

ANALYTICAL REPORT

Job Number: 410-73936-1

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
3/3/2022 9:41 AM

Marrison C Williams, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7246
Marrison.Williams@eurofinset.com
03/03/2022

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager or designee who has signed this report.

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

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

Table of Contents

Cover Title Page	1
Data Summaries	4
Definitions	4
Case Narrative	5
Detection Summary	6
Client Sample Results	9
Default Detection Limits	24
Surrogate Summary	25
QC Sample Results	26
QC Association	34
Chronicle	35
Certification Summary	38
Method Summary	39
Sample Summary	40
Manual Integration Summary	41
Reagent Traceability	47
COAs	61
Organic Sample Data	181
GC/MS VOA	181
Method 8260D Low Level	181
Method 8260D Low Level QC Summary	182
Method 8260D Low Level Sample Data	200
Standards Data	381
Method 8260D Low Level ICAL Data	381
Method 8260D Low Level CCAL Data	541
Raw QC Data	571

Table of Contents

Method 8260D Low Level Tune Data	571
Method 8260D Low Level Blank Data	583
Method 8260D Low Level LCS/LCSD Data	599
Method 8260D Low Level MS/MSD Data	631
Method 8260D Low Level Run Logs	645
Method 8260D Low Level Prep Data	648
Shipping and Receiving Documents	656
Client Chain of Custody	657
Sample Receipt Checklist	659

Definitions/Glossary

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

Job ID: 410-73936-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^c	CCV Recovery is outside acceptance limits.
cn	Refer to Case Narrative for further detail
FH	MS and/or MSD recovery above control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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
410-73936-1

Receipt

The samples were received on 2/23/2022 4:47 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 1.4°C

GC/MS VOA

Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-228139 recovered above the upper control limit for 2-Hexanone, 4-Methyl-2-pentanone (MIBK), 2-Butanone (MEK), 1,1,2,2-Tetrachloroethane and Bromoform. Non-detections of the affected analytes are reported. Any detections are considered estimated.

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: 410-73936-1

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

Lab Sample ID: 410-73936-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.3	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.062	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.064	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.6	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.083	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.061	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.12	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.9	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.12	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.43	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.13	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.7	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.21	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.082	J cn	0.50	0.070	ug/L	1		8260D	Total/NA
Trichloroethene	0.11	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.0	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.50	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.13	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.29	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.15	J cn	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.18	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.27	J cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.9	cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	6.4	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	1.7	cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.6	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.74	cn	0.50	0.060	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.14	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	7.1	cn	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.2	cn	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.57	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.25	J cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	4.4	cn	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	5.4	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	84		10	1.2	ug/L	20		8260D	Total/NA

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

Lab Sample ID: 410-73936-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.10	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.58	cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.065	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	2.9	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.15	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.6	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.10	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.090	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.12	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.8	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.10	J cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.10	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.23	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.094	J cn	0.50	0.070	ug/L	1		8260D	Total/NA
Trichloroethene	0.13	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.7	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.12	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.27	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-73936-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	7.1	cn	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.2	cn	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.59	cn	0.50	0.060	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.24	J cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	4.4	cn	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	5.4	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	86		5.0	0.60	ug/L	10		8260D	Total/NA

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

Lab Sample ID: 410-73936-14

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: 410-73936-1

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

Lab Sample ID: 410-73936-1

Date Collected: 02/22/22 10:10

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 13:30	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 13:30	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 13:30	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 13:30	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 13:30	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 13:30	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 13:30	1
Acetone	1.3	J cn	5.0	0.90	ug/L			02/28/22 13:30	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 13:30	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 13:30	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 13:30	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 13:30	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 13:30	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 13:30	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 13:30	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 13:30	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 13:30	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
cis-1,2-Dichloroethene	0.062	J cn	0.50	0.050	ug/L			02/28/22 13:30	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 13:30	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 13:30	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 13:30	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 13:30	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 13:30	1
Tetrachloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 13:30	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 13:30	1
Trichloroethene	0.064	J cn	0.50	0.060	ug/L			02/28/22 13:30	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 13:30	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 13:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99	cn	80 - 120		02/28/22 13:30	1
4-Bromofluorobenzene (Surr)	89	cn	80 - 120		02/28/22 13:30	1
Dibromofluoromethane (Surr)	97	cn	80 - 120		02/28/22 13:30	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/28/22 13:30	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-2

Date Collected: 02/22/22 10:55

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 13:52	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 13:52	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 13:52	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 13:52	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 13:52	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 13:52	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 13:52	1
Acetone	1.6	J cn	5.0	0.90	ug/L			02/28/22 13:52	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 13:52	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 13:52	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 13:52	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 13:52	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 13:52	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 13:52	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 13:52	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 13:52	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 13:52	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
cis-1,2-Dichloroethene	0.083	J cn	0.50	0.050	ug/L			02/28/22 13:52	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 13:52	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 13:52	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 13:52	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 13:52	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 13:52	1
Tetrachloroethene	0.061	J cn	0.50	0.060	ug/L			02/28/22 13:52	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 13:52	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 13:52	1
Trichloroethene	0.12	J cn	0.50	0.060	ug/L			02/28/22 13:52	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 13:52	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105	cn	80 - 120		02/28/22 13:52	1
4-Bromofluorobenzene (Surr)	89	cn	80 - 120		02/28/22 13:52	1
Dibromofluoromethane (Surr)	98	cn	80 - 120		02/28/22 13:52	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/28/22 13:52	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-3

Date Collected: 02/22/22 08:55

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 14:13	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 14:13	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:13	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:13	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 14:13	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 14:13	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 14:13	1
Acetone	1.9	J cn	5.0	0.90	ug/L			02/28/22 14:13	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 14:13	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:13	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:13	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 14:13	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:13	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 14:13	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 14:13	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:13	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 14:13	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
cis-1,2-Dichloroethene	0.12	J cn	0.50	0.050	ug/L			02/28/22 14:13	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 14:13	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:13	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 14:13	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 14:13	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 14:13	1
Tetrachloroethene	0.43	J cn	0.50	0.060	ug/L			02/28/22 14:13	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 14:13	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 14:13	1
Trichloroethene	0.13	J cn	0.50	0.060	ug/L			02/28/22 14:13	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 14:13	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 14:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	cn	80 - 120		02/28/22 14:13	1
4-Bromofluorobenzene (Surr)	89	cn	80 - 120		02/28/22 14:13	1
Dibromofluoromethane (Surr)	97	cn	80 - 120		02/28/22 14:13	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/28/22 14:13	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-4

Date Collected: 02/22/22 12:05

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 14:34	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 14:34	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:34	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:34	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 14:34	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 14:34	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 14:34	1
Acetone	1.7	J cn	5.0	0.90	ug/L			02/28/22 14:34	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 14:34	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:34	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:34	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 14:34	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:34	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 14:34	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 14:34	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:34	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 14:34	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050	ug/L			02/28/22 14:34	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 14:34	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:34	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 14:34	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 14:34	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 14:34	1
Tetrachloroethene	0.21	J cn	0.50	0.060	ug/L			02/28/22 14:34	1
Toluene	0.082	J cn	0.50	0.070	ug/L			02/28/22 14:34	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 14:34	1
Trichloroethene	0.11	J cn	0.50	0.060	ug/L			02/28/22 14:34	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 14:34	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	cn	80 - 120		02/28/22 14:34	1
4-Bromofluorobenzene (Surr)	88	cn	80 - 120		02/28/22 14:34	1
Dibromofluoromethane (Surr)	97	cn	80 - 120		02/28/22 14:34	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/28/22 14:34	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-5

Date Collected: 02/22/22 09:15

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 14:55	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 14:55	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:55	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:55	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 14:55	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 14:55	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 14:55	1
Acetone	2.0	J cn	5.0	0.90	ug/L			02/28/22 14:55	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 14:55	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:55	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 14:55	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 14:55	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:55	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 14:55	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 14:55	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:55	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 14:55	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050	ug/L			02/28/22 14:55	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 14:55	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 14:55	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 14:55	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 14:55	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 14:55	1
Tetrachloroethene	0.50	cn	0.50	0.060	ug/L			02/28/22 14:55	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 14:55	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 14:55	1
Trichloroethene	0.13	J cn	0.50	0.060	ug/L			02/28/22 14:55	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 14:55	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 14:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/28/22 14:55	1
4-Bromofluorobenzene (Surr)	89	cn	80 - 120		02/28/22 14:55	1
Dibromofluoromethane (Surr)	98	cn	80 - 120		02/28/22 14:55	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/28/22 14:55	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-6

Date Collected: 02/22/22 11:25

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 15:16	1
1,1,1-Trichloroethane	0.29	J cn	0.50	0.060	ug/L			02/28/22 15:16	1
1,1,2,2-Tetrachloroethane	ND	^c *+ FH cn	0.50	0.070	ug/L			02/28/22 15:16	1
1,1,2-Trichloroethane	ND	FH cn	0.50	0.060	ug/L			02/28/22 15:16	1
1,1-Dichloroethane	0.15	J cn	0.50	0.070	ug/L			02/28/22 15:16	1
1,1-Dichloroethene	0.18	J cn	0.50	0.060	ug/L			02/28/22 15:16	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 15:16	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 15:16	1
1,2-Dichloropropane	ND	FH cn	0.50	0.060	ug/L			02/28/22 15:16	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 15:16	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 15:16	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 15:16	1
Acetone	ND	cn	5.0	0.90	ug/L			02/28/22 15:16	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 15:16	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 15:16	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 15:16	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 15:16	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 15:16	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 15:16	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 15:16	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 15:16	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 15:16	1
Chloroform	0.27	J cn	0.50	0.090	ug/L			02/28/22 15:16	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 15:16	1
cis-1,2-Dichloroethene	1.9	cn	0.50	0.050	ug/L			02/28/22 15:16	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 15:16	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 15:16	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 15:16	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 15:16	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 15:16	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 15:16	1
Tetrachloroethene	6.4	cn	0.50	0.060	ug/L			02/28/22 15:16	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 15:16	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 15:16	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 15:16	1
Trichloroethene	1.7	cn	0.50	0.060	ug/L			02/28/22 15:16	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 15:16	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 15:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104	cn	80 - 120		02/28/22 15:16	1
4-Bromofluorobenzene (Surr)	88	cn	80 - 120		02/28/22 15:16	1
Dibromofluoromethane (Surr)	98	cn	80 - 120		02/28/22 15:16	1
Toluene-d8 (Surr)	99	cn	80 - 120		02/28/22 15:16	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-7

Date Collected: 02/22/22 09:45

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 16:41	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 16:41	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 16:41	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 16:41	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 16:41	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 16:41	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 16:41	1
Acetone	1.6	J cn	5.0	0.90	ug/L			02/28/22 16:41	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 16:41	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 16:41	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 16:41	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 16:41	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 16:41	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 16:41	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 16:41	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 16:41	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 16:41	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050	ug/L			02/28/22 16:41	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 16:41	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 16:41	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 16:41	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 16:41	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 16:41	1
Tetrachloroethene	0.74	cn	0.50	0.060	ug/L			02/28/22 16:41	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 16:41	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 16:41	1
Trichloroethene	0.14	J cn	0.50	0.060	ug/L			02/28/22 16:41	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 16:41	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/28/22 16:41	1
4-Bromofluorobenzene (Surr)	89	cn	80 - 120		02/28/22 16:41	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		02/28/22 16:41	1
Toluene-d8 (Surr)	99	cn	80 - 120		02/28/22 16:41	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-8

Date Collected: 02/22/22 09:55

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 17:03	1
1,1,1-Trichloroethane	7.1	cn	0.50	0.060	ug/L			02/28/22 17:03	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 17:03	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 17:03	1
1,1-Dichloroethane	1.2	cn	0.50	0.070	ug/L			02/28/22 17:03	1
1,1-Dichloroethene	0.57	cn	0.50	0.060	ug/L			02/28/22 17:03	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 17:03	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 17:03	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 17:03	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 17:03	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 17:03	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 17:03	1
Acetone	ND	cn	5.0	0.90	ug/L			02/28/22 17:03	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 17:03	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 17:03	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 17:03	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 17:03	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 17:03	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 17:03	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 17:03	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 17:03	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 17:03	1
Chloroform	0.25	J cn	0.50	0.090	ug/L			02/28/22 17:03	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 17:03	1
cis-1,2-Dichloroethene	4.4	cn	0.50	0.050	ug/L			02/28/22 17:03	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 17:03	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 17:03	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 17:03	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 17:03	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 17:03	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 17:03	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 17:03	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 17:03	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 17:03	1
Trichloroethene	5.4	cn	0.50	0.060	ug/L			02/28/22 17:03	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 17:03	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 17:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/28/22 17:03	1
4-Bromofluorobenzene (Surr)	89	cn	80 - 120		02/28/22 17:03	1
Dibromofluoromethane (Surr)	98	cn	80 - 120		02/28/22 17:03	1
Toluene-d8 (Surr)	99	cn	80 - 120		02/28/22 17:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	84		10	1.2	ug/L			02/28/22 17:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		02/28/22 17:24	20

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-8

Date Collected: 02/22/22 09:55

Matrix: Water

Date Received: 02/23/22 16:47

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		80 - 120		02/28/22 17:24	20
Dibromofluoromethane (Surr)	97		80 - 120		02/28/22 17:24	20
Toluene-d8 (Surr)	99		80 - 120		02/28/22 17:24	20

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

Lab Sample ID: 410-73936-9

Date Collected: 02/22/22 10:40

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 17:45	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 17:45	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 17:45	1
1,1-Dichloroethene	0.10	J cn	0.50	0.060	ug/L			02/28/22 17:45	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 17:45	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 17:45	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 17:45	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 17:45	1
Acetone	ND	cn	5.0	0.90	ug/L			02/28/22 17:45	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 17:45	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 17:45	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 17:45	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 17:45	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 17:45	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 17:45	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 17:45	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 17:45	1
Chloroform	0.58	cn	0.50	0.090	ug/L			02/28/22 17:45	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
cis-1,2-Dichloroethene	0.065	J cn	0.50	0.050	ug/L			02/28/22 17:45	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 17:45	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 17:45	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 17:45	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 17:45	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 17:45	1
Tetrachloroethene	2.9	cn	0.50	0.060	ug/L			02/28/22 17:45	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 17:45	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 17:45	1
Trichloroethene	0.15	J cn	0.50	0.060	ug/L			02/28/22 17:45	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 17:45	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 17:45	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-9

Date Collected: 02/22/22 10:40

Matrix: Water

Date Received: 02/23/22 16:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/28/22 17:45	1
4-Bromofluorobenzene (Surr)	89	cn	80 - 120		02/28/22 17:45	1
Dibromofluoromethane (Surr)	98	cn	80 - 120		02/28/22 17:45	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/28/22 17:45	1

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

Lab Sample ID: 410-73936-10

Date Collected: 02/22/22 11:15

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 18:06	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 18:06	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:06	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:06	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 18:06	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 18:06	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 18:06	1
Acetone	1.6	J cn	5.0	0.90	ug/L			02/28/22 18:06	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 18:06	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:06	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:06	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 18:06	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:06	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 18:06	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 18:06	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:06	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 18:06	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
cis-1,2-Dichloroethene	0.10	J cn	0.50	0.050	ug/L			02/28/22 18:06	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 18:06	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:06	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 18:06	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 18:06	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 18:06	1
Tetrachloroethene	0.090	J cn	0.50	0.060	ug/L			02/28/22 18:06	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 18:06	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 18:06	1
Trichloroethene	0.12	J cn	0.50	0.060	ug/L			02/28/22 18:06	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 18:06	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 18:06	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-10

Date Collected: 02/22/22 11:15

Matrix: Water

Date Received: 02/23/22 16:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104	cn	80 - 120		02/28/22 18:06	1
4-Bromofluorobenzene (Surr)	89	cn	80 - 120		02/28/22 18:06	1
Dibromofluoromethane (Surr)	96	cn	80 - 120		02/28/22 18:06	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/28/22 18:06	1

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

Lab Sample ID: 410-73936-11

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 18:27	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 18:27	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:27	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:27	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 18:27	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 18:27	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 18:27	1
Acetone	1.8	J cn	5.0	0.90	ug/L			02/28/22 18:27	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 18:27	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:27	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:27	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 18:27	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:27	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 18:27	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 18:27	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:27	1
Chloroform	0.10	J cn	0.50	0.090	ug/L			02/28/22 18:27	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
cis-1,2-Dichloroethene	0.10	J cn	0.50	0.050	ug/L			02/28/22 18:27	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 18:27	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:27	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 18:27	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 18:27	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 18:27	1
Tetrachloroethene	0.23	J cn	0.50	0.060	ug/L			02/28/22 18:27	1
Toluene	0.094	J cn	0.50	0.070	ug/L			02/28/22 18:27	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 18:27	1
Trichloroethene	0.13	J cn	0.50	0.060	ug/L			02/28/22 18:27	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 18:27	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 18:27	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-11

