lab Sample ID: 410-92859-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.18	J	0.50	0.080	ug/L	1		8260D	Total/NA
Tetrachloroethene	1.6		0.50	0.20	ug/L	1		8260D	Total/NA
Trichloroethene	0.18	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-92859-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.0		0.50	0.080	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.85		0.50	0.10	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.31	J	0.50	0.10	ug/L	1		8260D	Total/NA
Acetone	2.4	J	5.0	1.0	ug/L	1		8260D	Total/NA
Chloroform	0.16	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.8		0.50	0.080	ug/L	1		8260D	Total/NA
Trichloroethene	3.2		0.50	0.080	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	34		5.0	2.0	ug/L	10		8260D	Total/NA

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

Lab Sample ID: 410-92859-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.17	J	0.50	0.10	ug/L	1		8260D	Total/NA
Chloroform	0.71		0.50	0.090	ug/L	1		8260D	Total/NA
Tetrachloroethene	4.2		0.50	0.20	ug/L	1		8260D	Total/NA
Trichloroethene	0.17	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-92859-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	5.0	1.0	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.12	J	0.50	0.080	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-92859-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	5.0	1.0	ug/L	1		8260D	Total/NA
Chloroform	0.099	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.14	J	0.50	0.080	ug/L	1		8260D	Total/NA
Trichloroethene	0.15	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-92859-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.7	J	5.0	1.0	ug/L	1		8260D	Total/NA
Acetone	5.1		5.0	1.0	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.13	J	0.50	0.080	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.33	J	0.50	0.20	ug/L	1		8260D	Total/NA
Trichloroethene	0.10	J	0.50	0.080	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-92859-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.0		0.50	0.080	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.83		0.50	0.10	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.31	J	0.50	0.10	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: 410-92859-1

## Client Sample ID: HD-QC1-0/1-1 (Continued)

## Lab Sample ID: 410-92859-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.5	J	5.0	1.0	ug/L	1		8260D	Total/NA
Chloroform	0.16	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.8		0.50	0.080	ug/L	1		8260D	Total/NA
Trichloroethene	3.1		0.50	0.080	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	40		5.0	2.0	ug/L	10		8260D	Total/NA

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

## Lab Sample ID: 410-92859-14

No Detections.

This Detection Summary does not include radiochemical test results.



# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-1**

**Date Collected: 07/28/22 12:40**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 13:56	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 13:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 13:56	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 13:56	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 13:56	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 13:56	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 13:56	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 13:56	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 13:56	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 13:56	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 13:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 13:56	1
<b>Acetone</b>	<b>3.2</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 13:56	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 13:56	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 13:56	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 13:56	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 13:56	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 13:56	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 13:56	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 13:56	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 13:56	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 13:56	1
Chloroform	ND		0.50	0.090	ug/L			08/04/22 13:56	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 13:56	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			08/04/22 13:56	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 13:56	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 13:56	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 13:56	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 13:56	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 13:56	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 13:56	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/04/22 13:56	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 13:56	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 13:56	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 13:56	1
<b>Trichloroethene</b>	<b>0.081</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 13:56	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 13:56	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		08/04/22 13:56	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/04/22 13:56	1
Dibromofluoromethane (Surr)	101		80 - 120		08/04/22 13:56	1
Toluene-d8 (Surr)	97		80 - 120		08/04/22 13:56	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-2**

**Date Collected: 07/28/22 13:20**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 14:17	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 14:17	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 14:17	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 14:17	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 14:17	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 14:17	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 14:17	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 14:17	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 14:17	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 14:17	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 14:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 14:17	1
<b>Acetone</b>	<b>3.1</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 14:17	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 14:17	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 14:17	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 14:17	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 14:17	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 14:17	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 14:17	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 14:17	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 14:17	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 14:17	1
<b>Chloroform</b>	<b>0.15</b>	<b>J</b>	0.50	0.090	ug/L			08/04/22 14:17	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 14:17	1
<b>cis-1,2-Dichloroethene</b>	<b>0.13</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 14:17	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 14:17	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 14:17	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 14:17	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 14:17	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 14:17	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 14:17	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/04/22 14:17	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 14:17	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 14:17	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 14:17	1
<b>Trichloroethene</b>	<b>0.14</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 14:17	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 14:17	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		08/04/22 14:17	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/04/22 14:17	1
Dibromofluoromethane (Surr)	103		80 - 120		08/04/22 14:17	1
Toluene-d8 (Surr)	98		80 - 120		08/04/22 14:17	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-3**

**Date Collected: 07/28/22 11:25**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 14:38	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 14:38	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 14:38	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 14:38	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 14:38	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 14:38	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 14:38	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 14:38	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 14:38	1
<b>2-Butanone (MEK)</b>	<b>1.6</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 14:38	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 14:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 14:38	1
<b>Acetone</b>	<b>3.5</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 14:38	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 14:38	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 14:38	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 14:38	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 14:38	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 14:38	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 14:38	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 14:38	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 14:38	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 14:38	1
Chloroform	ND		0.50	0.090	ug/L			08/04/22 14:38	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 14:38	1
<b>cis-1,2-Dichloroethene</b>	<b>0.14</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 14:38	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 14:38	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 14:38	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 14:38	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 14:38	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 14:38	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 14:38	1
<b>Tetrachloroethene</b>	<b>0.32</b>	<b>J</b>	0.50	0.20	ug/L			08/04/22 14:38	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 14:38	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 14:38	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 14:38	1
<b>Trichloroethene</b>	<b>0.13</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 14:38	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 14:38	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		08/04/22 14:38	1
4-Bromofluorobenzene (Surr)	95		80 - 120		08/04/22 14:38	1
Dibromofluoromethane (Surr)	103		80 - 120		08/04/22 14:38	1
Toluene-d8 (Surr)	96		80 - 120		08/04/22 14:38	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-4**

**Date Collected: 07/28/22 15:00**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 14:59	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 14:59	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 14:59	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 14:59	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 14:59	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 14:59	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 14:59	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 14:59	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 14:59	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 14:59	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 14:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 14:59	1
<b>Acetone</b>	<b>2.9</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 14:59	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 14:59	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 14:59	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 14:59	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 14:59	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 14:59	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 14:59	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 14:59	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 14:59	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 14:59	1
<b>Chloroform</b>	<b>0.096</b>	<b>J</b>	0.50	0.090	ug/L			08/04/22 14:59	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 14:59	1
<b>cis-1,2-Dichloroethene</b>	<b>0.11</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 14:59	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 14:59	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 14:59	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 14:59	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 14:59	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 14:59	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 14:59	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/04/22 14:59	1
<b>Toluene</b>	<b>0.091</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 14:59	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 14:59	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 14:59	1
<b>Trichloroethene</b>	<b>0.11</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 14:59	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 14:59	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 14:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		08/04/22 14:59	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/04/22 14:59	1
Dibromofluoromethane (Surr)	103		80 - 120		08/04/22 14:59	1
Toluene-d8 (Surr)	96		80 - 120		08/04/22 14:59	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-5**

**Date Collected: 07/28/22 11:45**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 15:20	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 15:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 15:20	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 15:20	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 15:20	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 15:20	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 15:20	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 15:20	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 15:20	1
<b>2-Butanone (MEK)</b>	<b>1.3</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 15:20	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 15:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 15:20	1
<b>Acetone</b>	<b>3.3</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 15:20	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 15:20	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 15:20	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 15:20	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 15:20	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 15:20	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 15:20	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 15:20	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 15:20	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 15:20	1
Chloroform	ND		0.50	0.090	ug/L			08/04/22 15:20	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 15:20	1
<b>cis-1,2-Dichloroethene</b>	<b>0.16</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 15:20	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 15:20	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 15:20	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 15:20	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 15:20	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 15:20	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 15:20	1
<b>Tetrachloroethene</b>	<b>0.95</b>		0.50	0.20	ug/L			08/04/22 15:20	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 15:20	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 15:20	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 15:20	1
<b>Trichloroethene</b>	<b>0.14</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 15:20	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 15:20	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 15:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		08/04/22 15:20	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/04/22 15:20	1
Dibromofluoromethane (Surr)	103		80 - 120		08/04/22 15:20	1
Toluene-d8 (Surr)	98		80 - 120		08/04/22 15:20	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-6**

Date Collected: 07/28/22 13:45

Matrix: Water

Date Received: 07/29/22 15:31

**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			08/04/22 15:41	1
<b>1,1,1-Trichloroethane</b>	<b>0.27</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 15:41	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 15:41	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 15:41	1
<b>1,1-Dichloroethane</b>	<b>0.12</b>	<b>J</b>	0.50	0.10	ug/L			08/04/22 15:41	1
<b>1,1-Dichloroethene</b>	<b>0.16</b>	<b>J</b>	0.50	0.10	ug/L			08/04/22 15:41	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 15:41	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 15:41	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 15:41	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 15:41	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 15:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 15:41	1
Acetone	ND		5.0	1.0	ug/L			08/04/22 15:41	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 15:41	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 15:41	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 15:41	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 15:41	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 15:41	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 15:41	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 15:41	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 15:41	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 15:41	1
<b>Chloroform</b>	<b>0.35</b>	<b>J</b>	0.50	0.090	ug/L			08/04/22 15:41	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 15:41	1
<b>cis-1,2-Dichloroethene</b>	<b>1.4</b>		0.50	0.080	ug/L			08/04/22 15:41	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 15:41	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 15:41	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 15:41	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 15:41	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 15:41	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 15:41	1
<b>Tetrachloroethene</b>	<b>5.0</b>		0.50	0.20	ug/L			08/04/22 15:41	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 15:41	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 15:41	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 15:41	1
<b>Trichloroethene</b>	<b>1.4</b>		0.50	0.080	ug/L			08/04/22 15:41	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 15:41	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 15:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		08/04/22 15:41	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/04/22 15:41	1
Dibromofluoromethane (Surr)	104		80 - 120		08/04/22 15:41	1
Toluene-d8 (Surr)	96		80 - 120		08/04/22 15:41	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-7**

**Date Collected: 07/28/22 12:05**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 17:06	1
<b>1,1,1-Trichloroethane</b>	<b>0.12</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 17:06	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 17:06	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 17:06	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 17:06	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 17:06	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 17:06	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 17:06	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 17:06	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 17:06	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 17:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 17:06	1
<b>Acetone</b>	<b>2.9</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 17:06	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 17:06	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 17:06	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 17:06	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 17:06	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 17:06	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 17:06	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 17:06	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 17:06	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 17:06	1
Chloroform	ND		0.50	0.090	ug/L			08/04/22 17:06	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 17:06	1
<b>cis-1,2-Dichloroethene</b>	<b>0.18</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 17:06	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 17:06	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 17:06	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 17:06	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 17:06	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 17:06	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 17:06	1
<b>Tetrachloroethene</b>	<b>1.6</b>		0.50	0.20	ug/L			08/04/22 17:06	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 17:06	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 17:06	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 17:06	1
<b>Trichloroethene</b>	<b>0.18</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 17:06	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 17:06	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 17:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		08/04/22 17:06	1
4-Bromofluorobenzene (Surr)	93		80 - 120		08/04/22 17:06	1
Dibromofluoromethane (Surr)	104		80 - 120		08/04/22 17:06	1
Toluene-d8 (Surr)	96		80 - 120		08/04/22 17:06	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-8**

Date Collected: 07/28/22 12:15

Matrix: Water

Date Received: 07/29/22 15:31

**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			08/04/22 17:28	1
<b>1,1,1-Trichloroethane</b>	<b>4.0</b>		0.50	0.080	ug/L			08/04/22 17:28	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 17:28	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 17:28	1
<b>1,1-Dichloroethane</b>	<b>0.85</b>		0.50	0.10	ug/L			08/04/22 17:28	1
<b>1,1-Dichloroethene</b>	<b>0.31</b>	<b>J</b>	0.50	0.10	ug/L			08/04/22 17:28	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 17:28	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 17:28	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 17:28	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 17:28	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 17:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 17:28	1
<b>Acetone</b>	<b>2.4</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 17:28	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 17:28	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 17:28	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 17:28	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 17:28	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 17:28	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 17:28	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 17:28	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 17:28	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 17:28	1
<b>Chloroform</b>	<b>0.16</b>	<b>J</b>	0.50	0.090	ug/L			08/04/22 17:28	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 17:28	1
<b>cis-1,2-Dichloroethene</b>	<b>3.8</b>		0.50	0.080	ug/L			08/04/22 17:28	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 17:28	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 17:28	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 17:28	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 17:28	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 17:28	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 17:28	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 17:28	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 17:28	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 17:28	1
<b>Trichloroethene</b>	<b>3.2</b>		0.50	0.080	ug/L			08/04/22 17:28	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 17:28	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		08/04/22 17:28	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/04/22 17:28	1
Dibromofluoromethane (Surr)	104		80 - 120		08/04/22 17:28	1
Toluene-d8 (Surr)	95		80 - 120		08/04/22 17:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>34</b>		5.0	2.0	ug/L			08/07/22 17:05	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		08/07/22 17:05	10



# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-8**

Date Collected: 07/28/22 12:15

Matrix: Water

Date Received: 07/29/22 15:31

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		80 - 120		08/07/22 17:05	10
Dibromofluoromethane (Surr)	98		80 - 120		08/07/22 17:05	10
Toluene-d8 (Surr)	100		80 - 120		08/07/22 17:05	10

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

**Lab Sample ID: 410-92859-9**

Date Collected: 07/28/22 13:00

Matrix: Water

Date Received: 07/29/22 15:31

**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			08/04/22 17:49	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 17:49	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 17:49	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 17:49	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 17:49	1
<b>1,1-Dichloroethene</b>	<b>0.17</b>	<b>J</b>	0.50	0.10	ug/L			08/04/22 17:49	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 17:49	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 17:49	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 17:49	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 17:49	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 17:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 17:49	1
Acetone	ND		5.0	1.0	ug/L			08/04/22 17:49	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 17:49	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 17:49	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 17:49	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 17:49	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 17:49	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 17:49	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 17:49	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 17:49	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 17:49	1
<b>Chloroform</b>	<b>0.71</b>		0.50	0.090	ug/L			08/04/22 17:49	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 17:49	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			08/04/22 17:49	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 17:49	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 17:49	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 17:49	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 17:49	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 17:49	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 17:49	1
<b>Tetrachloroethene</b>	<b>4.2</b>		0.50	0.20	ug/L			08/04/22 17:49	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 17:49	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 17:49	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 17:49	1
<b>Trichloroethene</b>	<b>0.17</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 17:49	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 17:49	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 17:49	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-9**

**Date Collected: 07/28/22 13:00**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		08/04/22 17:49	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/04/22 17:49	1
Dibromofluoromethane (Surr)	104		80 - 120		08/04/22 17:49	1
Toluene-d8 (Surr)	96		80 - 120		08/04/22 17:49	1

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

**Lab Sample ID: 410-92859-10**

**Date Collected: 07/28/22 13:35**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 18:10	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 18:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 18:10	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 18:10	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 18:10	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 18:10	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 18:10	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 18:10	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 18:10	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 18:10	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 18:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 18:10	1
<b>Acetone</b>	<b>3.0</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 18:10	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 18:10	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 18:10	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 18:10	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 18:10	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 18:10	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 18:10	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 18:10	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 18:10	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 18:10	1
Chloroform	ND		0.50	0.090	ug/L			08/04/22 18:10	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 18:10	1
<b>cis-1,2-Dichloroethene</b>	<b>0.12</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 18:10	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 18:10	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 18:10	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 18:10	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 18:10	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 18:10	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 18:10	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/04/22 18:10	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 18:10	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 18:10	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 18:10	1
<b>Trichloroethene</b>	<b>0.14</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 18:10	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 18:10	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 18:10	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-10**

**Date Collected: 07/28/22 13:35**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		08/04/22 18:10	1
4-Bromofluorobenzene (Surr)	95		80 - 120		08/04/22 18:10	1
Dibromofluoromethane (Surr)	104		80 - 120		08/04/22 18:10	1
Toluene-d8 (Surr)	96		80 - 120		08/04/22 18:10	1

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

**Lab Sample ID: 410-92859-11**

**Date Collected: 07/28/22 15:15**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 18:31	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 18:31	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 18:31	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 18:31	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 18:31	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 18:31	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 18:31	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 18:31	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 18:31	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 18:31	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 18:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 18:31	1
<b>Acetone</b>	<b>3.0</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 18:31	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 18:31	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 18:31	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 18:31	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 18:31	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 18:31	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 18:31	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 18:31	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 18:31	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 18:31	1
<b>Chloroform</b>	<b>0.099</b>	<b>J</b>	0.50	0.090	ug/L			08/04/22 18:31	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 18:31	1
<b>cis-1,2-Dichloroethene</b>	<b>0.14</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 18:31	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 18:31	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 18:31	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 18:31	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 18:31	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 18:31	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 18:31	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/04/22 18:31	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 18:31	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 18:31	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 18:31	1
<b>Trichloroethene</b>	<b>0.15</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 18:31	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 18:31	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 18:31	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-11**

**Date Collected: 07/28/22 15:15**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		08/04/22 18:31	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/04/22 18:31	1
Dibromofluoromethane (Surr)	105		80 - 120		08/04/22 18:31	1
Toluene-d8 (Surr)	96		80 - 120		08/04/22 18:31	1

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

**Lab Sample ID: 410-92859-12**

**Date Collected: 07/28/22 11:06**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 18:52	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 18:52	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 18:52	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 18:52	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 18:52	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 18:52	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 18:52	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 18:52	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 18:52	1
<b>2-Butanone (MEK)</b>	<b>1.7</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 18:52	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 18:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 18:52	1
<b>Acetone</b>	<b>5.1</b>		5.0	1.0	ug/L			08/04/22 18:52	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 18:52	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 18:52	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 18:52	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 18:52	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 18:52	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 18:52	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 18:52	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 18:52	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 18:52	1
Chloroform	ND		0.50	0.090	ug/L			08/04/22 18:52	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 18:52	1
<b>cis-1,2-Dichloroethene</b>	<b>0.13</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 18:52	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 18:52	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 18:52	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 18:52	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 18:52	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 18:52	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 18:52	1
<b>Tetrachloroethene</b>	<b>0.33</b>	<b>J</b>	0.50	0.20	ug/L			08/04/22 18:52	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 18:52	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 18:52	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 18:52	1
<b>Trichloroethene</b>	<b>0.10</b>	<b>J</b>	0.50	0.080	ug/L			08/04/22 18:52	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 18:52	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 18:52	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-12**

Date Collected: 07/28/22 11:06

Matrix: Water

Date Received: 07/29/22 15:31

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		08/04/22 18:52	1
4-Bromofluorobenzene (Surr)	93		80 - 120		08/04/22 18:52	1
Dibromofluoromethane (Surr)	104		80 - 120		08/04/22 18:52	1
Toluene-d8 (Surr)	97		80 - 120		08/04/22 18:52	1

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

**Lab Sample ID: 410-92859-13**

Date Collected: 07/28/22 12:30

Matrix: Water

Date Received: 07/29/22 15:31

**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			08/04/22 19:13	1
<b>1,1,1-Trichloroethane</b>	<b>4.0</b>		0.50	0.080	ug/L			08/04/22 19:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 19:13	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 19:13	1
<b>1,1-Dichloroethane</b>	<b>0.83</b>		0.50	0.10	ug/L			08/04/22 19:13	1
<b>1,1-Dichloroethene</b>	<b>0.31</b>	<b>J</b>	0.50	0.10	ug/L			08/04/22 19:13	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 19:13	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 19:13	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 19:13	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 19:13	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 19:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 19:13	1
<b>Acetone</b>	<b>2.5</b>	<b>J</b>	5.0	1.0	ug/L			08/04/22 19:13	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 19:13	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 19:13	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 19:13	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 19:13	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 19:13	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 19:13	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 19:13	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 19:13	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 19:13	1
<b>Chloroform</b>	<b>0.16</b>	<b>J</b>	0.50	0.090	ug/L			08/04/22 19:13	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 19:13	1
<b>cis-1,2-Dichloroethene</b>	<b>3.8</b>		0.50	0.080	ug/L			08/04/22 19:13	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 19:13	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 19:13	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 19:13	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 19:13	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 19:13	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 19:13	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 19:13	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 19:13	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 19:13	1
<b>Trichloroethene</b>	<b>3.1</b>		0.50	0.080	ug/L			08/04/22 19:13	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 19:13	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		08/04/22 19:13	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-13**

**Date Collected: 07/28/22 12:30**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		80 - 120		08/04/22 19:13	1
Dibromofluoromethane (Surr)	106		80 - 120		08/04/22 19:13	1
Toluene-d8 (Surr)	94		80 - 120		08/04/22 19:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>40</b>		5.0	2.0	ug/L			08/07/22 17:27	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		08/07/22 17:27	10
4-Bromofluorobenzene (Surr)	90		80 - 120		08/07/22 17:27	10
Dibromofluoromethane (Surr)	99		80 - 120		08/07/22 17:27	10
Toluene-d8 (Surr)	100		80 - 120		08/07/22 17:27	10

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

**Lab Sample ID: 410-92859-14**

**Date Collected: 07/28/22 00:00**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

**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			08/04/22 12:31	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 12:31	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 12:31	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 12:31	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 12:31	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 12:31	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 12:31	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 12:31	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 12:31	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 12:31	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 12:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 12:31	1
Acetone	ND		5.0	1.0	ug/L			08/04/22 12:31	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 12:31	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 12:31	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 12:31	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 12:31	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 12:31	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 12:31	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 12:31	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 12:31	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 12:31	1
Chloroform	ND		0.50	0.090	ug/L			08/04/22 12:31	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 12:31	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			08/04/22 12:31	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 12:31	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 12:31	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 12:31	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 12:31	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 12:31	1

# Client Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-14**

**Date Collected: 07/28/22 00:00**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.50	0.070	ug/L			08/04/22 12:31	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/04/22 12:31	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 12:31	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 12:31	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 12:31	1
Trichloroethene	ND		0.50	0.080	ug/L			08/04/22 12:31	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 12:31	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 12:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		08/04/22 12:31	1
4-Bromofluorobenzene (Surr)	92		80 - 120		08/04/22 12:31	1
Dibromofluoromethane (Surr)	105		80 - 120		08/04/22 12:31	1
Toluene-d8 (Surr)	95		80 - 120		08/04/22 12:31	1

## Default Detection Limits

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

Job ID: 410-92859-1

### 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	0.080	ug/L
1,1,2,2-Tetrachloroethane	0.50	0.10	ug/L
1,1,2-Trichloroethane	0.50	0.080	ug/L
1,1-Dichloroethane	0.50	0.10	ug/L
1,1-Dichloroethene	0.50	0.10	ug/L
1,2-Dibromoethane (EDB)	0.50	0.080	ug/L
1,2-Dichloroethane	0.50	0.070	ug/L
1,2-Dichloropropane	0.50	0.10	ug/L
2-Butanone (MEK)	5.0	1.0	ug/L
2-Hexanone	5.0	0.10	ug/L
4-Methyl-2-pentanone (MIBK)	5.0	1.0	ug/L
Acetone	5.0	1.0	ug/L
Benzene	0.50	0.10	ug/L
Bromochloromethane	0.50	0.080	ug/L
Bromodichloromethane	0.50	0.080	ug/L
Bromoform	1.0	0.30	ug/L
Bromomethane	0.50	0.10	ug/L
Carbon disulfide	1.0	0.10	ug/L
Carbon tetrachloride	0.50	0.10	ug/L
Chlorobenzene	0.50	0.070	ug/L
Chloroethane	0.50	0.10	ug/L
Chloroform	0.50	0.090	ug/L
Chloromethane	0.50	0.10	ug/L
cis-1,2-Dichloroethene	0.50	0.080	ug/L
cis-1,3-Dichloropropene	0.50	0.10	ug/L
Dibromochloromethane	0.50	0.080	ug/L
Ethylbenzene	0.50	0.080	ug/L
Methyl tert-butyl ether	0.50	0.080	ug/L
Methylene Chloride	0.50	0.10	ug/L
Styrene	0.50	0.070	ug/L
Tetrachloroethene	0.50	0.20	ug/L
Toluene	0.50	0.080	ug/L
trans-1,2-Dichloroethene	0.50	0.10	ug/L
trans-1,3-Dichloropropene	0.50	0.080	ug/L
Trichloroethene	0.50	0.080	ug/L
Vinyl chloride	0.50	0.10	ug/L
Xylenes, Total	1.0	0.070	ug/L



# Surrogate Summary

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

Job ID: 410-92859-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-92859-1	HD-COD-SW-6-0/1-0	101	96	101	97
410-92859-2	HD-COD-SW-7-0/1-0	102	96	103	98
410-92859-3	HD-COD-SW-8-0/1-0	101	95	103	96
410-92859-4	HD-COD-SW-9-0/1-0	104	96	103	96
410-92859-5	HD-COD-SW-13-0/1-0	101	96	103	98
410-92859-6	HD-COD-SW-15-0/1-0	101	96	104	96
410-92859-6 MS	HD-COD-SW-15-0/1-0 MS	98	100	100	98
410-92859-6 MSD	HD-COD-SW-15-0/1-0 MSD	99	101	99	97
410-92859-7	HD-COD-SW-16-0/1-0	102	93	104	96
410-92859-8	HD-COD-SW-17-0/1-0	103	94	104	95
410-92859-8 - DL	HD-COD-SW-17-0/1-0	101	94	98	100
410-92859-9	HD-COD-SW-26-0/1-0	104	94	104	96
410-92859-10	HD-COD-SW-27-0/1-0	103	95	104	96
410-92859-11	HD-COD-SW-28-0/1-0	104	94	105	96
410-92859-12	HD-COD-SW-29-0/1-0	104	93	104	97
410-92859-13	HD-QC1-0/1-1	105	92	106	94
410-92859-13 - DL	HD-QC1-0/1-1	100	90	99	100
410-92859-14	HD-QC1-0/1-2	106	92	105	95
LCS 410-282764/4	Lab Control Sample	101	99	99	98
LCS 410-283558/4	Lab Control Sample	100	98	96	102
LCSD 410-283558/5	Lab Control Sample Dup	99	99	97	102
MB 410-282764/6	Method Blank	103	94	105	96
MB 410-283558/7	Method Blank	100	93	99	101

### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: MB 410-282764/6**

**Matrix: Water**

**Analysis Batch: 282764**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/04/22 11:48	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 11:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/04/22 11:48	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/04/22 11:48	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/04/22 11:48	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 11:48	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/04/22 11:48	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/04/22 11:48	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/04/22 11:48	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/04/22 11:48	1
2-Hexanone	ND		5.0	0.10	ug/L			08/04/22 11:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/04/22 11:48	1
Acetone	ND		5.0	1.0	ug/L			08/04/22 11:48	1
Benzene	ND		0.50	0.10	ug/L			08/04/22 11:48	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/04/22 11:48	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/04/22 11:48	1
Bromoform	ND		1.0	0.30	ug/L			08/04/22 11:48	1
Bromomethane	ND		0.50	0.10	ug/L			08/04/22 11:48	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/04/22 11:48	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/04/22 11:48	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/04/22 11:48	1
Chloroethane	ND		0.50	0.10	ug/L			08/04/22 11:48	1
Chloroform	ND		0.50	0.090	ug/L			08/04/22 11:48	1
Chloromethane	ND		0.50	0.10	ug/L			08/04/22 11:48	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			08/04/22 11:48	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/04/22 11:48	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/04/22 11:48	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/04/22 11:48	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/04/22 11:48	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/04/22 11:48	1
Styrene	ND		0.50	0.070	ug/L			08/04/22 11:48	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/04/22 11:48	1
Toluene	ND		0.50	0.080	ug/L			08/04/22 11:48	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/04/22 11:48	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/04/22 11:48	1
Trichloroethene	ND		0.50	0.080	ug/L			08/04/22 11:48	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/04/22 11:48	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/04/22 11:48	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	103		80 - 120		08/04/22 11:48	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/04/22 11:48	1
Dibromofluoromethane (Surr)	105		80 - 120		08/04/22 11:48	1
Toluene-d8 (Surr)	96		80 - 120		08/04/22 11:48	1

# QC Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: LCS 410-282764/4**

**Matrix: Water**

**Analysis Batch: 282764**

**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	5.08		ug/L		102	71 - 134
1,1,1-Trichloroethane	5.00	5.14		ug/L		103	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.00		ug/L		100	75 - 123
1,1,2-Trichloroethane	5.00	5.06		ug/L		101	80 - 120
1,1-Dichloroethane	5.00	5.21		ug/L		104	74 - 120
1,1-Dichloroethene	5.00	5.35		ug/L		107	80 - 131
1,2-Dibromoethane (EDB)	5.00	4.99		ug/L		100	80 - 120
1,2-Dichloroethane	5.00	4.90		ug/L		98	69 - 122
1,2-Dichloropropane	5.00	5.22		ug/L		104	80 - 120
2-Butanone (MEK)	62.5	57.9		ug/L		93	59 - 141
2-Hexanone	62.5	58.7		ug/L		94	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	60.2		ug/L		96	55 - 140
Acetone	62.5	52.8		ug/L		84	60 - 146
Benzene	5.00	5.39		ug/L		108	80 - 120
Bromochloromethane	5.00	5.31		ug/L		106	80 - 120
Bromodichloromethane	5.00	5.18		ug/L		104	73 - 124
Bromoform	5.00	4.97		ug/L		99	49 - 144
Bromomethane	5.00	5.21		ug/L		104	60 - 136
Carbon disulfide	5.00	5.87		ug/L		117	67 - 130
Carbon tetrachloride	5.00	5.10		ug/L		102	64 - 141
Chlorobenzene	5.00	5.12		ug/L		102	80 - 120
Chloroethane	5.00	5.27		ug/L		105	63 - 120
Chloroform	5.00	5.21		ug/L		104	80 - 120
Chloromethane	5.00	5.32		ug/L		106	56 - 124
cis-1,2-Dichloroethene	5.00	5.47		ug/L		109	80 - 122
cis-1,3-Dichloropropene	5.00	5.00		ug/L		100	67 - 121
Dibromochloromethane	5.00	4.98		ug/L		100	64 - 138
Ethylbenzene	5.00	5.20		ug/L		104	80 - 120
Methyl tert-butyl ether	5.00	5.21		ug/L		104	69 - 120
Methylene Chloride	5.00	5.24		ug/L		105	80 - 120
Styrene	5.00	5.49		ug/L		110	80 - 120
Tetrachloroethene	5.00	5.15		ug/L		103	80 - 120
Toluene	5.00	5.09		ug/L		102	80 - 120
trans-1,2-Dichloroethene	5.00	5.34		ug/L		107	80 - 122
trans-1,3-Dichloropropene	5.00	5.08		ug/L		102	61 - 129
Trichloroethene	5.00	5.28		ug/L		106	80 - 120
Vinyl chloride	5.00	5.44		ug/L		109	60 - 125
Xylenes, Total	15.0	15.9		ug/L		106	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	98		80 - 120

# QC Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-6 MS**

**Matrix: Water**

**Analysis Batch: 282764**

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

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
1,1,1,2-Tetrachloroethane	ND		5.00	5.21		ug/L		104	71 - 134	
1,1,1-Trichloroethane	0.27	J	5.00	5.82		ug/L		111	78 - 126	
1,1,2,2-Tetrachloroethane	ND		5.00	4.98		ug/L		100	75 - 123	
1,1,2-Trichloroethane	ND		5.00	5.28		ug/L		106	80 - 120	
1,1-Dichloroethane	0.12	J	5.00	5.65		ug/L		110	74 - 120	
1,1-Dichloroethene	0.16	J	5.00	6.06		ug/L		118	80 - 131	
1,2-Dibromoethane (EDB)	ND		5.00	5.14		ug/L		103	80 - 120	
1,2-Dichloroethane	ND		5.00	5.24		ug/L		105	69 - 122	
1,2-Dichloropropane	ND		5.00	5.59		ug/L		112	80 - 120	
2-Butanone (MEK)	ND		62.6	57.9		ug/L		93	59 - 141	
2-Hexanone	ND		62.6	57.2		ug/L		91	52 - 140	
4-Methyl-2-pentanone (MIBK)	ND		62.6	58.9		ug/L		94	55 - 140	
Acetone	ND		62.6	56.3		ug/L		90	60 - 146	
Benzene	ND		5.00	5.73		ug/L		114	80 - 120	
Bromochloromethane	ND		5.00	5.70		ug/L		114	80 - 120	
Bromodichloromethane	ND		5.00	5.49		ug/L		110	73 - 124	
Bromoform	ND		5.00	4.94		ug/L		99	49 - 144	
Bromomethane	ND		5.00	5.24		ug/L		105	60 - 136	
Carbon disulfide	ND		5.00	6.32		ug/L		126	67 - 130	
Carbon tetrachloride	ND		5.00	5.73		ug/L		115	64 - 141	
Chlorobenzene	ND		5.00	5.32		ug/L		106	80 - 120	
Chloroethane	ND		5.00	5.51		ug/L		110	63 - 120	
Chloroform	0.35	J	5.00	5.88		ug/L		111	80 - 120	
Chloromethane	ND		5.00	5.70		ug/L		114	80 - 120	
cis-1,2-Dichloroethene	1.4		5.00	7.25		ug/L		118	80 - 122	
cis-1,3-Dichloropropene	ND		5.00	5.25		ug/L		105	67 - 121	
Dibromochloromethane	ND		5.00	5.07		ug/L		101	64 - 138	
Ethylbenzene	ND		5.00	5.44		ug/L		109	80 - 120	
Methyl tert-butyl ether	ND		5.00	5.60		ug/L		112	69 - 120	
Methylene Chloride	ND		5.00	5.62		ug/L		112	80 - 120	
Styrene	ND		5.00	5.70		ug/L		114	80 - 120	
Tetrachloroethene	5.0		5.00	10.4		ug/L		108	80 - 120	
Toluene	ND		5.00	5.36		ug/L		107	80 - 120	
trans-1,2-Dichloroethene	ND		5.00	5.67		ug/L		113	80 - 122	
trans-1,3-Dichloropropene	ND		5.00	5.21		ug/L		104	61 - 129	
Trichloroethene	1.4		5.00	7.05		ug/L		112	80 - 120	
Vinyl chloride	ND		5.00	5.91		ug/L		118	60 - 125	
Xylenes, Total	ND		15.0	16.6		ug/L		111	80 - 120	

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

# QC Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-6 MSD**

**Matrix: Water**

**Analysis Batch: 282764**

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

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,1,1,2-Tetrachloroethane	ND		5.00	5.13		ug/L		103	71 - 134	1	30
1,1,1-Trichloroethane	0.27	J	5.00	5.71		ug/L		109	78 - 126	2	30
1,1,2,2-Tetrachloroethane	ND		5.00	5.00		ug/L		100	75 - 123	0	30
1,1,2-Trichloroethane	ND		5.00	5.16		ug/L		103	80 - 120	2	30
1,1-Dichloroethane	0.12	J	5.00	5.59		ug/L		109	74 - 120	1	30
1,1-Dichloroethene	0.16	J	5.00	6.00		ug/L		117	80 - 131	1	30
1,2-Dibromoethane (EDB)	ND		5.00	5.12		ug/L		102	80 - 120	0	30
1,2-Dichloroethane	ND		5.00	4.92		ug/L		98	69 - 122	6	30
1,2-Dichloropropane	ND		5.00	5.49		ug/L		110	80 - 120	2	30
2-Butanone (MEK)	ND		62.6	58.1		ug/L		93	59 - 141	0	30
2-Hexanone	ND		62.6	57.9		ug/L		92	52 - 140	1	30
4-Methyl-2-pentanone (MIBK)	ND		62.6	59.5		ug/L		95	55 - 140	1	30
Acetone	ND		62.6	53.9		ug/L		86	60 - 146	4	30
Benzene	ND		5.00	5.62		ug/L		112	80 - 120	2	30
Bromochloromethane	ND		5.00	5.54		ug/L		111	80 - 120	3	30
Bromodichloromethane	ND		5.00	5.38		ug/L		107	73 - 124	2	30
Bromoform	ND		5.00	4.89		ug/L		98	49 - 144	1	30
Bromomethane	ND		5.00	5.39		ug/L		108	60 - 136	3	30
Carbon disulfide	ND		5.00	6.26		ug/L		125	67 - 130	1	30
Carbon tetrachloride	ND		5.00	5.60		ug/L		112	64 - 141	2	30
Chlorobenzene	ND		5.00	5.27		ug/L		105	80 - 120	1	30
Chloroethane	ND		5.00	5.22		ug/L		104	63 - 120	5	30
Chloroform	0.35	J	5.00	5.81		ug/L		109	80 - 120	1	30
Chloromethane	ND		5.00	5.76		ug/L		115	80 - 120	1	30
cis-1,2-Dichloroethene	1.4		5.00	7.16		ug/L		116	80 - 122	1	30
cis-1,3-Dichloropropene	ND		5.00	5.26		ug/L		105	67 - 121	0	30
Dibromochloromethane	ND		5.00	5.03		ug/L		101	64 - 138	1	30
Ethylbenzene	ND		5.00	5.39		ug/L		108	80 - 120	1	30
Methyl tert-butyl ether	ND		5.00	5.52		ug/L		110	69 - 120	2	30
Methylene Chloride	ND		5.00	5.50		ug/L		110	80 - 120	2	30
Styrene	ND		5.00	5.63		ug/L		113	80 - 120	1	30
Tetrachloroethene	5.0		5.00	10.3		ug/L		105	80 - 120	1	30
Toluene	ND		5.00	5.33		ug/L		107	80 - 120	1	30
trans-1,2-Dichloroethene	ND		5.00	5.59		ug/L		112	80 - 122	1	30
trans-1,3-Dichloropropene	ND		5.00	5.19		ug/L		104	61 - 129	0	30
Trichloroethene	1.4		5.00	6.94		ug/L		110	80 - 120	2	30
Vinyl chloride	ND		5.00	5.91		ug/L		118	60 - 125	0	30
Xylenes, Total	ND		15.0	16.6		ug/L		111	80 - 120	0	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	97		80 - 120

# QC Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: MB 410-283558/7**

**Matrix: Water**

**Analysis Batch: 283558**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/22 14:15	1
1,1,1-Trichloroethane	ND		0.50	0.080	ug/L			08/07/22 14:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.10	ug/L			08/07/22 14:15	1
1,1,2-Trichloroethane	ND		0.50	0.080	ug/L			08/07/22 14:15	1
1,1-Dichloroethane	ND		0.50	0.10	ug/L			08/07/22 14:15	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/07/22 14:15	1
1,2-Dibromoethane (EDB)	ND		0.50	0.080	ug/L			08/07/22 14:15	1
1,2-Dichloroethane	ND		0.50	0.070	ug/L			08/07/22 14:15	1
1,2-Dichloropropane	ND		0.50	0.10	ug/L			08/07/22 14:15	1
2-Butanone (MEK)	ND		5.0	1.0	ug/L			08/07/22 14:15	1
2-Hexanone	ND		5.0	0.10	ug/L			08/07/22 14:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0	ug/L			08/07/22 14:15	1
Acetone	ND		5.0	1.0	ug/L			08/07/22 14:15	1
Benzene	ND		0.50	0.10	ug/L			08/07/22 14:15	1
Bromochloromethane	ND		0.50	0.080	ug/L			08/07/22 14:15	1
Bromodichloromethane	ND		0.50	0.080	ug/L			08/07/22 14:15	1
Bromoform	ND		1.0	0.30	ug/L			08/07/22 14:15	1
Bromomethane	ND		0.50	0.10	ug/L			08/07/22 14:15	1
Carbon disulfide	ND		1.0	0.10	ug/L			08/07/22 14:15	1
Carbon tetrachloride	ND		0.50	0.10	ug/L			08/07/22 14:15	1
Chlorobenzene	ND		0.50	0.070	ug/L			08/07/22 14:15	1
Chloroethane	ND		0.50	0.10	ug/L			08/07/22 14:15	1
Chloroform	ND		0.50	0.090	ug/L			08/07/22 14:15	1
Chloromethane	ND		0.50	0.10	ug/L			08/07/22 14:15	1
cis-1,2-Dichloroethene	ND		0.50	0.080	ug/L			08/07/22 14:15	1
cis-1,3-Dichloropropene	ND		0.50	0.10	ug/L			08/07/22 14:15	1
Dibromochloromethane	ND		0.50	0.080	ug/L			08/07/22 14:15	1
Ethylbenzene	ND		0.50	0.080	ug/L			08/07/22 14:15	1
Methyl tert-butyl ether	ND		0.50	0.080	ug/L			08/07/22 14:15	1
Methylene Chloride	ND		0.50	0.10	ug/L			08/07/22 14:15	1
Styrene	ND		0.50	0.070	ug/L			08/07/22 14:15	1
Tetrachloroethene	ND		0.50	0.20	ug/L			08/07/22 14:15	1
Toluene	ND		0.50	0.080	ug/L			08/07/22 14:15	1
trans-1,2-Dichloroethene	ND		0.50	0.10	ug/L			08/07/22 14:15	1
trans-1,3-Dichloropropene	ND		0.50	0.080	ug/L			08/07/22 14:15	1
Trichloroethene	ND		0.50	0.080	ug/L			08/07/22 14:15	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/07/22 14:15	1
Xylenes, Total	ND		1.0	0.070	ug/L			08/07/22 14:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		08/07/22 14:15	1
4-Bromofluorobenzene (Surr)	93		80 - 120		08/07/22 14:15	1
Dibromofluoromethane (Surr)	99		80 - 120		08/07/22 14:15	1
Toluene-d8 (Surr)	101		80 - 120		08/07/22 14:15	1

# QC Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: LCS 410-283558/4**

**Matrix: Water**

**Analysis Batch: 283558**

**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	5.26		ug/L		105	71 - 134
1,1,1-Trichloroethane	5.00	4.78		ug/L		96	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.63		ug/L		113	75 - 123
1,1,2-Trichloroethane	5.00	5.29		ug/L		106	80 - 120
1,1-Dichloroethane	5.00	4.91		ug/L		98	74 - 120
1,1-Dichloroethene	5.00	5.03		ug/L		101	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.19		ug/L		104	80 - 120
1,2-Dichloroethane	5.00	4.65		ug/L		93	69 - 122
1,2-Dichloropropane	5.00	4.96		ug/L		99	80 - 120
2-Butanone (MEK)	62.5	66.2		ug/L		106	59 - 141
2-Hexanone	62.5	72.5		ug/L		116	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	72.2		ug/L		115	55 - 140
Acetone	62.5	60.2		ug/L		96	60 - 146
Benzene	5.00	5.00		ug/L		100	80 - 120
Bromochloromethane	5.00	5.01		ug/L		100	80 - 120
Bromodichloromethane	5.00	5.00		ug/L		100	73 - 124
Bromoform	5.00	5.64		ug/L		113	49 - 144
Bromomethane	5.00	4.32		ug/L		86	60 - 136
Carbon disulfide	5.00	5.58		ug/L		112	67 - 130
Carbon tetrachloride	5.00	4.77		ug/L		95	64 - 141
Chlorobenzene	5.00	5.21		ug/L		104	80 - 120
Chloroethane	5.00	4.58		ug/L		92	63 - 120
Chloroform	5.00	4.82		ug/L		96	80 - 120
Chloromethane	5.00	4.76		ug/L		95	56 - 124
cis-1,2-Dichloroethene	5.00	5.10		ug/L		102	80 - 122
cis-1,3-Dichloropropene	5.00	5.02		ug/L		100	67 - 121
Dibromochloromethane	5.00	5.31		ug/L		106	64 - 138
Ethylbenzene	5.00	5.27		ug/L		105	80 - 120
Methyl tert-butyl ether	5.00	5.11		ug/L		102	69 - 120
Methylene Chloride	5.00	4.99		ug/L		100	80 - 120
Styrene	5.00	5.76		ug/L		115	80 - 120
Tetrachloroethene	5.00	4.99		ug/L		100	80 - 120
Toluene	5.00	5.09		ug/L		102	80 - 120
trans-1,2-Dichloroethene	5.00	4.98		ug/L		100	80 - 122
trans-1,3-Dichloropropene	5.00	5.39		ug/L		108	61 - 129
Trichloroethene	5.00	4.86		ug/L		97	80 - 120
Vinyl chloride	5.00	4.65		ug/L		93	60 - 125
Xylenes, Total	15.0	16.2		ug/L		108	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	96		80 - 120
Toluene-d8 (Surr)	102		80 - 120

# QC Sample Results

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

Job ID: 410-92859-1

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

**Lab Sample ID: LCSD 410-283558/5**

**Matrix: Water**

**Analysis Batch: 283558**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
1,1,1,2-Tetrachloroethane	5.00	5.32		ug/L		106	71 - 134	1	30	
1,1,1-Trichloroethane	5.00	4.75		ug/L		95	78 - 126	1	30	
1,1,2,2-Tetrachloroethane	5.00	5.71		ug/L		114	75 - 123	1	30	
1,1,2-Trichloroethane	5.00	5.33		ug/L		107	80 - 120	1	30	
1,1-Dichloroethane	5.00	4.88		ug/L		98	74 - 120	1	30	
1,1-Dichloroethene	5.00	5.03		ug/L		101	80 - 131	0	30	
1,2-Dibromoethane (EDB)	5.00	5.26		ug/L		105	80 - 120	1	30	
1,2-Dichloroethane	5.00	4.60		ug/L		92	69 - 122	1	30	
1,2-Dichloropropane	5.00	4.95		ug/L		99	80 - 120	0	30	
2-Butanone (MEK)	62.5	62.1		ug/L		99	59 - 141	7	30	
2-Hexanone	62.5	67.5		ug/L		108	52 - 140	7	30	
4-Methyl-2-pentanone (MIBK)	62.5	67.1		ug/L		107	55 - 140	7	30	
Acetone	62.5	56.0		ug/L		90	60 - 146	7	30	
Benzene	5.00	5.00		ug/L		100	80 - 120	0	30	
Bromochloromethane	5.00	4.97		ug/L		99	80 - 120	1	30	
Bromodichloromethane	5.00	4.98		ug/L		100	73 - 124	0	30	
Bromoform	5.00	5.58		ug/L		112	49 - 144	1	30	
Bromomethane	5.00	4.32		ug/L		86	60 - 136	0	30	
Carbon disulfide	5.00	5.51		ug/L		110	67 - 130	1	30	
Carbon tetrachloride	5.00	4.76		ug/L		95	64 - 141	0	30	
Chlorobenzene	5.00	5.23		ug/L		105	80 - 120	0	30	
Chloroethane	5.00	4.60		ug/L		92	63 - 120	0	30	
Chloroform	5.00	4.85		ug/L		97	80 - 120	1	30	
Chloromethane	5.00	4.70		ug/L		94	56 - 124	1	30	
cis-1,2-Dichloroethene	5.00	5.08		ug/L		102	80 - 122	0	30	
cis-1,3-Dichloropropene	5.00	5.03		ug/L		101	67 - 121	0	30	
Dibromochloromethane	5.00	5.38		ug/L		108	64 - 138	1	30	
Ethylbenzene	5.00	5.27		ug/L		105	80 - 120	0	30	
Methyl tert-butyl ether	5.00	5.08		ug/L		102	69 - 120	1	30	
Methylene Chloride	5.00	4.97		ug/L		99	80 - 120	1	30	
Styrene	5.00	5.76		ug/L		115	80 - 120	0	30	
Tetrachloroethene	5.00	4.99		ug/L		100	80 - 120	0	30	
Toluene	5.00	5.09		ug/L		102	80 - 120	0	30	
trans-1,2-Dichloroethene	5.00	4.93		ug/L		99	80 - 122	1	30	
trans-1,3-Dichloropropene	5.00	5.45		ug/L		109	61 - 129	1	30	
Trichloroethene	5.00	4.88		ug/L		98	80 - 120	0	30	
Vinyl chloride	5.00	4.77		ug/L		95	60 - 125	2	30	
Xylenes, Total	15.0	16.3		ug/L		109	80 - 120	1	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	97		80 - 120
Toluene-d8 (Surr)	102		80 - 120



# QC Association Summary

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

Job ID: 410-92859-1

## GC/MS VOA

### Analysis Batch: 282764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-92859-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260D	
410-92859-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260D	
410-92859-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260D	
410-92859-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260D	
410-92859-5	HD-COD-SW-13-0/1-0	Total/NA	Water	8260D	
410-92859-6	HD-COD-SW-15-0/1-0	Total/NA	Water	8260D	
410-92859-7	HD-COD-SW-16-0/1-0	Total/NA	Water	8260D	
410-92859-8	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-92859-9	HD-COD-SW-26-0/1-0	Total/NA	Water	8260D	
410-92859-10	HD-COD-SW-27-0/1-0	Total/NA	Water	8260D	
410-92859-11	HD-COD-SW-28-0/1-0	Total/NA	Water	8260D	
410-92859-12	HD-COD-SW-29-0/1-0	Total/NA	Water	8260D	
410-92859-13	HD-QC1-0/1-1	Total/NA	Water	8260D	
410-92859-14	HD-QC1-0/1-2	Total/NA	Water	8260D	
MB 410-282764/6	Method Blank	Total/NA	Water	8260D	
LCS 410-282764/4	Lab Control Sample	Total/NA	Water	8260D	
410-92859-6 MS	HD-COD-SW-15-0/1-0 MS	Total/NA	Water	8260D	
410-92859-6 MSD	HD-COD-SW-15-0/1-0 MSD	Total/NA	Water	8260D	

### Analysis Batch: 283558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-92859-8 - DL	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-92859-13 - DL	HD-QC1-0/1-1	Total/NA	Water	8260D	
MB 410-283558/7	Method Blank	Total/NA	Water	8260D	
LCS 410-283558/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-283558/5	Lab Control Sample Dup	Total/NA	Water	8260D	

# Lab Chronicle

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-1**

Date Collected: 07/28/22 12:40

Matrix: Water

Date Received: 07/29/22 15:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 13:56

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

**Lab Sample ID: 410-92859-2**

Date Collected: 07/28/22 13:20

Matrix: Water

Date Received: 07/29/22 15:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 14:17

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

**Lab Sample ID: 410-92859-3**

Date Collected: 07/28/22 11:25

Matrix: Water

Date Received: 07/29/22 15:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 14:38

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

**Lab Sample ID: 410-92859-4**

Date Collected: 07/28/22 15:00

Matrix: Water

Date Received: 07/29/22 15:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 14:59

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

**Lab Sample ID: 410-92859-5**

Date Collected: 07/28/22 11:45

Matrix: Water

Date Received: 07/29/22 15:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 15:20

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

**Lab Sample ID: 410-92859-6**

Date Collected: 07/28/22 13:45

Matrix: Water

Date Received: 07/29/22 15:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 15:41

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

**Lab Sample ID: 410-92859-7**

Date Collected: 07/28/22 12:05

Matrix: Water

Date Received: 07/29/22 15:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 17:06

# Lab Chronicle

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

Job ID: 410-92859-1

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

**Lab Sample ID: 410-92859-8**

**Date Collected: 07/28/22 12:15**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 17:28
Total/NA	Analysis	8260D	DL	10	283558	DVW2	ELLE	08/07/22 17:05

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

**Lab Sample ID: 410-92859-9**

**Date Collected: 07/28/22 13:00**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 17:49

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

**Lab Sample ID: 410-92859-10**

**Date Collected: 07/28/22 13:35**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 18:10

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

**Lab Sample ID: 410-92859-11**

**Date Collected: 07/28/22 15:15**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 18:31

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

**Lab Sample ID: 410-92859-12**

**Date Collected: 07/28/22 11:06**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 18:52

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

**Lab Sample ID: 410-92859-13**

**Date Collected: 07/28/22 12:30**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 19:13
Total/NA	Analysis	8260D	DL	10	283558	DVW2	ELLE	08/07/22 17:27

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

**Lab Sample ID: 410-92859-14**

**Date Collected: 07/28/22 00:00**

**Matrix: Water**

**Date Received: 07/29/22 15:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	282764	DVW2	ELLE	08/04/22 12:31

# Lab Chronicle

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

Job ID: 410-92859-1

**Laboratory References:**

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

# Accreditation/Certification Summary

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

Job ID: 410-92859-1

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## Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

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Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-23

# Method Summary

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

Job ID: 410-92859-1

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<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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 Environment Testing, 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: 410-92859-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-92859-1	HD-COD-SW-6-0/1-0	Water	07/28/22 12:40	07/29/22 15:31
410-92859-2	HD-COD-SW-7-0/1-0	Water	07/28/22 13:20	07/29/22 15:31
410-92859-3	HD-COD-SW-8-0/1-0	Water	07/28/22 11:25	07/29/22 15:31
410-92859-4	HD-COD-SW-9-0/1-0	Water	07/28/22 15:00	07/29/22 15:31
410-92859-5	HD-COD-SW-13-0/1-0	Water	07/28/22 11:45	07/29/22 15:31
410-92859-6	HD-COD-SW-15-0/1-0	Water	07/28/22 13:45	07/29/22 15:31
410-92859-7	HD-COD-SW-16-0/1-0	Water	07/28/22 12:05	07/29/22 15:31
410-92859-8	HD-COD-SW-17-0/1-0	Water	07/28/22 12:15	07/29/22 15:31
410-92859-9	HD-COD-SW-26-0/1-0	Water	07/28/22 13:00	07/29/22 15:31
410-92859-10	HD-COD-SW-27-0/1-0	Water	07/28/22 13:35	07/29/22 15:31
410-92859-11	HD-COD-SW-28-0/1-0	Water	07/28/22 15:15	07/29/22 15:31
410-92859-12	HD-COD-SW-29-0/1-0	Water	07/28/22 11:06	07/29/22 15:31
410-92859-13	HD-QC1-0/1-1	Water	07/28/22 12:30	07/29/22 15:31
410-92859-14	HD-QC1-0/1-2	Water	07/28/22 00:00	07/29/22 15:31

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 274212Lab Sample ID: IC 410-274212/12 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/11/22 15:36 Lab File ID: IL11X12.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.00	Baseline	UKAD	07/12/22 12:31

Lab Sample ID: ICIS 410-274212/13 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/11/22 15:57 Lab File ID: IL11X13.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.01	Baseline	UKAD	07/12/22 12:37

Lab Sample ID: IC 410-274212/14 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/11/22 16:18 Lab File ID: IL11X14.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.01	Baseline	UKAD	07/12/22 12:38
1,4-Dioxane	8.60	Split Peak	UKAD	07/12/22 12:39

Lab Sample ID: IC 410-274212/15 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/11/22 16:39 Lab File ID: IL11X15.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.01	Baseline	UKAD	07/12/22 12:40
1,4-Dioxane	8.60	Incomplete Integration	UKAD	07/12/22 12:41



## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 274212Lab Sample ID: IC 410-274212/16 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/11/22 17:00 Lab File ID: IL11X16.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	3.00	Incomplete Integration	UKAD	07/12/22 12:41
Methyl acetate	4.02	Baseline	UKAD	07/12/22 12:42
Tetrahydrofuran	6.48	Baseline	UKAD	07/12/22 12:42

Lab Sample ID: IC 410-274212/17 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/11/22 17:22 Lab File ID: IL11X17.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.03	Baseline	UKAD	07/12/22 12:44
1,4-Dioxane	8.61	Incomplete Integration	UKAD	07/12/22 12:44
2-Hexanone	10.46	Incomplete Integration	UKAD	07/12/22 12:57

Lab Sample ID: IC 410-274212/18 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/11/22 17:43 Lab File ID: IL11X18.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrahydrofuran	6.48	Peak assignment corrected	UKAD	07/12/22 12:46
n-Butanol	8.13	Incomplete Integration	UKAD	07/12/22 12:53
1,4-Dioxane	8.62	Assign Peak	UKAD	07/12/22 12:47
Methyl methacrylate	8.62	Incomplete Integration	UKAD	07/12/22 12:54
cis-1,3-Dichloropropene	9.41	Assign Peak	UKAD	07/12/22 12:47
Ethyl methacrylate	10.13	Incomplete Integration	UKAD	07/12/22 12:55
2-Hexanone	10.49	Incomplete Integration	UKAD	07/12/22 12:57
Styrene	11.75	Assign Peak	UKAD	07/12/22 12:47
1,1,2,2-Tetrachloroethane	12.26	Assign Peak	UKAD	07/12/22 12:47

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 274690

Lab Sample ID: ICV 410-274690/6 Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/12/22 16:20 Lab File ID: IL12X06.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.01	Incomplete Integration	K4WN	07/14/22 16:30
t-Butyl alcohol	4.36	Incomplete Integration	K4WN	07/14/22 16:30
1,4-Dioxane	8.61	Incomplete Integration	K4WN	07/14/22 16:31

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 282764Lab Sample ID: CCVIS 410-282764/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/04/22 10:45 Lab File ID: IG04X02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.01	Incomplete Integration	DVW2	08/04/22 11:09
1,4-Dioxane	8.60	Incomplete Integration	DVW2	08/04/22 11:09

Lab Sample ID: 410-92859-1 Client Sample ID: HD-COD-SW-6-0/1-0Date Analyzed: 08/04/22 13:56 Lab File ID: IG04X11.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.88	Incomplete Integration	kaewrungr ueangp	08/05/22 10:42
Trichloroethene	8.20	Incomplete Integration	kaewrungr ueangp	08/05/22 10:42
Chloromethane		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:41

Lab Sample ID: 410-92859-3 Client Sample ID: HD-COD-SW-8-0/1-0Date Analyzed: 08/04/22 14:38 Lab File ID: IG04X13.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.87	Incomplete Integration	kaewrungr ueangp	08/05/22 10:44

Lab Sample ID: 410-92859-4 Client Sample ID: HD-COD-SW-9-0/1-0Date Analyzed: 08/04/22 14:59 Lab File ID: IG04X14.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichloroethene	8.19	Incomplete Integration	kaewrungr ueangp	08/05/22 10:45
2-Butanone (MEK)		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:44

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 282764Lab Sample ID: 410-92859-5 Client Sample ID: HD-COD-SW-13-0/1-0Date Analyzed: 08/04/22 15:20 Lab File ID: IG04X15.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichloroethene	8.18	Incomplete Integration	kaewrungr ueangp	08/05/22 10:46

Lab Sample ID: 410-92859-6 Client Sample ID: HD-COD-SW-15-0/1-0Date Analyzed: 08/04/22 15:41 Lab File ID: IG04X16.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	7.32	Peak assignment corrected	kaewrungr ueangp	08/05/22 10:47

Lab Sample ID: 410-92859-7 Client Sample ID: HD-COD-SW-16-0/1-0Date Analyzed: 08/04/22 17:06 Lab File ID: IG04X20.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	7.31	Peak assignment corrected	kaewrungr ueangp	08/05/22 10:49

Lab Sample ID: 410-92859-8 Client Sample ID: HD-COD-SW-17-0/1-0Date Analyzed: 08/04/22 17:28 Lab File ID: IG04X21.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-1,2-Dichloroethene	4.64	Incomplete Integration	kaewrungr ueangp	08/05/22 10:50
1,1,2-Trichloroethane		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:50
Chloromethane		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:50

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 282764Lab Sample ID: 410-92859-9 Client Sample ID: HD-COD-SW-26-0/1-0Date Analyzed: 08/04/22 17:49 Lab File ID: IG04X22.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.13	Peak assignment corrected	kaewrungr ueangp	08/05/22 10:51

Lab Sample ID: 410-92859-10 Client Sample ID: HD-COD-SW-27-0/1-0Date Analyzed: 08/04/22 18:10 Lab File ID: IG04X23.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	7.31	Peak assignment corrected	kaewrungr ueangp	08/05/22 10:52
Chloromethane		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:52

Lab Sample ID: 410-92859-11 Client Sample ID: HD-COD-SW-28-0/1-0Date Analyzed: 08/04/22 18:31 Lab File ID: IG04X24.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:52

Lab Sample ID: 410-92859-12 Client Sample ID: HD-COD-SW-29-0/1-0Date Analyzed: 08/04/22 18:52 Lab File ID: IG04X25.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:53

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 282764

Lab Sample ID: 410-92859-13 Client Sample ID: HD-QC1-0/1-1

Date Analyzed: 08/04/22 19:13 Lab File ID: IG04X26.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-1,2-Dichloroethene	4.66	Peak assignment corrected	kaewrungr ueangp	08/05/22 10:54
1,1,2-Trichloroethane		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:54
Chloromethane		Invalid Compound ID	kaewrungr ueangp	08/05/22 10:54
Chlorobenzene	11.19	Peak assignment corrected	kaewrungr ueangp	08/05/22 10:54

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 283558

Lab Sample ID: LCSD 410-283558/5 Client Sample ID: \_\_\_\_\_

Date Analyzed: 08/07/22 13:33 Lab File ID: IG07X004.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.31	Peak assignment corrected	DVW2	08/07/22 14:02

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MSV_LCS_VOC#1_00063	08/09/22	07/10/22	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00076	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_00073	1 mL	Carbon disulfide	40 ug/mL
Methyl tert-butyl ether	40 ug/mL							
MSV_Q_Ketones_00075	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_00076	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



REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00073	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00075	01/31/24		Restek, Lot A0178490		(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
<b>MSV_LCS_VOC#1_00066</b>	08/30/22	07/31/22	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00080	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_00079	1 mL	Carbon disulfide	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_Q_Ketones_00079	1 mL	Methyl tert-butyl ether	40 ug/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_00080	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_00079	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00079	01/31/24		Restek, Lot A0178490		(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_00049	07/23/22	07/11/22	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00078	50 uL	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
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration			
					Reagent ID	Volume Added					
							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			
							Ethyl methacrylate	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_00078				200 uL	Acrolein	2500 ug/mL
										2-Butanone (MEK)	500 ug/mL
										2-Hexanone	500 ug/mL
										4-Methyl-2-pentanone (MIBK)	500 ug/mL
										Acetone	500 ug/mL
									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_00078	08/09/22	07/10/22	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00076	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			
							1,2,3-Trichlorobenzene	1000 ug/mL			
							1,2,3-Trichloropropane	1000 ug/mL			

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00076	1 mL	1,1,2-Trichloro-1,2,2-trifluoroethane	1000 ug/mL
							1,2,3-Trimethylbenzene	1000 ug/mL
							1,3,5-Trichlorobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Ethyl methacrylate	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_MegaMIX#1_00076	08/09/22		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
							1,3-Dichlorobenzene	5000 ug/mL
							1,3-Dichloropropane	5000 ug/mL
							1,4-Dichlorobenzene	5000 ug/mL
							2,2-Dichloropropane	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00076	08/09/22		Restek, Lot A0173454		(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
							Carbon disulfide	5000 ug/mL
							Cyclohexane	5000 ug/mL
							Ethyl methacrylate	5000 ug/mL
							Hexane	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00078	07/23/22	07/10/22	Methanol, Lot EB679	5 mL	MSV_CCV_ACR_00004 MSV_V_Ketones_00074	0.5 mL 1 mL	Acrolein	12500 ug/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_CCV_ACR_00004	07/23/22	05/24/22	Methanol, Lot EB679	10 mL	MSV_VACR_STK_00026	9.17 mL	Acrolein	125000 ug/mL
...MSV_VACR_STK_00026	07/23/22	05/24/22	Methanol, Lot EB679	10 mL	MSV_ACROLEIN_00019	1.4626 g	Acrolein	136314 ug/mL
...MSV_ACROLEIN_00019	02/28/23		Chem Service, Lot 12926800		(Purchased Reagent)		Acrolein	0.932 g/g
..MSV_V_Ketones_00074	01/31/24		Restek, Lot A0174287		(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_V_VOA2_00148	08/09/22	07/10/22	Methanol, Lot EB679	5 mL	MSV_V#2B_00277	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_00277	04/30/24		Restek, Lot A0184378		(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_#1_826_00050	08/23/22	07/24/22	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00080	50 uL	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



REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane (EDB)	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							Benzene	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
							Ethylbenzene	50 ug/mL
							Methylene Chloride	50 ug/mL
							Styrene	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							
Carbon disulfide	50 ug/mL							
Methyl tert-butyl ether	50 ug/mL							
					MSV_CCV_VOC#3_00081	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
.MSV_CCV_VOC#1_00080	08/23/22	07/24/22	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00078	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
							1,2-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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_MegaMix#2_00078	1 mL	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
..MSV_MegaMIX#1_00078	08/23/22		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
							1,2-Dibromoethane (EDB)	5000 ug/mL
							1,2-Dichloroethane	5000 ug/mL
							1,2-Dichloropropane	5000 ug/mL
							Benzene	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
							Ethylbenzene	5000 ug/mL
							Methylene Chloride	5000 ug/mL
							Styrene	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_00078	08/23/22		Restek, Lot A0173454		(Purchased Reagent)		Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
..MSV_CCv_VOC#3_00081	08/23/22	07/24/22	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00076	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_V_Ketones_00076	01/31/24		Restek, Lot A0174287		(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_#2_826_00053	08/09/22	07/11/22	Methanol, Lot EB679	1 mL	MSV_CCv_EE_00003	50 uL	Ethyl ether	50.0143 ug/mL
					MSV_V_PentaCL_00019	10 uL	Pentachloroethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration				
					Reagent ID	Volume Added						
.MSV_CCV_EE_00003	11/20/22	05/20/22	Methanol, Lot EB679	100 mL	MSV_EE_MISCSK_00010	1.73 mL	Ethyl ether	1000.29 ug/mL				
..MSV_EE_MISCSK_00010	11/20/22	05/20/22	Methanol, Lot EB679	10 mL	MSV_EE_Neat_00007	0.5782 g	Ethyl ether	57820 ug/mL				
...MSV_EE_Neat_00007	12/31/25		Chem Service, Lot 12123300		(Purchased Reagent)		Ethyl ether	1 g/g				
.MSV_V_PentaCL_00019	08/09/22		Restek, Lot A0171341		(Purchased Reagent)		Pentachloroethane	5000 ug/mL				
<b>MSV_LL_GAS826_00101</b>	07/18/22	07/11/22	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00221	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				
.MSV_CCV_GASES_00221	07/18/22		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				
.MSV_LL_GAS826_00105	08/08/22	08/01/22	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00240	25 uL	Bromomethane	50 ug/mL				
							Chloroethane	50 ug/mL				
							Chloromethane	50 ug/mL				
							Vinyl chloride	50 ug/mL				
.MSV_CCV_GASES_00240	08/08/22		Restek, Lot A0172364		(Purchased Reagent)		Bromomethane	2000 ug/mL				
							Chloroethane	2000 ug/mL				
							Chloromethane	2000 ug/mL				
							Vinyl chloride	2000 ug/mL				
<b>MSV_LLcentISS_00005</b>	11/30/22	05/30/22	Methanol, Lot EB679	50 mL	MSV_8260_SS_00668	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_00451					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_8260_SS_00668	11/30/22		Restek, Lot A0183565		(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_00451	11/30/22		Restek, Lot A0179696		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL				
							Chlorobenzene-d5 (IS)	2500 ug/mL				
							Fluorobenzene (IS)	2500 ug/mL				

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
<b>MSV_QC_Gas826_00089</b>	07/17/22	07/11/22	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00096	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00096	07/17/22		Restek, Lot A0172021			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
<b>MSV_QC_Gas826_00093</b>	08/07/22	08/01/22	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00101	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00101	08/07/22		Restek, Lot A0172021			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
<b>MSV_V_BFB_00008</b>							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Xylenes, Total	
.MSV_VBFB_STK_00008	12/27/22	06/27/22	Methanol, Lot EB679	10 mL	MSV_VBFB_STK_00008	0.128 mL	BFB	49.8125 ug/mL
..MSV_4BFB_NEAT_00008	02/28/25		Chem Service, Lot 13233000		MSV_4BFB_NEAT_00008	0.9729 g	BFB	97290 ug/mL
						(Purchased Reagent)	BFB	1 g/g

Reagent

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**MSV\_ACROLEIN\_00019**

## CERTIFICATE OF ANALYSIS

### Acrolein

CATALOG NUMBER RPN-11030-1G  
LOT NUMBER 12926800  
DATE CERTIFIED 02/03/22  
EXPIRATION DATE 02/28/23  
CAS NUMBER 107-02-8  
MOLECULAR FORMULA C3H4O  
MOLECULAR WEIGHT 56.06  
STORAGE Refrigerator storage (2 - 8 °C)  
HANDLING See Safety Data Sheet  
INTENDED USE For laboratory use only.  
NOTES Contains water and hydroquinone as an inhibitor.

<u>Analytical Test</u>	<u>Value</u>
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
% PURITY (GC/TCD)	93.2
% WATER (KARL FISCHER)	2.2

Chem Service, Inc. is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015.



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Certified By:

*Mary Beth O'Donnell*

Mary Beth O'Donnell  
CSM/TC

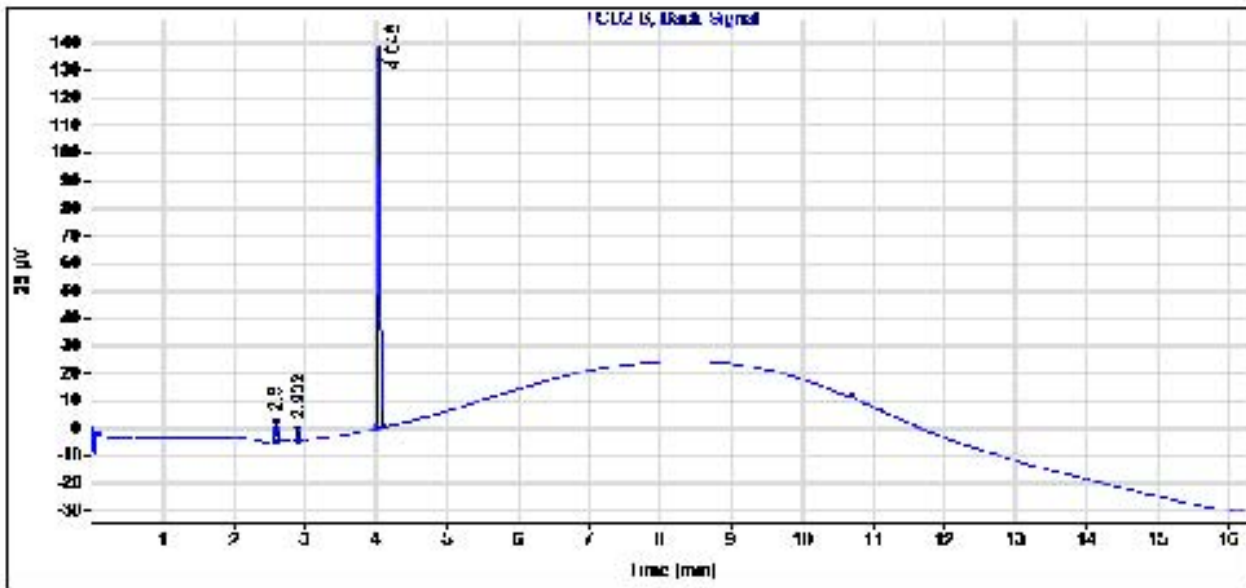
Chem Service, Inc. is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015.



## CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

**Data file:** C:\CHEM32\1\DATA\2022 DATA\0222\SIG2022990.D  
**Sample name:** Acrolein  
**Instrument:** GC 1 **Sample type:** Sample  
**Injection date:** 2/3/2022 2:54:32 PM **Location:** Vial 1  
**Acq. method:** GASBOMB\_TCD.M **Injection volume:** 1.0uL  
**Column name:** DB-624 (30m x 0.53mm x 3.0um)



**Signal:** TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
2.600	BB	0.0362	14.5715	6.2387	4.5336
2.902	BB	0.0314	7.2404	3.5582	2.2527
4.046	BB	0.0340	299.5987	134.8697	93.2137
Sum			321.4106		

Chem Service, Inc. is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015.





Reagent

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**MSV\_CCV\_GASES\_00221**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. : 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:**

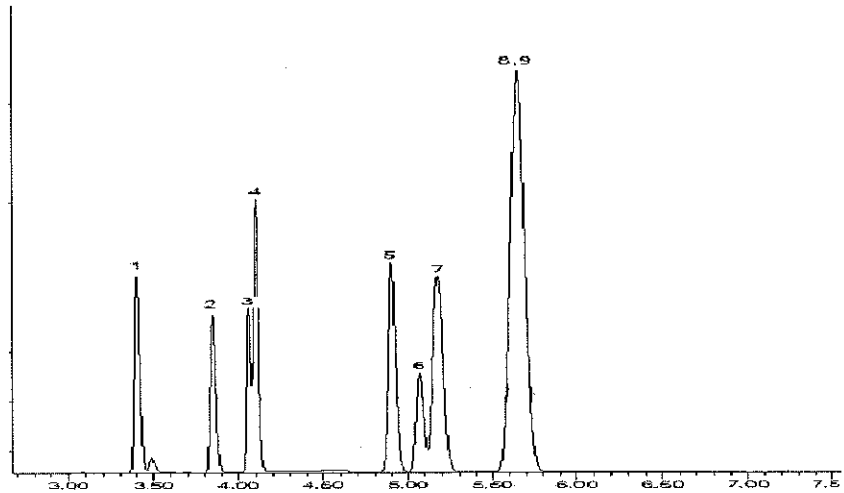
200°C

**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.

*[Signature]*  
 Tom Suckal - Mix Technician

Date Mixed: 13-May-2021 Balance: B251644995

*[Signature]*  
 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/ $\mu$ ECD, 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:

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

$k$  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](http://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) -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](http://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

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**MSV\_CCV\_GASES\_00240**



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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.: 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

Table with 7 columns: Elution Order, Compound, Grav. Conc. (weight/volume), Expanded Uncertainty (95% C.L., K=2), and three additional columns for uncertainty values and stress conditions. Rows 1-7 list compounds like Dichlorodifluoromethane, Chloromethane, Vinyl chloride, 1,3-Butadiene, Bromomethane, Chloroethane, and Dichlorofluoromethane.

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:**

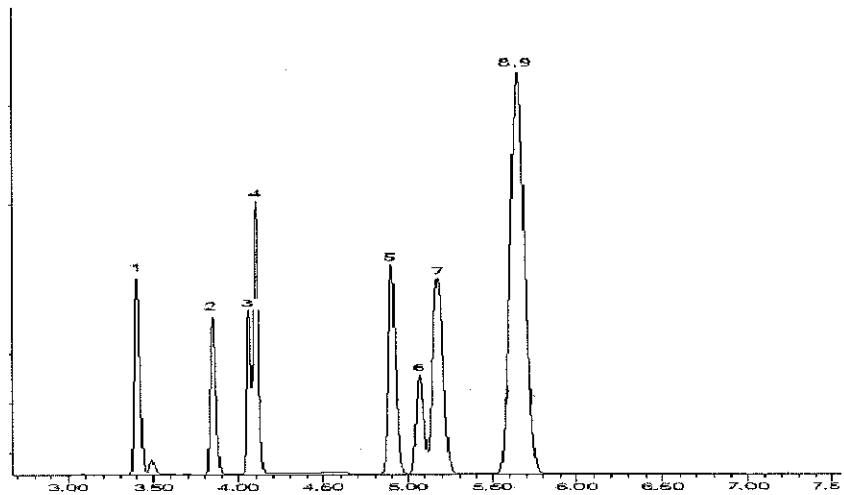
200°C

**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.

*[Signature]*  
 Tom Suckar - Mix Technician

Date Mixed: 13-May-2021 Balance: B251644995

*[Signature]*  
 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/ $\mu$ ECD, 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:

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

$k$  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](http://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) -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](http://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

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**MSV\_Cus826\_IS\_00451**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 558267 **Lot No.:** A0179696

**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 :** December 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	2-Methyl-2-propanol-d10 CAS # 53001-22-2 (Lot PR-29961) Purity 99%	12,510.0 µg/mL	+/- 73.4157 µg/mL	Gravimetric	+/- 268.0265 µg/mL	Unstressed
			+/- 275.8078 µg/mL	Stressed		
2	Fluorobenzene CAS # 462-06-6 (Lot BCBZ5549) Purity 99%	2,502.0 µg/mL	+/- 14.8611 µg/mL	Gravimetric	+/- 53.6543 µg/mL	Unstressed
			+/- 55.2092 µg/mL	Stressed		
3	Chlorobenzene-d5 CAS # 3114-55-4 (Lot PR-29571) Purity 99%	2,512.0 µg/mL	+/- 14.9205 µg/mL	Gravimetric	+/- 53.8688 µg/mL	Unstressed
			+/- 55.4299 µg/mL	Stressed		
4	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 (Lot PR-30447) Purity 99%	2,512.0 µg/mL	+/- 14.9205 µg/mL	Gravimetric	+/- 53.8688 µg/mL	Unstressed
			+/- 55.4299 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)

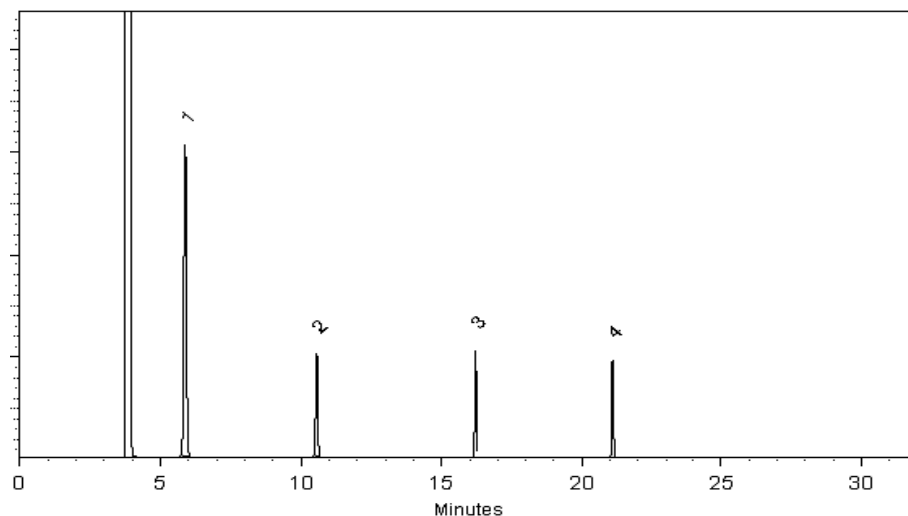
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

Russ Bookhamer - Operations Technician I

**Date Mixed:** 17-Dec-2021

**Balance:** B442140311

Clara Windle - Operations Technician I

**Date Passed:** 28-Dec-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:

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

*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](http://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) -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](http://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

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**MSV\_EE\_Neat\_00007**

## CERTIFICATE OF ANALYSIS

### Ethyl ether

CATALOG NUMBER N-11897-1G  
LOT NUMBER 12123300  
DATE CERTIFIED 12/04/20  
EXPIRATION DATE 12/31/25  
CAS NUMBER 60-29-7  
MOLECULAR FORMULA C<sub>4</sub>H<sub>10</sub>O  
MOLECULAR WEIGHT 74.12  
STORAGE Refrigerator storage (2 - 8 °C)  
HANDLING See Safety Data Sheet  
INTENDED USE For laboratory use only.

<u>Analytical Test</u>	<u>Value</u>
% PURITY (GC/TCD)	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)



Print Date: 07/26/21

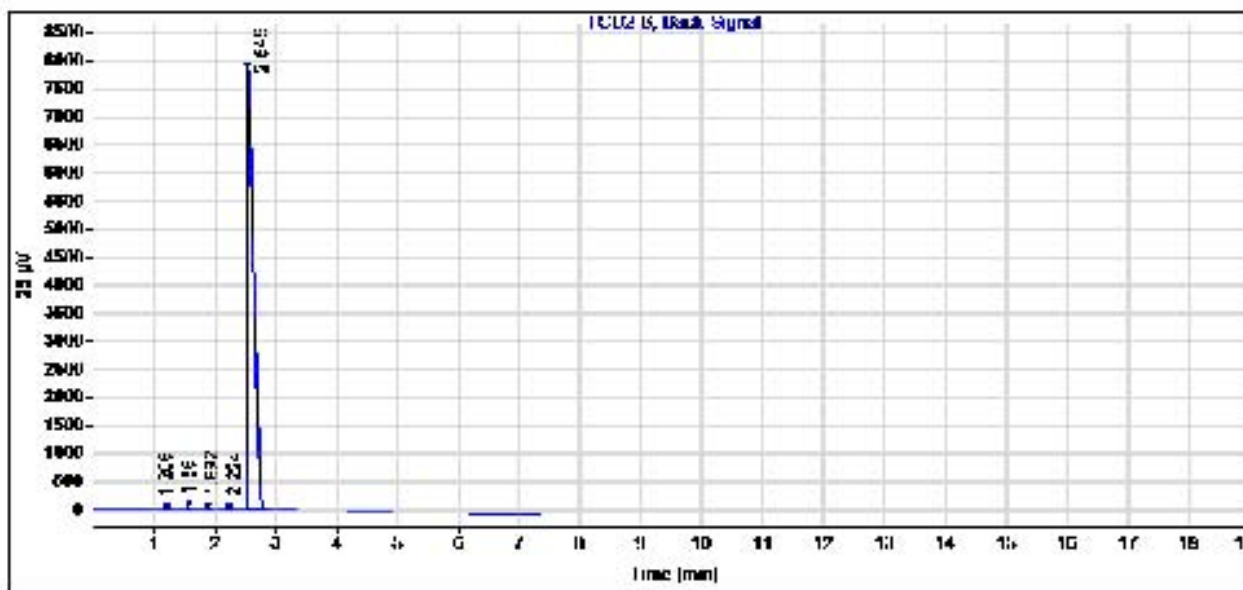
Page 78 of 653

08/11/2022

## CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

**Data file:** C:\CHEM32\1\DATA\2020 DATA\1220\SIG2022771.D  
**Sample name:** Ethylether  
**Instrument:** GC 1 **Sample type:** Sample  
**Injection date:** 12/4/2020 10:52:03 AM **Location:** Vial 21  
**Acq. method:** TCD SCREEN.M **Injection volume:** 1.0uL  
**Column name:** DB-624 (30m x 0.53mm x 3.0um)



**Signal:** TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
1.206	BB	0.0364	16.2548	6.6898	0.0305
1.560	BB	0.0278	55.8996	29.9782	0.1049
1.892	BB	0.0328	64.6527	28.1084	0.1214
2.224	BB	0.0347	9.6188	4.3673	0.0181
2.545	BB S	0.0880	53125.6797	7942.5742	99.7251
Sum			53272.1055		



Reagent

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**MSV\_M\_MIX1SEC\_00076**





# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 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

### CERTIFIED VALUES

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 <b>CAS #</b> 74-97-5.SEC <b>Purity</b> 99%	(Lot 8529200)	1,000.1	µg/mL	+/- +/- +/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1,1-trichloroethane <b>CAS #</b> 71-55-6 <b>Purity</b> 98%	(Lot 190123CG)	1,000.3	µg/mL	+/- +/- +/-	7.1383 56.2391 57.5479	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,1-Dichloropropene <b>CAS #</b> 563-58-6.SEC <b>Purity</b> 95%	(Lot 8541600)	1,002.5	µg/mL	+/- +/- +/-	7.1204 56.3597 57.6716	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Carbon tetrachloride <b>CAS #</b> 56-23-5.SEC <b>Purity</b> 99%	(Lot 11466)	1,000.8	µg/mL	+/- +/- +/-	7.1414 56.2636 57.5731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1,2-Dichloroethane <b>CAS #</b> 107-06-2.SEC <b>Purity</b> 99%	(Lot 00016165)	1,000.6	µg/mL	+/- +/- +/-	7.1407 56.2576 57.5669	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Benzene <b>CAS #</b> 71-43-2.SEC <b>Purity</b> 99%	(Lot B28Y008)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Trichloroethene <b>CAS #</b> 79-01-6.SEC <b>Purity</b> 99%	(Lot H04X050)	1,000.9	µg/mL	+/- +/- +/-	7.1423 56.2708 57.5804	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,2-Dichloropropane <b>CAS #</b> 78-87-5.SEC <b>Purity</b> 99%	(Lot ERRBI-RH)	1,000.1	µg/mL	+/- +/- +/-	7.1371 56.2293 57.5380	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Bromodichloromethane <b>CAS #</b> 75-27-4.SEC <b>Purity</b> 99%	(Lot 13780)	1,000.8	µg/mL	+/- +/- +/-	7.1418 56.2662 57.5757	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Dibromomethane <b>CAS #</b> 74-95-3.SEC <b>Purity</b> 99%	(Lot MOKKJ)	1,000.1	µg/mL	+/- +/- +/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	cis-1,3-Dichloropropene <b>CAS #</b> 10061-01-5.SEC <b>Purity</b> 98%	(Lot 4870A)	1,000.9	µg/mL	+/- +/- +/-	7.1425 56.2723 57.5819	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Toluene <b>CAS #</b> 108-88-3.SEC <b>Purity</b> 99%	(Lot YND2B-BD)	1,000.0	µg/mL	+/- +/- +/-	7.1026 56.2193 57.5279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	trans-1,3-Dichloropropene <b>CAS #</b> 10061-02-6.SEC <b>Purity</b> 96%	(Lot ZDMSL)	1,002.1	µg/mL	+/- +/- +/-	7.1513 56.3417 57.6530	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,2-Trichloroethane <b>CAS #</b> 79-00-5.SEC <b>Purity</b> 99%	(Lot 7871500)	1,001.3	µg/mL	+/- +/- +/-	7.1450 56.2917 57.6018	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,3-Dichloropropane <b>CAS #</b> 142-28-9.SEC <b>Purity</b> 99%	(Lot AGN01-EFPC)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Tetrachloroethene <b>CAS #</b> 127-18-4.SEC <b>Purity</b> 99%	(Lot F09W014)	1,000.2	µg/mL	+/- +/- +/-	7.1378 56.2350 57.5437	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

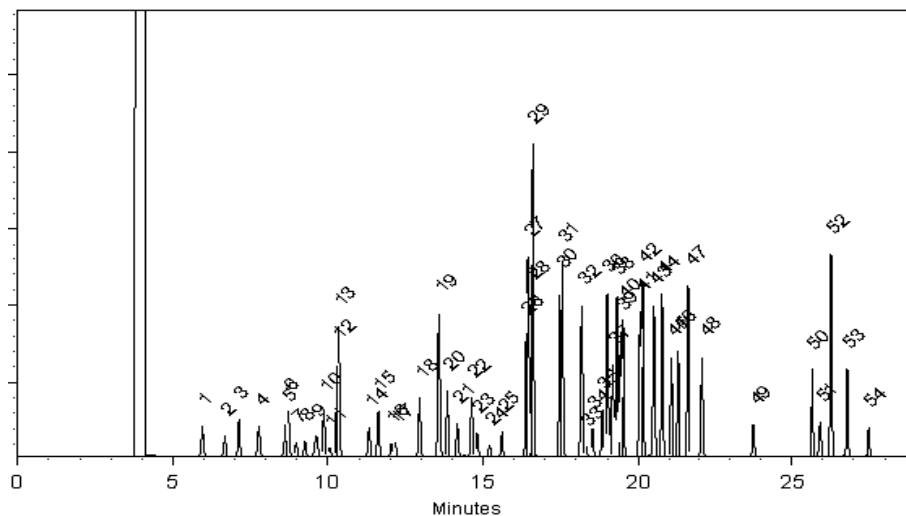
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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*  
Bradley Meyer - Mix Technician

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

*Alexis Shelow*  
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:

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

*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](http://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) -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](http://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

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**MSV\_M\_MIX1SEC\_00080**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 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

### CERTIFIED VALUES

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
	<b>CAS #</b> 75-35-4.SEC (Lot 9201700)		+/-	56.4323	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.7457	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	1,001.8 µg/mL	+/-	7.1486	µg/mL	Gravimetric
	<b>CAS #</b> 75-09-2.SEC (Lot FGM02)		+/-	56.3199	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.6306	µg/mL	Stressed
3	trans-1,2-Dichloroethene	1,000.3 µg/mL	+/-	7.1382	µg/mL	Gravimetric
	<b>CAS #</b> 156-60-5.SEC (Lot TS5UB)		+/-	56.2383	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.5472	µg/mL	Stressed
4	1,1-Dichloroethane	1,002.0 µg/mL	+/-	7.1503	µg/mL	Gravimetric
	<b>CAS #</b> 75-34-3.SEC (Lot 7482000)		+/-	56.3339	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.6450	µg/mL	Stressed
5	2,2-Dichloropropane	1,000.0 µg/mL	+/-	7.1026	µg/mL	Gravimetric
	<b>CAS #</b> 594-20-7.SEC (Lot I7E8E)		+/-	56.2188	µg/mL	Unstressed
	<b>Purity</b> 98%		+/-	57.5274	µg/mL	Stressed
6	cis-1,2-Dichloroethene	1,000.1 µg/mL	+/-	7.1028	µg/mL	Gravimetric
	<b>CAS #</b> 156-59-2.SEC (Lot YZO5O)		+/-	56.2207	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.5294	µg/mL	Stressed
7	Chloroform	1,000.8 µg/mL	+/-	7.1414	µg/mL	Gravimetric
	<b>CAS #</b> 67-66-3.SEC (Lot 1297547)		+/-	56.2636	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.5731	µg/mL	Stressed



8	Bromochloromethane <b>CAS #</b> 74-97-5.SEC <b>Purity</b> 99%	(Lot 8529200)	1,000.1	µg/mL	+/- +/- +/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1,1-trichloroethane <b>CAS #</b> 71-55-6 <b>Purity</b> 98%	(Lot 190123CG)	1,000.3	µg/mL	+/- +/- +/-	7.1383 56.2391 57.5479	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,1-Dichloropropene <b>CAS #</b> 563-58-6.SEC <b>Purity</b> 95%	(Lot 8541600)	1,002.5	µg/mL	+/- +/- +/-	7.1204 56.3597 57.6716	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Carbon tetrachloride <b>CAS #</b> 56-23-5.SEC <b>Purity</b> 99%	(Lot 11466)	1,000.8	µg/mL	+/- +/- +/-	7.1414 56.2636 57.5731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1,2-Dichloroethane <b>CAS #</b> 107-06-2.SEC <b>Purity</b> 99%	(Lot 00016165)	1,000.6	µg/mL	+/- +/- +/-	7.1407 56.2576 57.5669	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Benzene <b>CAS #</b> 71-43-2.SEC <b>Purity</b> 99%	(Lot B28Y008)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Trichloroethene <b>CAS #</b> 79-01-6.SEC <b>Purity</b> 99%	(Lot H04X050)	1,000.9	µg/mL	+/- +/- +/-	7.1423 56.2708 57.5804	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,2-Dichloropropane <b>CAS #</b> 78-87-5.SEC <b>Purity</b> 99%	(Lot ERRBI-RH)	1,000.1	µg/mL	+/- +/- +/-	7.1371 56.2293 57.5380	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Bromodichloromethane <b>CAS #</b> 75-27-4.SEC <b>Purity</b> 99%	(Lot 13780)	1,000.8	µg/mL	+/- +/- +/-	7.1418 56.2662 57.5757	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Dibromomethane <b>CAS #</b> 74-95-3.SEC <b>Purity</b> 99%	(Lot MOKKJ)	1,000.1	µg/mL	+/- +/- +/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	cis-1,3-Dichloropropene <b>CAS #</b> 10061-01-5.SEC <b>Purity</b> 98%	(Lot 4870A)	1,000.9	µg/mL	+/- +/- +/-	7.1425 56.2723 57.5819	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Toluene <b>CAS #</b> 108-88-3.SEC <b>Purity</b> 99%	(Lot YND2B-BD)	1,000.0	µg/mL	+/- +/- +/-	7.1026 56.2193 57.5279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	trans-1,3-Dichloropropene <b>CAS #</b> 10061-02-6.SEC <b>Purity</b> 96%	(Lot ZDMSL)	1,002.1	µg/mL	+/- +/- +/-	7.1513 56.3417 57.6530	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,2-Trichloroethane <b>CAS #</b> 79-00-5.SEC <b>Purity</b> 99%	(Lot 7871500)	1,001.3	µg/mL	+/- +/- +/-	7.1450 56.2917 57.6018	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,3-Dichloropropane <b>CAS #</b> 142-28-9.SEC <b>Purity</b> 99%	(Lot AGN01-EFPC)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Tetrachloroethene <b>CAS #</b> 127-18-4.SEC <b>Purity</b> 99%	(Lot F09W014)	1,000.2	µg/mL	+/- +/- +/-	7.1378 56.2350 57.5437	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

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

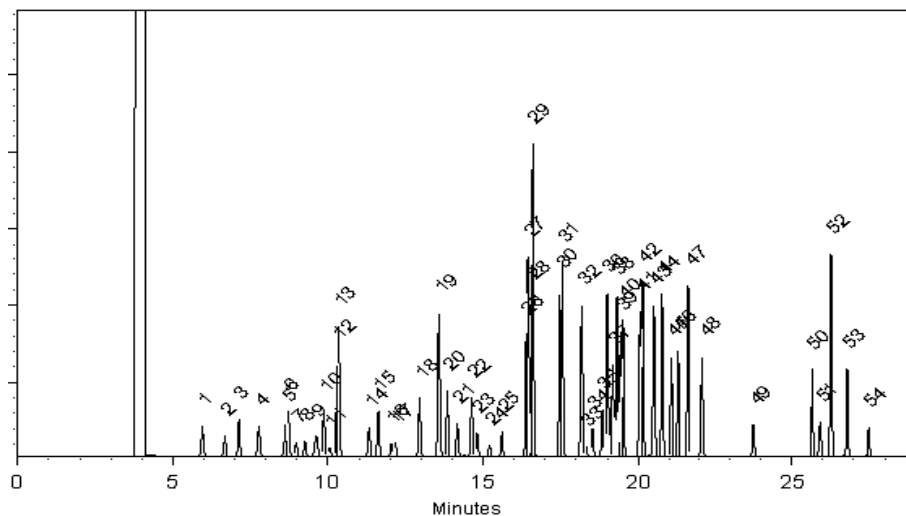
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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*  
Bradley Meyer - Mix Technician

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

*Alexis Shelow*  
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:

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

*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](http://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) -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](http://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

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**MSV\_M\_MIX2SEC\_00073**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 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

### CERTIFIED VALUES

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 <b>CAS #</b> 75-15-0.SEC <b>Purity</b> 99%	(Lot MKBL1376V)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile <b>CAS #</b> 107-13-1.SEC <b>Purity</b> 99%	(Lot V54AD)	5,000.5	µg/mL	+/- +/- +/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether ( MTBE ) <b>CAS #</b> 1634-04-4.SEC <b>Purity</b> 99%	(Lot ZHKYA)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) <b>CAS #</b> 110-54-3.SEC <b>Purity</b> 99%	(Lot 10188491)	1,001.0	µg/mL	+/- +/- +/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether ( DIPE ) <b>CAS #</b> 108-20-3.SEC <b>Purity</b> 99%	(Lot LL7TN-SH)	1,003.0	µg/mL	+/- +/- +/-	5.8862 49.6227 50.8563	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) <b>CAS #</b> 126-99-8 <b>Purity</b> 99%	(Lot 210413JLM)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) <b>CAS #</b> 637-92-3.SEC <b>Purity</b> 98%	(Lot UC15B)	1,002.1	µg/mL	+/- +/- +/-	5.8806 49.5757 50.8081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile <b>CAS #</b> 107-12-0.SEC <b>Purity</b> 99%	(Lot N44LF)	7,501.5	µg/mL	+/- +/- +/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile <b>CAS #</b> 126-98-7 <b>Purity</b> 99%	(Lot 1012014)	7,501.5	µg/mL	+/- +/- +/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) <b>CAS #</b> 78-83-1.SEC <b>Purity</b> 99%	(Lot YNG3K)	25,001.0	µg/mL	+/- +/- +/-	146.3864 1,236.8670 1,267.6168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran <b>CAS #</b> 109-99-9.SEC <b>Purity</b> 99%	(Lot 3NYHE)	5,000.5	µg/mL	+/- +/- +/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane <b>CAS #</b> 110-82-7.SEC <b>Purity</b> 99%	(Lot YADRA)	1,000.0	µg/mL	+/- +/- +/-	5.8686 49.4743 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol <b>CAS #</b> 71-36-3.SEC <b>Purity</b> 99%	(Lot 6B6UL)	50,004.5	µg/mL	+/- +/- +/-	292.7722 2,473.8558 2,535.3586	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) <b>CAS #</b> 994-05-8.SEC <b>Purity</b> 99%	(Lot 11010100)	1,001.0	µg/mL	+/- +/- +/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) <b>CAS #</b> 142-82-5.SEC <b>Purity</b> 99%	(Lot TFHUC)	1,002.5	µg/mL	+/- +/- +/-	5.8832 49.5980 50.8309	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) <b>CAS #</b> 919-94-8.SEC <b>Purity</b> 99%	(Lot 11370700)	1,000.5	µg/mL	+/- +/- +/-	5.8715 49.4990 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



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

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

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

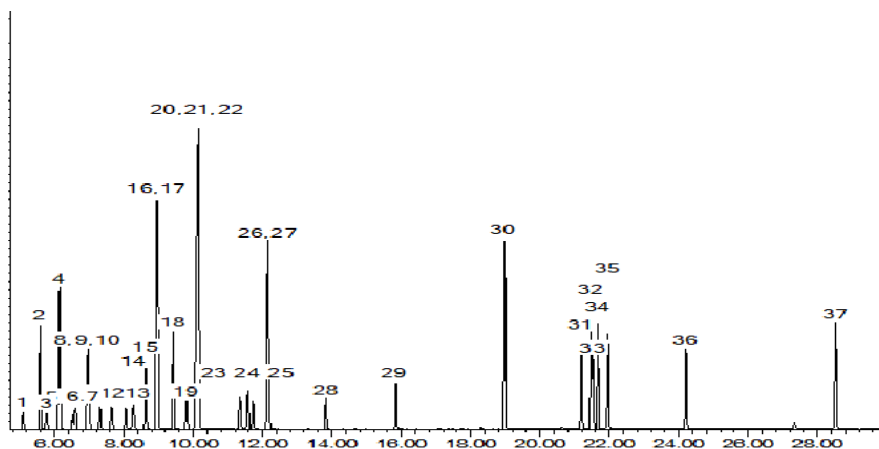
**Carrier Gas:**  
helium-constant pressure 30 psi

**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 Maje*

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

*Alexis Shelow*  
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:

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

*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](http://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) -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](http://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

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**MSV\_M\_MIX2SEC\_00079**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 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

### CERTIFIED VALUES

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 <b>CAS #</b> 75-15-0.SEC <b>Purity</b> 99%	(Lot MKBL1376V)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile <b>CAS #</b> 107-13-1.SEC <b>Purity</b> 99%	(Lot V54AD)	5,000.5	µg/mL	+/- +/- +/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether ( MTBE ) <b>CAS #</b> 1634-04-4.SEC <b>Purity</b> 99%	(Lot ZHKYA)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) <b>CAS #</b> 110-54-3.SEC <b>Purity</b> 99%	(Lot 10188491)	1,001.0	µg/mL	+/- +/- +/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether ( DIPE ) <b>CAS #</b> 108-20-3.SEC <b>Purity</b> 99%	(Lot LL7TN-SH)	1,003.0	µg/mL	+/- +/- +/-	5.8862 49.6227 50.8563	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) <b>CAS #</b> 126-99-8 <b>Purity</b> 99%	(Lot 210413JLM)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) <b>CAS #</b> 637-92-3.SEC <b>Purity</b> 98%	(Lot UC15B)	1,002.1	µg/mL	+/- +/- +/-	5.8806 49.5757 50.8081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile <b>CAS #</b> 107-12-0.SEC <b>Purity</b> 99%	(Lot N44LF)	7,501.5	µg/mL	+/- +/- +/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile <b>CAS #</b> 126-98-7 <b>Purity</b> 99%	(Lot 1012014)	7,501.5	µg/mL	+/- +/- +/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) <b>CAS #</b> 78-83-1.SEC <b>Purity</b> 99%	(Lot YNG3K)	25,001.0	µg/mL	+/- +/- +/-	146.3864 1,236.8670 1,267.6168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran <b>CAS #</b> 109-99-9.SEC <b>Purity</b> 99%	(Lot 3NYHE)	5,000.5	µg/mL	+/- +/- +/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane <b>CAS #</b> 110-82-7.SEC <b>Purity</b> 99%	(Lot YADRA)	1,000.0	µg/mL	+/- +/- +/-	5.8686 49.4743 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol <b>CAS #</b> 71-36-3.SEC <b>Purity</b> 99%	(Lot 6B6UL)	50,004.5	µg/mL	+/- +/- +/-	292.7722 2,473.8558 2,535.3586	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) <b>CAS #</b> 994-05-8.SEC <b>Purity</b> 99%	(Lot 11010100)	1,001.0	µg/mL	+/- +/- +/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) <b>CAS #</b> 142-82-5.SEC <b>Purity</b> 99%	(Lot TFHUC)	1,002.5	µg/mL	+/- +/- +/-	5.8832 49.5980 50.8309	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) <b>CAS #</b> 919-94-8.SEC <b>Purity</b> 99%	(Lot 11370700)	1,000.5	µg/mL	+/- +/- +/-	5.8715 49.4990 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

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

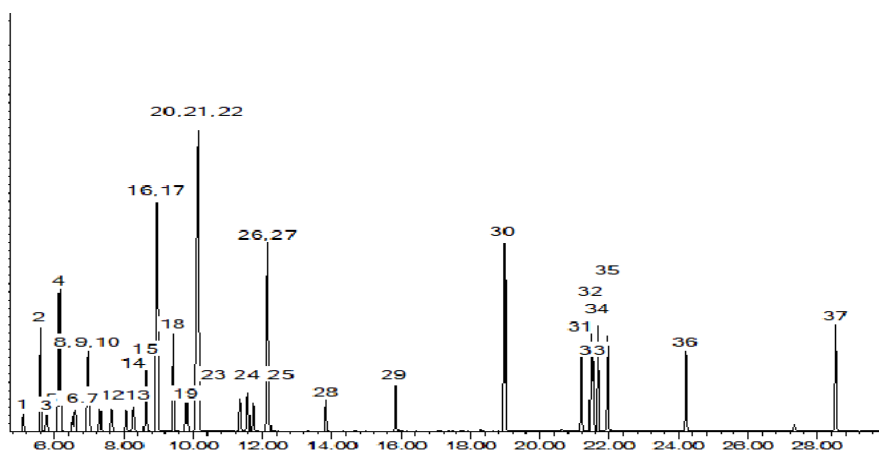
**Carrier Gas:**  
helium-constant pressure 30 psi

**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 Maje*

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

*Alexis Shelow*  
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:

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

*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](http://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) -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](http://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

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**MSV\_MegaMIX#1\_00076**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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

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

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

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

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

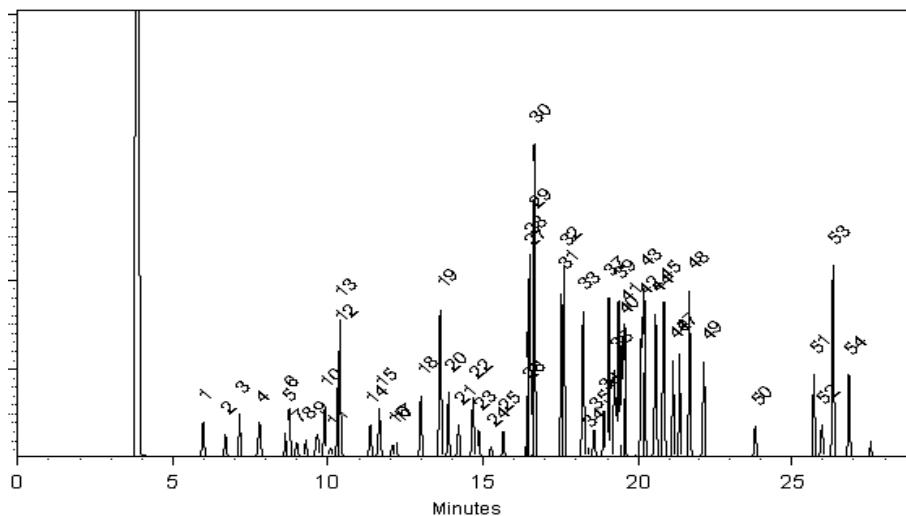
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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:

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

*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](http://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) -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](http://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

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**MSV\_MegaMIX#1\_00078**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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

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

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

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

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

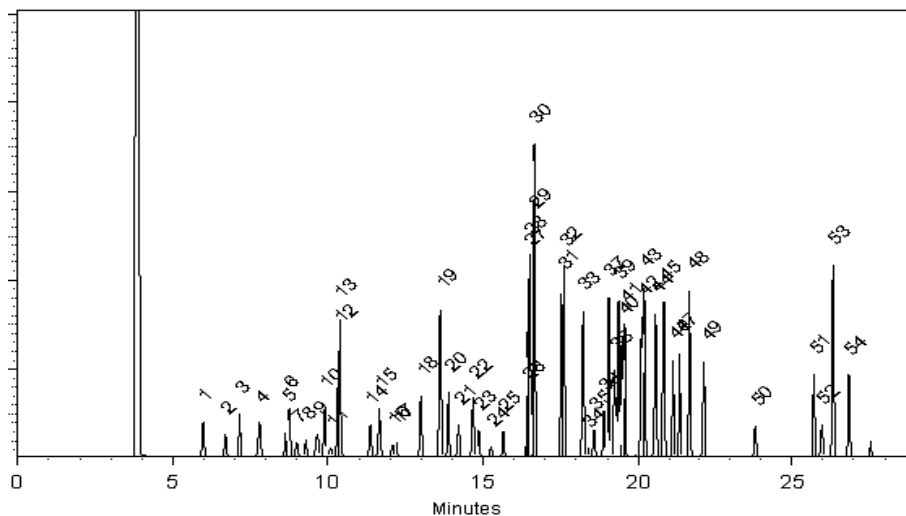
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

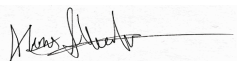
**Det. Type:**  
FID



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:

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

*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](http://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) -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](http://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

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**MSV\_MegaMix#2\_00076**





# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 577487 **Lot No.:** A0173454

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

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

**Expiration Date :** June 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	n-Pentane (C5)	5,000.8 µg/mL	+/- 34.9563 µg/mL Gravimetric	
	CAS # 109-66-0 (Lot SHBM6577)			+/- 248.1404 µg/mL Unstressed
	Purity 99%			+/- 254.2734 µg/mL Stressed
2	2-Propanol (isopropanol)	25,000.0 µg/mL	+/- 146.3805 µg/mL Gravimetric	
	CAS # 67-63-0 (Lot SHBH7211)			+/- 1,236.8175 µg/mL Unstressed
	Purity 99%			+/- 1,267.5661 µg/mL Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,000.0 µg/mL	+/- 34.9505 µg/mL Gravimetric	
	CAS # 76-13-1 (Lot 00016133)			+/- 248.0991 µg/mL Unstressed
	Purity 99%			+/- 254.2310 µg/mL Stressed
4	tert-Butanol (TBA)	25,010.0 µg/mL	+/- 146.4390 µg/mL Gravimetric	
	CAS # 75-65-0 (Lot SHBM7694)			+/- 1,237.3122 µg/mL Unstressed
	Purity 99%			+/- 1,268.0731 µg/mL Stressed
5	Methyl acetate	5,000.2 µg/mL	+/- 34.9516 µg/mL Gravimetric	
	CAS # 79-20-9 (Lot SHBM1320)			+/- 248.1073 µg/mL Unstressed
	Purity 99%			+/- 254.2395 µg/mL Stressed
6	Iodomethane (methyl iodide)	5,001.7 µg/mL	+/- 34.9621 µg/mL Gravimetric	
	CAS # 74-88-4 (Lot RD210503)			+/- 248.1818 µg/mL Unstressed
	Purity 99%			+/- 254.3157 µg/mL Stressed
7	Allyl chloride ( 3-chloropropene )	5,000.7 µg/mL	+/- 34.9551 µg/mL Gravimetric	
	CAS # 107-05-1 (Lot RD210402)			+/- 248.1321 µg/mL Unstressed
	Purity 99%			+/- 254.2649 µg/mL Stressed

8	Carbon disulfide <b>CAS #</b> 75-15-0 <b>Purity</b> 99%	(Lot N28F701)	5,004.2	µg/mL	+/-	34.9796 248.3058 254.4428	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile <b>CAS #</b> 107-13-1 <b>Purity</b> 99%	(Lot M25F024)	12,506.0	µg/mL	+/-	73.2254 618.7056 634.0873	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether ( MTBE ) <b>CAS #</b> 1634-04-4 <b>Purity</b> 99%	(Lot SHBM3541)	5,000.8	µg/mL	+/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) <b>CAS #</b> 110-54-3 <b>Purity</b> 99%	(Lot SHBL9879)	5,000.5	µg/mL	+/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether ( DIPE ) <b>CAS #</b> 108-20-3 <b>Purity</b> 99%	(Lot SHBH1927V)	5,003.3	µg/mL	+/-	34.9738 248.2645 254.4005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) <b>CAS #</b> 126-99-8 <b>Purity</b> 99%	(Lot 210413JLM)	5,001.2	µg/mL	+/-	34.9586 248.1570 254.2903	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) <b>CAS #</b> 637-92-3 <b>Purity</b> 99%	(Lot MKCM3774)	5,001.7	µg/mL	+/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile <b>CAS #</b> 107-12-0 <b>Purity</b> 99%	(Lot BCCC1173)	25,006.7	µg/mL	+/-	146.4195 1,237.1473 1,267.9041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile <b>CAS #</b> 126-98-7 <b>Purity</b> 99%	(Lot 1012020)	12,500.7	µg/mL	+/-	73.1942 618.4417 633.8168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) <b>CAS #</b> 78-83-1 <b>Purity</b> 99%	(Lot SHBM4836)	62,500.7	µg/mL	+/-	365.9551 3,092.0767 3,168.9490	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran <b>CAS #</b> 109-99-9 <b>Purity</b> 99%	(Lot SHBM8962)	25,010.0	µg/mL	+/-	146.4390 1,237.3122 1,268.0731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane <b>CAS #</b> 110-82-7 <b>Purity</b> 99%	(Lot MKCF5831)	5,001.7	µg/mL	+/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol <b>CAS #</b> 71-36-3 <b>Purity</b> 99%	(Lot SHBM5061)	62,504.0	µg/mL	+/-	365.9747 3,092.2416 3,169.1180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) <b>CAS #</b> 994-05-8 <b>Purity</b> 99%	(Lot HMBG7745V)	5,001.7	µg/mL	+/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) <b>CAS #</b> 142-82-5 <b>Purity</b> 99%	(Lot SHBL9221)	5,002.3	µg/mL	+/-	34.9668 248.2148 254.3496	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) <b>CAS #</b> 919-94-8 <b>Purity</b> 99%	(Lot 76U3A)	5,000.2	µg/mL	+/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Methylcyclohexane <b>CAS #</b> 108-87-2 <b>Purity</b> 99%	(Lot SHBL0078)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate <b>CAS #</b> 80-62-6 <b>Purity</b> 99%	(Lot MKCN3027)	5,001.0	µg/mL	+/- +/- +/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane <b>CAS #</b> 123-91-1 <b>Purity</b> 99%	(Lot SHBM5092)	62,503.3	µg/mL	+/- +/- +/-	365.9708 3,092.2086 3,169.0842	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane <b>CAS #</b> 79-46-9 <b>Purity</b> 97%	(Lot BCCB9352)	25,000.8	µg/mL	+/- +/- +/-	146.3851 1,236.8561 1,267.6056	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethyl methacrylate <b>CAS #</b> 97-63-2 <b>Purity</b> 99%	(Lot MKCL0907)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1-Chlorohexane <b>CAS #</b> 544-10-5 <b>Purity</b> 98%	(Lot BCBS3368V)	5,000.0	µg/mL	+/- +/- +/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	trans-1,4-dichloro-2-butene <b>CAS #</b> 110-57-6 <b>Purity</b> 95%	(Lot RD210617)	12,510.9	µg/mL	+/- +/- +/-	73.2539 618.9463 634.3340	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,2,3-Trimethylbenzene <b>CAS #</b> 526-73-8 <b>Purity</b> 98%	(Lot 8776.10-36)	5,000.0	µg/mL	+/- +/- +/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	1,3-Diethylbenzene <b>CAS #</b> 141-93-5 <b>Purity</b> 98%	(Lot BCBT8967)	5,000.9	µg/mL	+/- +/- +/-	34.9570 248.1457 254.2788	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Benzyl chloride <b>CAS #</b> 100-44-7 <b>Purity</b> 99%	(Lot SHBH2102V)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,4-Diethylbenzene <b>CAS #</b> 105-05-5 <b>Purity</b> 98%	(Lot RLHJK)	5,001.4	µg/mL	+/- +/- +/-	34.9605 248.1700 254.3037	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,2-Diethylbenzene <b>CAS #</b> 135-01-3 <b>Purity</b> 99%	(Lot ECH2970181)	5,000.5	µg/mL	+/- +/- +/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,3,5-Trichlorobenzene <b>CAS #</b> 108-70-3 <b>Purity</b> 99%	(Lot 11319AS)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2-Methylnaphthalene <b>CAS #</b> 91-57-6 <b>Purity</b> 99%	(Lot STBG8884)	5,001.0	µg/mL	+/- +/- +/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

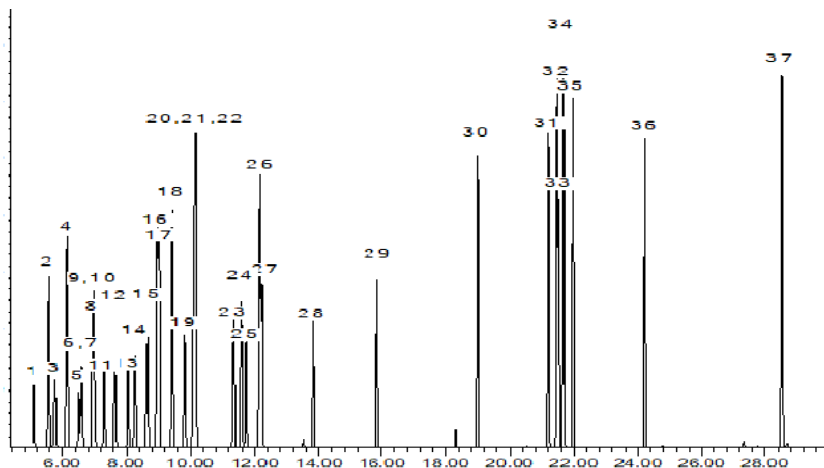
**Carrier Gas:**  
helium-constant pressure 30 psi

**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.

Russ Bookhamer - Operations Technician I

**Date Mixed:** 16-Jun-2021

**Balance:** B707717271

Alexis Shelow - Operations Tech I

**Date Passed:** 30-Jun-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:

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

*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](http://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) -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](http://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

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**MSV\_MegaMix#2\_00078**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 577487 **Lot No.:** A0173454

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

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

**Expiration Date :** June 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	n-Pentane (C5)	5,000.8 µg/mL	+/- 34.9563 µg/mL Gravimetric	
	CAS # 109-66-0 (Lot SHBM6577)			+/- 248.1404 µg/mL Unstressed
	Purity 99%			+/- 254.2734 µg/mL Stressed
2	2-Propanol (isopropanol)	25,000.0 µg/mL	+/- 146.3805 µg/mL Gravimetric	
	CAS # 67-63-0 (Lot SHBH7211)			+/- 1,236.8175 µg/mL Unstressed
	Purity 99%			+/- 1,267.5661 µg/mL Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,000.0 µg/mL	+/- 34.9505 µg/mL Gravimetric	
	CAS # 76-13-1 (Lot 00016133)			+/- 248.0991 µg/mL Unstressed
	Purity 99%			+/- 254.2310 µg/mL Stressed
4	tert-Butanol (TBA)	25,010.0 µg/mL	+/- 146.4390 µg/mL Gravimetric	
	CAS # 75-65-0 (Lot SHBM7694)			+/- 1,237.3122 µg/mL Unstressed
	Purity 99%			+/- 1,268.0731 µg/mL Stressed
5	Methyl acetate	5,000.2 µg/mL	+/- 34.9516 µg/mL Gravimetric	
	CAS # 79-20-9 (Lot SHBM1320)			+/- 248.1073 µg/mL Unstressed
	Purity 99%			+/- 254.2395 µg/mL Stressed
6	Iodomethane (methyl iodide)	5,001.7 µg/mL	+/- 34.9621 µg/mL Gravimetric	
	CAS # 74-88-4 (Lot RD210503)			+/- 248.1818 µg/mL Unstressed
	Purity 99%			+/- 254.3157 µg/mL Stressed
7	Allyl chloride ( 3-chloropropene )	5,000.7 µg/mL	+/- 34.9551 µg/mL Gravimetric	
	CAS # 107-05-1 (Lot RD210402)			+/- 248.1321 µg/mL Unstressed
	Purity 99%			+/- 254.2649 µg/mL Stressed

8	Carbon disulfide <b>CAS #</b> 75-15-0 <b>Purity</b> 99%	(Lot N28F701)	5,004.2	µg/mL	+/- +/- +/-	34.9796 248.3058 254.4428	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile <b>CAS #</b> 107-13-1 <b>Purity</b> 99%	(Lot M25F024)	12,506.0	µg/mL	+/- +/- +/-	73.2254 618.7056 634.0873	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether ( MTBE ) <b>CAS #</b> 1634-04-4 <b>Purity</b> 99%	(Lot SHBM3541)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) <b>CAS #</b> 110-54-3 <b>Purity</b> 99%	(Lot SHBL9879)	5,000.5	µg/mL	+/- +/- +/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether ( DIPE ) <b>CAS #</b> 108-20-3 <b>Purity</b> 99%	(Lot SHBH1927V)	5,003.3	µg/mL	+/- +/- +/-	34.9738 248.2645 254.4005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) <b>CAS #</b> 126-99-8 <b>Purity</b> 99%	(Lot 210413JLM)	5,001.2	µg/mL	+/- +/- +/-	34.9586 248.1570 254.2903	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) <b>CAS #</b> 637-92-3 <b>Purity</b> 99%	(Lot MKCM3774)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile <b>CAS #</b> 107-12-0 <b>Purity</b> 99%	(Lot BCCC1173)	25,006.7	µg/mL	+/- +/- +/-	146.4195 1,237.1473 1,267.9041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile <b>CAS #</b> 126-98-7 <b>Purity</b> 99%	(Lot 1012020)	12,500.7	µg/mL	+/- +/- +/-	73.1942 618.4417 633.8168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) <b>CAS #</b> 78-83-1 <b>Purity</b> 99%	(Lot SHBM4836)	62,500.7	µg/mL	+/- +/- +/-	365.9551 3,092.0767 3,168.9490	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran <b>CAS #</b> 109-99-9 <b>Purity</b> 99%	(Lot SHBM8962)	25,010.0	µg/mL	+/- +/- +/-	146.4390 1,237.3122 1,268.0731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane <b>CAS #</b> 110-82-7 <b>Purity</b> 99%	(Lot MKCF5831)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol <b>CAS #</b> 71-36-3 <b>Purity</b> 99%	(Lot SHBM5061)	62,504.0	µg/mL	+/- +/- +/-	365.9747 3,092.2416 3,169.1180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) <b>CAS #</b> 994-05-8 <b>Purity</b> 99%	(Lot HMBG7745V)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) <b>CAS #</b> 142-82-5 <b>Purity</b> 99%	(Lot SHBL9221)	5,002.3	µg/mL	+/- +/- +/-	34.9668 248.2148 254.3496	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) <b>CAS #</b> 919-94-8 <b>Purity</b> 99%	(Lot 76U3A)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



24	Methylcyclohexane <b>CAS #</b> 108-87-2 <b>Purity</b> 99%	(Lot SHBL0078)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate <b>CAS #</b> 80-62-6 <b>Purity</b> 99%	(Lot MKCN3027)	5,001.0	µg/mL	+/- +/- +/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane <b>CAS #</b> 123-91-1 <b>Purity</b> 99%	(Lot SHBM5092)	62,503.3	µg/mL	+/- +/- +/-	365.9708 3,092.2086 3,169.0842	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane <b>CAS #</b> 79-46-9 <b>Purity</b> 97%	(Lot BCCB9352)	25,000.8	µg/mL	+/- +/- +/-	146.3851 1,236.8561 1,267.6056	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethyl methacrylate <b>CAS #</b> 97-63-2 <b>Purity</b> 99%	(Lot MKCL0907)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1-Chlorohexane <b>CAS #</b> 544-10-5 <b>Purity</b> 98%	(Lot BCBS3368V)	5,000.0	µg/mL	+/- +/- +/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	trans-1,4-dichloro-2-butene <b>CAS #</b> 110-57-6 <b>Purity</b> 95%	(Lot RD210617)	12,510.9	µg/mL	+/- +/- +/-	73.2539 618.9463 634.3340	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,2,3-Trimethylbenzene <b>CAS #</b> 526-73-8 <b>Purity</b> 98%	(Lot 8776.10-36)	5,000.0	µg/mL	+/- +/- +/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	1,3-Diethylbenzene <b>CAS #</b> 141-93-5 <b>Purity</b> 98%	(Lot BCBT8967)	5,000.9	µg/mL	+/- +/- +/-	34.9570 248.1457 254.2788	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Benzyl chloride <b>CAS #</b> 100-44-7 <b>Purity</b> 99%	(Lot SHBH2102V)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,4-Diethylbenzene <b>CAS #</b> 105-05-5 <b>Purity</b> 98%	(Lot RLHJK)	5,001.4	µg/mL	+/- +/- +/-	34.9605 248.1700 254.3037	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,2-Diethylbenzene <b>CAS #</b> 135-01-3 <b>Purity</b> 99%	(Lot ECH2970181)	5,000.5	µg/mL	+/- +/- +/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,3,5-Trichlorobenzene <b>CAS #</b> 108-70-3 <b>Purity</b> 99%	(Lot 11319AS)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2-Methylnaphthalene <b>CAS #</b> 91-57-6 <b>Purity</b> 99%	(Lot STBG8884)	5,001.0	µg/mL	+/- +/- +/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

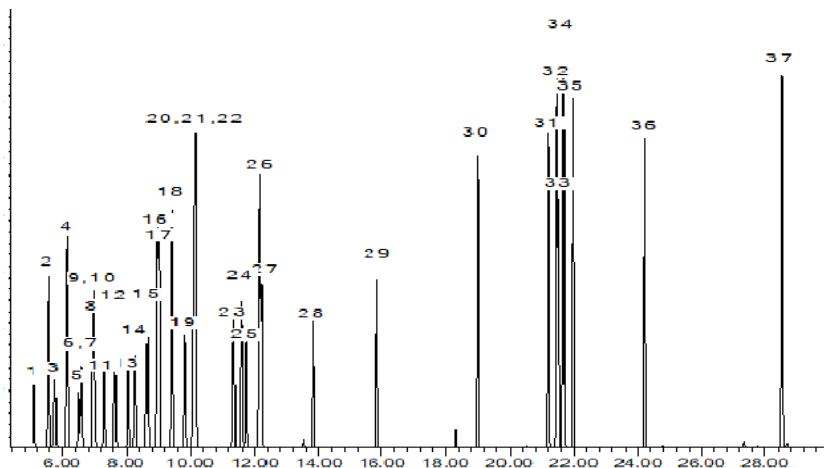
**Carrier Gas:**  
helium-constant pressure 30 psi

**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.

Russ Bookhamer - Operations Technician I

**Date Mixed:** 16-Jun-2021

**Balance:** B707717271

Alexis Shelow - Operations Tech I

**Date Passed:** 30-Jun-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:

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

$k$  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](http://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) -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](http://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

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**MSV\_Q\_Ketones\_00075**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 569721.SEC **Lot No.:** A0178490

**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 :** November 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	Acetone	12,504.0 µg/mL	+/-	73.2137	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot S25F025)		+/-	754.4715	µg/mL	Unstressed
	Purity 99%		+/-	756.2625	µg/mL	Stressed
2	2-Butanone (MEK)	12,502.0 µg/mL	+/-	73.2020	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/-	754.3508	µg/mL	Unstressed
	Purity 99%		+/-	756.1415	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,508.7 µg/mL	+/-	73.2410	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	754.7530	µg/mL	Unstressed
	Purity 99%		+/-	756.5447	µg/mL	Stressed
4	2-Hexanone	12,507.3 µg/mL	+/-	73.2332	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/-	754.6726	µg/mL	Unstressed
	Purity 99%		+/-	756.4641	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)

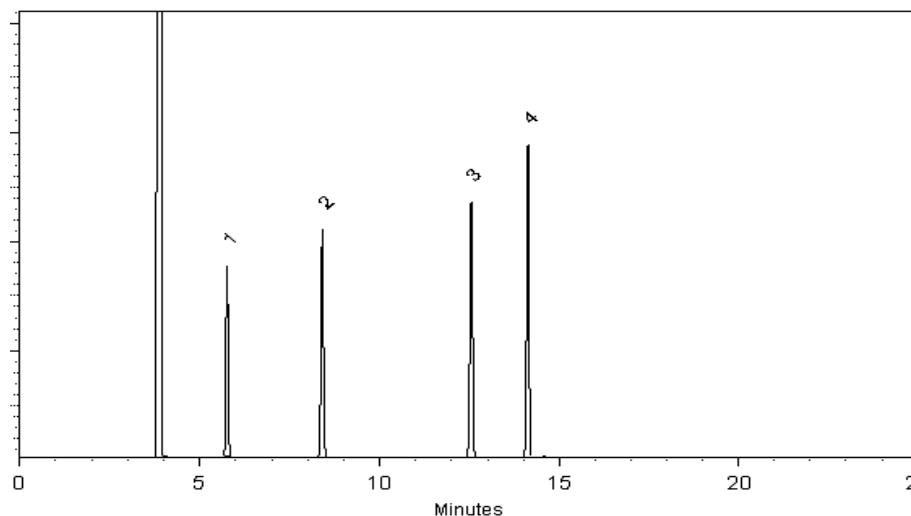
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

  
Jeff Rhoades - Mix Technician

**Date Mixed:** 15-Nov-2021      **Balance:** 1127510105

  
Clara Winda - Operations Technician I

**Date Passed:** 16-Nov-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:

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

*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](http://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) -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](http://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

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**MSV\_Q\_Ketones\_00079**





# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 569721.SEC **Lot No.:** A0178490

**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 :** November 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	Acetone	12,504.0 µg/mL	+/-	73.2137	µg/mL	Gravimetric
	<b>CAS #</b> 67-64-1.SEC (Lot S25F025)		+/-	754.4715	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.2625	µg/mL	Stressed
2	2-Butanone (MEK)	12,502.0 µg/mL	+/-	73.2020	µg/mL	Gravimetric
	<b>CAS #</b> 78-93-3.SEC (Lot RGZ2A)		+/-	754.3508	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.1415	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,508.7 µg/mL	+/-	73.2410	µg/mL	Gravimetric
	<b>CAS #</b> 108-10-1.SEC (Lot E29T040)		+/-	754.7530	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.5447	µg/mL	Stressed
4	2-Hexanone	12,507.3 µg/mL	+/-	73.2332	µg/mL	Gravimetric
	<b>CAS #</b> 591-78-6.SEC (Lot Y3TUO)		+/-	754.6726	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.4641	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)

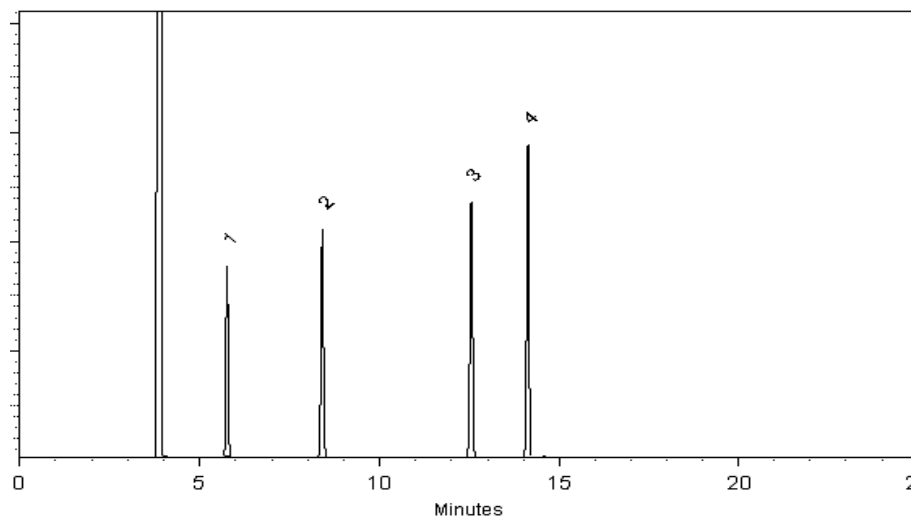
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

  
Jeff Rhoades - Mix Technician

**Date Mixed:** 15-Nov-2021      **Balance:** 1127510105

  
Clara Windle - Operations Technician I

**Date Passed:** 16-Nov-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:

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

*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](http://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) -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](http://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

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**MSV\_QC\_2K\_GAS\_00096**



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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.: 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

Table with 7 columns: Elution Order, Compound, Grav. Conc. (weight/volume), Expanded Uncertainty (95% C.L.; K=2), and three additional columns for measurement details. Rows 1-7 list compounds like Dichlorodifluoromethane, Chloromethane, Vinyl chloride, 1,3-Butadiene, Bromomethane, Chloroethane, and Dichlorofluoromethane.

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
<b>Solvent:</b>	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:

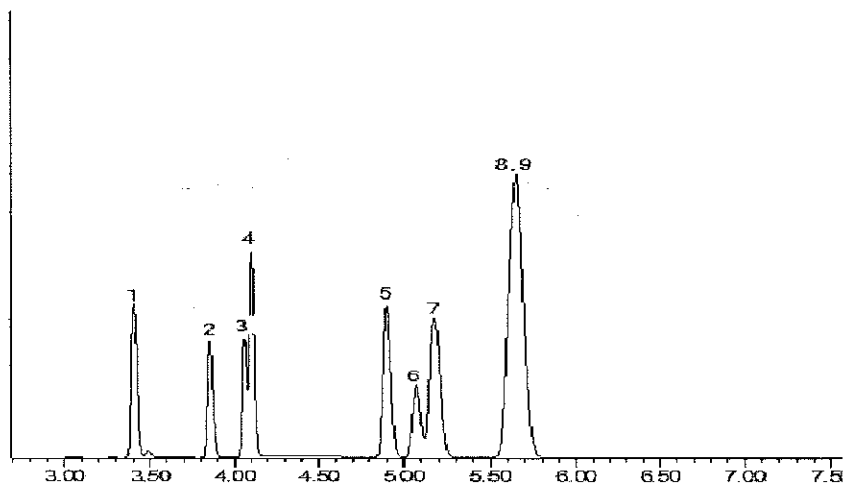
200°C

#### 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*  
Lane Kibe - Mix Technician

Date Mixed: 04-May-2021 Balance: 1127510105

*Alexis Shelow*  
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:

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

$k$  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](http://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) -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](http://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

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**MSV\_QC\_2K\_GAS\_00101**





CERTIFIED REFERENCE MATERIAL

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

www.restek.com

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.: 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

Table with 7 columns: Elution Order, Compound, Grav. Conc. (weight/volume), Expanded Uncertainty (95% C.L.; K=2), and three additional columns for measurement details. Rows 1-7 list compounds like Dichlorodifluoromethane, Chloromethane, Vinyl chloride, 1,3-Butadiene, Bromomethane, Chloroethane, and Dichlorofluoromethane.

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
<b>Solvent:</b>	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:**

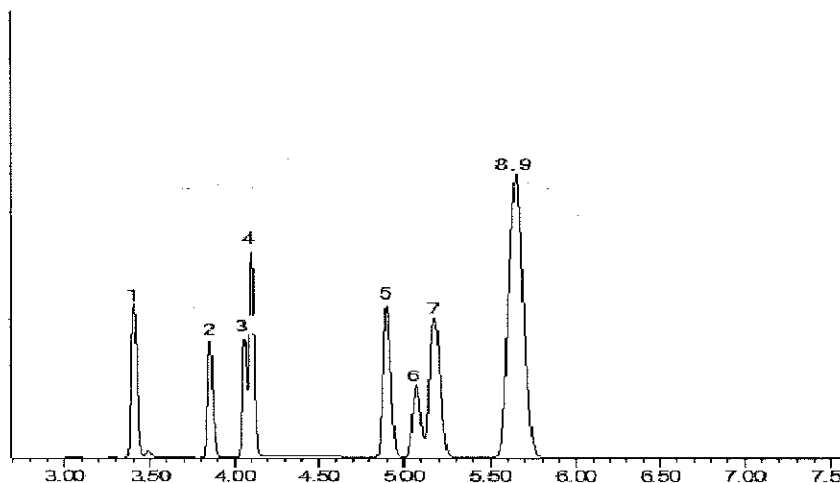
200°C

**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*  
Lane Kibe - Mix Technician

Date Mixed: 04-May-2021 Balance: 1127510105

*Alexis Shelow*  
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/ $\mu$ ECD, 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:

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

$k$  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](http://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) -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](http://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

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**MSV\_V#2B\_00277**



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

www.restek.com

# 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.:** A0184378  
**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, 2024 **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%	25,003.0 µg/mL	+/- 146.3981 µg/mL
2	tert-Butanol (TBA)	75-65-0	99%	25,000.0 µg/mL	+/- 146.3805 µg/mL
3	Propionitrile	107-12-0	99%	25,003.0 µg/mL	+/- 146.3981 µg/mL
4	Methacrylonitrile	126-98-7	99%	12,502.0 µg/mL	+/- 73.2020 µg/mL
5	Isobutanol (2-Methyl-1-propanol)	78-83-1	99%	62,503.0 µg/mL	+/- 365.9688 µg/mL
6	1-Butanol	71-36-3	98%	124,982.3 µg/mL	+/- 731.7613 µg/mL
7	1,4-Dioxane	123-91-1	99%	62,530.0 µg/mL	+/- 366.1269 µg/mL
8	trans-1,4-dichloro-2-butene	110-57-6	95%	12,496.3 µg/mL	+/- 73.1686 µg/mL
<b>Solvent:</b>	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)

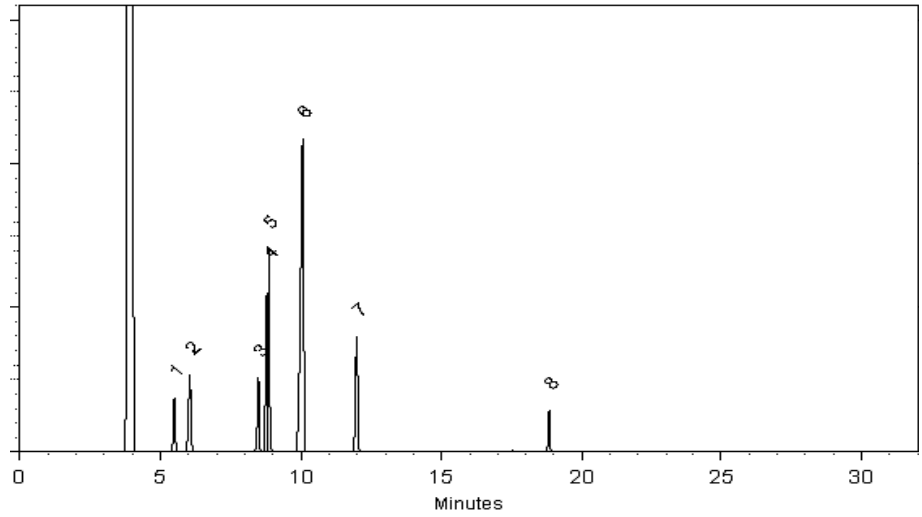
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

*Josh McCloskey*  
Josh McCloskey - Operations Technician I

**Date Mixed:** 21-Apr-2022

**Balance:** B707717271

*Christie Mills*  
Christie Mills - Operations Technician II

**Date Passed:** 27-Apr-2022

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/ $\mu$ ECD, 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

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**MSV\_V\_Ketones\_00074**





# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 569721 **Lot No.:** A0174287

**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 :** July 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	Acetone	12,526.4 µg/mL	+/-	73.3448	µg/mL	Gravimetric
	<b>CAS #</b> 67-64-1 (Lot SHBN3661)		+/-	755.8230	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	757.6173	µg/mL	Stressed
2	2-Butanone (MEK)	12,543.6 µg/mL	+/-	73.4455	µg/mL	Gravimetric
	<b>CAS #</b> 78-93-3 (Lot SHBL5543)		+/-	756.8609	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	758.6575	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,534.8 µg/mL	+/-	73.3940	µg/mL	Gravimetric
	<b>CAS #</b> 108-10-1 (Lot SHBM7956)		+/-	756.3299	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	758.1253	µg/mL	Stressed
4	2-Hexanone	12,617.6 µg/mL	+/-	73.8788	µg/mL	Gravimetric
	<b>CAS #</b> 591-78-6 (Lot MKCL1599)		+/-	761.3259	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	763.1332	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)

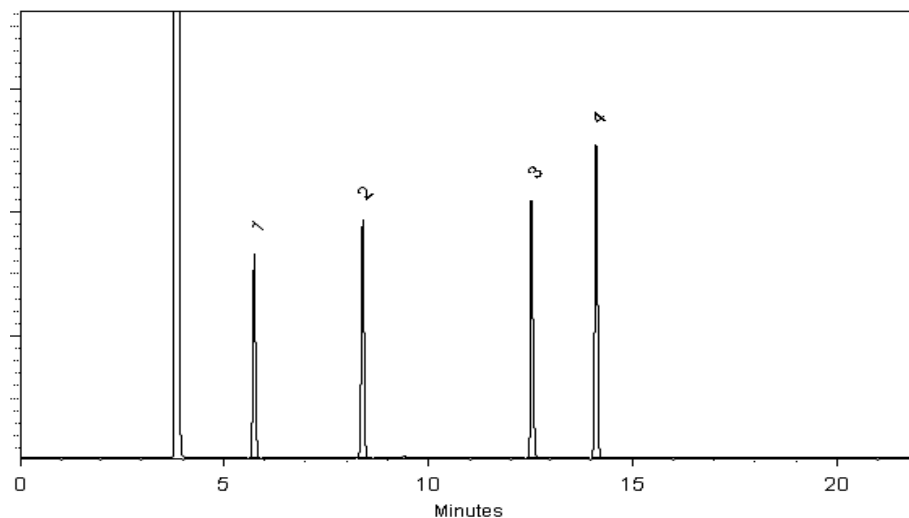
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

*Sam Moodler*  
Sam Moodler - Operations Tech I

**Date Mixed:** 11-Jul-2021      **Balance:** B707717271

*Marlina Cowan*  
Marlina Cowan - Operations Tech I

**Date Passed:** 13-Jul-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:

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

*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](http://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) -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](http://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

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**MSV\_V\_Ketones\_00076**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 569721 **Lot No.:** A0174287

**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 :** July 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	Acetone	12,526.4 µg/mL	+/-	73.3448	µg/mL	Gravimetric
	<b>CAS #</b> 67-64-1 (Lot SHBN3661)		+/-	755.8230	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	757.6173	µg/mL	Stressed
2	2-Butanone (MEK)	12,543.6 µg/mL	+/-	73.4455	µg/mL	Gravimetric
	<b>CAS #</b> 78-93-3 (Lot SHBL5543)		+/-	756.8609	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	758.6575	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,534.8 µg/mL	+/-	73.3940	µg/mL	Gravimetric
	<b>CAS #</b> 108-10-1 (Lot SHBM7956)		+/-	756.3299	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	758.1253	µg/mL	Stressed
4	2-Hexanone	12,617.6 µg/mL	+/-	73.8788	µg/mL	Gravimetric
	<b>CAS #</b> 591-78-6 (Lot MKCL1599)		+/-	761.3259	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	763.1332	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)

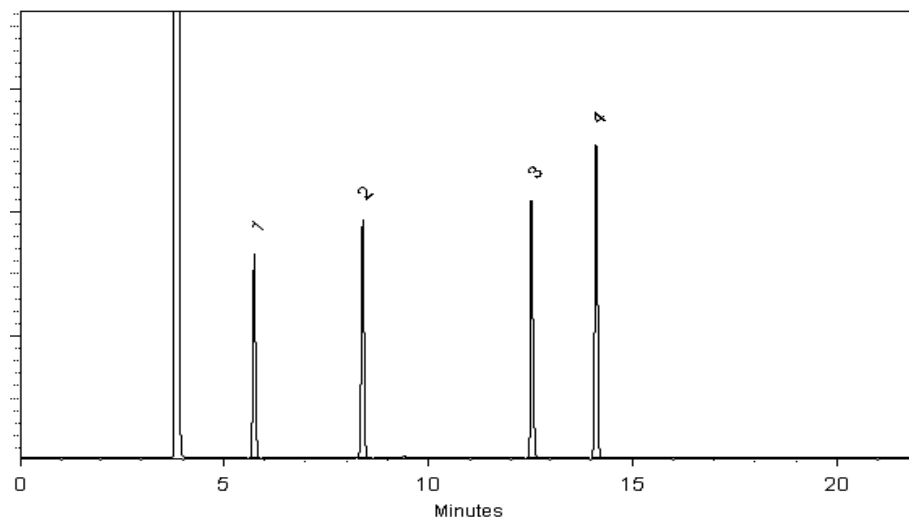
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

*Sam Moodler*  
Sam Moodler - Operations Tech I

**Date Mixed:** 11-Jul-2021      **Balance:** B707717271

*Marlina Cowan*  
Marlina Cowan - Operations Tech I

**Date Passed:** 13-Jul-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:

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

*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](http://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) -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](http://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

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**MSV\_V\_PentaCL\_00019**





# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## 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. :** 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

### CERTIFIED VALUES

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

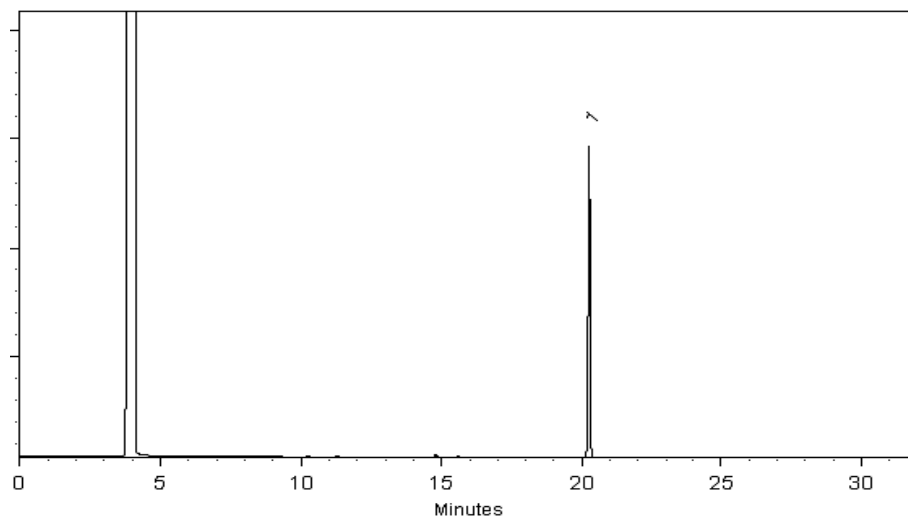
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

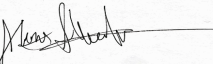
**Det. Type:**  
FID



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:

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

*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](http://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) -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](http://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.

# Method 8260D Low Level

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Volatile Organic Compounds (GC/MS)  
by Method 8260D Low Level

FORM II  
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-92859-1

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	410-92859-1	101	101	97	96
HD-COD-SW-7-0/1-0	410-92859-2	103	102	98	96
HD-COD-SW-8-0/1-0	410-92859-3	103	101	96	95
HD-COD-SW-9-0/1-0	410-92859-4	103	104	96	96
HD-COD-SW-13-0/1-0	410-92859-5	103	101	98	96
HD-COD-SW-15-0/1-0	410-92859-6	104	101	96	96
HD-COD-SW-16-0/1-0	410-92859-7	104	102	96	93
HD-COD-SW-17-0/1-0	410-92859-8	104	103	95	94
HD-COD-SW-17-0/1-0 DL	410-92859-8 DL	98	101	100	94
HD-COD-SW-26-0/1-0	410-92859-9	104	104	96	94
HD-COD-SW-27-0/1-0	410-92859-10	104	103	96	95
HD-COD-SW-28-0/1-0	410-92859-11	105	104	96	94
HD-COD-SW-29-0/1-0	410-92859-12	104	104	97	93
HD-QC1-0/1-1	410-92859-13	106	105	94	92
HD-QC1-0/1-1 DL	410-92859-13 DL	99	100	100	90
HD-QC1-0/1-2	410-92859-14	105	106	95	92
	MB 410-282764/6	105	103	96	94
	MB 410-283558/7	99	100	101	93
	LCS 410-282764/4	99	101	98	99
	LCS 410-283558/4	96	100	102	98
	LCSD 410-283558/5	97	99	102	99
HD-COD-SW-15-0/1-0 MS MS	410-92859-6 MS	100	98	98	100
HD-COD-SW-15-0/1-0 MSD MSD	410-92859-6 MSD	99	99	97	101

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 III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IG04X03.D

Lab ID: LCS 410-282764/4

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.08	102	71-134	
1,1,1-Trichloroethane	5.00	5.14	103	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.00	100	75-123	
1,1,2-Trichloroethane	5.00	5.06	101	80-120	
1,1-Dichloroethane	5.00	5.21	104	74-120	
1,1-Dichloroethene	5.00	5.35	107	80-131	
1,2-Dibromoethane (EDB)	5.00	4.99	100	80-120	
1,2-Dichloroethane	5.00	4.90	98	69-122	
1,2-Dichloropropane	5.00	5.22	104	80-120	
2-Butanone (MEK)	62.5	57.9	93	59-141	
2-Hexanone	62.5	58.7	94	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	60.2	96	55-140	
Acetone	62.5	52.8	84	60-146	
Benzene	5.00	5.39	108	80-120	
Bromochloromethane	5.00	5.31	106	80-120	
Bromodichloromethane	5.00	5.18	104	73-124	
Bromoform	5.00	4.97	99	49-144	
Bromomethane	5.00	5.21	104	60-136	
Carbon disulfide	5.00	5.87	117	67-130	
Carbon tetrachloride	5.00	5.10	102	64-141	
Chlorobenzene	5.00	5.12	102	80-120	
Chloroethane	5.00	5.27	105	63-120	
Chloroform	5.00	5.21	104	80-120	
Chloromethane	5.00	5.32	106	56-124	
cis-1,2-Dichloroethene	5.00	5.47	109	80-122	
cis-1,3-Dichloropropene	5.00	5.00	100	67-121	
Dibromochloromethane	5.00	4.98	100	64-138	
Ethylbenzene	5.00	5.20	104	80-120	
Methyl tert-butyl ether	5.00	5.21	104	69-120	
Methylene Chloride	5.00	5.24	105	80-120	
Styrene	5.00	5.49	110	80-120	
Tetrachloroethene	5.00	5.15	103	80-120	
Toluene	5.00	5.09	102	80-120	
trans-1,2-Dichloroethene	5.00	5.34	107	80-122	
trans-1,3-Dichloropropene	5.00	5.08	102	61-129	
Trichloroethene	5.00	5.28	106	80-120	
Vinyl chloride	5.00	5.44	109	60-125	
Xylenes, Total	15.0	15.9	106	80-120	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IG07X003.D

Lab ID: LCS 410-283558/4

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.26	105	71-134	
1,1,1-Trichloroethane	5.00	4.78	96	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.63	113	75-123	
1,1,2-Trichloroethane	5.00	5.29	106	80-120	
1,1-Dichloroethane	5.00	4.91	98	74-120	
1,1-Dichloroethene	5.00	5.03	101	80-131	
1,2-Dibromoethane (EDB)	5.00	5.19	104	80-120	
1,2-Dichloroethane	5.00	4.65	93	69-122	
1,2-Dichloropropane	5.00	4.96	99	80-120	
2-Butanone (MEK)	62.5	66.2	106	59-141	
2-Hexanone	62.5	72.5	116	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	72.2	115	55-140	
Acetone	62.5	60.2	96	60-146	
Benzene	5.00	5.00	100	80-120	
Bromochloromethane	5.00	5.01	100	80-120	
Bromodichloromethane	5.00	5.00	100	73-124	
Bromoform	5.00	5.64	113	49-144	
Bromomethane	5.00	4.32	86	60-136	
Carbon disulfide	5.00	5.58	112	67-130	
Carbon tetrachloride	5.00	4.77	95	64-141	
Chlorobenzene	5.00	5.21	104	80-120	
Chloroethane	5.00	4.58	92	63-120	
Chloroform	5.00	4.82	96	80-120	
Chloromethane	5.00	4.76	95	56-124	
cis-1,2-Dichloroethene	5.00	5.10	102	80-122	
cis-1,3-Dichloropropene	5.00	5.02	100	67-121	
Dibromochloromethane	5.00	5.31	106	64-138	
Ethylbenzene	5.00	5.27	105	80-120	
Methyl tert-butyl ether	5.00	5.11	102	69-120	
Methylene Chloride	5.00	4.99	100	80-120	
Styrene	5.00	5.76	115	80-120	
Tetrachloroethene	5.00	4.99	100	80-120	
Toluene	5.00	5.09	102	80-120	
trans-1,2-Dichloroethene	5.00	4.98	100	80-122	
trans-1,3-Dichloropropene	5.00	5.39	108	61-129	
Trichloroethene	5.00	4.86	97	80-120	
Vinyl chloride	5.00	4.65	93	60-125	
Xylenes, Total	15.0	16.2	108	80-120	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IG07X004.D

Lab ID: LCSD 410-283558/5

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1,2-Tetrachloroethane	5.00	5.32	106	1	30	71-134	
1,1,1-Trichloroethane	5.00	4.75	95	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.71	114	1	30	75-123	
1,1,2-Trichloroethane	5.00	5.33	107	1	30	80-120	
1,1-Dichloroethane	5.00	4.88	98	1	30	74-120	
1,1-Dichloroethene	5.00	5.03	101	0	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.26	105	1	30	80-120	
1,2-Dichloroethane	5.00	4.60	92	1	30	69-122	
1,2-Dichloropropane	5.00	4.95	99	0	30	80-120	
2-Butanone (MEK)	62.5	62.1	99	7	30	59-141	
2-Hexanone	62.5	67.5	108	7	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	67.1	107	7	30	55-140	
Acetone	62.5	56.0	90	7	30	60-146	
Benzene	5.00	5.00	100	0	30	80-120	
Bromochloromethane	5.00	4.97	99	1	30	80-120	
Bromodichloromethane	5.00	4.98	100	0	30	73-124	
Bromoform	5.00	5.58	112	1	30	49-144	
Bromomethane	5.00	4.32	86	0	30	60-136	
Carbon disulfide	5.00	5.51	110	1	30	67-130	
Carbon tetrachloride	5.00	4.76	95	0	30	64-141	
Chlorobenzene	5.00	5.23	105	0	30	80-120	
Chloroethane	5.00	4.60	92	0	30	63-120	
Chloroform	5.00	4.85	97	1	30	80-120	
Chloromethane	5.00	4.70	94	1	30	56-124	
cis-1,2-Dichloroethene	5.00	5.08	102	0	30	80-122	
cis-1,3-Dichloropropene	5.00	5.03	101	0	30	67-121	
Dibromochloromethane	5.00	5.38	108	1	30	64-138	
Ethylbenzene	5.00	5.27	105	0	30	80-120	
Methyl tert-butyl ether	5.00	5.08	102	1	30	69-120	
Methylene Chloride	5.00	4.97	99	1	30	80-120	
Styrene	5.00	5.76	115	0	30	80-120	
Tetrachloroethene	5.00	4.99	100	0	30	80-120	
Toluene	5.00	5.09	102	0	30	80-120	
trans-1,2-Dichloroethene	5.00	4.93	99	1	30	80-122	
trans-1,3-Dichloropropene	5.00	5.45	109	1	30	61-129	
Trichloroethene	5.00	4.88	98	0	30	80-120	
Vinyl chloride	5.00	4.77	95	2	30	60-125	
Xylenes, Total	15.0	16.3	109	1	30	80-120	

# Column to be used to flag recovery and RPD values



FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IG04X17.D

Lab ID: 410-92859-6 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	5.21	104	71-134	
1,1,1-Trichloroethane	5.00	0.27 J	5.82	111	78-126	
1,1,2,2-Tetrachloroethane	5.00	ND	4.98	100	75-123	
1,1,2-Trichloroethane	5.00	ND	5.28	106	80-120	
1,1-Dichloroethane	5.00	0.12 J	5.65	110	74-120	
1,1-Dichloroethene	5.00	0.16 J	6.06	118	80-131	
1,2-Dibromoethane (EDB)	5.00	ND	5.14	103	80-120	
1,2-Dichloroethane	5.00	ND	5.24	105	69-122	
1,2-Dichloropropane	5.00	ND	5.59	112	80-120	
2-Butanone (MEK)	62.6	ND	57.9	93	59-141	
2-Hexanone	62.6	ND	57.2	91	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	ND	58.9	94	55-140	
Acetone	62.6	ND	56.3	90	60-146	
Benzene	5.00	ND	5.73	114	80-120	
Bromochloromethane	5.00	ND	5.70	114	80-120	
Bromodichloromethane	5.00	ND	5.49	110	73-124	
Bromoform	5.00	ND	4.94	99	49-144	
Bromomethane	5.00	ND	5.24	105	60-136	
Carbon disulfide	5.00	ND	6.32	126	67-130	
Carbon tetrachloride	5.00	ND	5.73	115	64-141	
Chlorobenzene	5.00	ND	5.32	106	80-120	
Chloroethane	5.00	ND	5.51	110	63-120	
Chloroform	5.00	0.35 J	5.88	111	80-120	
Chloromethane	5.00	ND	5.70	114	80-120	
cis-1,2-Dichloroethene	5.00	1.4	7.25	118	80-122	
cis-1,3-Dichloropropene	5.00	ND	5.25	105	67-121	
Dibromochloromethane	5.00	ND	5.07	101	64-138	
Ethylbenzene	5.00	ND	5.44	109	80-120	
Methyl tert-butyl ether	5.00	ND	5.60	112	69-120	
Methylene Chloride	5.00	ND	5.62	112	80-120	
Styrene	5.00	ND	5.70	114	80-120	
Tetrachloroethene	5.00	5.0	10.4	108	80-120	
Toluene	5.00	ND	5.36	107	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.67	113	80-122	
trans-1,3-Dichloropropene	5.00	ND	5.21	104	61-129	
Trichloroethene	5.00	1.4	7.05	112	80-120	
Vinyl chloride	5.00	ND	5.91	118	60-125	
Xylenes, Total	15.0	ND	16.6	111	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  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IG04X18.D

Lab ID: 410-92859-6 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	REC	
1,1,1,2-Tetrachloroethane	5.00	5.13	103	1	30	71-134	
1,1,1-Trichloroethane	5.00	5.71	109	2	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.00	100	0	30	75-123	
1,1,2-Trichloroethane	5.00	5.16	103	2	30	80-120	
1,1-Dichloroethane	5.00	5.59	109	1	30	74-120	
1,1-Dichloroethene	5.00	6.00	117	1	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.12	102	0	30	80-120	
1,2-Dichloroethane	5.00	4.92	98	6	30	69-122	
1,2-Dichloropropane	5.00	5.49	110	2	30	80-120	
2-Butanone (MEK)	62.6	58.1	93	0	30	59-141	
2-Hexanone	62.6	57.9	92	1	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	59.5	95	1	30	55-140	
Acetone	62.6	53.9	86	4	30	60-146	
Benzene	5.00	5.62	112	2	30	80-120	
Bromochloromethane	5.00	5.54	111	3	30	80-120	
Bromodichloromethane	5.00	5.38	107	2	30	73-124	
Bromoform	5.00	4.89	98	1	30	49-144	
Bromomethane	5.00	5.39	108	3	30	60-136	
Carbon disulfide	5.00	6.26	125	1	30	67-130	
Carbon tetrachloride	5.00	5.60	112	2	30	64-141	
Chlorobenzene	5.00	5.27	105	1	30	80-120	
Chloroethane	5.00	5.22	104	5	30	63-120	
Chloroform	5.00	5.81	109	1	30	80-120	
Chloromethane	5.00	5.76	115	1	30	80-120	
cis-1,2-Dichloroethene	5.00	7.16	116	1	30	80-122	
cis-1,3-Dichloropropene	5.00	5.26	105	0	30	67-121	
Dibromochloromethane	5.00	5.03	101	1	30	64-138	
Ethylbenzene	5.00	5.39	108	1	30	80-120	
Methyl tert-butyl ether	5.00	5.52	110	2	30	69-120	
Methylene Chloride	5.00	5.50	110	2	30	80-120	
Styrene	5.00	5.63	113	1	30	80-120	
Tetrachloroethene	5.00	10.3	105	1	30	80-120	
Toluene	5.00	5.33	107	1	30	80-120	
trans-1,2-Dichloroethene	5.00	5.59	112	1	30	80-122	
trans-1,3-Dichloropropene	5.00	5.19	104	0	30	61-129	
Trichloroethene	5.00	6.94	110	2	30	80-120	
Vinyl chloride	5.00	5.91	118	0	30	60-125	
Xylenes, Total	15.0	16.6	111	0	30	80-120	

# Column to be used to flag recovery and RPD values

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Lab File ID: IG04X05.D Lab Sample ID: MB 410-282764/6

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: 19930 Date Analyzed: 08/04/2022 11:48

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 410-282764/4	IG04X03.D	08/04/2022 11:06
HD-QC1-0/1-2	410-92859-14	IG04X07.D	08/04/2022 12:31
HD-COD-SW-6-0/1-0	410-92859-1	IG04X11.D	08/04/2022 13:56
HD-COD-SW-7-0/1-0	410-92859-2	IG04X12.D	08/04/2022 14:17
HD-COD-SW-8-0/1-0	410-92859-3	IG04X13.D	08/04/2022 14:38
HD-COD-SW-9-0/1-0	410-92859-4	IG04X14.D	08/04/2022 14:59
HD-COD-SW-13-0/1-0	410-92859-5	IG04X15.D	08/04/2022 15:20
HD-COD-SW-15-0/1-0	410-92859-6	IG04X16.D	08/04/2022 15:41
HD-COD-SW-15-0/1-0 MS MS	410-92859-6 MS	IG04X17.D	08/04/2022 16:03
HD-COD-SW-15-0/1-0 MSD MSD	410-92859-6 MSD	IG04X18.D	08/04/2022 16:24
HD-COD-SW-16-0/1-0	410-92859-7	IG04X20.D	08/04/2022 17:06
HD-COD-SW-17-0/1-0	410-92859-8	IG04X21.D	08/04/2022 17:28
HD-COD-SW-26-0/1-0	410-92859-9	IG04X22.D	08/04/2022 17:49
HD-COD-SW-27-0/1-0	410-92859-10	IG04X23.D	08/04/2022 18:10
HD-COD-SW-28-0/1-0	410-92859-11	IG04X24.D	08/04/2022 18:31
HD-COD-SW-29-0/1-0	410-92859-12	IG04X25.D	08/04/2022 18:52
HD-QC1-0/1-1	410-92859-13	IG04X26.D	08/04/2022 19:13

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
          Environment Testing, LLC  
SDG No.: \_\_\_\_\_  
Lab File ID: IG07X006.D                      Lab Sample ID: MB 410-283558/7  
Matrix: Water                                      Heated Purge: (Y/N) N  
Instrument ID: 19930                              Date Analyzed: 08/07/2022 14:15  
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 410-283558/4	IG07X003.D	08/07/2022 13:12
	LCSD 410-283558/5	IG07X004.D	08/07/2022 13:33
HD-COD-SW-17-0/1-0 DL	410-92859-8 DL	IG07X014.D	08/07/2022 17:05
HD-QC1-0/1-1 DL	410-92859-13 DL	IG07X015.D	08/07/2022 17:27

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab File ID: IL11T01.D BFB Injection Date: 07/11/2022

Instrument ID: 19930 BFB Injection Time: 15:02

Analysis Batch No.: 274212

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.8	
75	30.0 - 60.0 % of mass 95	46.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.9	(1.0) 1
174	Greater than 50% of mass 95	88.9	
175	5.0 - 9.0 % of mass 174	7.0	(7.9) 1
176	95.0 - 101.0 % of mass 174	85.3	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.7	(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
	IC 410-274212/12	IL11X12.D	07/11/2022	15:36
	ICIS 410-274212/13	IL11X13.D	07/11/2022	15:57
	IC 410-274212/14	IL11X14.D	07/11/2022	16:18
	IC 410-274212/15	IL11X15.D	07/11/2022	16:39
	IC 410-274212/16	IL11X16.D	07/11/2022	17:00
	IC 410-274212/17	IL11X17.D	07/11/2022	17:22
	IC 410-274212/18	IL11X18.D	07/11/2022	17:43

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab File ID: IL12T01.D BFB Injection Date: 07/12/2022

Instrument ID: 19930 BFB Injection Time: 14:39

Analysis Batch No.: 274690

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.4	
75	30.0 - 60.0 % of mass 95	45.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	1.1	(1.3) 1
174	Greater than 50% of mass 95	86.3	
175	5.0 - 9.0 % of mass 174	6.0	(7.0) 1
176	95.0 - 101.0 % of mass 174	84.1	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.6	(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
	ICV 410-274690/6	IL12X06.D	07/12/2022	16:20

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab File ID: IG04T01.D BFB Injection Date: 08/04/2022

Instrument ID: 19930 BFB Injection Time: 10:11

Analysis Batch No.: 282764

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	15.5
75	30.0 - 60.0 % of mass 95	45.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.4
173	Less than 2.0 % of mass 174	1.1 (1.2) 1
174	Greater than 50% of mass 95	93.8
175	5.0 - 9.0 % of mass 174	7.2 (7.7) 1
176	95.0 - 101.0 % of mass 174	90.6 (96.5) 1
177	5.0 - 9.0 % of mass 176	5.6 (6.2) 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 410-282764/3	IG04X02.D	08/04/2022	10:45
	LCS 410-282764/4	IG04X03.D	08/04/2022	11:06
	MB 410-282764/6	IG04X05.D	08/04/2022	11:48
HD-QC1-0/1-2	410-92859-14	IG04X07.D	08/04/2022	12:31
HD-COD-SW-6-0/1-0	410-92859-1	IG04X11.D	08/04/2022	13:56
HD-COD-SW-7-0/1-0	410-92859-2	IG04X12.D	08/04/2022	14:17
HD-COD-SW-8-0/1-0	410-92859-3	IG04X13.D	08/04/2022	14:38
HD-COD-SW-9-0/1-0	410-92859-4	IG04X14.D	08/04/2022	14:59
HD-COD-SW-13-0/1-0	410-92859-5	IG04X15.D	08/04/2022	15:20
HD-COD-SW-15-0/1-0	410-92859-6	IG04X16.D	08/04/2022	15:41
HD-COD-SW-15-0/1-0 MS MS	410-92859-6 MS	IG04X17.D	08/04/2022	16:03
HD-COD-SW-15-0/1-0 MSD MSD	410-92859-6 MSD	IG04X18.D	08/04/2022	16:24
HD-COD-SW-16-0/1-0	410-92859-7	IG04X20.D	08/04/2022	17:06
HD-COD-SW-17-0/1-0	410-92859-8	IG04X21.D	08/04/2022	17:28
HD-COD-SW-26-0/1-0	410-92859-9	IG04X22.D	08/04/2022	17:49
HD-COD-SW-27-0/1-0	410-92859-10	IG04X23.D	08/04/2022	18:10
HD-COD-SW-28-0/1-0	410-92859-11	IG04X24.D	08/04/2022	18:31
HD-COD-SW-29-0/1-0	410-92859-12	IG04X25.D	08/04/2022	18:52
HD-QC1-0/1-1	410-92859-13	IG04X26.D	08/04/2022	19:13

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab File ID: IG07T001.D BFB Injection Date: 08/07/2022

Instrument ID: 19930 BFB Injection Time: 12:16

Analysis Batch No.: 283558

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	44.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.3
173	Less than 2.0 % of mass 174	1.0 (1.0) 1
174	Greater than 50% of mass 95	94.3
175	5.0 - 9.0 % of mass 174	6.8 (7.3) 1
176	95.0 - 101.0 % of mass 174	91.1 (96.6) 1
177	5.0 - 9.0 % of mass 176	5.5 (6.1) 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 410-283558/3	IG07X002.D	08/07/2022	12:51
	LCS 410-283558/4	IG07X003.D	08/07/2022	13:12
	LCSD 410-283558/5	IG07X004.D	08/07/2022	13:33
	MB 410-283558/7	IG07X006.D	08/07/2022	14:15
HD-COD-SW-17-0/1-0 DL	410-92859-8 DL	IG07X014.D	08/07/2022	17:05
HD-QC1-0/1-1 DL	410-92859-13 DL	IG07X015.D	08/07/2022	17:27



FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 410-274212/13 Date Analyzed: 07/11/2022 15:57  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IL11X13.D Heated Purge: (Y/N) N  
 Calibration ID: 40830

	TBAd10		FB		CBzd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	169786	4.23	2357451	7.70	1868480	11.16
UPPER LIMIT	339572	4.73	4714902	8.20	3736960	11.66
LOWER LIMIT	84893	3.73	1178726	7.20	934240	10.66
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-274690/6	157301	4.21	2175639	7.71	1724781	11.16
CCVIS 410-282764/3	212371	4.26	2450875	7.71	2032493	11.16
CCVIS 410-283558/3	186948	4.23	2319650	7.70	1798417	11.16

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  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 410-274212/13 Date Analyzed: 07/11/2022 15:57  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IL11X13.D Heated Purge: (Y/N) N  
 Calibration ID: 40830

	DCBd4		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	1053034	13.04				
UPPER LIMIT	2106068	13.54				
LOWER LIMIT	526517	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-274690/6		967569	13.04			
CCVIS 410-282764/3		1166651	13.04			
CCVIS 410-283558/3		986767	13.04			

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  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 410-282764/3 Date Analyzed: 08/04/2022 10:45  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IG04X02.D Heated Purge: (Y/N) N  
 Calibration ID: 40830

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	212371	4.26	2450875	7.71	2032493	11.16	
UPPER LIMIT	424742	4.76	4901750	8.21	4064986	11.66	
LOWER LIMIT	106186	3.76	1225438	7.21	1016247	10.66	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-282764/4		180015	4.25	2170860	7.70	1769527	11.16
MB 410-282764/6		169515	4.26	1963745	7.71	1590597	11.16
410-92859-14	HD-QC1-0/1-2	162280	4.25	1942272	7.71	1594094	11.16
410-92859-1	HD-COD-SW-6-0/1-0	185494	4.28	2075670	7.71	1670261	11.16
410-92859-2	HD-COD-SW-7-0/1-0	184919	4.26	2075073	7.71	1662137	11.16
410-92859-3	HD-COD-SW-8-0/1-0	172851	4.25	2087763	7.71	1697509	11.16
410-92859-4	HD-COD-SW-9-0/1-0	163918	4.24	2085885	7.71	1710764	11.16
410-92859-5	HD-COD-SW-13-0/1-0	161175	4.25	2099866	7.71	1696435	11.16
410-92859-6	HD-COD-SW-15-0/1-0	174423	4.26	2080777	7.71	1697337	11.16
410-92859-6 MS	HD-COD-SW-15-0/1-0 MS MS	185791	4.24	2145064	7.71	1761204	11.16
410-92859-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	181743	4.23	2163064	7.70	1762465	11.16
410-92859-7	HD-COD-SW-16-0/1-0	160271	4.25	2069534	7.71	1701375	11.16
410-92859-8	HD-COD-SW-17-0/1-0	164813	4.25	1996904	7.71	1653299	11.16
410-92859-9	HD-COD-SW-26-0/1-0	165133	4.25	1965126	7.71	1615326	11.16
410-92859-10	HD-COD-SW-27-0/1-0	153087	4.23	1965496	7.70	1622618	11.16
410-92859-11	HD-COD-SW-28-0/1-0	151746	4.24	1943913	7.71	1607441	11.16
410-92859-12	HD-COD-SW-29-0/1-0	152417	4.23	2065691	7.71	1702075	11.16
410-92859-13	HD-QC1-0/1-1	144109	4.24	1915146	7.71	1617444	11.16

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  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 410-282764/3 Date Analyzed: 08/04/2022 10:45  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IG04X02.D Heated Purge: (Y/N) N  
 Calibration ID: 40830

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		1166651	13.04				
UPPER LIMIT		2333302	13.54				
LOWER LIMIT		583326	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-282764/4		1004417	13.04				
MB 410-282764/6		867459	13.04				
410-92859-14	HD-QC1-0/1-2	860339	13.04				
410-92859-1	HD-COD-SW-6-0/1-0	929238	13.04				
410-92859-2	HD-COD-SW-7-0/1-0	922820	13.04				
410-92859-3	HD-COD-SW-8-0/1-0	917422	13.04				
410-92859-4	HD-COD-SW-9-0/1-0	921668	13.04				
410-92859-5	HD-COD-SW-13-0/1-0	935104	13.04				
410-92859-6	HD-COD-SW-15-0/1-0	919518	13.04				
410-92859-6 MS	HD-COD-SW-15-0/1-0 MS	996294	13.04				
410-92859-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	996973	13.04				
410-92859-7	HD-COD-SW-16-0/1-0	920019	13.04				
410-92859-8	HD-COD-SW-17-0/1-0	886798	13.04				
410-92859-9	HD-COD-SW-26-0/1-0	872364	13.04				
410-92859-10	HD-COD-SW-27-0/1-0	891400	13.04				
410-92859-11	HD-COD-SW-28-0/1-0	876639	13.04				
410-92859-12	HD-COD-SW-29-0/1-0	929812	13.04				
410-92859-13	HD-QC1-0/1-1	860412	13.04				

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  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 410-283558/3 Date Analyzed: 08/07/2022 12:51  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IG07X002.D Heated Purge: (Y/N) N  
 Calibration ID: 40830

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	186948	4.23	2319650	7.70	1798417	11.16	
UPPER LIMIT	373896	4.73	4639300	8.20	3596834	11.66	
LOWER LIMIT	93474	3.73	1159825	7.20	899209	10.66	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-283558/4		168809	4.23	2386825	7.70	1818525	11.16
LCSD 410-283558/5		183499	4.25	2413101	7.71	1823486	11.16
MB 410-283558/7		182596	4.26	2334359	7.71	1762337	11.16
410-92859-8 DL	HD-COD-SW-17-0/1-0 DL	171112	4.23	2343428	7.71	1767186	11.16
410-92859-13 DL	HD-QC1-0/1-1 DL	160311	4.24	2329486	7.71	1749921	11.16

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  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-92859-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 410-283558/3 Date Analyzed: 08/07/2022 12:51  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IG07X002.D Heated Purge: (Y/N) N  
 Calibration ID: 40830

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		986767	13.04				
UPPER LIMIT		1973534	13.54				
LOWER LIMIT		493384	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-283558/4		999856	13.04				
LCSD 410-283558/5		996342	13.04				
MB 410-283558/7		921401	13.04				
410-92859-8 DL	HD-COD-SW-17-0/1-0 DL	913754	13.04				
410-92859-13 DL	HD-QC1-0/1-1 DL	900357	13.04				

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 I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-1

Matrix: Water

Lab File ID: IG04X11.D

Analysis Method: 8260D

Date Collected: 07/28/2022 12:40

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 13:56

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	3.2	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	ND		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-1

Matrix: Water

Lab File ID: IG04X11.D

Analysis Method: 8260D

Date Collected: 07/28/2022 12:40

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 13:56

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.081	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	97		80-120



Eurofins Lancaster Laboratories Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X11.D  
 Lims ID: 410-92859-A-1  
 Client ID: HD-COD-SW-6-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 13:56:30 ALS Bottle#: 11 Worklist Smp#: 12  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-012  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:42:50 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:42:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	U
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.617	3.592	0.025	100	32241	3.15	
20 Carbon disulfide	76	3.879	3.879	0.000	95	9965	0.0757	M
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.275	4.257	0.018	25	185494	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43	6.147	6.098	0.049	97	15227	0.8012	
39 cis-1,2-Dichloroethene	96	6.135	6.129	0.006	75	4846	0.0742	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.616	6.610	0.006	90	5629	0.0525	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	526448	10.1	
50 1,1,1-Trichloroethane	97		6.842				ND	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	55	108374	10.1	
57 Benzene	78		7.305				ND	7
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.708	7.707	0.001	99	2075670	10.0	
64 Trichloroethene	95	8.201	8.183	0.018	94	5401	0.0807	M
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2101770	9.70	
79 Toluene	92	9.786	9.780	0.006	97	6201	0.0362	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166		10.335				ND	7
103 2-Hexanone	43		10.451				ND	7
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1670261	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	93	766885	9.65	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	929238	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X11.D

Injection Date: 04-Aug-2022 13:56:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-1

Lab Sample ID: 410-92859-1

Worklist Smp#: 12

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

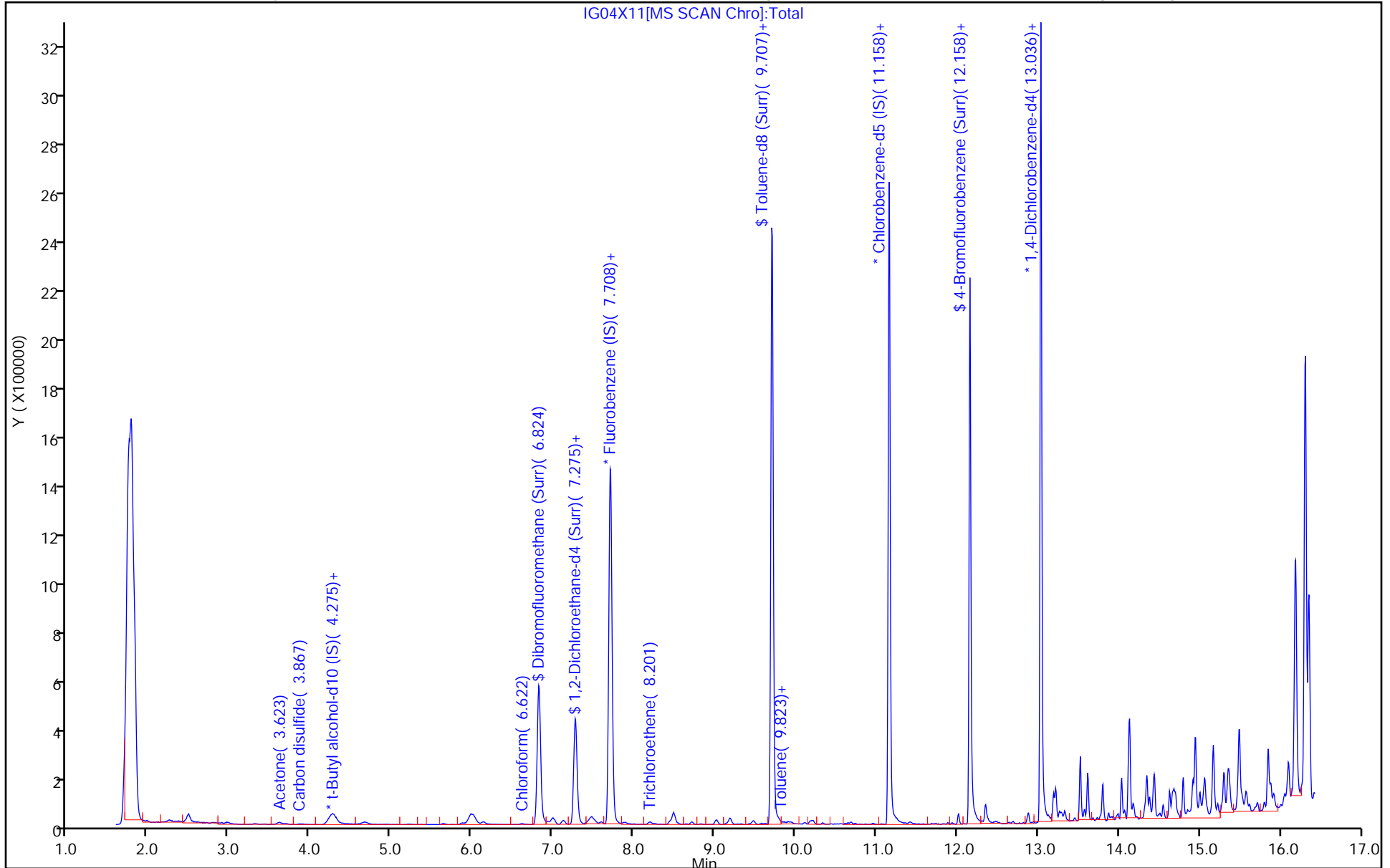
ALS Bottle#: 11

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X11.D  
 Lims ID: 410-92859-A-1  
 Client ID: HD-COD-SW-6-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 13:56:30 ALS Bottle#: 11 Worklist Smp#: 12  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-012  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:42:50 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:42:50

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.1	101.02
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.25
\$ 78 Toluene-d8 (Surr)	10.0	9.70	96.97
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.65	96.49

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X11.D

Injection Date: 04-Aug-2022 13:56:30

Instrument ID: 19930

Lims ID: 410-92859-A-1

Lab Sample ID: 410-92859-1

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

Operator ID: knk41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

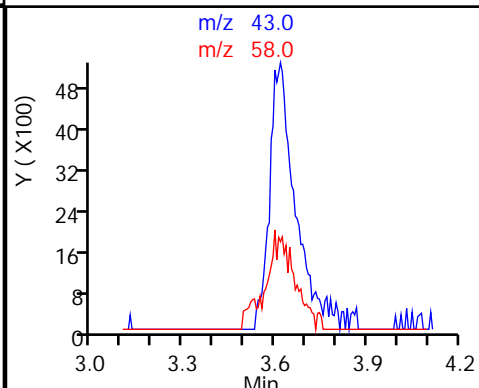
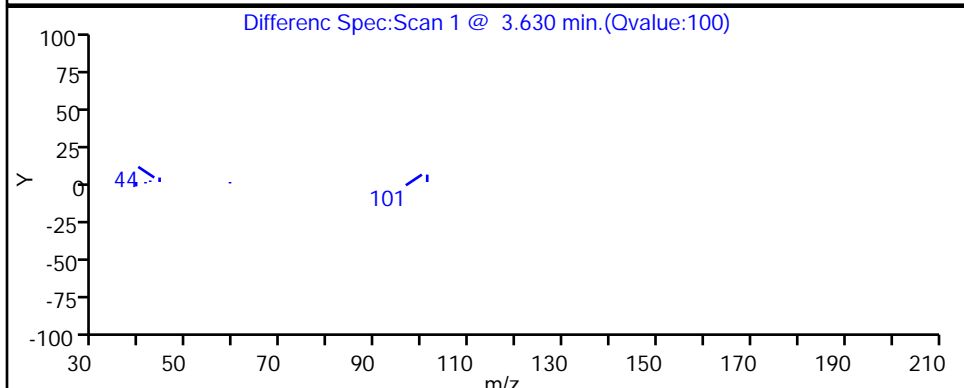
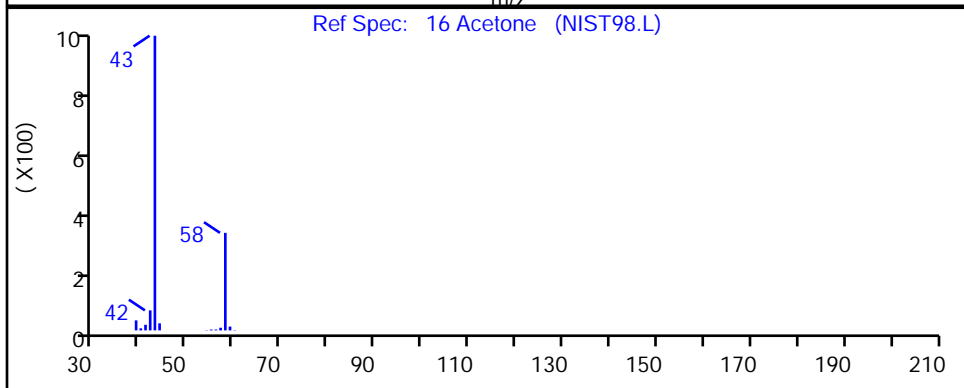
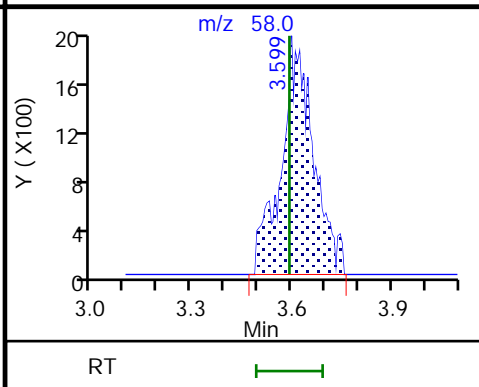
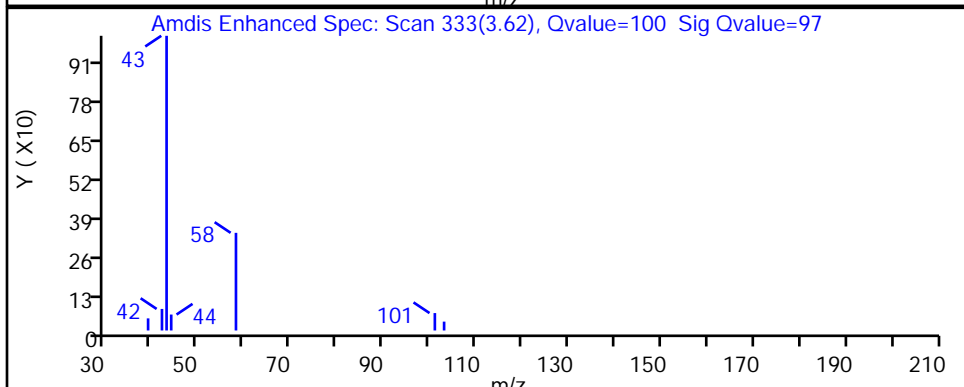
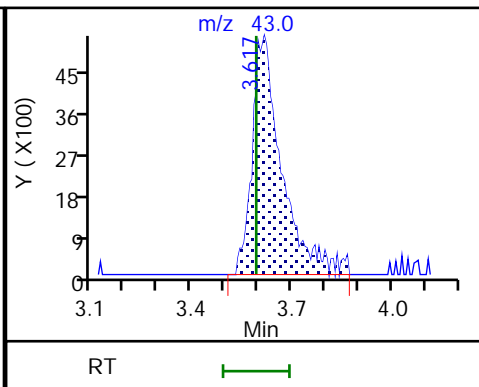
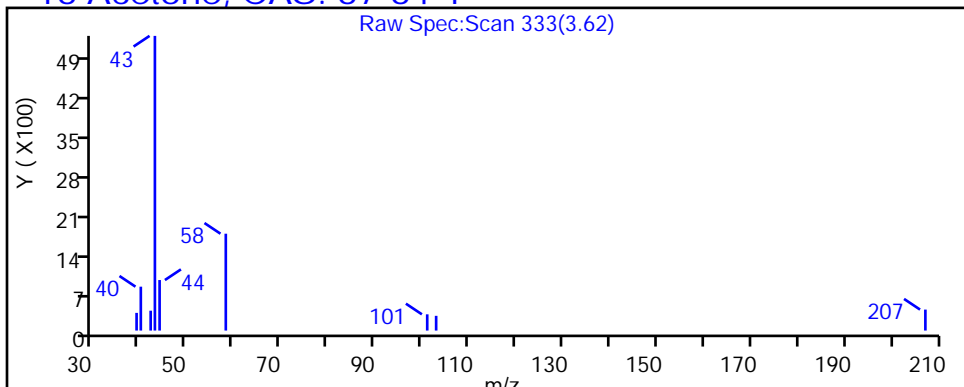
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X11.D

Injection Date: 04-Aug-2022 13:56:30

Instrument ID: 19930

Lims ID: 410-92859-A-1

Lab Sample ID: 410-92859-1

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

Operator ID: knk41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

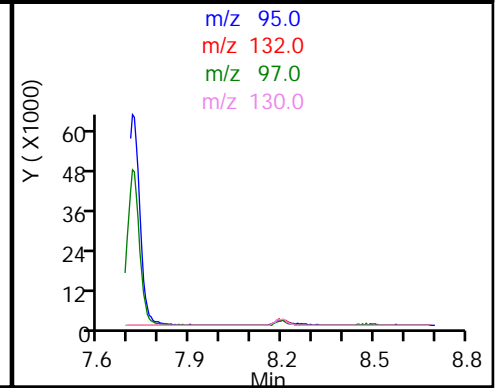
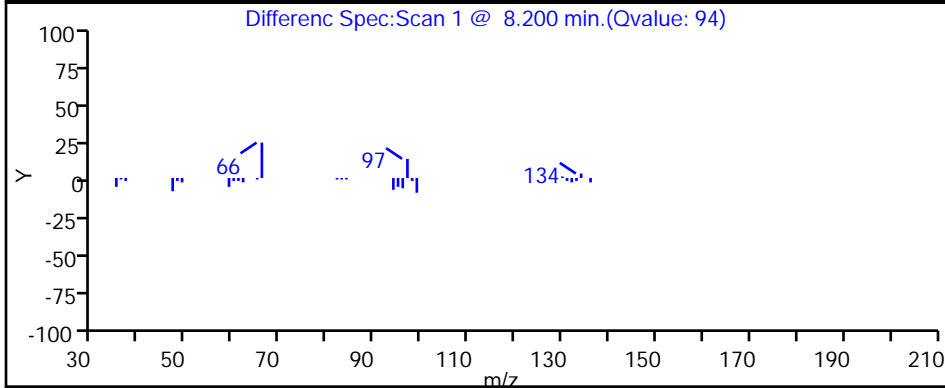
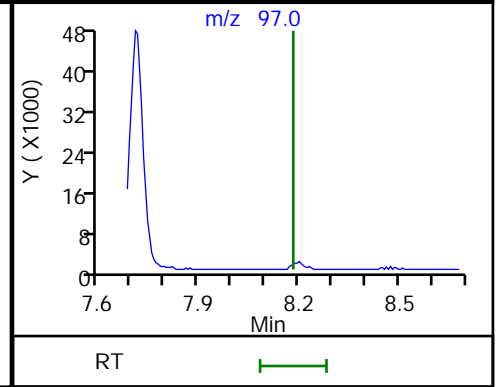
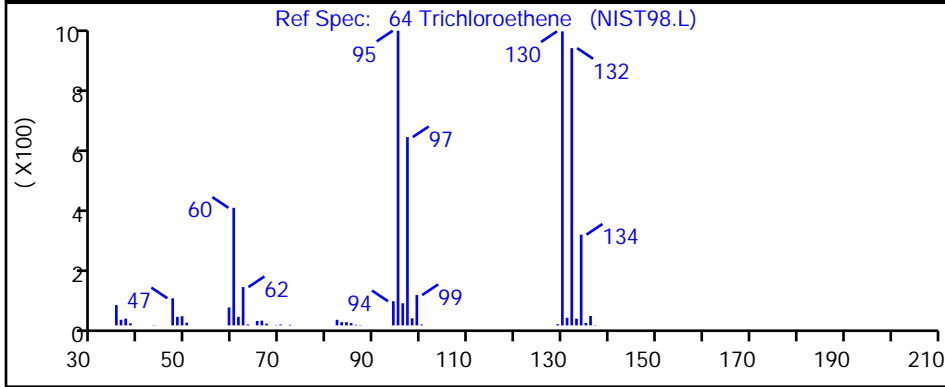
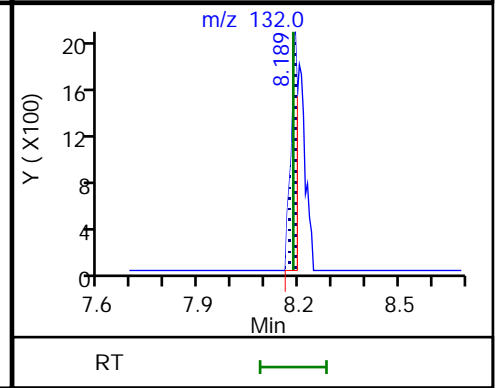
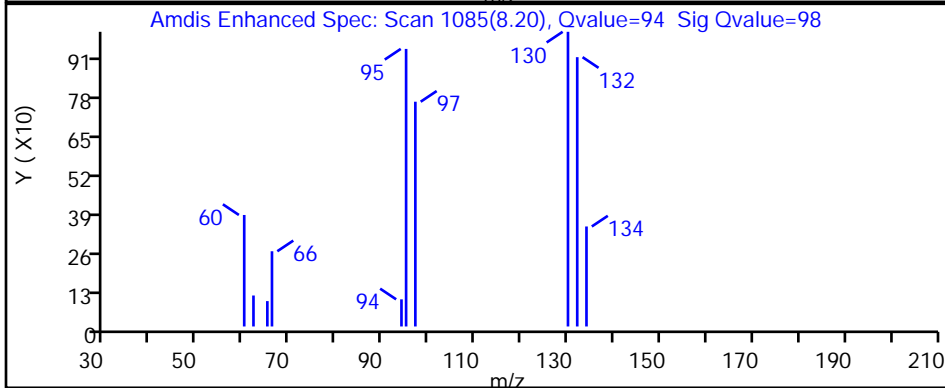
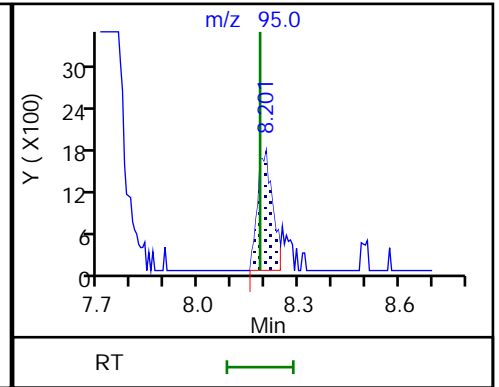
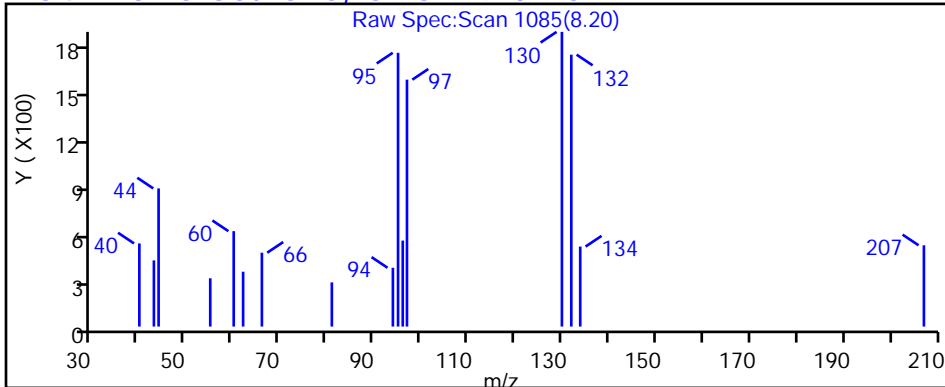
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

### 64 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Environment Testing, LLC

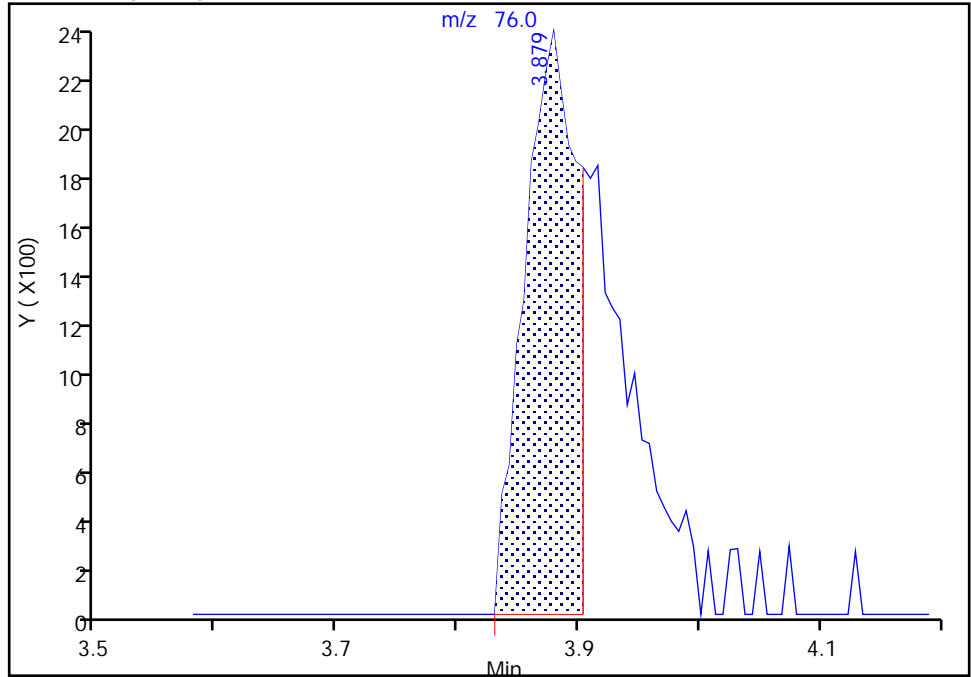
Data File:	\\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X11.D		
Injection Date:	04-Aug-2022 13:56:30	Instrument ID:	19930
Lims ID:	410-92859-A-1	Lab Sample ID:	410-92859-1
Client ID:	HD-COD-SW-6-0/1-0		
Operator ID:	knk41612	ALS Bottle#:	11
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	12

20 Carbon disulfide, CAS: 75-15-0

Signal: 1

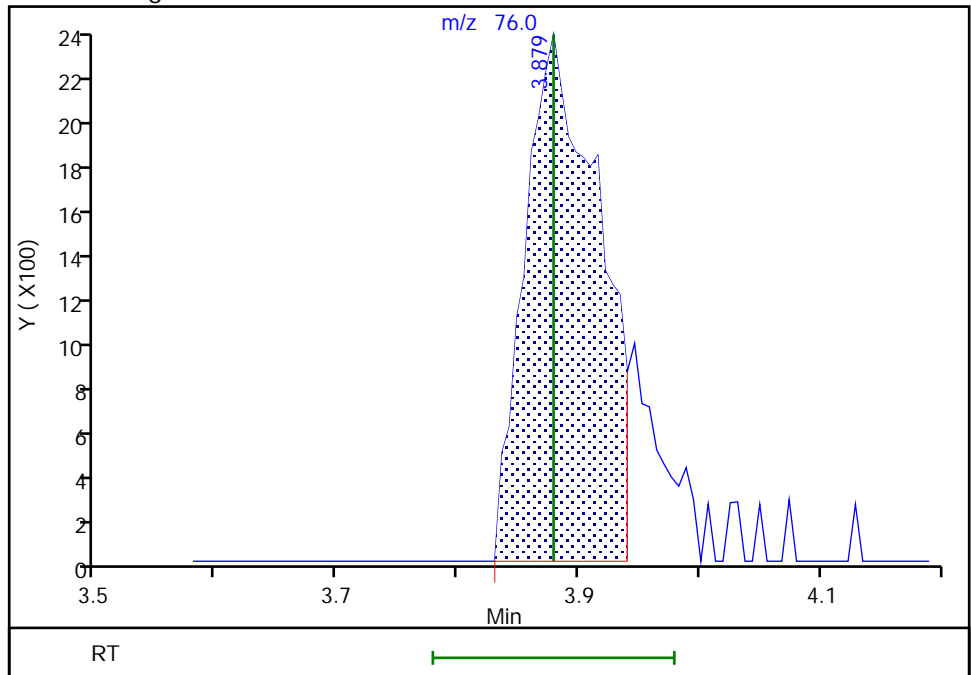
RT: 3.88  
 Area: 7024  
 Amount: 0.053360  
 Amount Units: ug/l

Processing Integration Results



RT: 3.88  
 Area: 9965  
 Amount: 0.075702  
 Amount Units: ug/l

Manual Integration Results

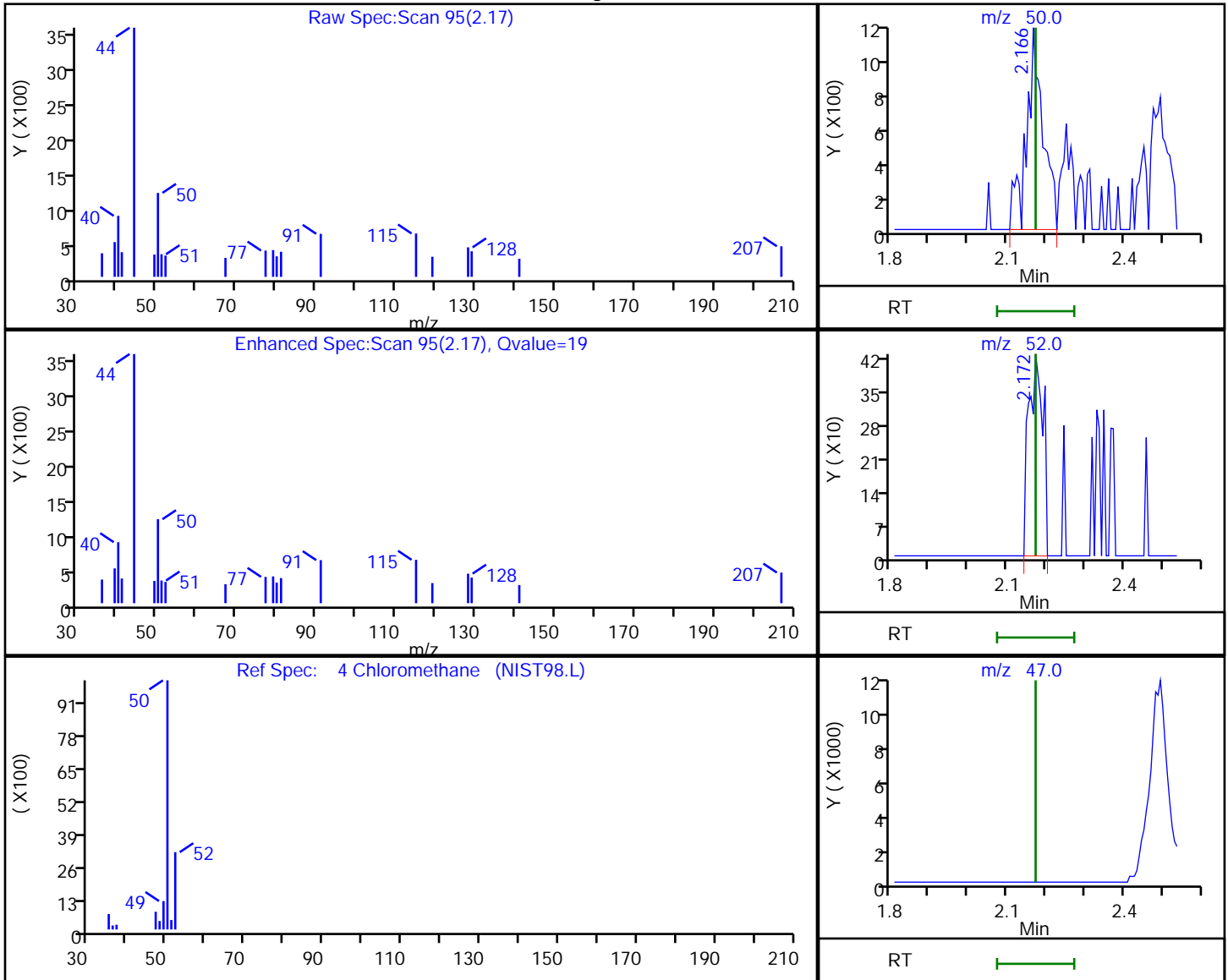


Euofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X11.D  
 Injection Date: 04-Aug-2022 13:56:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-1 Lab Sample ID: 410-92859-1  
 Client ID: HD-COD-SW-6-0/1-0  
 Operator ID: knk41612 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 ID) Detector: MS Quad

4 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.17	50.00	3572	0.049197
2.17	52.00	1105	
2.17	47.00	0	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:41:46

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID



Eurofins Lancaster Laboratories Environment Testing, LLC

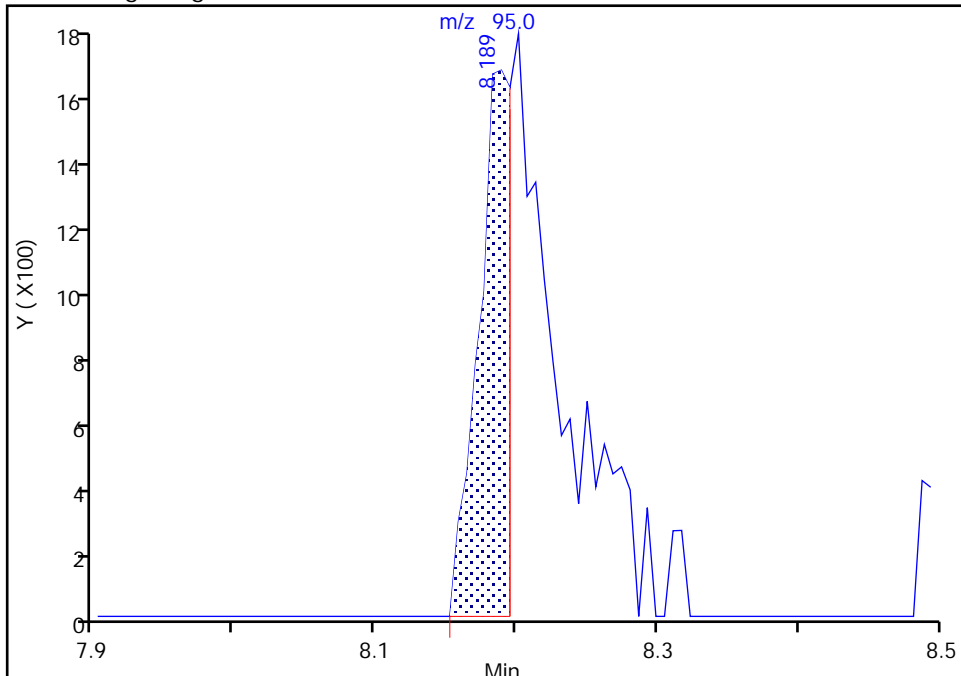
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Injection Date: 04-Aug-2022 13:56:30 Instrument ID: 19930  
Lims ID: 410-92859-A-1 Lab Sample ID: 410-92859-1  
Client ID: HD-COD-SW-6-0/1-0  
Operator ID: knk41612 ALS Bottle#: 11 Worklist Smp#: 12  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

64 Trichloroethene, CAS: 79-01-6

Signal: 1

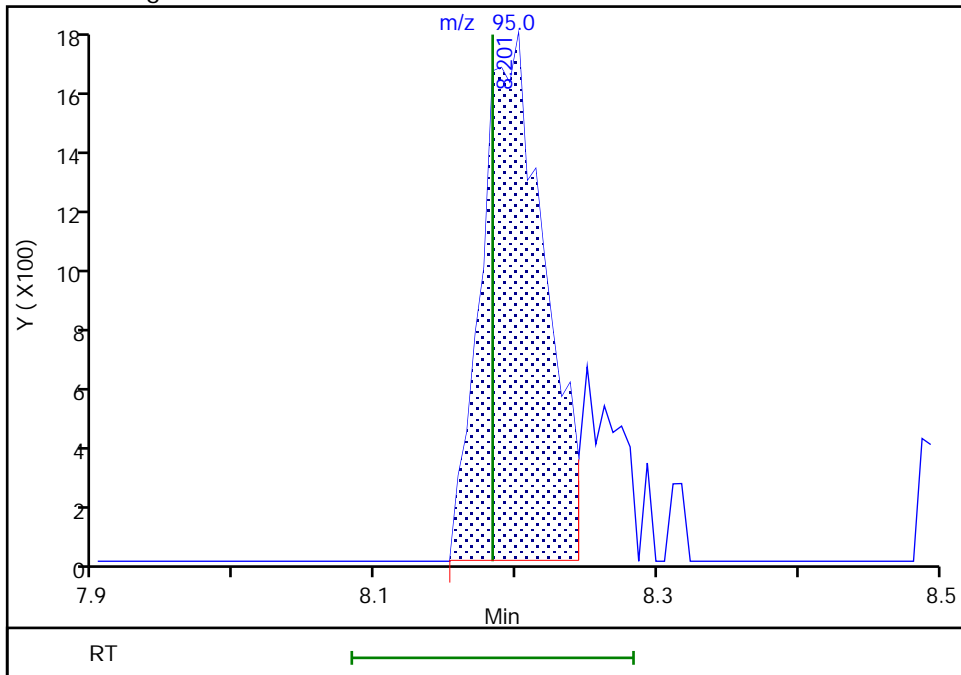
RT: 8.19  
Area: 2662  
Amount: 0.039793  
Amount Units: ug/l

Processing Integration Results



RT: 8.20  
Area: 5401  
Amount: 0.080738  
Amount Units: ug/l

Manual Integration Results



Reviewer: kaewrungrueangp, 05-Aug-2022 10:42:34  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-2

Matrix: Water

Lab File ID: IG04X12.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:20

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 14:17

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	3.1	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	0.15	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	0.13	J	0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	ND		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-2

Matrix: Water

Lab File ID: IG04X12.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:20

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 14:17

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.14	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	98		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X12.D  
 Lims ID: 410-92859-A-2  
 Client ID: HD-COD-SW-7-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 14:17:30 ALS Bottle#: 12 Worklist Smp#: 13  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-013  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:42:50 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:43:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.166	2.172	-0.006	93	3009	0.0415	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.617	3.592	0.025	100	31354	3.07	
20 Carbon disulfide	76	3.879	3.879	0.000	98	11568	0.0879	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	24	184919	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43	6.129	6.098	0.031	87	18584	0.9809	
39 cis-1,2-Dichloroethene	96	6.135	6.129	0.006	76	8670	0.1328	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.610	6.610	0.000	93	16260	0.1516	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	535894	10.3	
50 1,1,1-Trichloroethane	97		6.842				ND	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	55	109079	10.2	
57 Benzene	78		7.305				ND	7
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.714	7.707	0.007	99	2075073	10.0	
64 Trichloroethene	95	8.195	8.183	0.012	95	9605	0.1436	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2114608	9.80	
79 Toluene	92	9.786	9.780	0.006	98	5360	0.0314	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.341	10.335	0.006	94	6550	0.0805	
103 2-Hexanone	43		10.451				ND	7
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1662137	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	762842	9.65	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	922820	10.0	

**QC Flag Legend**

Processing Flags

7 - Failed Limit of Detection

**Reagents:**

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X12.D

Injection Date: 04-Aug-2022 14:17:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-2

Lab Sample ID: 410-92859-2

Worklist Smp#: 13

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

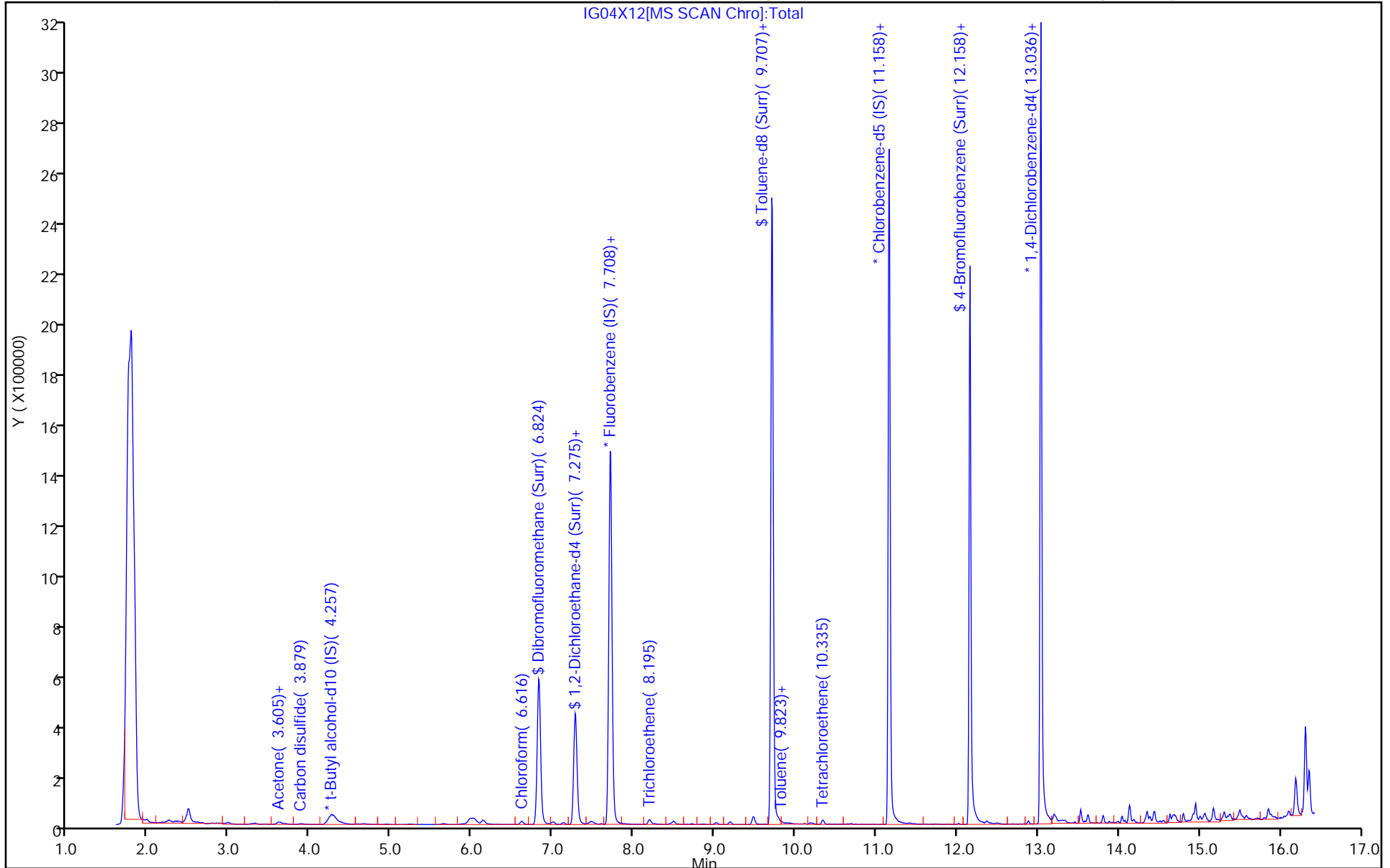
ALS Bottle#: 12

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X12.D  
 Lims ID: 410-92859-A-2  
 Client ID: HD-COD-SW-7-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 14:17:30 ALS Bottle#: 12 Worklist Smp#: 13  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-013  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:42:50 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:43:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.3	102.87
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.94
\$ 78 Toluene-d8 (Surr)	10.0	9.80	98.04
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.65	96.45

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X12.D

Injection Date: 04-Aug-2022 14:17:30

Instrument ID: 19930

Lims ID: 410-92859-A-2

Lab Sample ID: 410-92859-2

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

Operator ID: knk41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

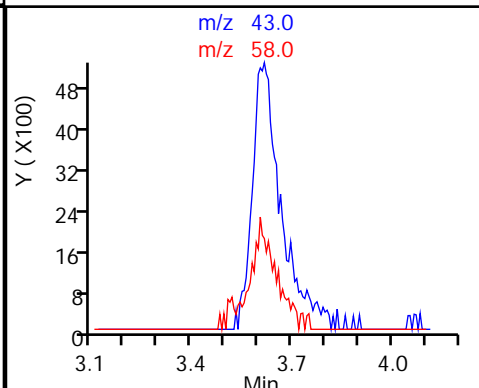
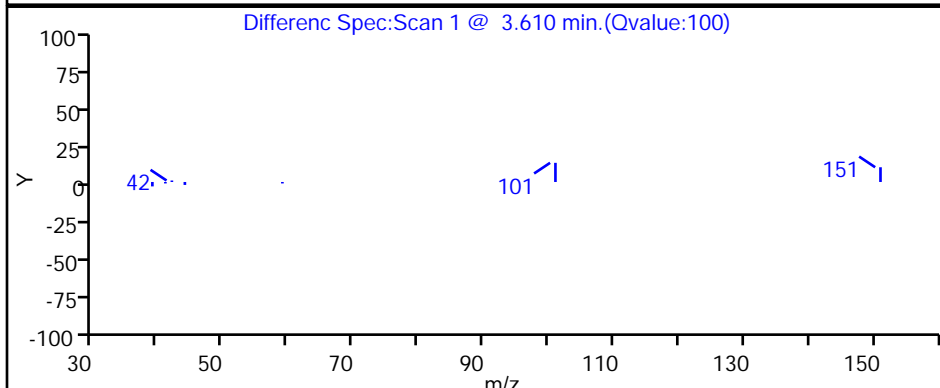
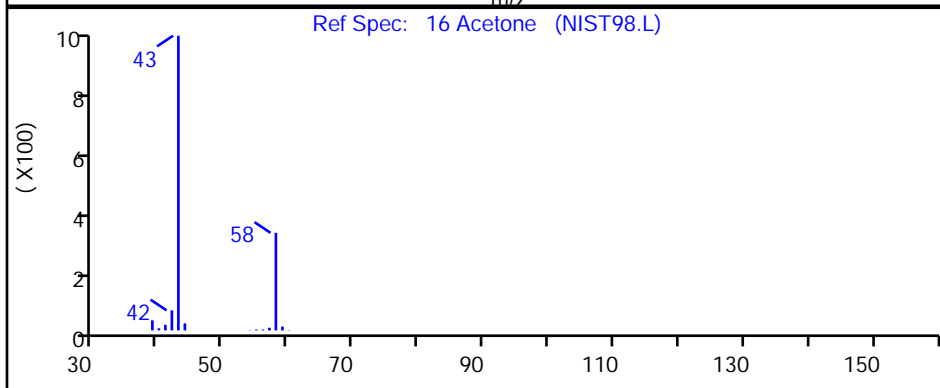
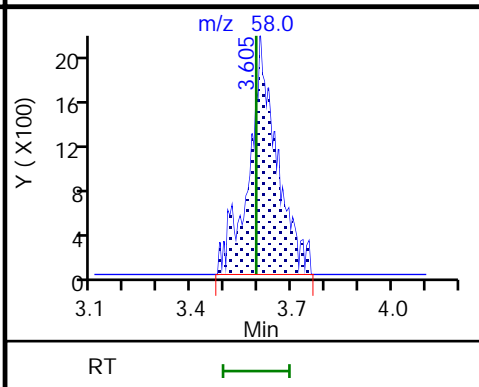
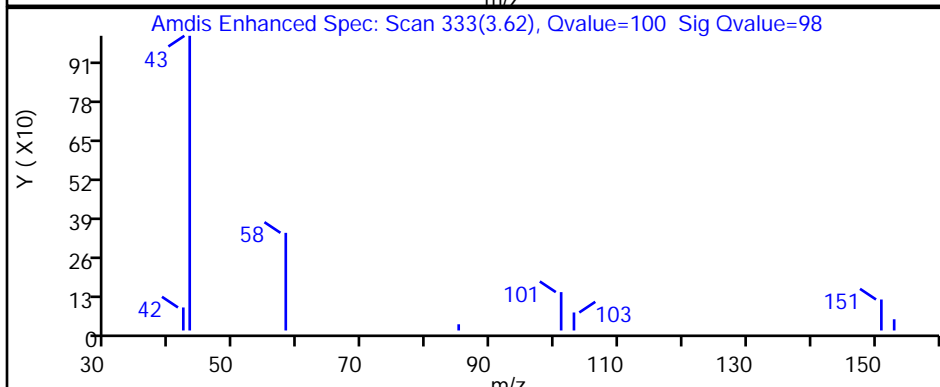
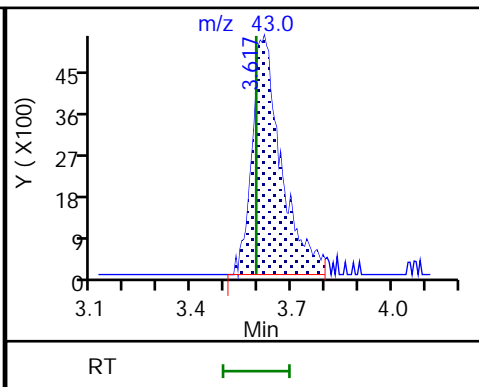
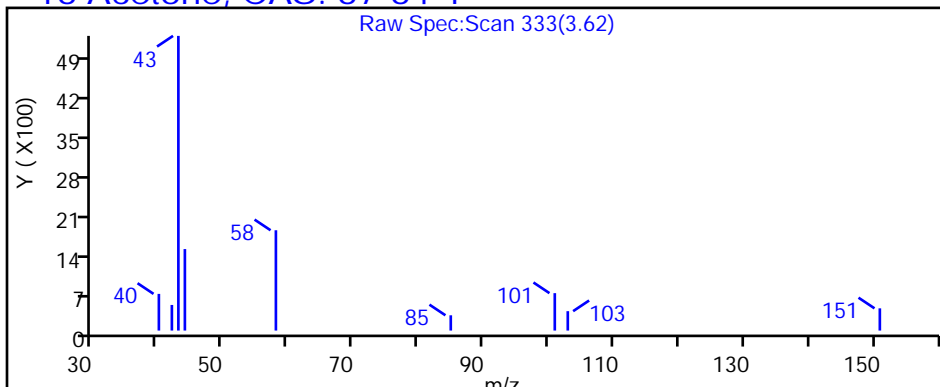
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

### 16 Acetone, CAS: 67-64-1





Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X12.D

Injection Date: 04-Aug-2022 14:17:30

Instrument ID: 19930

Lims ID: 410-92859-A-2

Lab Sample ID: 410-92859-2

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

Operator ID: knk41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

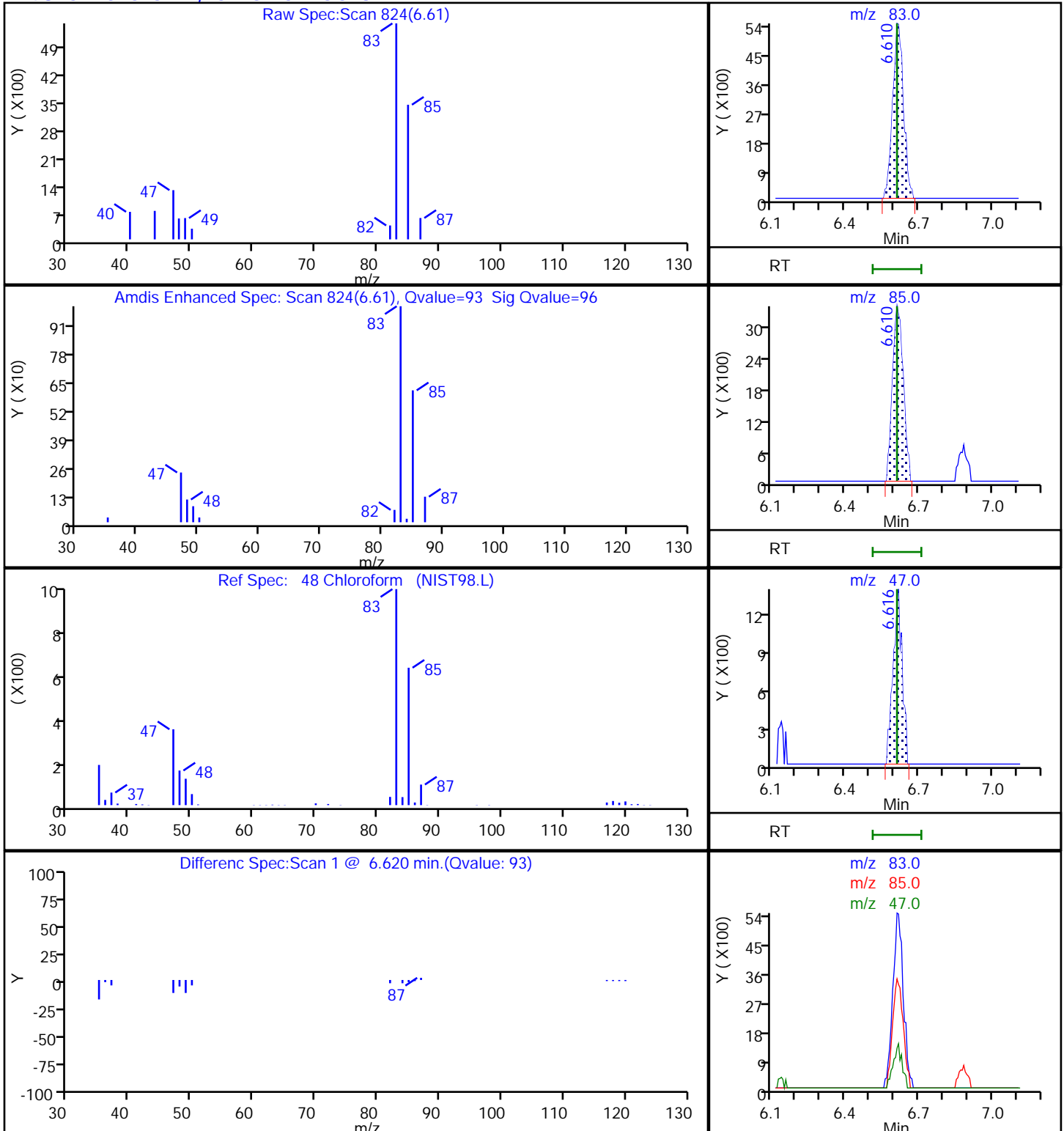
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

48 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X12.D

Injection Date: 04-Aug-2022 14:17:30 Instrument ID: 19930

Lims ID: 410-92859-A-2 Lab Sample ID: 410-92859-2

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

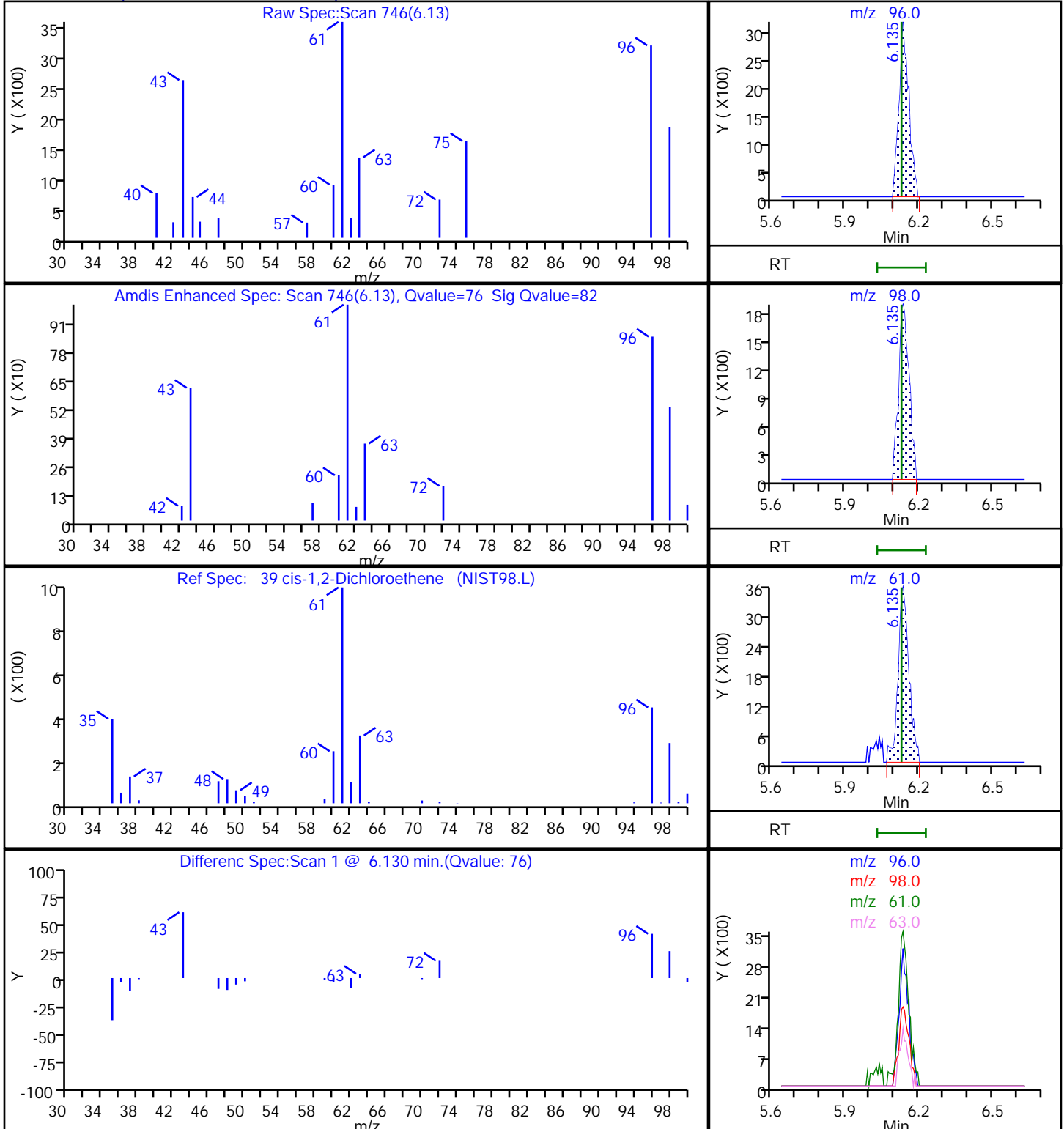
Operator ID: knk41612 ALS Bottle#: 12 Worklist Smp#: 13

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 ID) MS Quad

39 cis-1,2-Dichloroethene, CAS: 156-59-2



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X12.D

Injection Date: 04-Aug-2022 14:17:30

Instrument ID: 19930

Lims ID: 410-92859-A-2

Lab Sample ID: 410-92859-2

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

Operator ID: knk41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

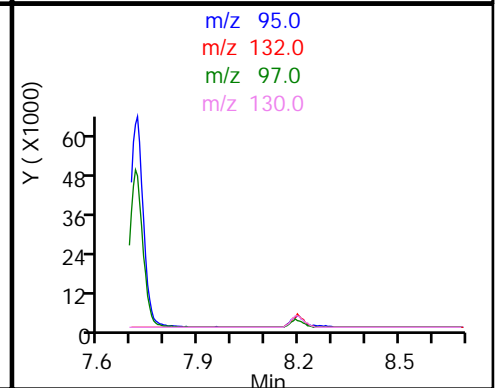
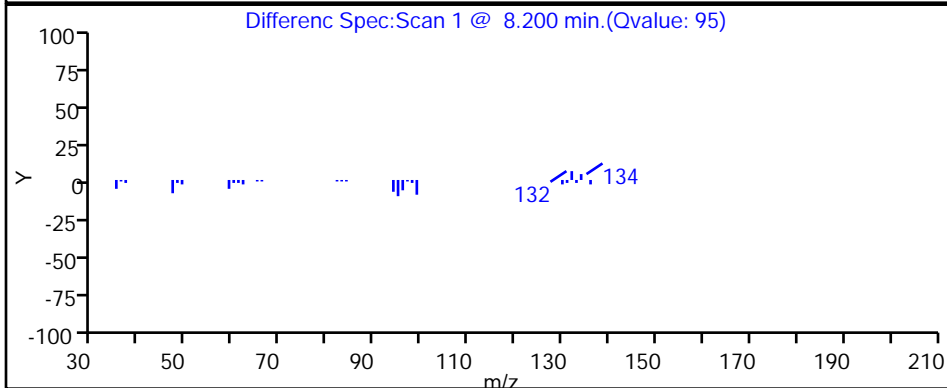
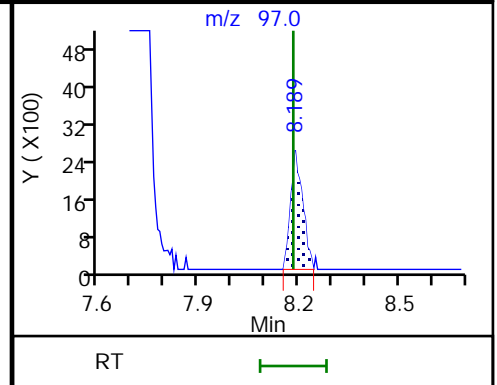
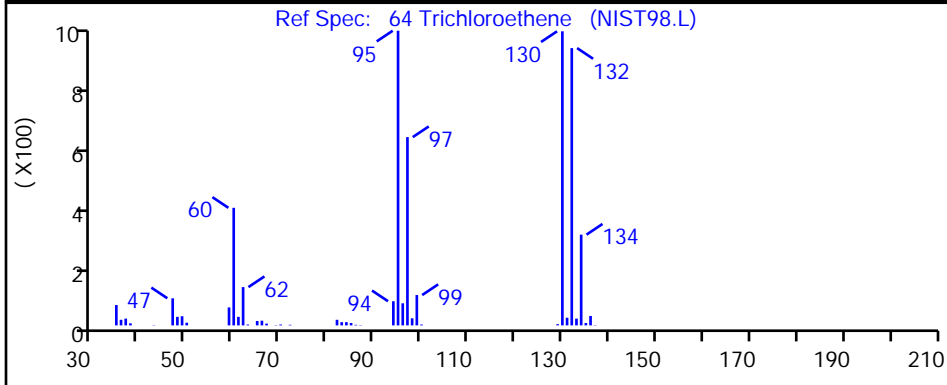
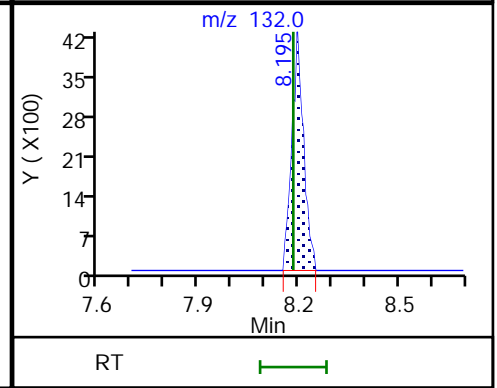
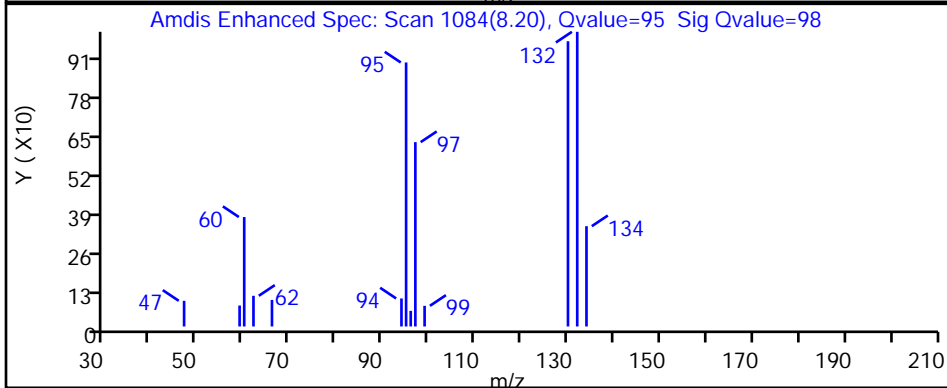
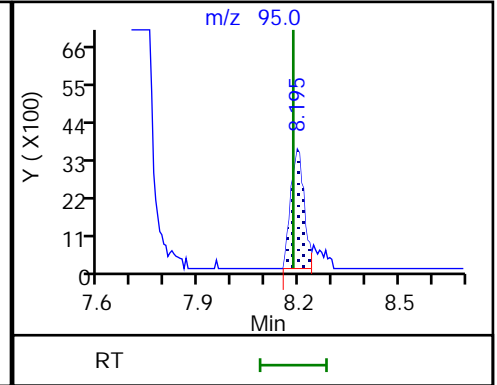
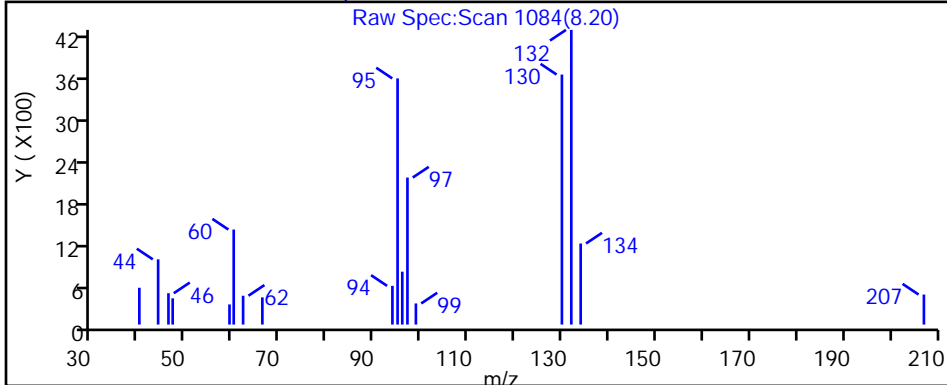
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

64 Trichloroethene, CAS: 79-01-6



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-3

Matrix: Water

Lab File ID: IG04X13.D

Analysis Method: 8260D

Date Collected: 07/28/2022 11:25

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 14:38

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	1.6	J	5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	3.5	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	0.14	J	0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	0.32	J	0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-3

Matrix: Water

Lab File ID: IG04X13.D

Analysis Method: 8260D

Date Collected: 07/28/2022 11:25

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 14:38

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.13	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D  
 Lims ID: 410-92859-A-3  
 Client ID: HD-COD-SW-8-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 14:38:30 ALS Bottle#: 13 Worklist Smp#: 14  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-014  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:44:28 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:44:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.166	2.172	-0.006	96	3907	0.0535	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.605	3.592	0.013	99	33587	3.52	
20 Carbon disulfide	76	3.867	3.879	-0.012	94	8238	0.0622	M
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	24	172851	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43	6.129	6.098	0.031	99	28076	1.59	
39 cis-1,2-Dichloroethene	96	6.123	6.129	-0.006	78	9028	0.1374	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.610	6.610	0.000	91	7991	0.0740	
\$ 49 Dibromofluoromethane (Surr)	113	6.818	6.824	-0.006	94	539849	10.3	
50 1,1,1-Trichloroethane	97		6.842				ND	7
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.275	-0.006	65	108541	10.1	
57 Benzene	78		7.305				ND	7
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.708	7.707	0.001	99	2087763	10.0	
64 Trichloroethene	95	8.189	8.183	0.006	94	8614	0.1280	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2125267	9.65	
79 Toluene	92	9.780	9.780	0.000	98	5679	0.0326	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.335	10.335	0.000	97	26851	0.3231	
103 2-Hexanone	43		10.451				ND	7
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1697509	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	769079	9.52	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	917422	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D

Injection Date: 04-Aug-2022 14:38:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-3

Lab Sample ID: 410-92859-3

Worklist Smp#: 14

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

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





Eurofins Lancaster Laboratories Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D  
 Lims ID: 410-92859-A-3  
 Client ID: HD-COD-SW-8-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 14:38:30 ALS Bottle#: 13 Worklist Smp#: 14  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-014  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:44:28 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:44:28

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.3	103.00
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.82
\$ 78 Toluene-d8 (Surr)	10.0	9.65	96.48
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.52	95.21

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D

Injection Date: 04-Aug-2022 14:38:30

Instrument ID: 19930

Lims ID: 410-92859-A-3

Lab Sample ID: 410-92859-3

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

Operator ID: knk41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

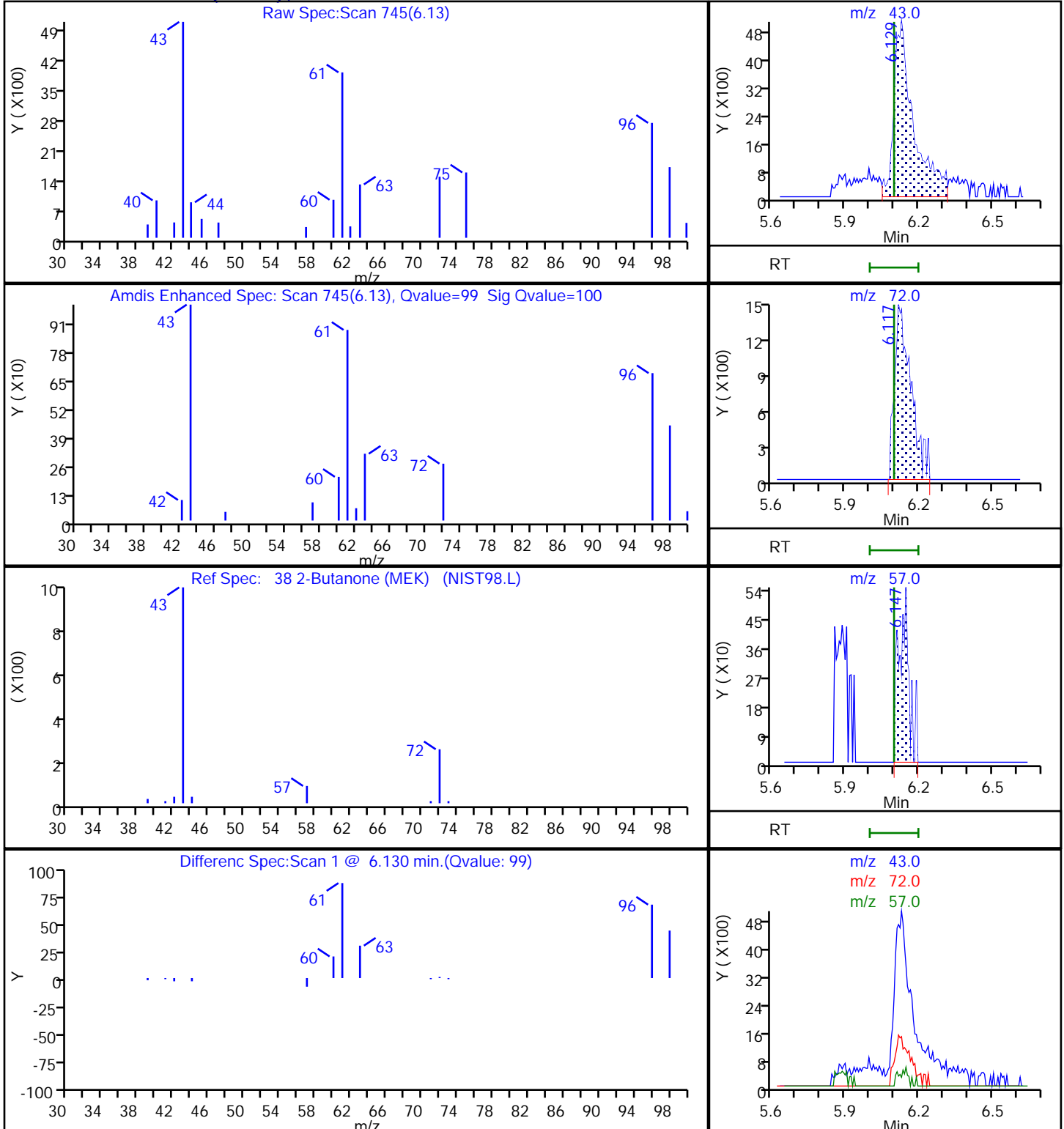
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

### 38 2-Butanone (MEK), CAS: 78-93-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D

Injection Date: 04-Aug-2022 14:38:30

Instrument ID: 19930

Lims ID: 410-92859-A-3

Lab Sample ID: 410-92859-3

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

Operator ID: knk41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

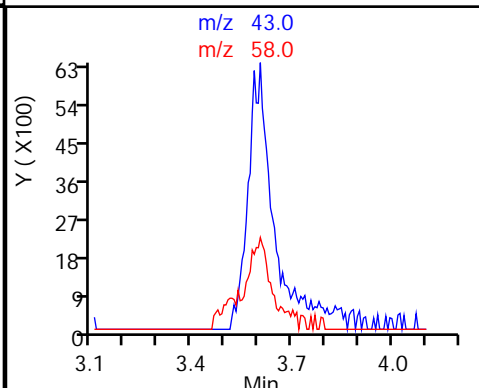
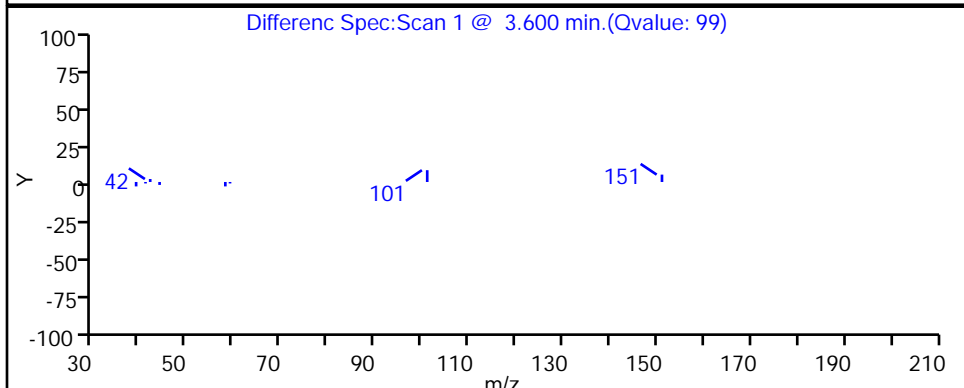
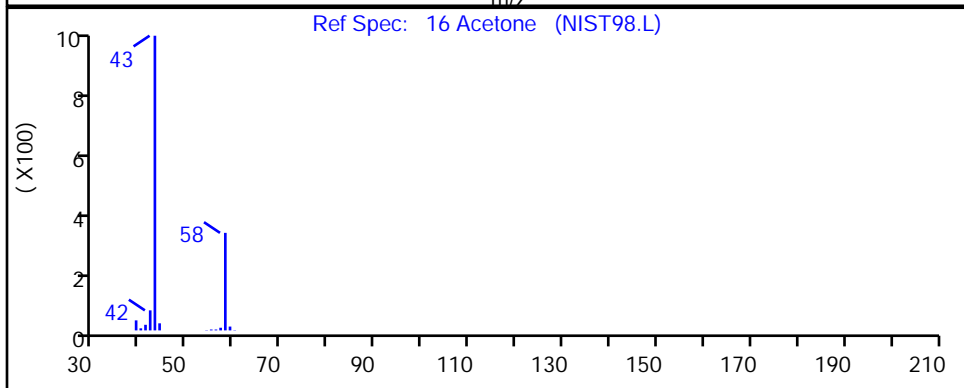
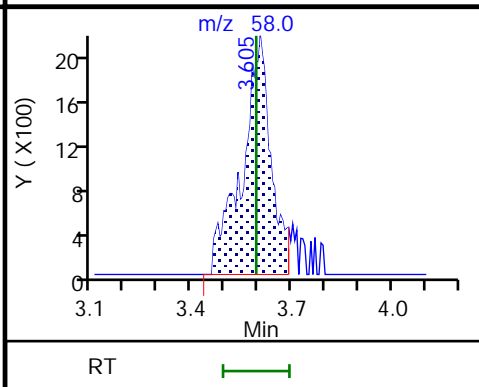
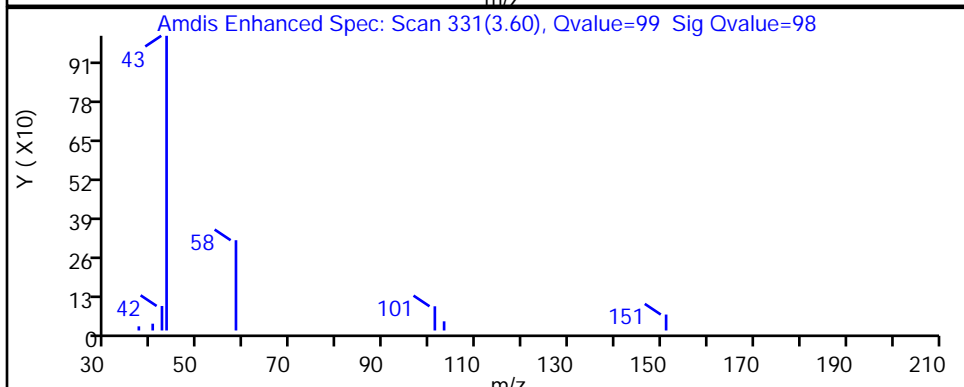
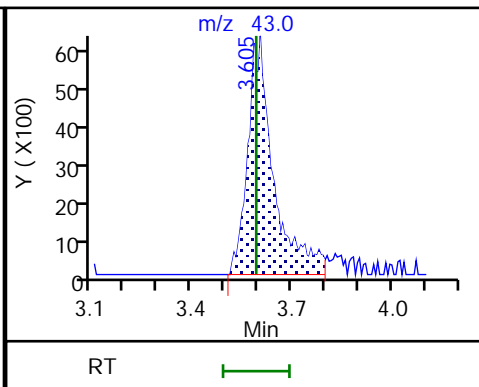
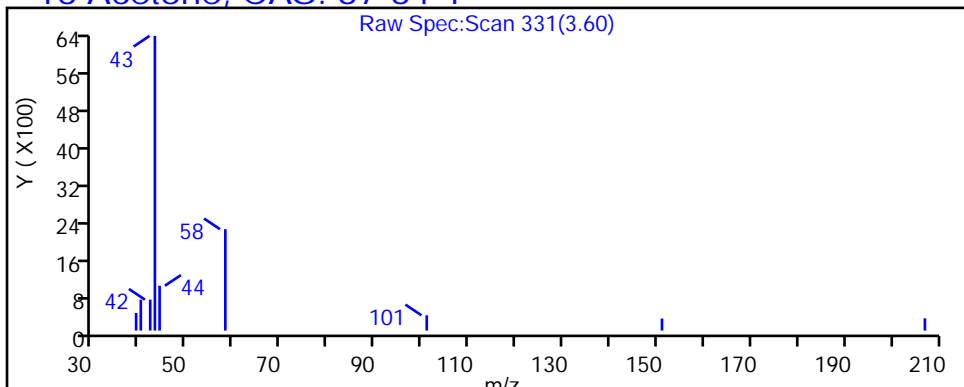
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

### 16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D

Injection Date: 04-Aug-2022 14:38:30

Instrument ID: 19930

Lims ID: 410-92859-A-3

Lab Sample ID: 410-92859-3

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

Operator ID: knk41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

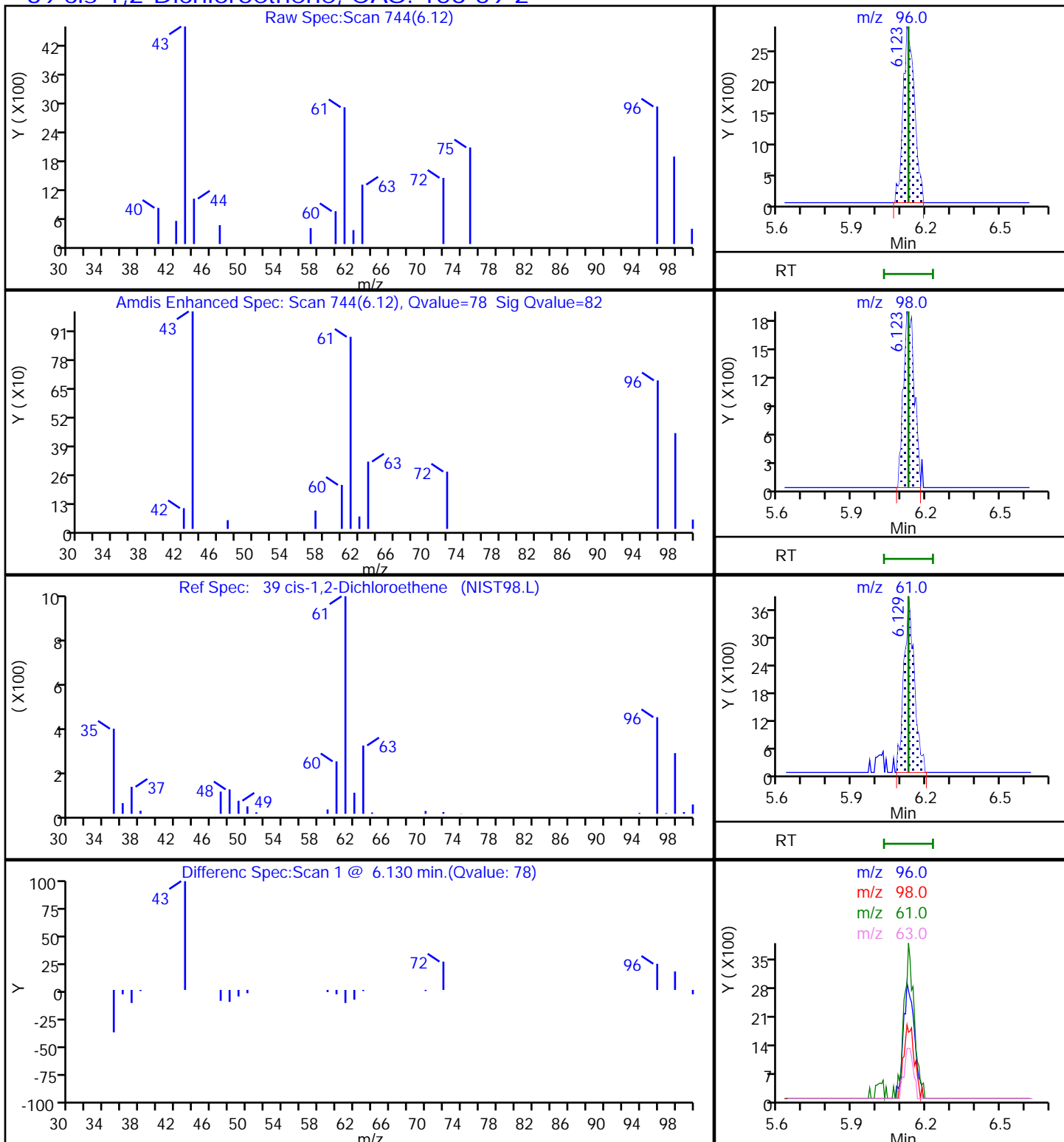
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

**39 cis-1,2-Dichloroethene, CAS: 156-59-2**



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D

Injection Date: 04-Aug-2022 14:38:30 Instrument ID: 19930

Lims ID: 410-92859-A-3 Lab Sample ID: 410-92859-3

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

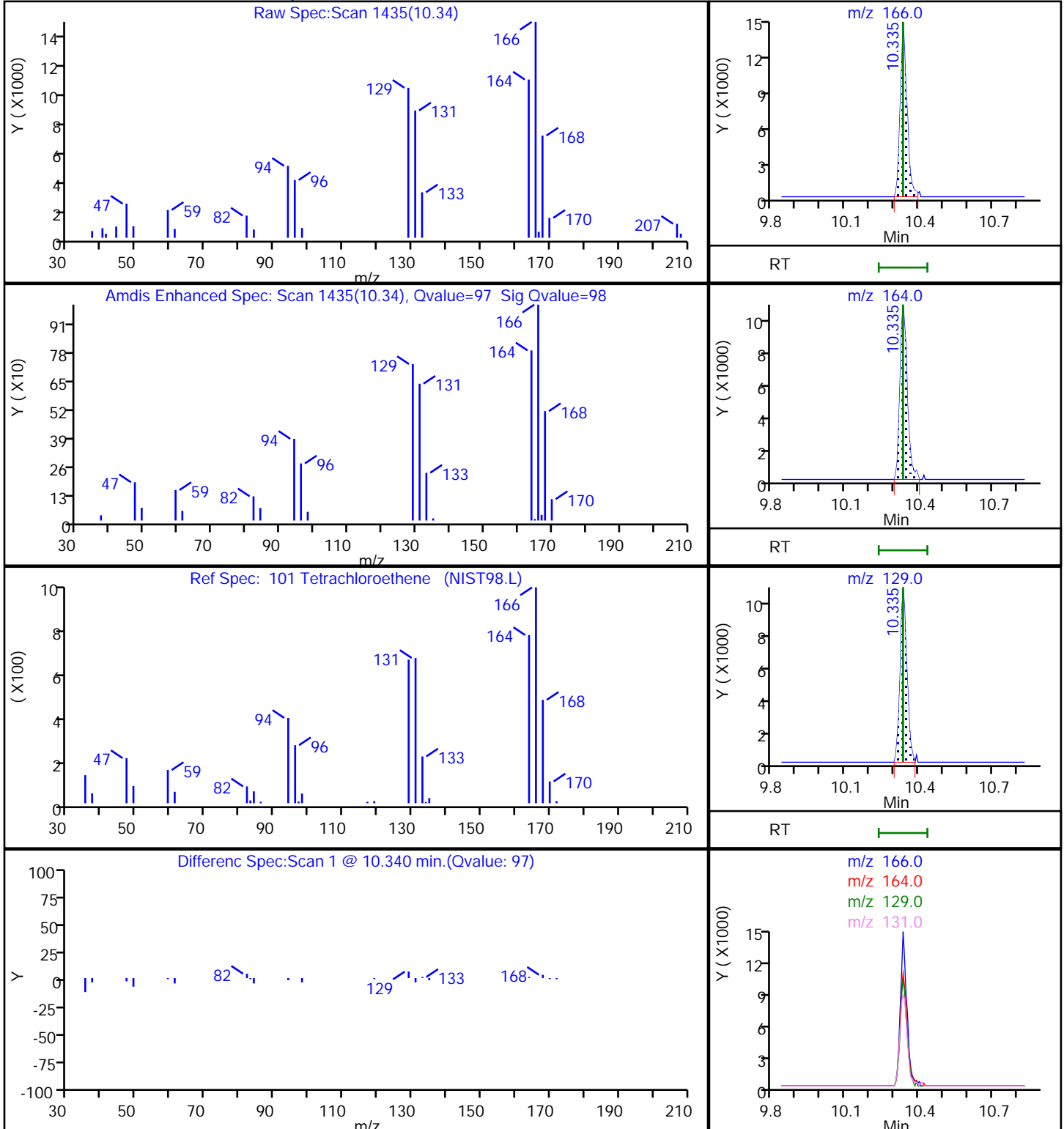
Operator ID: knk41612 ALS Bottle#: 13 Worklist Smp#: 14

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 ID) Detector: MS Quad

101 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D

Injection Date: 04-Aug-2022 14:38:30

Instrument ID: 19930

Lims ID: 410-92859-A-3

Lab Sample ID: 410-92859-3

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

Operator ID: knk41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

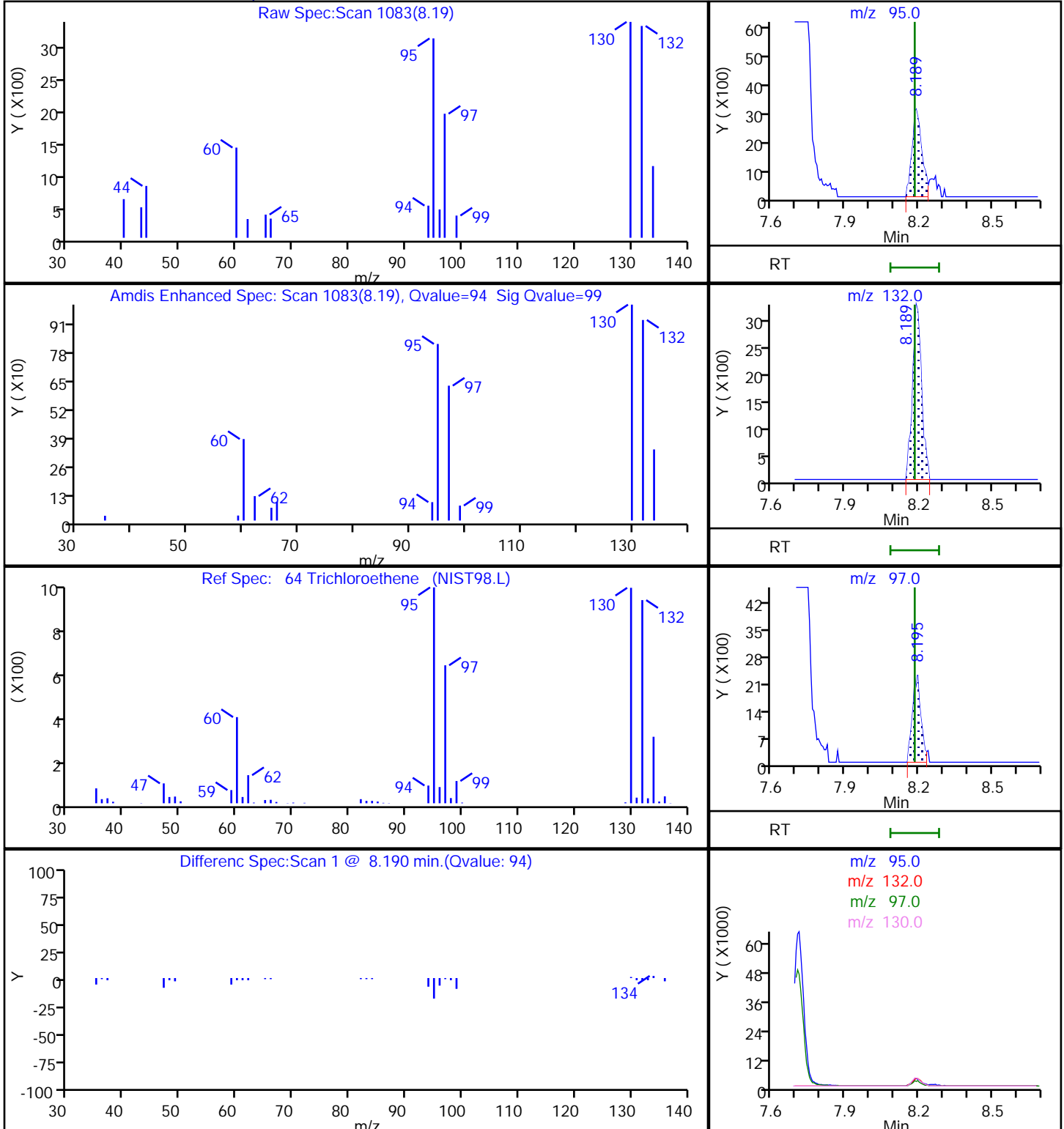
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

64 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Environment Testing, LLC

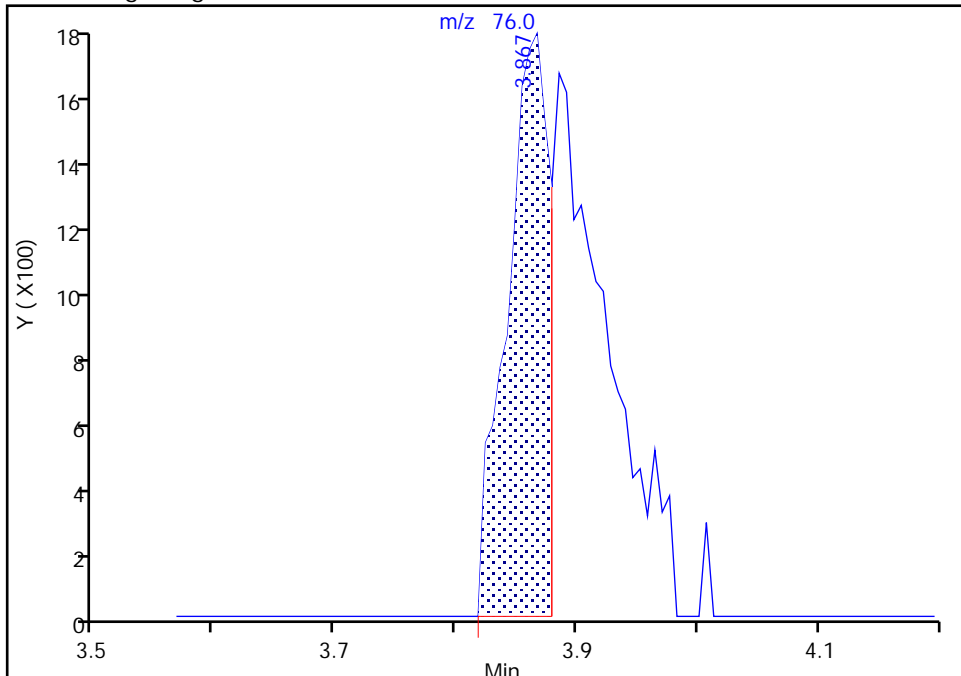
Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X13.D  
Injection Date: 04-Aug-2022 14:38:30 Instrument ID: 19930  
Lims ID: 410-92859-A-3 Lab Sample ID: 410-92859-3  
Client ID: HD-COD-SW-8-0/1-0  
Operator ID: knk41612 ALS Bottle#: 13 Worklist Smp#: 14  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Carbon disulfide, CAS: 75-15-0

Signal: 1

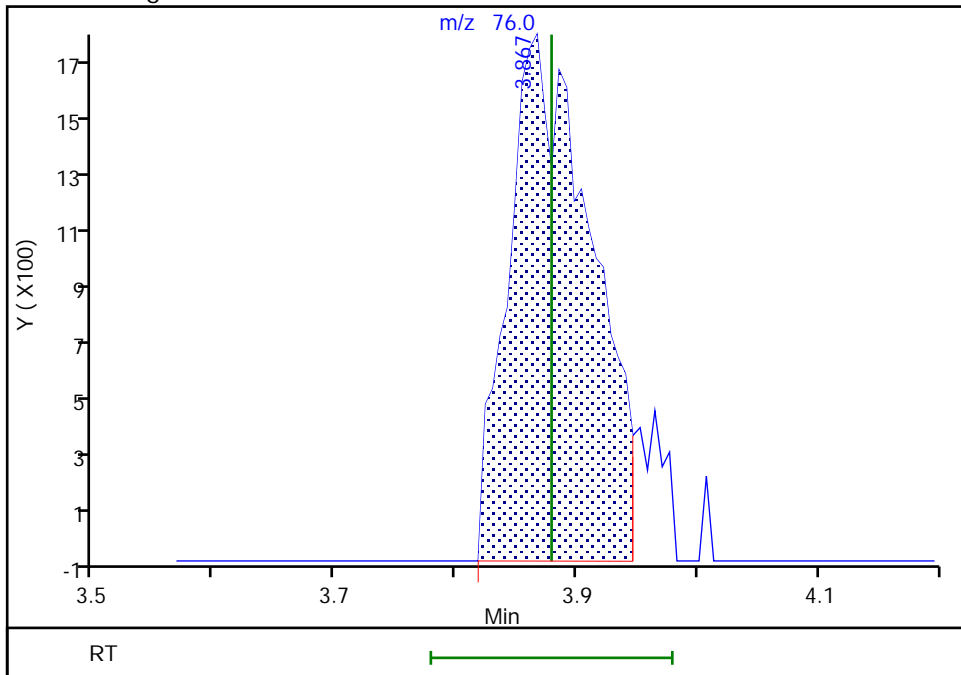
RT: 3.87  
Area: 4210  
Amount: 0.031797  
Amount Units: ug/l

Processing Integration Results



RT: 3.87  
Area: 8238  
Amount: 0.062220  
Amount Units: ug/l

Manual Integration Results



Reviewer: kaewrungrueangp, 05-Aug-2022 10:44:05  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-4

Matrix: Water

Lab File ID: IG04X14.D

Analysis Method: 8260D

Date Collected: 07/28/2022 15:00

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 14:59

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	2.9	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	0.096	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	0.11	J	0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	ND		0.50	0.20
108-88-3	Toluene	0.091	J	0.50	0.080



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-4

Matrix: Water

Lab File ID: IG04X14.D

Analysis Method: 8260D

Date Collected: 07/28/2022 15:00

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 14:59

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.11	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D  
 Lims ID: 410-92859-A-4  
 Client ID: HD-COD-SW-9-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 14:59:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-015  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:45:18 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:45:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.605	3.592	0.013	98	26038	2.88	
20 Carbon disulfide	76	3.873	3.879	-0.006	94	6610	0.0500	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	24	163918	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43		6.098				ND	U
39 cis-1,2-Dichloroethene	96	6.141	6.129	0.012	74	6904	0.1052	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.616	6.610	0.006	92	10405	0.0965	
\$ 49 Dibromofluoromethane (Surr)	113	6.823	6.824	-0.001	94	540523	10.3	
50 1,1,1-Trichloroethane	97		6.842				ND	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	55	111395	10.4	
57 Benzene	78		7.305				ND	7
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.707	7.707	0.000	99	2085885	10.0	
64 Trichloroethene	95	8.189	8.183	0.006	94	7721	0.1149	M
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2140753	9.64	
79 Toluene	92	9.786	9.780	0.006	97	16003	0.0912	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.335	10.335	0.000	95	13106	0.1565	
103 2-Hexanone	43		10.451				ND	
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1710764	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106				0		0.0883	
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	7
113 m-Xylene & p-Xylene	106	11.402	11.384	0.018	97	7536	0.0593	
114 o-Xylene	106	11.731	11.713	0.018	94	3511	0.0290	
115 Styrene	104		11.725				ND	7
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	777973	9.56	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	921668	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D

Injection Date: 04-Aug-2022 14:59:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-4

Lab Sample ID: 410-92859-4

Worklist Smp#: 15

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

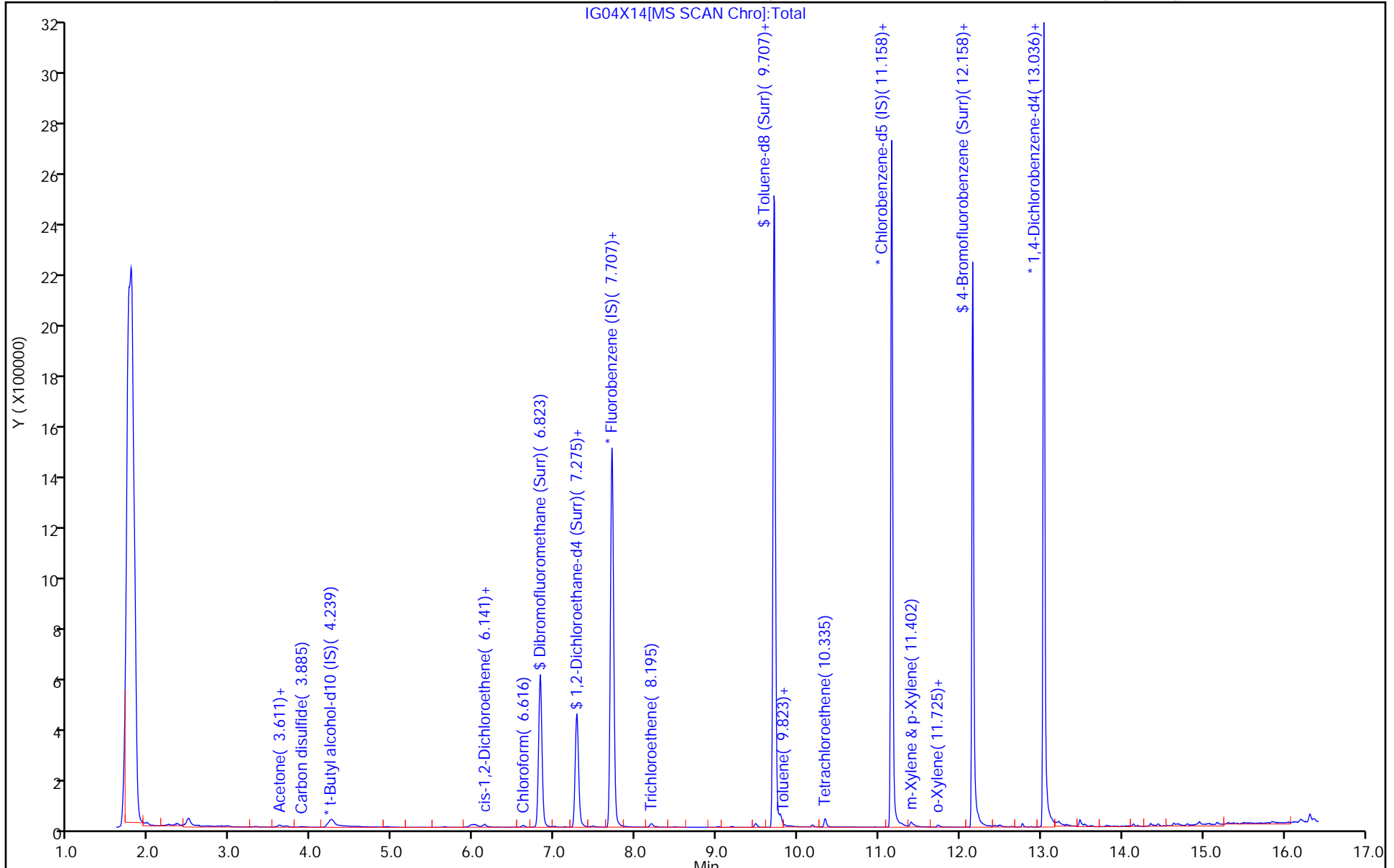
ALS Bottle#: 14

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D  
 Lims ID: 410-92859-A-4  
 Client ID: HD-COD-SW-9-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 14:59:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-015  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:45:18 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:45:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.3	103.22
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.56
\$ 78 Toluene-d8 (Surr)	10.0	9.64	96.43
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.56	95.57

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D

Injection Date: 04-Aug-2022 14:59:30

Instrument ID: 19930

Lims ID: 410-92859-A-4

Lab Sample ID: 410-92859-4

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

Operator ID: knk41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

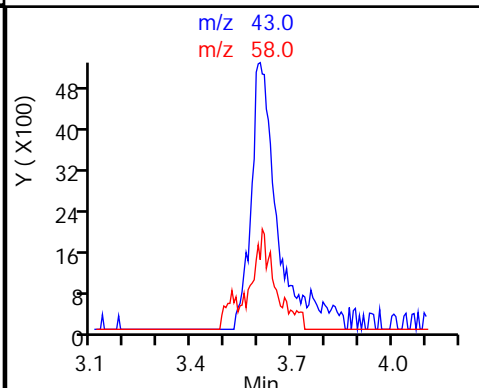
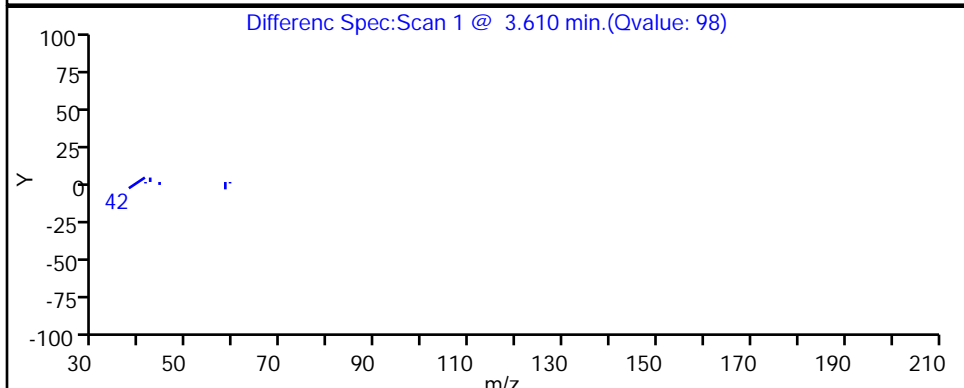
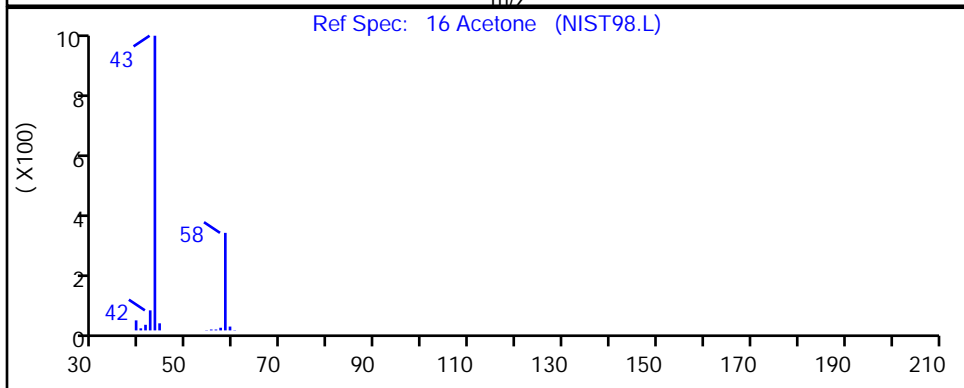
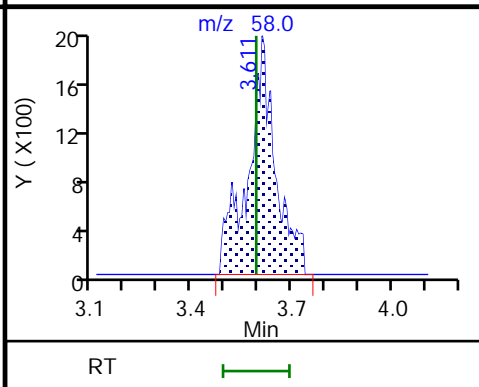
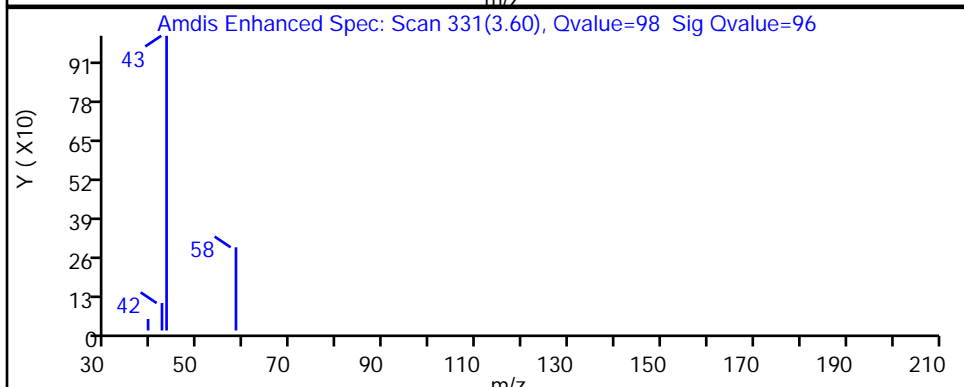
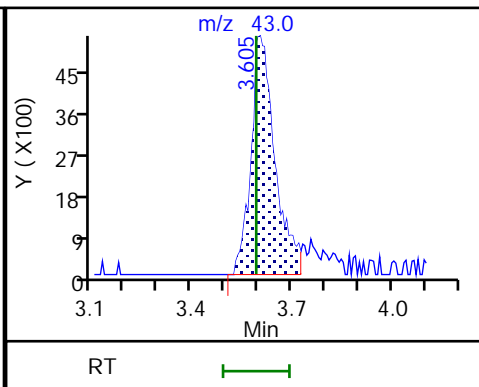
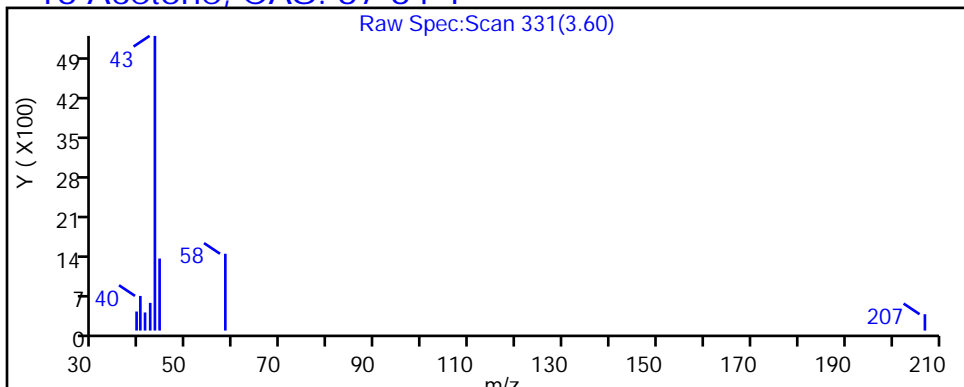
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

### 16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D

Injection Date: 04-Aug-2022 14:59:30 Instrument ID: 19930

Lims ID: 410-92859-A-4 Lab Sample ID: 410-92859-4

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

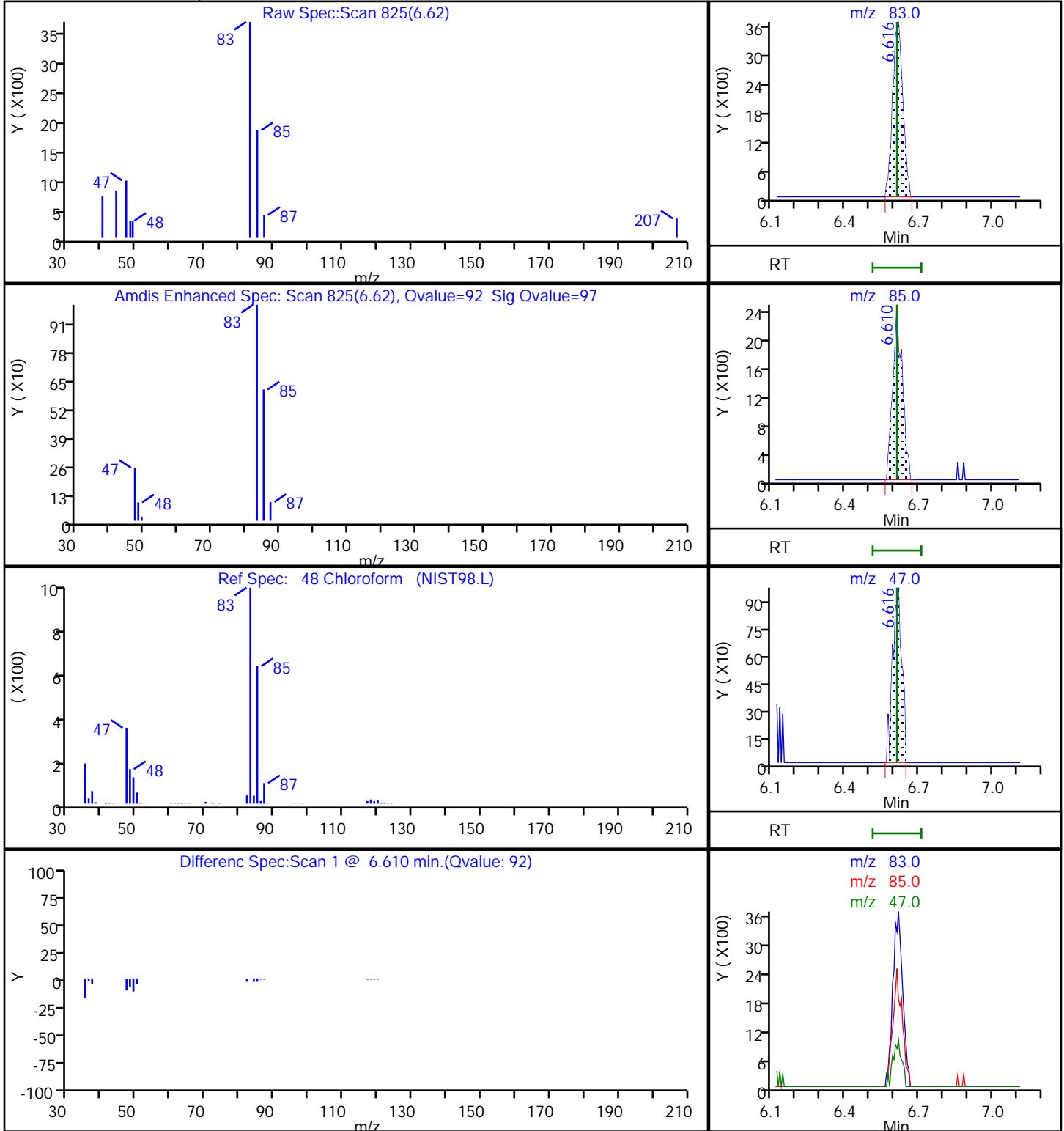
Operator ID: knk41612 ALS Bottle#: 14 Worklist Smp#: 15

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 ID) MS Quad

48 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D

Injection Date: 04-Aug-2022 14:59:30 Instrument ID: 19930

Lims ID: 410-92859-A-4 Lab Sample ID: 410-92859-4

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

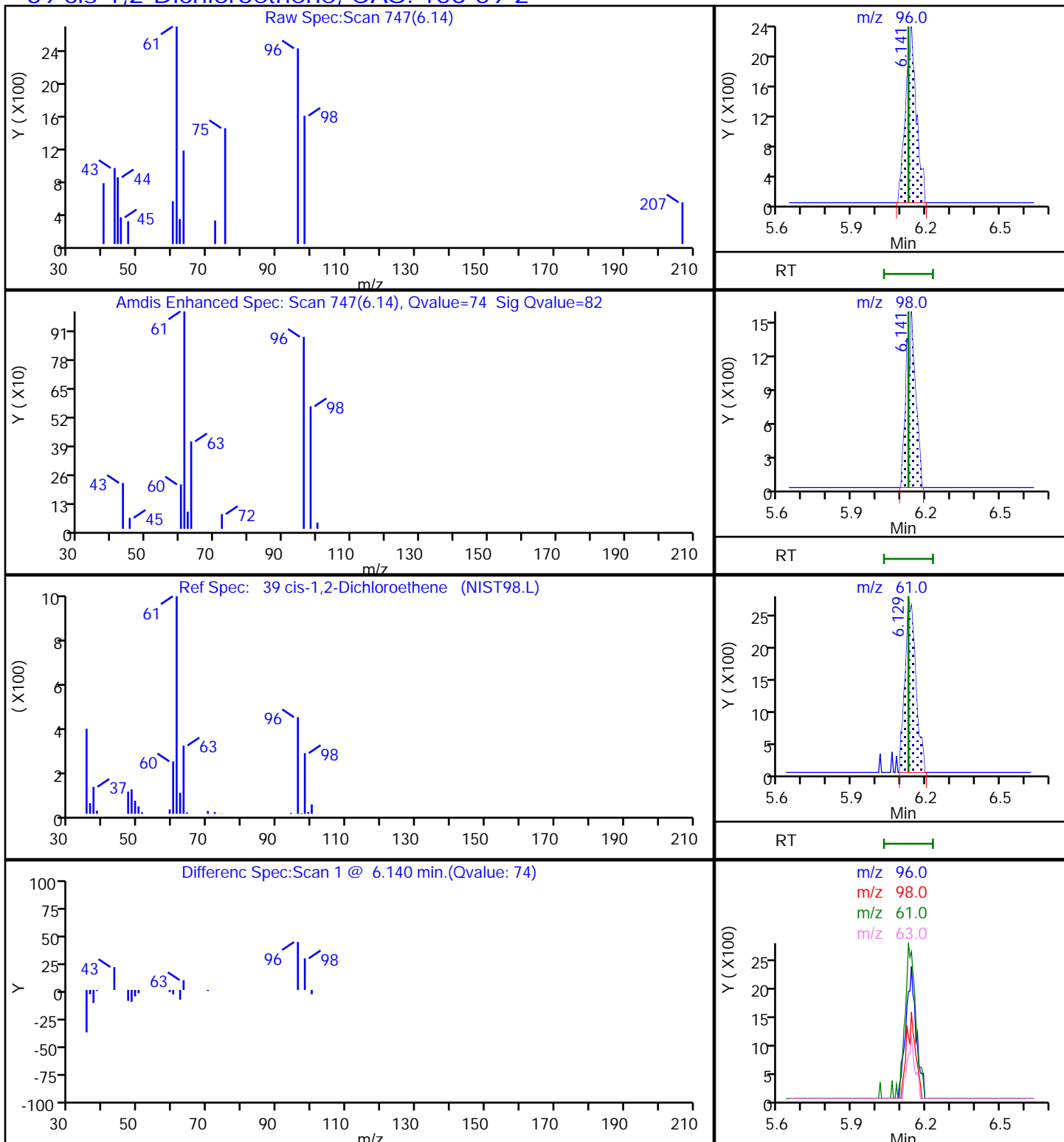
Operator ID: knk41612 ALS Bottle#: 14 Worklist Smp#: 15

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 ID) MS Quad

**39 cis-1,2-Dichloroethene, CAS: 156-59-2**





Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D

Injection Date: 04-Aug-2022 14:59:30

Instrument ID: 19930

Lims ID: 410-92859-A-4

Lab Sample ID: 410-92859-4

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

Operator ID: knk41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

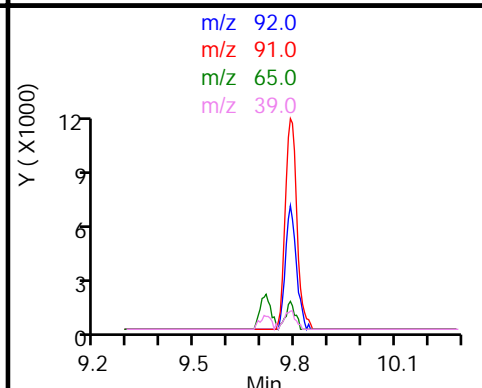
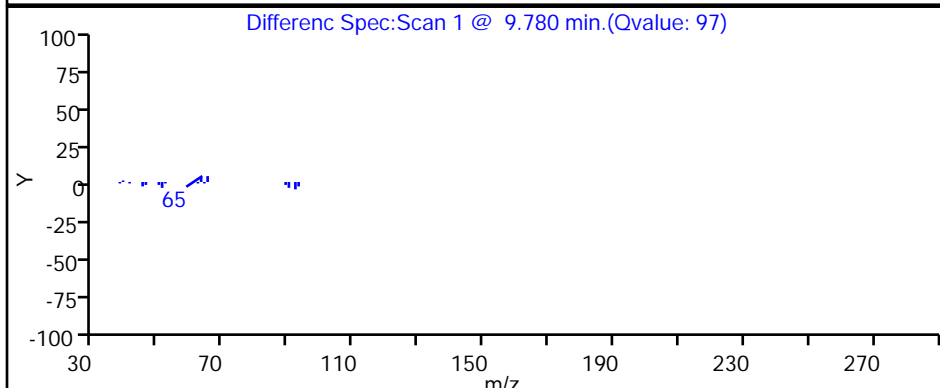
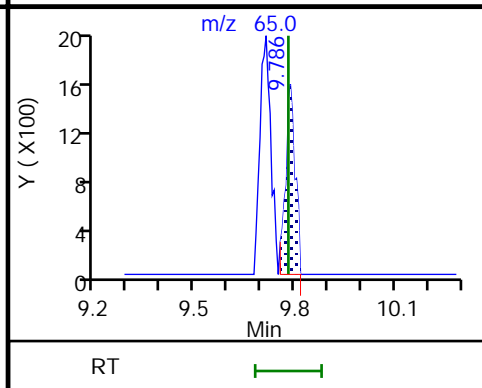
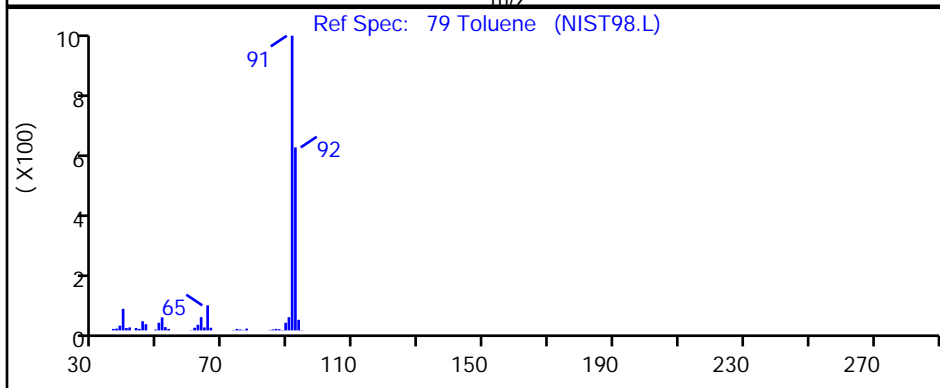
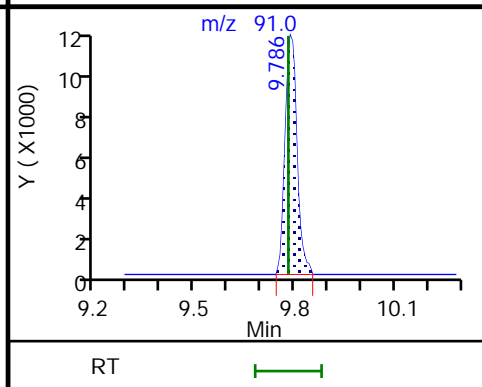
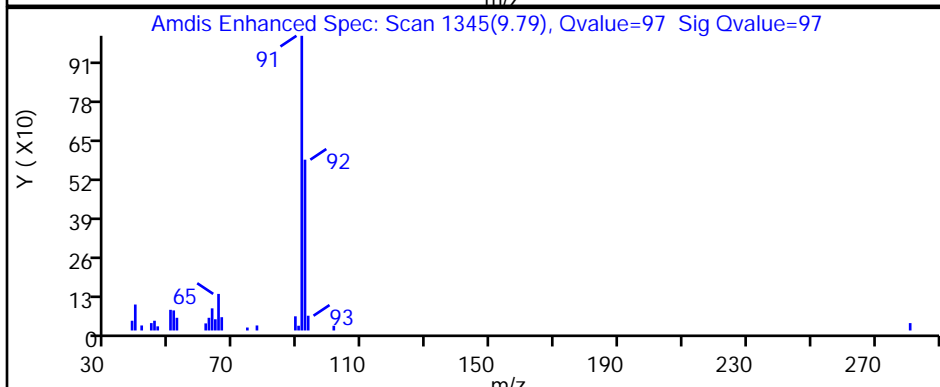
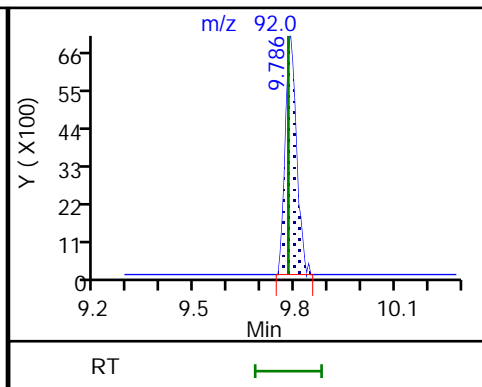
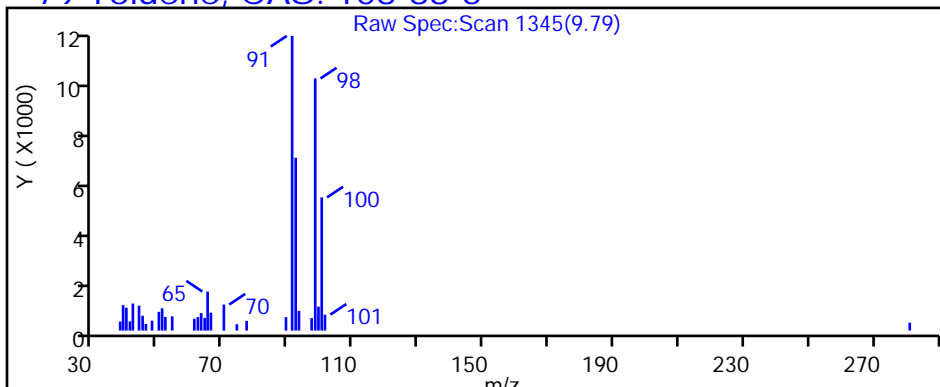
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

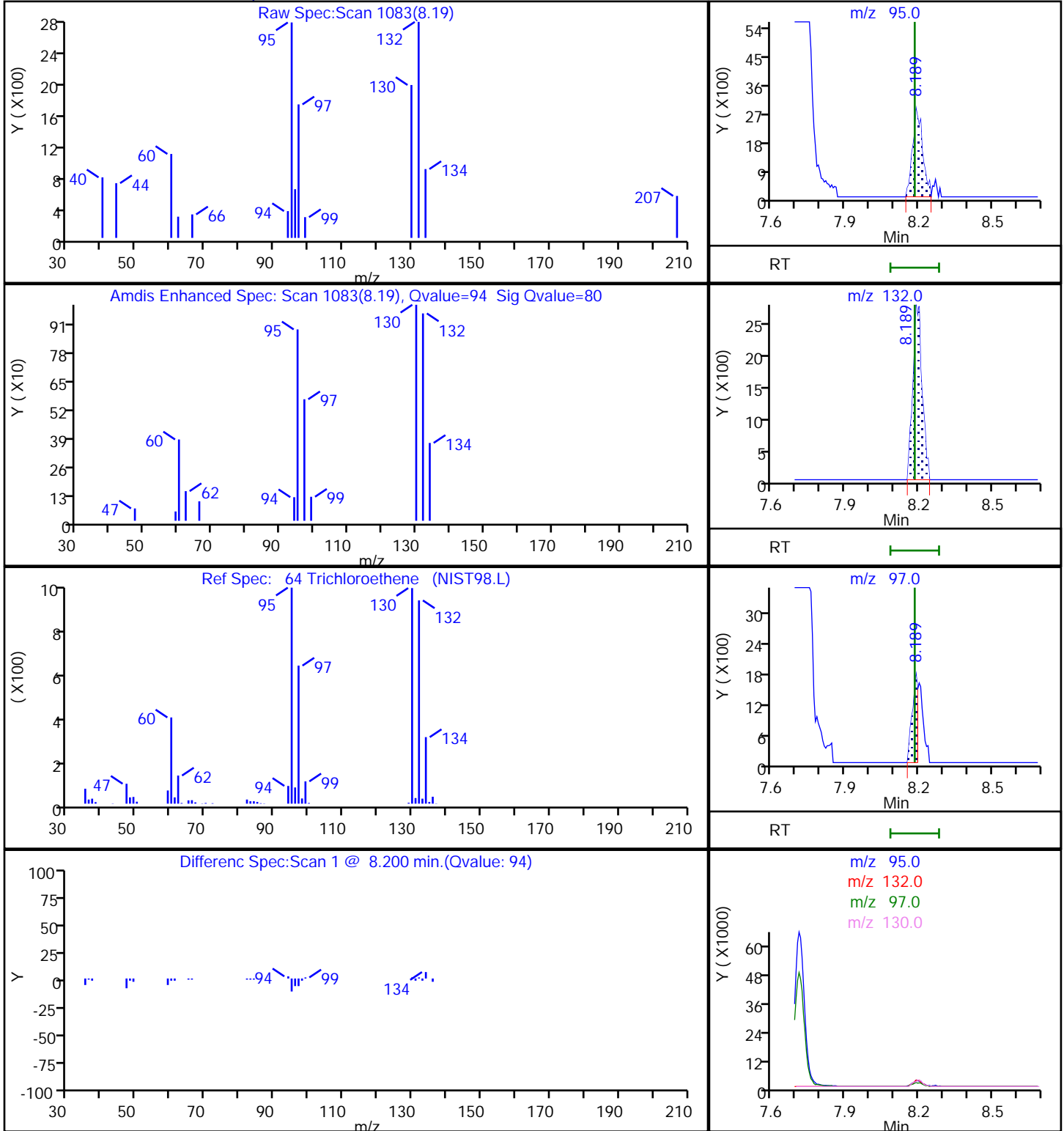
MS Quad

79 Toluene, CAS: 108-88-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D  
Injection Date: 04-Aug-2022 14:59:30 Instrument ID: 19930  
Lims ID: 410-92859-A-4 Lab Sample ID: 410-92859-4  
Client ID: HD-COD-SW-9-0/1-0  
Operator ID: knk41612 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 ID) MS Quad

64 Trichloroethene, CAS: 79-01-6

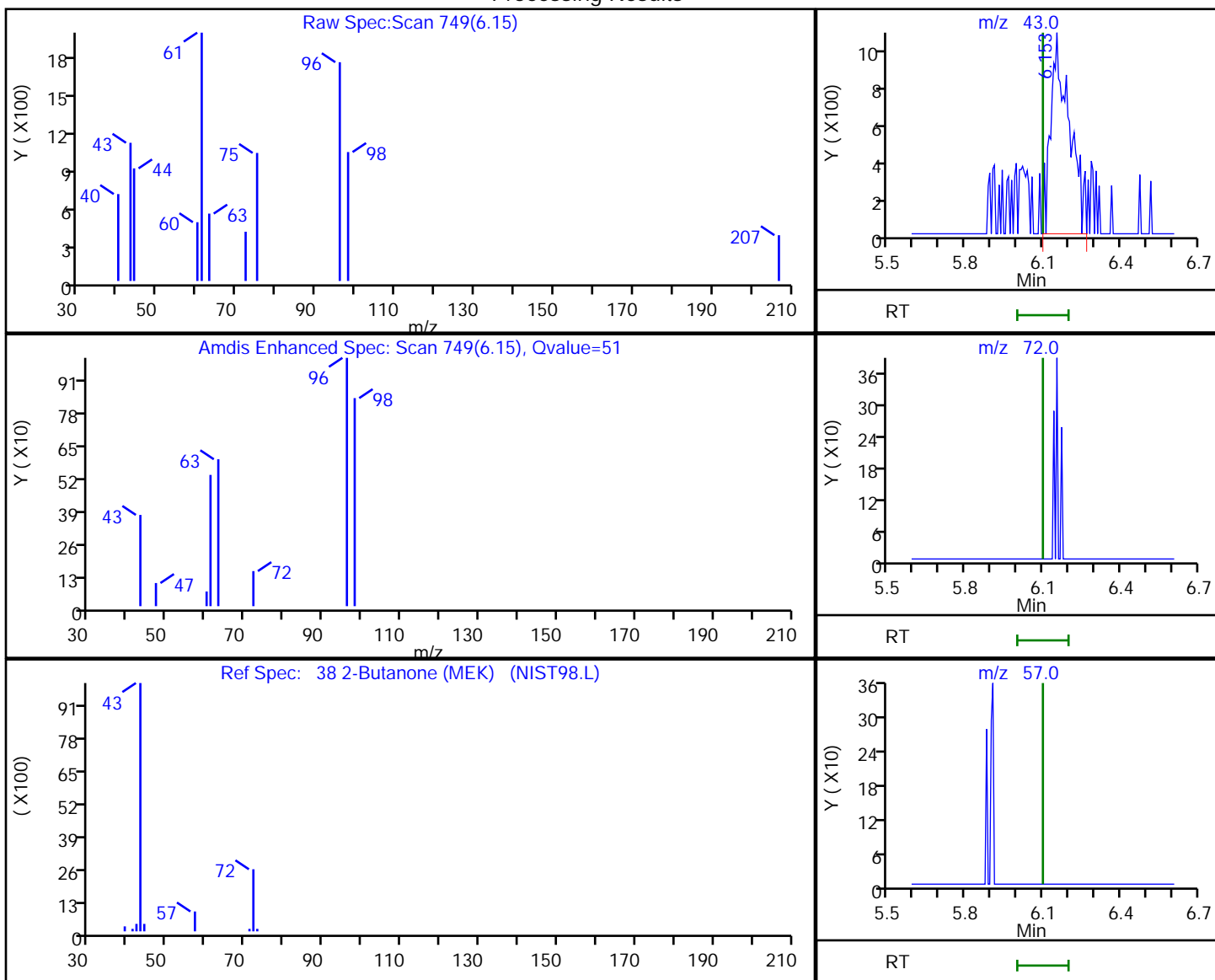


Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfms\Lancaster\ChromData\19930\20220804-63401.b\IG04X14.D  
 Injection Date: 04-Aug-2022 14:59:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-4 Lab Sample ID: 410-92859-4  
 Client ID: HD-COD-SW-9-0/1-0  
 Operator ID: knk41612 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 ID) Detector: MS Quad

38 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.15	43.00	5462	0.325235
6.10	72.00	0	
6.10	57.00	0	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:44:45

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Environment Testing, LLC

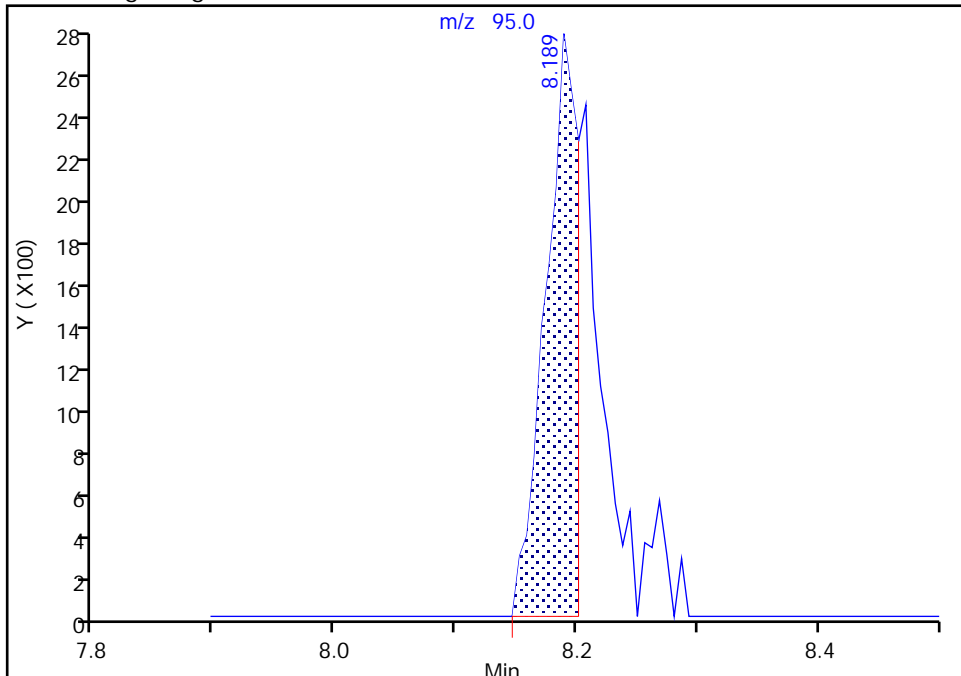
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Injection Date: 04-Aug-2022 14:59:30 Instrument ID: 19930  
Lims ID: 410-92859-A-4 Lab Sample ID: 410-92859-4  
Client ID: HD-COD-SW-9-0/1-0  
Operator ID: knk41612 ALS Bottle#: 14 Worklist Smp#: 15  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

64 Trichloroethene, CAS: 79-01-6

Signal: 1

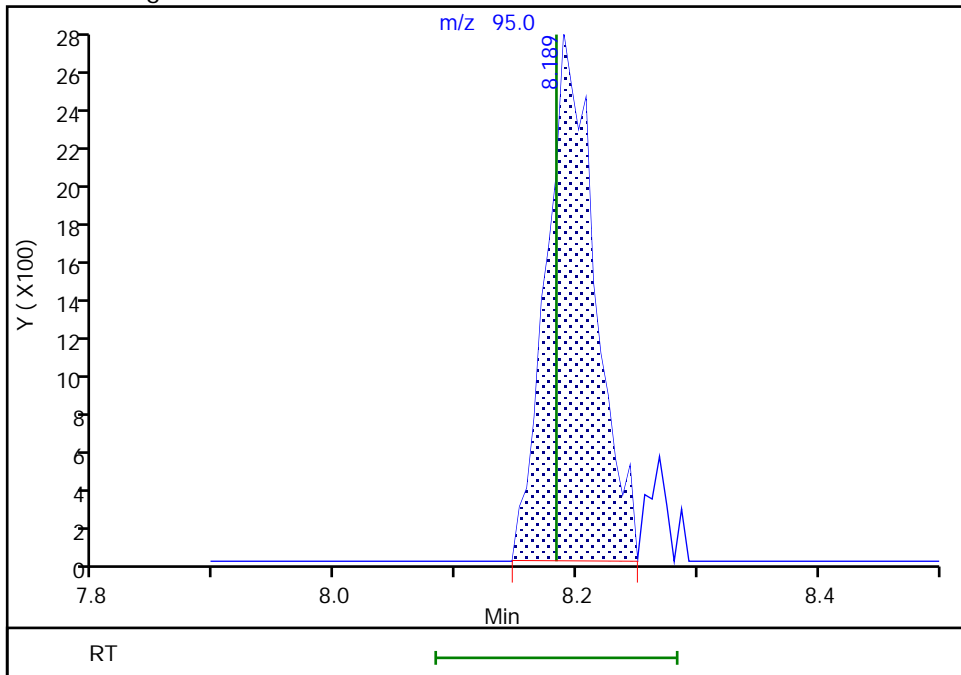
RT: 8.19  
Area: 5103  
Amount: 0.075909  
Amount Units: ug/l

Processing Integration Results



RT: 8.19  
Area: 7721  
Amount: 0.114853  
Amount Units: ug/l

Manual Integration Results



Reviewer: kaewrungrueangp, 05-Aug-2022 10:45:00  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-5

Matrix: Water

Lab File ID: IG04X15.D

Analysis Method: 8260D

Date Collected: 07/28/2022 11:45

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 15:20

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	1.3	J	5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	3.3	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	0.16	J	0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	0.95		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-5

Matrix: Water

Lab File ID: IG04X15.D

Analysis Method: 8260D

Date Collected: 07/28/2022 11:45

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 15:20

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.14	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	98		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D  
 Lims ID: 410-92859-A-5  
 Client ID: HD-COD-SW-13-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 15:20:30 ALS Bottle#: 15 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-016  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:46:22 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:46:22

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.611	3.592	0.019	100	29438	3.31	
20 Carbon disulfide	76	3.873	3.879	-0.006	97	4381	0.0329	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.251	4.257	-0.006	25	161175	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43	6.141	6.098	0.043	81	21068	1.28	
39 cis-1,2-Dichloroethene	96	6.135	6.129	0.006	76	10642	0.1610	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.616	6.610	0.006	90	7319	0.0674	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	543946	10.3	
50 1,1,1-Trichloroethane	97	6.842	6.842	0.000	90	6367	0.0655	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	68	109372	10.1	
57 Benzene	78		7.305				ND	7
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.708	7.707	0.001	99	2099866	10.0	
64 Trichloroethene	95	8.183	8.183	0.000	92	9505	0.1404	M
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2149347	9.76	
79 Toluene	92	9.793	9.780	0.013	97	4879	0.0280	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.335	10.335	0.000	97	78534	0.9456	
103 2-Hexanone	43		10.451				ND	7
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1696435	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	778917	9.65	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	935104	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D

Injection Date: 04-Aug-2022 15:20:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-5

Lab Sample ID: 410-92859-5

Worklist Smp#: 16

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

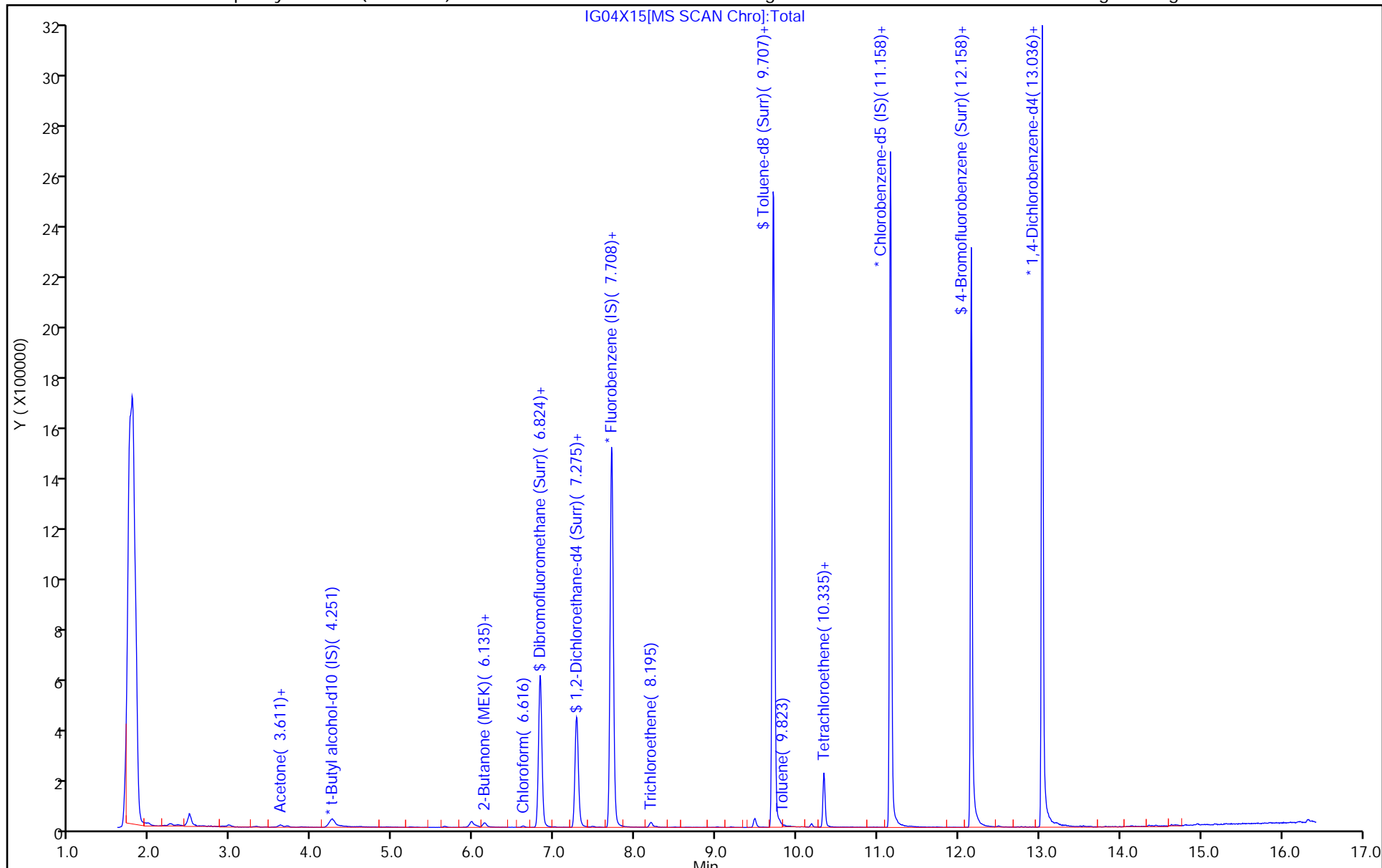
ALS Bottle#: 15

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D  
 Lims ID: 410-92859-A-5  
 Client ID: HD-COD-SW-13-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 15:20:30 ALS Bottle#: 15 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-016  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:46:22 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:46:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.3	103.18
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.01
\$ 78 Toluene-d8 (Surr)	10.0	9.76	97.63
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.65	96.49

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D

Injection Date: 04-Aug-2022 15:20:30

Instrument ID: 19930

Lims ID: 410-92859-A-5

Lab Sample ID: 410-92859-5

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

Operator ID: knk41612

ALS Bottle#: 15

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

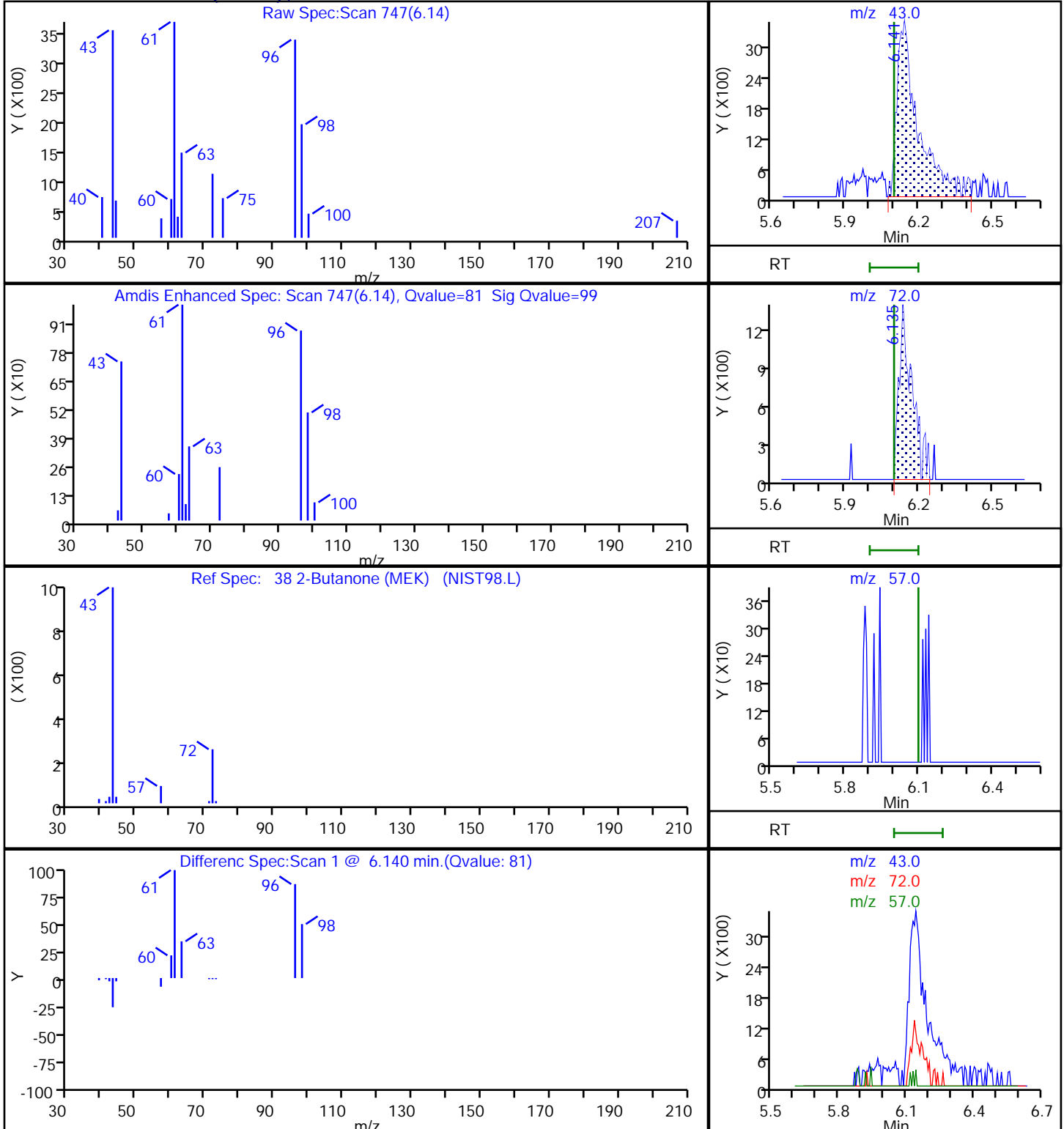
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

### 38 2-Butanone (MEK), CAS: 78-93-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D

Injection Date: 04-Aug-2022 15:20:30

Instrument ID: 19930

Lims ID: 410-92859-A-5

Lab Sample ID: 410-92859-5

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

Operator ID: knk41612

ALS Bottle#: 15

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

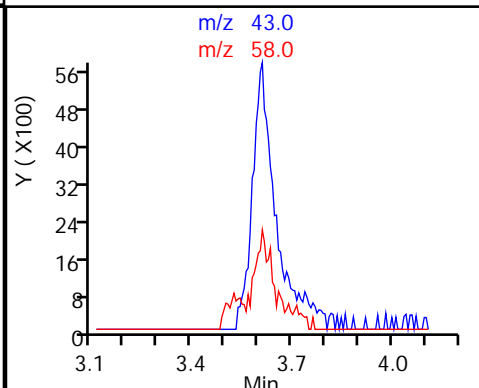
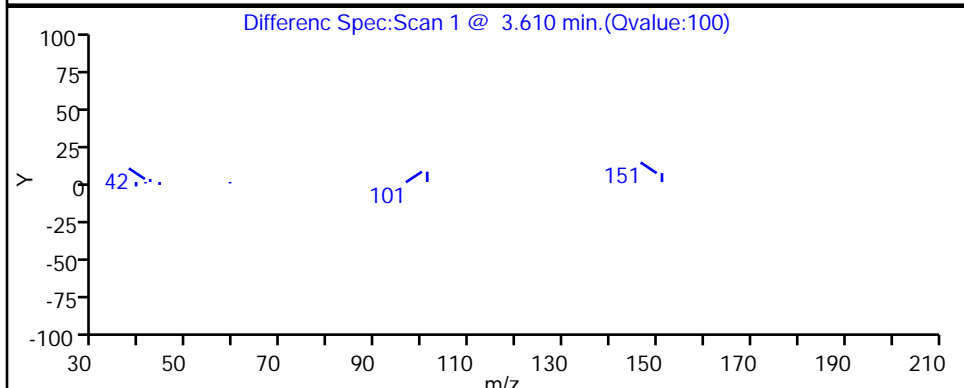
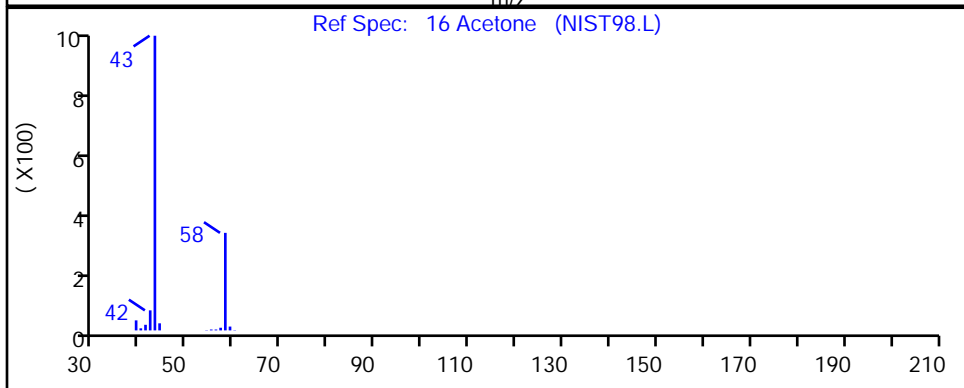
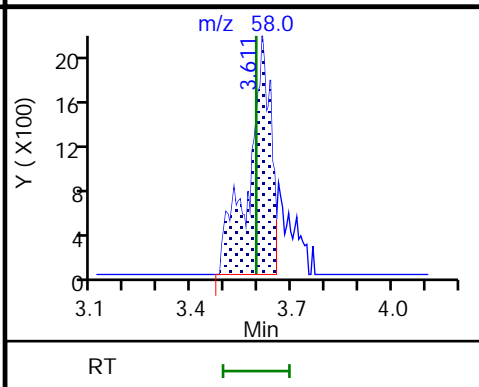
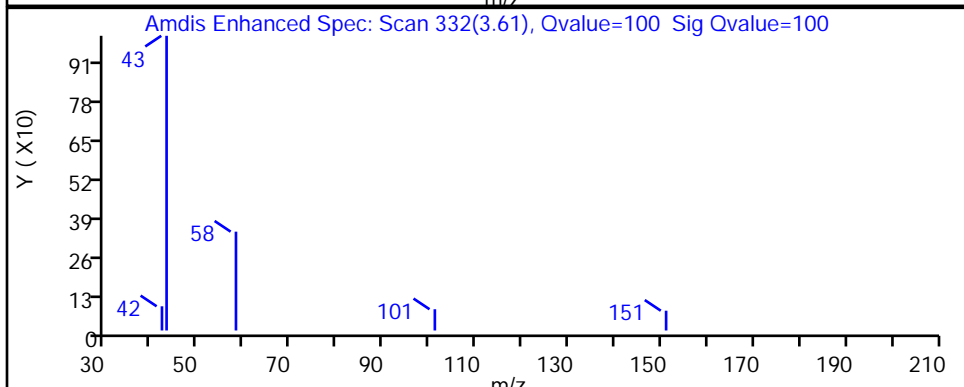
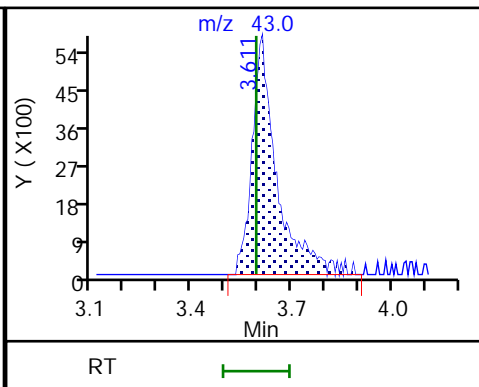
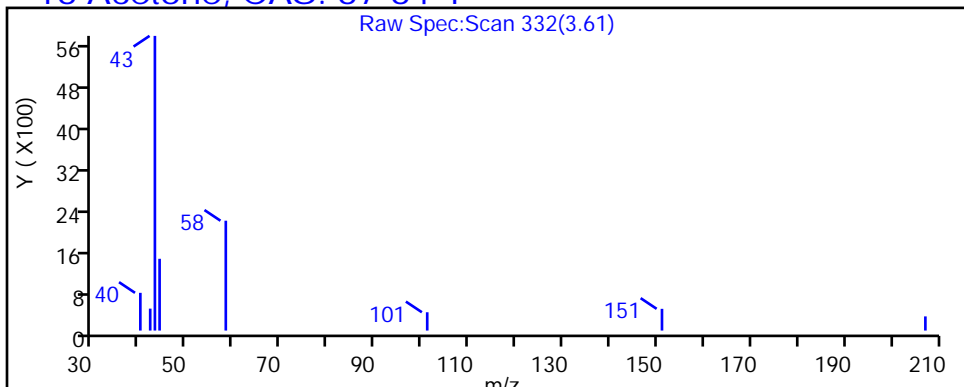
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

### 16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D

Injection Date: 04-Aug-2022 15:20:30

Instrument ID: 19930

Lims ID: 410-92859-A-5

Lab Sample ID: 410-92859-5

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

Operator ID: knk41612

ALS Bottle#: 15

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

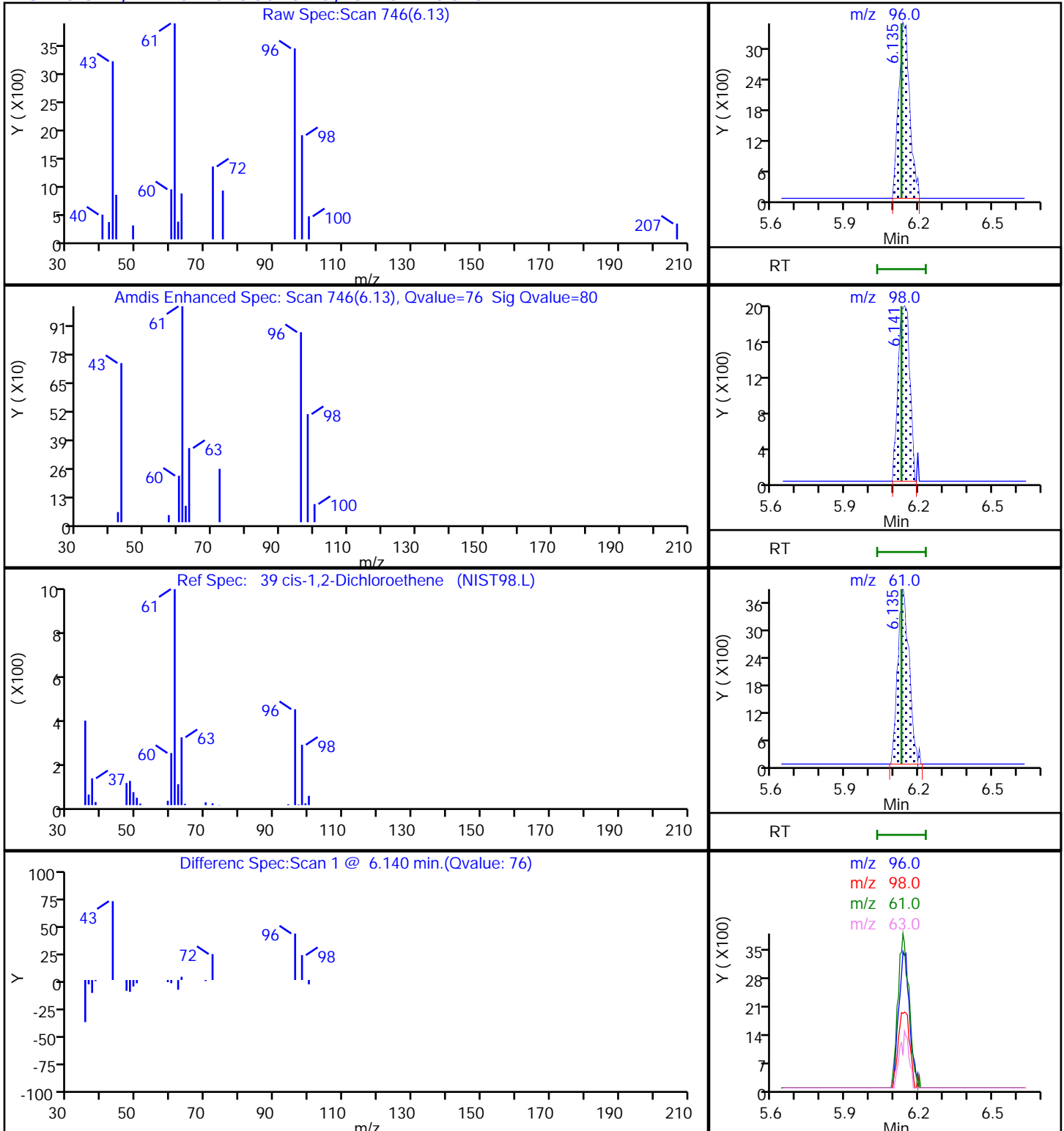
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

**39 cis-1,2-Dichloroethene, CAS: 156-59-2**



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D

Injection Date: 04-Aug-2022 15:20:30

Instrument ID: 19930

Lims ID: 410-92859-A-5

Lab Sample ID: 410-92859-5

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

Operator ID: knk41612

ALS Bottle#: 15

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

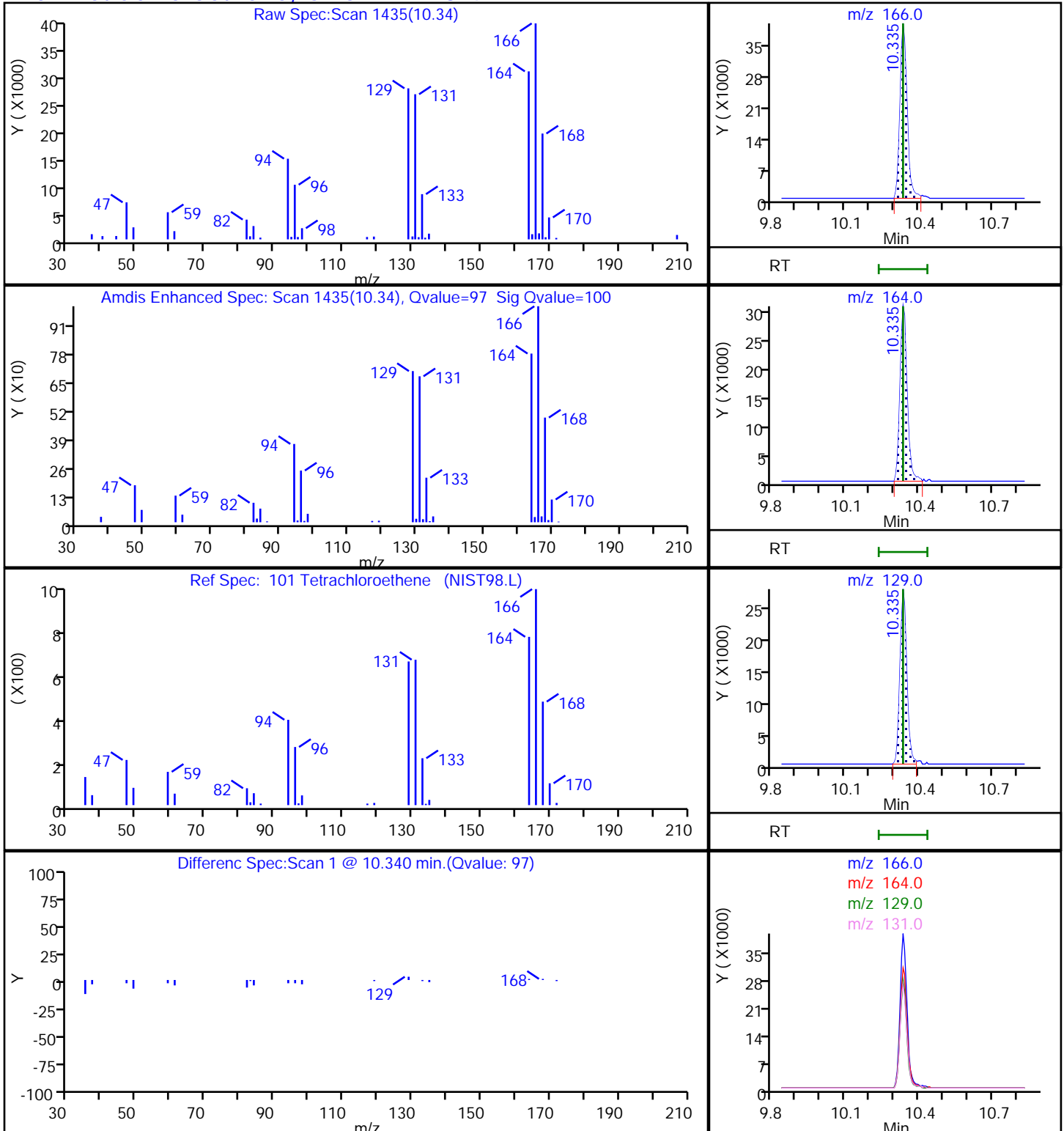
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

101 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D

Injection Date: 04-Aug-2022 15:20:30 Instrument ID: 19930

Lims ID: 410-92859-A-5 Lab Sample ID: 410-92859-5

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

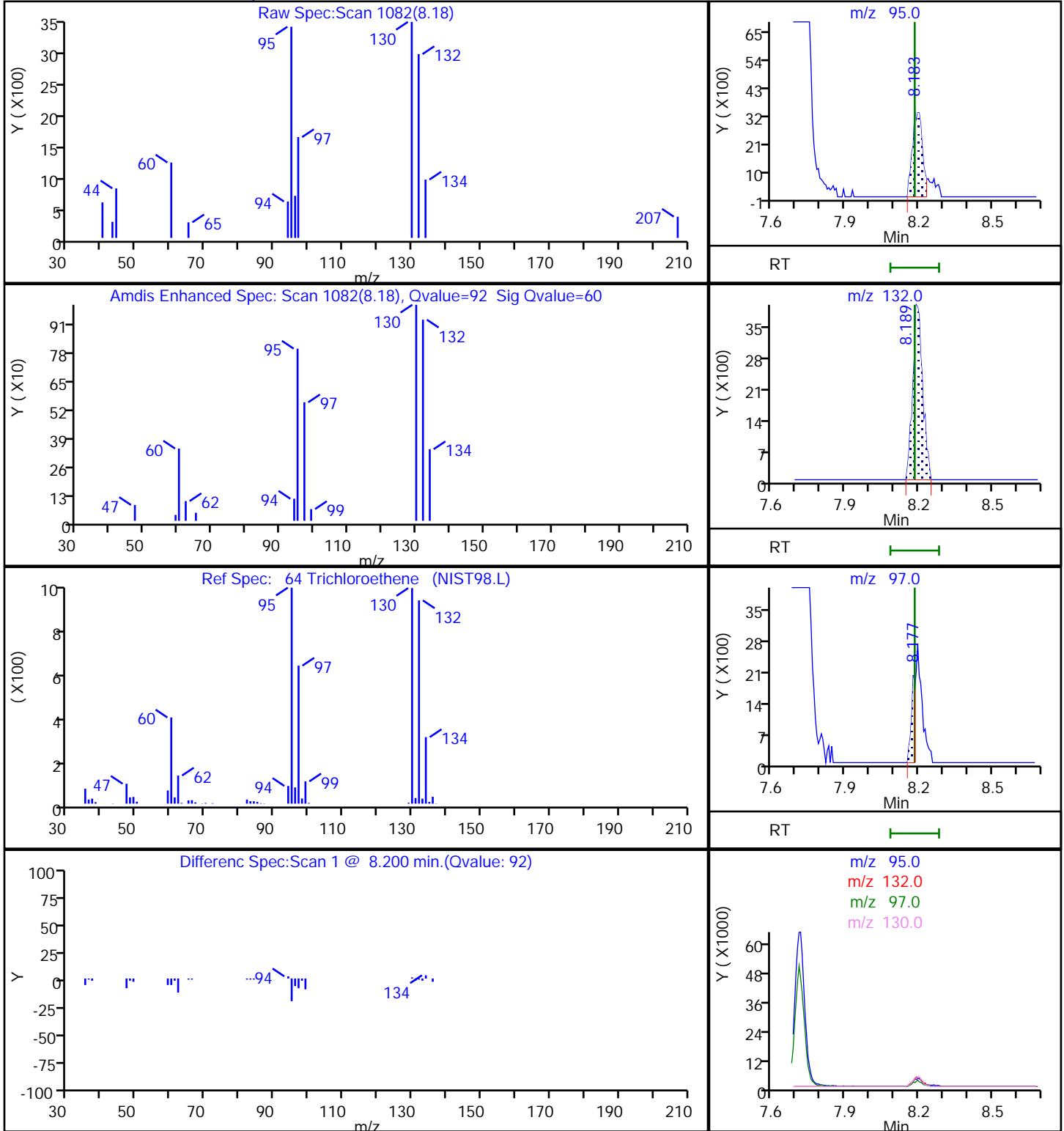
Operator ID: knk41612 ALS Bottle#: 15 Worklist Smp#: 16

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 ID) MS Quad

64 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Environment Testing, LLC

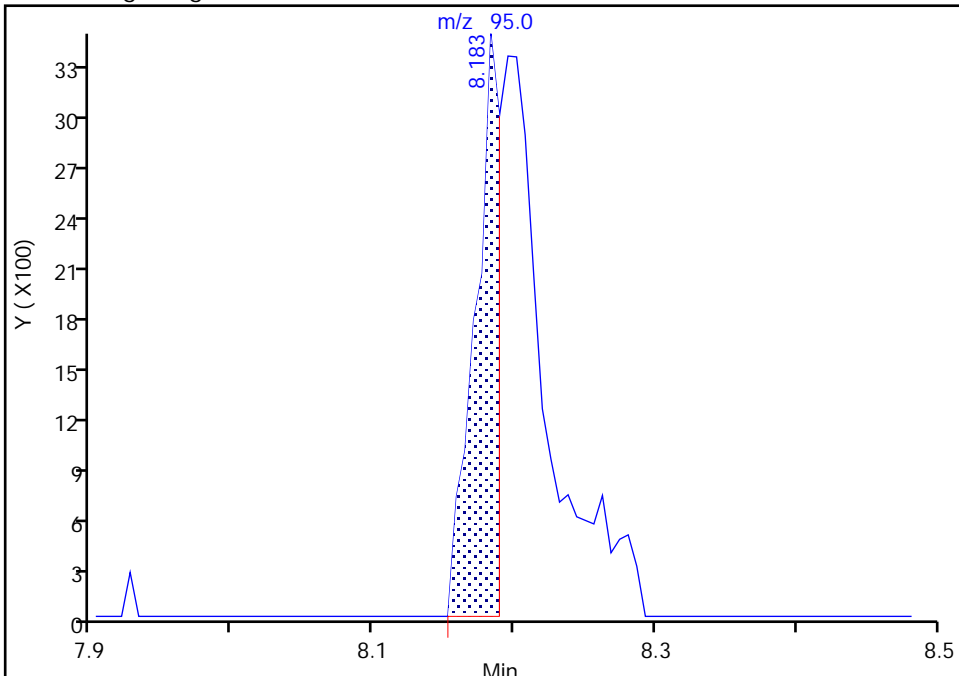
Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X15.D  
Injection Date: 04-Aug-2022 15:20:30 Instrument ID: 19930  
Lims ID: 410-92859-A-5 Lab Sample ID: 410-92859-5  
Client ID: HD-COD-SW-13-0/1-0  
Operator ID: knk41612 ALS Bottle#: 15 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

64 Trichloroethene, CAS: 79-01-6

Signal: 1

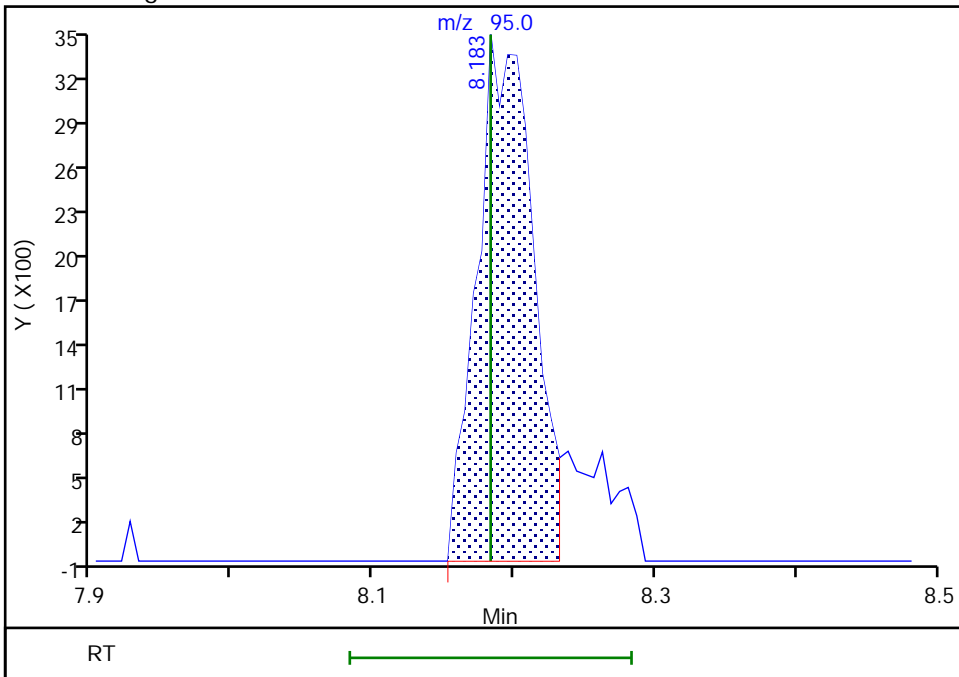
RT: 8.18  
Area: 4308  
Amount: 0.063657  
Amount Units: ug/l

Processing Integration Results



RT: 8.18  
Area: 9505  
Amount: 0.140450  
Amount Units: ug/l

Manual Integration Results



Reviewer: kaewrungrueangp, 05-Aug-2022 10:46:10  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-6

Matrix: Water

Lab File ID: IG04X16.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:45

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 15:41

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.27	J	0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	0.12	J	0.50	0.10
75-35-4	1,1-Dichloroethene	0.16	J	0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	ND		5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	0.35	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	1.4		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	5.0		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-6

Matrix: Water

Lab File ID: IG04X16.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:45

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 15:41

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	1.4		0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D  
 Lims ID: 410-92859-A-6  
 Client ID: HD-COD-SW-15-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 15:41:30 ALS Bottle#: 16 Worklist Smp#: 17  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-017  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:47:36 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:47:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
2 Chlorodifluoromethane	51		1.971				ND	
1 Dichlorodifluoromethane	85		1.971				ND	
3 Dimethyl ether	45		2.044				ND	
4 Chloromethane	50		2.172				ND	7
5 Vinyl chloride	62		2.282				ND	
6 Butadiene	39		2.300				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
9 Dichlorofluoromethane	67		2.958				ND	7
10 Trichlorofluoromethane	101		3.013				ND	
11 Ethyl ether	59		3.257				ND	
T 12 Ethanol TIC	45		3.288				ND	7
13 1,2-Dichloro-1,1,2-trifluoroetha	67		3.355				ND	7
14 Acrolein	56		3.428				ND	7
15 1,1-Dichloroethene	96	3.580	3.568	0.012	96	8350	0.1583	
16 Acetone	43		3.592				ND	7
17 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.617				ND	
18 Iodomethane	142		3.775				ND	
19 Ethyl bromide	108		3.794				ND	
20 Carbon disulfide	76		3.879				ND	7
21 Acetonitrile	41		4.001				ND	
T 22 Acetonitrile TIC	41		4.001				ND	
23 Methyl acetate	43		4.013				ND	
24 3-Chloro-1-propene	41		4.044				ND	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	25	174423	50.0	
27 2-Methyl-2-propanol	59		4.373				ND	
28 Acrylonitrile	53		4.568				ND	
29 Methyl tert-butyl ether	73	4.647	4.641	0.006	81	4919	0.0371	
30 trans-1,2-Dichloroethene	96		4.653				ND	
31 Hexane	57		5.074				ND	
33 Vinyl acetate	43		5.299				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
32 1,1-Dichloroethane	63	5.299	5.306	-0.007	91	12864	0.1199	
T 34 Vinyl acetate (TIC)	43		5.336				ND	
35 Isopropyl ether	45		5.366				ND	
36 2-Chloro-1,3-butadiene	53		5.415				ND	
37 Tert-butyl ethyl ether	59		5.897				ND	7
38 2-Butanone (MEK)	43		6.098				ND	
39 cis-1,2-Dichloroethene	96	6.141	6.129	0.012	78	89446	1.37	
40 2,2-Dichloropropane	77		6.147				ND	
S 41 1,2-Dichloroethene, Total	100				0		1.37	
42 Ethyl acetate	43		6.165				ND	
43 Propionitrile	54		6.177				ND	
44 Methyl acrylate	55		6.220				ND	
45 Methacrylonitrile	67		6.397				ND	
46 Chlorobromomethane	128		6.458				ND	
47 Tetrahydrofuran	71		6.476				ND	
48 Chloroform	83	6.616	6.610	0.006	92	37990	0.3532	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	544745	10.4	
50 1,1,1-Trichloroethane	97	6.848	6.842	0.006	39	25580	0.2657	
51 Cyclohexane	56		6.939				ND	7
52 1-Chlorobutane	56		7.019				ND	
53 1,1-Dichloropropene	75		7.049				ND	
54 Carbon tetrachloride	117	7.061	7.049	0.012	91	3709	0.0431	
55 Isobutyl alcohol	41		7.189				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	56	108226	10.1	
57 Benzene	78	7.317	7.305	0.012	41	2679	0.0106	7a
58 1,2-Dichloroethane	62		7.372				ND	
59 Isopropyl acetate	43		7.390				ND	
60 Tert-amyl methyl ether	73		7.500				ND	
* 61 Fluorobenzene (IS)	96	7.708	7.707	0.001	99	2080777	10.0	
62 n-Heptane	43		7.720				ND	7
63 n-Butanol	56		8.067				ND	
64 Trichloroethene	95	8.189	8.183	0.006	96	95426	1.42	
65 Methylcyclohexane	83		8.494				ND	
66 1,2-Dichloropropane	63		8.512				ND	
67 Methyl methacrylate	69		8.598				ND	
68 1,4-Dioxane	88		8.598				ND	
69 Dibromomethane	93		8.622				ND	
70 n-Propyl acetate	43		8.677				ND	
71 Dichlorobromomethane	83		8.854				ND	
72 2-Nitropropane	41		9.116				ND	
73 2-Chloroethyl vinyl ether	63		9.219				ND	
74 Chloroacetonitrile	75		9.226				ND	
75 1-Bromo-2-chloroethane	63		9.250				ND	
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2123333	9.64	
79 Toluene	92	9.786	9.780	0.006	98	6542	0.0376	
T 80 Chloroacetaldehyde TIC	50	9.799	10.000	-0.201	1	101	0.000485	
T 81 Monochloroacetic acid TIC	50	9.799	10.000	-0.201	1	101	0.000485	
T 82 Epichlorohydrin TIC	57		10.000				ND	
T 83 2,3-Dibromopropene TIC	119	10.335	10.000	0.335	1	2977	0.0143	
T 84 3-Chloro-1,2-propanediol TIC	44		10.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
T 85 2,3-Dibromo-1-propanol TIC	57		10.000				ND	
T 86 2-Bromoethanol TIC	45	9.713	10.000	-0.287	13	1979	0.009511	
T 87 2-Chloroethanol TIC	44		10.000				ND	
T 88 Isopropyl alcohol TIC	45		10.000				ND	
T 89 Ethylene oxide TIC	44		10.000				ND	
T 90 Vinyl bromide TIC	106	11.286	10.000	1.286	1	394	0.001894	
T 91 Epibromohydrin TIC	57		10.000				ND	
T 92 2-Bromo-3-chloropropene TIC	75	11.158	10.000	1.158	4	23906	0.1149	
T 93 Nitrobenzene TIC	77	9.707	10.000	-0.293	10	1452	0.006978	
T 94 Hexachloroethane TIC	117	10.329	10.000	0.329	12	3227	0.0155	
T 95 Decamethylcyclotrasiloxane TIC	78	9.719	10.000	-0.281	1	590	0.002835	
T 96 Octamethylcyclotetrasiloxane TIC	78	12.188	10.000	2.188	74	7515	0.0361	
97 trans-1,3-Dichloropropene	75		10.036				ND	
S 98 1,3-Dichloropropene, Total	100		10.060				ND	7
99 Ethyl methacrylate	69		10.097				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	7
101 Tetrachloroethene	166	10.335	10.335	0.000	97	414973	4.99	
102 1,3-Dichloropropane	76		10.402				ND	
103 2-Hexanone	43		10.451				ND	
104 n-Butyl acetate	43		10.579				ND	
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1697337	10.0	
108 1-Chlorohexane	91		11.164				ND	7
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	7
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	7
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
117 Isopropylbenzene	105		12.012				ND	
118 cis-1,4-Dichloro-2-butene	88		12.060				ND	U
119 Cyclohexanone	55		12.097				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	93	773287	9.57	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
122 Bromobenzene	156		12.274				ND	
123 trans-1,4-Dichloro-2-butene	53		12.280				ND	
124 1,2,3-Trichloropropane	110		12.298				ND	
125 N-Propylbenzene	91		12.341				ND	
126 2-Chlorotoluene	126		12.414				ND	
127 1,3,5-Trimethylbenzene	105		12.475				ND	7
128 4-Chlorotoluene	126		12.505				ND	
129 tert-Butylbenzene	134		12.713				ND	
130 Pentachloroethane	167		12.749				ND	
131 1,2,4-Trimethylbenzene	105		12.755				ND	7
132 sec-Butylbenzene	105		12.877				ND	
133 1,3-Dichlorobenzene	146		12.981				ND	
134 4-Isopropyltoluene	119		12.987				ND	7
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	919518	10.0	
136 1,4-Dichlorobenzene	146		13.054				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
137 1,2,3-Trimethylbenzene	120		13.060				ND	7
138 Benzyl chloride	126		13.127				ND	
139 n-Butylbenzene	92		13.273				ND	
140 1,2-Dichlorobenzene	146		13.310				ND	
141 Hexachloroethane	117		13.542				ND	
142 1,2-Dibromo-3-Chloropropane	155		13.853				ND	
143 1,3,5-Trichlorobenzene	180		13.981				ND	
144 1,2,4-Trichlorobenzene	180		14.401				ND	
145 Hexachlorobutadiene	225		14.487				ND	
146 Naphthalene	128		14.584				ND	7
147 1,2,3-Trichlorobenzene	180		14.724				ND	
148 Dodecane	57		0.000				ND	
149 2-Chloro-1,1,1-Trifluoroethane	1		0.000				ND	
150 2-ethoxy-2-methyl butane	1		0.000				ND	
151 1,1-Dichloroacetone	1		0.000				ND	
152 n-Decane	57		0.000				ND	
153 1-Bromo-3-Chloropropane	1		0.000				ND	
154 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
155 2-Methylnaphthalene	142		0.000				ND	
156 p-Diethylbenzene	1		0.000				ND	
157 t-Amyl alcohol	1		0.000				ND	
158 Methylal	1		0.000				ND	
159 tert-Butyl Formate	1		0.000				ND	
160 2-Bromo-1-chloropropane	1		0.000				ND	
161 Pentane	43		0.000				ND	
162 Chlorotrifluoroethene	1		0.000				ND	
163 Propene oxide	1		0.000				ND	
164 1-Chloropropane	1		0.000				ND	
165 Isopropyl alcohol	45		0.000				ND	
166 Ethanol	45		3.269				ND	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

a - User Assigned ID

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D

Injection Date: 04-Aug-2022 15:41:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-6

Lab Sample ID: 410-92859-6

Worklist Smp#: 17

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

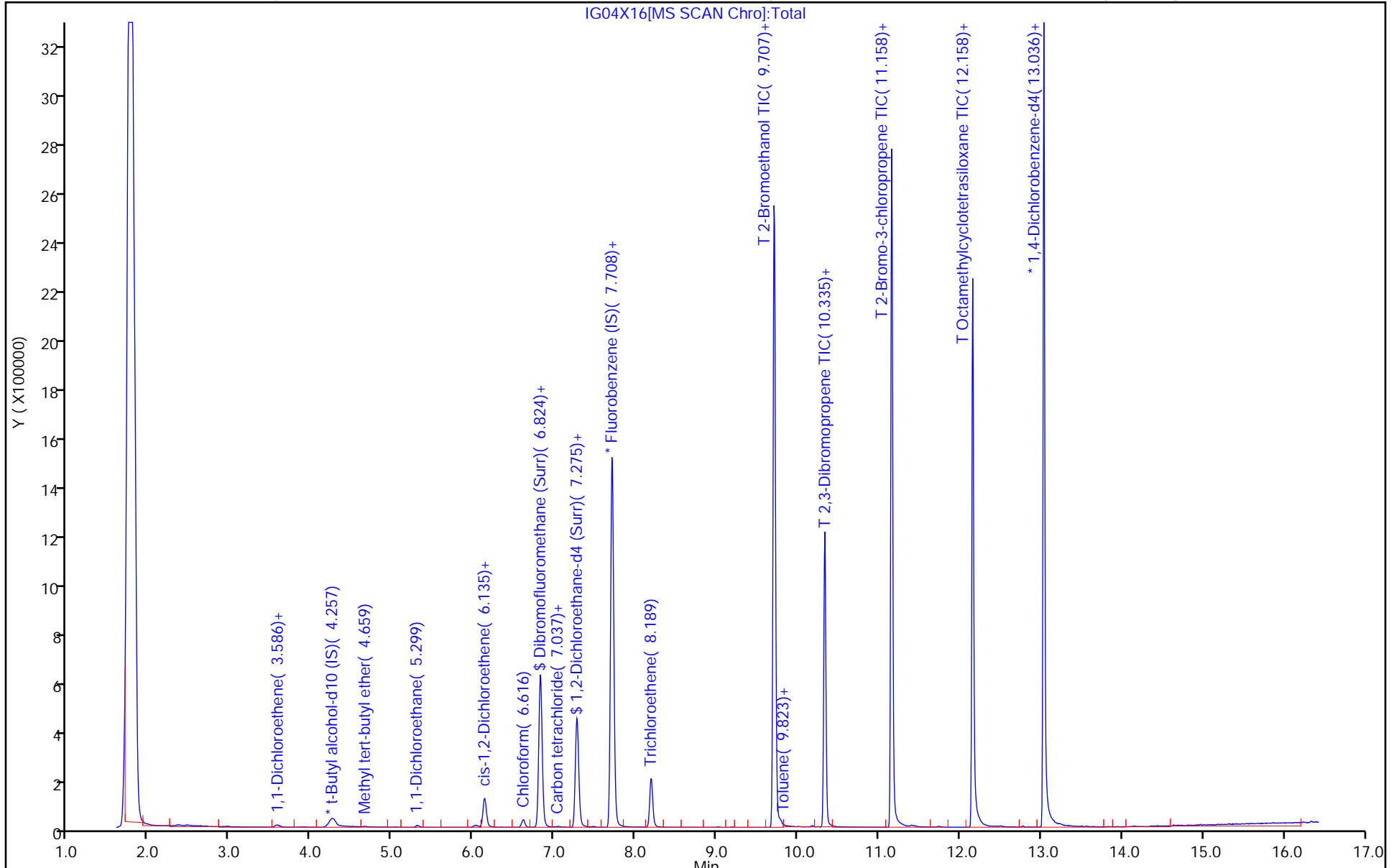
ALS Bottle#: 16

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D  
 Lims ID: 410-92859-A-6  
 Client ID: HD-COD-SW-15-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 15:41:30 ALS Bottle#: 16 Worklist Smp#: 17  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-017  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:47:36 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:47:36

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.4	104.28
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.87
\$ 78 Toluene-d8 (Surr)	10.0	9.64	96.40
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.57	95.74



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D

Injection Date: 04-Aug-2022 15:41:30

Instrument ID: 19930

Lims ID: 410-92859-A-6

Lab Sample ID: 410-92859-6

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

Operator ID: knk41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

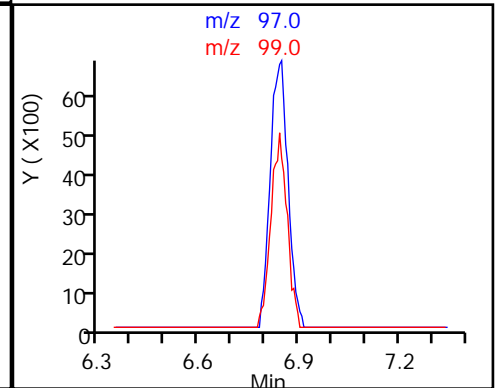
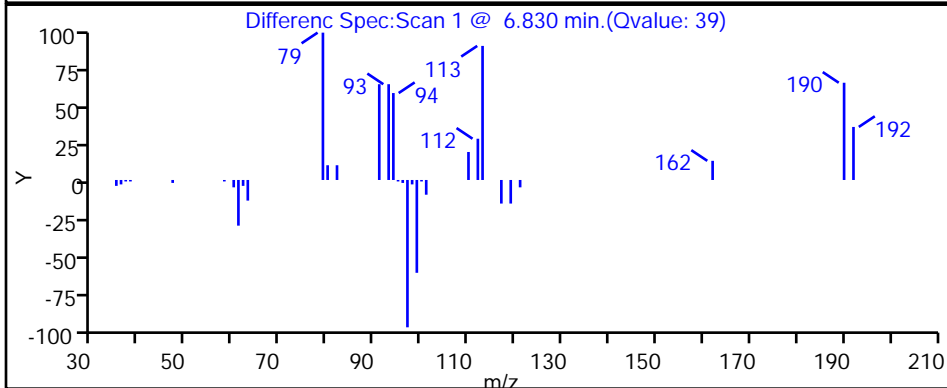
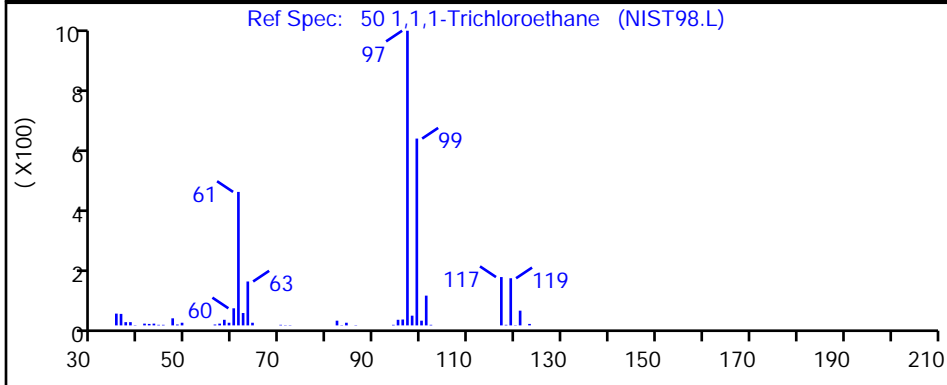
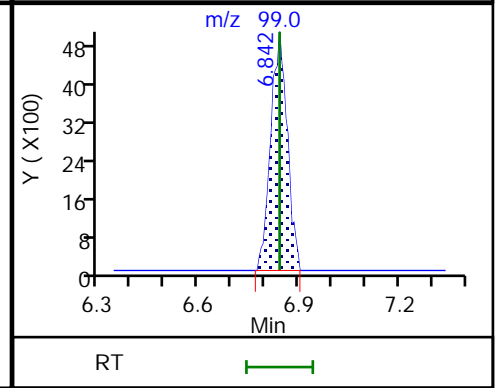
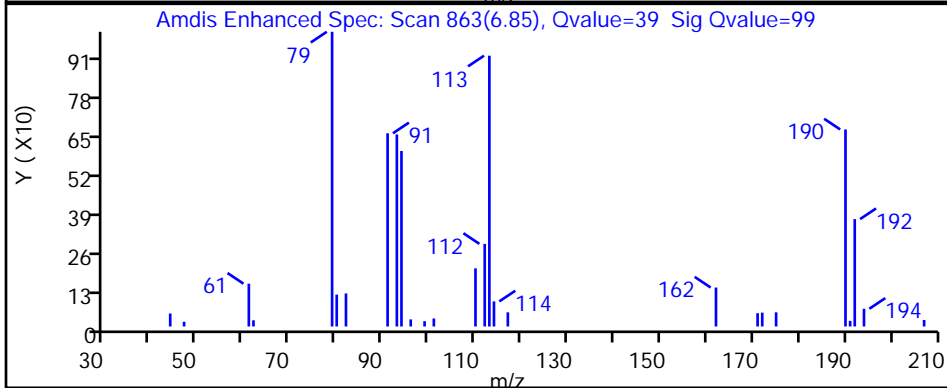
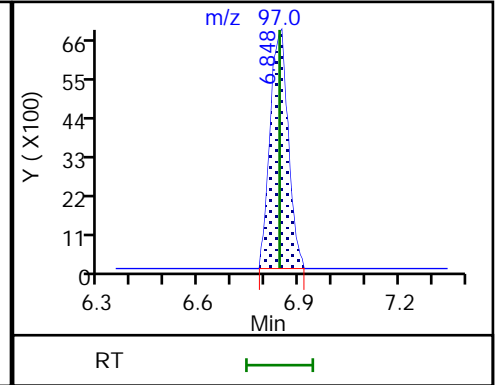
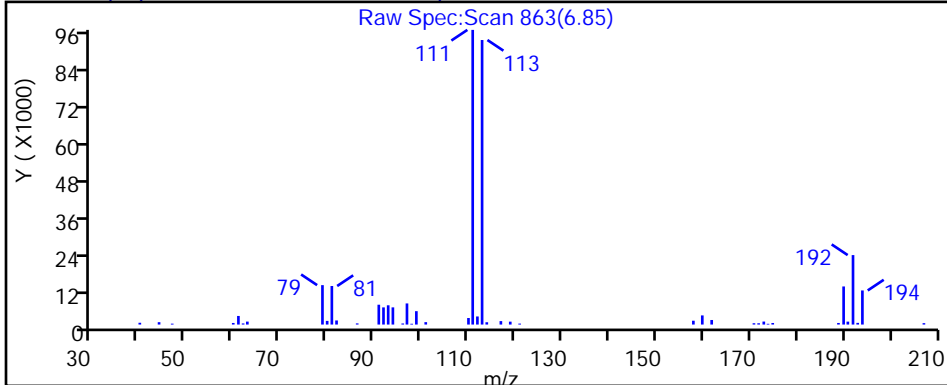
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

50 1,1,1-Trichloroethane, CAS: 71-55-6



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D

Injection Date: 04-Aug-2022 15:41:30

Instrument ID: 19930

Lims ID: 410-92859-A-6

Lab Sample ID: 410-92859-6

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

Operator ID: knk41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

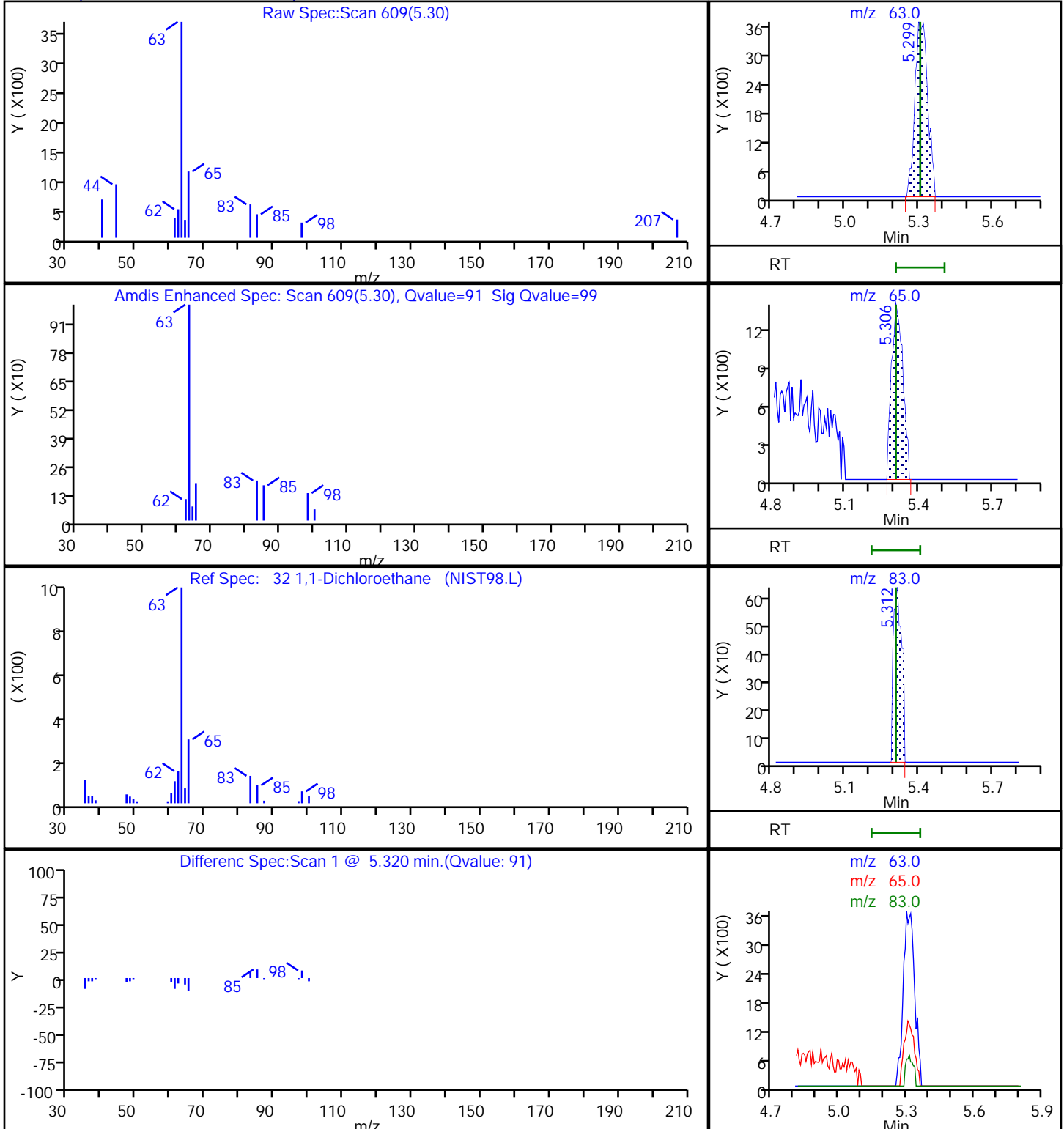
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

### 32 1,1-Dichloroethane, CAS: 75-34-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D

Injection Date: 04-Aug-2022 15:41:30

Instrument ID: 19930

Lims ID: 410-92859-A-6

Lab Sample ID: 410-92859-6

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

Operator ID: knk41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

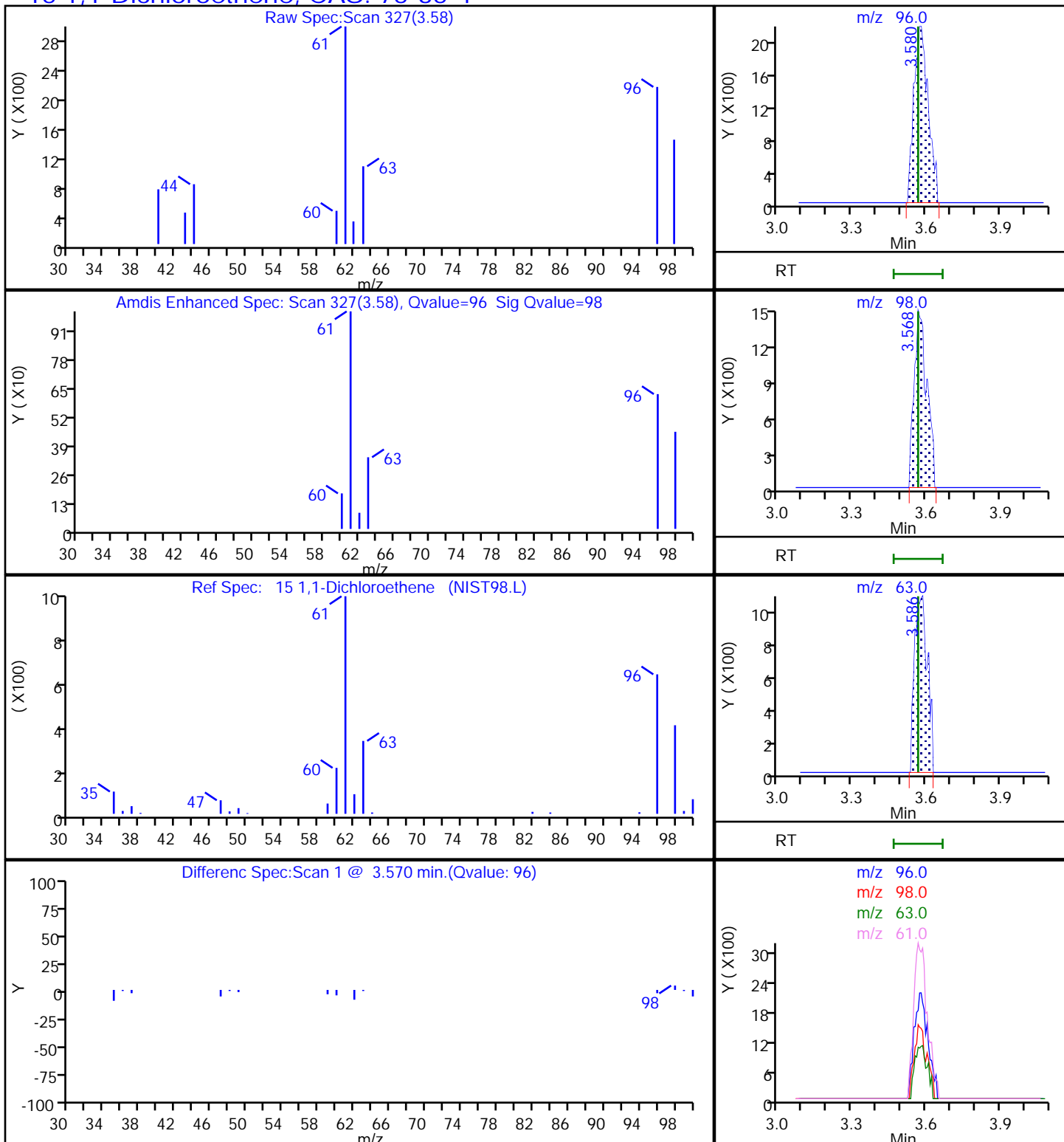
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

15 1,1-Dichloroethene, CAS: 75-35-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D

Injection Date: 04-Aug-2022 15:41:30

Instrument ID: 19930

Lims ID: 410-92859-A-6

Lab Sample ID: 410-92859-6

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

Operator ID: knk41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

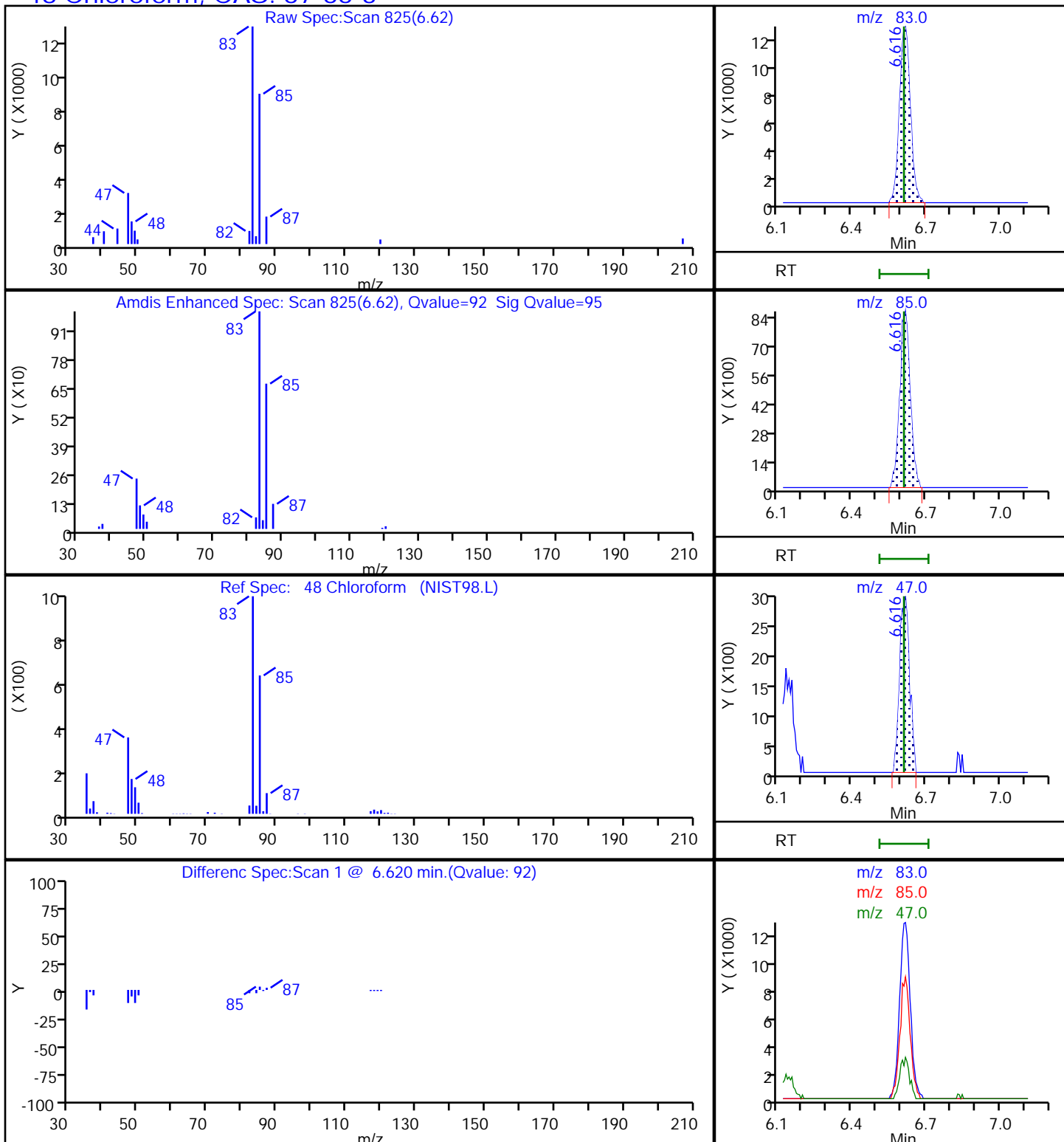
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

### 48 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D

Injection Date: 04-Aug-2022 15:41:30

Instrument ID: 19930

Lims ID: 410-92859-A-6

Lab Sample ID: 410-92859-6

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

Operator ID: knk41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

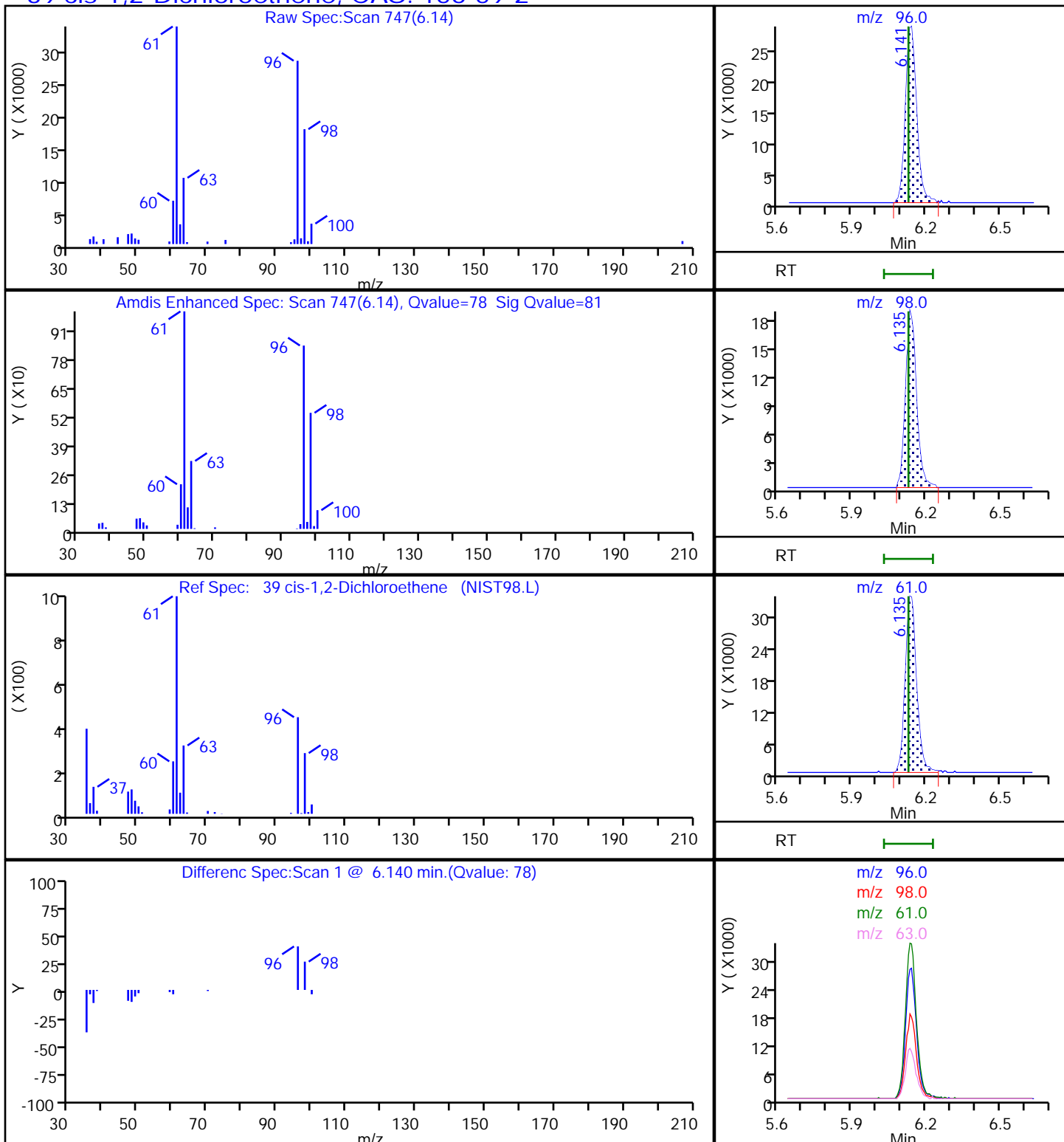
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

### 39 cis-1,2-Dichloroethene, CAS: 156-59-2



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D

Injection Date: 04-Aug-2022 15:41:30 Instrument ID: 19930

Lims ID: 410-92859-A-6 Lab Sample ID: 410-92859-6

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

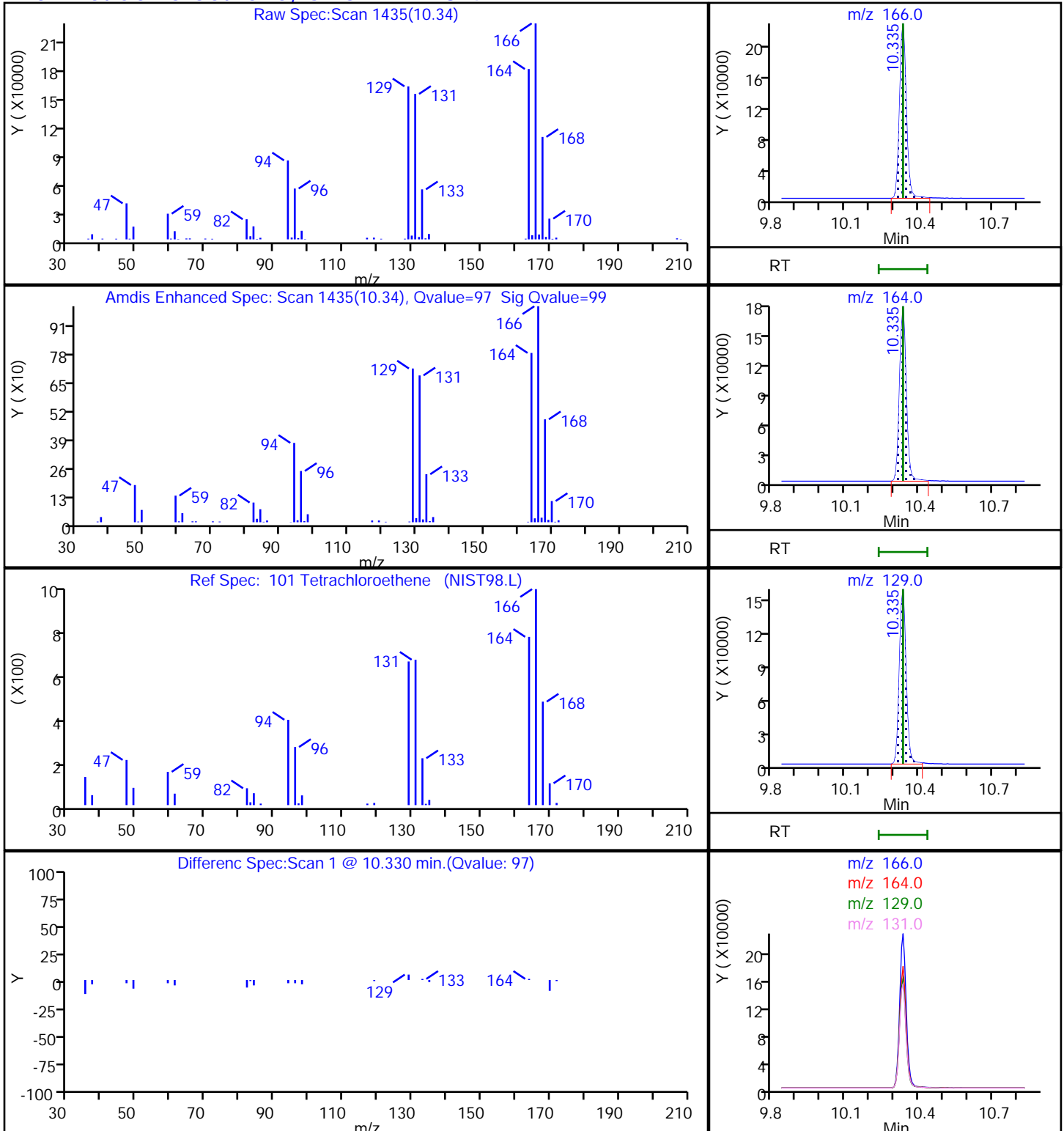
Operator ID: knk41612 ALS Bottle#: 16 Worklist Smp#: 17

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 ID) Detector: MS Quad

101 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X16.D

Injection Date: 04-Aug-2022 15:41:30

Instrument ID: 19930

Lims ID: 410-92859-A-6

Lab Sample ID: 410-92859-6

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

Operator ID: knk41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

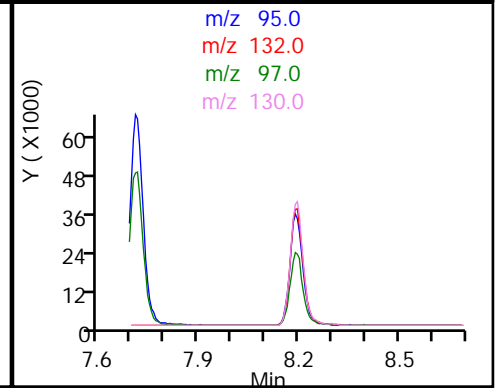
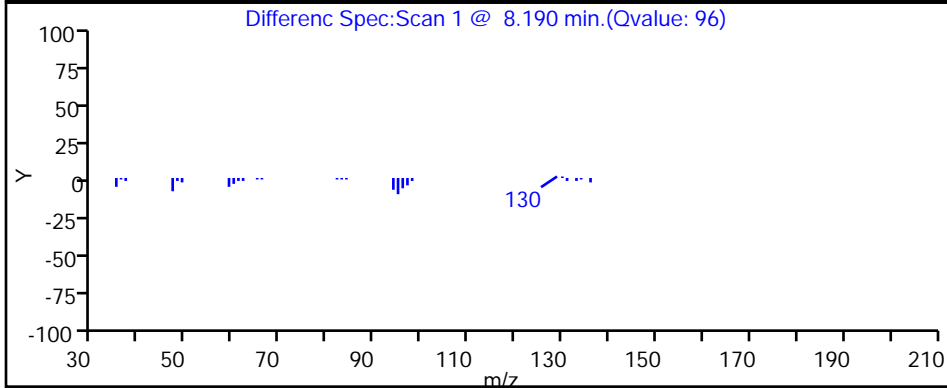
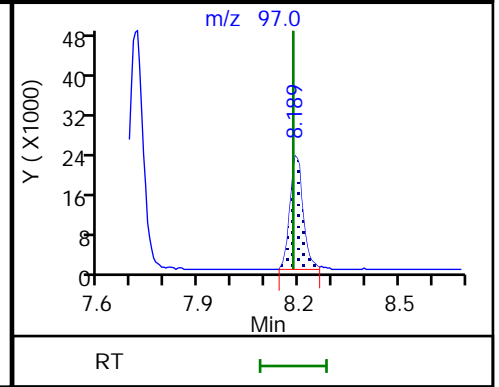
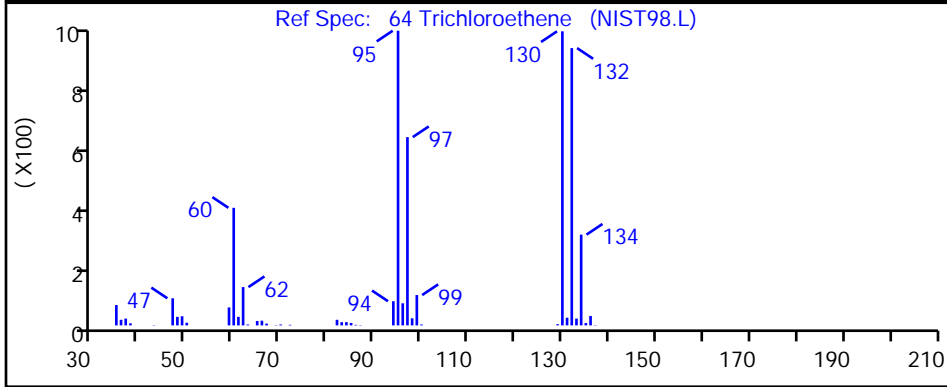
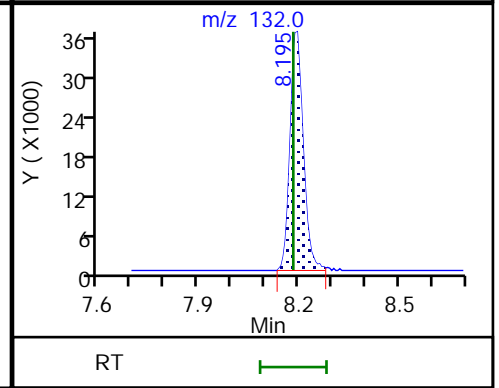
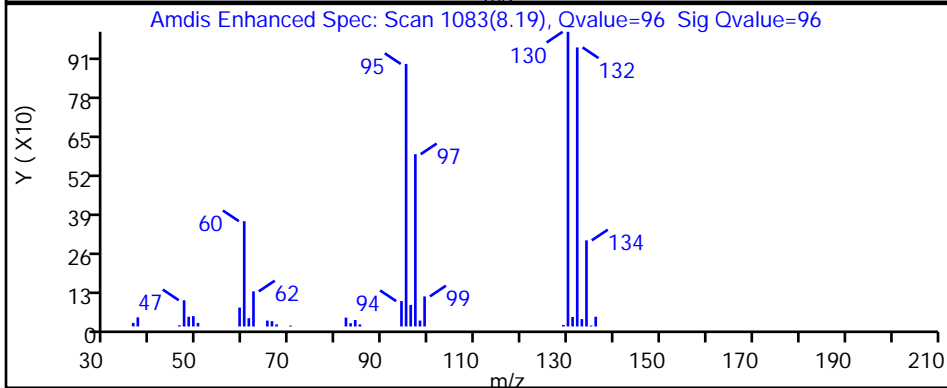
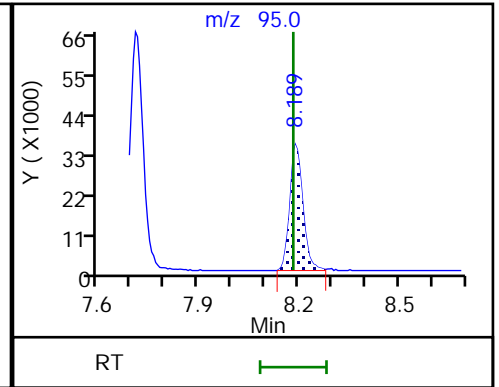
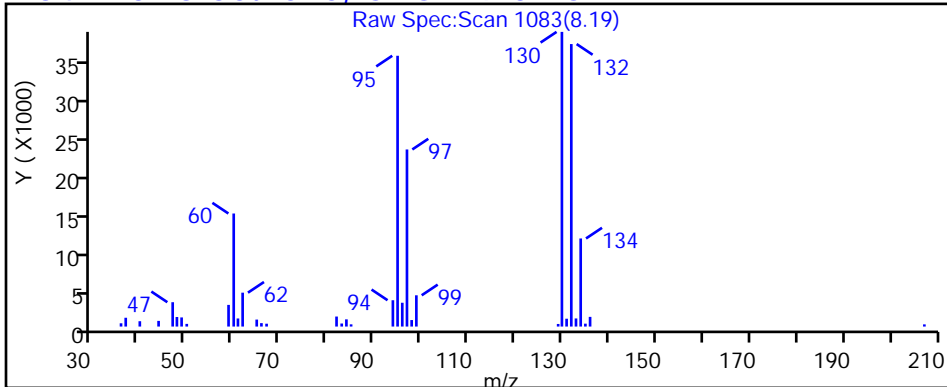
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

64 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Environment Testing, LLC

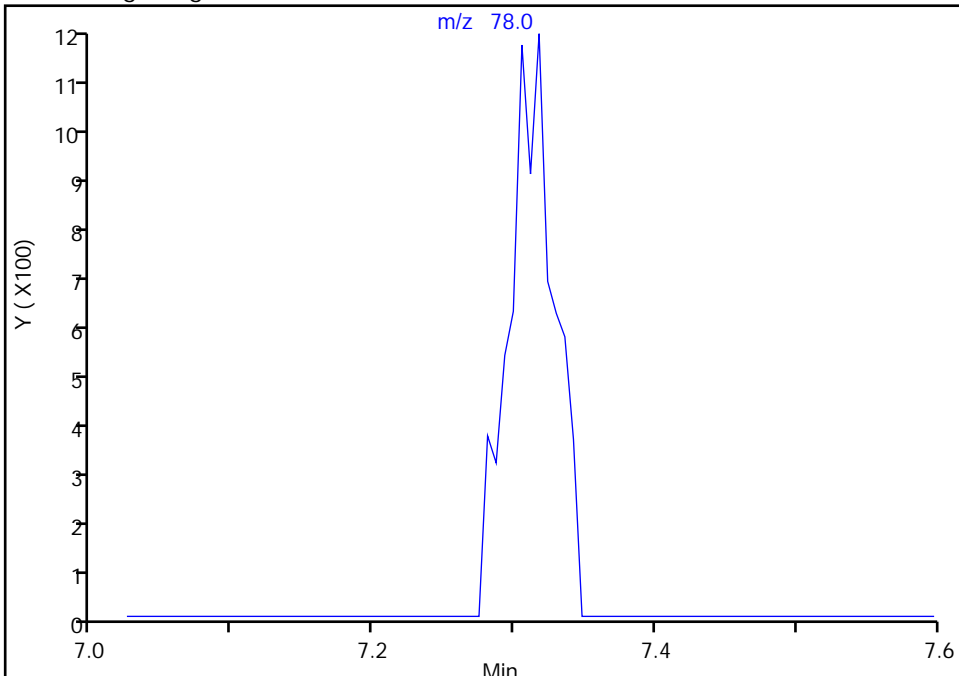
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Injection Date: 04-Aug-2022 15:41:30 Instrument ID: 19930  
Lims ID: 410-92859-A-6 Lab Sample ID: 410-92859-6  
Client ID: HD-COD-SW-15-0/1-0  
Operator ID: knk41612 ALS Bottle#: 16 Worklist Smp#: 17  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

57 Benzene, CAS: 71-43-2

Signal: 1

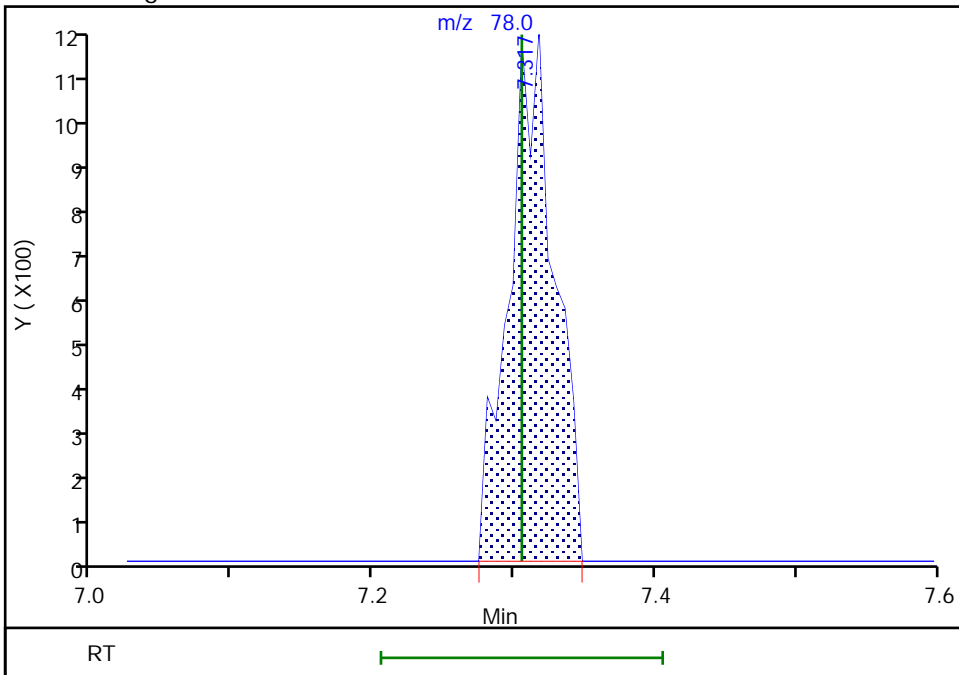
Not Detected  
Expected RT: 7.31

Processing Integration Results



Manual Integration Results

RT: 7.32  
Area: 2679  
Amount: 0.010632  
Amount Units: ug/l





FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-7

Matrix: Water

Lab File ID: IG04X20.D

Analysis Method: 8260D

Date Collected: 07/28/2022 12:05

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 17:06

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.12	J	0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	2.9	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	0.18	J	0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	1.6		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-7

Matrix: Water

Lab File ID: IG04X20.D

Analysis Method: 8260D

Date Collected: 07/28/2022 12:05

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 17:06

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.18	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D  
 Lims ID: 410-92859-A-7  
 Client ID: HD-COD-SW-16-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 17:06:30 ALS Bottle#: 20 Worklist Smp#: 21  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-021  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:49:31 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:49:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.611	3.592	0.019	99	25780	2.92	
20 Carbon disulfide	76	3.873	3.879	-0.006	95	9108	0.0694	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	24	160271	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43	6.147	6.098	0.049	59	14963	0.9112	
39 cis-1,2-Dichloroethene	96	6.141	6.129	0.012	76	11602	0.1781	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.610	6.610	0.000	90	7520	0.0703	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	538817	10.4	
50 1,1,1-Trichloroethane	97	6.836	6.842	-0.006	36	11686	0.1220	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	56	108921	10.2	
57 Benzene	78	7.311	7.305	0.006	1	2781	0.0111	7a
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.707	7.707	0.000	99	2069534	10.0	
64 Trichloroethene	95	8.189	8.183	0.006	96	12141	0.1820	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2124946	9.62	
79 Toluene	92	9.780	9.780	0.000	97	5869	0.0336	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.335	10.335	0.000	97	132045	1.59	
103 2-Hexanone	43		10.451				ND	7
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1701375	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	753971	9.31	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	920019	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

a - User Assigned ID

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D

Injection Date: 04-Aug-2022 17:06:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-7

Lab Sample ID: 410-92859-7

Worklist Smp#: 21

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

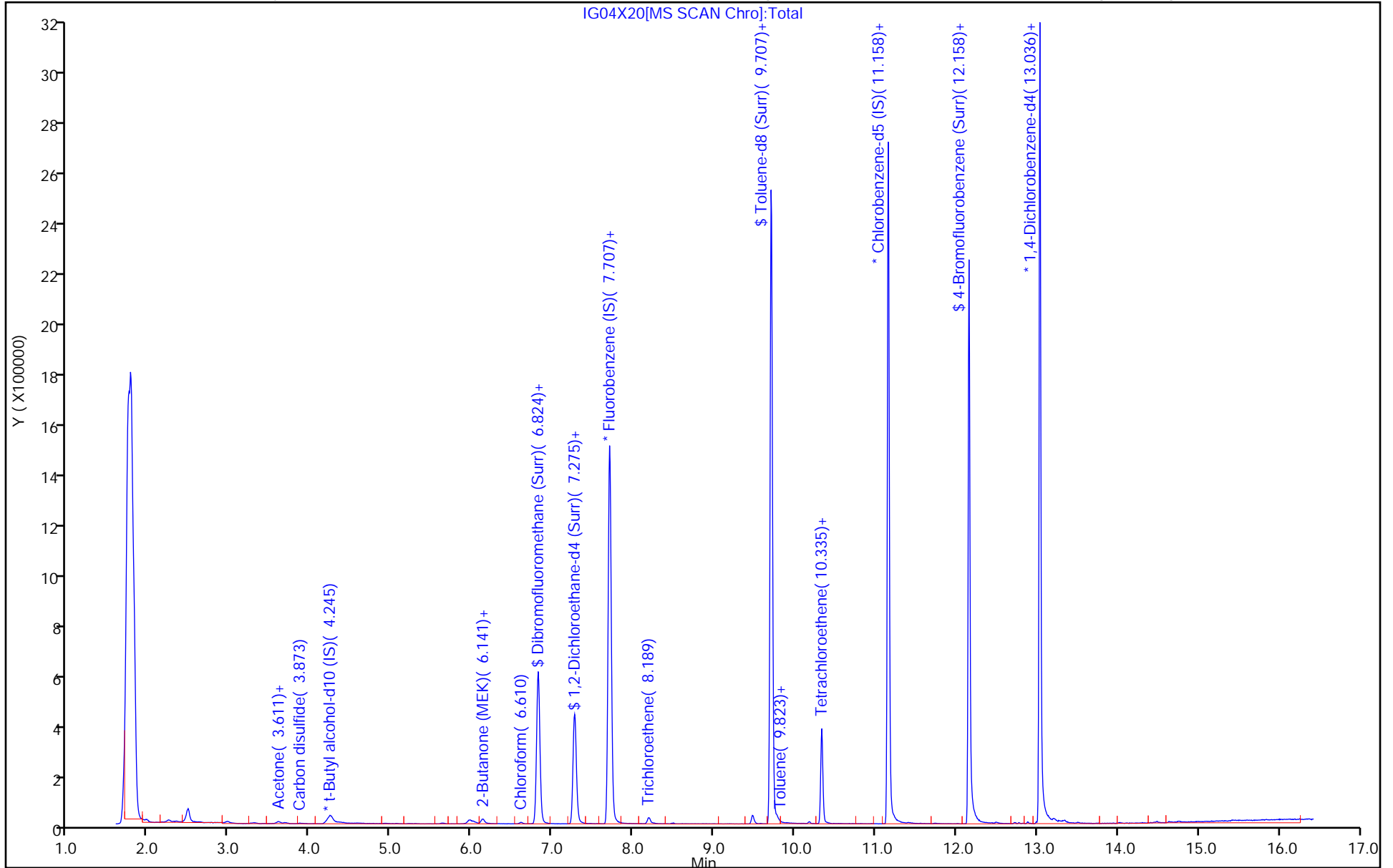
ALS Bottle#: 20

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D  
 Lims ID: 410-92859-A-7  
 Client ID: HD-COD-SW-16-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 17:06:30 ALS Bottle#: 20 Worklist Smp#: 21  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-021  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:49:31 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:49:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.4	103.70
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.06
\$ 78 Toluene-d8 (Surr)	10.0	9.62	96.24
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.31	93.13

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D

Injection Date: 04-Aug-2022 17:06:30

Instrument ID: 19930

Lims ID: 410-92859-A-7

Lab Sample ID: 410-92859-7

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

Operator ID: knk41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

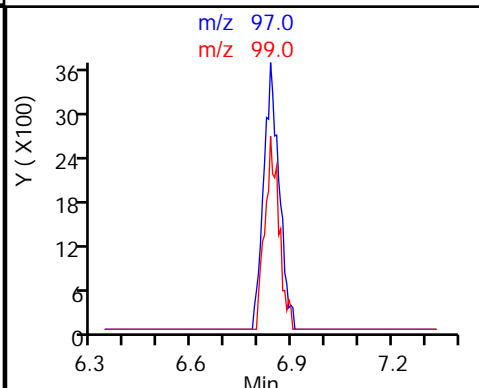
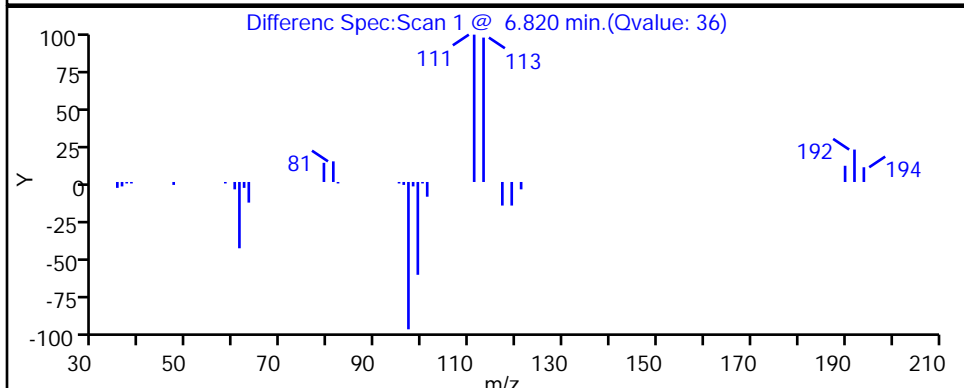
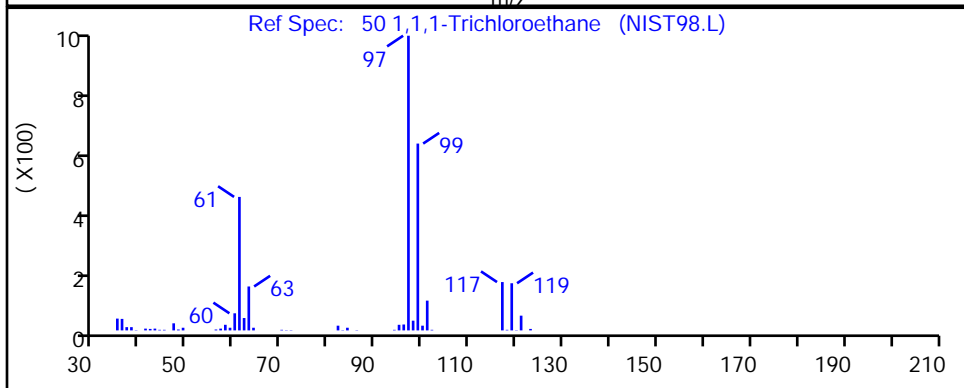
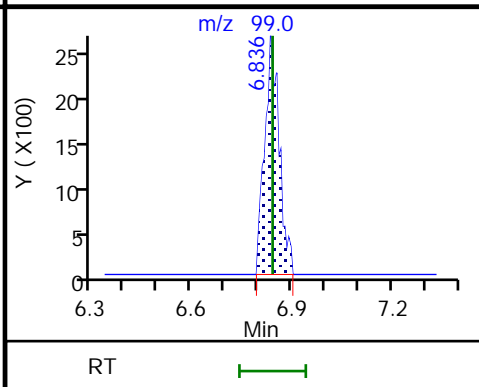
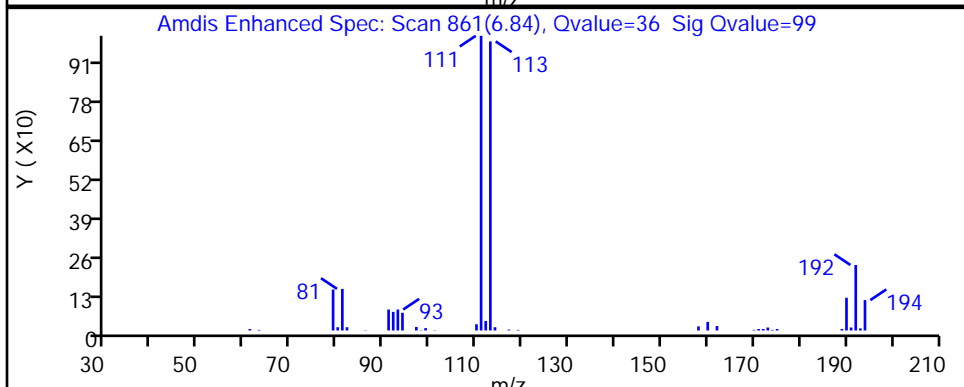
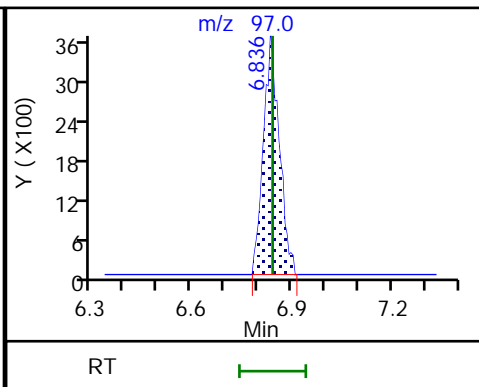
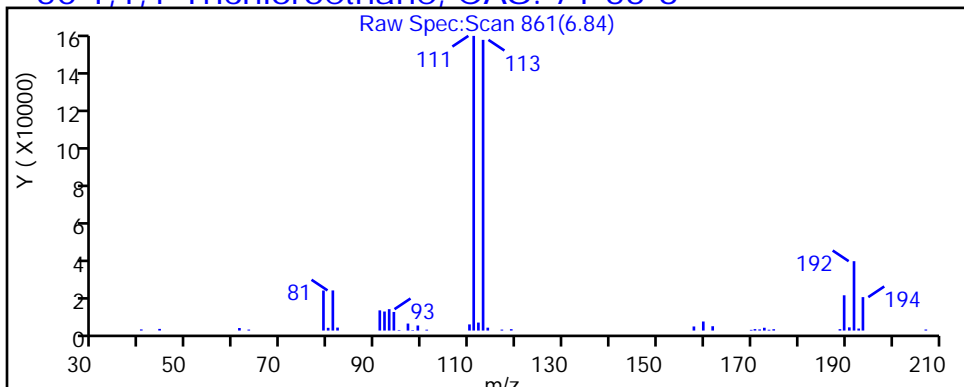
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

50 1,1,1-Trichloroethane, CAS: 71-55-6



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D

Injection Date: 04-Aug-2022 17:06:30

Instrument ID: 19930

Lims ID: 410-92859-A-7

Lab Sample ID: 410-92859-7

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

Operator ID: knk41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

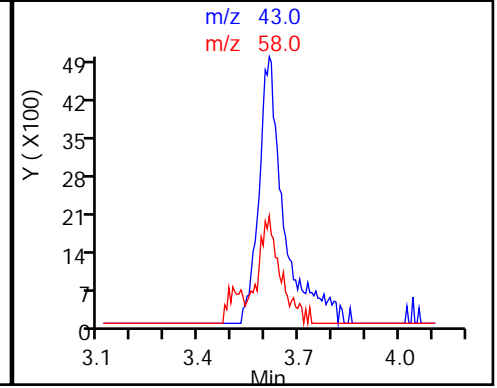
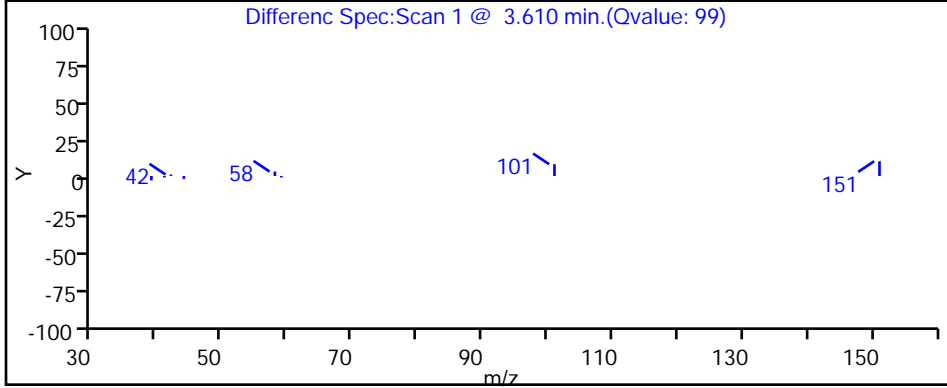
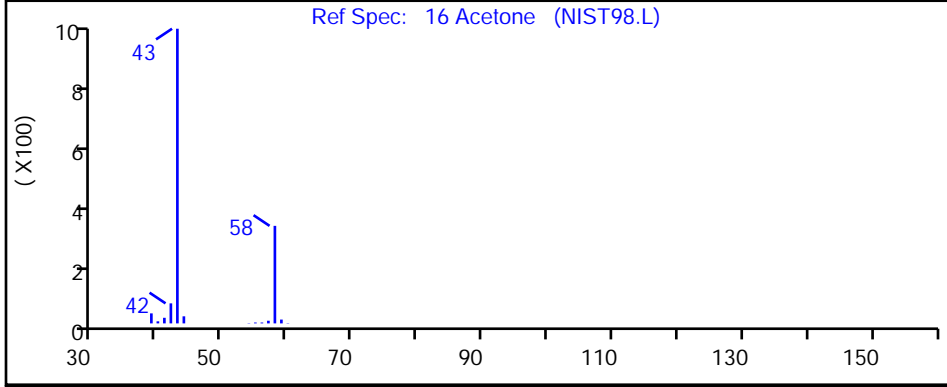
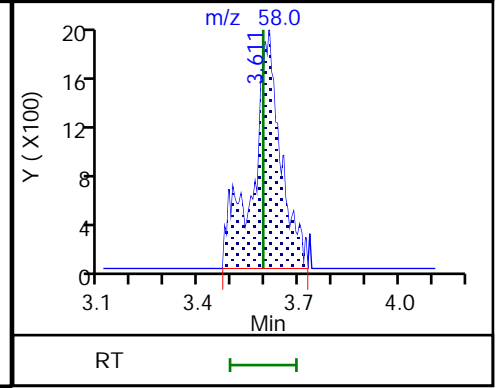
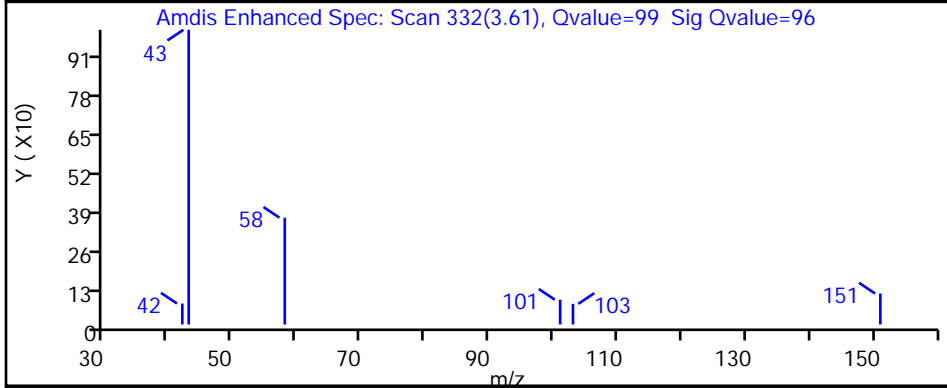
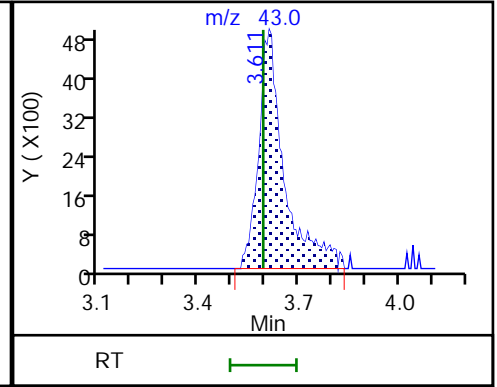
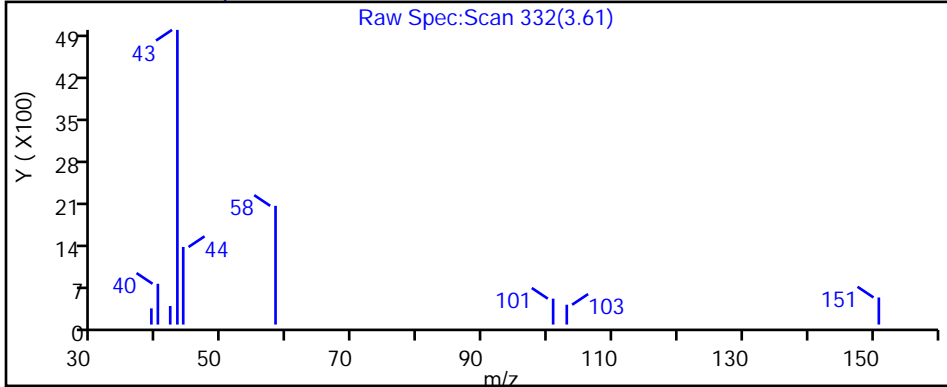
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

16 Acetone, CAS: 67-64-1





Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D

Injection Date: 04-Aug-2022 17:06:30

Instrument ID: 19930

Lims ID: 410-92859-A-7

Lab Sample ID: 410-92859-7

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

Operator ID: knk41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

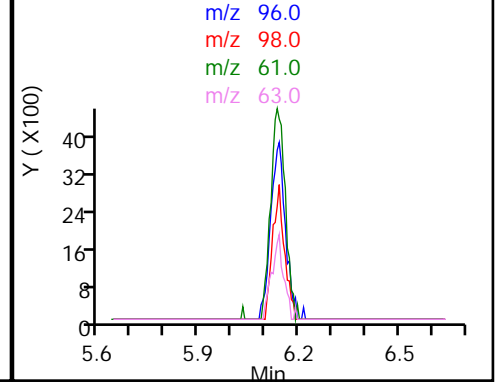
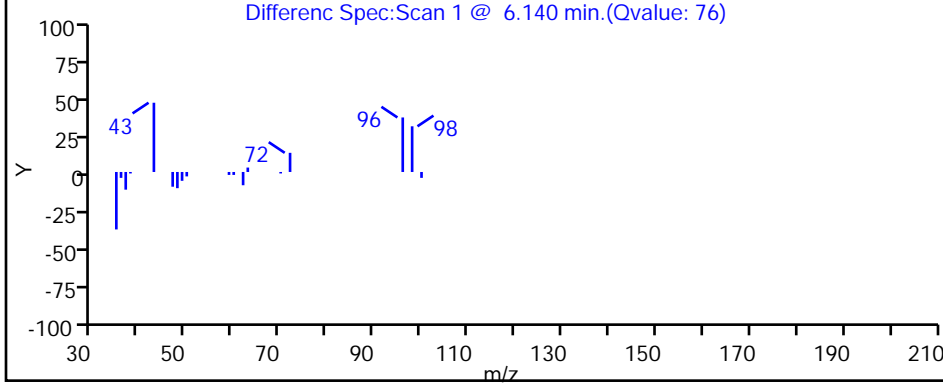
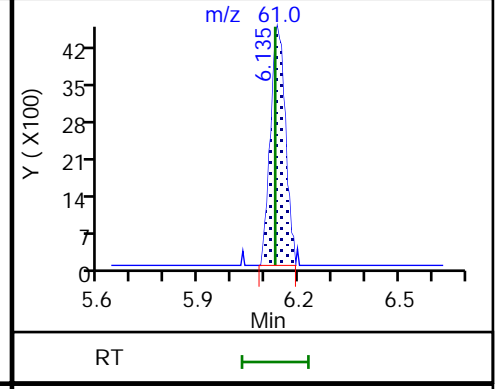
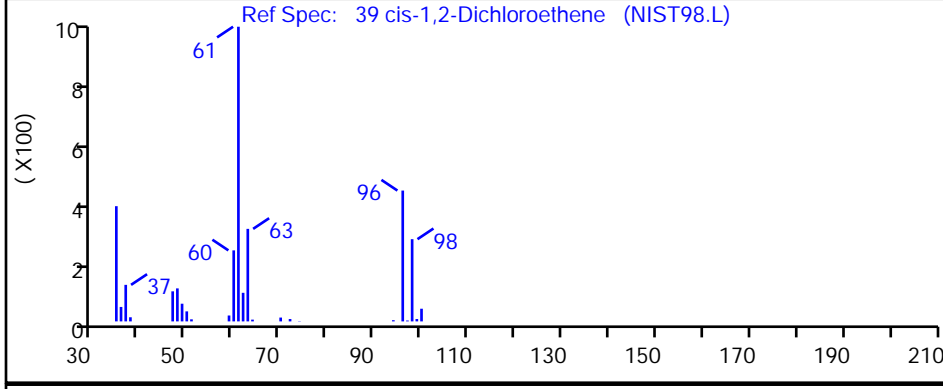
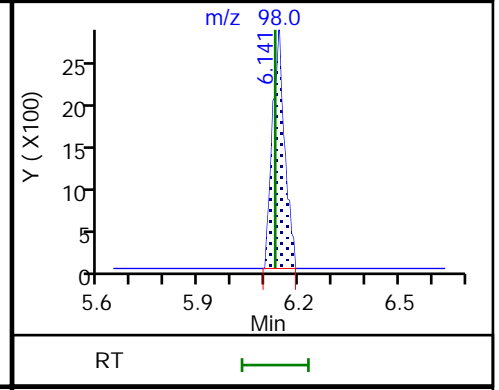
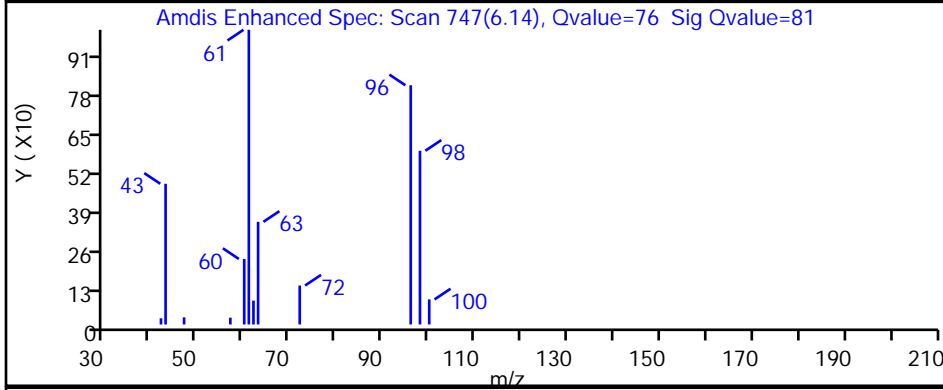
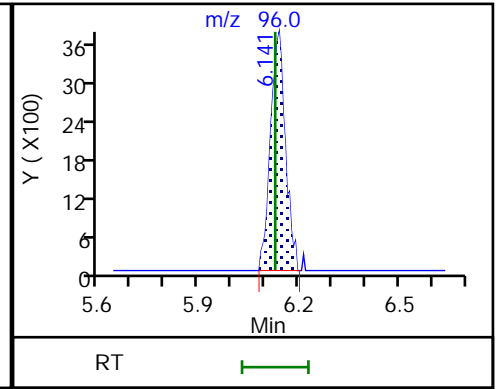
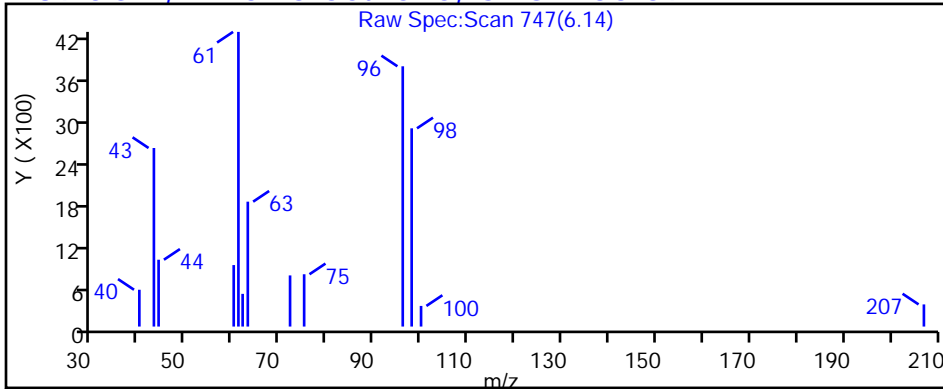
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

**39 cis-1,2-Dichloroethene, CAS: 156-59-2**



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D

Injection Date: 04-Aug-2022 17:06:30

Instrument ID: 19930

Lims ID: 410-92859-A-7

Lab Sample ID: 410-92859-7

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

Operator ID: knk41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

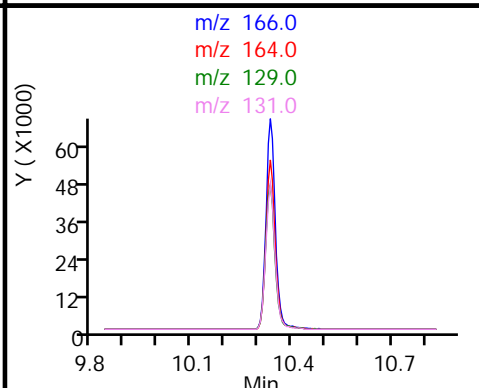
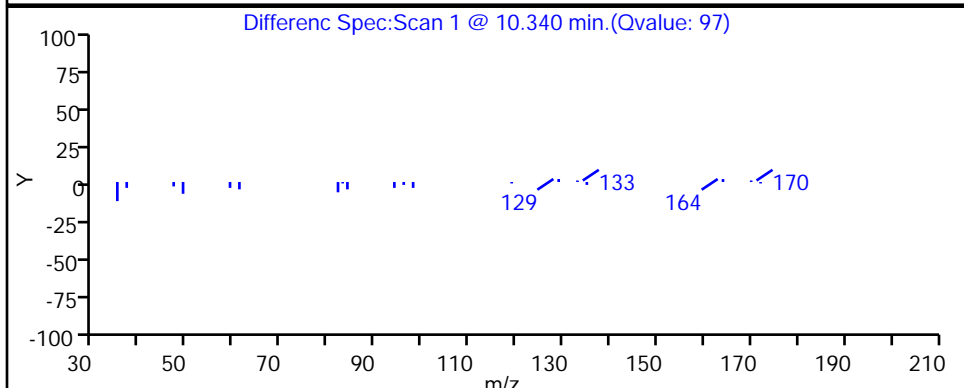
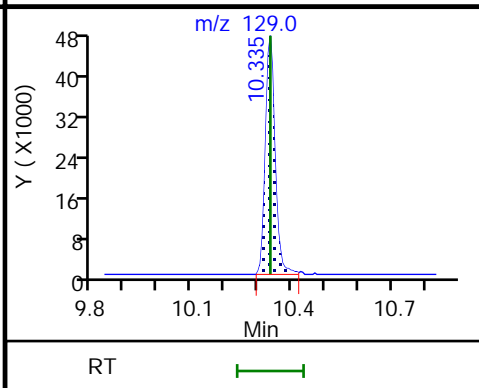
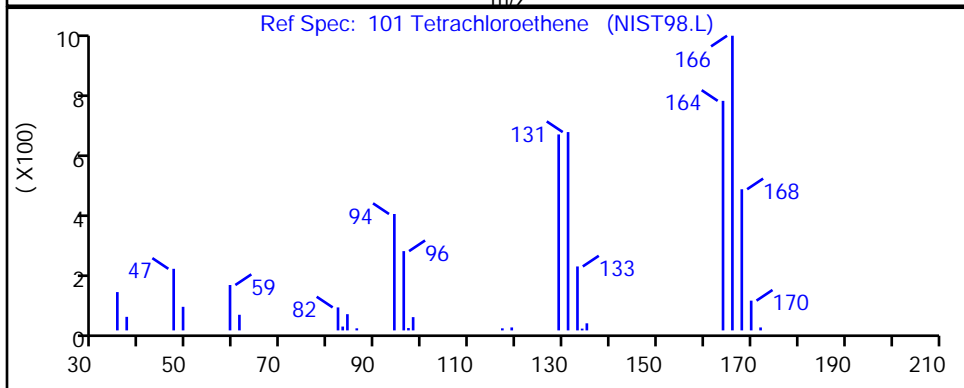
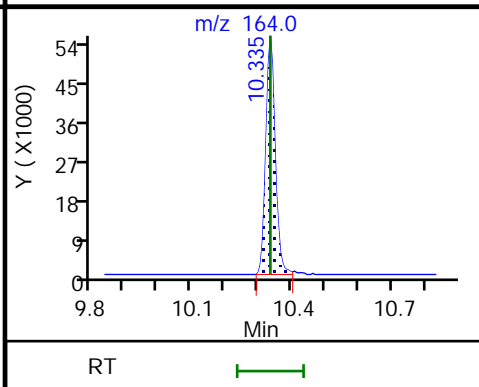
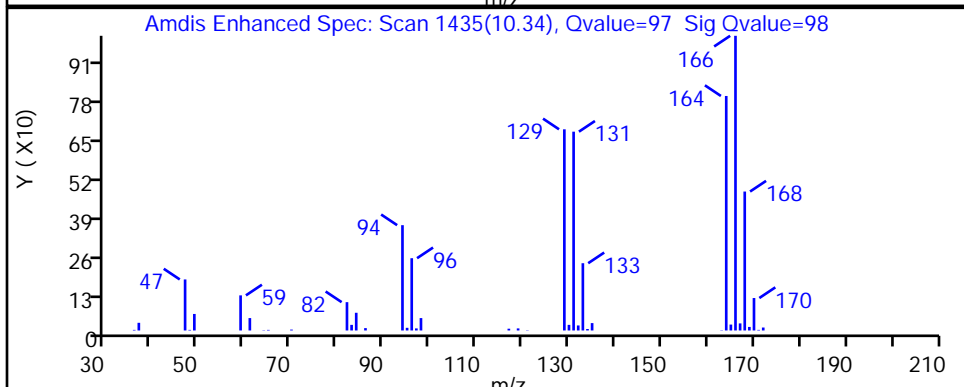
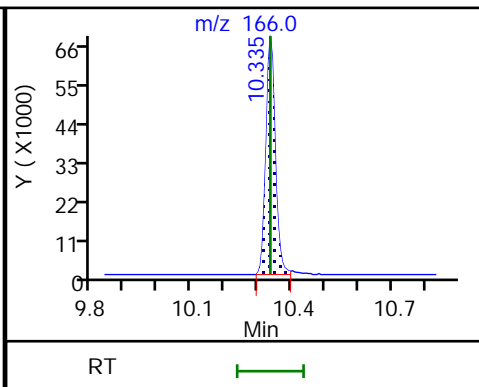
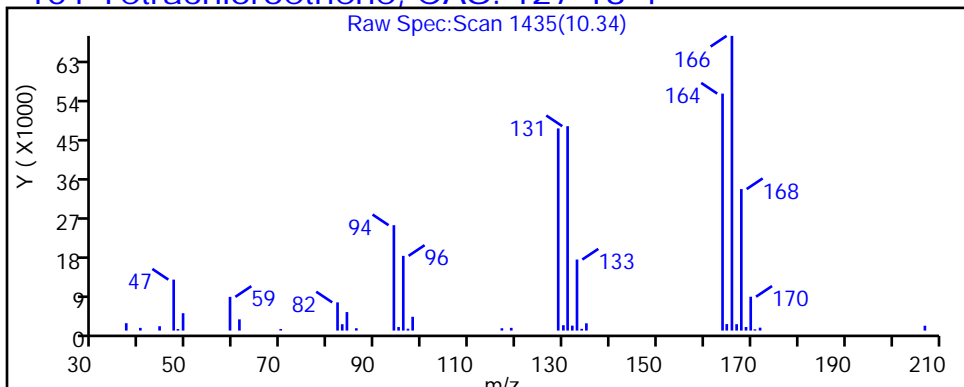
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