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/23/22 16:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104	cn	80 - 120		02/28/22 18:27	1
4-Bromofluorobenzene (Surr)	91	cn	80 - 120		02/28/22 18:27	1
Dibromofluoromethane (Surr)	98	cn	80 - 120		02/28/22 18:27	1
Toluene-d8 (Surr)	102	cn	80 - 120		02/28/22 18:27	1

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

Lab Sample ID: 410-73936-12

Date Collected: 02/22/22 08:45

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 18:48	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 18:48	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:48	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:48	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 18:48	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 18:48	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 18:48	1
Acetone	1.7	J cn	5.0	0.90	ug/L			02/28/22 18:48	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 18:48	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:48	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 18:48	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 18:48	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:48	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 18:48	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 18:48	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:48	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 18:48	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
cis-1,2-Dichloroethene	0.12	J cn	0.50	0.050	ug/L			02/28/22 18:48	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 18:48	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 18:48	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 18:48	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 18:48	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 18:48	1
Tetrachloroethene	0.27	J cn	0.50	0.060	ug/L			02/28/22 18:48	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 18:48	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 18:48	1
Trichloroethene	0.14	J cn	0.50	0.060	ug/L			02/28/22 18:48	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 18:48	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 18:48	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-12

Date Collected: 02/22/22 08:45

Matrix: Water

Date Received: 02/23/22 16:47

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103	cn	80 - 120		02/28/22 18:48	1
4-Bromofluorobenzene (Surr)	90	cn	80 - 120		02/28/22 18:48	1
Dibromofluoromethane (Surr)	97	cn	80 - 120		02/28/22 18:48	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/28/22 18:48	1

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

Lab Sample ID: 410-73936-13

Date Collected: 02/22/22 12:00

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 19:10	1
1,1,1-Trichloroethane	7.1	cn	0.50	0.060	ug/L			02/28/22 19:10	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 19:10	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 19:10	1
1,1-Dichloroethane	1.2	cn	0.50	0.070	ug/L			02/28/22 19:10	1
1,1-Dichloroethene	0.59	cn	0.50	0.060	ug/L			02/28/22 19:10	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 19:10	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 19:10	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 19:10	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 19:10	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 19:10	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 19:10	1
Acetone	ND	cn	5.0	0.90	ug/L			02/28/22 19:10	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 19:10	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 19:10	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 19:10	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 19:10	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 19:10	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 19:10	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 19:10	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 19:10	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 19:10	1
Chloroform	0.24	J cn	0.50	0.090	ug/L			02/28/22 19:10	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 19:10	1
cis-1,2-Dichloroethene	4.4	cn	0.50	0.050	ug/L			02/28/22 19:10	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 19:10	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 19:10	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 19:10	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 19:10	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 19:10	1
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 19:10	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 19:10	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 19:10	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 19:10	1
Trichloroethene	5.4	cn	0.50	0.060	ug/L			02/28/22 19:10	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 19:10	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 19:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103	cn	80 - 120		02/28/22 19:10	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-13

Date Collected: 02/22/22 12:00

Matrix: Water

Date Received: 02/23/22 16:47

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87	cn	80 - 120		02/28/22 19:10	1
Dibromofluoromethane (Surr)	99	cn	80 - 120		02/28/22 19:10	1
Toluene-d8 (Surr)	97	cn	80 - 120		02/28/22 19:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	86		5.0	0.60	ug/L			03/02/22 15:42	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		03/02/22 15:42	10
4-Bromofluorobenzene (Surr)	88		80 - 120		03/02/22 15:42	10
Dibromofluoromethane (Surr)	97		80 - 120		03/02/22 15:42	10
Toluene-d8 (Surr)	97		80 - 120		03/02/22 15:42	10

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

Lab Sample ID: 410-73936-14

Date Collected: 02/22/22 00:00

Matrix: Water

Date Received: 02/23/22 16:47

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	cn	0.50	0.070	ug/L			02/28/22 12:48	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070	ug/L			02/28/22 12:48	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 12:48	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/28/22 12:48	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			02/28/22 12:48	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/28/22 12:48	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/28/22 12:48	1
Acetone	ND	cn	5.0	0.90	ug/L			02/28/22 12:48	1
Benzene	ND	cn	0.50	0.050	ug/L			02/28/22 12:48	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 12:48	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/28/22 12:48	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/28/22 12:48	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/28/22 12:48	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/28/22 12:48	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/28/22 12:48	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/28/22 12:48	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/28/22 12:48	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
cis-1,2-Dichloroethene	ND	cn	0.50	0.050	ug/L			02/28/22 12:48	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/28/22 12:48	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/28/22 12:48	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/28/22 12:48	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/28/22 12:48	1

Client Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-14

Date Collected: 02/22/22 00:00

Matrix: Water

Date Received: 02/23/22 16:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	cn	0.50	0.050	ug/L			02/28/22 12:48	1
Tetrachloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
Toluene	ND	cn	0.50	0.070	ug/L			02/28/22 12:48	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
Trichloroethene	ND	cn	0.50	0.060	ug/L			02/28/22 12:48	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/28/22 12:48	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/28/22 12:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101	cn	80 - 120		02/28/22 12:48	1
4-Bromofluorobenzene (Surr)	88	cn	80 - 120		02/28/22 12:48	1
Dibromofluoromethane (Surr)	96	cn	80 - 120		02/28/22 12:48	1
Toluene-d8 (Surr)	99	cn	80 - 120		02/28/22 12:48	1

Default Detection Limits

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

Job ID: 410-73936-1

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

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

Surrogate Summary

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

Job ID: 410-73936-1

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)
410-73936-1	HD-COD-SW-6-0/1-0	99 cn	89 cn	97 cn	100 cn
410-73936-2	HD-COD-SW-7-0/1-0	105 cn	89 cn	98 cn	100 cn
410-73936-3	HD-COD-SW-8-0/1-0	100 cn	89 cn	97 cn	100 cn
410-73936-4	HD-COD-SW-9-0/1-0	106 cn	88 cn	97 cn	100 cn
410-73936-5	HD-COD-SW-13-0/1-0	102 cn	89 cn	98 cn	100 cn
410-73936-6	HD-COD-SW-15-0/1-0	104 cn	88 cn	98 cn	99 cn
410-73936-6 MS	HD-COD-SW-15-0/1-0 MS	99	93	96	99
410-73936-6 MSD	HD-COD-SW-15-0/1-0 MSD	101	94	96	99
410-73936-7	HD-COD-SW-16-0/1-0	102 cn	89 cn	95 cn	99 cn
410-73936-8	HD-COD-SW-17-0/1-0	102 cn	89 cn	98 cn	99 cn
410-73936-8 - DL	HD-COD-SW-17-0/1-0	102	88	97	99
410-73936-9	HD-COD-SW-26-0/1-0	102 cn	89 cn	98 cn	100 cn
410-73936-10	HD-COD-SW-27-0/1-0	104 cn	89 cn	96 cn	100 cn
410-73936-11	HD-COD-SW-28-0/1-0	104 cn	91 cn	98 cn	102 cn
410-73936-12	HD-COD-SW-29-0/1-0	103 cn	90 cn	97 cn	100 cn
410-73936-13	HD-QC1-0/1-1	103 cn	87 cn	99 cn	97 cn
410-73936-13 - DL	HD-QC1-0/1-1	101	88	97	97
410-73936-14	HD-QC1-0/1-2	101 cn	88 cn	96 cn	99 cn
LCS 410-228139/4	Lab Control Sample	100	93	95	99
LCS 410-229111/4	Lab Control Sample	103	94	97	99
LCSD 410-228139/5	Lab Control Sample Dup	99	95	95	101
LCSD 410-229111/5	Lab Control Sample Dup	103	92	95	98
MB 410-228139/7	Method Blank	101	88	96	100
MB 410-229111/7	Method Blank	104	89	98	99

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: 410-73936-1

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

Lab Sample ID: MB 410-228139/7

Matrix: Water

Analysis Batch: 228139

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			02/28/22 12:26	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			02/28/22 12:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			02/28/22 12:26	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			02/28/22 12:26	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			02/28/22 12:26	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			02/28/22 12:26	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			02/28/22 12:26	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			02/28/22 12:26	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			02/28/22 12:26	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			02/28/22 12:26	1
2-Hexanone	ND		5.0	0.60	ug/L			02/28/22 12:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			02/28/22 12:26	1
Acetone	ND		5.0	0.90	ug/L			02/28/22 12:26	1
Benzene	ND		0.50	0.050	ug/L			02/28/22 12:26	1
Bromochloromethane	ND		0.50	0.050	ug/L			02/28/22 12:26	1
Bromodichloromethane	ND		0.50	0.050	ug/L			02/28/22 12:26	1
Bromoform	ND		1.0	0.30	ug/L			02/28/22 12:26	1
Bromomethane	ND		0.50	0.070	ug/L			02/28/22 12:26	1
Carbon disulfide	ND		1.0	0.060	ug/L			02/28/22 12:26	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			02/28/22 12:26	1
Chlorobenzene	ND		0.50	0.060	ug/L			02/28/22 12:26	1
Chloroethane	ND		0.50	0.070	ug/L			02/28/22 12:26	1
Chloroform	ND		0.50	0.090	ug/L			02/28/22 12:26	1
Chloromethane	ND		0.50	0.060	ug/L			02/28/22 12:26	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			02/28/22 12:26	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			02/28/22 12:26	1
Dibromochloromethane	ND		0.50	0.070	ug/L			02/28/22 12:26	1
Ethylbenzene	ND		0.50	0.060	ug/L			02/28/22 12:26	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			02/28/22 12:26	1
Methylene Chloride	ND		0.50	0.070	ug/L			02/28/22 12:26	1
Styrene	ND		0.50	0.050	ug/L			02/28/22 12:26	1
Tetrachloroethene	ND		0.50	0.060	ug/L			02/28/22 12:26	1
Toluene	ND		0.50	0.070	ug/L			02/28/22 12:26	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			02/28/22 12:26	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			02/28/22 12:26	1
Trichloroethene	ND		0.50	0.060	ug/L			02/28/22 12:26	1
Vinyl chloride	ND		0.50	0.10	ug/L			02/28/22 12:26	1
Xylenes, Total	ND		1.0	0.15	ug/L			02/28/22 12:26	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		02/28/22 12:26	1
4-Bromofluorobenzene (Surr)	88		80 - 120		02/28/22 12:26	1
Dibromofluoromethane (Surr)	96		80 - 120		02/28/22 12:26	1
Toluene-d8 (Surr)	100		80 - 120		02/28/22 12:26	1

QC Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: LCS 410-228139/4

Matrix: Water

Analysis Batch: 228139

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	5.61		ug/L		112	71 - 134
1,1,1-Trichloroethane	5.00	5.12		ug/L		102	78 - 126
1,1,2,2-Tetrachloroethane	5.00	6.31	*+	ug/L		126	75 - 123
1,1,2-Trichloroethane	5.00	5.95		ug/L		119	80 - 120
1,1-Dichloroethane	5.00	5.30		ug/L		106	74 - 120
1,1-Dichloroethene	5.00	5.52		ug/L		110	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.79		ug/L		116	80 - 120
1,2-Dichloroethane	5.00	5.21		ug/L		104	69 - 122
1,2-Dichloropropane	5.00	5.92		ug/L		118	80 - 120
2-Butanone (MEK)	62.5	80.5		ug/L		129	59 - 141
2-Hexanone	62.5	83.9		ug/L		134	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	80.0		ug/L		128	55 - 140
Acetone	62.5	65.0		ug/L		104	60 - 146
Benzene	5.00	5.61		ug/L		112	80 - 120
Bromochloromethane	5.00	5.59		ug/L		112	80 - 120
Bromodichloromethane	5.00	5.87		ug/L		117	73 - 124
Bromoform	5.00	6.30		ug/L		126	49 - 144
Bromomethane	5.00	4.69		ug/L		94	60 - 136
Carbon disulfide	5.00	5.76		ug/L		115	67 - 130
Carbon tetrachloride	5.00	5.27		ug/L		105	64 - 141
Chlorobenzene	5.00	5.56		ug/L		111	80 - 120
Chloroethane	5.00	4.68		ug/L		94	63 - 120
Chloroform	5.00	5.31		ug/L		106	80 - 120
Chloromethane	5.00	5.40		ug/L		108	56 - 124
cis-1,2-Dichloroethene	5.00	5.43		ug/L		109	80 - 122
cis-1,3-Dichloropropene	5.00	5.80		ug/L		116	67 - 121
Dibromochloromethane	5.00	6.08		ug/L		122	64 - 138
Ethylbenzene	5.00	5.47		ug/L		109	80 - 120
Methyl tert-butyl ether	5.00	5.02		ug/L		100	69 - 120
Methylene Chloride	5.00	5.30		ug/L		106	80 - 120
Styrene	5.00	5.38		ug/L		108	80 - 120
Tetrachloroethene	5.00	5.60		ug/L		112	80 - 120
Toluene	5.00	5.47		ug/L		109	80 - 120
trans-1,2-Dichloroethene	5.00	5.17		ug/L		103	80 - 122
trans-1,3-Dichloropropene	5.00	6.05		ug/L		121	61 - 129
Trichloroethene	5.00	5.42		ug/L		108	80 - 120
Vinyl chloride	5.00	4.93		ug/L		99	60 - 125
Xylenes, Total	15.0	16.1		ug/L		108	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	95		80 - 120
Toluene-d8 (Surr)	99		80 - 120

QC Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: LCSD 410-228139/5

Matrix: Water

Analysis Batch: 228139

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	5.53		ug/L		111	71 - 134	1	30	
1,1,1-Trichloroethane	5.00	5.13		ug/L		103	78 - 126	0	30	
1,1,2,2-Tetrachloroethane	5.00	6.25	*+	ug/L		125	75 - 123	1	30	
1,1,2-Trichloroethane	5.00	5.99		ug/L		120	80 - 120	1	30	
1,1-Dichloroethane	5.00	5.33		ug/L		107	74 - 120	0	30	
1,1-Dichloroethene	5.00	5.50		ug/L		110	80 - 131	0	30	
1,2-Dibromoethane (EDB)	5.00	5.80		ug/L		116	80 - 120	0	30	
1,2-Dichloroethane	5.00	5.23		ug/L		105	69 - 122	0	30	
1,2-Dichloropropane	5.00	5.92		ug/L		118	80 - 120	0	30	
2-Butanone (MEK)	62.5	80.7		ug/L		129	59 - 141	0	30	
2-Hexanone	62.5	84.1		ug/L		134	52 - 140	0	30	
4-Methyl-2-pentanone (MIBK)	62.5	80.3		ug/L		128	55 - 140	0	30	
Acetone	62.5	65.2		ug/L		104	60 - 146	0	30	
Benzene	5.00	5.58		ug/L		112	80 - 120	1	30	
Bromochloromethane	5.00	5.44		ug/L		109	80 - 120	3	30	
Bromodichloromethane	5.00	5.84		ug/L		117	73 - 124	0	30	
Bromoform	5.00	6.25		ug/L		125	49 - 144	1	30	
Bromomethane	5.00	4.55		ug/L		91	60 - 136	3	30	
Carbon disulfide	5.00	5.64		ug/L		113	67 - 130	2	30	
Carbon tetrachloride	5.00	5.22		ug/L		104	64 - 141	1	30	
Chlorobenzene	5.00	5.57		ug/L		111	80 - 120	0	30	
Chloroethane	5.00	4.63		ug/L		93	63 - 120	1	30	
Chloroform	5.00	5.30		ug/L		106	80 - 120	0	30	
Chloromethane	5.00	5.13		ug/L		103	56 - 124	5	30	
cis-1,2-Dichloroethene	5.00	5.37		ug/L		107	80 - 122	1	30	
cis-1,3-Dichloropropene	5.00	5.73		ug/L		115	67 - 121	1	30	
Dibromochloromethane	5.00	6.08		ug/L		122	64 - 138	0	30	
Ethylbenzene	5.00	5.53		ug/L		111	80 - 120	1	30	
Methyl tert-butyl ether	5.00	4.98		ug/L		100	69 - 120	1	30	
Methylene Chloride	5.00	5.35		ug/L		107	80 - 120	1	30	
Styrene	5.00	5.40		ug/L		108	80 - 120	0	30	
Tetrachloroethene	5.00	5.62		ug/L		112	80 - 120	0	30	
Toluene	5.00	5.52		ug/L		110	80 - 120	1	30	
trans-1,2-Dichloroethene	5.00	5.21		ug/L		104	80 - 122	1	30	
trans-1,3-Dichloropropene	5.00	6.05		ug/L		121	61 - 129	0	30	
Trichloroethene	5.00	5.38		ug/L		108	80 - 120	1	30	
Vinyl chloride	5.00	4.82		ug/L		96	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)	95		80 - 120
Dibromofluoromethane (Surr)	95		80 - 120
Toluene-d8 (Surr)	101		80 - 120