101 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D

Injection Date: 04-Aug-2022 17:06:30

Instrument ID: 19930

Lims ID: 410-92859-A-7

Lab Sample ID: 410-92859-7

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

Operator ID: knk41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

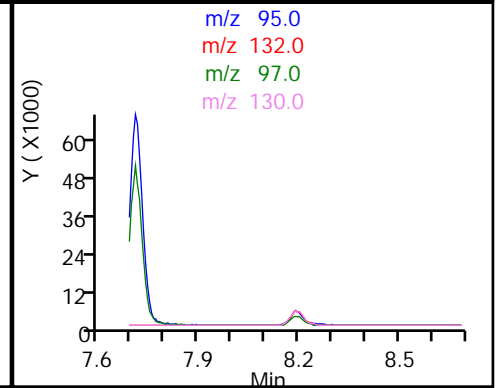
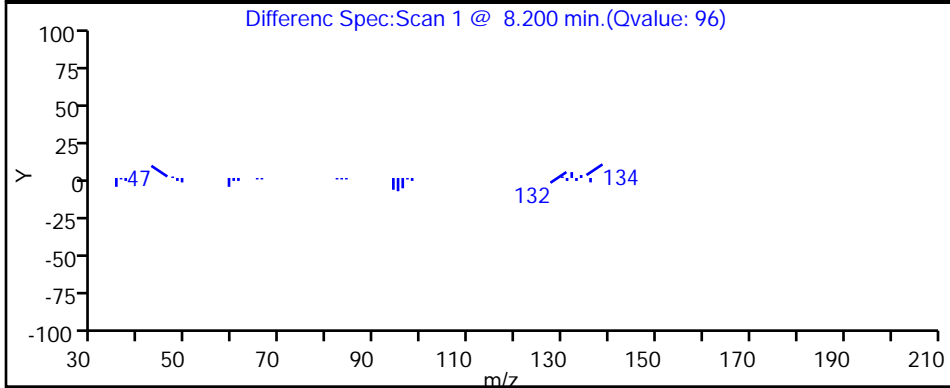
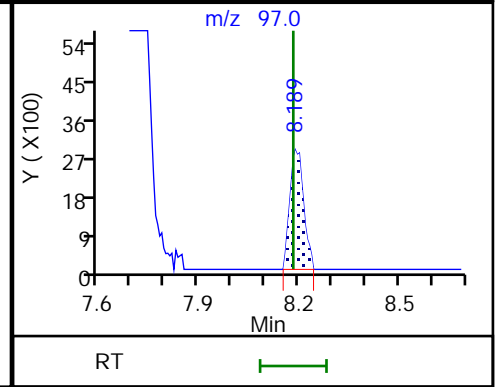
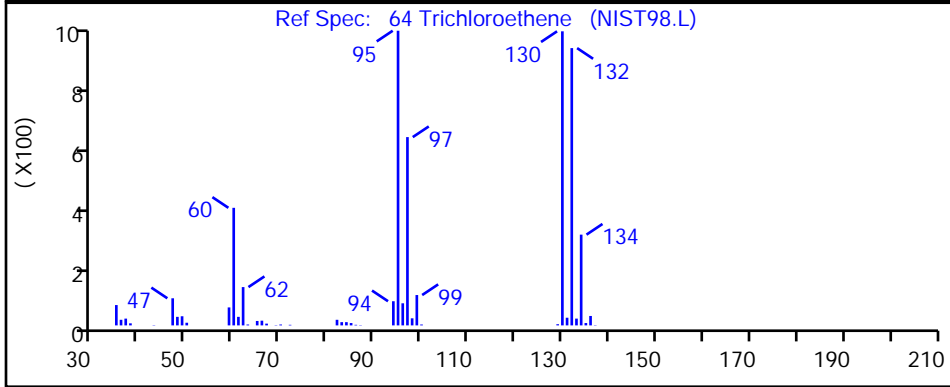
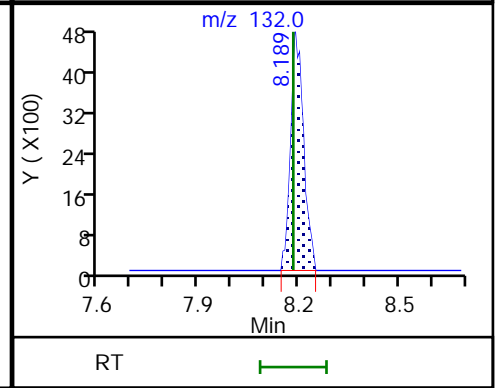
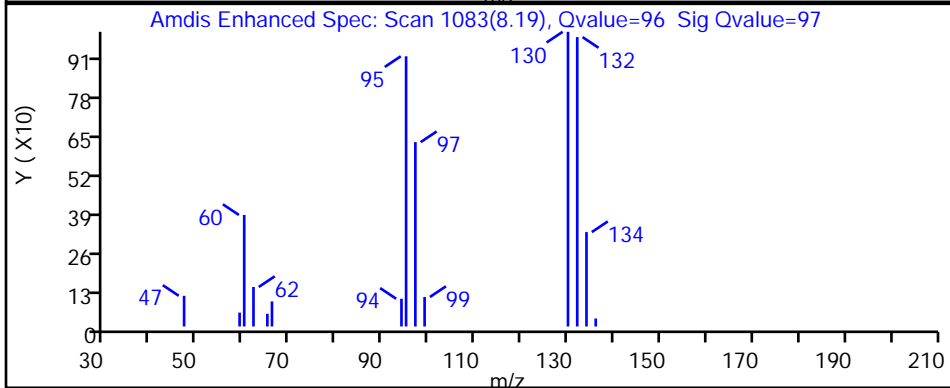
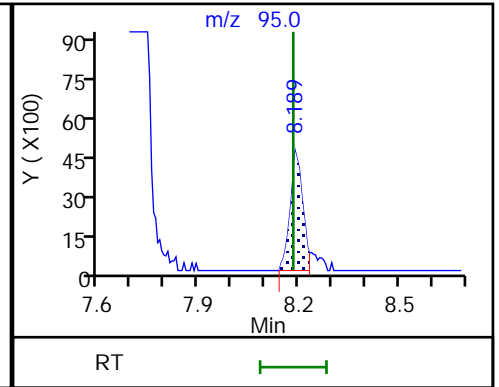
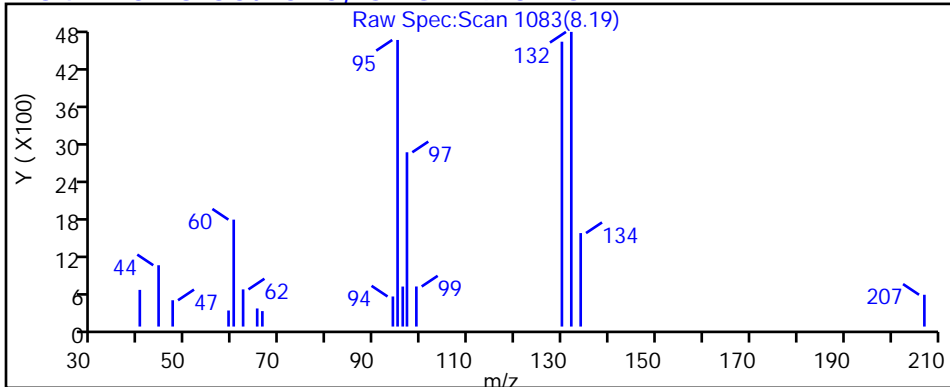
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

64 Trichloroethene, CAS: 79-01-6



Euofins Lancaster Laboratories Environment Testing, LLC

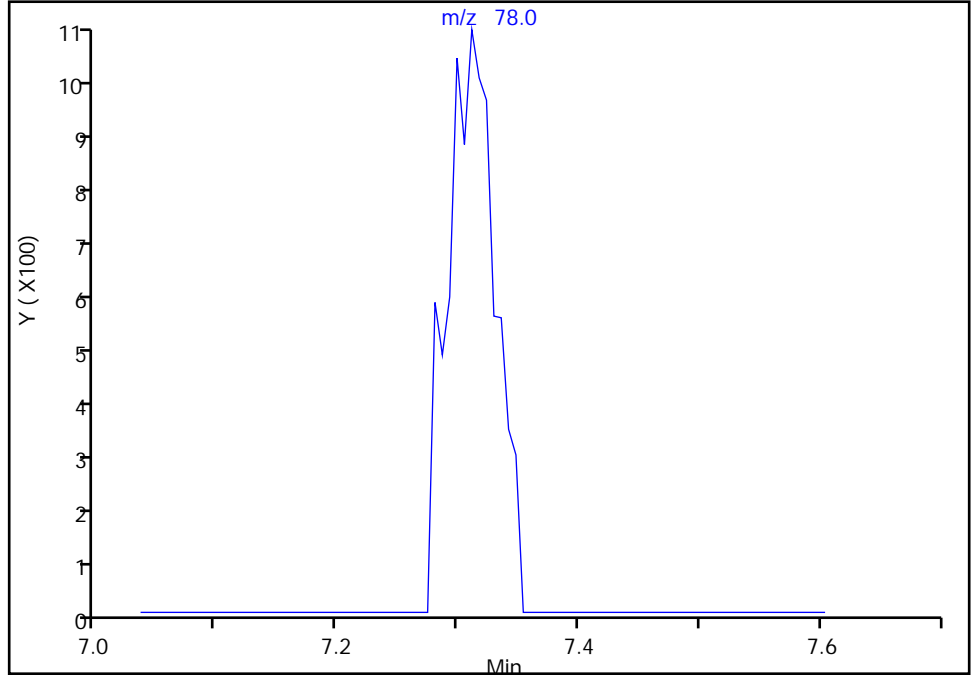
Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X20.D  
Injection Date: 04-Aug-2022 17:06:30 Instrument ID: 19930  
Lims ID: 410-92859-A-7 Lab Sample ID: 410-92859-7  
Client ID: HD-COD-SW-16-0/1-0  
Operator ID: knk41612 ALS Bottle#: 20 Worklist Smp#: 21  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

57 Benzene, CAS: 71-43-2

Signal: 1

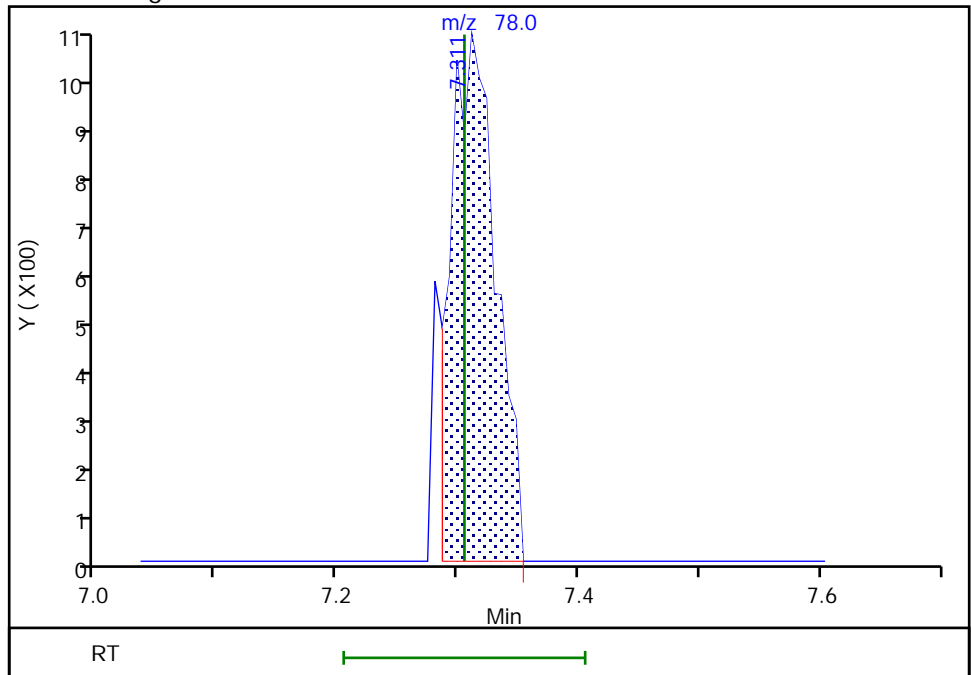
Not Detected  
Expected RT: 7.31

Processing Integration Results



Manual Integration Results

RT: 7.31  
Area: 2781  
Amount: 0.011097  
Amount Units: ug/l



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-8

Matrix: Water

Lab File ID: IG04X21.D

Analysis Method: 8260D

Date Collected: 07/28/2022 12:15

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 17:28

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	4.0		0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	0.85		0.50	0.10
75-35-4	1,1-Dichloroethene	0.31	J	0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	2.4	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	0.16	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	3.8		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
108-88-3	Toluene	ND		0.50	0.080
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: HD-COD-SW-17-0/1-0      Lab Sample ID: 410-92859-8

Matrix: Water      Lab File ID: IG04X21.D

Analysis Method: 8260D      Date Collected: 07/28/2022 12:15

Sample wt/vol: 25 (mL)      Date Analyzed: 08/04/2022 17:28

Soil Aliquot Vol: \_\_\_\_\_      Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 282764      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	3.2		0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
2037-26-5	Toluene-d8 (Surr)	95		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D  
 Lims ID: 410-92859-A-8  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 17:28:30 ALS Bottle#: 21 Worklist Smp#: 22  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-022  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:51:15 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date:

05-Aug-2022 10:51:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	U
5 Vinyl chloride	62	2.270	2.282	-0.012	96	6220	0.0904	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96	3.556	3.568	-0.012	95	15800	0.3121	
16 Acetone	43	3.611	3.592	0.019	98	21549	2.37	
20 Carbon disulfide	76	3.861	3.879	-0.018	94	7659	0.0605	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	26	164813	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	7
30 trans-1,2-Dichloroethene	96	4.635	4.653	-0.018	91	2492	0.0444	M
32 1,1-Dichloroethane	63	5.299	5.306	-0.007	96	87150	0.8467	
38 2-Butanone (MEK)	43	6.116	6.098	0.018	23	14060	0.8327	
39 cis-1,2-Dichloroethene	96	6.135	6.129	0.006	78	237313	3.78	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.610	6.610	0.000	92	16291	0.1578	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	521142	10.4	
50 1,1,1-Trichloroethane	97	6.836	6.842	-0.006	97	369362	4.00	
54 Carbon tetrachloride	117		7.049				ND	7
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	64	105790	10.3	
57 Benzene	78		7.305				ND	7
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.708	7.707	0.001	99	1996904	10.0	
64 Trichloroethene	95	8.189	8.183	0.006	96	203443	3.16	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2041208	9.51	
79 Toluene	92	9.786	9.780	0.006	96	4603	0.0271	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.329	10.335	-0.006	98	4023686	49.7	E
103 2-Hexanone	43		10.451				ND	
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1653299	10.0	
109 Chlorobenzene	112		11.182				ND	7
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	738913	9.39	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	886798	10.0	

### QC Flag Legend

#### Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D

Injection Date: 04-Aug-2022 17:28:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-8

Lab Sample ID: 410-92859-8

Worklist Smp#: 22

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

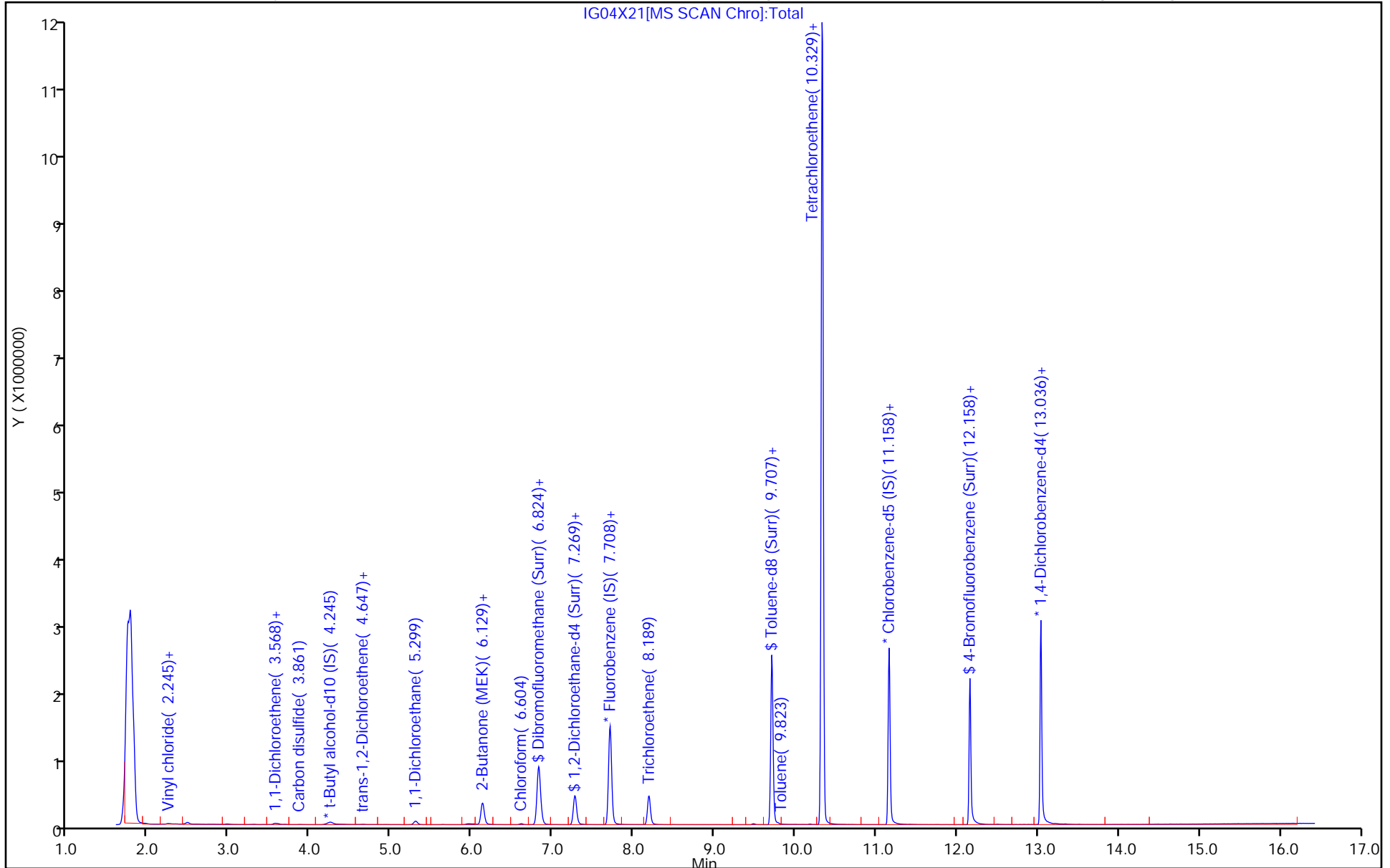
ALS Bottle#: 21

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D  
 Lims ID: 410-92859-A-8  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 17:28:30 ALS Bottle#: 21 Worklist Smp#: 22  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-022  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:51:15 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:51:15

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.4	103.95
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	102.74
\$ 78 Toluene-d8 (Surr)	10.0	9.51	95.14
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.39	93.93

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D

Injection Date: 04-Aug-2022 17:28:30

Instrument ID: 19930

Lims ID: 410-92859-A-8

Lab Sample ID: 410-92859-8

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

Operator ID: knk41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

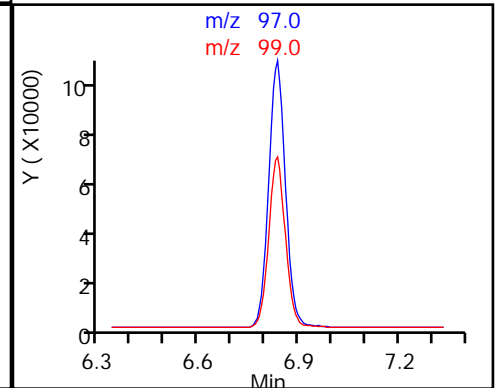
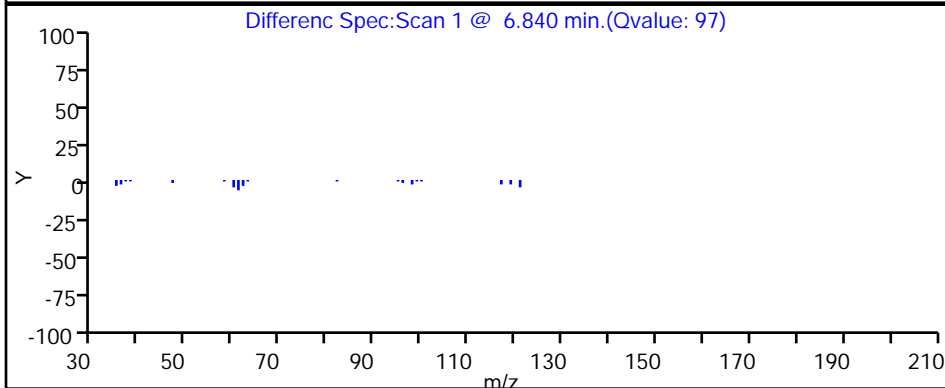
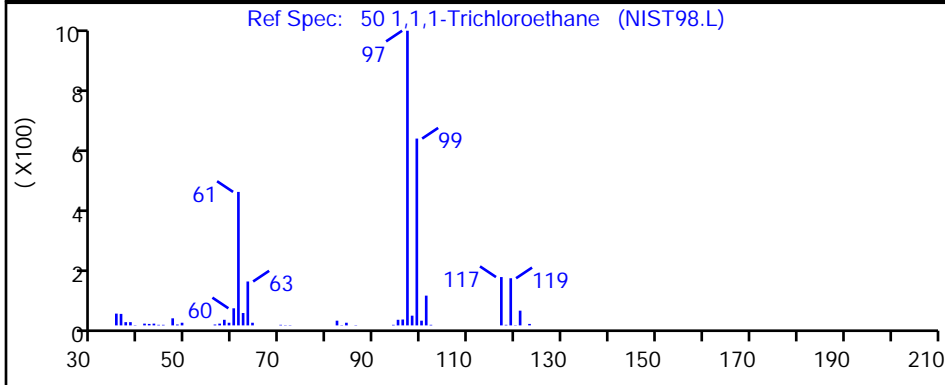
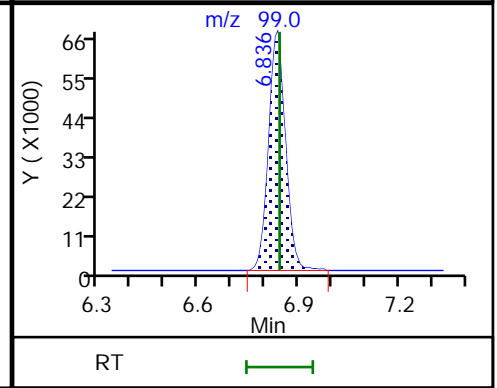
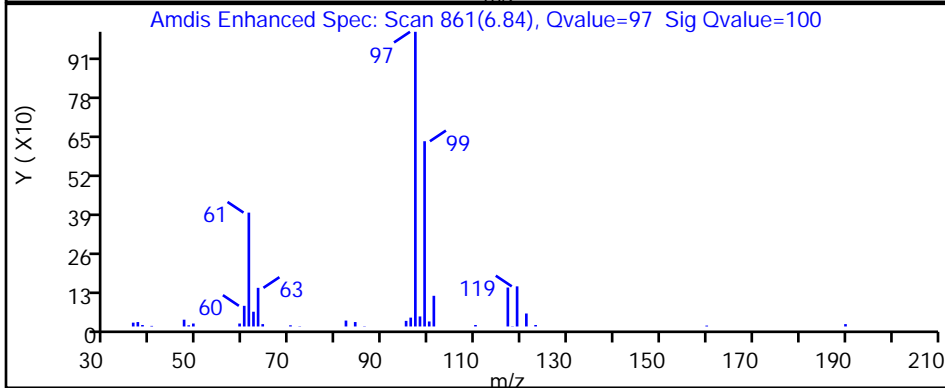
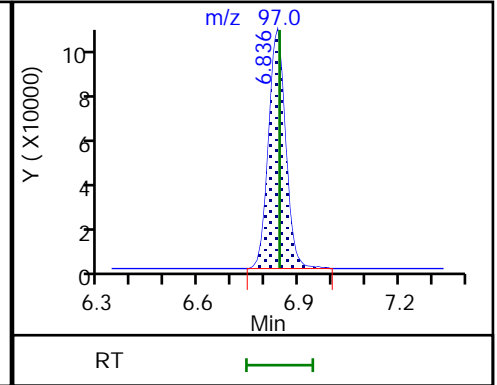
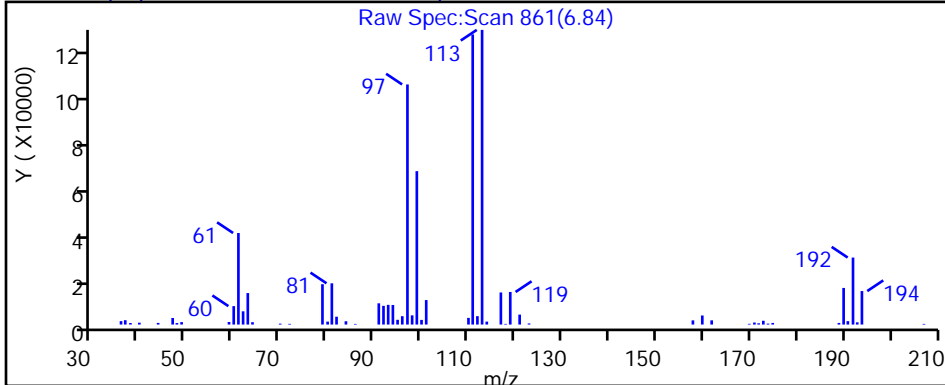
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

50 1,1,1-Trichloroethane, CAS: 71-55-6



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D

Injection Date: 04-Aug-2022 17:28:30

Instrument ID: 19930

Lims ID: 410-92859-A-8

Lab Sample ID: 410-92859-8

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

Operator ID: knk41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

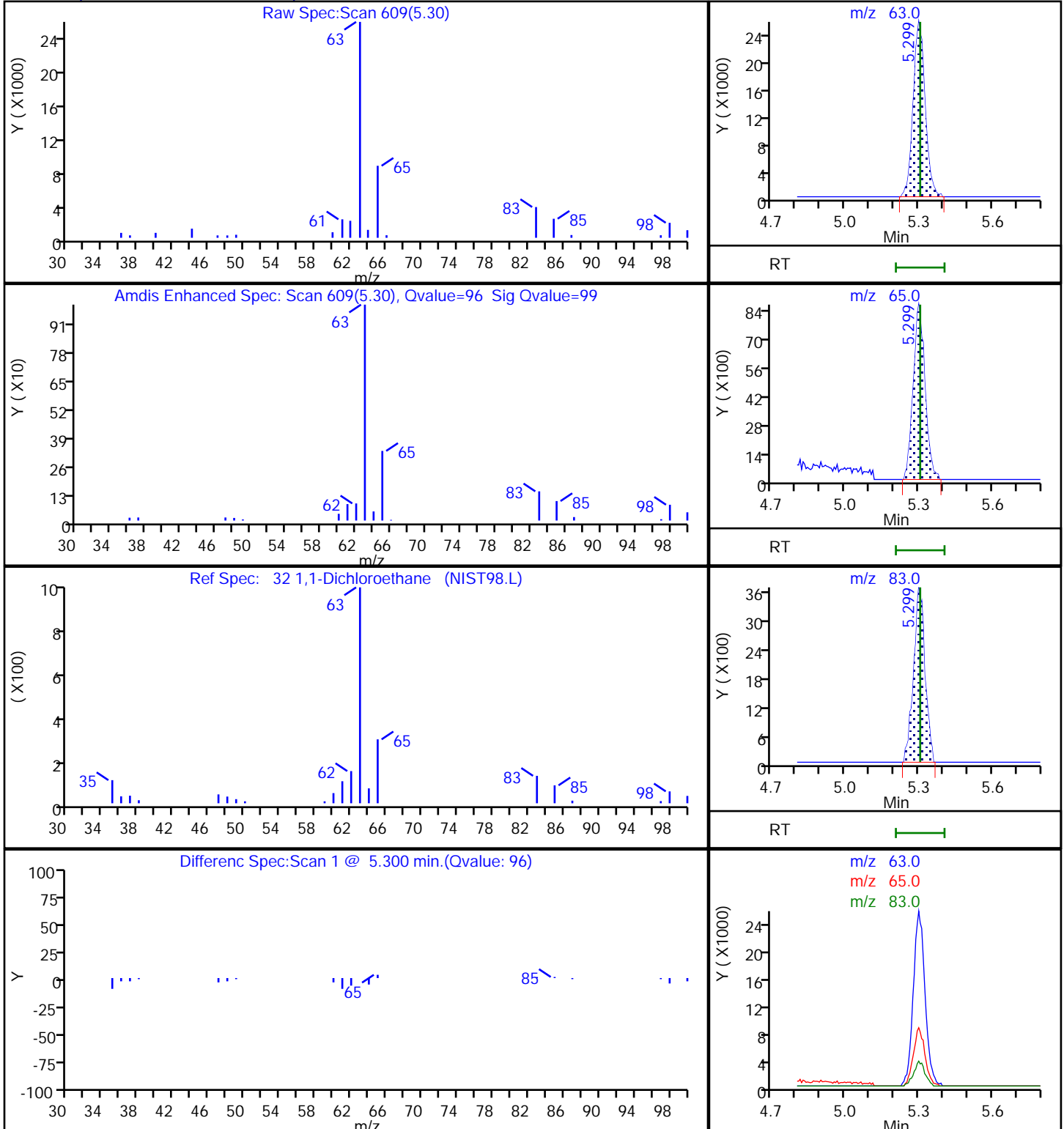
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

32 1,1-Dichloroethane, CAS: 75-34-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D

Injection Date: 04-Aug-2022 17:28:30

Instrument ID: 19930

Lims ID: 410-92859-A-8

Lab Sample ID: 410-92859-8

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

Operator ID: knk41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

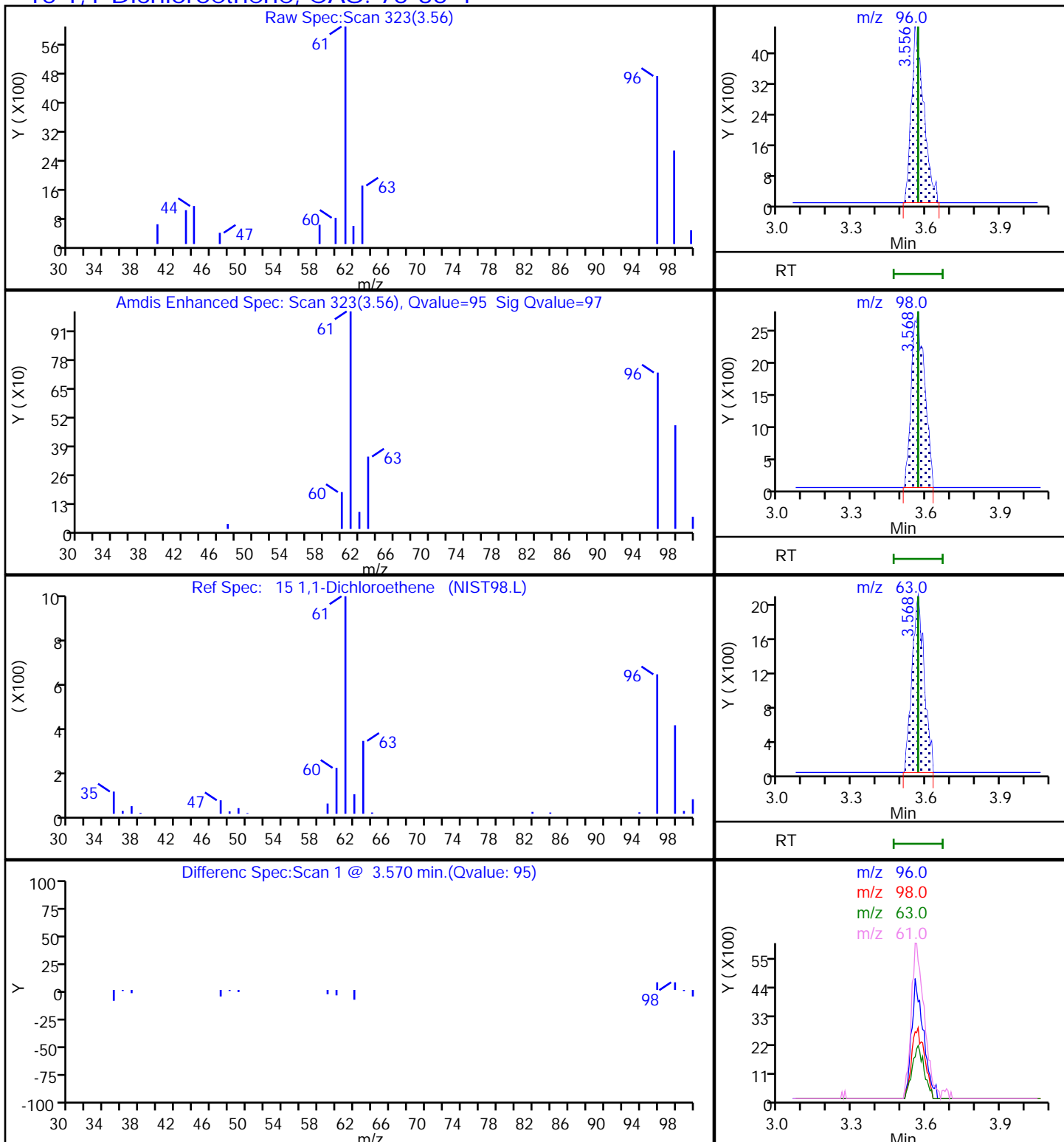
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

15 1,1-Dichloroethene, CAS: 75-35-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D

Injection Date: 04-Aug-2022 17:28:30

Instrument ID: 19930

Lims ID: 410-92859-A-8

Lab Sample ID: 410-92859-8

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

Operator ID: knk41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

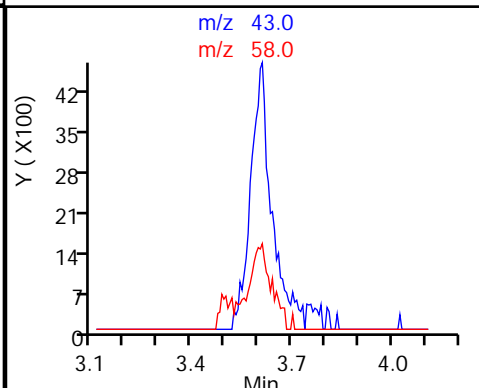
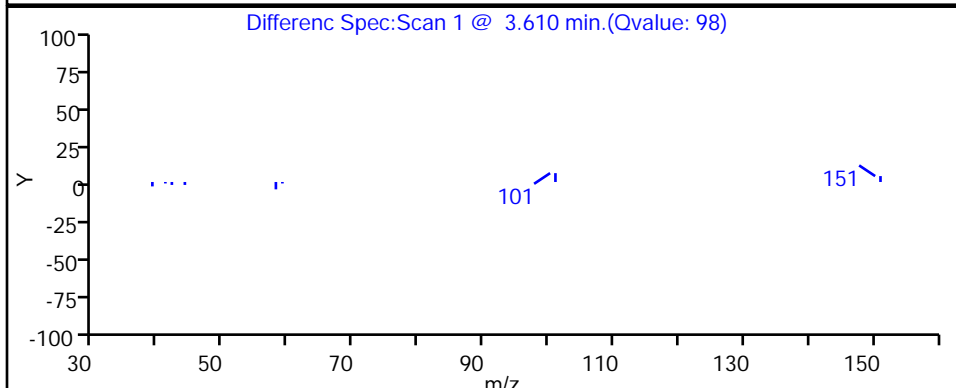
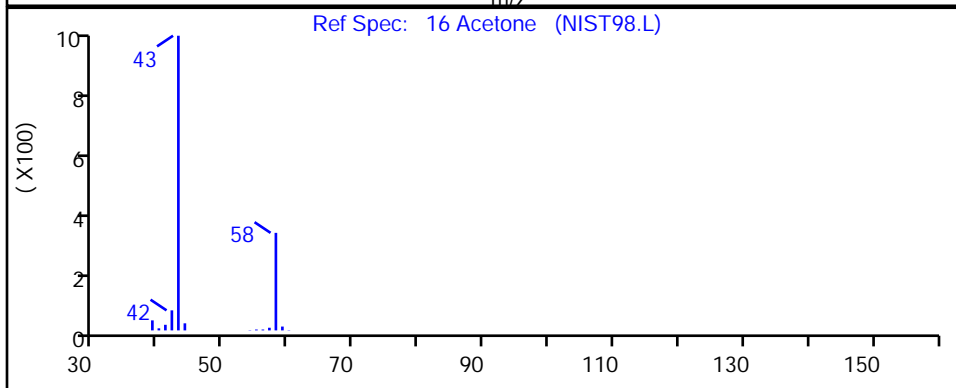
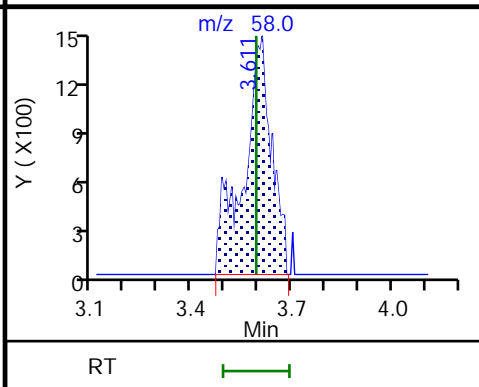
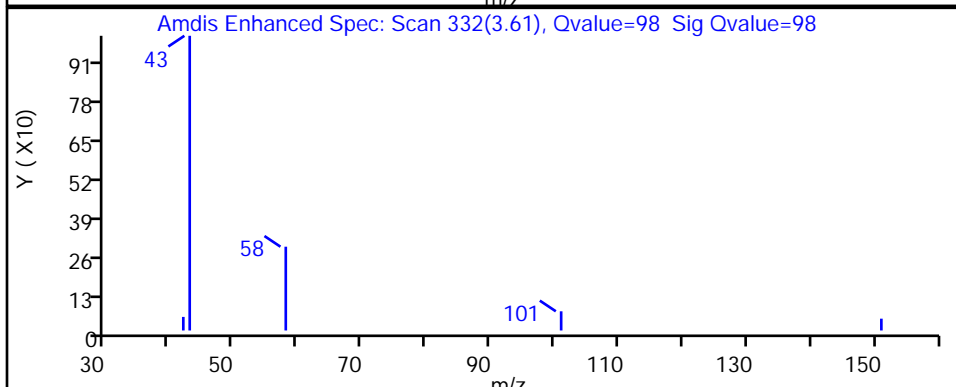
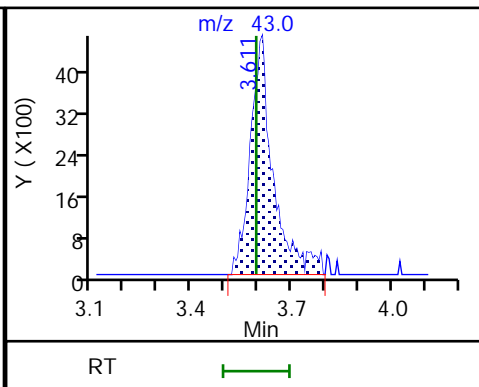
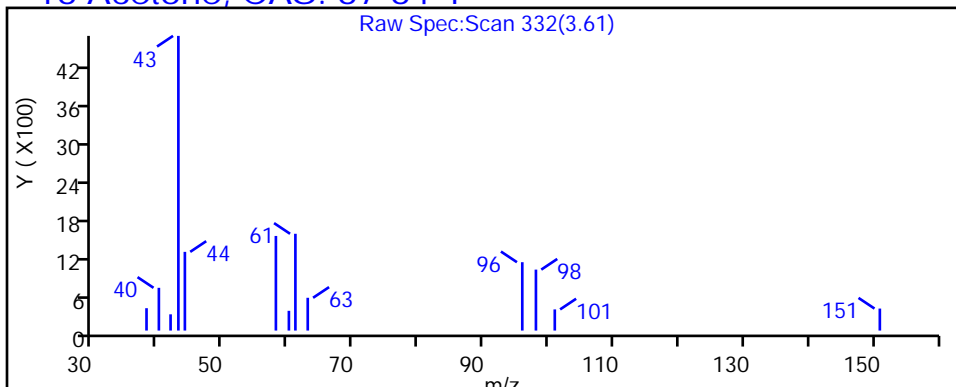
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D

Injection Date: 04-Aug-2022 17:28:30

Instrument ID: 19930

Lims ID: 410-92859-A-8

Lab Sample ID: 410-92859-8

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

Operator ID: knk41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

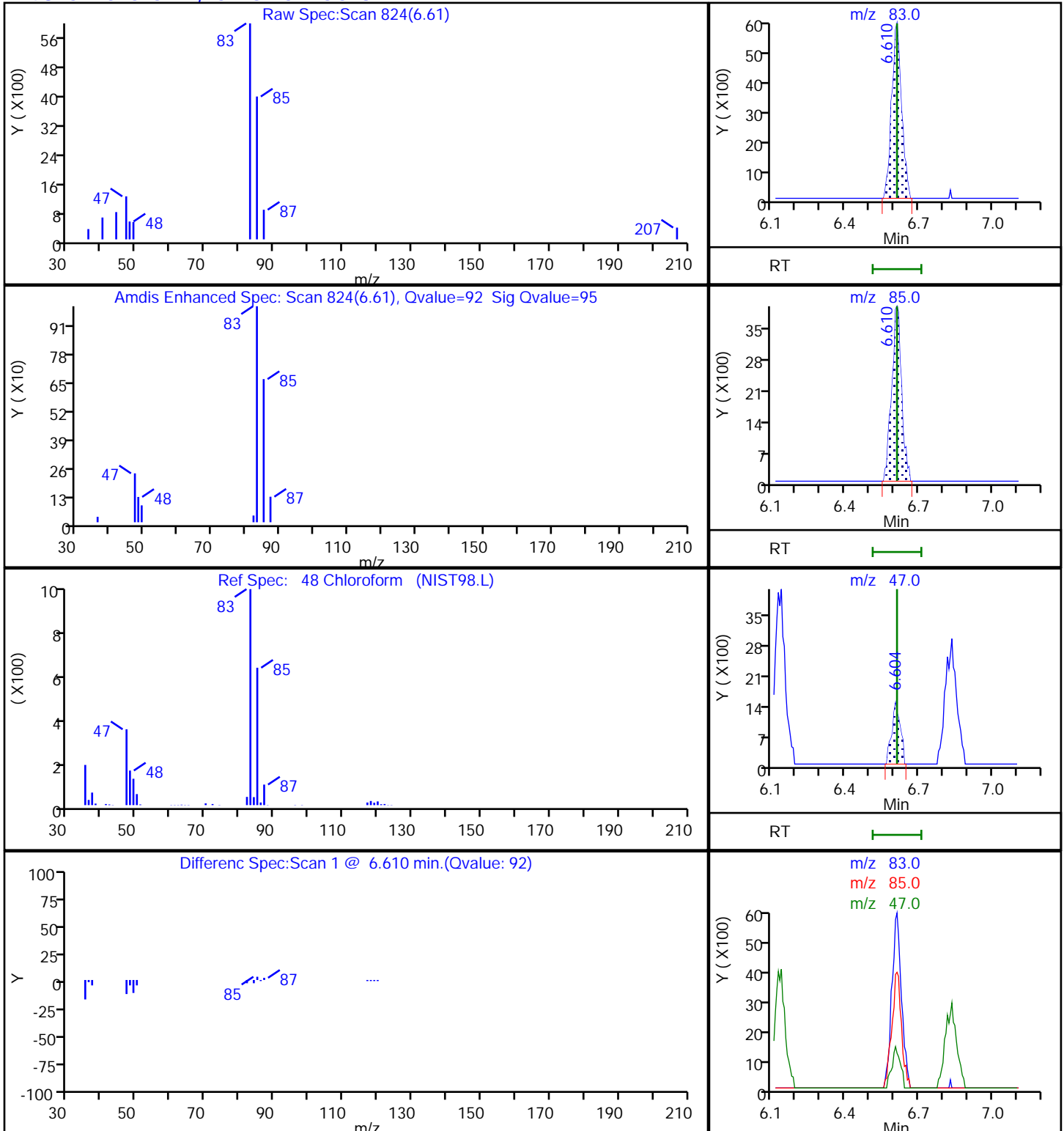
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

### 48 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D

Injection Date: 04-Aug-2022 17:28:30

Instrument ID: 19930

Lims ID: 410-92859-A-8

Lab Sample ID: 410-92859-8

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

Operator ID: knk41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

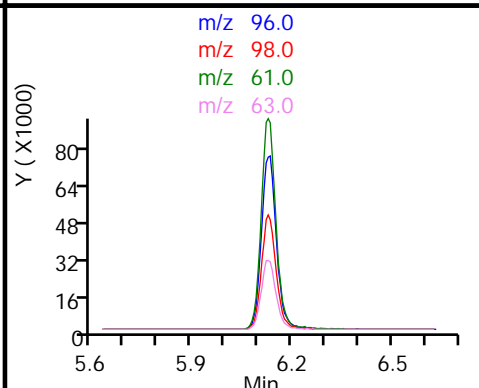
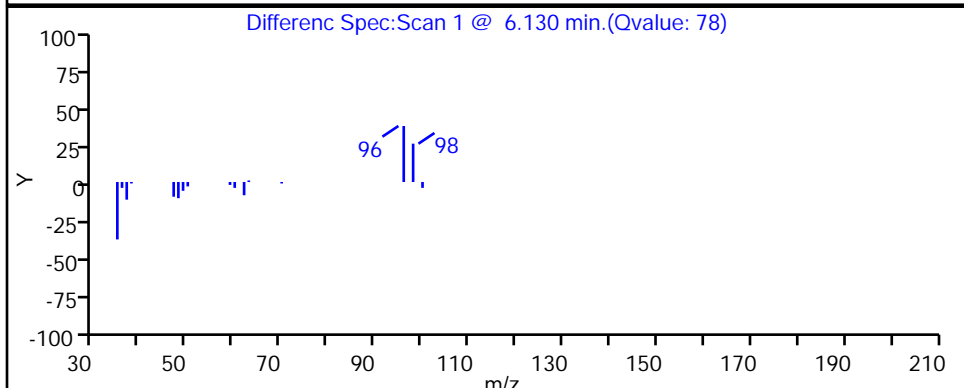
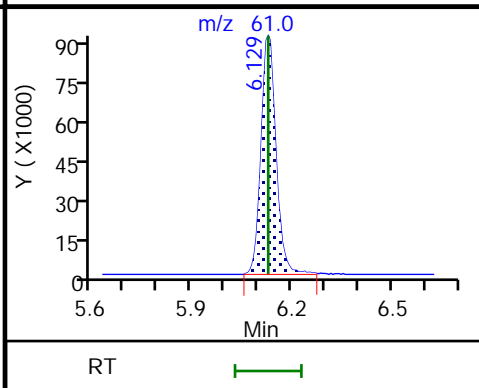
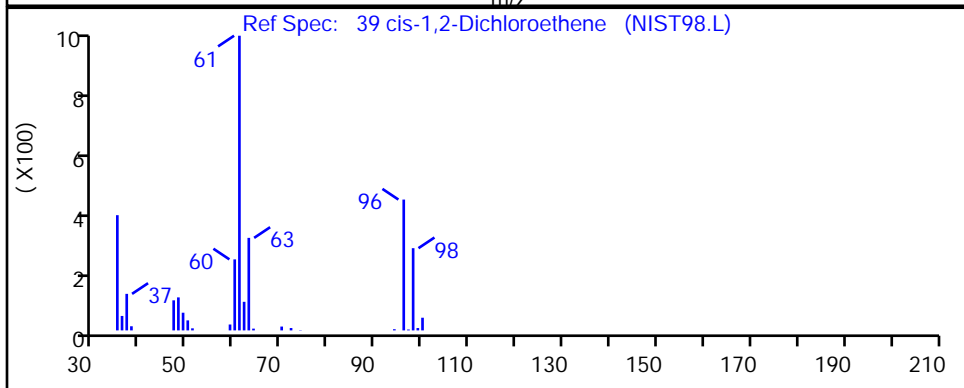
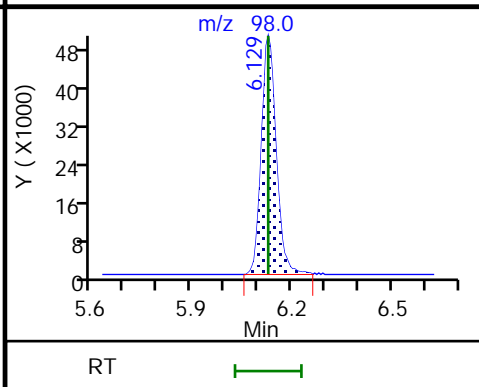
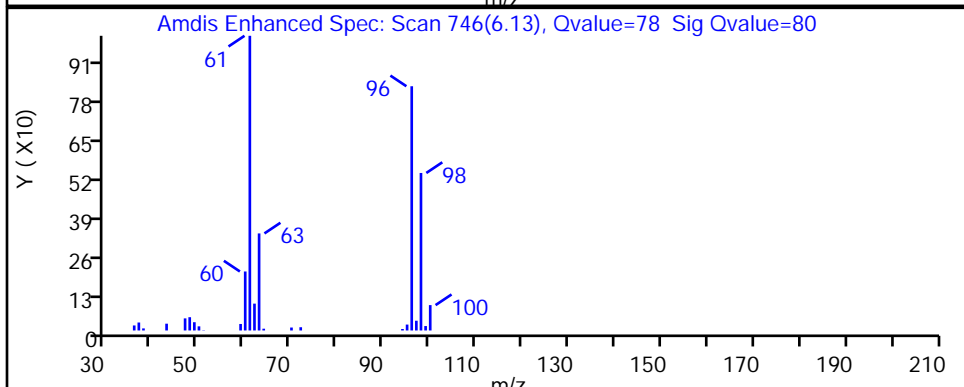
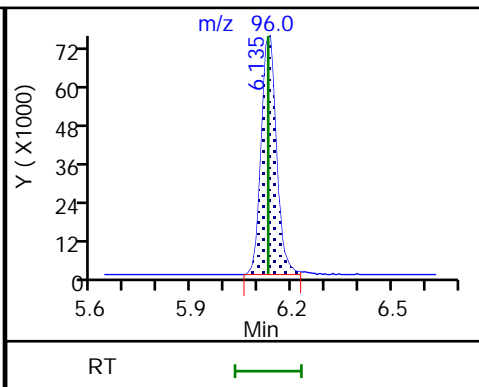
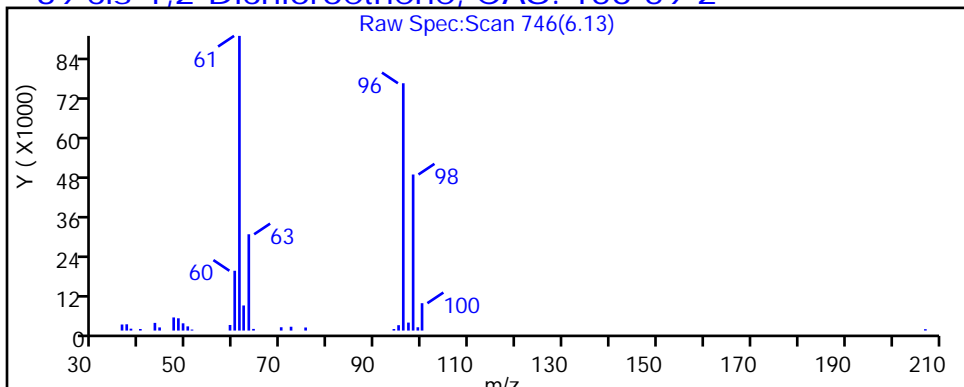
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

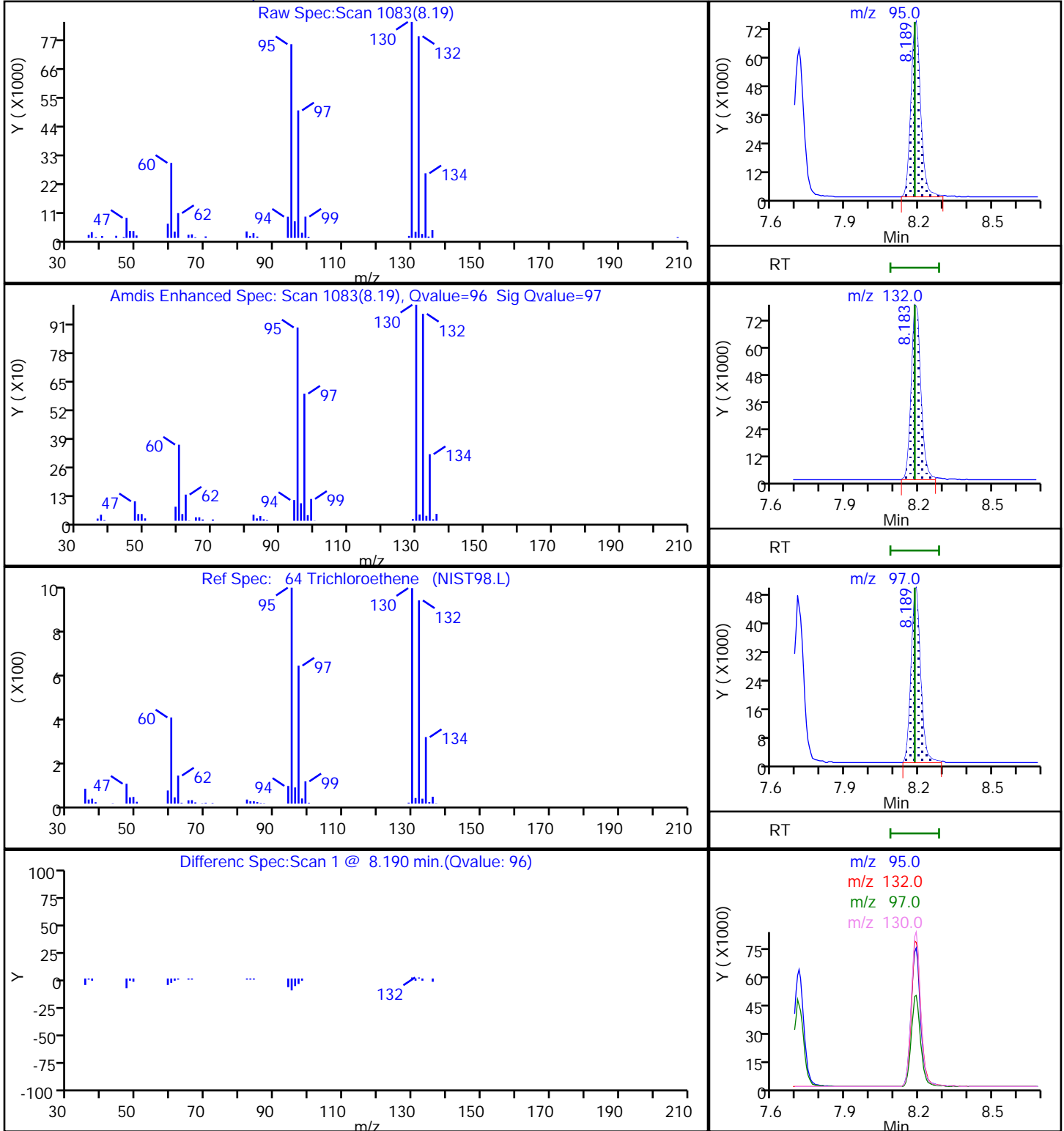
**39 cis-1,2-Dichloroethene, CAS: 156-59-2**





Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D  
Injection Date: 04-Aug-2022 17:28:30 Instrument ID: 19930  
Lims ID: 410-92859-A-8 Lab Sample ID: 410-92859-8  
Client ID: HD-COD-SW-17-0/1-0  
Operator ID: knk41612 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 ID) MS Quad

64 Trichloroethene, CAS: 79-01-6

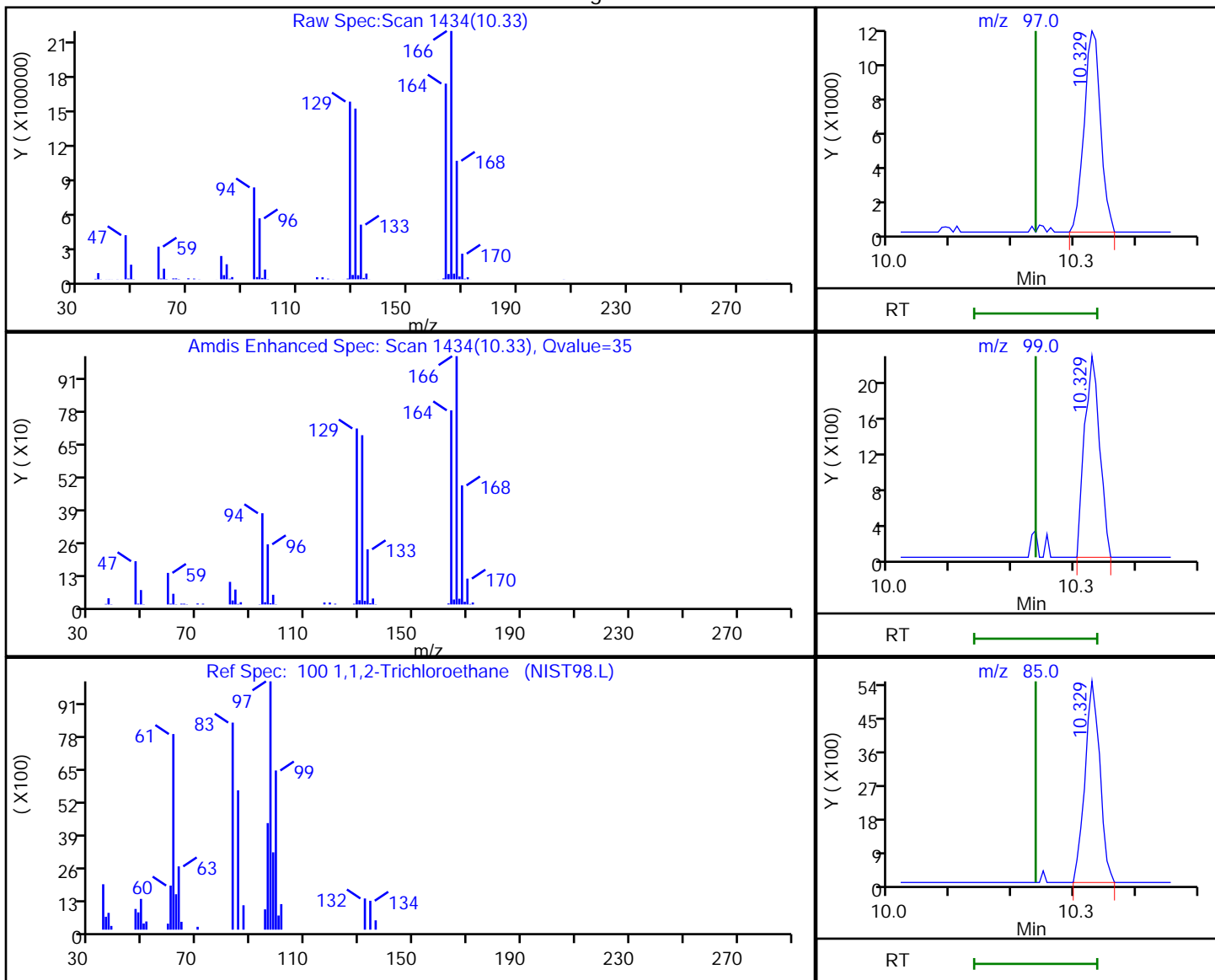


Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D  
 Injection Date: 04-Aug-2022 17:28:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-8 Lab Sample ID: 410-92859-8  
 Client ID: HD-COD-SW-17-0/1-0  
 Operator ID: knk41612 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 ID) Detector: MS Quad

100 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
10.33	97.00	21496	0.449790
10.33	99.00	3840	
10.33	85.00	9076	
10.33	83.00	65990	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:50:57

Audit Action: Marked Compound Undetected

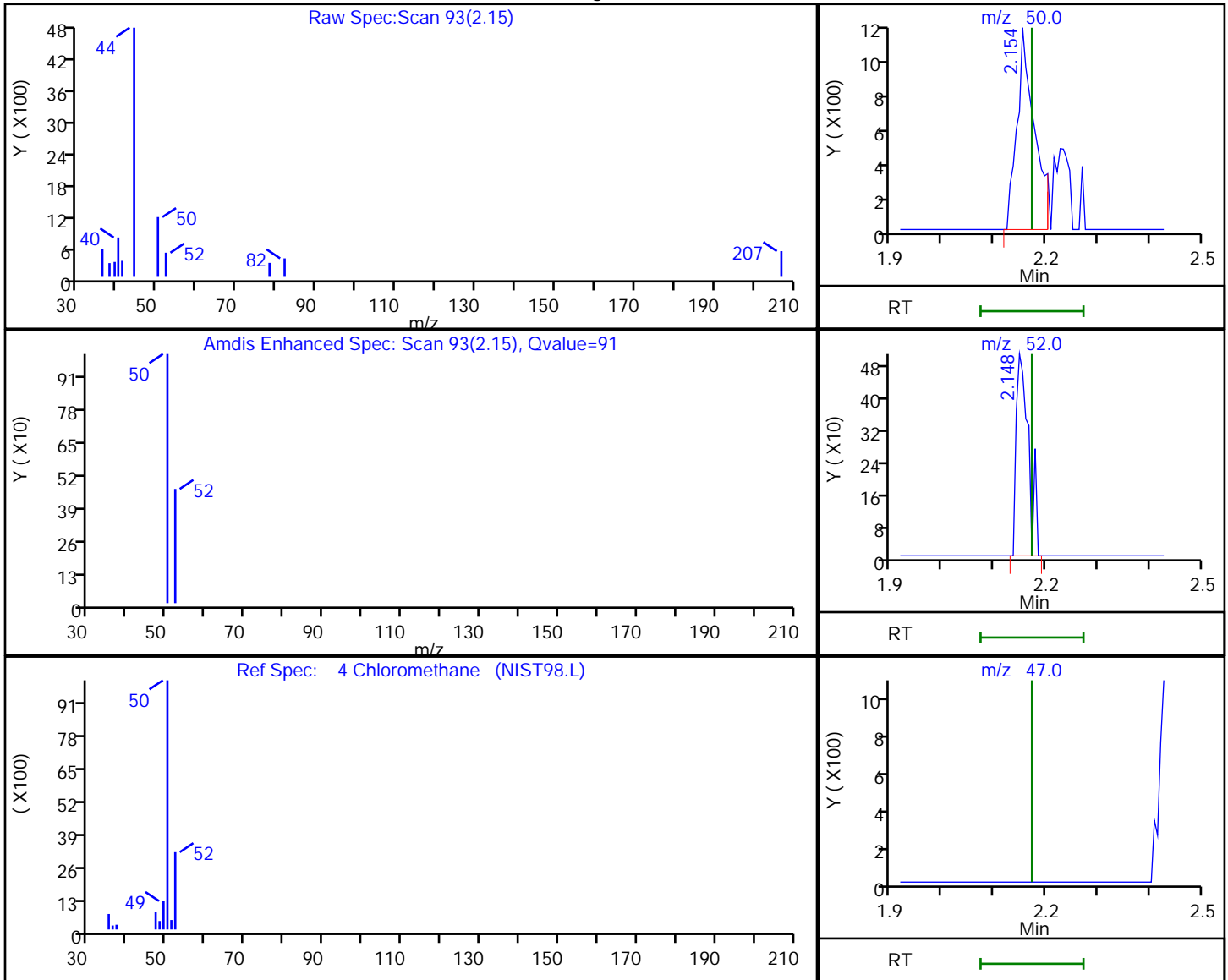
Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D  
 Injection Date: 04-Aug-2022 17:28:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-8 Lab Sample ID: 410-92859-8  
 Client ID: HD-COD-SW-17-0/1-0  
 Operator ID: knk41612 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 ID) Detector: MS Quad

4 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.15	50.00	2661	0.038096
2.15	52.00	829	
2.17	47.00	0	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:50:06

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Environment Testing, LLC

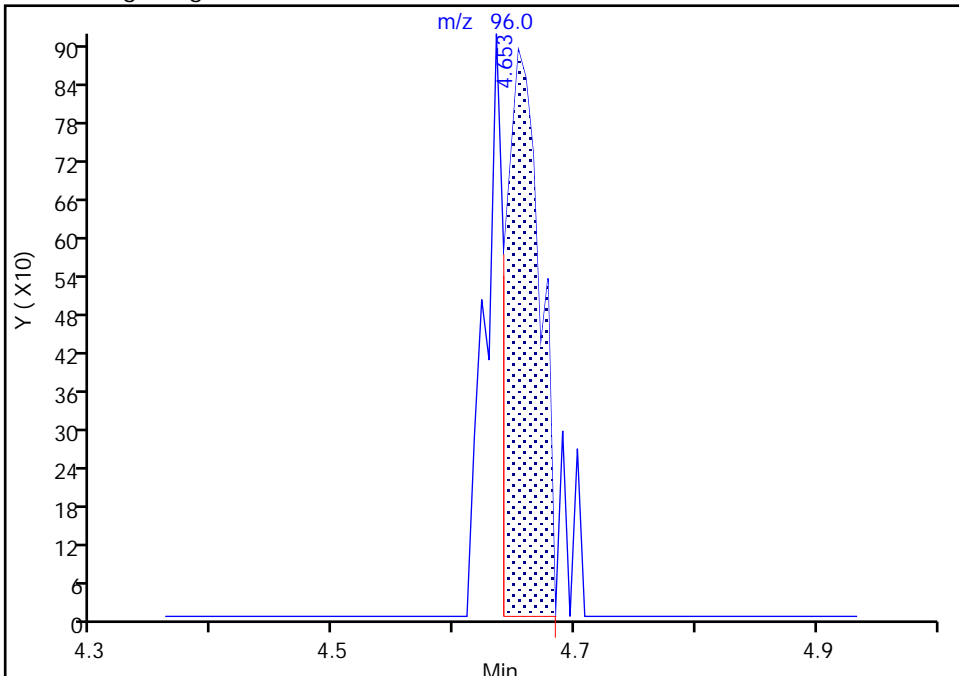
Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X21.D  
Injection Date: 04-Aug-2022 17:28:30 Instrument ID: 19930  
Lims ID: 410-92859-A-8 Lab Sample ID: 410-92859-8  
Client ID: HD-COD-SW-17-0/1-0  
Operator ID: knk41612 ALS Bottle#: 21 Worklist Smp#: 22  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

30 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

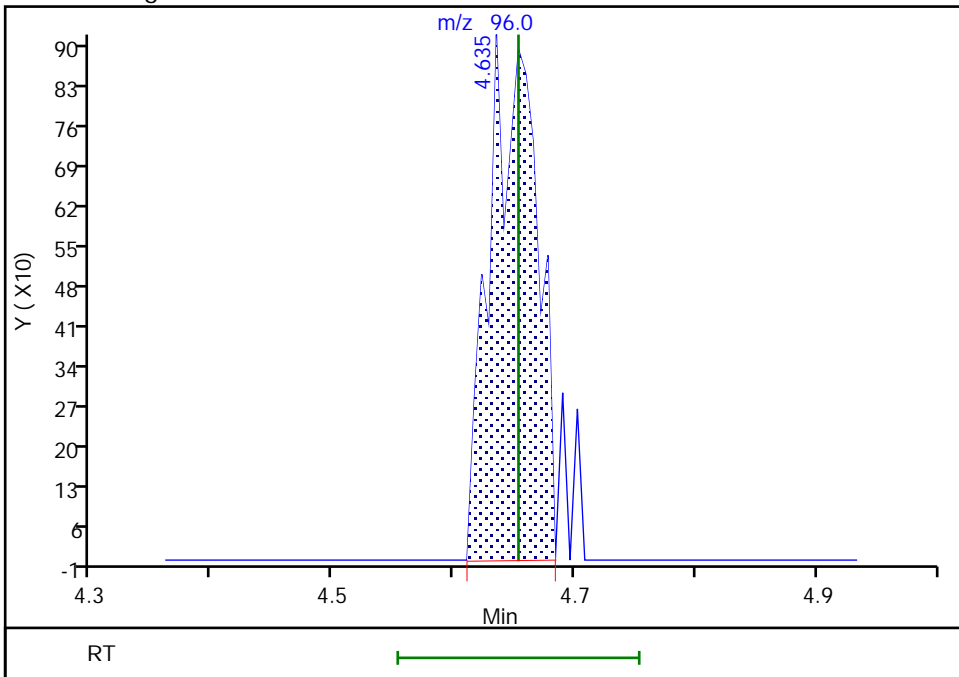
RT: 4.65  
Area: 1722  
Amount: 0.030665  
Amount Units: ug/l

Processing Integration Results



RT: 4.63  
Area: 2492  
Amount: 0.044377  
Amount Units: ug/l

Manual Integration Results



Reviewer: kaewrungrueangp, 05-Aug-2022 10:50:29  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: HD-COD-SW-17-0/1-0 DL      Lab Sample ID: 410-92859-8 DL

Matrix: Water      Lab File ID: IG07X014.D

Analysis Method: 8260D      Date Collected: 07/28/2022 12:15

Sample wt/vol: 25 (mL)      Date Analyzed: 08/07/2022 17:05

Soil Aliquot Vol: \_\_\_\_\_      Dilution Factor: 10

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 283558      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	34		5.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X014.D  
 Lims ID: 410-92859-B-8 DL  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: Client  
 Inject. Date: 07-Aug-2022 17:05:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 10.0000  
 Sample Info: 410-0063569-015  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 08-Aug-2022 08:48:18 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1677

First Level Reviewer: kaewrungrueangp Date: 08-Aug-2022 08:48:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.160				ND	
5 Vinyl chloride	62		2.270				ND	7
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
15 1,1-Dichloroethene	96		3.562				ND	7
16 Acetone	43	3.599	3.580	0.019	66	5683	0.6020	
20 Carbon disulfide	76		3.867				ND	7
25 Methylene Chloride	84		4.221				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.233	4.227	0.006	19	171112	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.641				ND	
32 1,1-Dichloroethane	63	5.299	5.293	0.006	92	6430	0.0532	a
38 2-Butanone (MEK)	43		6.092				ND	
39 cis-1,2-Dichloroethene	96	6.129	6.123	0.006	77	17802	0.2414	
46 Chlorobromomethane	128		6.452				ND	
48 Chloroform	83		6.604				ND	7
\$ 49 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	577841	9.82	
50 1,1,1-Trichloroethane	97	6.836	6.830	0.006	95	27272	0.2515	
54 Carbon tetrachloride	117		7.043				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.269	0.000	56	122407	10.1	
57 Benzene	78		7.299				ND	7
58 1,2-Dichloroethane	62	7.378	7.372	0.006	96	36874	0.4874	
* 61 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2343428	10.0	
64 Trichloroethene	95	8.195	8.183	0.012	97	15427	0.2043	
66 1,2-Dichloropropane	63		8.506				ND	
71 Dichlorobromomethane	83		8.854				ND	
76 cis-1,3-Dichloropropene	75		9.396				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2285904	9.97	
79 Toluene	92		9.780				ND	7
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.335	10.329	0.006	98	290801	3.36	
103 2-Hexanone	43		10.451				ND	
105 Chlorodibromomethane	129		10.616				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1767186	10.0	
109 Chlorobenzene	112		11.183				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.884				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	93	789578	9.39	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	913754	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

a - User Assigned ID

**Reagents:**

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X014.D

Injection Date: 07-Aug-2022 17:05:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-B-8 DL

Lab Sample ID: 410-92859-8

Worklist Smp#: 15

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

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

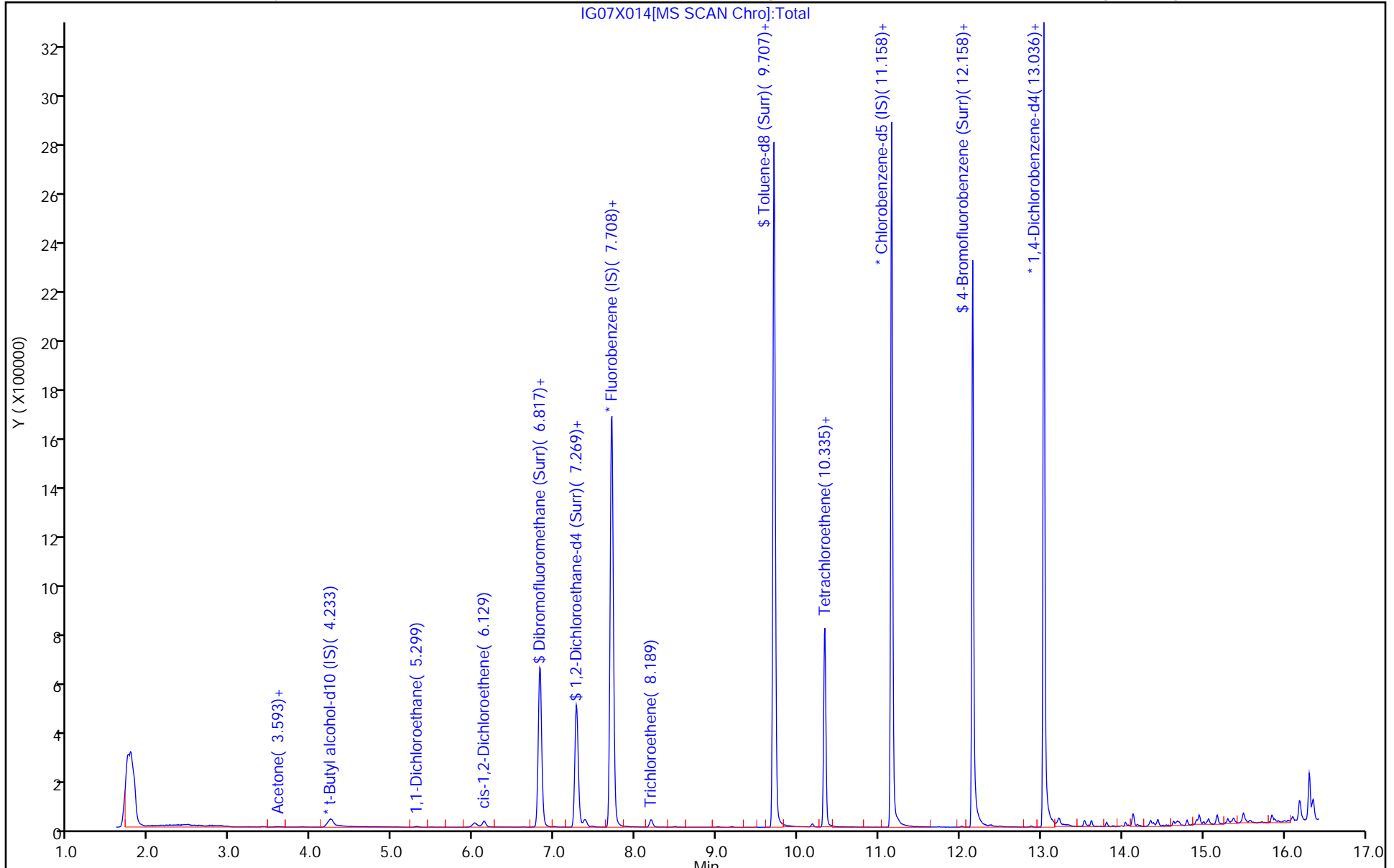
ALS Bottle#: 14

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X014.D  
 Lims ID: 410-92859-B-8 DL  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: Client  
 Inject. Date: 07-Aug-2022 17:05:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 10.0000  
 Sample Info: 410-0063569-015  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 08-Aug-2022 08:48:18 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1677

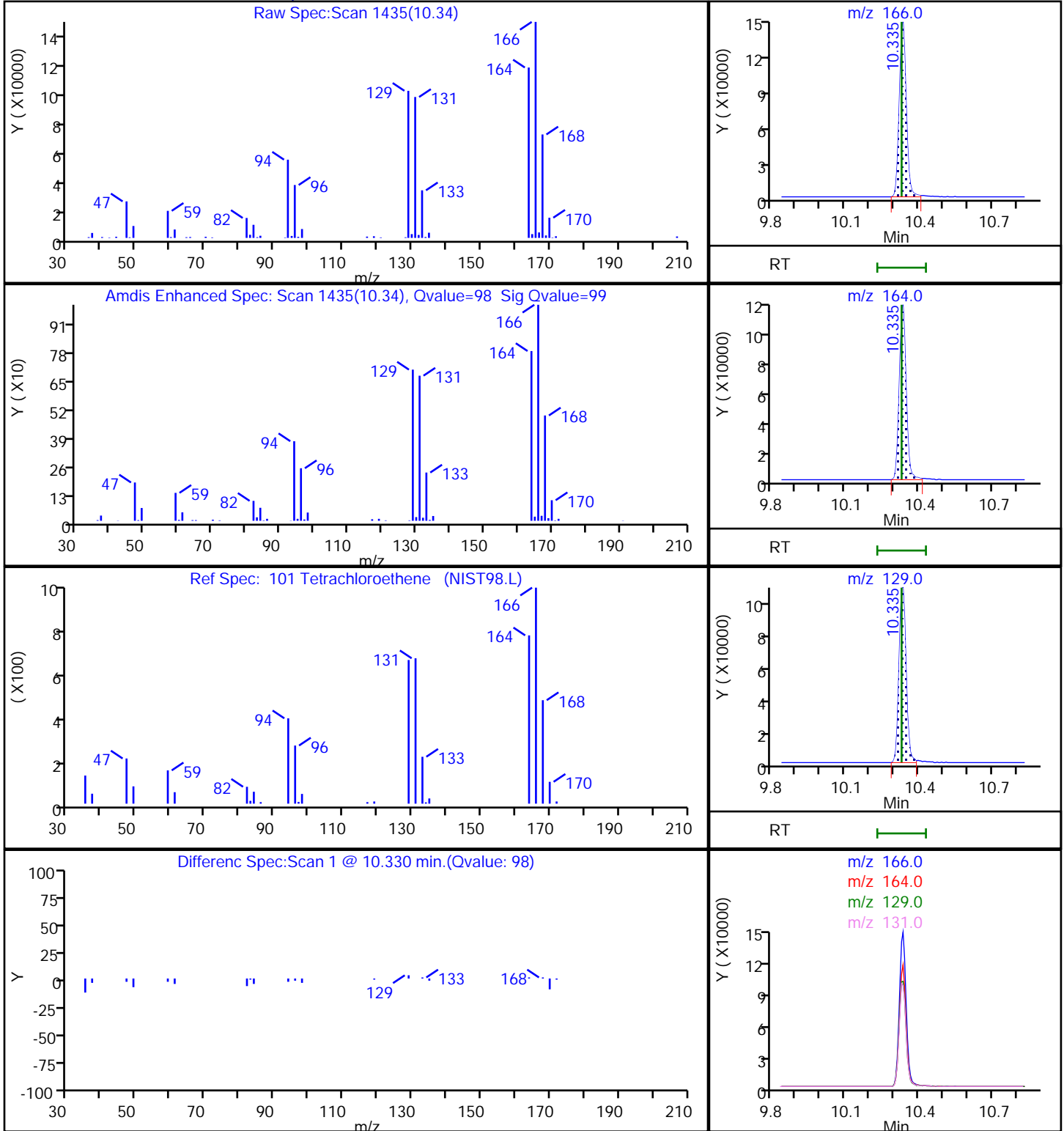
First Level Reviewer: kaewrungrueangp

Date: 08-Aug-2022 08:48:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	9.82	98.22
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.30
\$ 78 Toluene-d8 (Surr)	10.0	9.97	99.68
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.39	93.90

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X014.D  
Injection Date: 07-Aug-2022 17:05:30 Instrument ID: 19930  
Lims ID: 410-92859-B-8 DL Lab Sample ID: 410-92859-8  
Client ID: HD-COD-SW-17-0/1-0  
Operator ID: knk41612 ALS Bottle#: 14 Worklist Smp#: 15  
Purge Vol: 25.000 mL Dil. Factor: 10.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

101 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-9

Matrix: Water

Lab File ID: IG04X22.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:00

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 17:49

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	0.17	J	0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	ND		5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	0.71		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	4.2		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-9

Matrix: Water

Lab File ID: IG04X22.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:00

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 17:49

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.17	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X22.D  
 Lims ID: 410-92859-A-9  
 Client ID: HD-COD-SW-26-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 17:49:30 ALS Bottle#: 22 Worklist Smp#: 23  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-023  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:52:01 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:52:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.629				ND	7
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96	3.568	3.568	0.000	96	8396	0.1685	
16 Acetone	43	3.599	3.592	0.007	93	5360	0.5883	
20 Carbon disulfide	76		3.879				ND	7
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	19	165133	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43	6.147	6.098	0.049	97	8067	0.4768	
39 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	75	3821	0.0618	a
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.610	6.610	0.000	92	72144	0.7101	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	514708	10.4	
50 1,1,1-Trichloroethane	97		6.842				ND	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	56	105229	10.4	
57 Benzene	78		7.305				ND	
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.707	7.707	0.000	99	1965126	10.0	
64 Trichloroethene	95	8.195	8.183	0.012	97	11005	0.1738	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2004149	9.56	
79 Toluene	92		9.780				ND	7
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.335	10.335	0.000	98	334322	4.23	
103 2-Hexanone	43		10.451				ND	
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1615326	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	722618	9.40	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	872364	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

a - User Assigned ID

**Reagents:**

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X22.D

Injection Date: 04-Aug-2022 17:49:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-9

Lab Sample ID: 410-92859-9

Worklist Smp#: 23

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

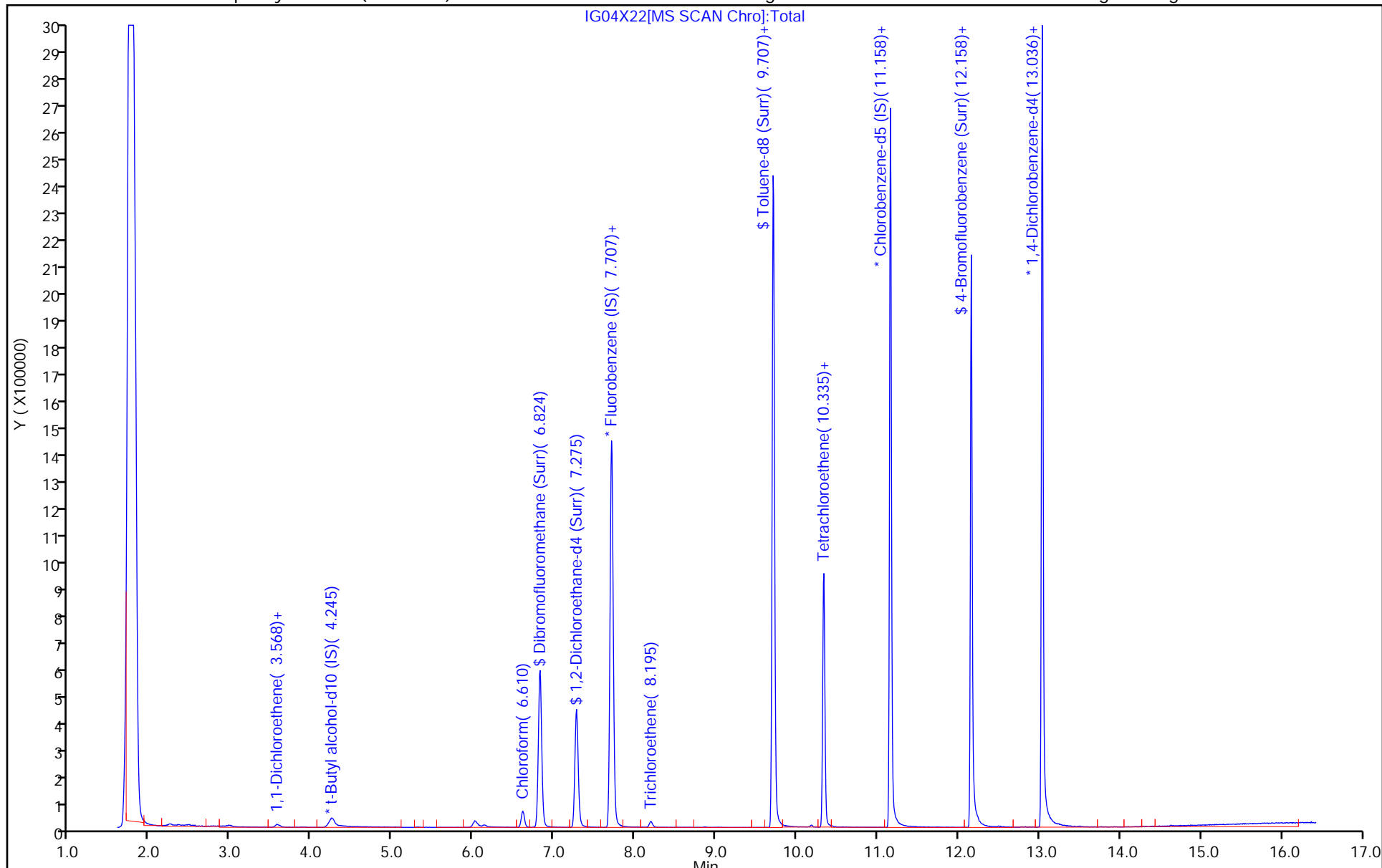
ALS Bottle#: 22

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X22.D  
 Lims ID: 410-92859-A-9  
 Client ID: HD-COD-SW-26-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 17:49:30 ALS Bottle#: 22 Worklist Smp#: 23  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-023  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:52:01 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:52:01

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.4	104.33
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.84
\$ 78 Toluene-d8 (Surr)	10.0	9.56	95.61
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.40	94.01



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X22.D

Injection Date: 04-Aug-2022 17:49:30

Instrument ID: 19930

Lims ID: 410-92859-A-9

Lab Sample ID: 410-92859-9

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

Operator ID: knk41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

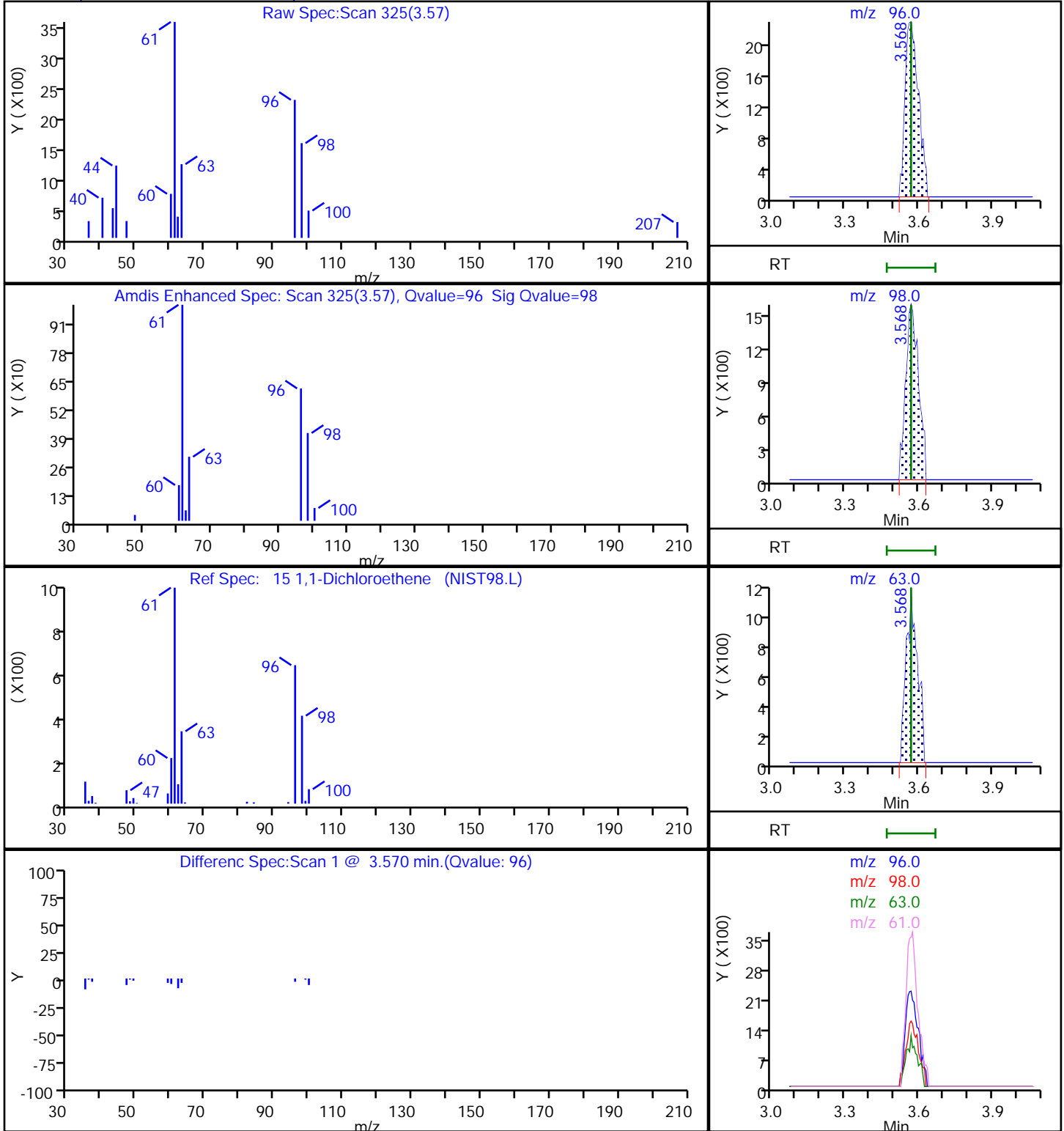
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

15 1,1-Dichloroethene, CAS: 75-35-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X22.D

Injection Date: 04-Aug-2022 17:49:30

Instrument ID: 19930

Lims ID: 410-92859-A-9

Lab Sample ID: 410-92859-9

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

Operator ID: knk41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

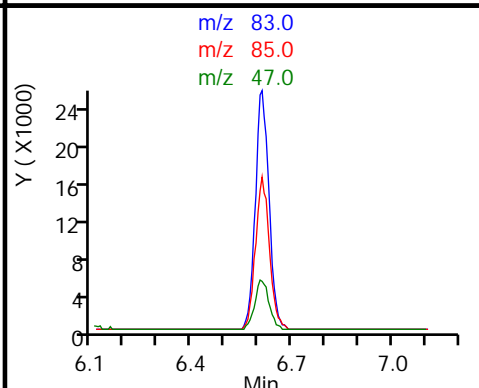
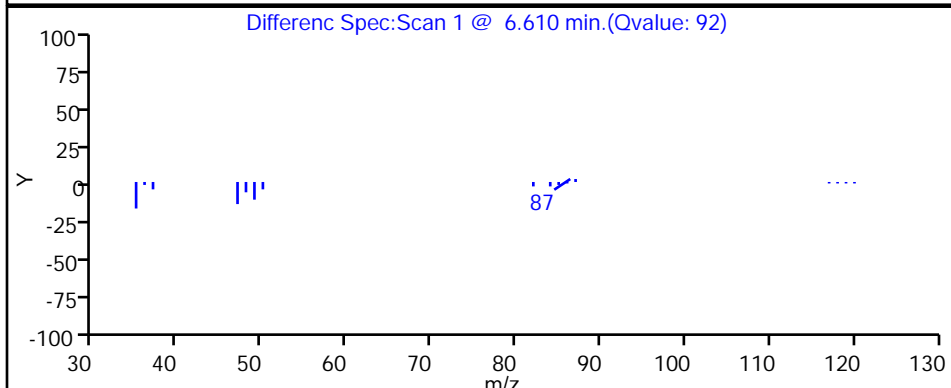
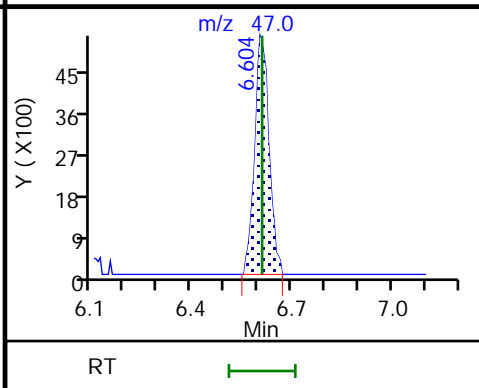
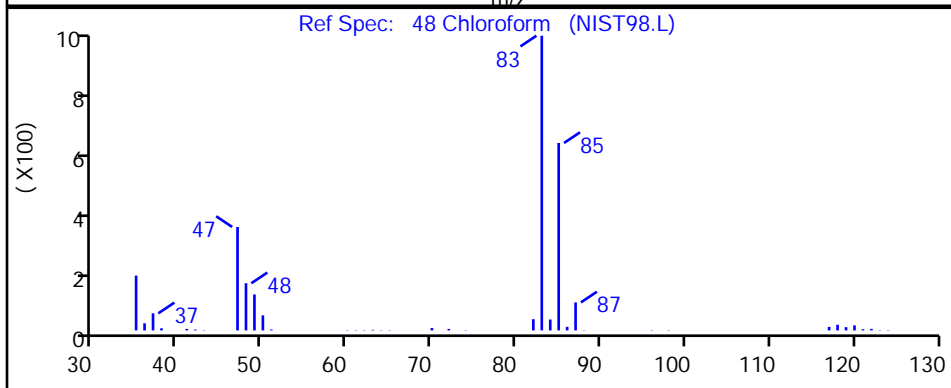
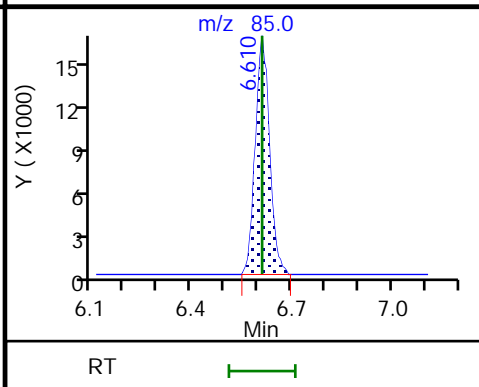
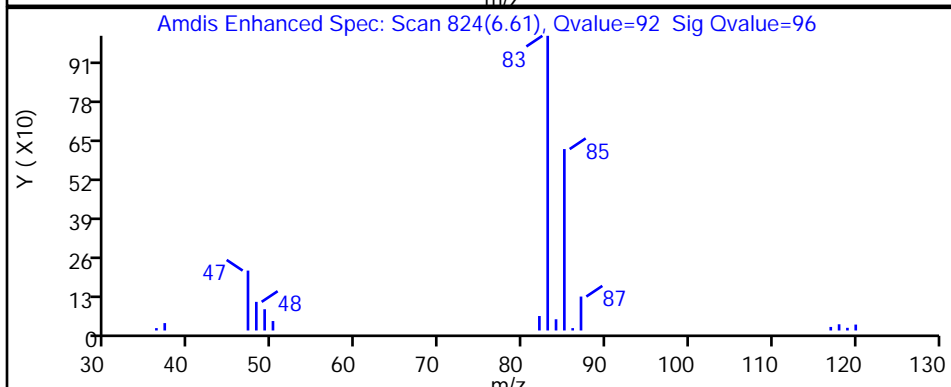
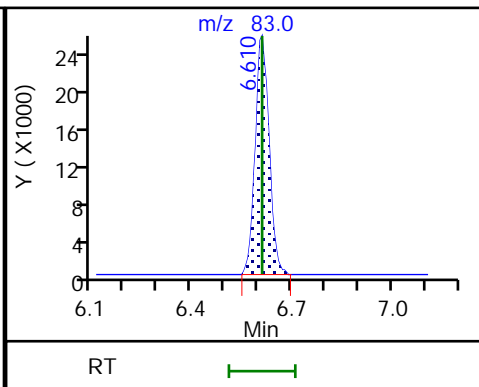
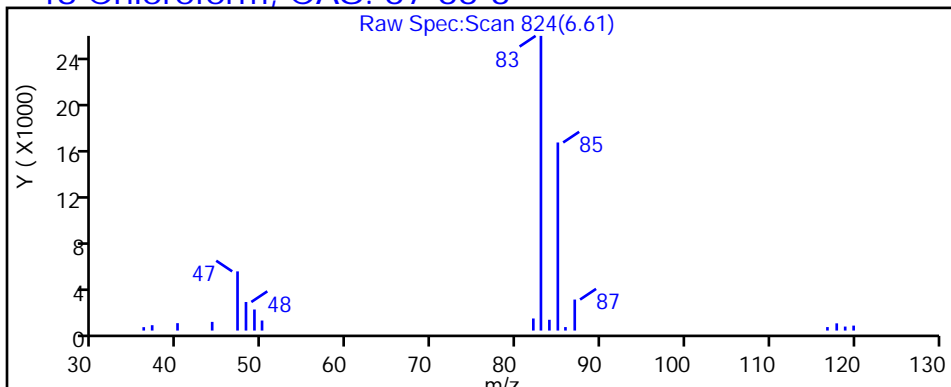
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

48 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X22.D

Injection Date: 04-Aug-2022 17:49:30 Instrument ID: 19930

Lims ID: 410-92859-A-9 Lab Sample ID: 410-92859-9

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

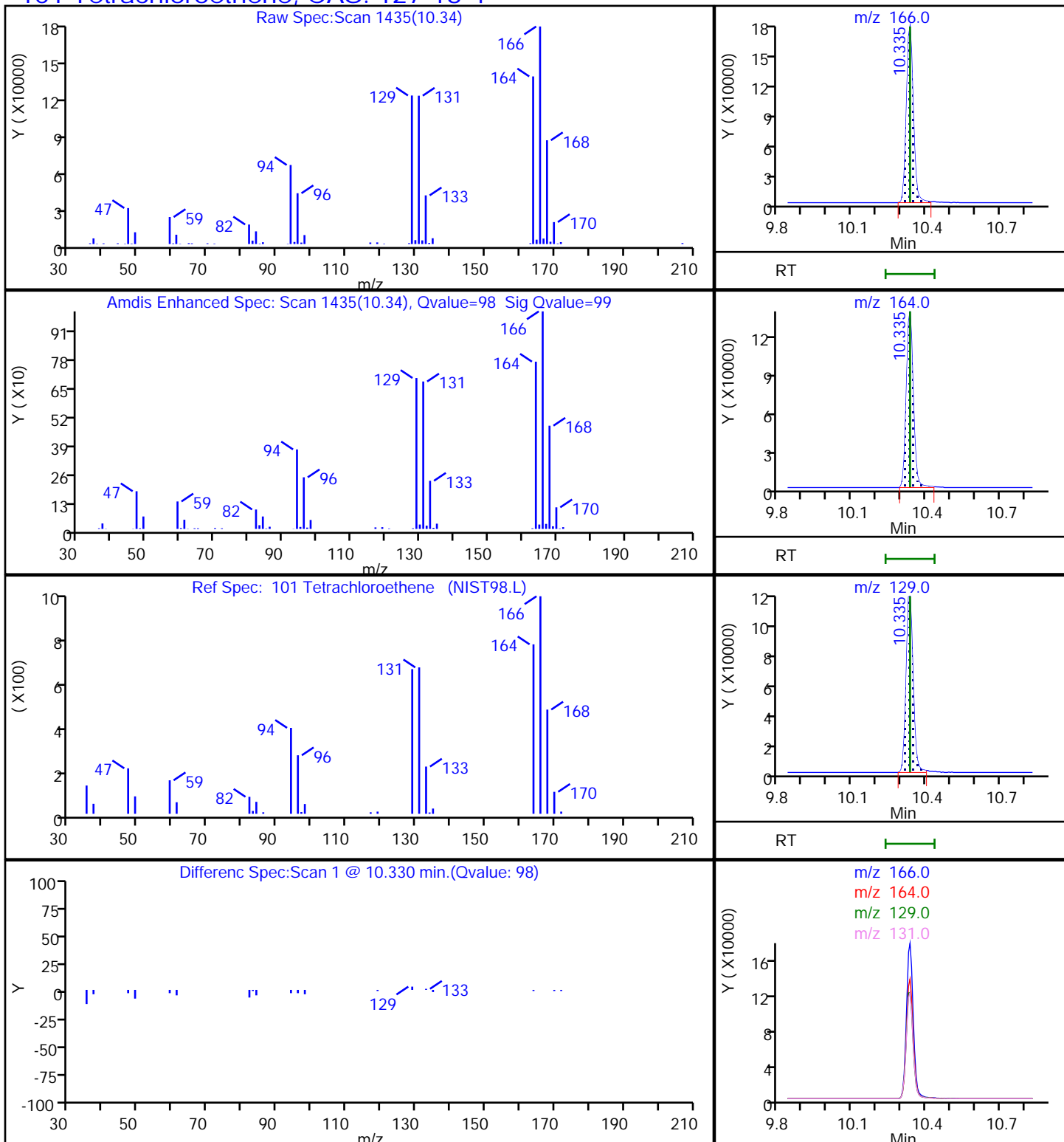
Operator ID: knk41612 ALS Bottle#: 22 Worklist Smp#: 23

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 ID) MS Quad

101 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X22.D

Injection Date: 04-Aug-2022 17:49:30

Instrument ID: 19930

Lims ID: 410-92859-A-9

Lab Sample ID: 410-92859-9

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

Operator ID: knk41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

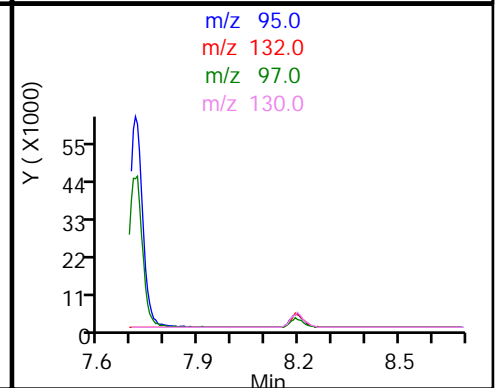
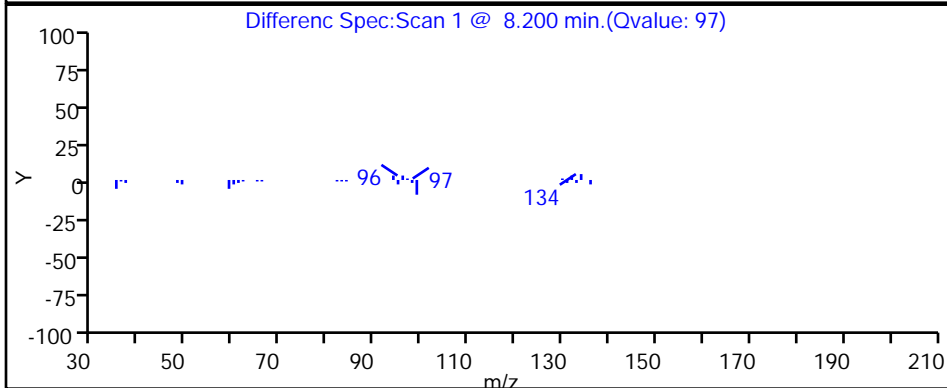
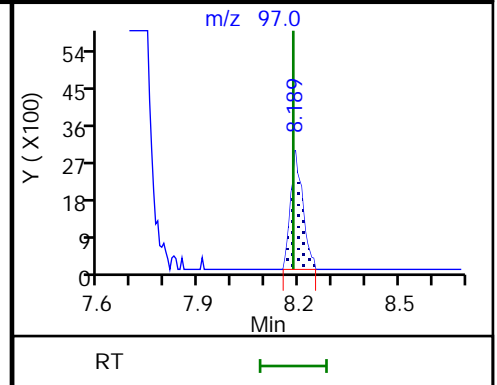
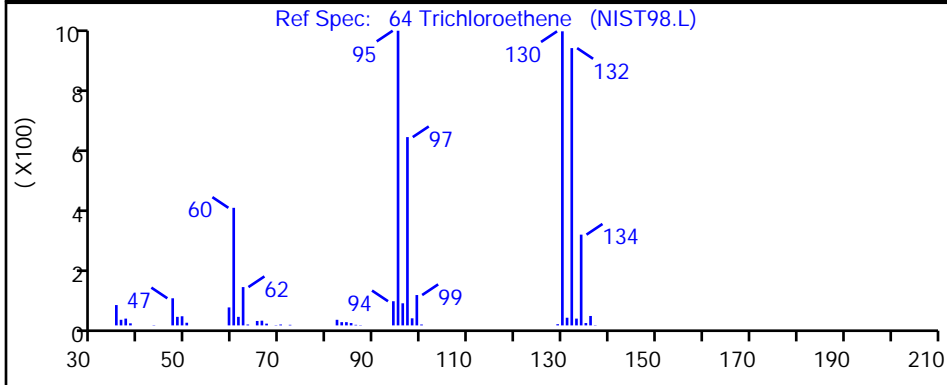
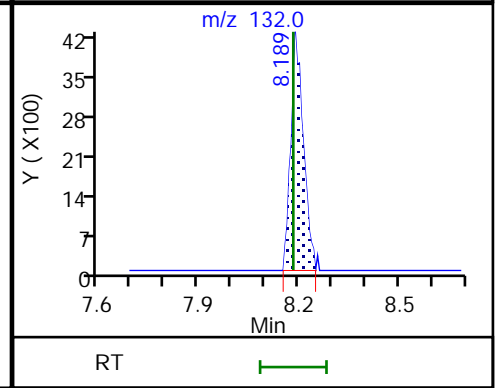
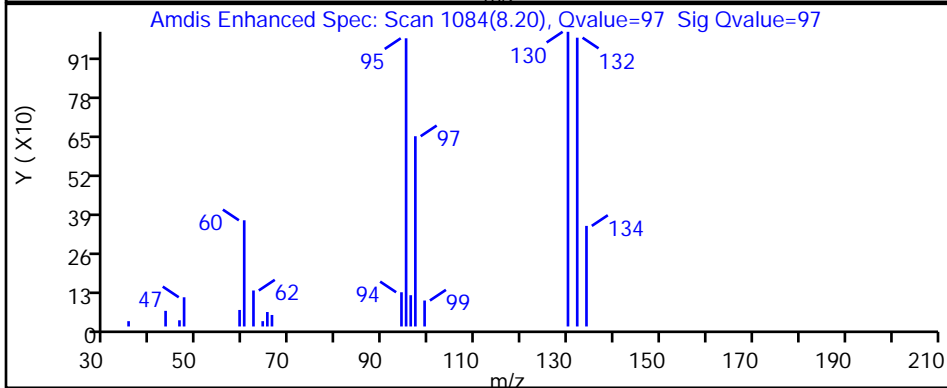
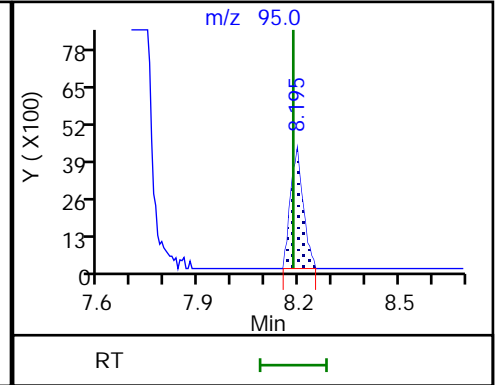
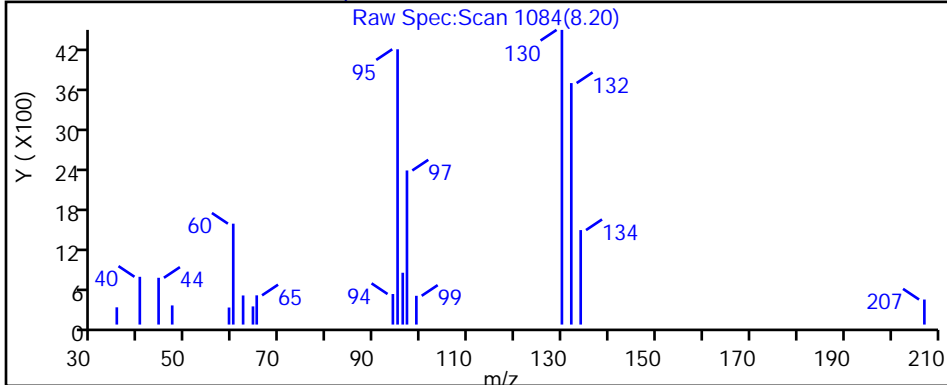
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

### 64 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Environment Testing, LLC

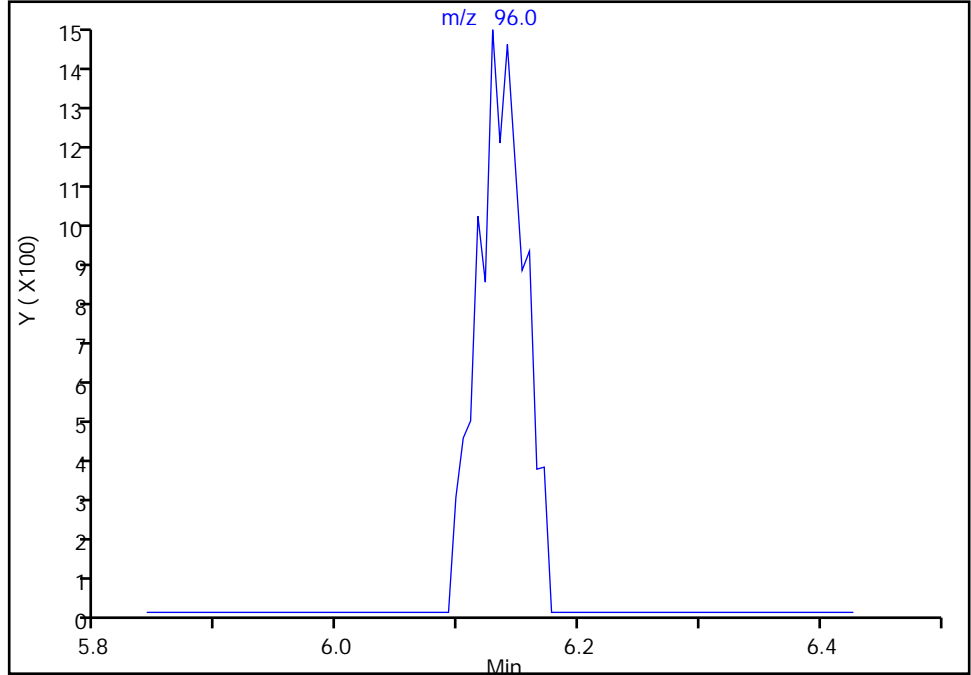
Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X22.D  
Injection Date: 04-Aug-2022 17:49:30 Instrument ID: 19930  
Lims ID: 410-92859-A-9 Lab Sample ID: 410-92859-9  
Client ID: HD-COD-SW-26-0/1-0  
Operator ID: knk41612 ALS Bottle#: 22 Worklist Smp#: 23  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

**39 cis-1,2-Dichloroethene, CAS: 156-59-2**

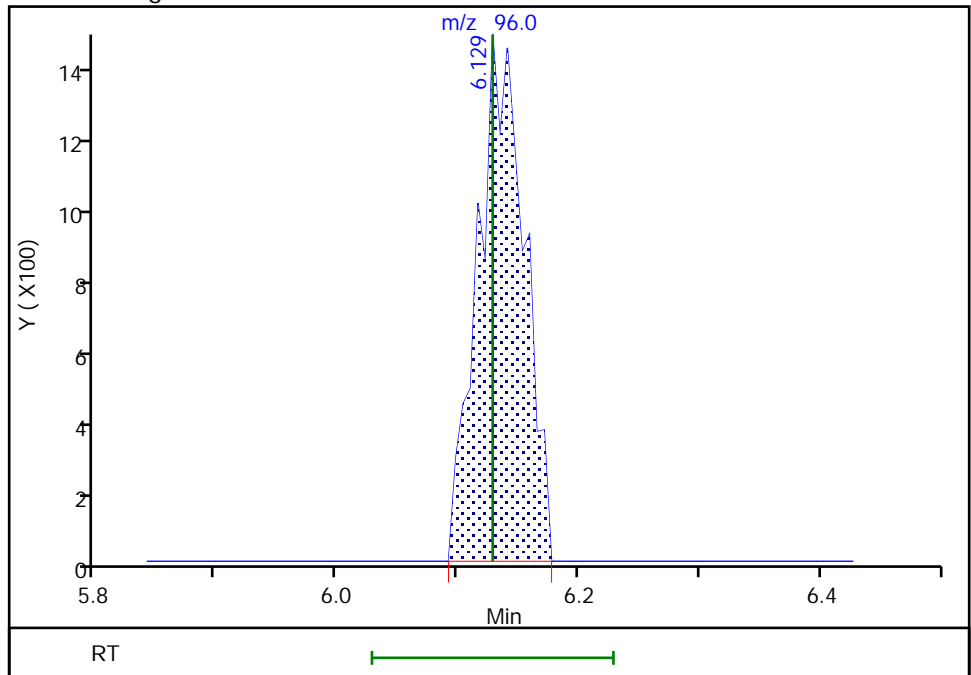
Signal: 1

Not Detected  
Expected RT: 6.13

Processing Integration Results



Manual Integration Results



RT: 6.13  
Area: 3821  
Amount: 0.061782  
Amount Units: ug/l

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-10

Matrix: Water

Lab File ID: IG04X23.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:35

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 18:10

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	3.0	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	0.12	J	0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	ND		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-10

Matrix: Water

Lab File ID: IG04X23.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:35

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 18:10

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.14	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X23.D  
 Lims ID: 410-92859-A-10  
 Client ID: HD-COD-SW-27-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 18:10:30 ALS Bottle#: 23 Worklist Smp#: 24  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-024  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:52:48 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:52:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	U
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.593	3.592	0.001	99	24956	2.95	
20 Carbon disulfide	76	3.867	3.879	-0.012	99	11412	0.0916	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.227	4.257	-0.030	24	153087	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43	6.135	6.098	0.037	38	4720	0.3009	
39 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	77	7719	0.1248	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.598	6.610	-0.012	89	9033	0.0889	
\$ 49 Dibromofluoromethane (Surr)	113	6.818	6.824	-0.006	94	513322	10.4	
50 1,1,1-Trichloroethane	97		6.842				ND	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.275	-0.006	66	104627	10.3	
57 Benzene	78	7.305	7.305	0.000	84	3544	0.0149	a
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.702	7.707	-0.005	99	1965496	10.0	
64 Trichloroethene	95	8.195	8.183	0.012	93	8992	0.1420	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2027501	9.63	
79 Toluene	92	9.787	9.780	0.007	97	11866	0.0713	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.341	10.335	0.006	94	5539	0.0697	
103 2-Hexanone	43		10.451				ND	7
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1622618	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	7
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	7
115 Styrene	104		11.725				ND	7
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	732669	9.49	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	891400	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

a - User Assigned ID

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X23.D

Injection Date: 04-Aug-2022 18:10:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-10

Lab Sample ID: 410-92859-10

Worklist Smp#: 24

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

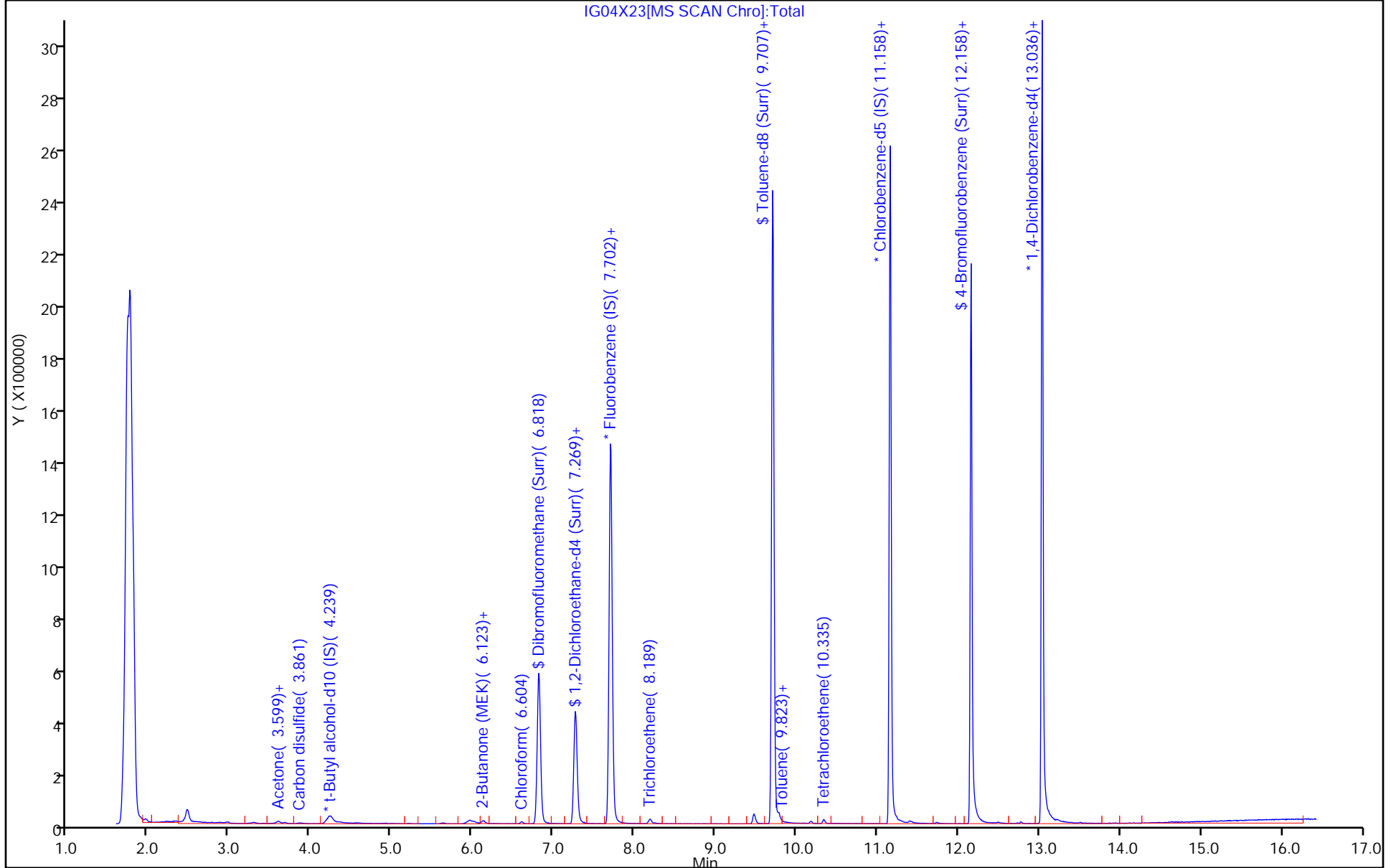
ALS Bottle#: 23

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X23.D  
 Lims ID: 410-92859-A-10  
 Client ID: HD-COD-SW-27-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 18:10:30 ALS Bottle#: 23 Worklist Smp#: 24  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-024  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:52:48 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:52:48

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.4	104.03
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	103.23
\$ 78 Toluene-d8 (Surr)	10.0	9.63	96.29
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.49	94.89

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X23.D

Injection Date: 04-Aug-2022 18:10:30

Instrument ID: 19930

Lims ID: 410-92859-A-10

Lab Sample ID: 410-92859-10

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

Operator ID: knk41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

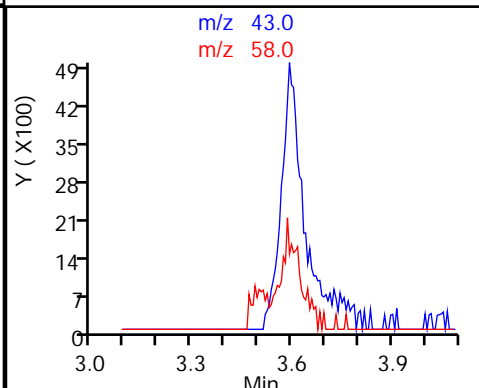
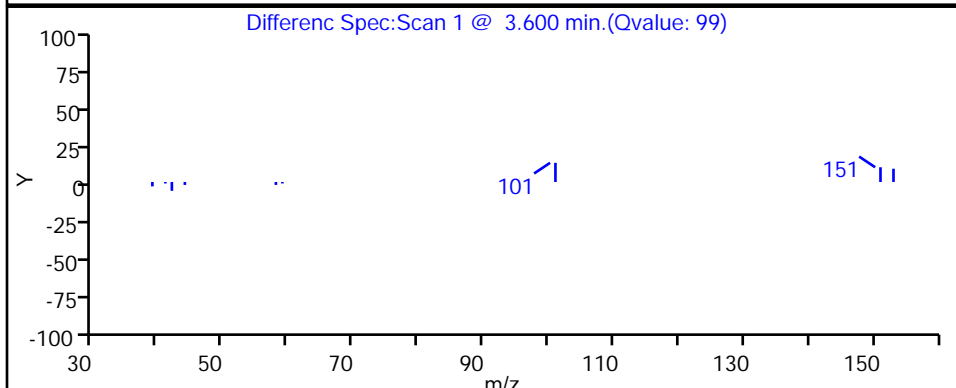
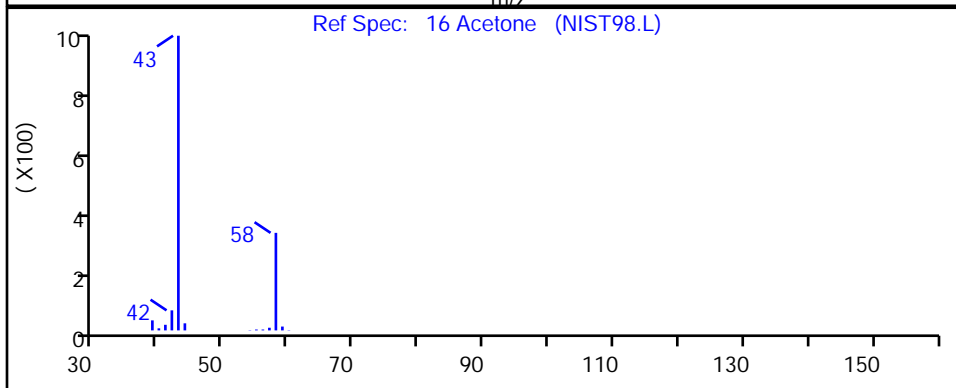
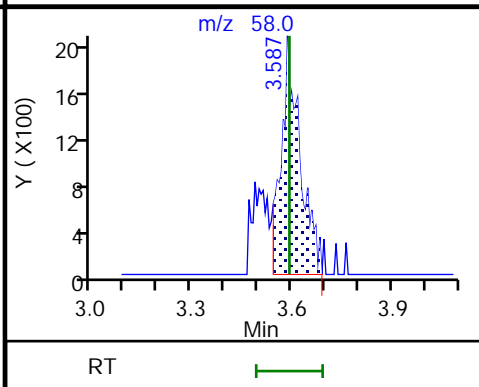
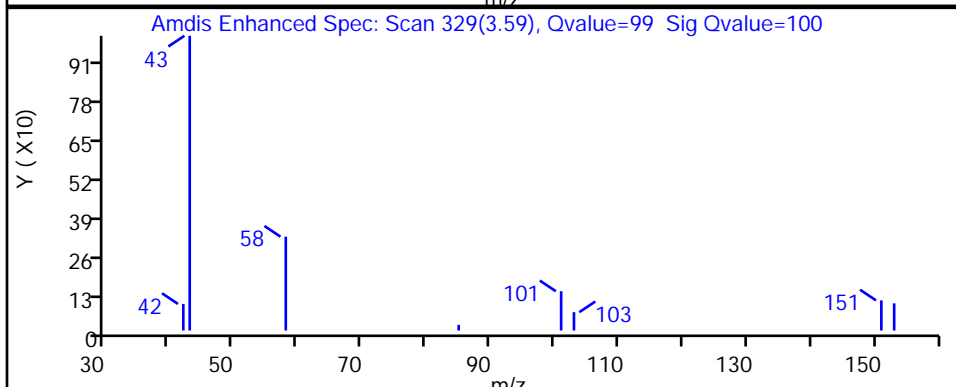
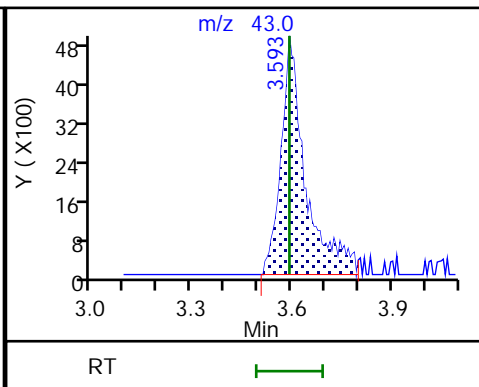
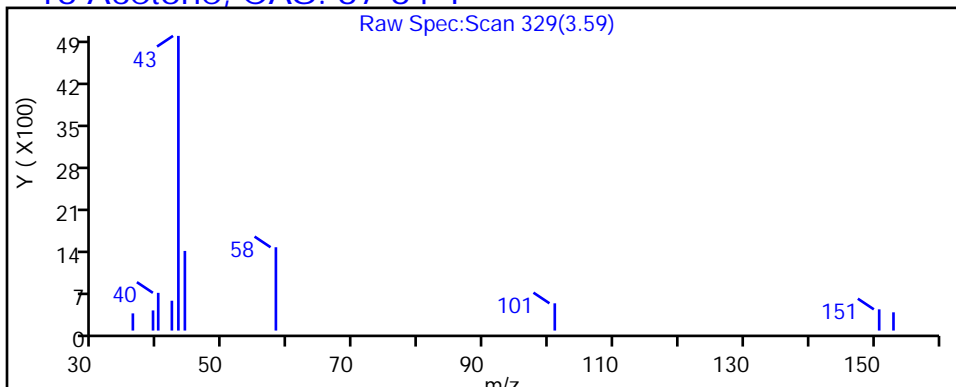
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

### 16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X23.D

Injection Date: 04-Aug-2022 18:10:30 Instrument ID: 19930

Lims ID: 410-92859-A-10 Lab Sample ID: 410-92859-10

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

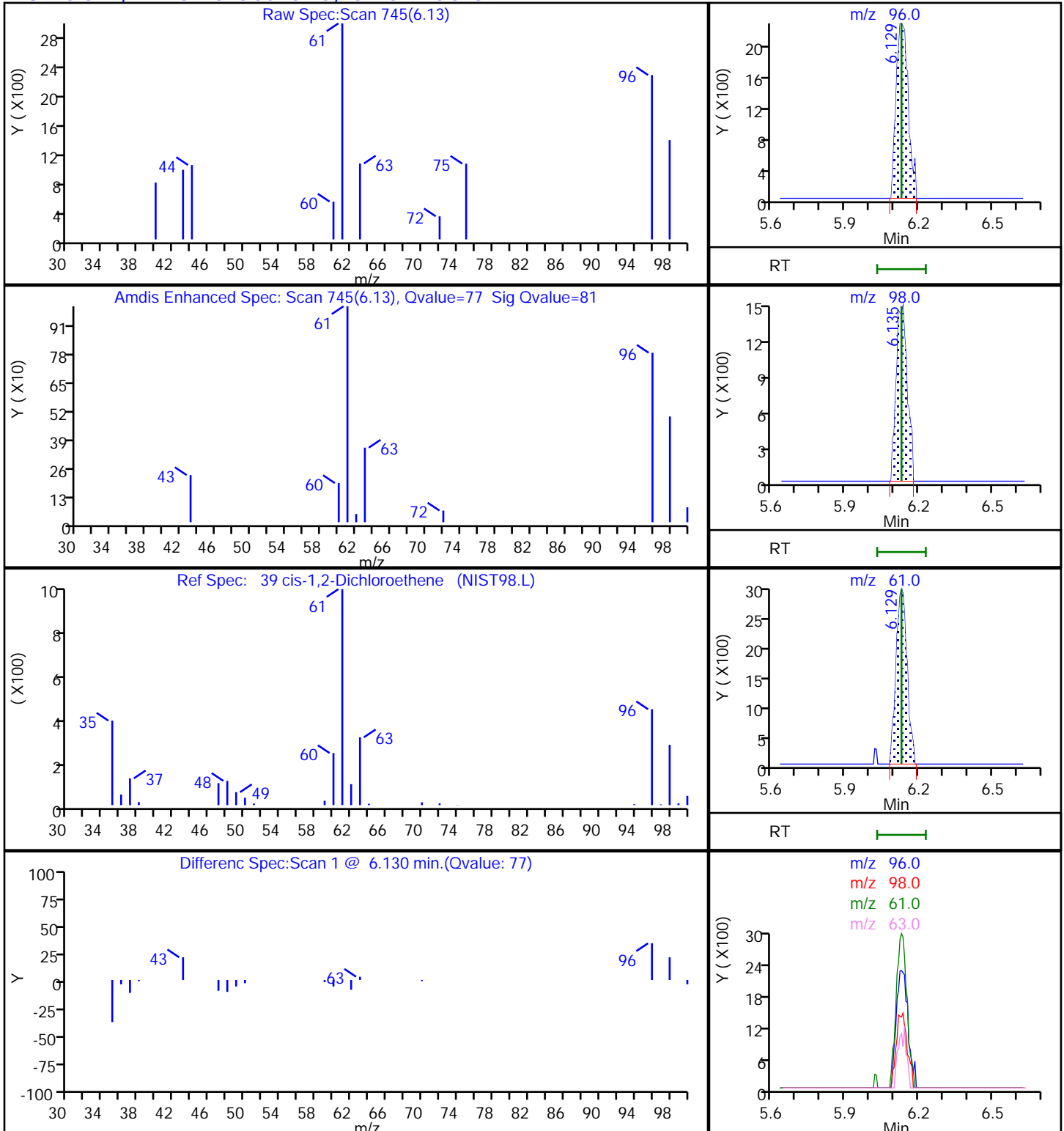
Operator ID: knk41612 ALS Bottle#: 23 Worklist Smp#: 24

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 ID) MS Quad

39 cis-1,2-Dichloroethene, CAS: 156-59-2



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X23.D

Injection Date: 04-Aug-2022 18:10:30

Instrument ID: 19930

Lims ID: 410-92859-A-10

Lab Sample ID: 410-92859-10

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

Operator ID: knk41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

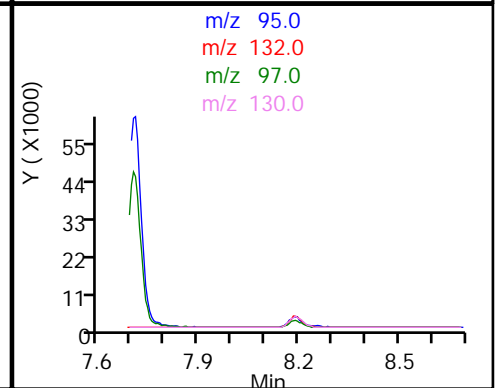
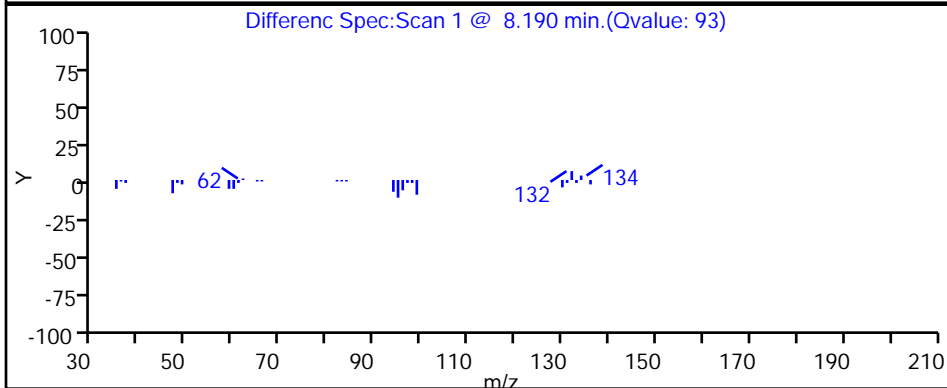
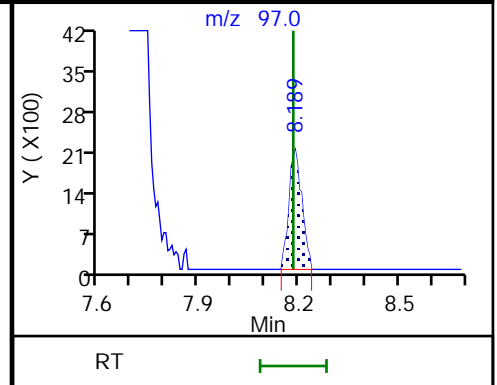
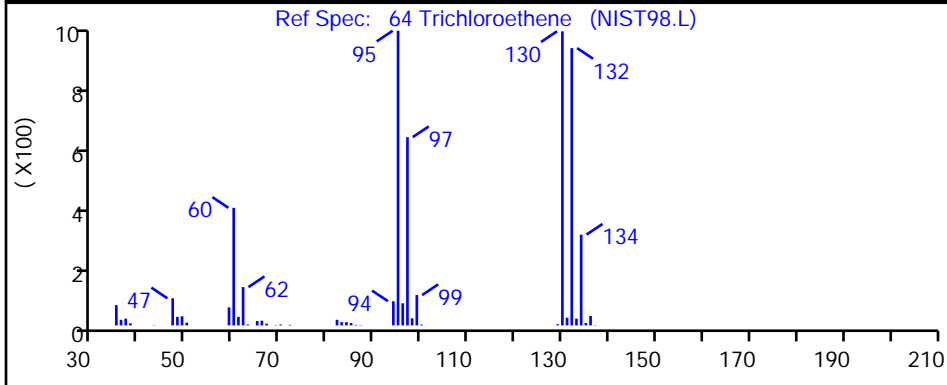
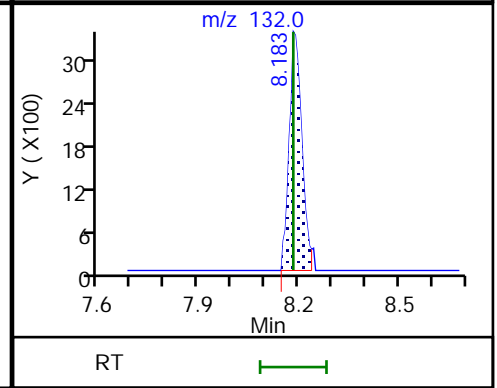
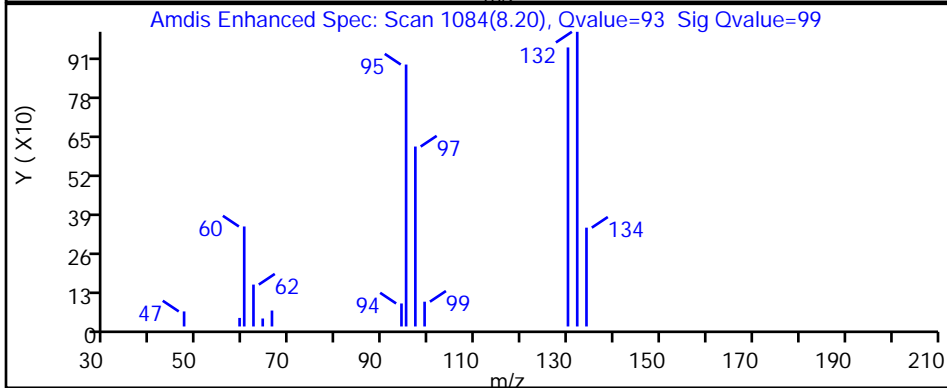
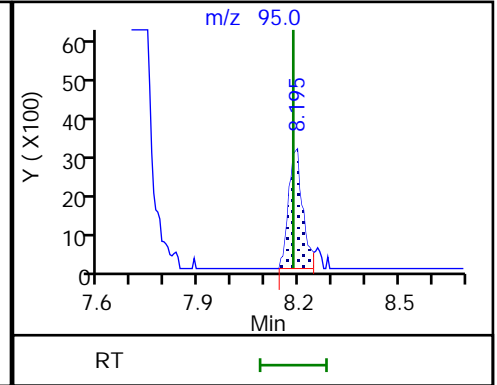
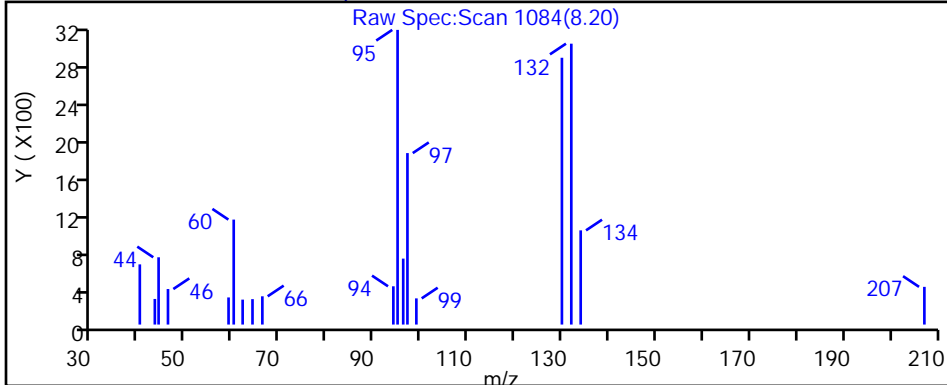
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

64 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Environment Testing, LLC

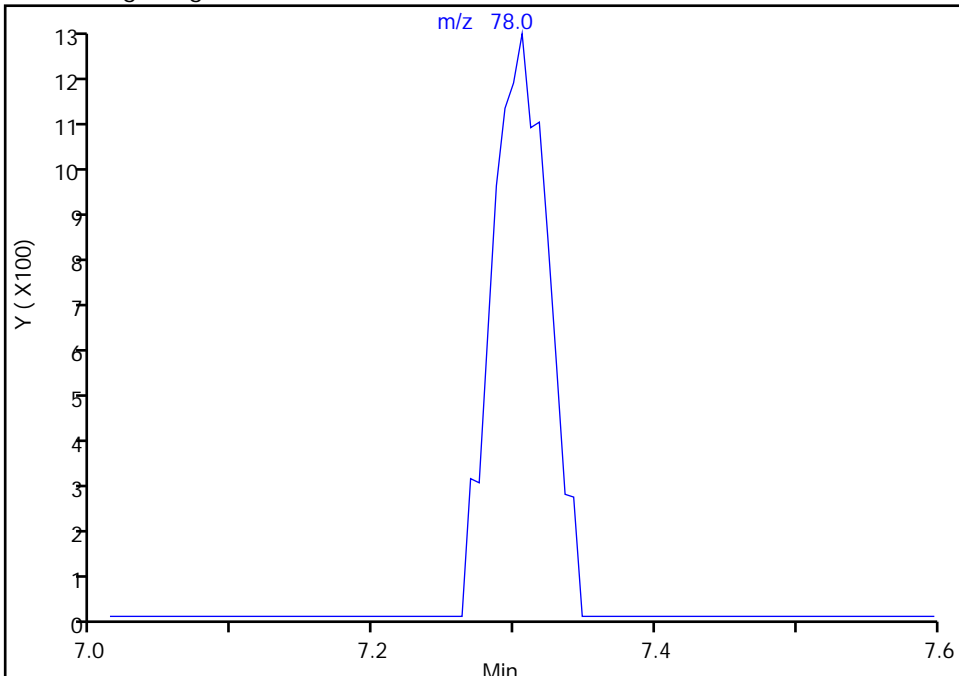
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Injection Date: 04-Aug-2022 18:10:30 Instrument ID: 19930  
Lims ID: 410-92859-A-10 Lab Sample ID: 410-92859-10  
Client ID: HD-COD-SW-27-0/1-0  
Operator ID: knk41612 ALS Bottle#: 23 Worklist Smp#: 24  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

57 Benzene, CAS: 71-43-2

Signal: 1

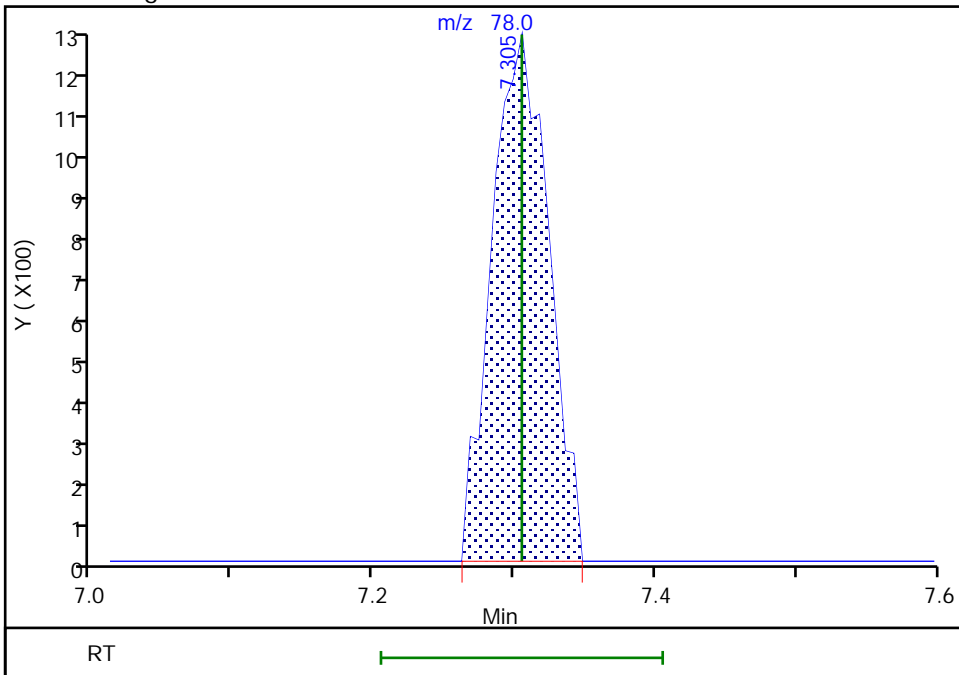
Not Detected  
Expected RT: 7.31

Processing Integration Results



Manual Integration Results

RT: 7.31  
Area: 3544  
Amount: 0.014890  
Amount Units: ug/l

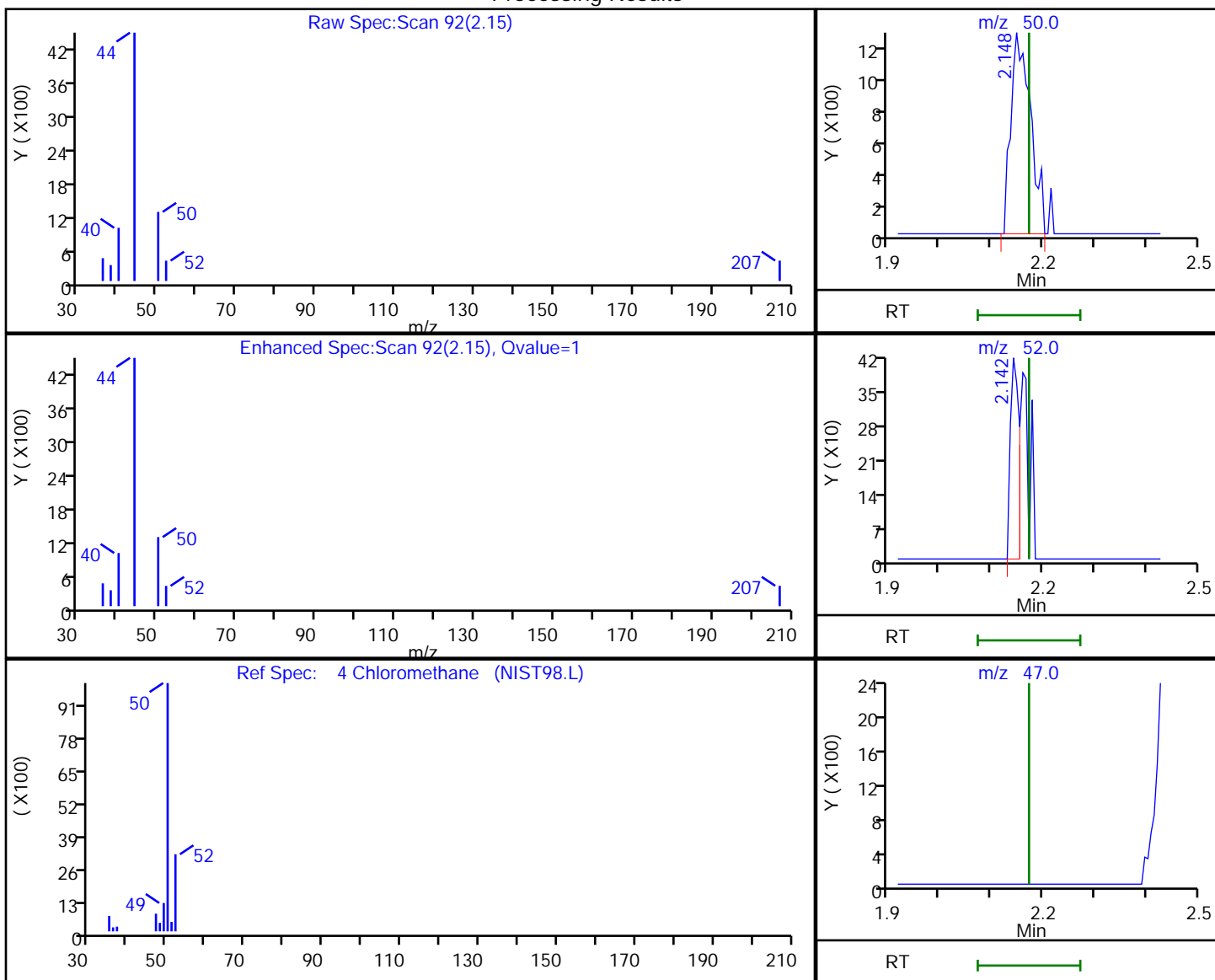


Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X23.D  
 Injection Date: 04-Aug-2022 18:10:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-10 Lab Sample ID: 410-92859-10  
 Client ID: HD-COD-SW-27-0/1-0  
 Operator ID: knk41612 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 ID) Detector: MS Quad

4 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.15	50.00	3291	0.047868
2.14	52.00	488	
2.17	47.00	0	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:52:11

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-11

Matrix: Water

Lab File ID: IG04X24.D

Analysis Method: 8260D

Date Collected: 07/28/2022 15:15

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 18:31

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	3.0	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	0.099	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	0.14	J	0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	ND		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-11

Matrix: Water

Lab File ID: IG04X24.D

Analysis Method: 8260D

Date Collected: 07/28/2022 15:15

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 18:31

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.15	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X24.D  
 Lims ID: 410-92859-A-11  
 Client ID: HD-COD-SW-28-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 18:31:30 ALS Bottle#: 24 Worklist Smp#: 25  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-025  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:53:21 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:53:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	U
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.605	3.592	0.013	99	24951	2.98	
20 Carbon disulfide	76	3.867	3.879	-0.012	96	7554	0.0613	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	24	151746	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43		6.098				ND	7
39 cis-1,2-Dichloroethene	96	6.128	6.129	-0.001	75	8434	0.1379	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.610	6.610	0.000	89	9959	0.0991	
\$ 49 Dibromofluoromethane (Surr)	113	6.817	6.824	-0.007	94	512049	10.5	
50 1,1,1-Trichloroethane	97		6.842				ND	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	69	103873	10.4	
57 Benzene	78		7.305				ND	7
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.707	7.707	0.000	99	1943913	10.0	
64 Trichloroethene	95	8.189	8.183	0.006	93	9435	0.1506	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	1995832	9.57	
79 Toluene	92	9.792	9.780	0.012	96	12686	0.0770	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.341	10.335	0.006	96	15010	0.1907	
103 2-Hexanone	43		10.451				ND	
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1607441	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	7
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	7
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	720360	9.42	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	95	876639	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X24.D

Injection Date: 04-Aug-2022 18:31:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-11

Lab Sample ID: 410-92859-11

Worklist Smp#: 25

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

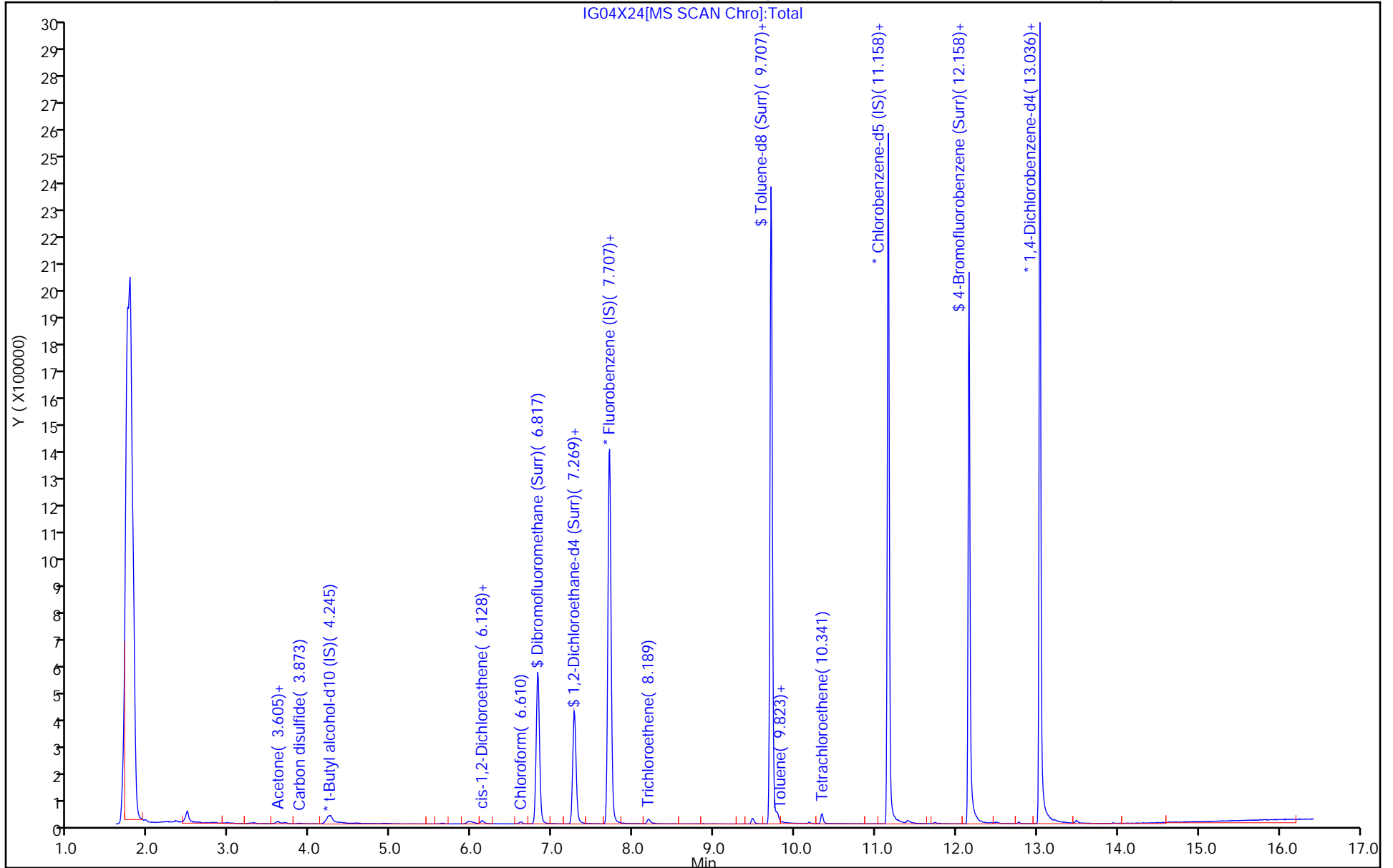
ALS Bottle#: 24

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X24.D  
 Lims ID: 410-92859-A-11  
 Client ID: HD-COD-SW-28-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 18:31:30 ALS Bottle#: 24 Worklist Smp#: 25  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-025  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:53:21 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:53:21

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.5	104.92
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.62
\$ 78 Toluene-d8 (Surr)	10.0	9.57	95.68
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.42	94.18

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X24.D

Injection Date: 04-Aug-2022 18:31:30 Instrument ID: 19930

Lims ID: 410-92859-A-11 Lab Sample ID: 410-92859-11

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

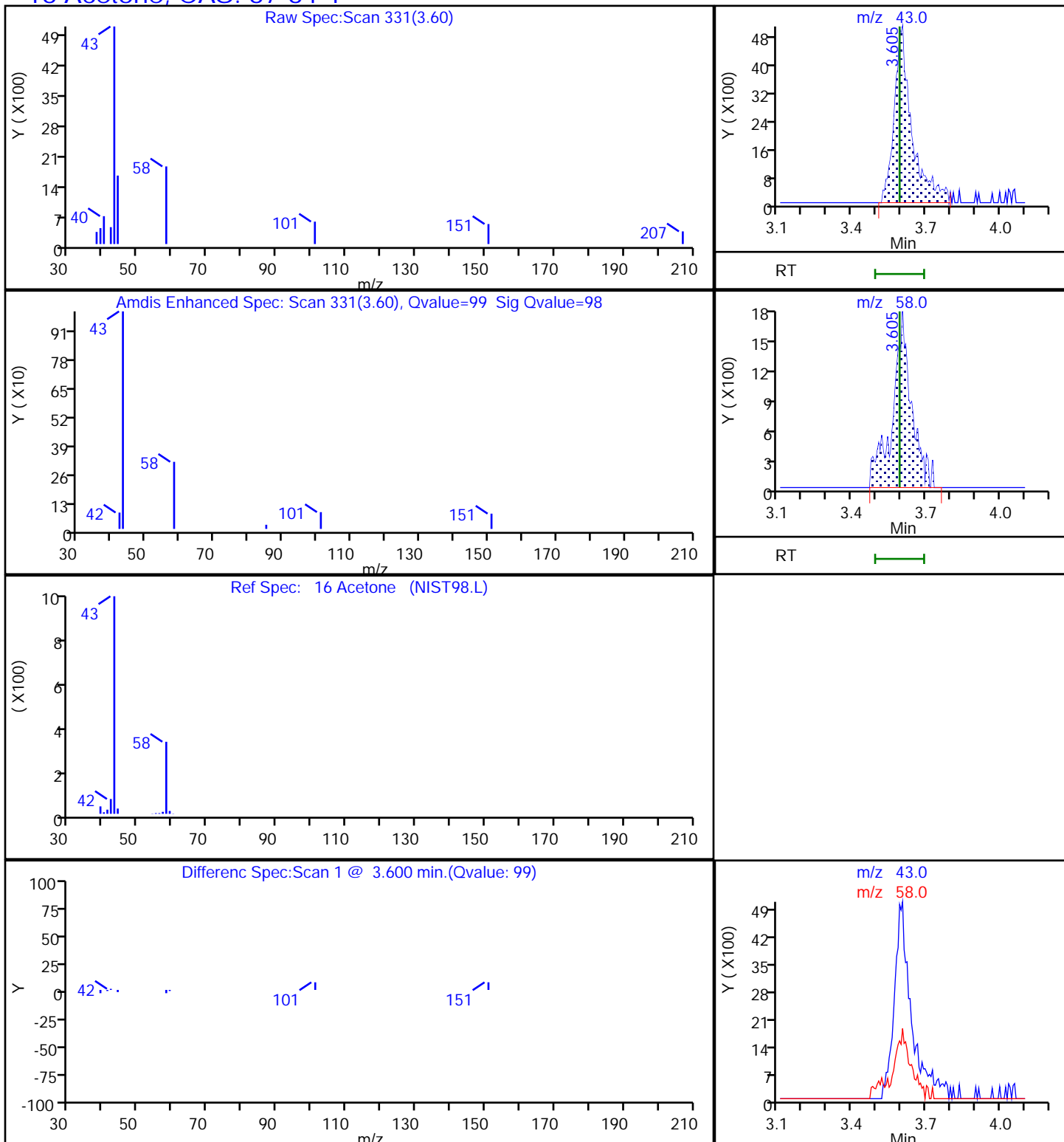
Operator ID: knk41612 ALS Bottle#: 24 Worklist Smp#: 25

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D

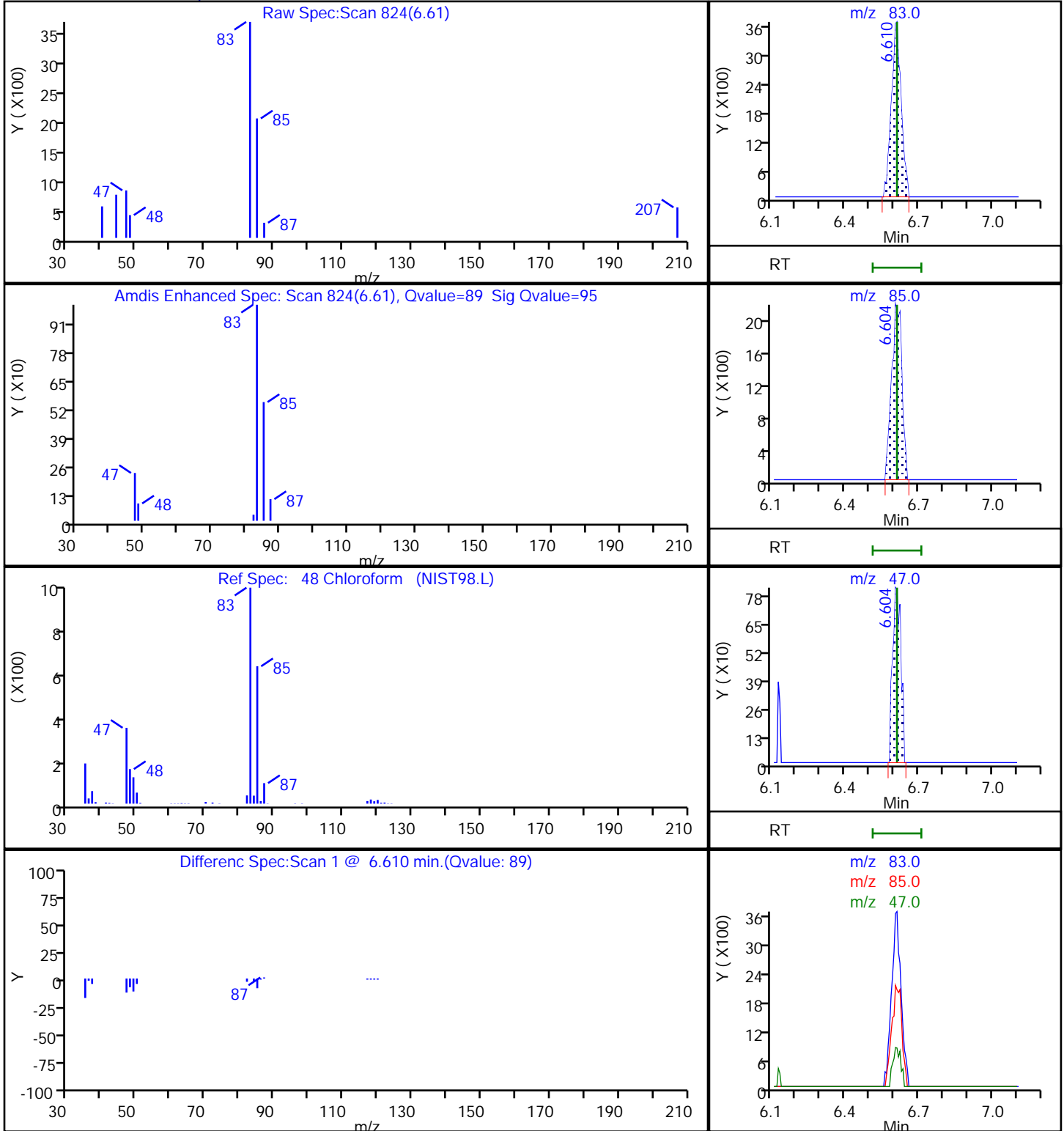
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X24.D  
Injection Date: 04-Aug-2022 18:31:30 Instrument ID: 19930  
Lims ID: 410-92859-A-11 Lab Sample ID: 410-92859-11  
Client ID: HD-COD-SW-28-0/1-0  
Operator ID: knk41612 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 ID) MS Quad

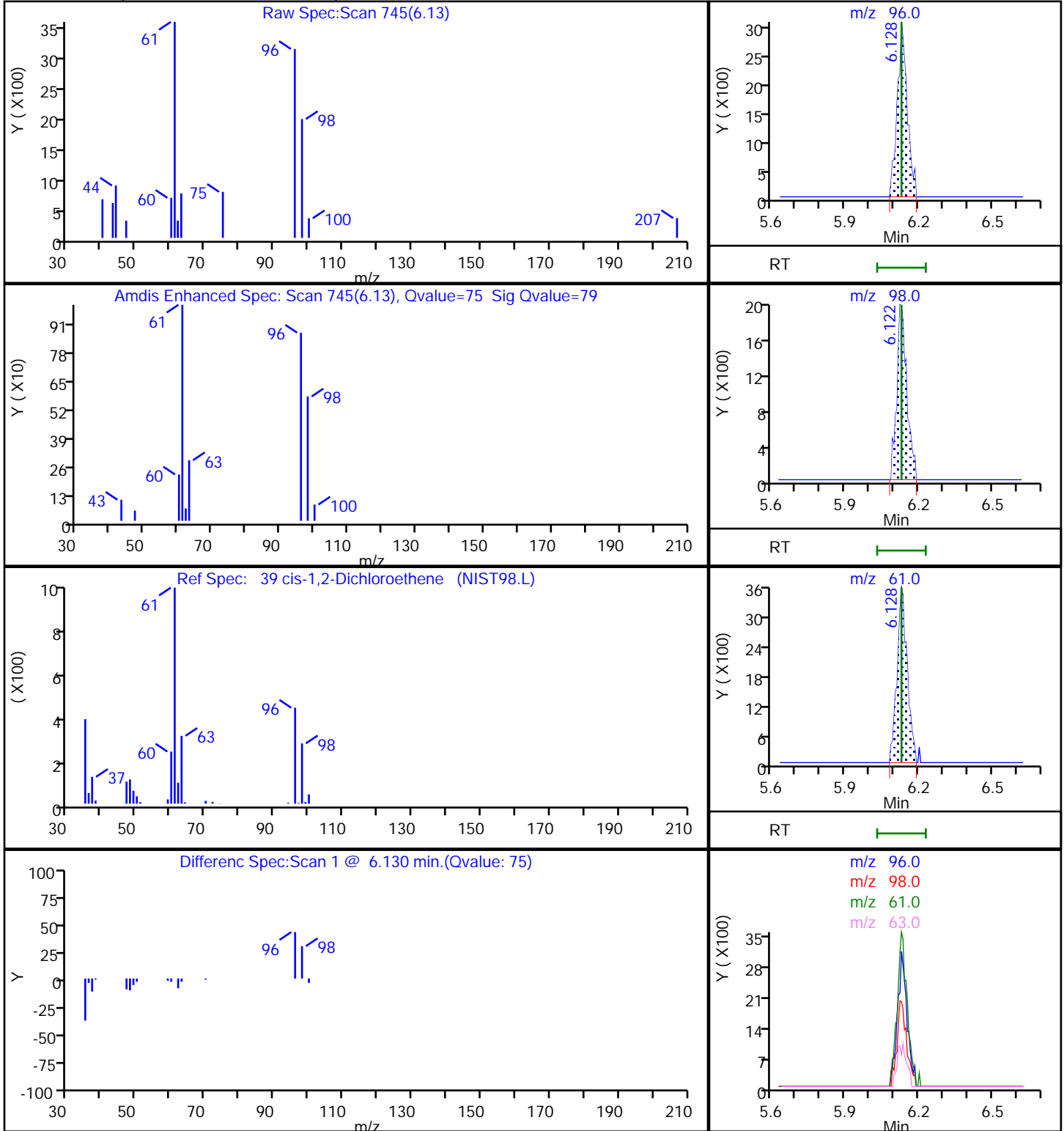
48 Chloroform, CAS: 67-66-3





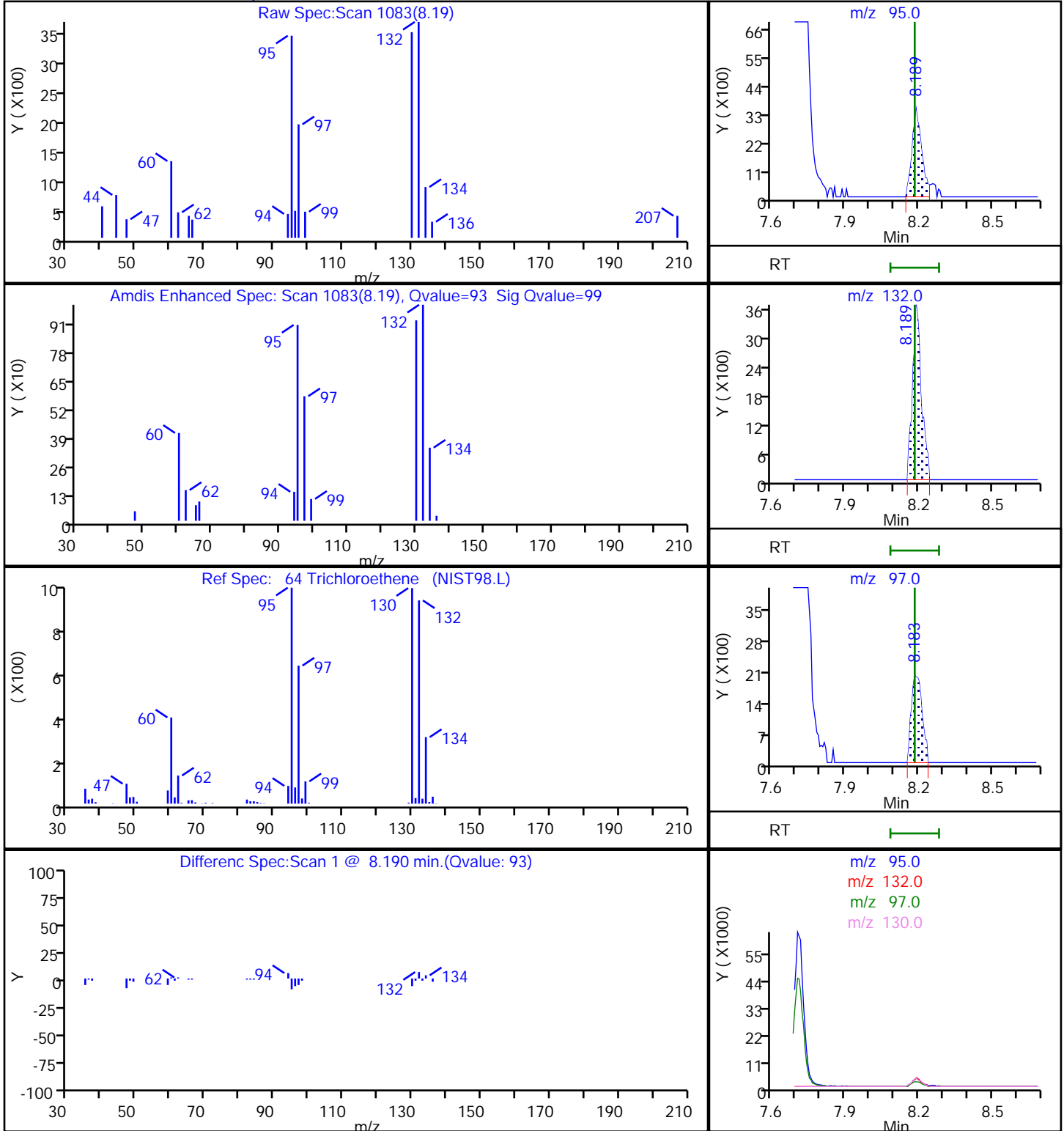
Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X24.D  
Injection Date: 04-Aug-2022 18:31:30 Instrument ID: 19930  
Lims ID: 410-92859-A-11 Lab Sample ID: 410-92859-11  
Client ID: HD-COD-SW-28-0/1-0  
Operator ID: knk41612 ALS Bottle#: 24 Worklist Smp#: 25  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

39 cis-1,2-Dichloroethene, CAS: 156-59-2



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X24.D  
Injection Date: 04-Aug-2022 18:31:30 Instrument ID: 19930  
Lims ID: 410-92859-A-11 Lab Sample ID: 410-92859-11  
Client ID: HD-COD-SW-28-0/1-0  
Operator ID: knk41612 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 ID) MS Quad

64 Trichloroethene, CAS: 79-01-6

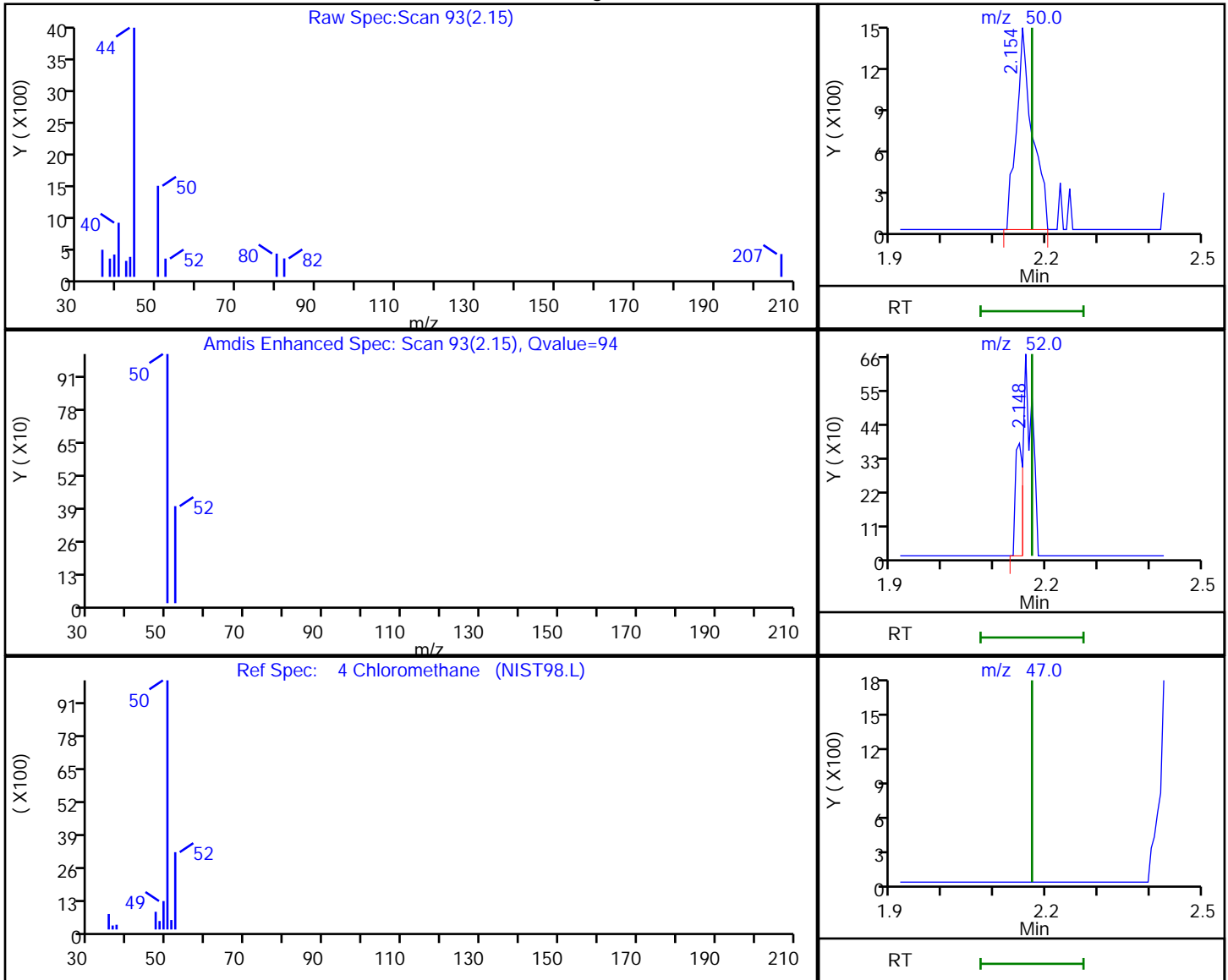


Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X24.D  
 Injection Date: 04-Aug-2022 18:31:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-11 Lab Sample ID: 410-92859-11  
 Client ID: HD-COD-SW-28-0/1-0  
 Operator ID: knk41612 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 ID) Detector: MS Quad

4 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.15	50.00	3134	0.046090
2.15	52.00	371	
2.17	47.00	0	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:52:57

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-12

Matrix: Water

Lab File ID: IG04X25.D

Analysis Method: 8260D

Date Collected: 07/28/2022 11:06

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 18:52

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	1.7	J	5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	5.1		5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	0.13	J	0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	0.33	J	0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-12

Matrix: Water

Lab File ID: IG04X25.D

Analysis Method: 8260D

Date Collected: 07/28/2022 11:06

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 18:52

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	0.10	J	0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
2037-26-5	Toluene-d8 (Surr)	97		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D  
 Lims ID: 410-92859-A-12  
 Client ID: HD-COD-SW-29-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 18:52:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-026  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:53:57 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:53:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	U
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.599	3.592	0.006	99	43197	5.14	
20 Carbon disulfide	76	3.861	3.879	-0.018	97	7935	0.0606	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.233	4.257	-0.024	24	152417	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43	6.122	6.098	0.024	97	27315	1.75	
39 cis-1,2-Dichloroethene	96	6.129	6.129	-0.001	73	8299	0.1277	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.616	6.610	0.006	91	7521	0.0704	
\$ 49 Dibromofluoromethane (Surr)	113	6.817	6.824	-0.007	94	541822	10.4	
50 1,1,1-Trichloroethane	97		6.842				ND	7
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	55	111297	10.4	
57 Benzene	78		7.305				ND	7
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.707	7.707	0.000	99	2065691	10.0	
64 Trichloroethene	95	8.189	8.183	0.006	94	6790	0.1020	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	7
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2137111	9.68	
79 Toluene	92	9.786	9.780	0.006	96	6120	0.0351	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.335	10.335	0.000	97	27238	0.3269	
103 2-Hexanone	43		10.451				ND	7
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1702075	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	755832	9.33	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	929812	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

U - Marked Undetected

**Reagents:**

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D

Injection Date: 04-Aug-2022 18:52:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-12

Lab Sample ID: 410-92859-12

Worklist Smp#: 26

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

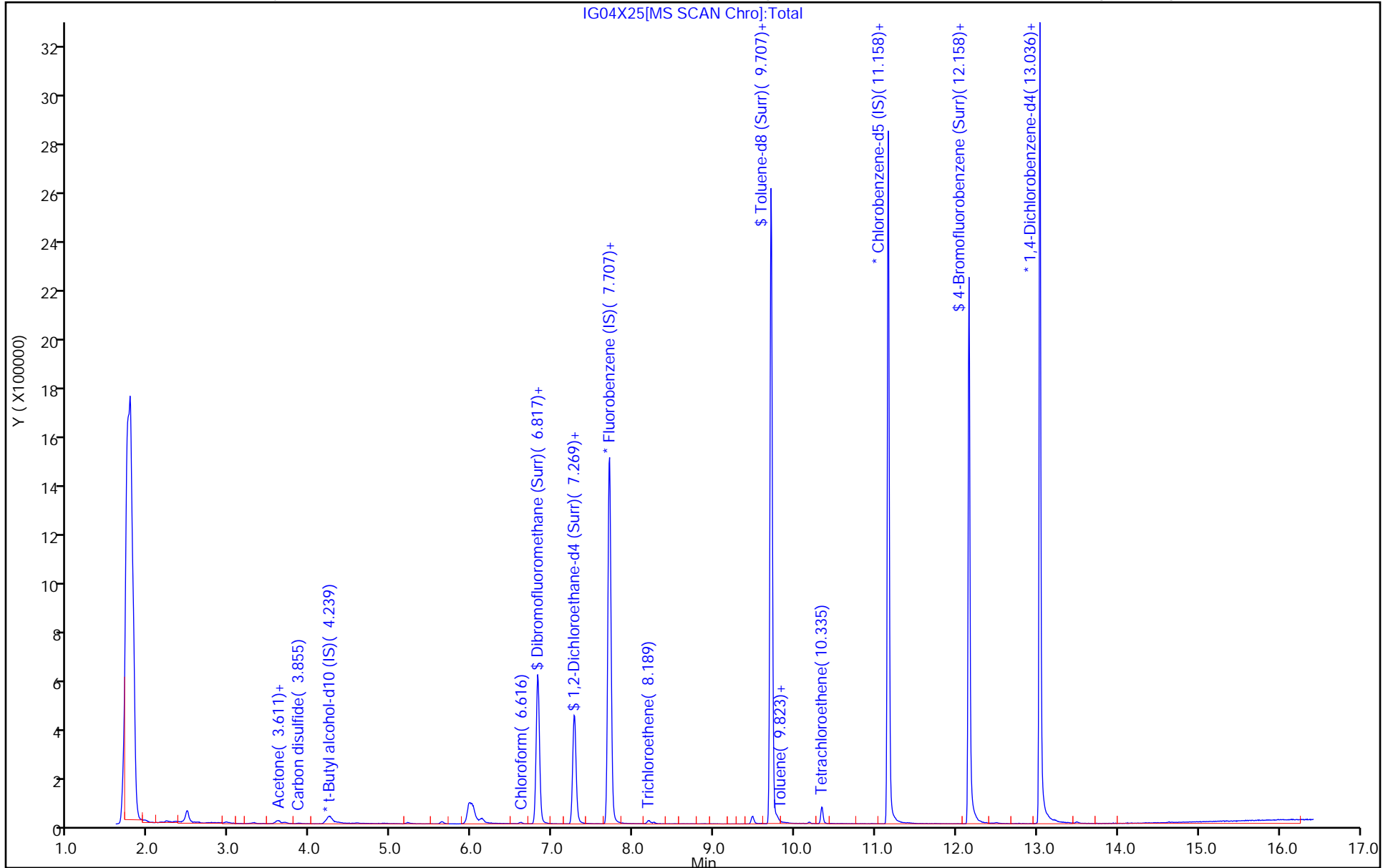
ALS Bottle#: 25

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D  
 Lims ID: 410-92859-A-12  
 Client ID: HD-COD-SW-29-0/1-0  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 18:52:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-026  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:53:57 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

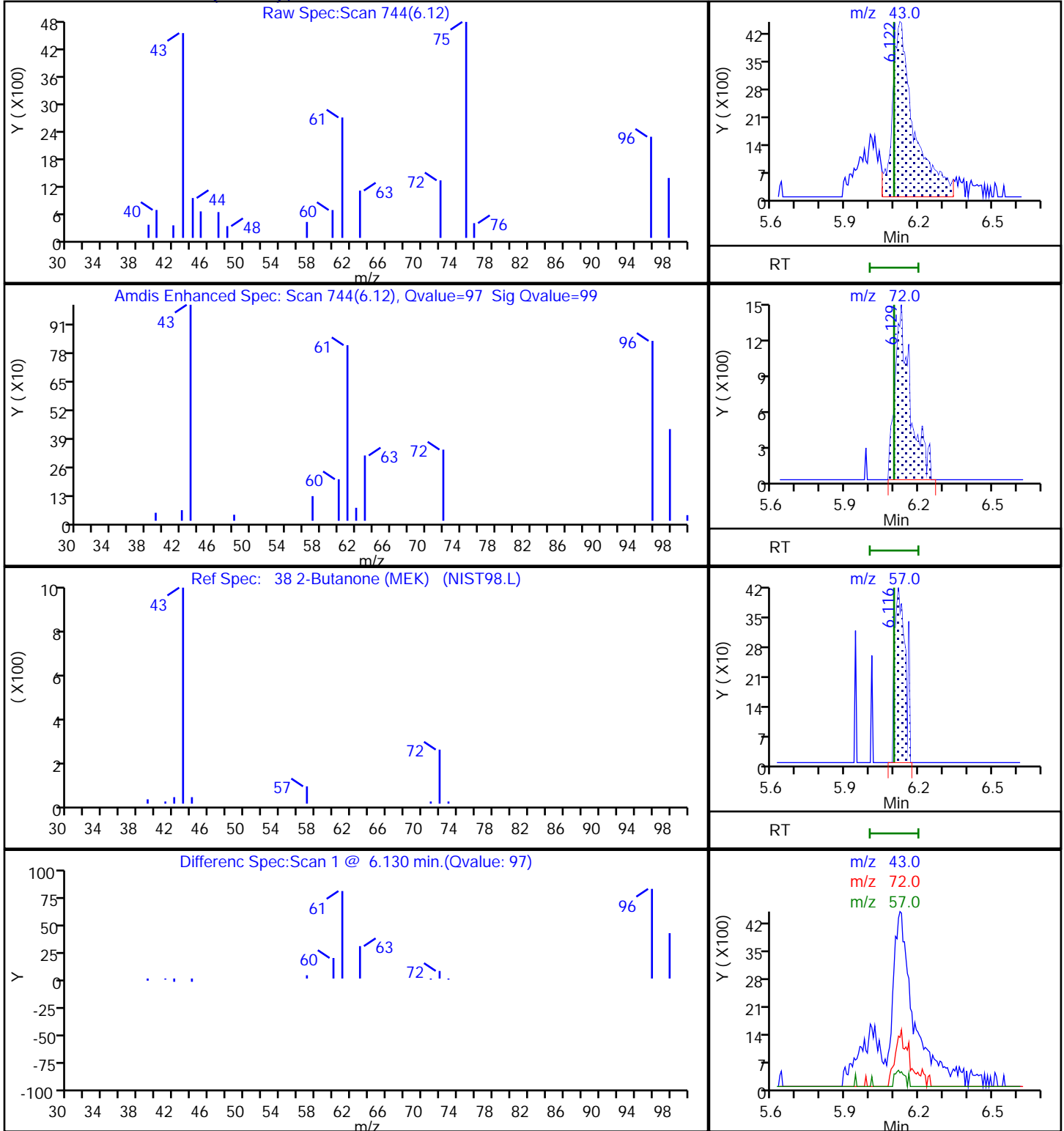
First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:53:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.4	104.48
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.49
\$ 78 Toluene-d8 (Surr)	10.0	9.68	96.75
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.33	93.32

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D  
Injection Date: 04-Aug-2022 18:52:30 Instrument ID: 19930  
Lims ID: 410-92859-A-12 Lab Sample ID: 410-92859-12  
Client ID: HD-COD-SW-29-0/1-0  
Operator ID: knk41612 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 ID) MS Quad

**38 2-Butanone (MEK), CAS: 78-93-3**



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D

Injection Date: 04-Aug-2022 18:52:30

Instrument ID: 19930

Lims ID: 410-92859-A-12

Lab Sample ID: 410-92859-12

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

Operator ID: knk41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

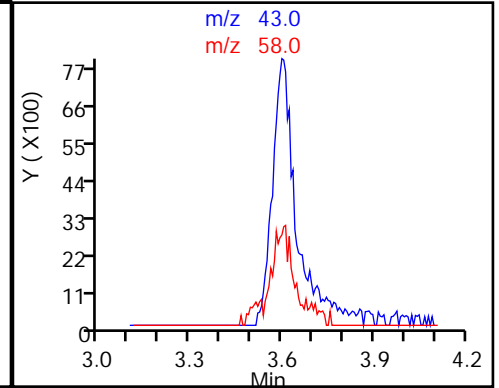
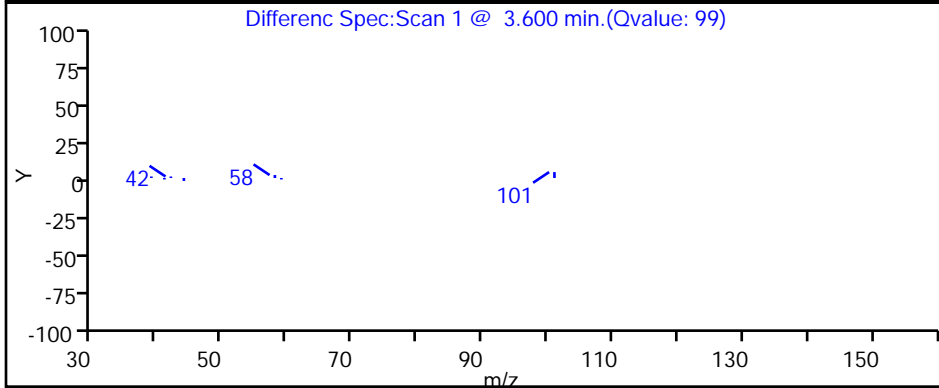
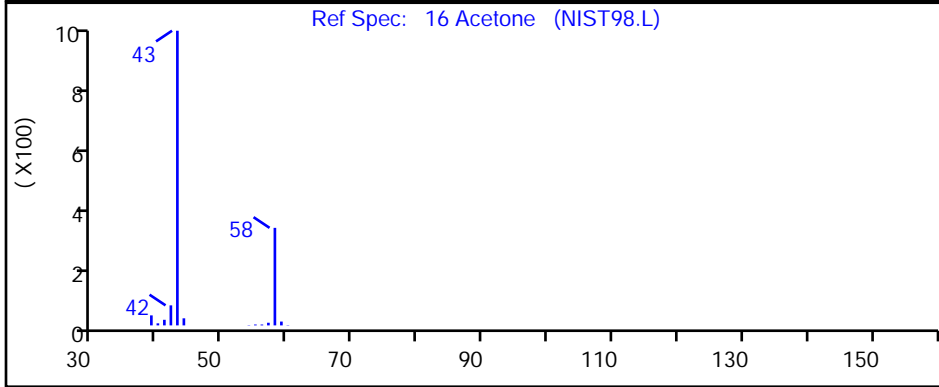
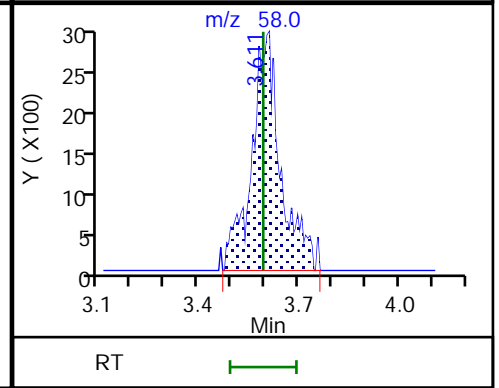
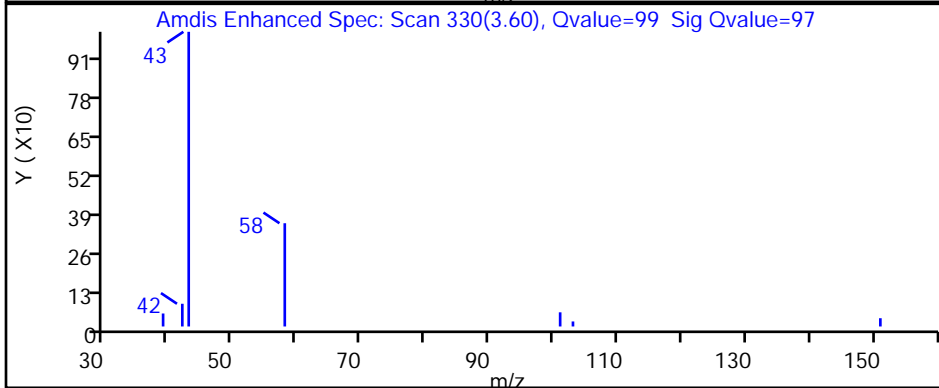
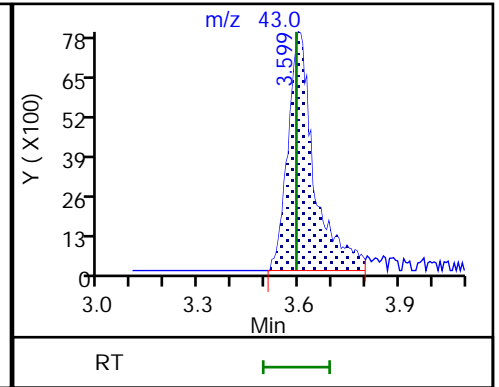
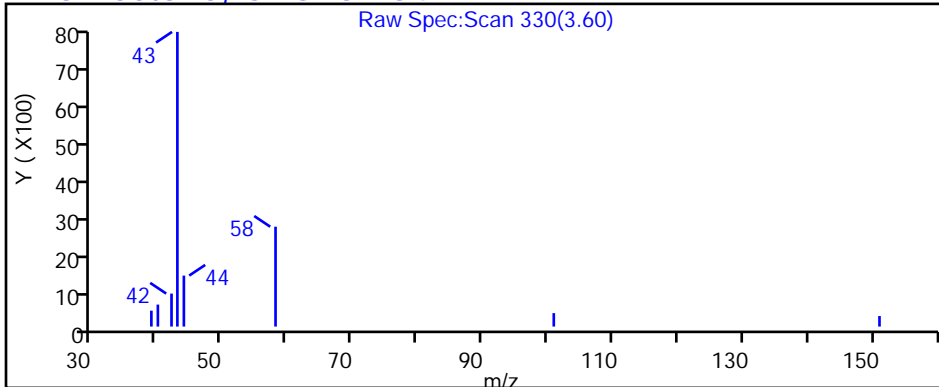
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D

Injection Date: 04-Aug-2022 18:52:30 Instrument ID: 19930

Lims ID: 410-92859-A-12 Lab Sample ID: 410-92859-12

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

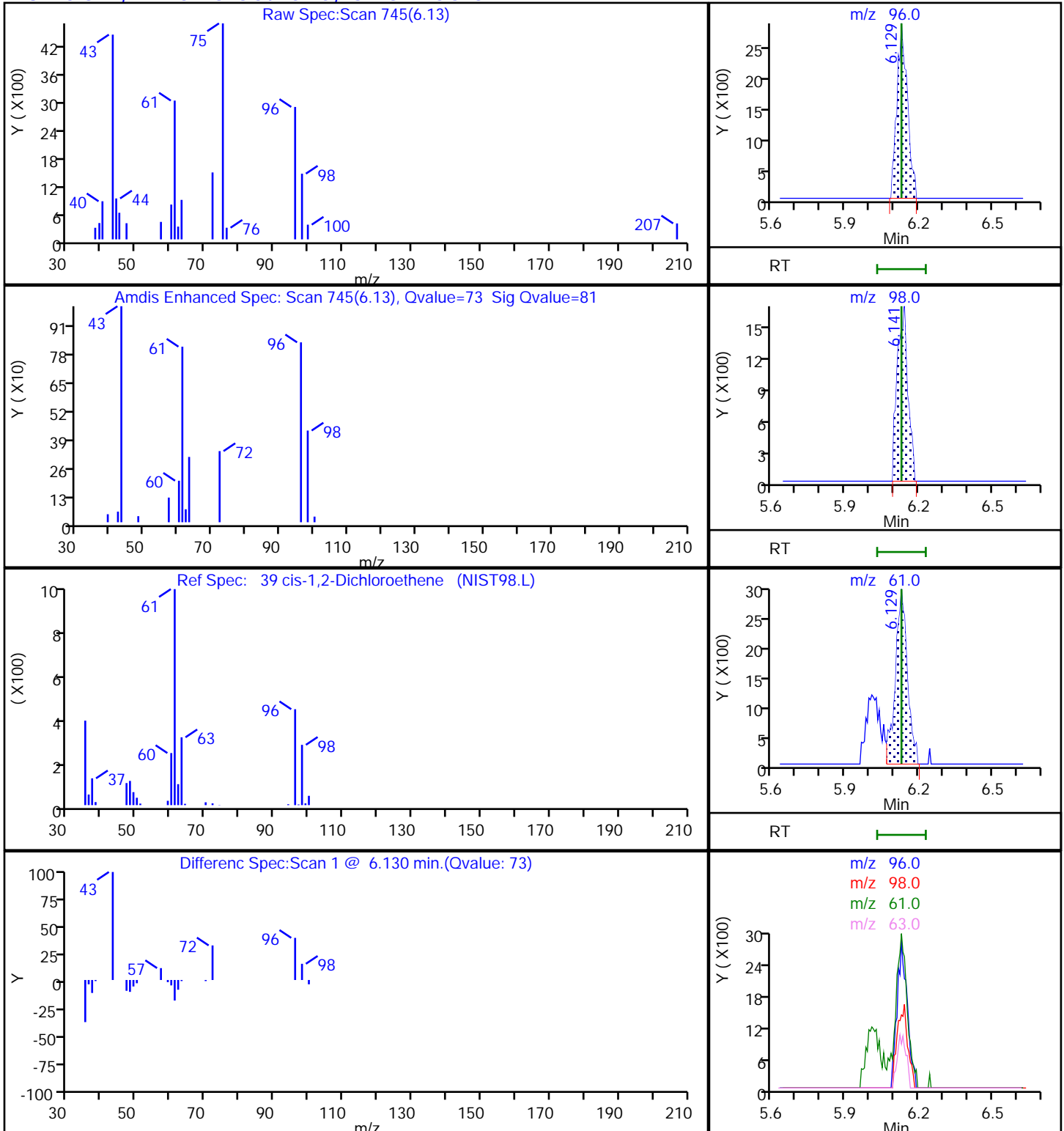
Operator ID: knk41612 ALS Bottle#: 25 Worklist Smp#: 26

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D

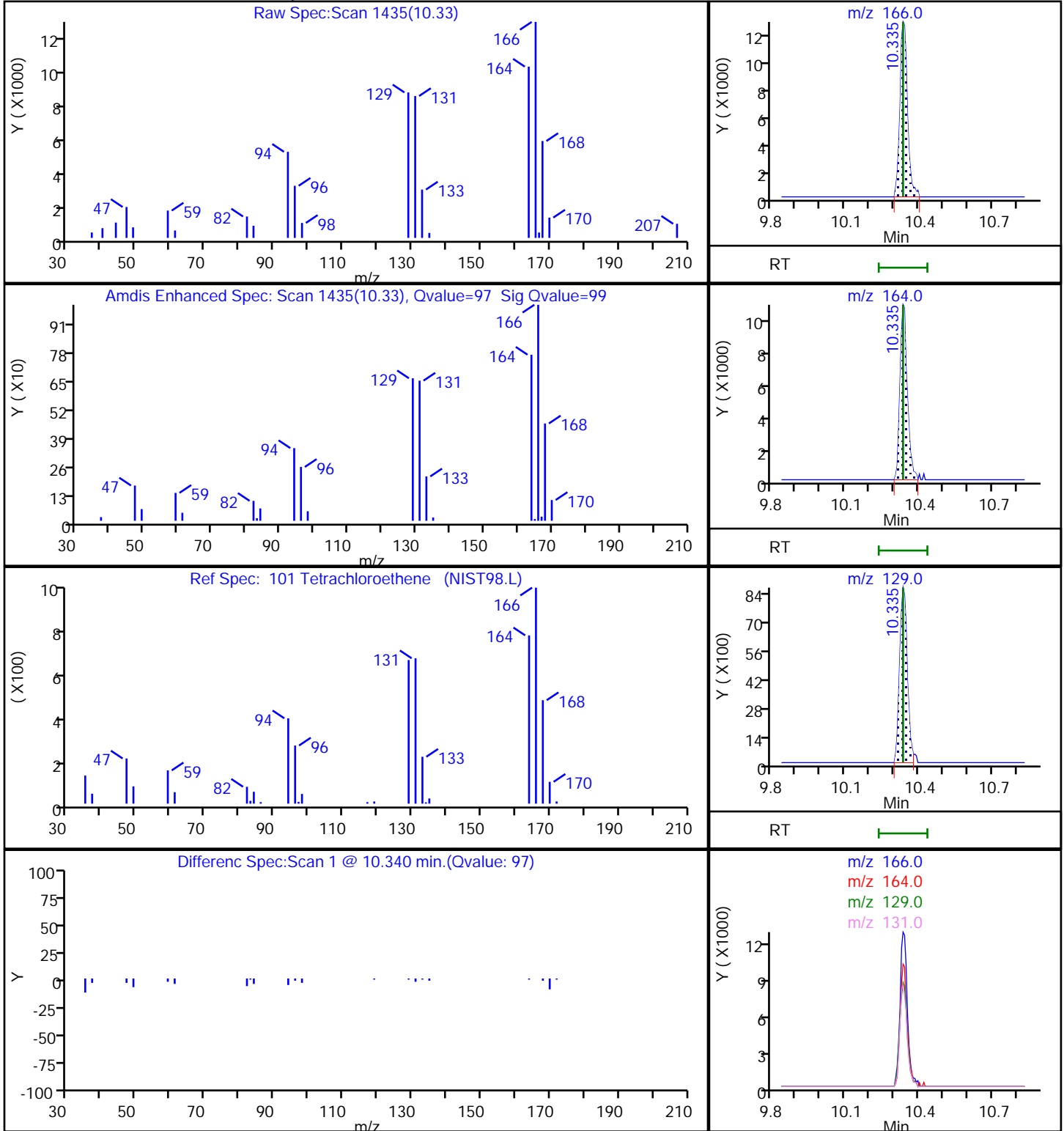
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

### 39 cis-1,2-Dichloroethene, CAS: 156-59-2



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D  
Injection Date: 04-Aug-2022 18:52:30 Instrument ID: 19930  
Lims ID: 410-92859-A-12 Lab Sample ID: 410-92859-12  
Client ID: HD-COD-SW-29-0/1-0  
Operator ID: knk41612 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 ID) Detector: MS Quad

101 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D

Injection Date: 04-Aug-2022 18:52:30 Instrument ID: 19930

Lims ID: 410-92859-A-12 Lab Sample ID: 410-92859-12

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

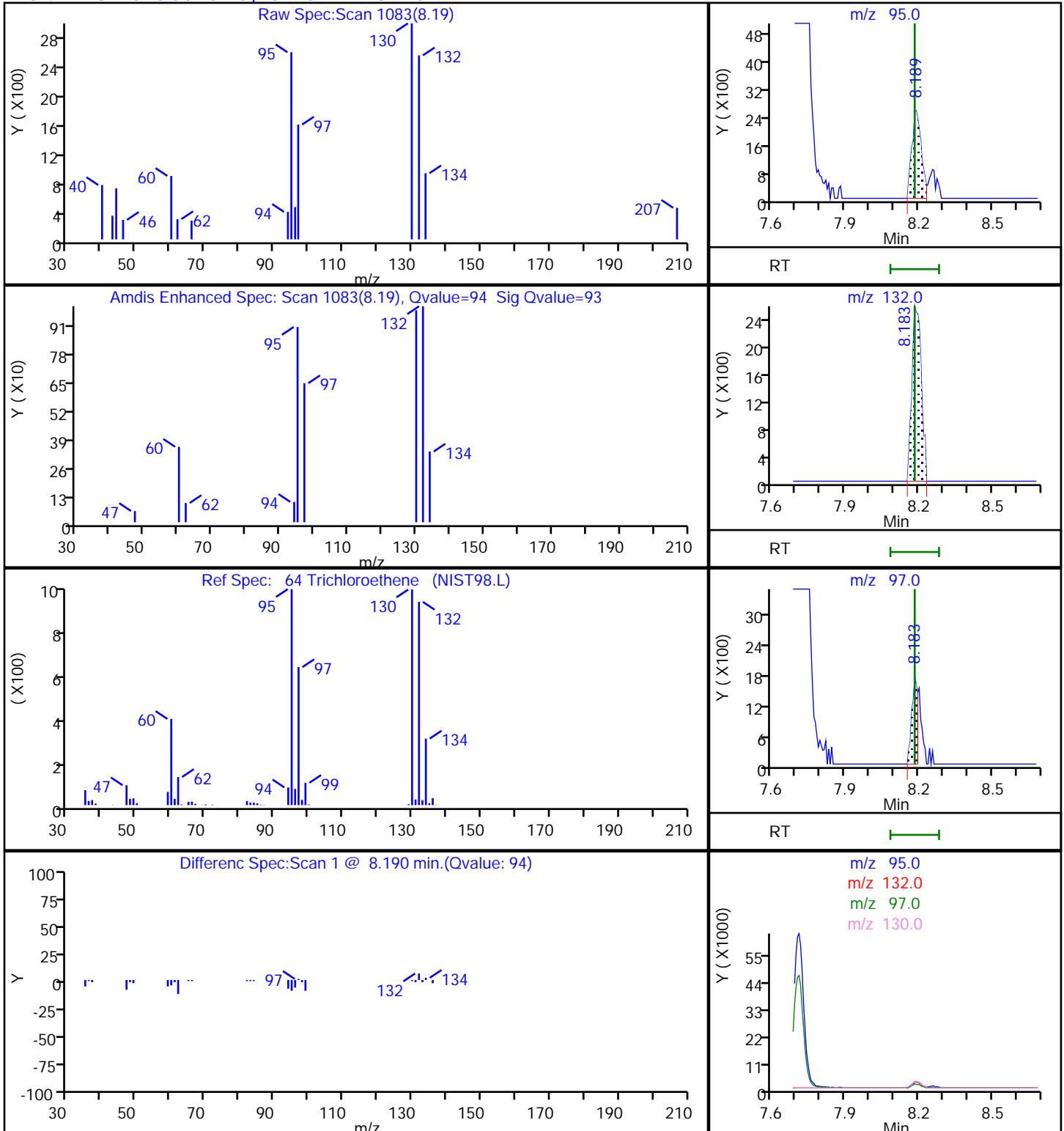
Operator ID: knk41612 ALS Bottle#: 25 Worklist Smp#: 26

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 ID) MS Quad

### 64 Trichloroethene, CAS: 79-01-6

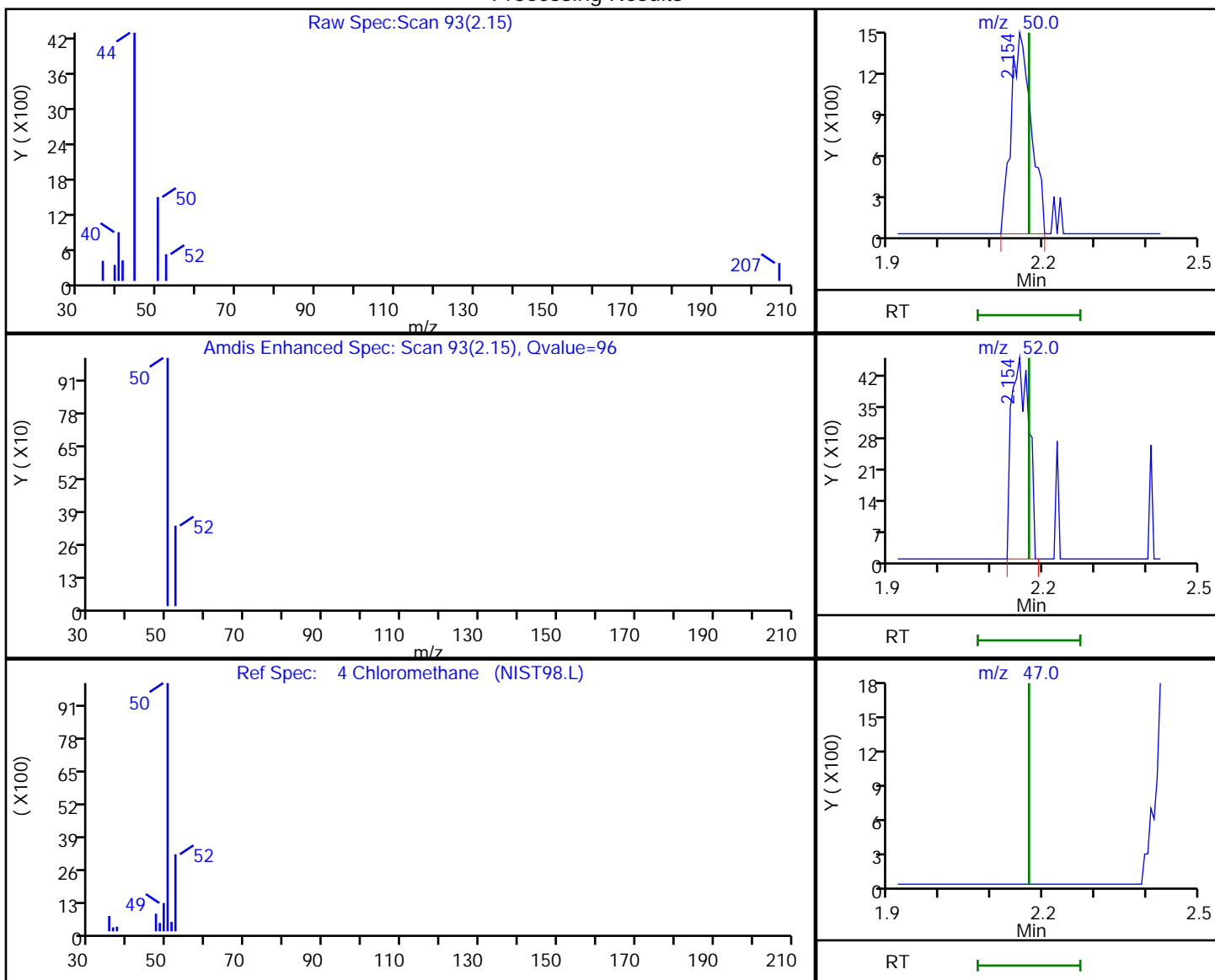


Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X25.D  
 Injection Date: 04-Aug-2022 18:52:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-12 Lab Sample ID: 410-92859-12  
 Client ID: HD-COD-SW-29-0/1-0  
 Operator ID: knk41612 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 ID) Detector: MS Quad

4 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.15	50.00	3858	0.053393
2.15	52.00	1069	
2.17	47.00	0	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:53:30

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-13

Matrix: Water

Lab File ID: IG04X26.D

Analysis Method: 8260D

Date Collected: 07/28/2022 12:30

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 19:13

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	4.0		0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	0.83		0.50	0.10
75-35-4	1,1-Dichloroethene	0.31	J	0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	2.5	J	5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	0.16	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	3.8		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
108-88-3	Toluene	ND		0.50	0.080
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-13

Matrix: Water

Lab File ID: IG04X26.D

Analysis Method: 8260D

Date Collected: 07/28/2022 12:30

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 19:13

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	3.1		0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		80-120
2037-26-5	Toluene-d8 (Surr)	94		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D  
 Lims ID: 410-92859-A-13  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 19:13:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-027  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:55:03 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:55:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	U
5 Vinyl chloride	62	2.270	2.282	-0.012	92	6033	0.0915	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96	3.574	3.568	0.006	96	15029	0.3095	
16 Acetone	43	3.599	3.592	0.007	97	20032	2.52	
20 Carbon disulfide	76	3.873	3.879	-0.006	94	6714	0.0553	
25 Methylene Chloride	84		4.233				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	26	144109	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	7
30 trans-1,2-Dichloroethene	96	4.660	4.653	0.007	89	1827	0.0339	a
32 1,1-Dichloroethane	63	5.306	5.306	0.000	96	82320	0.8339	
38 2-Butanone (MEK)	43	6.135	6.098	0.037	22	14151	0.9584	
39 cis-1,2-Dichloroethene	96	6.135	6.129	0.006	78	227653	3.78	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83	6.610	6.610	0.000	92	15759	0.1592	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	511152	10.6	
50 1,1,1-Trichloroethane	97	6.836	6.842	-0.006	98	355898	4.02	
54 Carbon tetrachloride	117		7.049				ND	7
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	55	103369	10.5	
57 Benzene	78		7.305				ND	
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.708	7.707	0.001	99	1915146	10.0	
64 Trichloroethene	95	8.189	8.183	0.006	97	193777	3.14	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	1973658	9.40	
79 Toluene	92	9.787	9.780	0.007	97	4675	0.0282	
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.329	10.335	-0.006	97	3880352	49.0	E
103 2-Hexanone	43		10.451				ND	
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1617444	10.0	
109 Chlorobenzene	112	11.189	11.182	0.007	81	1643	0.008830	7a
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	7
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	710124	9.23	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	860412	10.0	

### QC Flag Legend

#### Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

a - User Assigned ID

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D

Injection Date: 04-Aug-2022 19:13:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-13

Lab Sample ID: 410-92859-13

Worklist Smp#: 27

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

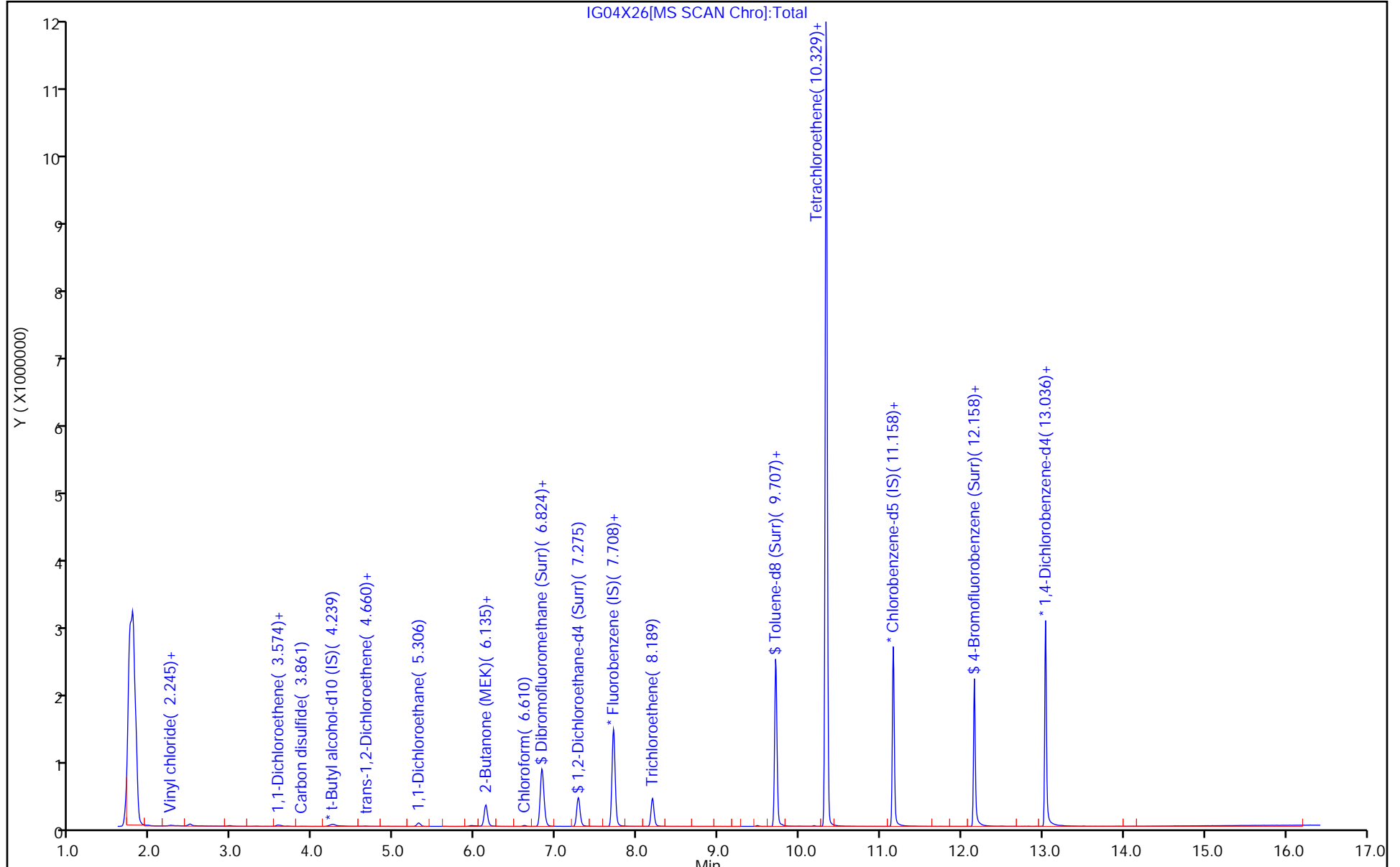
ALS Bottle#: 26

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D  
 Lims ID: 410-92859-A-13  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 19:13:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-027  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:55:03 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:55:03

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.6	106.31
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.67
\$ 78 Toluene-d8 (Surr)	10.0	9.40	94.03
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.23	92.27