QC Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-6 MS

Matrix: Water

Analysis Batch: 228139

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.
	Result	Qualifier	Added	Result	Qualifier			Limits	Limits
1,1,1,2-Tetrachloroethane	ND	cn	5.00	5.71		ug/L		114	71 - 134
1,1,1-Trichloroethane	0.29	J cn	5.00	5.81		ug/L		110	78 - 126
1,1,2,2-Tetrachloroethane	ND	^c *+ FH cn	5.00	6.54	FH	ug/L		131	75 - 123
1,1,2-Trichloroethane	ND	FH cn	5.00	6.16	FH	ug/L		123	80 - 120
1,1-Dichloroethane	0.15	J cn	5.00	5.77		ug/L		112	74 - 120
1,1-Dichloroethene	0.18	J cn	5.00	6.24		ug/L		121	80 - 131
1,2-Dibromoethane (EDB)	ND	cn	5.00	5.96		ug/L		119	80 - 120
1,2-Dichloroethane	ND	cn	5.00	5.48		ug/L		110	69 - 122
1,2-Dichloropropane	ND	FH cn	5.00	6.26	FH	ug/L		125	80 - 120
2-Butanone (MEK)	ND	^c cn	62.6	77.1		ug/L		123	59 - 141
2-Hexanone	ND	^c cn	62.6	81.3		ug/L		130	52 - 140
4-Methyl-2-pentanone (MIBK)	ND	^c cn	62.6	77.3		ug/L		124	55 - 140
Acetone	ND	cn	62.6	63.0		ug/L		101	60 - 146
Benzene	ND	cn	5.00	5.88		ug/L		117	80 - 120
Bromochloromethane	ND	cn	5.00	5.77		ug/L		115	80 - 120
Bromodichloromethane	ND	cn	5.00	6.08		ug/L		121	73 - 124
Bromoform	ND	^c cn	5.00	6.37		ug/L		127	49 - 144
Bromomethane	ND	cn	5.00	4.86		ug/L		97	60 - 136
Carbon disulfide	ND	cn	5.00	6.13		ug/L		122	67 - 130
Carbon tetrachloride	ND	cn	5.00	5.82		ug/L		116	64 - 141
Chlorobenzene	ND	cn	5.00	5.87		ug/L		117	80 - 120
Chloroethane	ND	cn	5.00	4.93		ug/L		99	63 - 120
Chloroform	0.27	J cn	5.00	5.80		ug/L		111	80 - 120
Chloromethane	ND	cn	5.00	5.48		ug/L		109	80 - 120
cis-1,2-Dichloroethene	1.9	cn	5.00	7.72		ug/L		115	80 - 122
cis-1,3-Dichloropropene	ND	cn	5.00	5.95		ug/L		119	67 - 121
Dibromochloromethane	ND	cn	5.00	6.28		ug/L		125	64 - 138
Ethylbenzene	ND	cn	5.00	5.75		ug/L		115	80 - 120
Methyl tert-butyl ether	ND	cn	5.00	5.15		ug/L		103	69 - 120
Methylene Chloride	ND	cn	5.00	5.65		ug/L		113	80 - 120
Styrene	ND	cn	5.00	5.58		ug/L		112	80 - 120
Tetrachloroethene	6.4	cn	5.00	12.3		ug/L		119	80 - 120
Toluene	ND	cn	5.00	5.84		ug/L		117	80 - 120
trans-1,2-Dichloroethene	ND	cn	5.00	5.62		ug/L		112	80 - 122
trans-1,3-Dichloropropene	ND	cn	5.00	6.13		ug/L		123	61 - 129
Trichloroethene	1.7	cn	5.00	7.42		ug/L		114	80 - 120
Vinyl chloride	ND	cn	5.00	5.30		ug/L		106	60 - 125
Xylenes, Total	ND	cn	15.0	17.0		ug/L		113	80 - 120
		MS MS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	99		80 - 120						
4-Bromofluorobenzene (Surr)	93		80 - 120						
Dibromofluoromethane (Surr)	96		80 - 120						
Toluene-d8 (Surr)	99		80 - 120						

QC Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-6 MSD

Matrix: Water

Analysis Batch: 228139

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		Result	Qualifier				Limits		
1,1,1,2-Tetrachloroethane	ND	cn	5.00	5.57		ug/L		111	71 - 134	2	30
1,1,1-Trichloroethane	0.29	J cn	5.00	5.74		ug/L		109	78 - 126	1	30
1,1,2,2-Tetrachloroethane	ND	^c *+ FH cn	5.00	6.33	FH	ug/L		126	75 - 123	3	30
1,1,2-Trichloroethane	ND	FH cn	5.00	5.97		ug/L		119	80 - 120	3	30
1,1-Dichloroethane	0.15	J cn	5.00	5.71		ug/L		111	74 - 120	1	30
1,1-Dichloroethene	0.18	J cn	5.00	6.07		ug/L		118	80 - 131	3	30
1,2-Dibromoethane (EDB)	ND	cn	5.00	5.82		ug/L		116	80 - 120	2	30
1,2-Dichloroethane	ND	cn	5.00	5.31		ug/L		106	69 - 122	3	30
1,2-Dichloropropane	ND	FH cn	5.00	6.22	FH	ug/L		124	80 - 120	1	30
2-Butanone (MEK)	ND	^c cn	62.6	73.3		ug/L		117	59 - 141	5	30
2-Hexanone	ND	^c cn	62.6	76.7		ug/L		123	52 - 140	6	30
4-Methyl-2-pentanone (MIBK)	ND	^c cn	62.6	73.3		ug/L		117	55 - 140	5	30
Acetone	ND	cn	62.6	59.0		ug/L		94	60 - 146	7	30
Benzene	ND	cn	5.00	5.85		ug/L		117	80 - 120	0	30
Bromochloromethane	ND	cn	5.00	5.72		ug/L		114	80 - 120	1	30
Bromodichloromethane	ND	cn	5.00	6.05		ug/L		121	73 - 124	0	30
Bromoform	ND	^c cn	5.00	6.18		ug/L		124	49 - 144	3	30
Bromomethane	ND	cn	5.00	4.88		ug/L		98	60 - 136	0	30
Carbon disulfide	ND	cn	5.00	5.89		ug/L		118	67 - 130	4	30
Carbon tetrachloride	ND	cn	5.00	5.70		ug/L		114	64 - 141	2	30
Chlorobenzene	ND	cn	5.00	5.73		ug/L		115	80 - 120	2	30
Chloroethane	ND	cn	5.00	4.94		ug/L		99	63 - 120	0	30
Chloroform	0.27	J cn	5.00	5.78		ug/L		110	80 - 120	0	30
Chloromethane	ND	cn	5.00	5.42		ug/L		108	80 - 120	1	30
cis-1,2-Dichloroethene	1.9	cn	5.00	7.64		ug/L		114	80 - 122	1	30
cis-1,3-Dichloropropene	ND	cn	5.00	5.90		ug/L		118	67 - 121	1	30
Dibromochloromethane	ND	cn	5.00	6.23		ug/L		124	64 - 138	1	30
Ethylbenzene	ND	cn	5.00	5.69		ug/L		114	80 - 120	1	30
Methyl tert-butyl ether	ND	cn	5.00	5.12		ug/L		102	69 - 120	1	30
Methylene Chloride	ND	cn	5.00	5.57		ug/L		111	80 - 120	1	30
Styrene	ND	cn	5.00	5.57		ug/L		111	80 - 120	0	30
Tetrachloroethene	6.4	cn	5.00	12.0		ug/L		113	80 - 120	3	30
Toluene	ND	cn	5.00	5.73		ug/L		115	80 - 120	2	30
trans-1,2-Dichloroethene	ND	cn	5.00	5.45		ug/L		109	80 - 122	3	30
trans-1,3-Dichloropropene	ND	cn	5.00	6.23		ug/L		124	61 - 129	2	30
Trichloroethene	1.7	cn	5.00	7.41		ug/L		114	80 - 120	0	30
Vinyl chloride	ND	cn	5.00	5.29		ug/L		106	60 - 125	0	30
Xylenes, Total	ND	cn	15.0	16.9		ug/L		113	80 - 120	0	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	96		80 - 120
Toluene-d8 (Surr)	99		80 - 120

QC Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: MB 410-229111/7

Matrix: Water

Analysis Batch: 229111

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			03/02/22 11:49	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/02/22 11:49	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/02/22 11:49	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/02/22 11:49	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/02/22 11:49	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/02/22 11:49	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/02/22 11:49	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/02/22 11:49	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/02/22 11:49	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			03/02/22 11:49	1
2-Hexanone	ND		5.0	0.60	ug/L			03/02/22 11:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			03/02/22 11:49	1
Acetone	ND		5.0	0.90	ug/L			03/02/22 11:49	1
Benzene	ND		0.50	0.050	ug/L			03/02/22 11:49	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/02/22 11:49	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/02/22 11:49	1
Bromoform	ND		1.0	0.30	ug/L			03/02/22 11:49	1
Bromomethane	ND		0.50	0.070	ug/L			03/02/22 11:49	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/02/22 11:49	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/02/22 11:49	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/02/22 11:49	1
Chloroethane	ND		0.50	0.070	ug/L			03/02/22 11:49	1
Chloroform	ND		0.50	0.090	ug/L			03/02/22 11:49	1
Chloromethane	ND		0.50	0.060	ug/L			03/02/22 11:49	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			03/02/22 11:49	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/02/22 11:49	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/02/22 11:49	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/02/22 11:49	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/02/22 11:49	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/02/22 11:49	1
Styrene	ND		0.50	0.050	ug/L			03/02/22 11:49	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/02/22 11:49	1
Toluene	ND		0.50	0.070	ug/L			03/02/22 11:49	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/02/22 11:49	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/02/22 11:49	1
Trichloroethene	ND		0.50	0.060	ug/L			03/02/22 11:49	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/02/22 11:49	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/02/22 11:49	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	104		80 - 120		03/02/22 11:49	1
4-Bromofluorobenzene (Surr)	89		80 - 120		03/02/22 11:49	1
Dibromofluoromethane (Surr)	98		80 - 120		03/02/22 11:49	1
Toluene-d8 (Surr)	99		80 - 120		03/02/22 11:49	1

QC Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: LCS 410-229111/4
Matrix: Water
Analysis Batch: 229111

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	5.57		ug/L		111	71 - 134
1,1,1-Trichloroethane	5.00	5.00		ug/L		100	78 - 126
1,1,2,2-Tetrachloroethane	5.00	6.20	*+	ug/L		124	75 - 123
1,1,2-Trichloroethane	5.00	5.88		ug/L		118	80 - 120
1,1-Dichloroethane	5.00	5.05		ug/L		101	74 - 120
1,1-Dichloroethene	5.00	5.17		ug/L		103	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.83		ug/L		117	80 - 120
1,2-Dichloroethane	5.00	5.08		ug/L		102	69 - 122
1,2-Dichloropropane	5.00	5.61		ug/L		112	80 - 120
2-Butanone (MEK)	62.5	76.5		ug/L		122	59 - 141
2-Hexanone	62.5	80.3		ug/L		129	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	75.5		ug/L		121	55 - 140
Acetone	62.5	60.7		ug/L		97	60 - 146
Benzene	5.00	5.38		ug/L		108	80 - 120
Bromochloromethane	5.00	5.51		ug/L		110	80 - 120
Bromodichloromethane	5.00	5.73		ug/L		115	73 - 124
Bromoform	5.00	6.48		ug/L		130	49 - 144
Bromomethane	5.00	4.40		ug/L		88	60 - 136
Carbon disulfide	5.00	5.21		ug/L		104	67 - 130
Carbon tetrachloride	5.00	5.24		ug/L		105	64 - 141
Chlorobenzene	5.00	5.56		ug/L		111	80 - 120
Chloroethane	5.00	4.38		ug/L		88	63 - 120
Chloroform	5.00	5.18		ug/L		104	80 - 120
Chloromethane	5.00	4.65		ug/L		93	56 - 124
cis-1,2-Dichloroethene	5.00	5.35		ug/L		107	80 - 122
cis-1,3-Dichloropropene	5.00	5.54		ug/L		111	67 - 121
Dibromochloromethane	5.00	6.12		ug/L		122	64 - 138
Ethylbenzene	5.00	5.34		ug/L		107	80 - 120
Methyl tert-butyl ether	5.00	4.92		ug/L		98	69 - 120
Methylene Chloride	5.00	5.28		ug/L		106	80 - 120
Styrene	5.00	5.31		ug/L		106	80 - 120
Tetrachloroethene	5.00	5.61		ug/L		112	80 - 120
Toluene	5.00	5.41		ug/L		108	80 - 120
trans-1,2-Dichloroethene	5.00	5.06		ug/L		101	80 - 122
trans-1,3-Dichloropropene	5.00	5.93		ug/L		119	61 - 129
Trichloroethene	5.00	5.27		ug/L		105	80 - 120
Vinyl chloride	5.00	4.58		ug/L		92	60 - 125
Xylenes, Total	15.0	15.9		ug/L		106	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	94		80 - 120
Dibromofluoromethane (Surr)	97		80 - 120
Toluene-d8 (Surr)	99		80 - 120

QC Sample Results

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

Job ID: 410-73936-1

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

Lab Sample ID: LCSD 410-229111/5

Matrix: Water

Analysis Batch: 229111

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	5.00	5.54		ug/L		111	71 - 134	1	30
1,1,1-Trichloroethane	5.00	4.97		ug/L		99	78 - 126	1	30
1,1,2,2-Tetrachloroethane	5.00	6.21	*+	ug/L		124	75 - 123	0	30
1,1,2-Trichloroethane	5.00	5.83		ug/L		117	80 - 120	1	30
1,1-Dichloroethane	5.00	5.08		ug/L		102	74 - 120	1	30
1,1-Dichloroethene	5.00	5.21		ug/L		104	80 - 131	1	30
1,2-Dibromoethane (EDB)	5.00	5.80		ug/L		116	80 - 120	1	30
1,2-Dichloroethane	5.00	5.18		ug/L		104	69 - 122	2	30
1,2-Dichloropropane	5.00	5.67		ug/L		113	80 - 120	1	30
2-Butanone (MEK)	62.5	74.4		ug/L		119	59 - 141	3	30
2-Hexanone	62.5	77.6		ug/L		124	52 - 140	3	30
4-Methyl-2-pentanone (MIBK)	62.5	72.9		ug/L		117	55 - 140	3	30
Acetone	62.5	58.4		ug/L		93	60 - 146	4	30
Benzene	5.00	5.36		ug/L		107	80 - 120	0	30
Bromochloromethane	5.00	5.77		ug/L		115	80 - 120	5	30
Bromodichloromethane	5.00	5.71		ug/L		114	73 - 124	0	30
Bromoform	5.00	6.33		ug/L		127	49 - 144	2	30
Bromomethane	5.00	4.31		ug/L		86	60 - 136	2	30
Carbon disulfide	5.00	5.09		ug/L		102	67 - 130	2	30
Carbon tetrachloride	5.00	5.13		ug/L		103	64 - 141	2	30
Chlorobenzene	5.00	5.42		ug/L		108	80 - 120	3	30
Chloroethane	5.00	4.24		ug/L		85	63 - 120	3	30
Chloroform	5.00	5.17		ug/L		103	80 - 120	0	30
Chloromethane	5.00	4.50		ug/L		90	56 - 124	3	30
cis-1,2-Dichloroethene	5.00	5.23		ug/L		105	80 - 122	2	30
cis-1,3-Dichloropropene	5.00	5.62		ug/L		112	67 - 121	1	30
Dibromochloromethane	5.00	6.08		ug/L		122	64 - 138	1	30
Ethylbenzene	5.00	5.26		ug/L		105	80 - 120	2	30
Methyl tert-butyl ether	5.00	4.89		ug/L		98	69 - 120	1	30
Methylene Chloride	5.00	5.20		ug/L		104	80 - 120	1	30
Styrene	5.00	5.23		ug/L		105	80 - 120	1	30
Tetrachloroethene	5.00	5.48		ug/L		110	80 - 120	2	30
Toluene	5.00	5.22		ug/L		104	80 - 120	3	30
trans-1,2-Dichloroethene	5.00	5.03		ug/L		101	80 - 122	1	30
trans-1,3-Dichloropropene	5.00	5.88		ug/L		118	61 - 129	1	30
Trichloroethene	5.00	5.23		ug/L		105	80 - 120	1	30
Vinyl chloride	5.00	4.41		ug/L		88	60 - 125	4	30
Xylenes, Total	15.0	15.7		ug/L		105	80 - 120	1	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	92		80 - 120
Dibromofluoromethane (Surr)	95		80 - 120
Toluene-d8 (Surr)	98		80 - 120