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D

Injection Date: 04-Aug-2022 19:13:30

Instrument ID: 19930

Lims ID: 410-92859-A-13

Lab Sample ID: 410-92859-13

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

Operator ID: knk41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

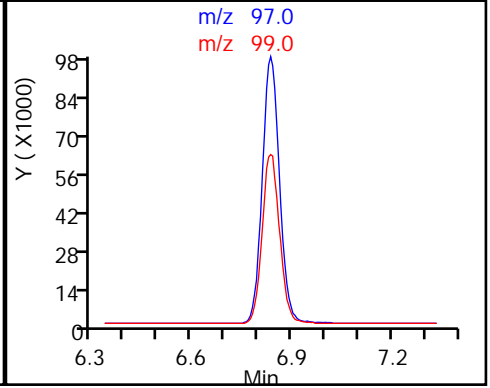
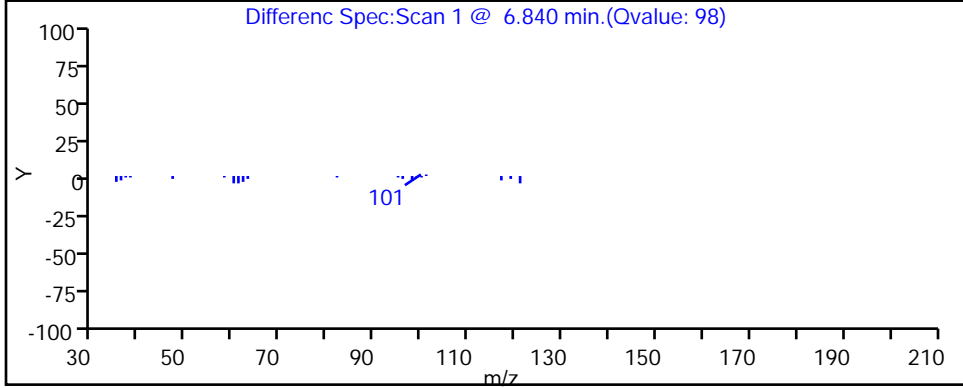
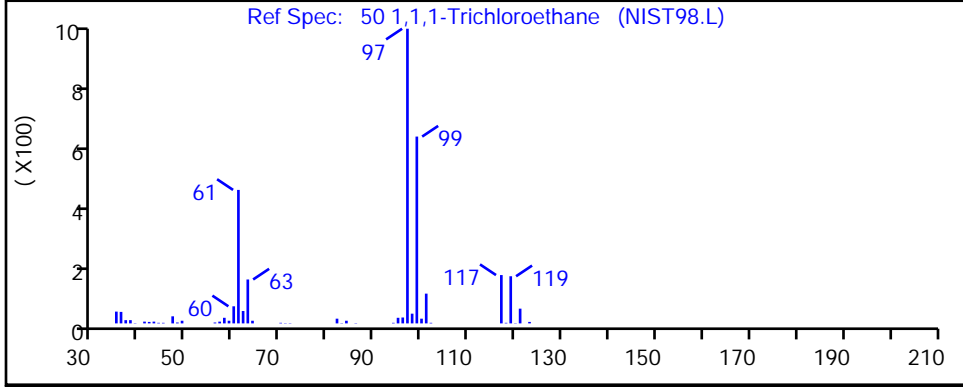
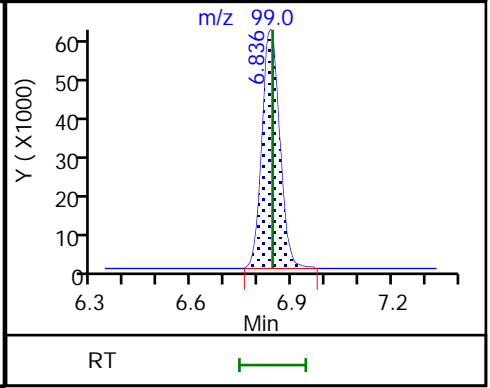
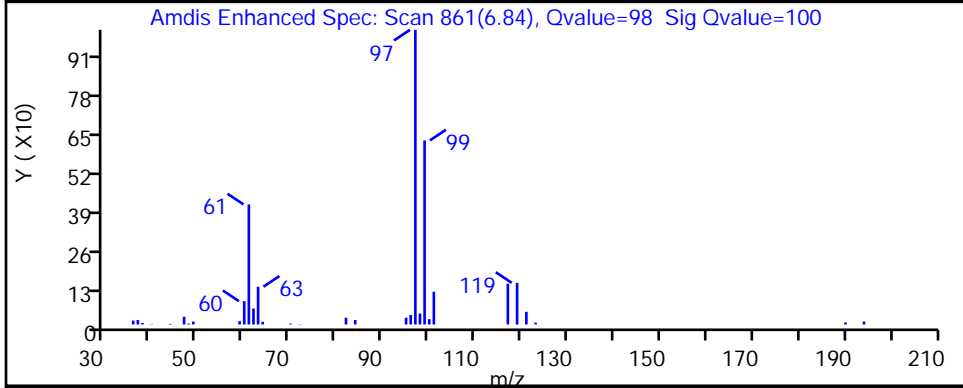
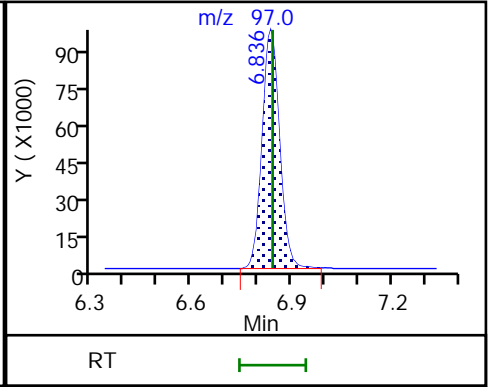
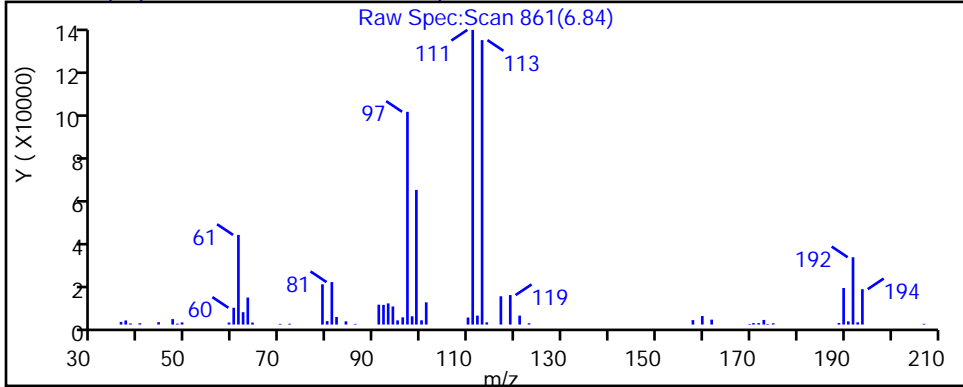
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

50 1,1,1-Trichloroethane, CAS: 71-55-6



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D

Injection Date: 04-Aug-2022 19:13:30

Instrument ID: 19930

Lims ID: 410-92859-A-13

Lab Sample ID: 410-92859-13

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

Operator ID: knk41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

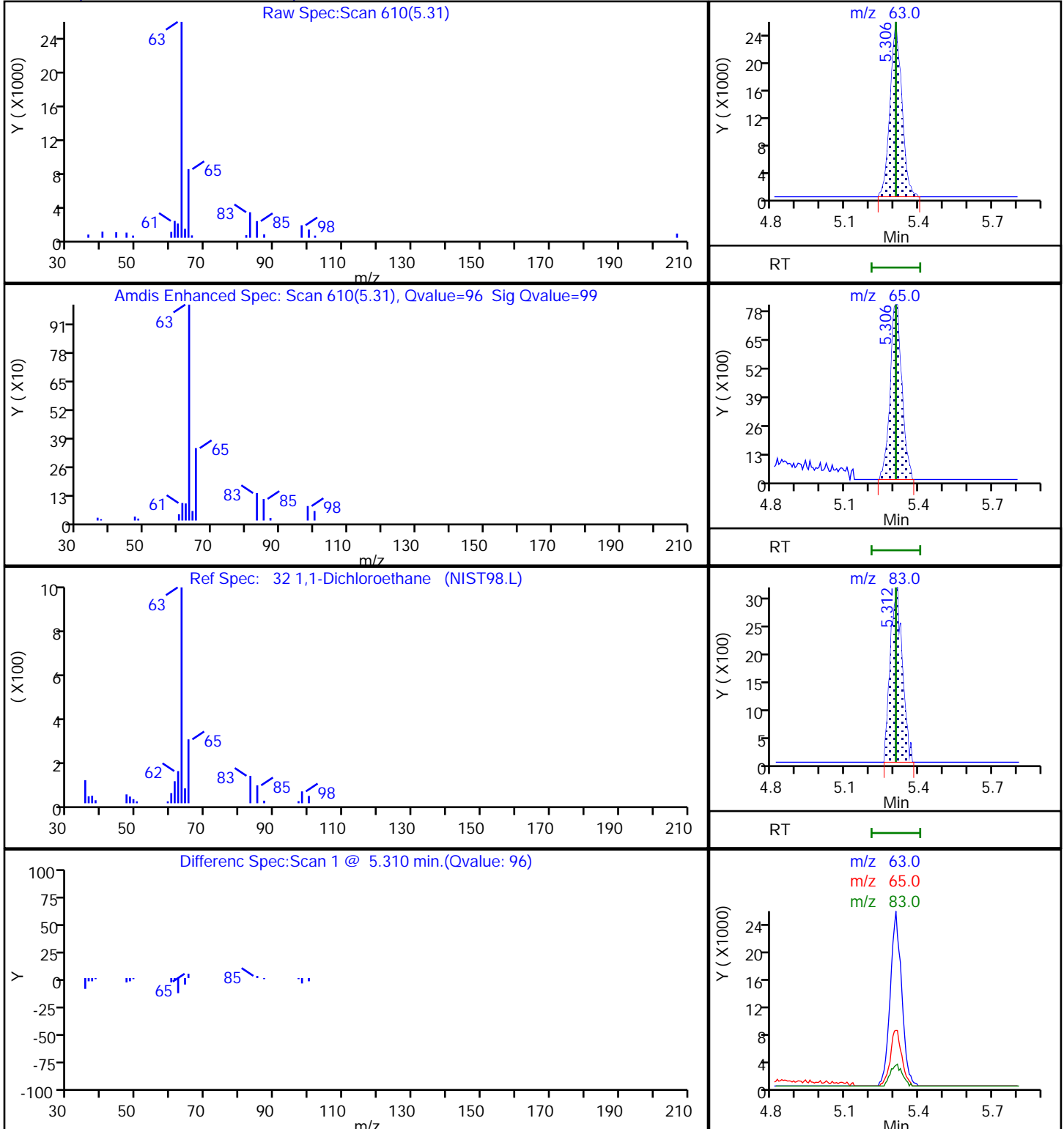
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

32 1,1-Dichloroethane, CAS: 75-34-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D

Injection Date: 04-Aug-2022 19:13:30

Instrument ID: 19930

Lims ID: 410-92859-A-13

Lab Sample ID: 410-92859-13

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

Operator ID: knk41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

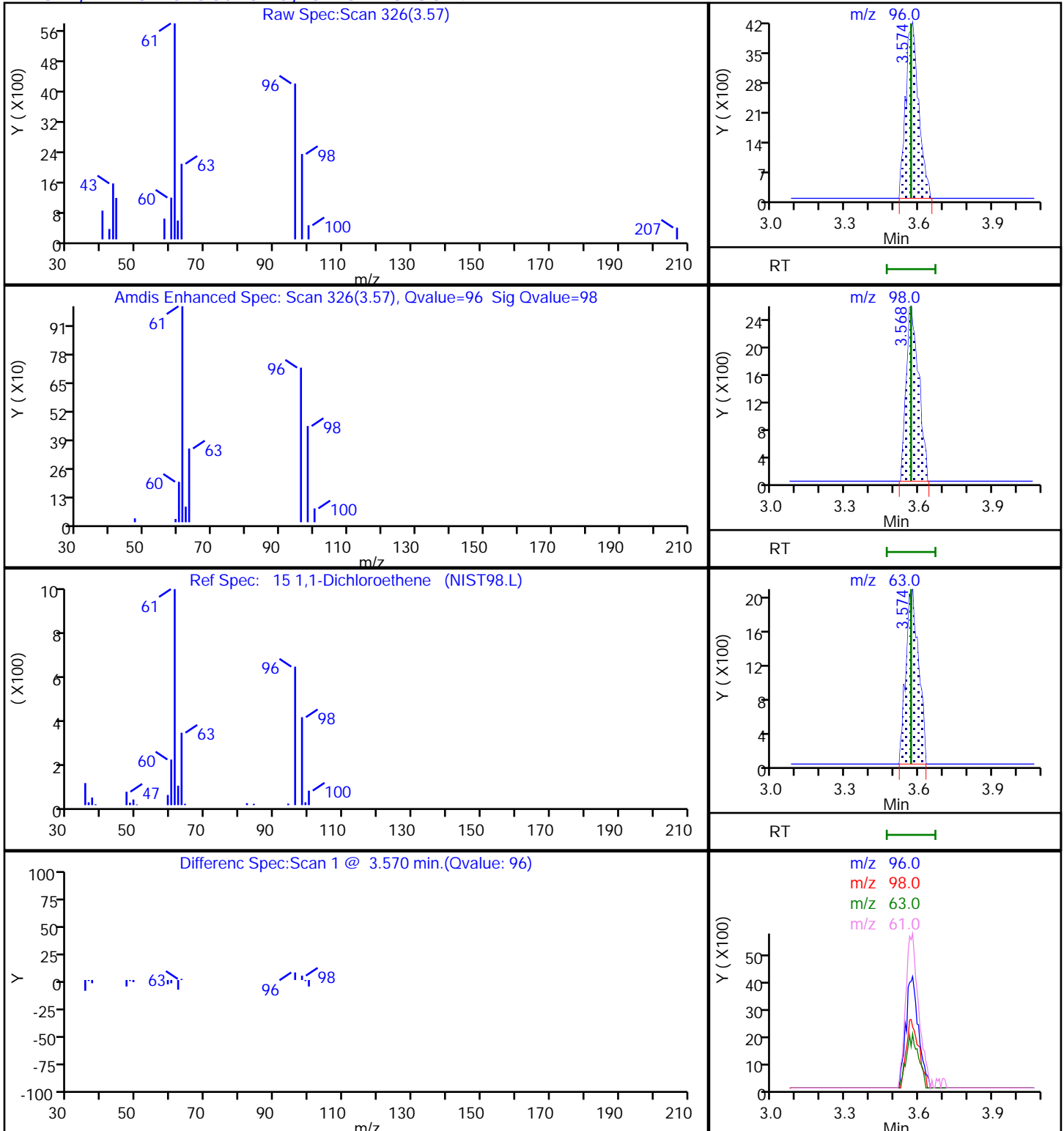
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

15 1,1-Dichloroethene, CAS: 75-35-4





Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D

Injection Date: 04-Aug-2022 19:13:30

Instrument ID: 19930

Lims ID: 410-92859-A-13

Lab Sample ID: 410-92859-13

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

Operator ID: knk41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

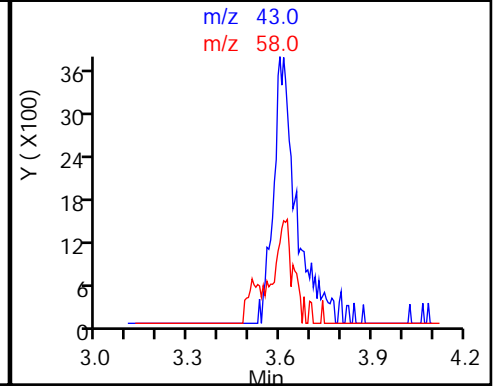
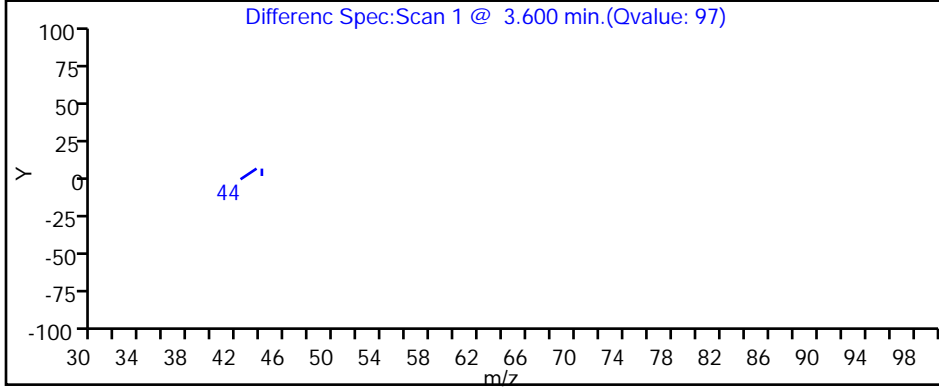
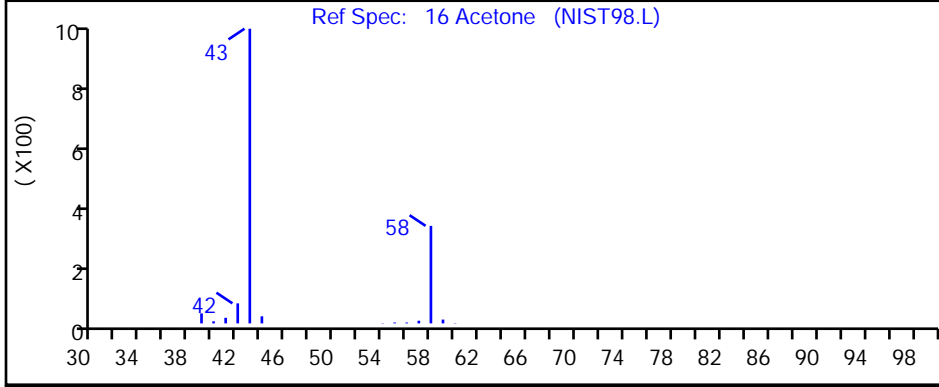
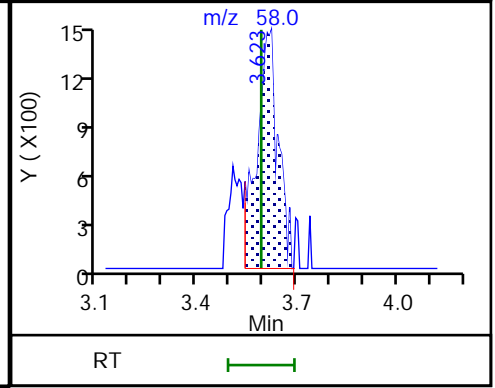
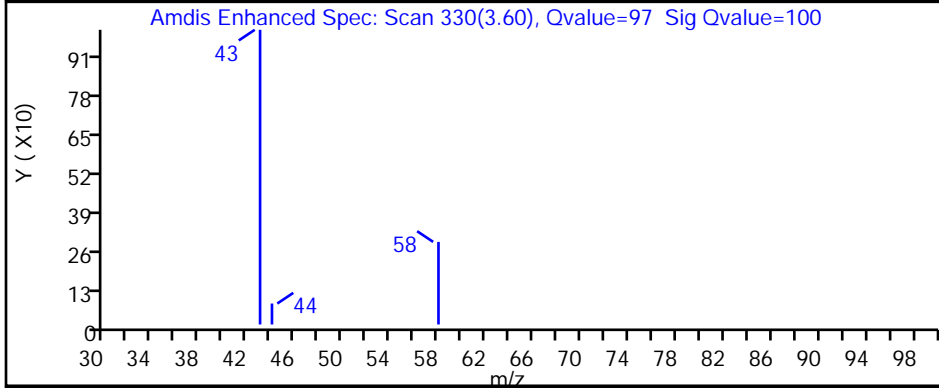
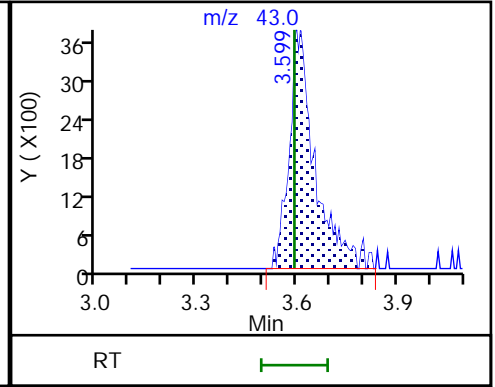
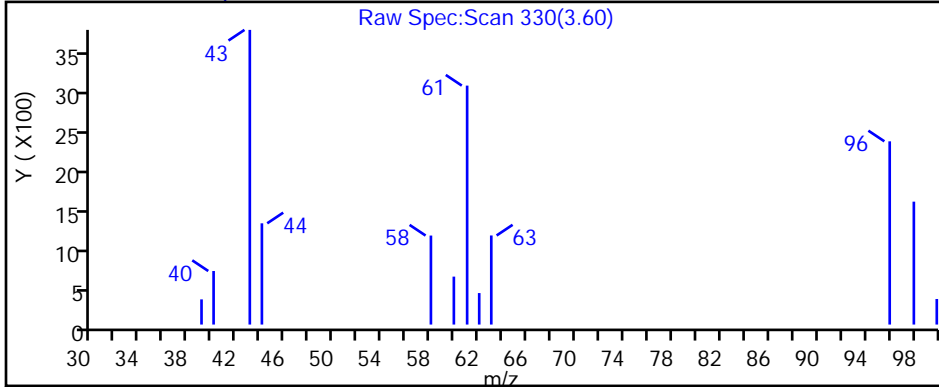
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

16 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D

Injection Date: 04-Aug-2022 19:13:30

Instrument ID: 19930

Lims ID: 410-92859-A-13

Lab Sample ID: 410-92859-13

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

Operator ID: knk41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

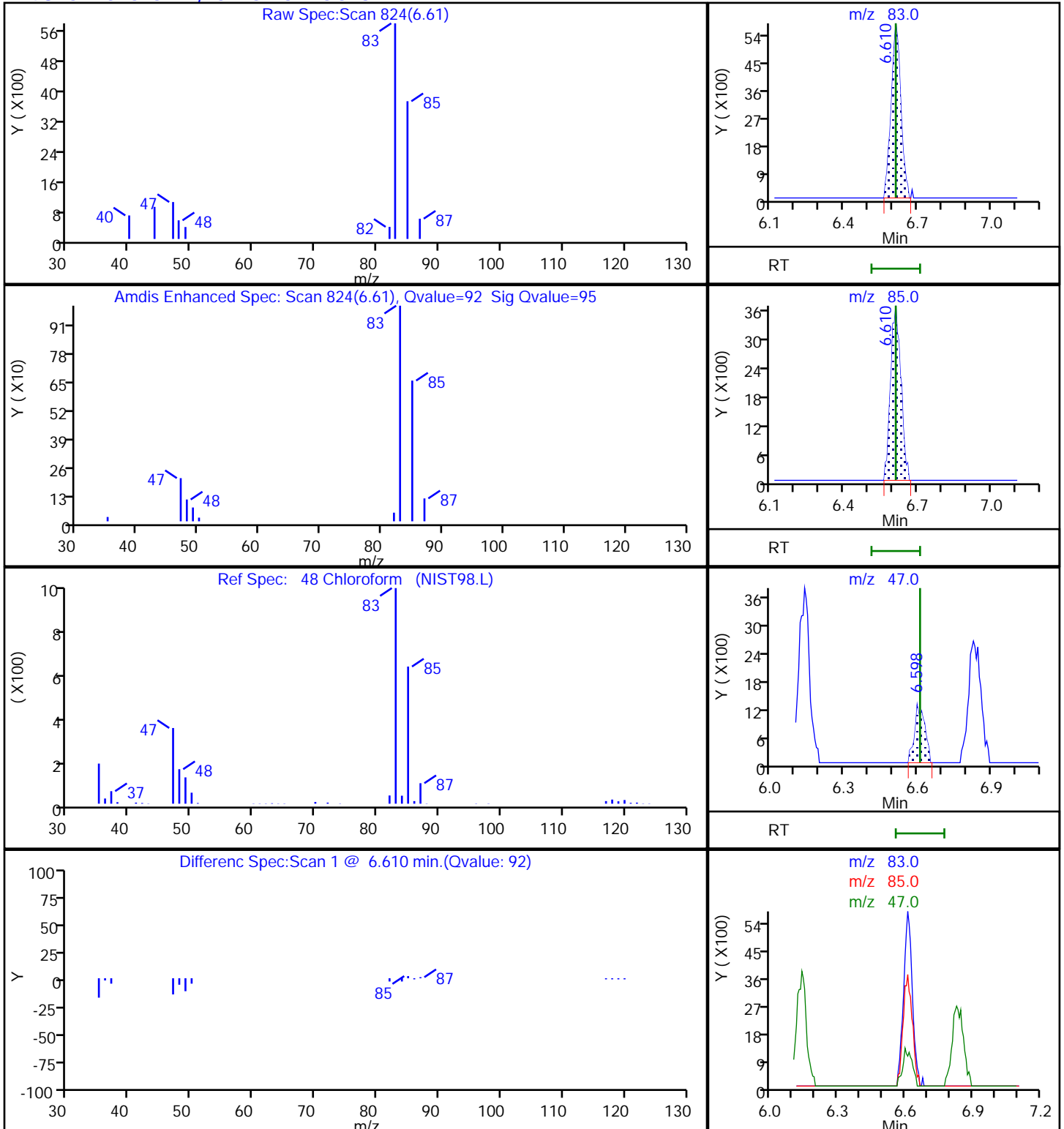
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

48 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D

Injection Date: 04-Aug-2022 19:13:30

Instrument ID: 19930

Lims ID: 410-92859-A-13

Lab Sample ID: 410-92859-13

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

Operator ID: knk41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

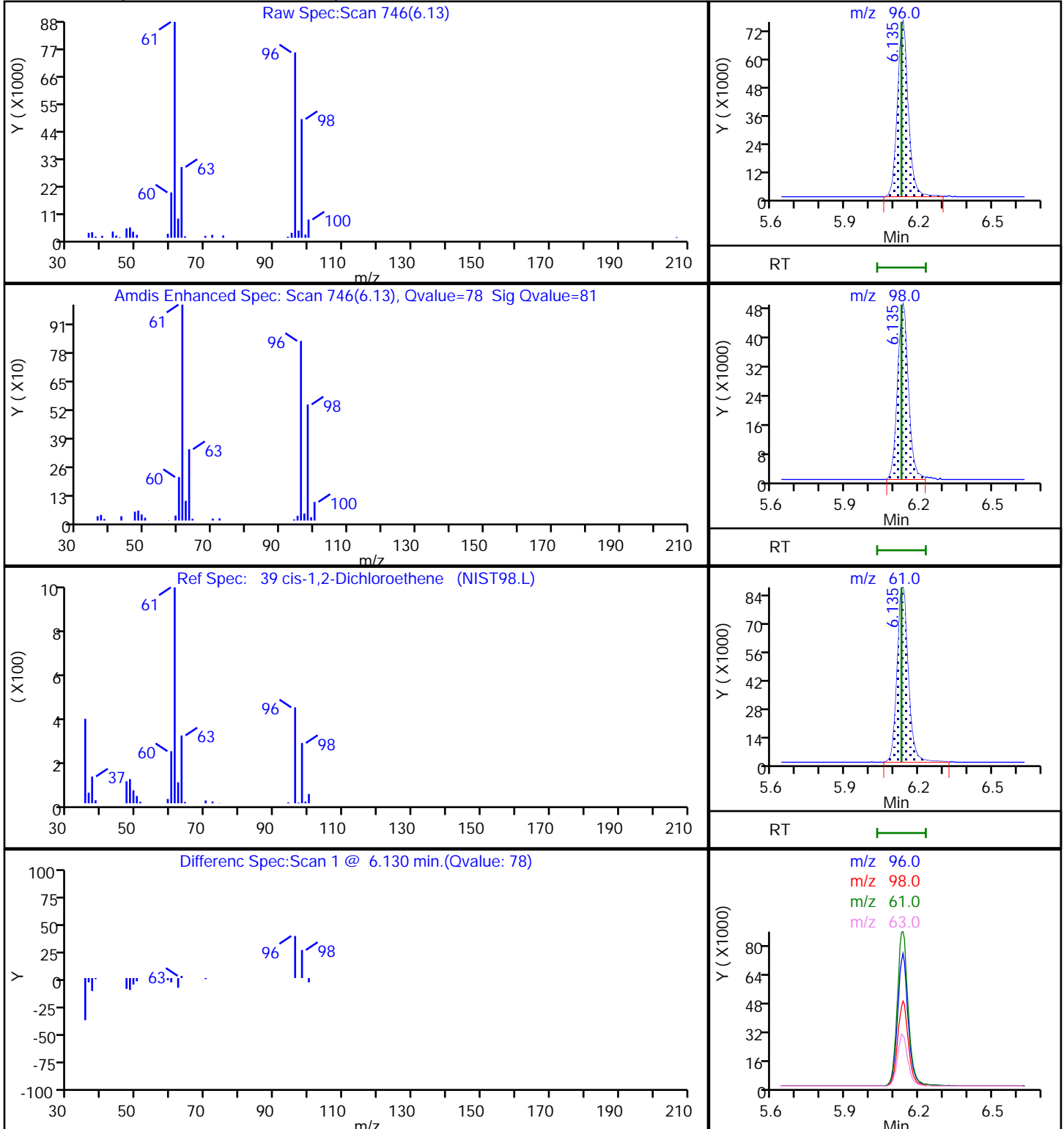
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

**39 cis-1,2-Dichloroethene, CAS: 156-59-2**



Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D

Injection Date: 04-Aug-2022 19:13:30 Instrument ID: 19930

Lims ID: 410-92859-A-13 Lab Sample ID: 410-92859-13

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

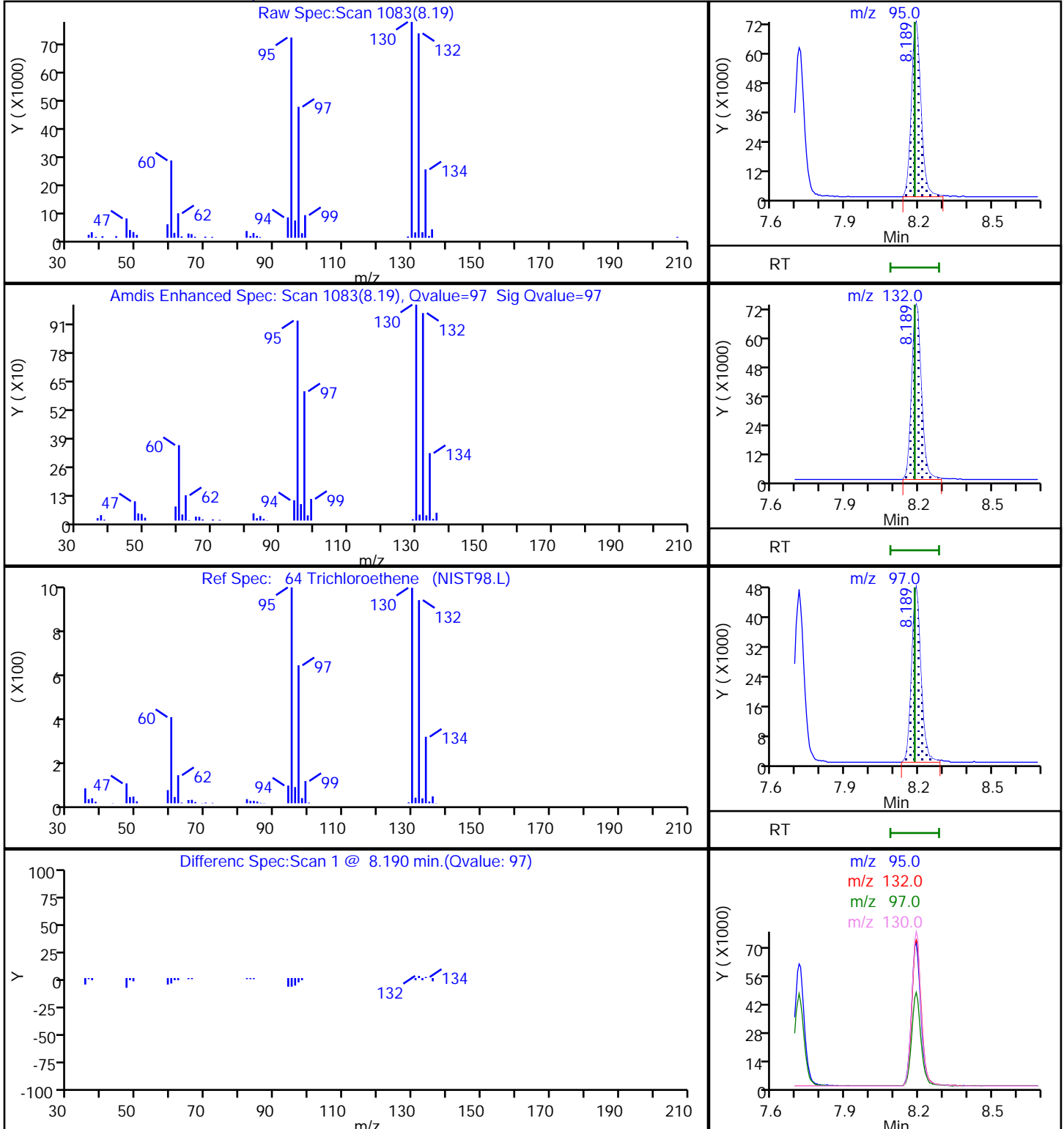
Operator ID: knk41612 ALS Bottle#: 26 Worklist Smp#: 27

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 ID) MS Quad

64 Trichloroethene, CAS: 79-01-6

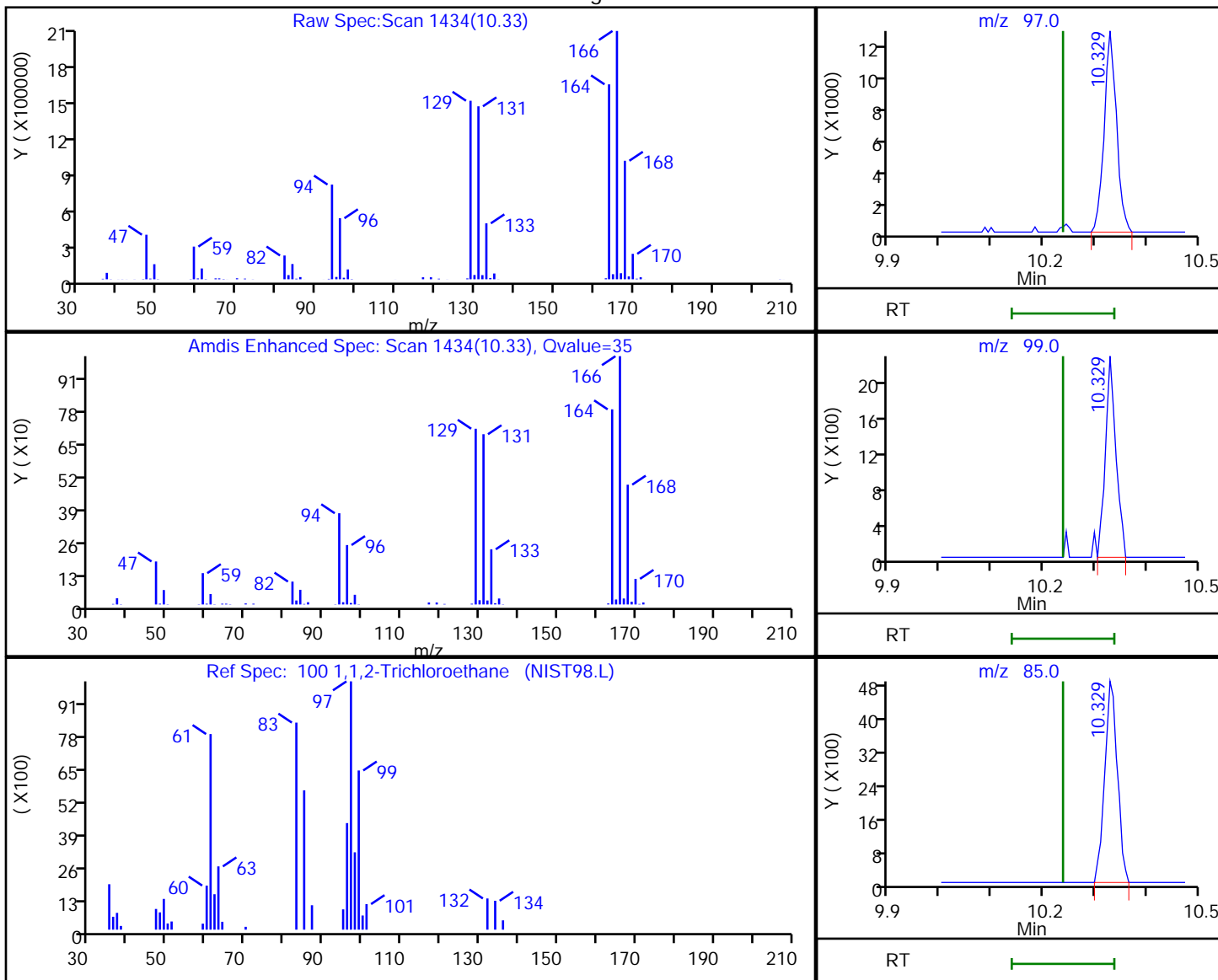


Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D  
 Injection Date: 04-Aug-2022 19:13:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-13 Lab Sample ID: 410-92859-13  
 Client ID: HD-QC1-0/1-1  
 Operator ID: knk41612 ALS Bottle#: 26 Worklist Smp#: 27  
 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 ID) Detector: MS Quad

100 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
10.33	97.00	21493	0.459697
10.33	99.00	3254	
10.33	85.00	8280	
10.33	83.00	61655	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:54:39

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Environment Testing, LLC

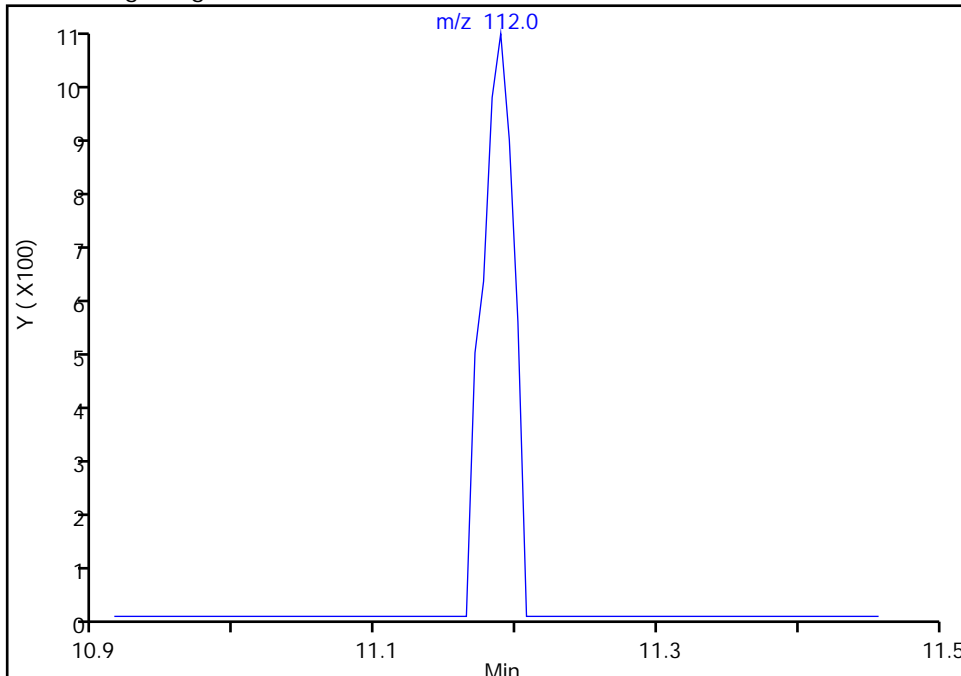
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Injection Date: 04-Aug-2022 19:13:30 Instrument ID: 19930  
Lims ID: 410-92859-A-13 Lab Sample ID: 410-92859-13  
Client ID: HD-QC1-0/1-1  
Operator ID: knk41612 ALS Bottle#: 26 Worklist Smp#: 27  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

109 Chlorobenzene, CAS: 108-90-7

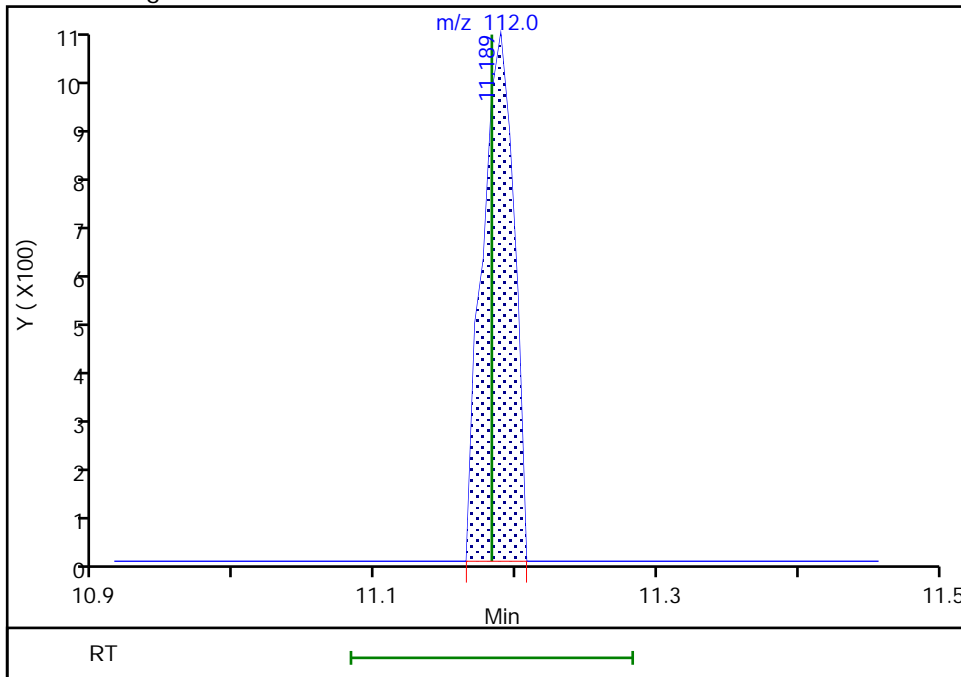
Signal: 1

Not Detected  
Expected RT: 11.18

Processing Integration Results



Manual Integration Results



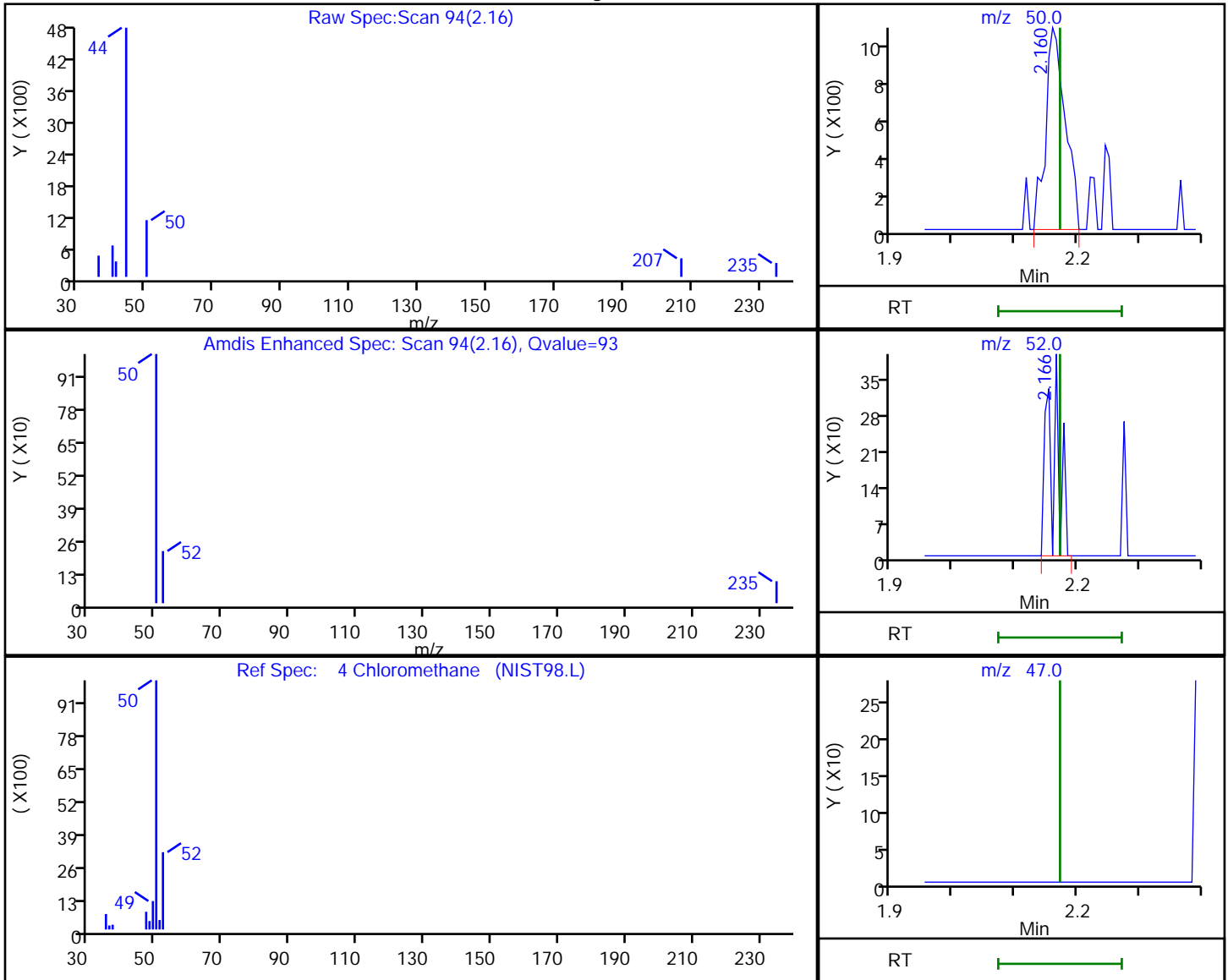
RT: 11.19  
Area: 1643  
Amount: 0.008830  
Amount Units: ug/l

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X26.D  
 Injection Date: 04-Aug-2022 19:13:30 Instrument ID: 19930  
 Lims ID: 410-92859-A-13 Lab Sample ID: 410-92859-13  
 Client ID: HD-QC1-0/1-1  
 Operator ID: knk41612 ALS Bottle#: 26 Worklist Smp#: 27  
 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 ID) Detector: MS Quad

4 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.16	50.00	2358	0.035199
2.17	52.00	466	
2.17	47.00	0	

Reviewer: kaewrungrueangp, 05-Aug-2022 10:54:05

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Environment Testing, LLC

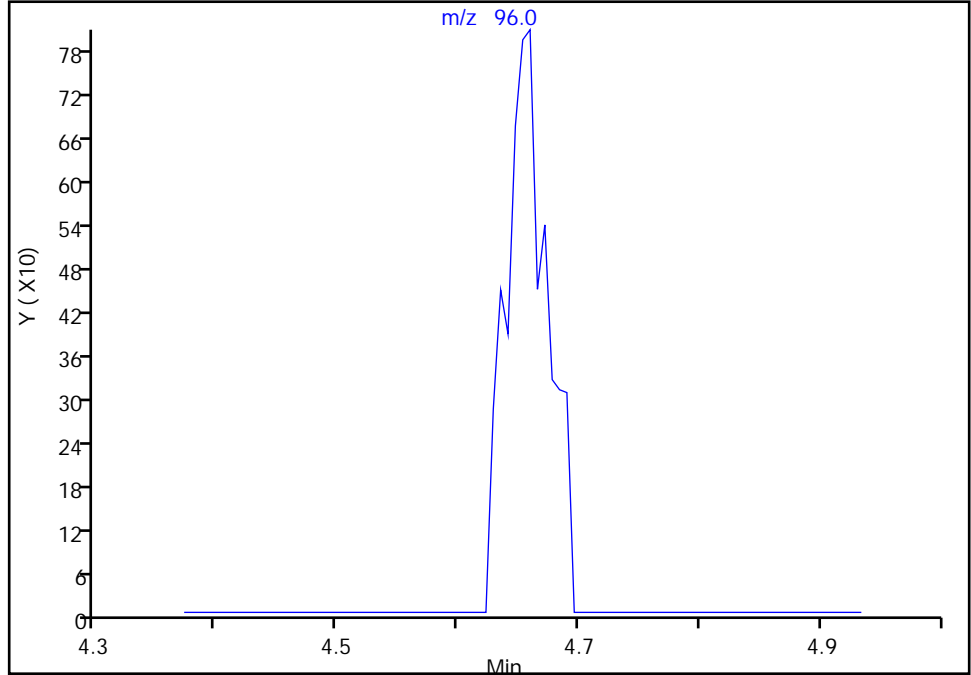
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Injection Date: 04-Aug-2022 19:13:30 Instrument ID: 19930  
Lims ID: 410-92859-A-13 Lab Sample ID: 410-92859-13  
Client ID: HD-QC1-0/1-1  
Operator ID: knk41612 ALS Bottle#: 26 Worklist Smp#: 27  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

**30 trans-1,2-Dichloroethene, CAS: 156-60-5**

Signal: 1

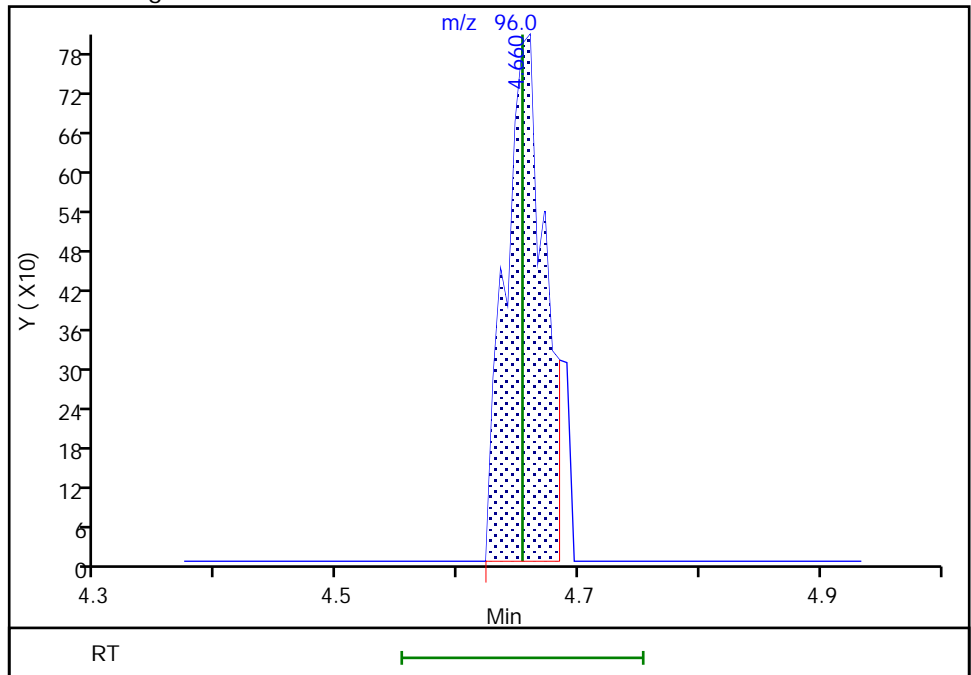
Not Detected  
Expected RT: 4.65

Processing Integration Results



Manual Integration Results

RT: 4.66  
Area: 1827  
Amount: 0.033924  
Amount Units: ug/l



Reviewer: kaewrungrueangp, 05-Aug-2022 10:54:17

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: HD-QC1-0/1-1 DL      Lab Sample ID: 410-92859-13 DL

Matrix: Water      Lab File ID: IG07X015.D

Analysis Method: 8260D      Date Collected: 07/28/2022 12:30

Sample wt/vol: 25 (mL)      Date Analyzed: 08/07/2022 17:27

Soil Aliquot Vol: \_\_\_\_\_      Dilution Factor: 10

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 283558      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	40		5.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X015.D  
 Lims ID: 410-92859-B-13 DL  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 07-Aug-2022 17:27:30 ALS Bottle#: 15 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 10.0000  
 Sample Info: 410-0063569-016  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 08-Aug-2022 08:49:18 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1677

First Level Reviewer: kaewrungrueangp Date: 08-Aug-2022 08:49:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.160				ND	
5 Vinyl chloride	62		2.270				ND	7
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
15 1,1-Dichloroethene	96		3.562				ND	7
16 Acetone	43		3.580				ND	U
20 Carbon disulfide	76		3.867				ND	7
25 Methylene Chloride	84		4.221				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.239	4.227	0.012	26	160311	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.641				ND	
32 1,1-Dichloroethane	63	5.299	5.293	0.006	9	7612	0.0634	M
38 2-Butanone (MEK)	43		6.092				ND	
39 cis-1,2-Dichloroethene	96	6.135	6.123	0.012	77	22904	0.3124	
46 Chlorobromomethane	128		6.452				ND	
48 Chloroform	83		6.604				ND	7
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.818	0.006	94	578228	9.89	
50 1,1,1-Trichloroethane	97	6.836	6.830	0.006	37	32848	0.3047	
54 Carbon tetrachloride	117		7.043				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.269	0.006	56	119684	9.96	
57 Benzene	78		7.299				ND	
58 1,2-Dichloroethane	62	7.378	7.372	0.006	96	20854	0.2773	
* 61 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2329486	10.0	
64 Trichloroethene	95	8.183	8.183	0.000	97	18771	0.2500	
66 1,2-Dichloropropane	63		8.506				ND	
71 Dichlorobromomethane	83		8.854				ND	
76 cis-1,3-Dichloropropene	75		9.396				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2281471	10.0	
79 Toluene	92		9.780				ND	7
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166	10.335	10.329	0.006	97	340372	3.97	
103 2-Hexanone	43		10.451				ND	
105 Chlorodibromomethane	129		10.616				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1749921	10.0	
109 Chlorobenzene	112		11.183				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.884				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	93	752517	9.04	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	900357	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X015.D

Injection Date: 07-Aug-2022 17:27:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-B-13 DL

Lab Sample ID: 410-92859-13

Worklist Smp#: 16

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

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

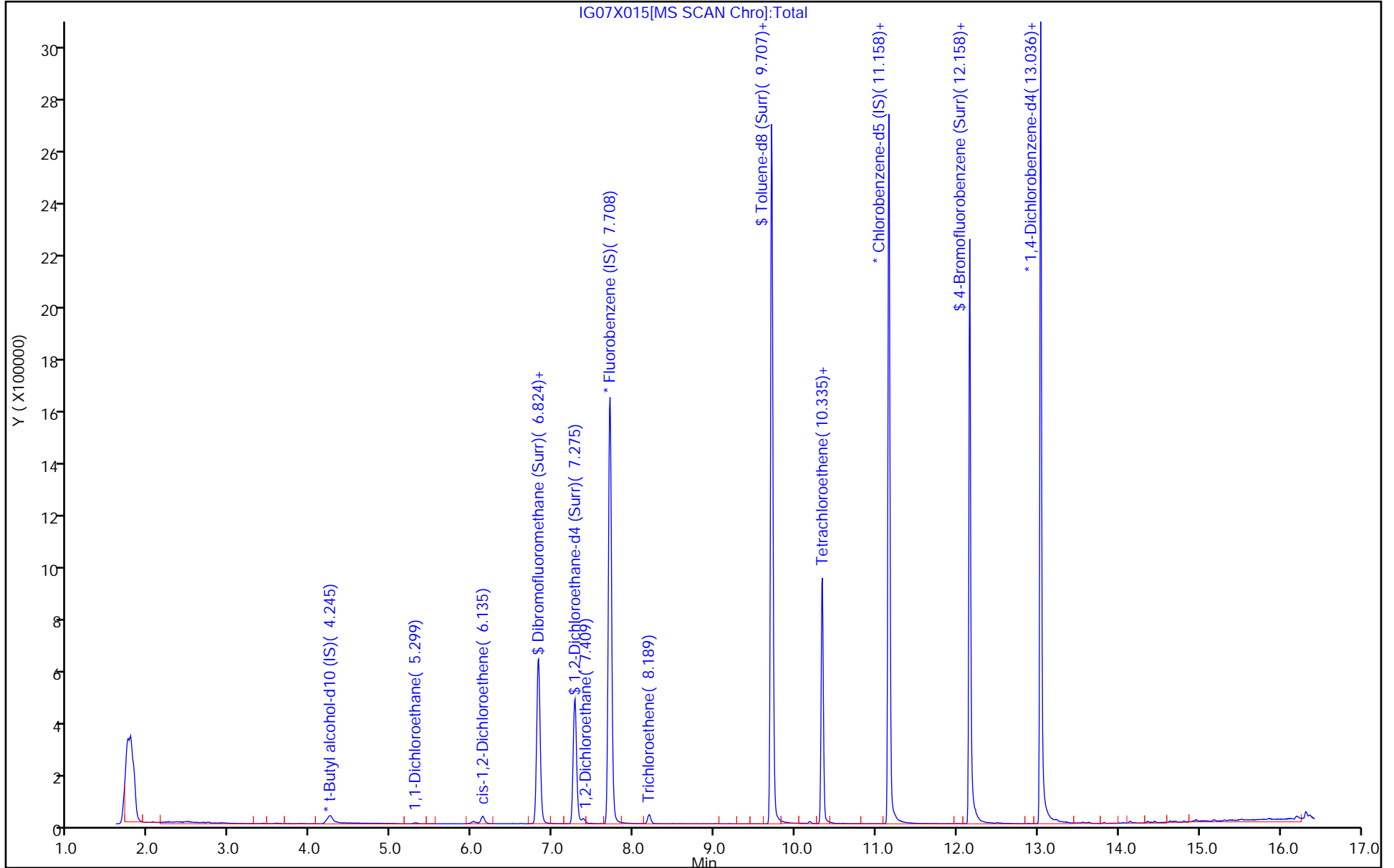
ALS Bottle#: 15

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X015.D  
 Lims ID: 410-92859-B-13 DL  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 07-Aug-2022 17:27:30 ALS Bottle#: 15 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 10.0000  
 Sample Info: 410-0063569-016  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 08-Aug-2022 08:49:18 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1677

First Level Reviewer: kaewrungrueangp

Date: 08-Aug-2022 08:49:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	9.89	98.87
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	9.96	99.64
\$ 78 Toluene-d8 (Surr)	10.0	10.0	100.47
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.04	90.37

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X015.D

Injection Date: 07-Aug-2022 17:27:30 Instrument ID: 19930

Lims ID: 410-92859-B-13 DL Lab Sample ID: 410-92859-13

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

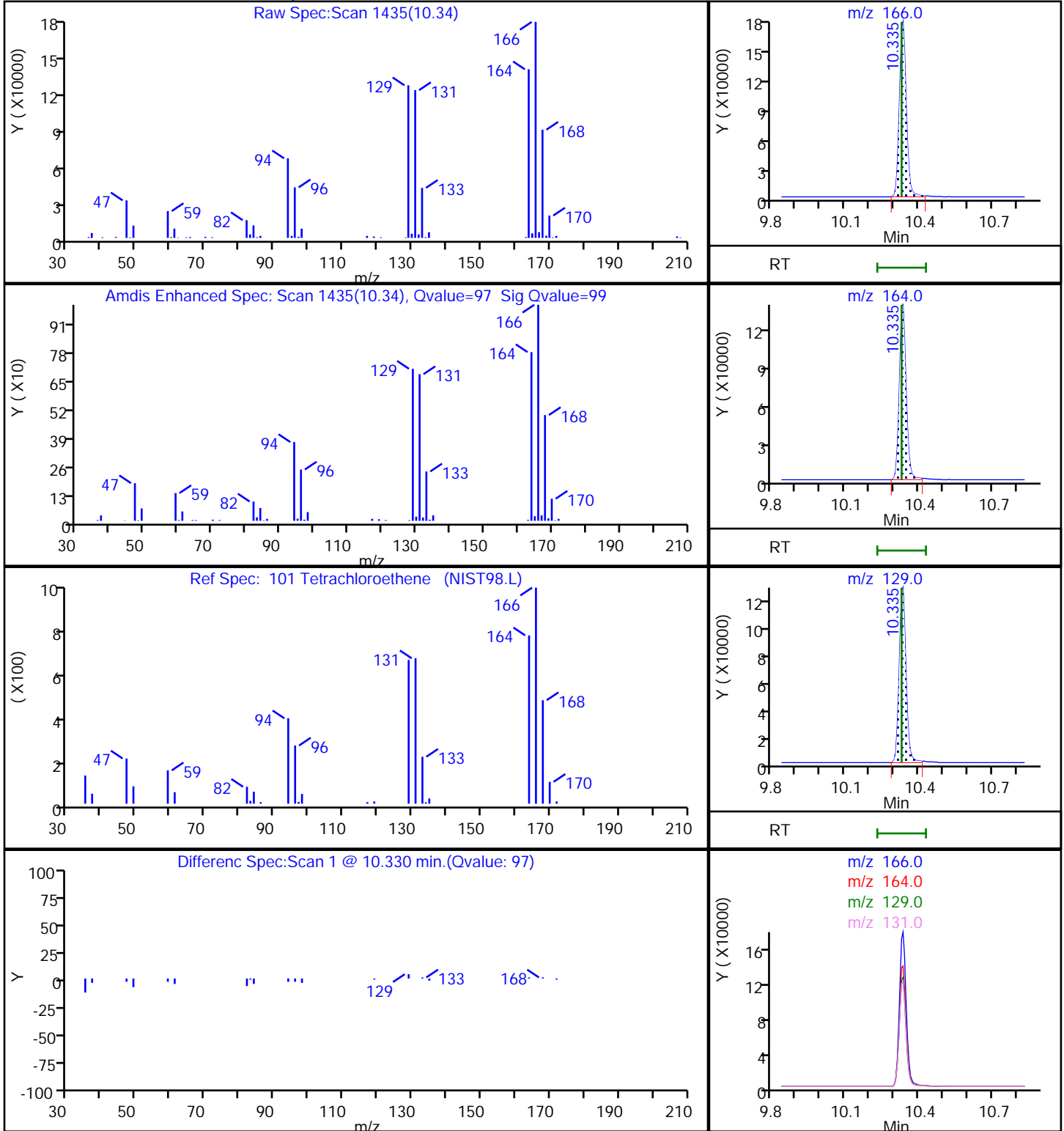
Operator ID: knk41612 ALS Bottle#: 15 Worklist Smp#: 16

Purge Vol: 25.000 mL Dil. Factor: 10.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

101 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-14

Matrix: Water

Lab File ID: IG04X07.D

Analysis Method: 8260D

Date Collected: 07/28/2022 00:00

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 12:31

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	ND		5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	ND		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-14

Matrix: Water

Lab File ID: IG04X07.D

Analysis Method: 8260D

Date Collected: 07/28/2022 00:00

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 12:31

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	ND		0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		80-120
2037-26-5	Toluene-d8 (Surr)	95		80-120



Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X07.D  
 Lims ID: 410-92859-A-14  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 12:31:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-008  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:34:12 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp Date: 05-Aug-2022 10:35:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	
15 1,1-Dichloroethene	96		3.568				ND	
16 Acetone	43	3.611	3.592	0.019	96	6837	0.7636	
20 Carbon disulfide	76		3.879				ND	7
25 Methylene Chloride	84		4.233				ND	7
* 26 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	24	162280	50.0	
29 Methyl tert-butyl ether	73		4.641				ND	
30 trans-1,2-Dichloroethene	96		4.653				ND	
32 1,1-Dichloroethane	63		5.306				ND	
38 2-Butanone (MEK)	43		6.098				ND	
39 cis-1,2-Dichloroethene	96		6.129				ND	
46 Chlorobromomethane	128		6.458				ND	
48 Chloroform	83		6.610				ND	
\$ 49 Dibromofluoromethane (Surr)	113	6.818	6.824	-0.006	94	514338	10.5	
50 1,1,1-Trichloroethane	97		6.842				ND	
54 Carbon tetrachloride	117		7.049				ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.275	-0.006	55	105744	10.6	
57 Benzene	78		7.305				ND	
58 1,2-Dichloroethane	62		7.372				ND	
* 61 Fluorobenzene (IS)	96	7.708	7.707	0.001	99	1942272	10.0	
64 Trichloroethene	95		8.183				ND	
66 1,2-Dichloropropane	63		8.512				ND	
71 Dichlorobromomethane	83		8.854				ND	
76 cis-1,3-Dichloropropene	75		9.402				ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	1966314	9.51	
79 Toluene	92		9.780				ND	7
97 trans-1,3-Dichloropropene	75		10.036				ND	
100 1,1,2-Trichloroethane	97		10.237				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
101 Tetrachloroethene	166		10.335				ND	
103 2-Hexanone	43		10.451				ND	
105 Chlorodibromomethane	129		10.615				ND	
106 Ethylene Dibromide	107		10.731				ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1594094	10.0	
109 Chlorobenzene	112		11.182				ND	
S 110 Xylenes, Total	106		11.245				ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262				ND	
112 Ethylbenzene	91		11.268				ND	
113 m-Xylene & p-Xylene	106		11.384				ND	
114 o-Xylene	106		11.713				ND	
115 Styrene	104		11.725				ND	
116 Bromoform	173		11.883				ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	701273	9.25	
121 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	860339	10.0	

**QC Flag Legend**

Processing Flags

7 - Failed Limit of Detection

**Reagents:**

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X07.D

Injection Date: 04-Aug-2022 12:31:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-14

Lab Sample ID: 410-92859-14

Worklist Smp#: 8

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

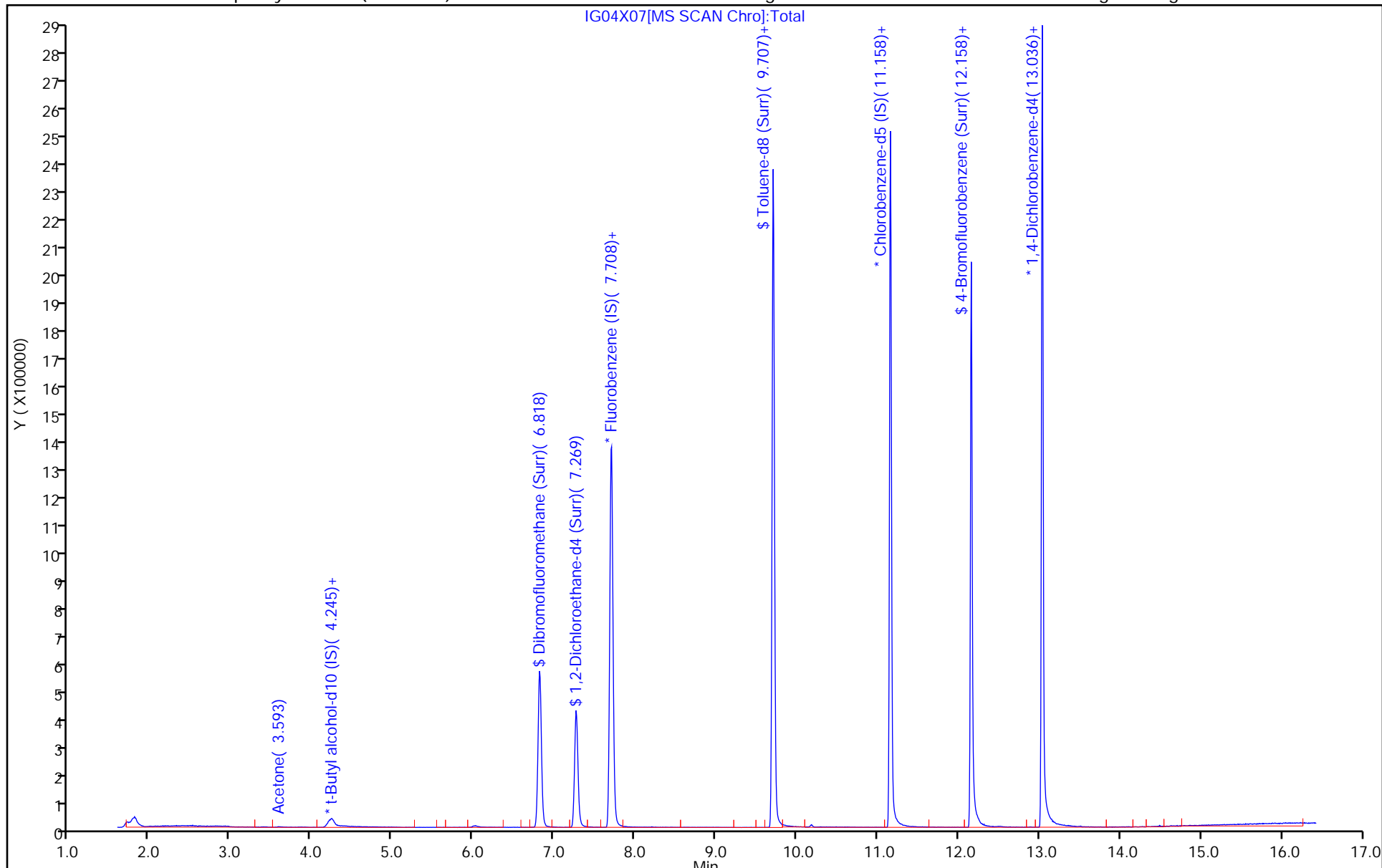
ALS Bottle#: 7

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X07.D  
 Lims ID: 410-92859-A-14  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 04-Aug-2022 12:31:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-008  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:34:12 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:35:49

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.5	105.48
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.58
\$ 78 Toluene-d8 (Surr)	10.0	9.51	95.05
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.25	92.45

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-274212/18	IL11X18.D
Level 2	IC 410-274212/17	IL11X17.D
Level 3	IC 410-274212/16	IL11X16.D
Level 4	IC 410-274212/15	IL11X15.D
Level 5	IC 410-274212/14	IL11X14.D
Level 6	ICIS 410-274212/13	IL11X13.D
Level 7	IC 410-274212/12	IL11X12.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Dichlorodifluoromethane	0.2852 0.3289	0.2834 0.3187	0.2829	0.3329	0.3243	Ave	0.308 0			0.1000	7.5		20.0				
Chloromethane	0.3775 0.3473	0.3364 0.3326	0.3292	0.3725	0.3531	Ave	0.349 8			0.1000	5.5		20.0				
Vinyl chloride	0.3275 0.3640	0.3302 0.3337	0.3268	0.3741	0.3547	Ave	0.344 4			0.1000	5.7		20.0				
1,3-Butadiene	0.4836 0.3617	0.4087 0.3282	0.3798	0.3885	0.3785	Ave	0.389 8				12.4		20.0				
Bromomethane	0.2638 0.2410	0.2363 0.2312	0.2205	0.2523	0.2360	Ave	0.240 2			0.1000	5.9		20.0				
Chloroethane	0.2026 0.2040	0.2039 0.1972	0.1912	0.2154	0.2032	Ave	0.202 5			0.1000	3.7		20.0				
Dichlorofluoromethane	0.4858 0.4737	0.4644 0.4604	0.4323	0.4984	0.4705	Ave	0.469 3			0.1000	4.4		20.0				
Trichlorofluoromethane	0.4163 0.4820	0.4299 0.4600	0.4329	0.5036	0.4572	Ave	0.454 6			0.1000	6.8		20.0				
Ethyl ether	0.2149 0.2309	0.2072 0.2240	0.2012	0.2363	0.2214	Ave	0.219 4				5.7		20.0				
Freon 123a	0.3437 0.3531	0.3313 0.3462	0.3234	0.3649	0.3488	Ave	0.344 5				4.0		20.0				
Acrolein	2.1469 2.3999	2.3538 2.4326	2.1999	2.3307	2.4964	Ave	2.337 2				5.3		20.0				
1,1-Dichloroethene	0.2423 0.2559	0.2623 0.2506	0.2543	0.2557	0.2535	Ave	0.253 5			0.1000	2.4		20.0				
Acetone	2.5154 2.5912	3.1466 2.6756	2.8340	2.7721	2.7753	Ave	2.758 6			0.1000	7.4		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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Freon 113	0.2471 0.2614	0.2562 0.2546	0.2500	0.2636	0.2613	Ave		0.256 3		0.1000	2.4		20.0				
Methyl iodide	0.4375 0.4506	0.4659 0.4453	0.4271	0.4508	0.4439	Ave		0.445 9			2.7		20.0				
Carbon disulfide	0.6477 0.6310	0.6698 0.6175	0.6079	0.6419	0.6234	Ave		0.634 2		0.1000	3.3		20.0				
Methyl acetate	8.0466 7.6492	8.7972 7.8624	8.6221	7.6653	8.1262	Ave		8.109 8		0.1000	5.5		20.0				
Allyl chloride	0.3455 0.3839	0.3830 0.3792	0.3557	0.3707	0.3780	Ave		0.370 9			4.0		20.0				
Methylene Chloride	0.2757 0.2801	0.2856 0.2736	0.2727	0.2785	0.2783	Ave		0.277 8		0.1000	1.6		20.0				
t-Butyl alcohol	0.6661 0.8585	0.8672 0.9474	0.8929	0.8597	0.9257	Ave		0.859 6			10.7		20.0				
Acrylonitrile	2.8986 4.0528	3.8878 4.2078	3.9793	3.8333	4.2028	Ave		3.866 1			11.6		20.0				
Methyl tert-butyl ether	0.5595 0.6779	0.6379 0.6626	0.6041	0.6518	0.6625	Ave		0.636 6		0.1000	6.5		20.0				
trans-1,2-Dichloroethene	0.2781 0.2853	0.2887 0.2831	0.2719	0.2829	0.2785	Ave		0.281 2		0.1000	2.0		20.0				
n-Hexane	0.3485 0.4252	0.3801 0.4169	0.3659	0.4030	0.4122	Ave		0.393 1			7.3		20.0				
1,1-Dichloroethane	0.4958 0.5279	0.5297 0.5157	0.4967	0.5248	0.5176	Ave		0.515 5		0.2000	2.7		20.0				
di-Isopropyl ether	0.7040 0.8460	0.7887 0.8281	0.7448	0.8114	0.8275	Ave		0.792 9			6.5		20.0				
2-Chloro-1,3-butadiene	0.3249 0.4033	0.3616 0.4067	0.3553	0.3900	0.3982	Ave		0.377 1			8.1		20.0				
Ethyl t-butyl ether	0.6321 0.7866	0.7238 0.7751	0.6972	0.7596	0.7700	Ave		0.734 9			7.5		20.0				
2-Butanone (MEK)	4.1602 5.2896	5.0950 5.5522	5.0872	5.1797	5.4949	Ave		5.122 7		0.1000	9.0		20.0				
cis-1,2-Dichloroethene	0.3022 0.3212	0.3264 0.3175	0.2996	0.3192	0.3170	Ave		0.314 7		0.1000	3.2		20.0				
2,2-Dichloropropane	0.3978 0.4227	0.4328 0.4201	0.4023	0.4282	0.4220	Ave		0.418 0			3.1		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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Propionitrile	1.1550 1.5597	1.5218 1.5726	1.4684	1.4928	1.6282	Ave		1.485 5			10.4		20.0				
Methacrylonitrile	4.3556 5.5133	5.1187 5.8628	5.2789	5.3583	5.9199	Ave		5.343 9			9.8		20.0				
Bromochloromethane	0.1347 0.1441	0.1488 0.1432	0.1391	0.1459	0.1429	Ave		0.142 7			3.2		20.0				
Tetrahydrofuran	1.0349 1.5745	1.4251 1.6806	1.4486	1.5319	1.6652	Ave		1.480 1			14.8		20.0				
Chloroform	0.4991 0.5202	0.5476 0.5163	0.5023	0.5194	0.5139	Ave		0.517 0		0.2000	3.1		20.0				
1,1,1-Trichloroethane	0.4508 0.4653	0.4751 0.4676	0.4450	0.4701	0.4653	Ave		0.462 7		0.1000	2.3		20.0				
Cyclohexane	0.3943 0.4982	0.4490 0.4978	0.4418	0.4744	0.4890	Ave		0.463 5		0.1000	8.2		20.0				
Carbon tetrachloride	0.3852 0.4216	0.4232 0.4249	0.3969	0.4199	0.4219	Ave		0.413 4		0.1000	3.8		20.0				
1,1-Dichloropropene	0.3611 0.4198	0.4058 0.4195	0.3852	0.4132	0.4113	Ave		0.402 3			5.4		20.0				
Isobutyl alcohol	0.2056 0.3522	0.3683 0.3736	0.3488	0.3612	0.3490	Ave		0.337 0			17.4		20.0				
Benzene	1.1497 1.2291	1.2508 1.2245	1.1721	1.2396	1.2107	Ave		1.210 9		0.5000	3.0		20.0				
1,2-Dichloroethane	0.3226 0.3198	0.3365 0.3208	0.3103	0.3285	0.3215	Ave		0.322 9		0.1000	2.5		20.0				
t-Amyl methyl ether	0.5937 0.7535	0.6781 0.7472	0.6552	0.7197	0.7350	Ave		0.697 5			8.4		20.0				
n-Heptane	0.4196 0.4441	0.4427 0.4403	0.4232	0.4298	0.4321	Ave		0.433 1			2.2		20.0				
n-Butanol	++++ 0.3514	0.2400 0.3728	0.2571	0.2987	0.3370	Ave		0.309 5			17.2		20.0				
Trichloroethene	0.3084 0.3291	0.3271 0.3305	0.3066	0.3283	0.3261	Ave		0.322 3		0.2000	3.2		20.0				
Methylcyclohexane	0.4628 0.5722	0.5009 0.5713	0.5046	0.5467	0.5613	Ave		0.531 4		0.1000	8.0		20.0				
1,2-Dichloropropane	0.2809 0.3229	0.3259 0.3223	0.3024	0.3153	0.3189	Ave		0.312 7		0.1000	5.1		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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Methyl methacrylate	++++ 10.781	7.5262 11.853	8.3423	8.6379	10.571	Ave		9.618 5			17.5		20.0				
1,4-Dioxane	++++ 0.0784	0.0552 0.0753	0.0484	0.0798	0.0749	Ave		0.068 7		0.0050	19.5		20.0				
Dibromomethane	0.1341 0.1541	0.1551 0.1553	0.1448	0.1521	0.1528	Ave		0.149 8			5.2		20.0				
Bromodichloromethane	0.3469 0.3829	0.3808 0.3875	0.3522	0.3700	0.3757	Ave		0.370 9		0.2000	4.2		20.0				
2-Nitropropane	2.5574 2.8764	2.8672 3.1086	2.7698	2.7219	2.9732	Ave		2.839 2			6.3		20.0				
cis-1,3-Dichloropropene	0.3797 0.4858	0.4184 0.4951	0.4147	0.4478	0.4688	Ave		0.444 3		0.2000	9.5		20.0				
4-Methyl-2-pentanone (MIBK)	8.6036 13.532	11.501 14.217	11.977	12.675	14.159	Ave		12.38 1		0.1000	15.9		20.0				
Toluene	0.9764 1.0350	1.0590 1.0230	1.0056	1.0511	1.0284	Ave		1.025 5		0.4000	2.7		20.0				
trans-1,3-Dichloropropene	0.3966 0.5124	0.4417 0.5200	0.4408	0.4682	0.4958	Ave		0.467 9		0.1000	9.5		20.0				
Ethyl methacrylate	++++ 0.4043	0.2908 0.4184	0.2851	0.3430	0.3806	Ave		0.353 7			16.1		20.0				
1,1,2-Trichloroethane	0.2722 0.2944	0.2915 0.2949	0.2808	0.2939	0.2957	Ave		0.289 1		0.1000	3.1		20.0				
Tetrachloroethene	0.4574 0.4970	0.5040 0.4980	0.4678	0.5066	0.4963	Ave		0.489 6		0.2000	3.9		20.0				
1,3-Dichloropropane	0.4489 0.4985	0.4862 0.4958	0.4618	0.4969	0.4968	Ave		0.483 6			4.1		20.0				
2-Hexanone	++++ 9.6845	7.0953 10.498	7.8604	8.7191	9.9054	Ave		8.960 4		0.1000	14.6		20.0				
Dibromochloromethane	0.3082 0.3759	0.3519 0.3842	0.3307	0.3674	0.3688	Ave		0.355 3			7.6		20.0				
1,2-Dibromoethane (EDB)	0.2209 0.2834	0.2767 0.2870	0.2519	0.2735	0.2796	Ave		0.267 6		0.1000	8.8		20.0				
1-Chlorohexane	0.5470 0.6004	0.5682 0.6013	0.5298	0.5812	0.5916	Ave		0.574 2			4.8		20.0				
Chlorobenzene	1.0837 1.1597	1.1917 1.1576	1.1054	1.1914	1.1636	Ave		1.150 4		0.5000	3.6		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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

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								
1,1,1,2-Tetrachloroethane	0.3653 0.4018	0.4021 0.4029	0.3735	0.4047	0.4019	Ave		0.393 1			4.2		20.0				
Ethylbenzene	1.7104 2.0072	1.8868 1.9855	1.7981	1.9821	1.9999	Ave		1.910 0		0.1000	6.1		20.0				
m&p-Xylene	0.6177 0.7930	0.7127 0.7875	0.7132	0.7859	0.7881	Ave		0.742 6		0.1000	8.8		20.0				
o-Xylene	0.5742 0.7656	0.6924 0.7686	0.6719	0.7322	0.7520	Ave		0.708 1		0.3000	9.8		20.0				
Styrene	0.8294 1.2723	1.0235 1.2807	1.0243	1.1764	1.2352	Ave		1.120 3		0.3000	15.0		20.0				
Bromoform	0.1779 0.2317	0.2038 0.2382	0.1950	0.2153	0.2240	Ave		0.212 3		0.1000	10.1		20.0				
Isopropylbenzene	1.5022 2.0033	1.7678 1.9441	1.7451	1.9296	1.9839	Ave		1.839 4		0.1000	9.8		20.0				
1,1,2,2-Tetrachloroethane	0.5822 0.6633	0.6474 0.6732	0.6276	0.6624	0.6498	Ave		0.643 7		0.3000	4.8		20.0				
Bromobenzene	0.7827 0.8481	0.8317 0.8544	0.7997	0.8479	0.8427	Ave		0.829 6			3.3		20.0				
trans-1,4-Dichloro-2-butene	++++ 4.7491	3.5528 5.1237	3.7352	4.3383	4.7946	Ave		4.382 3			14.3		20.0				
1,2,3-Trichloropropane	0.1431 0.1781	0.1761 0.1782	0.1610	0.1791	0.1744	Ave		0.170 0			7.9		20.0				
N-Propylbenzene	3.3439 4.2501	3.8588 4.0921	3.8442	4.2245	4.2157	Ave		3.975 6			8.2		20.0				
2-Chlorotoluene	0.7344 0.8483	0.8163 0.8502	0.7970	0.8471	0.8457	Ave		0.819 9			5.2		20.0				
1,3,5-Trimethylbenzene	2.3036 2.9783	2.7359 2.9505	2.6333	2.9317	2.9367	Ave		2.781 4			8.9		20.0				
4-Chlorotoluene	0.7413 0.8763	0.8334 0.8777	0.8128	0.8538	0.8609	Ave		0.836 6			5.7		20.0				
tert-Butylbenzene	0.4848 0.6760	0.6103 0.6654	0.5979	0.6595	0.6643	Ave		0.622 6			10.9		20.0				
Pentachloroethane	0.4448 0.5434	0.4523 0.5427	0.4645	0.5532	0.5279	Ave		0.504 1			9.5		20.0				
1,2,4-Trimethylbenzene	2.1004 3.0372	2.6373 2.9961	2.6288	2.9546	2.9909	Ave		2.763 6			12.3		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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
sec-Butylbenzene	2.9844 3.8483	3.5465 3.7195	3.4680	3.7869	3.8116	Ave		3.595 0			8.5		20.0				
1,3-Dichlorobenzene	1.4048 1.6859	1.6232 1.6740	1.5334	1.6638	1.6373	Ave		1.603 2		0.6000	6.3		20.0				
p-Isopropyltoluene	2.3934 3.3073	2.8536 3.2500	2.8604	3.2405	3.2939	Ave		3.028 5			11.3		20.0				
1,4-Dichlorobenzene	1.4902 1.6929	1.7258 1.6806	1.6163	1.7157	1.6693	Ave		1.655 8		0.5000	4.9		20.0				
1,2,3-Trimethylbenzene	1.1820 1.3049	1.3249 1.2952	1.2174	1.2981	1.2952	Ave		1.274 0			4.1		20.0				
Benzyl chloride	++++ 0.2719	0.1998 0.2845	0.2059	0.2302	0.2573	Ave		0.241 6			14.5		20.0				
n-Butylbenzene	0.9575 1.6047	1.4565 1.6021	1.3614	1.5493	1.5785	Ave		1.444 3			16.1		20.0				
1,2-Dichlorobenzene	1.3166 1.5323	1.5655 1.5112	1.4371	1.5586	1.5080	Ave		1.489 9		0.4000	5.9		20.0				
1,2-Dibromo-3-Chloropropane	++++ 0.0980	0.0798 0.1052	0.0849	0.0909	0.0923	Ave		0.091 8		0.0500	9.9		20.0				
1,3,5-Trichlorobenzene	0.9958 1.1448	1.0561 1.2016	1.0141	1.1069	1.1321	Ave		1.093 1			6.8		20.0				
1,2,4-Trichlorobenzene	0.7171 0.9706	0.7742 1.0362	0.8266	0.9075	0.9344	Ave		0.880 9		0.2000	12.8		20.0				
Hexachlorobutadiene	0.4671 0.4076	0.4171 0.4278	0.3861	0.4120	0.3957	Ave		0.416 2			6.3		20.0				
Naphthalene	1.1413 1.9073	1.4729 2.0025	1.4054	1.6727	1.7784	Ave		1.625 8			18.7		20.0				
1,2,3-Trichlorobenzene	0.6562 0.8376	0.7412 0.8654	0.7284	0.8276	0.8131	Ave		0.781 4			9.6		20.0				
Dibromofluoromethane (Surr)	0.2552 0.2485	0.2546 0.2488	0.2532	0.2499	0.2472	Ave		0.251 1			1.3		20.0				
1,2-Dichloroethane-d4 (Surr)	0.0524 0.0526	0.0519 0.0513	0.0509	0.0512	0.0506	Ave		0.051 6			1.4		20.0				
Toluene-d8 (Surr)	1.2979 1.2860	1.3003 1.2724	1.3104	1.3118	1.3052	Ave		1.297 7			1.1		20.0				
4-Bromofluorobenzene (Surr)	0.4671 0.4776	0.4711 0.4705	0.4762	0.4840	0.4843	Ave		0.475 8			1.4		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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-274212/18	IL11X18.D
Level 2	IC 410-274212/17	IL11X17.D
Level 3	IC 410-274212/16	IL11X16.D
Level 4	IC 410-274212/15	IL11X15.D
Level 5	IC 410-274212/14	IL11X14.D
Level 6	ICIS 410-274212/13	IL11X13.D
Level 7	IC 410-274212/12	IL11X12.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
Dichlorodifluoromethane	FB	Ave	12721 775307	31575 1864869	65034	155928	384616	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	16839 818721	37473 1946545	75677	174469	418793	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	14610 858174	36782 1952915	75123	175211	420647	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	21573 852580	45528 1920419	87308	181981	448852	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	11770 568259	26319 1352968	50700	118171	279824	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	9040 480979	22719 1154084	43956	100916	240962	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	21670 1116663	51734 2694298	99392	233451	557952	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	18571 1136388	47896 2692119	99512	235907	542164	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	9589 544583	23094 1311113	46274	110740	262623	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Freon 123a	FB	Ave	15332 832332	36911 2026195	74340	170916	413603	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd 10	Ave	69223 4074711	184648 9697358	342456	781875	1960560	10.0 500	25.0 1250	50.0	100	250
1,1-Dichloroethene	FB	Ave	10808 603331	29217 1466843	58456	119792	300676	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd 10	Ave	16221	49368	88233	185987	435913	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.: 410-92859-1

Analy Batch No.: 274212

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36

Calibration End Date: 07/11/2022 17:43

Calibration ID: 40830

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			879889	2133164				100	250			
Freon 113	FB	Ave	11022 616352	28541 1490023	57473	123477	309872	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl iodide	FB	Ave	19517 1062359	51899 2606048	98192	211139	526457	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon disulfide	FB	Ave	28892 1487556	74621 3613722	139748	300692	739332	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd 10	Ave	5189 259744	13802 626851	26844	51429	127638	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	15414 904995	42661 2219101	81784	173644	448302	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	12300 660302	31812 1601446	62695	130455	330037	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd 10	Ave	8591 583038	27212 1510619	55599	115361	290794	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd 10	Ave	4673 344055	15249 838694	30973	64297	165033	0.500 25.0	1.25 62.5	2.50	5.00	12.5
Methyl tert-butyl ether	FB	Ave	24960 1598073	71057 3877674	138867	305329	785616	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	12404 672553	32165 1656694	62500	132511	330337	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	15545 1002426	42348 2439948	84124	188753	488870	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	22119 1244444	59012 3017807	114187	245824	613887	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	31407 1994286	87856 4846235	171221	380072	981336	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	14493 950721	40279 2379938	81681	182677	472184	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	28198 1854452	80632 4535995	160279	355813	913149	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd 10	Ave	26828	79936	158385	347526	863076	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.: 410-92859-1

Analy Batch No.: 274212

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36

Calibration End Date: 07/11/2022 17:43

Calibration ID: 40830

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			1796186	4426640				100	250			
cis-1,2-Dichloroethene	FB	Ave	13480 757315	36356 1858079	68884	149512	375882	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	17747 996580	48210 2458322	92476	200572	500444	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd 10	Ave	14896 1059256	47750 2507572	91432	200315	511477	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd 10	Ave	28088 1872168	80308 4674235	164353	359507	929830	2.00 100	5.00 250	10.0	20.0	50.0
Bromochloromethane	FB	Ave	6009 339759	16573 838017	31972	68358	169421	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd 10	Ave	3337 267322	11179 669958	22551	51391	130774	1.00 50.0	2.50 125	5.00	10.0	25.0
Chloroform	FB	Ave	22266 1226420	61005 3021737	115466	243271	609419	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	20111 1097039	52923 2736334	102310	220204	551762	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	17589 1174401	50021 2913184	101574	222228	579878	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	17184 994011	47141 2486426	91238	196686	500314	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	16108 989672	45209 2454982	88566	193566	487745	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	TBAd 10	Ave	6630 598022	28893 1489417	54305	121187	274118	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	51289 2897543	139335 7166100	269454	580651	1435836	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	14390 753838	37483 1877427	71341	153866	381309	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	26483 1776420	75544 4372902	150623	337103	871660	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	18720	49321	97288	201314	512397	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.: 410-92859-1

Analy Batch No.: 274212

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36

Calibration End Date: 07/11/2022 17:43

Calibration ID: 40830

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)					
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	
			1047041	2576950					10.0	25.0			
n-Butanol	TBAd 10	Ave	++++ 1044145	32950 2600805	70052	175348	463205	++++ 875	43.8 2188	87.5	175	438	
Trichloroethene	FB	Ave	13757 775746	36438 1934187	70491	153756	386689	0.200 10.0	0.500 25.0	1.00	2.00	5.00	
Methylcyclohexane	FB	Ave	20647 1348970	55796 3343294	115995	256079	665622	0.200 10.0	0.500 25.0	1.00	2.00	5.00	
1,2-Dichloropropane	FB	Ave	12531 761249	36304 1886215	69528	147680	378228	0.200 10.0	0.500 25.0	1.00	2.00	5.00	
Methyl methacrylate	TBAd 10	Ave	++++ 366085	11808 945002	25973	57955	166034	++++ 10.0	0.500 25.0	1.00	2.00	5.00	
1,4-Dioxane	TBAd 10	Ave	++++ 133078	4327 300268	7533	26767	58794	++++ 500	25.0 1250	50.0	100	250	
Dibromomethane	FB	Ave	5984 363345	17273 908999	33297	71241	181173	0.200 10.0	0.500 25.0	1.00	2.00	5.00	
Bromodichloromethane	FB	Ave	15476 902646	42424 2267464	80968	173299	445583	0.200 10.0	0.500 25.0	1.00	2.00	5.00	
2-Nitropropane	TBAd 10	Ave	8246 488367	22492 1239188	43118	91311	233496	1.00 50.0	2.50 125	5.00	10.0	25.0	
cis-1,3-Dichloropropene	FB	Ave	16936 1145232	46615 2897356	95346	209732	555968	0.200 10.0	0.500 25.0	1.00	2.00	5.00	
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	55482 4595155	180443 11334724	372880	850428	2223914	2.00 100	5.00 250	10.0	20.0	50.0	
Toluene	CBZd 5	Ave	33710 1933919	92090 4792712	180800	382193	952092	0.200 10.0	0.500 25.0	1.00	2.00	5.00	
trans-1,3-Dichloropropene	CBZd 5	Ave	13694 957404	38412 2436145	79245	170253	459025	0.200 10.0	0.500 25.0	1.00	2.00	5.00	
Ethyl methacrylate	CBZd 5	Ave	++++	25289	51259	124735	352387	++++	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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			755370	1959915				10.0	25.0			
1,1,2-Trichloroethane	CBZd 5	Ave	9398	25354	50479	106873	273779	0.200	0.500	1.00	2.00	5.00
			550000	1381721				10.0	25.0			
Tetrachloroethene	CBZd 5	Ave	15791	43830	84114	184199	459498	0.200	0.500	1.00	2.00	5.00
			928649	2332956				10.0	25.0			
1,3-Dichloropropane	CBZd 5	Ave	15498	42281	83021	180675	459902	0.200	0.500	1.00	2.00	5.00
			931507	2322857				10.0	25.0			
2-Hexanone	TBAd 10	Ave	++++	111319	244726	584996	1555827	++++	5.00	10.0	20.0	50.0
			3288574	8369640				100	250			
Dibromochloromethane	CBZd 5	Ave	10640	30599	59451	133590	341396	0.200	0.500	1.00	2.00	5.00
			702452	1799772				10.0	25.0			
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7628	24059	45285	99455	258812	0.200	0.500	1.00	2.00	5.00
			529520	1344383				10.0	25.0			
1-Chlorohexane	CBZd 5	Ave	18884	49415	95246	211339	547727	0.200	0.500	1.00	2.00	5.00
			1121836	2817051				10.0	25.0			
Chlorobenzene	CBZd 5	Ave	37416	103635	198736	433225	1077231	0.200	0.500	1.00	2.00	5.00
			2166788	5423284				10.0	25.0			
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	12612	34965	67159	147143	372032	0.200	0.500	1.00	2.00	5.00
			750673	1887305				10.0	25.0			
Ethylbenzene	CBZd 5	Ave	59052	164082	323292	720722	1851439	0.200	0.500	1.00	2.00	5.00
			3750337	9301463				10.0	25.0			
m&p-Xylene	CBZd 5	Ave	42651	123961	256474	571561	1459288	0.400	1.00	2.00	4.00	10.0
			2963343	7378713				20.0	50.0			
o-Xylene	CBZd 5	Ave	19824	60212	120803	266251	696205	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.: 410-92859-1

Analy Batch No.: 274212

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36

Calibration End Date: 07/11/2022 17:43

Calibration ID: 40830

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			1430458	3600919				10.0	25.0			
Styrene	CBZd 5	Ave	28634	89009	184166	427773	1143544	0.200	0.500	1.00	2.00	5.00
			2377193	5999610				10.0	25.0			
Bromoform	CBZd 5	Ave	6141	17723	35053	78295	207414	0.200	0.500	1.00	2.00	5.00
			432992	1116100				10.0	25.0			
Isopropylbenzene	CBZd 5	Ave	51863	153734	313759	701622	1836655	0.200	0.500	1.00	2.00	5.00
			3743170	9107669				10.0	25.0			
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	11207	31520	63270	135802	341267	0.200	0.500	1.00	2.00	5.00
			698496	1728934				10.0	25.0			
Bromobenzene	DCBd 4	Ave	15066	40498	80617	173833	442560	0.200	0.500	1.00	2.00	5.00
			893054	2194407				10.0	25.0			
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	+++++	55740	116292	291069	753084	+++++	5.00	10.0	20.0	50.0
			1612670	4084999				100	250			
1,2,3-Trichloropropane	DCBd 4	Ave	2754	8575	16230	36714	91564	0.200	0.500	1.00	2.00	5.00
			187503	457576				10.0	25.0			
N-Propylbenzene	DCBd 4	Ave	64364	187884	387529	866089	2213899	0.200	0.500	1.00	2.00	5.00
			4475549	10510108				10.0	25.0			
2-Chlorotoluene	DCBd 4	Ave	14136	39747	80346	173676	444100	0.200	0.500	1.00	2.00	5.00
			893270	2183713				10.0	25.0			
1,3,5-Trimethylbenzene	DCBd 4	Ave	44340	133210	265461	601055	1542218	0.200	0.500	1.00	2.00	5.00
			3136239	7578027				10.0	25.0			
4-Chlorotoluene	DCBd 4	Ave	14269	40578	81938	175042	452113	0.200	0.500	1.00	2.00	5.00
			922726	2254199				10.0	25.0			
tert-Butylbenzene	DCBd 4	Ave	9331	29717	60273	135208	348862	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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			711868	1709007				10.0	25.0			
Pentachloroethane	DCBd 4	Ave	8561	22024	46827	113412	277235	0.200	0.500	1.00	2.00	5.00
			572219	1393932				10.0	25.0			
1,2,4-Trimethylbenzene	DCBd 4	Ave	40429	128411	265002	605752	1570696	0.200	0.500	1.00	2.00	5.00
			3198326	7695100				10.0	25.0			
sec-Butylbenzene	DCBd 4	Ave	57444	172681	349604	776377	2001677	0.200	0.500	1.00	2.00	5.00
			4052430	9553196				10.0	25.0			
1,3-Dichlorobenzene	DCBd 4	Ave	27040	79032	154584	341099	859840	0.200	0.500	1.00	2.00	5.00
			1775352	4299389				10.0	25.0			
p-Isopropyltoluene	DCBd 4	Ave	46069	138944	288357	664352	1729810	0.200	0.500	1.00	2.00	5.00
			3482656	8347352				10.0	25.0			
1,4-Dichlorobenzene	DCBd 4	Ave	28684	84028	162933	351752	876650	0.200	0.500	1.00	2.00	5.00
			1782714	4316488				10.0	25.0			
1,2,3-Trimethylbenzene	DCBd 4	Ave	22752	64512	122728	266135	680186	0.200	0.500	1.00	2.00	5.00
			1374135	3326481				10.0	25.0			
Benzyl chloride	DCBd 4	Ave	+++++	9730	20752	47192	135138	+++++	0.500	1.00	2.00	5.00
			286316	730613				10.0	25.0			
n-Butylbenzene	DCBd 4	Ave	18430	70919	137242	317643	828929	0.200	0.500	1.00	2.00	5.00
			1689776	4114834				10.0	25.0			
1,2-Dichlorobenzene	DCBd 4	Ave	25342	76227	144871	319534	791941	0.200	0.500	1.00	2.00	5.00
			1613569	3881335				10.0	25.0			
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	+++++	3887	8558	18632	48476	+++++	0.500	1.00	2.00	5.00
			103174	270174				10.0	25.0			
1,3,5-Trichlorobenzene	DCBd 4	Ave	19168	51424	102232	226924	594545	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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			1205511	3086150				10.0	25.0			
1,2,4-Trichlorobenzene	DCBd 4	Ave	13803	37697	83328	186055	490690	0.200	0.500	1.00	2.00	5.00
			1022023	2661316				10.0	25.0			
Hexachlorobutadiene	DCBd 4	Ave	8991	20308	38921	84467	207781	0.200	0.500	1.00	2.00	5.00
			429212	1098859				10.0	25.0			
Naphthalene	DCBd 4	Ave	21967	71718	141675	342941	933937	0.200	0.500	1.00	2.00	5.00
			2008500	5143208				10.0	25.0			
1,2,3-Trichlorobenzene	DCBd 4	Ave	12630	36090	73426	169677	427022	0.200	0.500	1.00	2.00	5.00
			882018	2222787				10.0	25.0			
Dibromofluoromethane (Surr)	FB	Ave	569168	567219	582148	585192	586295	10.0	10.0	10.0	10.0	10.0
			585924	582432				10.0	10.0			
1,2-Dichloroethane-d4 (Surr)	FB	Ave	116789	115685	117116	120029	119950	10.0	10.0	10.0	10.0	10.0
			123948	120168				10.0	10.0			
Toluene-d8 (Surr)	CBZd 5	Ave	2240421	2261581	2356053	2384964	2416659	10.0	10.0	10.0	10.0	10.0
			2402818	2384335				10.0	10.0			
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	806346	819340	856156	879986	896770	10.0	10.0	10.0	10.0	10.0
			892382	881757				10.0	10.0			

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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-274212/18	IL11X18.D
Level 2	IC 410-274212/17	IL11X17.D
Level 3	IC 410-274212/16	IL11X16.D
Level 4	IC 410-274212/15	IL11X15.D
Level 5	IC 410-274212/14	IL11X14.D
Level 6	ICIS 410-274212/13	IL11X13.D
Level 7	IC 410-274212/12	IL11X12.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	-7.4 3.4	-8.0	-8.2	8.1	5.3	6.8	50 30	30	30	30	30	30
Chloromethane	7.9 -4.9	-3.8	-5.9	6.5	1.0	-0.7	50 30	30	30	30	30	30
Vinyl chloride	-4.9 -3.1	-4.1	-5.1	8.6	3.0	5.7	50 30	30	30	30	30	30
1,3-Butadiene	24.1 -15.8	4.8	-2.6	-0.3	-2.9	-7.2	50 30	30	30	30	30	30
Bromomethane	9.9 -3.7	-1.6	-8.2	5.0	-1.8	0.4	50 30	30	30	30	30	30
Chloroethane	0.1 -2.6	0.7	-5.6	6.4	0.3	0.7	50 30	30	30	30	30	30
Dichlorofluoromethane	3.5 -1.9	-1.1	-7.9	6.2	0.2	0.9	50 30	30	30	30	30	30
Trichlorofluoromethane	-8.4 1.2	-5.4	-4.8	10.8	0.6	6.0	50 30	30	30	30	30	30
Ethyl ether	-2.1 2.1	-5.6	-8.3	7.7	0.9	5.2	50 30	30	30	30	30	30
Freon 123a	-0.2 0.5	-3.8	-6.1	5.9	1.2	2.5	50 30	30	30	30	30	30
Acrolein	-8.1 4.1	0.7	-5.9	-0.3	6.8	2.7	50 30	30	30	30	30	30
1,1-Dichloroethene	-4.4 -1.1	3.4	0.3	0.9	0.0	0.9	50 30	30	30	30	30	30
Acetone	-8.8 -3.0	14.1	2.7	0.5	0.6	-6.1	50 30	30	30	30	30	30
Freon 113	-3.6 -0.7	0.0	-2.5	2.8	1.9	2.0	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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

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	-1.9 -0.1	4.5	-4.2	1.1	-0.4	1.1	50 30	30	30	30	30	30
Carbon disulfide	2.1 -2.6	5.6	-4.1	1.2	-1.7	-0.5	50 30	30	30	30	30	30
Methyl acetate	-0.8 -3.1	8.5	6.3	-5.5	0.2	-5.7	50 30	30	30	30	30	30
Allyl chloride	-6.8 2.2	3.3	-4.1	0.0	1.9	3.5	50 30	30	30	30	30	30
Methylene Chloride	-0.7 -1.5	2.8	-1.8	0.3	0.2	0.8	50 30	30	30	30	30	30
t-Butyl alcohol	-22.5 10.2	0.9	3.9	0.0	7.7	-0.1	50 30	30	30	30	30	30
Acrylonitrile	-25.0 8.8	0.6	2.9	-0.8	8.7	4.8	50 30	30	30	30	30	30
Methyl tert-butyl ether	-12.1 4.1	0.2	-5.1	2.4	4.1	6.5	50 30	30	30	30	30	30
trans-1,2-Dichloroethene	-1.1 0.7	2.7	-3.3	0.6	-0.9	1.4	50 30	30	30	30	30	30
n-Hexane	-11.4 6.1	-3.3	-6.9	2.5	4.9	8.2	50 30	30	30	30	30	30
1,1-Dichloroethane	-3.8 0.0	2.8	-3.6	1.8	0.4	2.4	50 30	30	30	30	30	30
di-Isopropyl ether	-11.2 4.4	-0.5	-6.1	2.3	4.4	6.7	50 30	30	30	30	30	30
2-Chloro-1,3-butadiene	-13.9 7.8	-4.1	-5.8	3.4	5.6	6.9	50 30	30	30	30	30	30
Ethyl t-butyl ether	-14.0 5.5	-1.5	-5.1	3.4	4.8	7.0	50 30	30	30	30	30	30
2-Butanone (MEK)	-18.8 8.4	-0.5	-0.7	1.1	7.3	3.3	50 30	30	30	30	30	30
cis-1,2-Dichloroethene	-4.0 0.9	3.7	-4.8	1.4	0.7	2.1	50 30	30	30	30	30	30
2,2-Dichloropropane	-4.8 0.5	3.5	-3.8	2.4	1.0	1.1	50 30	30	30	30	30	30
Propionitrile	-22.3 5.9	2.4	-1.2	0.5	9.6	5.0	50 30	30	30	30	30	30
Methacrylonitrile	-18.5 9.7	-4.2	-1.2	0.3	10.8	3.2	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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

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	-5.6 0.4	4.3	-2.5	2.3	0.1	1.0	50 30	30	30	30	30	30
Tetrahydrofuran	-30.1 13.5	-3.7	-2.1	3.5	12.5	6.4	50 30	30	30	30	30	30
Chloroform	-3.5 -0.1	5.9	-2.8	0.5	-0.6	0.6	50 30	30	30	30	30	30
1,1,1-Trichloroethane	-2.6 1.0	2.7	-3.8	1.6	0.5	0.6	50 30	30	30	30	30	30
Cyclohexane	-14.9 7.4	-3.1	-4.7	2.4	5.5	7.5	50 30	30	30	30	30	30
Carbon tetrachloride	-6.8 2.8	2.4	-4.0	1.6	2.1	2.0	50 30	30	30	30	30	30
1,1-Dichloropropene	-10.2 4.3	0.9	-4.2	2.7	2.2	4.4	50 30	30	30	30	30	30
Isobutyl alcohol	-39.0 10.9	9.3	3.5	7.2	3.6	4.5	50 30	30	30	30	30	30
Benzene	-5.1 1.1	3.3	-3.2	2.4	0.0	1.5	50 30	30	30	30	30	30
1,2-Dichloroethane	-0.1 -0.6	4.2	-3.9	1.7	-0.4	-1.0	50 30	30	30	30	30	30
t-Amyl methyl ether	-14.9 7.1	-2.8	-6.1	3.2	5.4	8.0	50 30	30	30	30	30	30
n-Heptane	-3.1 1.7	2.2	-2.3	-0.8	-0.2	2.5	50 30	30	30	30	30	30
n-Butanol	++++ 20.4	-22.5	-16.9	-3.5	8.9	13.5	30	50	30	30	30	30
Trichloroethene	-4.3 2.6	1.5	-4.9	1.9	1.2	2.1	50 30	30	30	30	30	30
Methylcyclohexane	-12.9 7.5	-5.7	-5.0	2.9	5.6	7.7	50 30	30	30	30	30	30
1,2-Dichloropropane	-10.2 3.1	4.2	-3.3	0.8	2.0	3.3	50 30	30	30	30	30	30
Methyl methacrylate	++++ 23.2	-21.8	-13.3	-10.2	9.9	12.1	30	50	30	30	30	30
1,4-Dioxane	++++ 9.7	-19.7	-29.5	16.2	9.0	14.2	30	50	30	30	30	30
Dibromomethane	-10.4 3.7	3.5	-3.3	1.6	2.0	2.9	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.: 410-92859-1

Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36

Calibration End Date: 07/11/2022 17:43

Calibration ID: 40830

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	-6.5 4.5	2.7	-5.0	-0.2	1.3	3.2	50 30	30	30	30	30	30
2-Nitropropane	-9.9 9.5	1.0	-2.4	-4.1	4.7	1.3	50 30	30	30	30	30	30
cis-1,3-Dichloropropene	-14.6 11.4	-5.8	-6.7	0.8	5.5	9.3	50 30	30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	-30.5 14.8	-7.1	-3.3	2.4	14.4	9.3	50 30	30	30	30	30	30
Toluene	-4.8 -0.2	3.3	-1.9	2.5	0.3	0.9	50 30	30	30	30	30	30
trans-1,3-Dichloropropene	-15.2 11.1	-5.6	-5.8	0.1	6.0	9.5	50 30	30	30	30	30	30
Ethyl methacrylate	++++ 18.3	-17.8	-19.4	-3.0	7.6	14.3	30	50	30	30	30	30
1,1,2-Trichloroethane	-5.8 2.0	0.9	-2.9	1.7	2.3	1.8	50 30	30	30	30	30	30
Tetrachloroethene	-6.6 1.7	2.9	-4.4	3.5	1.4	1.5	50 30	30	30	30	30	30
1,3-Dichloropropane	-7.2 2.5	0.5	-4.5	2.8	2.7	3.1	50 30	30	30	30	30	30
2-Hexanone	++++ 17.2	-20.8	-12.3	-2.7	10.5	8.1	30	50	30	30	30	30
Dibromochloromethane	-13.3 8.1	-1.0	-6.9	3.4	3.8	5.8	50 30	30	30	30	30	30
1,2-Dibromoethane (EDB)	-17.4 7.3	3.4	-5.9	2.2	4.5	5.9	50 30	30	30	30	30	30
1-Chlorohexane	-4.7 4.7	-1.0	-7.7	1.2	3.0	4.6	50 30	30	30	30	30	30
Chlorobenzene	-5.8 0.6	3.6	-3.9	3.6	1.1	0.8	50 30	30	30	30	30	30
1,1,1,2-Tetrachloroethane	-7.1 2.5	2.3	-5.0	2.9	2.2	2.2	50 30	30	30	30	30	30
Ethylbenzene	-10.4 4.0	-1.2	-5.9	3.8	4.7	5.1	50 30	30	30	30	30	30
m&p-Xylene	-16.8 6.0	-4.0	-4.0	5.8	6.1	6.8	50 30	30	30	30	30	30
o-Xylene	-18.9 8.5	-2.2	-5.1	3.4	6.2	8.1	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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

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	-26.0 14.3	-8.6	-8.6	5.0	10.3	13.6	50 30	30	30	30	30	30
Bromoform	-16.2 12.2	-4.0	-8.2	1.4	5.5	9.2	50 30	30	30	30	30	30
Isopropylbenzene	-18.3 5.7	-3.9	-5.1	4.9	7.9	8.9	50 30	30	30	30	30	30
1,1,2,2-Tetrachloroethane	-9.5 4.6	0.6	-2.5	2.9	1.0	3.0	50 30	30	30	30	30	30
Bromobenzene	-5.7 3.0	0.3	-3.6	2.2	1.6	2.2	50 30	30	30	30	30	30
trans-1,4-Dichloro-2-butene	++++ 16.9	-18.9	-14.8	-1.0	9.4	8.4	30	50	30	30	30	30
1,2,3-Trichloropropane	-15.8 4.8	3.6	-5.3	5.4	2.6	4.8	50 30	30	30	30	30	30
N-Propylbenzene	-15.9 2.9	-2.9	-3.3	6.3	6.0	6.9	50 30	30	30	30	30	30
2-Chlorotoluene	-10.4 3.7	-0.4	-2.8	3.3	3.1	3.5	50 30	30	30	30	30	30
1,3,5-Trimethylbenzene	-17.2 6.1	-1.6	-5.3	5.4	5.6	7.1	50 30	30	30	30	30	30
4-Chlorotoluene	-11.4 4.9	-0.4	-2.8	2.1	2.9	4.7	50 30	30	30	30	30	30
tert-Butylbenzene	-22.1 6.9	-2.0	-4.0	5.9	6.7	8.6	50 30	30	30	30	30	30
Pentachloroethane	-11.8 7.7	-10.3	-7.9	9.7	4.7	7.8	50 30	30	30	30	30	30
1,2,4-Trimethylbenzene	-24.0 8.4	-4.6	-4.9	6.9	8.2	9.9	50 30	30	30	30	30	30
sec-Butylbenzene	-17.0 3.5	-1.3	-3.5	5.3	6.0	7.0	50 30	30	30	30	30	30
1,3-Dichlorobenzene	-12.4 4.4	1.2	-4.4	3.8	2.1	5.2	50 30	30	30	30	30	30
p-Isopropyltoluene	-21.0 7.3	-5.8	-5.5	7.0	8.8	9.2	50 30	30	30	30	30	30
1,4-Dichlorobenzene	-10.0 1.5	4.2	-2.4	3.6	0.8	2.2	50 30	30	30	30	30	30
1,2,3-Trimethylbenzene	-7.2 1.7	4.0	-4.4	1.9	1.7	2.4	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.: 410-92859-1 Analy Batch No.: 274212

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2022 15:36 Calibration End Date: 07/11/2022 17:43 Calibration ID: 40830

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	++++ 17.7	-17.3	-14.8	-4.7	6.5	12.5	30	50	30	30	30	30
n-Butylbenzene	-33.7 10.9	0.8	-5.7	7.3	9.3	11.1	50 30	30	30	30	30	30
1,2-Dichlorobenzene	-11.6 1.4	5.1	-3.5	4.6	1.2	2.8	50 30	30	30	30	30	30
1,2-Dibromo-3-Chloropropane	++++ 14.5	-13.1	-7.6	-1.1	0.5	6.7	30	50	30	30	30	30
1,3,5-Trichlorobenzene	-8.9 9.9	-3.4	-7.2	1.3	3.6	4.7	50 30	30	30	30	30	30
1,2,4-Trichlorobenzene	-18.6 17.6	-12.1	-6.2	3.0	6.1	10.2	50 30	30	30	30	30	30
Hexachlorobutadiene	12.2 2.8	0.2	-7.2	-1.0	-4.9	-2.1	50 30	30	30	30	30	30
Naphthalene	-29.8 23.2	-9.4	-13.6	2.9	9.4	17.3	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	-16.0 10.8	-5.1	-6.8	5.9	4.1	7.2	50 30	30	30	30	30	30
Dibromofluoromethane (Surr)	1.6 -0.9	1.4	0.9	-0.5	-1.5	-1.0	50 30	30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	1.5 -0.4	0.7	-1.2	-0.6	-1.9	2.0	50 30	30	30	30	30	30
Toluene-d8 (Surr)	0.0 -2.0	0.2	1.0	1.1	0.6	-0.9	50 30	30	30	30	30	30
4-Bromofluorobenzene (Surr)	-1.8 -1.1	-1.0	0.1	1.7	1.8	0.4	50 30	30	30	30	30	30



Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X12.D  
 Lims ID: IC std7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 11-Jul-2022 15:36:30 ALS Bottle#: 12 Worklist Smp#: 12  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0061506-012  
 Misc. Info.: IC STD7  
 Operator ID: kas02648 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2  
 Method: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 14:51:11 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1630

First Level Reviewer: UKAD

Date: 12-Jul-2022 12:32:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.965	-0.006	99	1864869	25.0	25.9	
4 Chloromethane	50	2.160	2.160	0.000	99	1946545	25.0	23.8	
5 Vinyl chloride	62	2.276	2.276	0.000	98	1952915	25.0	24.2	
6 Butadiene	39	2.288	2.288	0.000	90	1920419	25.0	21.0	
7 Bromomethane	94	2.611	2.617	-0.006	90	1352968	25.0	24.1	
8 Chloroethane	64	2.690	2.696	-0.006	100	1154084	25.0	24.3	
9 Dichlorofluoromethane	67	2.934	2.940	-0.006	97	2694298	25.0	24.5	
10 Trichlorofluoromethane	101	3.001	3.001	0.000	97	2692119	25.0	25.3	
11 Ethyl ether	59	3.239	3.245	-0.006	90	1311113	25.0	25.5	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.336	3.330	0.006	95	2026195	25.0	25.1	
13 Acrolein	56	3.410	3.416	-0.006	99	9697358	1250.0	1301.0	
14 1,1-Dichloroethene	96	3.550	3.556	-0.006	98	1466843	25.0	24.7	
15 Acetone	43	3.574	3.580	-0.006	100	2133164	250.0	242.5	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.599	3.599	-0.001	91	1490023	25.0	24.8	
17 Iodomethane	142	3.751	3.751	0.000	98	2606048	25.0	25.0	
18 Ethyl bromide	108	3.775	3.782	-0.007	98	1356924	25.0	25.3	
19 Carbon disulfide	76	3.855	3.861	-0.006	99	3613722	25.0	24.3	
21 Methyl acetate	43	4.001	4.007	-0.006	97	626851	25.0	24.2	M
22 3-Chloro-1-propene	41	4.025	4.032	-0.007	93	2219101	25.0	25.6	
23 Methylene Chloride	84	4.220	4.221	-0.001	91	1601446	25.0	24.6	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.233	0.018	0	159455	50.0	50.0	
25 2-Methyl-2-propanol	59	4.367	4.361	0.006	100	1510619	500.0	551.0	
26 Acrylonitrile	53	4.550	4.556	-0.006	100	838694	62.5	68.0	
27 Methyl tert-butyl ether	73	4.629	4.629	0.000	94	3877674	25.0	26.0	
28 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	99	1656694	25.0	25.2	
29 Hexane	57	5.062	5.062	0.000	90	2439948	25.0	26.5	
31 1,1-Dichloroethane	63	5.293	5.294	-0.001	96	3017807	25.0	25.0	
32 Isopropyl ether	45	5.354	5.354	0.000	94	4846235	25.0	26.1	
33 2-Chloro-1,3-butadiene	53	5.403	5.409	-0.006	92	2379938	25.0	27.0	
34 Tert-butyl ethyl ether	59	5.885	5.891	-0.006	97	4535995	25.0	26.4	

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	6.086	6.086	0.000	99	4426640	250.0	271.0	
37 cis-1,2-Dichloroethene	96	6.122	6.123	-0.001	81	1858079	25.0	25.2	
38 2,2-Dichloropropane	77	6.141	6.135	0.006	86	2458322	25.0	25.1	
S 35 1,2-Dichloroethene, Total	100				0			50.4	
40 Propionitrile	54	6.171	6.171	0.000	99	2507572	500.0	529.3	
42 Methacrylonitrile	67	6.391	6.391	0.000	90	4674235	250.0	274.3	
43 Chlorobromomethane	128	6.452	6.452	0.000	92	838017	25.0	25.1	
44 Tetrahydrofuran	71	6.470	6.464	0.006	81	669958	125.0	141.9	
45 Chloroform	83	6.604	6.604	0.000	93	3021737	25.0	25.0	
\$ 46 Dibromofluoromethane (Surr)	113	6.811	6.818	-0.007	93	582432	10.0	9.91	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	2736334	25.0	25.3	
48 Cyclohexane	56	6.933	6.933	0.000	89	2913184	25.0	26.8	
51 1,1-Dichloropropene	75	7.037	7.043	-0.006	97	2454982	25.0	26.1	
50 Carbon tetrachloride	117	7.043	7.043	0.000	83	2486426	25.0	25.7	
52 Isobutyl alcohol	41	7.183	7.183	0.000	95	1489417	1250.0	1385.9	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.269	0.006	0	120168	10.0	9.96	
54 Benzene	78	7.299	7.299	0.000	95	7166100	25.0	25.3	
56 1,2-Dichloroethane	62	7.372	7.372	0.000	97	1877427	25.0	24.8	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	99	4372902	25.0	26.8	
* 58 Fluorobenzene (IS)	96	7.701	7.702	-0.001	99	2340890	10.0	10.0	
59 n-Heptane	43	7.714	7.714	0.000	90	2576950	25.0	25.4	
60 n-Butanol	56	8.061	8.061	0.000	86	2600805	2187.5	2634.8	
61 Trichloroethene	95	8.183	8.183	0.000	97	1934187	25.0	25.6	
62 Methylcyclohexane	83	8.488	8.488	0.000	93	3343294	25.0	26.9	
63 1,2-Dichloropropane	63	8.506	8.512	-0.006	97	1886215	25.0	25.8	
64 Methyl methacrylate	69	8.591	8.592	-0.001	90	945002	25.0	30.8	
65 1,4-Dioxane	88	8.604	8.604	0.000	78	300268	1250.0	1371.5	
66 Dibromomethane	93	8.622	8.622	0.000	94	908999	25.0	25.9	
68 Dichlorobromomethane	83	8.854	8.854	0.000	100	2267464	25.0	26.1	
69 2-Nitropropane	41	9.116	9.116	0.000	97	1239188	125.0	136.9	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	98	1994065	25.0	26.7	
73 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	97	2897356	25.0	27.9	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	11334724	250.0	287.1	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2384335	10.0	9.80	
76 Toluene	92	9.780	9.780	0.000	98	4792712	25.0	24.9	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	91	2436145	25.0	27.8	
S 77 1,3-Dichloropropene, Total	100				0			55.6	
79 Ethyl methacrylate	69	10.097	10.097	0.000	88	1959915	25.0	29.6	
80 1,1,2-Trichloroethane	97	10.237	10.238	-0.001	90	1381721	25.0	25.5	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	2332956	25.0	25.4	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	87	2322857	25.0	25.6	
83 2-Hexanone	43	10.451	10.451	0.000	95	8369640	250.0	292.9	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	89	1799772	25.0	27.0	
86 Ethylene Dibromide	107	10.725	10.731	-0.006	98	1344383	25.0	26.8	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1873912	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	97	2817051	25.0	26.2	
90 Chlorobenzene	112	11.182	11.183	-0.001	96	5423284	25.0	25.2	
S 89 Xylenes, Total	106				0			80.2	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	1887305	25.0	25.6	
92 Ethylbenzene	91	11.268	11.268	0.000	98	9301463	25.0	26.0	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	7378713	50.0	53.0	
94 o-Xylene	106	11.713	11.713	0.000	96	3600919	25.0	27.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.725	11.725	0.000	95	5999610	25.0	28.6	
96 Bromoform	173	11.883	11.884	-0.001	98	1116100	25.0	28.1	
97 Isopropylbenzene	105	12.011	12.012	-0.001	95	9107669	25.0	26.4	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	881757	10.0	9.89	
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	92	1728934	25.0	26.1	
102 Bromobenzene	156	12.274	12.274	0.000	96	2194407	25.0	25.7	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	91	4084999	250.0	292.3	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	79	457576	25.0	26.2	
105 N-Propylbenzene	91	12.341	12.341	0.000	98	10510108	25.0	25.7	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	2183713	25.0	25.9	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	7578027	25.0	26.5	
108 4-Chlorotoluene	126	12.505	12.506	-0.001	97	2254199	25.0	26.2	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	1709007	25.0	26.7	
110 Pentachloroethane	167	12.749	12.749	0.000	94	1393932	25.0	26.9	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	7695100	25.0	27.1	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	9553196	25.0	25.9	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	4299389	25.0	26.1	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	96	8347352	25.0	26.8	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1027356	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	4316488	25.0	25.4	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	3326481	25.0	25.4	
118 Benzyl chloride	126	13.127	13.127	0.000	98	730613	25.0	29.4	
119 n-Butylbenzene	92	13.280	13.274	0.006	97	4114834	25.0	27.7	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	3881335	25.0	25.4	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	90	270174	25.0	28.6	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	3086150	25.0	27.5	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	2661316	25.0	29.4	
125 Hexachlorobutadiene	225	14.487	14.481	0.006	97	1098859	25.0	25.7	
126 Naphthalene	128	14.584	14.584	0.000	97	5143208	25.0	30.8	
127 1,2,3-Trichlorobenzene	180	14.724	14.725	-0.001	96	2222787	25.0	27.7	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		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_00049	Amount Added: 25.00	Units: uL	
MSV_LL_#2_826_00053	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00101	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X12.D

Injection Date: 11-Jul-2022 15:36:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: IC std7

Worklist Smp#: 12

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

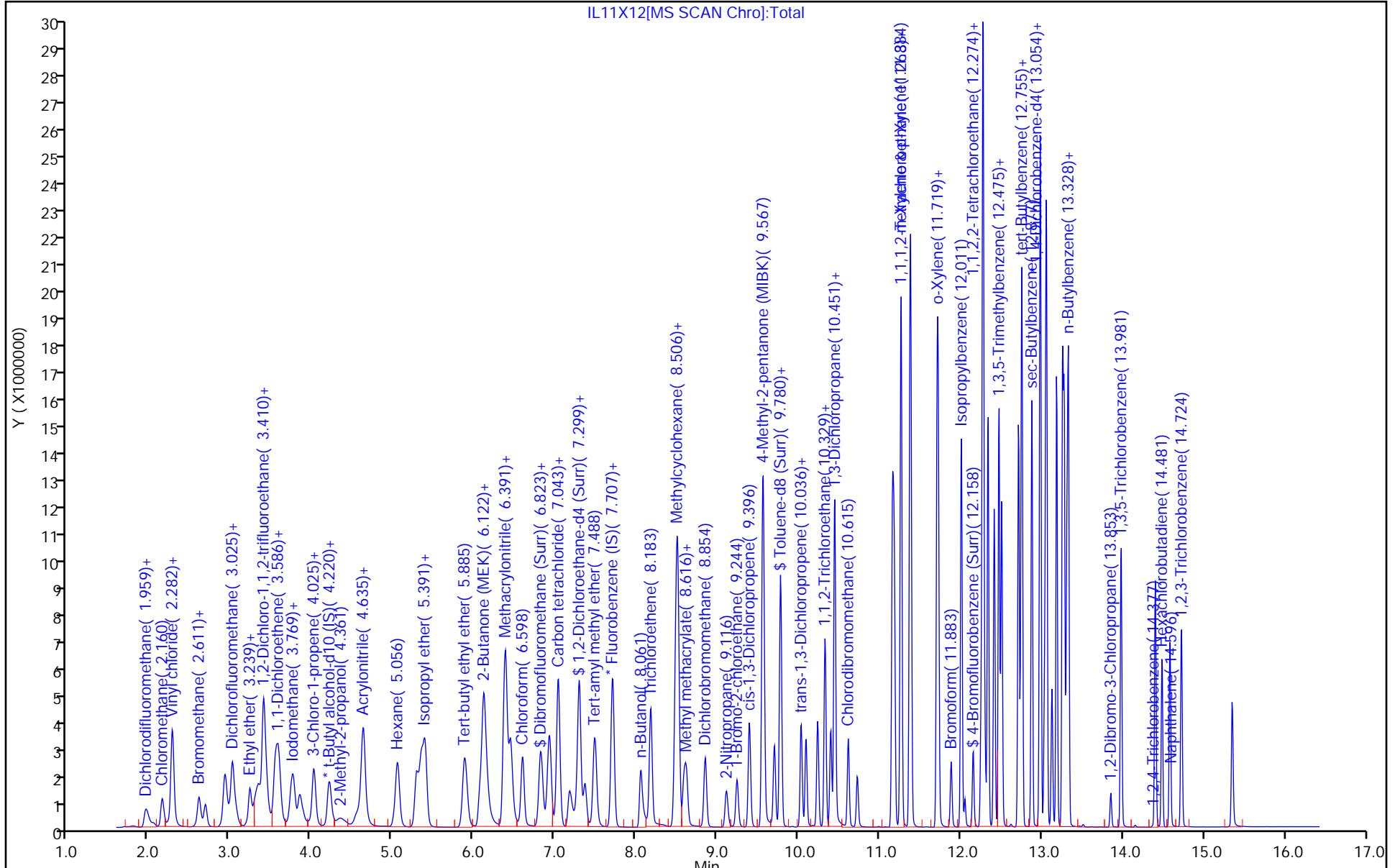
ALS Bottle#: 12

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 Environment Testing, LLC

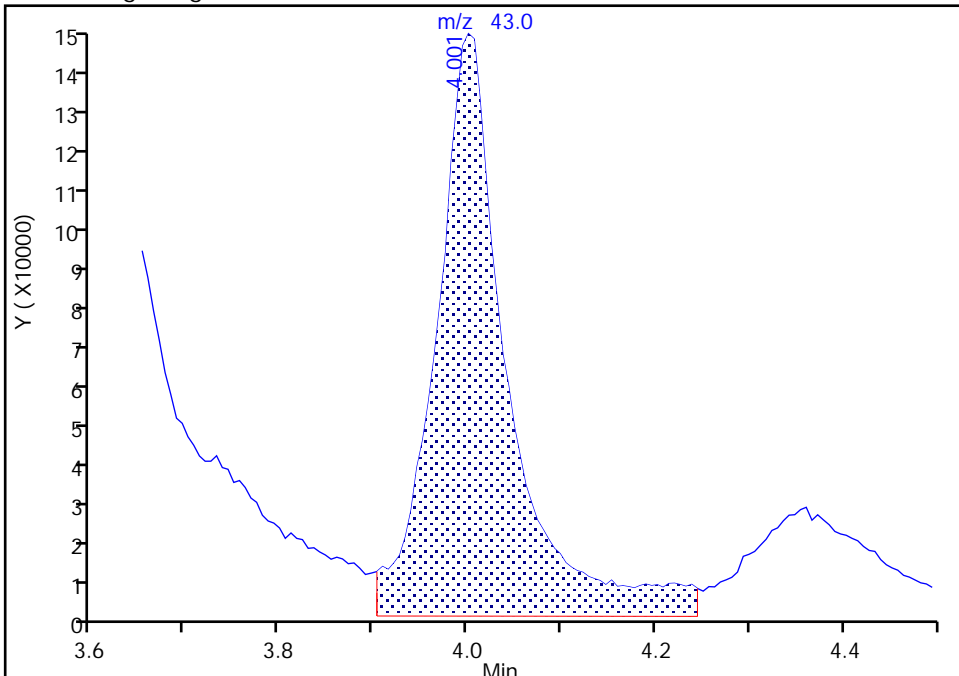
Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X12.D  
Injection Date: 11-Jul-2022 15:36:30 Instrument ID: 19930  
Lims ID: IC std7  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 12 Worklist Smp#: 12  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

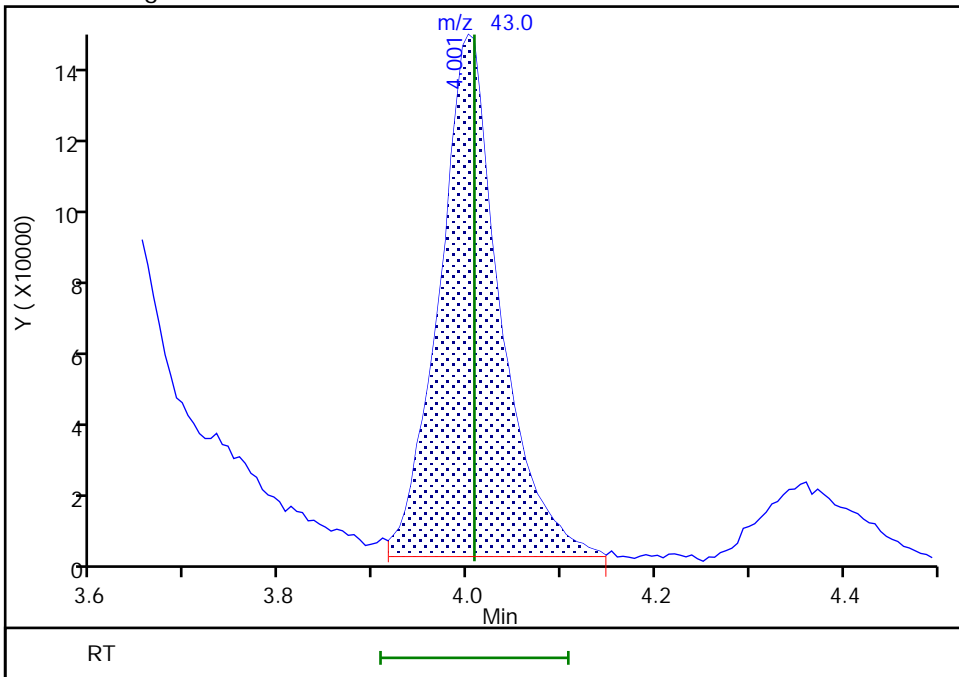
RT: 4.00  
Area: 788547  
Amount: 25.027765  
Amount Units: ug/l

Processing Integration Results



RT: 4.00  
Area: 626851  
Amount: 24.237268  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:31:46  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X13.D  
 Lims ID: ICIS - LG  
 Client ID:  
 Sample Type: ICIS Calib Level: 6  
 Inject. Date: 11-Jul-2022 15:57:30 ALS Bottle#: 13 Worklist Smp#: 13  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0061506-013  
 Misc. Info.: ICIS - LG  
 Operator ID: kas02648 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 14:51:19 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1630

First Level Reviewer: UKAD

Date: 14-Jul-2022 14:50:48

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	775307	10.0	10.7	
4 Chloromethane	50	2.160	2.160	0.000	99	818721	10.0	9.93	
5 Vinyl chloride	62	2.276	2.276	0.000	98	858174	10.0	10.6	
6 Butadiene	39	2.288	2.288	0.000	90	852580	10.0	9.28	
7 Bromomethane	94	2.617	2.617	0.000	90	568259	10.0	10.0	
8 Chloroethane	64	2.696	2.696	0.000	100	480979	10.0	10.1	
9 Dichlorofluoromethane	67	2.940	2.940	0.000	97	1116663	10.0	10.1	
10 Trichlorofluoromethane	101	3.001	3.001	0.000	97	1136388	10.0	10.6	
11 Ethyl ether	59	3.245	3.245	0.000	90	544583	10.0	10.5	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.330	3.330	0.000	94	832332	10.0	10.2	
13 Acrolein	56	3.416	3.416	0.000	99	4074711	500.0	513.4	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	603331	10.0	10.1	
15 Acetone	43	3.580	3.580	0.000	99	879889	100.0	93.9	
16 1,1,2-Trichloro-1,2,2-trifluoroethane	101	3.599	3.599	0.000	91	616352	10.0	10.2	
17 Iodomethane	142	3.751	3.751	0.000	98	1062359	10.0	10.1	
18 Ethyl bromide	108	3.782	3.782	0.000	98	557441	10.0	10.3	
19 Carbon disulfide	76	3.861	3.861	0.000	99	1487556	10.0	9.95	
21 Methyl acetate	43	4.007	4.007	0.000	97	259744	10.0	9.43	M
22 3-Chloro-1-propene	41	4.032	4.032	0.000	93	904995	10.0	10.4	
23 Methylene Chloride	84	4.221	4.221	0.000	91	660302	10.0	10.1	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.233	0.000	0	169786	50.0	50.0	
25 2-Methyl-2-propanol	59	4.361	4.361	0.000	99	583038	200.0	199.7	
26 Acrylonitrile	53	4.556	4.556	0.000	99	344055	25.0	26.2	
27 Methyl tert-butyl ether	73	4.629	4.629	0.000	94	1598073	10.0	10.6	
28 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	100	672553	10.0	10.1	
29 Hexane	57	5.062	5.062	0.000	91	1002426	10.0	10.8	
31 1,1-Dichloroethane	63	5.294	5.294	0.000	96	1244444	10.0	10.2	
32 Isopropyl ether	45	5.354	5.354	0.000	94	1994286	10.0	10.7	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	90	950721	10.0	10.7	
34 Tert-butyl ethyl ether	59	5.891	5.891	0.000	97	1854452	10.0	10.7	

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	6.086	6.086	0.000	99	1796186	100.0	103.3	
37 cis-1,2-Dichloroethene	96	6.123	6.123	0.000	81	757315	10.0	10.2	
38 2,2-Dichloropropane	77	6.135	6.135	0.000	87	996580	10.0	10.1	
40 Propionitrile	54	6.171	6.171	0.000	99	1059256	200.0	210.0	
42 Methacrylonitrile	67	6.391	6.391	0.000	90	1872168	100.0	103.2	
43 Chlorobromomethane	128	6.452	6.452	0.000	92	339759	10.0	10.1	
44 Tetrahydrofuran	71	6.464	6.464	0.000	78	267322	50.0	53.2	
45 Chloroform	83	6.604	6.604	0.000	93	1226420	10.0	10.1	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	93	585924	10.0	9.90	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	1097039	10.0	10.1	
48 Cyclohexane	56	6.933	6.933	0.000	89	1174401	10.0	10.7	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	98	989672	10.0	10.4	
50 Carbon tetrachloride	117	7.043	7.043	0.000	95	994011	10.0	10.2	
52 Isobutyl alcohol	41	7.183	7.183	0.000	95	598022	500.0	522.6	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.269	0.000	0	123948	10.0	10.2	
54 Benzene	78	7.299	7.299	0.000	96	2897543	10.0	10.1	
56 1,2-Dichloroethane	62	7.372	7.372	0.000	97	753838	10.0	9.90	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	99	1776420	10.0	10.8	
* 58 Fluorobenzene (IS)	96	7.702	7.702	0.000	99	2357451	10.0	10.0	
59 n-Heptane	43	7.714	7.714	0.000	90	1047041	10.0	10.3	
60 n-Butanol	56	8.061	8.061	0.000	86	1044145	875.0	993.4	
61 Trichloroethene	95	8.183	8.183	0.000	97	775746	10.0	10.2	
62 Methylcyclohexane	83	8.488	8.488	0.000	93	1348970	10.0	10.8	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	85	761249	10.0	10.3	
64 Methyl methacrylate	69	8.592	8.592	0.000	91	366085	10.0	11.2	
65 1,4-Dioxane	88	8.604	8.604	0.000	86	133078	500.0	570.9	
66 Dibromomethane	93	8.622	8.622	0.000	94	363345	10.0	10.3	
68 Dichlorobromomethane	83	8.854	8.854	0.000	100	902646	10.0	10.3	
69 2-Nitropropane	41	9.116	9.116	0.000	97	488367	50.0	50.7	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	98	806623	10.0	10.7	
73 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	97	1145232	10.0	10.9	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	4595155	100.0	109.3	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2402818	10.0	9.91	
76 Toluene	92	9.780	9.780	0.000	98	1933919	10.0	10.1	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	91	957404	10.0	11.0	
79 Ethyl methacrylate	69	10.097	10.097	0.000	88	755370	10.0	11.4	
80 1,1,2-Trichloroethane	97	10.238	10.238	0.000	90	550000	10.0	10.2	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	928649	10.0	10.2	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	88	931507	10.0	10.3	
83 2-Hexanone	43	10.451	10.451	0.000	96	3288574	100.0	108.1	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	702452	10.0	10.6	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	529520	10.0	10.6	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1868480	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	96	1121836	10.0	10.5	
90 Chlorobenzene	112	11.183	11.183	0.000	96	2166788	10.0	10.1	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	97	750673	10.0	10.2	
92 Ethylbenzene	91	11.268	11.268	0.000	98	3750337	10.0	10.5	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	2963343	20.0	21.4	
94 o-Xylene	106	11.713	11.713	0.000	96	1430458	10.0	10.8	
95 Styrene	104	11.725	11.725	0.000	95	2377193	10.0	11.4	
96 Bromoform	173	11.884	11.884	0.000	98	432992	10.0	10.9	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	3743170	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	12.158	12.158	0.000	94	892382	10.0	10.0	
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	698496	10.0	10.3	
102 Bromobenzene	156	12.274	12.274	0.000	93	893054	10.0	10.2	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	91	1612670	100.0	108.4	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	80	187503	10.0	10.5	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	4475549	10.0	10.7	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	893270	10.0	10.3	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	3136239	10.0	10.7	
108 4-Chlorotoluene	126	12.506	12.506	0.000	97	922726	10.0	10.5	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	711868	10.0	10.9	
110 Pentachloroethane	167	12.749	12.749	0.000	93	572219	10.0	10.8	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	3198326	10.0	11.0	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	4052430	10.0	10.7	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	1775352	10.0	10.5	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	3482656	10.0	10.9	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1053034	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	1782714	10.0	10.2	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	1374135	10.0	10.2	
118 Benzyl chloride	126	13.127	13.127	0.000	98	286316	10.0	11.3	
119 n-Butylbenzene	92	13.274	13.274	0.000	97	1689776	10.0	11.1	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	1613569	10.0	10.3	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	89	103174	10.0	10.7	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	1205511	10.0	10.5	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	1022023	10.0	11.0	
125 Hexachlorobutadiene	225	14.481	14.481	0.000	96	429212	10.0	9.79	
126 Naphthalene	128	14.584	14.584	0.000	97	2008500	10.0	11.7	
127 1,2,3-Trichlorobenzene	180	14.725	14.725	0.000	96	882018	10.0	10.7	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		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\_00049

Amount Added: 10.00

Units: uL

MSV\_LL\_#2\_826\_00053

Amount Added: 10.00

Units: uL

MSV\_LL\_GAS826\_00101

Amount Added: 10.00

Units: uL

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent



Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X13.D

Injection Date: 11-Jul-2022 15:57:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: ICIS - LG

Worklist Smp#: 13

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

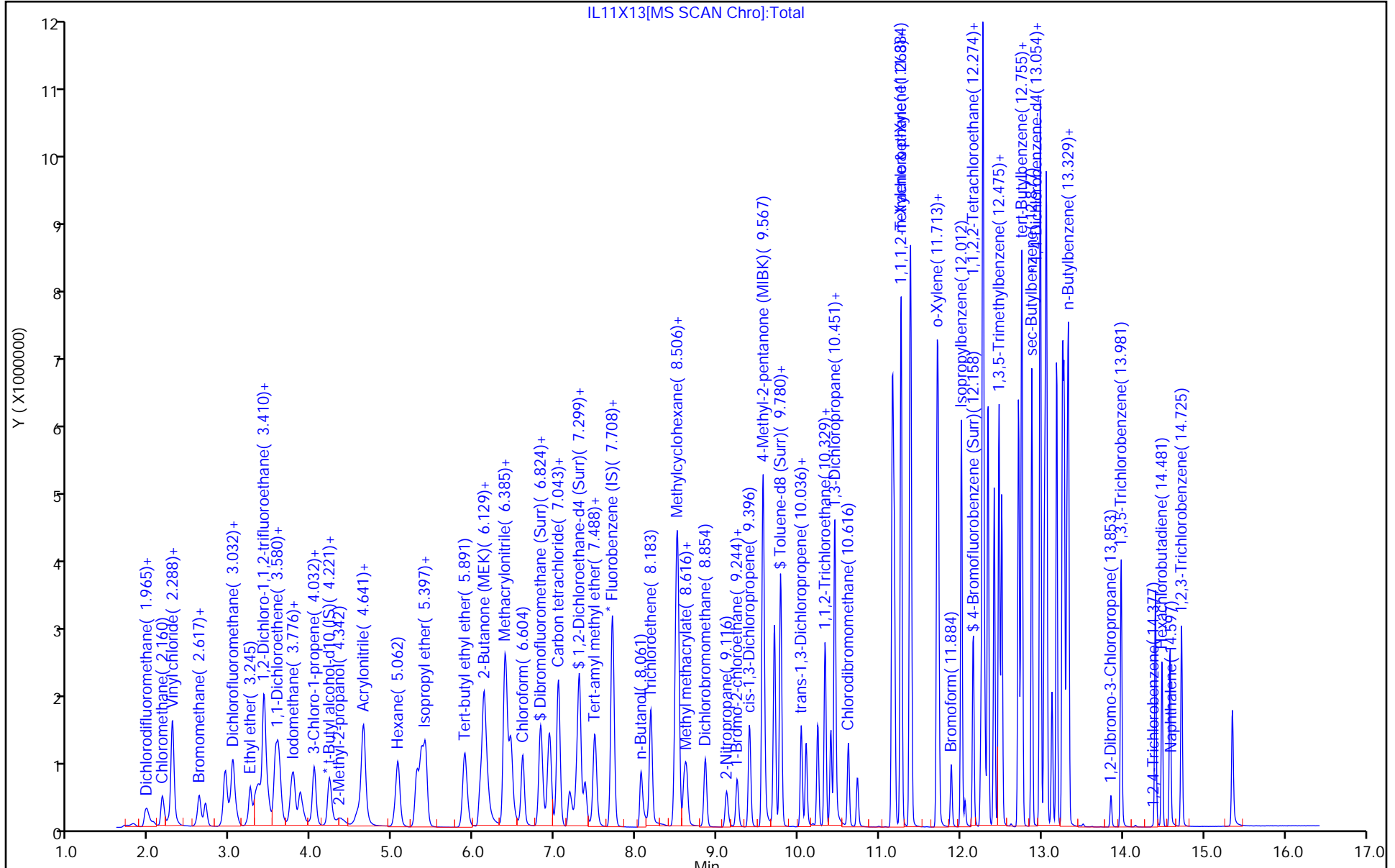
ALS Bottle#: 13

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



Eurofins Lancaster Laboratories Environment Testing, LLC

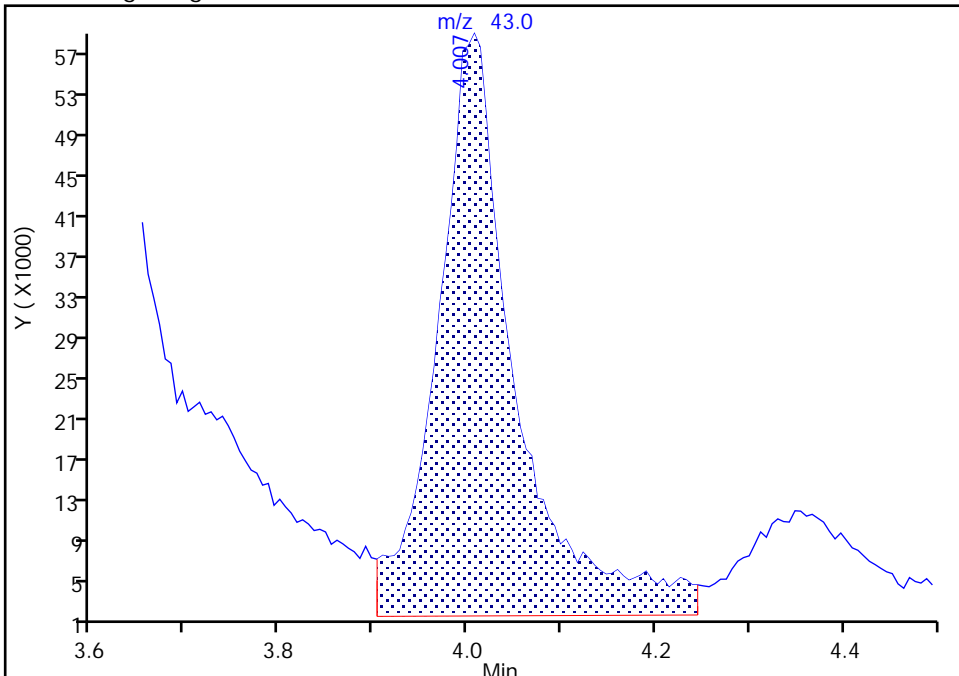
Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X13.D  
Injection Date: 11-Jul-2022 15:57:30 Instrument ID: 19930  
Lims ID: ICIS - LG  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 13 Worklist Smp#: 13  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

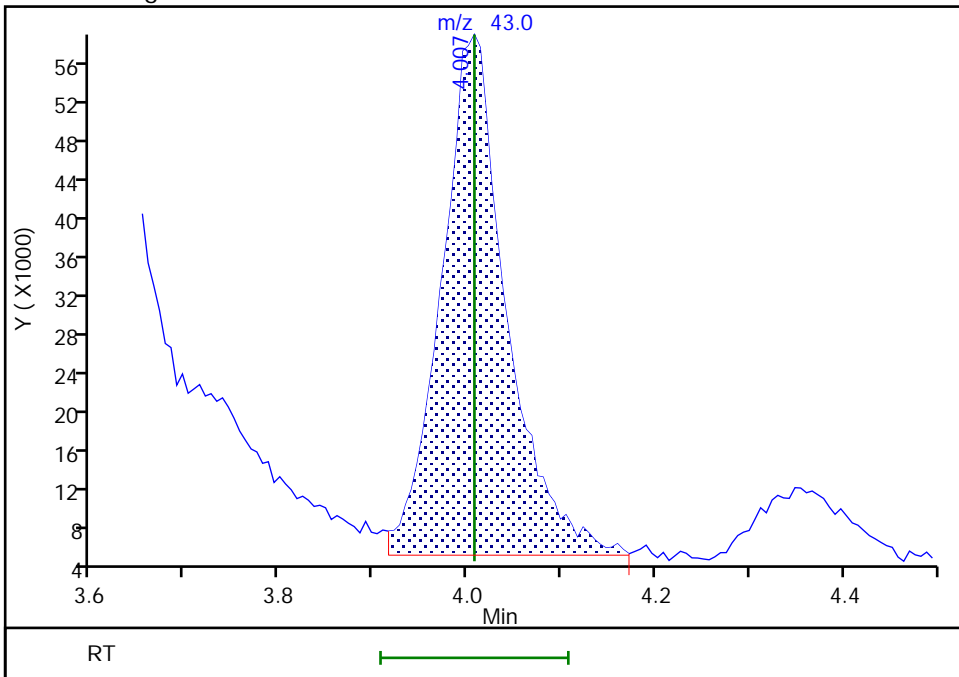
RT: 4.01  
Area: 331325  
Amount: 11.666230  
Amount Units: ug/l

Processing Integration Results



RT: 4.01  
Area: 259744  
Amount: 9.431942  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:37:09  
Audit Action: Manually Integrated

Audit Reason: Baseline  
Page 394 of 653

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X14.D  
 Lims ID: IC std5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 11-Jul-2022 16:18:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0061506-014  
 Misc. Info.: IC STD5  
 Operator ID: kas02648 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 14:51:24 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1630

First Level Reviewer: UKAD

Date: 12-Jul-2022 12:39:54

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	384616	5.00	5.26	
4 Chloromethane	50	2.166	2.160	0.006	99	418793	5.00	5.05	
5 Vinyl chloride	62	2.282	2.276	0.006	98	420647	5.00	5.15	
6 Butadiene	39	2.288	2.288	0.000	90	448852	5.00	4.85	
7 Bromomethane	94	2.617	2.617	0.000	90	279824	5.00	4.91	
8 Chloroethane	64	2.696	2.696	0.000	100	240962	5.00	5.02	
9 Dichlorofluoromethane	67	2.940	2.940	0.000	97	557952	5.00	5.01	
10 Trichlorofluoromethane	101	3.007	3.001	0.006	97	542164	5.00	5.03	
11 Ethyl ether	59	3.251	3.245	0.006	90	262623	5.00	5.05	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.336	3.330	0.006	92	413603	5.00	5.06	
13 Acrolein	56	3.422	3.416	0.006	100	1960560	250.0	267.0	
14 1,1-Dichloroethene	96	3.562	3.556	0.006	98	300676	5.00	5.00	
15 Acetone	43	3.586	3.580	0.006	99	435913	50.0	50.3	
16 1,1,2-Trichloro-1,2,2-trifluoroethane	101	3.605	3.599	0.006	91	309872	5.00	5.10	
17 Iodomethane	142	3.757	3.751	0.006	99	526457	5.00	4.98	
18 Ethyl bromide	108	3.781	3.782	-0.001	98	274534	5.00	5.05	
19 Carbon disulfide	76	3.867	3.861	0.006	99	739332	5.00	4.92	
21 Methyl acetate	43	4.007	4.007	0.000	97	127638	5.00	5.01	M
22 3-Chloro-1-propene	41	4.037	4.032	0.005	93	448302	5.00	5.10	
23 Methylene Chloride	84	4.226	4.221	0.005	91	330037	5.00	5.01	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.233	0.000	0	157069	50.0	50.0	
25 2-Methyl-2-propanol	59	4.354	4.361	-0.007	99	290794	100.0	107.7	
26 Acrylonitrile	53	4.562	4.556	0.006	99	165033	12.5	13.6	
27 Methyl tert-butyl ether	73	4.635	4.629	0.006	94	785616	5.00	5.20	
28 trans-1,2-Dichloroethene	96	4.647	4.641	0.006	99	330337	5.00	4.95	
29 Hexane	57	5.074	5.062	0.012	90	488870	5.00	5.24	
31 1,1-Dichloroethane	63	5.299	5.294	0.005	96	613887	5.00	5.02	
32 Isopropyl ether	45	5.360	5.354	0.006	94	981336	5.00	5.22	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	90	472184	5.00	5.28	
34 Tert-butyl ethyl ether	59	5.891	5.891	0.000	97	913149	5.00	5.24	

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	6.092	6.086	0.006	99	863076	50.0	53.6	
37 cis-1,2-Dichloroethene	96	6.122	6.123	-0.001	81	375882	5.00	5.04	
38 2,2-Dichloropropane	77	6.141	6.135	0.006	86	500444	5.00	5.05	
S 35 1,2-Dichloroethene, Total	100				0			9.99	
40 Propionitrile	54	6.177	6.171	0.006	99	511477	100.0	109.6	
42 Methacrylonitrile	67	6.391	6.391	0.000	90	929830	50.0	55.4	
43 Chlorobromomethane	128	6.458	6.452	0.006	92	169421	5.00	5.01	
44 Tetrahydrofuran	71	6.470	6.464	0.006	75	130774	25.0	28.1	
45 Chloroform	83	6.604	6.604	0.000	93	609419	5.00	4.97	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	586295	10.0	9.85	
47 1,1,1-Trichloroethane	97	6.836	6.830	0.006	98	551762	5.00	5.03	
48 Cyclohexane	56	6.933	6.933	0.000	89	579878	5.00	5.27	
51 1,1-Dichloropropene	75	7.049	7.043	0.006	97	487745	5.00	5.11	
50 Carbon tetrachloride	117	7.043	7.043	0.000	84	500314	5.00	5.10	
52 Isobutyl alcohol	41	7.183	7.183	0.000	94	274118	250.0	258.9	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.269	0.006	0	119950	10.0	9.81	
54 Benzene	78	7.305	7.299	0.006	97	1435836	5.00	5.00	
56 1,2-Dichloroethane	62	7.372	7.372	0.000	97	381309	5.00	4.98	
57 Tert-amyl methyl ether	73	7.494	7.488	0.006	99	871660	5.00	5.27	
* 58 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2371836	10.0	10.0	
59 n-Heptane	43	7.720	7.714	0.006	89	512397	5.00	4.99	
60 n-Butanol	56	8.067	8.061	0.006	87	463205	437.5	476.4	
61 Trichloroethene	95	8.183	8.183	0.000	97	386689	5.00	5.06	
62 Methylcyclohexane	83	8.488	8.488	0.000	93	665622	5.00	5.28	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	97	378228	5.00	5.10	
64 Methyl methacrylate	69	8.598	8.592	0.006	89	166034	5.00	5.50	
65 1,4-Dioxane	88	8.598	8.604	-0.006	33	58794	250.0	272.6	M
66 Dibromomethane	93	8.622	8.622	0.000	94	181173	5.00	5.10	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	445583	5.00	5.07	
69 2-Nitropropane	41	9.116	9.116	0.000	99	233496	25.0	26.2	
72 1-Bromo-2-chloroethane	63	9.250	9.244	0.006	98	393920	5.00	5.20	
73 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	97	555968	5.00	5.28	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	2223914	50.0	57.2	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2416659	10.0	10.1	
76 Toluene	92	9.780	9.780	0.000	98	952092	5.00	5.01	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	91	459025	5.00	5.30	
S 77 1,3-Dichloropropene, Total	100				0			10.6	
79 Ethyl methacrylate	69	10.097	10.097	0.000	88	352387	5.00	5.38	
80 1,1,2-Trichloroethane	97	10.244	10.238	0.006	90	273779	5.00	5.12	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	459498	5.00	5.07	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	88	459902	5.00	5.14	
83 2-Hexanone	43	10.451	10.451	0.000	96	1555827	50.0	55.3	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	90	341396	5.00	5.19	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	258812	5.00	5.22	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1851570	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	96	547727	5.00	5.15	
90 Chlorobenzene	112	11.182	11.183	-0.001	96	1077231	5.00	5.06	
S 89 Xylenes, Total	106				0			15.9	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	372032	5.00	5.11	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1851439	5.00	5.24	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	1459288	10.0	10.6	
94 o-Xylene	106	11.713	11.713	0.000	96	696205	5.00	5.31	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.725	11.725	0.000	95	1143544	5.00	5.51	
96 Bromoform	173	11.884	11.884	0.000	97	207414	5.00	5.28	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	1836655	5.00	5.39	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	896770	10.0	10.2	
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	341267	5.00	5.05	
102 Bromobenzene	156	12.274	12.274	0.000	94	442560	5.00	5.08	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	91	753084	50.0	54.7	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	79	91564	5.00	5.13	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	2213899	5.00	5.30	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	444100	5.00	5.16	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1542218	5.00	5.28	
108 4-Chlorotoluene	126	12.511	12.506	0.005	96	452113	5.00	5.15	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	348862	5.00	5.33	
110 Pentachloroethane	167	12.749	12.749	0.000	92	277235	5.00	5.24	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1570696	5.00	5.41	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	2001677	5.00	5.30	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	859840	5.00	5.11	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1729810	5.00	5.44	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1050302	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	876650	5.00	5.04	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	680186	5.00	5.08	
118 Benzyl chloride	126	13.127	13.127	0.000	98	135138	5.00	5.33	
119 n-Butylbenzene	92	13.280	13.274	0.006	97	828929	5.00	5.46	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	791941	5.00	5.06	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	88	48476	5.00	5.03	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	594545	5.00	5.18	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	490690	5.00	5.30	
125 Hexachlorobutadiene	225	14.481	14.481	0.000	96	207781	5.00	4.75	
126 Naphthalene	128	14.584	14.584	0.000	97	933937	5.00	5.47	
127 1,2,3-Trichlorobenzene	180	14.724	14.725	-0.001	96	427022	5.00	5.20	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		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_00049	Amount Added: 5.00	Units: uL	
MSV_LL_#2_826_00053	Amount Added: 5.00	Units: uL	
MSV_LL_GAS826_00101	Amount Added: 5.00	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X14.D

Injection Date: 11-Jul-2022 16:18:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: IC std5

Worklist Smp#: 14

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

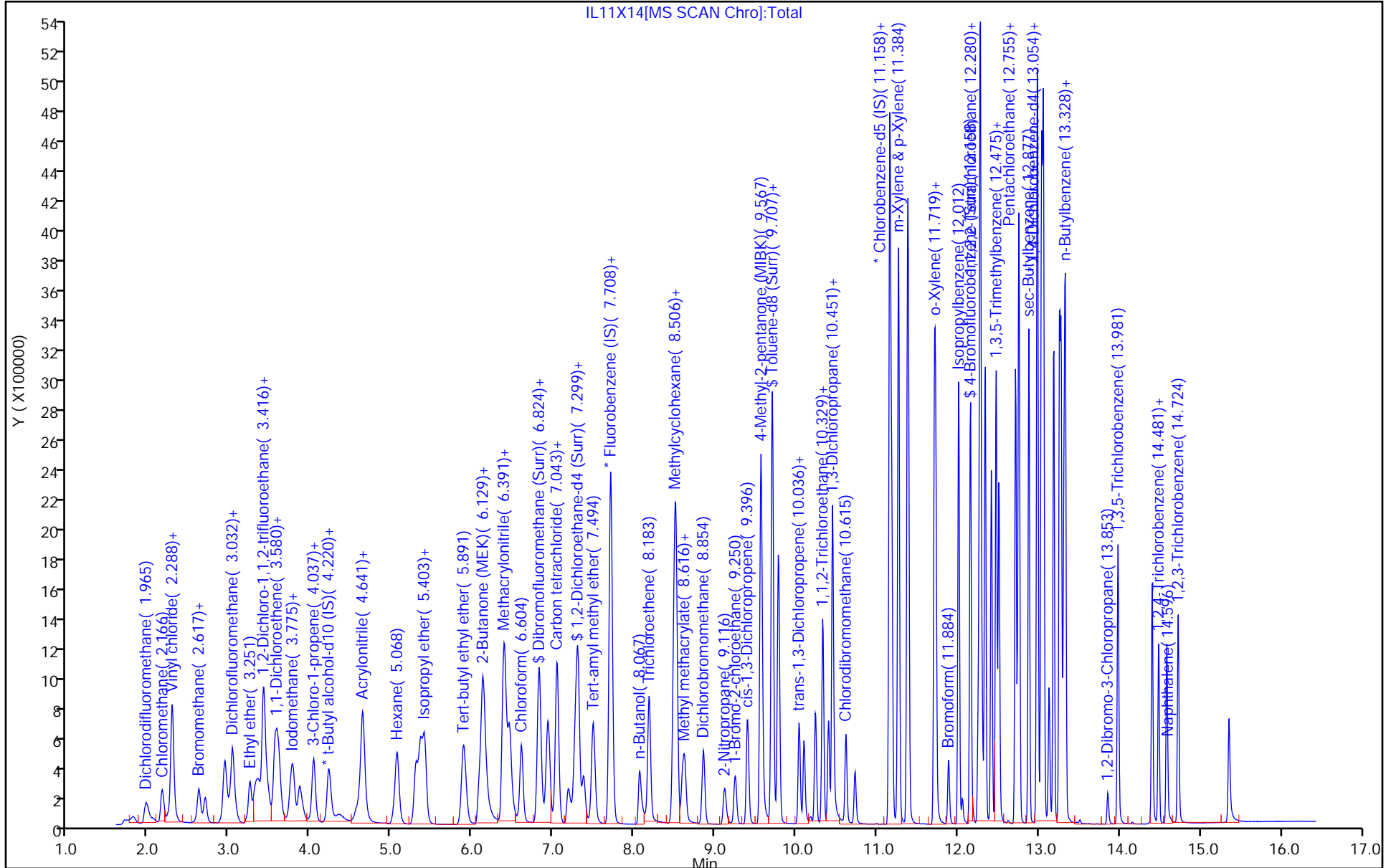
ALS Bottle#: 14

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



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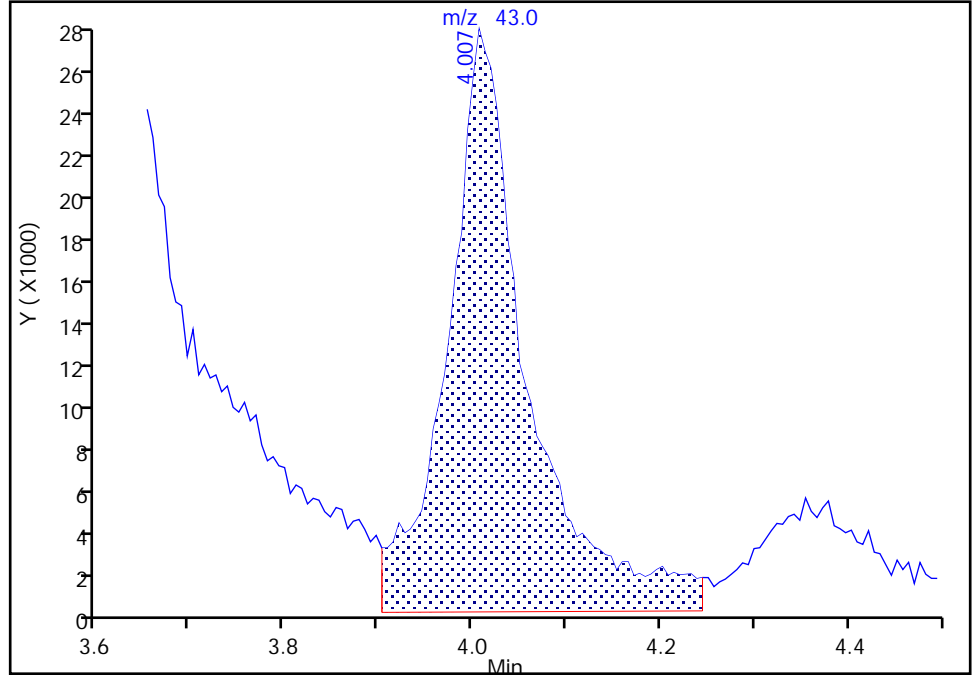
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Injection Date: 11-Jul-2022 16:18:30 Instrument ID: 19930  
Lims ID: IC std5  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

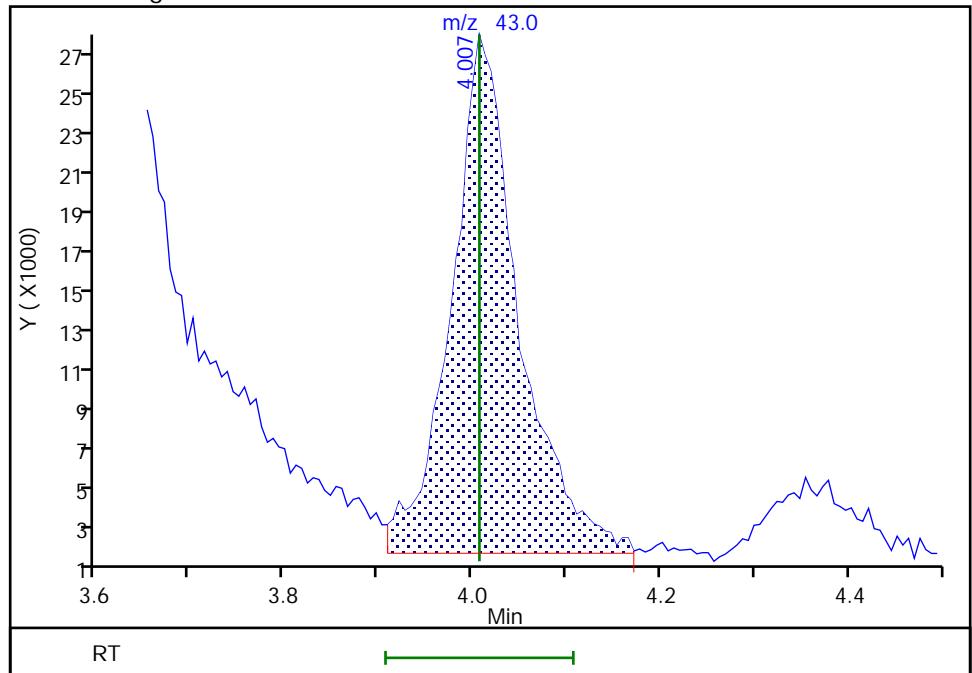
RT: 4.01  
Area: 161403  
Amount: 6.192289  
Amount Units: ug/l

Processing Integration Results



RT: 4.01  
Area: 127638  
Amount: 5.010107  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:38:23  
Audit Action: Manually Integrated

Audit Reason: Baseline  
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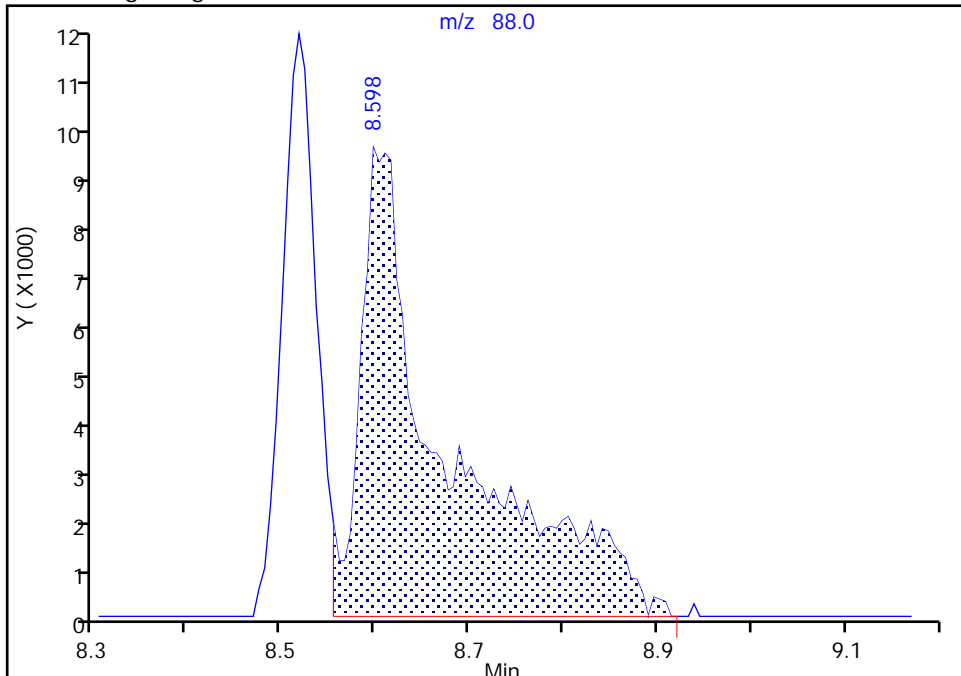
Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X14.D  
Injection Date: 11-Jul-2022 16:18:30 Instrument ID: 19930  
Lims ID: IC std5  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

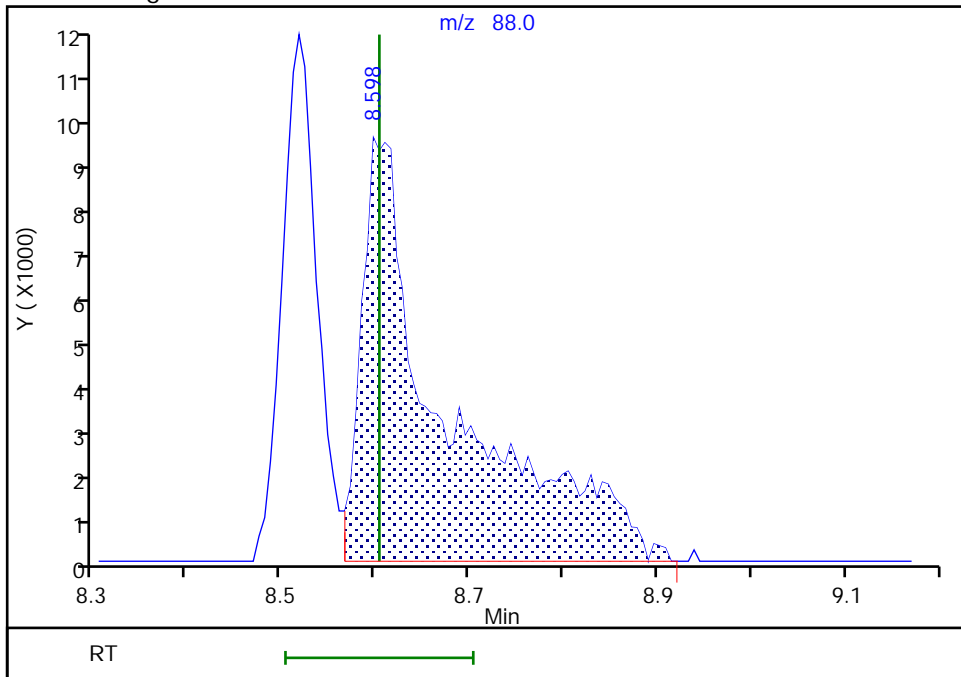
RT: 8.60  
Area: 59882  
Amount: 292.4547  
Amount Units: ug/l

Processing Integration Results



RT: 8.60  
Area: 58794  
Amount: 272.6240  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:39:24  
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak  
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Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X15.D  
 Lims ID: IC std4  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 11-Jul-2022 16:39:30 ALS Bottle#: 15 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0061506-015  
 Misc. Info.: IC STD4  
 Operator ID: kas02648 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2  
 Method: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 14:51:30 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1630

First Level Reviewer: UKAD Date: 12-Jul-2022 12:41:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.959	0.000	99	155928	2.00	2.16	
4 Chloromethane	50	2.160	2.160	0.000	99	174469	2.00	2.13	
5 Vinyl chloride	62	2.276	2.276	0.000	98	175211	2.00	2.17	
6 Butadiene	39	2.288	2.288	0.000	91	181981	2.00	1.99	
7 Bromomethane	94	2.617	2.617	0.000	90	118171	2.00	2.10	
8 Chloroethane	64	2.696	2.696	0.000	99	100916	2.00	2.13	
9 Dichlorofluoromethane	67	2.934	2.934	0.000	97	233451	2.00	2.12	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	94	235907	2.00	2.22	
11 Ethyl ether	59	3.245	3.245	0.000	90	110740	2.00	2.15	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.343	3.343	0.000	94	170916	2.00	2.12	
13 Acrolein	56	3.422	3.422	0.000	100	781875	100.0	99.7	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	119792	2.00	2.02	
15 Acetone	43	3.593	3.593	0.000	96	185987	20.0	20.1	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.599	3.599	0.000	91	123477	2.00	2.06	
17 Iodomethane	142	3.763	3.763	0.000	98	211139	2.00	2.02	
18 Ethyl bromide	108	3.782	3.782	0.000	98	114268	2.00	2.13	
19 Carbon disulfide	76	3.861	3.861	0.000	99	300692	2.00	2.02	
21 Methyl acetate	43	4.013	4.013	0.000	97	51429	2.00	1.89	M
22 3-Chloro-1-propene	41	4.038	4.038	0.000	93	173644	2.00	2.00	
23 Methylene Chloride	84	4.220	4.220	0.000	90	130455	2.00	2.01	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.239	0.000	0	167734	50.0	50.0	
25 2-Methyl-2-propanol	59	4.361	4.361	0.000	98	115361	40.0	40.0	
26 Acrylonitrile	53	4.568	4.568	0.000	98	64297	5.00	4.96	
27 Methyl tert-butyl ether	73	4.629	4.629	0.000	95	305329	2.00	2.05	
28 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	99	132511	2.00	2.01	
29 Hexane	57	5.074	5.074	0.000	91	188753	2.00	2.05	
31 1,1-Dichloroethane	63	5.300	5.300	0.000	96	245824	2.00	2.04	
32 Isopropyl ether	45	5.354	5.354	0.000	93	380072	2.00	2.05	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	90	182677	2.00	2.07	
34 Tert-butyl ethyl ether	59	5.897	5.897	0.000	97	355813	2.00	2.07	

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	6.098	6.098	0.000	99	347526	20.0	20.2	
37 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	81	149512	2.00	2.03	
38 2,2-Dichloropropane	77	6.135	6.135	0.000	90	200572	2.00	2.05	
S 35 1,2-Dichloroethene, Total	100				0			4.04	
40 Propionitrile	54	6.183	6.183	0.000	99	200315	40.0	40.2	
42 Methacrylonitrile	67	6.391	6.391	0.000	91	359507	20.0	20.1	
43 Chlorobromomethane	128	6.458	6.458	0.000	89	68358	2.00	2.05	
44 Tetrahydrofuran	71	6.470	6.470	0.000	75	51391	10.0	10.3	
45 Chloroform	83	6.610	6.610	0.000	92	243271	2.00	2.01	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	585192	10.0	9.95	
47 1,1,1-Trichloroethane	97	6.836	6.836	0.000	98	220204	2.00	2.03	
48 Cyclohexane	56	6.933	6.933	0.000	89	222228	2.00	2.05	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	97	193566	2.00	2.05	
50 Carbon tetrachloride	117	7.043	7.043	0.000	86	196686	2.00	2.03	
52 Isobutyl alcohol	41	7.195	7.195	0.000	94	121187	100.0	107.2	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	0	120029	10.0	9.94	
54 Benzene	78	7.305	7.305	0.000	97	580651	2.00	2.05	
56 1,2-Dichloroethane	62	7.372	7.372	0.000	97	153866	2.00	2.03	
57 Tert-amyl methyl ether	73	7.494	7.494	0.000	99	337103	2.00	2.06	
* 58 Fluorobenzene (IS)	96	7.701	7.701	0.000	99	2342051	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	91	201314	2.00	1.98	
60 n-Butanol	56	8.073	8.073	0.000	89	175348	175.0	168.9	
61 Trichloroethene	95	8.183	8.183	0.000	97	153756	2.00	2.04	
62 Methylcyclohexane	83	8.494	8.494	0.000	93	256079	2.00	2.06	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	97	147680	2.00	2.02	
64 Methyl methacrylate	69	8.598	8.598	0.000	90	57955	2.00	1.80	
65 1,4-Dioxane	88	8.598	8.598	0.000	34	26767	100.0	116.2	M
66 Dibromomethane	93	8.622	8.622	0.000	95	71241	2.00	2.03	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	173299	2.00	2.00	
69 2-Nitropropane	41	9.122	9.122	0.000	99	91311	10.0	9.59	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	99	161266	2.00	2.16	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	209732	2.00	2.02	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	96	850428	20.0	20.5	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2384964	10.0	10.1	
76 Toluene	92	9.780	9.780	0.000	98	382193	2.00	2.05	
78 trans-1,3-Dichloropropene	75	10.042	10.042	0.000	91	170253	2.00	2.00	
S 77 1,3-Dichloropropene, Total	100				0			4.02	
79 Ethyl methacrylate	69	10.103	10.103	0.000	88	124735	2.00	1.94	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	90	106873	2.00	2.03	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	184199	2.00	2.07	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	180675	2.00	2.06	
83 2-Hexanone	43	10.457	10.457	0.000	97	584996	20.0	19.5	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	133590	2.00	2.07	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	99455	2.00	2.04	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1818084	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	96	211339	2.00	2.02	
90 Chlorobenzene	112	11.183	11.183	0.000	96	433225	2.00	2.07	
S 89 Xylenes, Total	106				0			6.30	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	147143	2.00	2.06	
92 Ethylbenzene	91	11.268	11.268	0.000	98	720722	2.00	2.08	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	571561	4.00	4.23	
94 o-Xylene	106	11.713	11.713	0.000	96	266251	2.00	2.07	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.731	11.731	0.000	95	427773	2.00	2.10	
96 Bromoform	173	11.890	11.890	0.000	97	78295	2.00	2.03	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	701622	2.00	2.10	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	879986	10.0	10.2	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	92	135802	2.00	2.06	
102 Bromobenzene	156	12.274	12.274	0.000	95	173833	2.00	2.04	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	92	291069	20.0	19.8	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	81	36714	2.00	2.11	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	866089	2.00	2.13	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	173676	2.00	2.07	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	93	601055	2.00	2.11	
108 4-Chlorotoluene	126	12.512	12.512	0.000	97	175042	2.00	2.04	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	135208	2.00	2.12	
110 Pentachloroethane	167	12.749	12.749	0.000	93	113412	2.00	2.19	
111 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	97	605752	2.00	2.14	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	776377	2.00	2.11	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	97	341099	2.00	2.08	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	664352	2.00	2.14	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1025087	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	351752	2.00	2.07	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	266135	2.00	2.04	
118 Benzyl chloride	126	13.133	13.133	0.000	98	47192	2.00	1.91	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	317643	2.00	2.15	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	99	319534	2.00	2.09	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	89	18632	2.00	1.98	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	97	226924	2.00	2.03	
124 1,2,4-Trichlorobenzene	180	14.408	14.408	0.000	95	186055	2.00	2.06	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	97	84467	2.00	1.98	
126 Naphthalene	128	14.584	14.584	0.000	97	342941	2.00	2.06	
127 1,2,3-Trichlorobenzene	180	14.725	14.725	0.000	96	169677	2.00	2.12	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		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_00049	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00053	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00101	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X15.D

Injection Date: 11-Jul-2022 16:39:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: IC std4

Worklist Smp#: 15

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

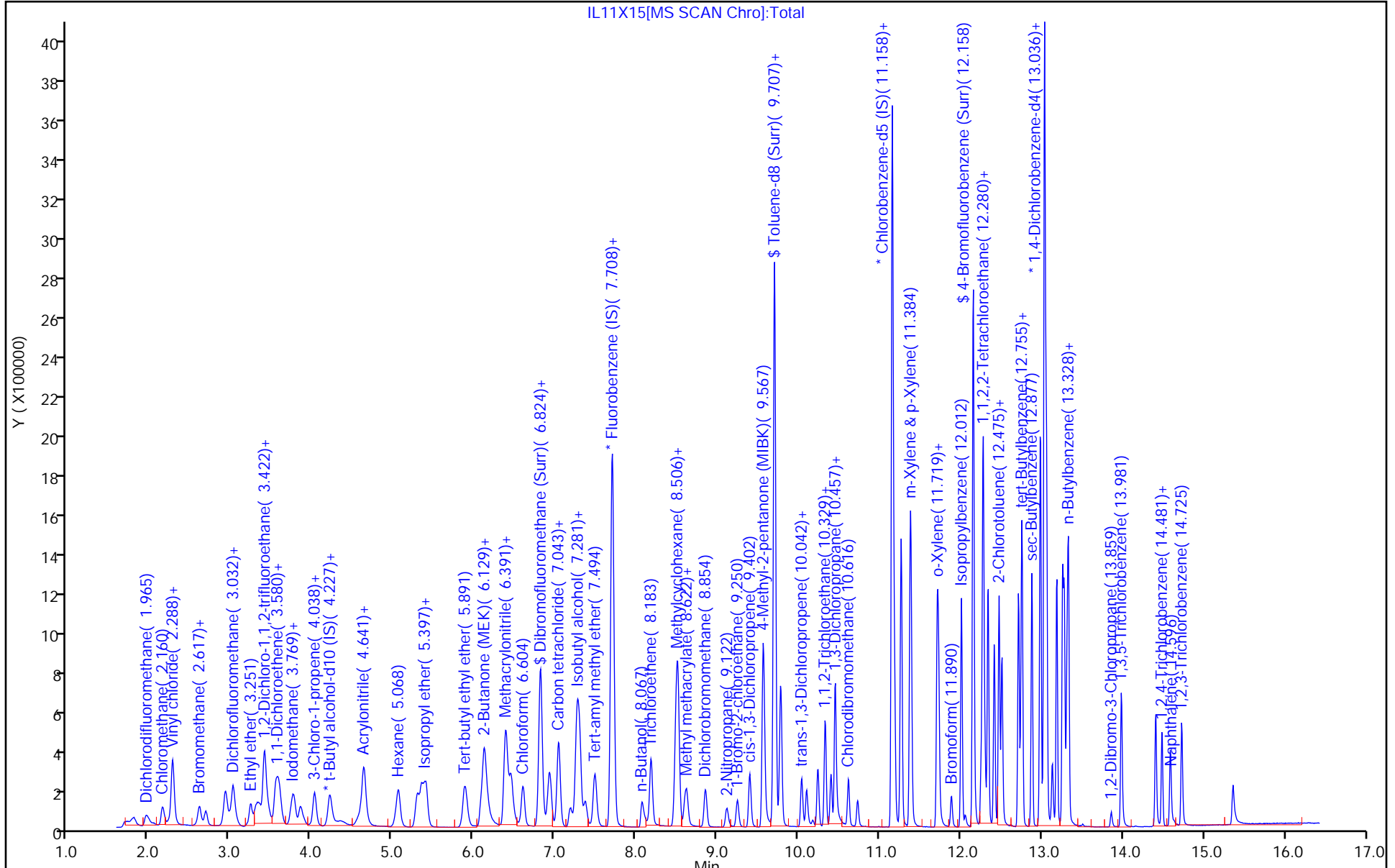
ALS Bottle#: 15

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



Eurofins Lancaster Laboratories Environment Testing, LLC

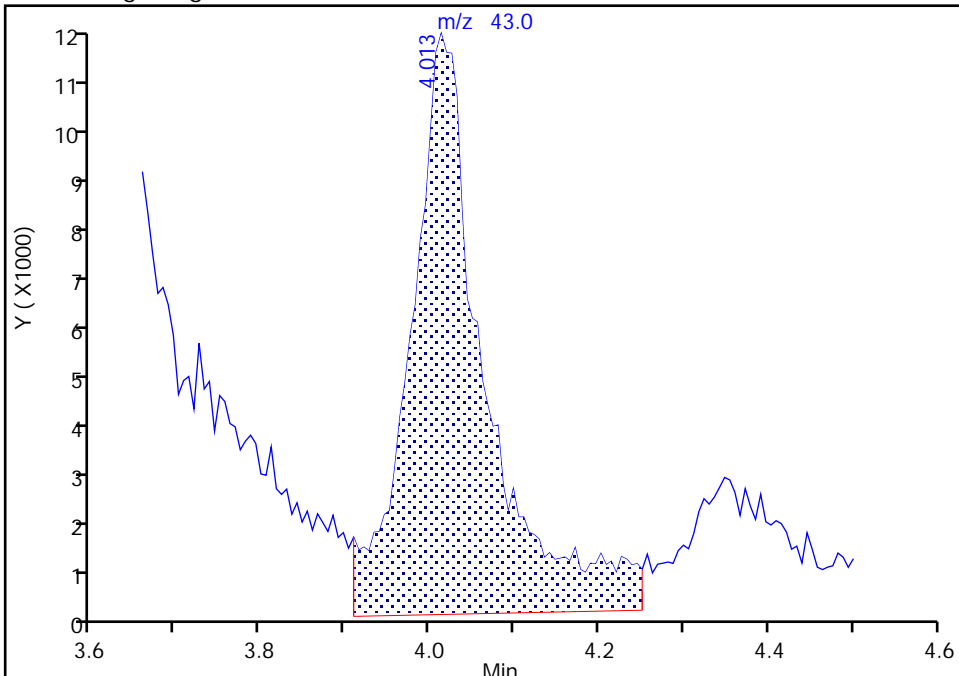
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Injection Date: 11-Jul-2022 16:39:30 Instrument ID: 19930  
Lims ID: IC std4  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 15 Worklist Smp#: 15  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

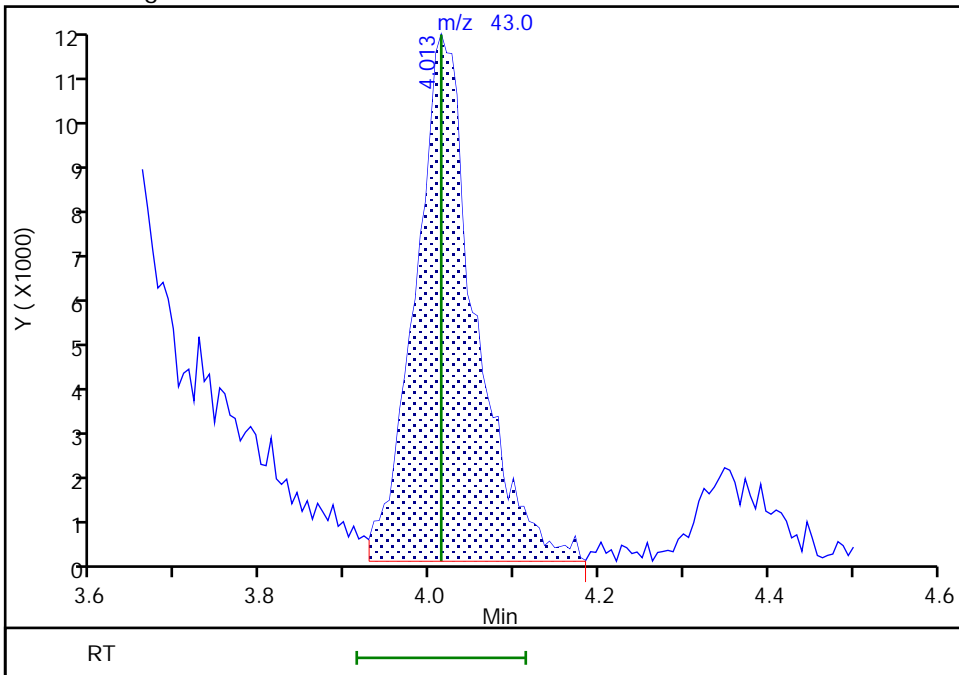
RT: 4.01  
Area: 68926  
Amount: 2.413745  
Amount Units: ug/l

Processing Integration Results



RT: 4.01  
Area: 51429  
Amount: 1.890360  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:40:23  
Audit Action: Manually Integrated

Audit Reason: Baseline  
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Eurofins Lancaster Laboratories Environment Testing, LLC

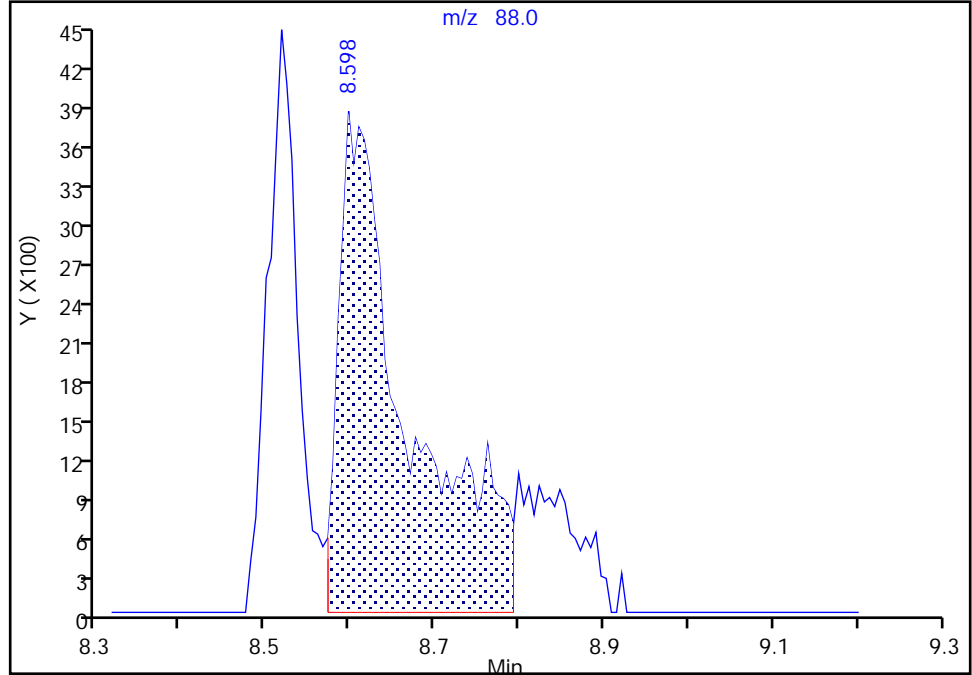
Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X15.D  
Injection Date: 11-Jul-2022 16:39:30 Instrument ID: 19930  
Lims ID: IC std4  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 15 Worklist Smp#: 15  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

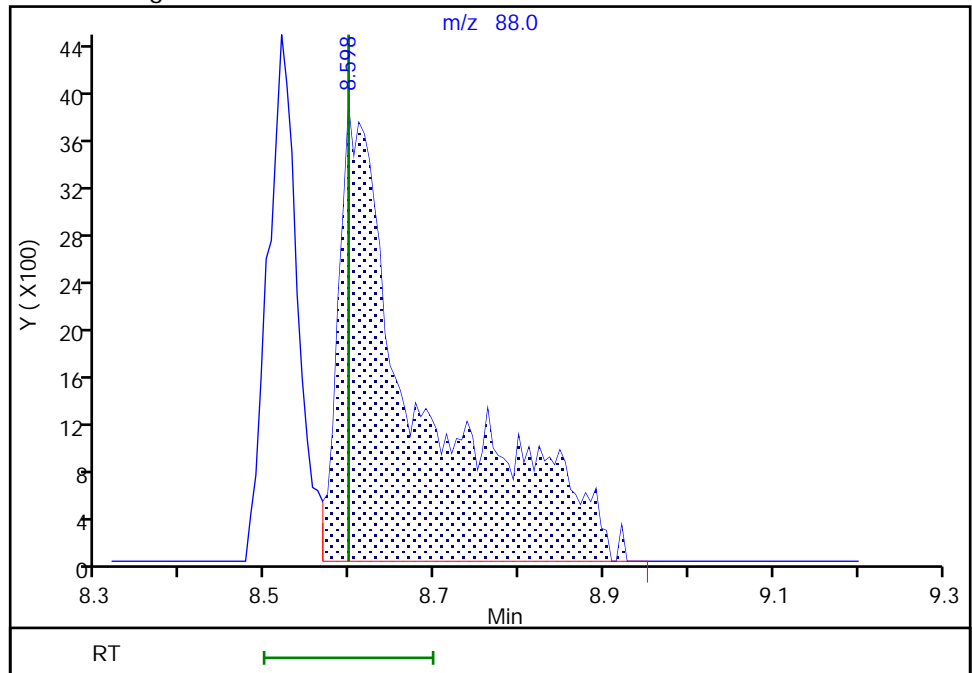
RT: 8.60  
Area: 21835  
Amount: 100.2134  
Amount Units: ug/l

Processing Integration Results



RT: 8.60  
Area: 26767  
Amount: 116.2252  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:41:08  
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X16.D  
 Lims ID: IC std3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 11-Jul-2022 17:00:30 ALS Bottle#: 16 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0061506-016  
 Misc. Info.: IC STD3  
 Operator ID: kas02648 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 14:51:37 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1630

First Level Reviewer: UKAD

Date: 12-Jul-2022 12:43:21

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	1.959	0.006	99	65034	1.00	0.9184	
4 Chloromethane	50	2.160	2.160	0.000	99	75677	1.00	0.9411	
5 Vinyl chloride	62	2.270	2.276	-0.006	81	75123	1.00	0.9488	
6 Butadiene	39	2.282	2.288	-0.006	89	87308	1.00	0.9742	
7 Bromomethane	94	2.617	2.617	0.000	91	50700	1.00	0.9183	
8 Chloroethane	64	2.690	2.696	-0.006	100	43956	1.00	0.9441	
9 Dichlorofluoromethane	67	2.934	2.934	0.000	96	99392	1.00	0.9211	
10 Trichlorofluoromethane	101	2.995	3.007	-0.012	97	99512	1.00	0.9523	M
11 Ethyl ether	59	3.245	3.245	0.000	90	46274	1.00	0.9173	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.324	3.343	-0.019	91	74340	1.00	0.9387	
13 Acrolein	56	3.422	3.422	0.000	100	342456	50.0	47.1	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	58456	1.00	1.00	
15 Acetone	43	3.580	3.593	-0.013	85	88233	10.0	10.3	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.592	3.599	-0.007	90	57473	1.00	0.9753	
17 Iodomethane	142	3.751	3.763	-0.012	99	98192	1.00	0.9579	
18 Ethyl bromide	108	3.775	3.782	-0.007	97	50489	1.00	0.9585	
19 Carbon disulfide	76	3.867	3.861	0.006	99	139748	1.00	0.9585	
21 Methyl acetate	43	4.019	4.013	0.006	97	26844	1.00	1.06	M
22 3-Chloro-1-propene	41	4.037	4.038	-0.001	93	81784	1.00	0.9592	
23 Methylene Chloride	84	4.220	4.220	0.000	91	62695	1.00	0.9817	
* 24 t-Butyl alcohol-d10 (IS)	65	4.226	4.239	-0.013	0	155670	50.0	50.0	
25 2-Methyl-2-propanol	59	4.336	4.361	-0.025	98	55599	20.0	20.8	
26 Acrylonitrile	53	4.568	4.568	0.000	99	30973	2.50	2.57	
27 Methyl tert-butyl ether	73	4.629	4.629	0.000	95	138867	1.00	0.9489	
28 trans-1,2-Dichloroethene	96	4.647	4.641	0.006	99	62500	1.00	0.9668	
29 Hexane	57	5.062	5.074	-0.012	92	84124	1.00	0.9308	
31 1,1-Dichloroethane	63	5.299	5.300	-0.001	96	114187	1.00	0.9636	
32 Isopropyl ether	45	5.354	5.354	0.000	93	171221	1.00	0.9393	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	90	81681	1.00	0.9421	
34 Tert-butyl ethyl ether	59	5.885	5.897	-0.012	97	160279	1.00	0.9487	

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	6.092	6.098	-0.006	99	158385	10.0	9.93	
37 cis-1,2-Dichloroethene	96	6.122	6.129	-0.007	82	68884	1.00	0.9521	
38 2,2-Dichloropropane	77	6.141	6.135	0.006	86	92476	1.00	0.9624	
S 35 1,2-Dichloroethene, Total	100				0			1.92	
40 Propionitrile	54	6.177	6.183	-0.006	99	91432	20.0	19.8	
42 Methacrylonitrile	67	6.391	6.391	0.000	91	164353	10.0	9.88	
43 Chlorobromomethane	128	6.452	6.458	-0.006	91	31972	1.00	0.9748	
44 Tetrahydrofuran	71	6.482	6.470	0.012	77	22551	5.00	4.89	a
45 Chloroform	83	6.604	6.610	-0.006	93	115466	1.00	0.9715	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	582148	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.824	6.836	-0.012	92	102310	1.00	0.9617	
48 Cyclohexane	56	6.939	6.933	0.006	90	101574	1.00	0.9532	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	96	88566	1.00	0.9577	
50 Carbon tetrachloride	117	7.043	7.043	0.000	90	91238	1.00	0.9601	
52 Isobutyl alcohol	41	7.189	7.195	-0.006	94	54305	50.0	51.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.275	-0.006	0	117116	10.0	9.88	
54 Benzene	78	7.299	7.305	-0.006	94	269454	1.00	0.9679	
56 1,2-Dichloroethane	62	7.366	7.372	-0.006	97	71341	1.00	0.9612	
57 Tert-amyl methyl ether	73	7.494	7.494	0.000	98	150623	1.00	0.9394	
* 58 Fluorobenzene (IS)	96	7.701	7.701	0.000	99	2298931	10.0	10.0	
59 n-Heptane	43	7.714	7.720	-0.006	92	97288	1.00	0.9770	
60 n-Butanol	56	8.085	8.073	0.012	88	70052	87.5	72.7	
61 Trichloroethene	95	8.183	8.183	0.000	96	70491	1.00	0.9514	
62 Methylcyclohexane	83	8.488	8.494	-0.006	94	115995	1.00	0.9495	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	76	69528	1.00	0.9673	
64 Methyl methacrylate	69	8.604	8.598	0.006	89	25973	1.00	0.8673	
65 1,4-Dioxane	88	8.604	8.598	0.006	47	7533	50.0	35.2	
66 Dibromomethane	93	8.622	8.622	0.000	93	33297	1.00	0.9671	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	80968	1.00	0.9497	
69 2-Nitropropane	41	9.116	9.122	-0.006	99	43118	5.00	4.88	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	68663	1.00	0.9358	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	95346	1.00	0.9334	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	96	372880	10.0	9.67	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2356053	10.0	10.1	
76 Toluene	92	9.786	9.780	0.006	99	180800	1.00	0.9806	
78 trans-1,3-Dichloropropene	75	10.048	10.042	0.006	91	79245	1.00	0.9419	
S 77 1,3-Dichloropropene, Total	100				0			1.88	
79 Ethyl methacrylate	69	10.103	10.103	0.000	88	51259	1.00	0.8061	
80 1,1,2-Trichloroethane	97	10.237	10.244	-0.007	90	50479	1.00	0.9713	
81 Tetrachloroethene	166	10.335	10.329	0.006	97	84114	1.00	0.9556	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	88	83021	1.00	0.9549	
83 2-Hexanone	43	10.457	10.457	0.000	97	244726	10.0	8.77	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	89	59451	1.00	0.9307	
86 Ethylene Dibromide	107	10.731	10.731	0.000	100	45285	1.00	0.9414	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1797925	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	98	95246	1.00	0.9226	
90 Chlorobenzene	112	11.182	11.183	-0.001	95	198736	1.00	0.9608	
S 89 Xylenes, Total	106				0			2.87	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	94	67159	1.00	0.9501	
92 Ethylbenzene	91	11.268	11.268	0.000	98	323292	1.00	0.9414	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	256474	2.00	1.92	
94 o-Xylene	106	11.713	11.713	0.000	96	120803	1.00	0.9488	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.731	11.731	0.000	94	184166	1.00	0.9144	
96 Bromoform	173	11.890	11.890	0.000	97	35053	1.00	0.9184	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	313759	1.00	0.9487	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	856156	10.0	10.0	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	93	63270	1.00	0.9750	
102 Bromobenzene	156	12.274	12.274	0.000	96	80617	1.00	0.9640	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	94	116292	10.0	8.52	
104 1,2,3-Trichloropropane	110	12.304	12.298	0.006	79	16230	1.00	0.9472	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	387529	1.00	0.9669	
106 2-Chlorotoluene	126	12.420	12.414	0.006	97	80346	1.00	0.9721	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	265461	1.00	0.9467	
108 4-Chlorotoluene	126	12.511	12.512	-0.001	97	81938	1.00	0.9716	
109 tert-Butylbenzene	134	12.719	12.713	0.006	93	60273	1.00	0.9603	
110 Pentachloroethane	167	12.749	12.749	0.000	92	46827	1.00	0.9214	
111 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	96	265002	1.00	0.9512	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	349604	1.00	0.9647	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	97	154584	1.00	0.9565	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	288357	1.00	0.9445	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1008085	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	162933	1.00	0.9761	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	96	122728	1.00	0.9556	
118 Benzyl chloride	126	13.133	13.133	0.000	98	20752	1.00	0.8521	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	137242	1.00	0.9426	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	98	144871	1.00	0.9646	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	87	8558	1.00	0.9243	
123 1,3,5-Trichlorobenzene	180	13.987	13.981	0.006	98	102232	1.00	0.9278	
124 1,2,4-Trichlorobenzene	180	14.407	14.408	-0.001	94	83328	1.00	0.9383	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	97	38921	1.00	0.9277	
126 Naphthalene	128	14.590	14.584	0.006	97	141675	1.00	0.8644	
127 1,2,3-Trichlorobenzene	180	14.731	14.725	0.006	95	73426	1.00	0.9322	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		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

a - User Assigned ID

## Reagents:

MSV\_LL\_#1\_826\_00049

Amount Added: 2.00

Units: uL

MSV\_LL\_#2\_826\_00053

Amount Added: 2.00

Units: uL

MSV\_LL\_GAS826\_00101

Amount Added: 2.00

Units: uL

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X16.D

Injection Date: 11-Jul-2022 17:00:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: IC std3

Worklist Smp#: 16

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

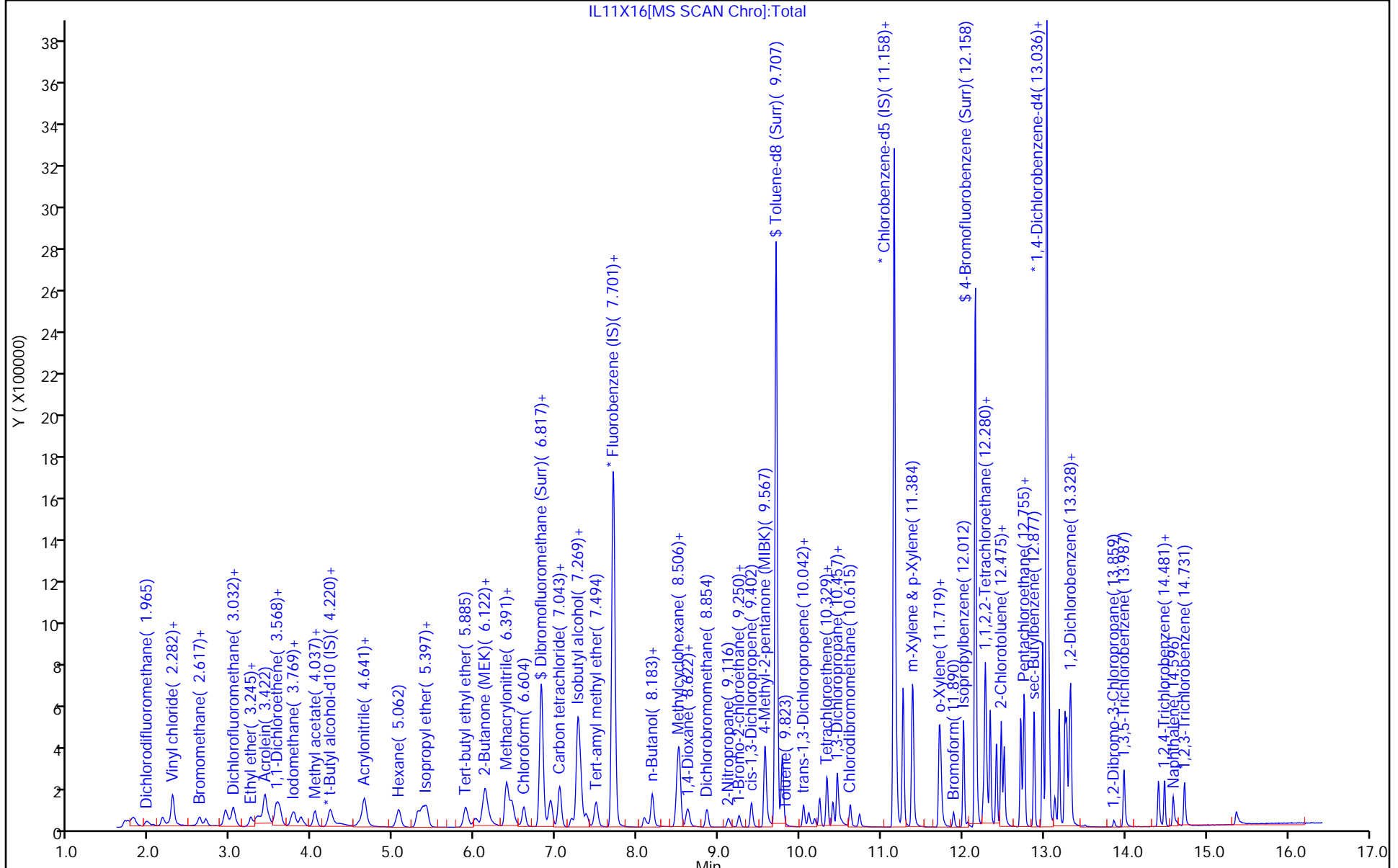
ALS Bottle#: 16

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 Environment Testing, LLC

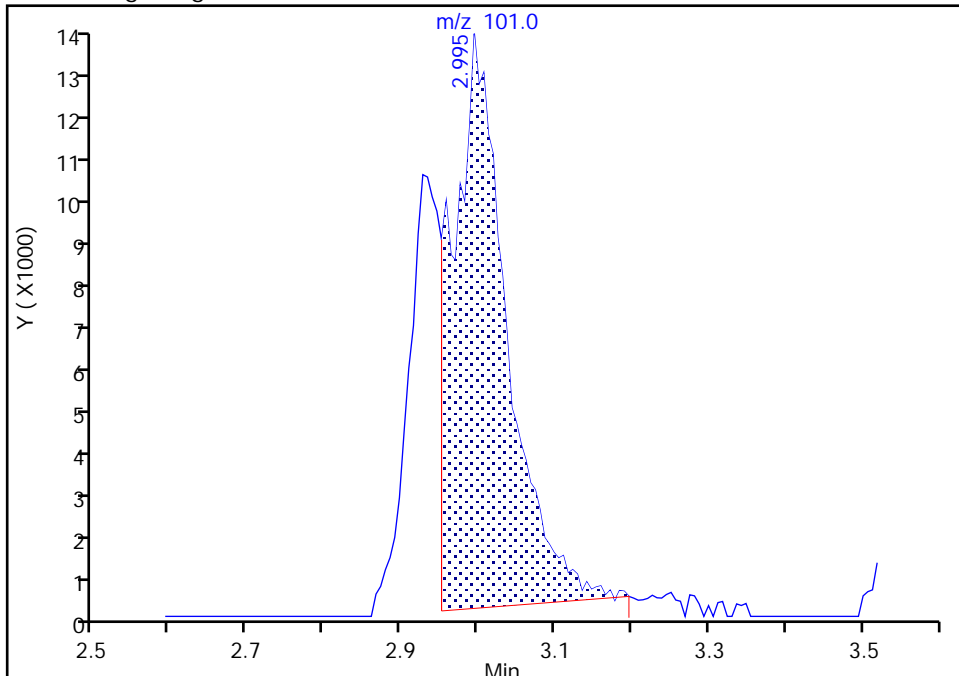
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Injection Date: 11-Jul-2022 17:00:30 Instrument ID: 19930  
Lims ID: IC std3  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 16 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

10 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

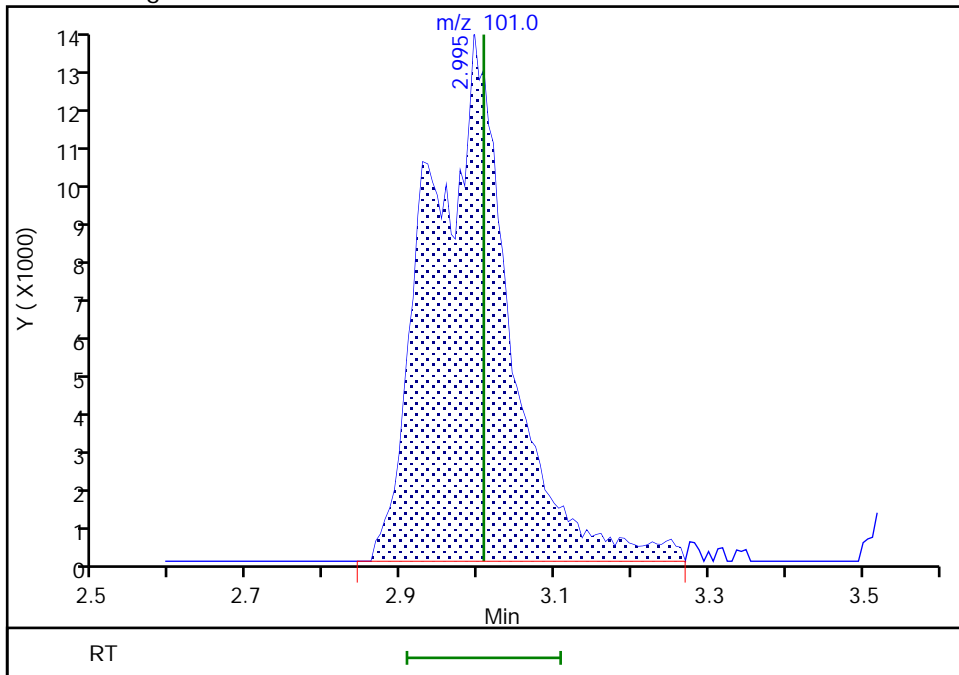
RT: 2.99  
Area: 66291  
Amount: 0.664531  
Amount Units: ug/l

Processing Integration Results



RT: 2.99  
Area: 99512  
Amount: 0.952250  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:41:59  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

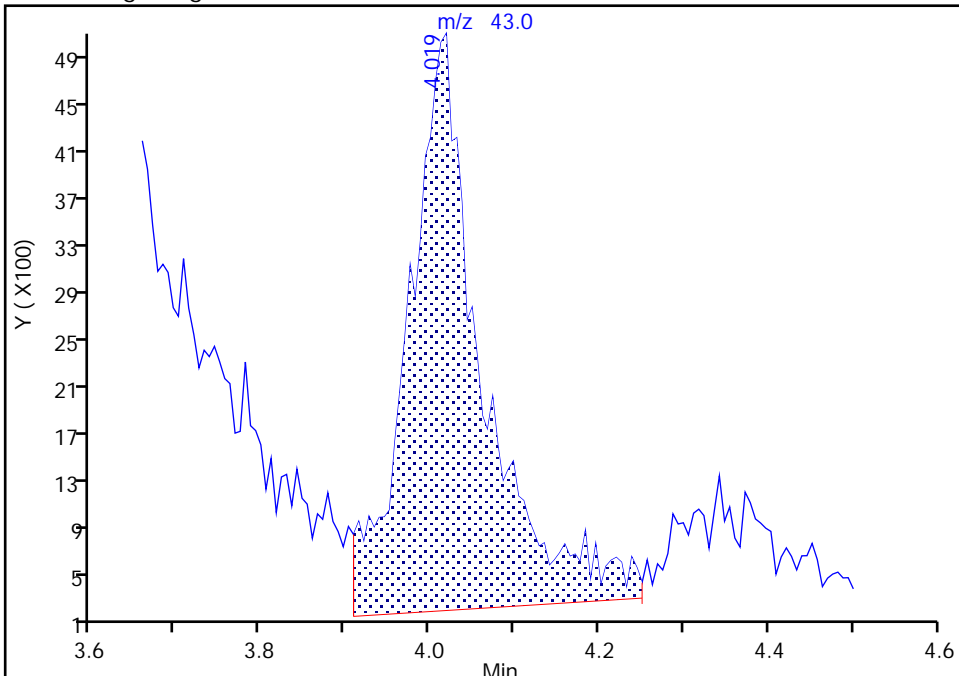
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Injection Date: 11-Jul-2022 17:00:30 Instrument ID: 19930  
Lims ID: IC std3  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 16 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

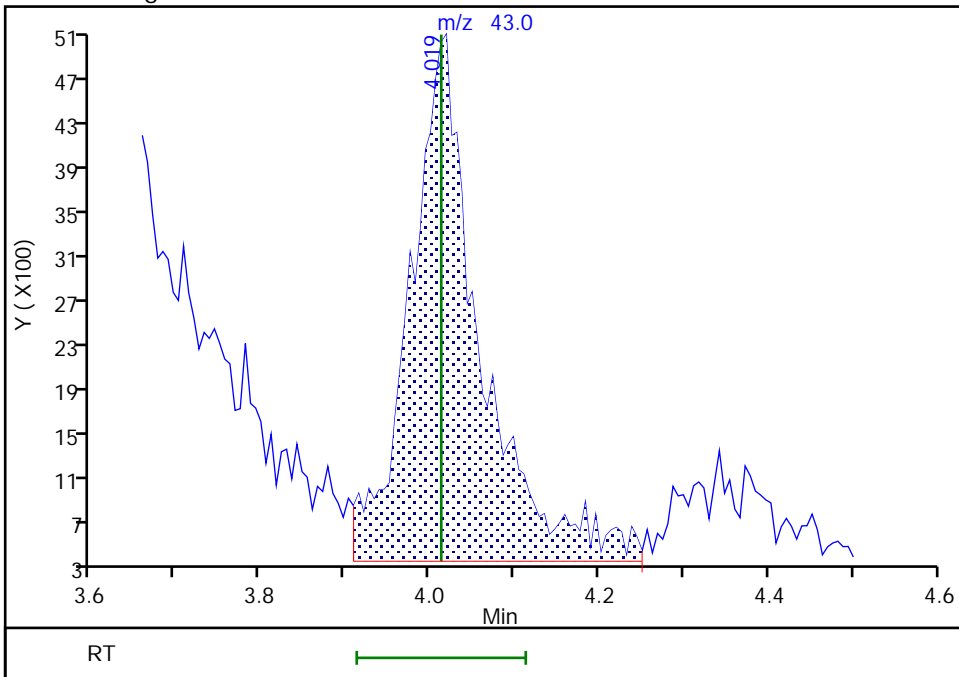
RT: 4.02  
Area: 29242  
Amount: 1.101673  
Amount Units: ug/l