QC Association Summary

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

Job ID: 410-73936-1

GC/MS VOA

Analysis Batch: 228139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73936-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260D	
410-73936-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260D	
410-73936-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260D	
410-73936-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260D	
410-73936-5	HD-COD-SW-13-0/1-0	Total/NA	Water	8260D	
410-73936-6	HD-COD-SW-15-0/1-0	Total/NA	Water	8260D	
410-73936-7	HD-COD-SW-16-0/1-0	Total/NA	Water	8260D	
410-73936-8	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-73936-8 - DL	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-73936-9	HD-COD-SW-26-0/1-0	Total/NA	Water	8260D	
410-73936-10	HD-COD-SW-27-0/1-0	Total/NA	Water	8260D	
410-73936-11	HD-COD-SW-28-0/1-0	Total/NA	Water	8260D	
410-73936-12	HD-COD-SW-29-0/1-0	Total/NA	Water	8260D	
410-73936-13	HD-QC1-0/1-1	Total/NA	Water	8260D	
410-73936-14	HD-QC1-0/1-2	Total/NA	Water	8260D	
MB 410-228139/7	Method Blank	Total/NA	Water	8260D	
LCS 410-228139/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-228139/5	Lab Control Sample Dup	Total/NA	Water	8260D	
410-73936-6 MS	HD-COD-SW-15-0/1-0 MS	Total/NA	Water	8260D	
410-73936-6 MSD	HD-COD-SW-15-0/1-0 MSD	Total/NA	Water	8260D	

Analysis Batch: 229111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-73936-13 - DL	HD-QC1-0/1-1	Total/NA	Water	8260D	
MB 410-229111/7	Method Blank	Total/NA	Water	8260D	
LCS 410-229111/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-229111/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-1

Date Collected: 02/22/22 10:10

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 13:30	DVW2	ELLE

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

Lab Sample ID: 410-73936-2

Date Collected: 02/22/22 10:55

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 13:52	DVW2	ELLE

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

Lab Sample ID: 410-73936-3

Date Collected: 02/22/22 08:55

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 14:13	DVW2	ELLE

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

Lab Sample ID: 410-73936-4

Date Collected: 02/22/22 12:05

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 14:34	DVW2	ELLE

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

Lab Sample ID: 410-73936-5

Date Collected: 02/22/22 09:15

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 14:55	DVW2	ELLE

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

Lab Sample ID: 410-73936-6

Date Collected: 02/22/22 11:25

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 15:16	DVW2	ELLE

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

Lab Sample ID: 410-73936-7

Date Collected: 02/22/22 09:45

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 16:41	DVW2	ELLE

Lab Chronicle

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

Job ID: 410-73936-1

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

Lab Sample ID: 410-73936-8

Date Collected: 02/22/22 09:55

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 17:03	DVW2	ELLE
Total/NA	Analysis	8260D	DL	20	228139	02/28/22 17:24	DVW2	ELLE

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

Lab Sample ID: 410-73936-9

Date Collected: 02/22/22 10:40

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 17:45	DVW2	ELLE

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

Lab Sample ID: 410-73936-10

Date Collected: 02/22/22 11:15

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 18:06	DVW2	ELLE

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

Lab Sample ID: 410-73936-11

Date Collected: 02/22/22 12:15

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 18:27	DVW2	ELLE

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

Lab Sample ID: 410-73936-12

Date Collected: 02/22/22 08:45

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 18:48	DVW2	ELLE

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

Lab Sample ID: 410-73936-13

Date Collected: 02/22/22 12:00

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 19:10	DVW2	ELLE
Total/NA	Analysis	8260D	DL	10	229111	03/02/22 15:42	DVW2	ELLE

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

Lab Sample ID: 410-73936-14

Date Collected: 02/22/22 00:00

Matrix: Water

Date Received: 02/23/22 16:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	228139	02/28/22 12:48	DVW2	ELLE

Lab Chronicle

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

Job ID: 410-73936-1

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 410-73936-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

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

Method Summary

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

Job ID: 410-73936-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

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

Job ID: 410-73936-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
410-73936-1	HD-COD-SW-6-0/1-0	Water	02/22/22 10:10	02/23/22 16:47
410-73936-2	HD-COD-SW-7-0/1-0	Water	02/22/22 10:55	02/23/22 16:47
410-73936-3	HD-COD-SW-8-0/1-0	Water	02/22/22 08:55	02/23/22 16:47
410-73936-4	HD-COD-SW-9-0/1-0	Water	02/22/22 12:05	02/23/22 16:47
410-73936-5	HD-COD-SW-13-0/1-0	Water	02/22/22 09:15	02/23/22 16:47
410-73936-6	HD-COD-SW-15-0/1-0	Water	02/22/22 11:25	02/23/22 16:47
410-73936-7	HD-COD-SW-16-0/1-0	Water	02/22/22 09:45	02/23/22 16:47
410-73936-8	HD-COD-SW-17-0/1-0	Water	02/22/22 09:55	02/23/22 16:47
410-73936-9	HD-COD-SW-26-0/1-0	Water	02/22/22 10:40	02/23/22 16:47
410-73936-10	HD-COD-SW-27-0/1-0	Water	02/22/22 11:15	02/23/22 16:47
410-73936-11	HD-COD-SW-28-0/1-0	Water	02/22/22 12:15	02/23/22 16:47
410-73936-12	HD-COD-SW-29-0/1-0	Water	02/22/22 08:45	02/23/22 16:47
410-73936-13	HD-QC1-0/1-1	Water	02/22/22 12:00	02/23/22 16:47
410-73936-14	HD-QC1-0/1-2	Water	02/22/22 00:00	02/23/22 16:47

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 163707Lab Sample ID: IC 410-163707/12 Client Sample ID: _____Date Analyzed: 08/24/21 00:45 Lab File ID: IG23I01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

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

Lab Sample ID: IC 410-163707/14 Client Sample ID: _____Date Analyzed: 08/24/21 01:27 Lab File ID: IG23I03.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

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

Lab Sample ID: IC 410-163707/15 Client Sample ID: _____Date Analyzed: 08/24/21 01:48 Lab File ID: IG23I04.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

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

Lab Sample ID: IC 410-163707/16 Client Sample ID: _____Date Analyzed: 08/24/21 02:09 Lab File ID: IG23I05.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 163707Lab Sample ID: IC 410-163707/17 Client Sample ID: _____Date Analyzed: 08/24/21 02:30 Lab File ID: IG23I06.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

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

Lab Sample ID: IC 410-163707/18 Client Sample ID: _____Date Analyzed: 08/24/21 02:52 Lab File ID: IG23I07.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

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

Lab Sample ID: ICV 410-163707/19 Client Sample ID: _____Date Analyzed: 08/24/21 03:13 Lab File ID: IG23V01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 228139Lab Sample ID: CCVIS 410-228139/3 Client Sample ID: _____Date Analyzed: 02/28/22 11:02 Lab File ID: IF28X02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.61	Incomplete Integration	kephartk	02/28/22 11:26

Lab Sample ID: 410-73936-1 Client Sample ID: HD-COD-SW-6-0/1-0Date Analyzed: 02/28/22 13:30 Lab File ID: IF28X09.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.61	Split Peak	beckerk	02/28/22 16:59
cis-1,2-Dichloroethene	6.14	Split Peak	beckerk	02/28/22 17:00
2-Butanone (MEK)		Invalid Compound ID	beckerk	02/28/22 16:59

Lab Sample ID: 410-73936-2 Client Sample ID: HD-COD-SW-7-0/1-0Date Analyzed: 02/28/22 13:52 Lab File ID: IF28X10.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.60	Split Peak	beckerk	02/28/22 17:00
cis-1,2-Dichloroethene	6.15	Split Peak	beckerk	02/28/22 17:00
Trichloroethene	8.19	Incomplete Integration	beckerk	02/28/22 17:01
Tetrachloroethene	10.34	Incomplete Integration	beckerk	02/28/22 17:18

Lab Sample ID: 410-73936-3 Client Sample ID: HD-COD-SW-8-0/1-0Date Analyzed: 02/28/22 14:13 Lab File ID: IF28X11.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.61	Split Peak	beckerk	02/28/22 17:19

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 228139Lab Sample ID: 410-73936-4 Client Sample ID: HD-COD-SW-9-0/1-0Date Analyzed: 02/28/22 14:34 Lab File ID: IF28X12.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichloroethene	8.19	Incomplete Integration	beckerk	02/28/22 17:20

Lab Sample ID: 410-73936-5 Client Sample ID: HD-COD-SW-13-0/1-0Date Analyzed: 02/28/22 14:55 Lab File ID: IF28X13.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Butanone (MEK)		Invalid Compound ID	beckerk	02/28/22 17:20

Lab Sample ID: 410-73936-6 Client Sample ID: HD-COD-SW-15-0/1-0Date Analyzed: 02/28/22 15:16 Lab File ID: IF28X14.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toluene-d8 (Surr)	9.71	Peak assignment corrected	beckerk	02/28/22 17:21
1,1,2-Trichloroethane	10.26	Invalid Compound ID	beckerk	02/28/22 17:22

Lab Sample ID: 410-73936-7 Client Sample ID: HD-COD-SW-16-0/1-0Date Analyzed: 02/28/22 16:41 Lab File ID: IF28X18.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.61	Split Peak	beckerk	02/28/22 17:27

Lab Sample ID: 410-73936-8 Client Sample ID: HD-COD-SW-17-0/1-0Date Analyzed: 02/28/22 17:03 Lab File ID: IF28X19.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.65	Incomplete Integration	beckerk	02/28/22 20:50

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 228139Lab Sample ID: 410-73936-9 Client Sample ID: HD-COD-SW-26-0/1-0Date Analyzed: 02/28/22 17:45 Lab File ID: IF28X21.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone		Invalid Compound ID	beckerk	02/28/22 20:52

Lab Sample ID: 410-73936-11 Client Sample ID: HD-COD-SW-28-0/1-0Date Analyzed: 02/28/22 18:27 Lab File ID: IF28X23.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichloroethene	8.19	Incomplete Integration	beckerk	02/28/22 20:53
2-Butanone (MEK)		Invalid Compound ID	beckerk	02/28/22 20:52

Lab Sample ID: 410-73936-12 Client Sample ID: HD-COD-SW-29-0/1-0Date Analyzed: 02/28/22 18:48 Lab File ID: IF28X24.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.12	Peak assignment corrected	beckerk	02/28/22 20:53

Lab Sample ID: 410-73936-13 Client Sample ID: HD-QC1-0/1-1Date Analyzed: 02/28/22 19:10 Lab File ID: IF28X25.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-1,2-Dichloroethene	4.65	Incomplete Integration	beckerk	02/28/22 20:55

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 229111

Lab Sample ID: CCVIS 410-229111/3 Client Sample ID: _____

Date Analyzed: 03/02/22 10:24 Lab File ID: IM02X02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.59	Incomplete Integration	kephartk	03/02/22 10:51
Freon 113	3.61	Incomplete Integration	kephartk	03/02/22 10:52
Methyl acetate	4.01	Incomplete Integration	kephartk	03/02/22 10:52
t-Butyl alcohol	4.36	Incomplete Integration	kephartk	03/02/22 10:53
1,4-Dioxane	8.60	Incomplete Integration	kephartk	03/02/22 10:54

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

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_00015	09/22/21	08/23/21	Methanol, Lot DZ644	25 mL	MSV_M_MIX1SEC_00019	1 mL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,2-Dibromoethane (EDB)	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							Benzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromochloromethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Methylene Chloride	40 ug/mL
							Styrene	40 ug/mL
							Tetrachloroethene	40 ug/mL
					Toluene	40 ug/mL		
					trans-1,2-Dichloroethene	40 ug/mL		
					trans-1,3-Dichloropropene	40 ug/mL		
					Trichloroethene	40 ug/mL		
MSV_M_MIX2SEC_00028	1 mL	Carbon disulfide	40 ug/mL					
		Methyl tert-butyl ether	40 ug/mL					
MSV_Q_Ketones_00019	1 mL	2-Butanone (MEK)	500 ug/mL					
		2-Hexanone	500 ug/mL					
		4-Methyl-2-pentanone (MIBK)	500 ug/mL					
		Acetone	500 ug/mL					
.MSV_M_MIX1SEC_00019	04/30/24		Restek, Lot A0171815		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	1000 ug/mL
							1,1,1-Trichloroethane	1000 ug/mL
							1,1,2,2-Tetrachloroethane	1000 ug/mL
							1,1,2-Trichloroethane	1000 ug/mL
							1,1-Dichloroethane	1000 ug/mL
							1,1-Dichloroethene	1000 ug/mL
							1,2-Dibromoethane (EDB)	1000 ug/mL
							1,2-Dichloroethane	1000 ug/mL
							1,2-Dichloropropane	1000 ug/mL
							Benzene	1000 ug/mL
							Bromochloromethane	1000 ug/mL
							Bromodichloromethane	1000 ug/mL
							Bromoform	1000 ug/mL
							Carbon tetrachloride	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

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_00028	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00019	01/31/24		Restek, Lot A0167987		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
MSV_LCS_VOC#1_00042	03/30/22	02/28/22	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00045	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_00052	1 mL	Carbon disulfide	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_Q_Ketones_00051	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_00045	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_00052	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00051	01/31/24		Restek, Lot A0167987		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
MSV_LL_#1_826_00015	09/07/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_CCV_VOC#1_00017	50 uL	Ethyl methacrylate	50.0022 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.: _____