Processing Integration Results



RT: 4.02  
Area: 26844  
Amount: 1.063163  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:42:21  
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Lancaster Laboratories Environment Testing, LLC

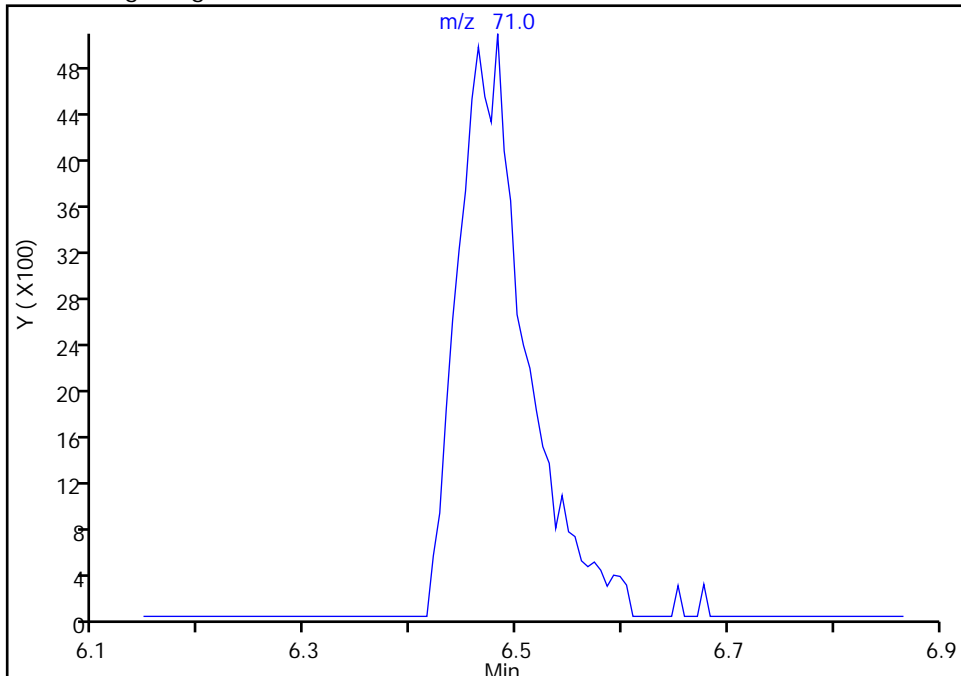
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Injection Date: 11-Jul-2022 17:00:30 Instrument ID: 19930  
Lims ID: IC std3  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 16 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

44 Tetrahydrofuran, CAS: 109-99-9

Signal: 1

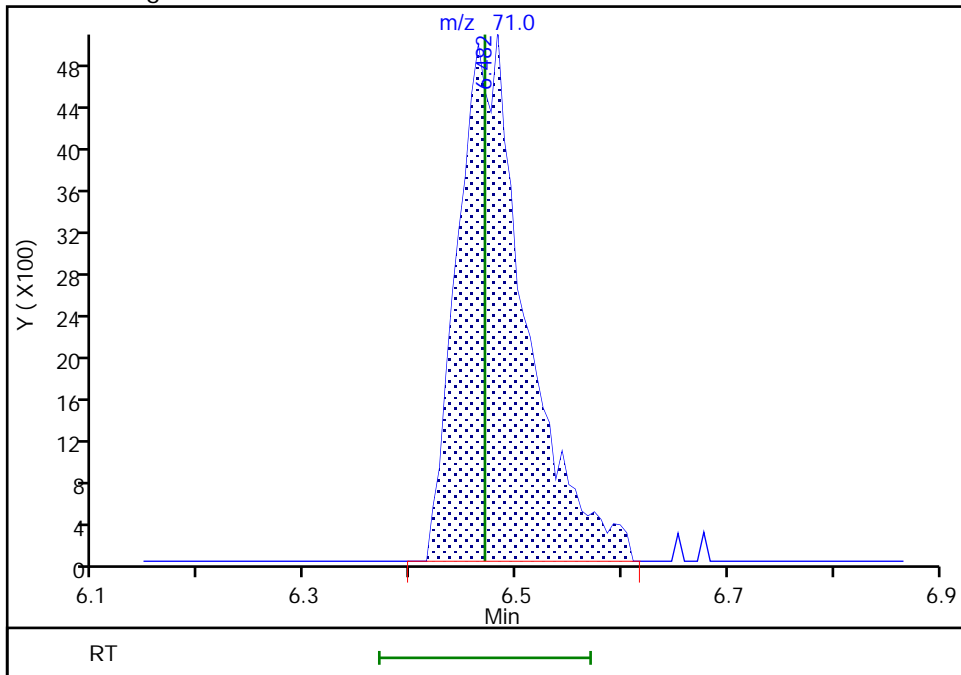
Not Detected  
Expected RT: 6.47

Processing Integration Results



Manual Integration Results

RT: 6.48  
Area: 22551  
Amount: 4.893670  
Amount Units: ug/l



Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X17.D  
 Lims ID: IC std2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 11-Jul-2022 17:22:30 ALS Bottle#: 17 Worklist Smp#: 17  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0061506-017  
 Misc. Info.: IC STD2  
 Operator ID: kas02648 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 14:51:43 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1630

First Level Reviewer: UKAD

Date: 12-Jul-2022 12:46:26

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	1.959	0.018	99	31575	0.5000	0.4601	
4 Chloromethane	50	2.166	2.160	0.006	99	37473	0.5000	0.4808	
5 Vinyl chloride	62	2.288	2.276	0.012	72	36782	0.5000	0.4793	
6 Butadiene	39	2.300	2.288	0.012	93	45528	0.5000	0.5242	
7 Bromomethane	94	2.623	2.617	0.006	90	26319	0.5000	0.4919	
8 Chloroethane	64	2.702	2.696	0.006	99	22719	0.5000	0.5035	
9 Dichlorofluoromethane	67	2.946	2.934	0.012	97	51734	0.5000	0.4947	
10 Trichlorofluoromethane	101	3.001	3.007	-0.006	89	47896	0.5000	0.4729	
11 Ethyl ether	59	3.251	3.245	0.006	91	23094	0.5001	0.4724	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	36911	0.5000	0.4809	
13 Acrolein	56	3.428	3.422	0.006	100	184648	25.0	25.2	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	29217	0.5000	0.5172	
15 Acetone	43	3.605	3.593	0.012	91	49368	5.00	5.70	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.611	3.599	0.012	89	28541	0.5000	0.4998	
17 Iodomethane	142	3.763	3.763	0.000	99	51899	0.5000	0.5224	
18 Ethyl bromide	108	3.800	3.782	0.018	98	24174	0.4999	0.4735	M
19 Carbon disulfide	76	3.873	3.861	0.012	99	74621	0.5000	0.5281	
21 Methyl acetate	43	4.031	4.013	0.018	27	13802	0.5000	0.5424	M
22 3-Chloro-1-propene	41	4.037	4.038	-0.001	92	42661	0.5000	0.5163	
23 Methylene Chloride	84	4.239	4.220	0.019	90	31812	0.5000	0.5140	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.239	0.006	0	156891	50.0	50.0	
25 2-Methyl-2-propanol	59	4.379	4.361	0.018	98	27212	10.0	10.1	
26 Acrylonitrile	53	4.592	4.568	0.024	47	15249	1.25	1.26	
27 Methyl tert-butyl ether	73	4.647	4.629	0.018	95	71057	0.5000	0.5010	
28 trans-1,2-Dichloroethene	96	4.659	4.641	0.018	99	32165	0.5000	0.5134	
29 Hexane	57	5.080	5.074	0.006	92	42348	0.5000	0.4835	
31 1,1-Dichloroethane	63	5.299	5.300	-0.001	96	59012	0.5000	0.5138	
32 Isopropyl ether	45	5.366	5.354	0.012	93	87856	0.5000	0.4973	
33 2-Chloro-1,3-butadiene	53	5.421	5.409	0.012	90	40279	0.5000	0.4794	
34 Tert-butyl ethyl ether	59	5.891	5.897	-0.006	96	80632	0.5000	0.4924	

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	6.110	6.098	0.012	100	79936	5.00	4.97	
37 cis-1,2-Dichloroethene	96	6.135	6.129	0.006	80	36356	0.5000	0.5185	
38 2,2-Dichloropropane	77	6.147	6.135	0.012	84	48210	0.5000	0.5177	
S 35 1,2-Dichloroethene, Total	100				0			1.03	
40 Propionitrile	54	6.196	6.183	0.013	98	47750	10.0	10.2	
42 Methacrylonitrile	67	6.409	6.391	0.018	90	80308	5.00	4.79	
43 Chlorobromomethane	128	6.464	6.458	0.006	89	16573	0.5000	0.5214	
44 Tetrahydrofuran	71	6.482	6.470	0.012	79	11179	2.50	2.41	
45 Chloroform	83	6.610	6.610	0.000	93	61005	0.5000	0.5296	
\$ 46 Dibromofluoromethane (Surr)	113	6.823	6.818	0.005	94	567219	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.836	6.836	0.000	98	52923	0.5000	0.5133	
48 Cyclohexane	56	6.939	6.933	0.006	90	50021	0.5000	0.4844	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	96	45209	0.5000	0.5044	
50 Carbon tetrachloride	117	7.049	7.043	0.006	88	47141	0.5000	0.5119	
52 Isobutyl alcohol	41	7.201	7.195	0.006	94	28893	25.0	27.3	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	0	115685	10.0	10.1	
54 Benzene	78	7.311	7.305	0.006	93	139335	0.5000	0.5164	
56 1,2-Dichloroethane	62	7.384	7.372	0.012	97	37483	0.5000	0.5211	
57 Tert-amyl methyl ether	73	7.500	7.494	0.006	98	75544	0.5000	0.4861	
* 58 Fluorobenzene (IS)	96	7.707	7.701	0.006	99	2227997	10.0	10.0	
59 n-Heptane	43	7.726	7.720	0.006	48	49321	0.5000	0.5111	
60 n-Butanol	56	8.104	8.073	0.031	90	32950	43.8	33.9	
61 Trichloroethene	95	8.189	8.183	0.006	97	36438	0.5000	0.5075	
62 Methylcyclohexane	83	8.494	8.494	0.000	93	55796	0.5000	0.4713	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	76	36304	0.5000	0.5211	
64 Methyl methacrylate	69	8.622	8.598	0.024	86	11808	0.5000	0.3912	
65 1,4-Dioxane	88	8.610	8.598	0.012	39	4327	25.0	20.1	M
66 Dibromomethane	93	8.628	8.622	0.006	95	17273	0.5000	0.5177	
68 Dichlorobromomethane	83	8.860	8.854	0.006	99	42424	0.5000	0.5134	
69 2-Nitropropane	41	9.122	9.122	0.000	97	22492	2.50	2.52	
72 1-Bromo-2-chloroethane	63	9.256	9.250	0.006	98	31950	0.5000	0.4493	
73 cis-1,3-Dichloropropene	75	9.408	9.402	0.006	97	46615	0.5000	0.4709	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.567	0.006	97	180443	5.00	4.64	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2261581	10.0	10.0	
76 Toluene	92	9.786	9.780	0.006	98	92090	0.5000	0.5163	
78 trans-1,3-Dichloropropene	75	10.048	10.042	0.006	91	38412	0.5000	0.4720	
S 77 1,3-Dichloropropene, Total	100				0			0.9428	
79 Ethyl methacrylate	69	10.116	10.103	0.013	89	25289	0.5000	0.4111	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	91	25354	0.5000	0.5043	
81 Tetrachloroethene	166	10.335	10.329	0.006	98	43830	0.5000	0.5147	
82 1,3-Dichloropropane	76	10.408	10.402	0.006	89	42281	0.5000	0.5027	
83 2-Hexanone	43	10.463	10.457	0.006	98	111319	5.00	3.96	M
85 Chlorodibromomethane	129	10.622	10.616	0.006	90	30599	0.5000	0.4952	
86 Ethylene Dibromide	107	10.737	10.731	0.006	96	24059	0.5000	0.5170	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1739265	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	96	49415	0.5000	0.4948	
90 Chlorobenzene	112	11.182	11.183	-0.001	96	103635	0.5000	0.5179	
S 89 Xylenes, Total	106				0			1.45	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.262	0.006	93	34965	0.5000	0.5113	
92 Ethylbenzene	91	11.274	11.268	0.006	98	164082	0.5000	0.4939	
93 m-Xylene & p-Xylene	106	11.390	11.384	0.006	0	123961	1.00	0.9598	
94 o-Xylene	106	11.713	11.713	0.000	96	60212	0.5000	0.4889	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.737	11.731	0.006	94	89009	0.5000	0.4568	
96 Bromoform	173	11.890	11.890	0.000	96	17723	0.5000	0.4800	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	153734	0.5000	0.4805	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	819340	10.0	9.90	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	93	31520	0.5000	0.5028	
102 Bromobenzene	156	12.274	12.274	0.000	96	40498	0.5000	0.5013	
103 trans-1,4-Dichloro-2-butene	53	12.286	12.280	0.006	92	55740	5.00	4.05	
104 1,2,3-Trichloropropane	110	12.304	12.298	0.006	78	8575	0.5000	0.5180	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	187884	0.5000	0.4853	
106 2-Chlorotoluene	126	12.420	12.414	0.006	97	39747	0.5000	0.4978	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	133210	0.5000	0.4918	
108 4-Chlorotoluene	126	12.517	12.512	0.005	97	40578	0.5000	0.4981	
109 tert-Butylbenzene	134	12.719	12.713	0.006	93	29717	0.5000	0.4901	
110 Pentachloroethane	167	12.749	12.749	0.000	79	22024	0.5000	0.4486	
111 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	97	128411	0.5000	0.4771	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	172681	0.5000	0.4933	
113 1,3-Dichlorobenzene	146	12.987	12.981	0.006	98	79032	0.5000	0.5062	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	138944	0.5000	0.4711	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	973807	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	84028	0.5000	0.5211	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	95	64512	0.5000	0.5200	
118 Benzyl chloride	126	13.139	13.133	0.006	99	9730	0.5000	0.4136	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	70919	0.5000	0.5042	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	98	76227	0.5000	0.5254	
122 1,2-Dibromo-3-Chloropropane	155	13.871	13.859	0.012	84	3887	0.5000	0.4346	
123 1,3,5-Trichlorobenzene	180	13.987	13.981	0.006	97	51424	0.5000	0.4831	
124 1,2,4-Trichlorobenzene	180	14.413	14.408	0.005	94	37697	0.5000	0.4394	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	97	20308	0.5000	0.5011	
126 Naphthalene	128	14.596	14.584	0.012	97	71718	0.5000	0.4530	
127 1,2,3-Trichlorobenzene	180	14.730	14.725	0.006	95	36090	0.5000	0.4743	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		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_00049	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00053	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00101	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent



Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X17.D

Injection Date: 11-Jul-2022 17:22:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: IC std2

Worklist Smp#: 17

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

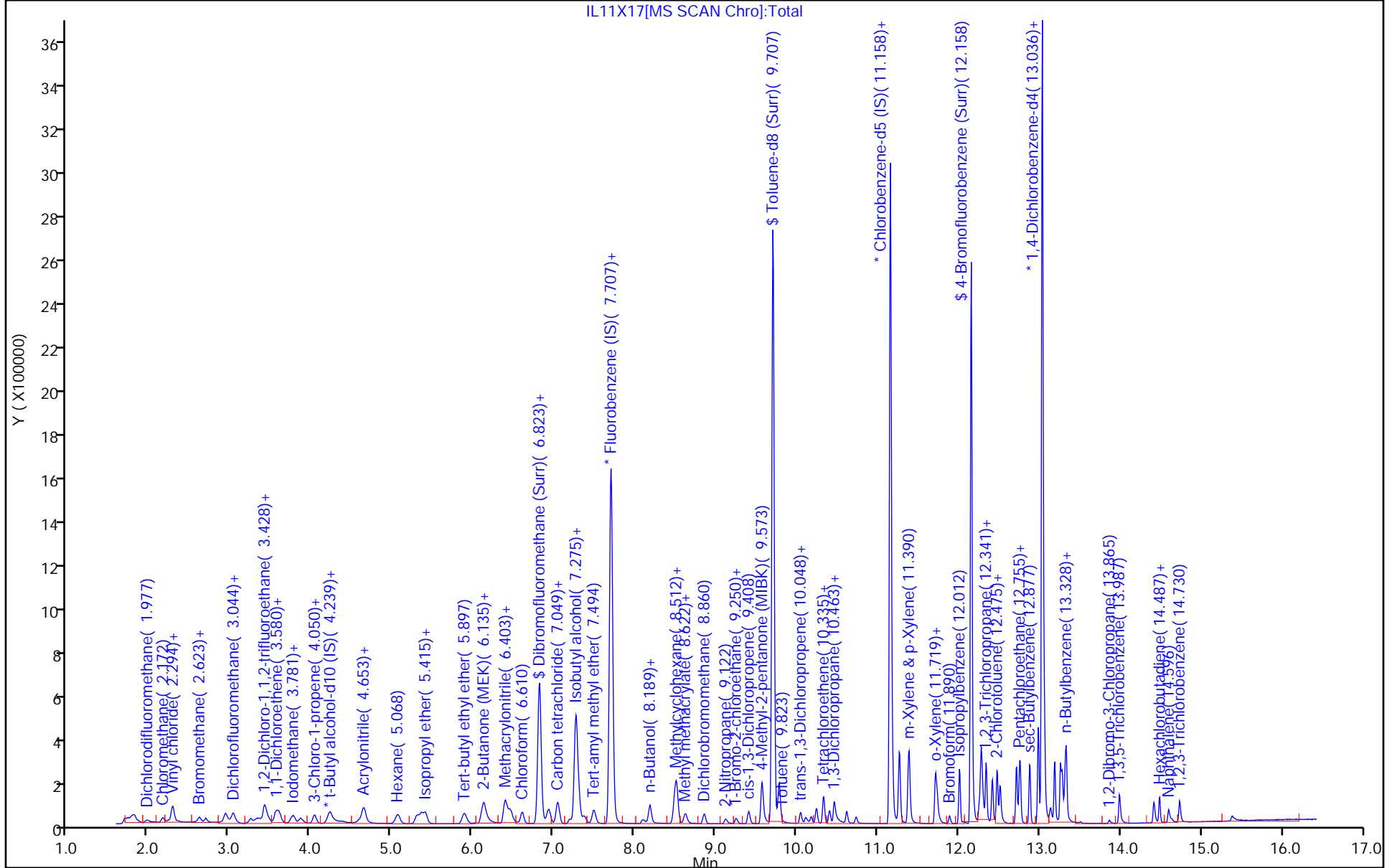
ALS Bottle#: 17

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



Euofins Lancaster Laboratories Environment Testing, LLC

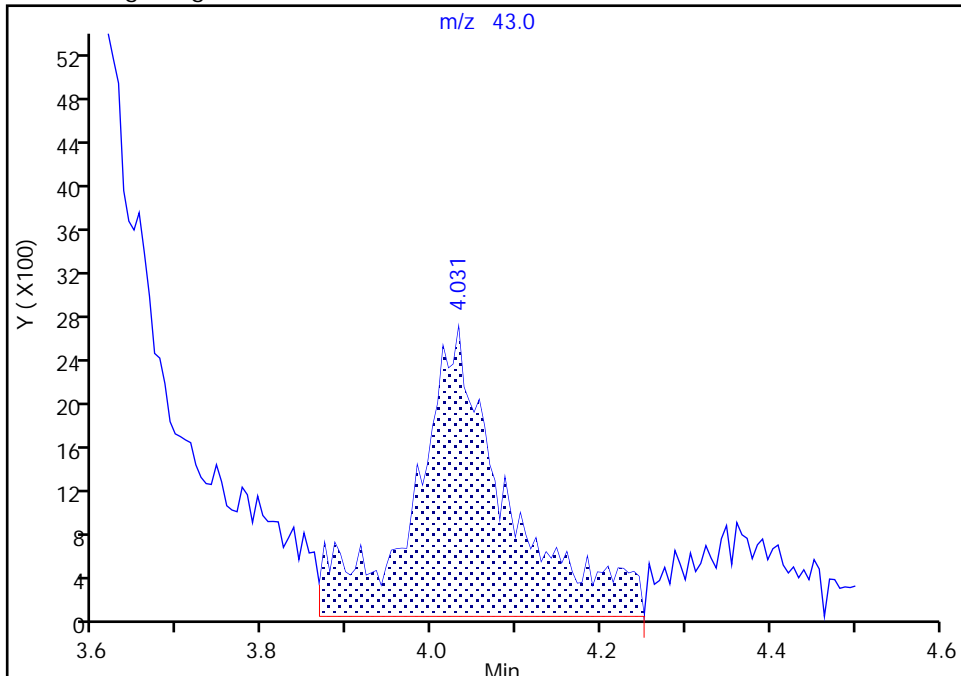
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Injection Date: 11-Jul-2022 17:22:30 Instrument ID: 19930  
Lims ID: IC std2  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 17 Worklist Smp#: 17  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

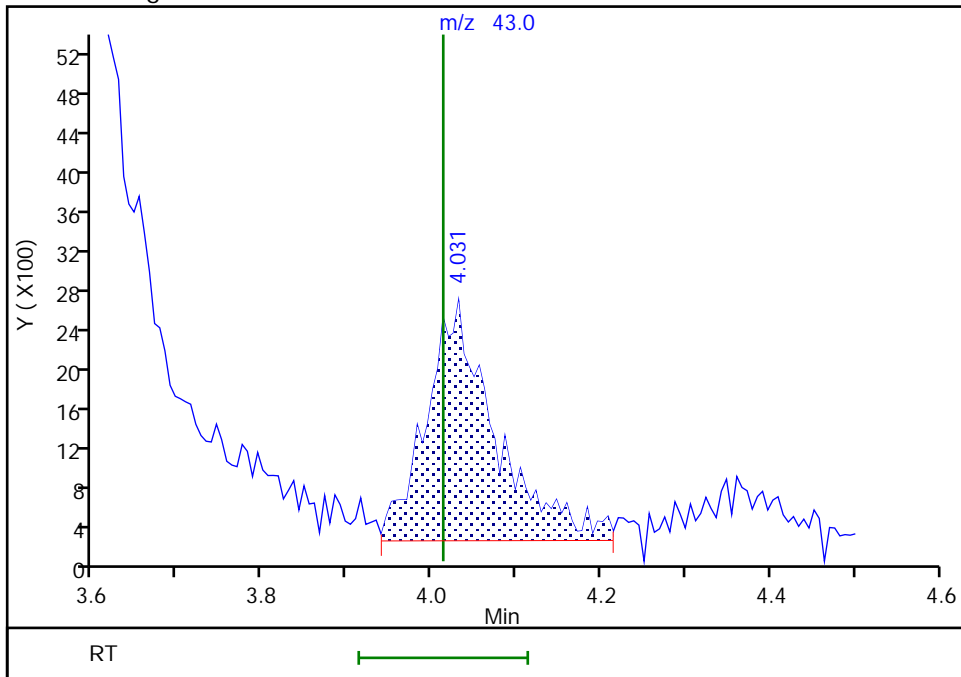
RT: 4.03  
Area: 20122  
Amount: 0.739654  
Amount Units: ug/l

Processing Integration Results



RT: 4.03  
Area: 13802  
Amount: 0.542377  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:44:01  
Audit Action: Manually Integrated

Audit Reason: Baseline

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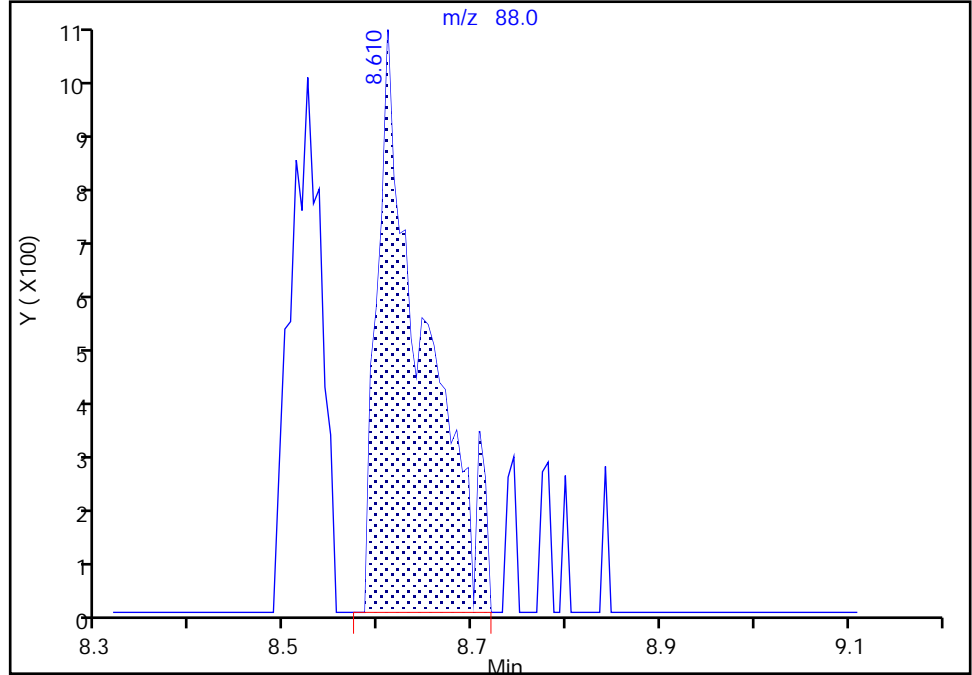
Data File:	\\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X17.D		
Injection Date:	11-Jul-2022 17:22:30	Instrument ID:	19930
Lims ID:	IC std2		
Client ID:			
Operator ID:	kas02648	ALS Bottle#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	17

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

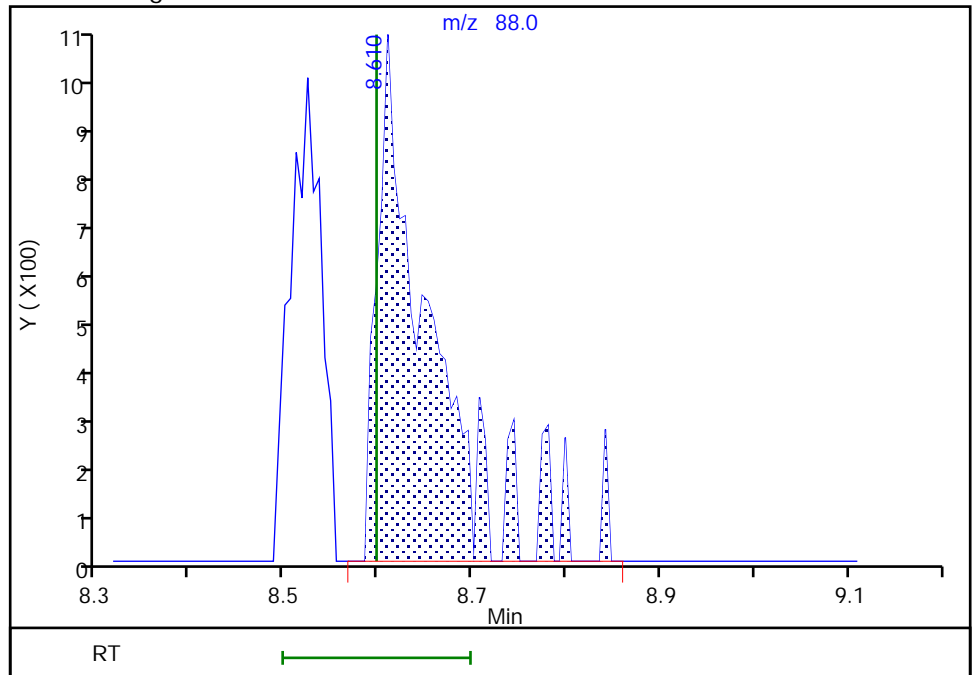
RT: 8.61  
 Area: 3738  
 Amount: 17.674712  
 Amount Units: ug/l

Processing Integration Results



RT: 8.61  
 Area: 4327  
 Amount: 20.086785  
 Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Environment Testing, LLC

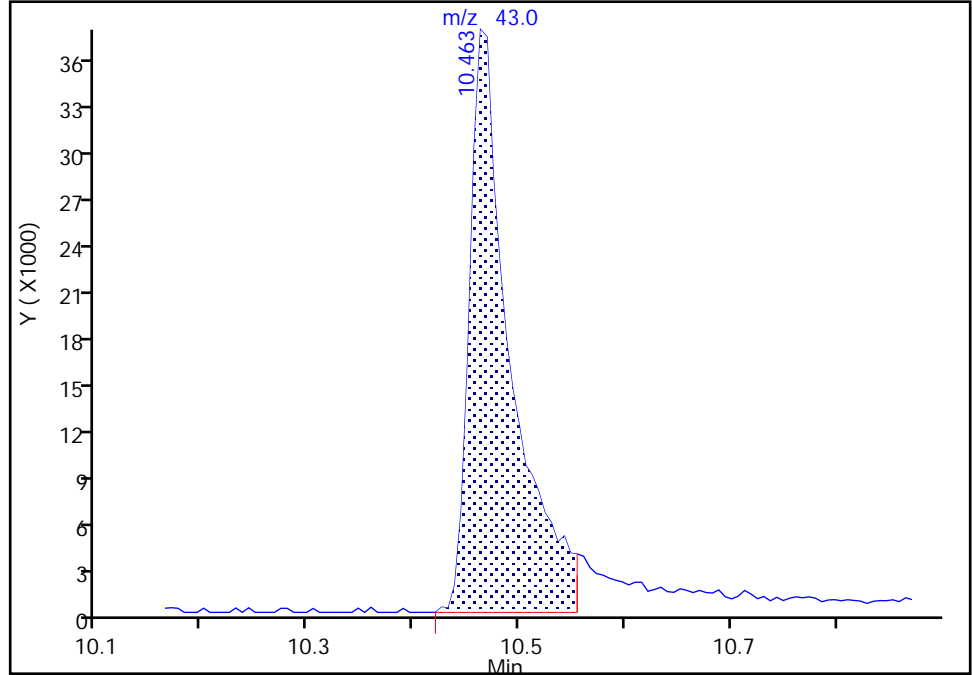
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Injection Date: 11-Jul-2022 17:22:30 Instrument ID: 19930  
Lims ID: IC std2  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 17 Worklist Smp#: 17  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

83 2-Hexanone, CAS: 591-78-6

Signal: 1

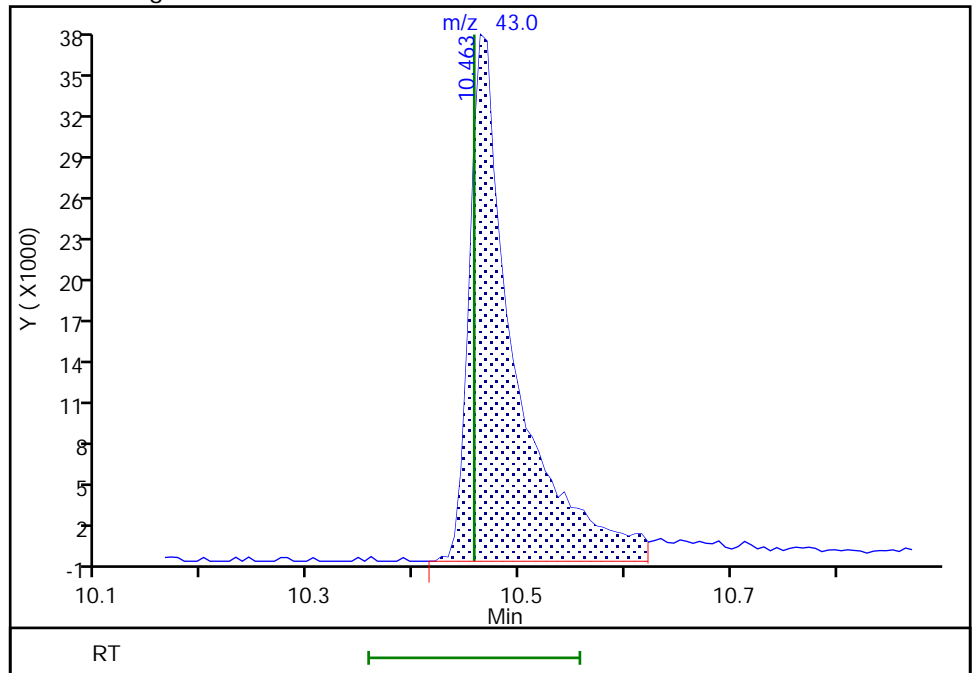
RT: 10.46  
Area: 102296  
Amount: 4.716899  
Amount Units: ug/l

Processing Integration Results



RT: 10.46  
Area: 111319  
Amount: 3.959254  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:57:12  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Lims ID: IC std1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 11-Jul-2022 17:43:30 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0061506-018  
 Misc. Info.: IC STD1  
 Operator ID: kas02648 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 14:51:49 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1630

First Level Reviewer: UKAD

Date: 12-Jul-2022 12:48:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.959	0.012	97	12721	0.2000	0.1852	
4 Chloromethane	50	2.166	2.160	0.006	99	16839	0.2000	0.2158	
5 Vinyl chloride	62	2.276	2.276	0.000	69	14610	0.2000	0.1902	
6 Butadiene	39	2.288	2.288	0.000	96	21573	0.2000	0.2481	
7 Bromomethane	94	2.611	2.617	-0.006	91	11770	0.2000	0.2197	
8 Chloroethane	64	2.690	2.696	-0.006	98	9040	0.2000	0.2001	
9 Dichlorofluoromethane	67	2.940	2.934	0.006	97	21670	0.2000	0.2070	
10 Trichlorofluoromethane	101	3.019	3.007	0.012	52	18571	0.2000	0.1832	
11 Ethyl ether	59	3.257	3.245	0.012	89	9589	0.2001	0.1959	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.330	3.343	-0.013	93	15332	0.2000	0.1995	
13 Acrolein	56	3.428	3.422	0.006	98	69223	10.0	9.19	
14 1,1-Dichloroethene	96	3.562	3.556	0.006	97	10808	0.2000	0.1911	
15 Acetone	43	3.617	3.593	0.024	99	16221	2.00	1.82	
16 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.605	3.599	0.006	87	11022	0.2000	0.1928	
17 Iodomethane	142	3.757	3.763	-0.006	98	19517	0.2000	0.1962	
18 Ethyl bromide	108	3.788	3.782	0.006	95	9956	0.2000	0.1948	
19 Carbon disulfide	76	3.867	3.861	0.006	97	28892	0.2000	0.2043	
21 Methyl acetate	43	4.019	4.013	0.006	33	5189	0.2000	0.1984	
22 3-Chloro-1-propene	41	4.037	4.038	-0.001	88	15414	0.2000	0.1863	
23 Methylene Chloride	84	4.226	4.220	0.006	66	12300	0.2000	0.1985	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.239	0.006	0	161218	50.0	50.0	
25 2-Methyl-2-propanol	59	4.391	4.361	0.030	30	8591	4.00	3.10	
26 Acrylonitrile	53	4.592	4.568	0.024	42	4673	0.5000	0.3749	
27 Methyl tert-butyl ether	73	4.641	4.629	0.012	85	24960	0.2000	0.1758	
28 trans-1,2-Dichloroethene	96	4.653	4.641	0.012	97	12404	0.2000	0.1978	
29 Hexane	57	5.068	5.074	-0.006	92	15545	0.2000	0.1773	
31 1,1-Dichloroethane	63	5.306	5.300	0.006	95	22119	0.2000	0.1924	
32 Isopropyl ether	45	5.367	5.354	0.012	91	31407	0.2000	0.1776	
33 2-Chloro-1,3-butadiene	53	5.415	5.409	0.006	89	14493	0.2000	0.1723	
34 Tert-butyl ethyl ether	59	5.897	5.897	0.000	96	28198	0.2000	0.1720	

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	6.098	0.018	95	26828	2.00	1.62	
37 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	81	13480	0.2000	0.1920	
38 2,2-Dichloropropane	77	6.135	6.135	0.000	81	17747	0.2000	0.1904	
S 35 1,2-Dichloroethene, Total	100				0			0.3898	
40 Propionitrile	54	6.202	6.183	0.019	96	14896	4.00	3.11	
42 Methacrylonitrile	67	6.409	6.391	0.018	89	28088	2.00	1.63	
43 Chlorobromomethane	128	6.458	6.458	0.000	86	6009	0.2000	0.1888	
44 Tetrahydrofuran	71	6.476	6.470	0.006	68	3337	1.00	0.6992	a
45 Chloroform	83	6.610	6.610	0.000	92	22266	0.2000	0.1931	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.818	0.006	94	569168	10.0	10.2	
47 1,1,1-Trichloroethane	97	6.836	6.836	0.000	36	20111	0.2000	0.1948	
48 Cyclohexane	56	6.927	6.933	-0.006	88	17589	0.2000	0.1701	
51 1,1-Dichloropropene	75	7.055	7.043	0.012	94	16108	0.2000	0.1795	
50 Carbon tetrachloride	117	7.043	7.043	0.000	91	17184	0.2000	0.1864	
52 Isobutyl alcohol	41	7.208	7.195	0.013	46	6630	10.0	6.10	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.275	-0.006	0	116789	10.0	10.2	
54 Benzene	78	7.311	7.305	0.006	91	51289	0.2000	0.1899	
56 1,2-Dichloroethane	62	7.378	7.372	0.006	97	14390	0.2000	0.1998	
57 Tert-amyl methyl ether	73	7.494	7.494	0.000	96	26483	0.2000	0.1702	
* 58 Fluorobenzene (IS)	96	7.708	7.701	0.007	99	2230453	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	36	18720	0.2000	0.1938	
60 n-Butanol	56	8.134	8.073	0.061	58	8831	17.5	8.85	M
61 Trichloroethene	95	8.189	8.183	0.006	97	13757	0.2000	0.1914	
62 Methylcyclohexane	83	8.494	8.494	0.000	93	20647	0.2000	0.1742	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	76	12531	0.2000	0.1797	
64 Methyl methacrylate	69	8.622	8.598	0.024	58	3407	0.2000	0.1099	M
65 1,4-Dioxane	88	8.616	8.598	0.018	1	696	10.0	3.14	M
66 Dibromomethane	93	8.622	8.622	0.000	95	5984	0.2000	0.1791	
68 Dichlorobromomethane	83	8.854	8.854	0.000	98	15476	0.2000	0.1871	
69 2-Nitropropane	41	9.134	9.122	0.012	94	8246	1.00	0.9007	
72 1-Bromo-2-chloroethane	63	9.256	9.250	0.006	96	12905	0.2000	0.1813	
73 cis-1,3-Dichloropropene	75	9.414	9.402	0.012	97	16936	0.2000	0.1709	Ma
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.567	0.012	97	55482	2.00	1.39	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2240421	10.0	10.0	
76 Toluene	92	9.786	9.780	0.006	98	33710	0.2000	0.1904	
78 trans-1,3-Dichloropropene	75	10.055	10.042	0.013	92	13694	0.2000	0.1695	
S 77 1,3-Dichloropropene, Total	100				0			0.3404	
79 Ethyl methacrylate	69	10.128	10.103	0.025	88	7741	0.2000	0.1268	M
80 1,1,2-Trichloroethane	97	10.250	10.244	0.006	89	9398	0.2000	0.1883	
81 Tetrachloroethene	166	10.335	10.329	0.006	96	15791	0.2000	0.1868	
82 1,3-Dichloropropane	76	10.408	10.402	0.006	88	15498	0.2000	0.1857	
83 2-Hexanone	43	10.487	10.457	0.030	97	28416	2.00	0.9835	M
85 Chlorodibromomethane	129	10.622	10.616	0.006	89	10640	0.2000	0.1735	
86 Ethylene Dibromide	107	10.744	10.731	0.013	96	7628	0.2000	0.1652	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1726250	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.164	0.006	71	18884	0.2000	0.1905	
90 Chlorobenzene	112	11.189	11.183	0.006	97	37416	0.2000	0.1884	
S 89 Xylenes, Total	106				0			0.4949	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.262	0.006	91	12612	0.2000	0.1858	
92 Ethylbenzene	91	11.274	11.268	0.006	98	59052	0.2000	0.1791	
93 m-Xylene & p-Xylene	106	11.390	11.384	0.006	0	42651	0.4000	0.3327	
94 o-Xylene	106	11.719	11.713	0.006	97	19824	0.2000	0.1622	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.749	11.731	0.018	94	28634	0.2000	0.1481	a
96 Bromoform	173	11.896	11.890	0.006	96	6141	0.2000	0.1676	
97 Isopropylbenzene	105	12.018	12.012	0.006	96	51863	0.2000	0.1633	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	806346	10.0	9.82	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	92	11207	0.2000	0.1809	a
102 Bromobenzene	156	12.274	12.274	0.000	94	15066	0.2000	0.1887	
103 trans-1,4-Dichloro-2-butene	53	12.292	12.280	0.012	86	17450	2.00	1.23	
104 1,2,3-Trichloropropane	110	12.310	12.298	0.012	75	2754	0.2000	0.1684	
105 N-Propylbenzene	91	12.347	12.341	0.006	98	64364	0.2000	0.1682	
106 2-Chlorotoluene	126	12.420	12.414	0.006	97	14136	0.2000	0.1792	
107 1,3,5-Trimethylbenzene	105	12.481	12.475	0.006	93	44340	0.2000	0.1656	
108 4-Chlorotoluene	126	12.530	12.512	0.018	95	14269	0.2000	0.1772	
109 tert-Butylbenzene	134	12.719	12.713	0.006	92	9331	0.2000	0.1557	
110 Pentachloroethane	167	12.749	12.749	0.000	81	8561	0.2000	0.1765	
111 1,2,4-Trimethylbenzene	105	12.767	12.761	0.006	96	40429	0.2000	0.1520	
112 sec-Butylbenzene	105	12.883	12.877	0.006	94	57444	0.2000	0.1660	
113 1,3-Dichlorobenzene	146	12.987	12.981	0.006	97	27040	0.2000	0.1753	
114 4-Isopropyltoluene	119	12.993	12.987	0.006	97	46069	0.2000	0.1581	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	962398	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	91	28684	0.2000	0.1800	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	97	22752	0.2000	0.1856	
118 Benzyl chloride	126	13.152	13.133	0.019	96	2655	0.2000	0.1142	
119 n-Butylbenzene	92	13.286	13.280	0.006	96	18430	0.2000	0.1326	
120 1,2-Dichlorobenzene	146	13.322	13.316	0.006	97	25342	0.2000	0.1767	
122 1,2-Dibromo-3-Chloropropane	155	13.871	13.859	0.012	80	914	0.2000	0.1034	
123 1,3,5-Trichlorobenzene	180	13.999	13.981	0.018	96	19168	0.2000	0.1822	
124 1,2,4-Trichlorobenzene	180	14.432	14.408	0.024	92	13803	0.2000	0.1628	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	94	8991	0.2000	0.2245	
126 Naphthalene	128	14.621	14.584	0.037	96	21967	0.2000	0.1404	
127 1,2,3-Trichlorobenzene	180	14.743	14.725	0.019	94	12630	0.2000	0.1680	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

MSV\_LL\_#1\_826\_00049

Amount Added: 2.00

Units: uL

MSV\_LL\_#2\_826\_00053

Amount Added: 2.00

Units: uL

MSV\_LL\_GAS826\_00101

Amount Added: 2.00

Units: uL

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D

Injection Date: 11-Jul-2022 17:43:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: IC std1

Worklist Smp#: 18

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

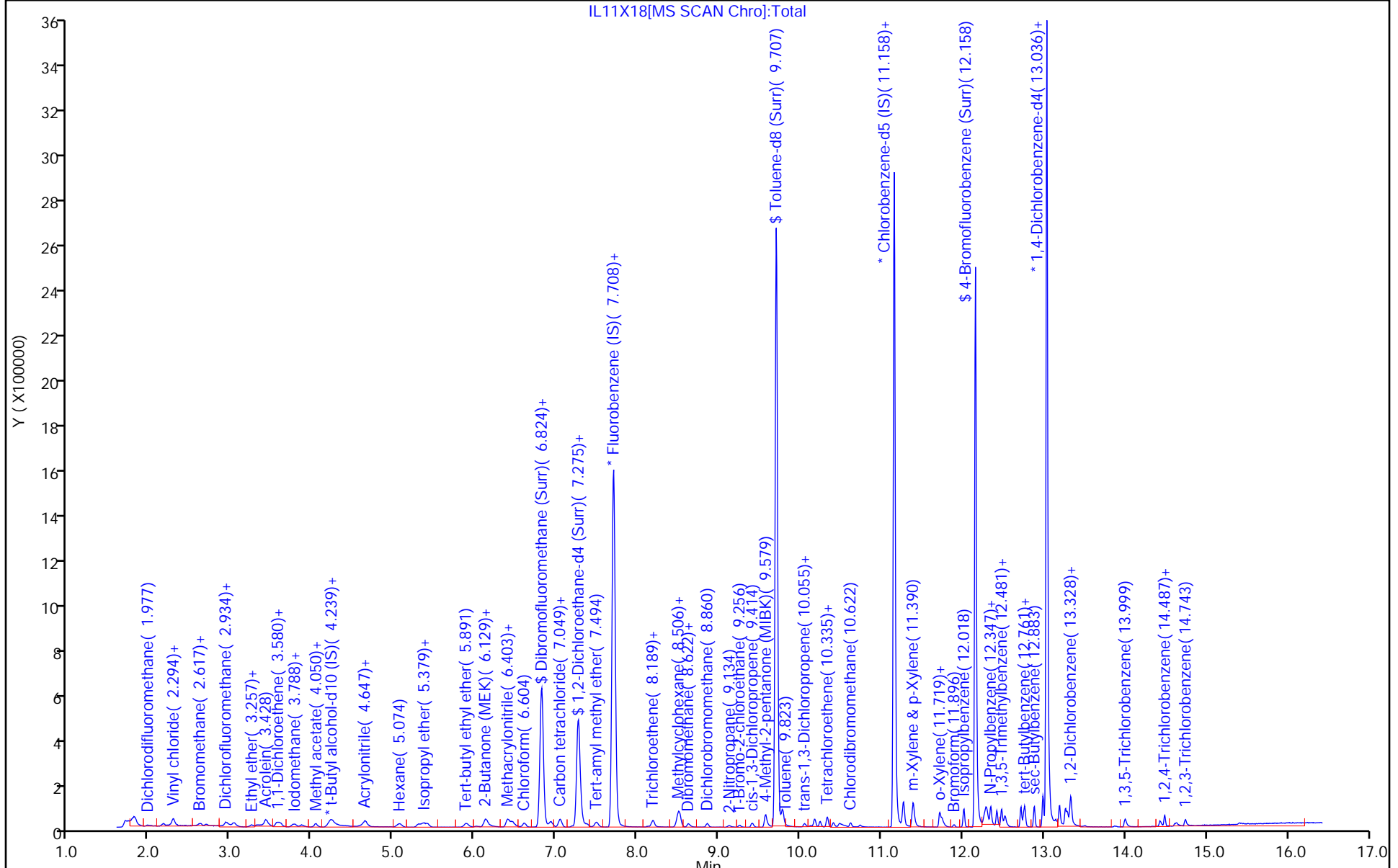
ALS Bottle#: 18

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





Eurofins Lancaster Laboratories Environment Testing, LLC

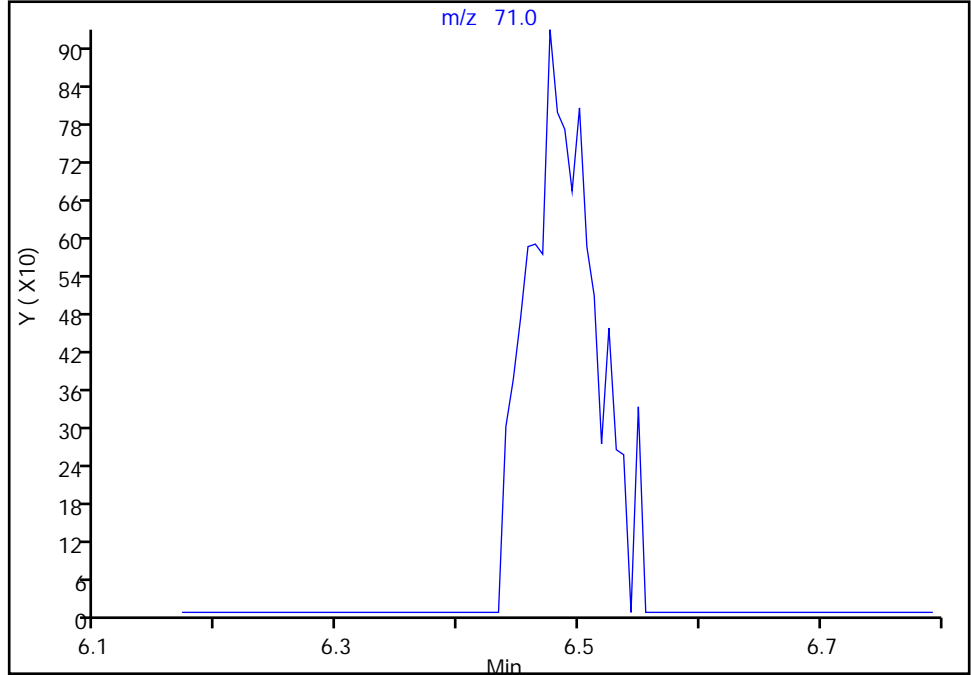
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Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
Lims ID: IC std1  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

44 Tetrahydrofuran, CAS: 109-99-9

Signal: 1

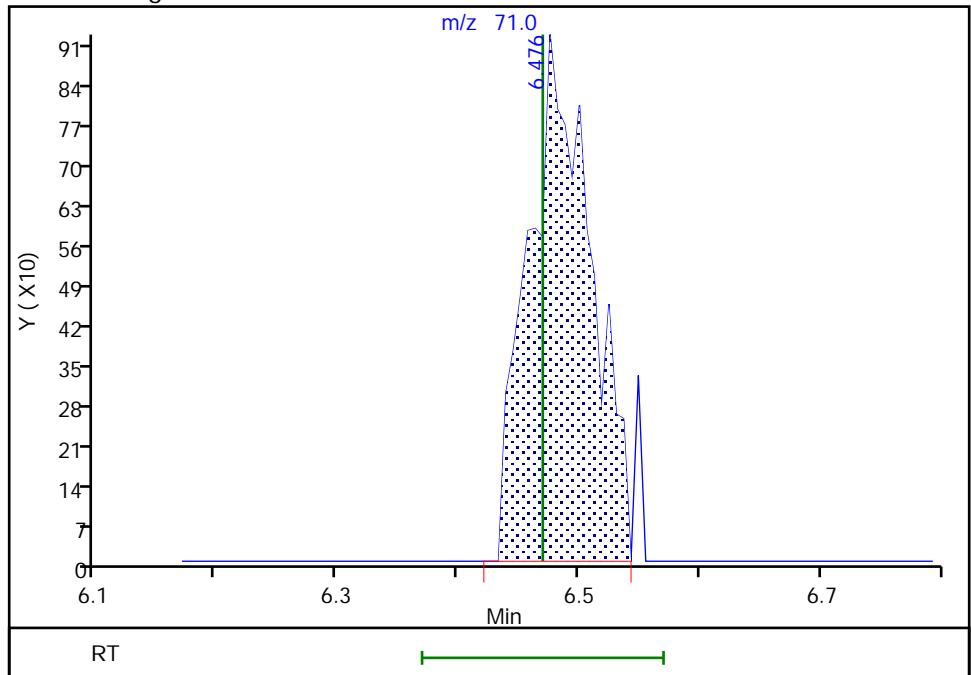
Not Detected  
Expected RT: 6.47

Processing Integration Results



Manual Integration Results

RT: 6.48  
Area: 3337  
Amount: 0.699224  
Amount Units: ug/l



Eurofins Lancaster Laboratories Environment Testing, LLC

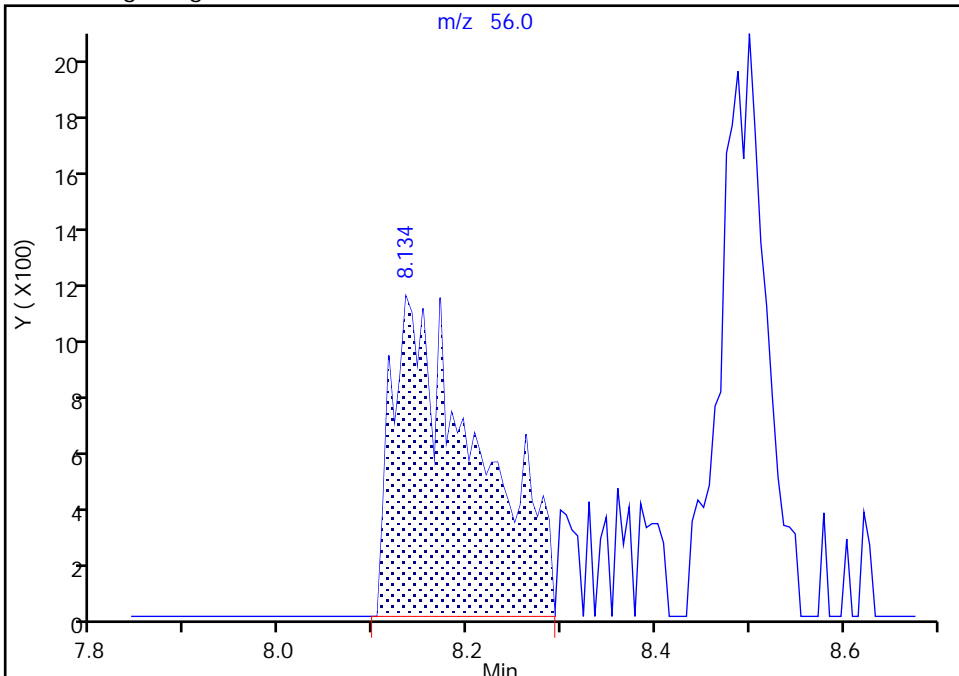
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Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
Lims ID: IC std1  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 n-Butanol, CAS: 71-36-3

Signal: 1

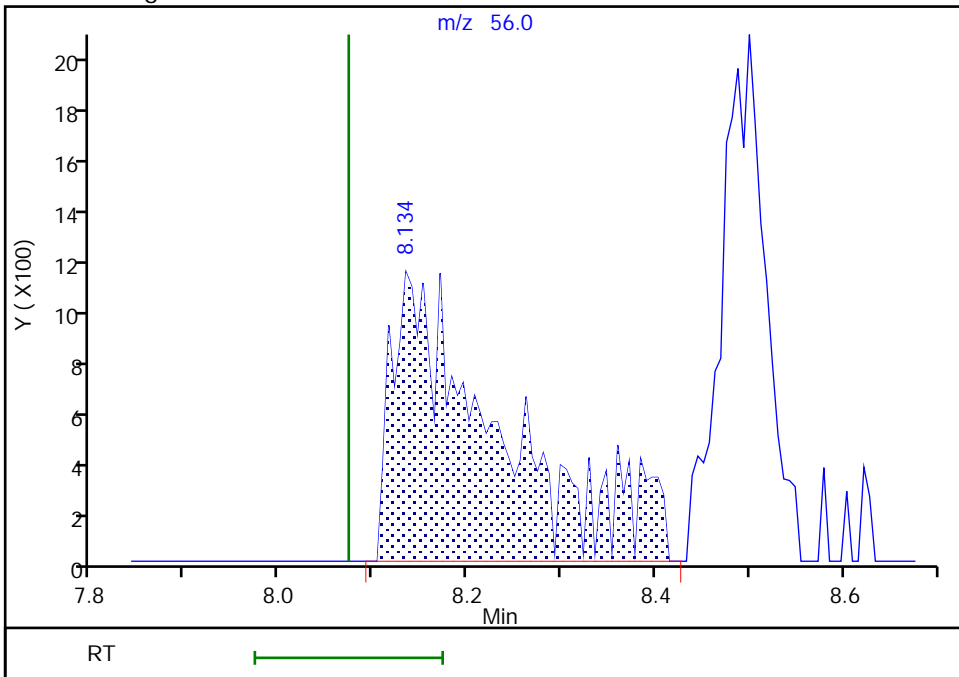
RT: 8.13  
Area: 6983  
Amount: 18.135309  
Amount Units: ug/l

Processing Integration Results



RT: 8.13  
Area: 8831  
Amount: 8.848695  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:53:30  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

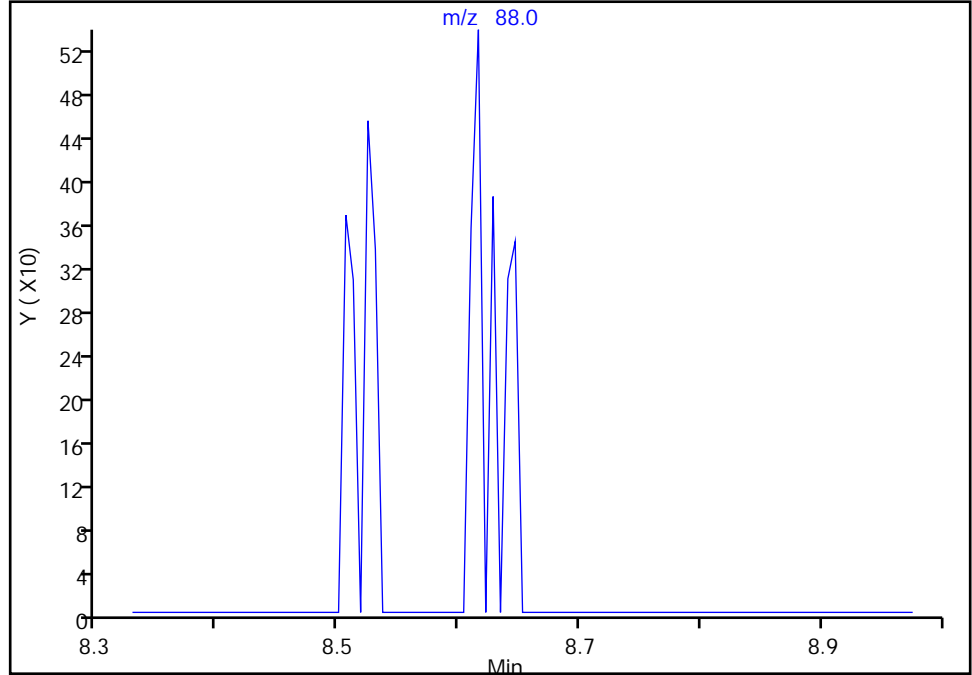
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Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
Lims ID: IC std1  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

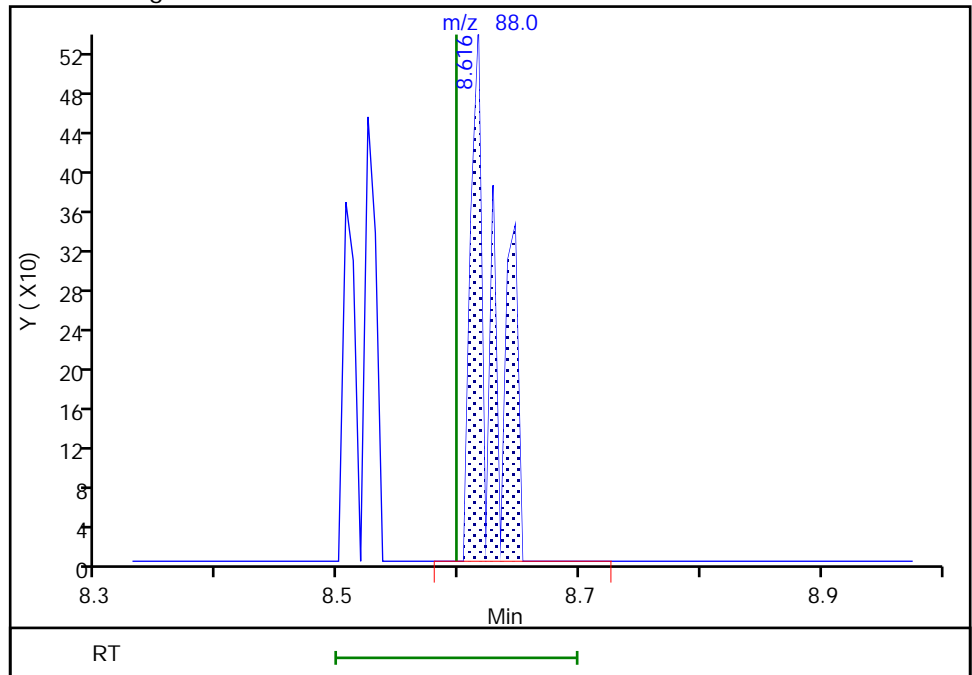
Signal: 1

Not Detected  
Expected RT: 8.60

Processing Integration Results



Manual Integration Results



RT: 8.62  
Area: 696  
Amount: 3.144251  
Amount Units: ug/l

Eurofins Lancaster Laboratories Environment Testing, LLC

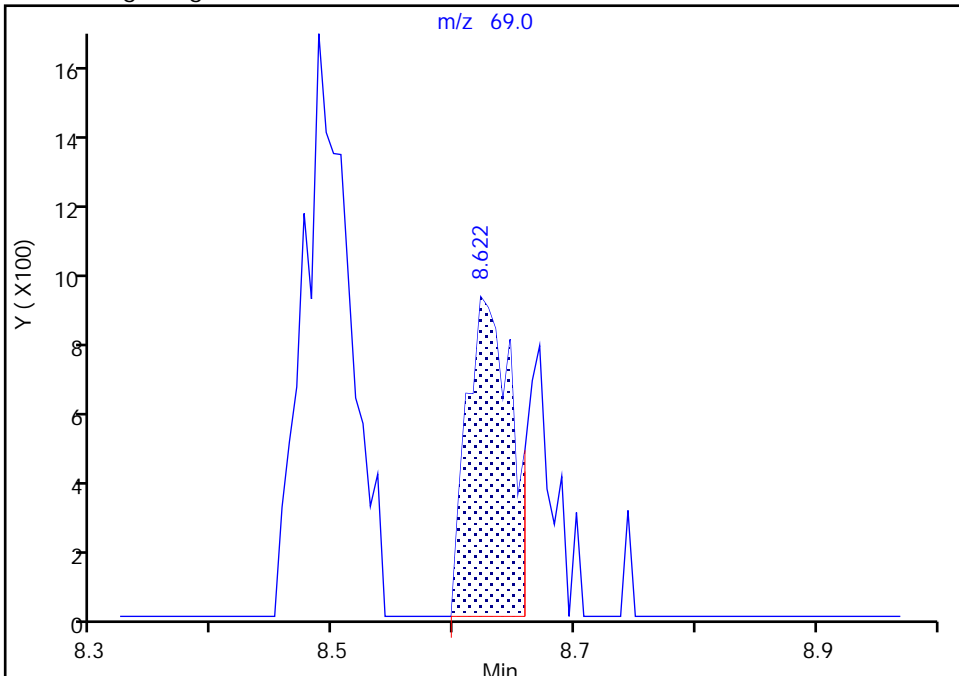
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Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
Lims ID: IC std1  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

64 Methyl methacrylate, CAS: 80-62-6

Signal: 1

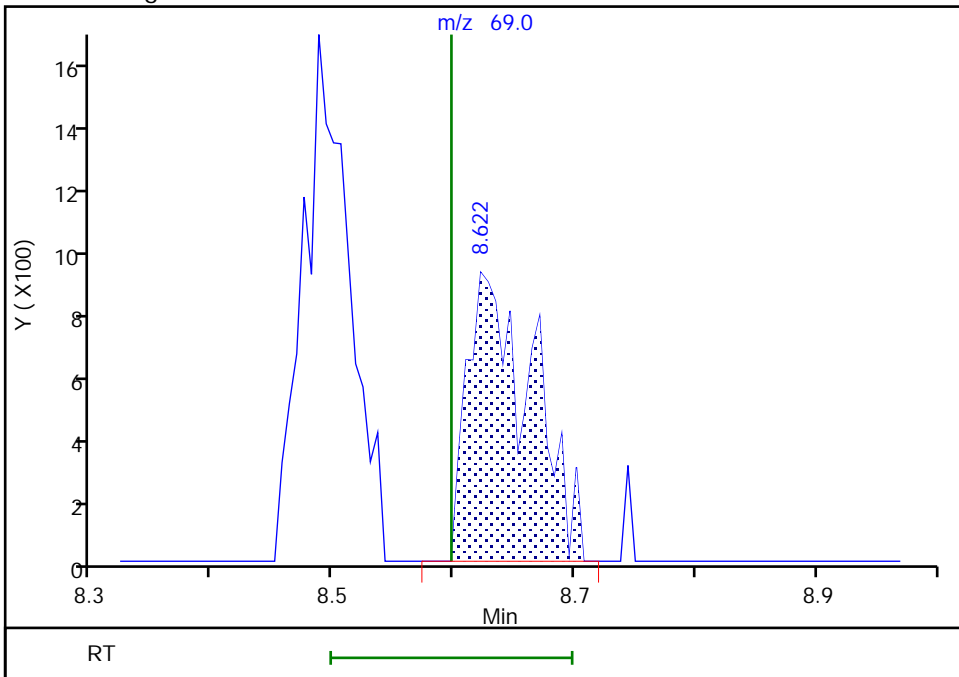
RT: 8.62  
Area: 2382  
Amount: 0.206228  
Amount Units: ug/l

Processing Integration Results



RT: 8.62  
Area: 3407  
Amount: 0.109855  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:54:28  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

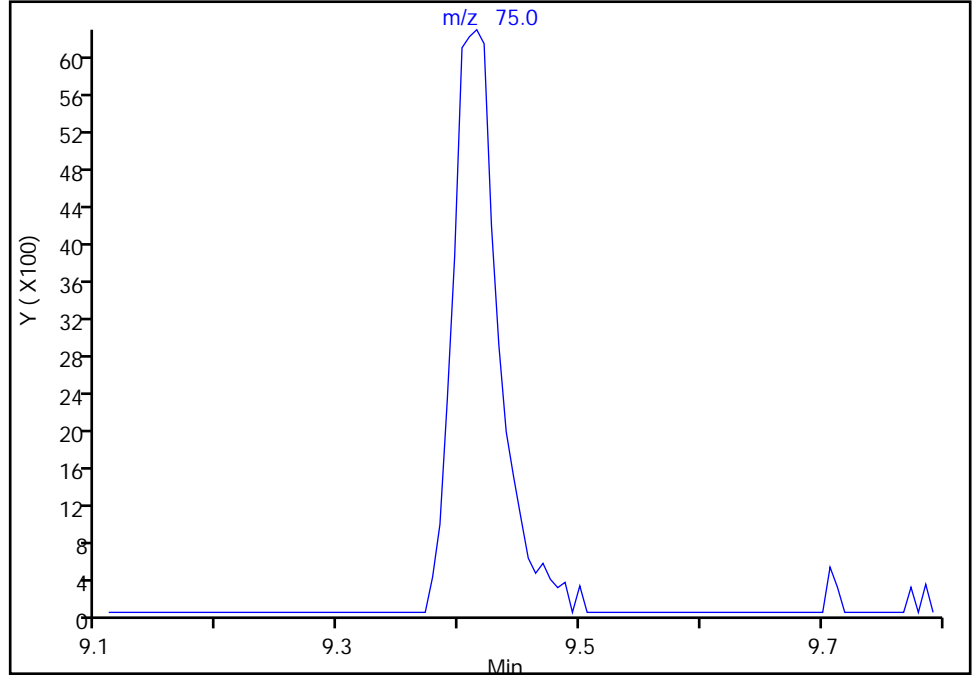
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Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
Lims ID: IC std1  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

73 cis-1,3-Dichloropropene, CAS: 10061-01-5

Signal: 1

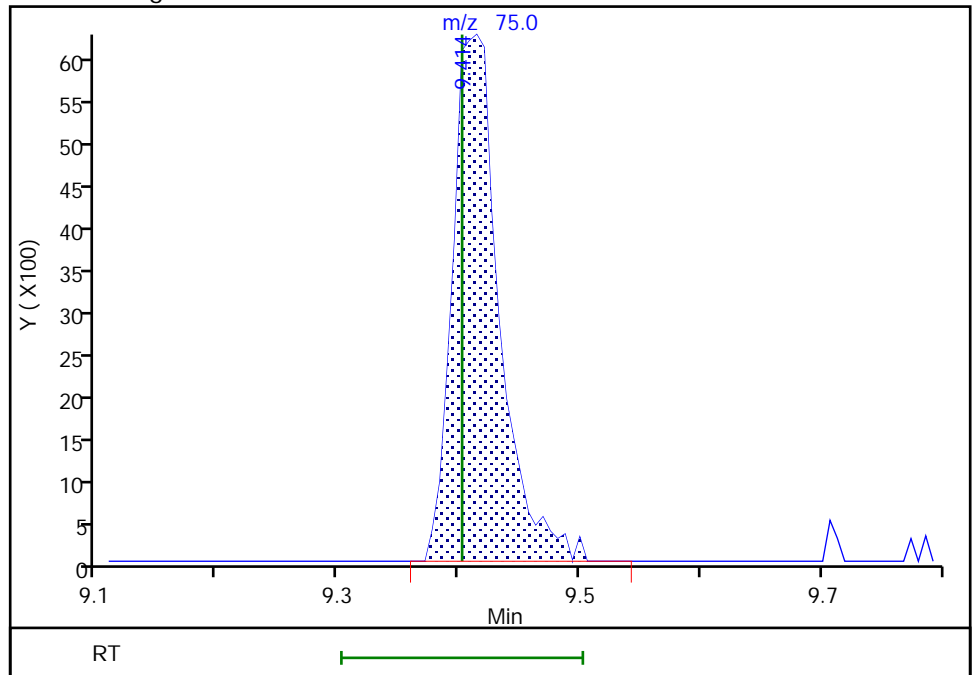
Not Detected  
Expected RT: 9.40

Processing Integration Results



Manual Integration Results

RT: 9.41  
Area: 16936  
Amount: 0.170890  
Amount Units: ug/l



Reviewer: UKAD, 12-Jul-2022 12:47:30  
Audit Action: Manually Integrated

Audit Reason: Assign Peak

Eurofins Lancaster Laboratories Environment Testing, LLC

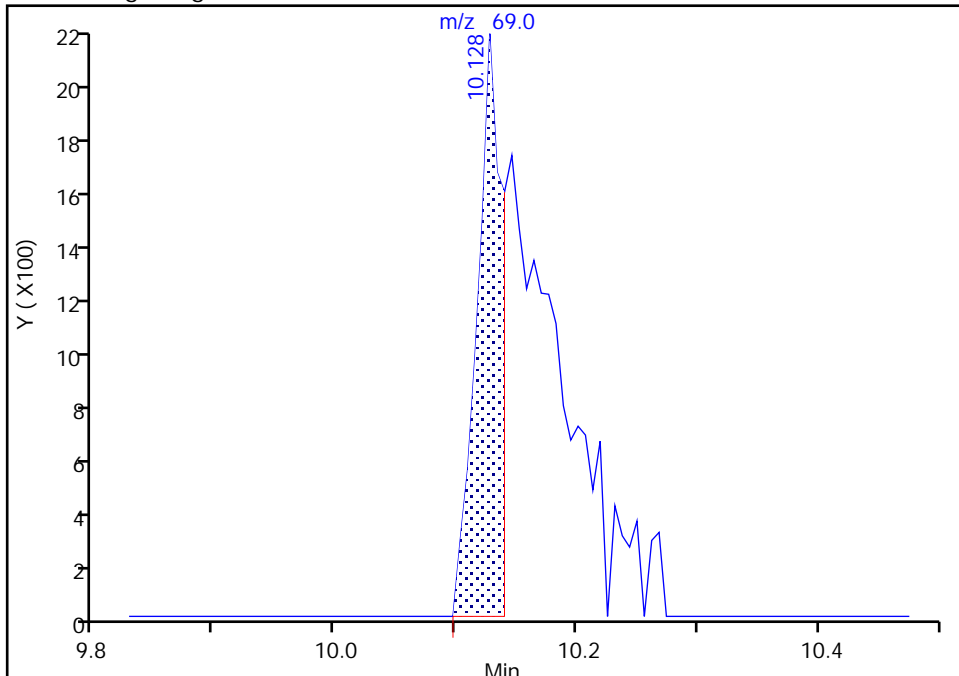
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Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
Lims ID: IC std1  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

79 Ethyl methacrylate, CAS: 97-63-2

Signal: 1

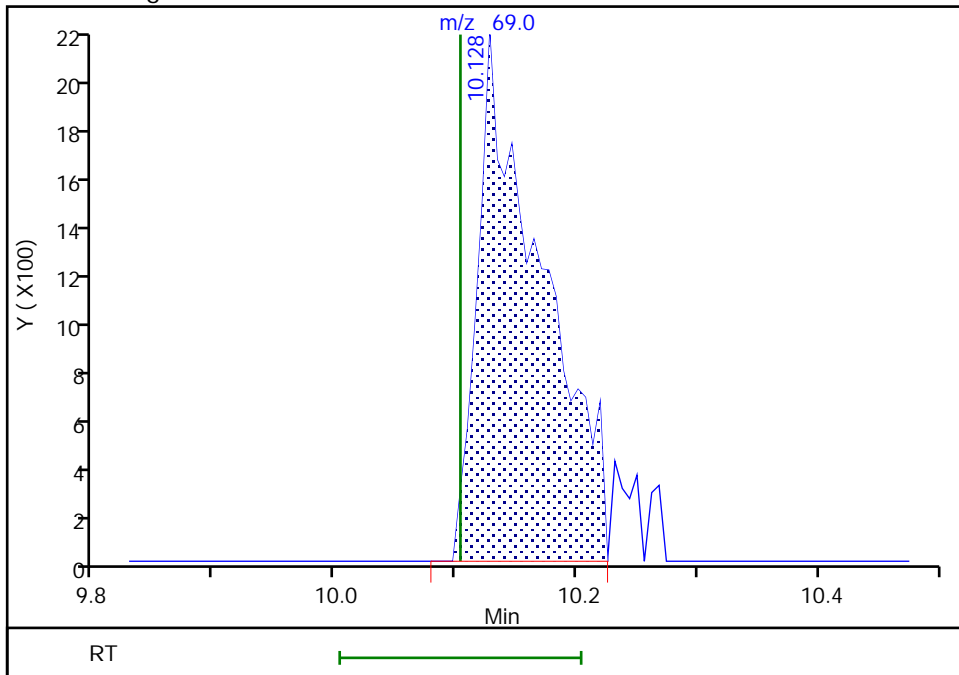
RT: 10.13  
Area: 3081  
Amount: 0.201409  
Amount Units: ug/l

Processing Integration Results



RT: 10.13  
Area: 7741  
Amount: 0.126782  
Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:55:35  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

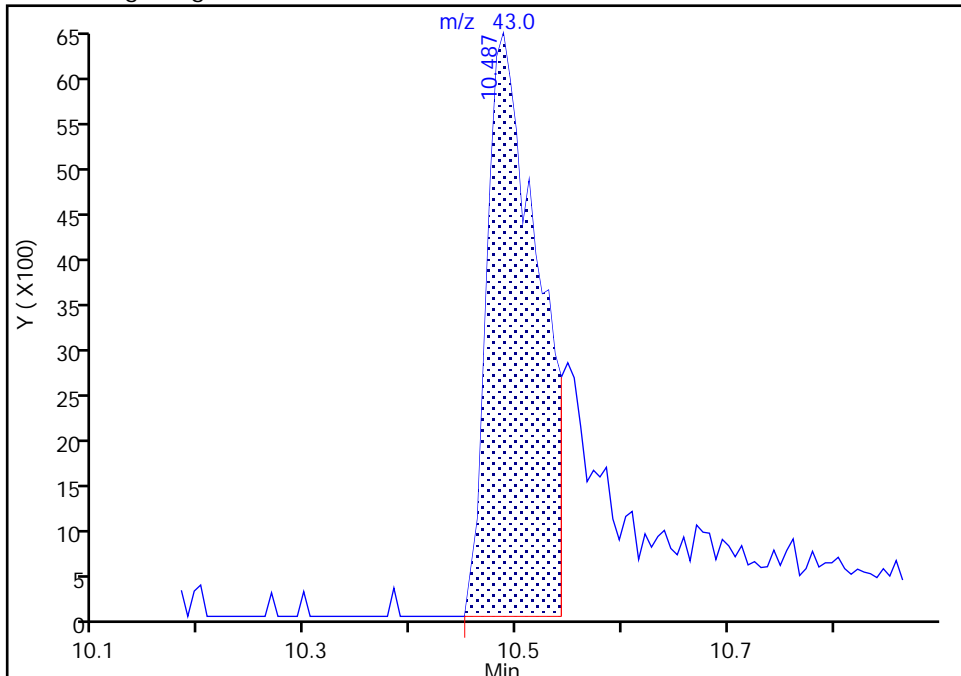
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 Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
 Lims ID: IC std1  
 Client ID:  
 Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
 Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

83 2-Hexanone, CAS: 591-78-6

Signal: 1

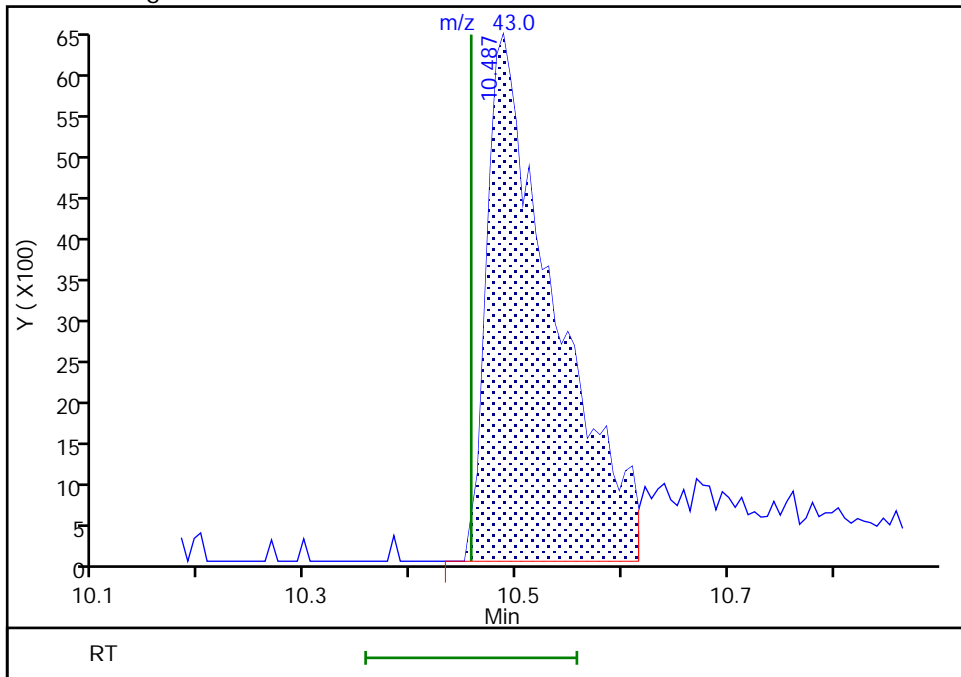
RT: 10.49  
 Area: 21606  
 Amount: 2.038414  
 Amount Units: ug/l

Processing Integration Results



RT: 10.49  
 Area: 28416  
 Amount: 0.983539  
 Amount Units: ug/l

Manual Integration Results



Reviewer: UKAD, 12-Jul-2022 12:57:41  
 Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

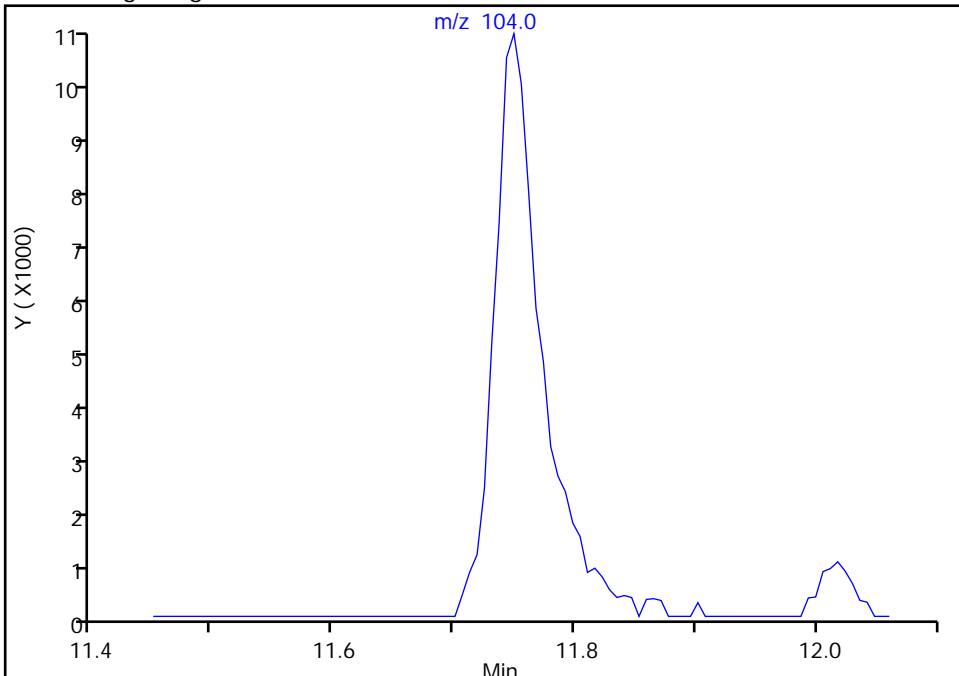
Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
Lims ID: IC std1  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

95 Styrene, CAS: 100-42-5

Signal: 1

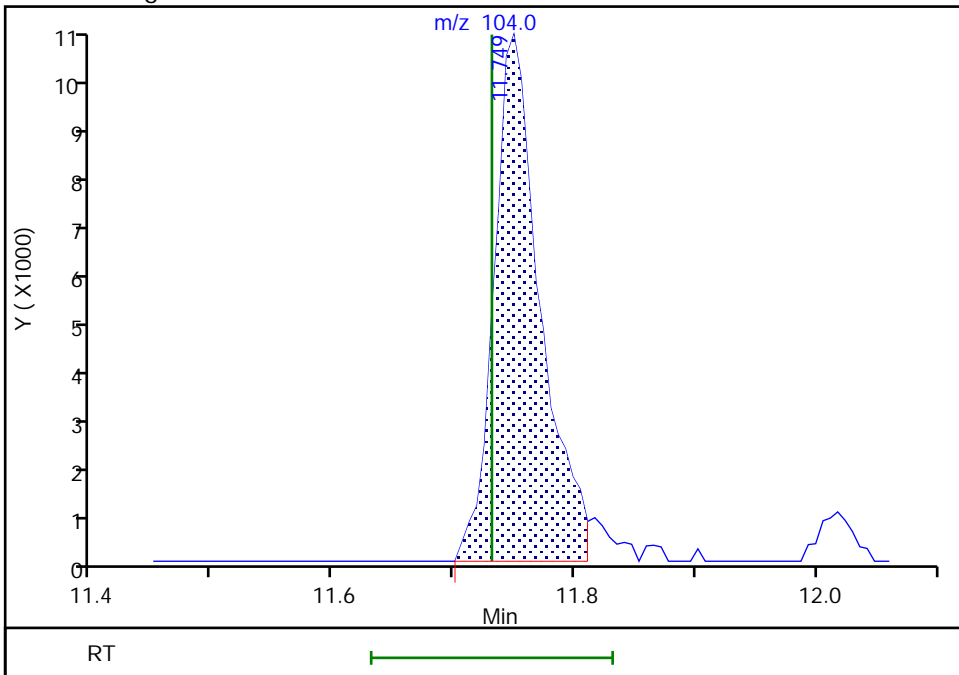
Not Detected  
Expected RT: 11.73

Processing Integration Results



Manual Integration Results

RT: 11.75  
Area: 28634  
Amount: 0.148068  
Amount Units: ug/l



Reviewer: UKAD, 12-Jul-2022 12:47:48  
Audit Action: Assigned Compound ID

Audit Reason: Assign Peak



Eurofins Lancaster Laboratories Environment Testing, LLC

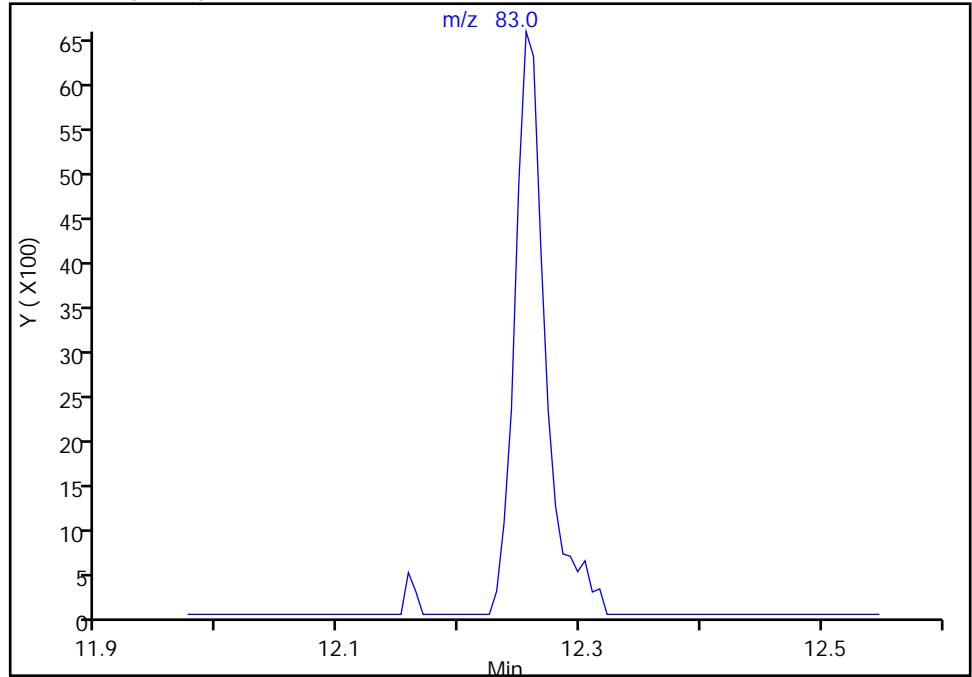
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Injection Date: 11-Jul-2022 17:43:30 Instrument ID: 19930  
Lims ID: IC std1  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

101 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Signal: 1

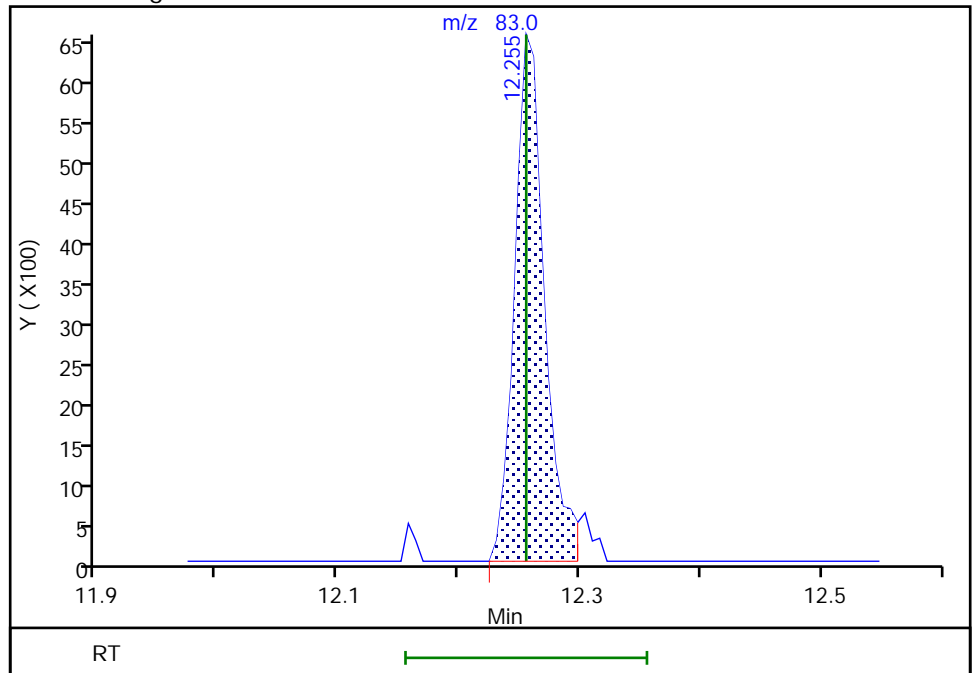
Not Detected  
Expected RT: 12.26

Processing Integration Results



Manual Integration Results

RT: 12.26  
Area: 11207  
Amount: 0.180904  
Amount Units: ug/l



Reviewer: UKAD, 12-Jul-2022 12:47:57  
Audit Action: Assigned Compound ID

Audit Reason: Assign Peak

**Calibration**

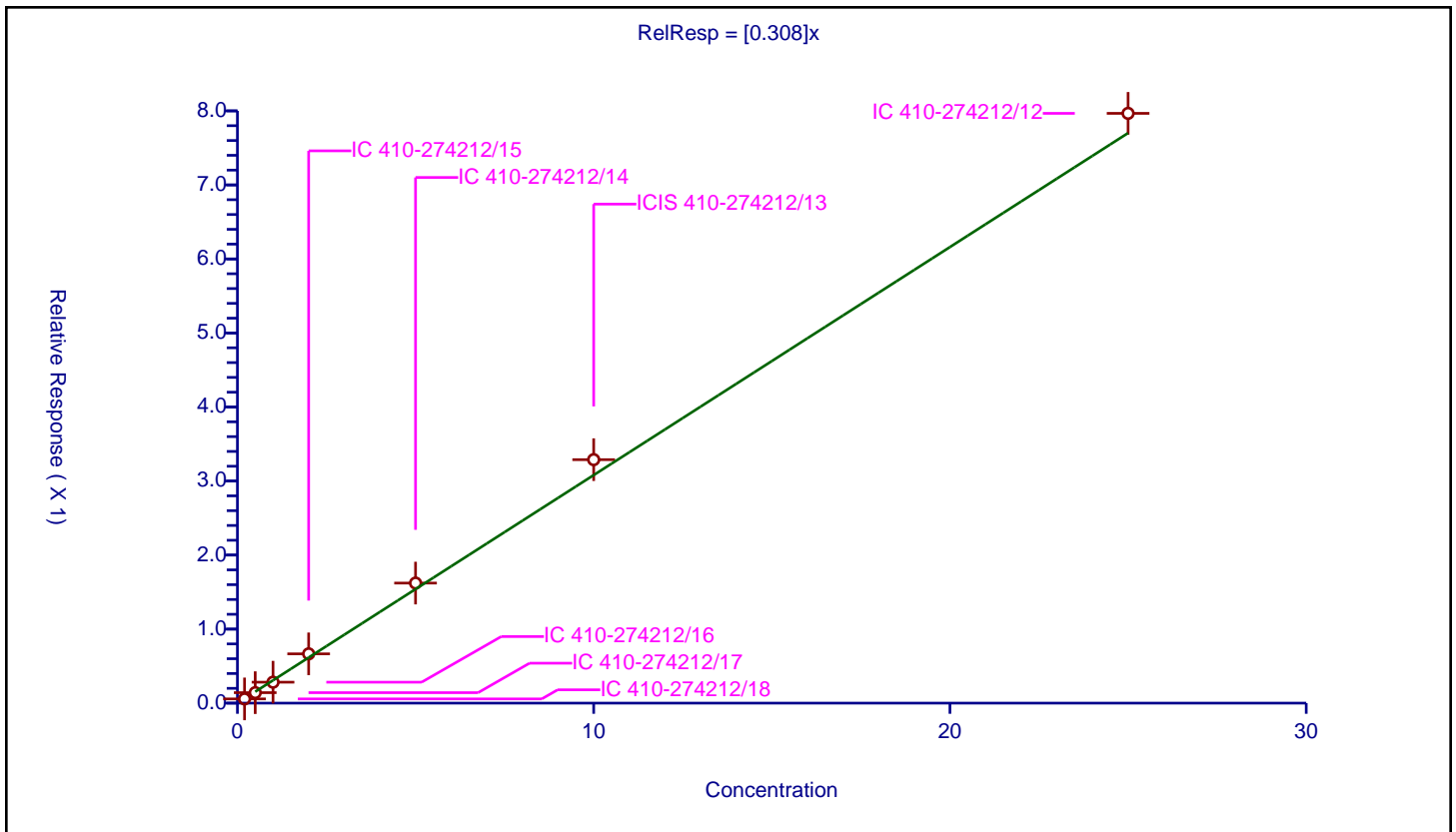
/ Dichlorodifluoromethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.308

Error Coefficients	
Standard Error:	842000
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 410-274212/18	0.2	0.057033	10.0	2230453.0	0.285166	Y
2	IC 410-274212/17	0.5	0.141719	10.0	2227997.0	0.283438	Y
3	IC 410-274212/16	1.0	0.282888	10.0	2298931.0	0.282888	Y
4	IC 410-274212/15	2.0	0.665775	10.0	2342051.0	0.332888	Y
5	IC 410-274212/14	5.0	1.621596	10.0	2371836.0	0.324319	Y
6	ICIS 410-274212/13	10.0	3.288751	10.0	2357451.0	0.328875	Y
7	IC 410-274212/12	25.0	7.966496	10.0	2340890.0	0.31866	Y



Calibration

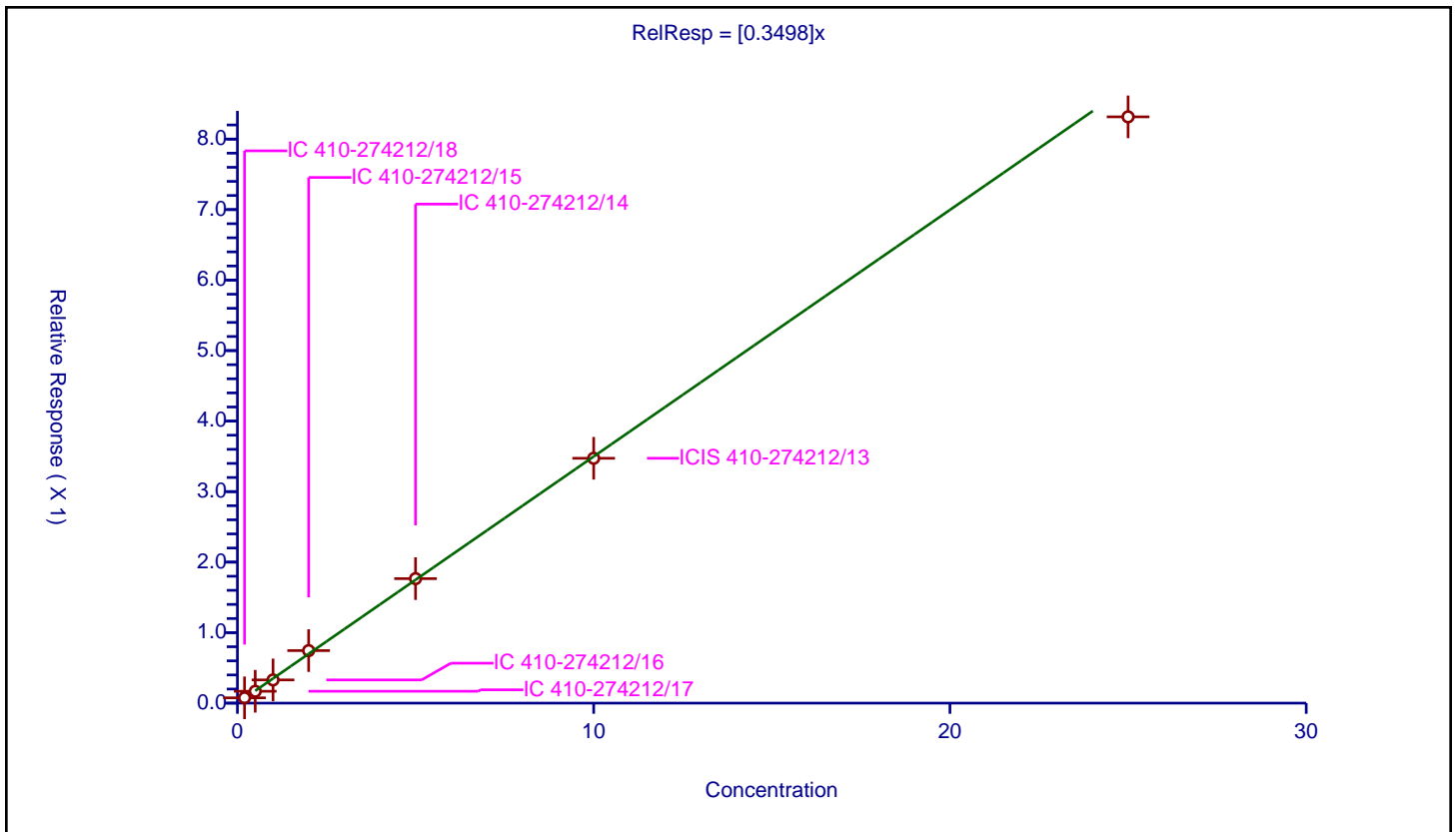
/ Chloromethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3498

Error Coefficients	
Standard Error:	882000
Relative Standard Error:	5.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.075496	10.0	2230453.0	0.377479	Y
2	IC 410-274212/17	0.5	0.168191	10.0	2227997.0	0.336383	Y
3	IC 410-274212/16	1.0	0.329183	10.0	2298931.0	0.329183	Y
4	IC 410-274212/15	2.0	0.744941	10.0	2342051.0	0.372471	Y
5	IC 410-274212/14	5.0	1.765691	10.0	2371836.0	0.353138	Y
6	ICIS 410-274212/13	10.0	3.472908	10.0	2357451.0	0.347291	Y
7	IC 410-274212/12	25.0	8.315406	10.0	2340890.0	0.332616	Y



**Calibration**

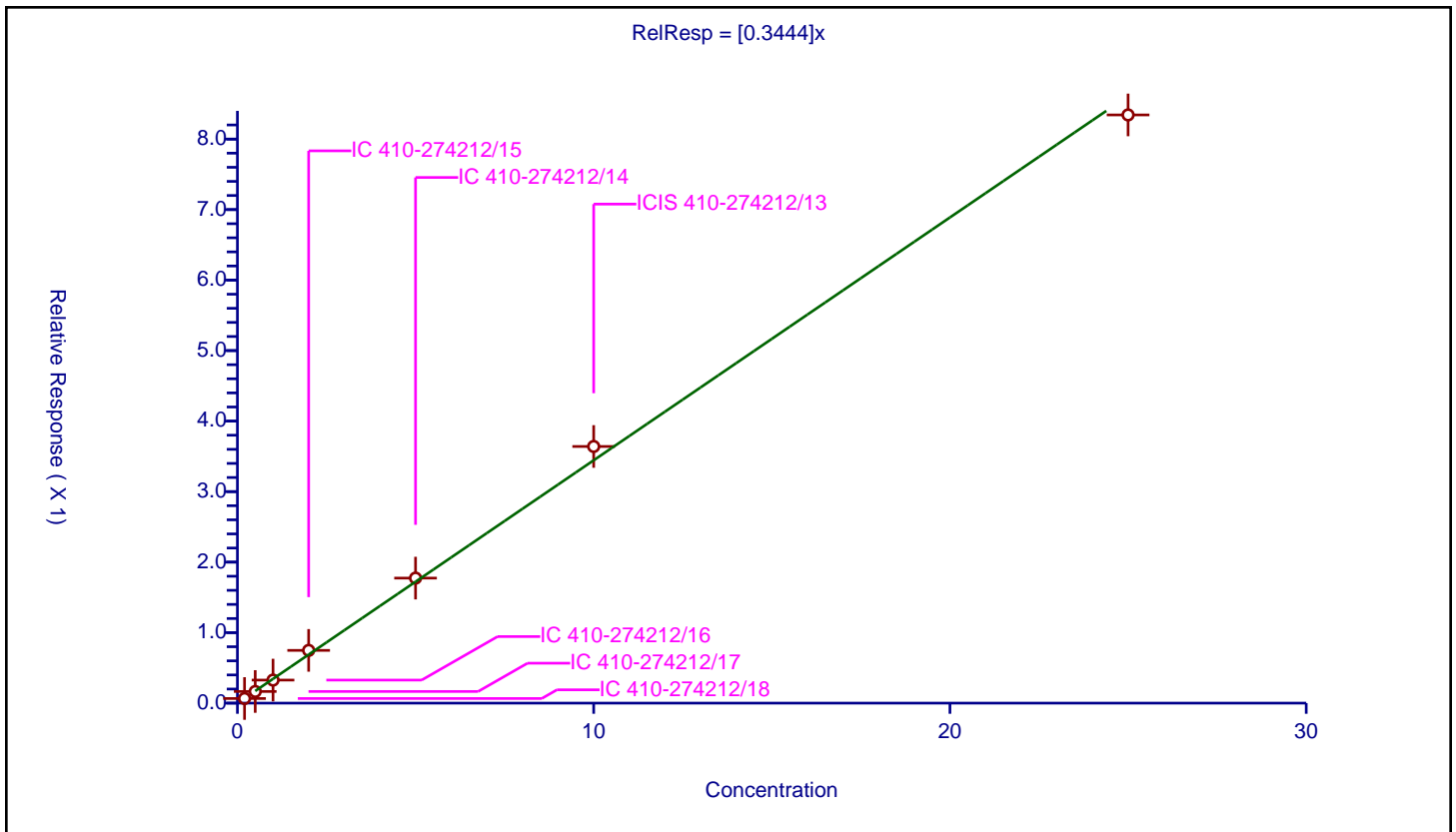
/ Vinyl chloride

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

Curve Coefficients	
Intercept:	0
Slope:	0.3444

Error Coefficients	
Standard Error:	891000
Relative Standard Error:	5.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.065502	10.0	2230453.0	0.327512	Y
2	IC 410-274212/17	0.5	0.16509	10.0	2227997.0	0.33018	Y
3	IC 410-274212/16	1.0	0.326774	10.0	2298931.0	0.326774	Y
4	IC 410-274212/15	2.0	0.748109	10.0	2342051.0	0.374055	Y
5	IC 410-274212/14	5.0	1.773508	10.0	2371836.0	0.354702	Y
6	ICIS 410-274212/13	10.0	3.640262	10.0	2357451.0	0.364026	Y
7	IC 410-274212/12	25.0	8.342618	10.0	2340890.0	0.333705	Y



Calibration

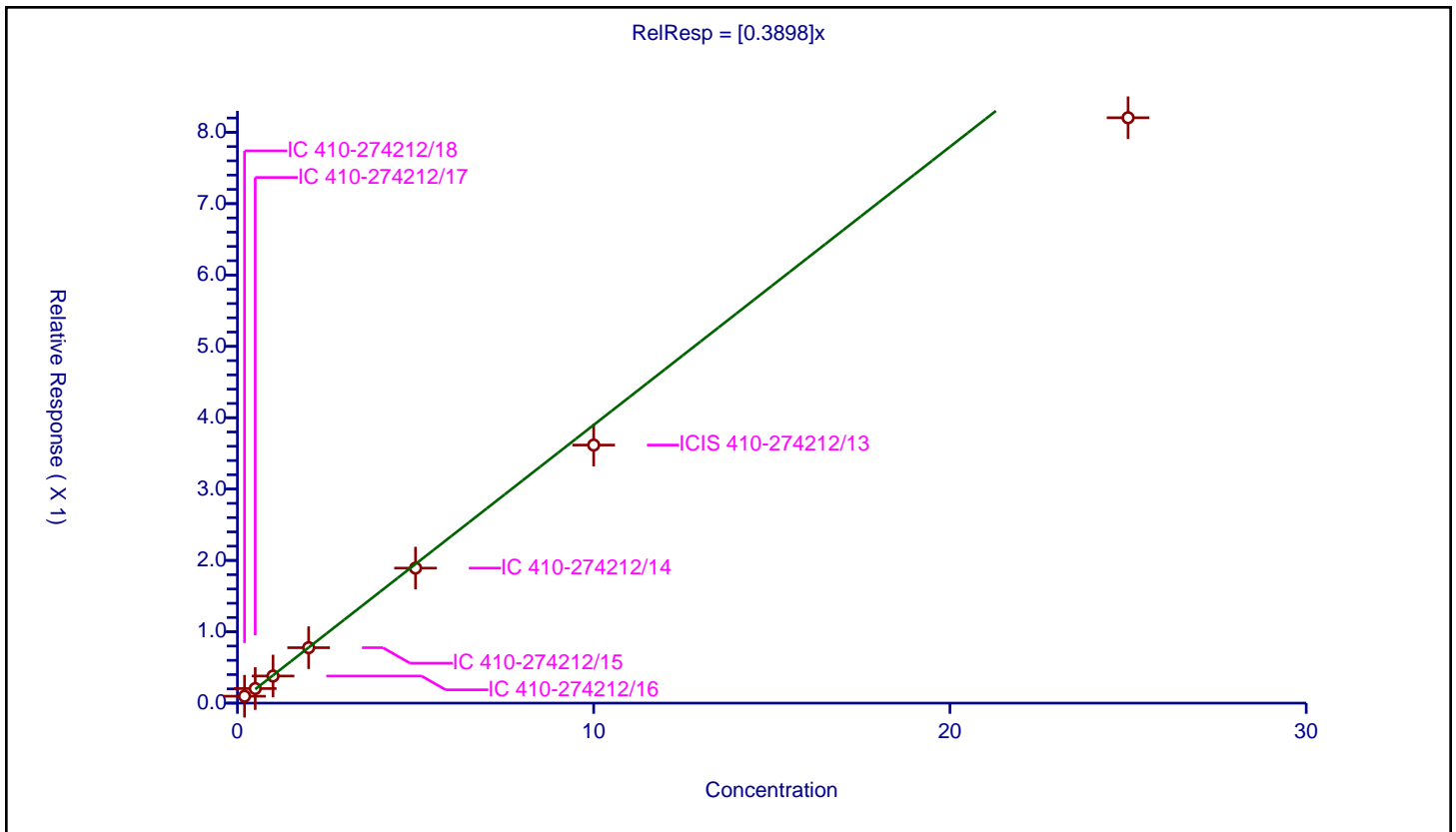
/ Butadiene

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

Curve Coefficients	
Intercept:	0
Slope:	0.3898

Error Coefficients	
Standard Error:	881000
Relative Standard Error:	12.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.09672	10.0	2230453.0	0.483601	Y
2	IC 410-274212/17	0.5	0.204345	10.0	2227997.0	0.40869	Y
3	IC 410-274212/16	1.0	0.379777	10.0	2298931.0	0.379777	Y
4	IC 410-274212/15	2.0	0.777016	10.0	2342051.0	0.388508	Y
5	IC 410-274212/14	5.0	1.892424	10.0	2371836.0	0.378485	Y
6	ICIS 410-274212/13	10.0	3.616533	10.0	2357451.0	0.361653	Y
7	IC 410-274212/12	25.0	8.203799	10.0	2340890.0	0.328152	Y



Calibration

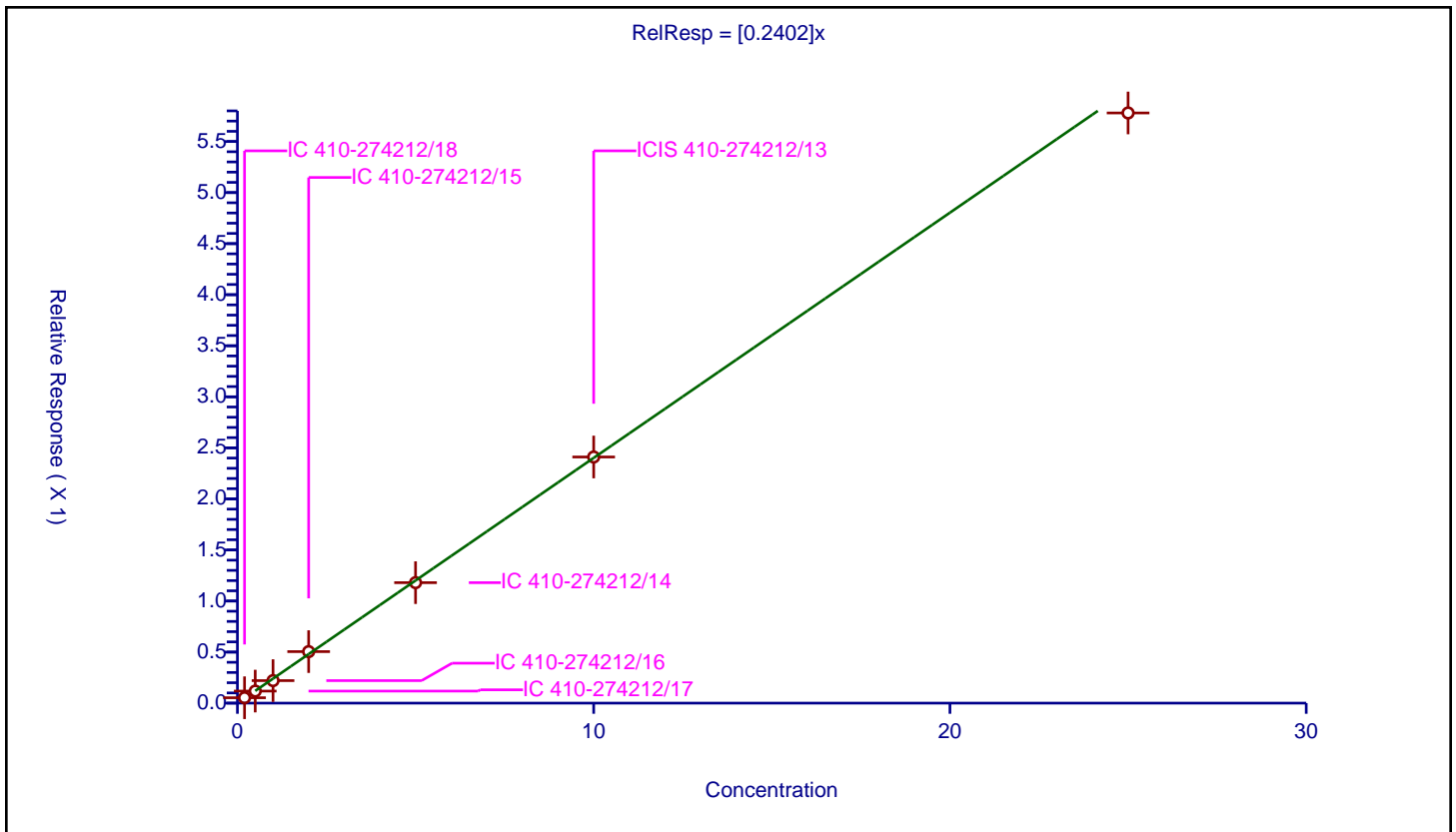
/ Bromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2402

Error Coefficients	
Standard Error:	612000
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.05277	10.0	2230453.0	0.263848	Y
2	IC 410-274212/17	0.5	0.118129	10.0	2227997.0	0.236257	Y
3	IC 410-274212/16	1.0	0.220537	10.0	2298931.0	0.220537	Y
4	IC 410-274212/15	2.0	0.504562	10.0	2342051.0	0.252281	Y
5	IC 410-274212/14	5.0	1.179778	10.0	2371836.0	0.235956	Y
6	ICIS 410-274212/13	10.0	2.410481	10.0	2357451.0	0.241048	Y
7	IC 410-274212/12	25.0	5.779716	10.0	2340890.0	0.231189	Y



Calibration

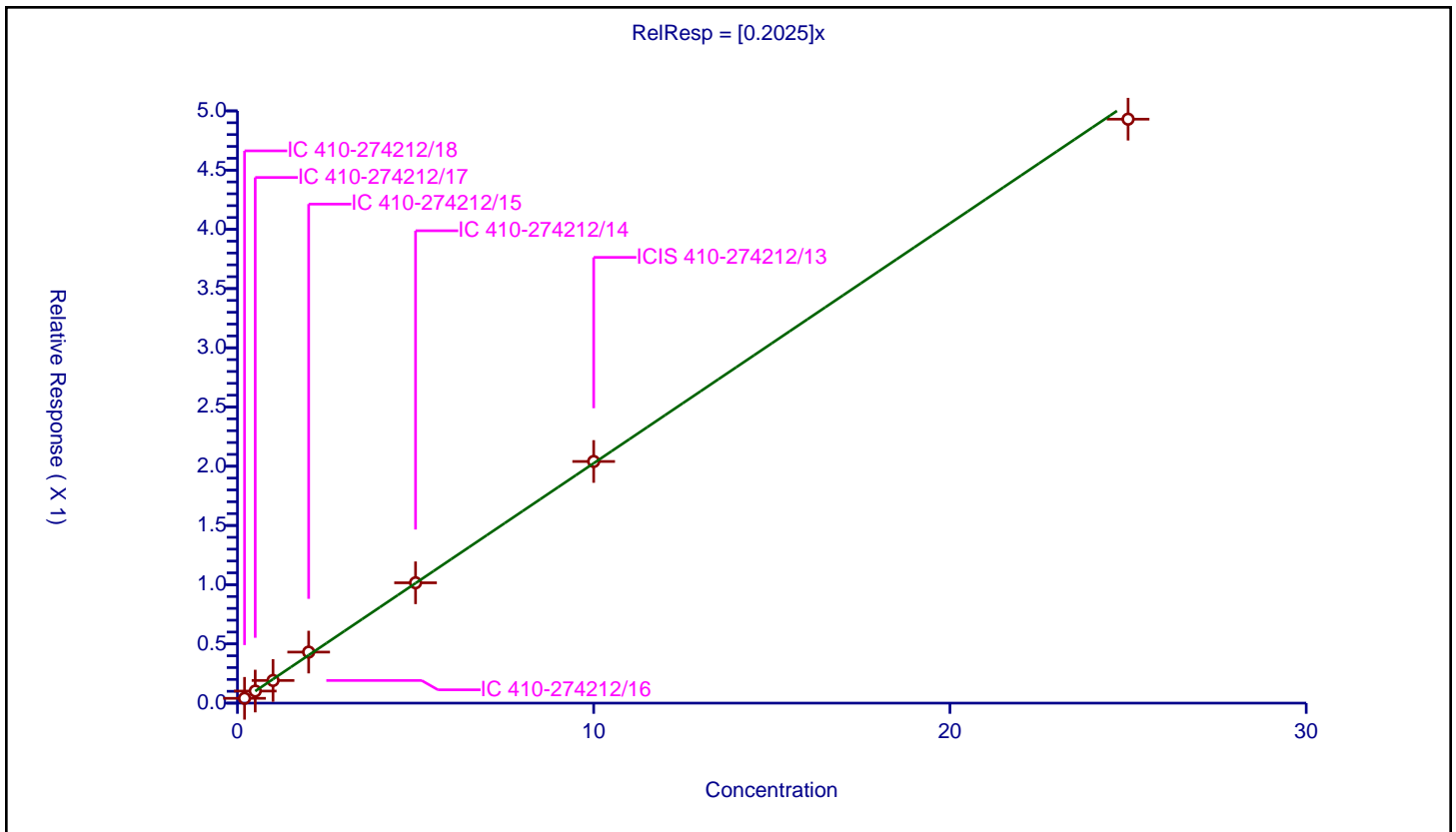
/ Chloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2025

Error Coefficients	
Standard Error:	522000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.04053	10.0	2230453.0	0.202649	Y
2	IC 410-274212/17	0.5	0.101971	10.0	2227997.0	0.203941	Y
3	IC 410-274212/16	1.0	0.191202	10.0	2298931.0	0.191202	Y
4	IC 410-274212/15	2.0	0.430887	10.0	2342051.0	0.215444	Y
5	IC 410-274212/14	5.0	1.01593	10.0	2371836.0	0.203186	Y
6	ICIS 410-274212/13	10.0	2.04025	10.0	2357451.0	0.204025	Y
7	IC 410-274212/12	25.0	4.930108	10.0	2340890.0	0.197204	Y



Calibration

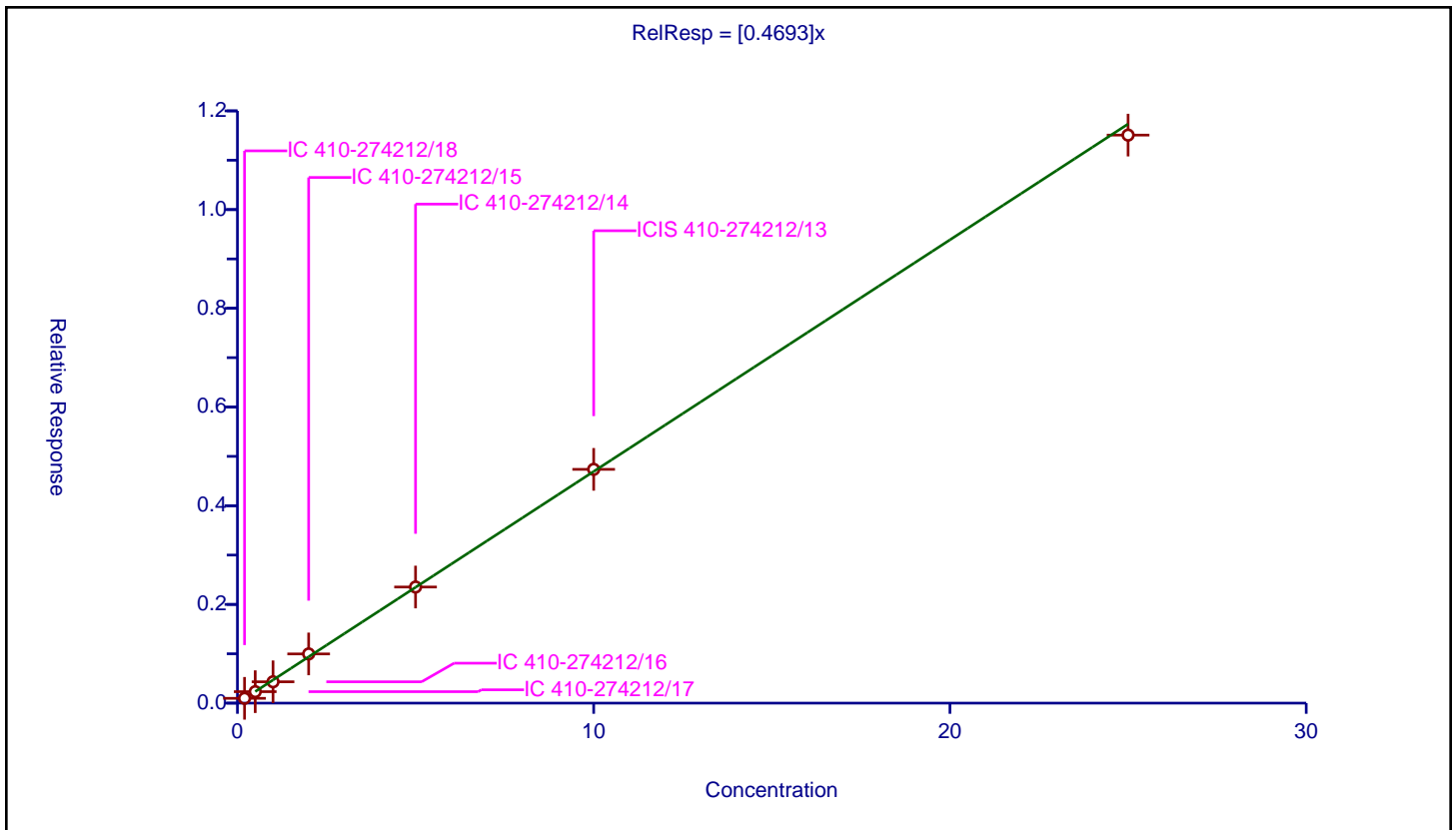
/ Dichlorofluoromethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4693

Error Coefficients	
Standard Error:	1220000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.097155	10.0	2230453.0	0.485776	Y
2	IC 410-274212/17	0.5	0.2322	10.0	2227997.0	0.464399	Y
3	IC 410-274212/16	1.0	0.43234	10.0	2298931.0	0.43234	Y
4	IC 410-274212/15	2.0	0.99678	10.0	2342051.0	0.49839	Y
5	IC 410-274212/14	5.0	2.352405	10.0	2371836.0	0.470481	Y
6	ICIS 410-274212/13	10.0	4.736739	10.0	2357451.0	0.473674	Y
7	IC 410-274212/12	25.0	11.509716	10.0	2340890.0	0.460389	Y





Calibration

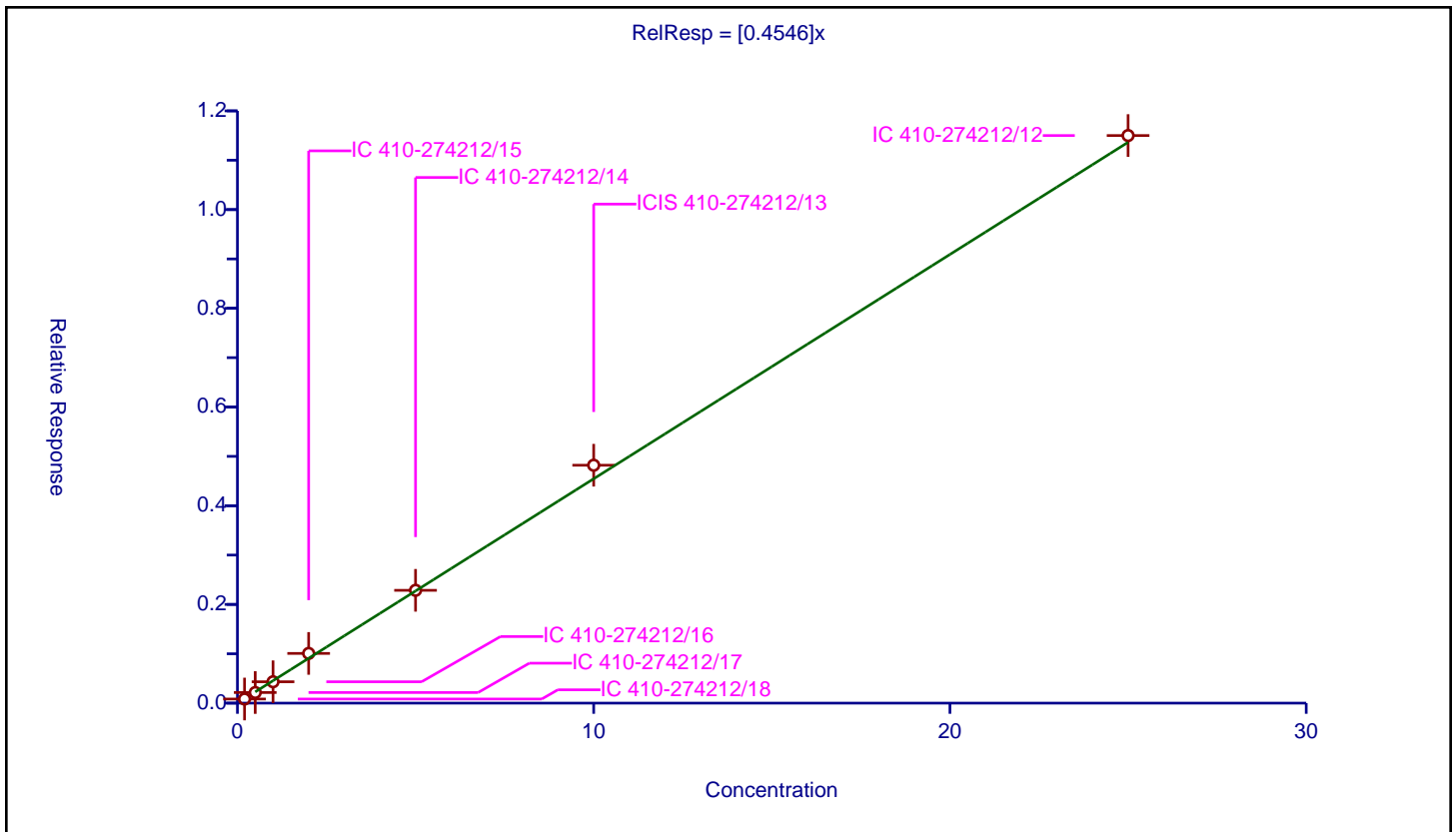
/ Trichlorofluoromethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4546

Error Coefficients	
Standard Error:	1220000
Relative Standard Error:	6.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.083261	10.0	2230453.0	0.416306	Y
2	IC 410-274212/17	0.5	0.214973	10.0	2227997.0	0.429947	Y
3	IC 410-274212/16	1.0	0.432862	10.0	2298931.0	0.432862	Y
4	IC 410-274212/15	2.0	1.007267	10.0	2342051.0	0.503633	Y
5	IC 410-274212/14	5.0	2.285841	10.0	2371836.0	0.457168	Y
6	ICIS 410-274212/13	10.0	4.82041	10.0	2357451.0	0.482041	Y
7	IC 410-274212/12	25.0	11.500408	10.0	2340890.0	0.460016	Y



**Calibration**

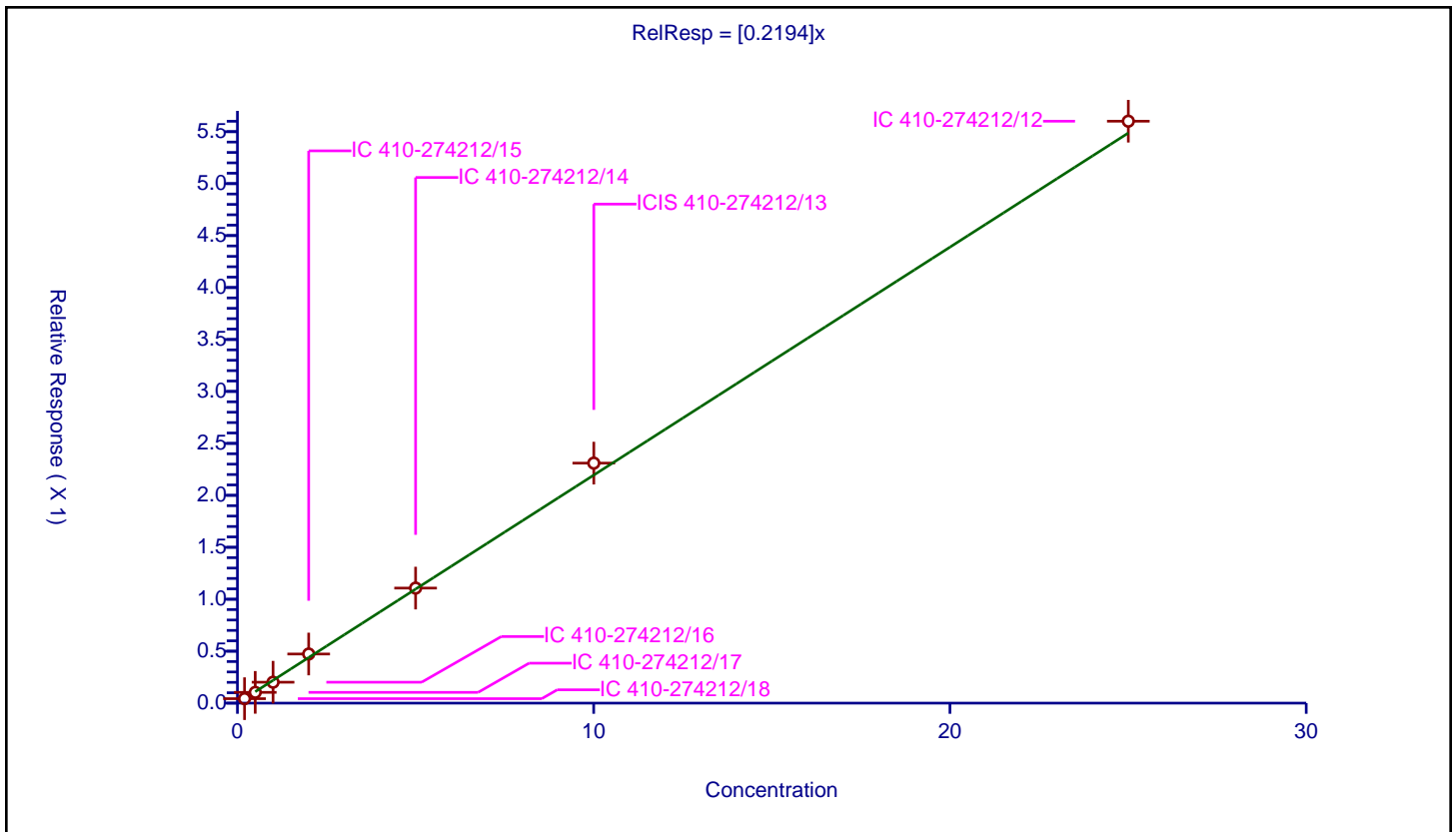
/ Ethyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.2194

Error Coefficients	
Standard Error:	592000
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 410-274212/18	0.200057	0.042991	10.0	2230453.0	0.214895	Y
2	IC 410-274212/17	0.500143	0.103654	10.0	2227997.0	0.207248	Y
3	IC 410-274212/16	1.000286	0.201285	10.0	2298931.0	0.201227	Y
4	IC 410-274212/15	2.000572	0.472833	10.0	2342051.0	0.236349	Y
5	IC 410-274212/14	5.00143	1.107256	10.0	2371836.0	0.221388	Y
6	ICIS 410-274212/13	10.00286	2.31005	10.0	2357451.0	0.230939	Y
7	IC 410-274212/12	25.00715	5.600917	10.0	2340890.0	0.223973	Y



Calibration

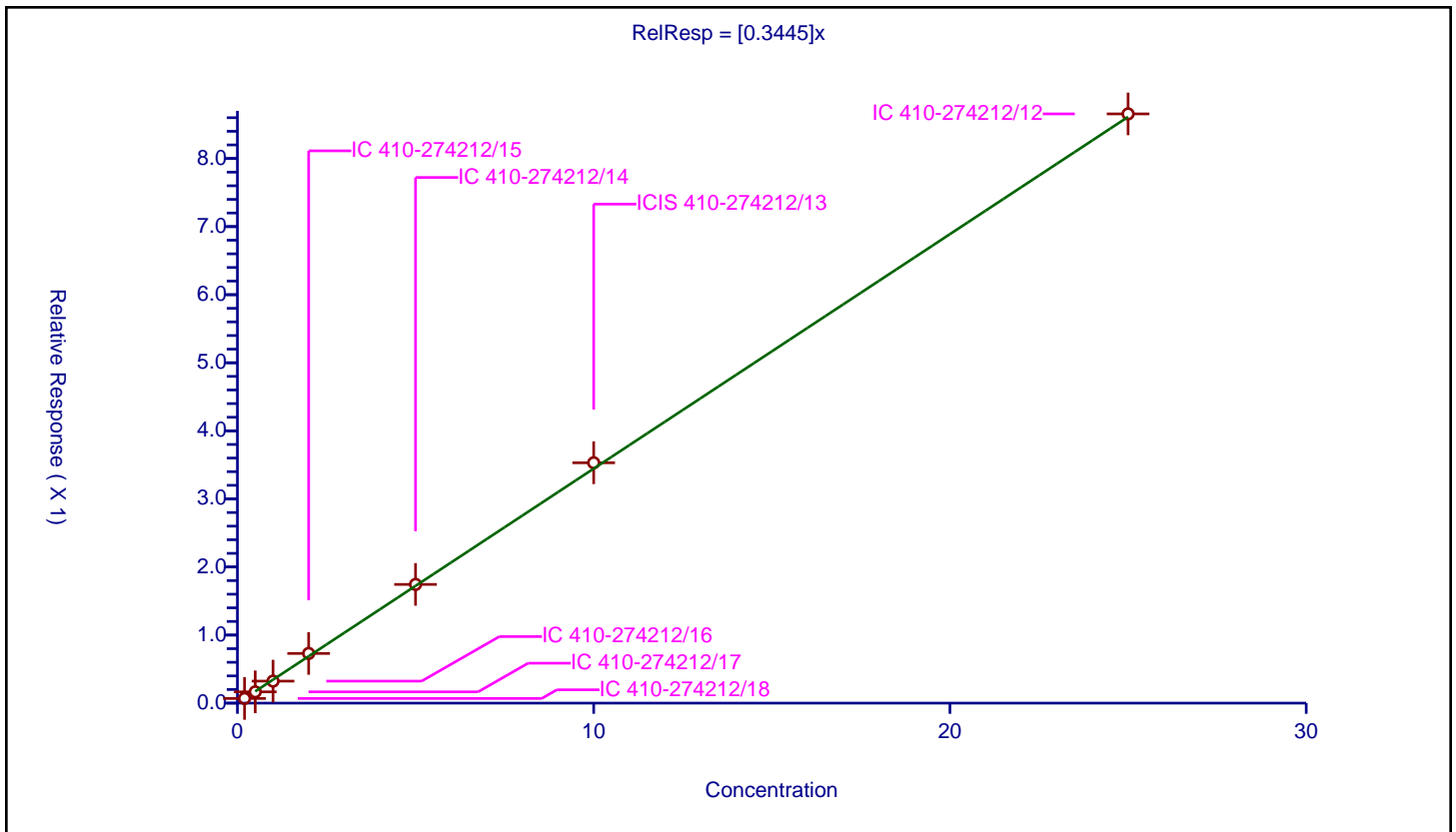
/ 1,2-Dichloro-1,1,2-trifluoroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3445

Error Coefficients	
Standard Error:	913000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.068739	10.0	2230453.0	0.343697	Y
2	IC 410-274212/17	0.5	0.165669	10.0	2227997.0	0.331338	Y
3	IC 410-274212/16	1.0	0.323368	10.0	2298931.0	0.323368	Y
4	IC 410-274212/15	2.0	0.729771	10.0	2342051.0	0.364885	Y
5	IC 410-274212/14	5.0	1.743809	10.0	2371836.0	0.348762	Y
6	ICIS 410-274212/13	10.0	3.530644	10.0	2357451.0	0.353064	Y
7	IC 410-274212/12	25.0	8.655661	10.0	2340890.0	0.346226	Y



Calibration

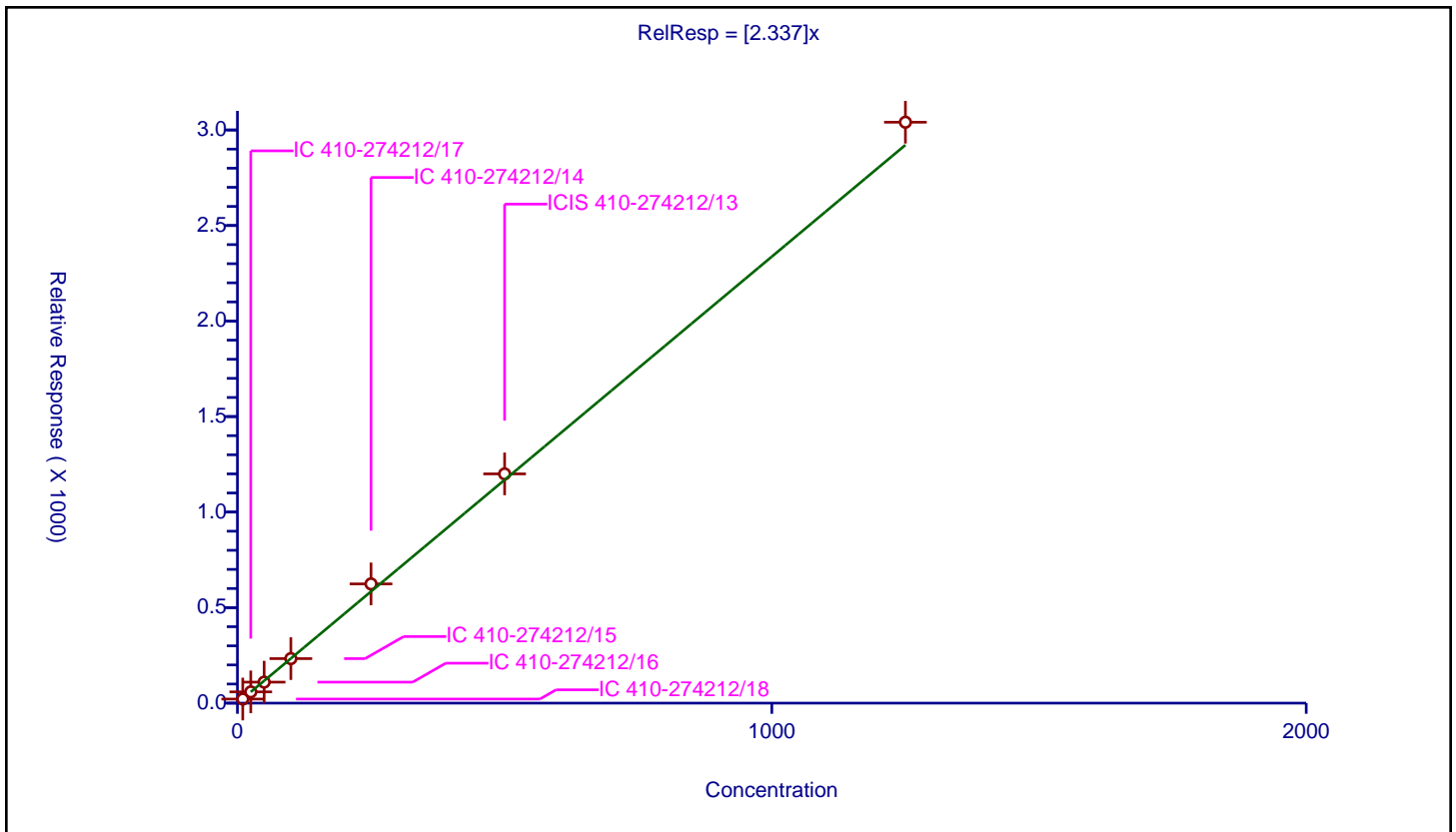
/ Acrolein

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

Curve Coefficients	
Intercept:	0
Slope:	2.337

Error Coefficients	
Standard Error:	4380000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	10.000019	21.468757	50.0	161218.0	2.146872	Y
2	IC 410-274212/17	25.000046	58.84595	50.0	156891.0	2.353834	Y
3	IC 410-274212/16	50.000093	109.994219	50.0	155670.0	2.19988	Y
4	IC 410-274212/15	100.000185	233.06992	50.0	167734.0	2.330695	Y
5	IC 410-274212/14	250.000463	624.107876	50.0	157069.0	2.496427	Y
6	ICIS 410-274212/13	500.000926	1199.954943	50.0	169786.0	2.399905	Y
7	IC 410-274212/12	1250.002314	3040.782039	50.0	159455.0	2.432621	Y



Calibration

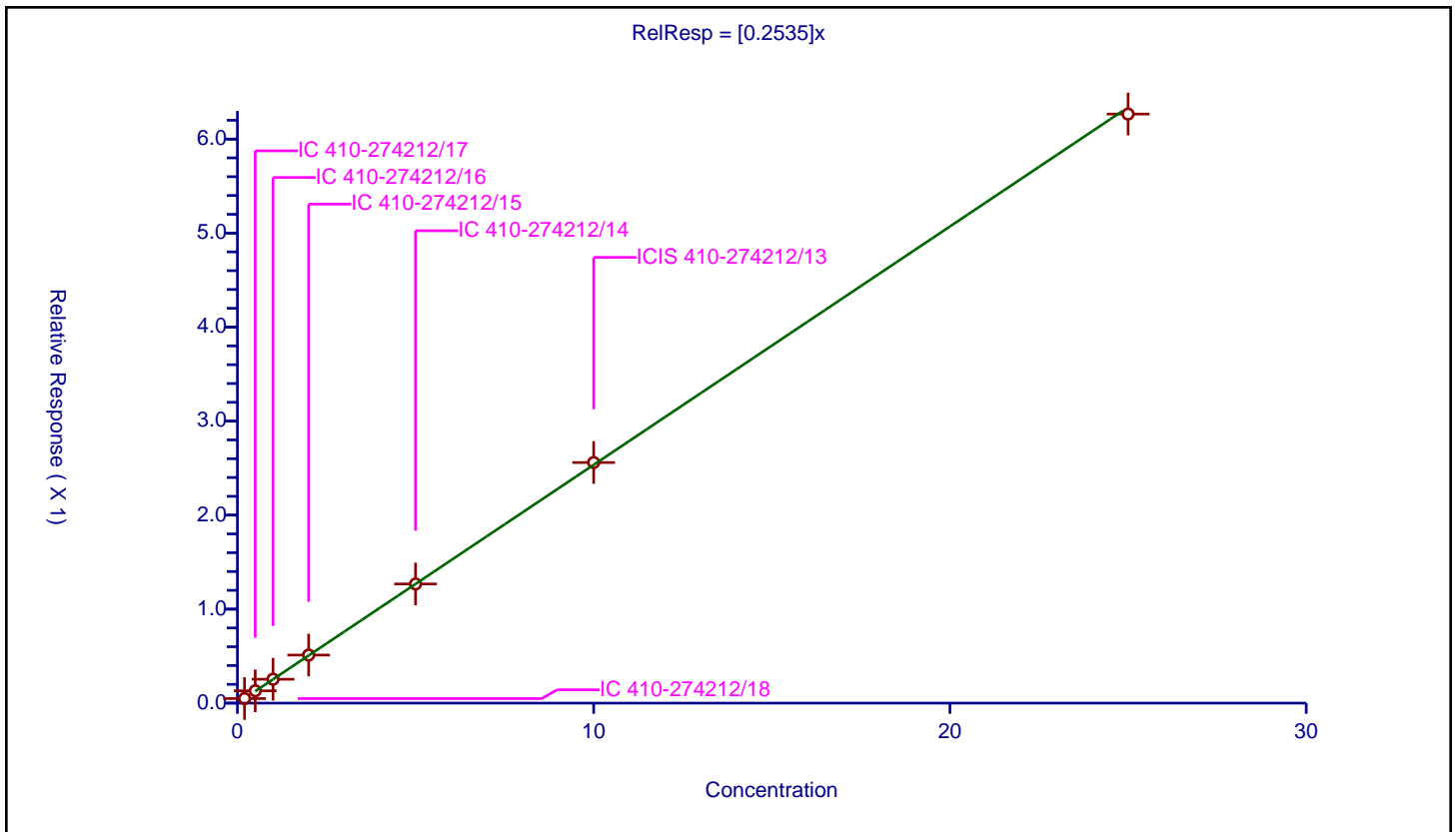
/ 1,1-Dichloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.2535

Error Coefficients	
Standard Error:	661000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.048457	10.0	2230453.0	0.242283	Y
2	IC 410-274212/17	0.5	0.131136	10.0	2227997.0	0.262271	Y
3	IC 410-274212/16	1.0	0.254275	10.0	2298931.0	0.254275	Y
4	IC 410-274212/15	2.0	0.511483	10.0	2342051.0	0.255742	Y
5	IC 410-274212/14	5.0	1.267693	10.0	2371836.0	0.253539	Y
6	ICIS 410-274212/13	10.0	2.559251	10.0	2357451.0	0.255925	Y
7	IC 410-274212/12	25.0	6.266177	10.0	2340890.0	0.250647	Y



**Calibration**

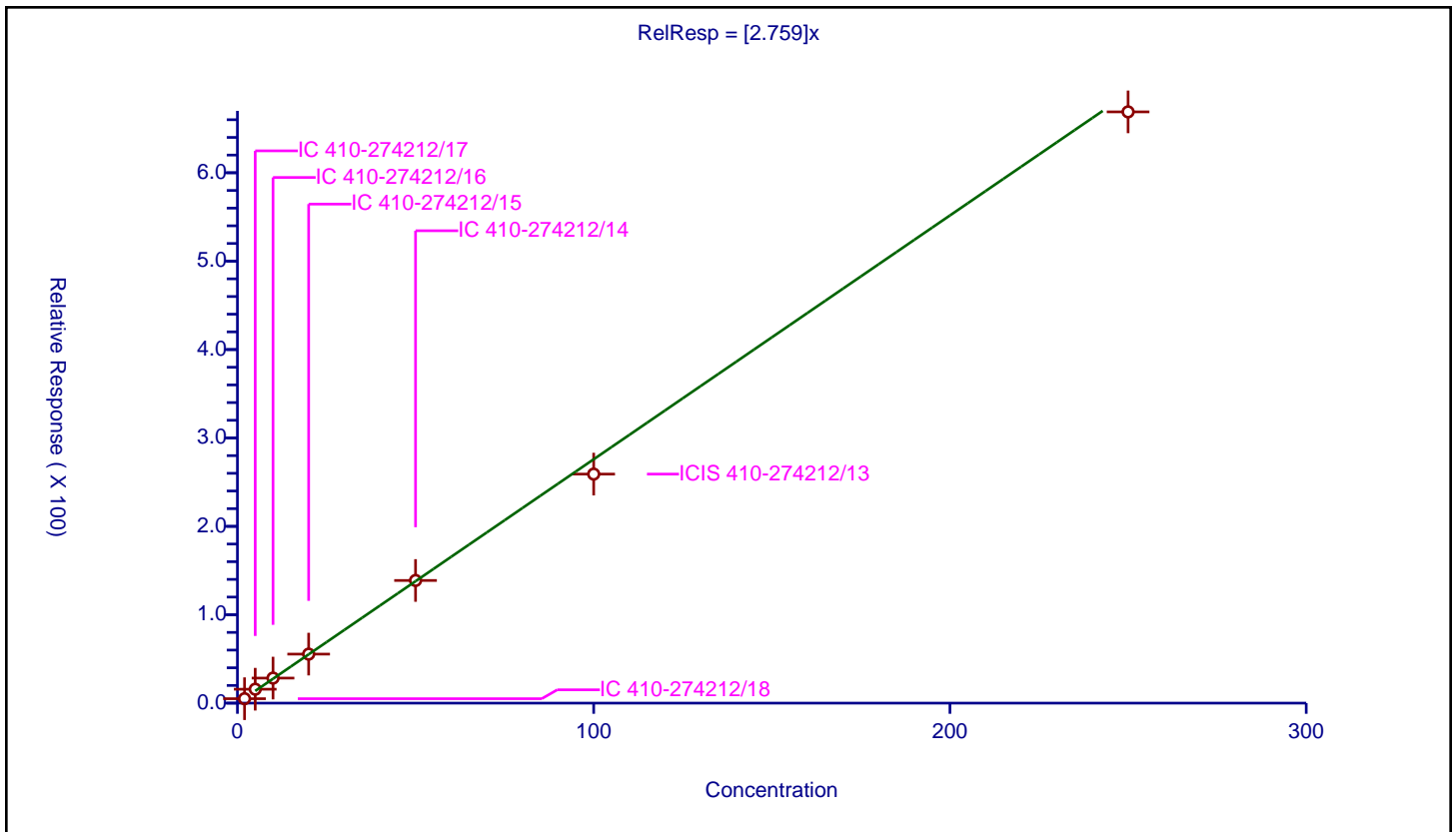
/ Acetone

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

Curve Coefficients	
Intercept:	0
Slope:	2.759

Error Coefficients	
Standard Error:	962000
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 410-274212/18	2.0	5.030766	50.0	161218.0	2.515383	Y
2	IC 410-274212/17	5.0	15.733216	50.0	156891.0	3.146643	Y
3	IC 410-274212/16	10.0	28.339757	50.0	155670.0	2.833976	Y
4	IC 410-274212/15	20.0	55.441055	50.0	167734.0	2.772053	Y
5	IC 410-274212/14	50.0	138.76481	50.0	157069.0	2.775296	Y
6	ICIS 410-274212/13	100.0	259.117065	50.0	169786.0	2.591171	Y
7	IC 410-274212/12	250.0	668.892164	50.0	159455.0	2.675569	Y



Calibration

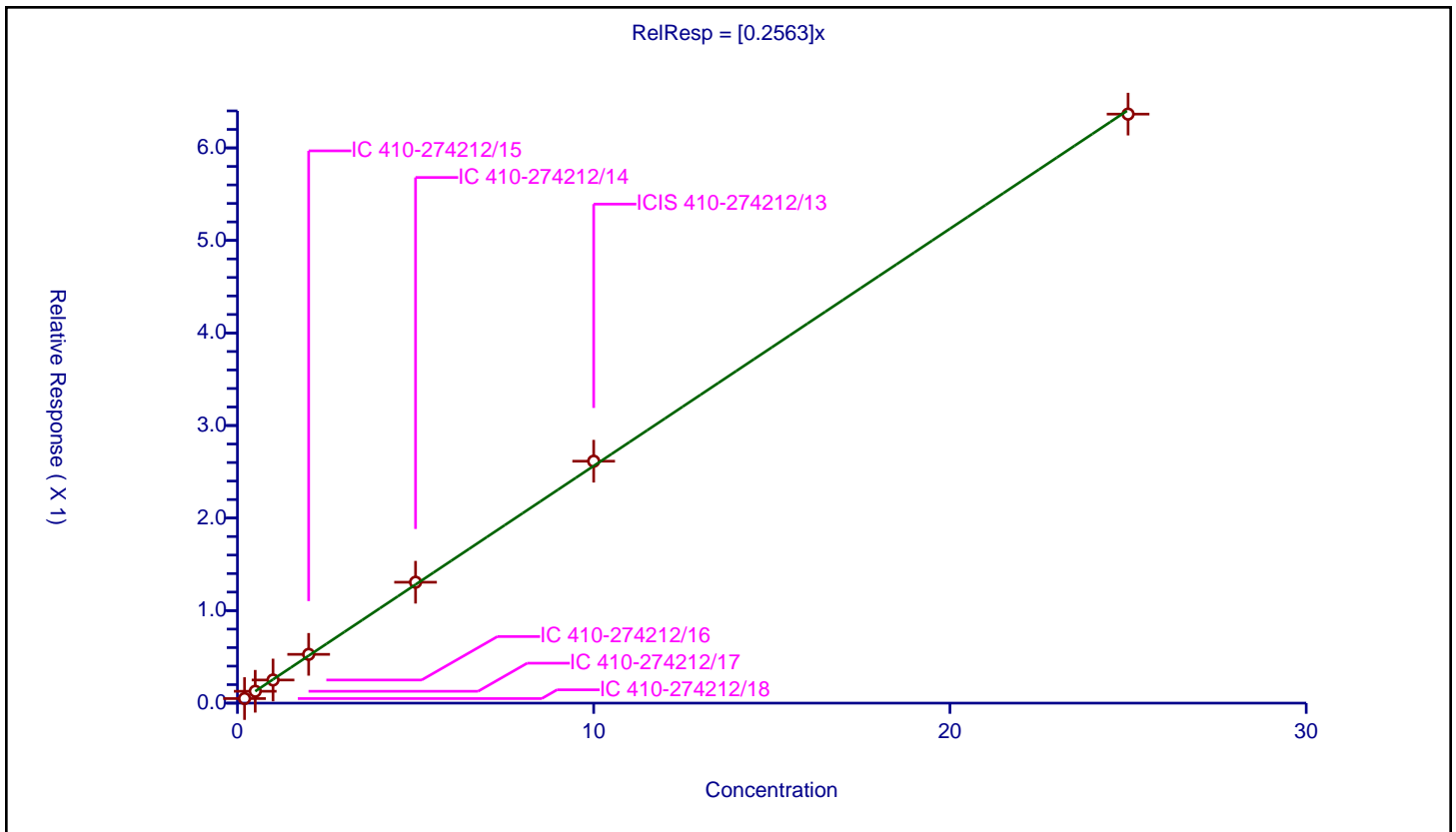
/ 1,1,2-Trichloro-1,2,2-trifluoroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2563

Error Coefficients	
Standard Error:	673000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.049416	10.0	2230453.0	0.24708	Y
2	IC 410-274212/17	0.5	0.128102	10.0	2227997.0	0.256203	Y
3	IC 410-274212/16	1.0	0.249999	10.0	2298931.0	0.249999	Y
4	IC 410-274212/15	2.0	0.527217	10.0	2342051.0	0.263609	Y
5	IC 410-274212/14	5.0	1.306465	10.0	2371836.0	0.261293	Y
6	ICIS 410-274212/13	10.0	2.614485	10.0	2357451.0	0.261448	Y
7	IC 410-274212/12	25.0	6.365199	10.0	2340890.0	0.254608	Y



**Calibration**

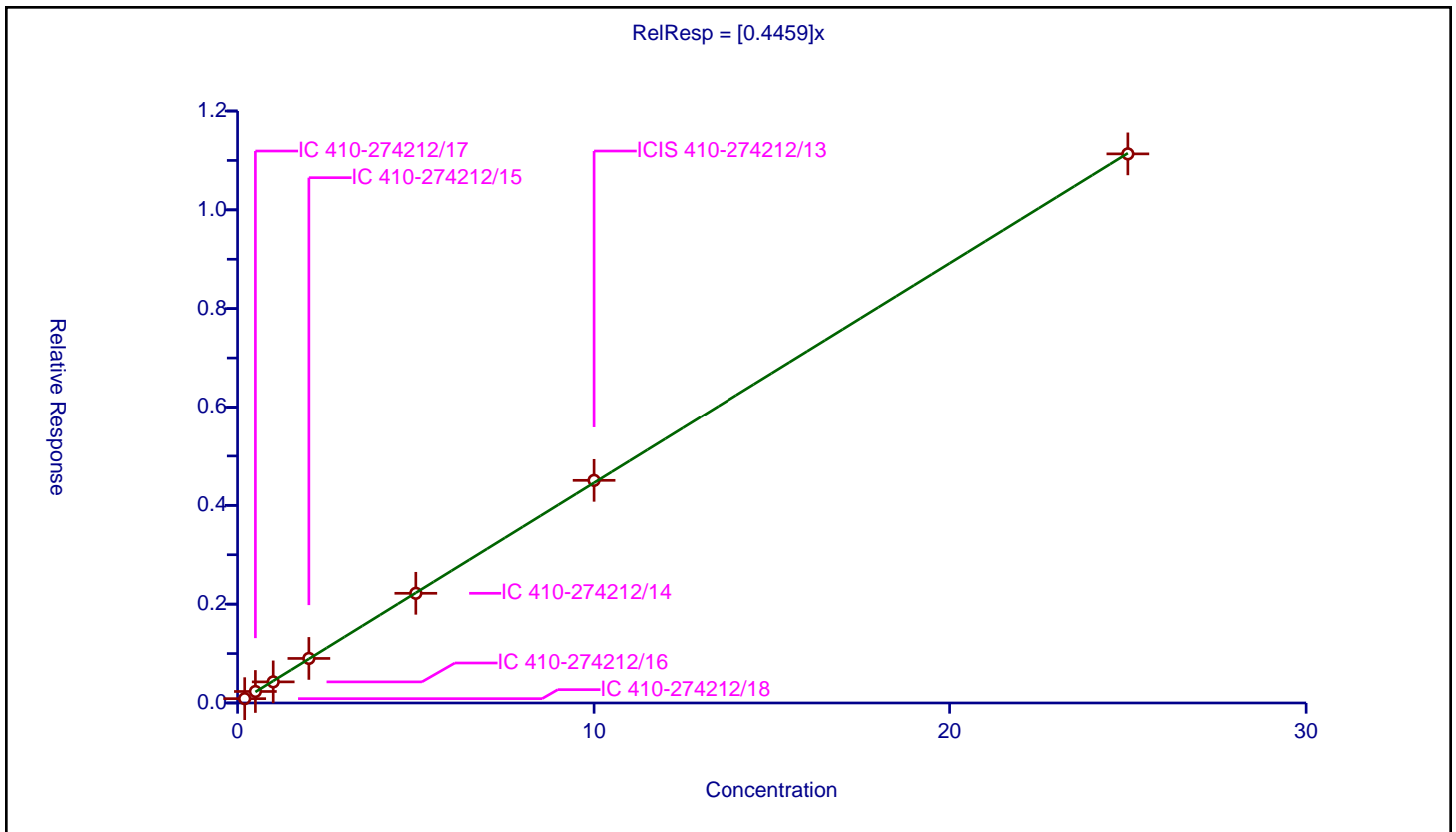
/ Iodomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4459

Error Coefficients	
Standard Error:	1170000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.087502	10.0	2230453.0	0.437512	Y
2	IC 410-274212/17	0.5	0.23294	10.0	2227997.0	0.46588	Y
3	IC 410-274212/16	1.0	0.42712	10.0	2298931.0	0.42712	Y
4	IC 410-274212/15	2.0	0.901513	10.0	2342051.0	0.450757	Y
5	IC 410-274212/14	5.0	2.219618	10.0	2371836.0	0.443924	Y
6	ICIS 410-274212/13	10.0	4.506388	10.0	2357451.0	0.450639	Y
7	IC 410-274212/12	25.0	11.132723	10.0	2340890.0	0.445309	Y





Calibration

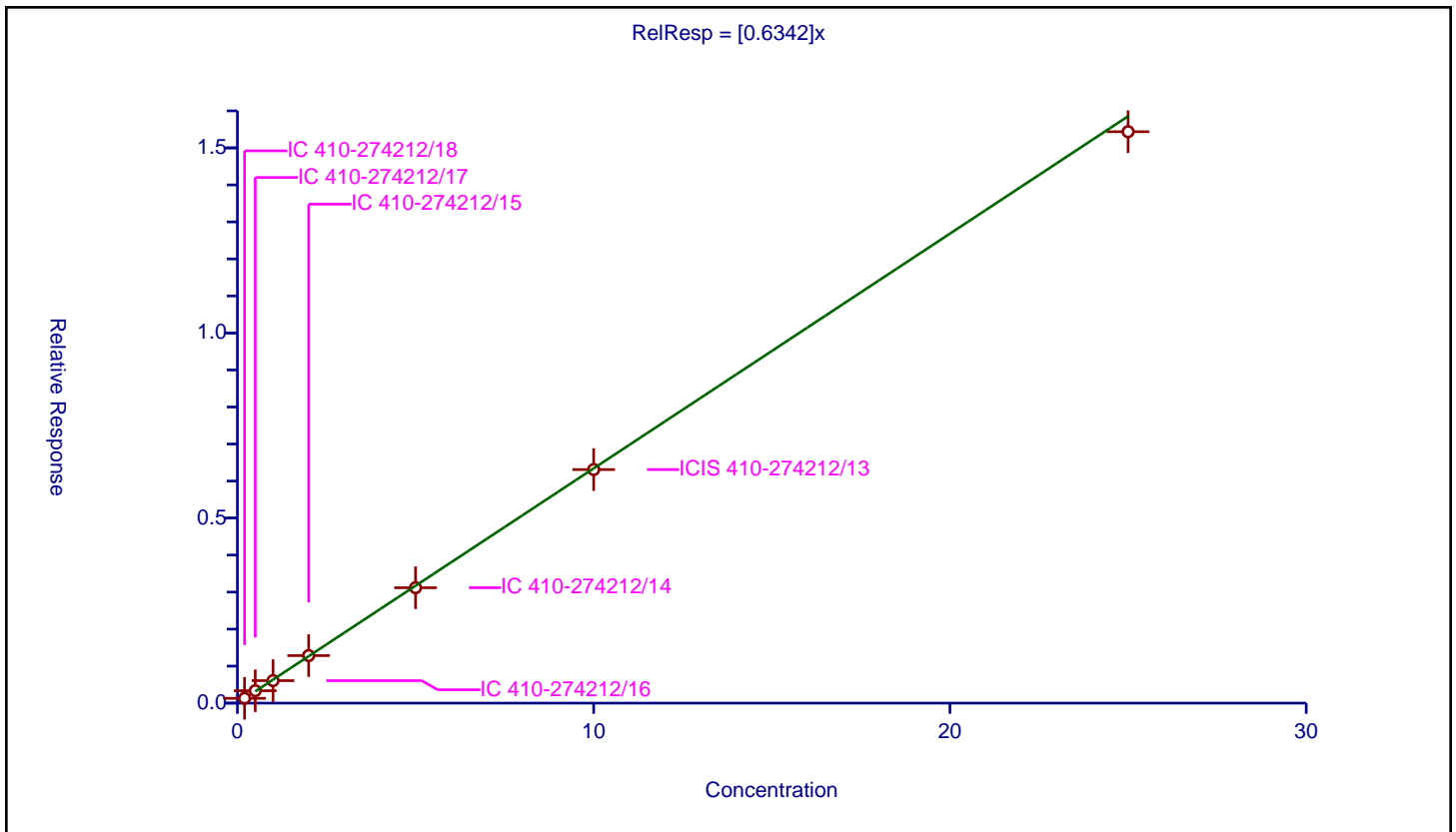
/ Carbon disulfide

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

Curve Coefficients	
Intercept:	0
Slope:	0.6342

Error Coefficients	
Standard Error:	1630000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.129534	10.0	2230453.0	0.647671	Y
2	IC 410-274212/17	0.5	0.334924	10.0	2227997.0	0.669848	Y
3	IC 410-274212/16	1.0	0.607883	10.0	2298931.0	0.607883	Y
4	IC 410-274212/15	2.0	1.283883	10.0	2342051.0	0.641942	Y
5	IC 410-274212/14	5.0	3.11713	10.0	2371836.0	0.623426	Y
6	ICIS 410-274212/13	10.0	6.310019	10.0	2357451.0	0.631002	Y
7	IC 410-274212/12	25.0	15.437385	10.0	2340890.0	0.617495	Y



**Calibration**

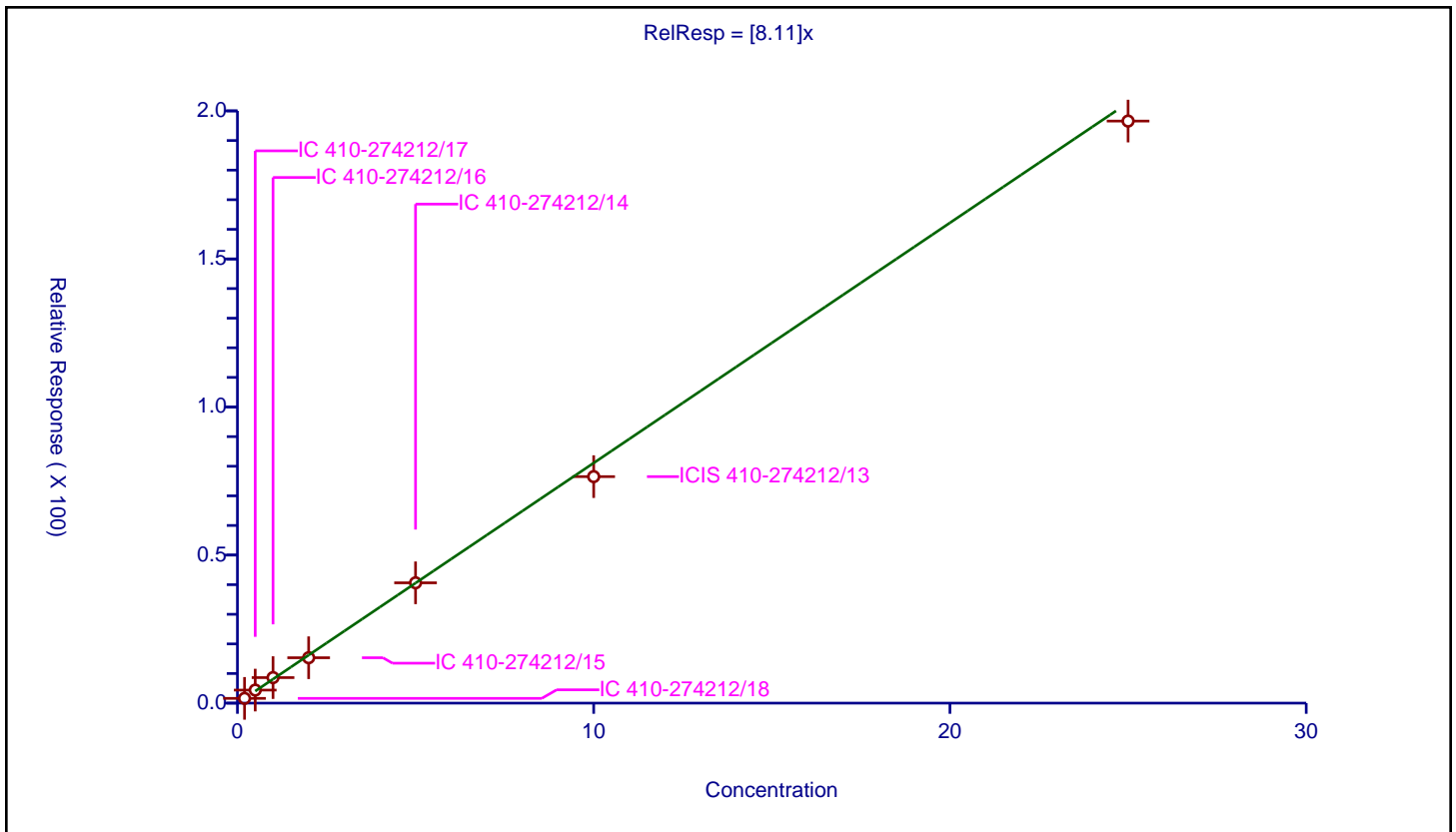
**/ Methyl acetate**

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

Curve Coefficients	
Intercept:	0
Slope:	8.11

Error Coefficients	
Standard Error:	283000
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 410-274212/18	0.2	1.609312	50.0	161218.0	8.046558	Y
2	IC 410-274212/17	0.5	4.398595	50.0	156891.0	8.79719	Y
3	IC 410-274212/16	1.0	8.622085	50.0	155670.0	8.622085	Y
4	IC 410-274212/15	2.0	15.330523	50.0	167734.0	7.665262	Y
5	IC 410-274212/14	5.0	40.631188	50.0	157069.0	8.126238	Y
6	ICIS 410-274212/13	10.0	76.491584	50.0	169786.0	7.649158	Y
7	IC 410-274212/12	25.0	196.560472	50.0	159455.0	7.862419	Y



Calibration

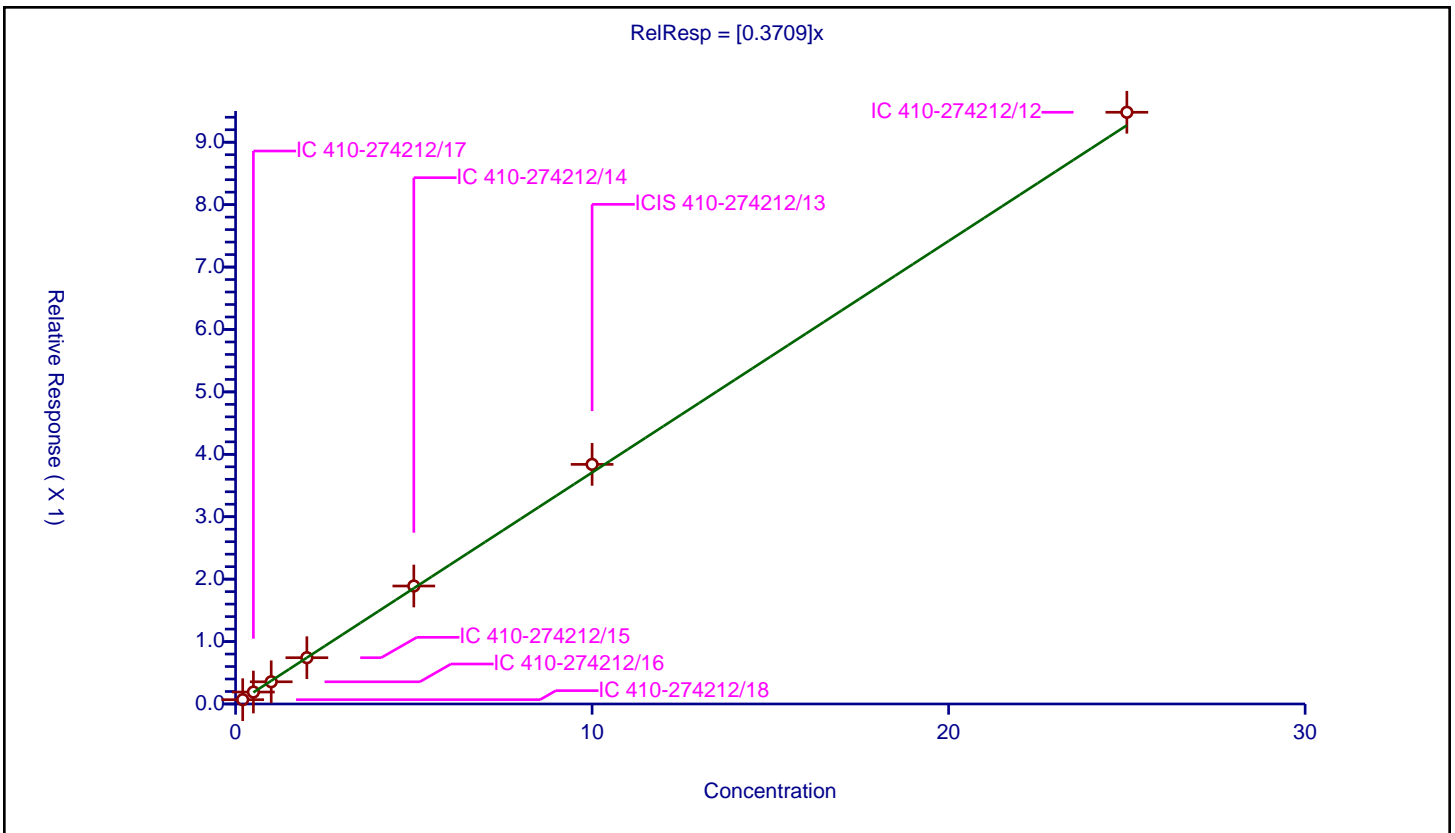
/ 3-Chloro-1-propene

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

Curve Coefficients	
Intercept:	0
Slope:	0.3709

Error Coefficients	
Standard Error:	999000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.069107	10.0	2230453.0	0.345535	Y
2	IC 410-274212/17	0.5	0.191477	10.0	2227997.0	0.382954	Y
3	IC 410-274212/16	1.0	0.355748	10.0	2298931.0	0.355748	Y
4	IC 410-274212/15	2.0	0.741419	10.0	2342051.0	0.370709	Y
5	IC 410-274212/14	5.0	1.890105	10.0	2371836.0	0.378021	Y
6	ICIS 410-274212/13	10.0	3.838871	10.0	2357451.0	0.383887	Y
7	IC 410-274212/12	25.0	9.479732	10.0	2340890.0	0.379189	Y



**Calibration**

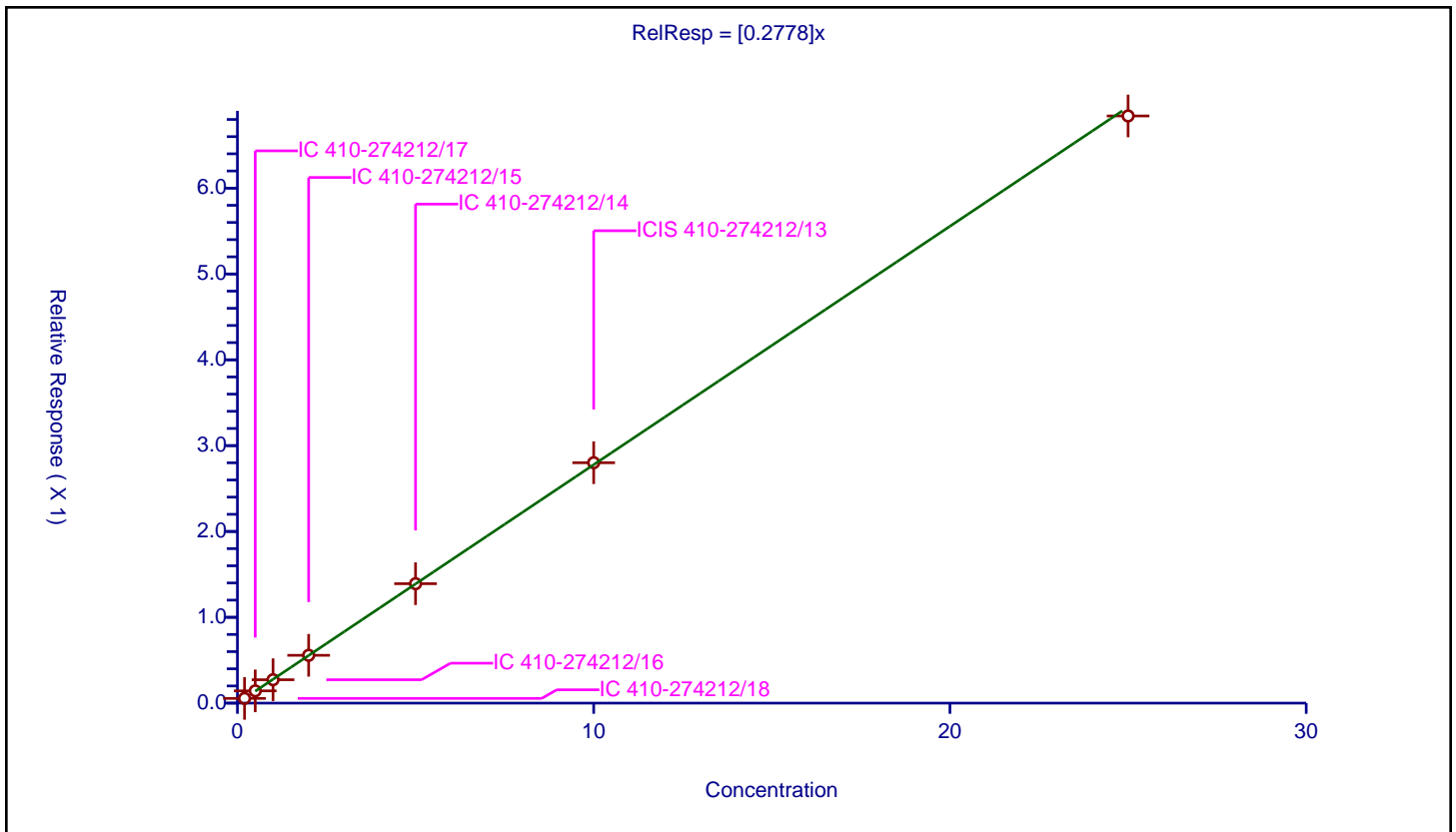
**/ Methylene Chloride**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	0.2778

Error Coefficients	
Standard Error:	722000
Relative Standard Error:	1.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.055146	10.0	2230453.0	0.275729	Y
2	IC 410-274212/17	0.5	0.142783	10.0	2227997.0	0.285566	Y
3	IC 410-274212/16	1.0	0.272714	10.0	2298931.0	0.272714	Y
4	IC 410-274212/15	2.0	0.557012	10.0	2342051.0	0.278506	Y
5	IC 410-274212/14	5.0	1.391483	10.0	2371836.0	0.278297	Y
6	ICIS 410-274212/13	10.0	2.800915	10.0	2357451.0	0.280092	Y
7	IC 410-274212/12	25.0	6.841184	10.0	2340890.0	0.273647	Y



**Calibration**

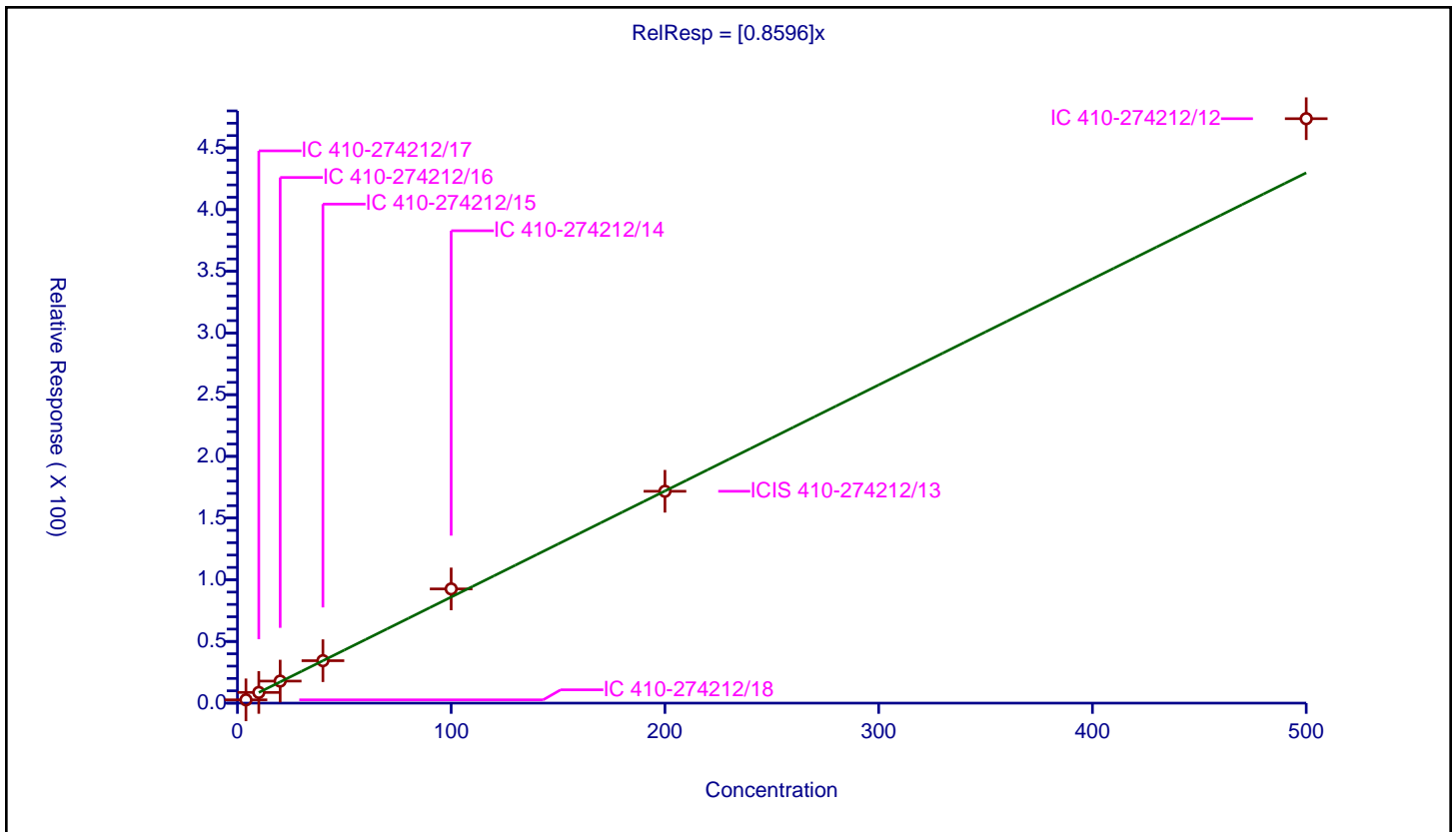
**/ 2-Methyl-2-propanol**

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

Curve Coefficients	
Intercept:	0
Slope:	0.8596

Error Coefficients	
Standard Error:	674000
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 410-274212/18	4.0	2.664405	50.0	161218.0	0.666101	Y
2	IC 410-274212/17	10.0	8.672263	50.0	156891.0	0.867226	Y
3	IC 410-274212/16	20.0	17.857969	50.0	155670.0	0.892898	Y
4	IC 410-274212/15	40.0	34.388079	50.0	167734.0	0.859702	Y
5	IC 410-274212/14	100.0	92.568871	50.0	157069.0	0.925689	Y
6	ICIS 410-274212/13	200.0	171.697902	50.0	169786.0	0.85849	Y
7	IC 410-274212/12	500.0	473.681917	50.0	159455.0	0.947364	Y



**Calibration**

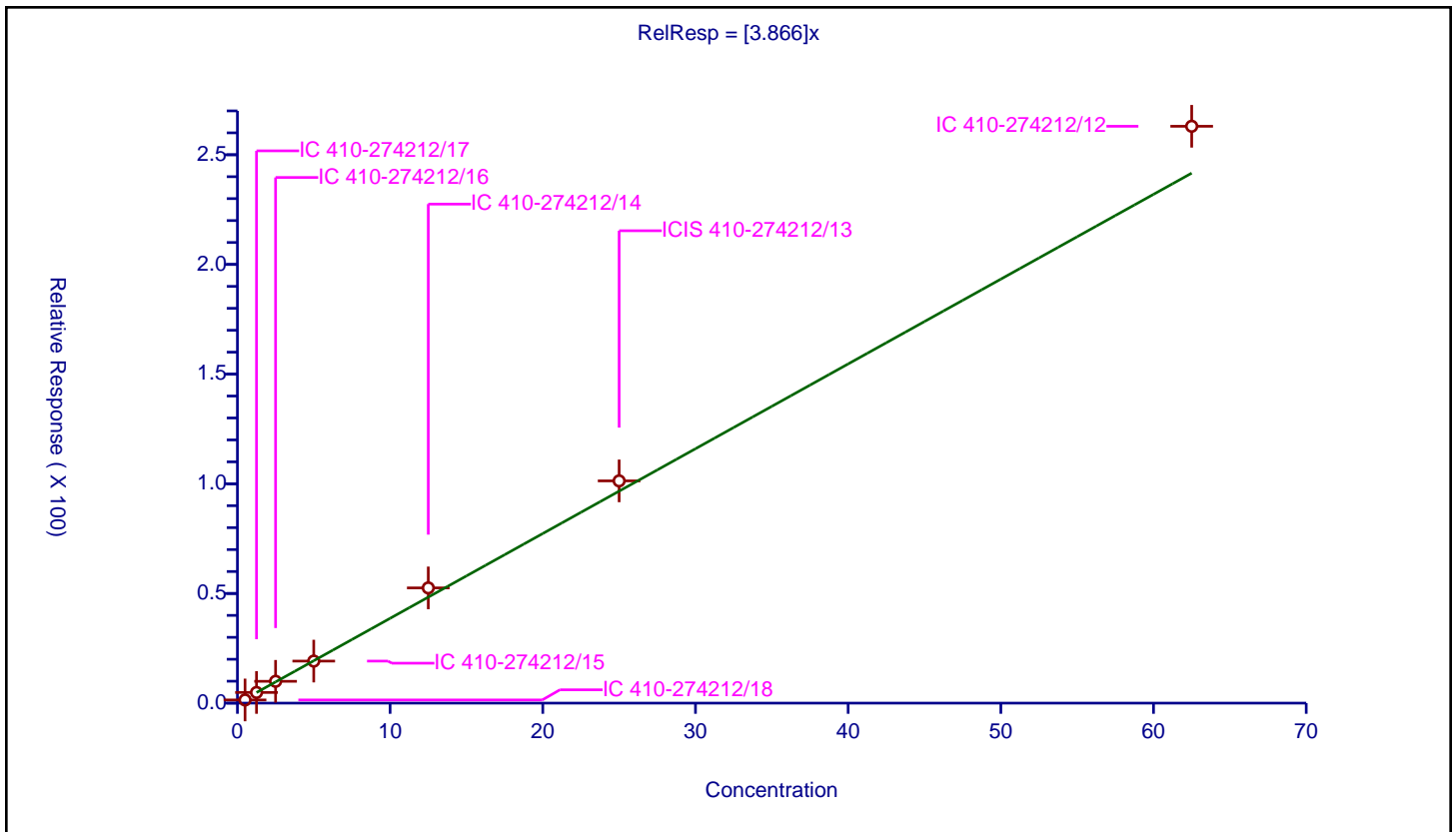
/ Acrylonitrile

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

Curve Coefficients	
Intercept:	0
Slope:	3.866

Error Coefficients	
Standard Error:	377000
Relative Standard Error:	11.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.5	1.44928	50.0	161218.0	2.89856	Y
2	IC 410-274212/17	1.25	4.859743	50.0	156891.0	3.887795	Y
3	IC 410-274212/16	2.5	9.948288	50.0	155670.0	3.979315	Y
4	IC 410-274212/15	5.0	19.166359	50.0	167734.0	3.833272	Y
5	IC 410-274212/14	12.5	52.535192	50.0	157069.0	4.202815	Y
6	ICIS 410-274212/13	25.0	101.320191	50.0	169786.0	4.052808	Y
7	IC 410-274212/12	62.5	262.987677	50.0	159455.0	4.207803	Y



**Calibration**

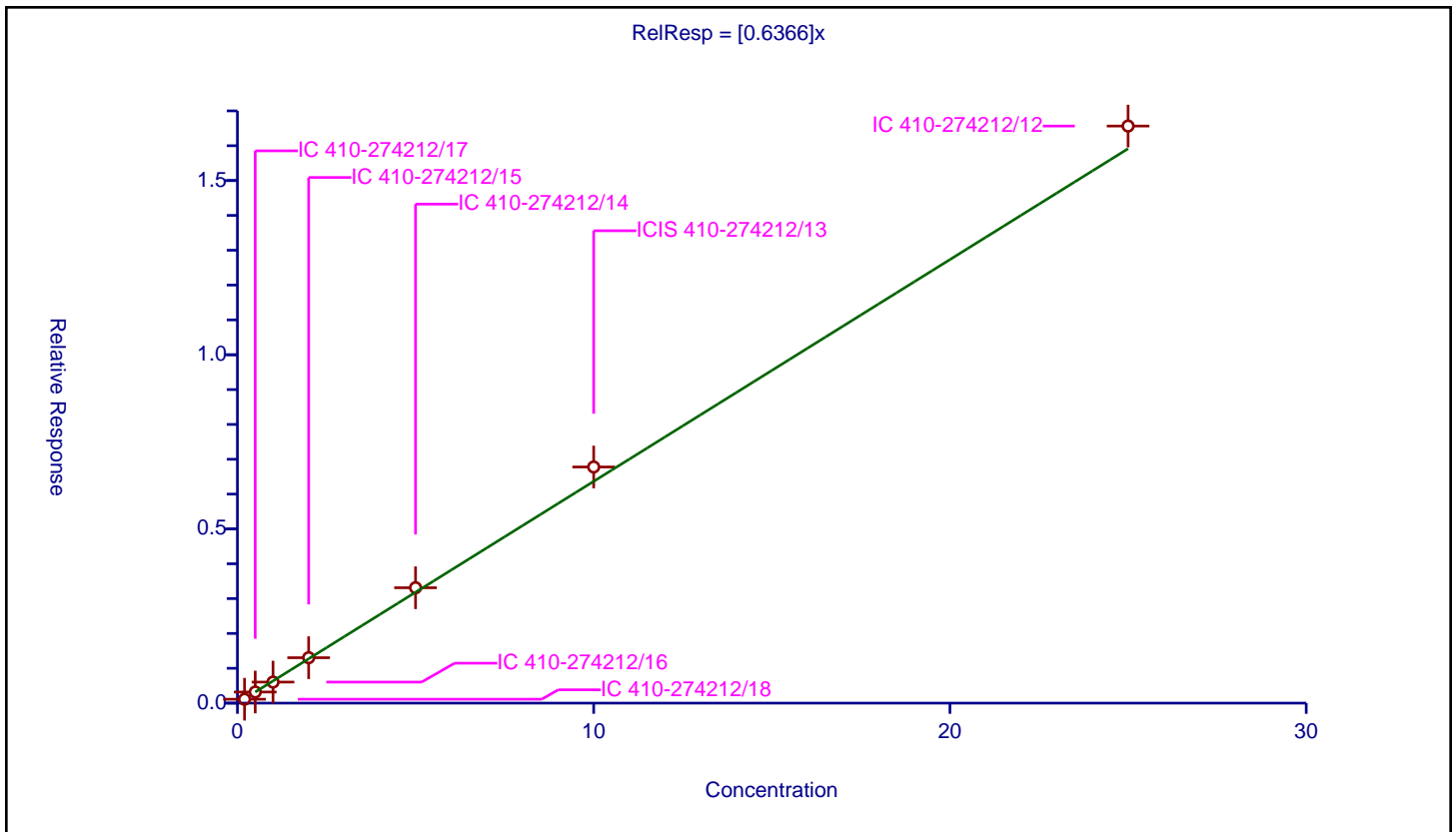
**/ Methyl tert-butyl ether**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	0.6366

Error Coefficients	
<b>Standard Error:</b>	1750000
<b>Relative Standard Error:</b>	6.5
<b>Correlation Coefficient:</b>	1.000
<b>Coefficient of Determination (Adjusted):</b>	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.111906	10.0	2230453.0	0.559528	Y
2	IC 410-274212/17	0.5	0.318928	10.0	2227997.0	0.637855	Y
3	IC 410-274212/16	1.0	0.60405	10.0	2298931.0	0.60405	Y
4	IC 410-274212/15	2.0	1.303682	10.0	2342051.0	0.651841	Y
5	IC 410-274212/14	5.0	3.312269	10.0	2371836.0	0.662454	Y
6	ICIS 410-274212/13	10.0	6.778817	10.0	2357451.0	0.677882	Y
7	IC 410-274212/12	25.0	16.564956	10.0	2340890.0	0.662598	Y



Calibration

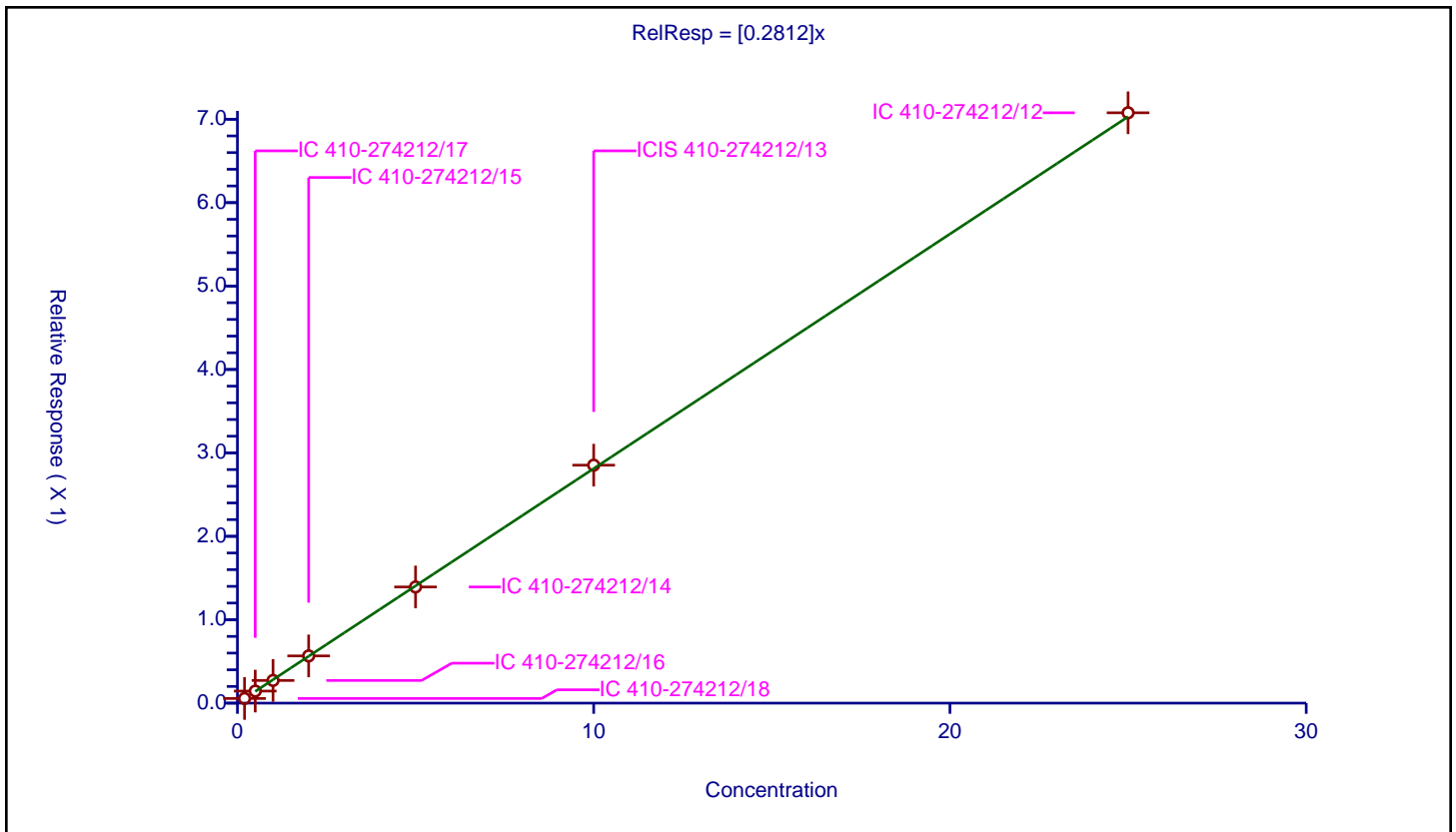
/ trans-1,2-Dichloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.2812

Error Coefficients	
Standard Error:	745000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.055612	10.0	2230453.0	0.27806	Y
2	IC 410-274212/17	0.5	0.144367	10.0	2227997.0	0.288735	Y
3	IC 410-274212/16	1.0	0.271865	10.0	2298931.0	0.271865	Y
4	IC 410-274212/15	2.0	0.56579	10.0	2342051.0	0.282895	Y
5	IC 410-274212/14	5.0	1.392748	10.0	2371836.0	0.27855	Y
6	ICIS 410-274212/13	10.0	2.852882	10.0	2357451.0	0.285288	Y
7	IC 410-274212/12	25.0	7.077197	10.0	2340890.0	0.283088	Y





Calibration

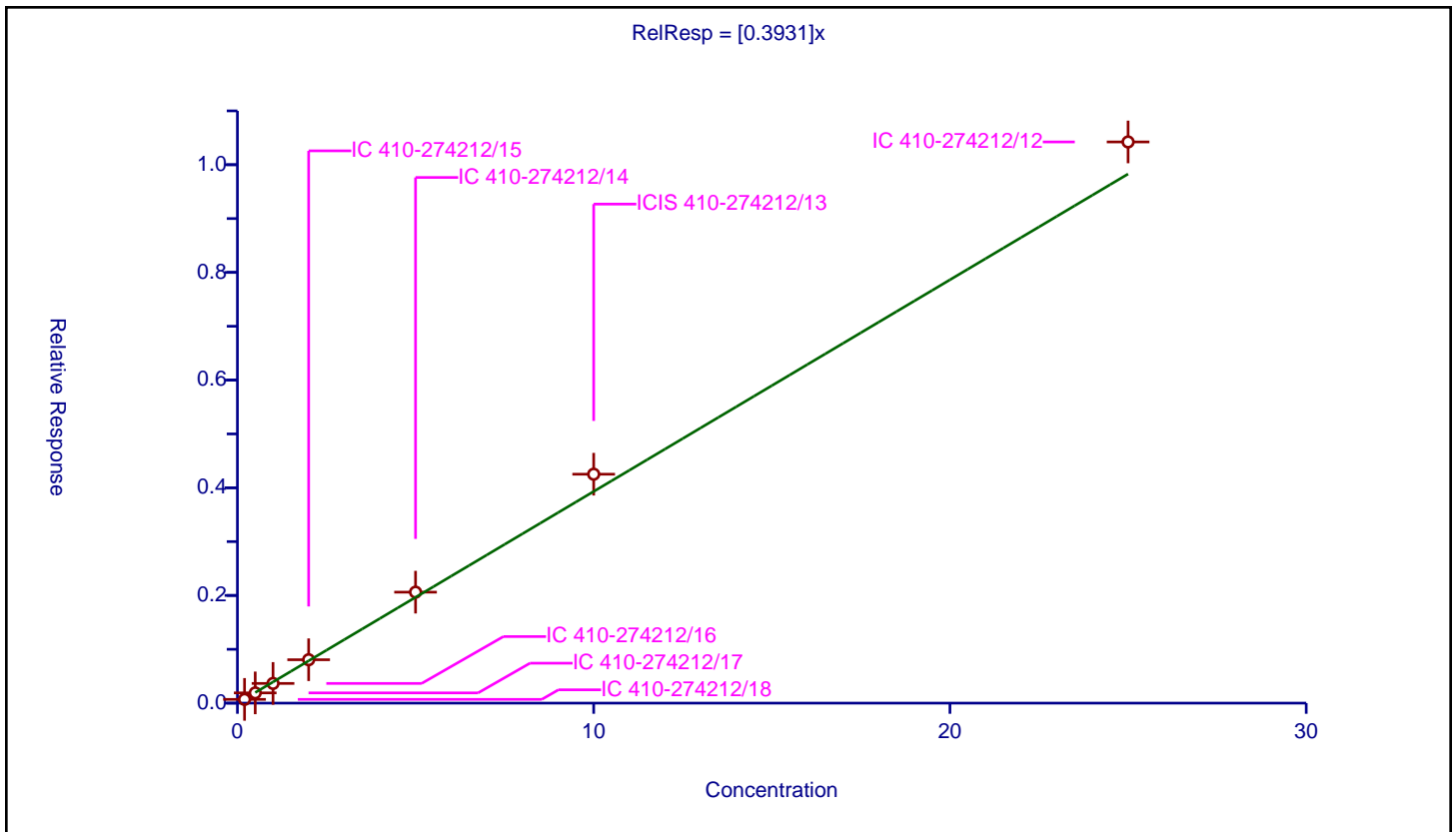
/ Hexane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3931

Error Coefficients	
Standard Error:	1100000
Relative Standard Error:	7.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.069694	10.0	2230453.0	0.348472	Y
2	IC 410-274212/17	0.5	0.190072	10.0	2227997.0	0.380144	Y
3	IC 410-274212/16	1.0	0.365927	10.0	2298931.0	0.365927	Y
4	IC 410-274212/15	2.0	0.80593	10.0	2342051.0	0.402965	Y
5	IC 410-274212/14	5.0	2.061146	10.0	2371836.0	0.412229	Y
6	ICIS 410-274212/13	10.0	4.25216	10.0	2357451.0	0.425216	Y
7	IC 410-274212/12	25.0	10.423164	10.0	2340890.0	0.416927	Y



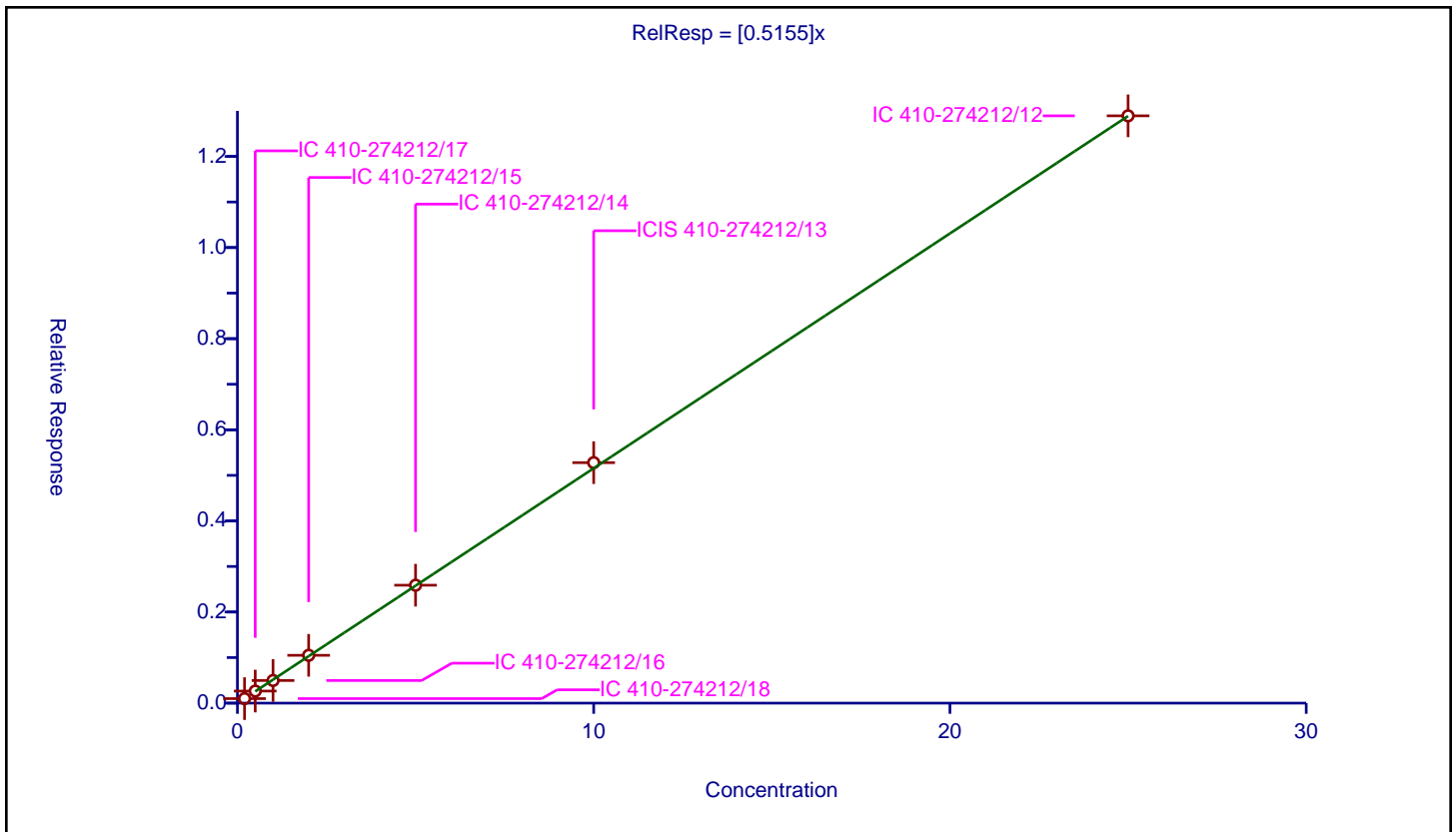
Calibration

/ 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:	0.5155
Error Coefficients	
Standard Error:	1360000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.099168	10.0	2230453.0	0.495841	Y
2	IC 410-274212/17	0.5	0.264866	10.0	2227997.0	0.529731	Y
3	IC 410-274212/16	1.0	0.496696	10.0	2298931.0	0.496696	Y
4	IC 410-274212/15	2.0	1.04961	10.0	2342051.0	0.524805	Y
5	IC 410-274212/14	5.0	2.588235	10.0	2371836.0	0.517647	Y
6	ICIS 410-274212/13	10.0	5.278769	10.0	2357451.0	0.527877	Y
7	IC 410-274212/12	25.0	12.891708	10.0	2340890.0	0.515668	Y



Calibration

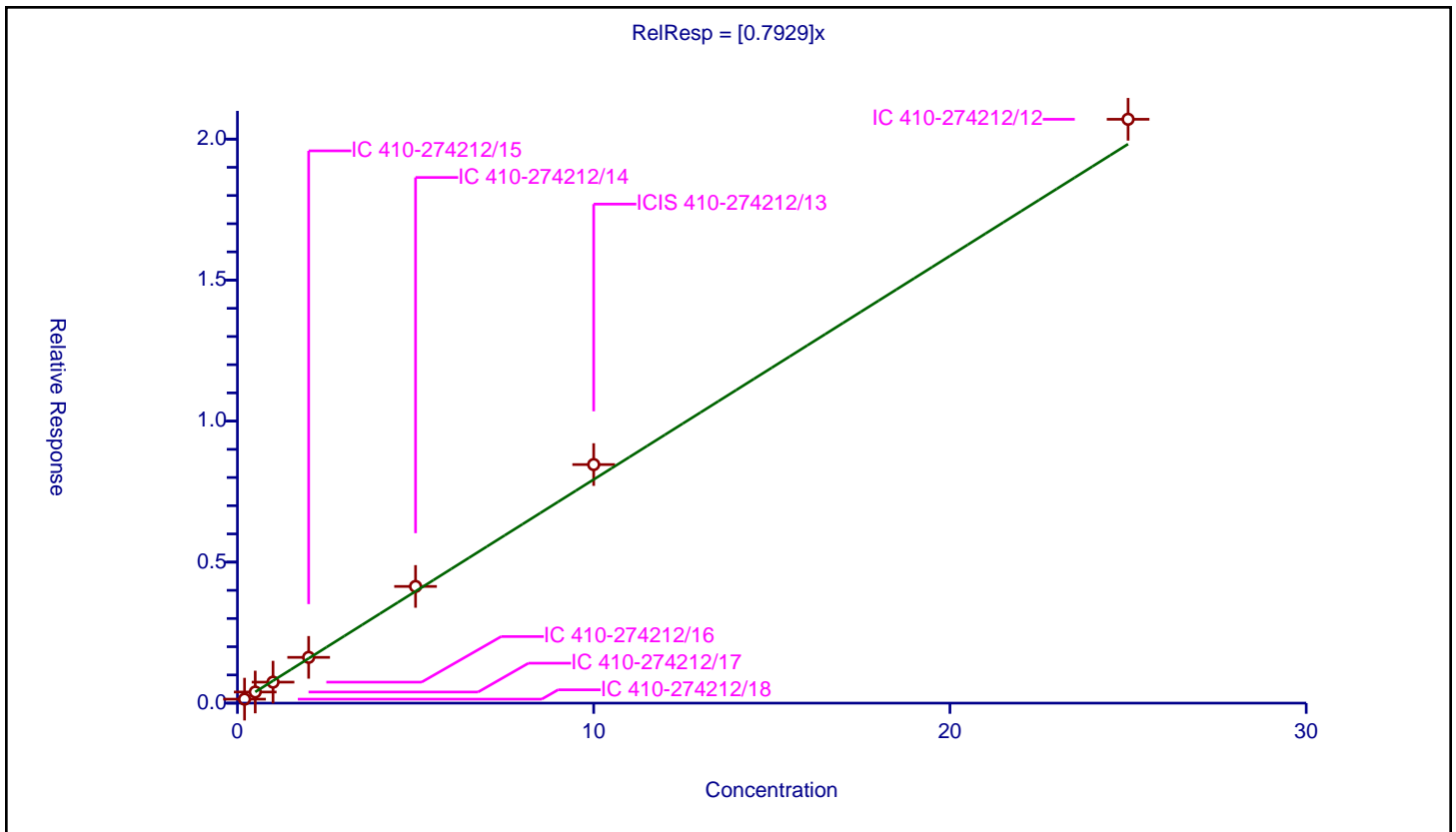
/ Isopropyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.7929

Error Coefficients	
Standard Error:	2180000
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 410-274212/18	0.2	0.14081	10.0	2230453.0	0.70405	Y
2	IC 410-274212/17	0.5	0.394327	10.0	2227997.0	0.788655	Y
3	IC 410-274212/16	1.0	0.744785	10.0	2298931.0	0.744785	Y
4	IC 410-274212/15	2.0	1.622817	10.0	2342051.0	0.811408	Y
5	IC 410-274212/14	5.0	4.137453	10.0	2371836.0	0.827491	Y
6	ICIS 410-274212/13	10.0	8.459501	10.0	2357451.0	0.84595	Y
7	IC 410-274212/12	25.0	20.702532	10.0	2340890.0	0.828101	Y



Calibration

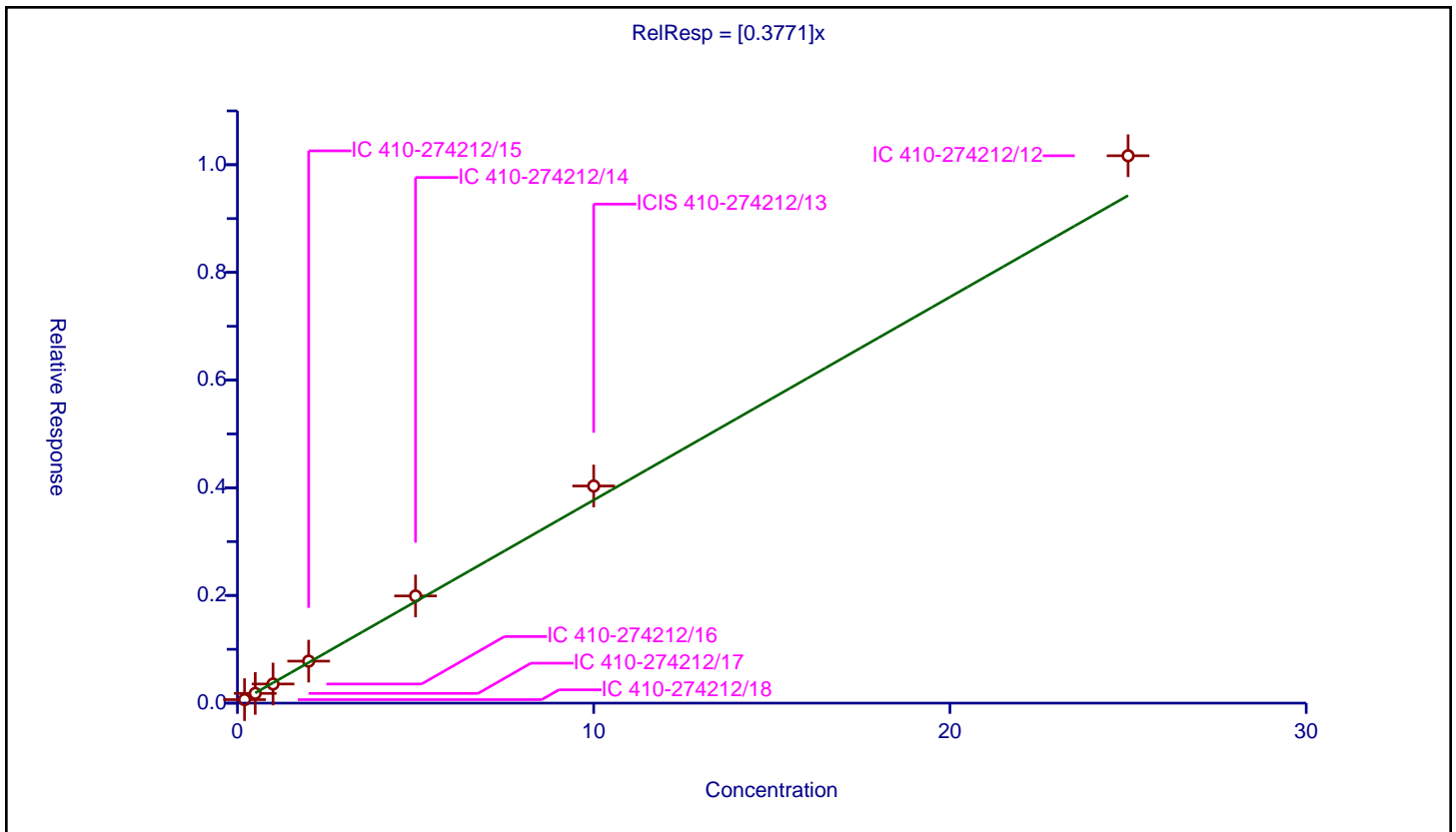
/ 2-Chloro-1,3-butadiene

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

Curve Coefficients	
Intercept:	0
Slope:	0.3771

Error Coefficients	
Standard Error:	1070000
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 410-274212/18	0.2	0.064978	10.0	2230453.0	0.324889	Y
2	IC 410-274212/17	0.5	0.180786	10.0	2227997.0	0.361571	Y
3	IC 410-274212/16	1.0	0.3553	10.0	2298931.0	0.3553	Y
4	IC 410-274212/15	2.0	0.779987	10.0	2342051.0	0.389994	Y
5	IC 410-274212/14	5.0	1.990795	10.0	2371836.0	0.398159	Y
6	ICIS 410-274212/13	10.0	4.032835	10.0	2357451.0	0.403283	Y
7	IC 410-274212/12	25.0	10.166808	10.0	2340890.0	0.406672	Y



Calibration

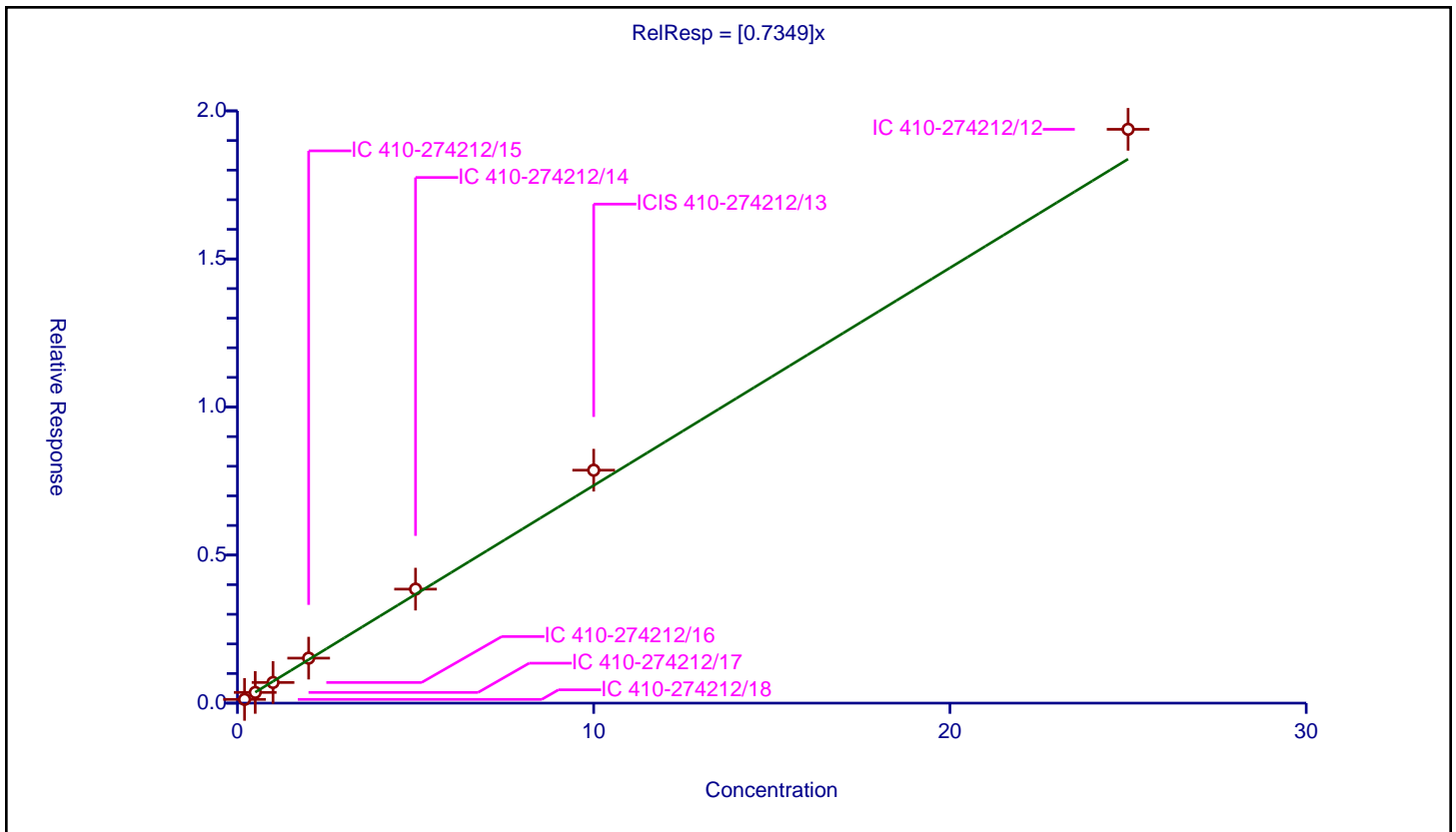
/ Tert-butyl ethyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.7349

Error Coefficients	
Standard Error:	2040000
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 410-274212/18	0.2	0.126423	10.0	2230453.0	0.632114	Y
2	IC 410-274212/17	0.5	0.361904	10.0	2227997.0	0.723807	Y
3	IC 410-274212/16	1.0	0.697189	10.0	2298931.0	0.697189	Y
4	IC 410-274212/15	2.0	1.519237	10.0	2342051.0	0.759618	Y
5	IC 410-274212/14	5.0	3.849967	10.0	2371836.0	0.769993	Y
6	ICIS 410-274212/13	10.0	7.866344	10.0	2357451.0	0.786634	Y
7	IC 410-274212/12	25.0	19.377224	10.0	2340890.0	0.775089	Y



Calibration

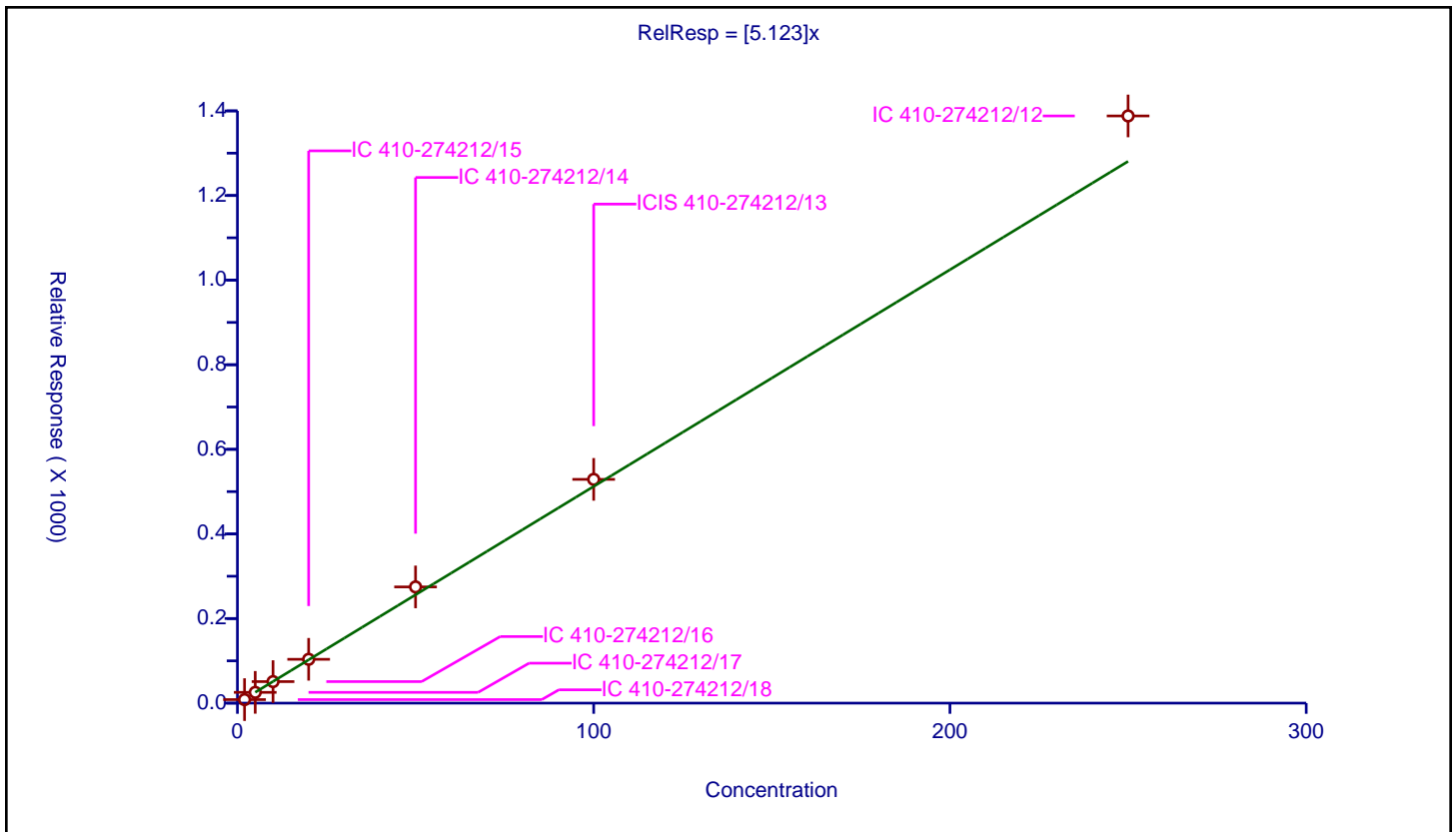
/ 2-Butanone (MEK)

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

Curve Coefficients	
Intercept:	0
Slope:	5.123

Error Coefficients	
Standard Error:	1990000
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 410-274212/18	2.0	8.320411	50.0	161218.0	4.160205	Y
2	IC 410-274212/17	5.0	25.475011	50.0	156891.0	5.095002	Y
3	IC 410-274212/16	10.0	50.872037	50.0	155670.0	5.087204	Y
4	IC 410-274212/15	20.0	103.594382	50.0	167734.0	5.179719	Y
5	IC 410-274212/14	50.0	274.744221	50.0	157069.0	5.494884	Y
6	ICIS 410-274212/13	100.0	528.955862	50.0	169786.0	5.289559	Y
7	IC 410-274212/12	250.0	1388.053056	50.0	159455.0	5.552212	Y



Calibration

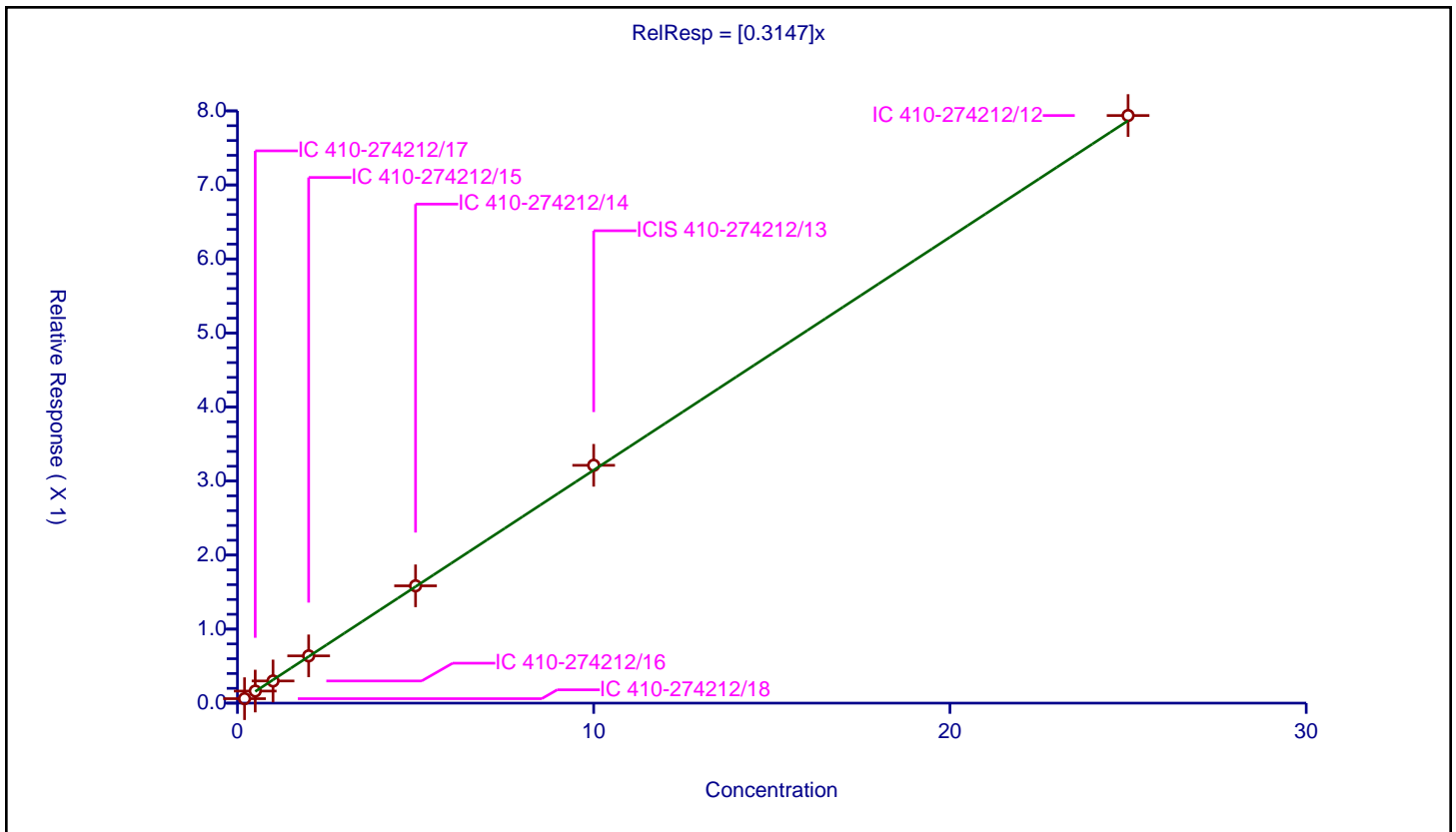
/ cis-1,2-Dichloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.3147

Error Coefficients	
Standard Error:	836000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.060436	10.0	2230453.0	0.302181	Y
2	IC 410-274212/17	0.5	0.163178	10.0	2227997.0	0.326356	Y
3	IC 410-274212/16	1.0	0.299635	10.0	2298931.0	0.299635	Y
4	IC 410-274212/15	2.0	0.638381	10.0	2342051.0	0.31919	Y
5	IC 410-274212/14	5.0	1.584772	10.0	2371836.0	0.316954	Y
6	ICIS 410-274212/13	10.0	3.212432	10.0	2357451.0	0.321243	Y
7	IC 410-274212/12	25.0	7.93749	10.0	2340890.0	0.3175	Y



Calibration

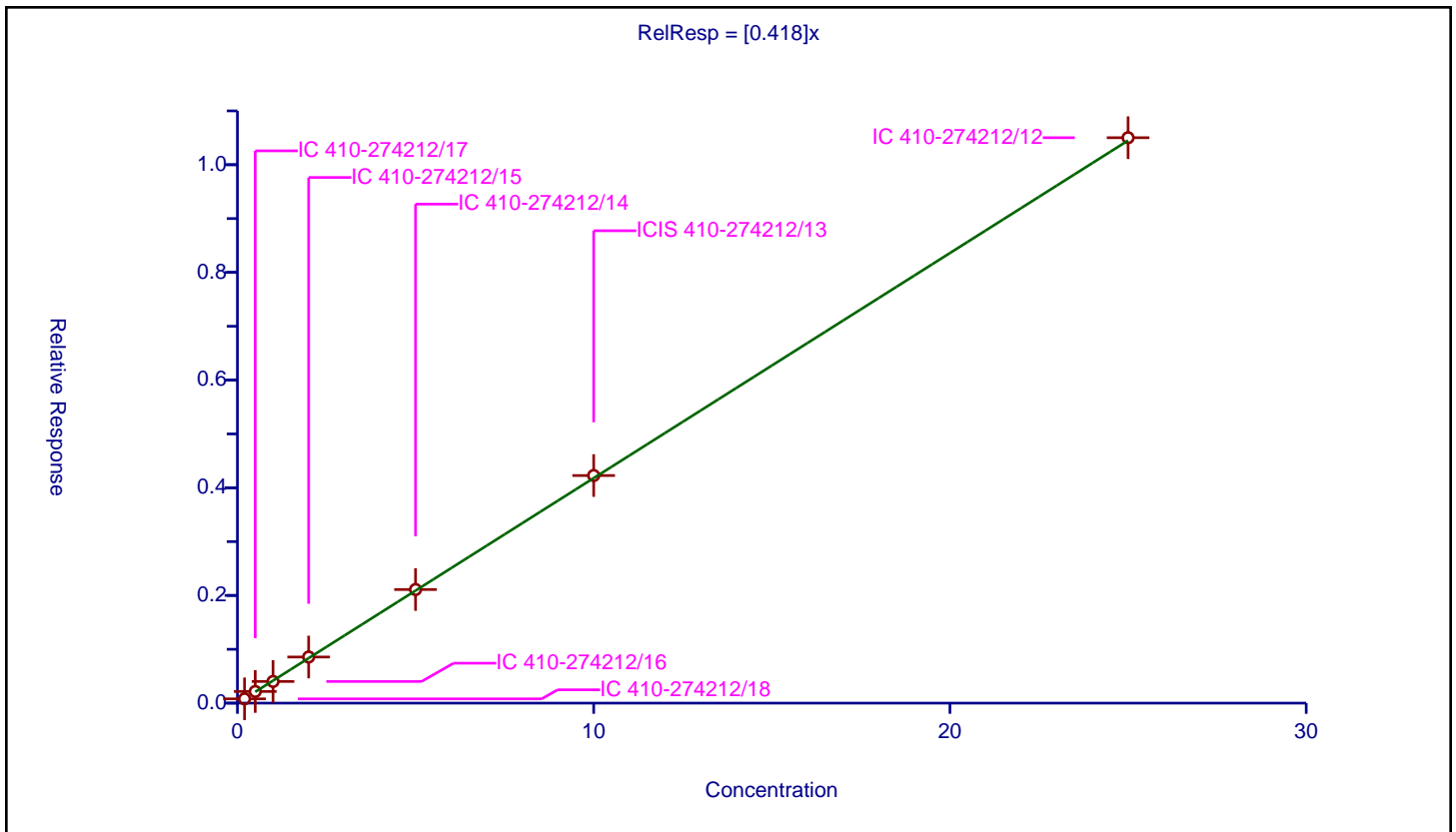
/ 2,2-Dichloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.418

Error Coefficients	
Standard Error:	1110000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.079567	10.0	2230453.0	0.397834	Y
2	IC 410-274212/17	0.5	0.216383	10.0	2227997.0	0.432765	Y
3	IC 410-274212/16	1.0	0.402257	10.0	2298931.0	0.402257	Y
4	IC 410-274212/15	2.0	0.856395	10.0	2342051.0	0.428197	Y
5	IC 410-274212/14	5.0	2.109944	10.0	2371836.0	0.421989	Y
6	ICIS 410-274212/13	10.0	4.227363	10.0	2357451.0	0.422736	Y
7	IC 410-274212/12	25.0	10.501655	10.0	2340890.0	0.420066	Y





Calibration

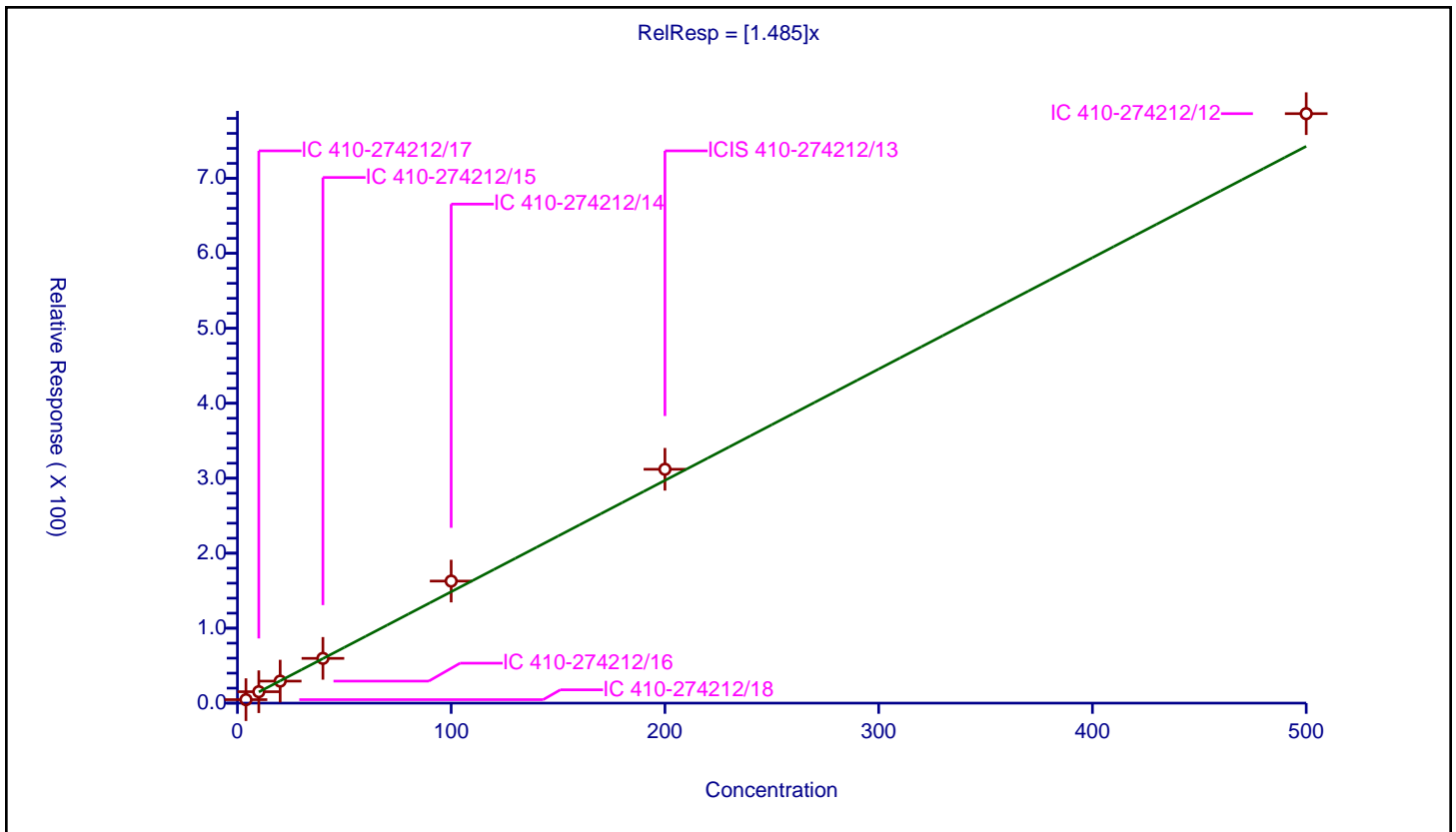
/ Propionitrile

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

Curve Coefficients	
Intercept:	0
Slope:	1.485

Error Coefficients	
Standard Error:	1130000
Relative Standard Error:	10.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	4.0	4.619832	50.0	161218.0	1.154958	Y
2	IC 410-274212/17	10.0	15.217571	50.0	156891.0	1.521757	Y
3	IC 410-274212/16	20.0	29.367251	50.0	155670.0	1.468363	Y
4	IC 410-274212/15	40.0	59.712104	50.0	167734.0	1.492803	Y
5	IC 410-274212/14	100.0	162.819207	50.0	157069.0	1.628192	Y
6	ICIS 410-274212/13	200.0	311.938558	50.0	169786.0	1.559693	Y
7	IC 410-274212/12	500.0	786.294566	50.0	159455.0	1.572589	Y



**Calibration**

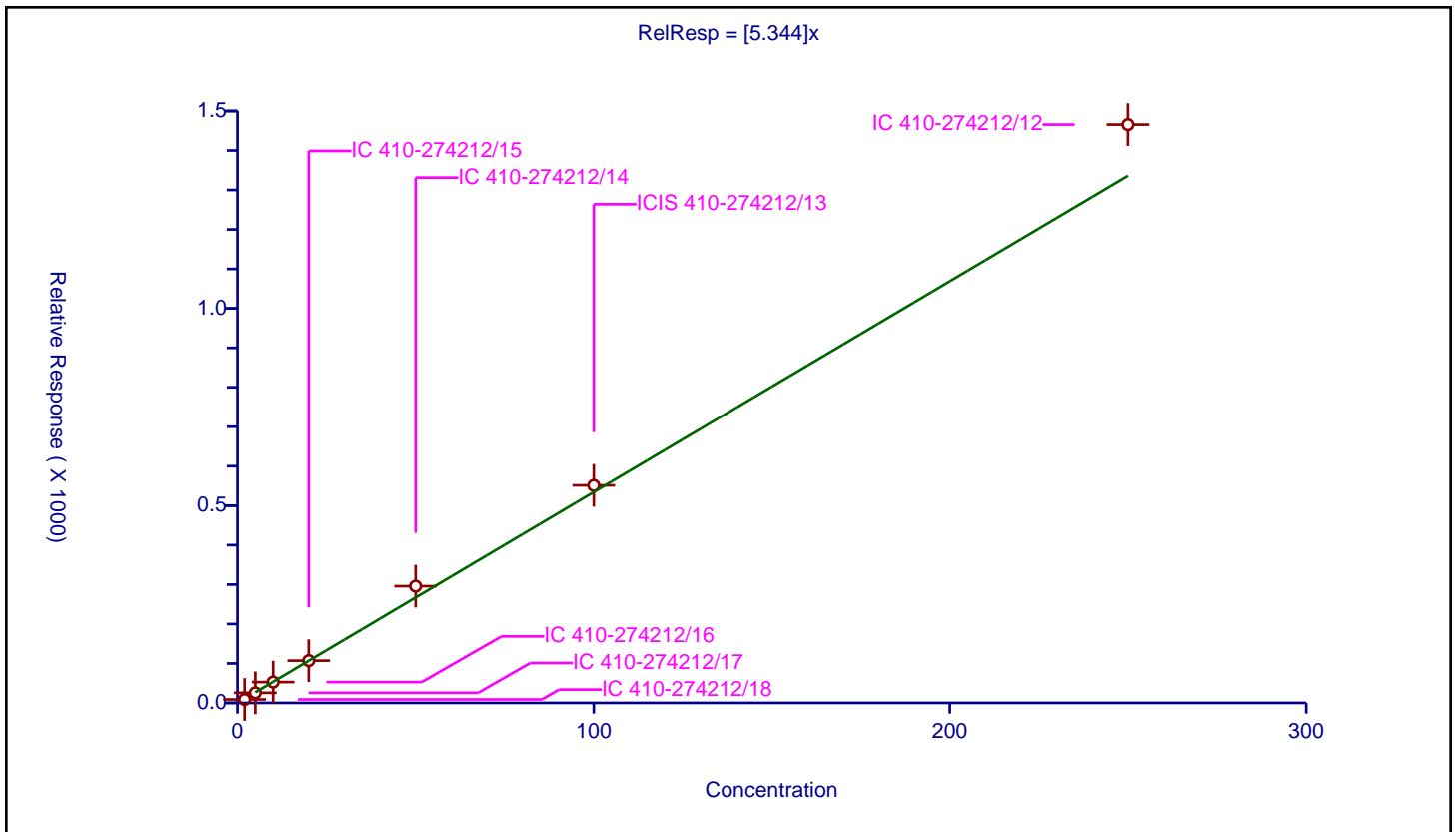
**/ Methacrylonitrile**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	5.344

Error Coefficients	
<b>Standard Error:</b>	2100000
<b>Relative Standard Error:</b>	9.8
<b>Correlation Coefficient:</b>	1.000
<b>Coefficient of Determination (Adjusted):</b>	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	2.0	8.711186	50.0	161218.0	4.355593	Y
2	IC 410-274212/17	5.0	25.593565	50.0	156891.0	5.118713	Y
3	IC 410-274212/16	10.0	52.788912	50.0	155670.0	5.278891	Y
4	IC 410-274212/15	20.0	107.16581	50.0	167734.0	5.358291	Y
5	IC 410-274212/14	50.0	295.994117	50.0	157069.0	5.919882	Y
6	ICIS 410-274212/13	100.0	551.331676	50.0	169786.0	5.513317	Y
7	IC 410-274212/12	250.0	1465.690947	50.0	159455.0	5.862764	Y



Calibration

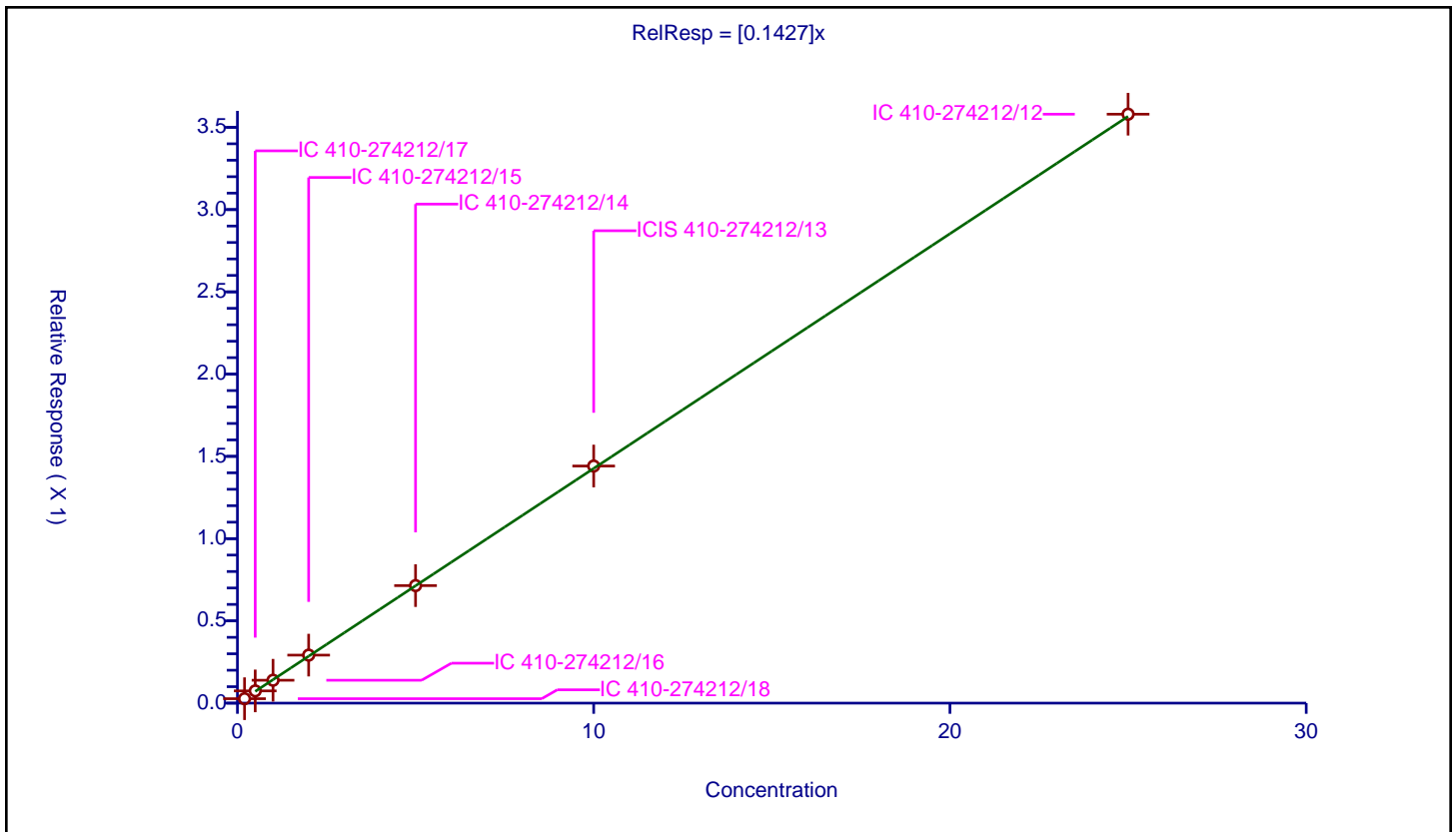
/ Chlorobromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.1427

Error Coefficients	
Standard Error:	377000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.026941	10.0	2230453.0	0.134704	Y
2	IC 410-274212/17	0.5	0.074385	10.0	2227997.0	0.14877	Y
3	IC 410-274212/16	1.0	0.139073	10.0	2298931.0	0.139073	Y
4	IC 410-274212/15	2.0	0.291872	10.0	2342051.0	0.145936	Y
5	IC 410-274212/14	5.0	0.714303	10.0	2371836.0	0.142861	Y
6	ICIS 410-274212/13	10.0	1.441213	10.0	2357451.0	0.144121	Y
7	IC 410-274212/12	25.0	3.579908	10.0	2340890.0	0.143196	Y



**Calibration**

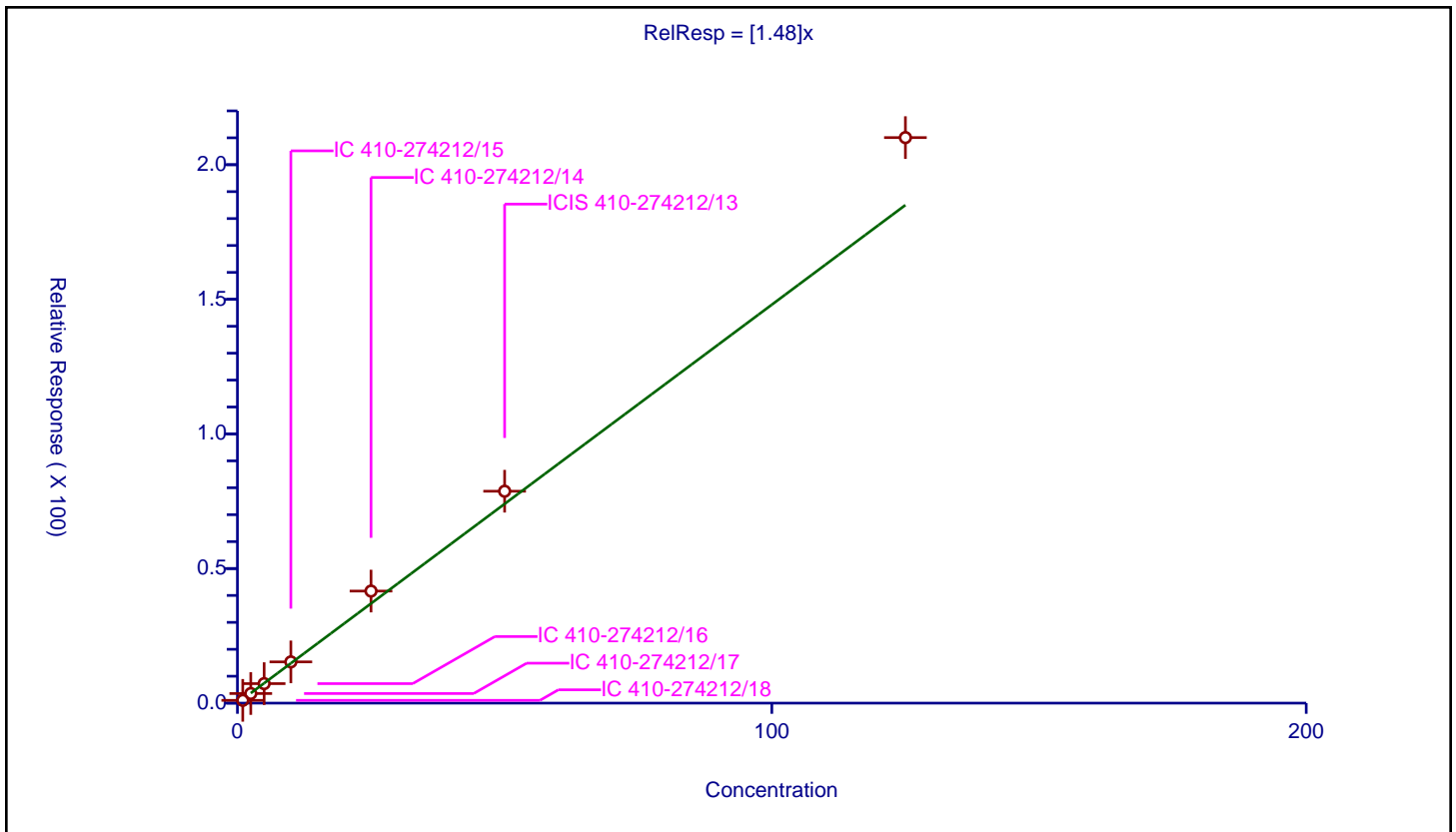
/ Tetrahydrofuran

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

Curve Coefficients	
Intercept:	0
Slope:	1.48

Error Coefficients	
Standard Error:	300000
Relative Standard Error:	14.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	1.0	1.034934	50.0	161218.0	1.034934	Y
2	IC 410-274212/17	2.5	3.562665	50.0	156891.0	1.425066	Y
3	IC 410-274212/16	5.0	7.243207	50.0	155670.0	1.448641	Y
4	IC 410-274212/15	10.0	15.319196	50.0	167734.0	1.53192	Y
5	IC 410-274212/14	25.0	41.629475	50.0	157069.0	1.665179	Y
6	ICIS 410-274212/13	50.0	78.723216	50.0	169786.0	1.574464	Y
7	IC 410-274212/12	125.0	210.077451	50.0	159455.0	1.68062	Y



**Calibration**

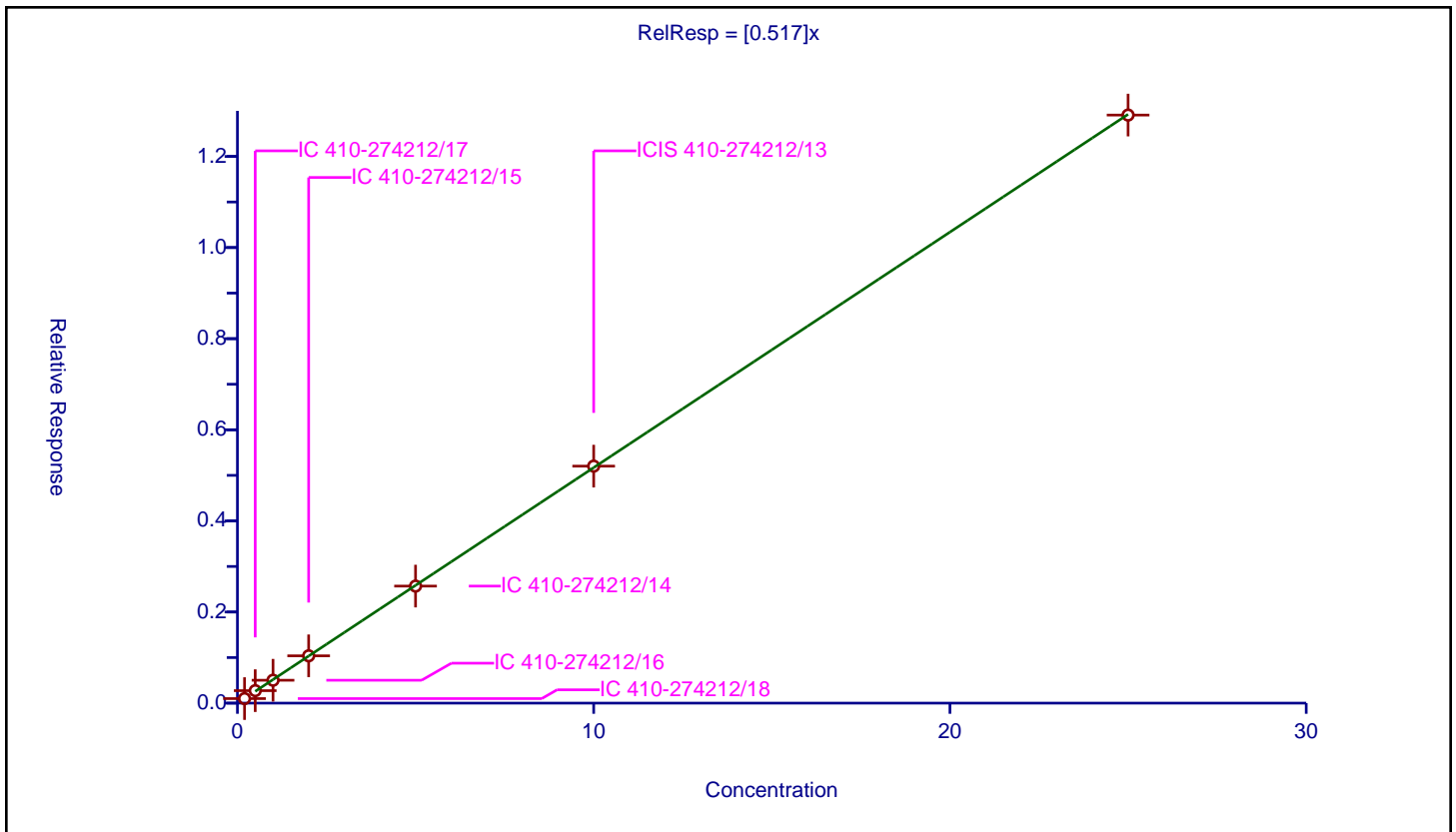
/ Chloroform

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

Curve Coefficients	
Intercept:	0
Slope:	0.517

Error Coefficients	
Standard Error:	1360000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.099827	10.0	2230453.0	0.499136	Y
2	IC 410-274212/17	0.5	0.273811	10.0	2227997.0	0.547622	Y
3	IC 410-274212/16	1.0	0.50226	10.0	2298931.0	0.50226	Y
4	IC 410-274212/15	2.0	1.038709	10.0	2342051.0	0.519355	Y
5	IC 410-274212/14	5.0	2.569398	10.0	2371836.0	0.51388	Y
6	ICIS 410-274212/13	10.0	5.202314	10.0	2357451.0	0.520231	Y
7	IC 410-274212/12	25.0	12.908496	10.0	2340890.0	0.51634	Y



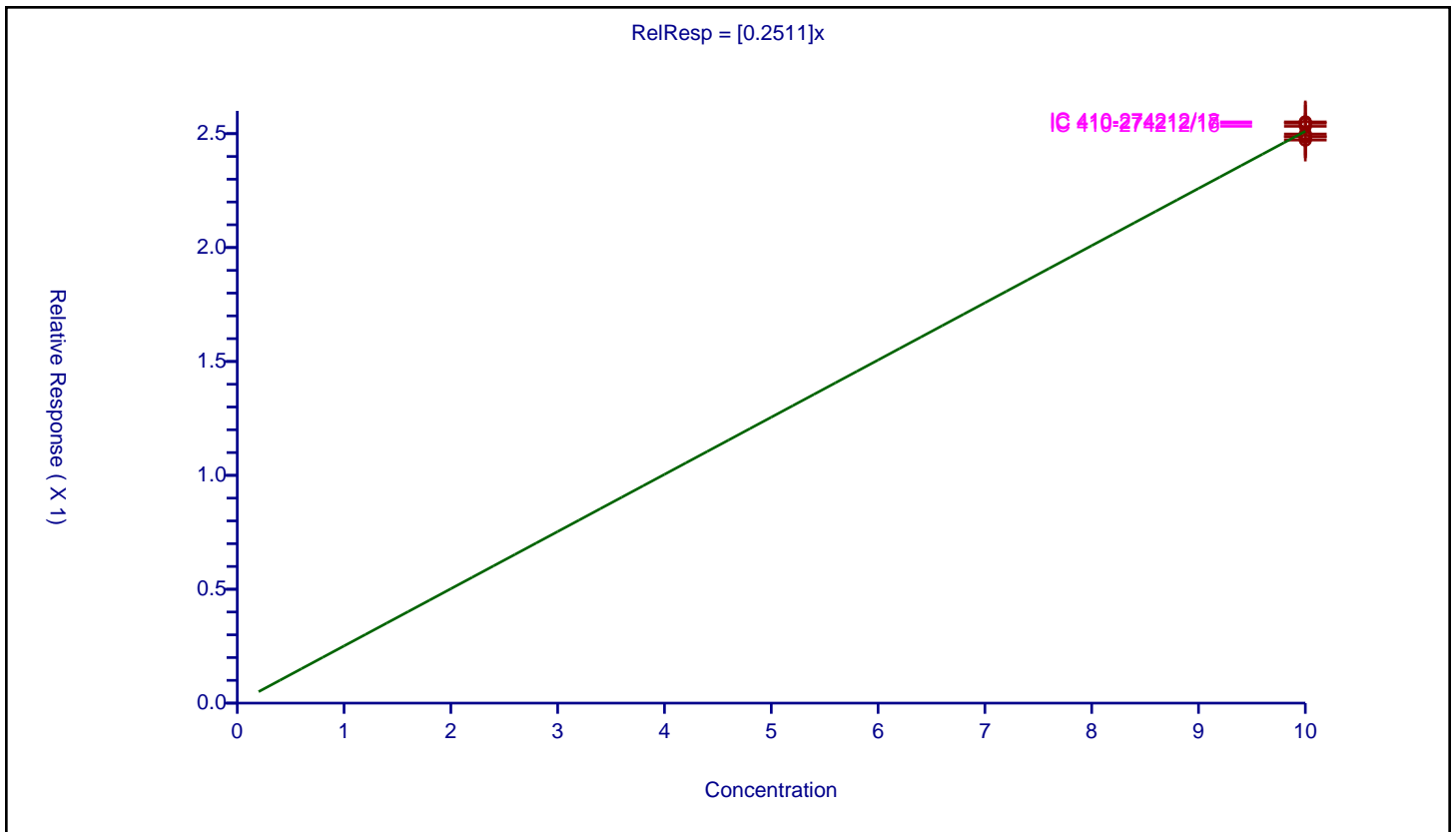
**Calibration**

/ 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:	0.2511
Error Coefficients	
Standard Error:	626000
Relative Standard Error:	1.3
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/12	10.0	2.488079	10.0	2340890.0	0.248808	Y
2	ICIS 410-274212/13	10.0	2.485413	10.0	2357451.0	0.248541	Y
3	IC 410-274212/14	10.0	2.471904	10.0	2371836.0	0.24719	Y
4	IC 410-274212/15	10.0	2.49863	10.0	2342051.0	0.249863	Y
5	IC 410-274212/16	10.0	2.532255	10.0	2298931.0	0.253226	Y
6	IC 410-274212/17	10.0	2.54587	10.0	2227997.0	0.254587	Y
7	IC 410-274212/18	10.0	2.551804	10.0	2230453.0	0.25518	Y



Calibration

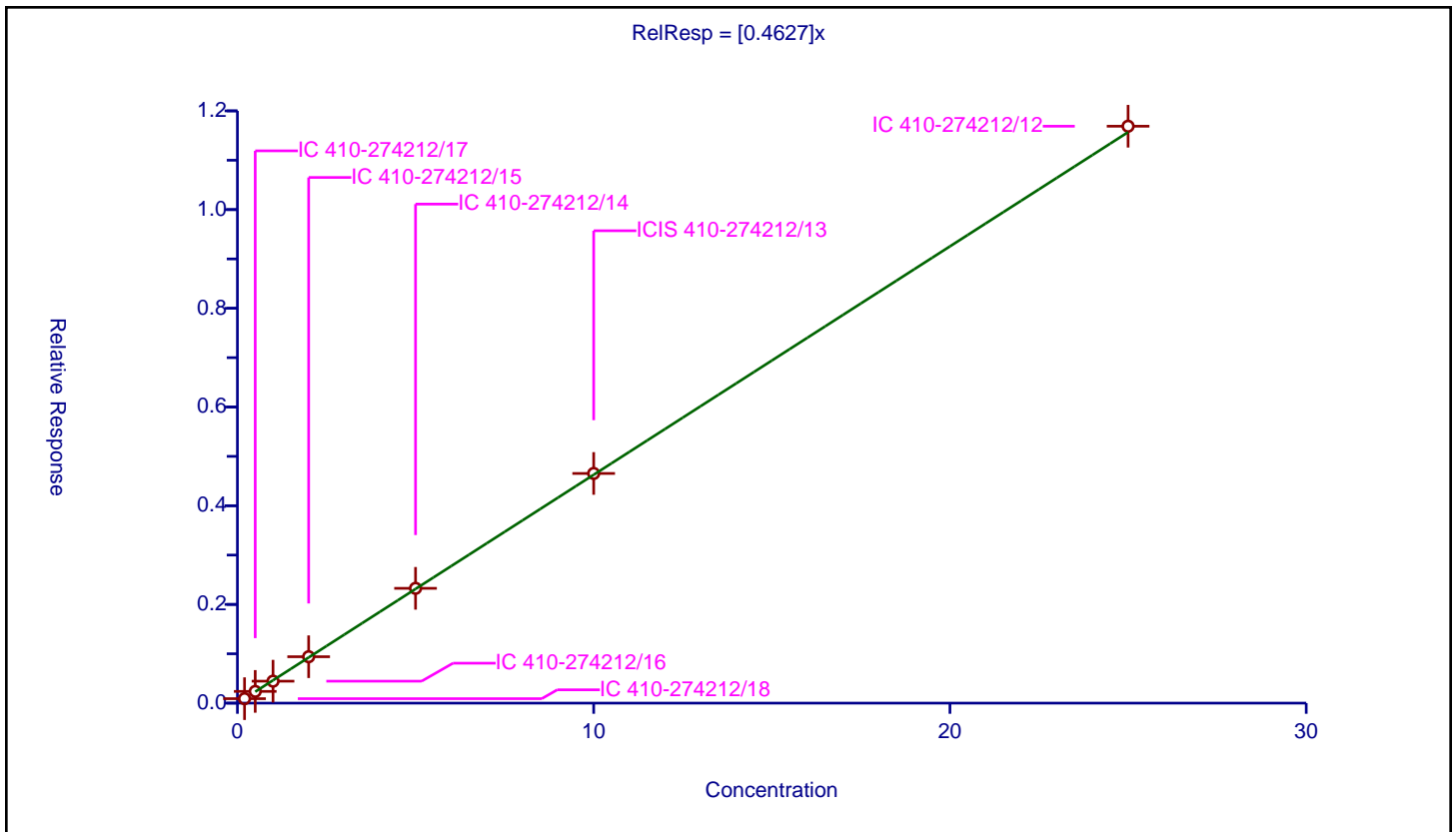
/ 1,1,1-Trichloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4627

Error Coefficients	
Standard Error:	1230000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.090166	10.0	2230453.0	0.450828	Y
2	IC 410-274212/17	0.5	0.237536	10.0	2227997.0	0.475072	Y
3	IC 410-274212/16	1.0	0.445033	10.0	2298931.0	0.445033	Y
4	IC 410-274212/15	2.0	0.940219	10.0	2342051.0	0.470109	Y
5	IC 410-274212/14	5.0	2.326308	10.0	2371836.0	0.465262	Y
6	ICIS 410-274212/13	10.0	4.653497	10.0	2357451.0	0.46535	Y
7	IC 410-274212/12	25.0	11.689289	10.0	2340890.0	0.467572	Y



**Calibration**

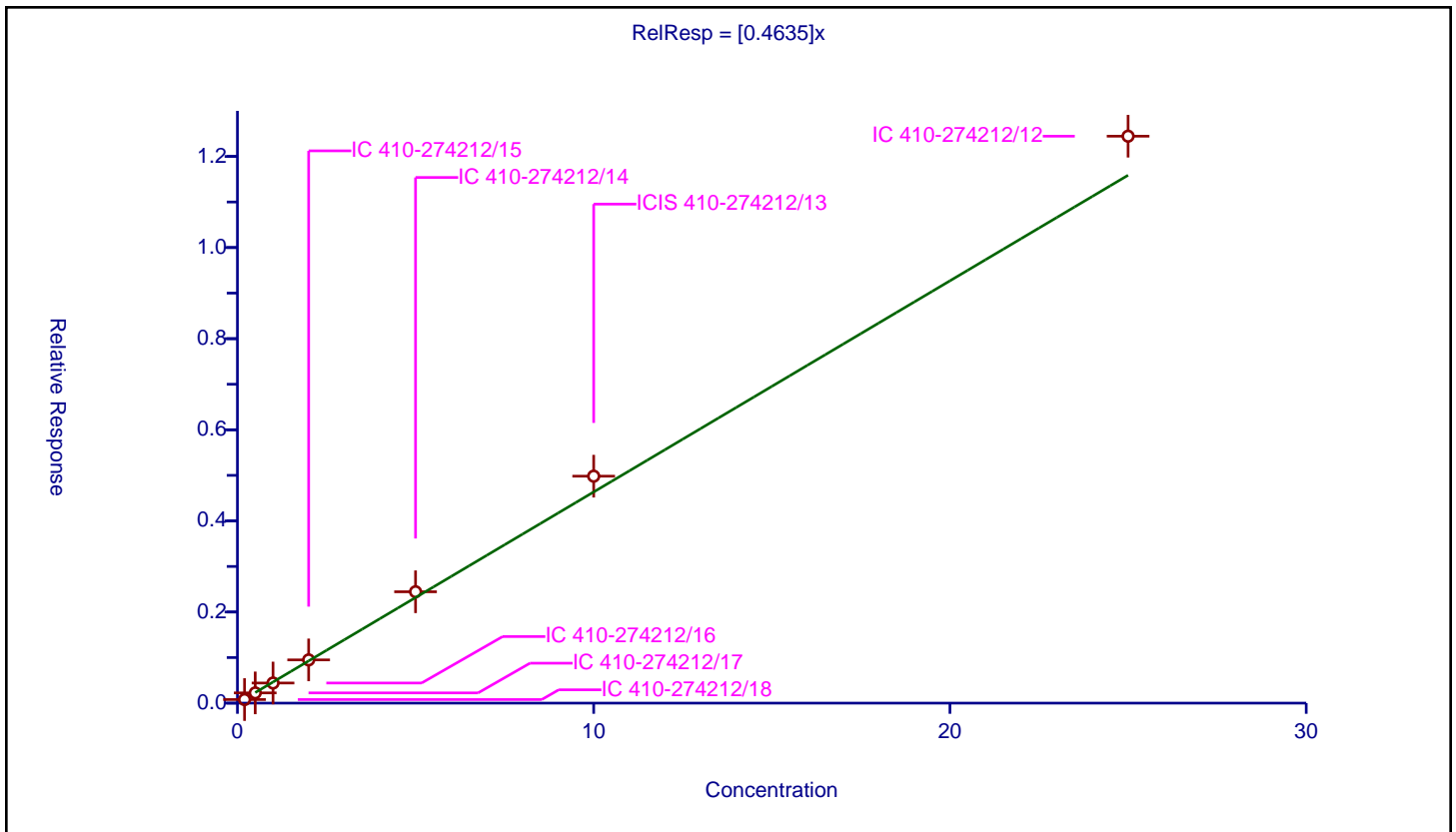
**/ Cyclohexane**

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

Curve Coefficients	
Intercept:	0
Slope:	0.4635

Error Coefficients	
Standard Error:	1310000
Relative Standard Error:	8.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.078858	10.0	2230453.0	0.394292	Y
2	IC 410-274212/17	0.5	0.224511	10.0	2227997.0	0.449022	Y
3	IC 410-274212/16	1.0	0.441831	10.0	2298931.0	0.441831	Y
4	IC 410-274212/15	2.0	0.948861	10.0	2342051.0	0.47443	Y
5	IC 410-274212/14	5.0	2.444849	10.0	2371836.0	0.48897	Y
6	ICIS 410-274212/13	10.0	4.981656	10.0	2357451.0	0.498166	Y
7	IC 410-274212/12	25.0	12.444771	10.0	2340890.0	0.497791	Y





Calibration

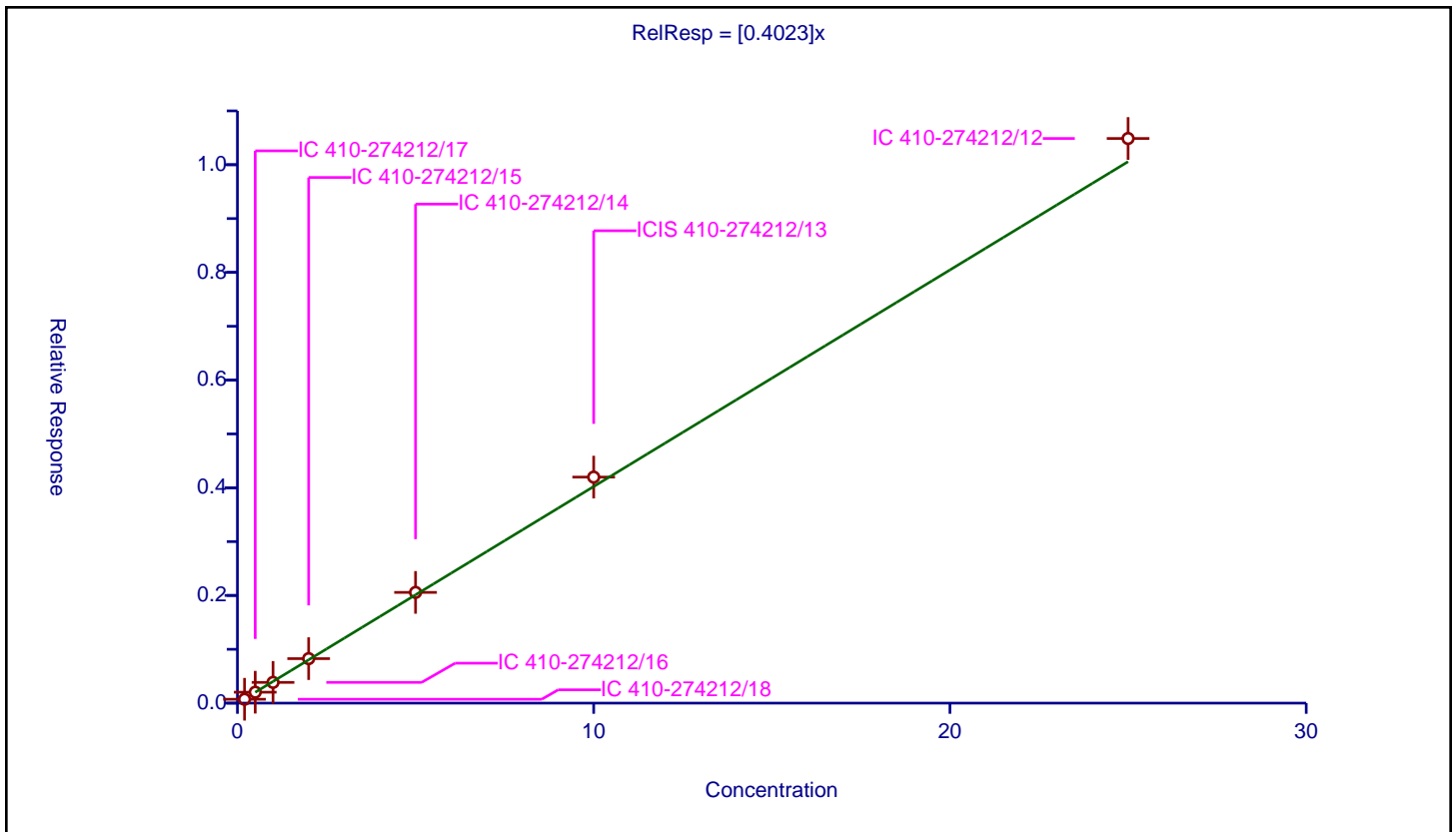
/ 1,1-Dichloropropene

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

Curve Coefficients	
Intercept:	0
Slope:	0.4023

Error Coefficients	
Standard Error:	1100000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.072219	10.0	2230453.0	0.361093	Y
2	IC 410-274212/17	0.5	0.202913	10.0	2227997.0	0.405826	Y
3	IC 410-274212/16	1.0	0.385249	10.0	2298931.0	0.385249	Y
4	IC 410-274212/15	2.0	0.826481	10.0	2342051.0	0.41324	Y
5	IC 410-274212/14	5.0	2.056403	10.0	2371836.0	0.411281	Y
6	ICIS 410-274212/13	10.0	4.19806	10.0	2357451.0	0.419806	Y
7	IC 410-274212/12	25.0	10.487387	10.0	2340890.0	0.419495	Y



**Calibration**

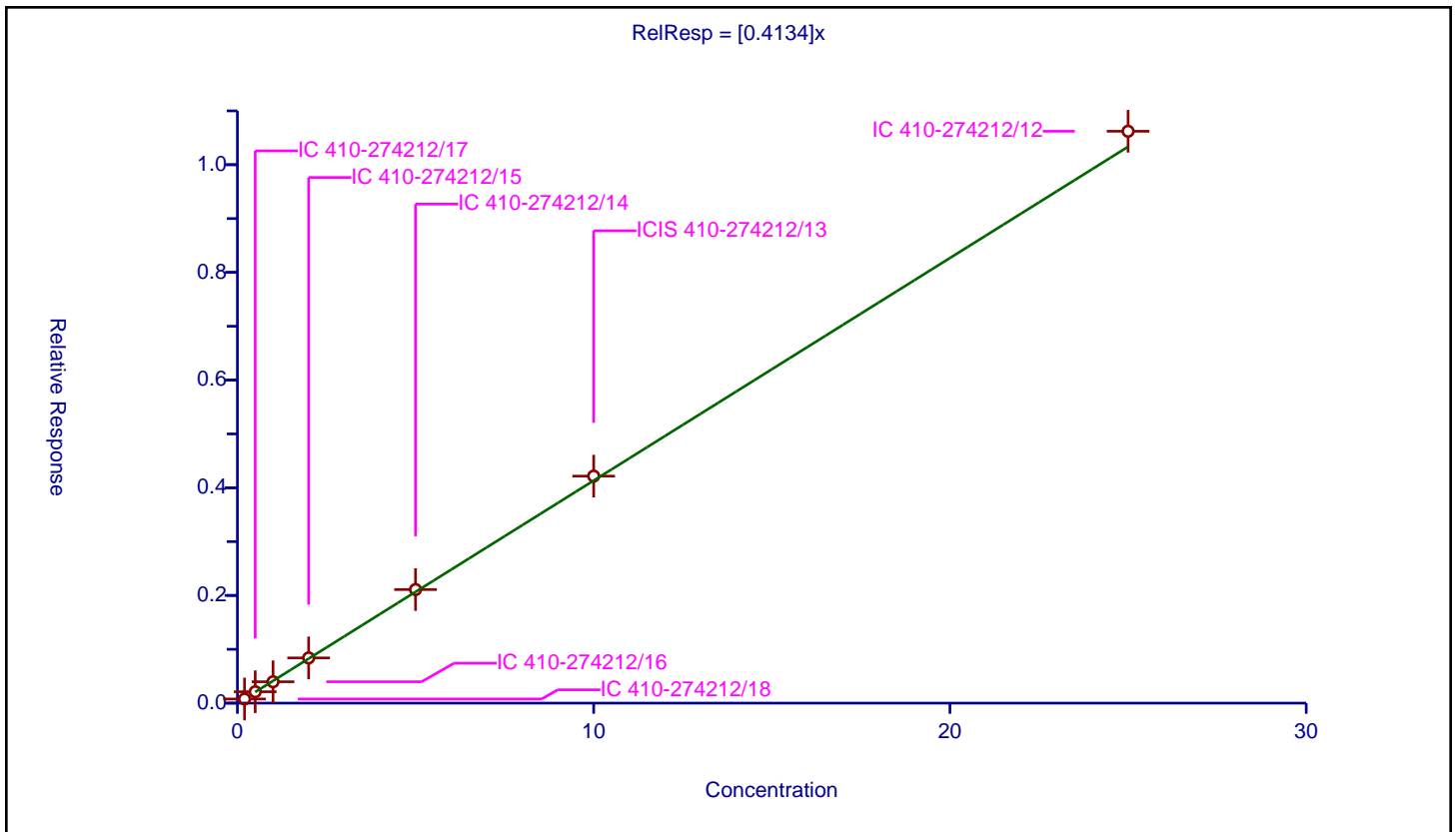
**/ Carbon tetrachloride**

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

Curve Coefficients	
Intercept:	0
Slope:	0.4134

Error Coefficients	
Standard Error:	1120000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.077043	10.0	2230453.0	0.385213	Y
2	IC 410-274212/17	0.5	0.211585	10.0	2227997.0	0.423169	Y
3	IC 410-274212/16	1.0	0.396871	10.0	2298931.0	0.396871	Y
4	IC 410-274212/15	2.0	0.839802	10.0	2342051.0	0.419901	Y
5	IC 410-274212/14	5.0	2.109395	10.0	2371836.0	0.421879	Y
6	ICIS 410-274212/13	10.0	4.216465	10.0	2357451.0	0.421647	Y
7	IC 410-274212/12	25.0	10.621712	10.0	2340890.0	0.424868	Y



**Calibration**

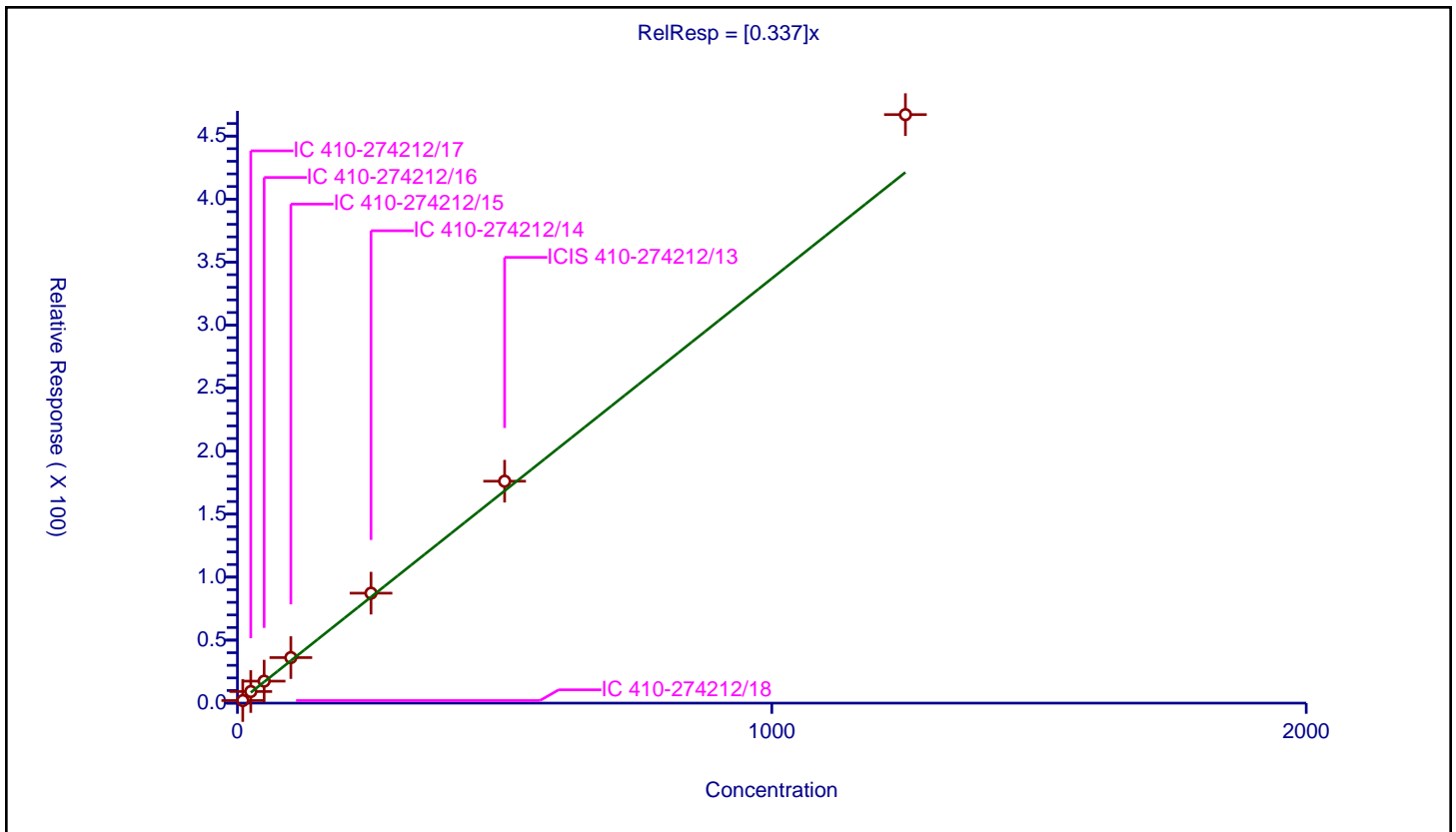
/ Isobutyl alcohol

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

Curve Coefficients	
Intercept:	0
Slope:	0.337

Error Coefficients	
Standard Error:	667000
Relative Standard Error:	17.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.967

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	10.0	2.056222	50.0	161218.0	0.205622	Y
2	IC 410-274212/17	25.0	9.207985	50.0	156891.0	0.368319	Y
3	IC 410-274212/16	50.0	17.442346	50.0	155670.0	0.348847	Y
4	IC 410-274212/15	100.0	36.124757	50.0	167734.0	0.361248	Y
5	IC 410-274212/14	250.0	87.260376	50.0	157069.0	0.349042	Y
6	ICIS 410-274212/13	500.0	176.110516	50.0	169786.0	0.352221	Y
7	IC 410-274212/12	1250.0	467.033646	50.0	159455.0	0.373627	Y



**Calibration**

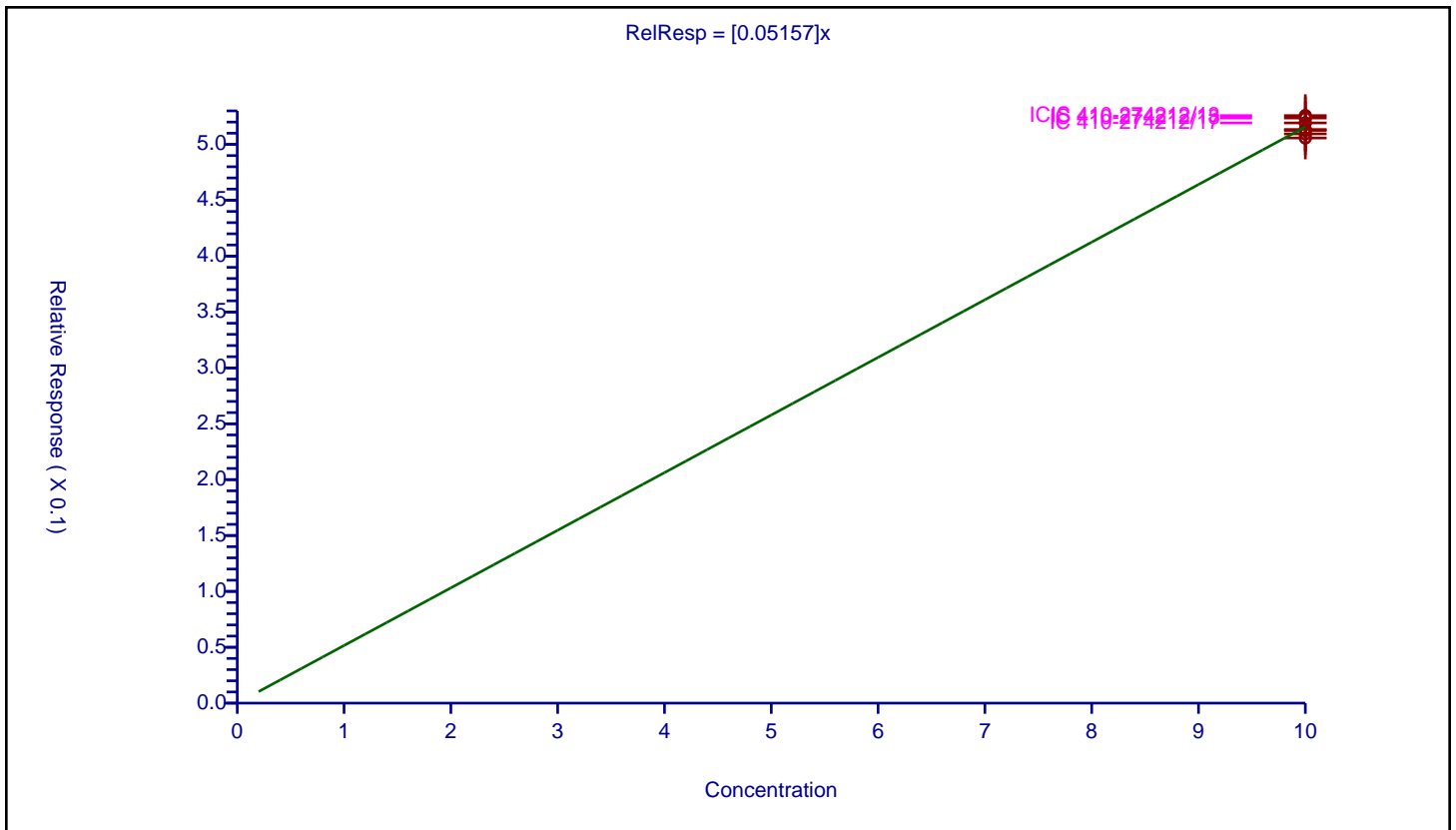
/ 1,2-Dichloroethane-d4 (Surr)

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

Curve Coefficients	
Intercept:	0
Slope:	0.05157

Error Coefficients	
Standard Error:	129000
Relative Standard Error:	1.4
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/12	10.0	0.513343	10.0	2340890.0	0.051334	Y
2	ICIS 410-274212/13	10.0	0.525771	10.0	2357451.0	0.052577	Y
3	IC 410-274212/14	10.0	0.505726	10.0	2371836.0	0.050573	Y
4	IC 410-274212/15	10.0	0.512495	10.0	2342051.0	0.05125	Y
5	IC 410-274212/16	10.0	0.509437	10.0	2298931.0	0.050944	Y
6	IC 410-274212/17	10.0	0.519233	10.0	2227997.0	0.051923	Y
7	IC 410-274212/18	10.0	0.523611	10.0	2230453.0	0.052361	Y



Calibration

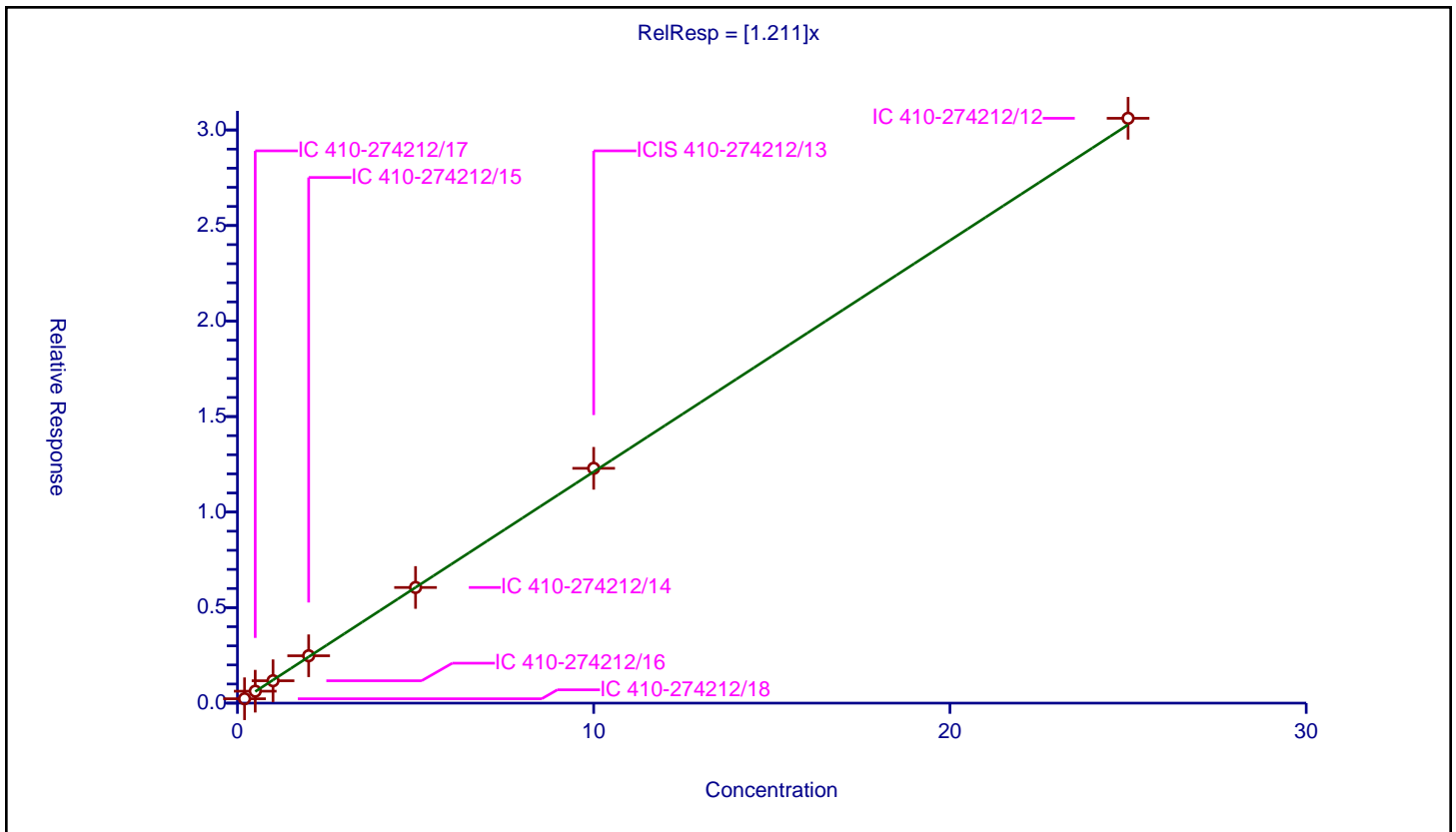
/ Benzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.211

Error Coefficients	
Standard Error:	3220000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.229949	10.0	2230453.0	1.149744	Y
2	IC 410-274212/17	0.5	0.625382	10.0	2227997.0	1.250765	Y
3	IC 410-274212/16	1.0	1.172084	10.0	2298931.0	1.172084	Y
4	IC 410-274212/15	2.0	2.479241	10.0	2342051.0	1.239621	Y
5	IC 410-274212/14	5.0	6.05369	10.0	2371836.0	1.210738	Y
6	ICIS 410-274212/13	10.0	12.291	10.0	2357451.0	1.2291	Y
7	IC 410-274212/12	25.0	30.612716	10.0	2340890.0	1.224509	Y



Calibration

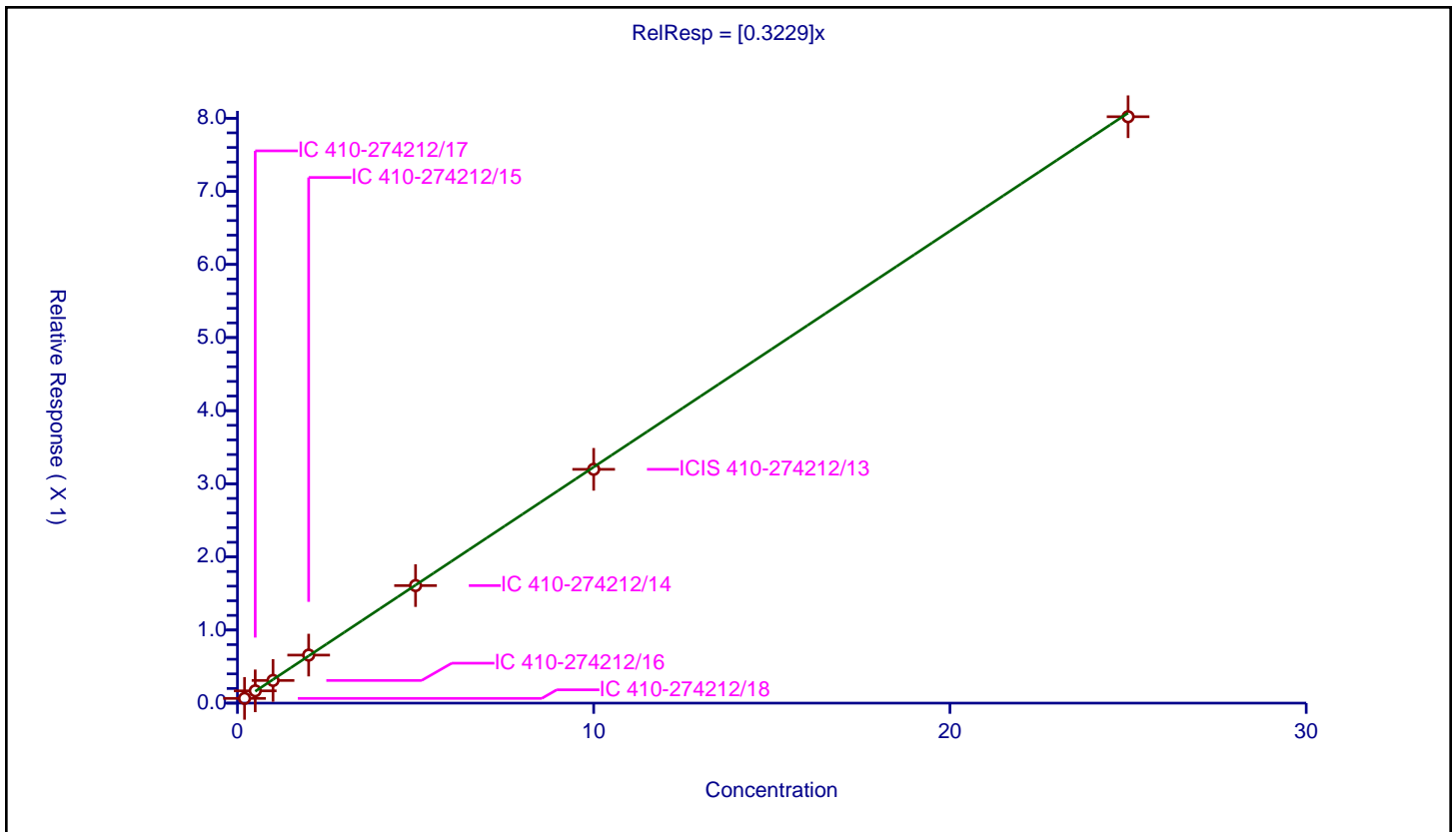
/ 1,2-Dichloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3229

Error Coefficients	
Standard Error:	843000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.064516	10.0	2230453.0	0.32258	Y
2	IC 410-274212/17	0.5	0.168236	10.0	2227997.0	0.336473	Y
3	IC 410-274212/16	1.0	0.310322	10.0	2298931.0	0.310322	Y
4	IC 410-274212/15	2.0	0.656971	10.0	2342051.0	0.328486	Y
5	IC 410-274212/14	5.0	1.607653	10.0	2371836.0	0.321531	Y
6	ICIS 410-274212/13	10.0	3.197683	10.0	2357451.0	0.319768	Y
7	IC 410-274212/12	25.0	8.020142	10.0	2340890.0	0.320806	Y



**Calibration**

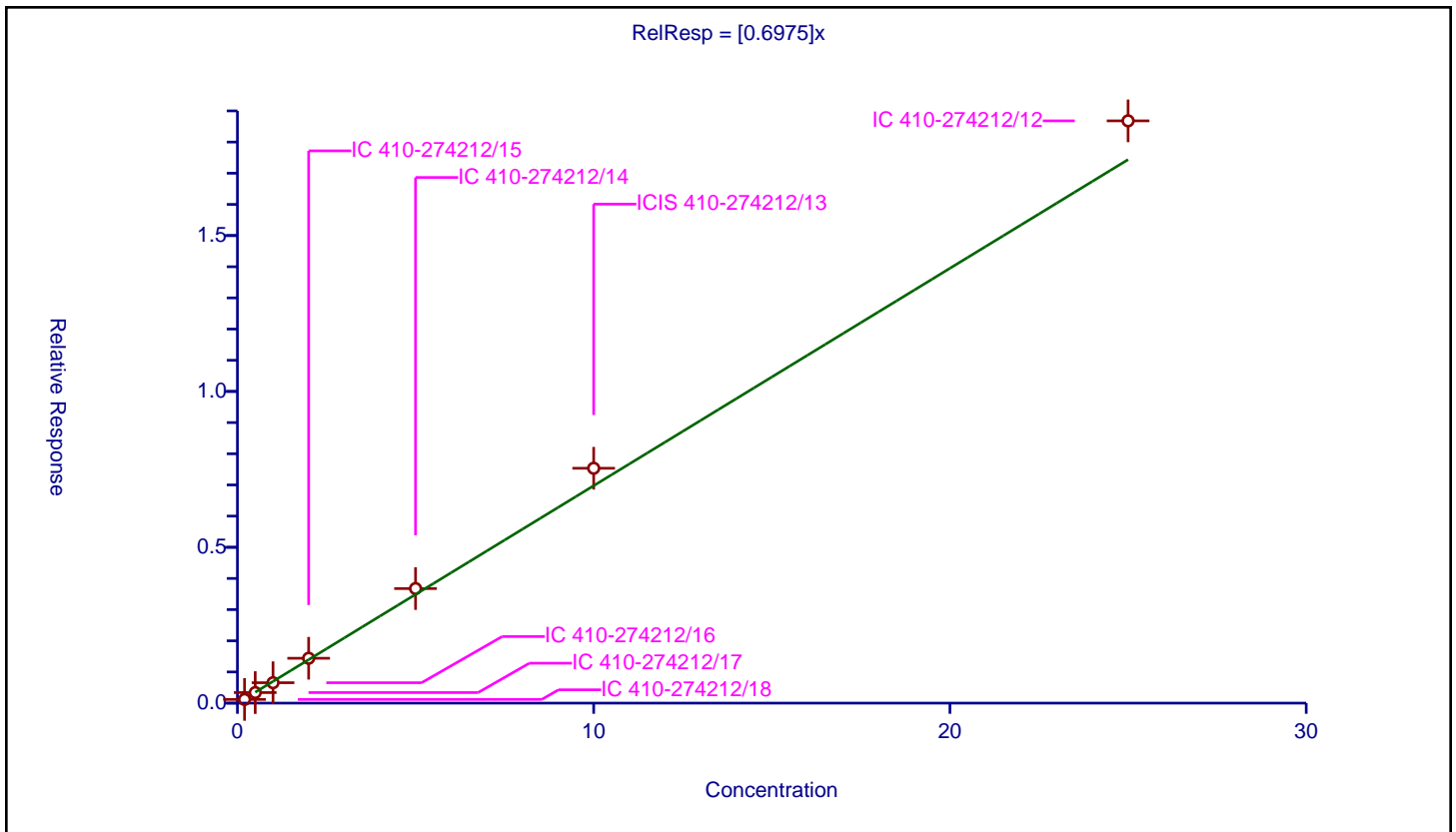
/ Tert-amyl methyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.6975

Error Coefficients	
Standard Error:	1970000
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 410-274212/18	0.2	0.118734	10.0	2230453.0	0.593669	Y
2	IC 410-274212/17	0.5	0.339067	10.0	2227997.0	0.678134	Y
3	IC 410-274212/16	1.0	0.655187	10.0	2298931.0	0.655187	Y
4	IC 410-274212/15	2.0	1.43935	10.0	2342051.0	0.719675	Y
5	IC 410-274212/14	5.0	3.675043	10.0	2371836.0	0.735009	Y
6	ICIS 410-274212/13	10.0	7.535342	10.0	2357451.0	0.753534	Y
7	IC 410-274212/12	25.0	18.68051	10.0	2340890.0	0.74722	Y



Calibration

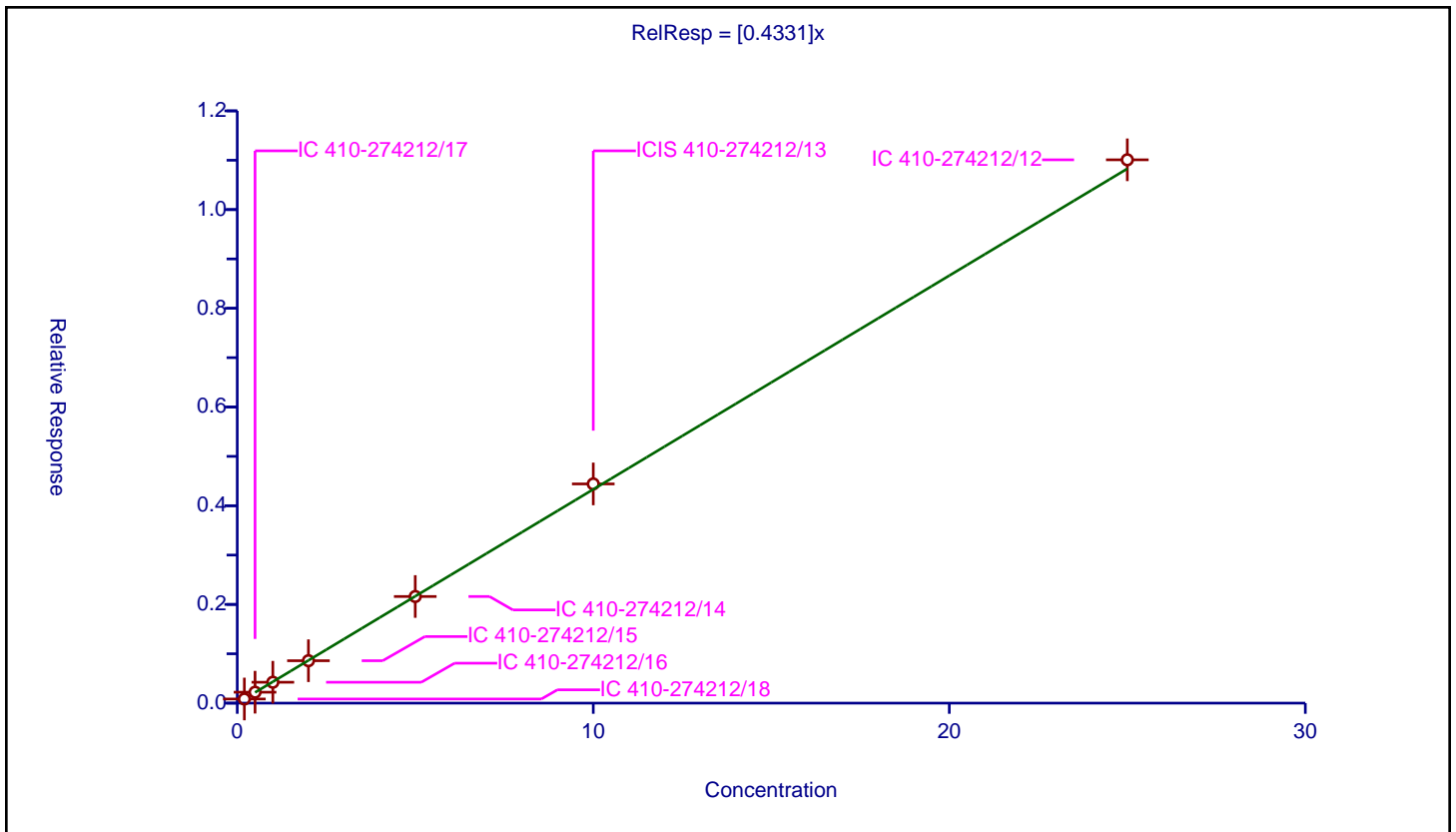
/ n-Heptane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4331

Error Coefficients	
Standard Error:	1160000
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.083929	10.0	2230453.0	0.419646	Y
2	IC 410-274212/17	0.5	0.221369	10.0	2227997.0	0.442738	Y
3	IC 410-274212/16	1.0	0.423188	10.0	2298931.0	0.423188	Y
4	IC 410-274212/15	2.0	0.859563	10.0	2342051.0	0.429781	Y
5	IC 410-274212/14	5.0	2.160339	10.0	2371836.0	0.432068	Y
6	ICIS 410-274212/13	10.0	4.441412	10.0	2357451.0	0.444141	Y
7	IC 410-274212/12	25.0	11.00842	10.0	2340890.0	0.440337	Y





Calibration

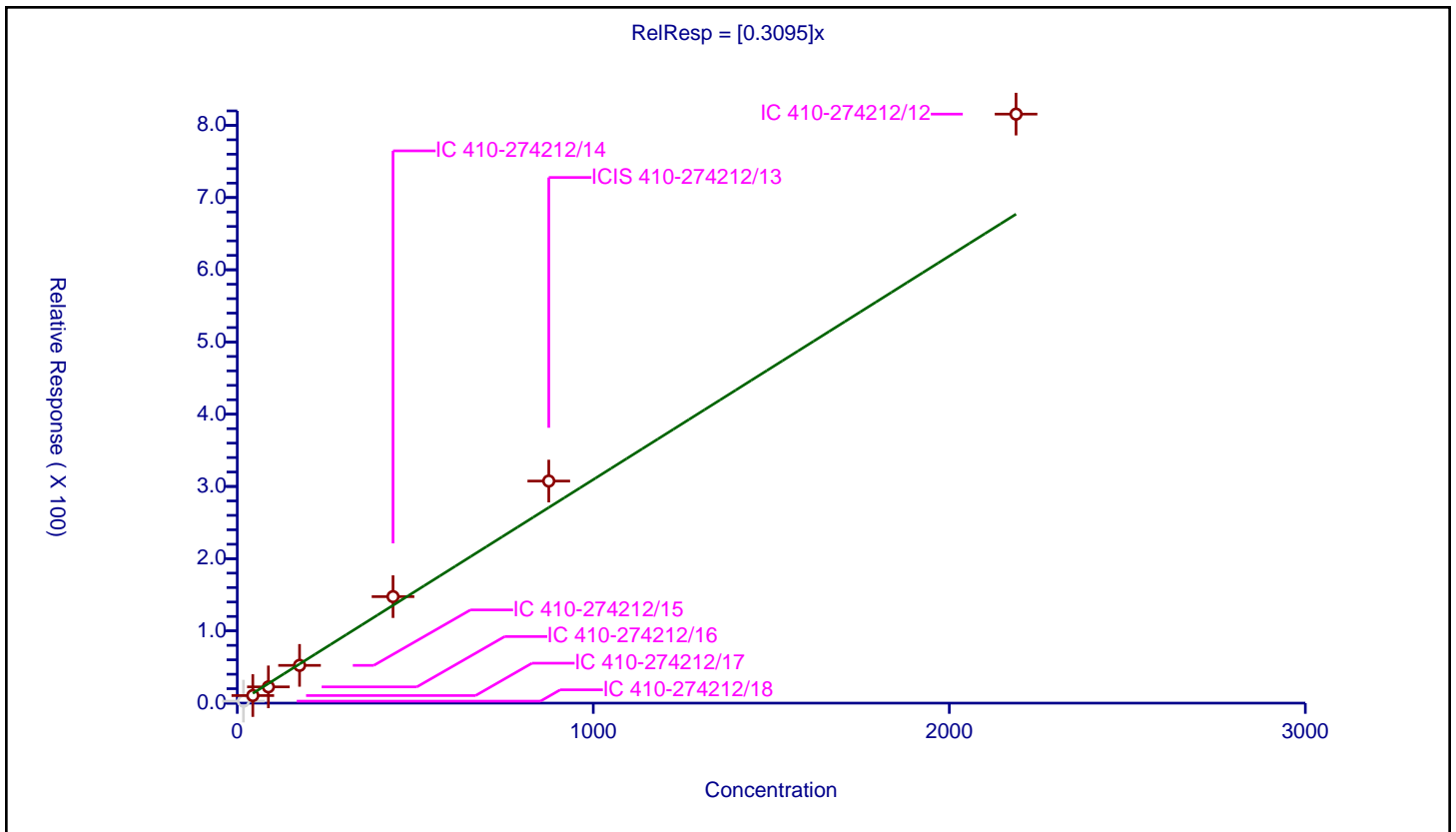
/ n-Butanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.3095

Error Coefficients	
Standard Error:	1270000
Relative Standard Error:	17.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	17.5	2.738838	50.0	161218.0	0.156505	N
2	IC 410-274212/17	43.75	10.500921	50.0	156891.0	0.240021	Y
3	IC 410-274212/16	87.5	22.500161	50.0	155670.0	0.257145	Y
4	IC 410-274212/15	175.0	52.269665	50.0	167734.0	0.298684	Y
5	IC 410-274212/14	437.5	147.452712	50.0	157069.0	0.337035	Y
6	ICIS 410-274212/13	875.0	307.488544	50.0	169786.0	0.351415	Y
7	IC 410-274212/12	2187.5	815.52946	50.0	159455.0	0.372813	Y



Calibration

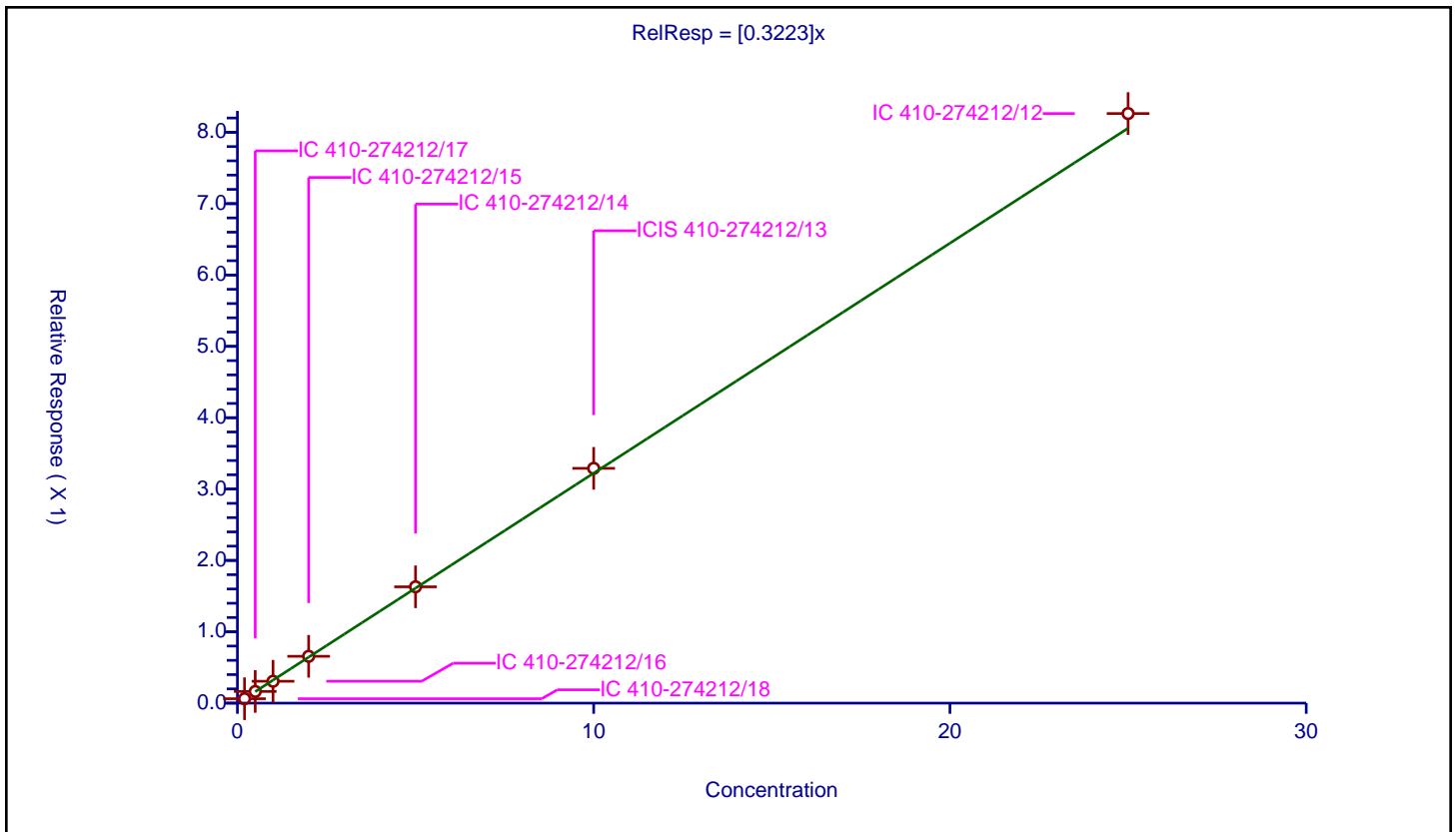
/ Trichloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.3223

Error Coefficients	
Standard Error:	868000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.061678	10.0	2230453.0	0.30839	Y
2	IC 410-274212/17	0.5	0.163546	10.0	2227997.0	0.327092	Y
3	IC 410-274212/16	1.0	0.306625	10.0	2298931.0	0.306625	Y
4	IC 410-274212/15	2.0	0.656502	10.0	2342051.0	0.328251	Y
5	IC 410-274212/14	5.0	1.630336	10.0	2371836.0	0.326067	Y
6	ICIS 410-274212/13	10.0	3.290613	10.0	2357451.0	0.329061	Y
7	IC 410-274212/12	25.0	8.262614	10.0	2340890.0	0.330505	Y



Calibration

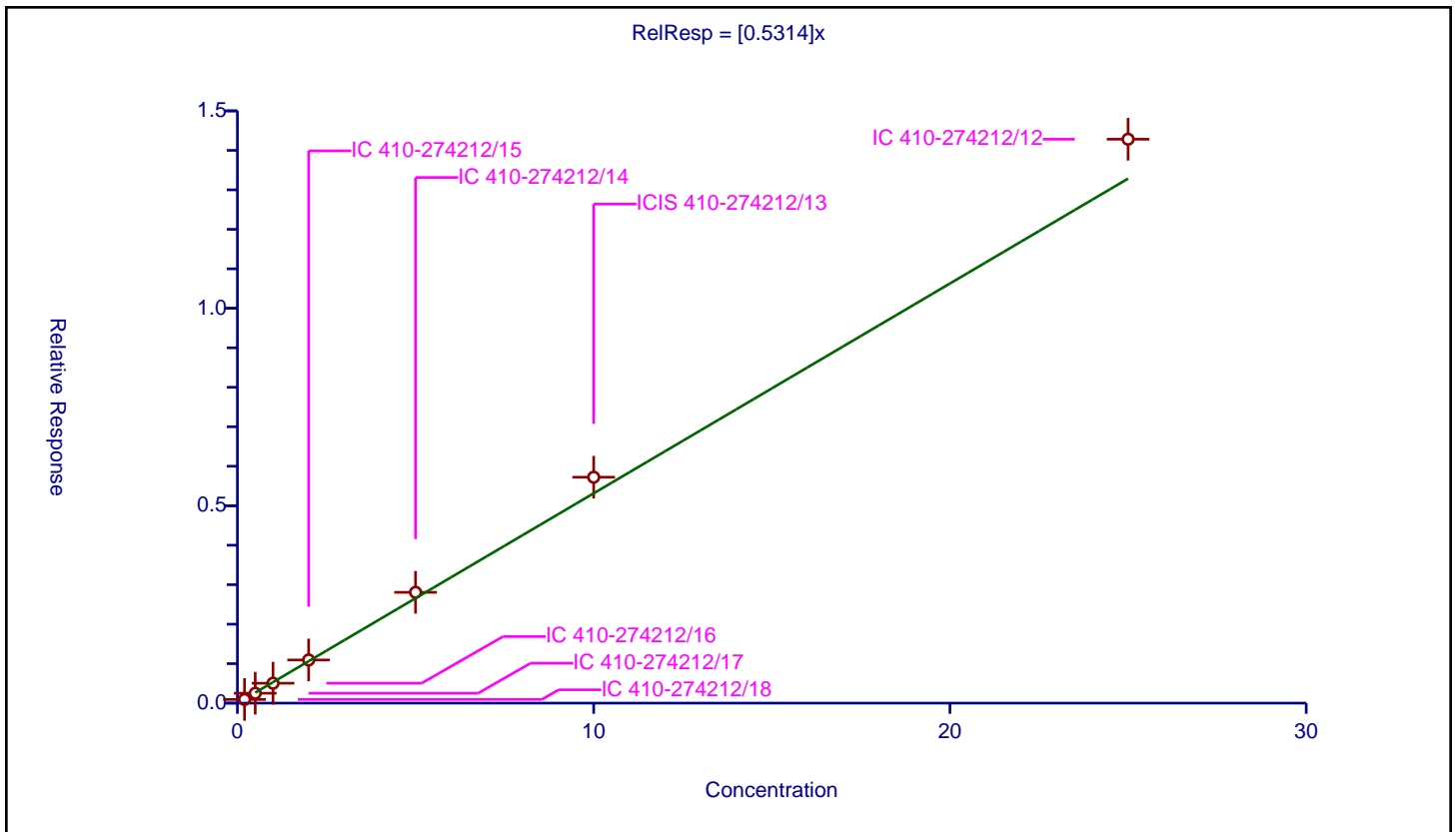
/ Methylcyclohexane

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

Curve Coefficients	
Intercept:	0
Slope:	0.5314

Error Coefficients	
Standard Error:	1500000
Relative Standard Error:	8.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.092569	10.0	2230453.0	0.462843	Y
2	IC 410-274212/17	0.5	0.250431	10.0	2227997.0	0.500862	Y
3	IC 410-274212/16	1.0	0.504561	10.0	2298931.0	0.504561	Y
4	IC 410-274212/15	2.0	1.093396	10.0	2342051.0	0.546698	Y
5	IC 410-274212/14	5.0	2.806358	10.0	2371836.0	0.561272	Y
6	ICIS 410-274212/13	10.0	5.722155	10.0	2357451.0	0.572215	Y
7	IC 410-274212/12	25.0	14.282149	10.0	2340890.0	0.571286	Y



Calibration

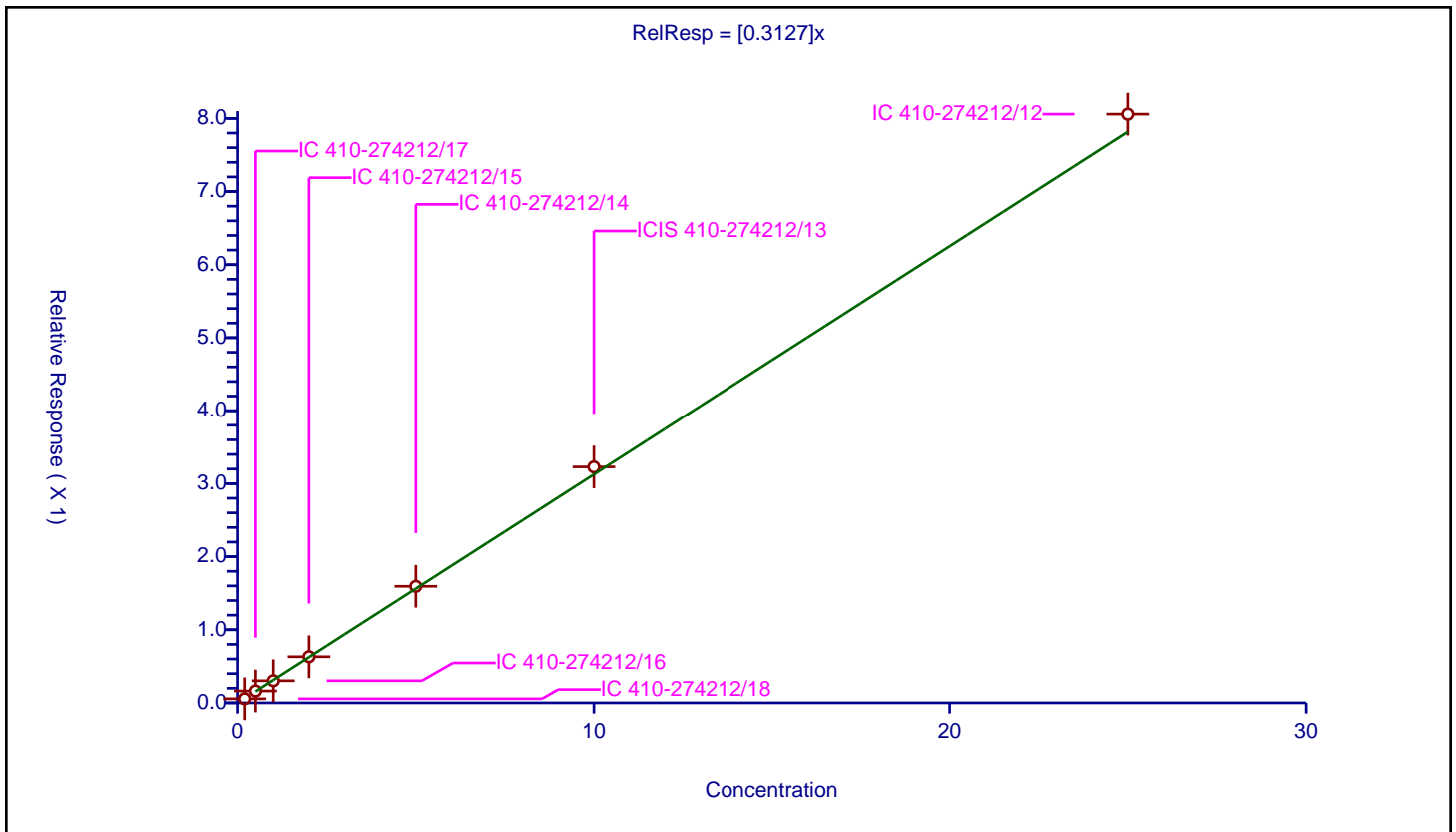
/ 1,2-Dichloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3127

Error Coefficients	
Standard Error:	847000
Relative Standard Error:	5.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.056181	10.0	2230453.0	0.280907	Y
2	IC 410-274212/17	0.5	0.162945	10.0	2227997.0	0.325889	Y
3	IC 410-274212/16	1.0	0.302436	10.0	2298931.0	0.302436	Y
4	IC 410-274212/15	2.0	0.630558	10.0	2342051.0	0.315279	Y
5	IC 410-274212/14	5.0	1.594663	10.0	2371836.0	0.318933	Y
6	ICIS 410-274212/13	10.0	3.229119	10.0	2357451.0	0.322912	Y
7	IC 410-274212/12	25.0	8.057683	10.0	2340890.0	0.322307	Y



**Calibration**

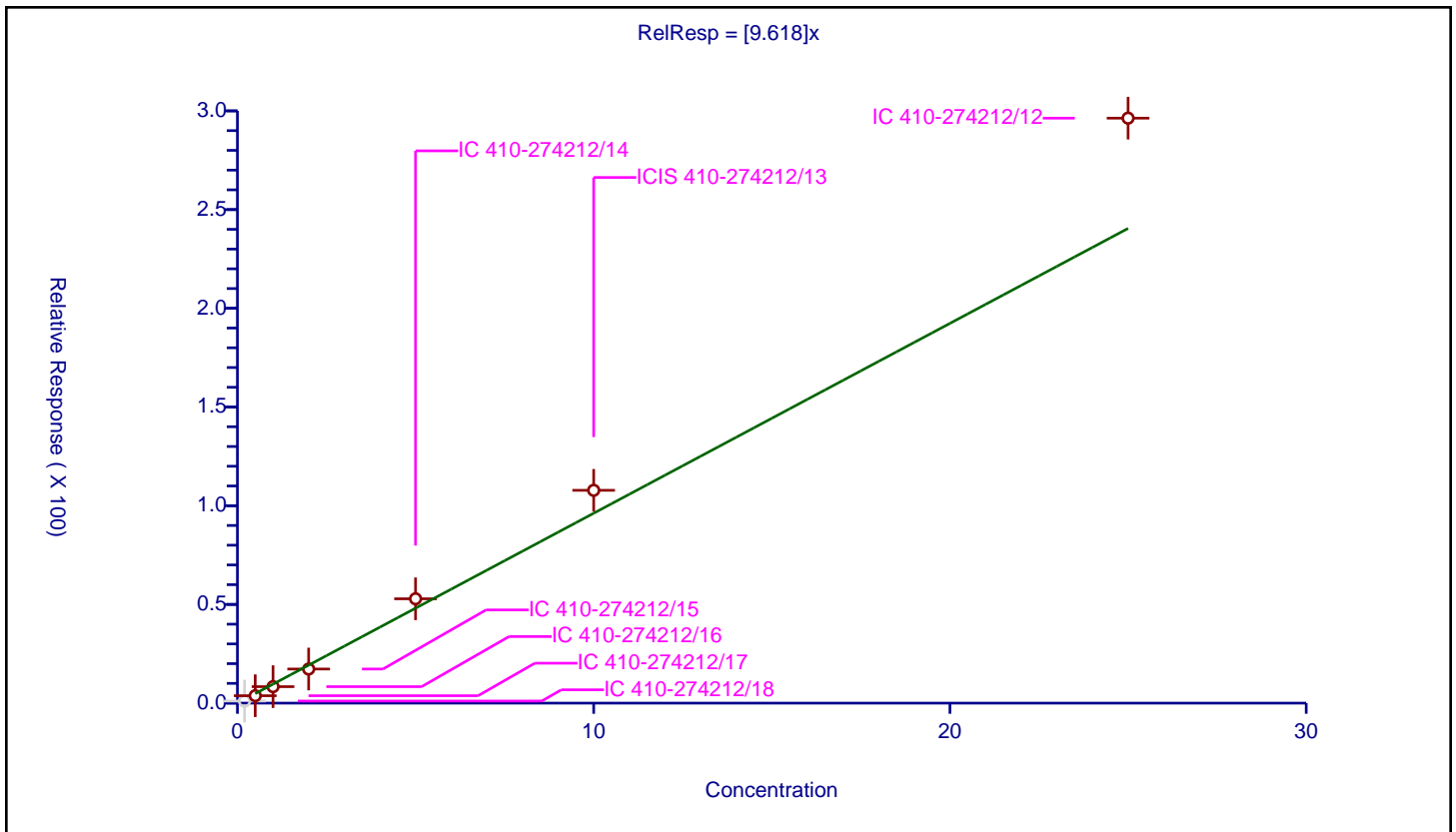
/ Methyl methacrylate

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

Curve Coefficients	
Intercept:	0
Slope:	9.618

Error Coefficients	
Standard Error:	460000
Relative Standard Error:	17.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.963

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	1.056644	50.0	161218.0	5.283219	N
2	IC 410-274212/17	0.5	3.763122	50.0	156891.0	7.526244	Y
3	IC 410-274212/16	1.0	8.342327	50.0	155670.0	8.342327	Y
4	IC 410-274212/15	2.0	17.275865	50.0	167734.0	8.637933	Y
5	IC 410-274212/14	5.0	52.853841	50.0	157069.0	10.570768	Y
6	ICIS 410-274212/13	10.0	107.80777	50.0	169786.0	10.780777	Y
7	IC 410-274212/12	25.0	296.322473	50.0	159455.0	11.852899	Y



Calibration

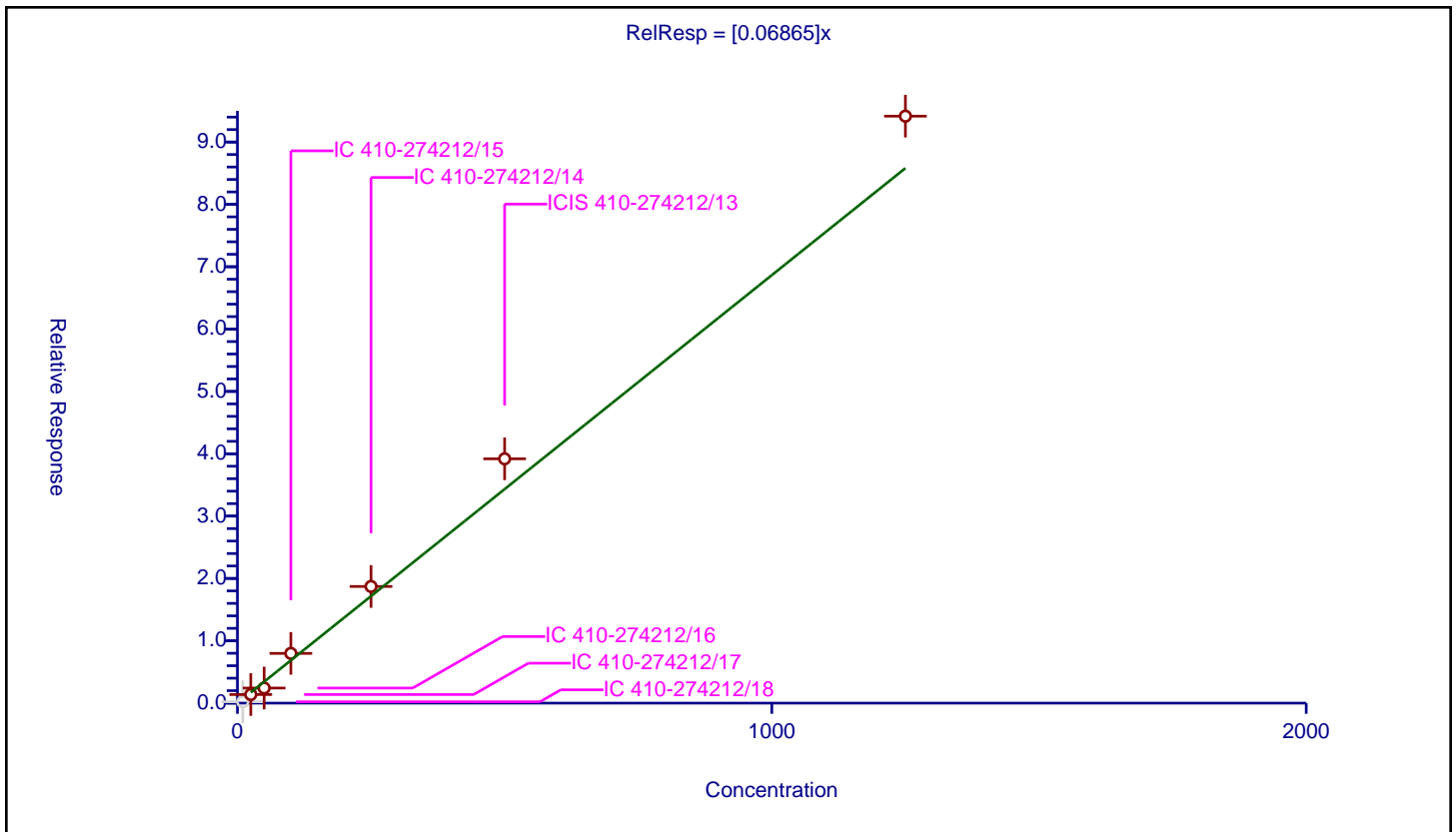
/ 1,4-Dioxane

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

Curve Coefficients	
Intercept:	0
Slope:	0.06865

Error Coefficients	
Standard Error:	150000
Relative Standard Error:	19.5
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.955

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	10.0	0.215857	50.0	161218.0	0.021586	N
2	IC 410-274212/17	25.0	1.378983	50.0	156891.0	0.055159	Y
3	IC 410-274212/16	50.0	2.419541	50.0	155670.0	0.048391	Y
4	IC 410-274212/15	100.0	7.979002	50.0	167734.0	0.07979	Y
5	IC 410-274212/14	250.0	18.715978	50.0	157069.0	0.074864	Y
6	ICIS 410-274212/13	500.0	39.189921	50.0	169786.0	0.07838	Y
7	IC 410-274212/12	1250.0	94.154464	50.0	159455.0	0.075324	Y



Calibration

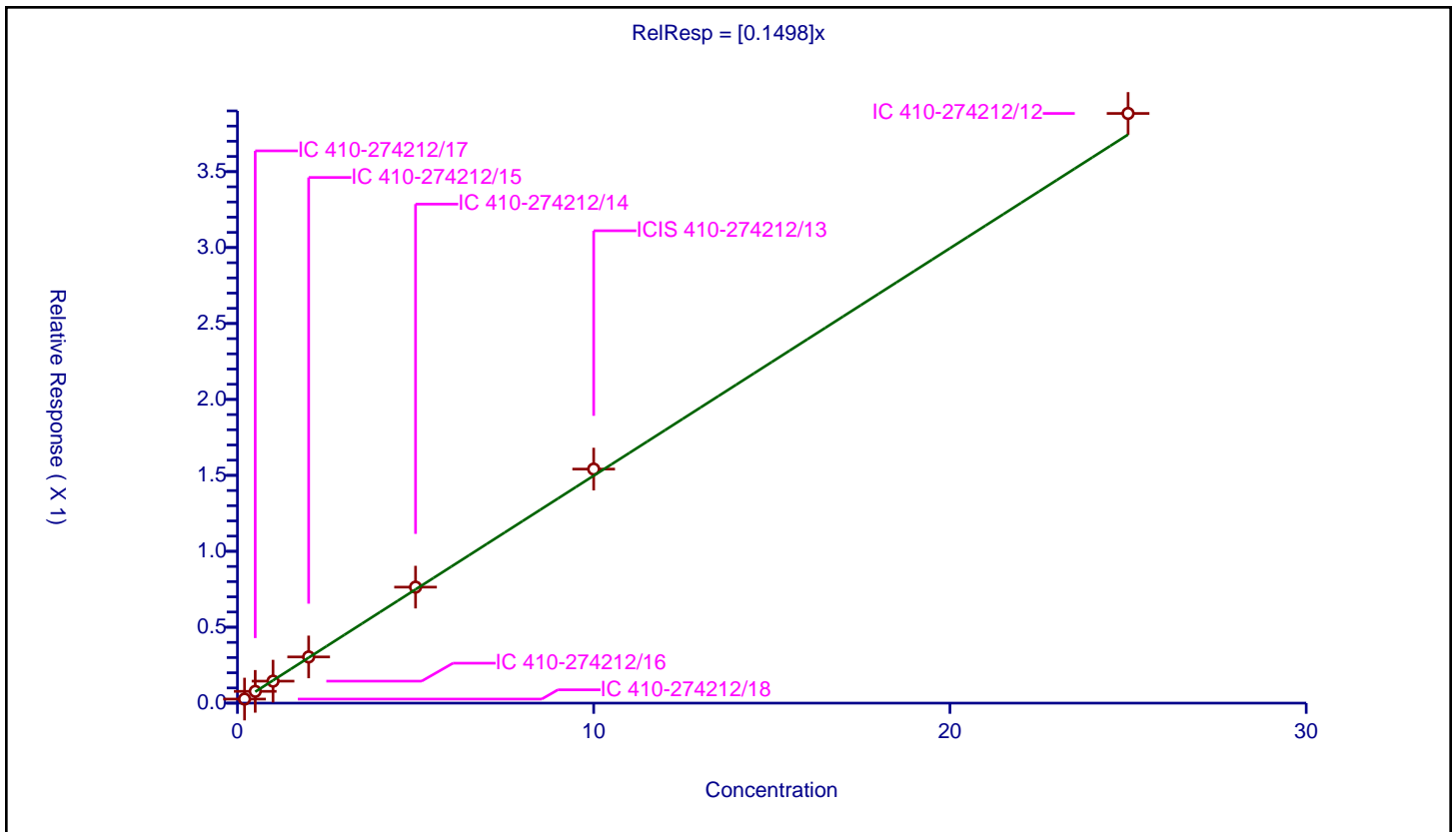
/ Dibromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.1498

Error Coefficients	
Standard Error:	408000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.026829	10.0	2230453.0	0.134143	Y
2	IC 410-274212/17	0.5	0.077527	10.0	2227997.0	0.155054	Y
3	IC 410-274212/16	1.0	0.144837	10.0	2298931.0	0.144837	Y
4	IC 410-274212/15	2.0	0.304182	10.0	2342051.0	0.152091	Y
5	IC 410-274212/14	5.0	0.763851	10.0	2371836.0	0.15277	Y
6	ICIS 410-274212/13	10.0	1.541262	10.0	2357451.0	0.154126	Y
7	IC 410-274212/12	25.0	3.883134	10.0	2340890.0	0.155325	Y



Calibration

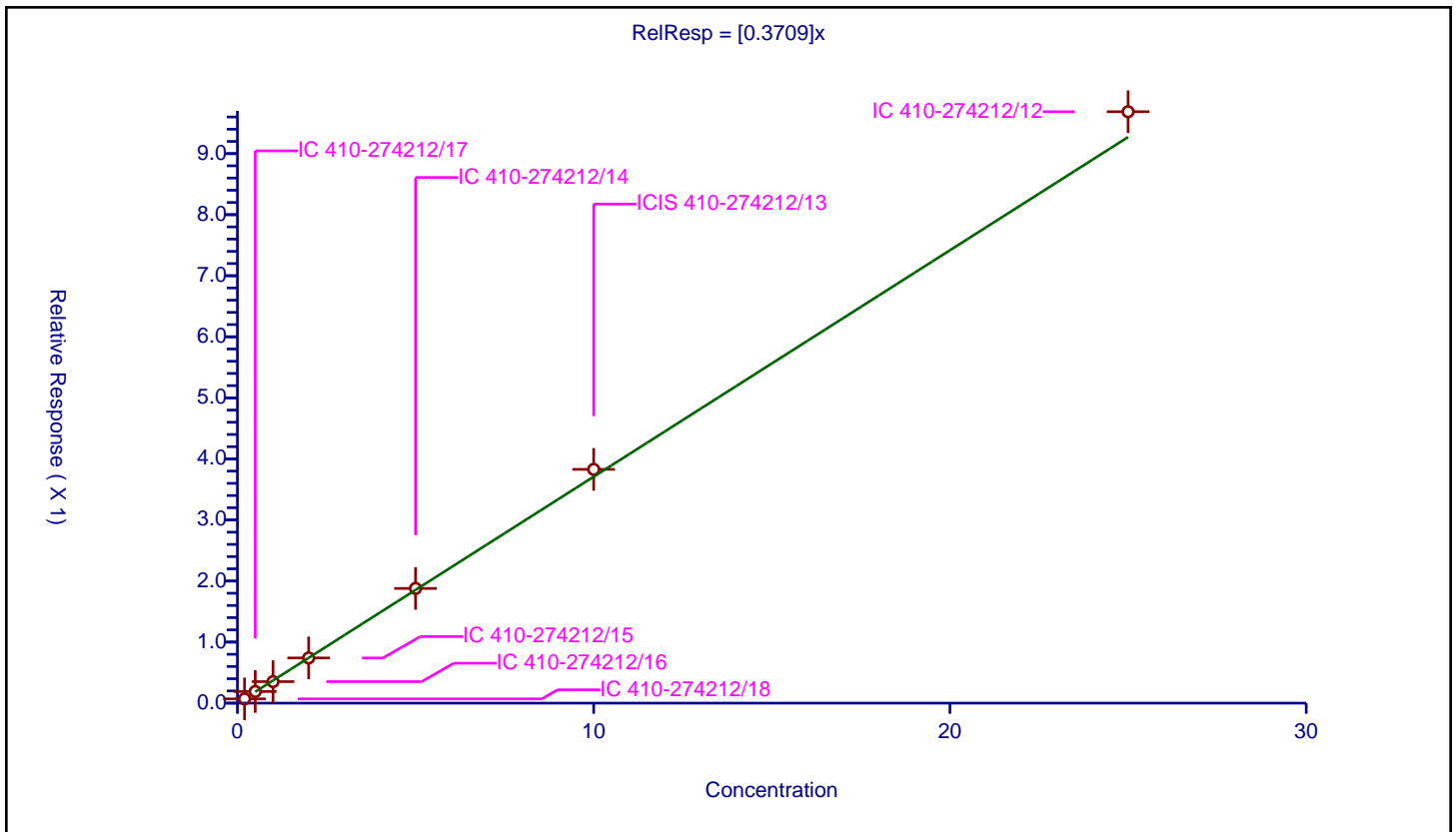
/ Dichlorobromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3709

Error Coefficients	
Standard Error:	1020000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.069385	10.0	2230453.0	0.346925	Y
2	IC 410-274212/17	0.5	0.190413	10.0	2227997.0	0.380826	Y
3	IC 410-274212/16	1.0	0.352198	10.0	2298931.0	0.352198	Y
4	IC 410-274212/15	2.0	0.739945	10.0	2342051.0	0.369973	Y
5	IC 410-274212/14	5.0	1.878642	10.0	2371836.0	0.375728	Y
6	ICIS 410-274212/13	10.0	3.828907	10.0	2357451.0	0.382891	Y
7	IC 410-274212/12	25.0	9.686333	10.0	2340890.0	0.387453	Y





Calibration

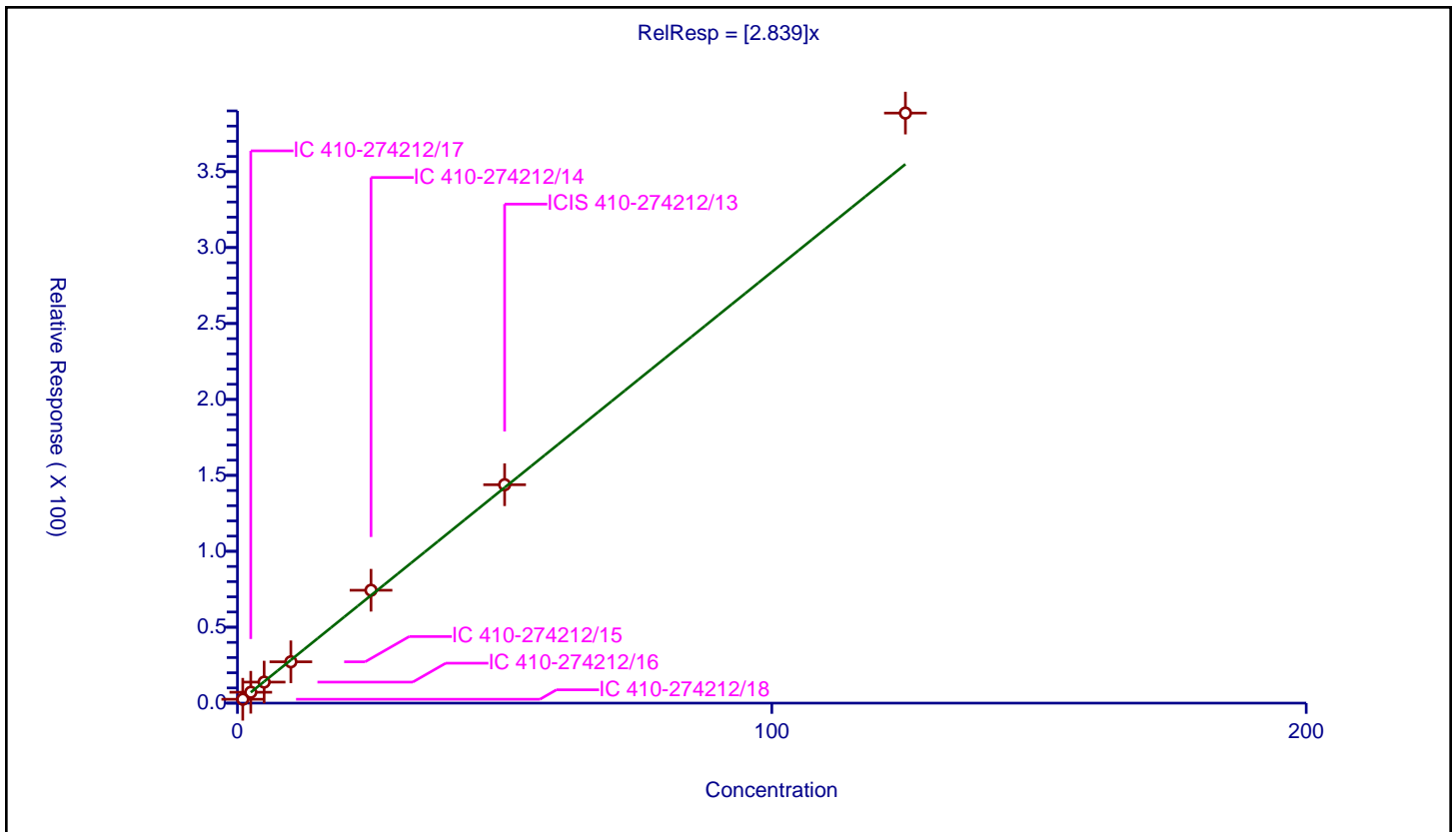
/ 2-Nitropropane

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

Curve Coefficients	
Intercept:	0
Slope:	2.839

Error Coefficients	
Standard Error:	554000
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 410-274212/18	1.0	2.557407	50.0	161218.0	2.557407	Y
2	IC 410-274212/17	2.5	7.168034	50.0	156891.0	2.867214	Y
3	IC 410-274212/16	5.0	13.849168	50.0	155670.0	2.769834	Y
4	IC 410-274212/15	10.0	27.21899	50.0	167734.0	2.721899	Y
5	IC 410-274212/14	25.0	74.329117	50.0	157069.0	2.973165	Y
6	ICIS 410-274212/13	50.0	143.818395	50.0	169786.0	2.876368	Y
7	IC 410-274212/12	125.0	388.569816	50.0	159455.0	3.108559	Y



Calibration

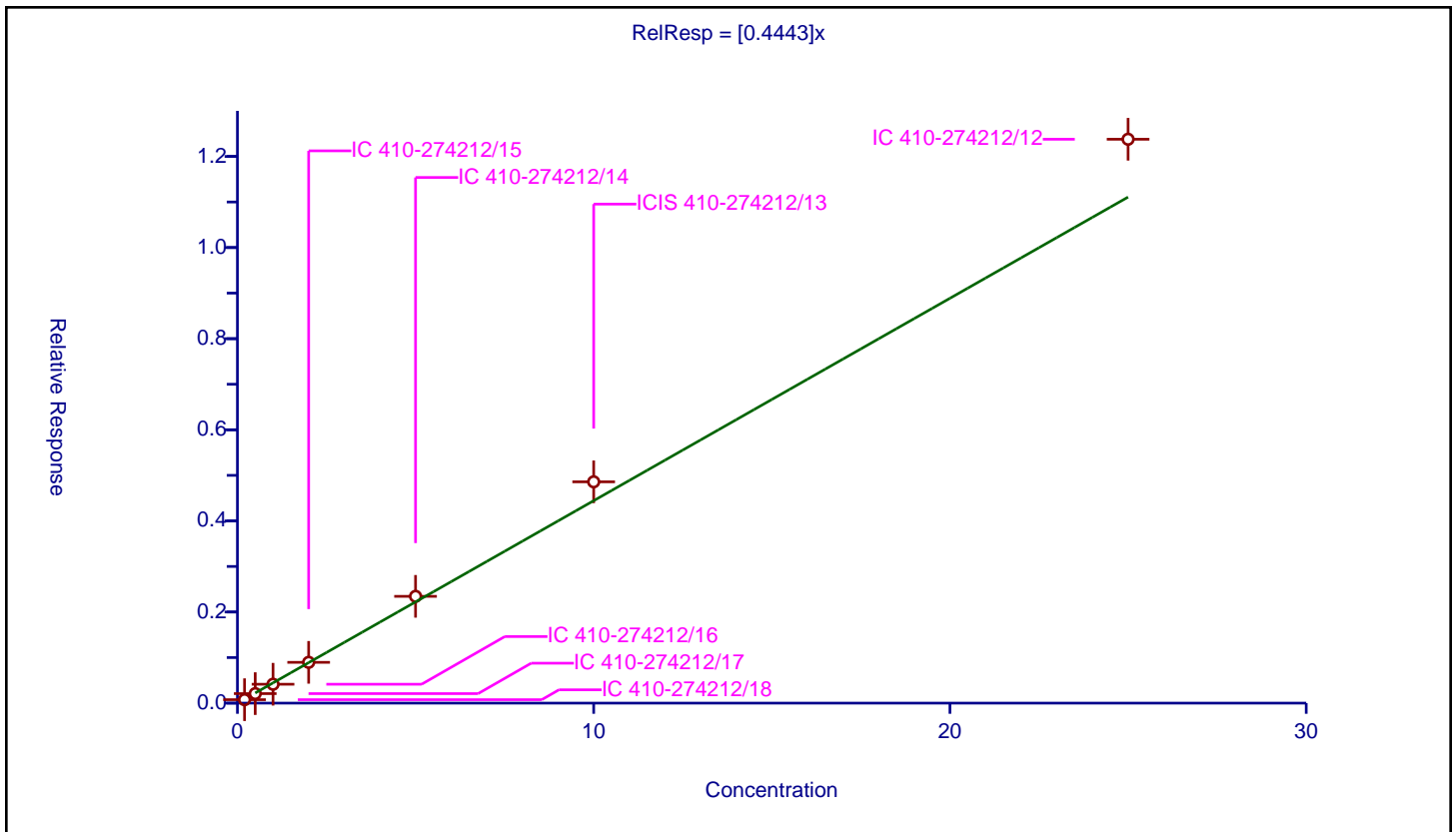
/ cis-1,3-Dichloropropene

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

Curve Coefficients	
Intercept:	0
Slope:	0.4443

Error Coefficients	
Standard Error:	1300000
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 410-274212/18	0.2	0.075931	10.0	2230453.0	0.379654	Y
2	IC 410-274212/17	0.5	0.209224	10.0	2227997.0	0.418448	Y
3	IC 410-274212/16	1.0	0.414741	10.0	2298931.0	0.414741	Y
4	IC 410-274212/15	2.0	0.895506	10.0	2342051.0	0.447753	Y
5	IC 410-274212/14	5.0	2.344041	10.0	2371836.0	0.468808	Y
6	ICIS 410-274212/13	10.0	4.857925	10.0	2357451.0	0.485792	Y
7	IC 410-274212/12	25.0	12.377156	10.0	2340890.0	0.495086	Y



Calibration

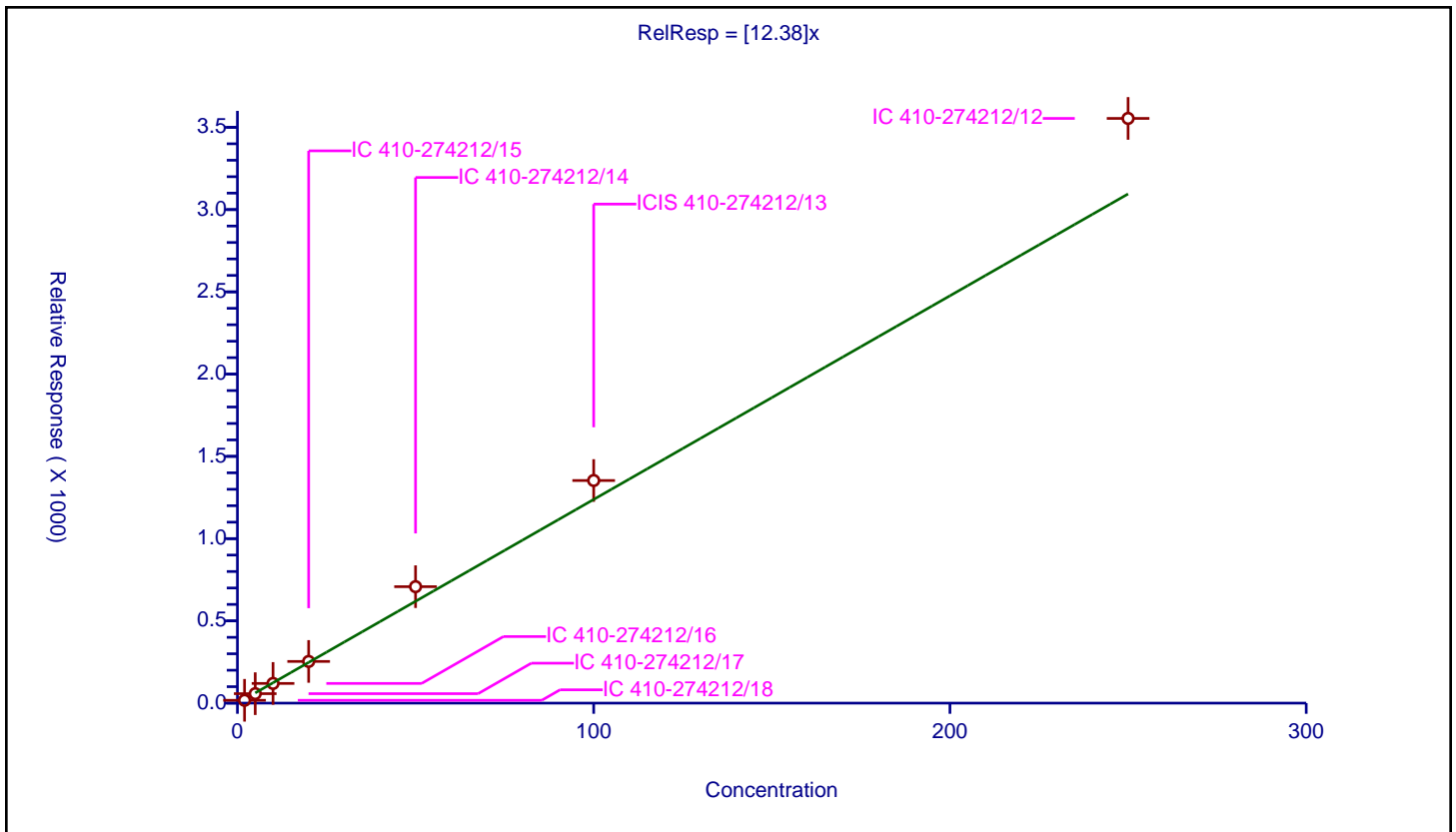
/ 4-Methyl-2-pentanone (MIBK)

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

Curve Coefficients	
Intercept:	0
Slope:	12.38

Error Coefficients	
Standard Error:	5090000
Relative Standard Error:	15.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.972

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	2.0	17.207136	50.0	161218.0	8.603568	Y
2	IC 410-274212/17	5.0	57.505848	50.0	156891.0	11.50117	Y
3	IC 410-274212/16	10.0	119.766172	50.0	155670.0	11.976617	Y
4	IC 410-274212/15	20.0	253.504954	50.0	167734.0	12.675248	Y
5	IC 410-274212/14	50.0	707.941733	50.0	157069.0	14.158835	Y
6	ICIS 410-274212/13	100.0	1353.219641	50.0	169786.0	13.532196	Y
7	IC 410-274212/12	250.0	3554.20777	50.0	159455.0	14.216831	Y



**Calibration**

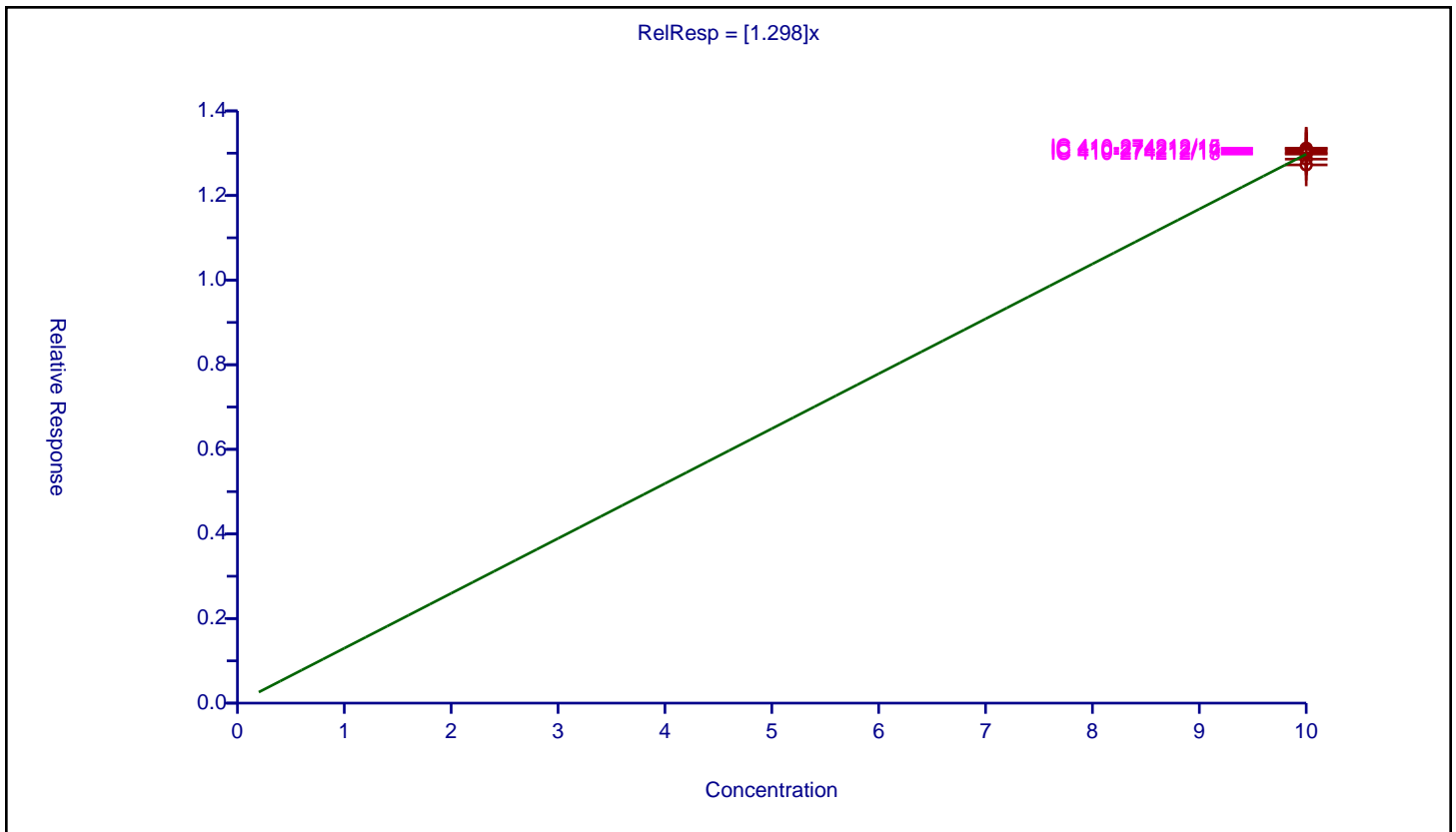
/ Toluene-d8 (Surr)

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

Curve Coefficients	
Intercept:	0
Slope:	1.298

Error Coefficients	
Standard Error:	2540000
Relative Standard Error:	1.1
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/12	10.0	12.723837	10.0	1873912.0	1.272384	Y
2	ICIS 410-274212/13	10.0	12.859747	10.0	1868480.0	1.285975	Y
3	IC 410-274212/14	10.0	13.051945	10.0	1851570.0	1.305195	Y
4	IC 410-274212/15	10.0	13.118008	10.0	1818084.0	1.311801	Y
5	IC 410-274212/16	10.0	13.10429	10.0	1797925.0	1.310429	Y
6	IC 410-274212/17	10.0	13.003085	10.0	1739265.0	1.300308	Y
7	IC 410-274212/18	10.0	12.978543	10.0	1726250.0	1.297854	Y



Calibration

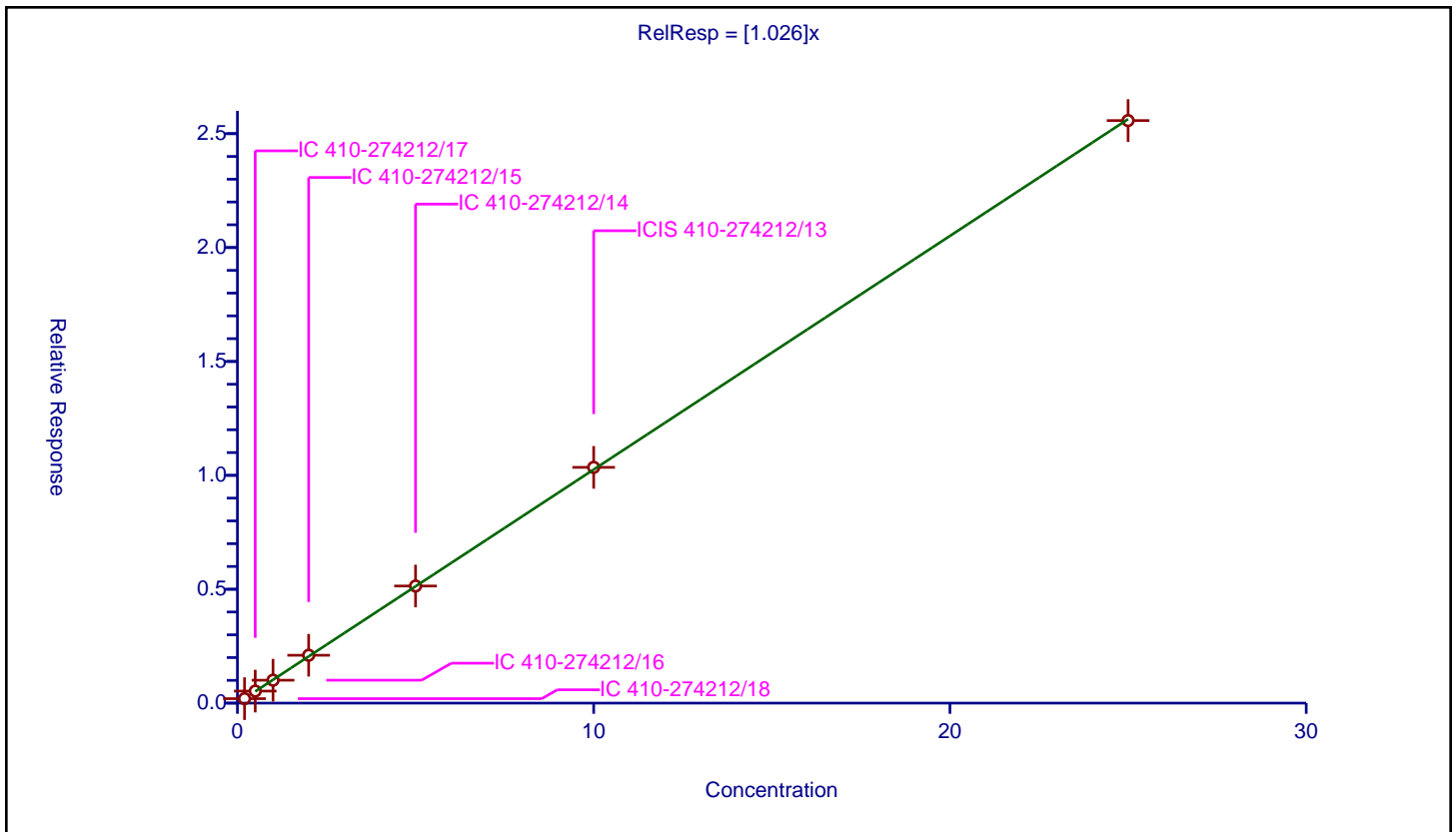
/ Toluene

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

Curve Coefficients	
Intercept:	0
Slope:	1.026

Error Coefficients	
Standard Error:	2150000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.195279	10.0	1726250.0	0.976394	Y
2	IC 410-274212/17	0.5	0.529477	10.0	1739265.0	1.058953	Y
3	IC 410-274212/16	1.0	1.005604	10.0	1797925.0	1.005604	Y
4	IC 410-274212/15	2.0	2.102175	10.0	1818084.0	1.051087	Y
5	IC 410-274212/14	5.0	5.142079	10.0	1851570.0	1.028416	Y
6	ICIS 410-274212/13	10.0	10.350226	10.0	1868480.0	1.035023	Y
7	IC 410-274212/12	25.0	25.575972	10.0	1873912.0	1.023039	Y



Calibration

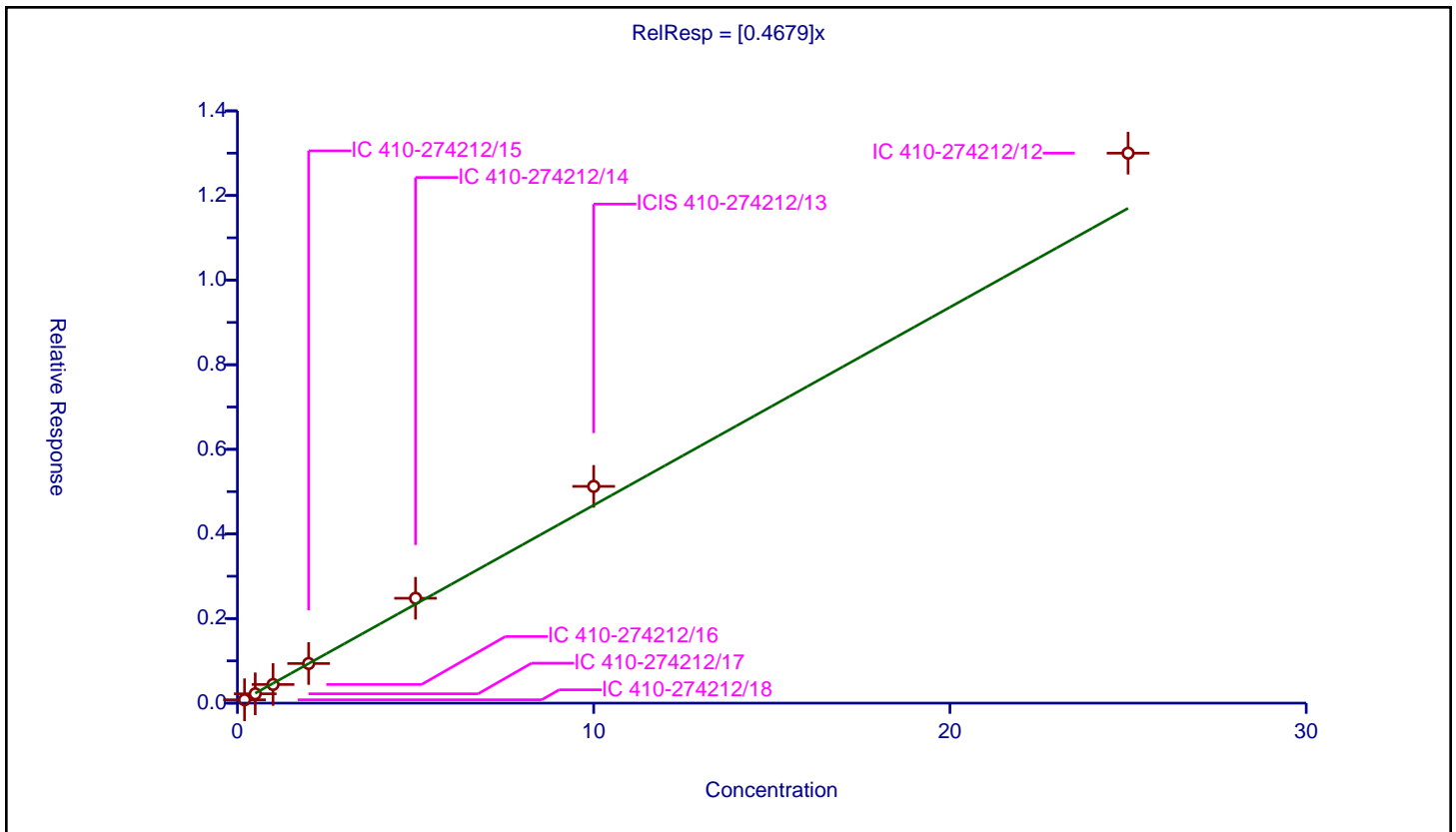
/ trans-1,3-Dichloropropene

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

Curve Coefficients	
Intercept:	0
Slope:	0.4679

Error Coefficients	
Standard Error:	1090000
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 410-274212/18	0.2	0.079328	10.0	1726250.0	0.39664	Y
2	IC 410-274212/17	0.5	0.220852	10.0	1739265.0	0.441704	Y
3	IC 410-274212/16	1.0	0.440758	10.0	1797925.0	0.440758	Y
4	IC 410-274212/15	2.0	0.936442	10.0	1818084.0	0.468221	Y
5	IC 410-274212/14	5.0	2.479112	10.0	1851570.0	0.495822	Y
6	ICIS 410-274212/13	10.0	5.123972	10.0	1868480.0	0.512397	Y
7	IC 410-274212/12	25.0	13.000317	10.0	1873912.0	0.520013	Y



Calibration

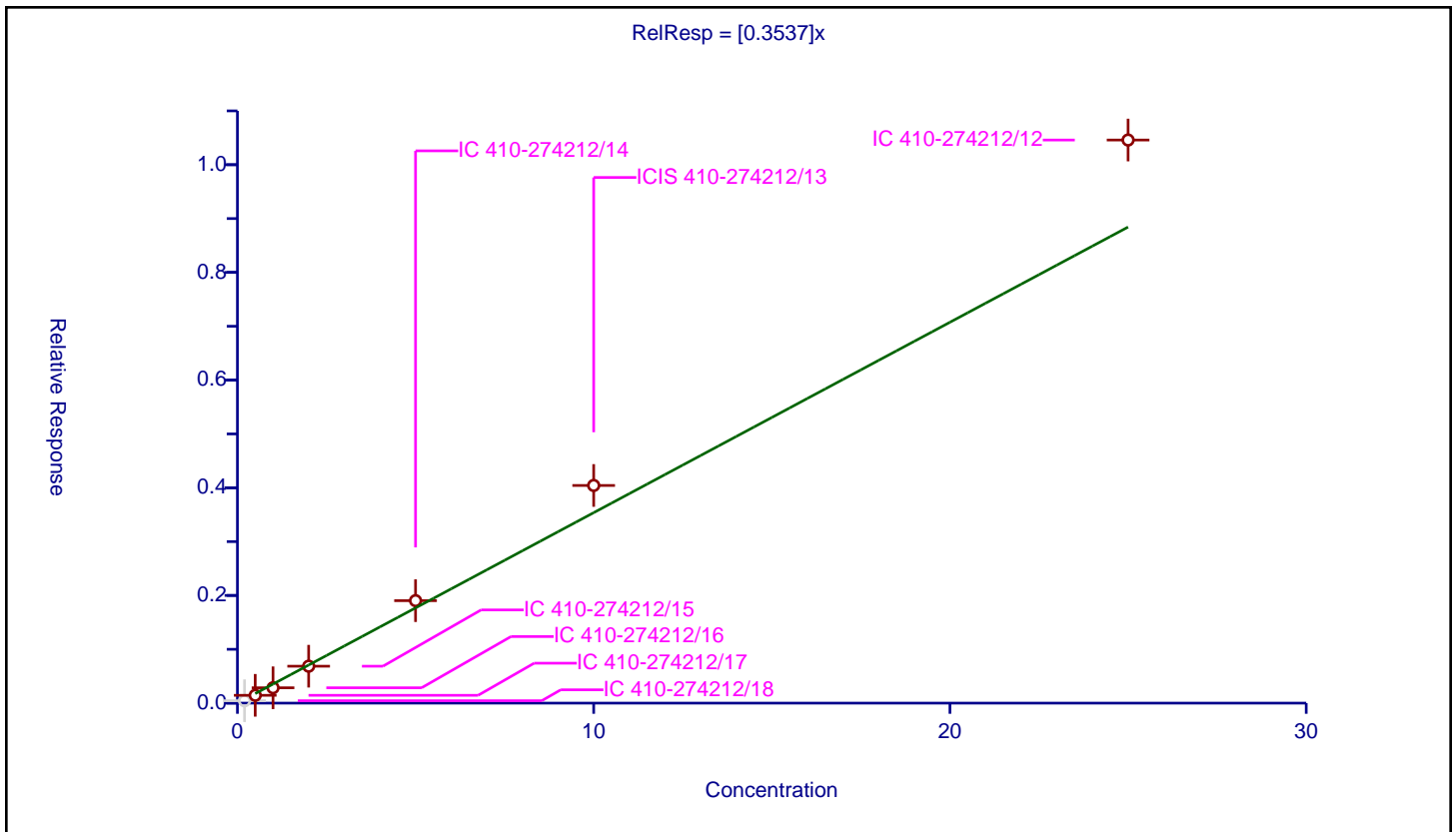
/ Ethyl methacrylate

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

Curve Coefficients	
Intercept:	0
Slope:	0.3537

Error Coefficients	
Standard Error:	954000
Relative Standard Error:	16.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.968

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.044843	10.0	1726250.0	0.224214	N
2	IC 410-274212/17	0.5	0.1454	10.0	1739265.0	0.290801	Y
3	IC 410-274212/16	1.0	0.285101	10.0	1797925.0	0.285101	Y
4	IC 410-274212/15	2.0	0.686079	10.0	1818084.0	0.34304	Y
5	IC 410-274212/14	5.0	1.903179	10.0	1851570.0	0.380636	Y
6	ICIS 410-274212/13	10.0	4.042698	10.0	1868480.0	0.40427	Y
7	IC 410-274212/12	25.0	10.458949	10.0	1873912.0	0.418358	Y



Calibration

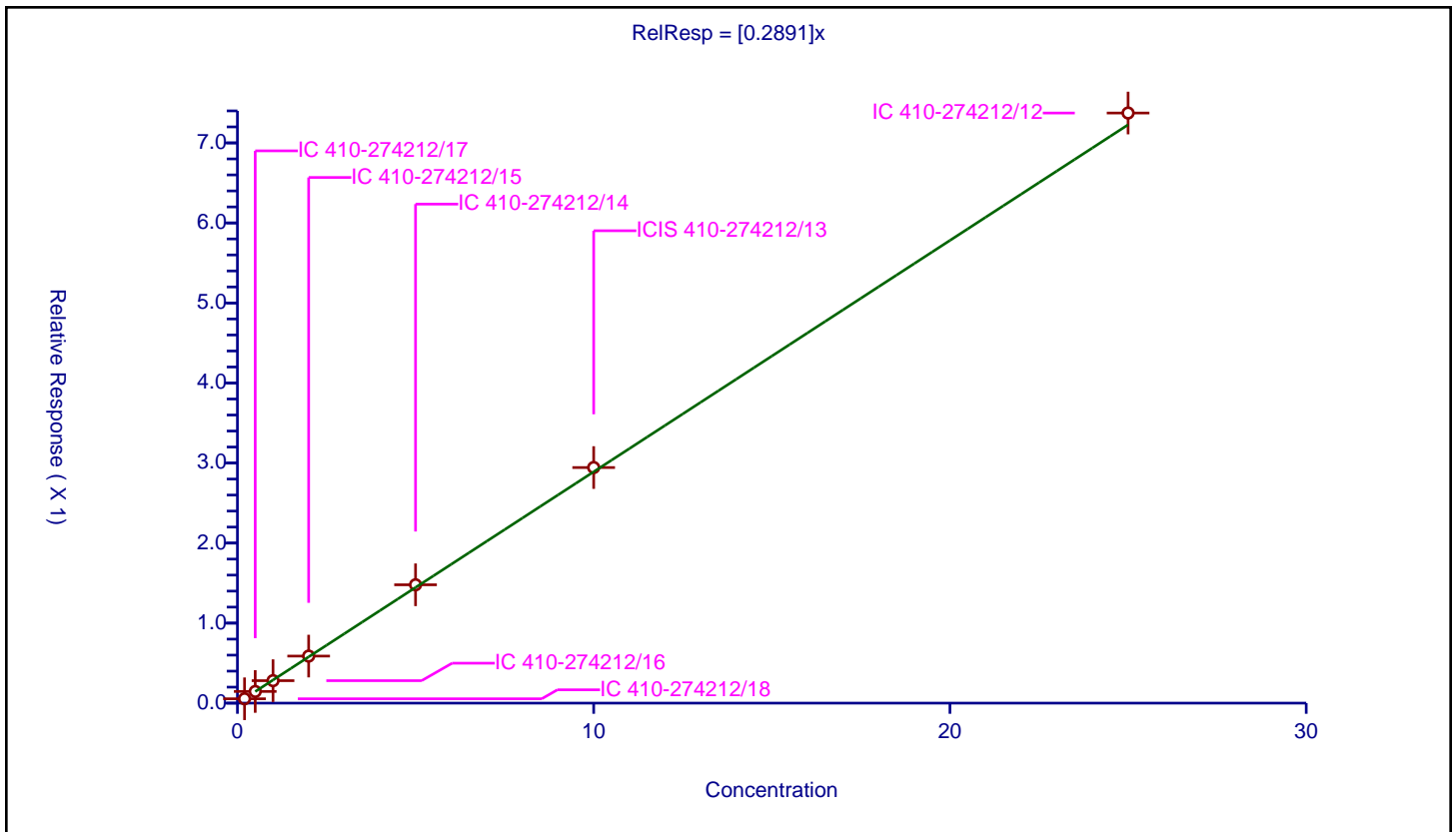
/ 1,1,2-Trichloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2891

Error Coefficients	
Standard Error:	619000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.054442	10.0	1726250.0	0.272209	Y
2	IC 410-274212/17	0.5	0.145774	10.0	1739265.0	0.291548	Y
3	IC 410-274212/16	1.0	0.280763	10.0	1797925.0	0.280763	Y
4	IC 410-274212/15	2.0	0.587833	10.0	1818084.0	0.293917	Y
5	IC 410-274212/14	5.0	1.478632	10.0	1851570.0	0.295726	Y
6	ICIS 410-274212/13	10.0	2.943569	10.0	1868480.0	0.294357	Y
7	IC 410-274212/12	25.0	7.373457	10.0	1873912.0	0.294938	Y





**Calibration**

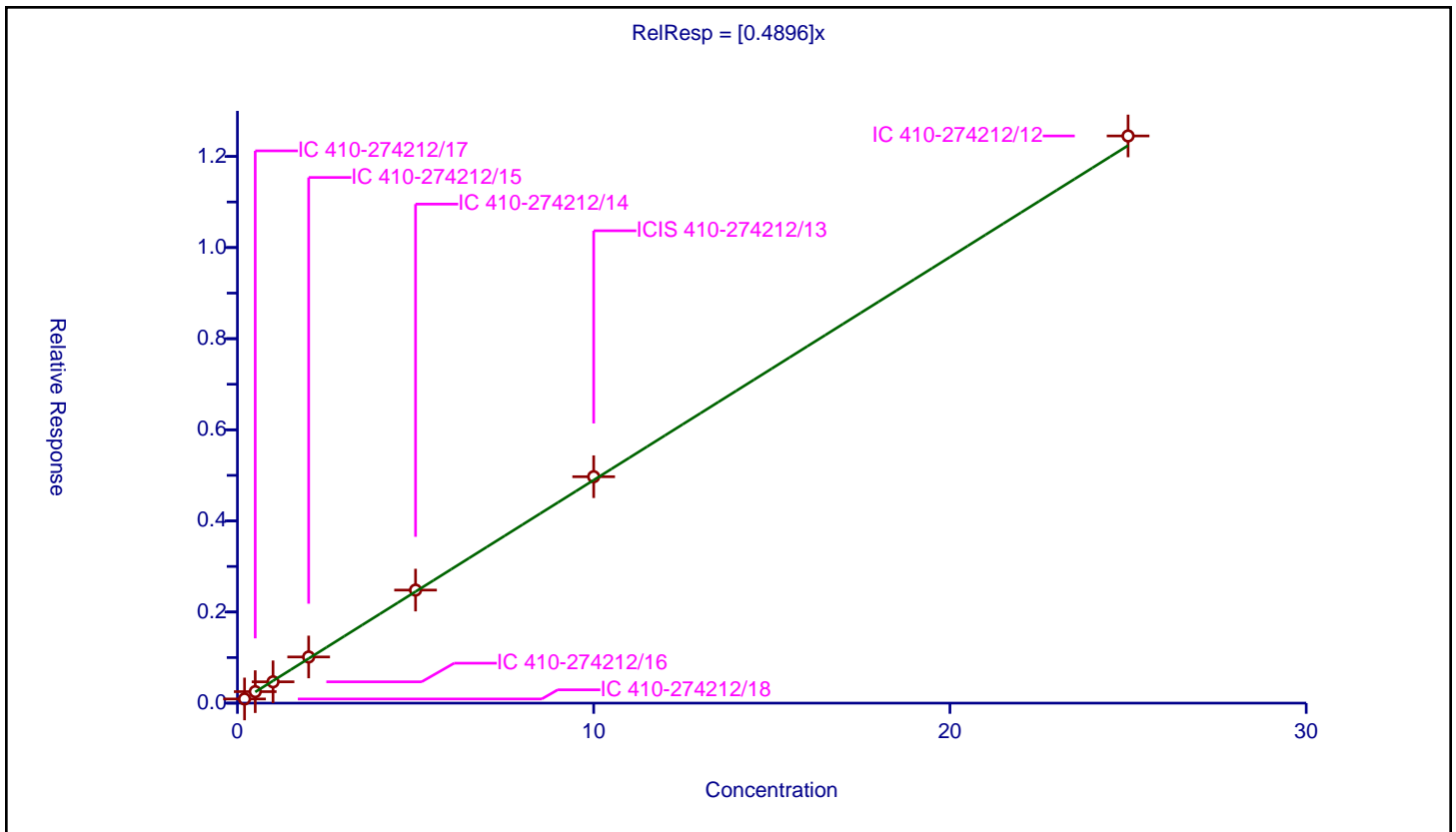
**/ Tetrachloroethene**

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

Curve Coefficients	
Intercept:	0
Slope:	0.4896

Error Coefficients	
Standard Error:	1050000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.091476	10.0	1726250.0	0.457379	Y
2	IC 410-274212/17	0.5	0.252003	10.0	1739265.0	0.504006	Y
3	IC 410-274212/16	1.0	0.467839	10.0	1797925.0	0.467839	Y
4	IC 410-274212/15	2.0	1.013149	10.0	1818084.0	0.506575	Y
5	IC 410-274212/14	5.0	2.481667	10.0	1851570.0	0.496333	Y
6	ICIS 410-274212/13	10.0	4.970077	10.0	1868480.0	0.497008	Y
7	IC 410-274212/12	25.0	12.449656	10.0	1873912.0	0.497986	Y



Calibration

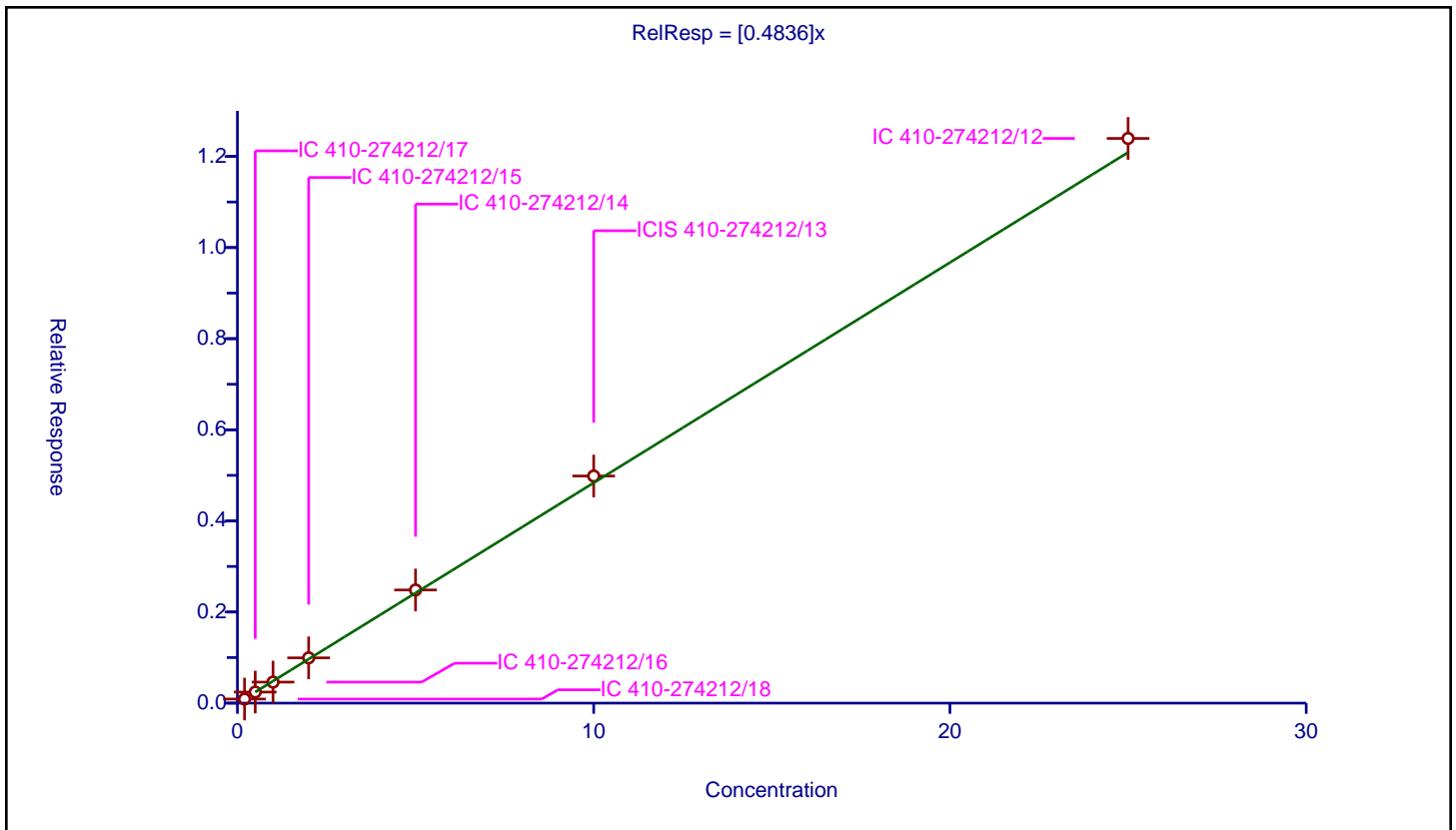
/ 1,3-Dichloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4836

Error Coefficients	
Standard Error:	1040000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.089778	10.0	1726250.0	0.448892	Y
2	IC 410-274212/17	0.5	0.243097	10.0	1739265.0	0.486194	Y
3	IC 410-274212/16	1.0	0.46176	10.0	1797925.0	0.46176	Y
4	IC 410-274212/15	2.0	0.993766	10.0	1818084.0	0.496883	Y
5	IC 410-274212/14	5.0	2.483849	10.0	1851570.0	0.49677	Y
6	ICIS 410-274212/13	10.0	4.985373	10.0	1868480.0	0.498537	Y
7	IC 410-274212/12	25.0	12.395764	10.0	1873912.0	0.495831	Y



Calibration

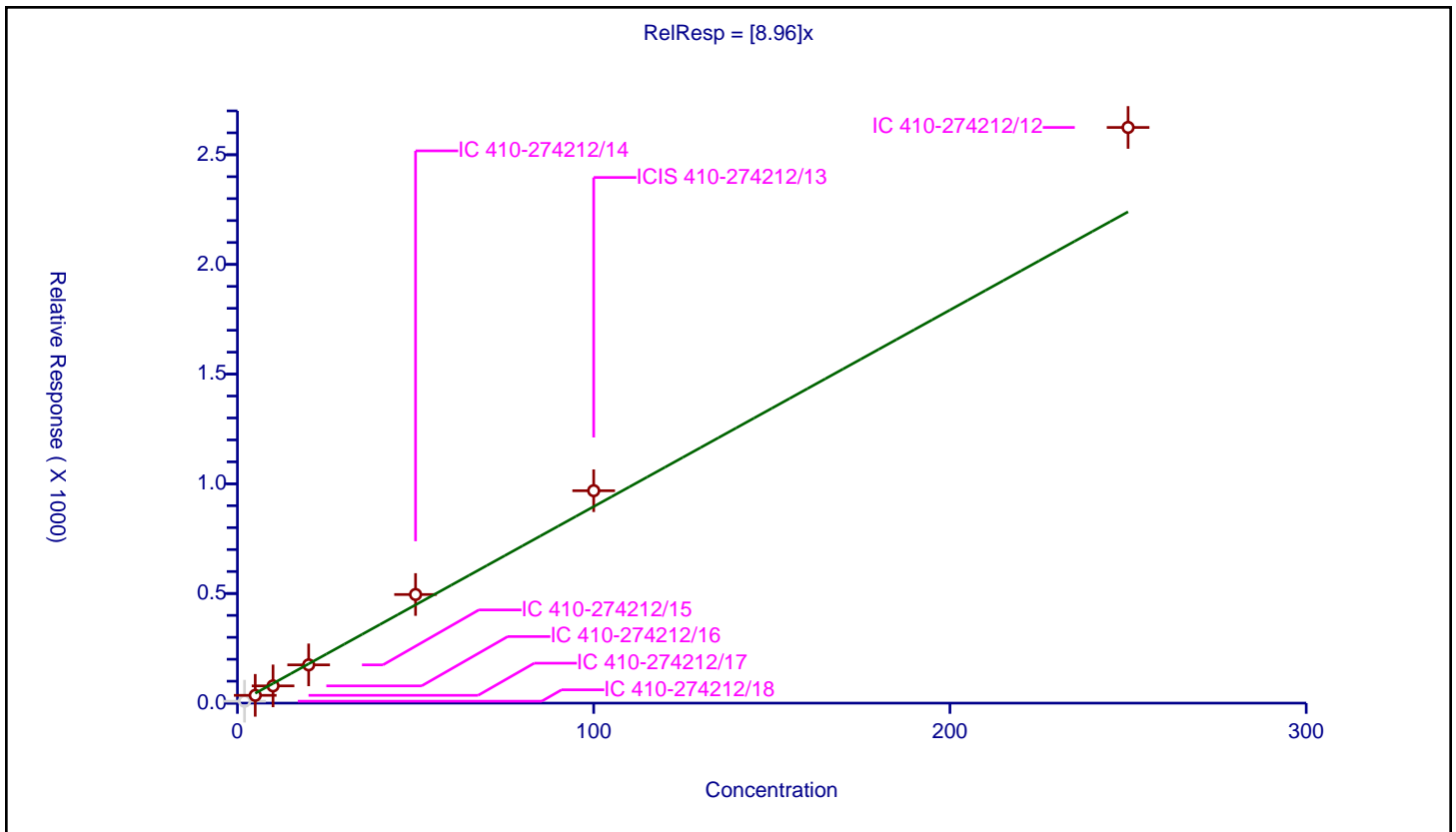
/ 2-Hexanone

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

Curve Coefficients	
Intercept:	0
Slope:	8.96

Error Coefficients	
Standard Error:	4090000
Relative Standard Error:	14.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	2.0	8.812912	50.0	161218.0	4.406456	N
2	IC 410-274212/17	5.0	35.476541	50.0	156891.0	7.095308	Y
3	IC 410-274212/16	10.0	78.604098	50.0	155670.0	7.86041	Y
4	IC 410-274212/15	20.0	174.382057	50.0	167734.0	8.719103	Y
5	IC 410-274212/14	50.0	495.26864	50.0	157069.0	9.905373	Y
6	ICIS 410-274212/13	100.0	968.446751	50.0	169786.0	9.684468	Y
7	IC 410-274212/12	250.0	2624.45204	50.0	159455.0	10.497808	Y



**Calibration**

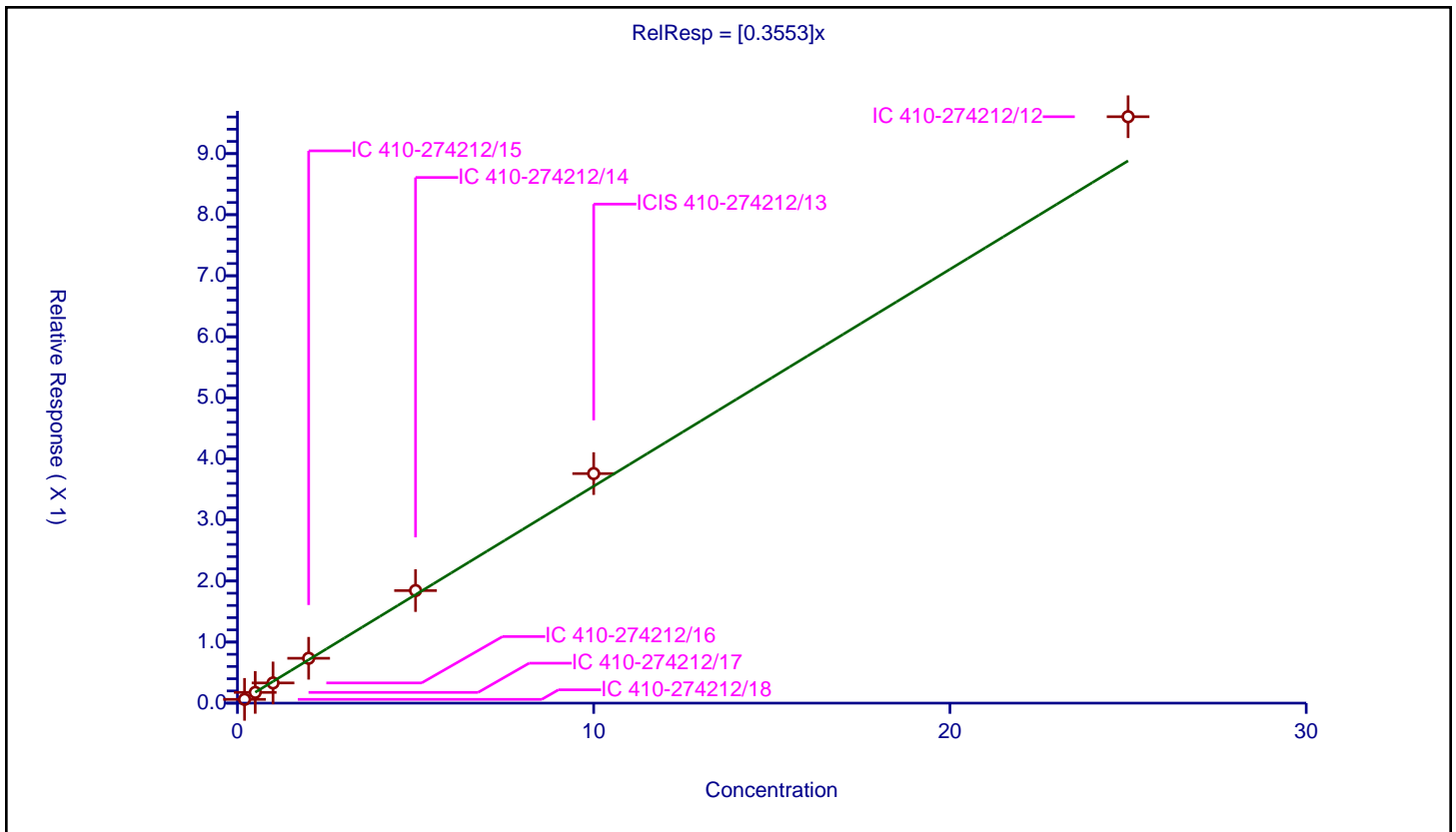
/ Chlorodibromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3553

Error Coefficients	
Standard Error:	803000
Relative Standard Error:	7.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.061636	10.0	1726250.0	0.308182	Y
2	IC 410-274212/17	0.5	0.175931	10.0	1739265.0	0.351861	Y
3	IC 410-274212/16	1.0	0.330665	10.0	1797925.0	0.330665	Y
4	IC 410-274212/15	2.0	0.734785	10.0	1818084.0	0.367392	Y
5	IC 410-274212/14	5.0	1.843819	10.0	1851570.0	0.368764	Y
6	ICIS 410-274212/13	10.0	3.759484	10.0	1868480.0	0.375948	Y
7	IC 410-274212/12	25.0	9.604357	10.0	1873912.0	0.384174	Y



Calibration

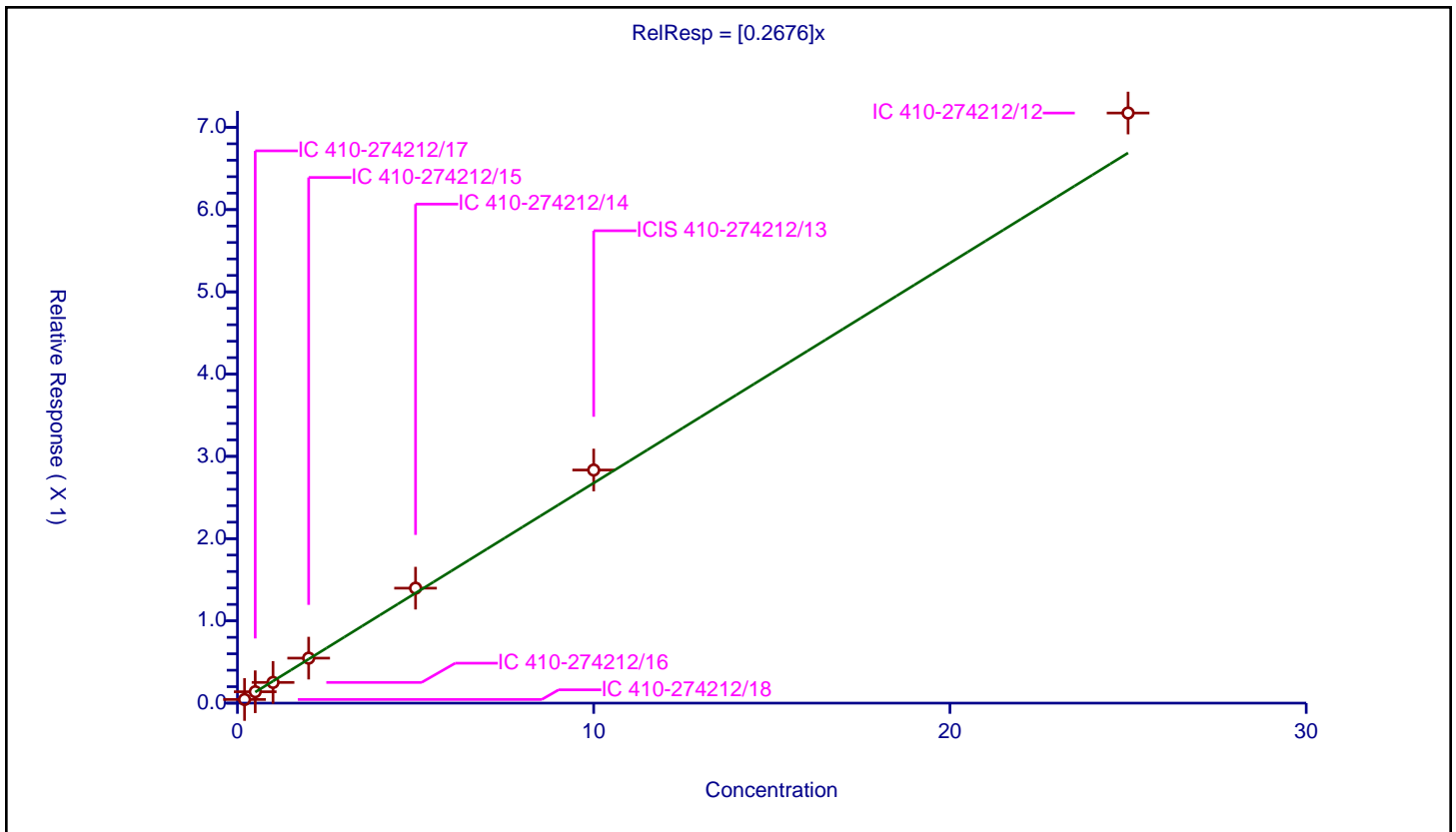
/ Ethylene Dibromide

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

Curve Coefficients	
Intercept:	0
Slope:	0.2676

Error Coefficients	
Standard Error:	601000
Relative Standard Error:	8.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.044188	10.0	1726250.0	0.220941	Y
2	IC 410-274212/17	0.5	0.138329	10.0	1739265.0	0.276657	Y
3	IC 410-274212/16	1.0	0.251874	10.0	1797925.0	0.251874	Y
4	IC 410-274212/15	2.0	0.547032	10.0	1818084.0	0.273516	Y
5	IC 410-274212/14	5.0	1.397798	10.0	1851570.0	0.27956	Y
6	ICIS 410-274212/13	10.0	2.833961	10.0	1868480.0	0.283396	Y
7	IC 410-274212/12	25.0	7.174206	10.0	1873912.0	0.286968	Y



Calibration

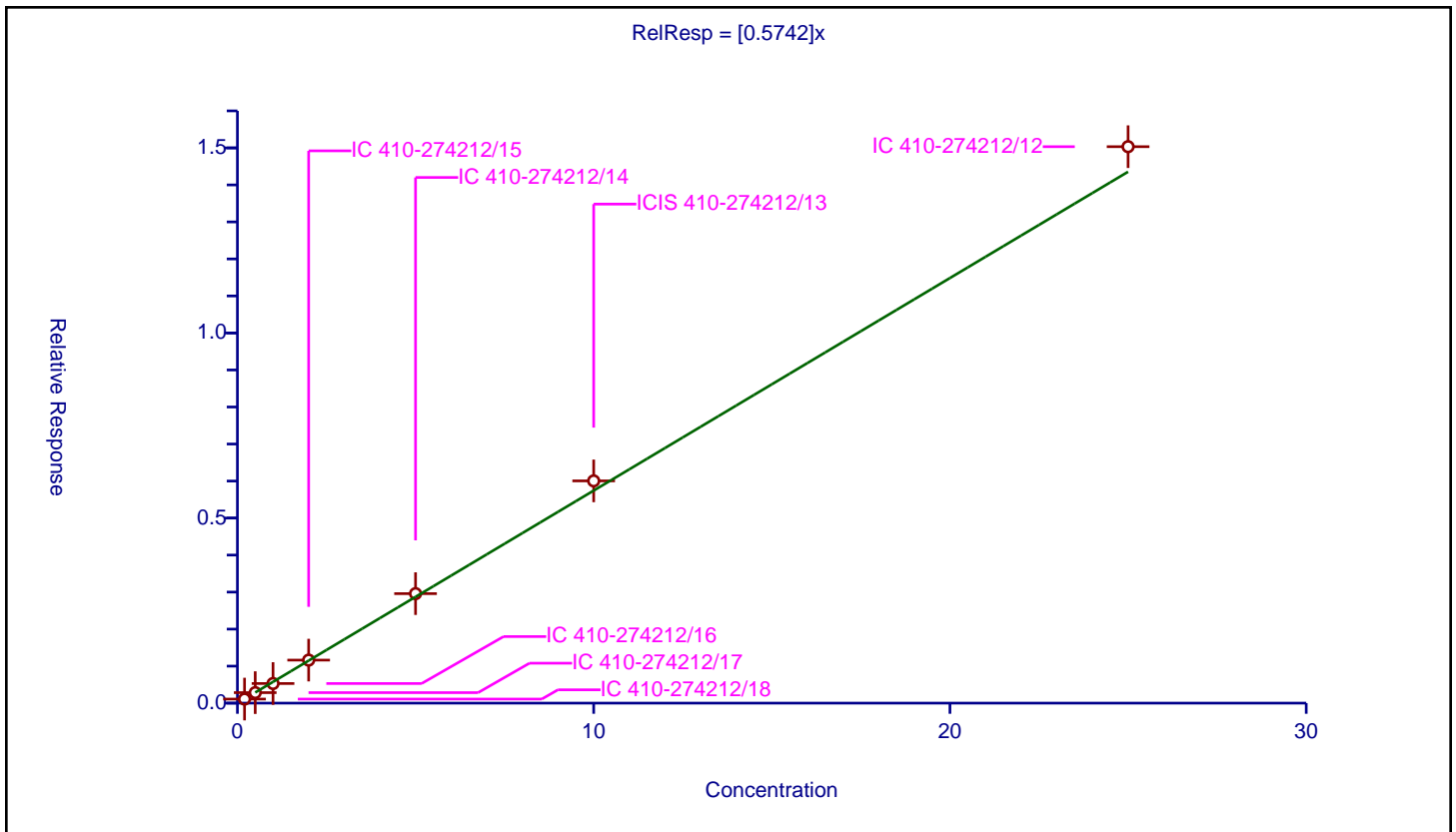
/ 1-Chlorohexane

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

Curve Coefficients	
Intercept:	0
Slope:	0.5742

Error Coefficients	
Standard Error:	1260000
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.109393	10.0	1726250.0	0.546966	Y
2	IC 410-274212/17	0.5	0.284114	10.0	1739265.0	0.568229	Y
3	IC 410-274212/16	1.0	0.529755	10.0	1797925.0	0.529755	Y
4	IC 410-274212/15	2.0	1.162427	10.0	1818084.0	0.581214	Y
5	IC 410-274212/14	5.0	2.958176	10.0	1851570.0	0.591635	Y
6	ICIS 410-274212/13	10.0	6.004003	10.0	1868480.0	0.6004	Y
7	IC 410-274212/12	25.0	15.032995	10.0	1873912.0	0.60132	Y



**Calibration**

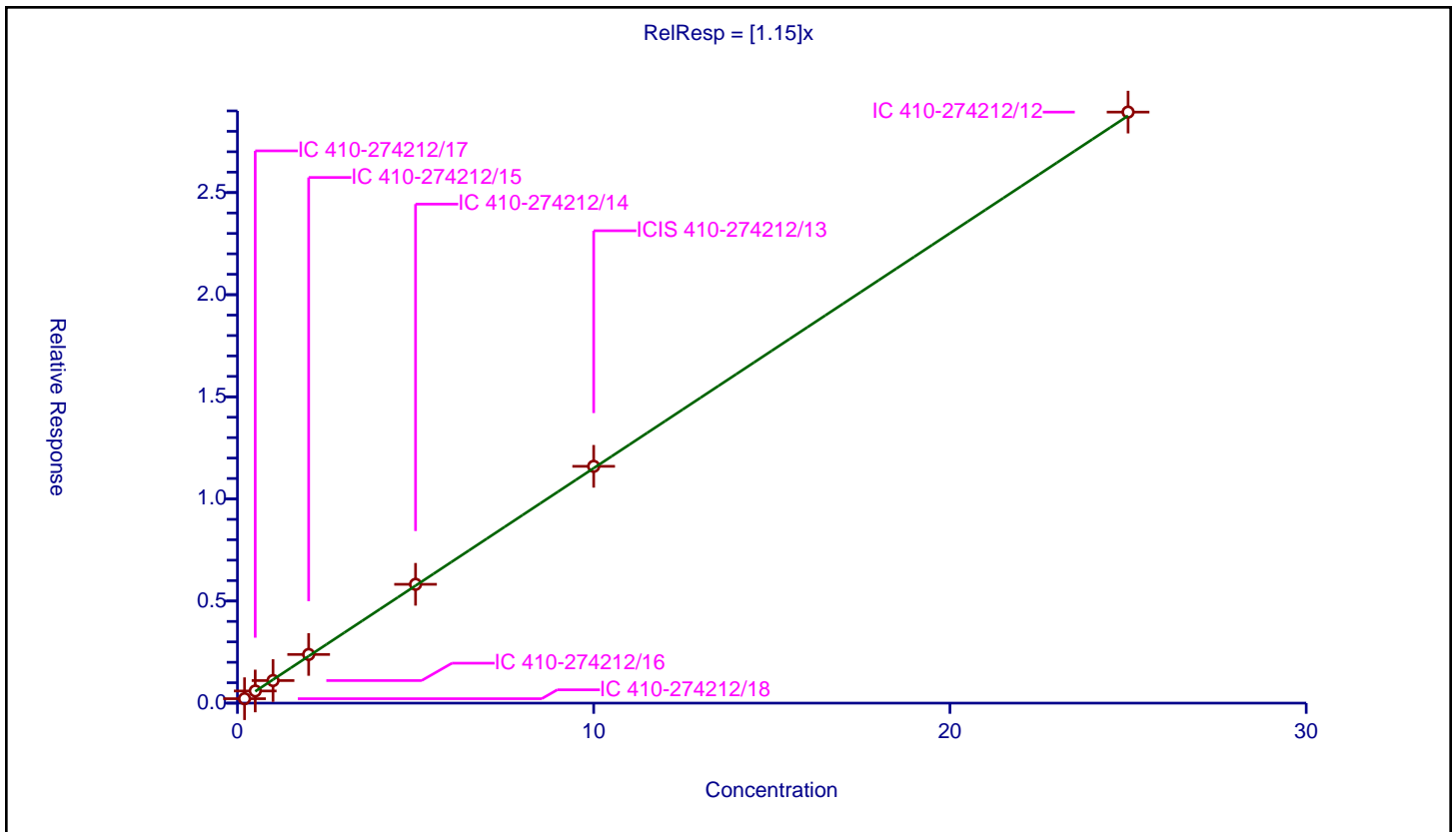
/ Chlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.15

Error Coefficients	
Standard Error:	2430000
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.216747	10.0	1726250.0	1.083736	Y
2	IC 410-274212/17	0.5	0.595855	10.0	1739265.0	1.19171	Y
3	IC 410-274212/16	1.0	1.105363	10.0	1797925.0	1.105363	Y
4	IC 410-274212/15	2.0	2.382866	10.0	1818084.0	1.191433	Y
5	IC 410-274212/14	5.0	5.817933	10.0	1851570.0	1.163587	Y
6	ICIS 410-274212/13	10.0	11.596528	10.0	1868480.0	1.159653	Y
7	IC 410-274212/12	25.0	28.940975	10.0	1873912.0	1.157639	Y



Calibration

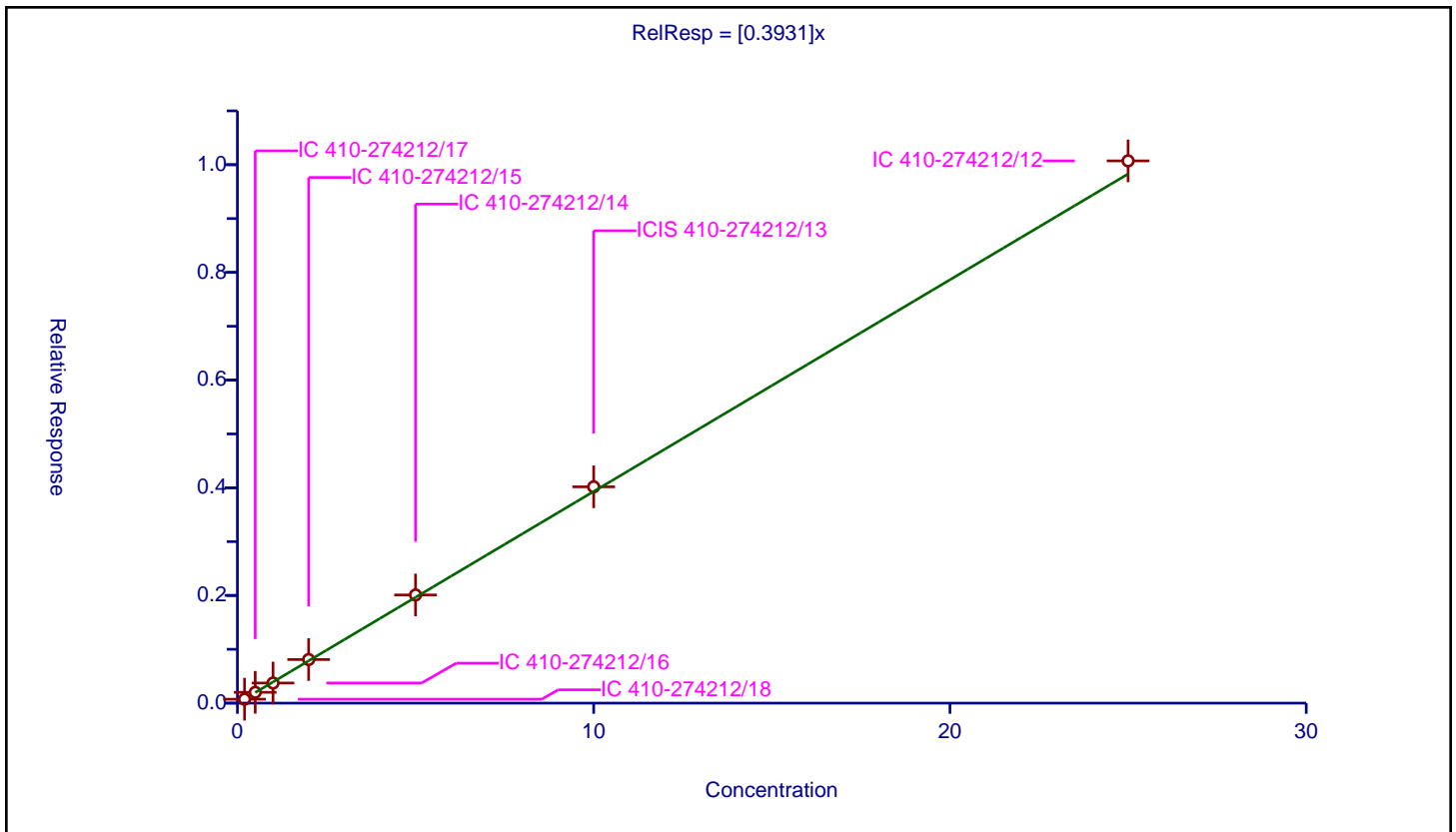
/ 1,1,1,2-Tetrachloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3931

Error Coefficients	
Standard Error:	846000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.07306	10.0	1726250.0	0.365301	Y
2	IC 410-274212/17	0.5	0.201033	10.0	1739265.0	0.402066	Y
3	IC 410-274212/16	1.0	0.373536	10.0	1797925.0	0.373536	Y
4	IC 410-274212/15	2.0	0.80933	10.0	1818084.0	0.404665	Y
5	IC 410-274212/14	5.0	2.009279	10.0	1851570.0	0.401856	Y
6	ICIS 410-274212/13	10.0	4.01756	10.0	1868480.0	0.401756	Y
7	IC 410-274212/12	25.0	10.071471	10.0	1873912.0	0.402859	Y





Calibration

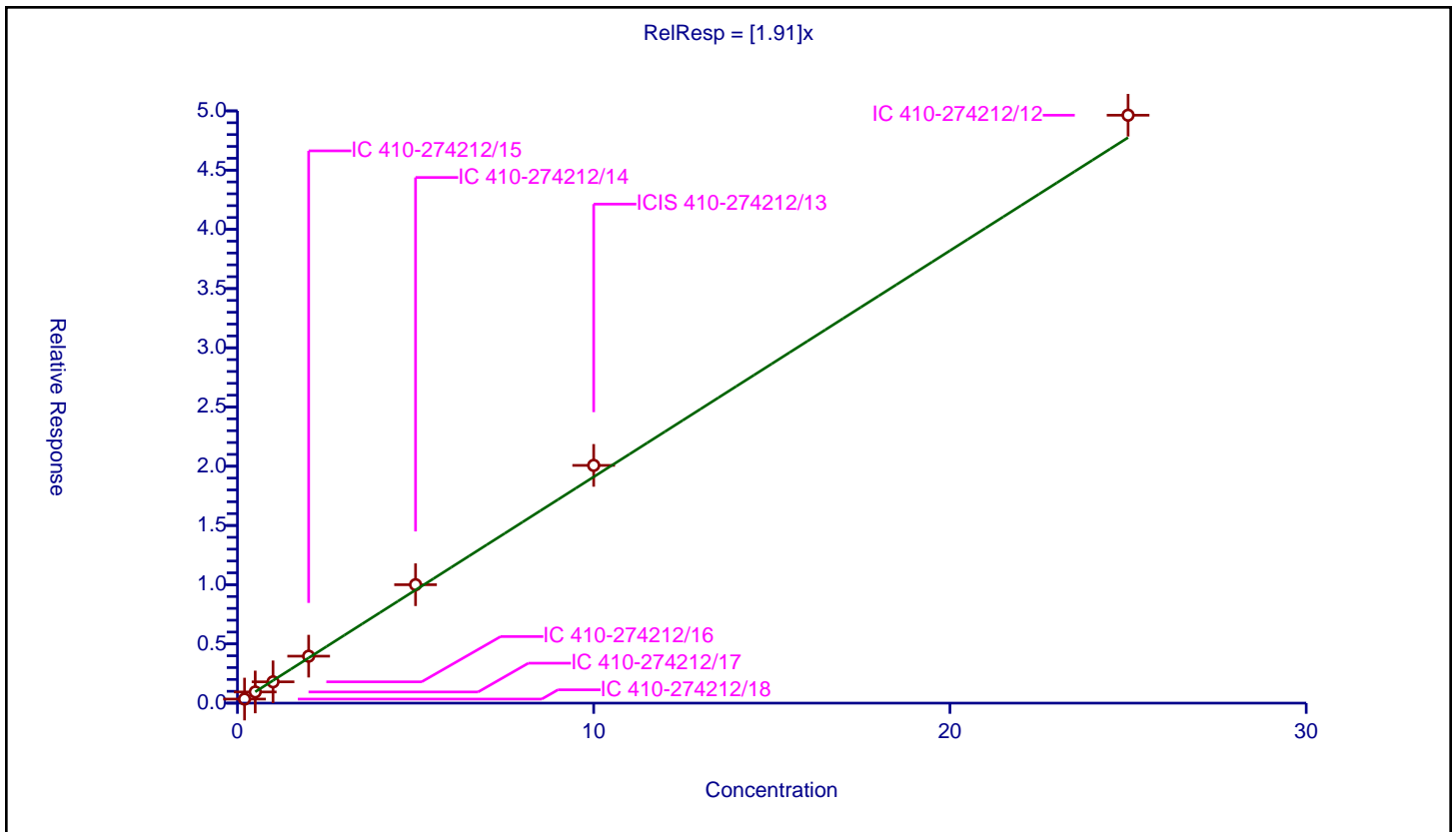
/ Ethylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.91

Error Coefficients	
Standard Error:	4180000
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 410-274212/18	0.2	0.342083	10.0	1726250.0	1.710413	Y
2	IC 410-274212/17	0.5	0.943399	10.0	1739265.0	1.886797	Y
3	IC 410-274212/16	1.0	1.79814	10.0	1797925.0	1.79814	Y
4	IC 410-274212/15	2.0	3.964184	10.0	1818084.0	1.982092	Y
5	IC 410-274212/14	5.0	9.999292	10.0	1851570.0	1.999858	Y
6	ICIS 410-274212/13	10.0	20.071593	10.0	1868480.0	2.007159	Y
7	IC 410-274212/12	25.0	49.636605	10.0	1873912.0	1.985464	Y



Calibration

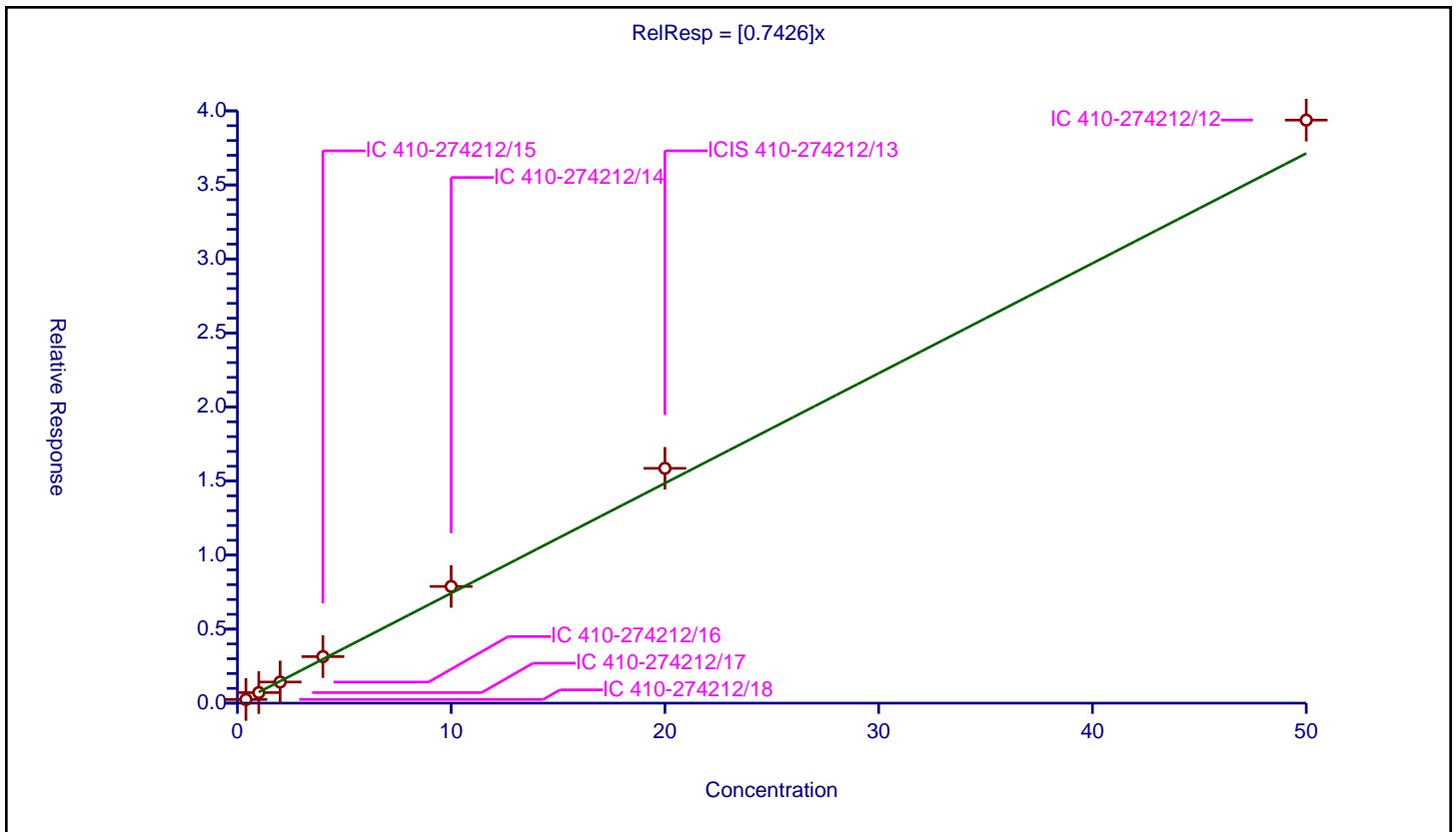
/ m-Xylene & p-Xylene

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

Curve Coefficients	
Intercept:	0
Slope:	0.7426

Error Coefficients	
Standard Error:	3310000
Relative Standard Error:	8.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.4	0.247073	10.0	1726250.0	0.617683	Y
2	IC 410-274212/17	1.0	0.712721	10.0	1739265.0	0.712721	Y
3	IC 410-274212/16	2.0	1.4265	10.0	1797925.0	0.71325	Y
4	IC 410-274212/15	4.0	3.143755	10.0	1818084.0	0.785939	Y
5	IC 410-274212/14	10.0	7.881355	10.0	1851570.0	0.788135	Y
6	ICIS 410-274212/13	20.0	15.859645	10.0	1868480.0	0.792982	Y
7	IC 410-274212/12	50.0	39.375985	10.0	1873912.0	0.78752	Y



Calibration

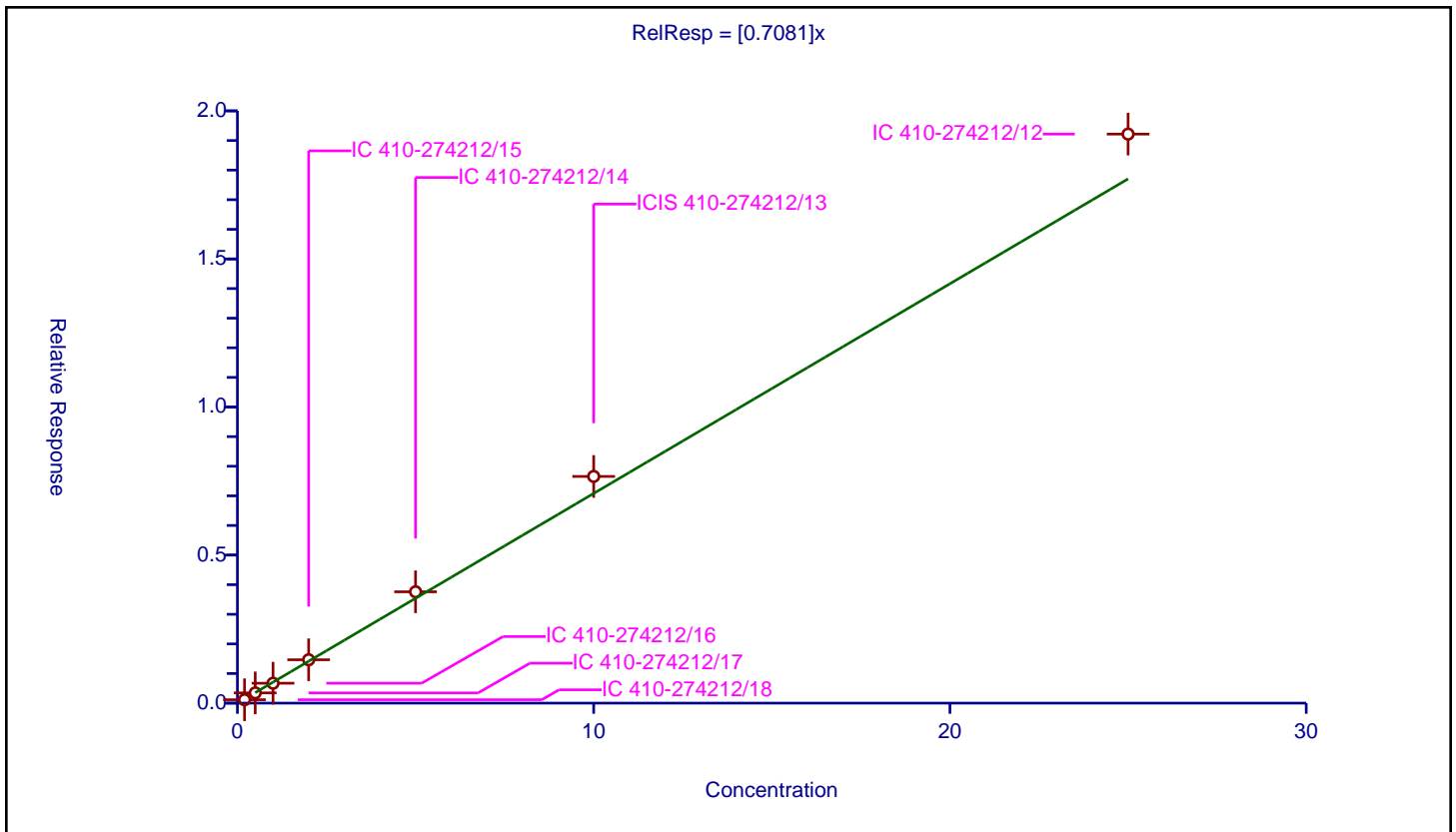
/ o-Xylene

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

Curve Coefficients	
Intercept:	0
Slope:	0.7081

Error Coefficients	
Standard Error:	1610000
Relative Standard Error:	9.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.114839	10.0	1726250.0	0.574193	Y
2	IC 410-274212/17	0.5	0.346192	10.0	1739265.0	0.692384	Y
3	IC 410-274212/16	1.0	0.671902	10.0	1797925.0	0.671902	Y
4	IC 410-274212/15	2.0	1.464459	10.0	1818084.0	0.73223	Y
5	IC 410-274212/14	5.0	3.760079	10.0	1851570.0	0.752016	Y
6	ICIS 410-274212/13	10.0	7.655731	10.0	1868480.0	0.765573	Y
7	IC 410-274212/12	25.0	19.216052	10.0	1873912.0	0.768642	Y