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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trichlorobenzene	1000 ug/mL
							1,4-Dioxane	12500 ug/mL
							1-Chlorohexane	1000 ug/mL
							2-Chloro-1,3-butadiene	1000 ug/mL
							2-Methyl-2-propanol	5000 ug/mL
							2-Nitropropane	5000 ug/mL
							3-Chloro-1-propene	1000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzyl chloride	1000 ug/mL
							Carbon disulfide	1000 ug/mL
							Cyclohexane	1000 ug/mL
							Hexane	1000 ug/mL
							Iodomethane	1000 ug/mL
							Isobutyl alcohol	12500 ug/mL
							Isopropyl ether	1000 ug/mL
							Methacrylonitrile	2500 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl methacrylate	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
							Methylcyclohexane	1000 ug/mL
							n-Butanol	12500 ug/mL
							n-Heptane	1000 ug/mL
							Propionitrile	5000 ug/mL
							Tert-amyl methyl ether	1000 ug/mL
							Tert-butyl ethyl ether	1000 ug/mL
							Tetrahydrofuran	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_EM Work 00001	11/24/21	05/24/21	Methanol, Lot DZ644	50 mL	MSV_EthylM_St_00001	4.938 mL	Ethyl methacrylate	5000.22 ug/mL
...MSV_EthylM_St_00001	11/24/21	05/24/21	Methanol, Lot DZ644	10 mL	MSV_EthylMeth_00001	0.5063 g	Ethyl methacrylate	50630 ug/mL
...MSV_EthylMeth_00001	01/31/23		Chem Service, Lot 11325900				Ethyl methacrylate	1 g/g
..MSV_MegaMIX#1_00015	09/22/21		Restek, Lot A0171634				(Purchased Reagent)	
							(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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cyclohexane	5000 ug/mL
							Hexane	5000 ug/mL
							Iodomethane	5000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropyl ether	5000 ug/mL
							Methacrylonitrile	12500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl methacrylate	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
							Methylcyclohexane	5000 ug/mL
							n-Butanol	62500 ug/mL
							n-Heptane	5000 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	5000 ug/mL
							Tert-butyl ethyl ether	5000 ug/mL
							Tetrahydrofuran	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
.MSV_CCV_VOC#3_00016	09/07/21	08/23/21	Methanol, Lot DZ644	5 mL	MSV_V_Ketones_00014	1 mL	2-Butanone (MEK)	2500 ug/mL
							2-Hexanone	2500 ug/mL
							4-Methyl-2-pentanone (MIBK)	2500 ug/mL
							Acetone	2500 ug/mL
					MSV_VACR_00018	0.5 mL	Acrolein	12499.6 ug/mL
..MSV_V_Ketones_00014	01/31/24		Restek, Lot A0168313			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..MSV_VACR_00018	09/08/21	07/09/21	Methanol, Lot DZ644	10 mL	MSV_VACR_STK_00020	9.253 mL	Acrolein	124996 ug/mL
...MSV_VACR_STK_00020	09/08/21	07/09/21	Methanol, Lot DZ644	10 mL	MSV_ACROLEIN_00013	1.4417 g	Acrolein	135087 ug/mL
...MSV_ACROLEIN_00013	09/30/21		Chem Service, Lot 10804400			(Purchased Reagent)	Acrolein	0.937 g/g
.MSV_V_VOA2_00101	09/22/21	08/23/21	Methanol, Lot DZ644	5 mL	MSV_V#2B_00231	1 mL	1,4-Dioxane	12500 ug/mL
							2-Methyl-2-propanol	5000 ug/mL
							Isobutyl alcohol	12500 ug/mL
							Methacrylonitrile	2500 ug/mL
							n-Butanol	25000 ug/mL
							Propionitrile	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_V#2B_00231	04/30/22		Restek, Lot A0171518			(Purchased Reagent)	1,4-Dioxane	62500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Methacrylonitrile	12500 ug/mL
							n-Butanol	125000 ug/mL
							Propionitrile	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
MSV_LL_#1_826_00037	03/24/22	02/22/22	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00053	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							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_00052	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_00053	03/24/22	02/22/22	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00051	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_MegaMix#2_00051	1 mL	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
..MSV_MegaMIX#1_00051	03/24/22		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_00051	03/24/22		Restek, Lot A0173454			(Purchased Reagent)	Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
..MSV_CCV_VOC#3_00052	03/24/22	02/22/22	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00050	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_00050	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
MSV_LL_#2_826_00015	09/01/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_V_EE_00005	50 uL	Ethyl ether	50.0035 ug/mL					
					MSV_V_PentaCL_00005	10 uL	Pentachloroethane	50 ug/mL					
.MSV_V_EE_00005	10/14/21	04/14/21	Methanol, Lot DZ644	100 mL	MSV_EE_MISCSK_00006	1.989 mL	Ethyl ether	1000.07 ug/mL					
..MSV_EE_MISCSK_00006	10/14/21	04/14/21	Methanol, Lot DZ644	10 mL	MSV_EE_Neat_00005	0.5028 g	Ethyl ether	50280 ug/mL					
...MSV_EE_Neat_00005	11/30/21		Chem Service, Lot 11028800				Ethyl ether	1 g/g					
.MSV_V_PentaCL_00005	09/15/21		Restek, Lot A0171341				Pentachloroethane	5000 ug/mL					
MSV_LL_GAS826_00027	08/30/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_CCV_GASES_00060	25 uL	1,2-Dichloro-1,1,2-trifluoroethane	50 ug/mL					
							Bromomethane	50 ug/mL					
							Butadiene	50 ug/mL					
							Chloroethane	50 ug/mL					
							Chloromethane	50 ug/mL					
							Dichlorodifluoromethane	50 ug/mL					
							Dichlorofluoromethane	50 ug/mL					
							Trichlorofluoromethane	50 ug/mL					
.MSV_CCV_GASES_00060	08/30/21		Restek, Lot A0172364		(Purchased Reagent)		1,2-Dichloro-1,1,2-trifluoroethane	2000 ug/mL					
							Bromomethane	2000 ug/mL					
							Butadiene	2000 ug/mL					
							Chloroethane	2000 ug/mL					
							Chloromethane	2000 ug/mL					
							Dichlorodifluoromethane	2000 ug/mL					
							Dichlorofluoromethane	2000 ug/mL					
							Trichlorofluoromethane	2000 ug/mL					
Vinyl chloride	2000 ug/mL												
MSV_LL_GAS826_00069	03/07/22	02/28/22	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00150	25 uL	Bromomethane	50 ug/mL					
							Chloroethane	50 ug/mL					
							Chloromethane	50 ug/mL					
							Vinyl chloride	50 ug/mL					
.MSV_CCV_GASES_00150	03/07/22		Restek, Lot A0172364		(Purchased Reagent)		Bromomethane	2000 ug/mL					
							Chloroethane	2000 ug/mL					
							Chloromethane	2000 ug/mL					
							Vinyl chloride	2000 ug/mL					
MSV_LLcentISS_00001	11/25/21	05/25/21	Methanol, Lot DZ644	50 mL	MSV_8260_SS_00366	1 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL					
							4-Bromofluorobenzene (Surr)	50 ug/mL					
							Dibromofluoromethane (Surr)	50 ug/mL					
							Toluene-d8 (Surr)	50 ug/mL					
					.MSV_8260_SS_00366	03/31/22		Restek, Lot A0146938		(Purchased Reagent)		1,4-Dichlorobenzene-d4	50 ug/mL
												Chlorobenzene-d5 (IS)	50 ug/mL
												Fluorobenzene (IS)	50 ug/mL
												t-Butyl alcohol-d10 (IS)	250 ug/mL
.MSV_Cus826_IS_00310	05/31/23		Restek, Lot A0160586		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL					
							4-Bromofluorobenzene (Surr)	2500 ug/mL					
							Dibromofluoromethane (Surr)	2500 ug/mL					
							Toluene-d8 (Surr)	2500 ug/mL					
.MSV_Cus826_IS_00310	05/31/23		Restek, Lot A0160586		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL					

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
MSV_LLcentISS_00004	08/22/22	02/22/22	Methanol, Lot EB679	50 mL	MSV_Cus826_IS_00415	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5 (IS)	50 ug/mL
							Fluorobenzene (IS)	50 ug/mL
							t-Butyl alcohol-d10 (IS)	250 ug/mL
.MSV_Cus826_IS_00415	08/22/22		Restek, Lot A0178373		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
MSV_LLcentISS_00004	08/22/22	02/22/22	Methanol, Lot EB679	50 mL	MSV_8260_SS_00592	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_8260_SS_00592	08/22/22		Restek, Lot A0171410		(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_QC_Gas826_00026	08/30/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_QC_2K_GAS_00030	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00030	08/30/21		Restek, Lot A0172021		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_QC_Gas826_00068	03/07/22	02/28/22	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00077	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00077	03/07/22		Restek, Lot A0172021		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_V_BFB_00006							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
					MSV_VBFB_STK_00006	0.129 mL	Xylenes, Total	
.MSV_VBFB_STK_00006	01/07/22	07/07/21	Methanol, Lot DZ644	10 mL	MSV_4BFB_NEAT_00006	0.9663 g	BFB	49.8611 ug/mL
..MSV_4BFB_NEAT_00006	02/28/25		Chem Service, Lot 10727100		(Purchased Reagent)		BFB	96630 ug/mL
							BFB	1 g/g
MSV_V_BFB_00007							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tentatively Identified Compound	
							Xylenes, Total	
.MSV VBFB STK 00007	06/29/22	12/29/21	Methanol, Lot EB679	10 mL	MSV VBFB STK 00007	0.116 mL	BFB	50.0099 ug/mL
..MSV 4BFB NEAT 00005	02/28/25		Chem Service, Lot 11130200		MSV 4BFB NEAT 00005	1.0778 g	BFB	107780 ug/mL
						(Purchased Reagent)	BFB	1 g/g

Reagent

MSV_4BFB_NEAT_00005

CHEM SERVICE INC.

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

CERTIFICATE OF ANALYSIS

4-Bromofluorobenzene

CATALOG NUMBER	N-10809-1G ✓
LOT NUMBER	11130200 ✓
DATE CERTIFIED	02/03/20 ✓
EXPIRATION DATE	02/28/25 ✓
CAS NUMBER	460-00-4
MOLECULAR FORMULA	C6H4BrF
MOLECULAR WEIGHT	175.00
STORAGE	Store at room temperature (20 - 25 °C).
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
GC/MS SPECTRA ID	MATCHES NIST
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
% PURITY (GC/FID)	99.5
PHYSICAL APPEARANCE	COLORLESS LIQUID

WLR 2032
2-16-21

COA Form
Revision 3 (3/2015)



Print Date: 06/07/21

CHEM SERVICE INC.

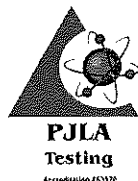
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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

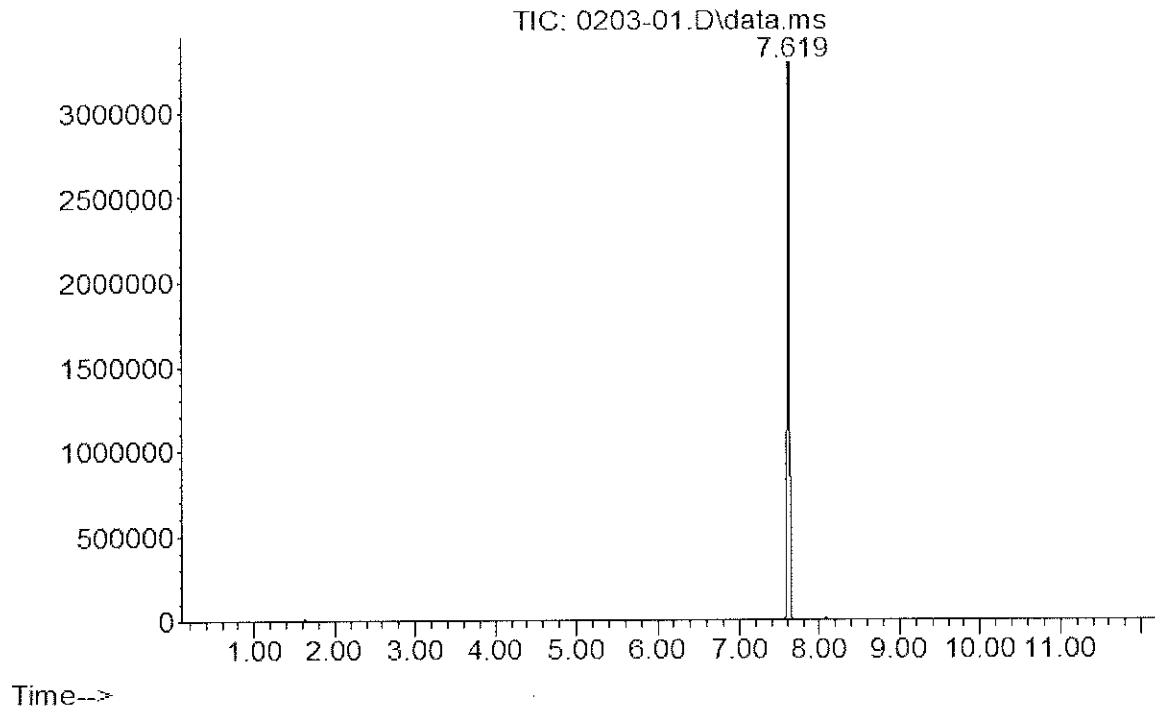
Mary Beth O'Donnell
CSM/TC



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-10809-1G
Description: 4-Bromofluorobenzene
Lot Number: 11130200
Expiration Date: 02/28/25
Abundance

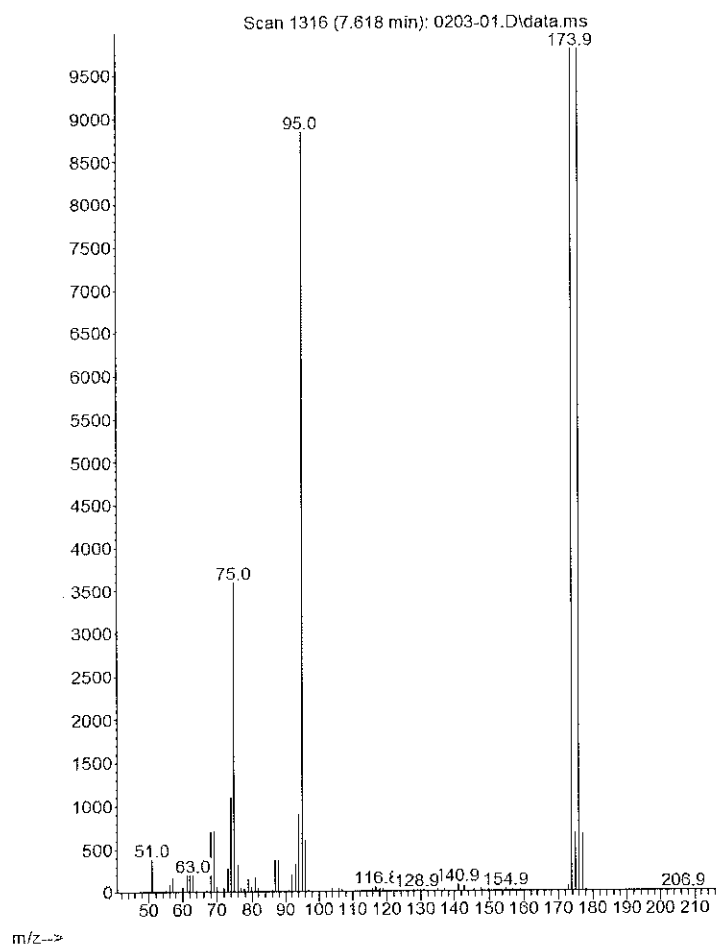


CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-10809-1G
Description: 4-Bromofluorobenzene
Lot Number: 11130200
Expiration Date: 02/28/25

Abundance



CHEM SERVICE INC.

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

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-10809-1G
Description: 4-Bromofluorobenzene
Lot Number: 11130200
Expiration Date: 02/28/25
Chem Service Inc Area Percent Report

Data File: D:\msdchem\2020 DATA\0220\0203-01.D
Acq On : 3 Feb 2020 10:08
Operator :
Sample : N-10809
Misc :
ALS Vial : 96

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: METH1.M
Method : D:\msdchem\2020 DATA\0120\0122-03.D\M-CS5242M2.M

Signal : TIC: 0203-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.619	1306	1316	1331	BB	3424525	65045319	100.00%	100.000%

Sum of corrected areas: 65045319

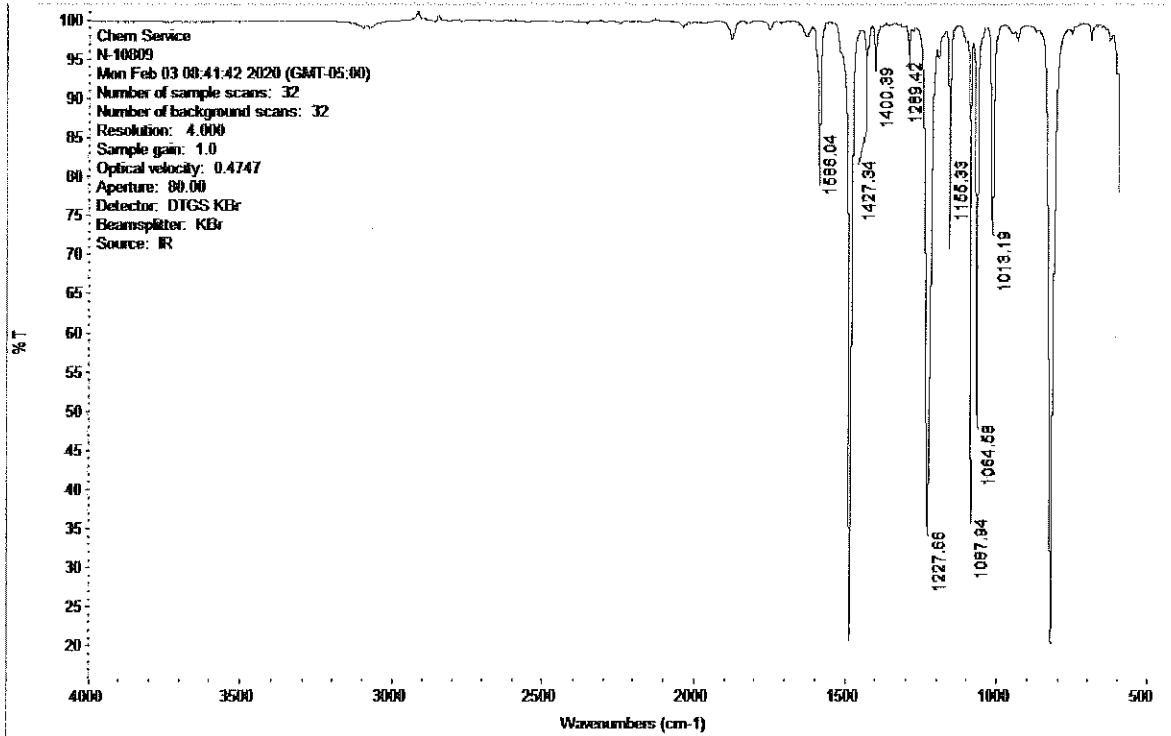
M-CS5242M2.M Mon Feb 03 10:28:54 2020



CERTIFICATE OF ANALYSIS

Analysis Method:

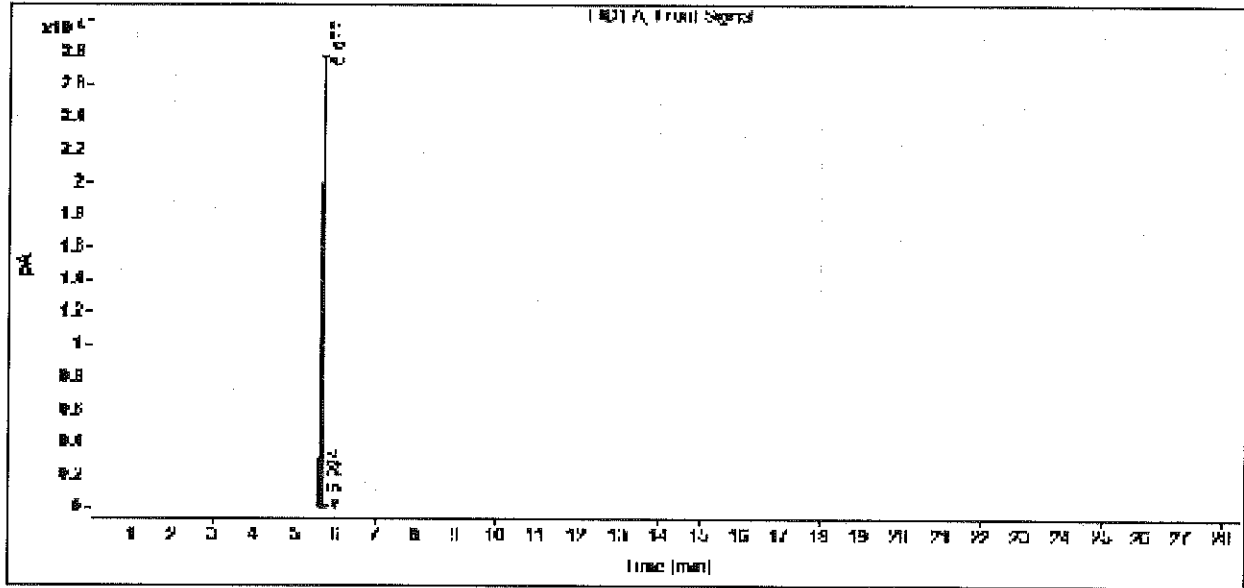
Catalog Number: N-10809-1G
Description: 4-Bromofluorobenzene
Lot Number: 11130200
Expiration Date: 02/28/25



CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2020 DATA\0220\013120 2020-01-31 16-11-28\141F0404.D
 Sample name: N-10809
 Instrument: GC 1
 Injection date: 1/31/2020 10:29:42 PM
 Acq. method: SCREEN.M
 Column name: Rxi-624Sil (30m x 0.32mm x 1.8um)
 Sample type: Sample
 Location: Vial 141
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
5.677	BB S	0.0413	82400.8016	27241.2129	99.7369
5.924	VB	0.0298	217.3897	117.5644	0.2631
Sum			82617.9712		



Reagent

MSV_8260_SS_00366



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. : 55671 **Lot No.:** A0146938
Description : 8260A Surrogate Mix
8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : March 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

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

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

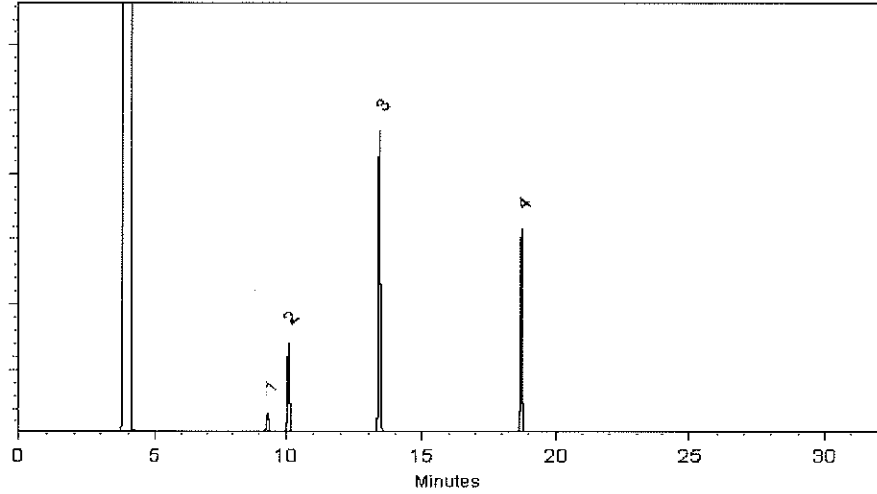
200°C

Det. Temp:

250°C

Det. Type:

FID



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

Maggie Wang

Maggie Wang - Operations Technician I

Date Mixed: 12-Mar-2019

Balance: 1128342314

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 15-Mar-2019

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ 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 for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_8260_SS_00592



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. : 55671 **Lot No.:** A0171410

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

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

Expiration Date : 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	Dibromofluoromethane	2,509.0 µg/mL	+/-	14.7242	µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 0012016)		+/-	140.6914	µg/mL	Unstressed
	Purity 99%		+/-	143.9827	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,503.0 µg/mL	+/-	14.6890	µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot PR-29377)		+/-	140.3549	µg/mL	Unstressed
	Purity 99%		+/-	143.6384	µg/mL	Stressed
3	Toluene-d8	2,501.5 µg/mL	+/-	14.6802	µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-31750)		+/-	140.2708	µg/mL	Unstressed
	Purity 99%		+/-	143.5523	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,520.0 µg/mL	+/-	14.7888	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/-	141.3082	µg/mL	Unstressed
	Purity 99%		+/-	144.6140	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)

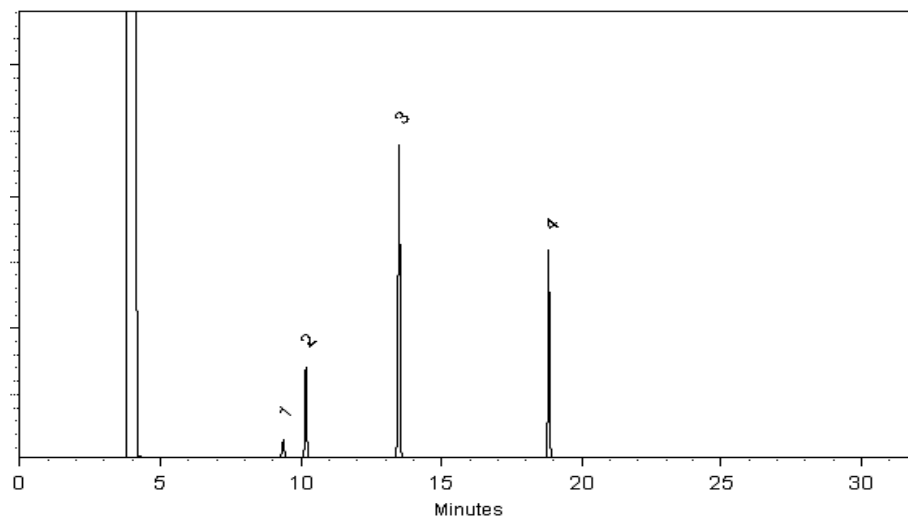
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

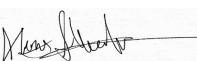
Det. Type:
FID



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.


Sam Moodler - Operations Tech I

Date Mixed: 16-Apr-2021 **Balance:** B707717271


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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_CCV_GASES_00060



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:

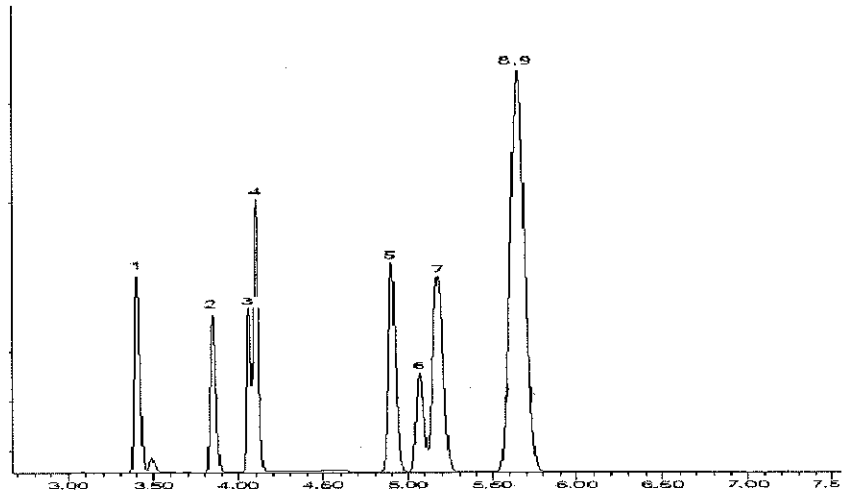
200°C

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/ μ 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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_CCV_GASES_00150



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)

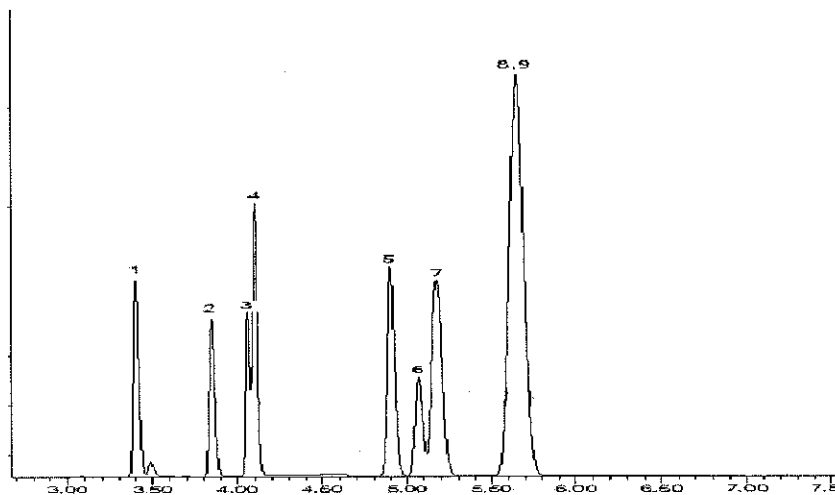
Carrier Gas:
helium-constant flow 2.0 mL/min.

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/ μ 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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Cus826_IS_00310



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.:** A0160586
Description : Custom 8260A IS Mix
Custom 8260A IS Mix 2,500-12,500µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

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

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

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

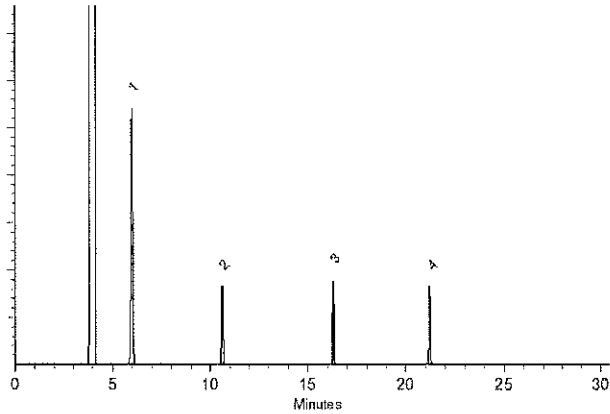
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

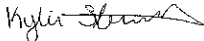
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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


Kylie Struble - Operations Technician I

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


Justine Albertson - Operations Tech-ARM QC

Date Passed: 06-May-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

- 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 for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Cus826_IS_00415



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.:** A0178373

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 : 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	2-Methyl-2-propanol-d10 CAS # 53001-22-2 (Lot I-433) Purity 99%	12,494.0 µg/mL	+/- 73.3218 µg/mL	+/- 267.6837 µg/mL	+/- 275.4550 µg/mL	Gravimetric Unstressed Stressed
2	Fluorobenzene CAS # 462-06-6 (Lot BCBZ5549) Purity 99%	2,508.0 µg/mL	+/- 14.8968 µg/mL	+/- 53.7830 µg/mL	+/- 55.3416 µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 CAS # 3114-55-4 (Lot PR-29571) Purity 99%	2,514.0 µg/mL	+/- 14.9324 µg/mL	+/- 53.9117 µg/mL	+/- 55.4740 µg/mL	Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 (Lot PR-30447) Purity 99%	2,488.0 µg/mL	+/- 14.7780 µg/mL	+/- 53.3541 µg/mL	+/- 54.9003 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)

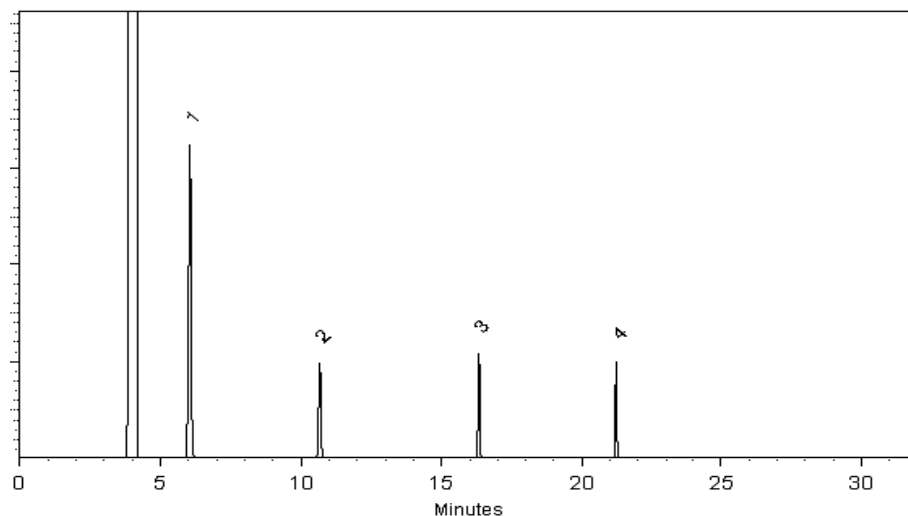
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.


Morgan Craighead - Mix Technician

Date Mixed: 10-Nov-2021 **Balance:** B251644995


Clara Windle - Operations Technician I

Date Passed: 12-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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_EthylMeth_00001

CERTIFICATE OF ANALYSIS

Ethyl methacrylate

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

✓ Rec'd
5/21/2021
JMW3

Analytical Test	Value
% PURITY (GC/FID)	99.5

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

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

COA Form
Revision 3 (3/2015)

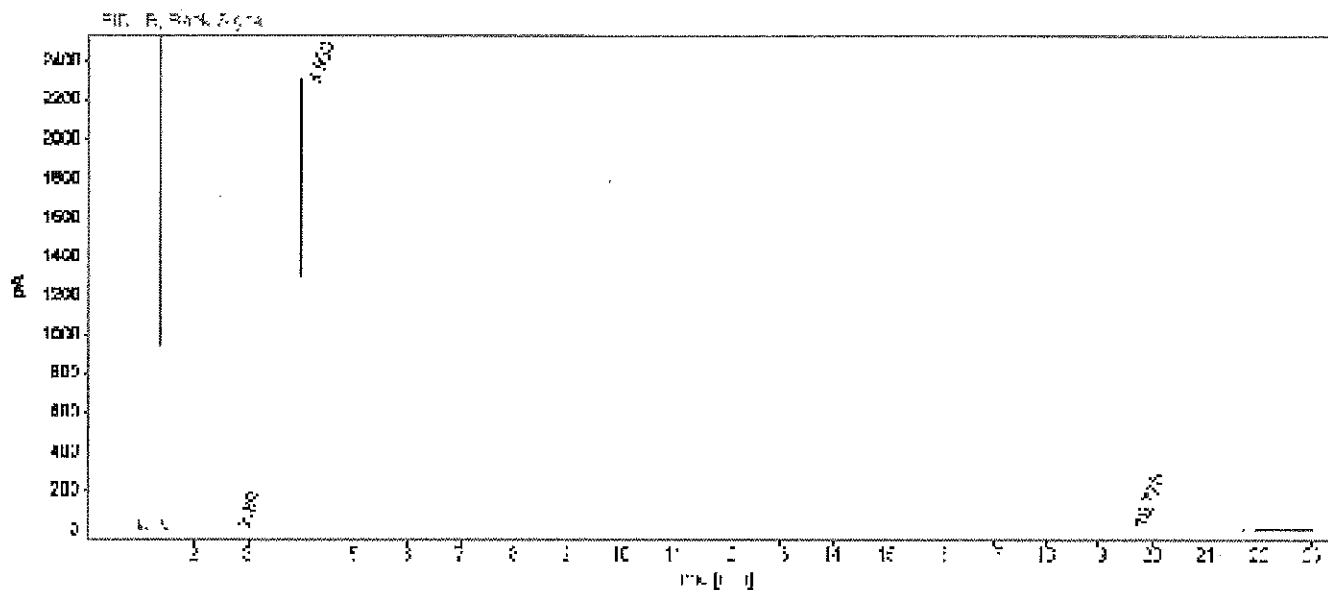
Print Date: 05/20/21



CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2018 DATA\1118\W-11803.D
Sample name: ethyl methacrylate
Description:
Acq. method: MIX1.M
Location: 201
Instrument: GC3 Injection Vol: 1.000
Injection date: 1/3/2019 7:57:33 AM # Of Injections: 1
Column name: HP-5ms Ultra Inert Diameter 250.000 Length 30.000 Particle Size 0.250