Calibration

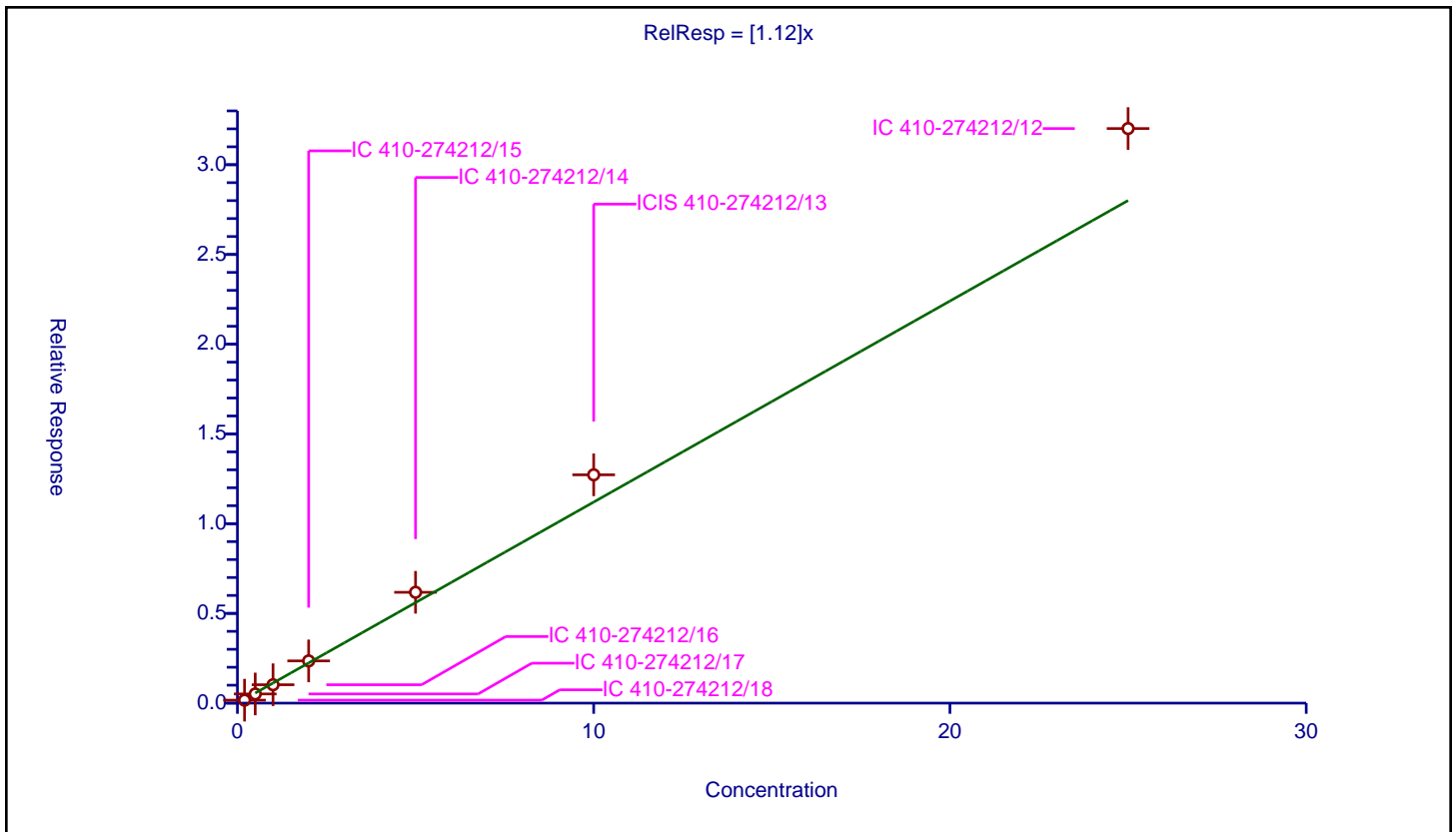
/ Styrene

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

Curve Coefficients	
Intercept:	0
Slope:	1.12

Error Coefficients	
Standard Error:	2680000
Relative Standard Error:	15.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.165874	10.0	1726250.0	0.82937	Y
2	IC 410-274212/17	0.5	0.511762	10.0	1739265.0	1.023524	Y
3	IC 410-274212/16	1.0	1.024325	10.0	1797925.0	1.024325	Y
4	IC 410-274212/15	2.0	2.352878	10.0	1818084.0	1.176439	Y
5	IC 410-274212/14	5.0	6.176078	10.0	1851570.0	1.235216	Y
6	ICIS 410-274212/13	10.0	12.722603	10.0	1868480.0	1.27226	Y
7	IC 410-274212/12	25.0	32.016498	10.0	1873912.0	1.28066	Y



**Calibration**

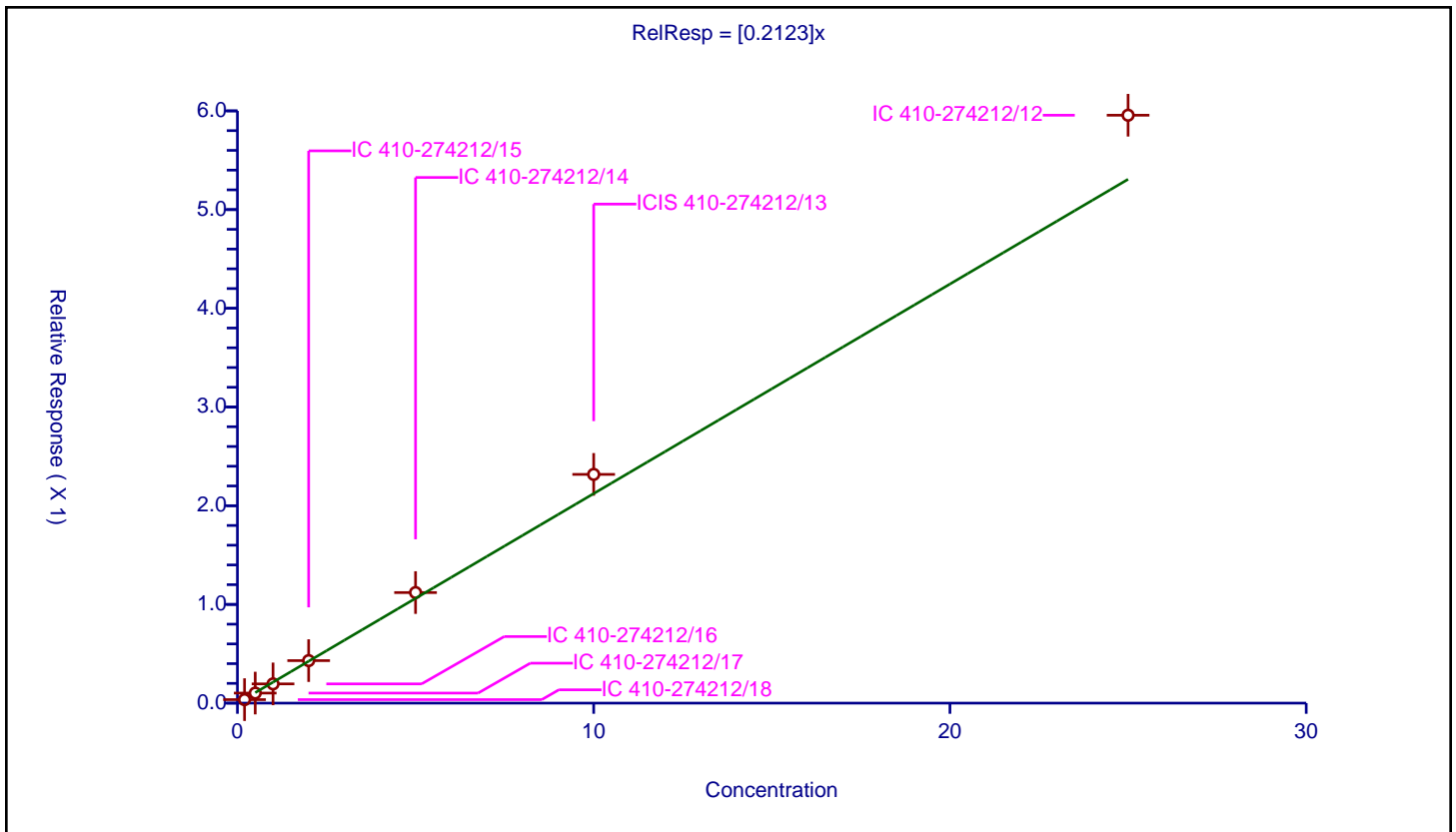
/ Bromoform

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

Curve Coefficients	
Intercept:	0
Slope:	0.2123

Error Coefficients	
Standard Error:	497000
Relative Standard Error:	10.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.035574	10.0	1726250.0	0.177871	Y
2	IC 410-274212/17	0.5	0.101899	10.0	1739265.0	0.203799	Y
3	IC 410-274212/16	1.0	0.194964	10.0	1797925.0	0.194964	Y
4	IC 410-274212/15	2.0	0.430646	10.0	1818084.0	0.215323	Y
5	IC 410-274212/14	5.0	1.120206	10.0	1851570.0	0.224041	Y
6	ICIS 410-274212/13	10.0	2.317349	10.0	1868480.0	0.231735	Y
7	IC 410-274212/12	25.0	5.955989	10.0	1873912.0	0.23824	Y



Calibration

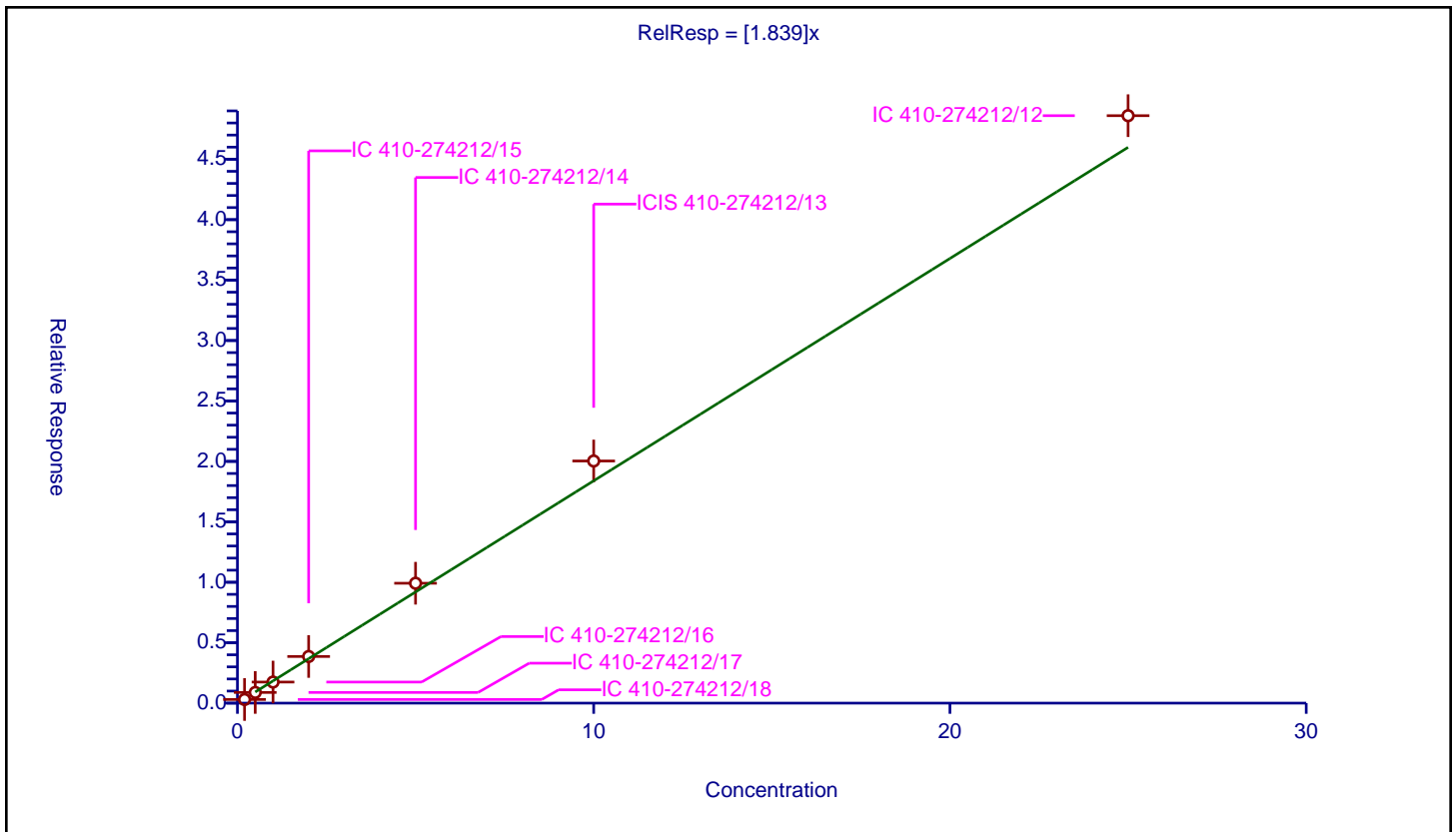
/ Isopropylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.839

Error Coefficients	
Standard Error:	4100000
Relative Standard Error:	9.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.300437	10.0	1726250.0	1.502187	Y
2	IC 410-274212/17	0.5	0.883902	10.0	1739265.0	1.767804	Y
3	IC 410-274212/16	1.0	1.745117	10.0	1797925.0	1.745117	Y
4	IC 410-274212/15	2.0	3.859129	10.0	1818084.0	1.929564	Y
5	IC 410-274212/14	5.0	9.919447	10.0	1851570.0	1.983889	Y
6	ICIS 410-274212/13	10.0	20.033236	10.0	1868480.0	2.003324	Y
7	IC 410-274212/12	25.0	48.602437	10.0	1873912.0	1.944097	Y



**Calibration**

/ 4-Bromofluorobenzene (Surr)

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

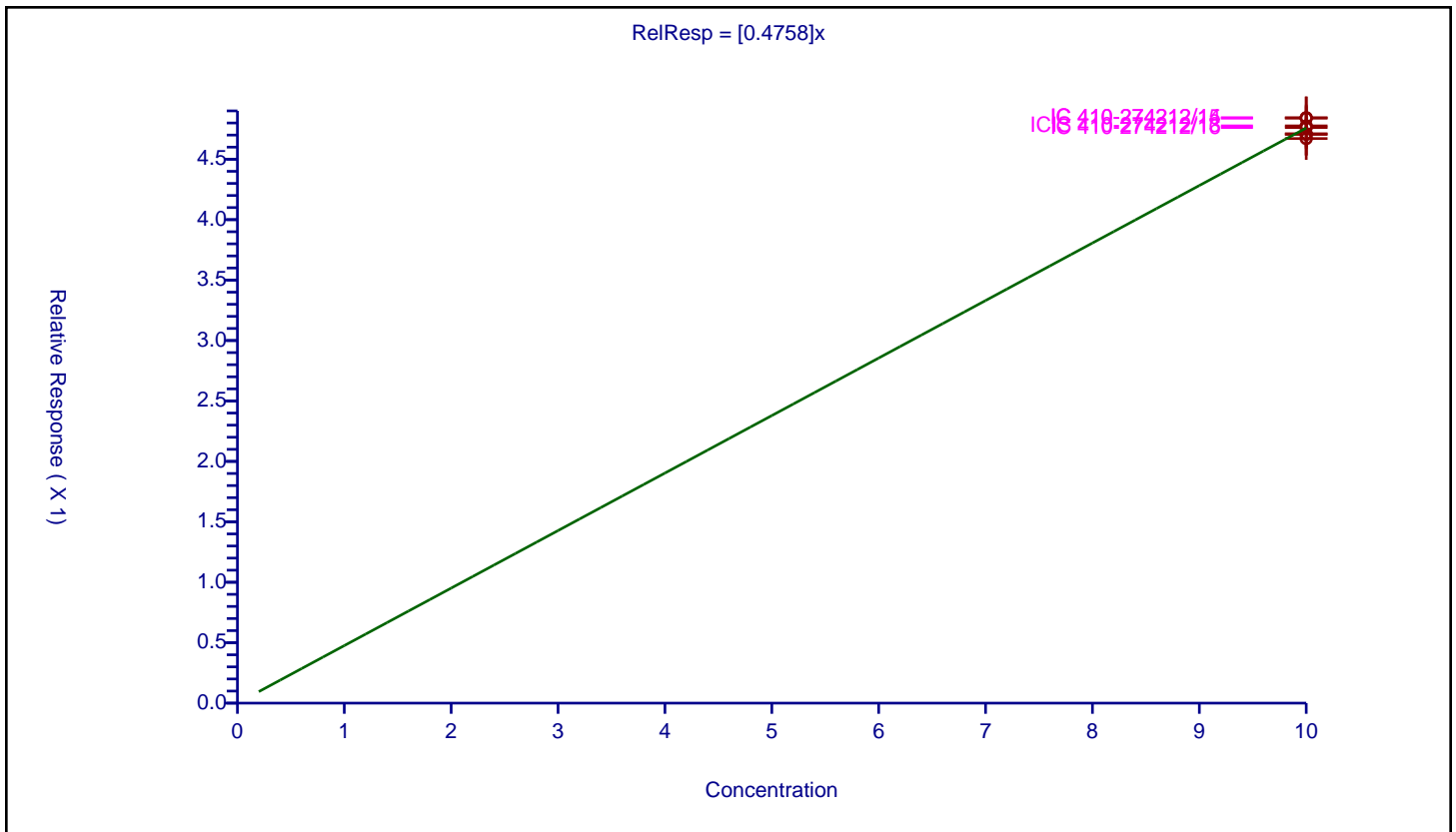
**Curve Coefficients**

Intercept: 0  
 Slope: 0.4758

**Error Coefficients**

Standard Error: 932000  
 Relative Standard Error: 1.4  
 Correlation Coefficient: NA  
 Coefficient of Determination (Adjusted): 0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/12	10.0	4.705434	10.0	1873912.0	0.470543	Y
2	ICIS 410-274212/13	10.0	4.775978	10.0	1868480.0	0.477598	Y
3	IC 410-274212/14	10.0	4.843295	10.0	1851570.0	0.48433	Y
4	IC 410-274212/15	10.0	4.840183	10.0	1818084.0	0.484018	Y
5	IC 410-274212/16	10.0	4.761912	10.0	1797925.0	0.476191	Y
6	IC 410-274212/17	10.0	4.71084	10.0	1739265.0	0.471084	Y
7	IC 410-274212/18	10.0	4.671085	10.0	1726250.0	0.467108	Y



Calibration

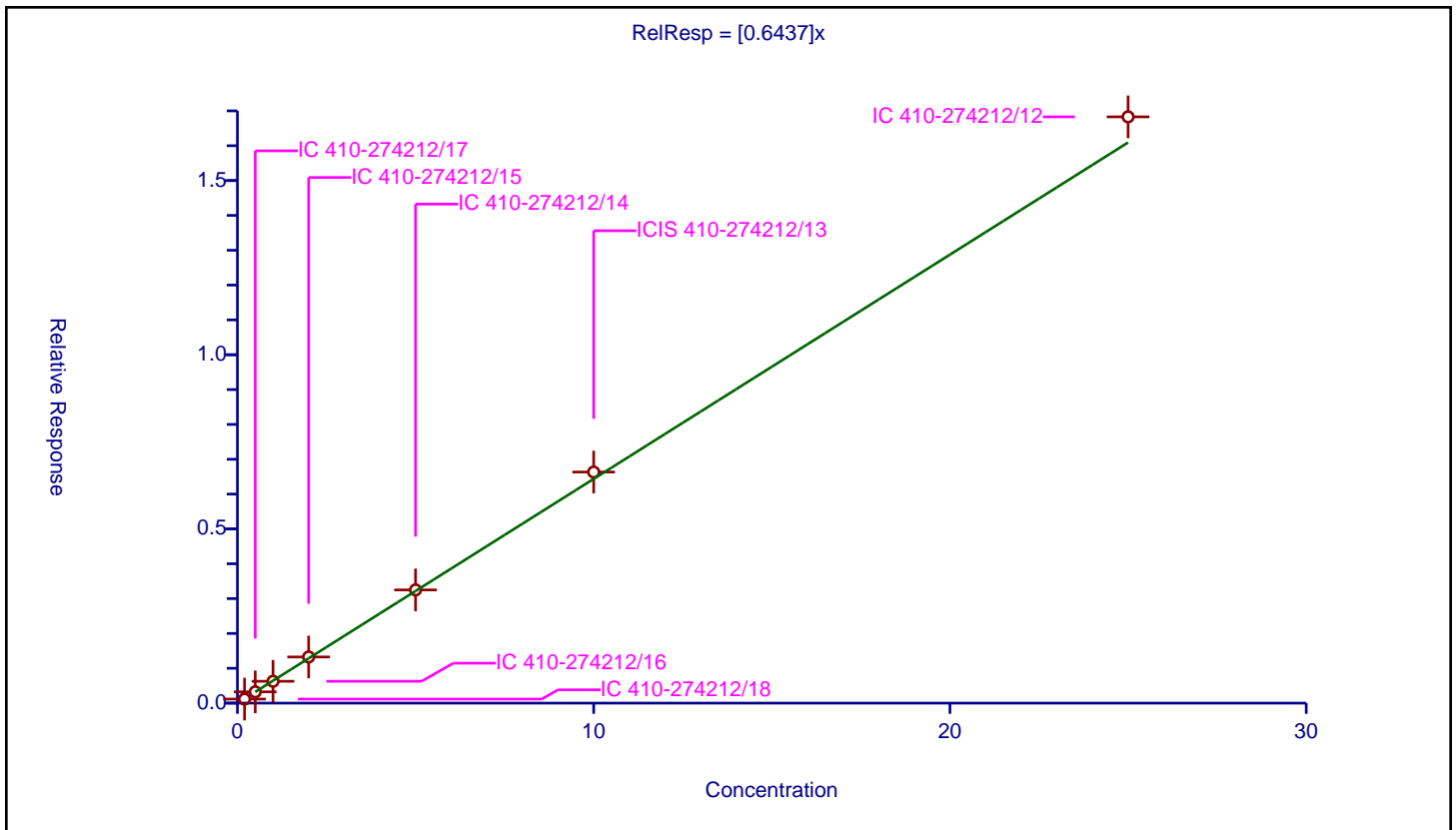
/ 1,1,2,2-Tetrachloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.6437

Error Coefficients	
Standard Error:	776000
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.116449	10.0	962398.0	0.582244	Y
2	IC 410-274212/17	0.5	0.323678	10.0	973807.0	0.647356	Y
3	IC 410-274212/16	1.0	0.627626	10.0	1008085.0	0.627626	Y
4	IC 410-274212/15	2.0	1.324785	10.0	1025087.0	0.662393	Y
5	IC 410-274212/14	5.0	3.249227	10.0	1050302.0	0.649845	Y
6	ICIS 410-274212/13	10.0	6.633176	10.0	1053034.0	0.663318	Y
7	IC 410-274212/12	25.0	16.828967	10.0	1027356.0	0.673159	Y





**Calibration**

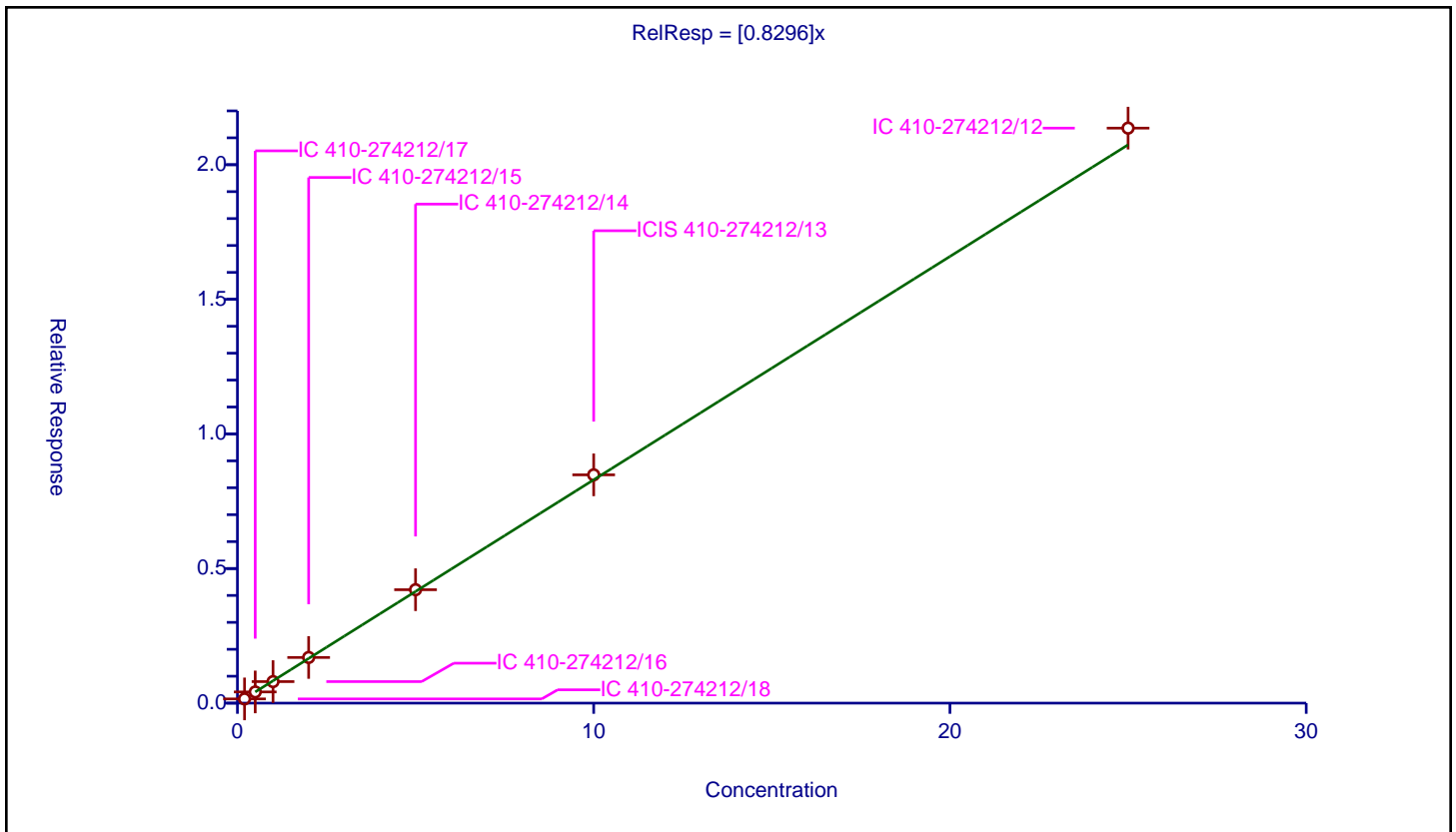
**/ Bromobenzene**

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

Curve Coefficients	
Intercept:	0
Slope:	0.8296

Error Coefficients	
Standard Error:	987000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.156546	10.0	962398.0	0.782732	Y
2	IC 410-274212/17	0.5	0.415873	10.0	973807.0	0.831746	Y
3	IC 410-274212/16	1.0	0.799704	10.0	1008085.0	0.799704	Y
4	IC 410-274212/15	2.0	1.695788	10.0	1025087.0	0.847894	Y
5	IC 410-274212/14	5.0	4.213645	10.0	1050302.0	0.842729	Y
6	ICIS 410-274212/13	10.0	8.480771	10.0	1053034.0	0.848077	Y
7	IC 410-274212/12	25.0	21.359753	10.0	1027356.0	0.85439	Y



Calibration

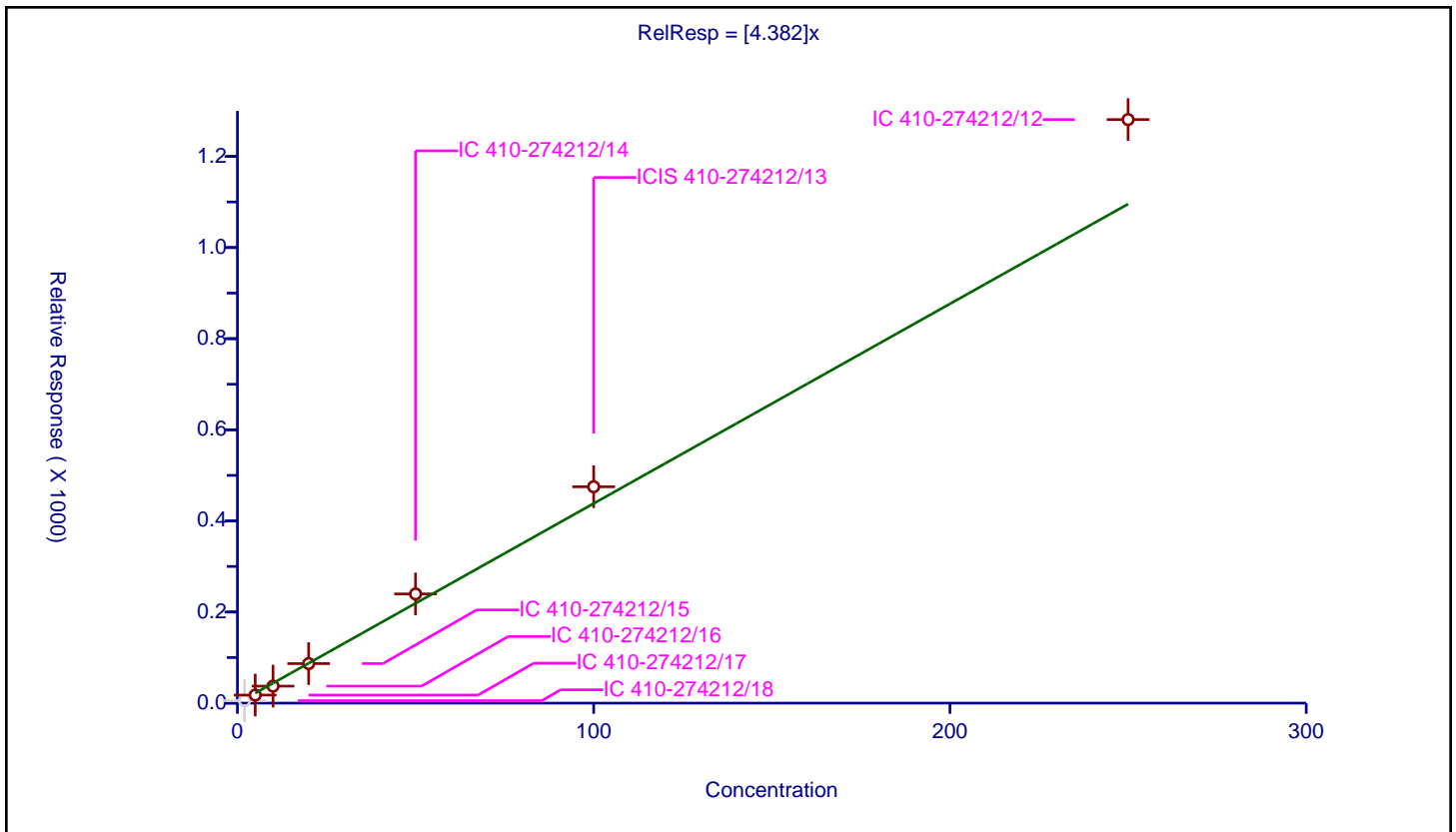
/ trans-1,4-Dichloro-2-butene

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

Curve Coefficients	
Intercept:	0
Slope:	4.382

Error Coefficients	
Standard Error:	2000000
Relative Standard Error:	14.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	2.0	5.411927	50.0	161218.0	2.705963	N
2	IC 410-274212/17	5.0	17.763925	50.0	156891.0	3.552785	Y
3	IC 410-274212/16	10.0	37.352091	50.0	155670.0	3.735209	Y
4	IC 410-274212/15	20.0	86.765057	50.0	167734.0	4.338253	Y
5	IC 410-274212/14	50.0	239.73031	50.0	157069.0	4.794606	Y
6	ICIS 410-274212/13	100.0	474.912537	50.0	169786.0	4.749125	Y
7	IC 410-274212/12	250.0	1280.925339	50.0	159455.0	5.123701	Y



Calibration

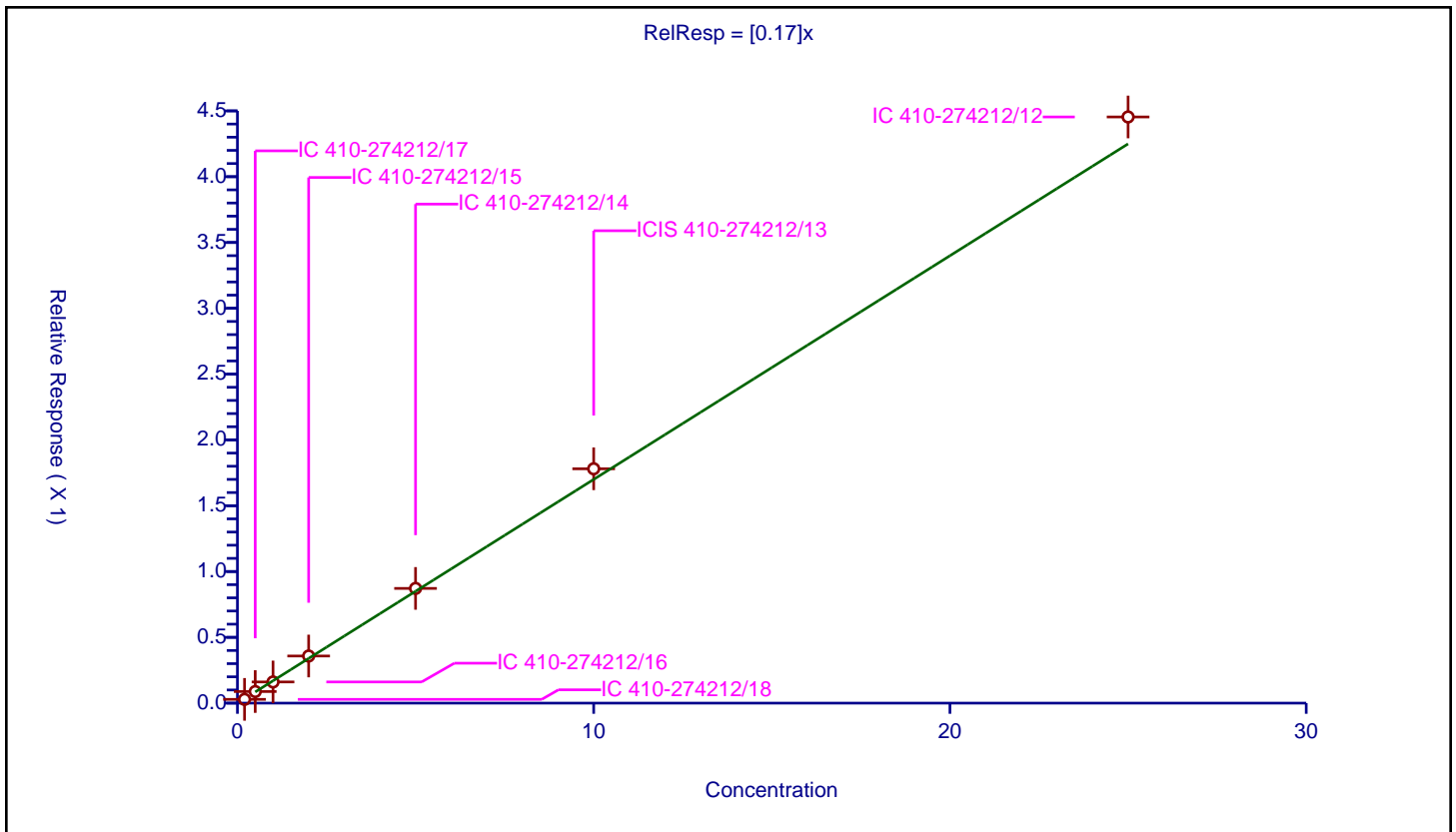
/ 1,2,3-Trichloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.17

Error Coefficients	
Standard Error:	206000
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 410-274212/18	0.2	0.028616	10.0	962398.0	0.14308	Y
2	IC 410-274212/17	0.5	0.088056	10.0	973807.0	0.176113	Y
3	IC 410-274212/16	1.0	0.160998	10.0	1008085.0	0.160998	Y
4	IC 410-274212/15	2.0	0.358155	10.0	1025087.0	0.179077	Y
5	IC 410-274212/14	5.0	0.871787	10.0	1050302.0	0.174357	Y
6	ICIS 410-274212/13	10.0	1.780598	10.0	1053034.0	0.17806	Y
7	IC 410-274212/12	25.0	4.453919	10.0	1027356.0	0.178157	Y



Calibration

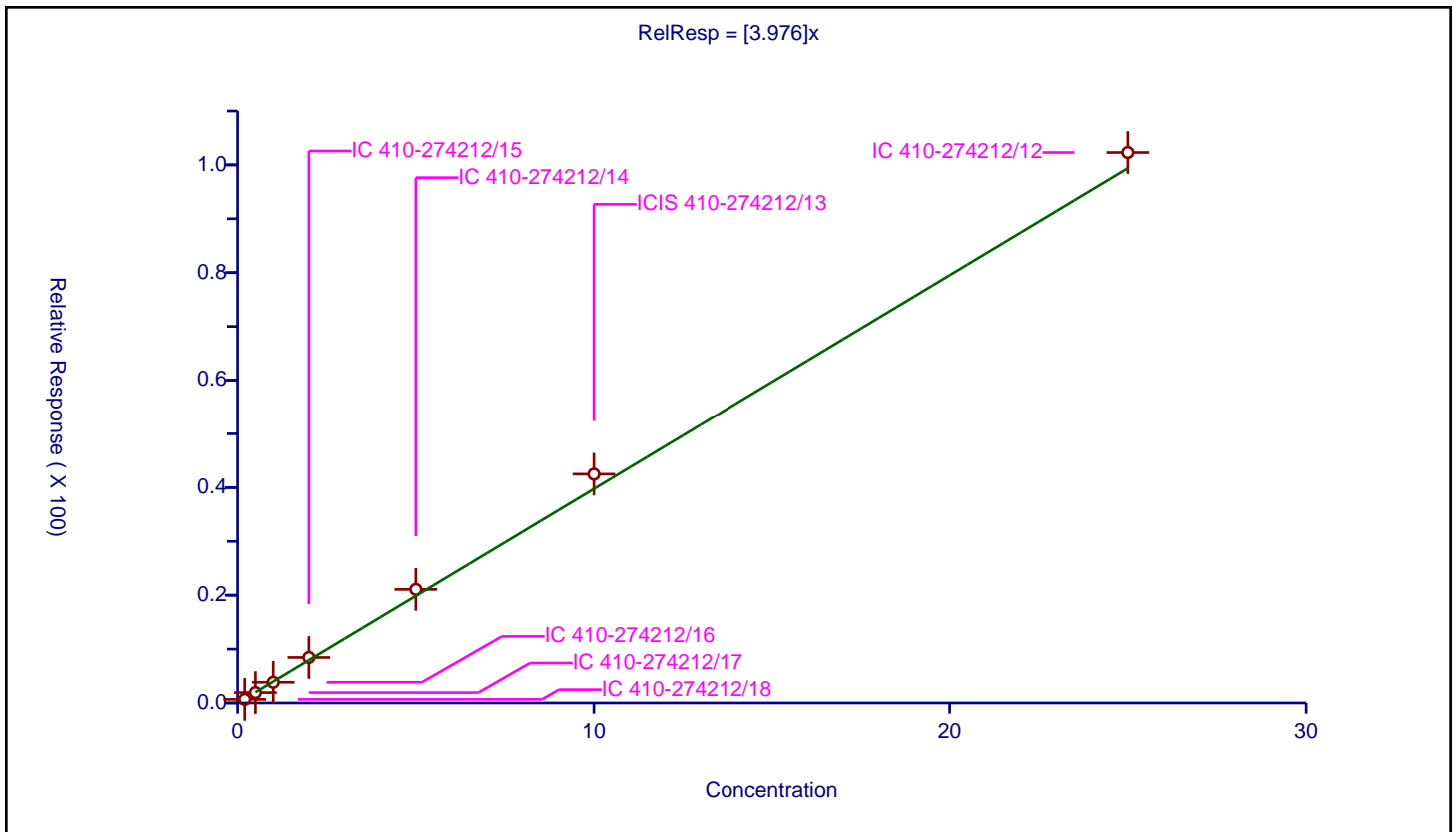
/ N-Propylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	3.976

Error Coefficients	
Standard Error:	4770000
Relative Standard Error:	8.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.668788	10.0	962398.0	3.343939	Y
2	IC 410-274212/17	0.5	1.929376	10.0	973807.0	3.858752	Y
3	IC 410-274212/16	1.0	3.84421	10.0	1008085.0	3.84421	Y
4	IC 410-274212/15	2.0	8.448932	10.0	1025087.0	4.224466	Y
5	IC 410-274212/14	5.0	21.07869	10.0	1050302.0	4.215738	Y
6	ICIS 410-274212/13	10.0	42.501467	10.0	1053034.0	4.250147	Y
7	IC 410-274212/12	25.0	102.302493	10.0	1027356.0	4.0921	Y



**Calibration**

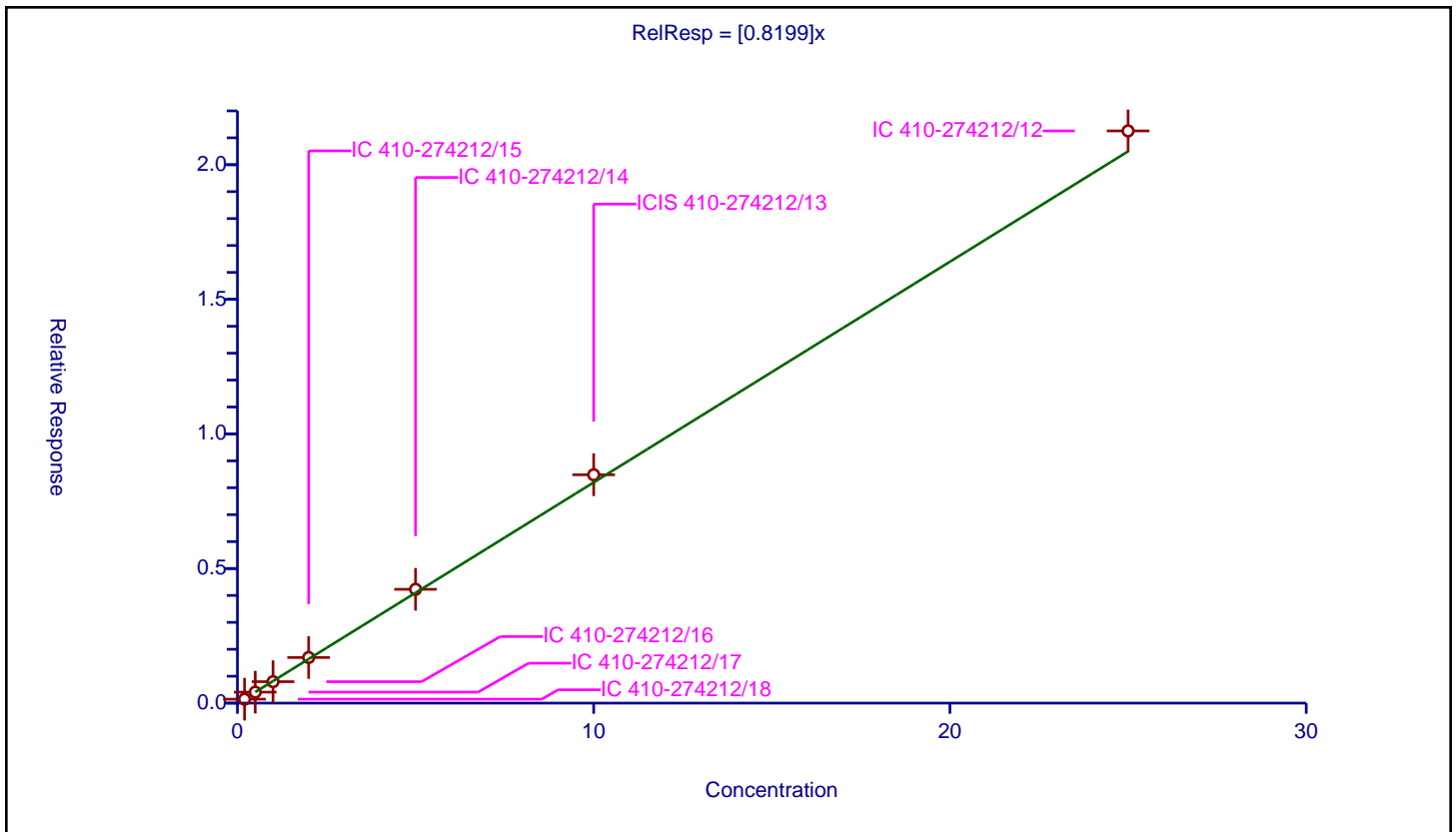
**/ 2-Chlorotoluene**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
<b>Intercept:</b>	0
<b>Slope:</b>	0.8199

Error Coefficients	
<b>Standard Error:</b>	983000
<b>Relative Standard Error:</b>	5.2
<b>Correlation Coefficient:</b>	1.000
<b>Coefficient of Determination (Adjusted):</b>	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.146883	10.0	962398.0	0.734415	Y
2	IC 410-274212/17	0.5	0.408161	10.0	973807.0	0.816322	Y
3	IC 410-274212/16	1.0	0.797016	10.0	1008085.0	0.797016	Y
4	IC 410-274212/15	2.0	1.694256	10.0	1025087.0	0.847128	Y
5	IC 410-274212/14	5.0	4.228308	10.0	1050302.0	0.845662	Y
6	ICIS 410-274212/13	10.0	8.482822	10.0	1053034.0	0.848282	Y
7	IC 410-274212/12	25.0	21.25566	10.0	1027356.0	0.850226	Y



Calibration

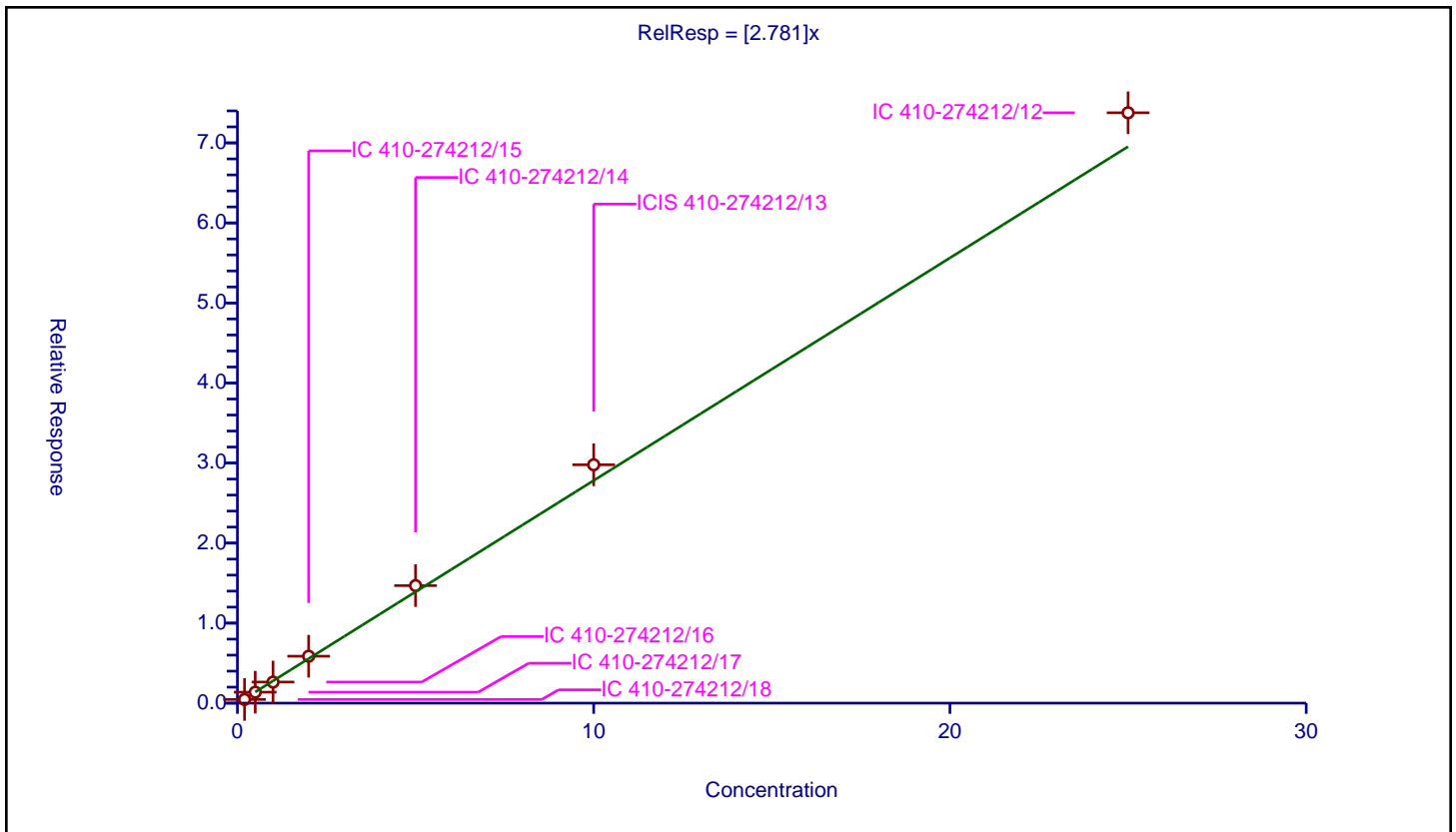
/ 1,3,5-Trimethylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	2.781

Error Coefficients	
Standard Error:	3420000
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 410-274212/18	0.2	0.460724	10.0	962398.0	2.303621	Y
2	IC 410-274212/17	0.5	1.36793	10.0	973807.0	2.73586	Y
3	IC 410-274212/16	1.0	2.63332	10.0	1008085.0	2.63332	Y
4	IC 410-274212/15	2.0	5.863454	10.0	1025087.0	2.931727	Y
5	IC 410-274212/14	5.0	14.683567	10.0	1050302.0	2.936713	Y
6	ICIS 410-274212/13	10.0	29.782885	10.0	1053034.0	2.978288	Y
7	IC 410-274212/12	25.0	73.762425	10.0	1027356.0	2.950497	Y



Calibration

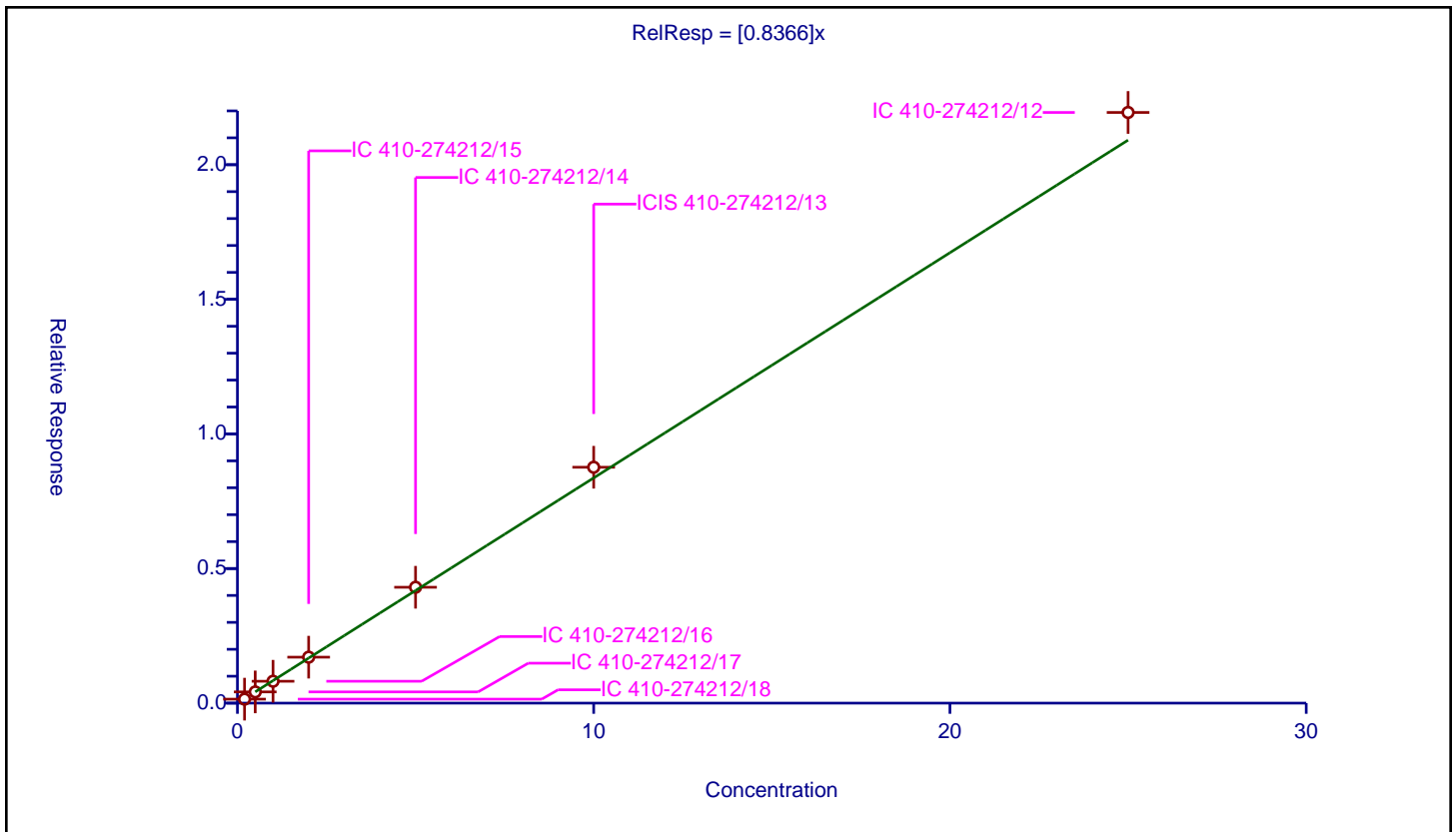
/ 4-Chlorotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	0.8366

Error Coefficients	
Standard Error:	1010000
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 410-274212/18	0.2	0.148265	10.0	962398.0	0.741325	Y
2	IC 410-274212/17	0.5	0.416694	10.0	973807.0	0.833389	Y
3	IC 410-274212/16	1.0	0.812808	10.0	1008085.0	0.812808	Y
4	IC 410-274212/15	2.0	1.707582	10.0	1025087.0	0.853791	Y
5	IC 410-274212/14	5.0	4.3046	10.0	1050302.0	0.86092	Y
6	ICIS 410-274212/13	10.0	8.762547	10.0	1053034.0	0.876255	Y
7	IC 410-274212/12	25.0	21.941751	10.0	1027356.0	0.87767	Y



Calibration

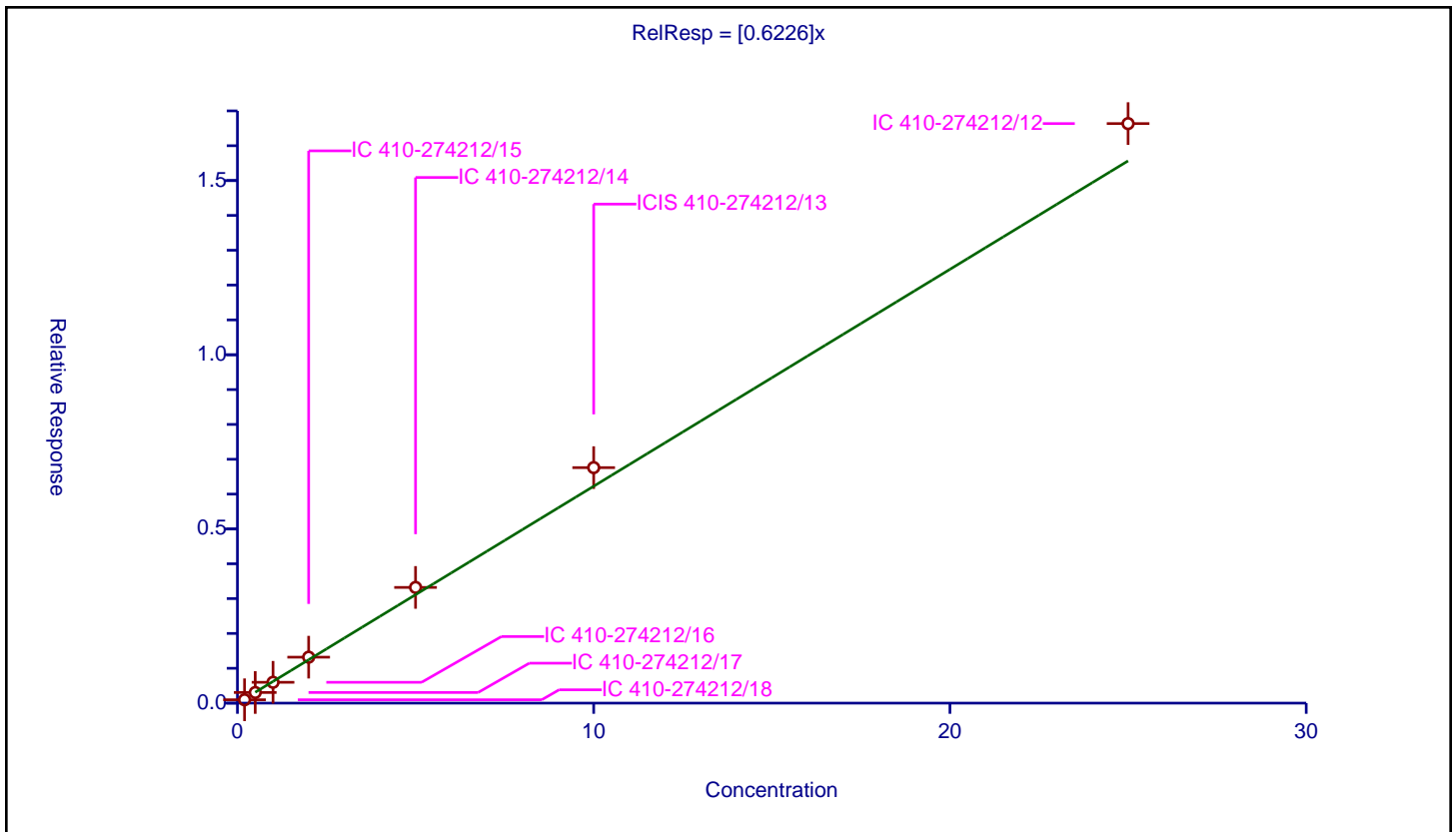
/ tert-Butylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	0.6226

Error Coefficients	
Standard Error:	772000
Relative Standard Error:	10.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.096956	10.0	962398.0	0.484779	Y
2	IC 410-274212/17	0.5	0.305163	10.0	973807.0	0.610326	Y
3	IC 410-274212/16	1.0	0.597896	10.0	1008085.0	0.597896	Y
4	IC 410-274212/15	2.0	1.31899	10.0	1025087.0	0.659495	Y
5	IC 410-274212/14	5.0	3.32154	10.0	1050302.0	0.664308	Y
6	ICIS 410-274212/13	10.0	6.760162	10.0	1053034.0	0.676016	Y
7	IC 410-274212/12	25.0	16.635003	10.0	1027356.0	0.6654	Y





Calibration

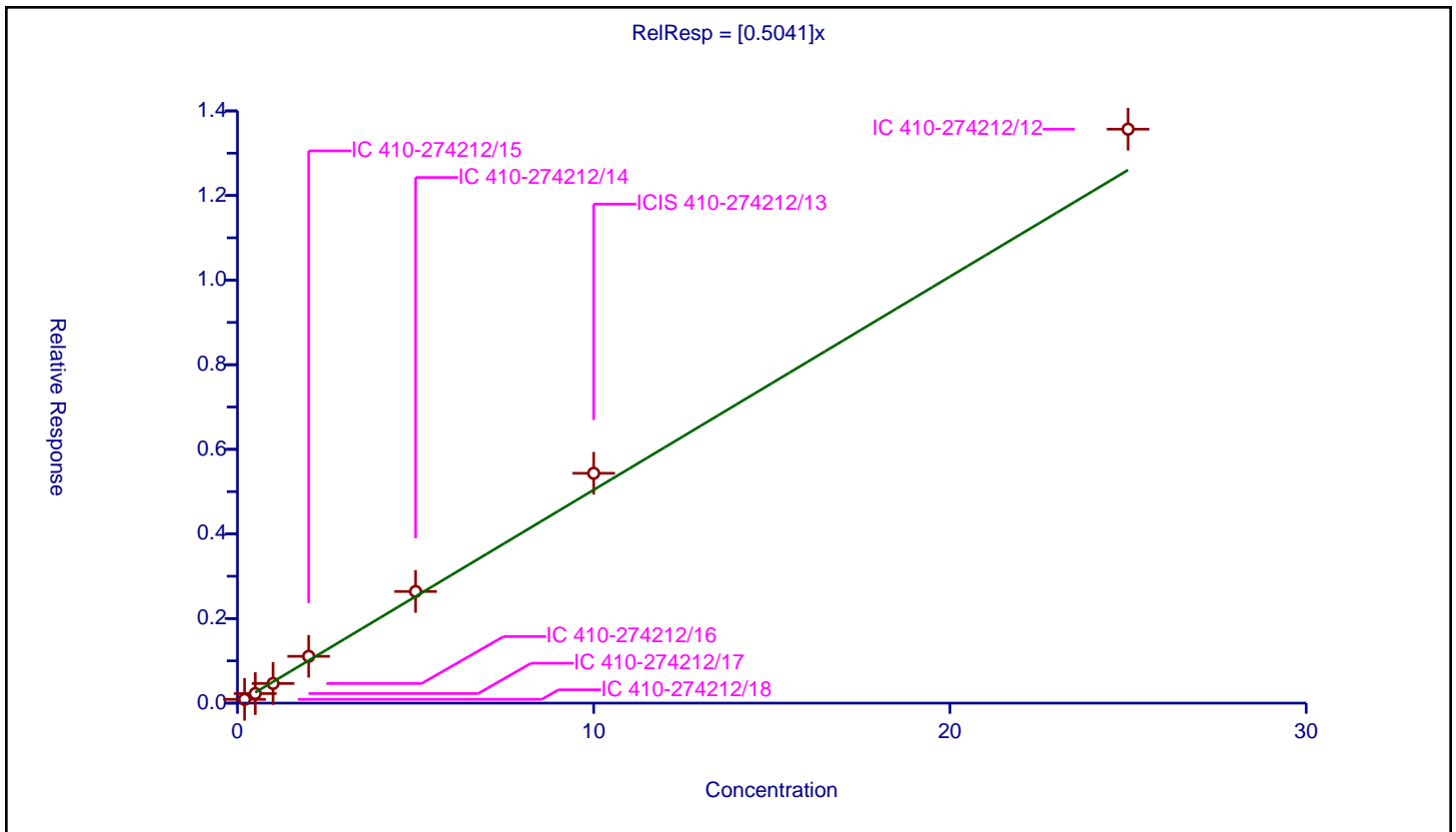
/ Pentachloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.5041

Error Coefficients	
Standard Error:	628000
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 410-274212/18	0.2	0.088955	10.0	962398.0	0.444774	Y
2	IC 410-274212/17	0.5	0.226164	10.0	973807.0	0.452328	Y
3	IC 410-274212/16	1.0	0.464514	10.0	1008085.0	0.464514	Y
4	IC 410-274212/15	2.0	1.106365	10.0	1025087.0	0.553182	Y
5	IC 410-274212/14	5.0	2.639574	10.0	1050302.0	0.527915	Y
6	ICIS 410-274212/13	10.0	5.434003	10.0	1053034.0	0.5434	Y
7	IC 410-274212/12	25.0	13.56815	10.0	1027356.0	0.542726	Y



Calibration

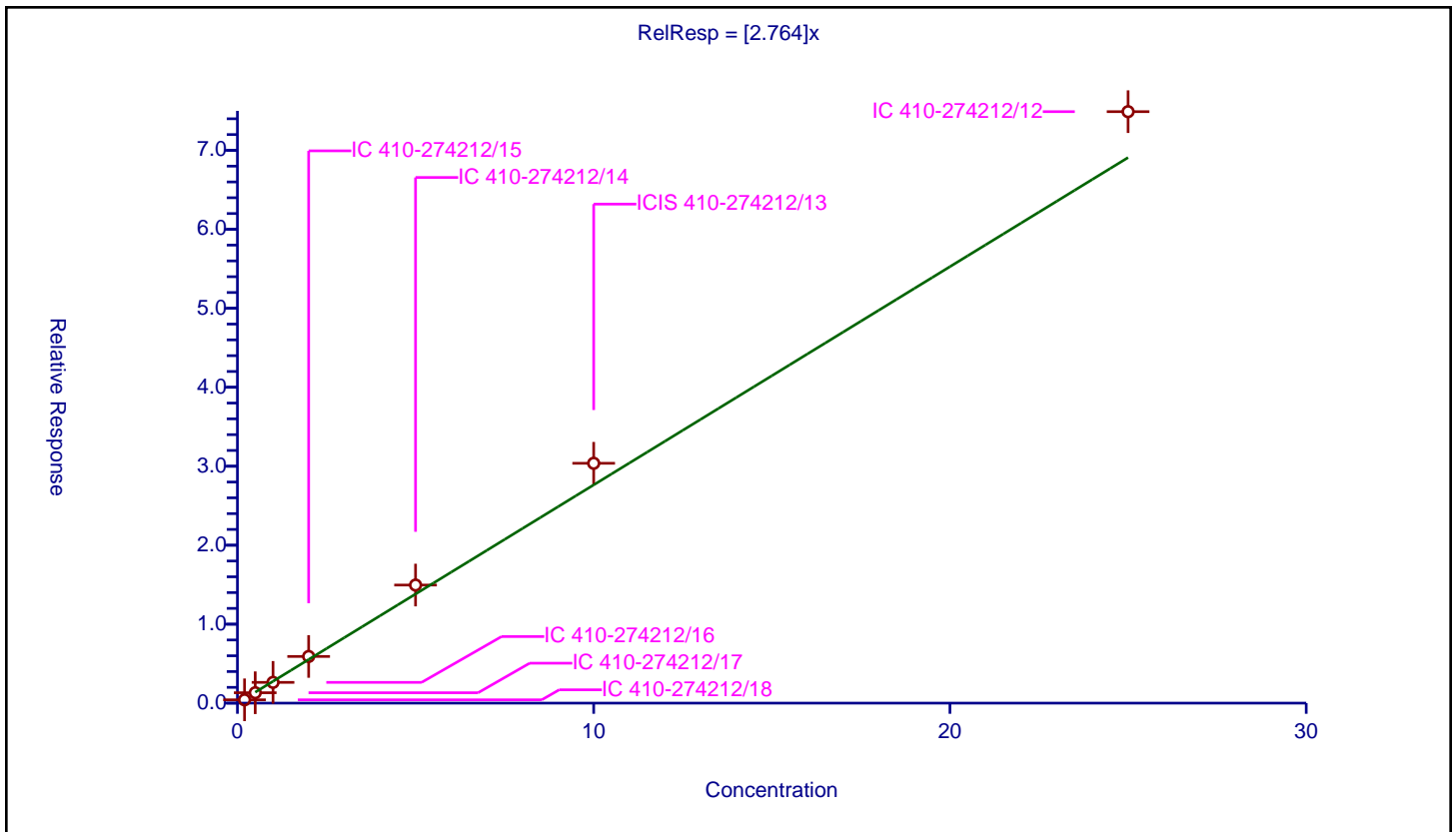
/ 1,2,4-Trimethylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	2.764

Error Coefficients	
Standard Error:	3470000
Relative Standard Error:	12.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.420086	10.0	962398.0	2.10043	Y
2	IC 410-274212/17	0.5	1.318649	10.0	973807.0	2.637299	Y
3	IC 410-274212/16	1.0	2.628766	10.0	1008085.0	2.628766	Y
4	IC 410-274212/15	2.0	5.909274	10.0	1025087.0	2.954637	Y
5	IC 410-274212/14	5.0	14.954708	10.0	1050302.0	2.990942	Y
6	ICIS 410-274212/13	10.0	30.372486	10.0	1053034.0	3.037249	Y
7	IC 410-274212/12	25.0	74.901981	10.0	1027356.0	2.996079	Y



Calibration

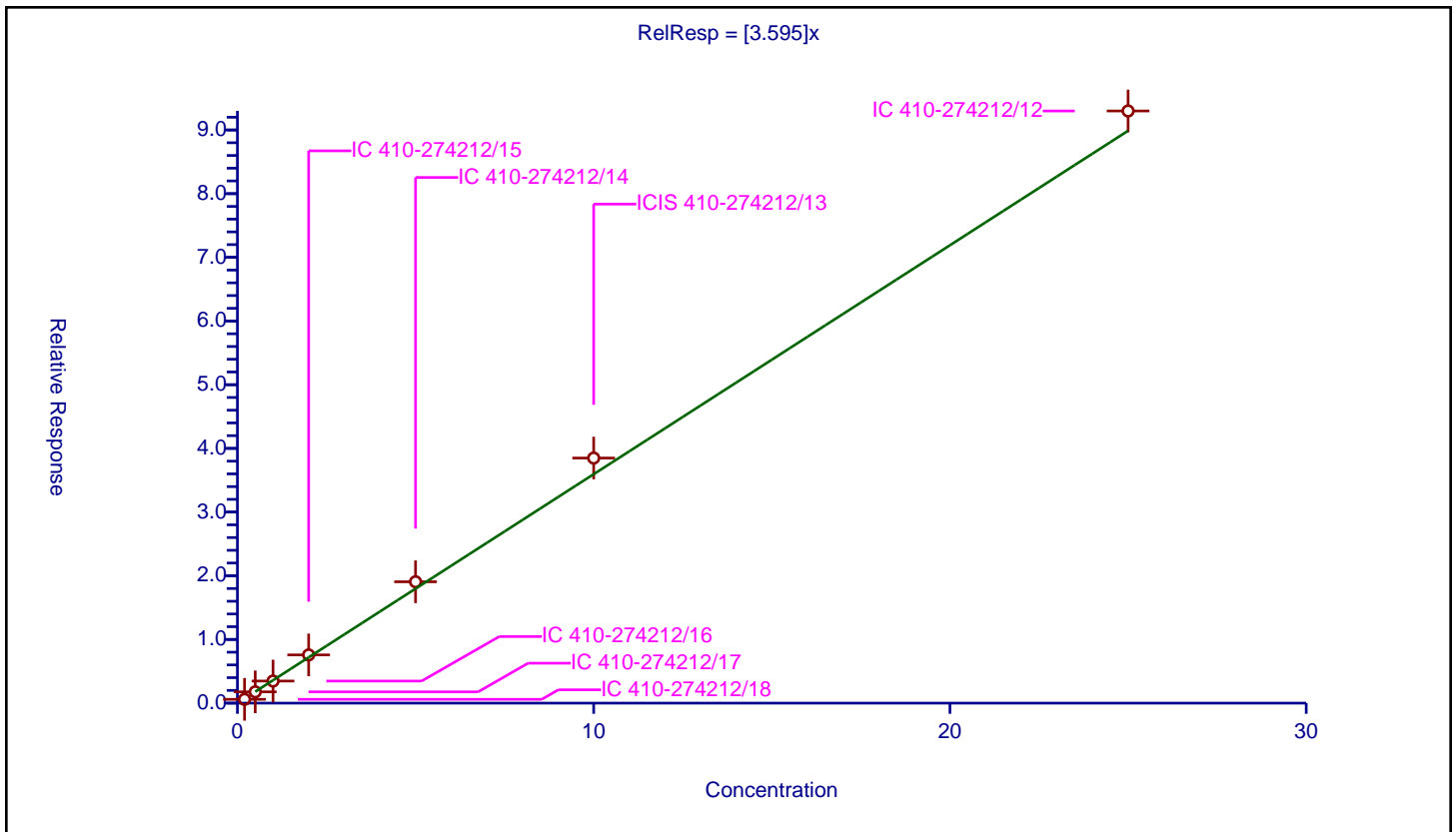
/ sec-Butylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	3.595

Error Coefficients	
Standard Error:	4330000
Relative Standard Error:	8.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.596884	10.0	962398.0	2.98442	Y
2	IC 410-274212/17	0.5	1.773257	10.0	973807.0	3.546514	Y
3	IC 410-274212/16	1.0	3.468001	10.0	1008085.0	3.468001	Y
4	IC 410-274212/15	2.0	7.573767	10.0	1025087.0	3.786883	Y
5	IC 410-274212/14	5.0	19.058109	10.0	1050302.0	3.811622	Y
6	ICIS 410-274212/13	10.0	38.483373	10.0	1053034.0	3.848337	Y
7	IC 410-274212/12	25.0	92.988175	10.0	1027356.0	3.719527	Y



Calibration

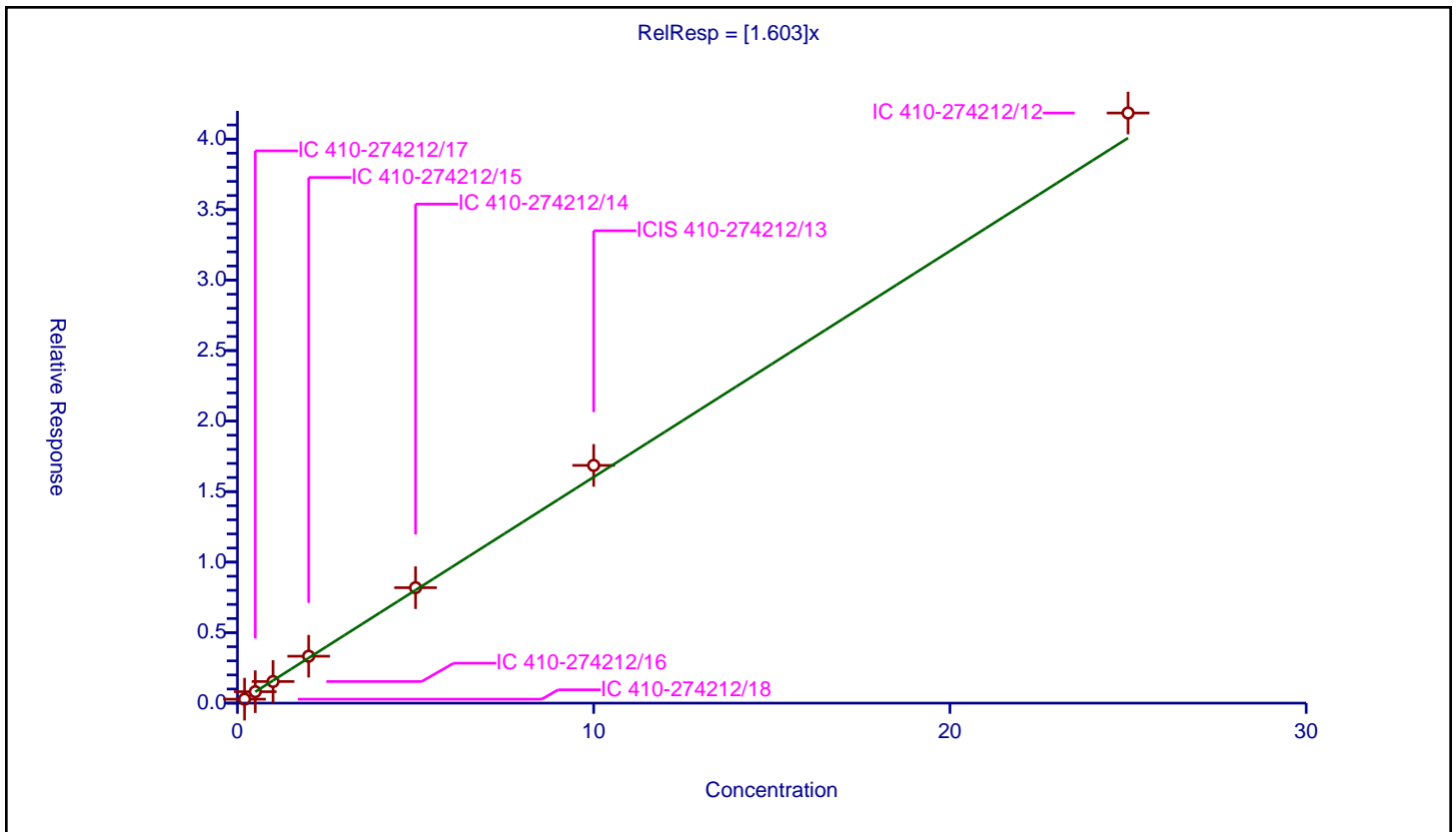
/ 1,3-Dichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.603

Error Coefficients	
Standard Error:	1940000
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 410-274212/18	0.2	0.280965	10.0	962398.0	1.404824	Y
2	IC 410-274212/17	0.5	0.811578	10.0	973807.0	1.623155	Y
3	IC 410-274212/16	1.0	1.533442	10.0	1008085.0	1.533442	Y
4	IC 410-274212/15	2.0	3.327513	10.0	1025087.0	1.663756	Y
5	IC 410-274212/14	5.0	8.186598	10.0	1050302.0	1.63732	Y
6	ICIS 410-274212/13	10.0	16.859399	10.0	1053034.0	1.68594	Y
7	IC 410-274212/12	25.0	41.849067	10.0	1027356.0	1.673963	Y



Calibration

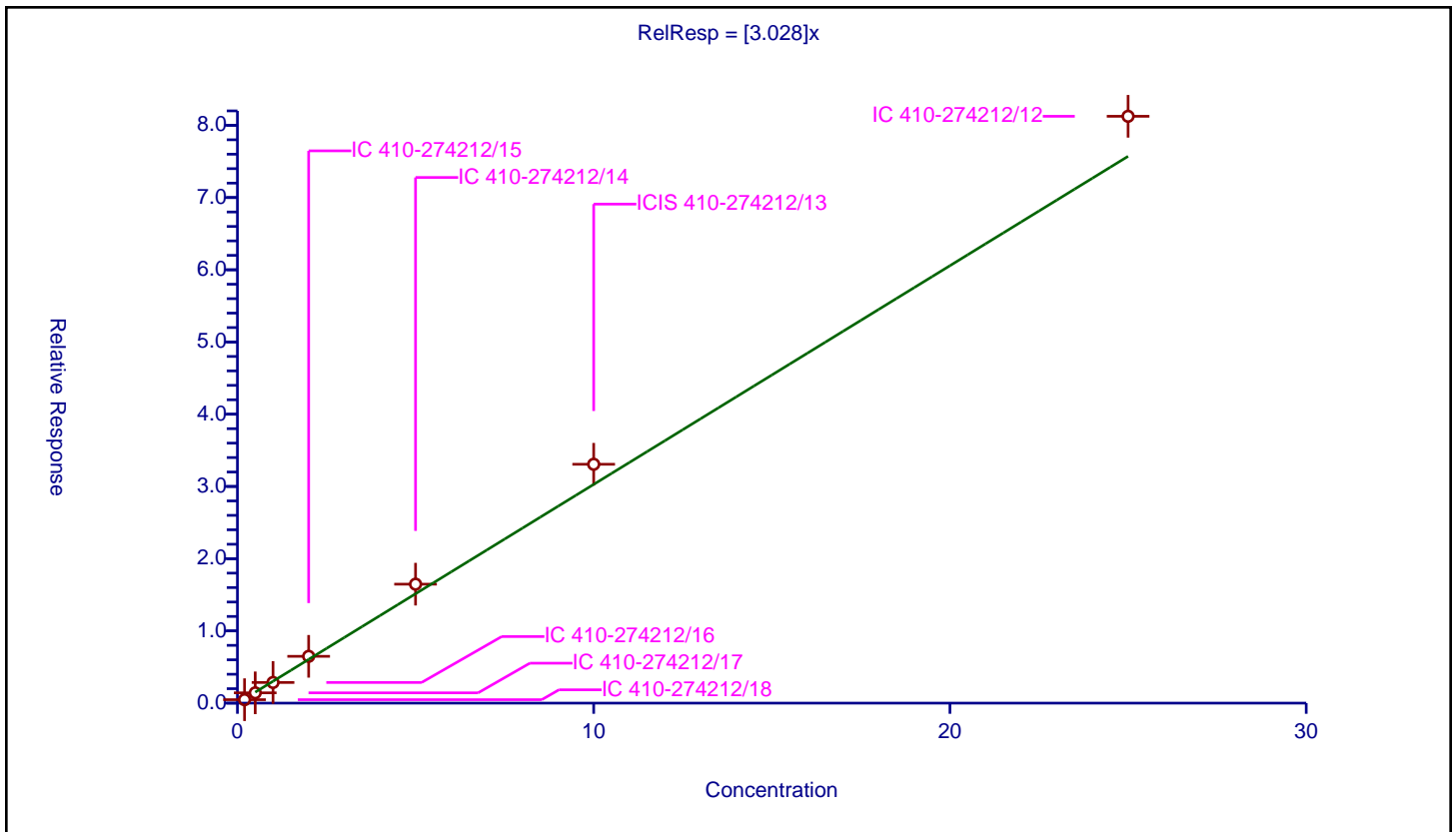
/ 4-Isopropyltoluene

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

Curve Coefficients	
Intercept:	0
Slope:	3.028

Error Coefficients	
Standard Error:	3770000
Relative Standard Error:	11.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.47869	10.0	962398.0	2.393448	Y
2	IC 410-274212/17	0.5	1.426812	10.0	973807.0	2.853625	Y
3	IC 410-274212/16	1.0	2.860443	10.0	1008085.0	2.860443	Y
4	IC 410-274212/15	2.0	6.480933	10.0	1025087.0	3.240466	Y
5	IC 410-274212/14	5.0	16.469644	10.0	1050302.0	3.293929	Y
6	ICIS 410-274212/13	10.0	33.072588	10.0	1053034.0	3.307259	Y
7	IC 410-274212/12	25.0	81.250822	10.0	1027356.0	3.250033	Y



Calibration

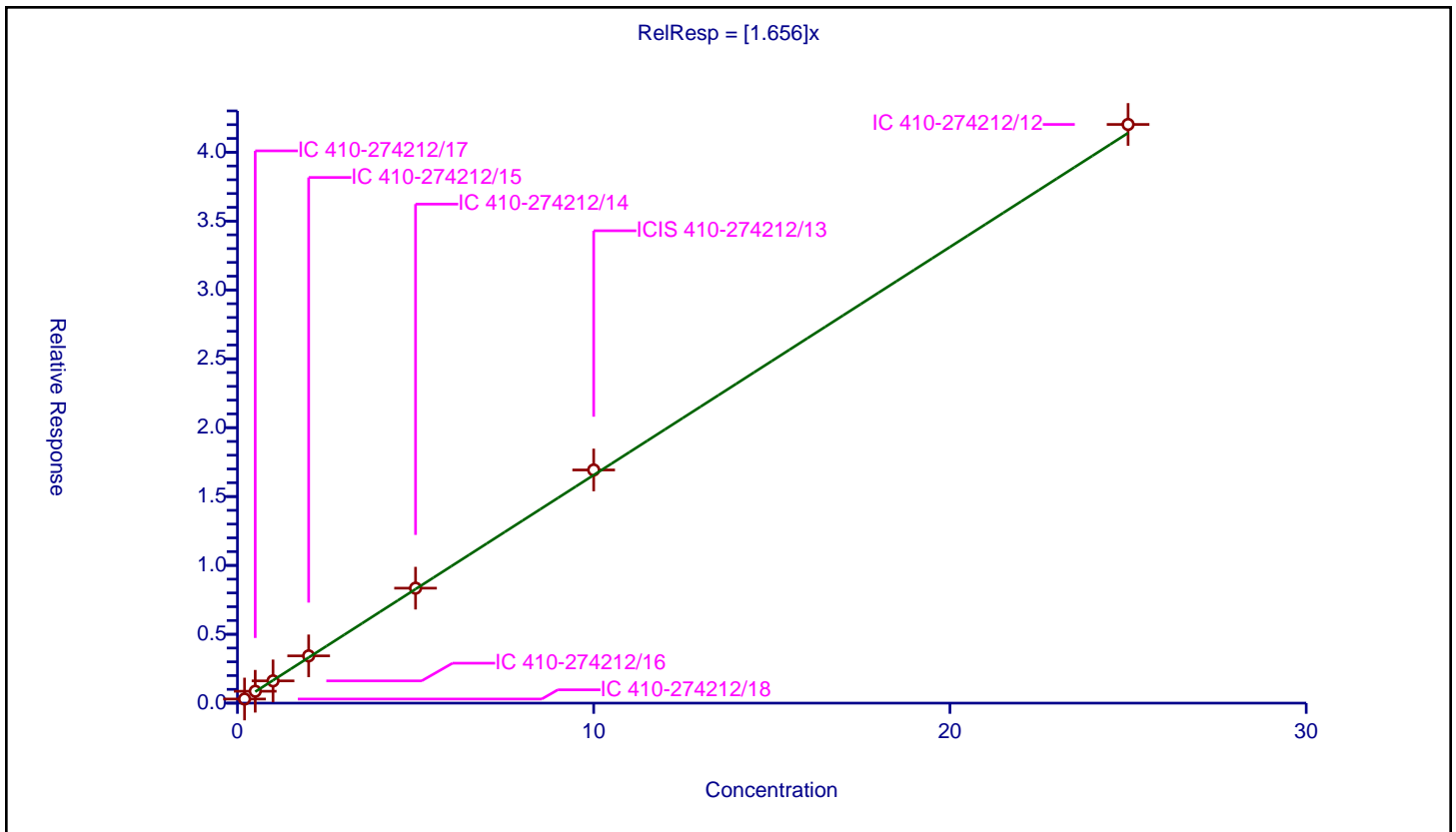
/ 1,4-Dichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.656

Error Coefficients	
Standard Error:	1950000
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.298047	10.0	962398.0	1.490236	Y
2	IC 410-274212/17	0.5	0.862881	10.0	973807.0	1.725763	Y
3	IC 410-274212/16	1.0	1.616263	10.0	1008085.0	1.616263	Y
4	IC 410-274212/15	2.0	3.431436	10.0	1025087.0	1.715718	Y
5	IC 410-274212/14	5.0	8.346647	10.0	1050302.0	1.669329	Y
6	ICIS 410-274212/13	10.0	16.929311	10.0	1053034.0	1.692931	Y
7	IC 410-274212/12	25.0	42.015504	10.0	1027356.0	1.68062	Y



Calibration

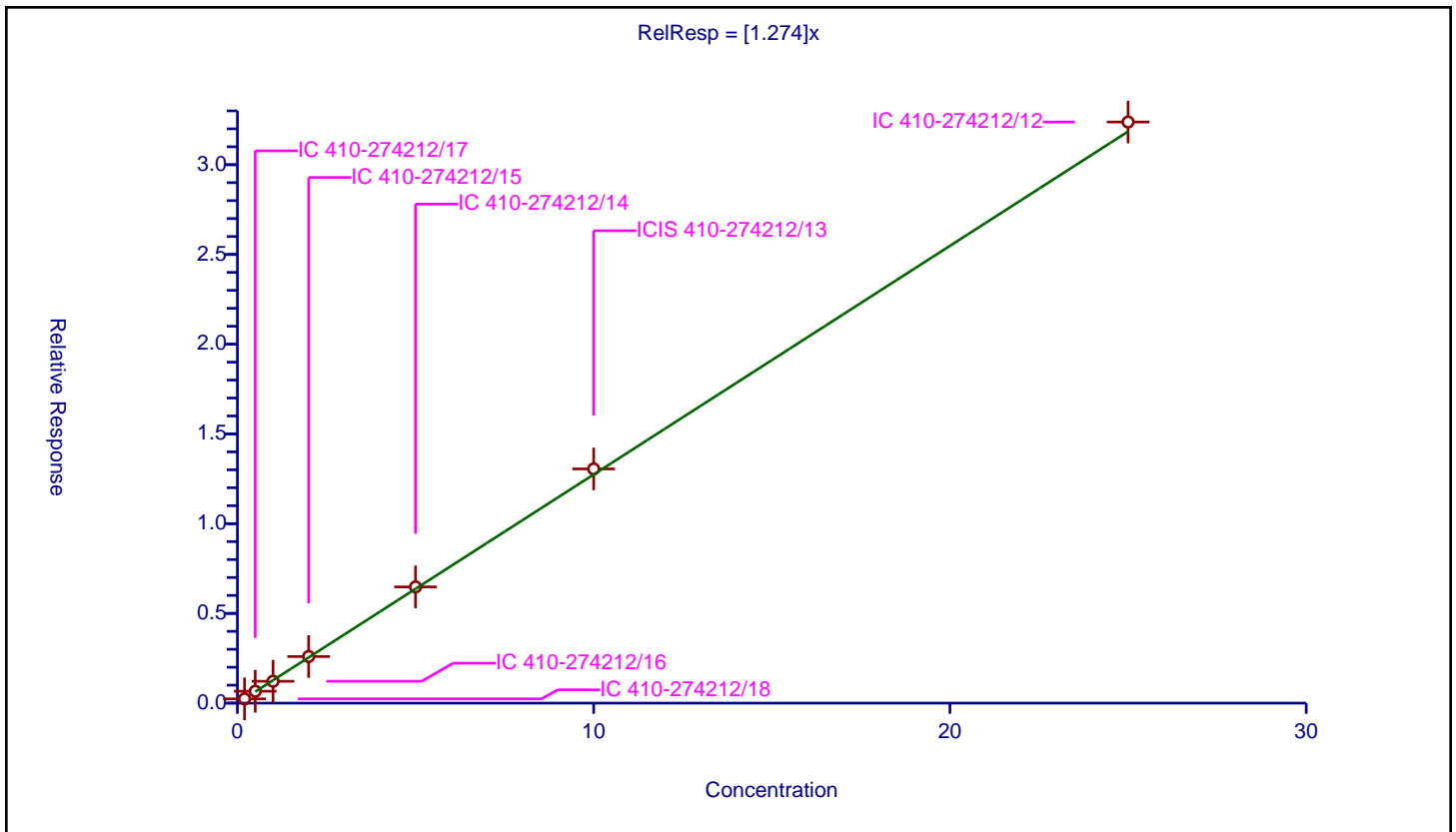
/ 1,2,3-Trimethylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.274

Error Coefficients	
Standard Error:	1500000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.236409	10.0	962398.0	1.182047	Y
2	IC 410-274212/17	0.5	0.662472	10.0	973807.0	1.324944	Y
3	IC 410-274212/16	1.0	1.217437	10.0	1008085.0	1.217437	Y
4	IC 410-274212/15	2.0	2.596219	10.0	1025087.0	1.298109	Y
5	IC 410-274212/14	5.0	6.476099	10.0	1050302.0	1.29522	Y
6	ICIS 410-274212/13	10.0	13.049294	10.0	1053034.0	1.304929	Y
7	IC 410-274212/12	25.0	32.379049	10.0	1027356.0	1.295162	Y



**Calibration**

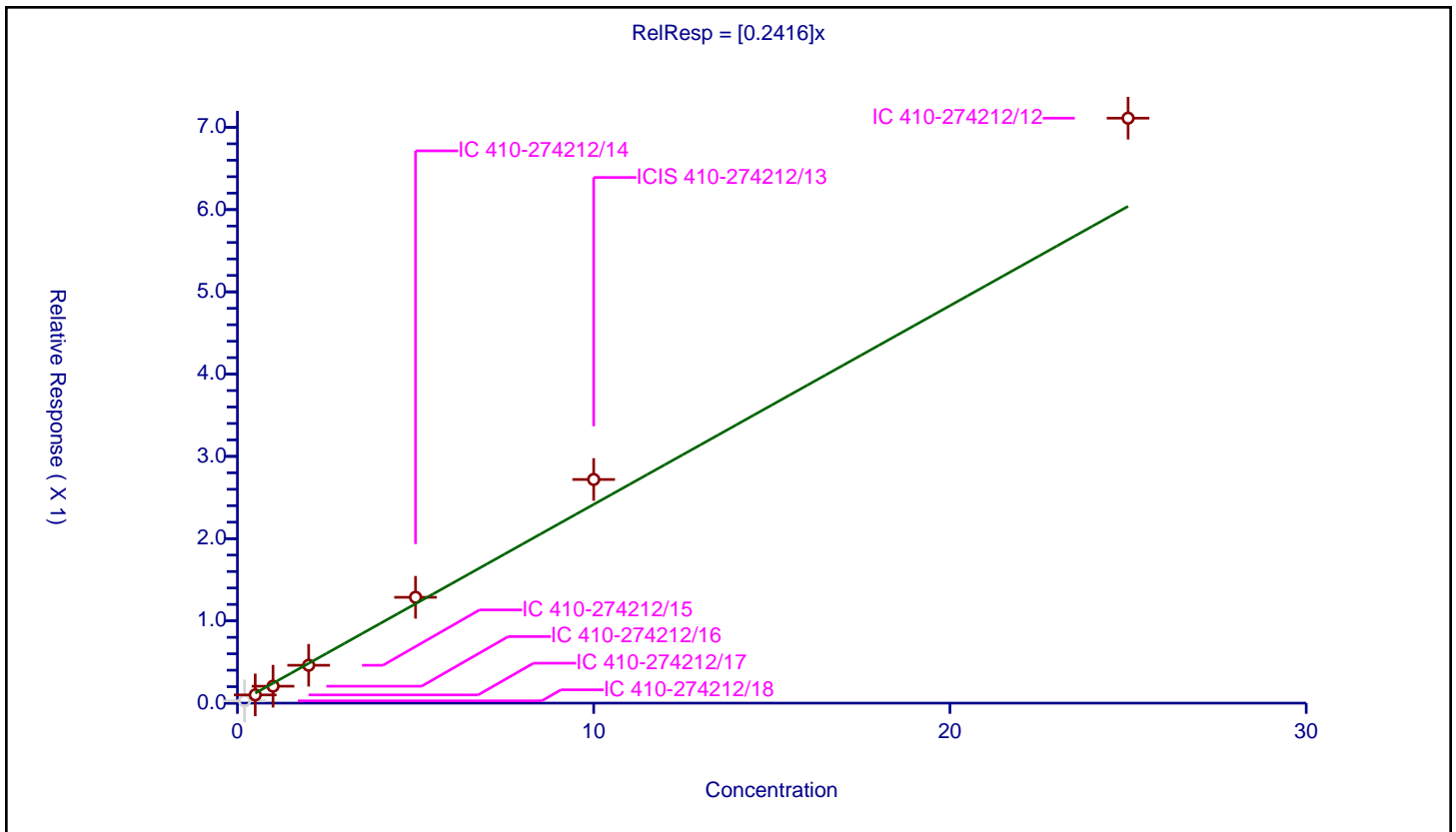
/ Benzyl chloride

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

Curve Coefficients	
Intercept:	0
Slope:	0.2416

Error Coefficients	
Standard Error:	357000
Relative Standard Error:	14.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.027587	10.0	962398.0	0.137937	N
2	IC 410-274212/17	0.5	0.099917	10.0	973807.0	0.199834	Y
3	IC 410-274212/16	1.0	0.205856	10.0	1008085.0	0.205856	Y
4	IC 410-274212/15	2.0	0.460371	10.0	1025087.0	0.230185	Y
5	IC 410-274212/14	5.0	1.286659	10.0	1050302.0	0.257332	Y
6	ICIS 410-274212/13	10.0	2.718963	10.0	1053034.0	0.271896	Y
7	IC 410-274212/12	25.0	7.111585	10.0	1027356.0	0.284463	Y





Calibration

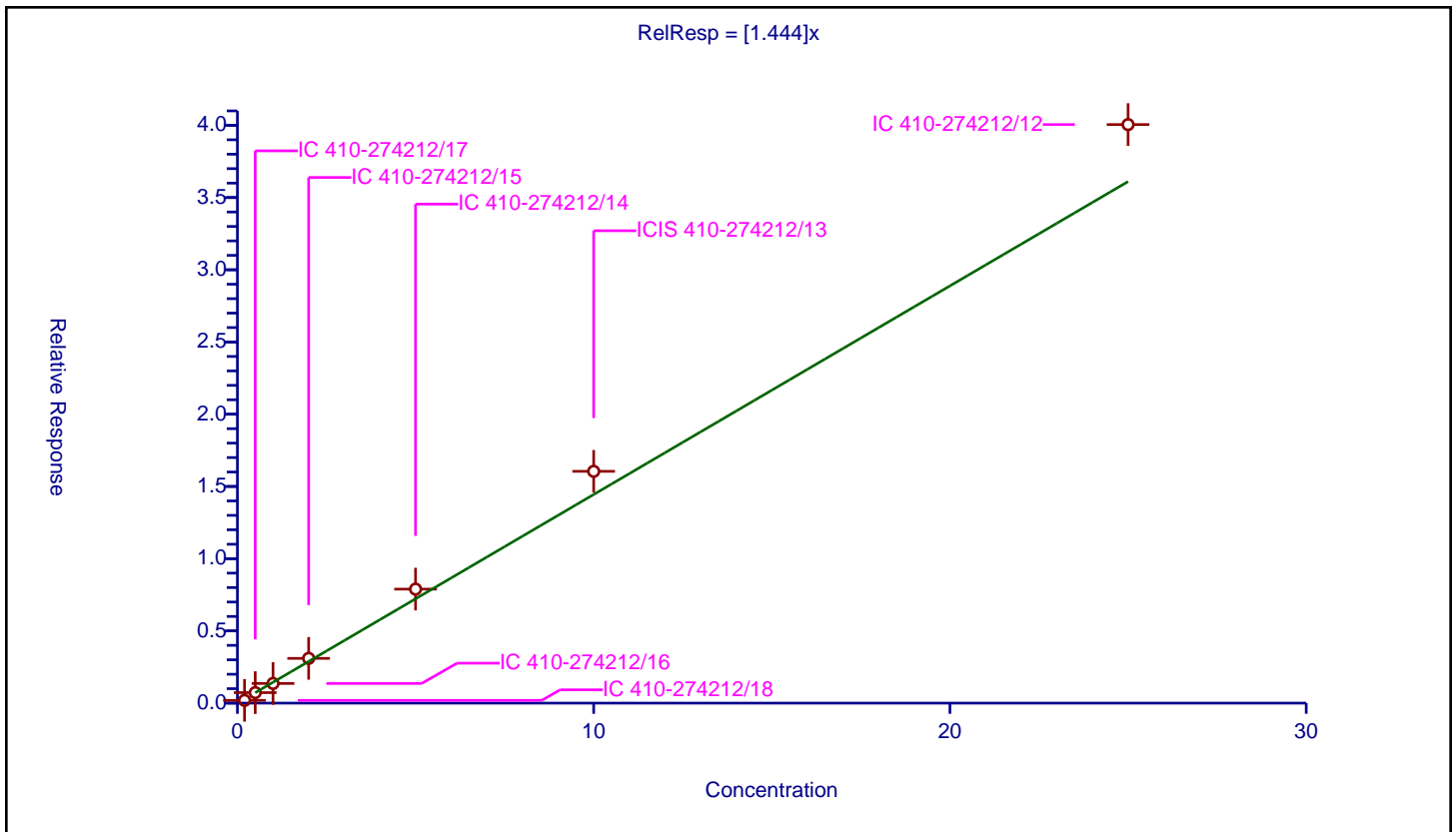
/ n-Butylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.444

Error Coefficients	
Standard Error:	1850000
Relative Standard Error:	16.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.972

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.191501	10.0	962398.0	0.957504	Y
2	IC 410-274212/17	0.5	0.728265	10.0	973807.0	1.456531	Y
3	IC 410-274212/16	1.0	1.361413	10.0	1008085.0	1.361413	Y
4	IC 410-274212/15	2.0	3.098693	10.0	1025087.0	1.549347	Y
5	IC 410-274212/14	5.0	7.892292	10.0	1050302.0	1.578458	Y
6	ICIS 410-274212/13	10.0	16.046737	10.0	1053034.0	1.604674	Y
7	IC 410-274212/12	25.0	40.052659	10.0	1027356.0	1.602106	Y



Calibration

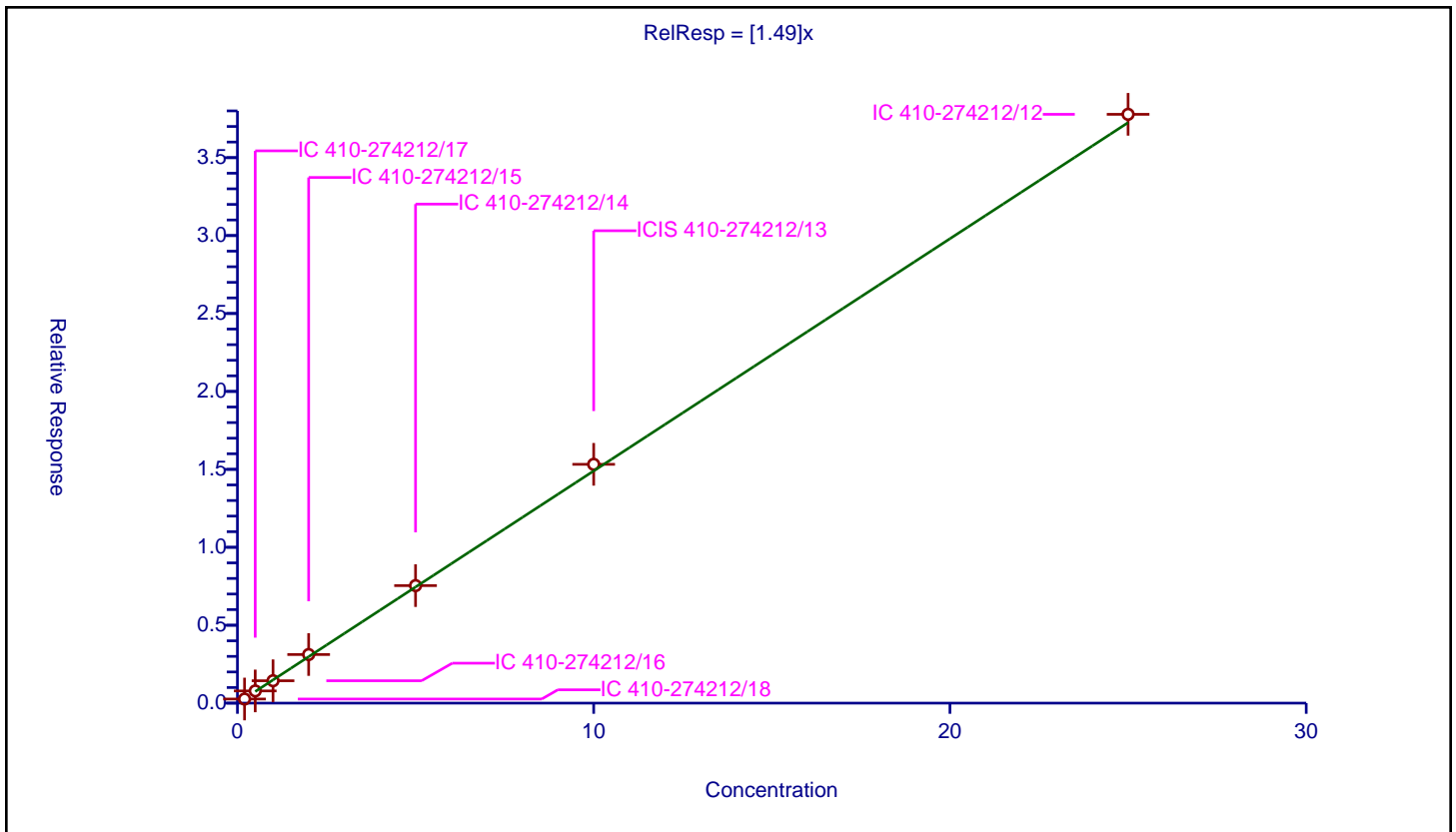
/ 1,2-Dichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.49

Error Coefficients	
Standard Error:	1750000
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.263321	10.0	962398.0	1.316607	Y
2	IC 410-274212/17	0.5	0.782773	10.0	973807.0	1.565546	Y
3	IC 410-274212/16	1.0	1.437091	10.0	1008085.0	1.437091	Y
4	IC 410-274212/15	2.0	3.11714	10.0	1025087.0	1.55857	Y
5	IC 410-274212/14	5.0	7.540127	10.0	1050302.0	1.508025	Y
6	ICIS 410-274212/13	10.0	15.323047	10.0	1053034.0	1.532305	Y
7	IC 410-274212/12	25.0	37.779845	10.0	1027356.0	1.511194	Y



Calibration

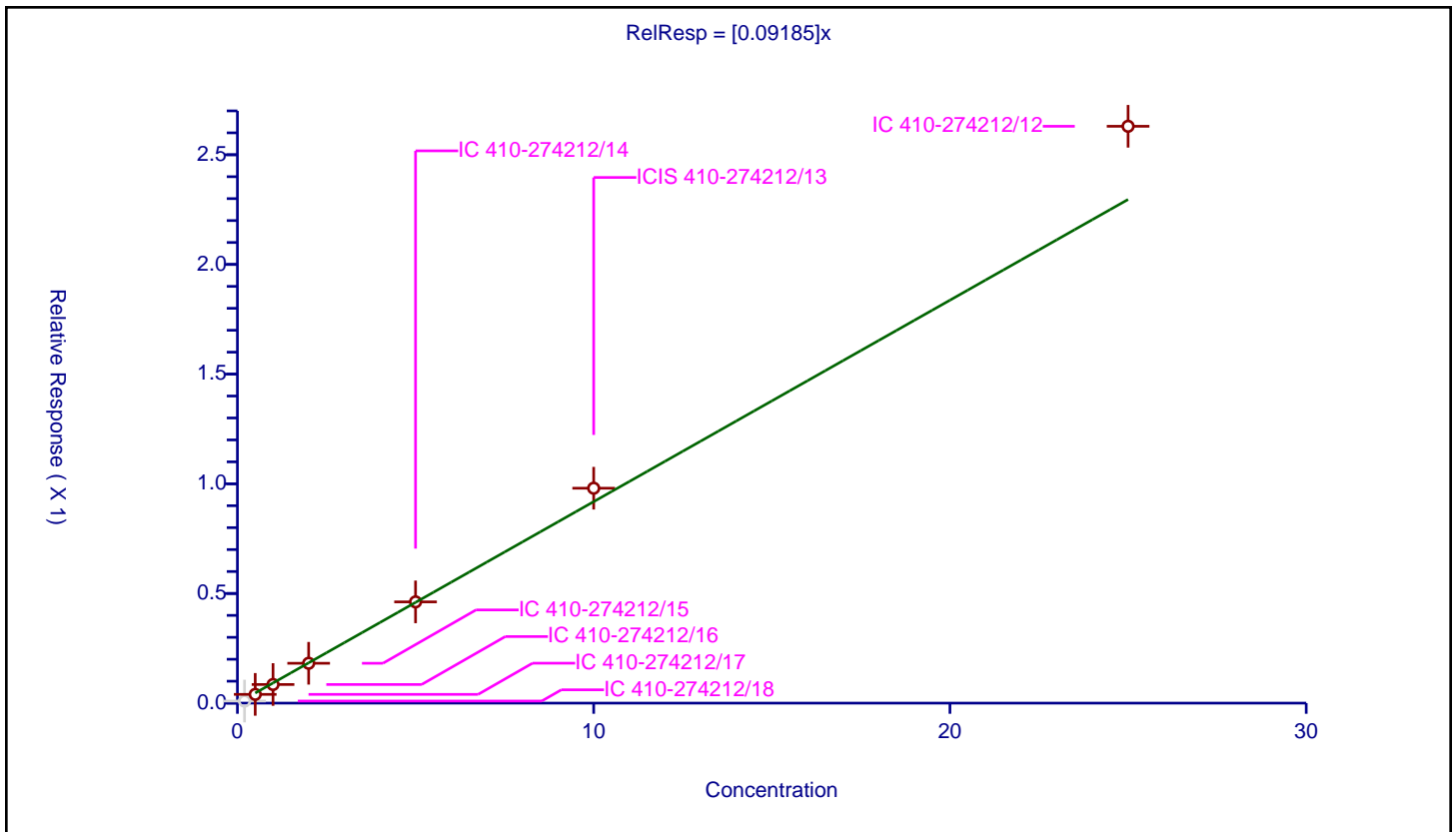
/ 1,2-Dibromo-3-Chloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.09185

Error Coefficients	
Standard Error:	131000
Relative Standard Error:	9.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.009497	10.0	962398.0	0.047486	N
2	IC 410-274212/17	0.5	0.039916	10.0	973807.0	0.079831	Y
3	IC 410-274212/16	1.0	0.084894	10.0	1008085.0	0.084894	Y
4	IC 410-274212/15	2.0	0.18176	10.0	1025087.0	0.09088	Y
5	IC 410-274212/14	5.0	0.461543	10.0	1050302.0	0.092309	Y
6	ICIS 410-274212/13	10.0	0.979778	10.0	1053034.0	0.097978	Y
7	IC 410-274212/12	25.0	2.629799	10.0	1027356.0	0.105192	Y



Calibration

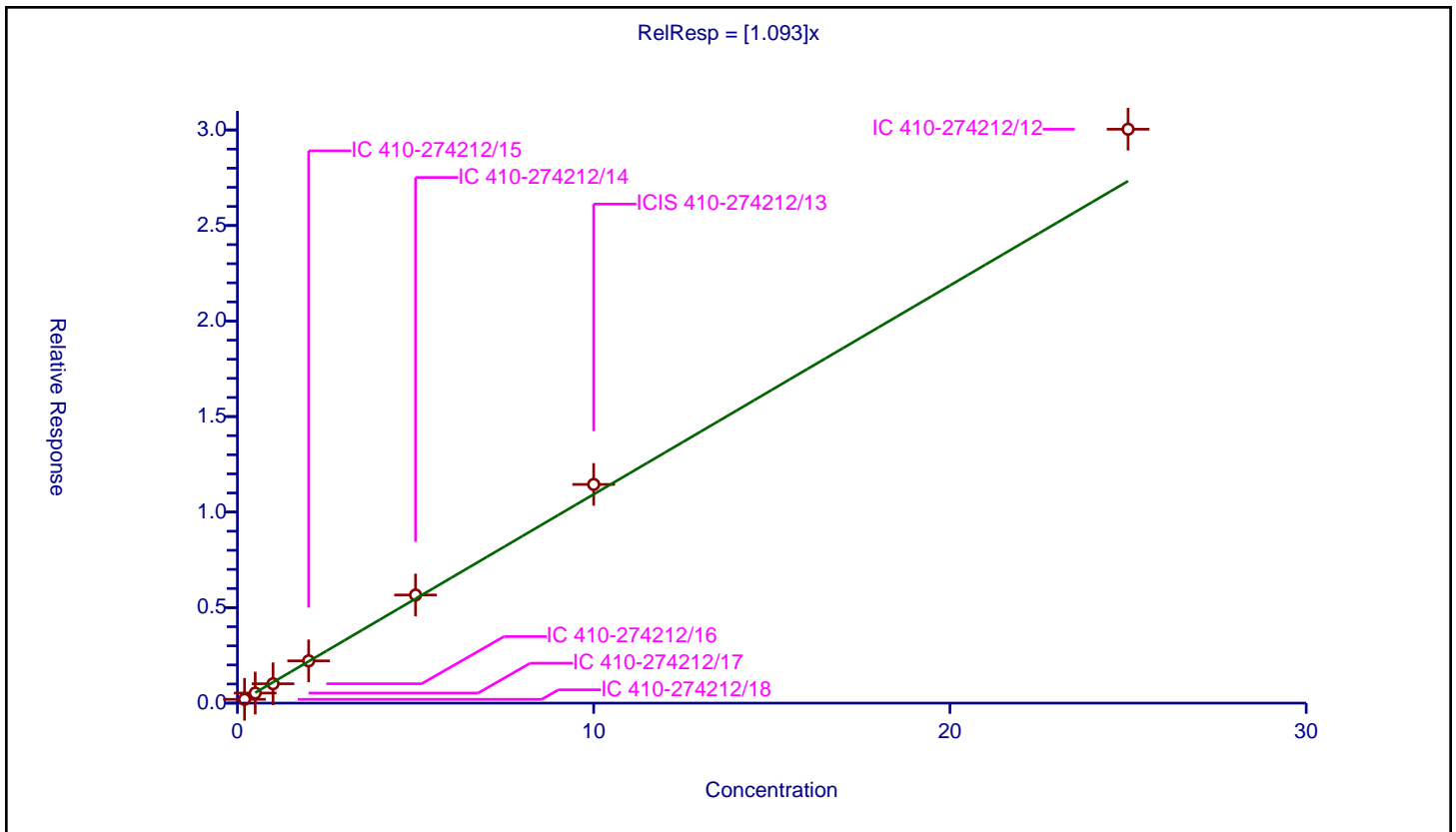
/ 1,3,5-Trichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.093

Error Coefficients	
Standard Error:	1380000
Relative Standard Error:	6.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.199169	10.0	962398.0	0.995846	Y
2	IC 410-274212/17	0.5	0.528072	10.0	973807.0	1.056144	Y
3	IC 410-274212/16	1.0	1.014121	10.0	1008085.0	1.014121	Y
4	IC 410-274212/15	2.0	2.213705	10.0	1025087.0	1.106852	Y
5	IC 410-274212/14	5.0	5.660705	10.0	1050302.0	1.132141	Y
6	ICIS 410-274212/13	10.0	11.447978	10.0	1053034.0	1.144798	Y
7	IC 410-274212/12	25.0	30.039733	10.0	1027356.0	1.201589	Y



Calibration

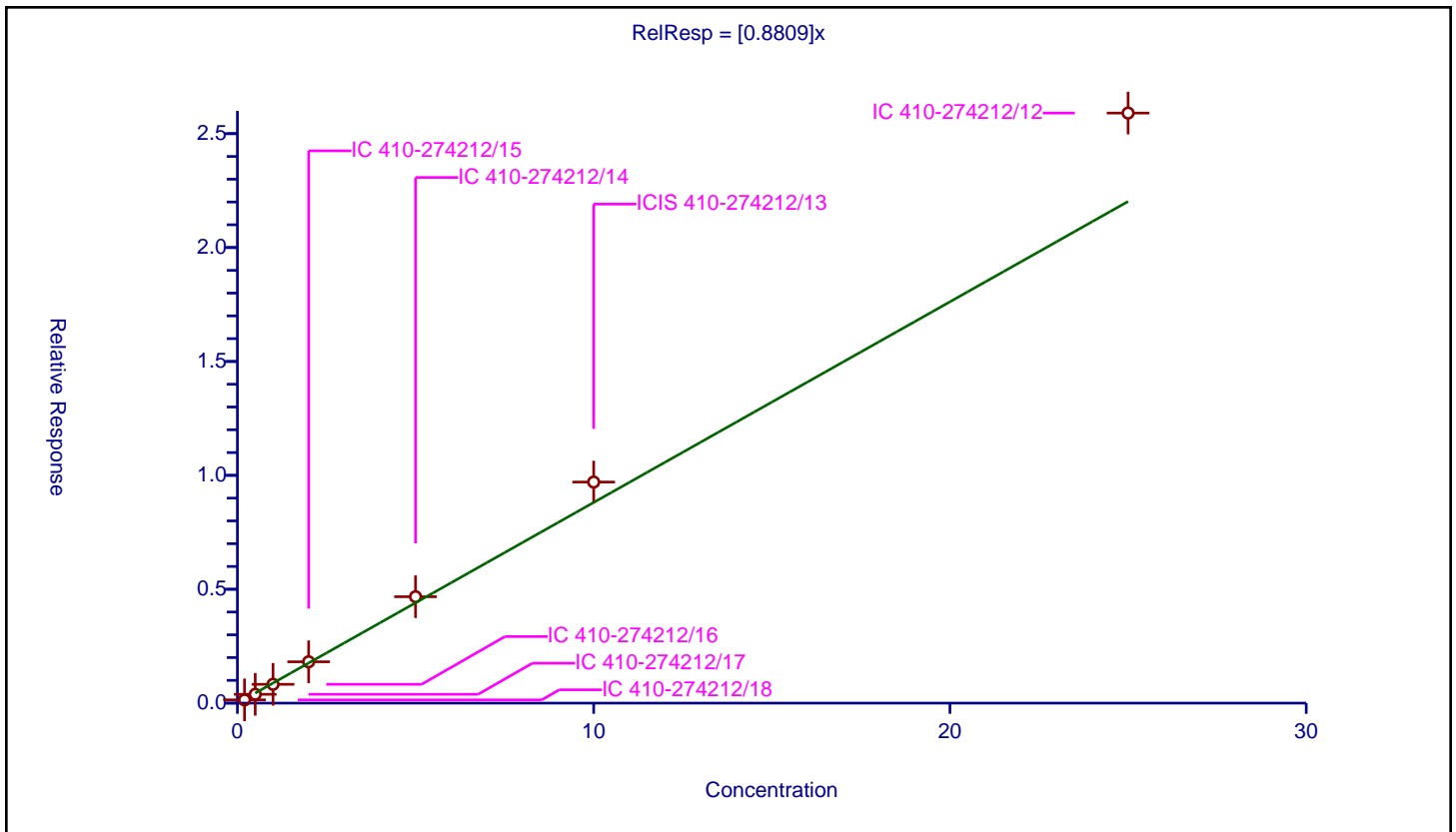
/ 1,2,4-Trichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	0.8809

Error Coefficients	
Standard Error:	1180000
Relative Standard Error:	12.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.143423	10.0	962398.0	0.717115	Y
2	IC 410-274212/17	0.5	0.38711	10.0	973807.0	0.774219	Y
3	IC 410-274212/16	1.0	0.826597	10.0	1008085.0	0.826597	Y
4	IC 410-274212/15	2.0	1.815017	10.0	1025087.0	0.907508	Y
5	IC 410-274212/14	5.0	4.671894	10.0	1050302.0	0.934379	Y
6	ICIS 410-274212/13	10.0	9.705508	10.0	1053034.0	0.970551	Y
7	IC 410-274212/12	25.0	25.904516	10.0	1027356.0	1.036181	Y



Calibration

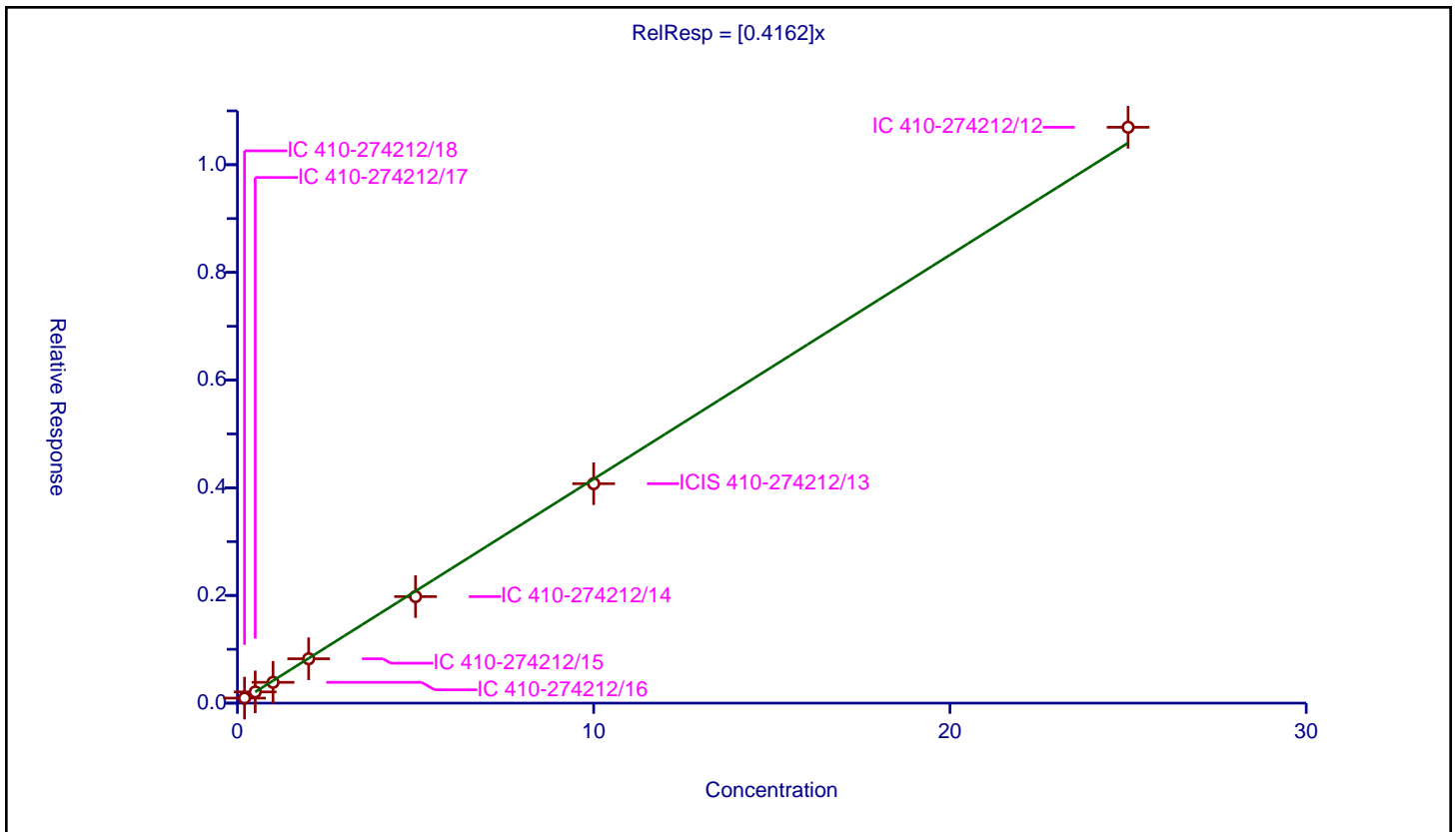
/ Hexachlorobutadiene

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

Curve Coefficients	
Intercept:	0
Slope:	0.4162

Error Coefficients	
Standard Error:	491000
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 410-274212/18	0.2	0.093423	10.0	962398.0	0.467114	Y
2	IC 410-274212/17	0.5	0.208542	10.0	973807.0	0.417085	Y
3	IC 410-274212/16	1.0	0.386088	10.0	1008085.0	0.386088	Y
4	IC 410-274212/15	2.0	0.823998	10.0	1025087.0	0.411999	Y
5	IC 410-274212/14	5.0	1.978298	10.0	1050302.0	0.39566	Y
6	ICIS 410-274212/13	10.0	4.075956	10.0	1053034.0	0.407596	Y
7	IC 410-274212/12	25.0	10.69599	10.0	1027356.0	0.42784	Y



Calibration

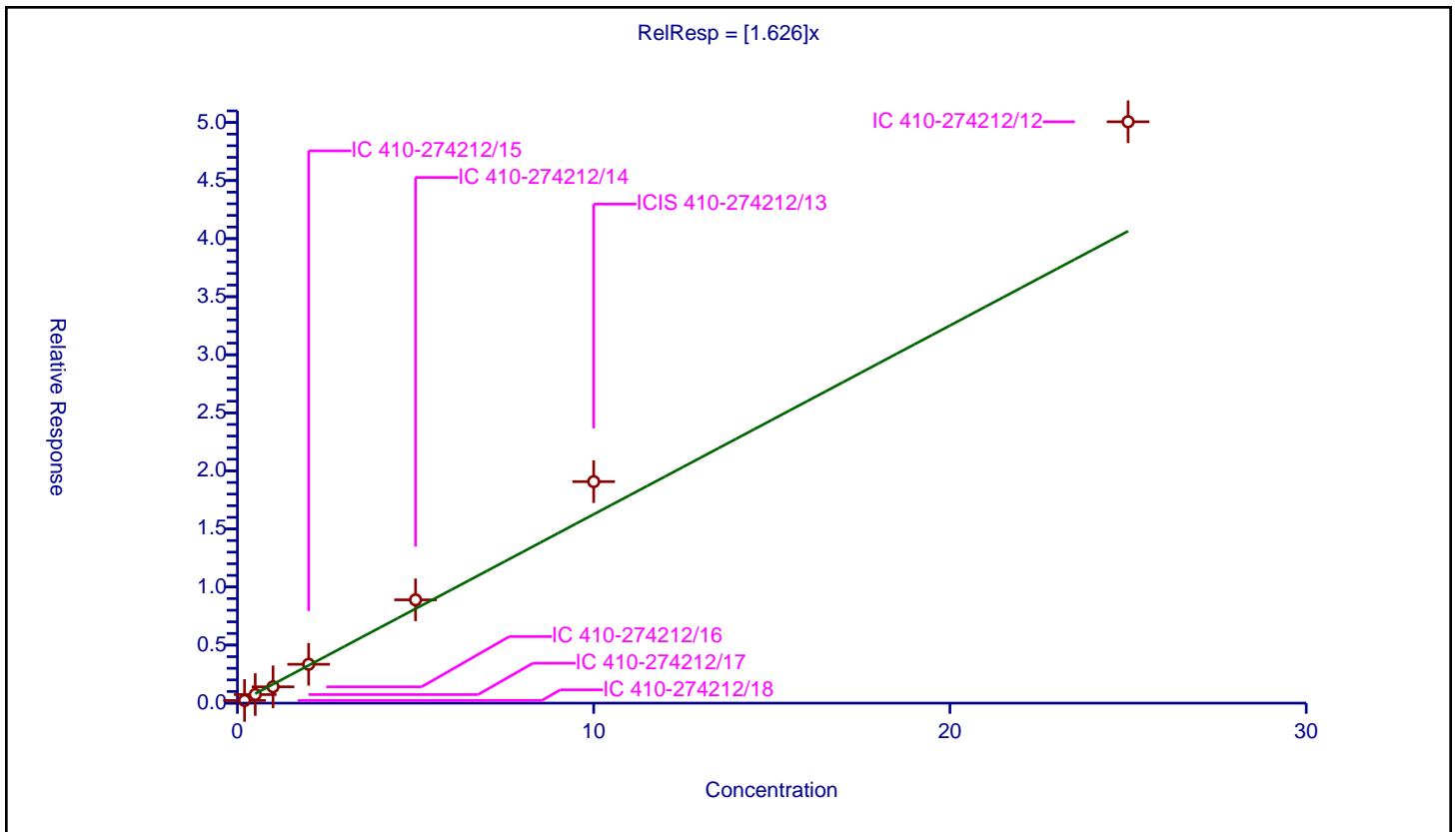
/ Naphthalene

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

Curve Coefficients	
Intercept:	0
Slope:	1.626

Error Coefficients	
Standard Error:	2290000
Relative Standard Error:	18.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.228253	10.0	962398.0	1.141264	Y
2	IC 410-274212/17	0.5	0.73647	10.0	973807.0	1.472941	Y
3	IC 410-274212/16	1.0	1.405387	10.0	1008085.0	1.405387	Y
4	IC 410-274212/15	2.0	3.345482	10.0	1025087.0	1.672741	Y
5	IC 410-274212/14	5.0	8.892081	10.0	1050302.0	1.778416	Y
6	ICIS 410-274212/13	10.0	19.073458	10.0	1053034.0	1.907346	Y
7	IC 410-274212/12	25.0	50.062568	10.0	1027356.0	2.002503	Y



Calibration

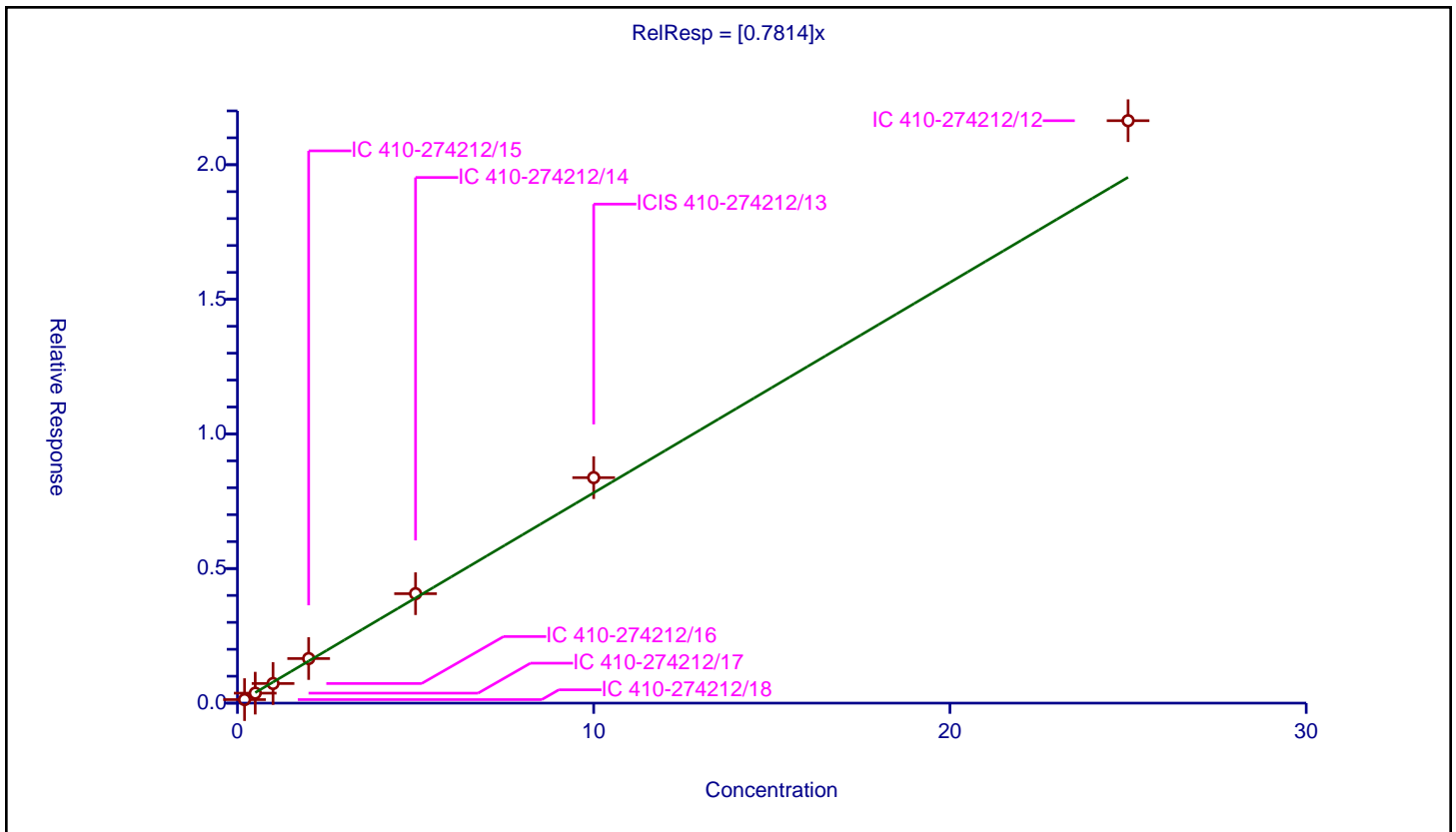
/ 1,2,3-Trichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	0.7814

Error Coefficients	
Standard Error:	995000
Relative Standard Error:	9.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-274212/18	0.2	0.131235	10.0	962398.0	0.656173	Y
2	IC 410-274212/17	0.5	0.370607	10.0	973807.0	0.741215	Y
3	IC 410-274212/16	1.0	0.728371	10.0	1008085.0	0.728371	Y
4	IC 410-274212/15	2.0	1.655245	10.0	1025087.0	0.827622	Y
5	IC 410-274212/14	5.0	4.065707	10.0	1050302.0	0.813141	Y
6	ICIS 410-274212/13	10.0	8.375969	10.0	1053034.0	0.837597	Y
7	IC 410-274212/12	25.0	21.635996	10.0	1027356.0	0.86544	Y





FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 410-274690/6 Calibration Date: 07/12/2022 16:20

Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43

Lab File ID: IL12X06.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	0.3080	0.3270	0.1000	5.31	5.00	6.1	30.0
Chloromethane	Ave	0.3498	0.3844	0.1000	5.50	5.00	9.9	30.0
Vinyl chloride	Ave	0.3444	0.3739	0.1000	5.43	5.00	8.5	30.0
1,3-Butadiene	Ave	0.3898	0.3311		4.25	5.00	-15.1	30.0
Bromomethane	Ave	0.2402	0.2482	0.1000	5.17	5.00	3.4	30.0
Chloroethane	Ave	0.2025	0.2158	0.1000	5.33	5.00	6.6	30.0
Dichlorofluoromethane	Ave	0.4693	0.5116		5.45	5.00	9.0	30.0
Trichlorofluoromethane	Ave	0.4546	0.4570	0.1000	5.03	5.00	0.5	30.0
Ethyl ether	Ave	0.2194	0.2300		5.23	4.98	4.8	30.0
Freon 123a	Ave	0.3445	0.3532		5.13	5.00	2.5	30.0
Acrolein	Ave	2.337	2.138		34.3	37.5	-8.5	30.0
1,1-Dichloroethene	Ave	0.2535	0.2732	0.1000	5.39	5.00	7.8	30.0
Acetone	Ave	2.759	2.502	0.1000	56.7	62.5	-9.3	30.0
Freon 113	Ave	0.2563	0.2838	0.1000	5.54	5.00	10.7	30.0
Methyl iodide	Ave	0.4459	0.5112		5.73	5.00	14.6	30.0
Ethyl bromide	Ave	0.2291	0.2138		4.56	4.89	-6.7	30.0
Carbon disulfide	Ave	0.6342	0.7297	0.1000	5.75	5.00	15.1	30.0
Methyl acetate	Ave	8.110	8.367	0.1000	5.16	5.00	3.2	30.0
Allyl chloride	Ave	0.3709	0.4134		5.57	5.00	11.5	30.0
Methylene Chloride	Ave	0.2778	0.2930	0.1000	5.27	5.00	5.5	30.0
t-Butyl alcohol	Ave	0.8596	0.8255		48.0	50.0	-4.0	30.0
Acrylonitrile	Ave	3.866	3.852		24.9	25.0	-0.4	30.0
Methyl tert-butyl ether	Ave	0.6366	0.6692	0.1000	5.26	5.00	5.1	30.0
trans-1,2-Dichloroethene	Ave	0.2812	0.2932	0.1000	5.21	5.00	4.3	30.0
n-Hexane	Ave	0.3931	0.4063		5.17	5.00	3.4	30.0
1,1-Dichloroethane	Ave	0.5155	0.5384	0.2000	5.22	5.00	4.5	30.0
di-Isopropyl ether	Ave	0.7929	0.8489		5.35	5.00	7.1	30.0
2-Chloro-1,3-butadiene	Ave	0.3771	0.4395		5.83	5.00	16.5	30.0
Ethyl t-butyl ether	Ave	0.7349	0.7961		5.42	5.00	8.3	30.0
2-Butanone (MEK)	Ave	5.123	5.282	0.1000	64.4	62.5	3.1	30.0
cis-1,2-Dichloroethene	Ave	0.3147	0.3389	0.1000	5.38	5.00	7.7	30.0
2,2-Dichloropropane	Ave	0.4180	0.4490		5.37	5.00	7.4	30.0
Propionitrile	Ave	1.485	1.609		40.6	37.5	8.3	30.0
Methacrylonitrile	Ave	5.344	5.505		38.6	37.5	3.0	30.0
Bromochloromethane	Ave	0.1427	0.1520		5.33	5.00	6.6	30.0
Tetrahydrofuran	Ave	1.480	1.536		25.9	25.0	3.8	30.0
Chloroform	Ave	0.5170	0.5360	0.2000	5.18	5.00	3.7	30.0
1,1,1-Trichloroethane	Ave	0.4627	0.4786	0.1000	5.17	5.00	3.4	30.0
Cyclohexane	Ave	0.4635	0.4795	0.1000	5.17	5.00	3.5	30.0
1,1-Dichloropropene	Ave	0.4023	0.4282		5.32	5.00	6.4	30.0
Carbon tetrachloride	Ave	0.4134	0.4329	0.1000	5.24	5.00	4.7	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 410-274690/6 Calibration Date: 07/12/2022 16:20

Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43

Lab File ID: IL12X06.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	0.3370	0.3079		114	125	-8.6	30.0
Benzene	Ave	1.211	1.273	0.5000	5.26	5.00	5.1	30.0
1,2-Dichloroethane	Ave	0.3229	0.3280	0.1000	5.08	5.00	1.6	30.0
t-Amyl methyl ether	Ave	0.6975	0.7353		5.27	5.00	5.4	30.0
n-Heptane	Ave	0.4331	0.4228		4.88	5.00	-2.4	30.0
n-Butanol	Ave	0.3095	0.2934		237	250	-5.2	30.0
Trichloroethene	Ave	0.3223	0.3310	0.2000	5.14	5.00	2.7	30.0
Methylcyclohexane	Ave	0.5314	0.5356	0.1000	5.04	5.00	0.8	30.0
1,2-Dichloropropane	Ave	0.3127	0.3252	0.1000	5.20	5.00	4.0	30.0
Methyl methacrylate	Ave	9.618	10.26		5.33	5.00	6.7	30.0
1,4-Dioxane	Ave	0.0687	0.0726	0.0050	132	125	5.7	30.0
Dibromomethane	Ave	0.1498	0.1541		5.15	5.00	2.9	30.0
Bromodichloromethane	Ave	0.3709	0.3894	0.2000	5.25	5.00	5.0	30.0
2-Nitropropane	Ave	2.839	2.595		4.57	5.00	-8.6	30.0
1-Bromo-2-chloroethane	Ave	0.3192	0.3215		5.04	5.00	0.7	30.0
cis-1,3-Dichloropropene	Ave	0.4443	0.4565	0.2000	5.14	5.00	2.7	30.0
4-Methyl-2-pentanone (MIBK)	Ave	12.38	13.43	0.1000	67.8	62.5	8.5	30.0
Toluene	Ave	1.026	1.050	0.4000	5.12	5.00	2.4	30.0
trans-1,3-Dichloropropene	Ave	0.4679	0.4975	0.1000	5.32	5.00	6.3	30.0
Ethyl methacrylate	Ave	0.3537	0.3610		5.10	5.00	2.1	30.0
1,1,2-Trichloroethane	Ave	0.2891	0.2931	0.1000	5.07	5.00	1.4	30.0
Tetrachloroethene	Ave	0.4896	0.5018	0.2000	5.12	5.00	2.5	30.0
1,3-Dichloropropane	Ave	0.4836	0.4888		5.05	5.00	1.1	30.0
2-Hexanone	Ave	8.960	9.605	0.1000	67.0	62.5	7.2	30.0
Dibromochloromethane	Ave	0.3553	0.3671		5.17	5.00	3.3	30.0
1,2-Dibromoethane (EDB)	Ave	0.2676	0.2769	0.1000	5.17	5.00	3.5	30.0
1-Chlorohexane	Ave	0.5742	0.5722		4.98	5.00	-0.4	30.0
Chlorobenzene	Ave	1.150	1.181	0.5000	5.13	5.00	2.7	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3931	0.4022		5.12	5.00	2.3	30.0
Ethylbenzene	Ave	1.910	1.985	0.1000	5.20	5.00	3.9	30.0
m&p-Xylene	Ave	0.7426	0.7919	0.1000	10.7	10.0	6.6	30.0
o-Xylene	Ave	0.7081	0.7470	0.3000	5.27	5.00	5.5	30.0
Styrene	Ave	1.120	1.231	0.3000	5.49	5.00	9.9	30.0
Bromoform	Ave	0.2123	0.2179	0.1000	5.13	5.00	2.6	30.0
Isopropylbenzene	Ave	1.839	1.985	0.1000	5.40	5.00	7.9	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6437	0.6334	0.3000	4.92	5.00	-1.6	30.0
Bromobenzene	Ave	0.8296	0.8699		5.24	5.00	4.9	30.0
trans-1,4-Dichloro-2-butene	Ave	4.382	4.412		25.2	25.0	0.7	30.0
1,2,3-Trichloropropane	Ave	0.1700	0.1764		5.19	5.00	3.8	30.0
N-Propylbenzene	Ave	3.976	4.121		5.18	5.00	3.7	30.0
2-Chlorotoluene	Ave	0.8199	0.8416		5.13	5.00	2.7	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 410-274690/6 Calibration Date: 07/12/2022 16:20

Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43

Lab File ID: IL12X06.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	2.781	2.930		5.27	5.00	5.3	30.0
4-Chlorotoluene	Ave	0.8366	0.8609		5.15	5.00	2.9	30.0
tert-Butylbenzene	Ave	0.6226	0.6586		5.29	5.00	5.8	30.0
Pentachloroethane	Ave	0.5041	0.5064		5.02	5.00	0.4	30.0
1,2,4-Trimethylbenzene	Ave	2.764	2.948		5.33	5.00	6.7	30.0
sec-Butylbenzene	Ave	3.595	3.780		5.26	5.00	5.1	30.0
1,3-Dichlorobenzene	Ave	1.603	1.629	0.6000	5.08	5.00	1.6	30.0
p-Isopropyltoluene	Ave	3.028	3.232		5.34	5.00	6.7	30.0
1,4-Dichlorobenzene	Ave	1.656	1.659	0.5000	5.01	5.00	0.2	30.0
1,2,3-Trimethylbenzene	Ave	1.274	1.291		5.07	5.00	1.3	30.0
Benzyl chloride	Ave	0.2416	0.2432		5.03	5.00	0.6	30.0
n-Butylbenzene	Ave	1.444	1.508		5.22	5.00	4.4	30.0
1,2-Dichlorobenzene	Ave	1.490	1.503	0.4000	5.04	5.00	0.9	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0918	0.0851	0.0500	4.63	5.00	-7.4	30.0
1,3,5-Trichlorobenzene	Ave	1.093	1.097		5.02	5.00	0.3	30.0
1,2,4-Trichlorobenzene	Ave	0.8809	0.8693	0.2000	4.93	5.00	-1.3	30.0
Hexachlorobutadiene	Ave	0.4162	0.3778		4.54	5.00	-9.2	30.0
Naphthalene	Ave	1.626	1.608		4.94	5.00	-1.1	30.0
1,2,3-Trichlorobenzene	Ave	0.7814	0.7541		4.83	5.00	-3.5	30.0
Dibromofluoromethane (Surr)	Ave	0.2511	0.2543		10.1	10.0	1.3	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0516	0.0513		9.95	10.0	-0.5	30.0
Toluene-d8 (Surr)	Ave	1.298	1.297		9.99	10.0	-0.0	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4758	0.4783		10.1	10.0	0.5	30.0

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220712-61619.b\IL12X06.D  
 Lims ID: ICV LG  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 12-Jul-2022 16:20:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0061619-006  
 Misc. Info.: IC STD4  
 Operator ID: kas02648 Instrument ID: 19930  
 Sublist:  
 Method: \\chromfs\Lancaster\ChromData\19930\20220712-61619.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 16:31:24 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1670

First Level Reviewer: K4WN

Date: 14-Jul-2022 15:44:33

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	1.977	-0.012	99	355688	5.00	5.31	
4 Chloromethane	50	2.166	2.178	-0.012	99	418191	5.00	5.50	
5 Vinyl chloride	62	2.282	2.294	-0.012	98	406692	5.00	5.43	
6 Butadiene	39	2.294	2.300	-0.006	90	360183	5.00	4.25	
7 Bromomethane	94	2.623	2.629	-0.006	90	270032	5.00	5.17	
8 Chloroethane	64	2.696	2.709	-0.012	100	234764	5.00	5.33	
9 Dichlorofluoromethane	67	2.946	2.952	-0.006	97	556475	5.00	5.45	
10 Trichlorofluoromethane	101	3.007	3.019	-0.012	97	497142	5.00	5.03	
11 Ethyl ether	59	3.251	3.251	0.000	90	249477	4.98	5.23	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.343	3.349	-0.006	92	384239	5.00	5.13	
13 Acrolein	56	3.428	3.422	0.006	99	252263	37.5	34.3	
14 1,1-Dichloroethene	96	3.562	3.568	-0.006	98	297213	5.00	5.39	
15 Acetone	43	3.587	3.592	-0.006	100	491903	62.5	56.7	
16 1,1,2-Trichloro-1,2,2-trifluoroethane	101	3.605	3.611	-0.006	91	308760	5.00	5.54	
17 Iodomethane	142	3.757	3.763	-0.006	98	556079	5.00	5.73	
18 Ethyl bromide	108	3.788	3.794	-0.006	97	227201	4.89	4.56	
19 Carbon disulfide	76	3.867	3.873	-0.006	99	793747	5.00	5.75	
21 Methyl acetate	43	4.013	4.019	-0.006	97	131616	5.00	5.16	M
22 3-Chloro-1-propene	41	4.038	4.044	-0.006	93	449702	5.00	5.57	
23 Methylene Chloride	84	4.233	4.233	0.000	91	318721	5.00	5.27	
* 24 t-Butyl alcohol-d10 (IS)	65	4.214	4.239	-0.025	0	157301	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.355	4.361	-0.006	99	129857	50.0	48.0	M
26 Acrylonitrile	53	4.562	4.568	-0.006	100	302934	25.0	24.9	
27 Methyl tert-butyl ether	73	4.641	4.635	0.006	94	727991	5.00	5.26	
28 trans-1,2-Dichloroethene	96	4.647	4.653	-0.006	99	318921	5.00	5.21	
29 Hexane	57	5.068	5.068	0.000	91	441997	5.00	5.17	
31 1,1-Dichloroethane	63	5.306	5.299	0.007	96	585721	5.00	5.22	
32 Isopropyl ether	45	5.361	5.360	0.001	93	923486	5.00	5.35	
33 2-Chloro-1,3-butadiene	53	5.409	5.415	-0.006	90	478100	5.00	5.83	
34 Tert-butyl ethyl ether	59	5.891	5.897	-0.006	97	866043	5.00	5.42	

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	6.092	6.092	0.000	99	1038512	62.5	64.4	
37 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	81	368621	5.00	5.38	
38 2,2-Dichloropropane	77	6.147	6.147	0.000	87	488379	5.00	5.37	
40 Propionitrile	54	6.171	6.177	-0.006	98	189782	37.5	40.6	
42 Methacrylonitrile	67	6.391	6.397	-0.006	90	649494	37.5	38.6	
43 Chlorobromomethane	128	6.458	6.458	0.000	92	165366	5.00	5.33	
44 Tetrahydrofuran	71	6.470	6.470	0.000	78	120805	25.0	25.9	
45 Chloroform	83	6.604	6.604	0.000	93	583117	5.00	5.18	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.824	-0.006	94	553284	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.836	6.836	0.000	98	520580	5.00	5.17	
48 Cyclohexane	56	6.940	6.939	0.001	89	521663	5.00	5.17	
51 1,1-Dichloropropene	75	7.043	7.049	-0.006	97	465763	5.00	5.32	
50 Carbon tetrachloride	117	7.043	7.049	-0.006	84	470895	5.00	5.24	
52 Isobutyl alcohol	41	7.183	7.183	0.000	93	121073	125.0	114.2	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	0	111631	10.0	9.95	
54 Benzene	78	7.305	7.305	0.000	96	1385097	5.00	5.26	
56 1,2-Dichloroethane	62	7.372	7.378	-0.006	97	356826	5.00	5.08	
57 Tert-amyl methyl ether	73	7.494	7.494	0.000	99	799834	5.00	5.27	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2175639	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	91	459900	5.00	4.88	
60 n-Butanol	56	8.067	8.061	0.006	88	230759	250.0	237.0	
61 Trichloroethene	95	8.183	8.183	0.000	97	360094	5.00	5.14	
62 Methylcyclohexane	83	8.494	8.494	0.000	94	582678	5.00	5.04	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	85	353715	5.00	5.20	
64 Methyl methacrylate	69	8.598	8.598	0.000	90	161417	5.00	5.33	
65 1,4-Dioxane	88	8.610	8.598	0.012	32	28549	125.0	132.2	M
66 Dibromomethane	93	8.628	8.622	0.006	94	167667	5.00	5.15	
68 Dichlorobromomethane	83	8.854	8.854	0.000	100	423564	5.00	5.25	
69 2-Nitropropane	41	9.116	9.116	0.000	97	40823	5.00	4.57	
72 1-Bromo-2-chloroethane	63	9.250	9.244	0.006	98	349777	5.00	5.04	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	496606	5.00	5.14	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	96	2640756	62.5	67.8	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2236239	10.0	10.0	
76 Toluene	92	9.780	9.780	0.000	98	905818	5.00	5.12	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	91	429053	5.00	5.32	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	311316	5.00	5.10	
80 1,1,2-Trichloroethane	97	10.238	10.238	0.000	91	252738	5.00	5.07	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	432707	5.00	5.12	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	88	421529	5.00	5.05	
83 2-Hexanone	43	10.451	10.451	0.000	96	1888560	62.5	67.0	
85 Chlorodibromomethane	129	10.616	10.616	0.000	89	316604	5.00	5.17	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	238779	5.00	5.17	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1724781	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	96	493426	5.00	4.98	
90 Chlorobenzene	112	11.183	11.182	0.001	96	1018489	5.00	5.13	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	346893	5.00	5.12	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1712113	5.00	5.20	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	1365814	10.0	10.7	
94 o-Xylene	106	11.713	11.713	0.000	96	644183	5.00	5.27	
95 Styrene	104	11.725	11.725	0.000	95	1061349	5.00	5.49	
96 Bromoform	173	11.890	11.884	0.006	98	187905	5.00	5.13	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	1712272	5.00	5.40	

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	12.158	12.158	0.000	94	825013	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.249	0.007	94	306453	5.00	4.92	
102 Bromobenzene	156	12.274	12.274	0.000	96	420846	5.00	5.24	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	90	346990	25.0	25.2	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	81	85328	5.00	5.19	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	1993881	5.00	5.18	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	407171	5.00	5.13	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1417273	5.00	5.27	
108 4-Chlorotoluene	126	12.512	12.505	0.007	96	416469	5.00	5.15	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	318611	5.00	5.29	
110 Pentachloroethane	167	12.749	12.749	0.000	92	244969	5.00	5.02	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1426061	5.00	5.33	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	1828706	5.00	5.26	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	788072	5.00	5.08	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1563765	5.00	5.34	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	967569	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	802487	5.00	5.01	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	624574	5.00	5.07	
118 Benzyl chloride	126	13.127	13.127	0.000	98	117633	5.00	5.03	
119 n-Butylbenzene	92	13.280	13.280	0.000	96	729679	5.00	5.22	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	726966	5.00	5.04	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	88	41147	5.00	4.63	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	530555	5.00	5.02	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	420547	5.00	4.93	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	97	182776	5.00	4.54	
126 Naphthalene	128	14.584	14.584	0.000	97	777700	5.00	4.94	
127 1,2,3-Trichlorobenzene	180	14.725	14.724	0.001	96	364830	5.00	4.83	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

MSV_LCS_EE_00003	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00063	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00066	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00017	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00089	Amount Added: 12.50	Units: uL	
LCS_ETBR_00003	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromf\Lancaster\ChromData\19930\20220712-61619.b\IL12X06.D

Injection Date: 12-Jul-2022 16:20:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: ICV LG

Worklist Smp#: 6

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

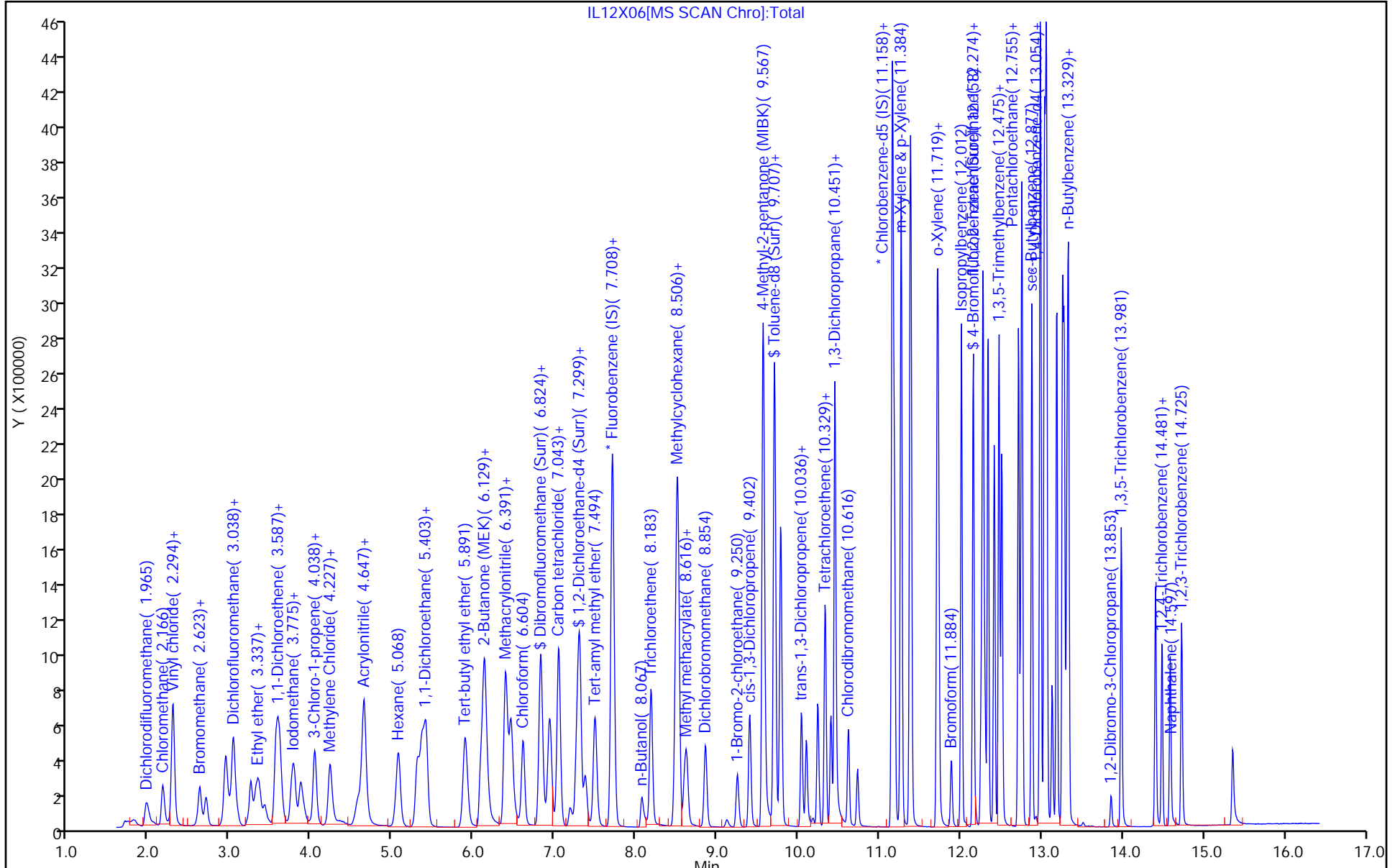
ALS Bottle#: 6

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



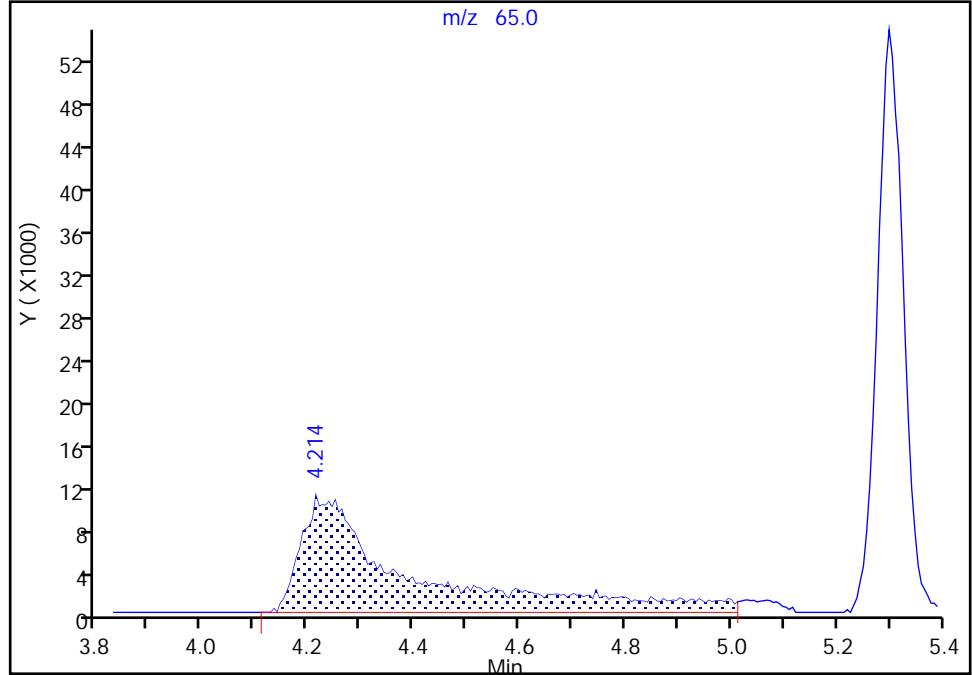
Euofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220712-61619.b\IL12X06.D  
Injection Date: 12-Jul-2022 16:20:30 Instrument ID: 19930  
Lims ID: ICV LG  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 6 Worklist Smp#: 6  
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 ID) Detector: MS Quad

\* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2  
Signal: 1

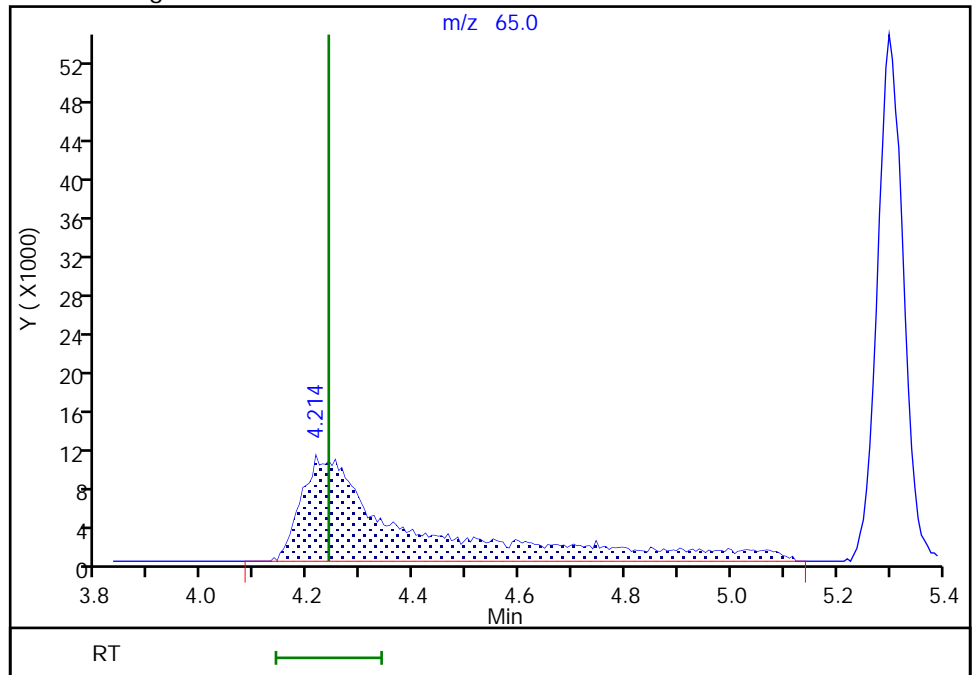
RT: 4.21  
Area: 151672  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.21  
Area: 157301  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



Reviewer: K4WN, 14-Jul-2022 16:30:34  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



Eurofins Lancaster Laboratories Environment Testing, LLC

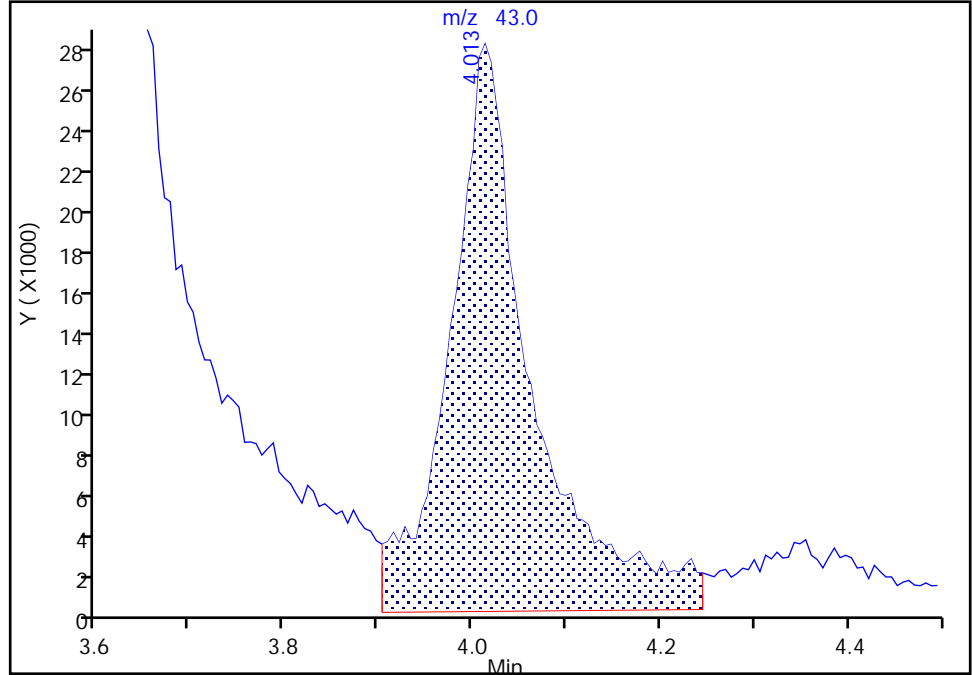
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Injection Date: 12-Jul-2022 16:20:30 Instrument ID: 19930  
Lims ID: ICV LG  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 6 Worklist Smp#: 6  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

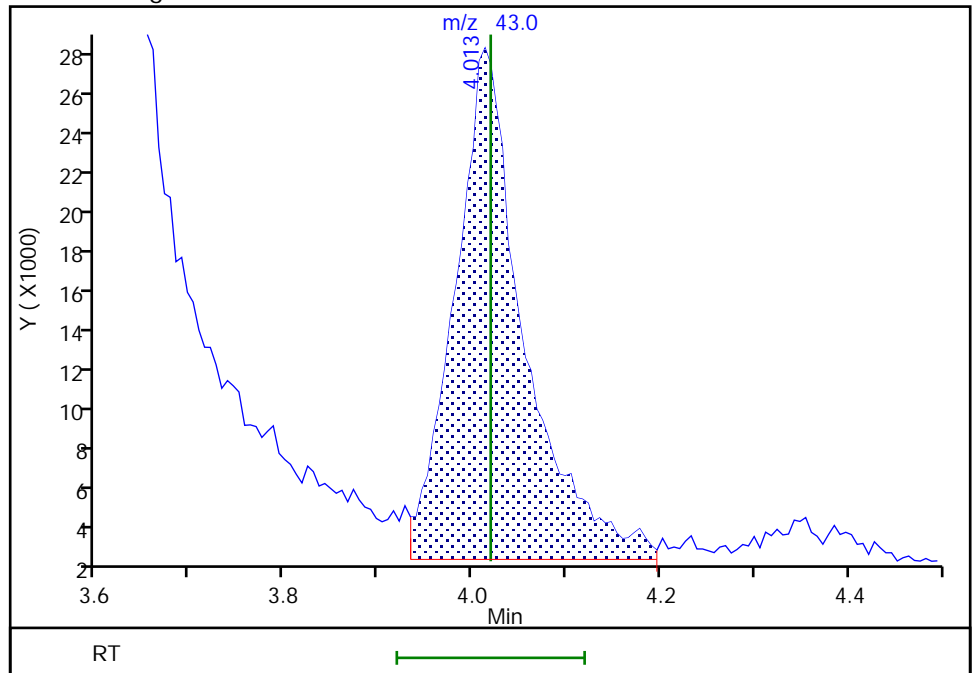
RT: 4.01  
Area: 164406  
Amount: 6.682973  
Amount Units: ug/l

Processing Integration Results



RT: 4.01  
Area: 131616  
Amount: 5.158634  
Amount Units: ug/l

Manual Integration Results



Reviewer: K4WN, 14-Jul-2022 16:30:26  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

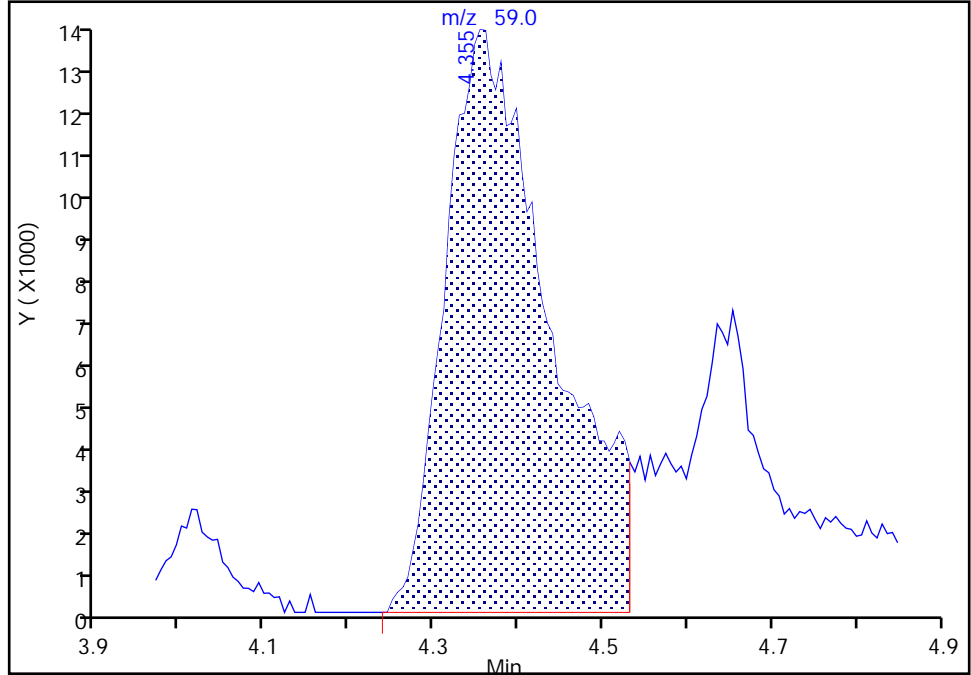
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Injection Date: 12-Jul-2022 16:20:30 Instrument ID: 19930  
Lims ID: ICV LG  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 6 Worklist Smp#: 6  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

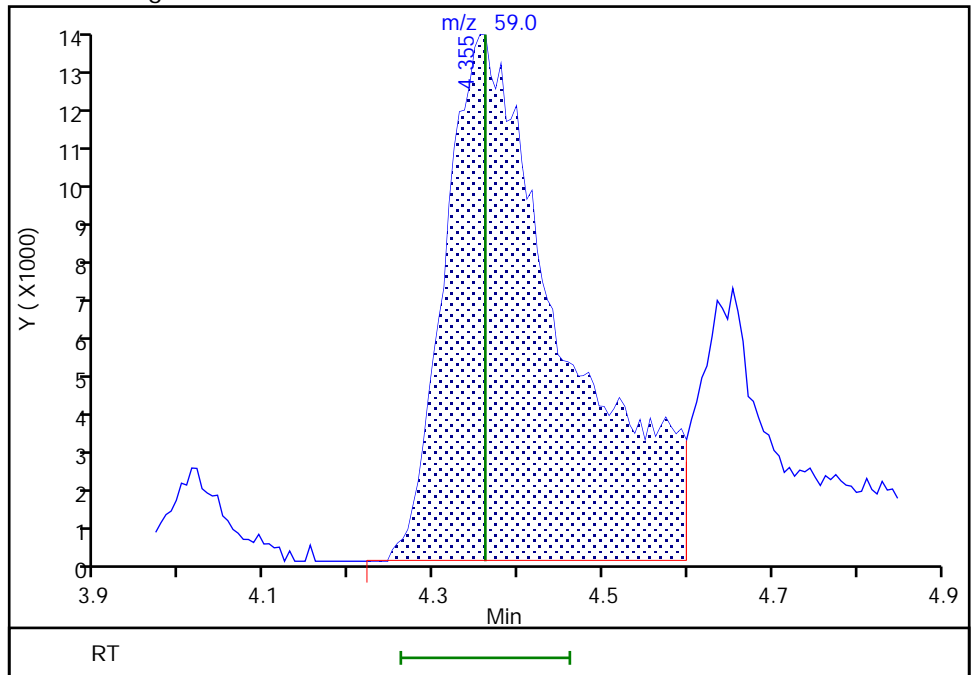
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Amount: 43.227062  
Amount Units: ug/l

Processing Integration Results



RT: 4.35  
Area: 129857  
Amount: 48.016223  
Amount Units: ug/l

Manual Integration Results



Reviewer: K4WN, 14-Jul-2022 16:30:48  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

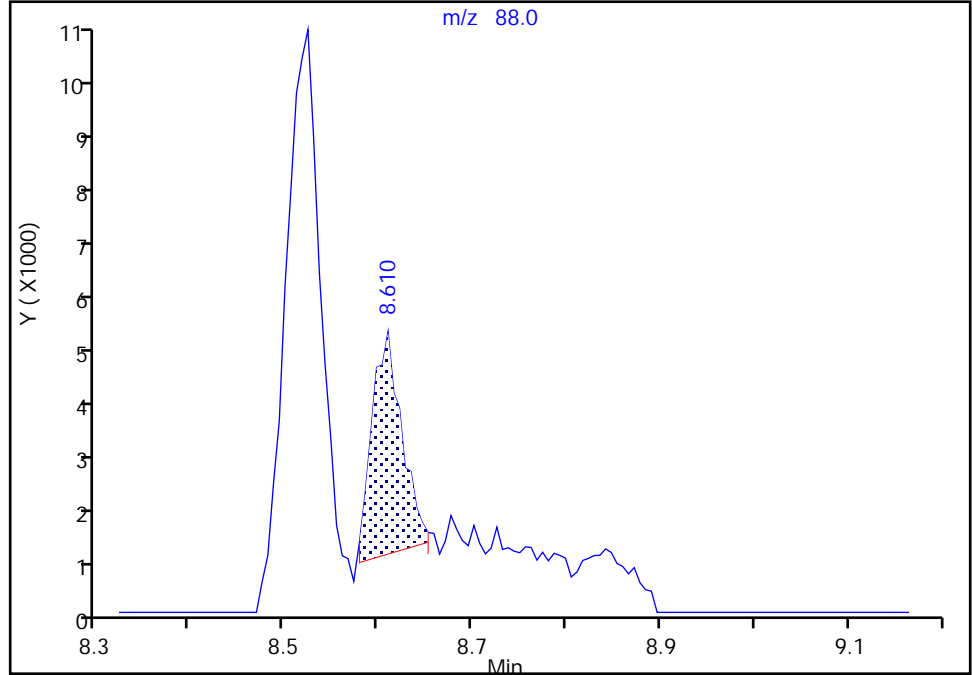
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Injection Date: 12-Jul-2022 16:20:30 Instrument ID: 19930  
Lims ID: ICV LG  
Client ID:  
Operator ID: kas02648 ALS Bottle#: 6 Worklist Smp#: 6  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

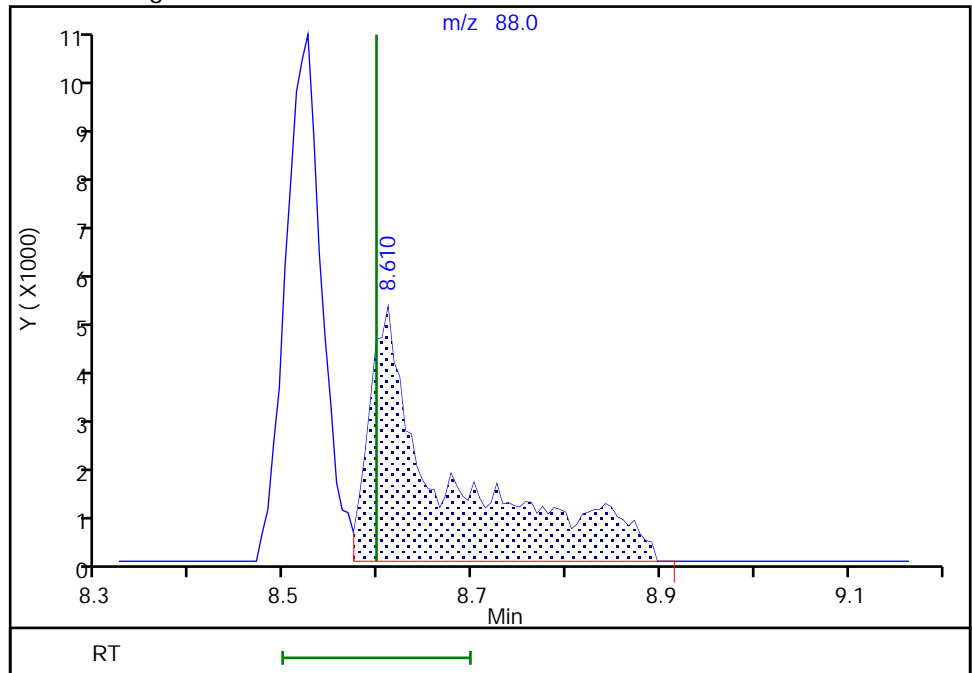
RT: 8.61  
Area: 8665  
Amount: 40.119790  
Amount Units: ug/l

Processing Integration Results



RT: 8.61  
Area: 28549  
Amount: 132.1846  
Amount Units: ug/l

Manual Integration Results



Reviewer: K4WN, 14-Jul-2022 16:31:10  
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-282764/3 Calibration Date: 08/04/2022 10:45

Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43

Lab File ID: IG04X02.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	0.3080	0.2635	0.1000	8.56	10.0	-14.4	20.0
Chloromethane	Ave	0.3498	0.3551	0.1000	10.2	10.0	1.5	20.0
Vinyl chloride	Ave	0.3444	0.3505	0.1000	10.2	10.0	1.8	20.0
1,3-Butadiene	Ave	0.3898	0.4259		10.9	10.0	9.2	20.0
Bromomethane	Ave	0.2402	0.2326	0.1000	9.68	10.0	-3.2	20.0
Chloroethane	Ave	0.2025	0.1973	0.1000	9.74	10.0	-2.6	20.0
Dichlorofluoromethane	Ave	0.4693	0.4336		9.24	10.0	-7.6	20.0
Trichlorofluoromethane	Ave	0.4546	0.4155	0.1000	9.14	10.0	-8.6	20.0
Ethyl ether	Ave	0.2194	0.2316		10.6	10.0	5.5	20.0
Freon 123a	Ave	0.3445	0.3496		10.1	10.0	1.5	20.0
Acrolein	Ave	2.337	1.918		410	500	-17.9	20.0
1,1-Dichloroethene	Ave	0.2535	0.2582	0.1000	10.2	10.0	1.8	20.0
Acetone	Ave	2.759	2.401	0.1000	87.0	100	-13.0	20.0
Freon 113	Ave	0.2563	0.2361	0.1000	9.21	10.0	-7.9	20.0
Methyl iodide	Ave	0.4459	0.4680		10.5	10.0	5.0	20.0
Ethyl bromide	Ave	0.2291	0.2331		10.2	10.0	1.7	20.0
Carbon disulfide	Ave	0.6342	0.6511	0.1000	10.3	10.0	2.7	20.0
Methyl acetate	Ave	8.110	7.189	0.1000	8.86	10.0	-11.4	20.0
Allyl chloride	Ave	0.3709	0.3836		10.3	10.0	3.4	20.0
Methylene Chloride	Ave	0.2778	0.2871	0.1000	10.3	10.0	3.4	20.0
t-Butyl alcohol	Ave	0.8596	0.9214		214	200	7.2	20.0
Acrylonitrile	Ave	3.866	3.520		22.8	25.0	-9.0	20.0
Methyl tert-butyl ether	Ave	0.6366	0.6652	0.1000	10.4	10.0	4.5	20.0
trans-1,2-Dichloroethene	Ave	0.2812	0.2969	0.1000	10.6	10.0	5.6	20.0
n-Hexane	Ave	0.3931	0.3705		9.43	10.0	-5.7	20.0
1,1-Dichloroethane	Ave	0.5155	0.5400	0.2000	10.5	10.0	4.8	20.0
di-Isopropyl ether	Ave	0.7929	0.8258		10.4	10.0	4.1	20.0
2-Chloro-1,3-butadiene	Ave	0.3771	0.4066		10.8	10.0	7.8	20.0
Ethyl t-butyl ether	Ave	0.7349	0.7634		10.4	10.0	3.9	20.0
2-Butanone (MEK)	Ave	5.123	4.649	0.1000	90.7	100	-9.3	20.0
cis-1,2-Dichloroethene	Ave	0.3147	0.3316	0.1000	10.5	10.0	5.4	20.0
2,2-Dichloropropane	Ave	0.4180	0.4266		10.2	10.0	2.1	20.0
Propionitrile	Ave	1.485	1.348		181	200	-9.3	20.0
Methacrylonitrile	Ave	5.344	4.721		88.3	100	-11.7	20.0
Bromochloromethane	Ave	0.1427	0.1495		10.5	10.0	4.8	20.0
Tetrahydrofuran	Ave	1.480	1.363		46.0	50.0	-7.9	20.0
Chloroform	Ave	0.5170	0.5291	0.2000	10.2	10.0	2.3	20.0
1,1,1-Trichloroethane	Ave	0.4627	0.4657	0.1000	10.1	10.0	0.6	20.0
Cyclohexane	Ave	0.4635	0.4421	0.1000	9.54	10.0	-4.6	20.0
1,1-Dichloropropene	Ave	0.4023	0.4200		10.4	10.0	4.4	20.0
Carbon tetrachloride	Ave	0.4134	0.4179	0.1000	10.1	10.0	1.1	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-282764/3 Calibration Date: 08/04/2022 10:45

Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43

Lab File ID: IG04X02.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	0.3370	0.3388		503	500	0.5	20.0
Benzene	Ave	1.211	1.275	0.5000	10.5	10.0	5.3	20.0
1,2-Dichloroethane	Ave	0.3229	0.3107	0.1000	9.62	10.0	-3.8	20.0
t-Amyl methyl ether	Ave	0.6975	0.7386		10.6	10.0	5.9	20.0
n-Heptane	Ave	0.4331	0.3859		8.91	10.0	-10.9	20.0
n-Butanol	Ave	0.3095	0.3251		919	875	5.0	20.0
Trichloroethene	Ave	0.3223	0.3395	0.2000	10.5	10.0	5.4	20.0
Methylcyclohexane	Ave	0.5314	0.5088	0.1000	9.58	10.0	-4.2	20.0
1,2-Dichloropropane	Ave	0.3127	0.3307	0.1000	10.6	10.0	5.8	20.0
1,4-Dioxane	Ave	0.0687	0.0747	0.0050	544	500	8.8	20.0
Methyl methacrylate	Ave	9.618	9.216		9.58	10.0	-4.2	20.0
Dibromomethane	Ave	0.1498	0.1563		10.4	10.0	4.4	20.0
Bromodichloromethane	Ave	0.3709	0.3843	0.2000	10.4	10.0	3.6	20.0
2-Nitropropane	Ave	2.839	2.400		42.3	50.0	-15.5	20.0
1-Bromo-2-chloroethane	Ave	0.3192	0.3424		10.7	10.0	7.3	20.0
cis-1,3-Dichloropropene	Ave	0.4443	0.4788	0.2000	10.8	10.0	7.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.38	11.61	0.1000	93.8	100	-6.2	20.0
Toluene	Ave	1.026	1.026	0.4000	10.0	10.0	0.0	20.0
trans-1,3-Dichloropropene	Ave	0.4679	0.4808	0.1000	10.3	10.0	2.8	20.0
Ethyl methacrylate	Ave	0.3537	0.3837		10.8	10.0	8.5	20.0
1,1,2-Trichloroethane	Ave	0.2891	0.2878	0.1000	9.96	10.0	-0.4	20.0
Tetrachloroethene	Ave	0.4896	0.4966	0.2000	10.1	10.0	1.4	20.0
1,3-Dichloropropane	Ave	0.4836	0.4867		10.1	10.0	0.6	20.0
2-Hexanone	Ave	8.960	8.460	0.1000	94.4	100	-5.6	20.0
Dibromochloromethane	Ave	0.3553	0.3620		10.2	10.0	1.9	20.0
1,2-Dibromoethane (EDB)	Ave	0.2676	0.2714	0.1000	10.1	10.0	1.4	20.0
1-Chlorohexane	Ave	0.5742	0.5701		9.93	10.0	-0.7	20.0
Chlorobenzene	Ave	1.150	1.164	0.5000	10.1	10.0	1.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3931	0.3949		10.0	10.0	0.5	20.0
Ethylbenzene	Ave	1.910	1.963	0.1000	10.3	10.0	2.8	20.0
m&p-Xylene	Ave	0.7426	0.7904	0.1000	21.3	20.0	6.4	20.0
o-Xylene	Ave	0.7081	0.7520	0.3000	10.6	10.0	6.2	20.0
Styrene	Ave	1.120	1.259	0.3000	11.2	10.0	12.4	20.0
Bromoform	Ave	0.2123	0.2207	0.1000	10.4	10.0	4.0	20.0
Isopropylbenzene	Ave	1.839	1.935	0.1000	10.5	10.0	5.2	20.0
1,1,1,2,2-Tetrachloroethane	Ave	0.6437	0.6253	0.3000	9.71	10.0	-2.9	20.0
Bromobenzene	Ave	0.8296	0.8286		9.99	10.0	-0.1	20.0
trans-1,4-Dichloro-2-butene	Ave	4.382	3.191		72.8	100	-27.2*	20.0
1,2,3-Trichloropropane	Ave	0.1700	0.1724		10.1	10.0	1.4	20.0
N-Propylbenzene	Ave	3.976	4.070		10.2	10.0	2.4	20.0
2-Chlorotoluene	Ave	0.8199	0.8271		10.1	10.0	0.9	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 410-282764/3 Calibration Date: 08/04/2022 10:45  
 Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36  
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43  
 Lab File ID: IG04X02.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	2.781	2.860		10.3	10.0	2.8	20.0
4-Chlorotoluene	Ave	0.8366	0.8624		10.3	10.0	3.1	20.0
tert-Butylbenzene	Ave	0.6226	0.6463		10.4	10.0	3.8	20.0
Pentachloroethane	Ave	0.5041	0.5164		10.2	10.0	2.4	20.0
1,2,4-Trimethylbenzene	Ave	2.764	2.914		10.5	10.0	5.5	20.0
sec-Butylbenzene	Ave	3.595	3.628		10.1	10.0	0.9	20.0
1,3-Dichlorobenzene	Ave	1.603	1.643	0.6000	10.2	10.0	2.5	20.0
p-Isopropyltoluene	Ave	3.028	3.174		10.5	10.0	4.8	20.0
1,4-Dichlorobenzene	Ave	1.656	1.659	0.5000	10.0	10.0	0.2	20.0
1,2,3-Trimethylbenzene	Ave	1.274	1.263		9.91	10.0	-0.9	20.0
Benzyl chloride	Ave	0.2416	0.2578		10.7	10.0	6.7	20.0
n-Butylbenzene	Ave	1.444	1.540		10.7	10.0	6.6	20.0
1,2-Dichlorobenzene	Ave	1.490	1.493	0.4000	10.0	10.0	0.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0918	0.0913	0.0500	9.94	10.0	-0.6	20.0
1,3,5-Trichlorobenzene	Ave	1.093	1.108		10.1	10.0	1.4	20.0
1,2,4-Trichlorobenzene	Ave	0.8809	0.9196	0.2000	10.4	10.0	4.4	20.0
Hexachlorobutadiene	Ave	0.4162	0.3854		9.26	10.0	-7.4	20.0
Naphthalene	Ave	1.626	1.706		10.5	10.0	4.9	20.0
1,2,3-Trichlorobenzene	Ave	0.7814	0.7843		10.0	10.0	0.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2511	0.2489		9.91	10.0	-0.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0516	0.0516		10.0	10.0	0.1	20.0
Toluene-d8 (Surr)	Ave	1.298	1.250		9.64	10.0	-3.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4758	0.4768		10.0	10.0	0.2	20.0

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X02.D  
 Lims ID: CCVIS VSTD10  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 04-Aug-2022 10:45:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-003  
 Misc. Info.: CCVIS VSTD10  
 Operator ID: knk41612 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 04-Aug-2022 12:22:59 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1642

First Level Reviewer: DVW2

Date: 04-Aug-2022 11:11:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.971	0.000	99	645888	10.0	8.56	
4 Chloromethane	50	2.172	2.172	0.000	99	870317	10.0	10.2	
5 Vinyl chloride	62	2.282	2.282	0.000	98	859027	10.0	10.2	
6 Butadiene	39	2.300	2.300	0.000	90	1043714	10.0	10.9	
7 Bromomethane	94	2.629	2.629	0.000	90	569962	10.0	9.68	
8 Chloroethane	64	2.708	2.708	0.000	100	483516	10.0	9.74	
9 Dichlorofluoromethane	67	2.958	2.958	0.000	97	1062618	10.0	9.24	
10 Trichlorofluoromethane	101	3.013	3.013	0.000	99	1018413	10.0	9.14	
11 Ethyl ether	59	3.257	3.257	0.000	90	567684	10.0	10.6	
13 1,2-Dichloro-1,1,2-trifluoroetha	67	3.355	3.355	0.000	91	856825	10.0	10.1	
14 Acrolein	56	3.428	3.428	0.000	100	4074198	500.0	410.4	
15 1,1-Dichloroethene	96	3.568	3.568	0.000	97	632818	10.0	10.2	
16 Acetone	43	3.592	3.592	0.000	100	1019623	100.0	87.0	
17 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.617	3.617	0.000	91	578614	10.0	9.21	
18 Iodomethane	142	3.775	3.775	0.000	98	1146973	10.0	10.5	
19 Ethyl bromide	108	3.794	3.794	0.000	98	571234	10.0	10.2	
20 Carbon disulfide	76	3.879	3.879	0.000	99	1595683	10.0	10.3	
23 Methyl acetate	43	4.013	4.013	0.000	97	305334	10.0	8.86	M
24 3-Chloro-1-propene	41	4.044	4.044	0.000	93	940212	10.0	10.3	
25 Methylene Chloride	84	4.233	4.233	0.000	90	703708	10.0	10.3	
* 26 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	99	212371	50.0	50.0	M
27 2-Methyl-2-propanol	59	4.373	4.373	0.000	99	782682	200.0	214.4	
28 Acrylonitrile	53	4.568	4.568	0.000	99	373773	25.0	22.8	
29 Methyl tert-butyl ether	73	4.641	4.641	0.000	95	1630262	10.0	10.4	
30 trans-1,2-Dichloroethene	96	4.653	4.653	0.000	99	727786	10.0	10.6	
31 Hexane	57	5.074	5.074	0.000	91	908144	10.0	9.43	
32 1,1-Dichloroethane	63	5.306	5.306	0.000	96	1323355	10.0	10.5	
35 Isopropyl ether	45	5.366	5.366	0.000	93	2023994	10.0	10.4	
36 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	89	996432	10.0	10.8	
37 Tert-butyl ethyl ether	59	5.897	5.897	0.000	97	1870989	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
38 2-Butanone (MEK)	43	6.098	6.098	0.000	99	1974531	100.0	90.7	
39 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	81	812779	10.0	10.5	
40 2,2-Dichloropropane	77	6.147	6.147	0.000	86	1045496	10.0	10.2	
43 Propionitrile	54	6.177	6.177	0.000	99	1144833	200.0	181.4	
45 Methacrylonitrile	67	6.397	6.397	0.000	89	2005352	100.0	88.3	
46 Chlorobromomethane	128	6.458	6.458	0.000	91	366384	10.0	10.5	
47 Tetrahydrofuran	71	6.476	6.476	0.000	79	289454	50.0	46.0	
48 Chloroform	83	6.610	6.610	0.000	92	1296657	10.0	10.2	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	610019	10.0	9.91	
50 1,1,1-Trichloroethane	97	6.842	6.842	0.000	98	1141435	10.0	10.1	
51 Cyclohexane	56	6.939	6.939	0.000	88	1083433	10.0	9.54	
53 1,1-Dichloropropene	75	7.049	7.049	0.000	97	1029294	10.0	10.4	
54 Carbon tetrachloride	117	7.049	7.049	0.000	81	1024291	10.0	10.1	
55 Isobutyl alcohol	41	7.189	7.189	0.000	94	719503	500.0	502.7	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	99	126516	10.0	10.0	
57 Benzene	78	7.305	7.305	0.000	95	3125230	10.0	10.5	
58 1,2-Dichloroethane	62	7.372	7.372	0.000	97	761477	10.0	9.62	
60 Tert-amyl methyl ether	73	7.500	7.500	0.000	99	1810268	10.0	10.6	
* 61 Fluorobenzene (IS)	96	7.707	7.707	0.000	99	2450875	10.0	10.0	
62 n-Heptane	43	7.720	7.720	0.000	90	945817	10.0	8.91	
63 n-Butanol	56	8.067	8.067	0.000	87	1208119	875.0	919.0	
64 Trichloroethene	95	8.183	8.183	0.000	97	832185	10.0	10.5	
65 Methylcyclohexane	83	8.494	8.494	0.000	92	1247037	10.0	9.58	
66 1,2-Dichloropropane	63	8.512	8.512	0.000	86	810417	10.0	10.6	
67 Methyl methacrylate	69	8.598	8.598	0.000	88	391431	10.0	9.58	
68 1,4-Dioxane	88	8.598	8.598	0.000	36	158688	500.0	544.2	M
69 Dibromomethane	93	8.622	8.622	0.000	94	383071	10.0	10.4	
71 Dichlorobromomethane	83	8.854	8.854	0.000	99	941849	10.0	10.4	
72 2-Nitropropane	41	9.116	9.116	0.000	98	509620	50.0	42.3	
75 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	839147	10.0	10.7	
76 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	98	1173405	10.0	10.8	
77 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	4933069	100.0	93.8	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2541482	10.0	9.64	
79 Toluene	92	9.780	9.780	0.000	98	2085427	10.0	10.0	
97 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	90	977250	10.0	10.3	
99 Ethyl methacrylate	69	10.097	10.097	0.000	88	779900	10.0	10.8	
100 1,1,2-Trichloroethane	97	10.237	10.237	0.000	90	584911	10.0	9.96	
101 Tetrachloroethene	166	10.335	10.335	0.000	97	1009252	10.0	10.1	
102 1,3-Dichloropropane	76	10.402	10.402	0.000	87	989143	10.0	10.1	
103 2-Hexanone	43	10.451	10.451	0.000	95	3593515	100.0	94.4	
105 Chlorodibromomethane	129	10.615	10.615	0.000	90	735720	10.0	10.2	
106 Ethylene Dibromide	107	10.731	10.731	0.000	99	551654	10.0	10.1	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	2032493	10.0	10.0	
108 1-Chlorohexane	91	11.164	11.164	0.000	95	1158664	10.0	9.93	
109 Chlorobenzene	112	11.182	11.182	0.000	97	2366680	10.0	10.1	
111 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	97	802730	10.0	10.0	
112 Ethylbenzene	91	11.268	11.268	0.000	98	3990254	10.0	10.3	
113 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	3212905	20.0	21.3	
114 o-Xylene	106	11.713	11.713	0.000	96	1528489	10.0	10.6	
115 Styrene	104	11.725	11.725	0.000	95	2559422	10.0	11.2	
116 Bromoform	173	11.883	11.883	0.000	98	448645	10.0	10.4	
117 Isopropylbenzene	105	12.012	12.012	0.000	95	3933365	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
\$ 120 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	969151	10.0	10.0	
121 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	729506	10.0	9.71	
122 Bromobenzene	156	12.274	12.274	0.000	96	966648	10.0	9.99	
123 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	90	1355293	100.0	72.8	
124 1,2,3-Trichloropropane	110	12.298	12.298	0.000	80	201150	10.0	10.1	
125 N-Propylbenzene	91	12.341	12.341	0.000	99	4747721	10.0	10.2	
126 2-Chlorotoluene	126	12.414	12.414	0.000	97	964992	10.0	10.1	
127 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	3336913	10.0	10.3	
128 4-Chlorotoluene	126	12.505	12.505	0.000	97	1006065	10.0	10.3	
129 tert-Butylbenzene	134	12.713	12.713	0.000	94	754038	10.0	10.4	
130 Pentachloroethane	167	12.749	12.749	0.000	94	602428	10.0	10.2	
131 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	3400202	10.0	10.5	
132 sec-Butylbenzene	105	12.877	12.877	0.000	94	4233042	10.0	10.1	
133 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	1916357	10.0	10.2	
134 4-Isopropyltoluene	119	12.987	12.987	0.000	97	3702971	10.0	10.5	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1166651	10.0	10.0	
136 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	1935765	10.0	10.0	
137 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	1473142	10.0	9.91	
138 Benzyl chloride	126	13.127	13.127	0.000	98	300812	10.0	10.7	
139 n-Butylbenzene	92	13.273	13.273	0.000	96	1796268	10.0	10.7	
140 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	1741532	10.0	10.0	
142 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	90	106461	10.0	9.94	
143 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	1293118	10.0	10.1	
144 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	1072813	10.0	10.4	
145 Hexachlorobutadiene	225	14.487	14.487	0.000	96	449609	10.0	9.26	
146 Naphthalene	128	14.584	14.584	0.000	97	1990118	10.0	10.5	
147 1,2,3-Trichlorobenzene	180	14.724	14.724	0.000	96	914948	10.0	10.0	
150 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
155 2-Methylnaphthalene	142		0.000				ND	ND	
156 p-Diethylbenzene	1		0.000				ND	ND	
161 Pentane	43		0.000				ND	ND	
165 Isopropyl alcohol	45		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\_00050

Amount Added: 20.00

Units: uL

MSV\_LL\_GAS826\_00105

Amount Added: 20.00

Units: uL

MSV\_LL\_#2\_826\_00054

Amount Added: 20.00

Units: uL

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X02.D

Injection Date: 04-Aug-2022 10:45:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: CCVIS VSTD10

Worklist Smp#: 3

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

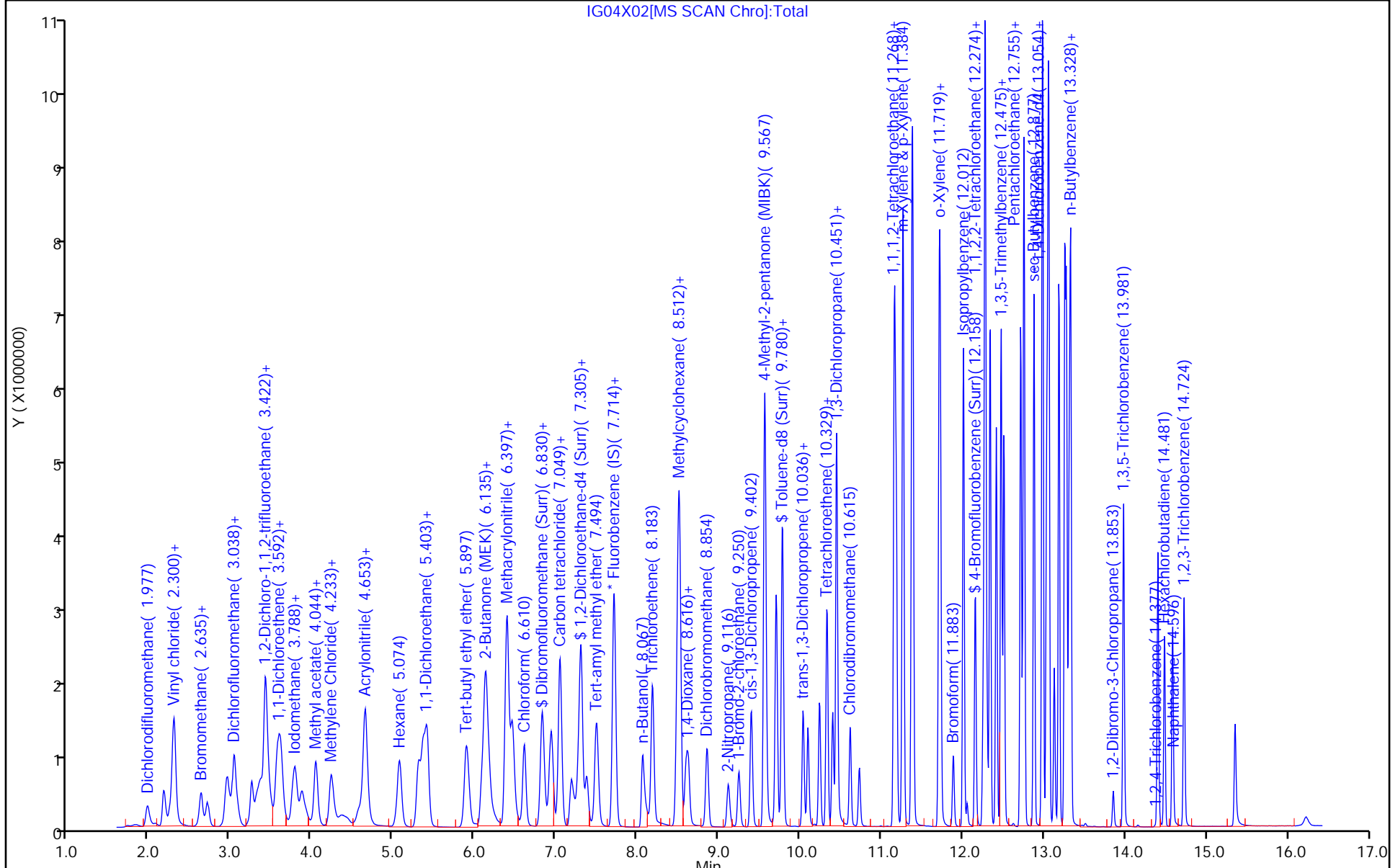
ALS Bottle#: 2

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



Eurofins Lancaster Laboratories Environment Testing, LLC

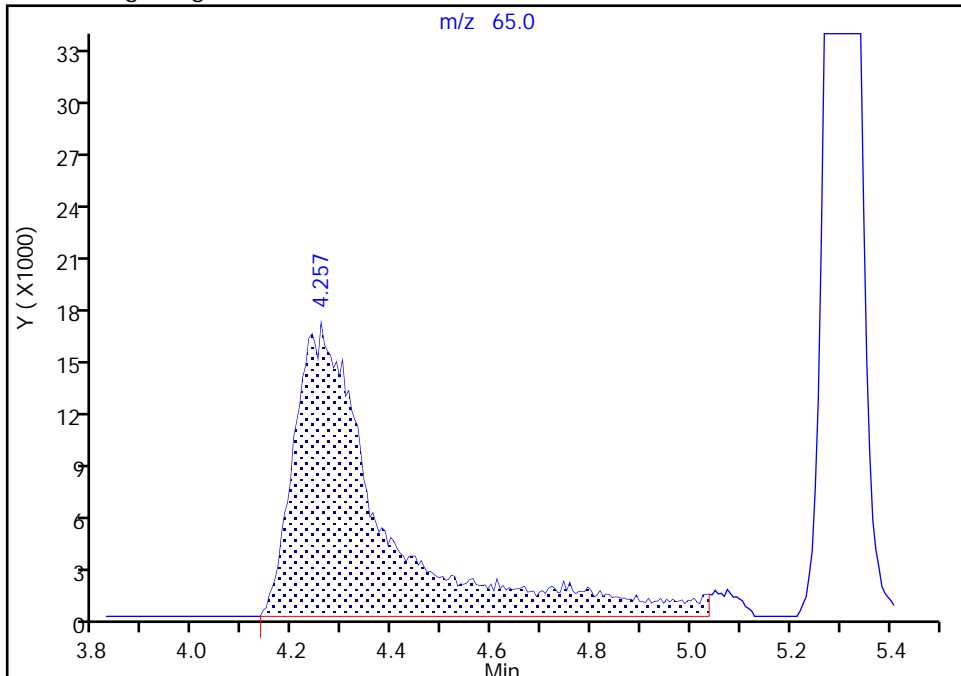
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Injection Date: 04-Aug-2022 10:45:30 Instrument ID: 19930  
Lims ID: CCVIS VSTD10  
Client ID:  
Operator ID: knk41612 ALS Bottle#: 2 Worklist Smp#: 3  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

\* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

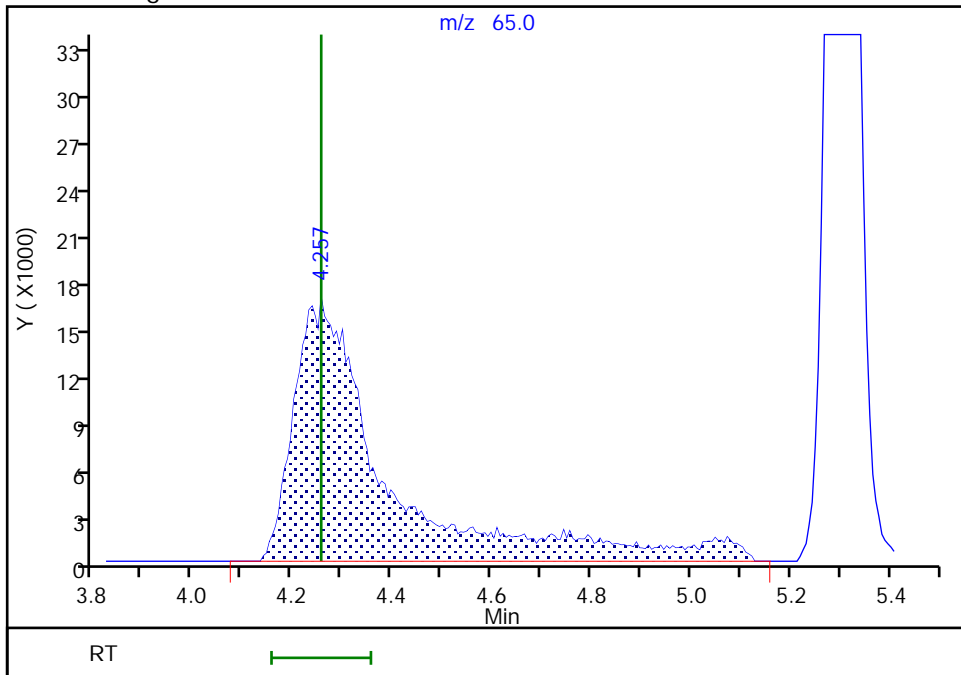
RT: 4.26  
Area: 207015  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.26  
Area: 212371  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Environment Testing, LLC

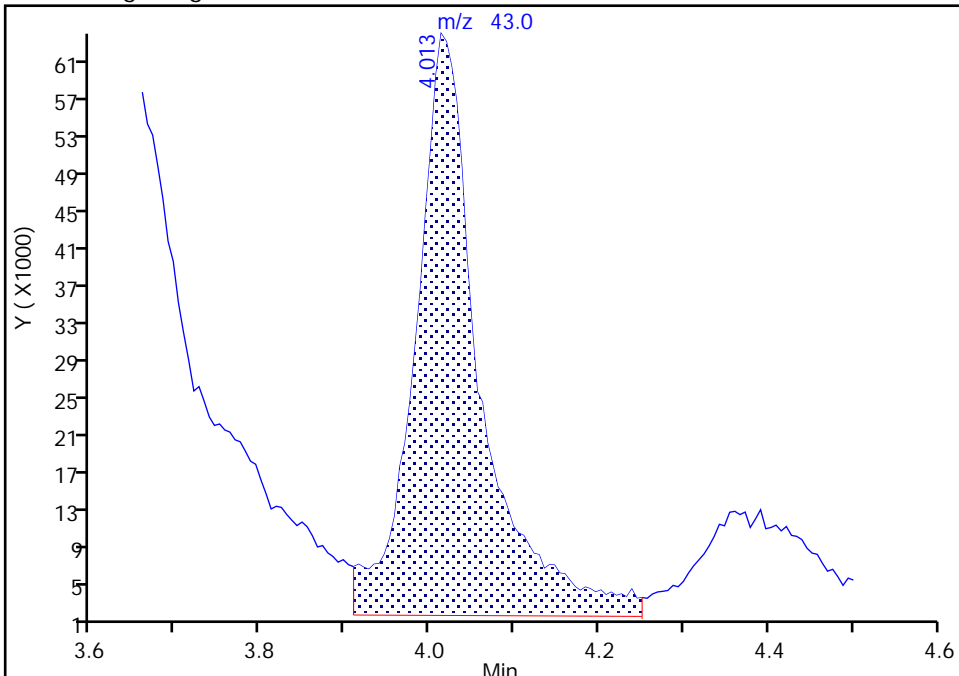
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Injection Date: 04-Aug-2022 10:45:30 Instrument ID: 19930  
Lims ID: CCVIS VSTD10  
Client ID:  
Operator ID: knk41612 ALS Bottle#: 2 Worklist Smp#: 3  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

23 Methyl acetate, CAS: 79-20-9

Signal: 1

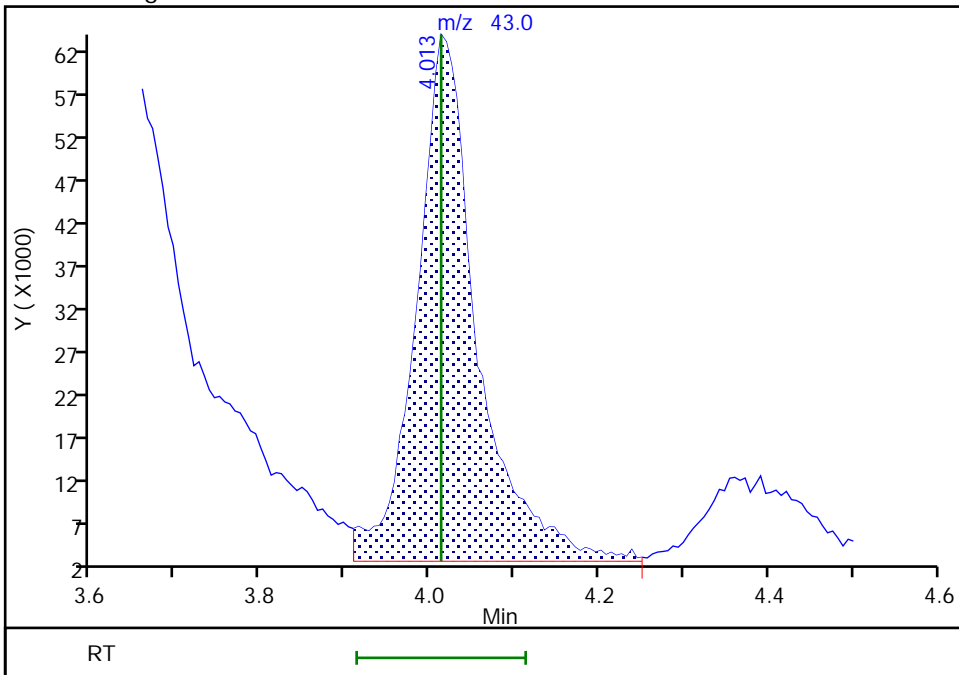
RT: 4.01  
Area: 336359  
Amount: 9.764844  
Amount Units: ug/l

Processing Integration Results



RT: 4.01  
Area: 305334  
Amount: 8.864157  
Amount Units: ug/l

Manual Integration Results



Reviewer: DVW2, 04-Aug-2022 11:09:26  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Environment Testing, LLC

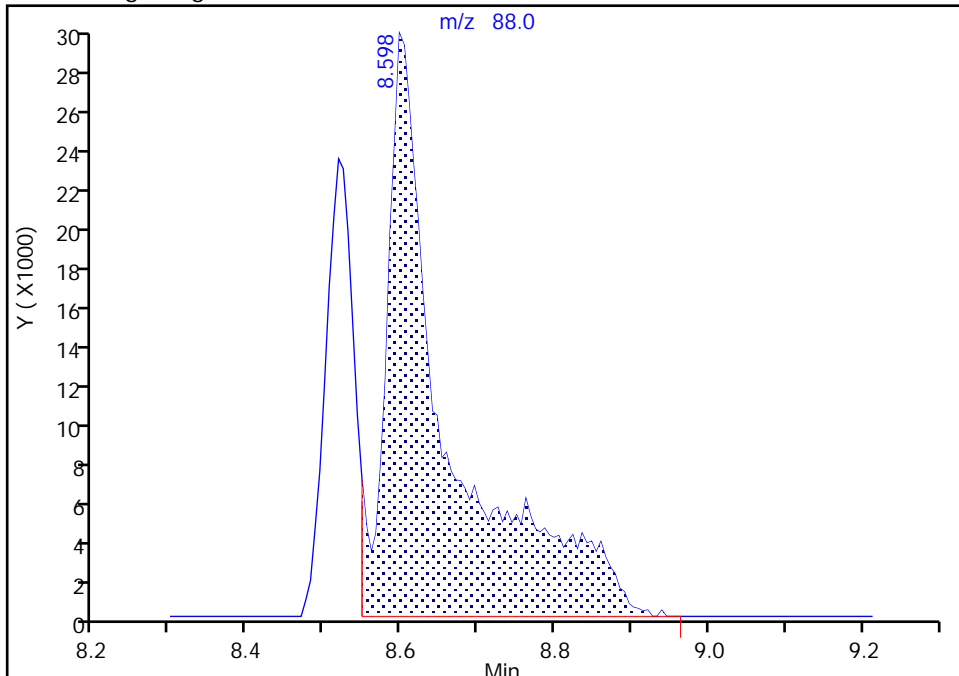
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Injection Date:	04-Aug-2022 10:45:30	Instrument ID:	19930
Lims ID:	CCVIS VSTD10		
Client ID:			
Operator ID:	knk41612	ALS Bottle#:	2
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	3

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

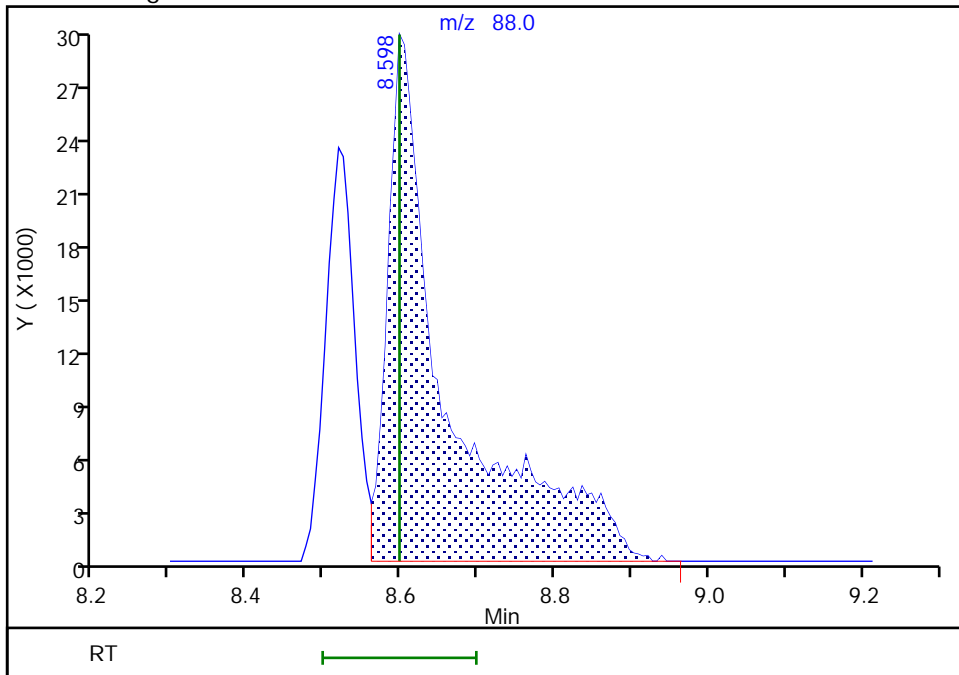
RT: 8.60  
 Area: 162821  
 Amount: 558.3889  
 Amount Units: ug/l

Processing Integration Results



RT: 8.60  
 Area: 158688  
 Amount: 544.2149  
 Amount Units: ug/l

Manual Integration Results



Reviewer: DVW2, 04-Aug-2022 11:09:50  
 Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-283558/3 Calibration Date: 08/07/2022 12:51

Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43

Lab File ID: IG07X002.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	0.3080	0.2541	0.1000	8.25	10.0	-17.5	20.0
Chloromethane	Ave	0.3498	0.3296	0.1000	9.42	10.0	-5.8	20.0
Vinyl chloride	Ave	0.3444	0.3305	0.1000	9.60	10.0	-4.0	20.0
1,3-Butadiene	Ave	0.3898	0.3796		9.74	10.0	-2.6	20.0
Bromomethane	Ave	0.2402	0.2249	0.1000	9.37	10.0	-6.3	20.0
Chloroethane	Ave	0.2025	0.1871	0.1000	9.24	10.0	-7.6	20.0
Dichlorofluoromethane	Ave	0.4693	0.3748		7.99	10.0	-20.1*	20.0
Trichlorofluoromethane	Ave	0.4546	0.3593	0.1000	7.90	10.0	-21.0*	20.0
Ethyl ether	Ave	0.2194	0.2167		9.88	10.0	-1.2	20.0
Freon 123a	Ave	0.3445	0.3324		9.65	10.0	-3.5	20.0
Acrolein	Ave	2.337	1.865		399	500	-20.2*	20.0
1,1-Dichloroethene	Ave	0.2535	0.2429	0.1000	9.58	10.0	-4.2	20.0
Acetone	Ave	2.759	2.461	0.1000	89.2	100	-10.8	20.0
Freon 113	Ave	0.2563	0.2191	0.1000	8.55	10.0	-14.5	20.0
Methyl iodide	Ave	0.4459	0.4388		9.84	10.0	-1.6	20.0
Ethyl bromide	Ave	0.2291	0.2260		9.86	10.0	-1.4	20.0
Carbon disulfide	Ave	0.6342	0.6102	0.1000	9.62	10.0	-3.8	20.0
Methyl acetate	Ave	8.110	7.556	0.1000	9.32	10.0	-6.8	20.0
Allyl chloride	Ave	0.3709	0.3650		9.84	10.0	-1.6	20.0
Methylene Chloride	Ave	0.2778	0.2684	0.1000	9.66	10.0	-3.4	20.0
t-Butyl alcohol	Ave	0.8596	0.9593		223	200	11.6	20.0
Acrylonitrile	Ave	3.866	3.612		23.4	25.0	-6.6	20.0
Methyl tert-butyl ether	Ave	0.6366	0.6339	0.1000	9.96	10.0	-0.4	20.0
trans-1,2-Dichloroethene	Ave	0.2812	0.2738	0.1000	9.74	10.0	-2.6	20.0
n-Hexane	Ave	0.3931	0.3457		8.79	10.0	-12.1	20.0
1,1-Dichloroethane	Ave	0.5155	0.5044	0.2000	9.79	10.0	-2.1	20.0
di-Isopropyl ether	Ave	0.7929	0.7952		10.0	10.0	0.3	20.0
2-Chloro-1,3-butadiene	Ave	0.3771	0.3798		10.1	10.0	0.7	20.0
Ethyl t-butyl ether	Ave	0.7349	0.7469		10.2	10.0	1.6	20.0
2-Butanone (MEK)	Ave	5.123	4.631	0.1000	90.4	100	-9.6	20.0
cis-1,2-Dichloroethene	Ave	0.3147	0.3081	0.1000	9.79	10.0	-2.1	20.0
2,2-Dichloropropane	Ave	0.4180	0.4007		9.59	10.0	-4.1	20.0
Propionitrile	Ave	1.485	1.365		184	200	-8.1	20.0
Methacrylonitrile	Ave	5.344	4.675		87.5	100	-12.5	20.0
Bromochloromethane	Ave	0.1427	0.1384		9.70	10.0	-3.0	20.0
Tetrahydrofuran	Ave	1.480	1.369		46.3	50.0	-7.5	20.0
Chloroform	Ave	0.5170	0.4939	0.2000	9.55	10.0	-4.5	20.0
1,1,1-Trichloroethane	Ave	0.4627	0.4362	0.1000	9.43	10.0	-5.7	20.0
Cyclohexane	Ave	0.4635	0.4264	0.1000	9.20	10.0	-8.0	20.0
1,1-Dichloropropene	Ave	0.4023	0.3939		9.79	10.0	-2.1	20.0
Carbon tetrachloride	Ave	0.4134	0.3897	0.1000	9.43	10.0	-5.7	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-283558/3 Calibration Date: 08/07/2022 12:51

Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43

Lab File ID: IG07X002.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	0.3370	0.3460		513	500	2.7	20.0
Benzene	Ave	1.211	1.185	0.5000	9.78	10.0	-2.2	20.0
1,2-Dichloroethane	Ave	0.3229	0.2952	0.1000	9.14	10.0	-8.6	20.0
t-Amyl methyl ether	Ave	0.6975	0.7082		10.2	10.0	1.5	20.0
n-Heptane	Ave	0.4331	0.3501		8.08	10.0	-19.2	20.0
n-Butanol	Ave	0.3095	0.3275		926	875	5.8	20.0
Trichloroethene	Ave	0.3223	0.3144	0.2000	9.75	10.0	-2.5	20.0
Methylcyclohexane	Ave	0.5314	0.4788	0.1000	9.01	10.0	-9.9	20.0
1,2-Dichloropropane	Ave	0.3127	0.3083	0.1000	9.86	10.0	-1.4	20.0
Methyl methacrylate	Ave	9.618	9.173		9.54	10.0	-4.6	20.0
1,4-Dioxane	Ave	0.0687	0.0809	0.0050	589	500	17.8	20.0
Dibromomethane	Ave	0.1498	0.1448		9.67	10.0	-3.3	20.0
Bromodichloromethane	Ave	0.3709	0.3633	0.2000	9.80	10.0	-2.0	20.0
2-Nitropropane	Ave	2.839	2.328		41.0	50.0	-18.0	20.0
1-Bromo-2-chloroethane	Ave	0.3192	0.3230		10.1	10.0	1.2	20.0
cis-1,3-Dichloropropene	Ave	0.4443	0.4575	0.2000	10.3	10.0	3.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.38	11.50	0.1000	92.9	100	-7.1	20.0
Toluene	Ave	1.026	1.004	0.4000	9.79	10.0	-2.1	20.0
trans-1,3-Dichloropropene	Ave	0.4679	0.4840	0.1000	10.3	10.0	3.4	20.0
Ethyl methacrylate	Ave	0.3537	0.3861		10.9	10.0	9.2	20.0
1,1,2-Trichloroethane	Ave	0.2891	0.2860	0.1000	9.89	10.0	-1.1	20.0
Tetrachloroethene	Ave	0.4896	0.4844	0.2000	9.89	10.0	-1.1	20.0
1,3-Dichloropropane	Ave	0.4836	0.4802		9.93	10.0	-0.7	20.0
2-Hexanone	Ave	8.960	8.195	0.1000	91.5	100	-8.5	20.0
Dibromochloromethane	Ave	0.3553	0.3612		10.2	10.0	1.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.2676	0.2710	0.1000	10.1	10.0	1.3	20.0
1-Chlorohexane	Ave	0.5742	0.5667		9.87	10.0	-1.3	20.0
Chlorobenzene	Ave	1.150	1.143	0.5000	9.93	10.0	-0.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3931	0.3916		9.96	10.0	-0.4	20.0
Ethylbenzene	Ave	1.910	1.949	0.1000	10.2	10.0	2.0	20.0
m&p-Xylene	Ave	0.7426	0.7765	0.1000	20.9	20.0	4.6	20.0
o-Xylene	Ave	0.7081	0.7477	0.3000	10.6	10.0	5.6	20.0
Styrene	Ave	1.120	1.237	0.3000	11.0	10.0	10.4	20.0
Bromoform	Ave	0.2123	0.2187	0.1000	10.3	10.0	3.0	20.0
Isopropylbenzene	Ave	1.839	1.940	0.1000	10.5	10.0	5.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6437	0.6473	0.3000	10.1	10.0	0.6	20.0
Bromobenzene	Ave	0.8296	0.8522		10.3	10.0	2.7	20.0
trans-1,4-Dichloro-2-butene	Ave	4.382	3.231		73.7	100	-26.3*	20.0
1,2,3-Trichloropropane	Ave	0.1700	0.1763		10.4	10.0	3.7	20.0
N-Propylbenzene	Ave	3.976	4.150		10.4	10.0	4.4	20.0
2-Chlorotoluene	Ave	0.8199	0.8513		10.4	10.0	3.8	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-283558/3 Calibration Date: 08/07/2022 12:51

Instrument ID: 19930 Calib Start Date: 07/11/2022 15:36

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 07/11/2022 17:43

Lab File ID: IG07X002.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	2.781	2.949		10.6	10.0	6.0	20.0
4-Chlorotoluene	Ave	0.8366	0.8730		10.4	10.0	4.3	20.0
tert-Butylbenzene	Ave	0.6226	0.6673		10.7	10.0	7.2	20.0
Pentachloroethane	Ave	0.5041	0.5373		10.7	10.0	6.6	20.0
1,2,4-Trimethylbenzene	Ave	2.764	3.028		11.0	10.0	9.6	20.0
sec-Butylbenzene	Ave	3.595	3.746		10.4	10.0	4.2	20.0
1,3-Dichlorobenzene	Ave	1.603	1.675	0.6000	10.4	10.0	4.5	20.0
p-Isopropyltoluene	Ave	3.028	3.264		10.8	10.0	7.8	20.0
1,4-Dichlorobenzene	Ave	1.656	1.685	0.5000	10.2	10.0	1.7	20.0
1,2,3-Trimethylbenzene	Ave	1.274	1.303		10.2	10.0	2.3	20.0
Benzyl chloride	Ave	0.2416	0.2590		10.7	10.0	7.2	20.0
n-Butylbenzene	Ave	1.444	1.530		10.6	10.0	5.9	20.0
1,2-Dichlorobenzene	Ave	1.490	1.525	0.4000	10.2	10.0	2.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0918	0.0921	0.0500	10.0	10.0	0.3	20.0
1,3,5-Trichlorobenzene	Ave	1.093	1.112		10.2	10.0	1.7	20.0
1,2,4-Trichlorobenzene	Ave	0.8809	0.9225	0.2000	10.5	10.0	4.7	20.0
Hexachlorobutadiene	Ave	0.4162	0.3768		9.05	10.0	-9.5	20.0
Naphthalene	Ave	1.626	1.764		10.9	10.0	8.5	20.0
1,2,3-Trichlorobenzene	Ave	0.7814	0.7708		9.87	10.0	-1.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2511	0.2420		9.64	10.0	-3.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0516	0.0513		9.95	10.0	-0.5	20.0
Toluene-d8 (Surr)	Ave	1.298	1.292		9.95	10.0	-0.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4758	0.4672		9.82	10.0	-1.8	20.0



Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X002.D  
 Lims ID: CCVIS VSTD10  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 07-Aug-2022 12:51:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063569-003  
 Misc. Info.: CCVIS VSTD10  
 Operator ID: knk41612 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 07-Aug-2022 14:42:30 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1634

First Level Reviewer: DVW2

Date: 07-Aug-2022 14:00:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.959	0.000	99	589447	10.0	8.25	
4 Chloromethane	50	2.160	2.160	0.000	99	764506	10.0	9.42	
5 Vinyl chloride	62	2.270	2.270	0.000	98	766739	10.0	9.60	
6 Butadiene	39	2.288	2.288	0.000	92	880449	10.0	9.74	
7 Bromomethane	94	2.617	2.617	0.000	91	521711	10.0	9.37	
8 Chloroethane	64	2.696	2.696	0.000	99	433905	10.0	9.24	
9 Dichlorofluoromethane	67	2.940	2.940	0.000	97	869515	10.0	7.99	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	98	833524	10.0	7.90	
11 Ethyl ether	59	3.245	3.245	0.000	90	502851	10.0	9.88	
13 1,2-Dichloro-1,1,2-trifluoroetha	67	3.343	3.343	0.000	92	771048	10.0	9.65	
14 Acrolein	56	3.416	3.416	0.000	100	3485615	500.0	398.9	
15 1,1-Dichloroethene	96	3.562	3.562	0.000	97	563381	10.0	9.58	
16 Acetone	43	3.580	3.580	0.000	100	920056	100.0	89.2	
17 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.605	3.605	0.000	91	508188	10.0	8.55	
18 Iodomethane	142	3.757	3.757	0.000	98	1017802	10.0	9.84	
19 Ethyl bromide	108	3.782	3.782	0.000	98	524093	10.0	9.86	
20 Carbon disulfide	76	3.867	3.867	0.000	99	1415463	10.0	9.62	
23 Methyl acetate	43	4.007	4.007	0.000	97	282516	10.0	9.32	
24 3-Chloro-1-propene	41	4.038	4.038	0.000	93	846716	10.0	9.84	
25 Methylene Chloride	84	4.221	4.221	0.000	90	622705	10.0	9.66	
* 26 t-Butyl alcohol-d10 (IS)	65	4.227	4.227	0.000	99	186948	50.0	50.0	M
27 2-Methyl-2-propanol	59	4.355	4.355	0.000	100	717352	200.0	223.2	
28 Acrylonitrile	53	4.556	4.556	0.000	100	337643	25.0	23.4	
29 Methyl tert-butyl ether	73	4.641	4.641	0.000	92	1470518	10.0	9.96	
30 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	100	635058	10.0	9.74	
31 Hexane	57	5.068	5.068	0.000	90	801856	10.0	8.79	
32 1,1-Dichloroethane	63	5.293	5.293	0.000	96	1170105	10.0	9.79	
35 Isopropyl ether	45	5.361	5.361	0.000	94	1844508	10.0	10.0	
36 2-Chloro-1,3-butadiene	53	5.403	5.403	0.000	89	881049	10.0	10.1	
37 Tert-butyl ethyl ether	59	5.891	5.891	0.000	97	1732531	10.0	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 2-Butanone (MEK)	43	6.092	6.092	0.000	99	1731336	100.0	90.4	
39 cis-1,2-Dichloroethene	96	6.123	6.123	0.000	81	714658	10.0	9.79	
40 2,2-Dichloropropane	77	6.141	6.141	0.000	86	929497	10.0	9.59	
43 Propionitrile	54	6.177	6.177	0.000	99	1020911	200.0	183.8	
45 Methacrylonitrile	67	6.391	6.391	0.000	90	1747998	100.0	87.5	
46 Chlorobromomethane	128	6.452	6.452	0.000	92	321026	10.0	9.70	
47 Tetrahydrofuran	71	6.464	6.464	0.000	78	256002	50.0	46.3	
48 Chloroform	83	6.604	6.604	0.000	93	1145656	10.0	9.55	
\$ 49 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	561395	10.0	9.64	
50 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	1011849	10.0	9.43	
51 Cyclohexane	56	6.933	6.933	0.000	88	989189	10.0	9.20	
53 1,1-Dichloropropene	75	7.043	7.043	0.000	98	913766	10.0	9.79	
54 Carbon tetrachloride	117	7.043	7.043	0.000	94	904076	10.0	9.43	
55 Isobutyl alcohol	41	7.183	7.183	0.000	96	646920	500.0	513.4	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.269	0.000	93	119000	10.0	9.95	
57 Benzene	78	7.299	7.299	0.000	96	2747716	10.0	9.78	
58 1,2-Dichloroethane	62	7.372	7.372	0.000	97	684653	10.0	9.14	
60 Tert-amyl methyl ether	73	7.488	7.488	0.000	99	1642844	10.0	10.2	
* 61 Fluorobenzene (IS)	96	7.702	7.702	0.000	99	2319650	10.0	10.0	
62 n-Heptane	43	7.714	7.714	0.000	90	811995	10.0	8.08	
63 n-Butanol	56	8.061	8.061	0.000	86	1071292	875.0	925.7	
64 Trichloroethene	95	8.183	8.183	0.000	97	729261	10.0	9.75	
65 Methylcyclohexane	83	8.494	8.494	0.000	93	1110601	10.0	9.01	
66 1,2-Dichloropropane	63	8.506	8.506	0.000	97	715234	10.0	9.86	
67 Methyl methacrylate	69	8.592	8.592	0.000	88	342990	10.0	9.54	
68 1,4-Dioxane	88	8.598	8.598	0.000	37	151188	500.0	589.0	
69 Dibromomethane	93	8.622	8.622	0.000	94	335930	10.0	9.67	
71 Dichlorobromomethane	83	8.854	8.854	0.000	100	842813	10.0	9.80	
72 2-Nitropropane	41	9.116	9.116	0.000	98	435154	50.0	41.0	
75 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	98	749142	10.0	10.1	
76 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	99	1061275	10.0	10.3	
77 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	4299647	100.0	92.9	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2322658	10.0	9.95	
79 Toluene	92	9.780	9.780	0.000	98	1805910	10.0	9.79	
97 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	90	870347	10.0	10.3	
99 Ethyl methacrylate	69	10.097	10.097	0.000	88	694343	10.0	10.9	
100 1,1,2-Trichloroethane	97	10.238	10.238	0.000	90	514280	10.0	9.89	
101 Tetrachloroethene	166	10.329	10.329	0.000	97	871080	10.0	9.89	
102 1,3-Dichloropropane	76	10.402	10.402	0.000	87	863630	10.0	9.93	
103 2-Hexanone	43	10.451	10.451	0.000	95	3064064	100.0	91.5	
105 Chlorodibromomethane	129	10.616	10.616	0.000	90	649581	10.0	10.2	
106 Ethylene Dibromide	107	10.731	10.731	0.000	99	487380	10.0	10.1	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1798417	10.0	10.0	
108 1-Chlorohexane	91	11.164	11.164	0.000	95	1019093	10.0	9.87	
109 Chlorobenzene	112	11.183	11.183	0.000	96	2054879	10.0	9.93	
111 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	704256	10.0	9.96	
112 Ethylbenzene	91	11.268	11.268	0.000	98	3504454	10.0	10.2	
113 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	2792993	20.0	20.9	
114 o-Xylene	106	11.713	11.713	0.000	96	1344661	10.0	10.6	
115 Styrene	104	11.725	11.725	0.000	95	2225218	10.0	11.0	
116 Bromoform	173	11.884	11.884	0.000	98	393262	10.0	10.3	
117 Isopropylbenzene	105	12.012	12.012	0.000	95	3488925	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
\$ 120 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	840174	10.0	9.82	
121 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	92	638708	10.0	10.1	
122 Bromobenzene	156	12.274	12.274	0.000	95	840892	10.0	10.3	
123 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	90	1207984	100.0	73.7	
124 1,2,3-Trichloropropane	110	12.298	12.298	0.000	80	173990	10.0	10.4	
125 N-Propylbenzene	91	12.341	12.341	0.000	99	4094908	10.0	10.4	
126 2-Chlorotoluene	126	12.414	12.414	0.000	97	840079	10.0	10.4	
127 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	2910127	10.0	10.6	
128 4-Chlorotoluene	126	12.505	12.505	0.000	97	861421	10.0	10.4	
129 tert-Butylbenzene	134	12.713	12.713	0.000	92	658477	10.0	10.7	
130 Pentachloroethane	167	12.749	12.749	0.000	95	530148	10.0	10.7	
131 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	96	2987946	10.0	11.0	
132 sec-Butylbenzene	105	12.877	12.877	0.000	94	3696772	10.0	10.4	
133 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	1652617	10.0	10.4	
134 4-Isopropyltoluene	119	12.987	12.987	0.000	97	3220994	10.0	10.8	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	986767	10.0	10.0	
136 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	1662329	10.0	10.2	
137 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	1285422	10.0	10.2	
138 Benzyl chloride	126	13.127	13.127	0.000	98	255604	10.0	10.7	
139 n-Butylbenzene	92	13.280	13.280	0.000	97	1509489	10.0	10.6	
140 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	1504424	10.0	10.2	
142 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	89	90922	10.0	10.0	
143 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	1096809	10.0	10.2	
144 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	910254	10.0	10.5	
145 Hexachlorobutadiene	225	14.481	14.481	0.000	96	371765	10.0	9.05	
146 Naphthalene	128	14.584	14.584	0.000	97	1741099	10.0	10.9	
147 1,2,3-Trichlorobenzene	180	14.725	14.725	0.000	96	760638	10.0	9.87	
150 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
155 2-Methylnaphthalene	142		0.000				ND	ND	
156 p-Diethylbenzene	1		0.000				ND	ND	
161 Pentane	43		0.000				ND	ND	
165 Isopropyl alcohol	45		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\_00050

Amount Added: 20.00

Units: uL

MSV\_LL\_GAS826\_00105

Amount Added: 20.00

Units: uL

MSV\_LL\_#2\_826\_00054

Amount Added: 20.00

Units: uL

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X002.D

Injection Date: 07-Aug-2022 12:51:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: CCVIS VSTD10

Worklist Smp#: 3

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

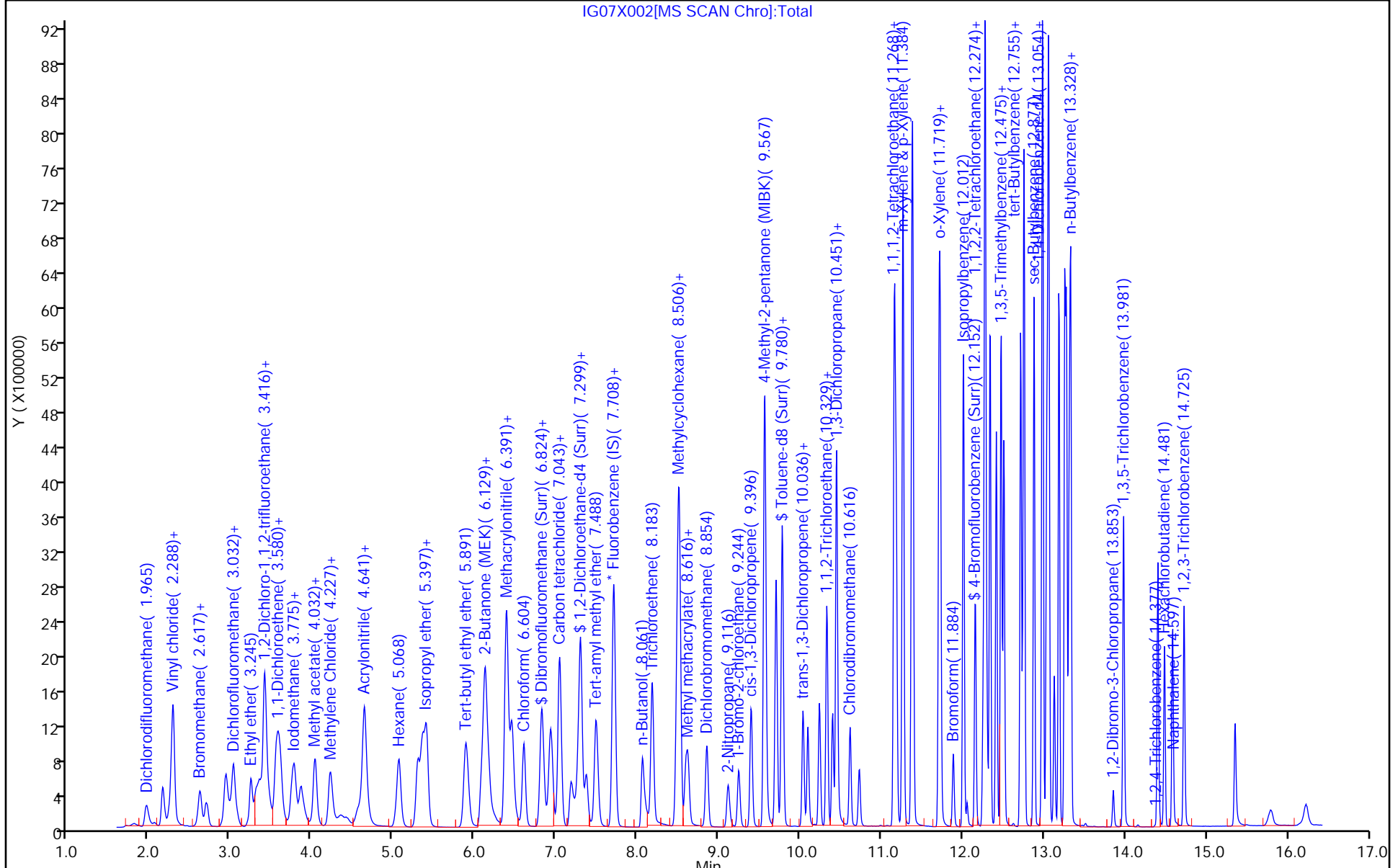
ALS Bottle#: 2

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



IG07X002[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Environment Testing, LLC

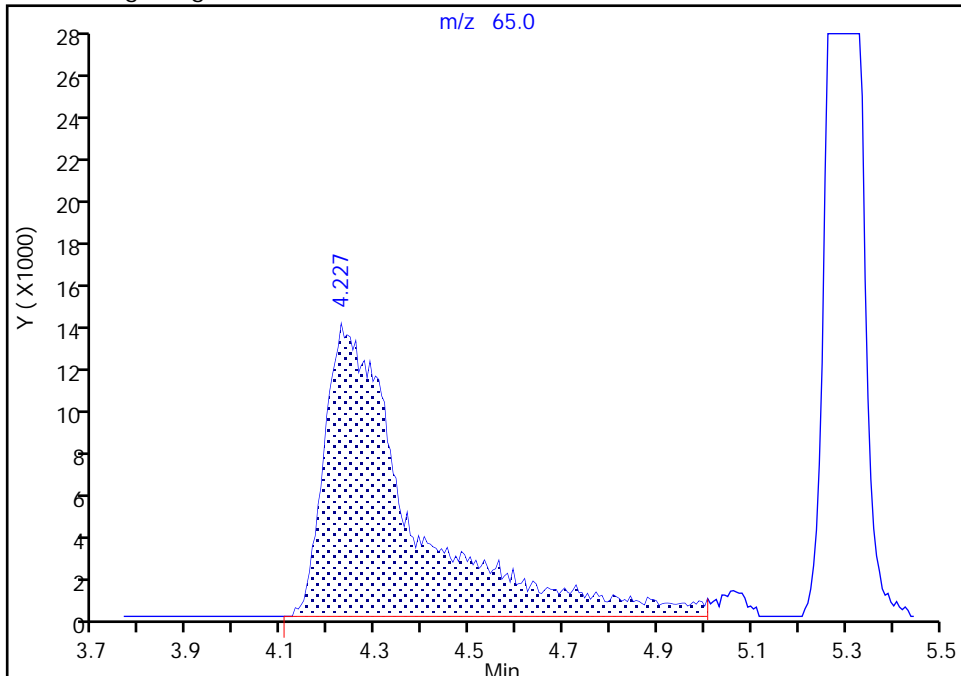
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Injection Date: 07-Aug-2022 12:51:30 Instrument ID: 19930  
Lims ID: CCVIS VSTD10  
Client ID:  
Operator ID: knk41612 ALS Bottle#: 2 Worklist Smp#: 3  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

\* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

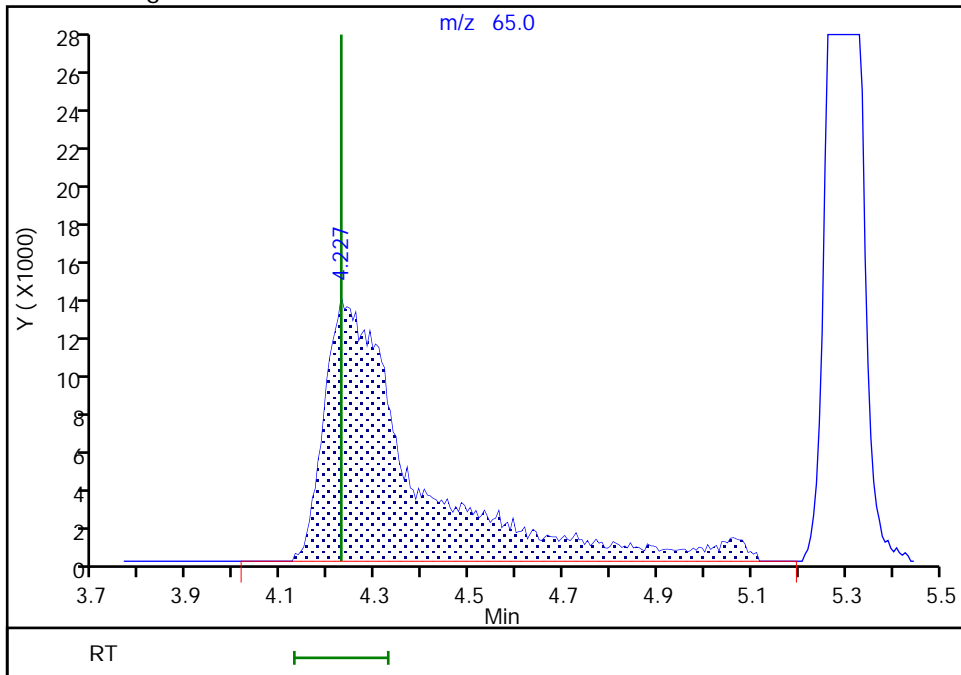
RT: 4.23  
Area: 181836  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.23  
Area: 186948  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11T01.D  
 Lims ID: bfb  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 11-Jul-2022 15:02:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 uL Dil. Factor: 1.0000  
 Sample Info: 410-0061506-001  
 Misc. Info.: BFB  
 Operator ID: kas02648 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 14:44:03 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1630

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 145 BFB	95	5.166	5.166	0.000	93	310899	NR	NR	

**QC Flag Legend**

Processing Flags  
 NR - Missing Quant Standard

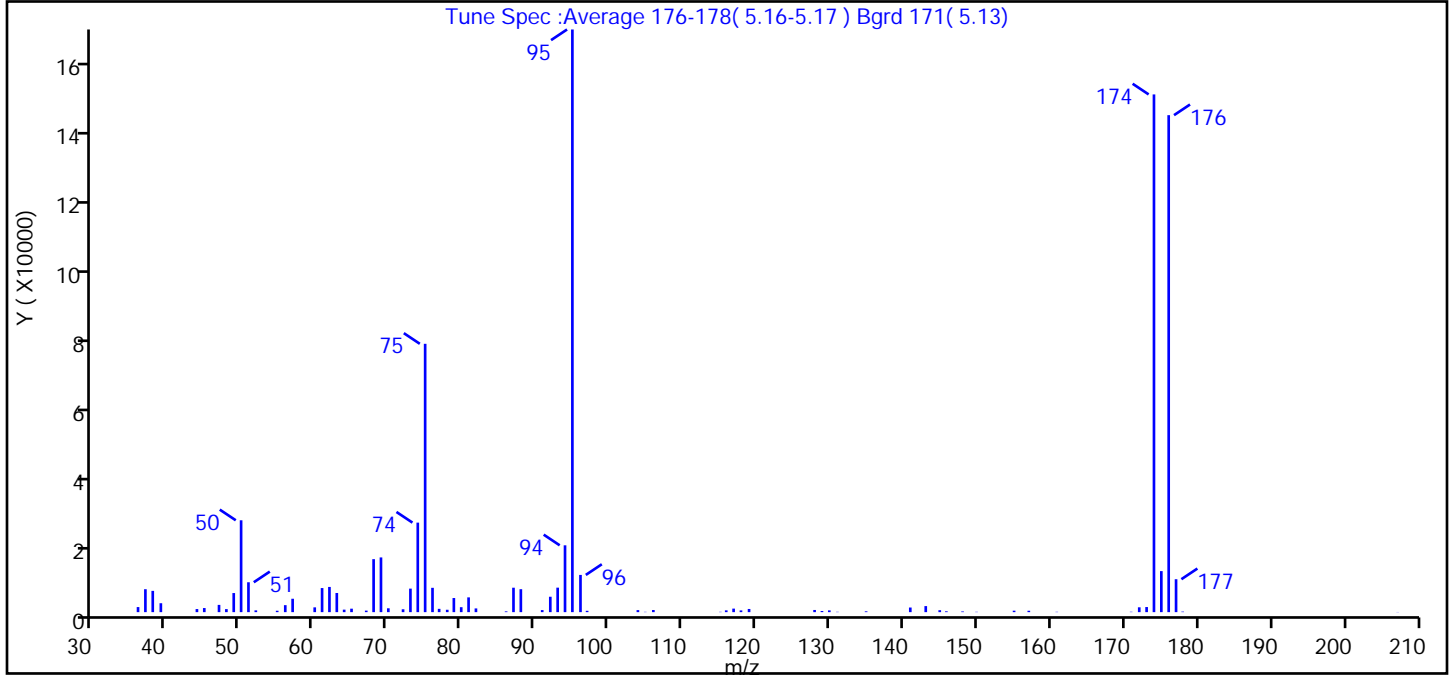
**Reagents:**

MSV\_V\_BFB\_00008 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11T01.D  
 Injection Date: 11-Jul-2022 15:02:30 Instrument ID: 19930  
 Lims ID: bfb  
 Client ID:  
 Operator ID: kas02648 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 8260

\$ 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	15.8
75	30 to 60% of m/z 95	46.1
96	5 to 9% of m/z 95	6.4
173	Less than 2% of m/z 174	0.9 (1.0)
174	50 to 120% of m/z 95	88.9
175	5 to 9% of m/z 174	7.0 (7.9)
176	Greater than 95% but less than 101% of m/z 174	85.3 (96.0)
177	5 to 9% of m/z 176	5.7 (6.6)

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11T01.D\8260 25ml HP31.rsl\spectra.d  
 Injection Date: 11-Jul-2022 15:02:30  
 Spectrum: Tune Spec :Average 176-178( 5.16-5.17 ) Bgrd 171( 5.13)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 77

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1439	65.00	983	92.00	4370	143.00	1717
37.00	6507	67.00	435	93.00	6951	145.00	552
38.00	6036	68.00	15039	94.00	18968	146.00	235
39.00	2532	69.00	15530	95.00	165376	148.00	196
44.00	877	70.00	1092	96.00	10565	150.00	92
45.00	1163	72.00	817	97.00	378	155.00	414
47.00	2060	73.00	6675	104.00	577	157.00	396
48.00	863	74.00	25408	105.00	86	161.00	93
49.00	5419	75.00	76160	106.00	601	171.00	108
50.00	26072	76.00	6905	115.00	89	172.00	1375
51.00	8482	77.00	935	116.00	509	173.00	1448
52.00	504	78.00	675	117.00	1002	174.00	146944
55.00	397	79.00	4008	118.00	492	175.00	11647
56.00	1982	80.00	1405	119.00	899	176.00	141056
57.00	3803	81.00	4192	128.00	616	177.00	9346
60.00	1357	82.00	1058	129.00	324	178.00	148
61.00	6833	86.00	217	130.00	502	207.00	46
62.00	7154	87.00	6935	131.00	94		
63.00	5435	88.00	6513	135.00	229		
64.00	712	91.00	583	141.00	1313		



Report Date: 14-Jul-2022 14:44:03

Chrom Revision: 2.3 08-Jul-2022 13:26:50

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11T01.D

Injection Date: 11-Jul-2022 15:02:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

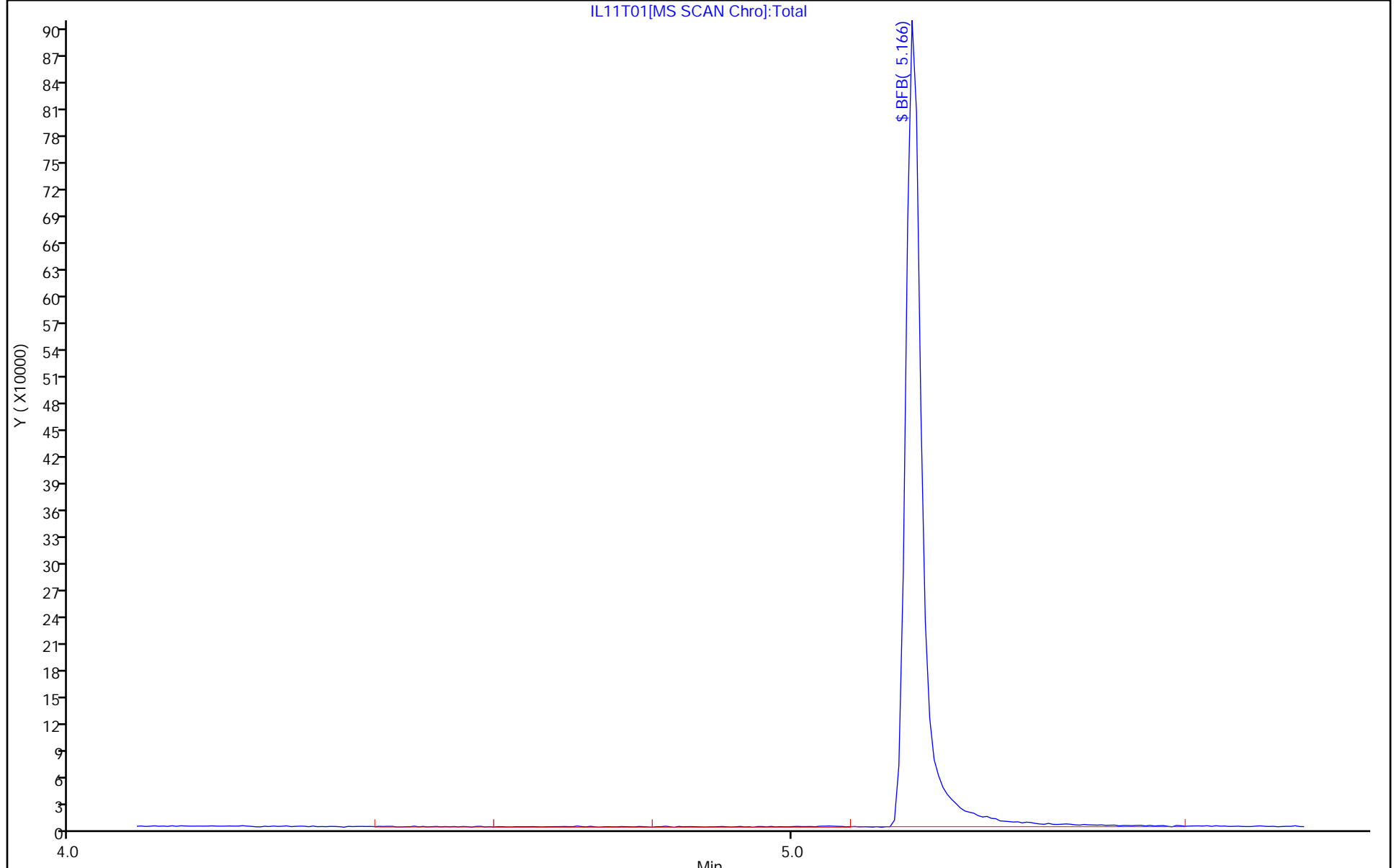
ALS Bottle#: 1

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 Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220712-61619.b\IL12T01.D  
 Lims ID: bfb  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 12-Jul-2022 14:39:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 uL Dil. Factor: 1.0000  
 Sample Info: 410-0061619-001  
 Misc. Info.: BFB  
 Operator ID: kas02648 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220712-61619.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 14-Jul-2022 16:32:28 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1670

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 145 BFB	95	5.172	5.172	0.000	0	69439	NR	NR	

**QC Flag Legend**

Processing Flags  
 NR - Missing Quant Standard

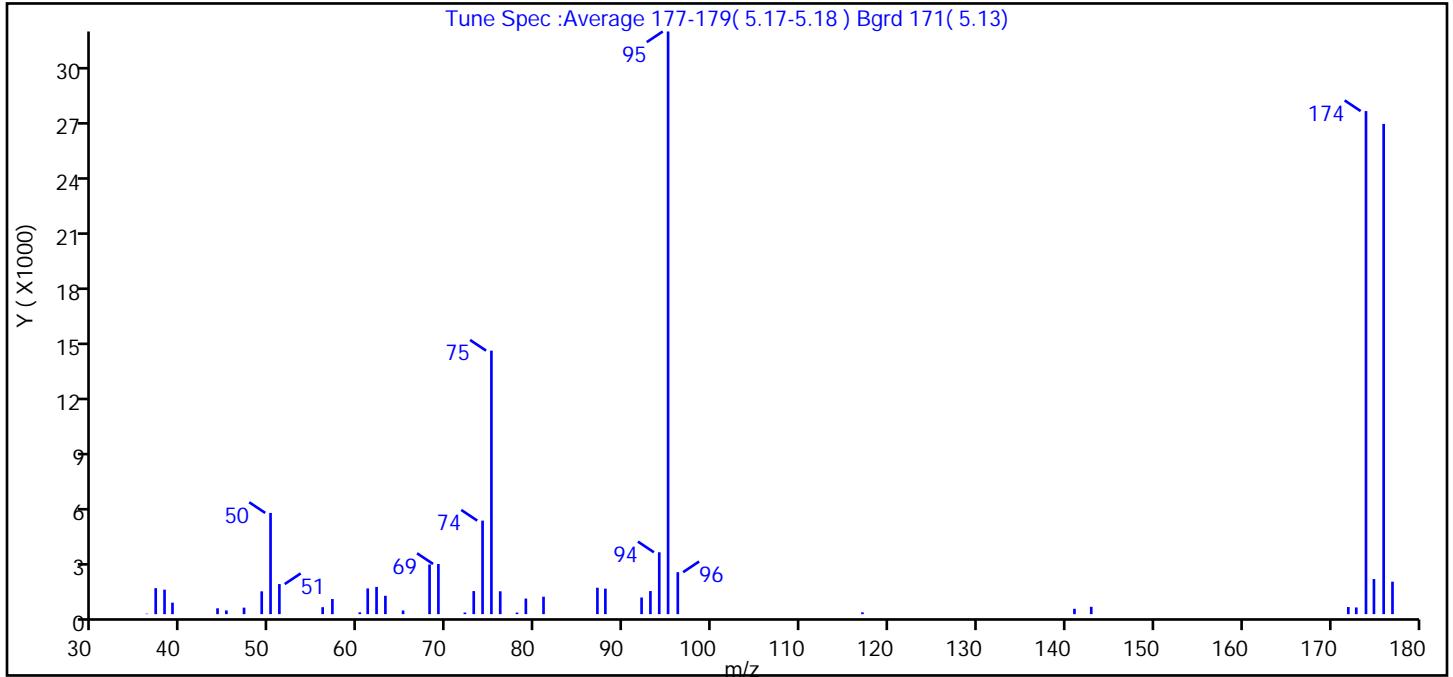
**Reagents:**

MSV\_V\_BFB\_00008 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220712-61619.b\IL12T01.D  
 Injection Date: 12-Jul-2022 14:39:30 Instrument ID: 19930  
 Lims ID: bfb  
 Client ID:  
 Operator ID: kas02648 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 8260

\$ 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	17.4
75	30 to 60% of m/z 95	45.2
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	1.1 (1.3)
174	50 to 120% of m/z 95	86.3
175	5 to 9% of m/z 174	6.0 (7.0)
176	Greater than 95% but less than 101% of m/z 174	84.1 (97.4)
177	5 to 9% of m/z 176	5.6 (6.6)

Data File: \\chromfs\Lancaster\ChromData\19930\20220712-61619.b\IL12T01.D\8260 25ml HP31.rsl\spectra.d  
 Injection Date: 12-Jul-2022 14:39:30  
 Spectrum: Tune Spec :Average 177-179( 5.17-5.18 ) Bgrd 171( 5.13)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 43

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	26	57.00	829	75.00	14435	96.00	2300
37.00	1423	60.00	98	76.00	1252	117.00	97
38.00	1341	61.00	1408	78.00	87	141.00	294
39.00	628	62.00	1492	79.00	854	143.00	402
44.00	320	63.00	1005	81.00	956	172.00	390
45.00	204	65.00	203	87.00	1446	173.00	367
47.00	356	68.00	2721	88.00	1397	174.00	27560
49.00	1250	69.00	2749	92.00	911	175.00	1923
50.00	5545	72.00	89	93.00	1265	176.00	26856
51.00	1648	73.00	1263	94.00	3389	177.00	1779
56.00	381	74.00	5124	95.00	31920		

Data File: \\chromfs\Lancaster\ChromData\19930\20220712-61619.b\IL12T01.D

Injection Date: 12-Jul-2022 14:39:30

Instrument ID: 19930

Operator ID: kas02648

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

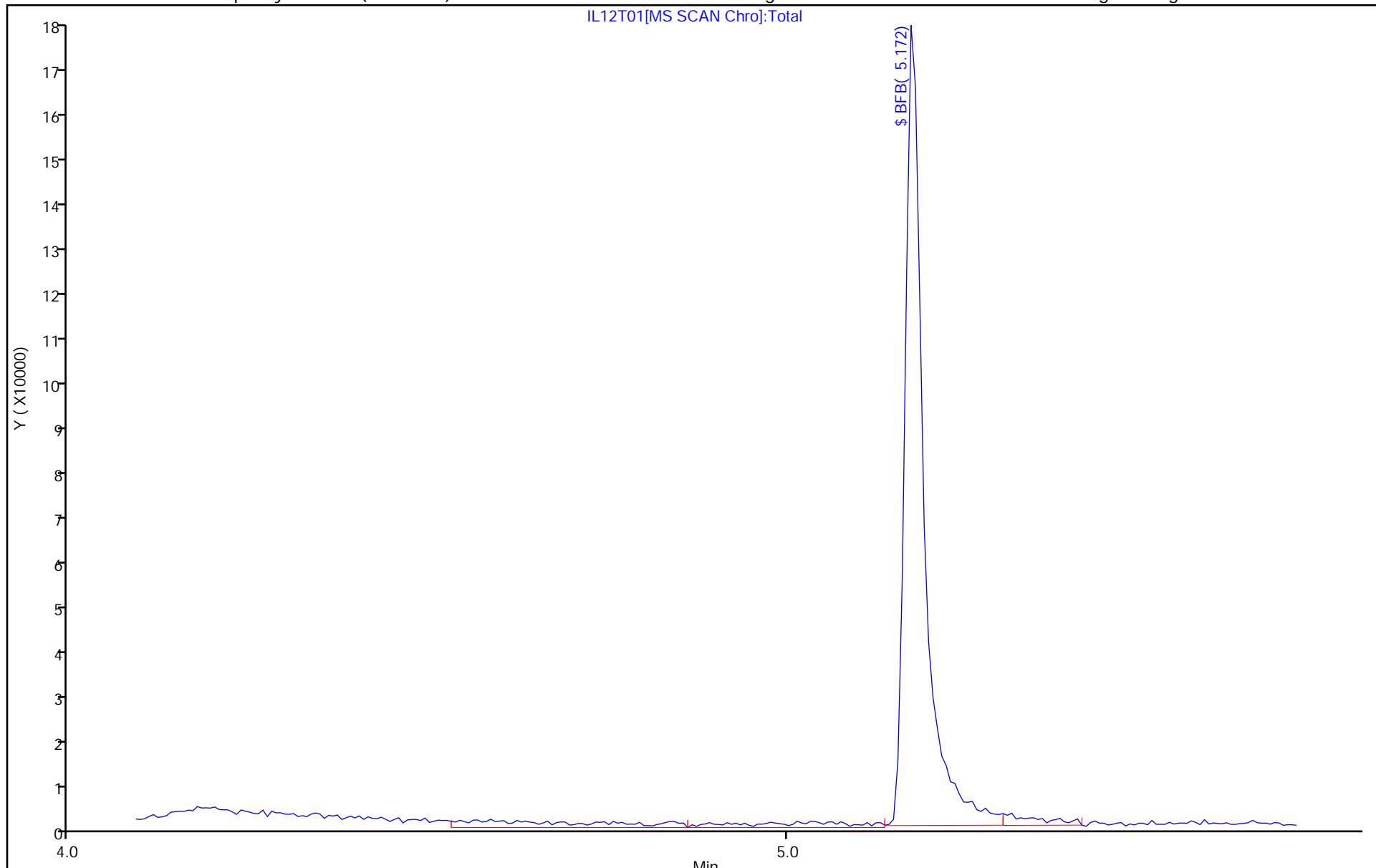
ALS Bottle#: 1

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 Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04T01.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 04-Aug-2022 10:11:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 uL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-001  
 Misc. Info.: BFB  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 04-Aug-2022 12:23:15 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1642

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 167 BFB	95	5.172	5.172	0.000	95	191448	NR	NR	

**QC Flag Legend**

Processing Flags  
 NR - Missing Quant Standard

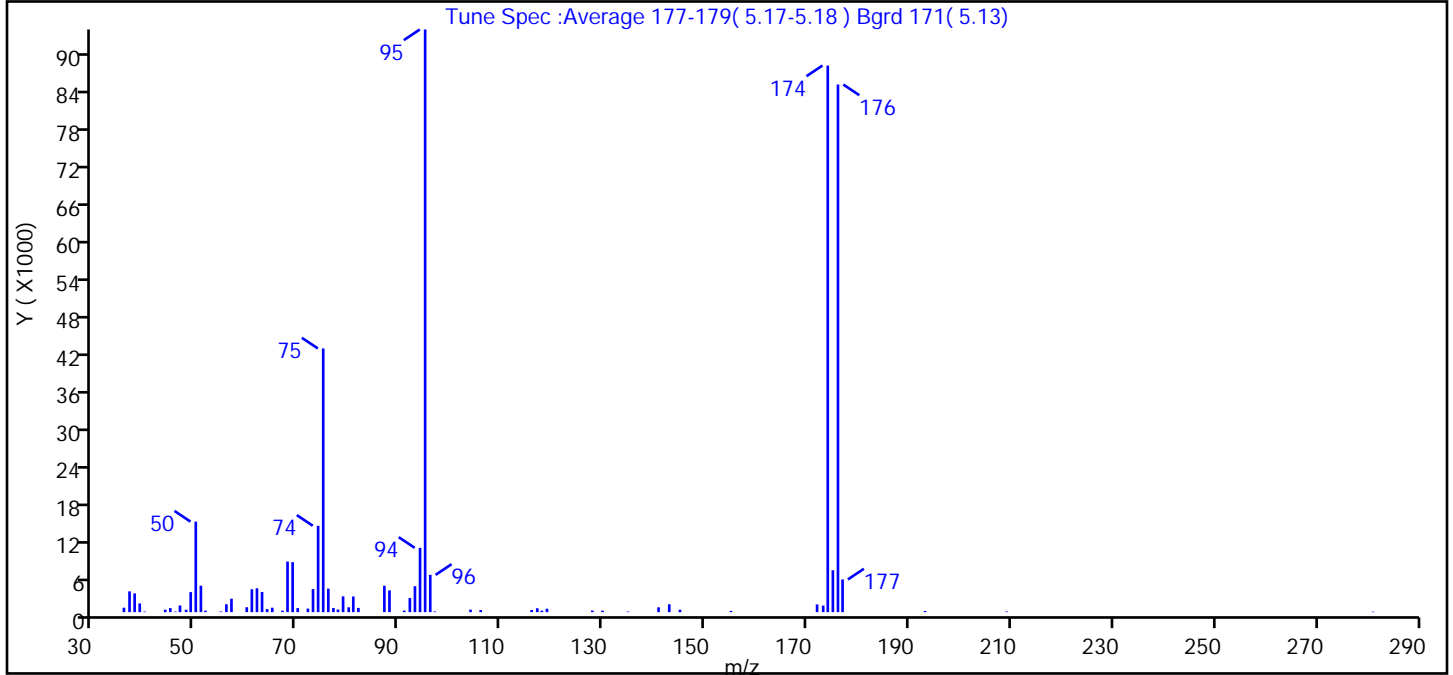
**Reagents:**

MSV\_V\_BFB\_00008 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04T01.D  
 Injection Date: 04-Aug-2022 10:11:30 Instrument ID: 19930  
 Lims ID: BFB  
 Client ID:  
 Operator ID: knk41612 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 8260

\$ 167 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.5
75	30 to 60% of m/z 95	45.3
96	5 to 9% of m/z 95	6.4
173	Less than 2% of m/z 174	1.1 (1.2)
174	50 to 120% of m/z 95	93.8
175	5 to 9% of m/z 174	7.2 (7.7)
176	Greater than 95% but less than 101% of m/z 174	90.6 (96.5)
177	5 to 9% of m/z 176	5.6 (6.2)

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04T01.D\8260 25ml HP31.rsl\spectra.d  
Injection Date: 04-Aug-2022 10:11:30  
Spectrum: Tune Spec :Average 177-179( 5.17-5.18 ) Bgrd 171( 5.13)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	716	61.00	3681	81.00	2517	130.00	240
37.00	3348	62.00	3842	82.00	683	135.00	94
38.00	3016	63.00	3238	87.00	4251	141.00	775
39.00	1403	64.00	493	88.00	3497	143.00	1262
40.00	92	65.00	716	91.00	246	145.00	395
44.00	394	67.00	241	92.00	2284	155.00	206
45.00	647	68.00	8144	93.00	4180	172.00	1247
46.00	88	69.00	8052	94.00	10352	173.00	1056
47.00	1075	70.00	657	95.00	93816	174.00	88008
48.00	388	72.00	573	96.00	6005	175.00	6748
49.00	3229	73.00	3709	97.00	108	176.00	84952
50.00	14579	74.00	13908	104.00	408	177.00	5264
51.00	4260	75.00	42456	106.00	340	193.00	185
52.00	241	76.00	3781	116.00	347	209.00	99
55.00	106	77.00	659	117.00	627	281.00	86
56.00	1266	78.00	426	118.00	246		
57.00	2168	79.00	2543	119.00	553		
60.00	793	80.00	780	128.00	255		



Report Date: 04-Aug-2022 12:23:15

Chrom Revision: 2.3 29-Jul-2022 15:21:48

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04T01.D

Injection Date: 04-Aug-2022 10:11:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

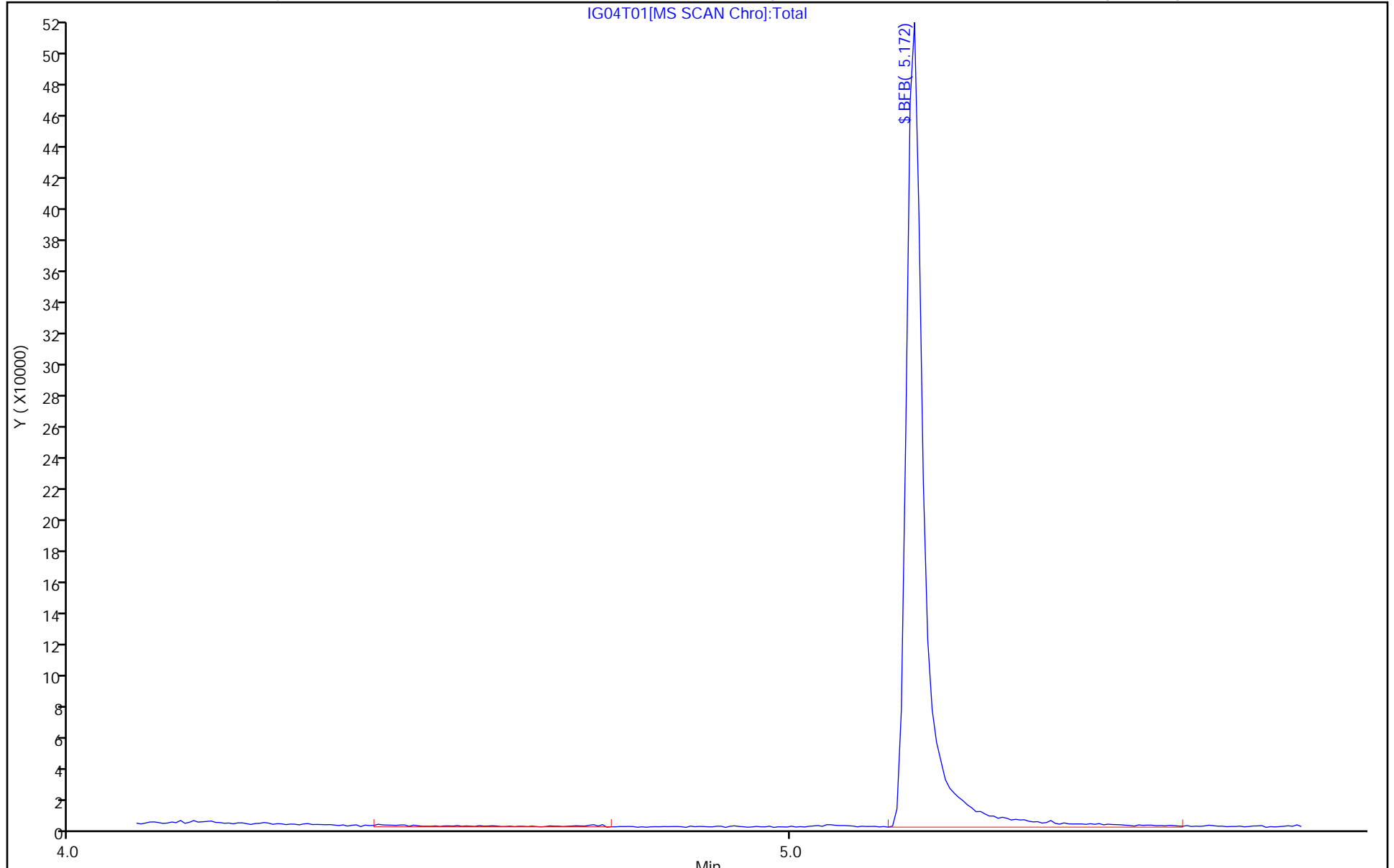
ALS Bottle#: 1

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 Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07T001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 07-Aug-2022 12:16:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 uL Dil. Factor: 1.0000  
 Sample Info: 410-0063569-001  
 Misc. Info.: BFB  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 07-Aug-2022 14:42:45 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1634

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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\$ 167 BFB	95	5.172	5.172	0.000	0	171941	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

**Reagents:**

MSV\_V\_BFB\_00008

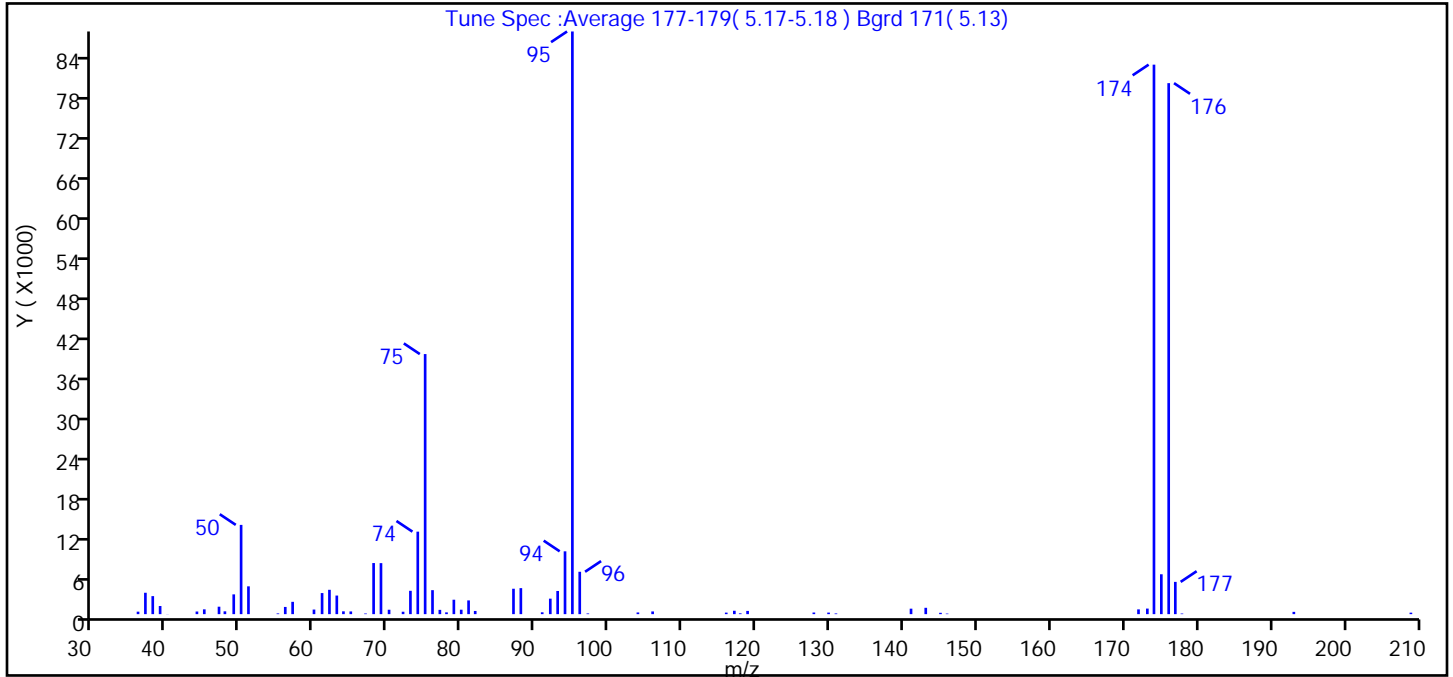
Amount Added: 1.00

Units: uL

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07T001.D  
 Injection Date: 07-Aug-2022 12:16:30 Instrument ID: 19930  
 Lims ID: BFB  
 Client ID:  
 Operator ID: knk41612 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 8260

\$ 167 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	44.6
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	1.0 (1.0)
174	50 to 120% of m/z 95	94.3
175	5 to 9% of m/z 174	6.8 (7.3)
176	Greater than 95% but less than 101% of m/z 174	91.1 (96.6)
177	5 to 9% of m/z 176	5.5 (6.1)

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07T001.D\8260 25ml HP31.rsl\spectra.d  
Injection Date: 07-Aug-2022 12:16:30  
Spectrum: Tune Spec :Average 177-179( 5.17-5.18 ) Bgrd 171( 5.13)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	373	62.00	3663	81.00	2067	128.00	244
37.00	3218	63.00	2797	82.00	479	130.00	234
38.00	2712	64.00	424	87.00	3823	131.00	107
39.00	1224	65.00	408	88.00	3914	141.00	824
40.00	18	67.00	98	91.00	277	143.00	954
44.00	396	68.00	7689	92.00	2331	145.00	202
45.00	723	69.00	7676	93.00	3485	146.00	84
47.00	1120	70.00	664	94.00	9453	172.00	717
48.00	424	72.00	364	95.00	87680	173.00	837
49.00	2976	73.00	3512	96.00	6376	174.00	82688
50.00	13431	74.00	12413	97.00	105	175.00	6000
51.00	4185	75.00	39136	104.00	255	176.00	79904
55.00	110	76.00	3609	106.00	407	177.00	4855
56.00	1084	77.00	644	116.00	231	178.00	93
57.00	1853	78.00	268	117.00	510	193.00	343
60.00	691	79.00	2171	118.00	120	209.00	223
61.00	3171	80.00	668	119.00	485		

Report Date: 07-Aug-2022 14:42:45

Chrom Revision: 2.3 05-Aug-2022 20:35:38

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07T001.D

Injection Date: 07-Aug-2022 12:16:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

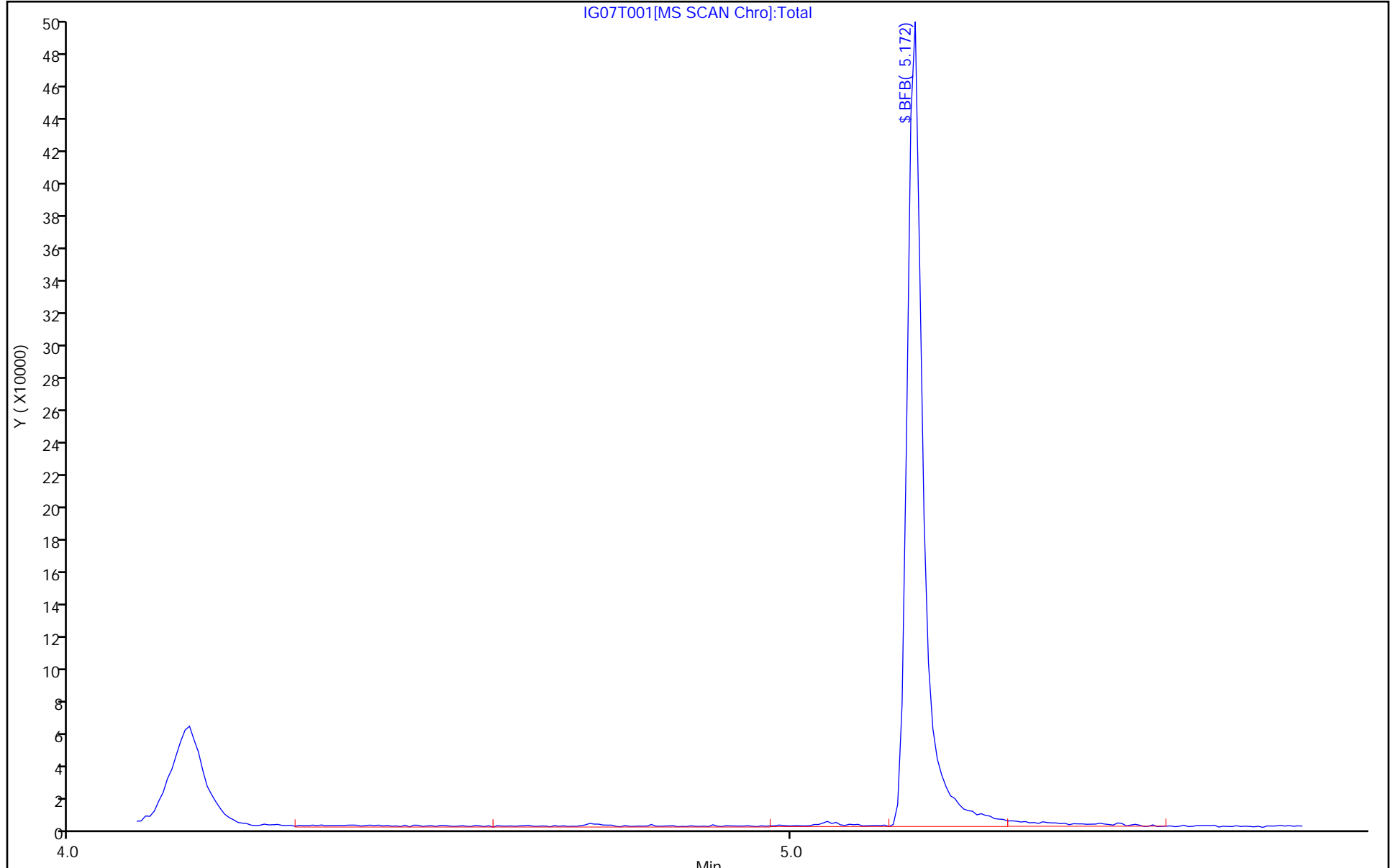
ALS Bottle#: 1

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  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Client Sample ID:

Lab Sample ID: MB 410-282764/6

Matrix: Water

Lab File ID: IG04X05.D

Analysis Method: 8260D

Date Collected:

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 11:48

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	ND		5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	ND		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_      Lab Sample ID: MB 410-282764/6

Matrix: Water      Lab File ID: IG04X05.D

Analysis Method: 8260D      Date Collected: \_\_\_\_\_

Sample wt/vol: 25 (mL)      Date Analyzed: 08/04/2022 11:48

Soil Aliquot Vol: \_\_\_\_\_      Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_      % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 282764      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	ND		0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X05.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 04-Aug-2022 11:48:30 ALS Bottle#: 5 Worklist Smp#: 6  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-006  
 Misc. Info.: MB  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:34:12 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: DVW2 Date: 04-Aug-2022 12:19:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Chlorodifluoromethane	51		1.971					ND	
1 Dichlorodifluoromethane	85		1.971					ND	
3 Dimethyl ether	45		2.044					ND	
4 Chloromethane	50		2.172					ND	
5 Vinyl chloride	62		2.282					ND	
6 Butadiene	39		2.300					ND	7
7 Bromomethane	94		2.629					ND	
8 Chloroethane	64		2.708					ND	
9 Dichlorofluoromethane	67		2.958					ND	
10 Trichlorofluoromethane	101		3.013					ND	
11 Ethyl ether	59		3.257					ND	
13 1,2-Dichloro-1,1,2-trifluoroethane	67		3.355					ND	
14 Acrolein	56		3.428					ND	7
15 1,1-Dichloroethene	96		3.568					ND	
16 Acetone	43		3.592					ND	7
17 1,1,2-Trichloro-1,2,2-trifluoroethane	101		3.617					ND	
18 Iodomethane	142		3.775					ND	
19 Ethyl bromide	108		3.794					ND	
20 Carbon disulfide	76		3.879					ND	7
21 Acetonitrile	41		4.001					ND	
23 Methyl acetate	43		4.013					ND	
24 3-Chloro-1-propene	41		4.044					ND	
25 Methylene Chloride	84		4.233					ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.263	4.257	0.006	19	169515	50.0	50.0	
27 2-Methyl-2-propanol	59		4.373					ND	
28 Acrylonitrile	53		4.568					ND	
29 Methyl tert-butyl ether	73		4.641					ND	
30 trans-1,2-Dichloroethene	96		4.653					ND	
31 Hexane	57		5.074					ND	7
33 Vinyl acetate	43		5.299					ND	
32 1,1-Dichloroethane	63		5.306					ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Isopropyl ether	45		5.366					ND	
36 2-Chloro-1,3-butadiene	53		5.415					ND	
37 Tert-butyl ethyl ether	59		5.897					ND	7
38 2-Butanone (MEK)	43		6.098					ND	7
39 cis-1,2-Dichloroethene	96		6.129					ND	
40 2,2-Dichloropropane	77		6.147					ND	
S 41 1,2-Dichloroethene, Total	100		6.155					ND	7
42 Ethyl acetate	43		6.165					ND	
43 Propionitrile	54		6.177					ND	
44 Methyl acrylate	55		6.220					ND	
45 Methacrylonitrile	67		6.397					ND	
46 Chlorobromomethane	128		6.458					ND	
47 Tetrahydrofuran	71		6.476					ND	
48 Chloroform	83		6.610					ND	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	516912	10.0	10.5	
50 1,1,1-Trichloroethane	97		6.842					ND	
51 Cyclohexane	56		6.939					ND	
52 1-Chlorobutane	56		7.019					ND	
53 1,1-Dichloropropene	75		7.049					ND	
54 Carbon tetrachloride	117		7.049					ND	
55 Isobutyl alcohol	41		7.189					ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	56	104575	10.0	10.3	
57 Benzene	78		7.305					ND	
58 1,2-Dichloroethane	62		7.372					ND	
59 Isopropyl acetate	43		7.390					ND	
60 Tert-amyl methyl ether	73		7.500					ND	
* 61 Fluorobenzene (IS)	96	7.714	7.707	0.007	99	1963745	10.0	10.0	
62 n-Heptane	43		7.720					ND	U
63 n-Butanol	56		8.067					ND	
64 Trichloroethene	95		8.183					ND	
65 Methylcyclohexane	83		8.494					ND	7
66 1,2-Dichloropropane	63		8.512					ND	
67 Methyl methacrylate	69		8.598					ND	
68 1,4-Dioxane	88		8.598					ND	
69 Dibromomethane	93		8.622					ND	
70 n-Propyl acetate	43		8.677					ND	
71 Dichlorobromomethane	83		8.854					ND	
72 2-Nitropropane	41		9.116					ND	
73 2-Chloroethyl vinyl ether	63		9.219					ND	
74 Chloroacetonitrile	75		9.226					ND	
75 1-Bromo-2-chloroethane	63		9.250					ND	
76 cis-1,3-Dichloropropene	75		9.402					ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567					ND	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	1981196	10.0	9.60	
79 Toluene	92		9.780					ND	
97 trans-1,3-Dichloropropene	75		10.036					ND	
S 98 1,3-Dichloropropene, Total	100		10.060					ND	7
99 Ethyl methacrylate	69		10.097					ND	
100 1,1,2-Trichloroethane	97		10.237					ND	
101 Tetrachloroethene	166		10.335					ND	
102 1,3-Dichloropropane	76		10.402					ND	
103 2-Hexanone	43		10.451					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 n-Butyl acetate	43		10.579					ND	
105 Chlorodibromomethane	129		10.615					ND	
106 Ethylene Dibromide	107		10.731					ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1590597	10.0	10.0	
108 1-Chlorohexane	91		11.164					ND	7
109 Chlorobenzene	112		11.182					ND	
S 110 Xylenes, Total	106		11.245					ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262					ND	
112 Ethylbenzene	91		11.268					ND	
113 m-Xylene & p-Xylene	106		11.384					ND	
114 o-Xylene	106		11.713					ND	
115 Styrene	104		11.725					ND	
116 Bromoform	173		11.883					ND	
117 Isopropylbenzene	105		12.012					ND	
118 cis-1,4-Dichloro-2-butene	88		12.060					ND	U
119 Cyclohexanone	55		12.097					ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	95	710960	10.0	9.39	
121 1,1,2,2-Tetrachloroethane	83		12.249					ND	
122 Bromobenzene	156		12.274					ND	
123 trans-1,4-Dichloro-2-butene	53		12.280					ND	
124 1,2,3-Trichloropropane	110		12.298					ND	
125 N-Propylbenzene	91		12.341					ND	
126 2-Chlorotoluene	126		12.414					ND	
127 1,3,5-Trimethylbenzene	105		12.475					ND	7
128 4-Chlorotoluene	126		12.505					ND	
129 tert-Butylbenzene	134		12.713					ND	7
130 Pentachloroethane	167		12.749					ND	
131 1,2,4-Trimethylbenzene	105		12.755					ND	7
132 sec-Butylbenzene	105		12.877					ND	7
133 1,3-Dichlorobenzene	146		12.981					ND	
134 4-Isopropyltoluene	119		12.987					ND	7
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	867459	10.0	10.0	
136 1,4-Dichlorobenzene	146		13.054					ND	7
137 1,2,3-Trimethylbenzene	120		13.060					ND	7
138 Benzyl chloride	126		13.127					ND	
139 n-Butylbenzene	92		13.273					ND	7
140 1,2-Dichlorobenzene	146		13.310					ND	
141 Hexachloroethane	117		13.542					ND	
142 1,2-Dibromo-3-Chloropropane	155		13.853					ND	
143 1,3,5-Trichlorobenzene	180		13.981					ND	7
144 1,2,4-Trichlorobenzene	180		14.401					ND	7
145 Hexachlorobutadiene	225	14.487	14.487	0.000	92	2475		0.0686	
146 Naphthalene	128		14.584					ND	7
147 1,2,3-Trichlorobenzene	180	14.767	14.724	0.043	93	3250		0.0479	
148 Dodecane	57		0.000					ND	
149 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
150 2-ethoxy-2-methyl butane	1		0.000					ND	
151 1,1-Dichloroacetone	1		0.000					ND	
152 n-Decane	57		0.000					ND	
153 1-Bromo-3-Chloropropane	1		0.000					ND	
154 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
155 2-Methylnaphthalene	142		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
156 p-Diethylbenzene	1		0.000					ND	
157 t-Amyl alcohol	1		0.000					ND	
158 Methylal	1		0.000					ND	
159 tert-Butyl Formate	1		0.000					ND	
160 2-Bromo-1-chloropropane	1		0.000					ND	
161 Pentane	43		0.000					ND	
162 Chlorotrifluoroethene	1		0.000					ND	
163 Propene oxide	1		0.000					ND	
164 1-Chloropropane	1		0.000					ND	
165 Isopropyl alcohol	45		0.000					ND	
166 Ethanol	45		3.269					ND	

**QC Flag Legend**

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

**Reagents:**

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X05.D

Injection Date: 04-Aug-2022 11:48:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

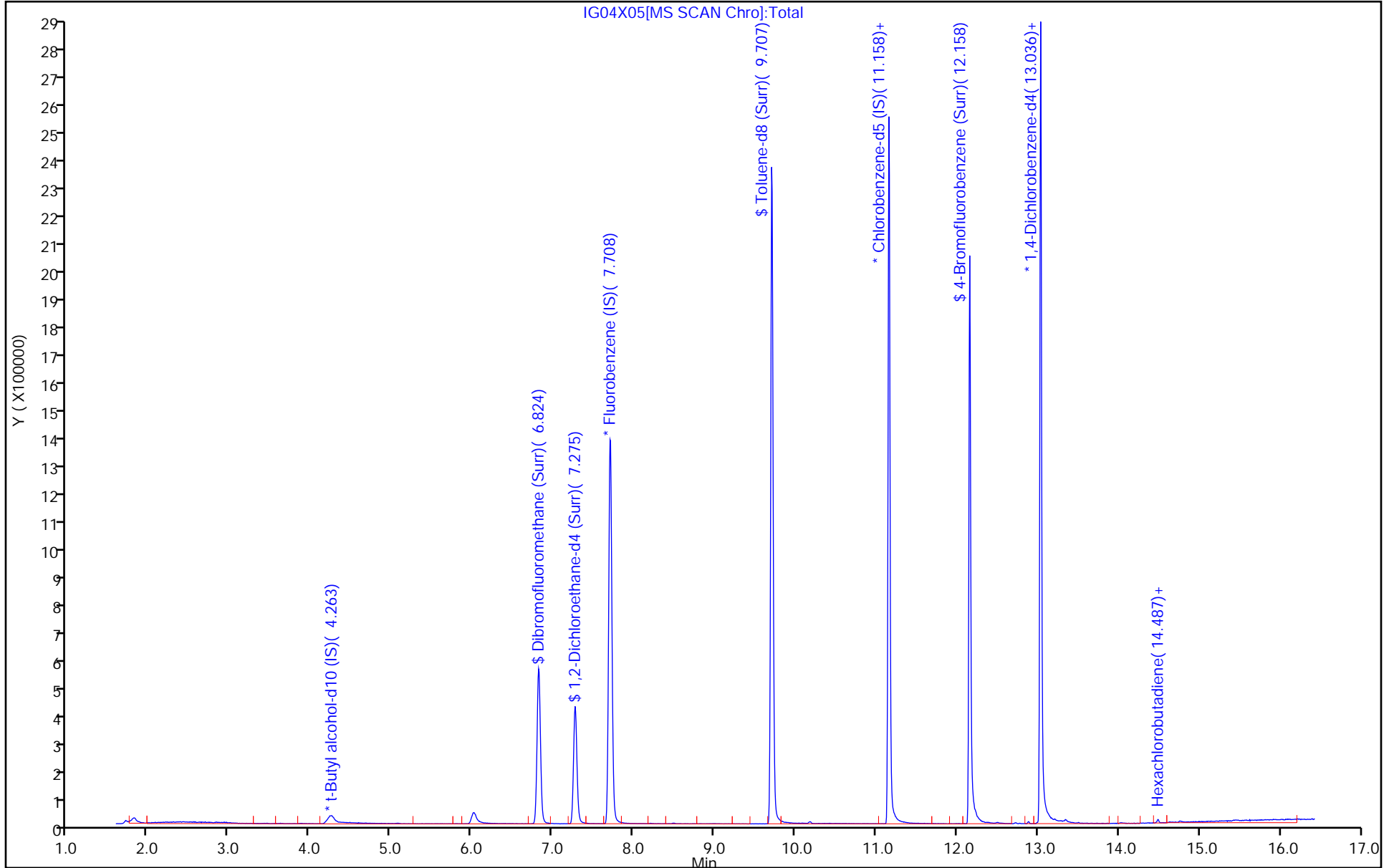
ALS Bottle#: 5

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X05.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 04-Aug-2022 11:48:30 ALS Bottle#: 5 Worklist Smp#: 6  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-006  
 Misc. Info.: MB  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:34:12 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: DVW2 Date: 04-Aug-2022 12:19:16

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.5	104.85
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	103.27
\$ 78 Toluene-d8 (Surr)	10.0	9.60	95.98
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.39	93.93

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Client Sample ID:

Lab Sample ID: MB 410-283558/7

Matrix: Water

Lab File ID: IG07X006.D

Analysis Method: 8260D

Date Collected:

Sample wt/vol: 25 (mL)

Date Analyzed: 08/07/2022 14:15

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 283558

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	0.080
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.10
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.080
75-34-3	1,1-Dichloroethane	ND		0.50	0.10
75-35-4	1,1-Dichloroethene	ND		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.080
107-06-2	1,2-Dichloroethane	ND		0.50	0.070
78-87-5	1,2-Dichloropropane	ND		0.50	0.10
78-93-3	2-Butanone (MEK)	ND		5.0	1.0
591-78-6	2-Hexanone	ND		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	1.0
67-64-1	Acetone	ND		5.0	1.0
71-43-2	Benzene	ND		0.50	0.10
74-97-5	Bromochloromethane	ND		0.50	0.080
75-27-4	Bromodichloromethane	ND		0.50	0.080
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.10
75-15-0	Carbon disulfide	ND		1.0	0.10
56-23-5	Carbon tetrachloride	ND		0.50	0.10
108-90-7	Chlorobenzene	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.10
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.10
124-48-1	Dibromochloromethane	ND		0.50	0.080
100-41-4	Ethylbenzene	ND		0.50	0.080
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.080
75-09-2	Methylene Chloride	ND		0.50	0.10
100-42-5	Styrene	ND		0.50	0.070
127-18-4	Tetrachloroethene	ND		0.50	0.20
108-88-3	Toluene	ND		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_      Lab Sample ID: MB 410-283558/7

Matrix: Water      Lab File ID: IG07X006.D

Analysis Method: 8260D      Date Collected: \_\_\_\_\_

Sample wt/vol: 25 (mL)      Date Analyzed: 08/07/2022 14:15

Soil Aliquot Vol: \_\_\_\_\_      Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_      % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 283558      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.080
79-01-6	Trichloroethene	ND		0.50	0.080
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X006.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 07-Aug-2022 14:15:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063569-007  
 Misc. Info.: MB  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 08-Aug-2022 08:40:41 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1677

First Level Reviewer: DVW2 Date: 07-Aug-2022 14:41:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.959					ND	
2 Chlorodifluoromethane	51		1.971					ND	
3 Dimethyl ether	45		2.044					ND	
4 Chloromethane	50		2.160					ND	
5 Vinyl chloride	62		2.270					ND	
6 Butadiene	39		2.288					ND	7
7 Bromomethane	94		2.617					ND	
8 Chloroethane	64		2.696					ND	
9 Dichlorofluoromethane	67		2.940					ND	
10 Trichlorofluoromethane	101		3.007					ND	
11 Ethyl ether	59		3.245					ND	
13 1,2-Dichloro-1,1,2-trifluoroetha	67		3.343					ND	
14 Acrolein	56		3.416					ND	7
15 1,1-Dichloroethene	96		3.562					ND	
16 Acetone	43		3.580					ND	7
17 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.605					ND	
18 Iodomethane	142		3.757					ND	
19 Ethyl bromide	108		3.782					ND	
20 Carbon disulfide	76		3.867					ND	7
21 Acetonitrile	41		4.001					ND	
23 Methyl acetate	43		4.007					ND	
24 3-Chloro-1-propene	41		4.038					ND	
25 Methylene Chloride	84		4.221					ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.263	4.227	0.036	23	182596	50.0	50.0	
27 2-Methyl-2-propanol	59		4.355					ND	
28 Acrylonitrile	53		4.556					ND	
29 Methyl tert-butyl ether	73		4.641					ND	
30 trans-1,2-Dichloroethene	96		4.641					ND	
31 Hexane	57		5.068					ND	7
32 1,1-Dichloroethane	63		5.293					ND	
33 Vinyl acetate	43		5.299					ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Isopropyl ether	45		5.361					ND	
36 2-Chloro-1,3-butadiene	53		5.403					ND	
37 Tert-butyl ethyl ether	59		5.891					ND	7
38 2-Butanone (MEK)	43		6.092					ND	7
39 cis-1,2-Dichloroethene	96		6.123					ND	
40 2,2-Dichloropropane	77		6.141					ND	
S 41 1,2-Dichloroethene, Total	100		6.155					ND	7
42 Ethyl acetate	43		6.165					ND	
43 Propionitrile	54		6.177					ND	
44 Methyl acrylate	55		6.220					ND	
45 Methacrylonitrile	67		6.391					ND	
46 Chlorobromomethane	128		6.452					ND	
47 Tetrahydrofuran	71		6.464					ND	
48 Chloroform	83		6.604					ND	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.818	0.006	94	582481	10.0	9.94	
50 1,1,1-Trichloroethane	97		6.830					ND	
51 Cyclohexane	56		6.933					ND	
52 1-Chlorobutane	56		7.019					ND	
53 1,1-Dichloropropene	75		7.043					ND	
54 Carbon tetrachloride	117		7.043					ND	
55 Isobutyl alcohol	41		7.183					ND	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.269	0.012	55	120452	10.0	10.0	
57 Benzene	78		7.299					ND	
58 1,2-Dichloroethane	62		7.372					ND	
59 Isopropyl acetate	43		7.390					ND	
60 Tert-amyl methyl ether	73		7.488					ND	
* 61 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2334359	10.0	10.0	
62 n-Heptane	43		7.714					ND	U
63 n-Butanol	56		8.061					ND	
64 Trichloroethene	95		8.183					ND	
65 Methylcyclohexane	83		8.494					ND	7
66 1,2-Dichloropropane	63		8.506					ND	
67 Methyl methacrylate	69		8.592					ND	
68 1,4-Dioxane	88		8.598					ND	
69 Dibromomethane	93		8.622					ND	
70 n-Propyl acetate	43		8.677					ND	
71 Dichlorobromomethane	83		8.854					ND	
72 2-Nitropropane	41		9.116					ND	
73 2-Chloroethyl vinyl ether	63		9.219					ND	
74 Chloroacetonitrile	75		9.226					ND	
75 1-Bromo-2-chloroethane	63		9.244					ND	
76 cis-1,3-Dichloropropene	75		9.396					ND	
77 4-Methyl-2-pentanone (MIBK)	43		9.567					ND	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2298856	10.0	10.1	
79 Toluene	92		9.780					ND	
97 trans-1,3-Dichloropropene	75		10.036					ND	
S 98 1,3-Dichloropropene, Total	100		10.060					ND	7
99 Ethyl methacrylate	69		10.097					ND	
100 1,1,2-Trichloroethane	97		10.238					ND	
101 Tetrachloroethene	166		10.329					ND	
102 1,3-Dichloropropane	76		10.402					ND	
103 2-Hexanone	43		10.451					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 n-Butyl acetate	43		10.579					ND	
105 Chlorodibromomethane	129		10.616					ND	
106 Ethylene Dibromide	107		10.731					ND	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1762337	10.0	10.0	
108 1-Chlorohexane	91		11.164					ND	7
109 Chlorobenzene	112		11.183					ND	
S 110 Xylenes, Total	106		11.245					ND	7
111 1,1,1,2-Tetrachloroethane	131		11.262					ND	
112 Ethylbenzene	91		11.268					ND	
113 m-Xylene & p-Xylene	106		11.384					ND	
114 o-Xylene	106		11.713					ND	
115 Styrene	104		11.725					ND	
116 Bromoform	173		11.884					ND	
117 Isopropylbenzene	105		12.012					ND	
118 cis-1,4-Dichloro-2-butene	88		12.060					ND	U
119 Cyclohexanone	55		12.097					ND	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	93	782293	10.0	9.33	
121 1,1,2,2-Tetrachloroethane	83		12.249					ND	
122 Bromobenzene	156		12.274					ND	
123 trans-1,4-Dichloro-2-butene	53		12.280					ND	
124 1,2,3-Trichloropropane	110		12.298					ND	
125 N-Propylbenzene	91		12.341					ND	
126 2-Chlorotoluene	126		12.414					ND	
127 1,3,5-Trimethylbenzene	105		12.475					ND	7
128 4-Chlorotoluene	126		12.505					ND	
129 tert-Butylbenzene	134		12.713					ND	7
130 Pentachloroethane	167		12.749					ND	
131 1,2,4-Trimethylbenzene	105		12.755					ND	7
132 sec-Butylbenzene	105		12.877					ND	7
133 1,3-Dichlorobenzene	146		12.981					ND	7
134 4-Isopropyltoluene	119		12.987					ND	7
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	921401	10.0	10.0	
136 1,4-Dichlorobenzene	146		13.054					ND	7
137 1,2,3-Trimethylbenzene	120		13.060					ND	7
138 Benzyl chloride	126		13.127					ND	
139 n-Butylbenzene	92		13.280					ND	7
140 1,2-Dichlorobenzene	146		13.310					ND	
141 Hexachloroethane	117		13.542					ND	
142 1,2-Dibromo-3-Chloropropane	155		13.853					ND	
143 1,3,5-Trichlorobenzene	180		13.981					ND	7
144 1,2,4-Trichlorobenzene	180		14.401					ND	7
145 Hexachlorobutadiene	225	14.487	14.481	0.006	89	2724		0.0710	
146 Naphthalene	128		14.584					ND	7
147 1,2,3-Trichlorobenzene	180	14.761	14.725	0.036	91	3959		0.0550	
148 Dodecane	57		0.000					ND	
149 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
150 2-ethoxy-2-methyl butane	1		0.000					ND	
151 1,1-Dichloroacetone	1		0.000					ND	
152 n-Decane	57		0.000					ND	
153 1-Bromo-3-Chloropropane	1		0.000					ND	
154 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
155 2-Methylnaphthalene	142		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
156 p-Diethylbenzene	1		0.000					ND	
157 t-Amyl alcohol	1		0.000					ND	
158 Methylal	1		0.000					ND	
159 tert-Butyl Formate	1		0.000					ND	
160 2-Bromo-1-chloropropane	1		0.000					ND	
161 Pentane	43		0.000					ND	
162 Chlorotrifluoroethene	1		0.000					ND	
163 Propene oxide	1		0.000					ND	
164 1-Chloropropane	1		0.000					ND	
165 Isopropyl alcohol	45		0.000					ND	
166 Ethanol	45		3.269					ND	

**QC Flag Legend**

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

**Reagents:**

MSV\_LLcentISS\_00005

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X006.D

Injection Date: 07-Aug-2022 14:15:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

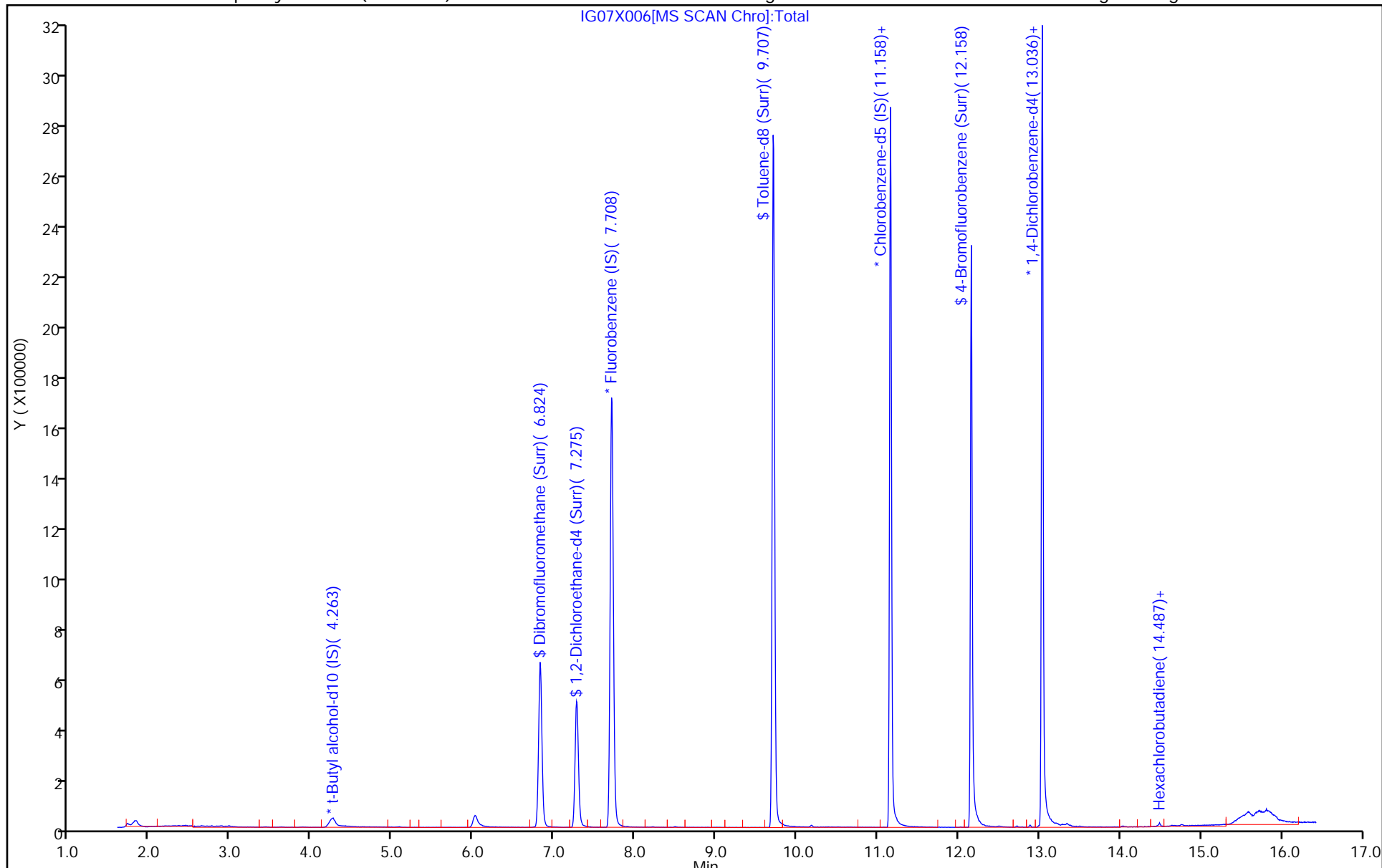
ALS Bottle#: 6

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X006.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 07-Aug-2022 14:15:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063569-007  
 Misc. Info.: MB  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 08-Aug-2022 08:40:41 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1677

First Level Reviewer: DVW2 Date: 07-Aug-2022 14:41:32

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	9.94	99.39
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.07
\$ 78 Toluene-d8 (Surr)	10.0	10.1	100.52
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.33	93.29

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Client Sample ID:

Lab Sample ID: LCS 410-282764/4

Matrix: Water

Lab File ID: IG04X03.D

Analysis Method: 8260D

Date Collected:

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 11:06

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.08		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.14		0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	5.00		0.50	0.10
79-00-5	1,1,2-Trichloroethane	5.06		0.50	0.080
75-34-3	1,1-Dichloroethane	5.21		0.50	0.10
75-35-4	1,1-Dichloroethene	5.35		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	4.99		0.50	0.080
107-06-2	1,2-Dichloroethane	4.90		0.50	0.070
78-87-5	1,2-Dichloropropane	5.22		0.50	0.10
78-93-3	2-Butanone (MEK)	57.9		5.0	1.0
591-78-6	2-Hexanone	58.7		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	60.2		5.0	1.0
67-64-1	Acetone	52.8		5.0	1.0
71-43-2	Benzene	5.39		0.50	0.10
74-97-5	Bromochloromethane	5.31		0.50	0.080
75-27-4	Bromodichloromethane	5.18		0.50	0.080
75-25-2	Bromoform	4.97		1.0	0.30
74-83-9	Bromomethane	5.21		0.50	0.10
75-15-0	Carbon disulfide	5.87		1.0	0.10
56-23-5	Carbon tetrachloride	5.10		0.50	0.10
108-90-7	Chlorobenzene	5.12		0.50	0.070
75-00-3	Chloroethane	5.27		0.50	0.10
67-66-3	Chloroform	5.21		0.50	0.090
74-87-3	Chloromethane	5.32		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	5.47		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	5.00		0.50	0.10
124-48-1	Dibromochloromethane	4.98		0.50	0.080
100-41-4	Ethylbenzene	5.20		0.50	0.080
1634-04-4	Methyl tert-butyl ether	5.21		0.50	0.080
75-09-2	Methylene Chloride	5.24		0.50	0.10
100-42-5	Styrene	5.49		0.50	0.070
127-18-4	Tetrachloroethene	5.15		0.50	0.20
108-88-3	Toluene	5.09		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_      Lab Sample ID: LCS 410-282764/4

Matrix: Water      Lab File ID: IG04X03.D

Analysis Method: 8260D      Date Collected: \_\_\_\_\_

Sample wt/vol: 25 (mL)      Date Analyzed: 08/04/2022 11:06

Soil Aliquot Vol: \_\_\_\_\_      Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_      % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 282764      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	5.34		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	5.08		0.50	0.080
79-01-6	Trichloroethene	5.28		0.50	0.080
75-01-4	Vinyl chloride	5.44		0.50	0.10
1330-20-7	Xylenes, Total	15.9		1.0	0.070

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 Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 04-Aug-2022 11:06:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-004  
 Misc. Info.: LCS  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 04-Aug-2022 12:22:59 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1642

First Level Reviewer: DVW2

Date: 04-Aug-2022 11:28:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.971	-0.012	99	332150	5.00	4.97	
4 Chloromethane	50	2.160	2.172	-0.012	99	403654	5.00	5.32	
5 Vinyl chloride	62	2.270	2.282	-0.012	98	406527	5.00	5.44	
6 Butadiene	39	2.288	2.300	-0.012	89	401839	5.00	4.75	
7 Bromomethane	94	2.623	2.629	-0.006	90	271371	5.00	5.21	
8 Chloroethane	64	2.696	2.708	-0.012	100	231539	5.00	5.27	
9 Dichlorofluoromethane	67	2.946	2.958	-0.012	97	527306	5.00	5.18	
10 Trichlorofluoromethane	101	3.007	3.013	-0.006	98	481088	5.00	4.88	
11 Ethyl ether	59	3.245	3.257	-0.012	91	238678	4.98	5.01	
13 1,2-Dichloro-1,1,2-trifluoroetha	67	3.343	3.355	-0.012	91	389679	5.00	5.21	
14 Acrolein	56	3.422	3.428	-0.006	99	237520	37.5	28.2	
15 1,1-Dichloroethene	96	3.556	3.568	-0.012	97	294506	5.00	5.35	
16 Acetone	43	3.587	3.592	-0.006	99	524195	62.5	52.8	
17 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.599	3.617	-0.018	90	287118	5.00	5.16	
18 Iodomethane	142	3.757	3.775	-0.018	98	544605	5.00	5.63	
19 Ethyl bromide	108	3.788	3.794	-0.006	98	207918	4.89	4.18	
20 Carbon disulfide	76	3.867	3.879	-0.012	99	807826	5.00	5.87	
23 Methyl acetate	43	4.007	4.013	-0.006	97	133878	5.00	4.59	M
24 3-Chloro-1-propene	41	4.038	4.044	-0.006	94	441896	5.00	5.49	
25 Methylene Chloride	84	4.227	4.233	-0.006	90	316162	5.00	5.24	
* 26 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	100	180015	50.0	50.0	M
27 2-Methyl-2-propanol	59	4.361	4.373	-0.012	99	161534	50.0	52.2	
28 Acrylonitrile	53	4.568	4.568	0.000	99	325820	25.0	23.4	
29 Methyl tert-butyl ether	73	4.635	4.641	-0.006	94	720571	5.00	5.21	
30 trans-1,2-Dichloroethene	96	4.641	4.653	-0.012	100	325943	5.00	5.34	
31 Hexane	57	5.068	5.074	-0.006	90	407437	5.00	4.77	
32 1,1-Dichloroethane	63	5.300	5.306	-0.006	96	582873	5.00	5.21	
35 Isopropyl ether	45	5.361	5.366	-0.005	93	901103	5.00	5.23	
36 2-Chloro-1,3-butadiene	53	5.409	5.415	-0.006	89	464219	5.00	5.67	
37 Tert-butyl ethyl ether	59	5.891	5.897	-0.006	96	838803	5.00	5.26	
38 2-Butanone (MEK)	43	6.092	6.098	-0.006	99	1067424	62.5	57.9	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	81	373736	5.00	5.47	
40 2,2-Dichloropropane	77	6.147	6.147	0.000	86	493561	5.00	5.44	
43 Propionitrile	54	6.184	6.177	0.007	98	201709	37.5	37.7	
45 Methacrylonitrile	67	6.397	6.397	0.000	89	654912	37.5	34.0	
46 Chlorobromomethane	128	6.452	6.458	-0.006	91	164405	5.00	5.31	
47 Tetrahydrofuran	71	6.464	6.476	-0.012	79	129069	25.0	24.2	
48 Chloroform	83	6.604	6.610	-0.006	93	585199	5.00	5.21	
\$ 49 Dibromofluoromethane (Surr)	113	6.818	6.824	-0.006	94	539748	10.0	9.90	
50 1,1,1-Trichloroethane	97	6.830	6.842	-0.012	98	515960	5.00	5.14	
51 Cyclohexane	56	6.933	6.939	-0.006	89	484727	5.00	4.82	
53 1,1-Dichloropropene	75	7.043	7.049	-0.006	97	464592	5.00	5.32	
54 Carbon tetrachloride	117	7.043	7.049	-0.006	82	457745	5.00	5.10	
55 Isobutyl alcohol	41	7.189	7.189	0.000	94	148552	125.0	122.4	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.275	-0.006	87	112776	10.0	10.1	
57 Benzene	78	7.299	7.305	-0.006	96	1416372	5.00	5.39	
58 1,2-Dichloroethane	62	7.372	7.372	0.000	97	343434	5.00	4.90	
60 Tert-amyl methyl ether	73	7.494	7.500	-0.006	99	787009	5.00	5.20	
* 61 Fluorobenzene (IS)	96	7.702	7.707	-0.005	99	2170860	10.0	10.0	
62 n-Heptane	43	7.714	7.720	-0.006	90	427166	5.00	4.54	
63 n-Butanol	56	8.073	8.067	0.006	86	274174	250.0	246.0	
64 Trichloroethene	95	8.183	8.183	0.000	97	369546	5.00	5.28	
65 Methylcyclohexane	83	8.494	8.494	0.000	92	551347	5.00	4.78	
66 1,2-Dichloropropane	63	8.506	8.512	-0.006	96	354040	5.00	5.22	
67 Methyl methacrylate	69	8.598	8.598	0.000	87	154161	5.00	4.45	
68 1,4-Dioxane	88	8.598	8.598	0.000	32	38446	125.0	155.5	M
69 Dibromomethane	93	8.622	8.622	0.000	94	167269	5.00	5.14	
71 Dichlorobromomethane	83	8.854	8.854	0.000	99	416776	5.00	5.18	
72 2-Nitropropane	41	9.116	9.116	0.000	97	40676	5.00	3.98	
75 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	363313	5.00	5.24	
76 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	98	482054	5.00	5.00	
77 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	2684706	62.5	60.2	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2256465	10.0	9.83	
79 Toluene	92	9.780	9.780	0.000	98	923926	5.00	5.09	
97 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	90	420444	5.00	5.08	
99 Ethyl methacrylate	69	10.097	10.097	0.000	88	318636	5.00	5.09	
100 1,1,2-Trichloroethane	97	10.238	10.237	0.001	89	258739	5.00	5.06	
101 Tetrachloroethene	166	10.329	10.335	-0.006	97	446541	5.00	5.15	
102 1,3-Dichloropropane	76	10.402	10.402	0.000	87	426144	5.00	4.98	
103 2-Hexanone	43	10.451	10.451	0.000	95	1895213	62.5	58.7	
105 Chlorodibromomethane	129	10.616	10.615	0.001	90	313053	5.00	4.98	
106 Ethylene Dibromide	107	10.731	10.731	0.000	99	236050	5.00	4.99	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1769527	10.0	10.0	
108 1-Chlorohexane	91	11.164	11.164	0.000	96	493855	5.00	4.86	
109 Chlorobenzene	112	11.183	11.182	0.001	96	1041519	5.00	5.12	
111 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	353464	5.00	5.08	
112 Ethylbenzene	91	11.268	11.268	0.000	98	1758574	5.00	5.20	
113 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1407598	10.0	10.7	
114 o-Xylene	106	11.713	11.713	0.000	95	650242	5.00	5.19	
115 Styrene	104	11.725	11.725	0.000	95	1088255	5.00	5.49	
116 Bromoform	173	11.884	11.883	0.001	98	186643	5.00	4.97	
117 Isopropylbenzene	105	12.012	12.012	0.000	95	1736375	5.00	5.33	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	95	836960	10.0	9.94	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
121 1,1,2,2-Tetrachloroethane	83	12.256	12.249	0.007	94	323361	5.00	5.00	
122 Bromobenzene	156	12.274	12.274	0.000	94	429090	5.00	5.15	
123 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	91	264906	25.0	16.8	
124 1,2,3-Trichloropropane	110	12.298	12.298	0.000	81	87137	5.00	5.10	
125 N-Propylbenzene	91	12.341	12.341	0.000	99	2087926	5.00	5.23	
126 2-Chlorotoluene	126	12.414	12.414	0.000	97	422902	5.00	5.14	
127 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1454095	5.00	5.20	
128 4-Chlorotoluene	126	12.512	12.505	0.007	96	435455	5.00	5.18	
129 tert-Butylbenzene	134	12.713	12.713	0.000	92	318324	5.00	5.09	
131 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1477199	5.00	5.32	
132 sec-Butylbenzene	105	12.877	12.877	0.000	94	1893096	5.00	5.24	
133 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	822284	5.00	5.11	
134 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1636524	5.00	5.38	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1004417	10.0	10.0	
136 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	836601	5.00	5.03	
137 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	649659	5.00	5.08	
138 Benzyl chloride	126	13.127	13.127	0.000	98	122870	5.00	5.06	
139 n-Butylbenzene	92	13.280	13.273	0.007	97	776970	5.00	5.36	
140 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	753746	5.00	5.04	
142 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	90	42356	5.00	4.59	
143 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	564851	5.00	5.14	
144 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	453551	5.00	5.13	
145 Hexachlorobutadiene	225	14.481	14.487	-0.006	96	200102	5.00	4.79	
146 Naphthalene	128	14.584	14.584	0.000	97	825865	5.00	5.06	
147 1,2,3-Trichlorobenzene	180	14.725	14.724	0.001	96	406157	5.00	5.18	
150 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
155 2-Methylnaphthalene	142		0.000				ND	ND	
156 p-Diethylbenzene	1		0.000				ND	ND	
161 Pentane	43		0.000				ND	ND	
165 Isopropyl alcohol	45		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_00066	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00069	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00093	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00003	Amount Added: 12.50	Units: uL	
LCS_ETBR_00003	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 04-Aug-2022 11:06:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-004  
 Misc. Info.: LCS  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 04-Aug-2022 12:22:59 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1642

First Level Reviewer: DVW2

Date: 04-Aug-2022 11:28:53

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	9.90	99.03
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.74
\$ 78 Toluene-d8 (Surr)	10.0	9.83	98.26
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.94	99.40

Eurofins Lancaster Laboratories Environment Testing, LLC

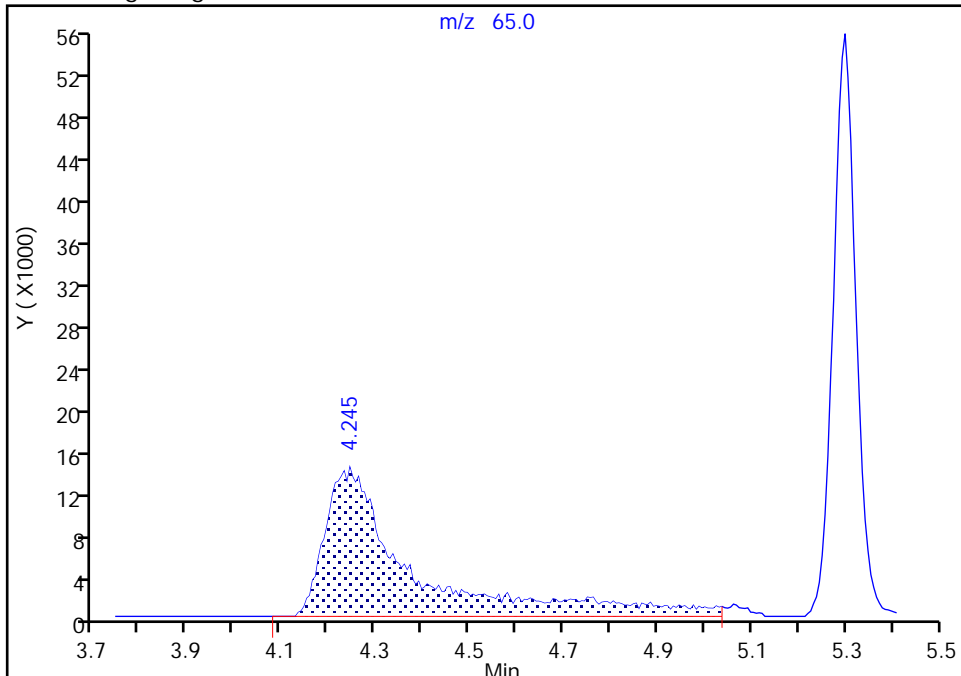
Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X03.D  
Injection Date: 04-Aug-2022 11:06:30 Instrument ID: 19930  
Lims ID: LCS  
Client ID:  
Operator ID: knk41612 ALS Bottle#: 3 Worklist Smp#: 4  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

\* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

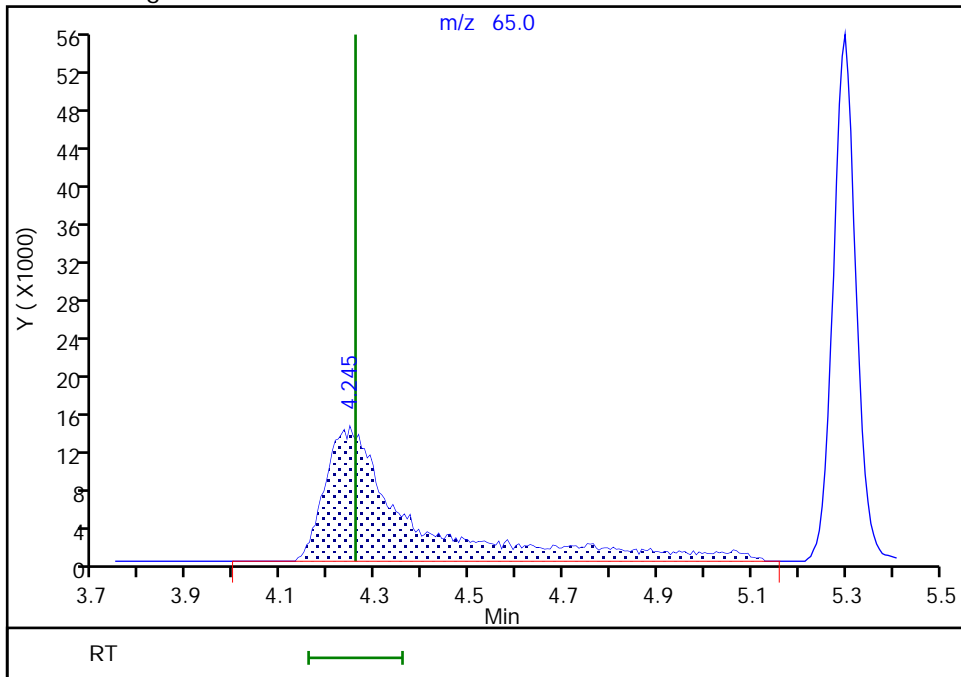
RT: 4.24  
Area: 176503  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.24  
Area: 180015  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Client Sample ID:

Lab Sample ID: LCS 410-283558/4

Matrix: Water

Lab File ID: IG07X003.D

Analysis Method: 8260D

Date Collected:

Sample wt/vol: 25 (mL)

Date Analyzed: 08/07/2022 13:12

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 283558

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.26		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.78		0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	5.63		0.50	0.10
79-00-5	1,1,2-Trichloroethane	5.29		0.50	0.080
75-34-3	1,1-Dichloroethane	4.91		0.50	0.10
75-35-4	1,1-Dichloroethene	5.03		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	5.19		0.50	0.080
107-06-2	1,2-Dichloroethane	4.65		0.50	0.070
78-87-5	1,2-Dichloropropane	4.96		0.50	0.10
78-93-3	2-Butanone (MEK)	66.2		5.0	1.0
591-78-6	2-Hexanone	72.5		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	72.2		5.0	1.0
67-64-1	Acetone	60.2		5.0	1.0
71-43-2	Benzene	5.00		0.50	0.10
74-97-5	Bromochloromethane	5.01		0.50	0.080
75-27-4	Bromodichloromethane	5.00		0.50	0.080
75-25-2	Bromoform	5.64		1.0	0.30
74-83-9	Bromomethane	4.32		0.50	0.10
75-15-0	Carbon disulfide	5.58		1.0	0.10
56-23-5	Carbon tetrachloride	4.77		0.50	0.10
108-90-7	Chlorobenzene	5.21		0.50	0.070
75-00-3	Chloroethane	4.58		0.50	0.10
67-66-3	Chloroform	4.82		0.50	0.090
74-87-3	Chloromethane	4.76		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	5.10		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	5.02		0.50	0.10
124-48-1	Dibromochloromethane	5.31		0.50	0.080
100-41-4	Ethylbenzene	5.27		0.50	0.080
1634-04-4	Methyl tert-butyl ether	5.11		0.50	0.080
75-09-2	Methylene Chloride	4.99		0.50	0.10
100-42-5	Styrene	5.76		0.50	0.070
127-18-4	Tetrachloroethene	4.99		0.50	0.20
108-88-3	Toluene	5.09		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_      Lab Sample ID: LCS 410-283558/4

Matrix: Water      Lab File ID: IG07X003.D

Analysis Method: 8260D      Date Collected: \_\_\_\_\_

Sample wt/vol: 25 (mL)      Date Analyzed: 08/07/2022 13:12

Soil Aliquot Vol: \_\_\_\_\_      Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_      % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 283558      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	4.98		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	5.39		0.50	0.080
79-01-6	Trichloroethene	4.86		0.50	0.080
75-01-4	Vinyl chloride	4.65		0.50	0.10
1330-20-7	Xylenes, Total	16.2		1.0	0.070

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)	96		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X003.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 07-Aug-2022 13:12:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063569-004  
 Misc. Info.: LCS  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 07-Aug-2022 14:42:30 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1634

First Level Reviewer: DVW2

Date: 07-Aug-2022 14:01:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.959	0.000	99	321389	5.00	4.37	
4 Chloromethane	50	2.160	2.160	0.000	99	397822	5.00	4.76	
5 Vinyl chloride	62	2.270	2.270	0.000	98	382429	5.00	4.65	
6 Butadiene	39	2.288	2.288	0.000	89	387543	5.00	4.17	
7 Bromomethane	94	2.617	2.617	0.000	90	247355	5.00	4.32	
8 Chloroethane	64	2.702	2.696	0.006	100	221380	5.00	4.58	
9 Dichlorofluoromethane	67	2.940	2.940	0.000	97	455712	5.00	4.07	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	98	423956	5.00	3.91	
11 Ethyl ether	59	3.245	3.245	0.000	89	242775	4.98	4.64	
13 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	93	382226	5.00	4.65	
14 Acrolein	56	3.416	3.416	0.000	98	240631	37.5	30.5	
15 1,1-Dichloroethene	96	3.562	3.562	0.000	97	304264	5.00	5.03	
16 Acetone	43	3.586	3.580	0.006	100	560516	62.5	60.2	
17 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.599	3.605	-0.006	91	297216	5.00	4.86	
18 Iodomethane	142	3.757	3.757	0.000	98	569346	5.00	5.35	
19 Ethyl bromide	108	3.781	3.782	-0.001	98	209402	4.89	3.83	
20 Carbon disulfide	76	3.861	3.867	-0.006	99	844465	5.00	5.58	
23 Methyl acetate	43	4.007	4.007	0.000	97	133919	5.00	4.89	M
24 3-Chloro-1-propene	41	4.037	4.038	-0.001	93	468295	5.00	5.29	
25 Methylene Chloride	84	4.220	4.221	0.000	90	331090	5.00	4.99	
* 26 t-Butyl alcohol-d10 (IS)	65	4.226	4.227	-0.001	99	168809	50.0	50.0	M
27 2-Methyl-2-propanol	59	4.361	4.355	0.006	100	193117	50.0	66.5	
28 Acrylonitrile	53	4.556	4.556	0.000	100	344082	25.0	26.4	
29 Methyl tert-butyl ether	73	4.635	4.641	-0.006	88	775774	5.00	5.11	
30 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	99	334531	5.00	4.98	
31 Hexane	57	5.068	5.068	0.000	90	437889	5.00	4.67	
32 1,1-Dichloroethane	63	5.299	5.293	0.006	96	604674	5.00	4.91	
35 Isopropyl ether	45	5.354	5.361	-0.007	93	964505	5.00	5.10	
36 2-Chloro-1,3-butadiene	53	5.409	5.403	0.006	89	482121	5.00	5.36	
37 Tert-butyl ethyl ether	59	5.891	5.891	0.000	97	919646	5.00	5.24	
38 2-Butanone (MEK)	43	6.092	6.092	0.000	99	1145304	62.5	66.2	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 cis-1,2-Dichloroethene	96	6.122	6.123	-0.001	81	382935	5.00	5.10	
40 2,2-Dichloropropane	77	6.147	6.141	0.006	85	503946	5.00	5.05	
43 Propionitrile	54	6.177	6.177	0.000	98	191392	37.5	38.2	
45 Methacrylonitrile	67	6.391	6.391	0.000	90	699357	37.5	38.8	
46 Chlorobromomethane	128	6.452	6.452	0.000	92	170446	5.00	5.01	
47 Tetrahydrofuran	71	6.476	6.464	0.012	82	137605	25.0	27.5	
48 Chloroform	83	6.604	6.604	0.000	92	594680	5.00	4.82	
\$ 49 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	576568	10.0	9.62	
50 1,1,1-Trichloroethane	97	6.836	6.830	0.006	98	528110	5.00	4.78	
51 Cyclohexane	56	6.933	6.933	0.000	89	527697	5.00	4.77	
53 1,1-Dichloropropene	75	7.043	7.043	0.000	97	477658	5.00	4.97	
54 Carbon tetrachloride	117	7.043	7.043	0.000	96	470757	5.00	4.77	
55 Isobutyl alcohol	41	7.189	7.183	0.006	95	165321	125.0	145.3	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.269	0.006	93	123050	10.0	10.0	
57 Benzene	78	7.299	7.299	0.000	96	1445627	5.00	5.00	
58 1,2-Dichloroethane	62	7.372	7.372	0.000	97	358250	5.00	4.65	
60 Tert-amyl methyl ether	73	7.488	7.488	0.000	99	855361	5.00	5.14	
* 61 Fluorobenzene (IS)	96	7.701	7.702	-0.001	99	2386825	10.0	10.0	
62 n-Heptane	43	7.714	7.714	0.000	90	446014	5.00	4.31	
63 n-Butanol	56	8.067	8.061	0.006	88	317313	250.0	303.7	
64 Trichloroethene	95	8.183	8.183	0.000	97	374072	5.00	4.86	
65 Methylcyclohexane	83	8.494	8.494	0.000	94	589530	5.00	4.65	
66 1,2-Dichloropropane	63	8.512	8.506	0.006	86	370000	5.00	4.96	
67 Methyl methacrylate	69	8.591	8.592	-0.001	88	172053	5.00	5.30	
68 1,4-Dioxane	88	8.604	8.598	0.006	34	34954	125.0	150.8	
69 Dibromomethane	93	8.622	8.622	0.000	94	174259	5.00	4.87	
71 Dichlorobromomethane	83	8.854	8.854	0.000	99	442176	5.00	5.00	
72 2-Nitropropane	41	9.122	9.116	0.006	99	46547	5.00	4.86	
75 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	98	374957	5.00	4.92	
76 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	97	532786	5.00	5.02	
77 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	3016918	62.5	72.2	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2398276	10.0	10.2	
79 Toluene	92	9.780	9.780	0.000	98	948542	5.00	5.09	
97 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	90	458662	5.00	5.39	
99 Ethyl methacrylate	69	10.097	10.097	0.000	88	365021	5.00	5.67	
100 1,1,2-Trichloroethane	97	10.237	10.238	-0.001	90	278267	5.00	5.29	
101 Tetrachloroethene	166	10.329	10.329	0.000	97	444050	5.00	4.99	
102 1,3-Dichloropropane	76	10.402	10.402	0.000	87	461362	5.00	5.25	
103 2-Hexanone	43	10.451	10.451	0.000	95	2192569	62.5	72.5	
105 Chlorodibromomethane	129	10.615	10.616	-0.001	90	343252	5.00	5.31	
106 Ethylene Dibromide	107	10.731	10.731	0.000	99	252745	5.00	5.19	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1818525	10.0	10.0	
108 1-Chlorohexane	91	11.164	11.164	0.000	96	514804	5.00	4.93	
109 Chlorobenzene	112	11.182	11.183	-0.001	96	1089785	5.00	5.21	
111 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	375714	5.00	5.26	
112 Ethylbenzene	91	11.268	11.268	0.000	98	1831501	5.00	5.27	
113 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1457240	10.0	10.8	
114 o-Xylene	106	11.713	11.713	0.000	96	692427	5.00	5.38	
115 Styrene	104	11.725	11.725	0.000	95	1173803	5.00	5.76	
116 Bromoform	173	11.883	11.884	-0.001	97	217606	5.00	5.64	
117 Isopropylbenzene	105	12.012	12.012	0.000	95	1843056	5.00	5.51	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	850577	10.0	9.83	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
121 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	94	362252	5.00	5.63	
122 Bromobenzene	156	12.274	12.274	0.000	95	461721	5.00	5.57	
123 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	89	338574	25.0	22.9	
124 1,2,3-Trichloropropane	110	12.298	12.298	0.000	81	99067	5.00	5.83	
125 N-Propylbenzene	91	12.341	12.341	0.000	99	2197001	5.00	5.53	
126 2-Chlorotoluene	126	12.414	12.414	0.000	97	446647	5.00	5.45	
127 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1537399	5.00	5.53	
128 4-Chlorotoluene	126	12.505	12.505	0.000	97	467929	5.00	5.59	
129 tert-Butylbenzene	134	12.713	12.713	0.000	92	341127	5.00	5.48	
131 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1577948	5.00	5.71	
132 sec-Butylbenzene	105	12.877	12.877	0.000	94	2007482	5.00	5.58	
133 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	885932	5.00	5.53	
134 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1745974	5.00	5.77	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	999856	10.0	10.0	
136 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	901834	5.00	5.45	
137 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	696850	5.00	5.47	
138 Benzyl chloride	126	13.127	13.127	0.000	98	140575	5.00	5.82	
139 n-Butylbenzene	92	13.280	13.280	0.000	97	802232	5.00	5.56	
140 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	824978	5.00	5.54	
142 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	89	49554	5.00	5.40	
143 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	608889	5.00	5.57	
144 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	504848	5.00	5.73	
145 Hexachlorobutadiene	225	14.487	14.481	0.006	96	204460	5.00	4.91	
146 Naphthalene	128	14.584	14.584	0.000	97	993468	5.00	6.11	
147 1,2,3-Trichlorobenzene	180	14.724	14.725	-0.001	96	449768	5.00	5.76	
150 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
155 2-Methylnaphthalene	142		0.000				ND	ND	
156 p-Diethylbenzene	1		0.000				ND	ND	
161 Pentane	43		0.000				ND	ND	
165 Isopropyl alcohol	45		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_00066	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00069	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00093	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00003	Amount Added: 12.50	Units: uL	
LCS_ETBR_00003	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X003.D

Injection Date: 07-Aug-2022 13:12:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

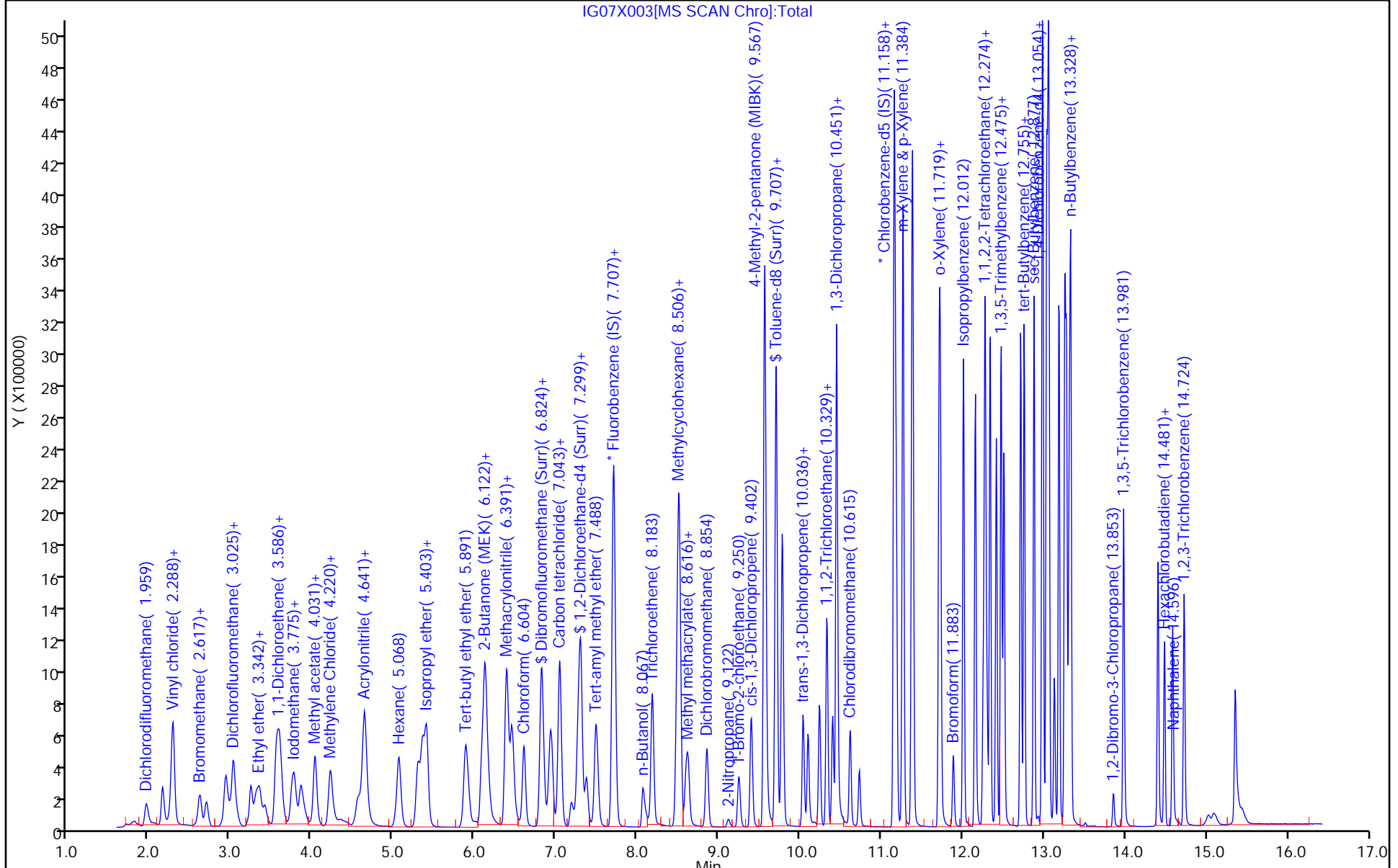
ALS Bottle#: 3

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X003.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 07-Aug-2022 13:12:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063569-004  
 Misc. Info.: LCS  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 07-Aug-2022 14:42:30 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1634

First Level Reviewer: DVW2 Date: 07-Aug-2022 14:01:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	9.62	96.22
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	99.98
\$ 78 Toluene-d8 (Surr)	10.0	10.2	101.63
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.83	98.30

Eurofins Lancaster Laboratories Environment Testing, LLC

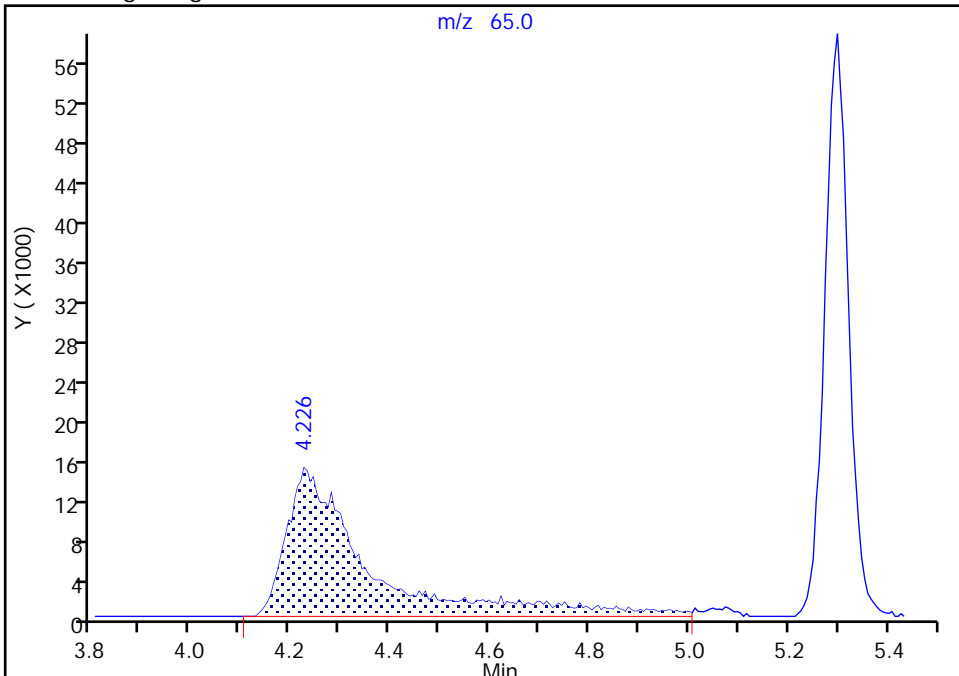
Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X003.D  
Injection Date: 07-Aug-2022 13:12:30 Instrument ID: 19930  
Lims ID: LCS  
Client ID:  
Operator ID: knk41612 ALS Bottle#: 3 Worklist Smp#: 4  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

\* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

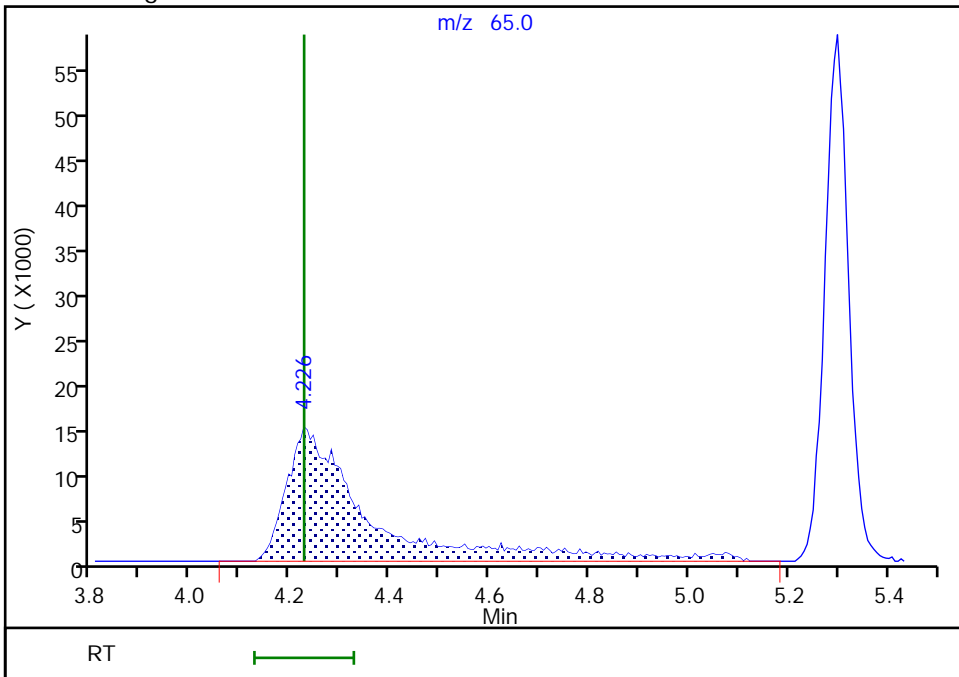
RT: 4.23  
Area: 164980  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.23  
Area: 168809  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



Reviewer: DVW2, 07-Aug-2022 14:01:16  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

Client Sample ID:

Lab Sample ID: LCSD 410-283558/5

Matrix: Water

Lab File ID: IG07X004.D

Analysis Method: 8260D

Date Collected:

Sample wt/vol: 25 (mL)

Date Analyzed: 08/07/2022 13:33

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 283558

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.32		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.75		0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	5.71		0.50	0.10
79-00-5	1,1,2-Trichloroethane	5.33		0.50	0.080
75-34-3	1,1-Dichloroethane	4.88		0.50	0.10
75-35-4	1,1-Dichloroethene	5.03		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	5.26		0.50	0.080
107-06-2	1,2-Dichloroethane	4.60		0.50	0.070
78-87-5	1,2-Dichloropropane	4.95		0.50	0.10
78-93-3	2-Butanone (MEK)	62.1		5.0	1.0
591-78-6	2-Hexanone	67.5		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	67.1		5.0	1.0
67-64-1	Acetone	56.0		5.0	1.0
71-43-2	Benzene	5.00		0.50	0.10
74-97-5	Bromochloromethane	4.97		0.50	0.080
75-27-4	Bromodichloromethane	4.98		0.50	0.080
75-25-2	Bromoform	5.58		1.0	0.30
74-83-9	Bromomethane	4.32		0.50	0.10
75-15-0	Carbon disulfide	5.51		1.0	0.10
56-23-5	Carbon tetrachloride	4.76		0.50	0.10
108-90-7	Chlorobenzene	5.23		0.50	0.070
75-00-3	Chloroethane	4.60		0.50	0.10
67-66-3	Chloroform	4.85		0.50	0.090
74-87-3	Chloromethane	4.70		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	5.08		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	5.03		0.50	0.10
124-48-1	Dibromochloromethane	5.38		0.50	0.080
100-41-4	Ethylbenzene	5.27		0.50	0.080
1634-04-4	Methyl tert-butyl ether	5.08		0.50	0.080
75-09-2	Methylene Chloride	4.97		0.50	0.10
100-42-5	Styrene	5.76		0.50	0.070
127-18-4	Tetrachloroethene	4.99		0.50	0.20
108-88-3	Toluene	5.09		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: \_\_\_\_\_      Lab Sample ID: LCSD 410-283558/5

Matrix: Water      Lab File ID: IG07X004.D

Analysis Method: 8260D      Date Collected: \_\_\_\_\_

Sample wt/vol: 25 (mL)      Date Analyzed: 08/07/2022 13:33

Soil Aliquot Vol: \_\_\_\_\_      Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_      % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 283558      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	4.93		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	5.45		0.50	0.080
79-01-6	Trichloroethene	4.88		0.50	0.080
75-01-4	Vinyl chloride	4.77		0.50	0.10
1330-20-7	Xylenes, Total	16.3		1.0	0.070

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)	97		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X004.D  
 Lims ID: LCSD  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 07-Aug-2022 13:33:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063569-005  
 Misc. Info.: LCSD  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 07-Aug-2022 14:42:30 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1634

First Level Reviewer: DVW2

Date: 07-Aug-2022 14:03:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.959	0.012	99	323129	5.00	4.35	
4 Chloromethane	50	2.166	2.160	0.006	99	396708	5.00	4.70	
5 Vinyl chloride	62	2.276	2.270	0.006	98	396181	5.00	4.77	
6 Butadiene	39	2.300	2.288	0.012	90	378430	5.00	4.02	
7 Bromomethane	94	2.629	2.617	0.012	90	250421	5.00	4.32	
8 Chloroethane	64	2.709	2.696	0.013	100	224577	5.00	4.60	
9 Dichlorofluoromethane	67	2.946	2.940	0.006	96	481336	5.00	4.25	
10 Trichlorofluoromethane	101	3.013	3.007	0.006	97	463226	5.00	4.22	
11 Ethyl ether	59	3.257	3.245	0.012	90	246921	4.98	4.66	
13 1,2-Dichloro-1,1,2-trifluoroethane	67	3.343	3.343	0.000	95	387855	5.00	4.67	
14 Acrolein	56	3.428	3.416	0.012	98	246228	37.5	28.7	
15 1,1-Dichloroethene	96	3.568	3.562	0.006	97	307657	5.00	5.03	
16 Acetone	43	3.593	3.580	0.012	100	566510	62.5	56.0	
17 1,1,2-Trichloro-1,2,2-trifluoroethane	101	3.617	3.605	0.012	91	302177	5.00	4.89	
18 Iodomethane	142	3.769	3.757	0.012	99	568952	5.00	5.29	
19 Ethyl bromide	108	3.794	3.782	0.012	98	210876	4.89	3.81	
20 Carbon disulfide	76	3.873	3.867	0.006	99	842529	5.00	5.51	
23 Methyl acetate	43	4.019	4.007	0.012	96	137873	5.00	4.63	
24 3-Chloro-1-propene	41	4.044	4.038	0.006	93	473878	5.00	5.30	
25 Methylene Chloride	84	4.239	4.221	0.019	91	332910	5.00	4.97	
* 26 t-Butyl alcohol-d10 (IS)	65	4.245	4.227	0.018	100	183499	50.0	50.0	M
27 2-Methyl-2-propanol	59	4.367	4.355	0.012	98	169111	50.0	53.6	
28 Acrylonitrile	53	4.574	4.556	0.018	99	347202	25.0	24.5	
29 Methyl tert-butyl ether	73	4.647	4.641	0.006	94	779706	5.00	5.08	
30 trans-1,2-Dichloroethene	96	4.653	4.641	0.012	100	334839	5.00	4.93	
31 Hexane	57	5.074	5.068	0.006	90	437104	5.00	4.61	
32 1,1-Dichloroethane	63	5.306	5.293	0.013	96	607280	5.00	4.88	a
35 Isopropyl ether	45	5.373	5.361	0.012	94	977758	5.00	5.11	
36 2-Chloro-1,3-butadiene	53	5.415	5.403	0.012	89	483138	5.00	5.31	
37 Tert-butyl ethyl ether	59	5.897	5.891	0.006	97	930869	5.00	5.25	
38 2-Butanone (MEK)	43	6.098	6.092	0.006	99	1166573	62.5	62.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 cis-1,2-Dichloroethene	96	6.129	6.123	0.006	85	386163	5.00	5.08	
40 2,2-Dichloropropane	77	6.153	6.141	0.012	86	506483	5.00	5.02	
43 Propionitrile	54	6.190	6.177	0.013	98	190205	37.5	34.9	
45 Methacrylonitrile	67	6.397	6.391	0.006	90	704492	37.5	35.9	
46 Chlorobromomethane	128	6.458	6.452	0.006	92	171036	5.00	4.97	
47 Tetrahydrofuran	71	6.476	6.464	0.012	81	140232	25.0	25.8	
48 Chloroform	83	6.610	6.604	0.006	93	604904	5.00	4.85	
\$ 49 Dibromofluoromethane (Surr)	113	6.824	6.818	0.006	94	584971	10.0	9.66	
50 1,1,1-Trichloroethane	97	6.836	6.830	0.006	98	530282	5.00	4.75	
51 Cyclohexane	56	6.939	6.933	0.006	89	532473	5.00	4.76	
53 1,1-Dichloropropene	75	7.049	7.043	0.006	97	481514	5.00	4.96	
54 Carbon tetrachloride	117	7.049	7.043	0.006	82	475303	5.00	4.76	
55 Isobutyl alcohol	41	7.195	7.183	0.012	95	174965	125.0	141.5	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.269	0.006	91	123783	10.0	9.95	
57 Benzene	78	7.305	7.299	0.006	97	1459855	5.00	5.00	
58 1,2-Dichloroethane	62	7.378	7.372	0.006	97	358107	5.00	4.60	
60 Tert-amyl methyl ether	73	7.500	7.488	0.012	99	877682	5.00	5.21	
* 61 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2413101	10.0	10.0	
62 n-Heptane	43	7.720	7.714	0.006	91	446047	5.00	4.27	
63 n-Butanol	56	8.073	8.061	0.012	88	330818	250.0	291.2	
64 Trichloroethene	95	8.183	8.183	0.000	97	379293	5.00	4.88	
65 Methylcyclohexane	83	8.494	8.494	0.000	93	598516	5.00	4.67	
66 1,2-Dichloropropane	63	8.512	8.506	0.006	86	373210	5.00	4.95	
67 Methyl methacrylate	69	8.598	8.592	0.006	90	174076	5.00	4.93	
68 1,4-Dioxane	88	8.610	8.598	0.012	31	41535	125.0	164.9	M
69 Dibromomethane	93	8.628	8.622	0.006	94	176692	5.00	4.89	
71 Dichlorobromomethane	83	8.860	8.854	0.006	99	445243	5.00	4.98	
72 2-Nitropropane	41	9.122	9.116	0.006	98	44255	5.00	4.25	
75 1-Bromo-2-chloroethane	63	9.250	9.244	0.006	98	375554	5.00	4.88	
76 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	98	539631	5.00	5.03	
77 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	3049219	62.5	67.1	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2422332	10.0	10.2	
79 Toluene	92	9.786	9.780	0.006	99	952302	5.00	5.09	
97 trans-1,3-Dichloropropene	75	10.042	10.036	0.006	91	465194	5.00	5.45	
99 Ethyl methacrylate	69	10.097	10.097	0.000	88	373455	5.00	5.79	
100 1,1,2-Trichloroethane	97	10.244	10.238	0.006	90	281108	5.00	5.33	
101 Tetrachloroethene	166	10.329	10.329	0.000	98	445086	5.00	4.99	
102 1,3-Dichloropropane	76	10.402	10.402	0.000	87	460487	5.00	5.22	
103 2-Hexanone	43	10.451	10.451	0.000	95	2219025	62.5	67.5	
105 Chlorodibromomethane	129	10.616	10.616	0.000	89	348855	5.00	5.38	
106 Ethylene Dibromide	107	10.731	10.731	0.000	99	256439	5.00	5.26	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1823486	10.0	10.0	
108 1-Chlorohexane	91	11.164	11.164	0.000	95	521750	5.00	4.98	
109 Chlorobenzene	112	11.182	11.183	-0.001	96	1097959	5.00	5.23	
111 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	381076	5.00	5.32	
112 Ethylbenzene	91	11.268	11.268	0.000	98	1836974	5.00	5.27	
113 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1472214	10.0	10.9	
114 o-Xylene	106	11.713	11.713	0.000	96	701930	5.00	5.44	
115 Styrene	104	11.725	11.725	0.000	95	1175663	5.00	5.76	
116 Bromoform	173	11.890	11.884	0.006	98	215969	5.00	5.58	
117 Isopropylbenzene	105	12.012	12.012	0.000	95	1861070	5.00	5.55	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	94	858417	10.0	9.89	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
121 1,1,2,2-Tetrachloroethane	83	12.255	12.249	0.006	93	366415	5.00	5.71	
122 Bromobenzene	156	12.274	12.274	0.000	95	468824	5.00	5.67	
123 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	87	353366	25.0	22.0	
124 1,2,3-Trichloropropane	110	12.298	12.298	0.000	80	97623	5.00	5.76	
125 N-Propylbenzene	91	12.341	12.341	0.000	99	2211748	5.00	5.58	
126 2-Chlorotoluene	126	12.414	12.414	0.000	97	452499	5.00	5.54	
127 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1550783	5.00	5.60	
128 4-Chlorotoluene	126	12.505	12.505	0.000	97	463252	5.00	5.56	
129 tert-Butylbenzene	134	12.713	12.713	0.000	92	341818	5.00	5.51	
131 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1593154	5.00	5.79	
132 sec-Butylbenzene	105	12.877	12.877	0.000	94	2035427	5.00	5.68	
133 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	882187	5.00	5.52	
134 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1746451	5.00	5.79	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	996342	10.0	10.0	
136 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	906673	5.00	5.50	
137 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	706312	5.00	5.56	
138 Benzyl chloride	126	13.127	13.127	0.000	98	139634	5.00	5.80	
139 n-Butylbenzene	92	13.280	13.280	0.000	97	804177	5.00	5.59	
140 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	823587	5.00	5.55	
142 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	91	51213	5.00	5.60	
143 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	604035	5.00	5.55	
144 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	496723	5.00	5.66	
145 Hexachlorobutadiene	225	14.481	14.481	0.000	96	207531	5.00	5.00	
146 Naphthalene	128	14.584	14.584	0.000	97	977088	5.00	6.03	
147 1,2,3-Trichlorobenzene	180	14.724	14.725	-0.001	96	440728	5.00	5.66	
150 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
155 2-Methylnaphthalene	142		0.000				ND	ND	
156 p-Diethylbenzene	1		0.000				ND	ND	
161 Pentane	43		0.000				ND	ND	
165 Isopropyl alcohol	45		0.000				ND	ND	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

MSV_LCS_VOC#1_00066	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00069	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00093	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00003	Amount Added: 12.50	Units: uL	
LCS_ETBR_00003	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X004.D

Injection Date: 07-Aug-2022 13:33:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: LCSD

Worklist Smp#: 5

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

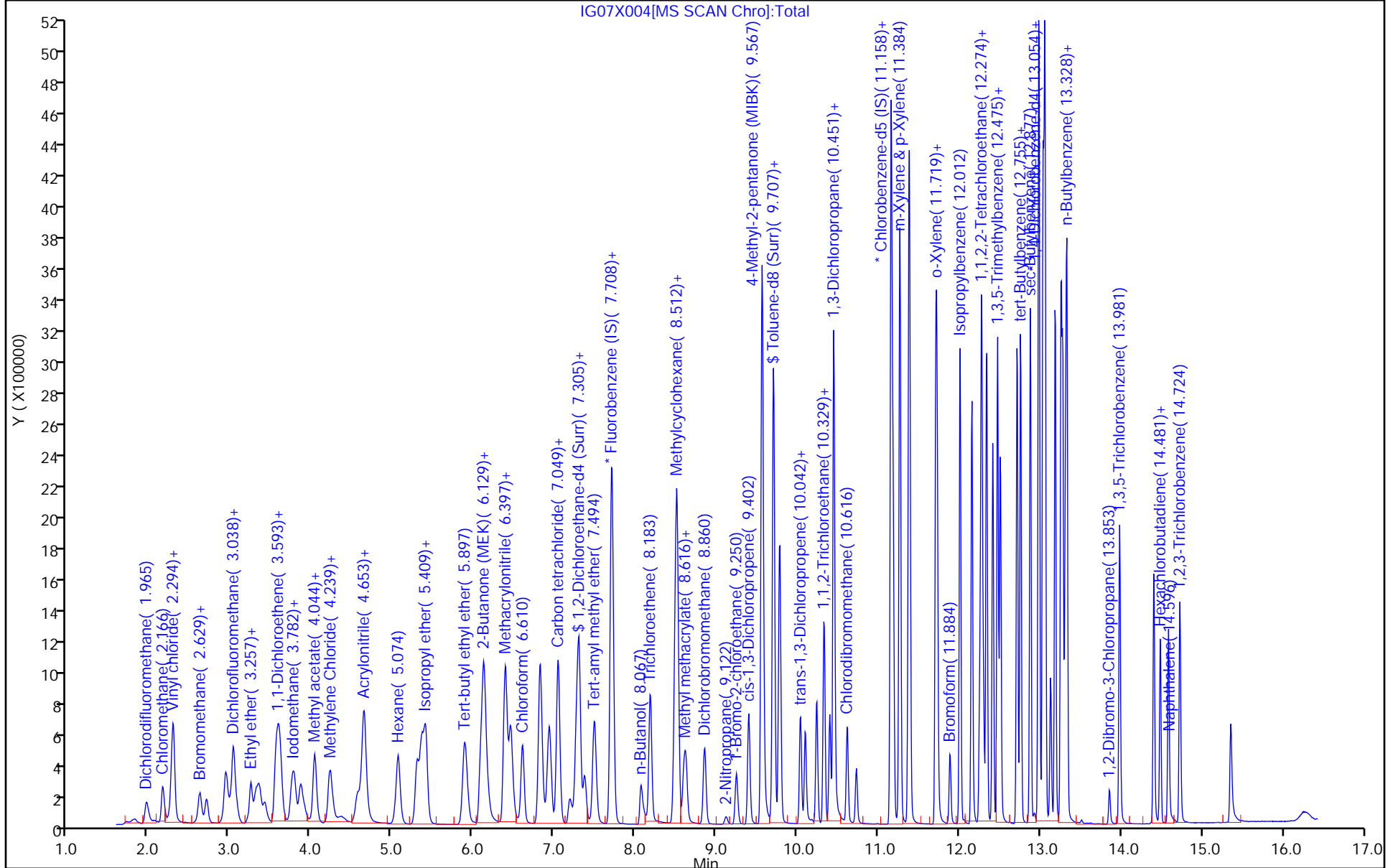
ALS Bottle#: 4

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X004.D  
 Lims ID: LCSD  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 07-Aug-2022 13:33:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063569-005  
 Misc. Info.: LCSD  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 07-Aug-2022 14:42:30 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1634

First Level Reviewer: DVW2 Date: 07-Aug-2022 14:03:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	9.66	96.56
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	9.95	99.48
\$ 78 Toluene-d8 (Surr)	10.0	10.2	102.37
\$ 120 4-Bromofluorobenzene (Surr)	10.0	9.89	98.93

Eurofins Lancaster Laboratories Environment Testing, LLC

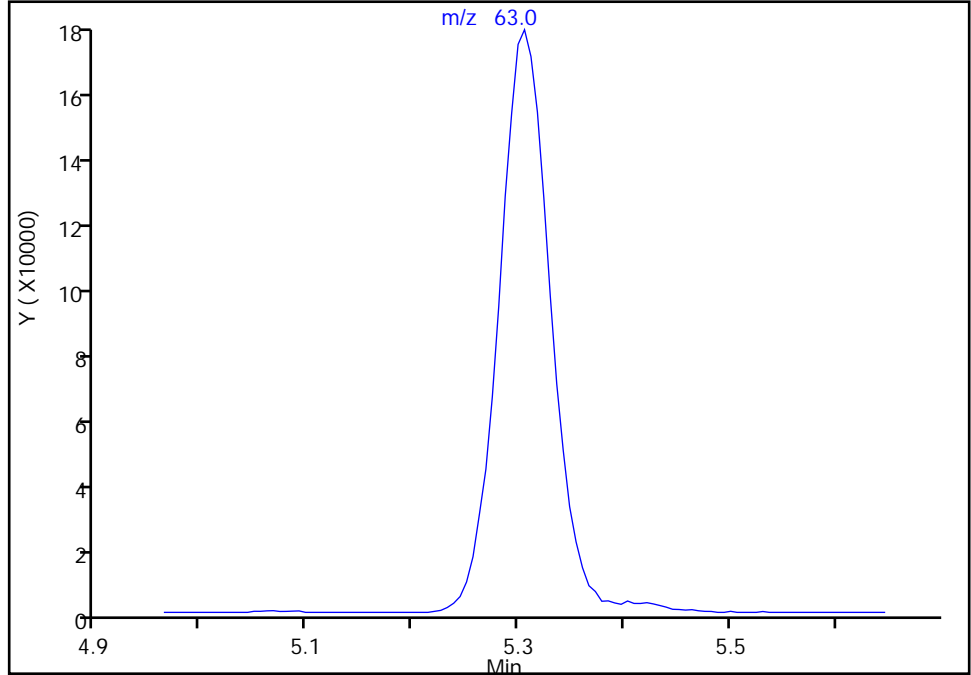
Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X004.D  
Injection Date: 07-Aug-2022 13:33:30 Instrument ID: 19930  
Lims ID: LCSD  
Client ID:  
Operator ID: knk41612 ALS Bottle#: 4 Worklist Smp#: 5  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

32 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

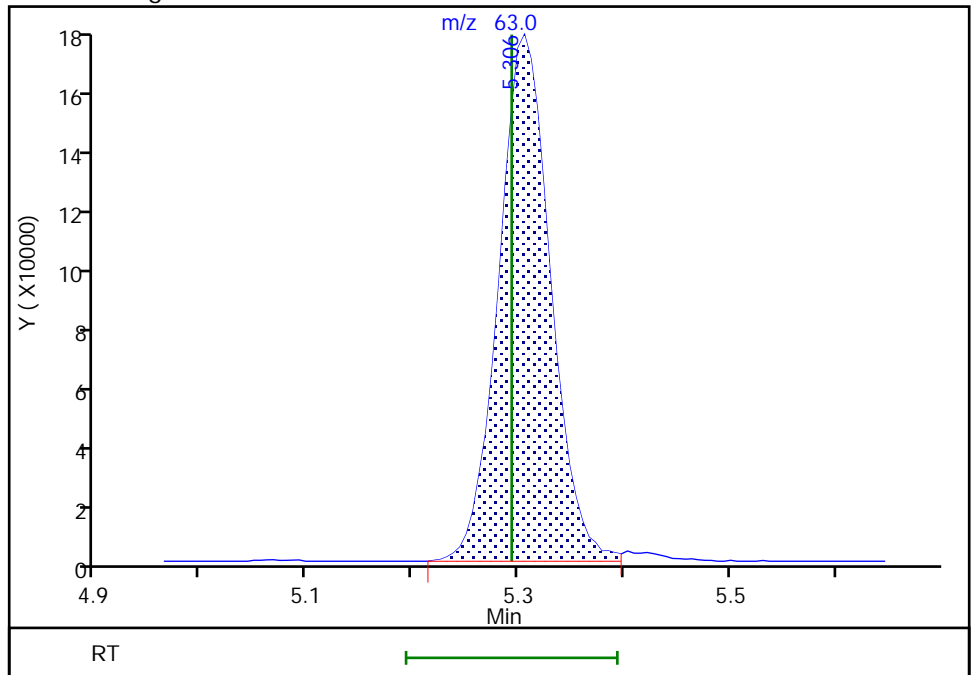
Not Detected  
Expected RT: 5.29

Processing Integration Results



Manual Integration Results

RT: 5.31  
Area: 607280  
Amount: 4.882171  
Amount Units: ug/l



Reviewer: DVW2, 07-Aug-2022 14:02:37  
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

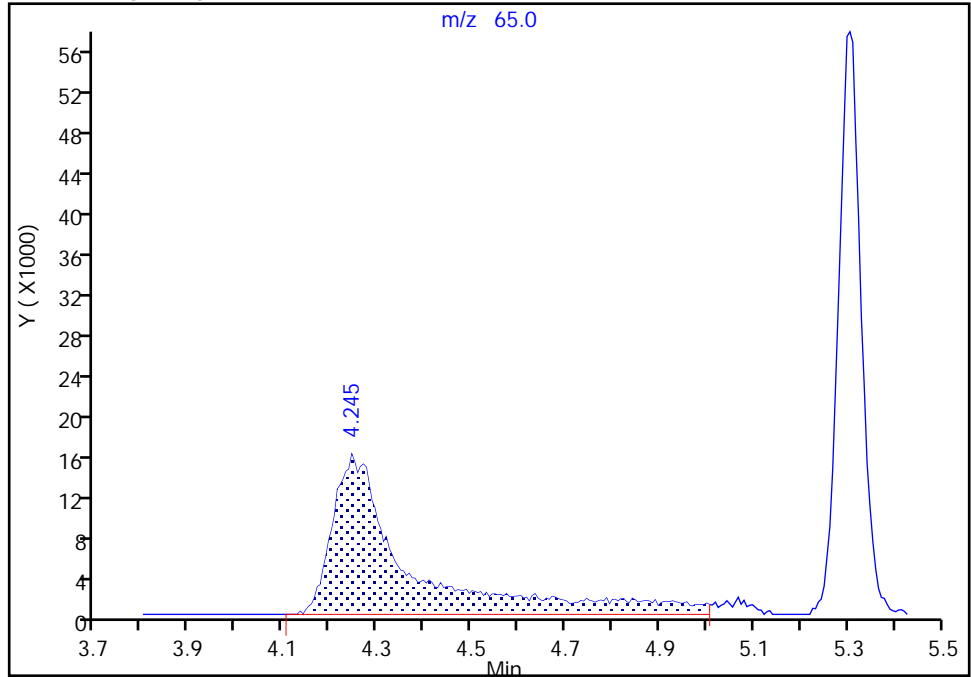
Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220807-63569.b\IG07X004.D  
Injection Date: 07-Aug-2022 13:33:30 Instrument ID: 19930  
Lims ID: LCSD  
Client ID:  
Operator ID: knk41612 ALS Bottle#: 4 Worklist Smp#: 5  
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 ID) Detector: MS Quad

\* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2  
Signal: 1

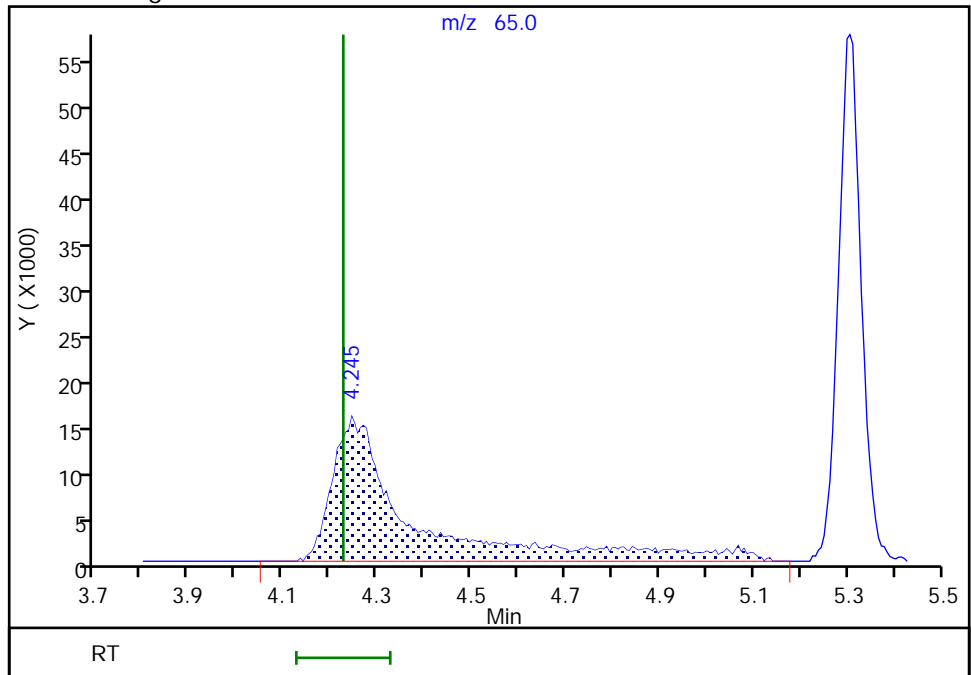
RT: 4.24  
Area: 176962  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.24  
Area: 183499  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-6 MS

Matrix: Water

Lab File ID: IG04X17.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:45

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 16:03

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.21		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.82		0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	4.98		0.50	0.10
79-00-5	1,1,2-Trichloroethane	5.28		0.50	0.080
75-34-3	1,1-Dichloroethane	5.65		0.50	0.10
75-35-4	1,1-Dichloroethene	6.06		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	5.14		0.50	0.080
107-06-2	1,2-Dichloroethane	5.24		0.50	0.070
78-87-5	1,2-Dichloropropane	5.59		0.50	0.10
78-93-3	2-Butanone (MEK)	57.9		5.0	1.0
591-78-6	2-Hexanone	57.2		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	58.9		5.0	1.0
67-64-1	Acetone	56.3		5.0	1.0
71-43-2	Benzene	5.73		0.50	0.10
74-97-5	Bromochloromethane	5.70		0.50	0.080
75-27-4	Bromodichloromethane	5.49		0.50	0.080
75-25-2	Bromoform	4.94		1.0	0.30
74-83-9	Bromomethane	5.24		0.50	0.10
75-15-0	Carbon disulfide	6.32		1.0	0.10
56-23-5	Carbon tetrachloride	5.73		0.50	0.10
108-90-7	Chlorobenzene	5.32		0.50	0.070
75-00-3	Chloroethane	5.51		0.50	0.10
67-66-3	Chloroform	5.88		0.50	0.090
74-87-3	Chloromethane	5.70		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	7.25		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	5.25		0.50	0.10
124-48-1	Dibromochloromethane	5.07		0.50	0.080
100-41-4	Ethylbenzene	5.44		0.50	0.080
1634-04-4	Methyl tert-butyl ether	5.60		0.50	0.080
75-09-2	Methylene Chloride	5.62		0.50	0.10
100-42-5	Styrene	5.70		0.50	0.070
127-18-4	Tetrachloroethene	10.4		0.50	0.20
108-88-3	Toluene	5.36		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-6 MS

Matrix: Water

Lab File ID: IG04X17.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:45

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 16:03

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	5.67		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	5.21		0.50	0.080
79-01-6	Trichloroethene	7.05		0.50	0.080
75-01-4	Vinyl chloride	5.91		0.50	0.10
1330-20-7	Xylenes, Total	16.6		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		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 Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X17.D  
 Lims ID: 410-92859-A-6 MS  
 Client ID: HD-COD-SW-15-0/1-0 MS  
 Sample Type: MS  
 Inject. Date: 04-Aug-2022 16:03:30 ALS Bottle#: 17 Worklist Smp#: 18  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-018  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:47:36 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:48:10

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	1.971	-0.006	99	394596	5.00	5.97	
4 Chloromethane	50	2.160	2.172	-0.012	99	428028	5.00	5.70	
5 Vinyl chloride	62	2.270	2.282	-0.012	98	436694	5.00	5.91	
6 Butadiene	39	2.294	2.300	-0.006	90	479913	5.00	5.74	
7 Bromomethane	94	2.623	2.629	-0.006	90	270103	5.00	5.24	
8 Chloroethane	64	2.702	2.708	-0.006	100	239249	5.00	5.51	
9 Dichlorofluoromethane	67	2.940	2.958	-0.018	97	562693	5.00	5.59	
10 Trichlorofluoromethane	101	3.007	3.013	-0.006	96	567984	5.00	5.83	
11 Ethyl ether	59	3.245	3.257	-0.012	90	251830	4.99	5.35	
13 1,2-Dichloro-1,1,2-trifluoroetha	67	3.343	3.355	-0.012	93	435057	5.00	5.89	
14 Acrolein	56	3.422	3.428	-0.006	99	256912	37.5	29.6	
15 1,1-Dichloroethene	96	3.562	3.568	-0.006	97	329462	5.00	6.06	
16 Acetone	43	3.592	3.592	0.000	100	576652	62.6	56.3	
17 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.605	3.617	-0.012	90	348192	5.00	6.33	
18 Iodomethane	142	3.763	3.775	-0.012	98	572237	5.00	5.98	
19 Ethyl bromide	108	3.788	3.794	-0.006	98	225802	4.89	4.59	
20 Carbon disulfide	76	3.873	3.879	-0.006	99	859430	5.00	6.32	
23 Methyl acetate	43	4.013	4.013	0.000	96	127837	5.00	4.24	
24 3-Chloro-1-propene	41	4.038	4.044	-0.006	93	462060	5.00	5.81	
25 Methylene Chloride	84	4.227	4.233	-0.007	90	334704	5.00	5.62	
* 26 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	99	185791	50.0	50.0	
27 2-Methyl-2-propanol	59	4.379	4.373	0.006	99	161367	50.0	50.5	
28 Acrylonitrile	53	4.562	4.568	-0.006	99	334169	25.0	23.3	
29 Methyl tert-butyl ether	73	4.647	4.641	0.006	92	765249	5.00	5.60	
30 trans-1,2-Dichloroethene	96	4.647	4.653	-0.006	99	342253	5.00	5.67	
31 Hexane	57	5.068	5.074	-0.006	91	504143	5.00	5.98	
32 1,1-Dichloroethane	63	5.299	5.306	-0.007	96	624636	5.00	5.65	
35 Isopropyl ether	45	5.360	5.366	-0.006	94	941836	5.00	5.54	
36 2-Chloro-1,3-butadiene	53	5.409	5.415	-0.006	89	505569	5.00	6.25	
37 Tert-butyl ethyl ether	59	5.891	5.897	-0.006	96	882015	5.00	5.59	
38 2-Butanone (MEK)	43	6.098	6.098	0.000	99	1101511	62.6	57.9	
39 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	80	489375	5.00	7.25	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2,2-Dichloropropane	77	6.147	6.147	0.000	85	522875	5.00	5.83	
43 Propionitrile	54	6.190	6.177	0.013	98	201617	37.5	36.5	
45 Methacrylonitrile	67	6.397	6.397	0.000	90	678872	37.5	34.2	
46 Chlorobromomethane	128	6.458	6.458	0.000	92	174586	5.00	5.70	
47 Tetrahydrofuran	71	6.470	6.476	-0.006	81	132198	25.0	24.0	
48 Chloroform	83	6.604	6.610	-0.006	92	652610	5.00	5.88	
\$ 49 Dibromofluoromethane (Surr)	113	6.817	6.824	-0.007	94	538690	10.0	10.0	
50 1,1,1-Trichloroethane	97	6.836	6.842	-0.006	98	577412	5.00	5.82	
51 Cyclohexane	56	6.933	6.939	-0.006	89	588502	5.00	5.92	
53 1,1-Dichloropropene	75	7.043	7.049	-0.006	97	506449	5.00	5.87	
54 Carbon tetrachloride	117	7.049	7.049	0.000	97	508211	5.00	5.73	
55 Isobutyl alcohol	41	7.195	7.189	0.006	95	155862	125.1	124.5	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	87	108323	10.0	9.79	
57 Benzene	78	7.305	7.305	0.000	96	1487100	5.00	5.73	
58 1,2-Dichloroethane	62	7.372	7.372	0.000	97	362928	5.00	5.24	
60 Tert-amyl methyl ether	73	7.494	7.500	-0.006	99	825194	5.00	5.52	
* 61 Fluorobenzene (IS)	96	7.708	7.707	0.001	99	2145064	10.0	10.0	
62 n-Heptane	43	7.720	7.720	0.000	90	531815	5.00	5.72	
63 n-Butanol	56	8.073	8.067	0.006	88	275532	250.2	239.6	
64 Trichloroethene	95	8.183	8.183	0.000	97	487227	5.00	7.05	
65 Methylcyclohexane	83	8.494	8.494	0.000	93	679755	5.00	5.96	
66 1,2-Dichloropropane	63	8.512	8.512	0.000	97	374956	5.00	5.59	
67 Methyl methacrylate	69	8.598	8.598	0.000	88	163025	5.00	4.56	
68 1,4-Dioxane	88	8.610	8.598	0.012	36	40358	125.1	158.2	
69 Dibromomethane	93	8.622	8.622	0.000	94	173834	5.00	5.41	
71 Dichlorobromomethane	83	8.854	8.854	0.000	99	436508	5.00	5.49	
72 2-Nitropropane	41	9.122	9.116	0.006	98	41828	5.00	3.96	
75 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	384112	5.00	5.61	
76 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	98	500838	5.00	5.25	
77 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	2710146	62.6	58.9	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2239581	10.0	9.80	
79 Toluene	92	9.786	9.780	0.006	98	968163	5.00	5.36	
97 trans-1,3-Dichloropropene	75	10.042	10.036	0.006	90	429429	5.00	5.21	
99 Ethyl methacrylate	69	10.097	10.097	0.000	88	328201	5.00	5.27	
100 1,1,2-Trichloroethane	97	10.238	10.237	0.001	90	269026	5.00	5.28	
101 Tetrachloroethene	166	10.329	10.335	-0.006	98	898285	5.00	10.4	
102 1,3-Dichloropropane	76	10.402	10.402	0.000	88	442938	5.00	5.20	
103 2-Hexanone	43	10.451	10.451	0.000	96	1903057	62.6	57.2	
105 Chlorodibromomethane	129	10.616	10.615	0.001	90	317185	5.00	5.07	
106 Ethylene Dibromide	107	10.731	10.731	0.000	99	242320	5.00	5.14	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1761204	10.0	10.0	
108 1-Chlorohexane	91	11.164	11.164	0.000	95	544596	5.00	5.39	
109 Chlorobenzene	112	11.182	11.182	0.000	96	1077283	5.00	5.32	
111 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	360570	5.00	5.21	
112 Ethylbenzene	91	11.268	11.268	0.000	98	1831401	5.00	5.44	
113 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1464853	10.0	11.2	
114 o-Xylene	106	11.713	11.713	0.000	96	676014	5.00	5.42	
115 Styrene	104	11.731	11.725	0.006	95	1124480	5.00	5.70	
116 Bromoform	173	11.884	11.883	0.001	97	184792	5.00	4.94	
117 Isopropylbenzene	105	12.012	12.012	0.000	95	1819754	5.00	5.62	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	95	837475	10.0	10.0	
121 1,1,2,2-Tetrachloroethane	83	12.255	12.249	0.006	93	319450	5.00	4.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
122 Bromobenzene	156	12.274	12.274	0.000	93	440597	5.00	5.33	
123 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	91	241057	25.0	14.8	
124 1,2,3-Trichloropropane	110	12.298	12.298	0.000	81	87045	5.00	5.14	
125 N-Propylbenzene	91	12.341	12.341	0.000	99	2169127	5.00	5.48	
126 2-Chlorotoluene	126	12.414	12.414	0.000	97	435106	5.00	5.33	
127 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1482798	5.00	5.35	
128 4-Chlorotoluene	126	12.511	12.505	0.006	96	454863	5.00	5.46	
129 tert-Butylbenzene	134	12.713	12.713	0.000	93	329678	5.00	5.31	
131 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1500072	5.00	5.45	
132 sec-Butylbenzene	105	12.877	12.877	0.000	94	1960817	5.00	5.47	
133 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	842448	5.00	5.27	
134 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1680571	5.00	5.57	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	996294	10.0	10.0	
136 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	857279	5.00	5.20	
137 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	663915	5.00	5.23	
138 Benzyl chloride	126	13.127	13.127	0.000	98	117833	5.00	4.90	
139 n-Butylbenzene	92	13.280	13.273	0.007	97	782625	5.00	5.44	
140 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	760442	5.00	5.12	
142 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	88	41201	5.00	4.50	
143 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	557266	5.00	5.12	
144 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	442858	5.00	5.05	
145 Hexachlorobutadiene	225	14.481	14.487	-0.006	96	204560	5.00	4.93	
146 Naphthalene	128	14.584	14.584	0.000	97	798797	5.00	4.93	
147 1,2,3-Trichlorobenzene	180	14.724	14.724	0.000	96	385890	5.00	4.96	
150 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
155 2-Methylnaphthalene	142		0.000				ND	ND	
156 p-Diethylbenzene	1		0.000				ND	ND	
161 Pentane	43		0.000				ND	ND	
165 Isopropyl alcohol	45		0.000				ND	ND	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Reagents:

MSV_LCS_VOC#1_00066	Amount Added: 5.38	Units: uL	
MSV_LCS_ACROL_00069	Amount Added: 5.38	Units: uL	
MSV_QC_Gas826_00093	Amount Added: 5.38	Units: uL	
MSV_LCS_EE_00003	Amount Added: 5.38	Units: uL	
LCS_ETBR_00003	Amount Added: 5.38	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X17.D

Injection Date: 04-Aug-2022 16:03:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-6 MS

Worklist Smp#: 18

Client ID: HD-COD-SW-15-0/1-0 MS

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

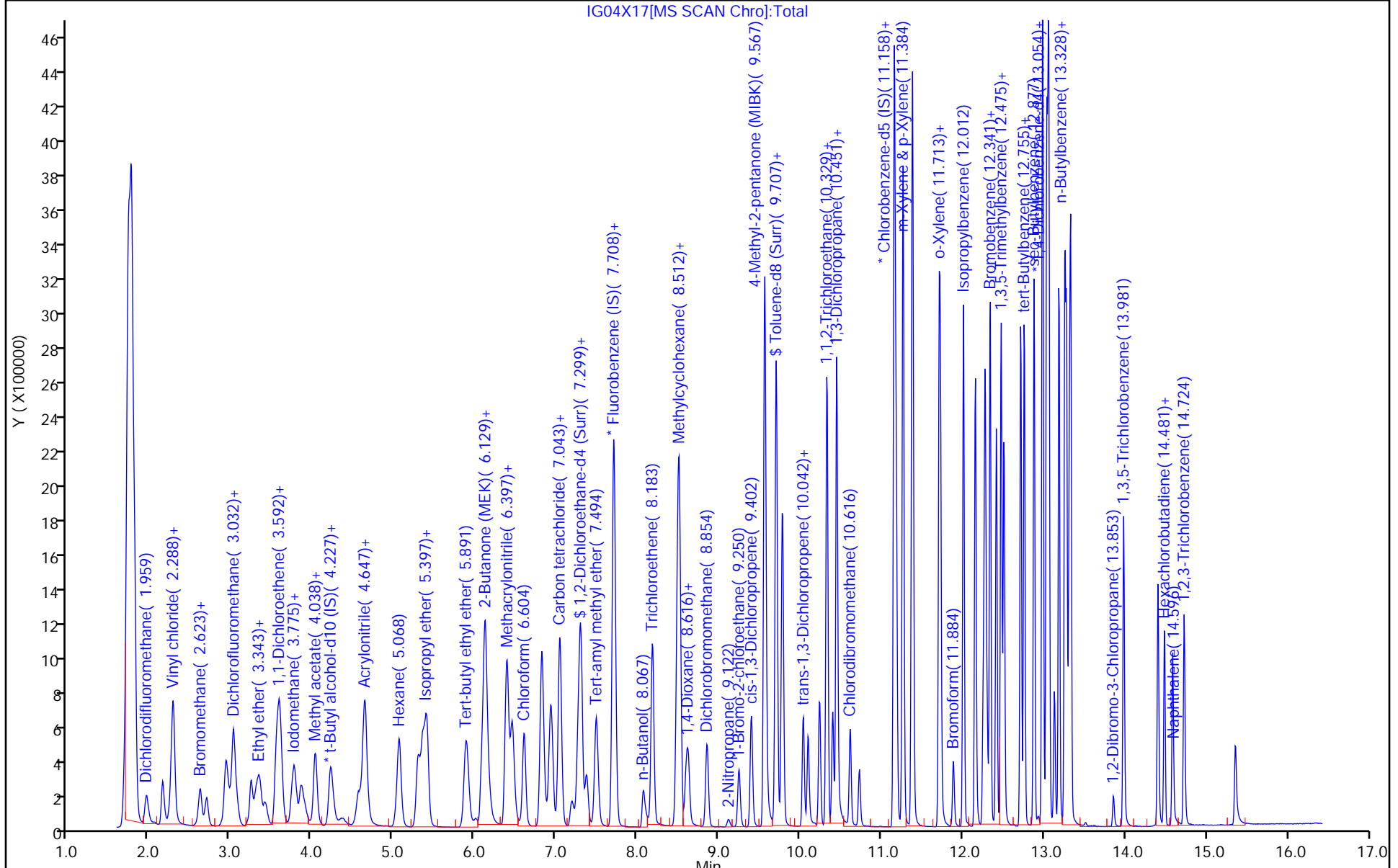
ALS Bottle#: 17

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X17.D  
 Lims ID: 410-92859-A-6 MS  
 Client ID: HD-COD-SW-15-0/1-0 MS  
 Sample Type: MS  
 Inject. Date: 04-Aug-2022 16:03:30 ALS Bottle#: 17 Worklist Smp#: 18  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-018  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:47:36 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:48:10

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	10.0	100.03
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	9.79	97.93
\$ 78 Toluene-d8 (Surr)	10.0	9.80	97.99
\$ 120 4-Bromofluorobenzene (Surr)	10.0	10.0	99.93

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories  
Environment Testing, LLC

Job No.: 410-92859-1

SDG No.:

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

Lab Sample ID: 410-92859-6 MSD

Matrix: Water

Lab File ID: IG04X18.D

Analysis Method: 8260D

Date Collected: 07/28/2022 13:45

Sample wt/vol: 25 (mL)

Date Analyzed: 08/04/2022 16:24

Soil Aliquot Vol:

Dilution Factor: 1

Soil Extract Vol.:

GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)

Heated Purge: (Y/N) N pH:

% Moisture: % Solids:

Level: (low/med) Low

Analysis Batch No.: 282764

Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.13		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.71		0.50	0.080
79-34-5	1,1,2,2-Tetrachloroethane	5.00		0.50	0.10
79-00-5	1,1,2-Trichloroethane	5.16		0.50	0.080
75-34-3	1,1-Dichloroethane	5.59		0.50	0.10
75-35-4	1,1-Dichloroethene	6.00		0.50	0.10
106-93-4	1,2-Dibromoethane (EDB)	5.12		0.50	0.080
107-06-2	1,2-Dichloroethane	4.92		0.50	0.070
78-87-5	1,2-Dichloropropane	5.49		0.50	0.10
78-93-3	2-Butanone (MEK)	58.1		5.0	1.0
591-78-6	2-Hexanone	57.9		5.0	0.10
108-10-1	4-Methyl-2-pentanone (MIBK)	59.5		5.0	1.0
67-64-1	Acetone	53.9		5.0	1.0
71-43-2	Benzene	5.62		0.50	0.10
74-97-5	Bromochloromethane	5.54		0.50	0.080
75-27-4	Bromodichloromethane	5.38		0.50	0.080
75-25-2	Bromoform	4.89		1.0	0.30
74-83-9	Bromomethane	5.39		0.50	0.10
75-15-0	Carbon disulfide	6.26		1.0	0.10
56-23-5	Carbon tetrachloride	5.60		0.50	0.10
108-90-7	Chlorobenzene	5.27		0.50	0.070
75-00-3	Chloroethane	5.22		0.50	0.10
67-66-3	Chloroform	5.81		0.50	0.090
74-87-3	Chloromethane	5.76		0.50	0.10
156-59-2	cis-1,2-Dichloroethene	7.16		0.50	0.080
10061-01-5	cis-1,3-Dichloropropene	5.26		0.50	0.10
124-48-1	Dibromochloromethane	5.03		0.50	0.080
100-41-4	Ethylbenzene	5.39		0.50	0.080
1634-04-4	Methyl tert-butyl ether	5.52		0.50	0.080
75-09-2	Methylene Chloride	5.50		0.50	0.10
100-42-5	Styrene	5.63		0.50	0.070
127-18-4	Tetrachloroethene	10.3		0.50	0.20
108-88-3	Toluene	5.33		0.50	0.080

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories      Job No.: 410-92859-1  
Environment Testing, LLC

SDG No.: \_\_\_\_\_

Client Sample ID: HD-COD-SW-15-0/1-0 MSD      Lab Sample ID: 410-92859-6 MSD  
MSD

Matrix: Water      Lab File ID: IG04X18.D

Analysis Method: 8260D      Date Collected: 07/28/2022 13:45

Sample wt/vol: 25 (mL)      Date Analyzed: 08/04/2022 16:24

Soil Aliquot Vol.: \_\_\_\_\_      Dilution Factor: 1

Soil Extract Vol.: \_\_\_\_\_      GC Column: R-624SilMS 30m ID: 0.25 (mm)

Purge Volume: 25.0 (mL)      Heated Purge: (Y/N) N      pH: \_\_\_\_\_

% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_      Level: (low/med) Low

Analysis Batch No.: 282764      Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
156-60-5	trans-1,2-Dichloroethene	5.59		0.50	0.10
10061-02-6	trans-1,3-Dichloropropene	5.19		0.50	0.080
79-01-6	Trichloroethene	6.94		0.50	0.080
75-01-4	Vinyl chloride	5.91		0.50	0.10
1330-20-7	Xylenes, Total	16.6		1.0	0.070

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	97		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X18.D  
 Lims ID: 410-92859-A-6 MSD  
 Client ID: HD-COD-SW-15-0/1-0 MSD  
 Sample Type: MSD  
 Inject. Date: 04-Aug-2022 16:24:30 ALS Bottle#: 18 Worklist Smp#: 19  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-019  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:47:36 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:48:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.971	-0.012	99	392342	5.00	5.89	
4 Chloromethane	50	2.160	2.172	-0.012	99	436080	5.00	5.76	
5 Vinyl chloride	62	2.263	2.282	-0.019	98	440436	5.00	5.91	
6 Butadiene	39	2.288	2.300	-0.012	90	482490	5.00	5.72	
7 Bromomethane	94	2.617	2.629	-0.012	90	280025	5.00	5.39	
8 Chloroethane	64	2.696	2.708	-0.012	100	228734	5.00	5.22	
9 Dichlorofluoromethane	67	2.940	2.958	-0.018	97	568691	5.00	5.60	
10 Trichlorofluoromethane	101	3.001	3.013	-0.012	97	559207	5.00	5.69	
11 Ethyl ether	59	3.245	3.257	-0.012	90	252769	4.99	5.33	
13 1,2-Dichloro-1,1,2-trifluoroethane	67	3.343	3.355	-0.012	91	431921	5.00	5.80	
14 Acrolein	56	3.422	3.428	-0.006	100	256616	37.5	30.2	
15 1,1-Dichloroethene	96	3.556	3.568	-0.012	97	328825	5.00	6.00	
16 Acetone	43	3.586	3.592	-0.006	100	540935	62.6	53.9	
17 1,1,2-Trichloro-1,2,2-trifluoroethane	101	3.605	3.617	-0.012	90	343748	5.00	6.20	
18 Iodomethane	142	3.757	3.775	-0.018	98	571816	5.00	5.93	
19 Ethyl bromide	108	3.781	3.794	-0.013	98	224837	4.89	4.54	
20 Carbon disulfide	76	3.861	3.879	-0.018	99	858982	5.00	6.26	
23 Methyl acetate	43	4.013	4.013	0.000	97	164870	5.00	5.59	
24 3-Chloro-1-propene	41	4.031	4.044	-0.013	93	462645	5.00	5.77	
25 Methylene Chloride	84	4.226	4.233	-0.007	91	330464	5.00	5.50	
* 26 t-Butyl alcohol-d10 (IS)	65	4.233	4.257	-0.024	99	181743	50.0	50.0	
27 2-Methyl-2-propanol	59	4.361	4.373	-0.012	99	146217	50.0	46.8	
28 Acrylonitrile	53	4.562	4.568	-0.006	99	326604	25.0	23.2	
29 Methyl tert-butyl ether	73	4.641	4.641	0.000	86	759850	5.00	5.52	
30 trans-1,2-Dichloroethene	96	4.641	4.653	-0.012	99	340045	5.00	5.59	
31 Hexane	57	5.068	5.074	-0.006	91	502944	5.00	5.91	
32 1,1-Dichloroethane	63	5.299	5.306	-0.007	96	623293	5.00	5.59	
35 Isopropyl ether	45	5.360	5.366	-0.006	97	944101	5.00	5.50	
36 2-Chloro-1,3-butadiene	53	5.409	5.415	-0.006	89	502341	5.00	6.16	
37 Tert-butyl ethyl ether	59	5.891	5.897	-0.006	97	882328	5.00	5.55	
38 2-Butanone (MEK)	43	6.098	6.098	0.000	99	1081773	62.6	58.1	
39 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	80	487156	5.00	7.16	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2,2-Dichloropropane	77	6.147	6.147	0.000	86	516779	5.00	5.72	
43 Propionitrile	54	6.171	6.177	-0.006	98	187023	37.5	34.6	
45 Methacrylonitrile	67	6.391	6.397	-0.006	90	658725	37.5	33.9	
46 Chlorobromomethane	128	6.452	6.458	-0.006	92	171093	5.00	5.54	
47 Tetrahydrofuran	71	6.470	6.476	-0.006	82	129296	25.0	24.0	
48 Chloroform	83	6.604	6.610	-0.006	93	649748	5.00	5.81	
\$ 49 Dibromofluoromethane (Surr)	113	6.817	6.824	-0.007	94	539660	10.0	9.94	
50 1,1,1-Trichloroethane	97	6.830	6.842	-0.012	98	571624	5.00	5.71	
51 Cyclohexane	56	6.933	6.939	-0.006	89	594459	5.00	5.93	
53 1,1-Dichloropropene	75	7.043	7.049	-0.006	97	501667	5.00	5.77	
54 Carbon tetrachloride	117	7.043	7.049	-0.006	82	500522	5.00	5.60	
55 Isobutyl alcohol	41	7.195	7.189	0.006	94	118809	125.1	97.0	
\$ 56 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.275	-0.006	85	110267	10.0	9.89	
57 Benzene	78	7.299	7.305	-0.006	96	1472391	5.00	5.62	
58 1,2-Dichloroethane	62	7.372	7.372	0.000	97	343554	5.00	4.92	
60 Tert-amyl methyl ether	73	7.494	7.500	-0.006	99	817192	5.00	5.42	
* 61 Fluorobenzene (IS)	96	7.701	7.707	-0.006	99	2163064	10.0	10.0	
62 n-Heptane	43	7.720	7.720	0.000	90	513032	5.00	5.48	
63 n-Butanol	56	8.073	8.067	0.006	86	262512	250.2	233.3	
64 Trichloroethene	95	8.183	8.183	0.000	97	483969	5.00	6.94	
65 Methylcyclohexane	83	8.494	8.494	0.000	93	676873	5.00	5.89	
66 1,2-Dichloropropane	63	8.512	8.512	0.000	88	371270	5.00	5.49	
67 Methyl methacrylate	69	8.598	8.598	0.000	88	166987	5.00	4.78	
68 1,4-Dioxane	88	8.610	8.598	0.012	34	37236	125.1	149.2	
69 Dibromomethane	93	8.622	8.622	0.000	95	173224	5.00	5.35	
71 Dichlorobromomethane	83	8.854	8.854	0.000	100	431274	5.00	5.38	
72 2-Nitropropane	41	9.122	9.116	0.006	99	39633	5.00	3.84	
75 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	387459	5.00	5.61	
76 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	98	505825	5.00	5.26	
77 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	95	2676475	62.6	59.5	
\$ 78 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2229093	10.0	9.75	
79 Toluene	92	9.780	9.780	0.000	98	963711	5.00	5.33	
97 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	90	428185	5.00	5.19	
99 Ethyl methacrylate	69	10.097	10.097	0.000	88	328684	5.00	5.27	
100 1,1,2-Trichloroethane	97	10.238	10.237	0.001	90	262774	5.00	5.16	
101 Tetrachloroethene	166	10.329	10.335	-0.006	97	885689	5.00	10.3	
102 1,3-Dichloropropane	76	10.402	10.402	0.000	87	436831	5.00	5.13	
103 2-Hexanone	43	10.451	10.451	0.000	95	1884579	62.6	57.9	
105 Chlorodibromomethane	129	10.615	10.615	0.000	90	315006	5.00	5.03	
106 Ethylene Dibromide	107	10.731	10.731	0.000	98	241371	5.00	5.12	
* 107 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1762465	10.0	10.0	
108 1-Chlorohexane	91	11.164	11.164	0.000	95	544577	5.00	5.38	
109 Chlorobenzene	112	11.182	11.182	0.000	96	1068786	5.00	5.27	
111 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	97	355587	5.00	5.13	
112 Ethylbenzene	91	11.268	11.268	0.000	98	1814635	5.00	5.39	
113 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1466767	10.0	11.2	
114 o-Xylene	106	11.713	11.713	0.000	96	673463	5.00	5.40	
115 Styrene	104	11.725	11.725	0.000	95	1112352	5.00	5.63	
116 Bromoform	173	11.884	11.883	0.001	98	182860	5.00	4.89	
117 Isopropylbenzene	105	12.012	12.012	0.000	95	1811146	5.00	5.59	
\$ 120 4-Bromofluorobenzene (Surr)	95	12.158	12.152	0.006	95	844100	10.0	10.1	
121 1,1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	94	320690	5.00	5.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
122 Bromobenzene	156	12.274	12.274	0.000	93	435881	5.00	5.27	
123 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	89	235741	25.0	14.8	
124 1,2,3-Trichloropropane	110	12.298	12.298	0.000	80	85376	5.00	5.04	
125 N-Propylbenzene	91	12.341	12.341	0.000	99	2141140	5.00	5.40	
126 2-Chlorotoluene	126	12.414	12.414	0.000	97	434426	5.00	5.31	
127 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1487509	5.00	5.36	
128 4-Chlorotoluene	126	12.505	12.505	0.000	97	444971	5.00	5.33	
129 tert-Butylbenzene	134	12.713	12.713	0.000	92	329371	5.00	5.31	
131 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1503264	5.00	5.46	
132 sec-Butylbenzene	105	12.877	12.877	0.000	94	1966739	5.00	5.49	
133 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	828371	5.00	5.18	
134 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1677014	5.00	5.55	
* 135 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	996973	10.0	10.0	
136 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	859478	5.00	5.21	
137 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	656869	5.00	5.17	
138 Benzyl chloride	126	13.127	13.127	0.000	98	118543	5.00	4.92	
139 n-Butylbenzene	92	13.280	13.273	0.007	97	780448	5.00	5.42	
140 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	745906	5.00	5.02	
142 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	89	42383	5.00	4.63	
143 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	558343	5.00	5.12	
144 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	446440	5.00	5.08	
145 Hexachlorobutadiene	225	14.487	14.487	0.000	96	202060	5.00	4.87	
146 Naphthalene	128	14.584	14.584	0.000	97	818046	5.00	5.05	
147 1,2,3-Trichlorobenzene	180	14.724	14.724	0.000	96	394702	5.00	5.07	
150 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
155 2-Methylnaphthalene	142		0.000				ND	ND	
156 p-Diethylbenzene	1		0.000				ND	ND	
161 Pentane	43		0.000				ND	ND	
165 Isopropyl alcohol	45		0.000				ND	ND	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

MSV_LCS_VOC#1_00066	Amount Added: 5.38	Units: uL	
MSV_LCS_ACROL_00069	Amount Added: 5.38	Units: uL	
MSV_QC_Gas826_00093	Amount Added: 5.38	Units: uL	
MSV_LCS_EE_00003	Amount Added: 5.38	Units: uL	
LCS_ETBR_00003	Amount Added: 5.38	Units: uL	
MSV_LLcentISS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X18.D

Injection Date: 04-Aug-2022 16:24:30

Instrument ID: 19930

Operator ID: knk41612

Lims ID: 410-92859-A-6 MSD

Worklist Smp#: 19

Client ID: HD-COD-SW-15-0/1-0 MSD

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

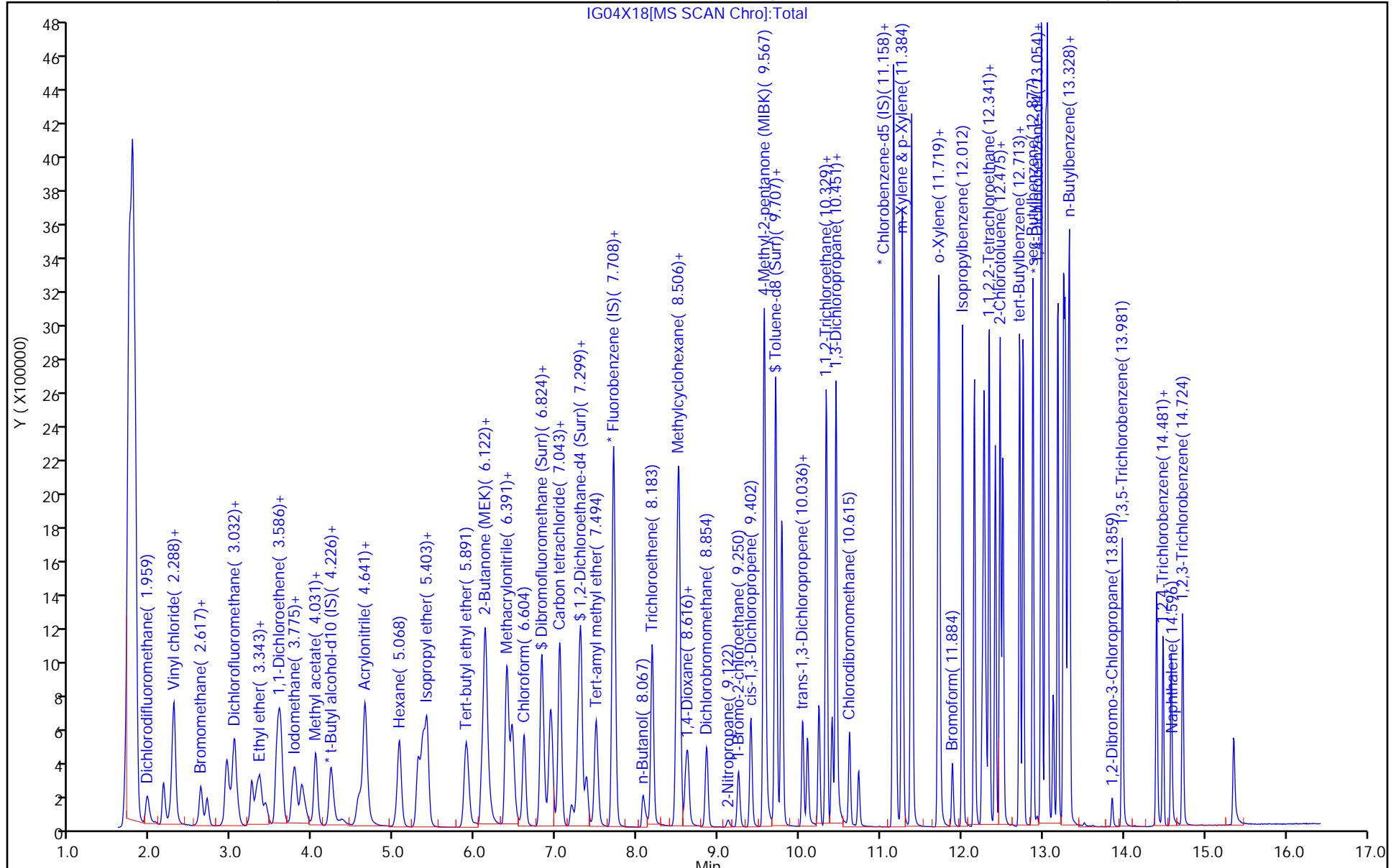
ALS Bottle#: 18

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 Environment Testing, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\IG04X18.D  
 Lims ID: 410-92859-A-6 MSD  
 Client ID: HD-COD-SW-15-0/1-0 MSD  
 Sample Type: MSD  
 Inject. Date: 04-Aug-2022 16:24:30 ALS Bottle#: 18 Worklist Smp#: 19  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0063401-019  
 Operator ID: knk41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220804-63401.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 05-Aug-2022 10:47:36 Calib Date: 11-Jul-2022 17:43:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220711-61506.b\IL11X18.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1639

First Level Reviewer: kaewrungrueangp

Date: 05-Aug-2022 10:48:42

Compound	Amount Added	Amount Recovered	% Rec.
\$ 49 Dibromofluoromethane (Surr)	10.0	9.94	99.38
\$ 56 1,2-Dichloroethane-d4 (Surr)	10.0	9.89	98.86
\$ 78 Toluene-d8 (Surr)	10.0	9.75	97.46
\$ 120 4-Bromofluorobenzene (Surr)	10.0	10.1	100.65

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930Start Date: 07/11/2022 15:02Analysis Batch Number: 274212End Date: 07/11/2022 17:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-274212/1		07/11/2022 15:02	1	IL11T01.D	R-624SilMS 30m 0.25 (mm)
IC 410-274212/12		07/11/2022 15:36	1	IL11X12.D	R-624SilMS 30m 0.25 (mm)
ICIS 410-274212/13		07/11/2022 15:57	1	IL11X13.D	R-624SilMS 30m 0.25 (mm)
IC 410-274212/14		07/11/2022 16:18	1	IL11X14.D	R-624SilMS 30m 0.25 (mm)
IC 410-274212/15		07/11/2022 16:39	1	IL11X15.D	R-624SilMS 30m 0.25 (mm)
IC 410-274212/16		07/11/2022 17:00	1	IL11X16.D	R-624SilMS 30m 0.25 (mm)
IC 410-274212/17		07/11/2022 17:22	1	IL11X17.D	R-624SilMS 30m 0.25 (mm)
IC 410-274212/18		07/11/2022 17:43	1	IL11X18.D	R-624SilMS 30m 0.25 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930Start Date: 07/12/2022 14:39Analysis Batch Number: 274690End Date: 07/12/2022 16:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-274690/1		07/12/2022 14:39	1	IL12T01.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-274690/3		07/12/2022 15:17	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		07/12/2022 15:59	1		R-624SilMS 30m 0.25 (mm)
ICV 410-274690/6		07/12/2022 16:20	1	IL12X06.D	R-624SilMS 30m 0.25 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930Start Date: 08/04/2022 10:11Analysis Batch Number: 282764End Date: 08/04/2022 20:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-282764/1		08/04/2022 10:11	1	IG04T01.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-282764/3		08/04/2022 10:45	1	IG04X02.D	R-624SilMS 30m 0.25 (mm)
LCS 410-282764/4		08/04/2022 11:06	1	IG04X03.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 11:27	1		R-624SilMS 30m 0.25 (mm)
MB 410-282764/6		08/04/2022 11:48	1	IG04X05.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 12:09	1		R-624SilMS 30m 0.25 (mm)
410-92859-14	HD-QC1-0/1-2	08/04/2022 12:31	1	IG04X07.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 12:52	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 13:13	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 13:35	1		R-624SilMS 30m 0.25 (mm)
410-92859-1	HD-COD-SW-6-0/1-0	08/04/2022 13:56	1	IG04X11.D	R-624SilMS 30m 0.25 (mm)
410-92859-2	HD-COD-SW-7-0/1-0	08/04/2022 14:17	1	IG04X12.D	R-624SilMS 30m 0.25 (mm)
410-92859-3	HD-COD-SW-8-0/1-0	08/04/2022 14:38	1	IG04X13.D	R-624SilMS 30m 0.25 (mm)
410-92859-4	HD-COD-SW-9-0/1-0	08/04/2022 14:59	1	IG04X14.D	R-624SilMS 30m 0.25 (mm)
410-92859-5	HD-COD-SW-13-0/1-0	08/04/2022 15:20	1	IG04X15.D	R-624SilMS 30m 0.25 (mm)
410-92859-6	HD-COD-SW-15-0/1-0	08/04/2022 15:41	1	IG04X16.D	R-624SilMS 30m 0.25 (mm)
410-92859-6 MS	HD-COD-SW-15-0/1-0 MS MS	08/04/2022 16:03	1	IG04X17.D	R-624SilMS 30m 0.25 (mm)
410-92859-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	08/04/2022 16:24	1	IG04X18.D	R-624SilMS 30m 0.25 (mm)
410-92859-7	HD-COD-SW-16-0/1-0	08/04/2022 17:06	1	IG04X20.D	R-624SilMS 30m 0.25 (mm)
410-92859-8	HD-COD-SW-17-0/1-0	08/04/2022 17:28	1	IG04X21.D	R-624SilMS 30m 0.25 (mm)
410-92859-9	HD-COD-SW-26-0/1-0	08/04/2022 17:49	1	IG04X22.D	R-624SilMS 30m 0.25 (mm)
410-92859-10	HD-COD-SW-27-0/1-0	08/04/2022 18:10	1	IG04X23.D	R-624SilMS 30m 0.25 (mm)
410-92859-11	HD-COD-SW-28-0/1-0	08/04/2022 18:31	1	IG04X24.D	R-624SilMS 30m 0.25 (mm)
410-92859-12	HD-COD-SW-29-0/1-0	08/04/2022 18:52	1	IG04X25.D	R-624SilMS 30m 0.25 (mm)
410-92859-13	HD-QC1-0/1-1	08/04/2022 19:13	1	IG04X26.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 19:34	20		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 19:56	200		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 20:17	25		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 20:38	250		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/04/2022 20:59	1		R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Start Date: 08/07/2022 12:16

Analysis Batch Number: 283558 End Date: 08/07/2022 23:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-283558/1		08/07/2022 12:16	1	IG07T001.D	R-624silMS 30m 0.25 (mm)
CCVIS 410-283558/3		08/07/2022 12:51	1	IG07X002.D	R-624silMS 30m 0.25 (mm)
LCS 410-283558/4		08/07/2022 13:12	1	IG07X003.D	R-624silMS 30m 0.25 (mm)
LCSD 410-283558/5		08/07/2022 13:33	1	IG07X004.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 13:54	1		R-624silMS 30m 0.25 (mm)
MB 410-283558/7		08/07/2022 14:15	1	IG07X006.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 14:37	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 14:58	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 15:19	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 15:41	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 16:02	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 16:23	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 16:44	5		R-624silMS 30m 0.25 (mm)
410-92859-8 DL	HD-COD-SW-17-0/1-0 DL	08/07/2022 17:05	10	IG07X014.D	R-624silMS 30m 0.25 (mm)
410-92859-13 DL	HD-QC1-0/1-1 DL	08/07/2022 17:27	10	IG07X015.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 17:48	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 18:09	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 18:30	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 18:52	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 19:13	20		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 19:55	25		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 20:16	250		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 20:37	50		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 20:59	500		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 21:20	50		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 21:41	500		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 22:03	200		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 22:24	2000		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 22:45	200		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2022 23:06	2000		R-624silMS 30m 0.25 (mm)



GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 274212 Batch Start Date: 07/11/22 15:02 Batch Analyst: Sposito, Kevin A

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Lot#Vial	MSV_LL #1_826 00049	MSV_LL #2_826 00053	MSV_LL_GAS826 00101
BFB 410-274212/1		8260D		1 uL	1 uL				
IC 410-274212/12		8260D		25 mL	25 mL	2646	25 uL	25 uL	25 uL
ICIS 410-274212/13		8260D		25 mL	25 mL	2646	10 uL	10 uL	10 uL
IC 410-274212/14		8260D		25 mL	25 mL	2646	5 uL	5 uL	5 uL
IC 410-274212/15		8260D		25 mL	25 mL	2646	2 uL	2 uL	2 uL
IC 410-274212/16		8260D		25 mL	25 mL	2646	2 uL	2 uL	2 uL
IC 410-274212/17		8260D		25 mL	25 mL	2646	2 uL	2 uL	2 uL
IC 410-274212/18		8260D		25 mL	25 mL	2646	2 uL	2 uL	2 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LLcentISS 00005	MSV_V_BFB 00008				
BFB 410-274212/1		8260D			1 uL				
IC 410-274212/12		8260D		5 uL					
ICIS 410-274212/13		8260D		5 uL					
IC 410-274212/14		8260D		5 uL					
IC 410-274212/15		8260D		5 uL					
IC 410-274212/16		8260D		5 uL					
IC 410-274212/17		8260D		5 uL					
IC 410-274212/18		8260D		5 uL					

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.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 274212 Batch Start Date: 07/11/22 15:02 Batch Analyst: Sposito, Kevin A

Batch Method: 8260D Batch End Date: \_\_\_\_\_

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.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 274690 Batch Start Date: 07/12/22 14:39 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Lot#Vial	LCS_ETBR 00003	MSV_LCS_ACROL 00066	MSV_LCS_EE 00003
BFB 410-274690/1		8260D		1 uL	1 uL				
ICV 410-274690/6		8260D		25 mL	25 mL	2646	12.5 uL	12.5 uL	12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_Penta 00017	MSV_LCS_VOC#1 00063	MSV_LLcentISS 00005	MSV_QC_Gas826 00089	MSV_V_BFB 00008
BFB 410-274690/1		8260D						1 uL
ICV 410-274690/6		8260D		12.5 uL	12.5 uL	5 uL	12.5 uL	

Batch Notes	

Basis	Basis Description

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

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 282764 Batch Start Date: 08/04/22 10:11 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	Lot#Vial
BFB 410-282764/1		8260D		1 uL	1 uL				
CCVIS 410-282764/3		8260D		25 mL	25 mL				2646
LCS 410-282764/4		8260D		25 mL	25 mL				2646
MB 410-282764/6		8260D		25 mL	25 mL				2646
410-92859-A-14	HD-QC1-0/1-2	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-1	HD-COD-SW-6-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-2	HD-COD-SW-7-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-3	HD-COD-SW-8-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-4	HD-COD-SW-9-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-5	HD-COD-SW-13-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-6	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-7	HD-COD-SW-16-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-9	HD-COD-SW-26-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-10	HD-COD-SW-27-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-11	HD-COD-SW-28-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-A-12	HD-COD-SW-29-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-92859-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	LCS_ETBR 00003	MSV_LCS_ACROL 00069	MSV_LCS_EE 00003	MSV_LCS_VOC#1 00066	MSV_LL_#1_826 00050	MSV_LL_#2_826 00054

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.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 282764 Batch Start Date: 08/04/22 10:11 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCS_ETBR 00003	MSV_LCS_ACROL 00069	MSV_LCS_EE 00003	MSV_LCS_VOC#1 00066	MSV_LL #1_826 00050	MSV_LL #2_826 00054
BFB 410-282764/1		8260D							
CCVIS 410-282764/3		8260D						20 uL	20 uL
LCS 410-282764/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL		
MB 410-282764/6		8260D							
410-92859-A-14	HD-QC1-0/1-2	8260D	T						
410-92859-A-1	HD-COD-SW-6-0/1-0	8260D	T						
410-92859-A-2	HD-COD-SW-7-0/1-0	8260D	T						
410-92859-A-3	HD-COD-SW-8-0/1-0	8260D	T						
410-92859-A-4	HD-COD-SW-9-0/1-0	8260D	T						
410-92859-A-5	HD-COD-SW-13-0/1-0	8260D	T						
410-92859-A-6	HD-COD-SW-15-0/1-0	8260D	T						
410-92859-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL		
410-92859-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL		
410-92859-A-7	HD-COD-SW-16-0/1-0	8260D	T						
410-92859-A-8	HD-COD-SW-17-0/1-0	8260D	T						
410-92859-A-9	HD-COD-SW-26-0/1-0	8260D	T						
410-92859-A-10	HD-COD-SW-27-0/1-0	8260D	T						
410-92859-A-11	HD-COD-SW-28-0/1-0	8260D	T						
410-92859-A-12	HD-COD-SW-29-0/1-0	8260D	T						
410-92859-A-13	HD-QC1-0/1-1	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_GAS826 00105	MSV_LLcentISS 00005	MSV_QC_Gas826 00093	MSV_V_BFB 00008		

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.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 282764 Batch Start Date: 08/04/22 10:11 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_GAS826 00105	MSV_LLcentISS 00005	MSV_QC_Gas826 00093	MSV_V_BFB 00008		
BFB 410-282764/1		8260D					1 uL		
CCVIS 410-282764/3		8260D		20 uL	5 uL				
LCS 410-282764/4		8260D			5 uL	12.5 uL			
MB 410-282764/6		8260D			5 uL				
410-92859-A-14	HD-QC1-0/1-2	8260D	T		5 uL				
410-92859-A-1	HD-COD-SW-6-0/1-0	8260D	T		5 uL				
410-92859-A-2	HD-COD-SW-7-0/1-0	8260D	T		5 uL				
410-92859-A-3	HD-COD-SW-8-0/1-0	8260D	T		5 uL				
410-92859-A-4	HD-COD-SW-9-0/1-0	8260D	T		5 uL				
410-92859-A-5	HD-COD-SW-13-0/1-0	8260D	T		5 uL				
410-92859-A-6	HD-COD-SW-15-0/1-0	8260D	T		5 uL				
410-92859-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T		5 uL	5.38 uL			
410-92859-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T		5 uL	5.38 uL			
410-92859-A-7	HD-COD-SW-16-0/1-0	8260D	T		5 uL				
410-92859-A-8	HD-COD-SW-17-0/1-0	8260D	T		5 uL				
410-92859-A-9	HD-COD-SW-26-0/1-0	8260D	T		5 uL				
410-92859-A-10	HD-COD-SW-27-0/1-0	8260D	T		5 uL				
410-92859-A-11	HD-COD-SW-28-0/1-0	8260D	T		5 uL				
410-92859-A-12	HD-COD-SW-29-0/1-0	8260D	T		5 uL				
410-92859-A-13	HD-QC1-0/1-1	8260D	T		5 uL				

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.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 282764 Batch Start Date: 08/04/22 10:11 Batch Analyst: Kephart, Kayla

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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 283558 Batch Start Date: 08/07/22 12:16 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	Lot#Vial
BFB 410-283558/1		8260D		1 uL	1 uL				
CCVIS 410-283558/3		8260D		25 mL	25 mL				2646
LCS 410-283558/4		8260D		25 mL	25 mL				2646
LCSD 410-283558/5		8260D		25 mL	25 mL				2646
MB 410-283558/7		8260D		25 mL	25 mL				2646
410-92859-B-8	HD-COD-SW-17-0/1 -0	8260D	T	25 mL	25 mL	<2 SU	N	N	2646
410-92859-B-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	2646

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCS_ETBR 00003	MSV_LCS_ACROL 00069	MSV_LCS_EE 00003	MSV_LCS_VOC#1 00066	MSV_LL_#1_826 00050	MSV_LL_#2_826 00054
BFB 410-283558/1		8260D							
CCVIS 410-283558/3		8260D						20 uL	20 uL
LCS 410-283558/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL		
LCSD 410-283558/5		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL		
MB 410-283558/7		8260D							
410-92859-B-8	HD-COD-SW-17-0/1 -0	8260D	T						
410-92859-B-13	HD-QC1-0/1-1	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_GAS826 00105	MSV_LLcentISS 00005	MSV_QC_Gas826 00093	MSV_V_BFB 00008		
BFB 410-283558/1		8260D					1 uL		
CCVIS 410-283558/3		8260D		20 uL	5 uL				
LCS 410-283558/4		8260D			5 uL	12.5 uL			
LCSD 410-283558/5		8260D			5 uL	12.5 uL			
MB 410-283558/7		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.: 410-92859-1

SDG No.: \_\_\_\_\_

Batch Number: 283558 Batch Start Date: 08/07/22 12:16 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: \_\_\_\_\_

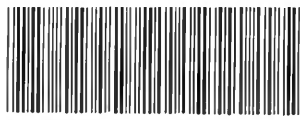
Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_GAS826 00105	MSV_LLcentISS 00005	MSV_QC_Gas826 00093	MSV_V_BFB 00008		
410-92859-B-8	HD-COD-SW-17-0/1 -0	8260D	T		5 uL				
410-92859-B-13	HD-QC1-0/1-1	8260D	T		5 uL				

Batch Notes	

Basis	Basis Description
T	Total/NA

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

# Shipping and Receiving Documents



410-92859 Chain of Custody

# Environmental Analysis Request/Chain of Custody

page 1 of 2.

Lancaster Laboratories  
Environmental

Acct. # \_\_\_\_\_ Group # \_\_\_\_\_ Sample # \_\_\_\_\_

Client: <b>Groundwater Sciences Corporation</b>				<b>Matrix</b>			<b>Analyses Requested</b>						<b>For Lab Use Only</b>						
Project Name/#: <b>YNOP Monthly Surface Water</b>		Site ID #: <b>YNOP, York PA</b>		<input type="checkbox"/> Soil	<input type="checkbox"/> Tissue	<input type="checkbox"/> Potable	<input type="checkbox"/> Ground	<input checked="" type="checkbox"/> Surface	<b>Preservation Codes</b>						SF #: _____				
Project Manager: <b>Chris O'Neil</b>		P.O. #: <b>10012.49</b>		<input type="checkbox"/> NPDES	<input type="checkbox"/> Water	<input type="checkbox"/> Other:	Total # of Containers	Aqueous VOCs via 8260D (low level - 25 ml purge)	H							SCR #: _____			
Sampler: <b>Casey Littlefield / Erin Peeling</b>		PWSID #: <b>N/A</b>								<b>Preservation Codes</b> H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other									
Phone #: <b>(717) 901-8176 / (717) 756-1246</b>		Quote #:								<b>Remarks</b>									
State where samples were collected: <b>York, PA</b>		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																	
Sample Identification		Collection		Grab	Composite														
Date	Time																		
HD-COD-SW-6-0/1-0	7/28/22	1240	X			X			3	X									
HD-COD-SW-7-0/1-0		1320	X			X			3	X									
HD-COD-SW-8-0/1-0		1125	X			X			3	X									
HD-COD-SW-9-0/1-0		1500	X			X			3	X									
HD-COD-SW-13-0/1-0		1145	X			X	3	X											
HD-COD-SW-15-0/1-0		1345	X			X	3	X											
HD-COD-SW-15-0/1-0 MS		1345	X			X	3	X											
HD-COD-SW-15-0/1-0 MSD		1345	X			X	3	X											
HD-COD-SW-16-0/1-0		1205	X			X	3	X											
HD-COD-SW-17-0/1-0		1215	X			X	3	X											
Turnaround Time Requested (TAT) (please check):				Standard <input checked="" type="checkbox"/>	Rush <input type="checkbox"/>	Relinquished by:		Date	Time	Received by:		Date	Time						
(Rush TAT is subject to laboratory approval and surcharges.)						<i>Casey Littlefield</i>		7/28/22	1600	<i>[Signature]</i>		7/28/22	1600						
Date results are needed:				E-Mail <input checked="" type="checkbox"/>		Relinquished by:		Date	Time	Received by:		Date	Time						
Rush results requested by (please check):				Phone <input type="checkbox"/>		<i>[Signature]</i>		7/29/22	0845	<i>[Signature]</i>		7/29/22	0845						
E-mail Address: <b>ON-FILE</b>				Phone:		Relinquished by:		Date	Time	Received by:		Date	Time						
						<i>[Signature]</i>		7/29/22	1453										
<b>Data Package Options</b> (please check if required)				CLP Like Deliverables, Project Specific Analyte		Relinquished by:		Date	Time	Received by:		Date	Time						
Type I (Validation/non-CLP)	<input type="checkbox"/>	MA MCP	<input type="checkbox"/>			<i>[Signature]</i>				<i>[Signature]</i>		7/29/22	15:31						
Type III (Reduced non-CLP)	<input type="checkbox"/>	CT RCP	<input type="checkbox"/>			Relinquished by:		Date	Time	Received by:		Date	Time						
Type VI (Raw Data Only)	<input type="checkbox"/>	TX TRRP-13	<input type="checkbox"/>			<i>[Signature]</i>				<i>[Signature]</i>									
NJ DKQP	<input type="checkbox"/>	NYSDEC Category	<input type="checkbox"/>	A or	B	Relinquished by Commercial Carrier:				Temperature upon receipt		1.2	°C						
EDD Required?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	If yes, format: _____ List		UPS _____	FedEx _____	Other _____												

CM



# Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-92859-1

**Login Number: 92859**

**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC**

**List Number: 1**

**Creator: Moeller, Colin**

<b>Question</b>	<b>Answer</b>	<b>Comment</b>
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , 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	
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	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace $>6\text{mm}$ in diameter (none, if from WV)?	True	