Signal: FID1 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
2.800	BB	0.0189	3.0313	2.2234	0.0820
3.983	BB	0.0236	3687.9575	2288.7249	99.8245
19.775	BB	0.0395	3.4535	1.2477	0.0935
Sum			3694.4423		



Reagent

MSV_M_MIX1SEC_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. : 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 CAS # 74-97-5.SEC Purity 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 CAS # 71-55-6 Purity 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 CAS # 563-58-6.SEC Purity 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 CAS # 56-23-5.SEC Purity 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 CAS # 107-06-2.SEC Purity 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 CAS # 71-43-2.SEC Purity 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 CAS # 79-01-6.SEC Purity 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 CAS # 78-87-5.SEC Purity 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 CAS # 75-27-4.SEC Purity 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 CAS # 74-95-3.SEC Purity 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 CAS # 10061-01-5.SEC Purity 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 CAS # 108-88-3.SEC Purity 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 CAS # 10061-02-6.SEC Purity 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 CAS # 79-00-5.SEC Purity 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 CAS # 142-28-9.SEC Purity 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 CAS # 127-18-4.SEC Purity 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 CAS # 124-48-1.SEC Purity 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) CAS # 106-93-4.SEC Purity 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 CAS # 108-90-7.SEC Purity 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 CAS # 630-20-6.SEC Purity 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 CAS # 100-41-4.SEC Purity 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 CAS # 108-38-3.SEC Purity 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 CAS # 106-42-3.SEC Purity 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 CAS # 95-47-6.SEC Purity 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 CAS # 100-42-5.SEC Purity 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) CAS # 98-82-8.SEC Purity 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 CAS # 75-25-2.SEC Purity 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 CAS # 79-34-5.SEC Purity 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 CAS # 96-18-4.SEC Purity 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 CAS # 103-65-1.SEC Purity 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 CAS # 108-86-1.SEC Purity 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 CAS # 108-67-8.SEC Purity 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 CAS # 95-49-8.SEC Purity 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 CAS # 106-43-4.SEC Purity 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 CAS # 98-06-6.SEC Purity 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 CAS # 95-63-6.SEC Purity 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 CAS # 135-98-8.SEC Purity 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) CAS # 99-87-6.SEC Purity 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 CAS # 541-73-1.SEC Purity 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 CAS # 106-46-7.SEC Purity 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 CAS # 104-51-8.SEC Purity 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 CAS # 95-50-1.SEC Purity 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 CAS # 96-12-8.SEC Purity 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 CAS # 120-82-1.SEC Purity 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 CAS # 87-68-3.SEC Purity 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 CAS # 91-20-3.SEC Purity 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 CAS # 87-61-6.SEC Purity 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)

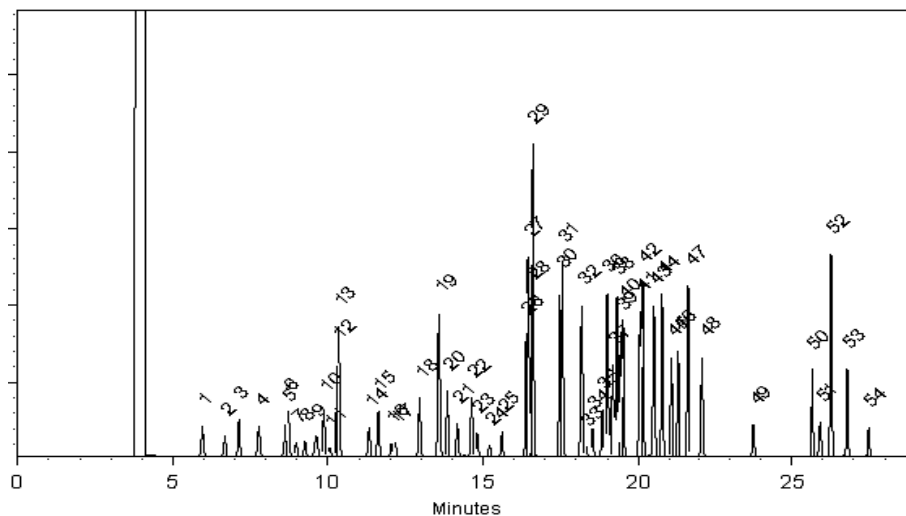
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_M_MIX1SEC_00045



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 CAS # 74-97-5.SEC Purity 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 CAS # 71-55-6 Purity 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 CAS # 563-58-6.SEC Purity 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 CAS # 56-23-5.SEC Purity 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 CAS # 107-06-2.SEC Purity 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 CAS # 71-43-2.SEC Purity 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 CAS # 79-01-6.SEC Purity 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 CAS # 78-87-5.SEC Purity 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 CAS # 75-27-4.SEC Purity 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 CAS # 74-95-3.SEC Purity 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 CAS # 10061-01-5.SEC Purity 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 CAS # 108-88-3.SEC Purity 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 CAS # 10061-02-6.SEC Purity 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 CAS # 79-00-5.SEC Purity 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 CAS # 142-28-9.SEC Purity 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 CAS # 127-18-4.SEC Purity 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 CAS # 124-48-1.SEC Purity 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) CAS # 106-93-4.SEC Purity 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 CAS # 108-90-7.SEC Purity 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 CAS # 630-20-6.SEC Purity 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 CAS # 100-41-4.SEC Purity 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 CAS # 108-38-3.SEC Purity 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 CAS # 106-42-3.SEC Purity 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 CAS # 95-47-6.SEC Purity 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 CAS # 100-42-5.SEC Purity 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) CAS # 98-82-8.SEC Purity 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 CAS # 75-25-2.SEC Purity 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 CAS # 79-34-5.SEC Purity 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 CAS # 96-18-4.SEC Purity 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 CAS # 103-65-1.SEC Purity 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 CAS # 108-86-1.SEC Purity 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 CAS # 108-67-8.SEC Purity 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 CAS # 95-49-8.SEC Purity 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 CAS # 106-43-4.SEC Purity 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 CAS # 98-06-6.SEC Purity 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 CAS # 95-63-6.SEC Purity 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 CAS # 135-98-8.SEC Purity 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) CAS # 99-87-6.SEC Purity 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 CAS # 541-73-1.SEC Purity 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 CAS # 106-46-7.SEC Purity 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 CAS # 104-51-8.SEC Purity 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 CAS # 95-50-1.SEC Purity 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 CAS # 96-12-8.SEC Purity 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 CAS # 120-82-1.SEC Purity 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 CAS # 87-68-3.SEC Purity 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 CAS # 91-20-3.SEC Purity 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 CAS # 87-61-6.SEC Purity 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)

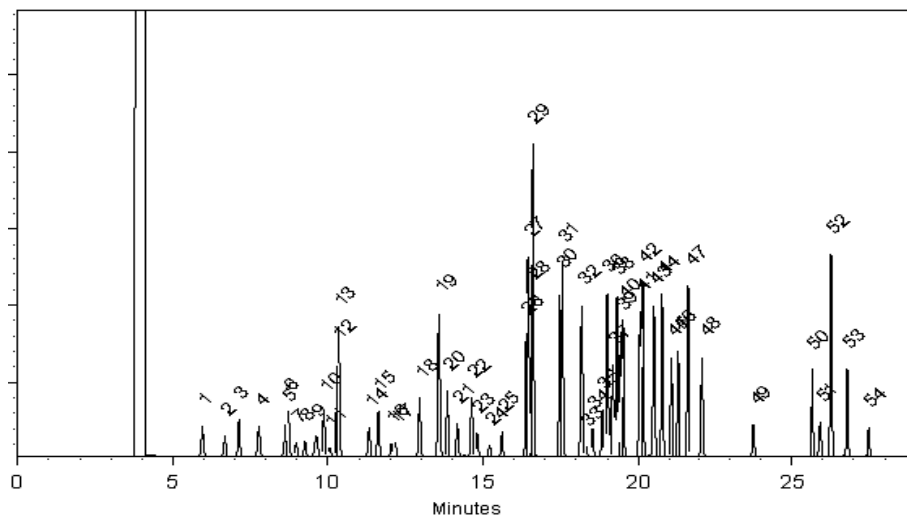
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_M_MIX2SEC_00028



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 CAS # 75-15-0.SEC Purity 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 CAS # 107-13-1.SEC Purity 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) CAS # 1634-04-4.SEC Purity 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) CAS # 110-54-3.SEC Purity 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) CAS # 108-20-3.SEC Purity 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) CAS # 126-99-8 Purity 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) CAS # 637-92-3.SEC Purity 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 CAS # 107-12-0.SEC Purity 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 CAS # 126-98-7 Purity 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) CAS # 78-83-1.SEC Purity 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 CAS # 109-99-9.SEC Purity 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 CAS # 110-82-7.SEC Purity 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 CAS # 71-36-3.SEC Purity 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) CAS # 994-05-8.SEC Purity 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) CAS # 142-82-5.SEC Purity 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) CAS # 919-94-8.SEC Purity 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 CAS # 108-87-2.SEC Purity 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 CAS # 80-62-6.SEC Purity 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 CAS # 123-91-1.SEC Purity 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 CAS # 79-46-9.SEC Purity 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 CAS # 97-63-2.SEC Purity 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 CAS # 544-10-5.SEC Purity 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 CAS # 110-57-6.SEC Purity 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 CAS # 526-73-8.SEC Purity 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 CAS # 141-93-5.SEC Purity 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 CAS # 100-44-7.SEC Purity 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 CAS # 105-05-5.SEC Purity 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 CAS # 135-01-3.SEC Purity 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 CAS # 108-70-3.SEC Purity 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 CAS # 91-57-6.SEC Purity 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)

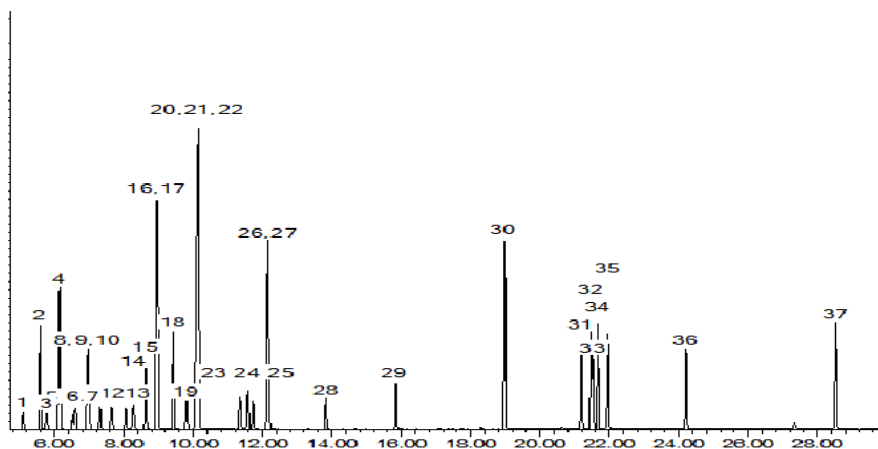
Carrier Gas:
helium-constant pressure 30 psi

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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_M_MIX2SEC_00052



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 CAS # 75-15-0.SEC Purity 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 CAS # 107-13-1.SEC Purity 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) CAS # 1634-04-4.SEC Purity 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) CAS # 110-54-3.SEC Purity 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) CAS # 108-20-3.SEC Purity 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) CAS # 126-99-8 Purity 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) CAS # 637-92-3.SEC Purity 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 CAS # 107-12-0.SEC Purity 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 CAS # 126-98-7 Purity 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) CAS # 78-83-1.SEC Purity 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 CAS # 109-99-9.SEC Purity 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 CAS # 110-82-7.SEC Purity 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 CAS # 71-36-3.SEC Purity 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) CAS # 994-05-8.SEC Purity 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) CAS # 142-82-5.SEC Purity 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) CAS # 919-94-8.SEC Purity 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 CAS # 108-87-2.SEC Purity 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 CAS # 80-62-6.SEC Purity 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 CAS # 123-91-1.SEC Purity 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 CAS # 79-46-9.SEC Purity 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 CAS # 97-63-2.SEC Purity 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 CAS # 544-10-5.SEC Purity 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 CAS # 110-57-6.SEC Purity 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 CAS # 526-73-8.SEC Purity 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 CAS # 141-93-5.SEC Purity 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 CAS # 100-44-7.SEC Purity 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 CAS # 105-05-5.SEC Purity 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 CAS # 135-01-3.SEC Purity 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 CAS # 108-70-3.SEC Purity 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 CAS # 91-57-6.SEC Purity 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)

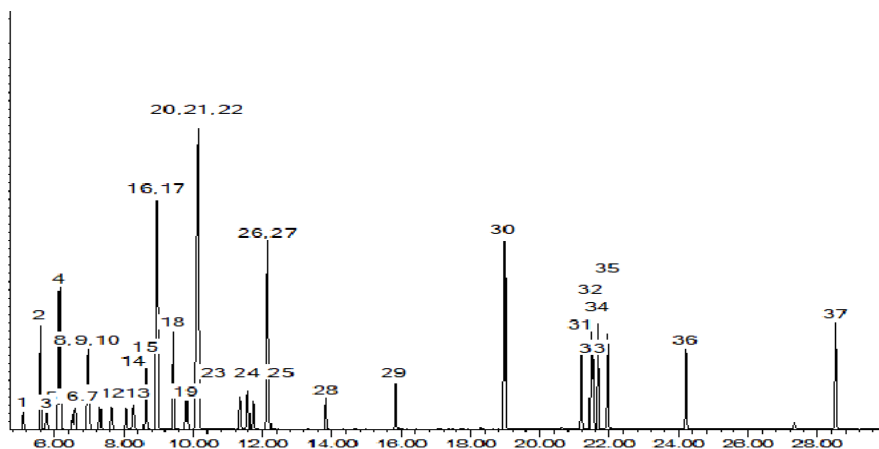
Carrier Gas:
helium-constant pressure 30 psi

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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMIX#1_00015



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 CAS # 74-97-5 Purity 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 CAS # 71-55-6 Purity 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 CAS # 563-58-6 Purity 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 CAS # 56-23-5 Purity 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 CAS # 107-06-2 Purity 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 CAS # 71-43-2 Purity 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 CAS # 79-01-6 Purity 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 CAS # 78-87-5 Purity 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 CAS # 75-27-4 Purity 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 CAS # 74-95-3 Purity 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 CAS # 10061-01-5 Purity 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 CAS # 108-88-3 Purity 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 CAS # 10061-02-6 Purity 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 CAS # 79-00-5 Purity 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 CAS # 142-28-9 Purity 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 CAS # 127-18-4 Purity 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 CAS # 124-48-1 Purity 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) CAS # 106-93-4 Purity 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 CAS # 108-90-7 Purity 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 CAS # 630-20-6 Purity 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 CAS # 100-41-4 Purity 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 CAS # 108-38-3 Purity 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 CAS # 106-42-3 Purity 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 CAS # 95-47-6 Purity 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 CAS # 100-42-5 Purity 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) CAS # 98-82-8 Purity 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 CAS # 75-25-2 Purity 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-Tetrachloroethane CAS # 79-34-5 Purity 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 CAS # 96-18-4 Purity 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 CAS # 103-65-1 Purity 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 CAS # 108-86-1 Purity 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 CAS # 108-67-8 Purity 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 CAS # 95-49-8 Purity 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 CAS # 106-43-4 Purity 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 CAS # 98-06-6 Purity 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 CAS # 95-63-6 Purity 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 CAS # 135-98-8 Purity 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) CAS # 99-87-6 Purity 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 CAS # 541-73-1 Purity 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 CAS # 106-46-7 Purity 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 CAS # 104-51-8 Purity 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 CAS # 95-50-1 Purity 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 CAS # 96-12-8 Purity 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 CAS # 120-82-1 Purity 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 CAS # 87-68-3 Purity 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 CAS # 91-20-3 Purity 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 CAS # 87-61-6 Purity 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)

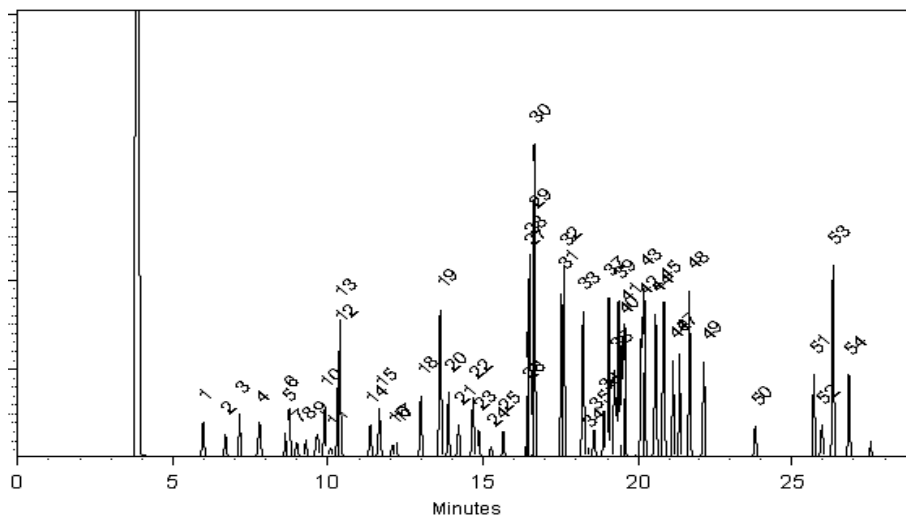
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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


Inj. Temp:
200°C

Det. Temp:
250°C

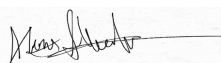
Det. Type:
FID



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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMIX#1_00051



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 CAS # 74-97-5 Purity 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 CAS # 71-55-6 Purity 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 CAS # 563-58-6 Purity 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 CAS # 56-23-5 Purity 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 CAS # 107-06-2 Purity 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 CAS # 71-43-2 Purity 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 CAS # 79-01-6 Purity 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 CAS # 78-87-5 Purity 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 CAS # 75-27-4 Purity 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 CAS # 74-95-3 Purity 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 CAS # 10061-01-5 Purity 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 CAS # 108-88-3 Purity 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 CAS # 10061-02-6 Purity 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 CAS # 79-00-5 Purity 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 CAS # 142-28-9 Purity 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 CAS # 127-18-4 Purity 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 CAS # 124-48-1 Purity 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) CAS # 106-93-4 Purity 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 CAS # 108-90-7 Purity 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 CAS # 630-20-6 Purity 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 CAS # 100-41-4 Purity 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 CAS # 108-38-3 Purity 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 CAS # 106-42-3 Purity 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 CAS # 95-47-6 Purity 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 CAS # 100-42-5 Purity 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) CAS # 98-82-8 Purity 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 CAS # 75-25-2 Purity 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 CAS # 79-34-5 Purity 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 CAS # 96-18-4 Purity 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 CAS # 103-65-1 Purity 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 CAS # 108-86-1 Purity 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 CAS # 108-67-8 Purity 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 CAS # 95-49-8 Purity 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 CAS # 106-43-4 Purity 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 CAS # 98-06-6 Purity 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 CAS # 95-63-6 Purity 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 CAS # 135-98-8 Purity 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) CAS # 99-87-6 Purity 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 CAS # 541-73-1 Purity 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 CAS # 106-46-7 Purity 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 CAS # 104-51-8 Purity 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 CAS # 95-50-1 Purity 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 CAS # 96-12-8 Purity 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 CAS # 120-82-1 Purity 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 CAS # 87-68-3 Purity 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 CAS # 91-20-3 Purity 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 CAS # 87-61-6 Purity 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)

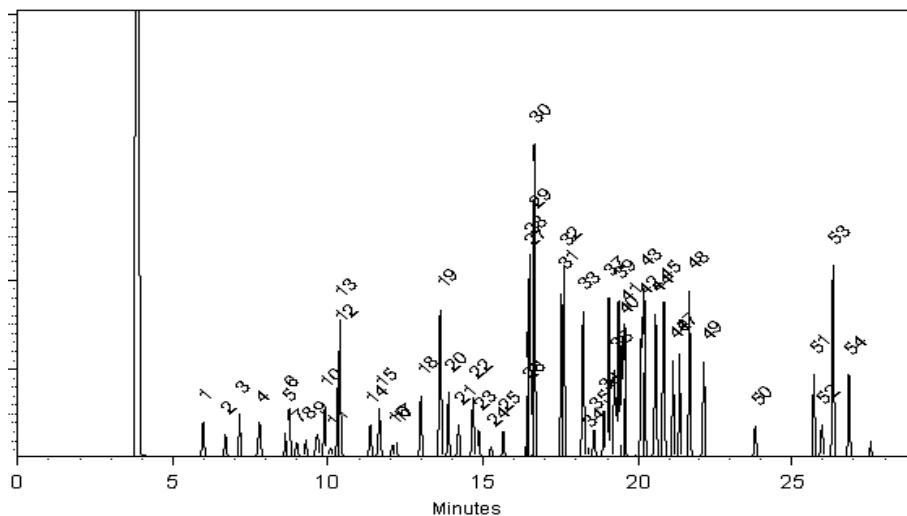
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

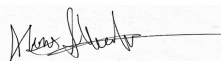
Det. Type:
FID



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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMix#2_00015



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.:** A0172089

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

Ship: Ambient

X8
5/12/21

CERTIFIED VALUES

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

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

24	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot SHBL0078)	5,015.2 µg/mL	+/- 31.9886 +/- 248.4380 +/- 254.5985	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate CAS # 80-62-6 Purity 99%	(Lot MKCN3027)	5,016.5 µg/mL	+/- 31.9971 +/- 248.5041 +/- 254.6662	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBM5092)	62,582.5 µg/mL	+/- 366.4154 +/- 3,096.1230 +/- 3,173.0960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane CAS # 79-46-9 Purity 97%	(Lot BCCB9352)	25,020.2 µg/mL	+/- 146.4987 +/- 1,237.8158 +/- 1,268.5893	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	1-Chlorohexane CAS # 544-10-5 Purity 98%	(Lot BCBS3368V)	5,012.5 µg/mL	+/- 31.9718 +/- 248.3077 +/- 254.4650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot RD210331)	12,532.9 µg/mL	+/- 73.3827 +/- 620.0352 +/- 635.4499	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2,3-Trimethylbenzene CAS # 526-73-8 Purity 98%	(Lot 8776.10-36)	5,009.9 µg/mL	+/- 31.9551 +/- 248.1783 +/- 254.3323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,3-Diethylbenzene CAS # 141-93-5 Purity 98%	(Lot BCBT8967)	5,010.6 µg/mL	+/- 31.9593 +/- 248.2106 +/- 254.3655	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Benzyl chloride CAS # 100-44-7 Purity 99%	(Lot SHBH2102V)	5,011.7 µg/mL	+/- 31.9663 +/- 248.2646 +/- 254.4209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	1,4-Diethylbenzene CAS # 105-05-5 Purity 98%	(Lot RLHJK)	5,008.5 µg/mL	+/- 31.9458 +/- 248.1055 +/- 254.2577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,2-Diethylbenzene CAS # 135-01-3 Purity 99%	(Lot ECH2970181)	5,010.2 µg/mL	+/- 31.9567 +/- 248.1903 +/- 254.3447	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,3,5-Trichlorobenzene CAS # 108-70-3 Purity 99%	(Lot I1319AS)	5,012.0 µg/mL	+/- 31.9684 +/- 248.2811 +/- 254.4378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	2-Methylnaphthalene CAS # 91-57-6 Purity 99%	(Lot STBG8884)	5,009.0 µg/mL	+/- 31.9493 +/- 248.1325 +/- 254.2855	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:

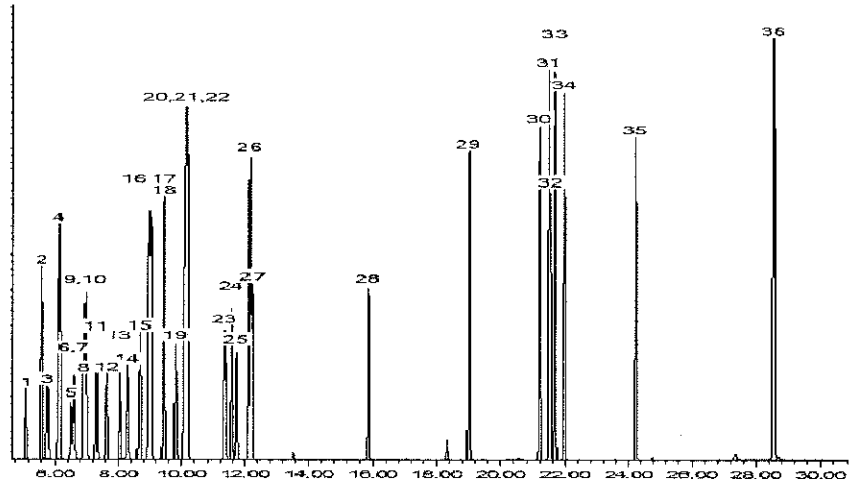
200°C

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.

Miranda Kline

Miranda Kline - Operations Technician I

Date Mixed: 05-May-2021

Balance: B251644995

Alexis Shelov

Alexis Shelov - Operations Tech I

Date Passed: 11-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ 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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMix#2_00051



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 CAS # 75-15-0 Purity 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 CAS # 107-13-1 Purity 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) CAS # 1634-04-4 Purity 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) CAS # 110-54-3 Purity 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) CAS # 108-20-3 Purity 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) CAS # 126-99-8 Purity 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) CAS # 637-92-3 Purity 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 CAS # 107-12-0 Purity 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 CAS # 126-98-7 Purity 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) CAS # 78-83-1 Purity 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 CAS # 109-99-9 Purity 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 CAS # 110-82-7 Purity 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 CAS # 71-36-3 Purity 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) CAS # 994-05-8 Purity 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) CAS # 142-82-5 Purity 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) CAS # 919-94-8 Purity 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 CAS # 108-87-2 Purity 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 CAS # 80-62-6 Purity 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 CAS # 123-91-1 Purity 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 CAS # 79-46-9 Purity 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 CAS # 97-63-2 Purity 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 CAS # 544-10-5 Purity 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 CAS # 110-57-6 Purity 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 CAS # 526-73-8 Purity 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 CAS # 141-93-5 Purity 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 CAS # 100-44-7 Purity 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 CAS # 105-05-5 Purity 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 CAS # 135-01-3 Purity 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 CAS # 108-70-3 Purity 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 CAS # 91-57-6 Purity 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)

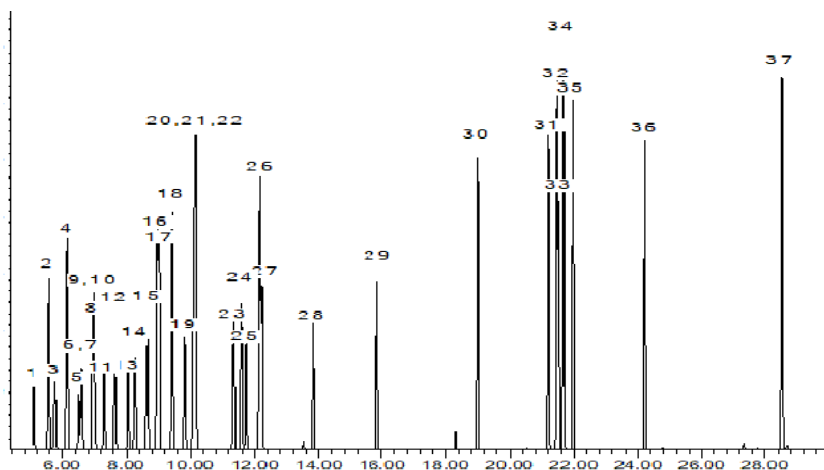
Carrier Gas:
helium-constant pressure 30 psi

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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Q_Ketones_00019



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.:** A0167987

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

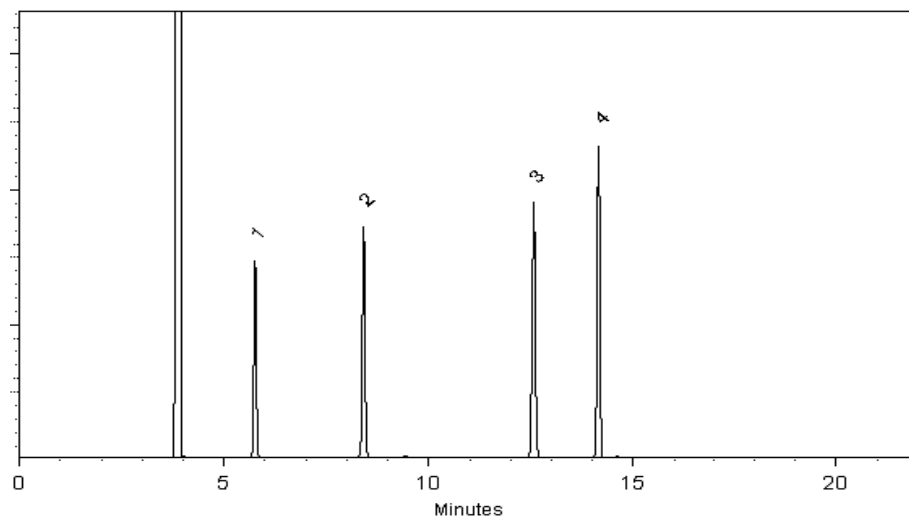
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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


Cory Meyer - Operations Tech I

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


Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

- 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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Q_Ketones_00051



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.:** A0167987

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

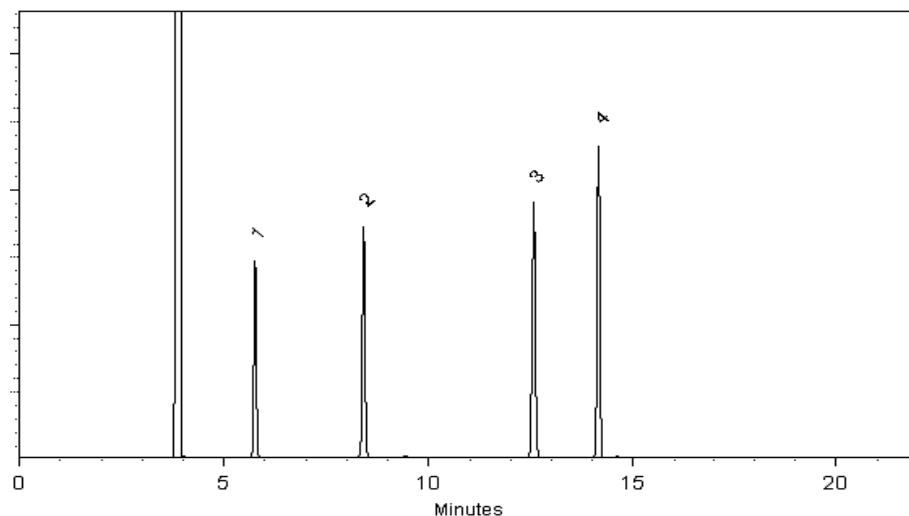
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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


Cory Meyer - Operations Tech I

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


Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

- 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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_QC_2K_GAS_00030



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

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

Tech Tips:

Raw material may contain trace amounts of tert-Butanol.

Column:

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

Carrier Gas:

helium-constant flow 2.0 mL/min.

Temp. Program:

40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:

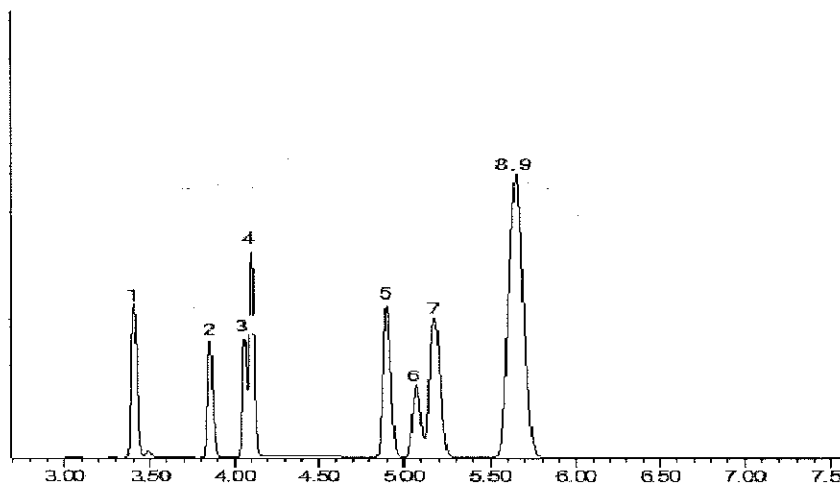
200°C

Det. Temp:

250°C

Det. Type:

MSD



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

Lane Kibe
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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_QC_2K_GAS_00077



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

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

Tech Tips:

Raw material may contain trace amounts of tert-Butanol.

Column:

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

Carrier Gas:

helium-constant flow 2.0 mL/min.

Temp. Program:

40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:

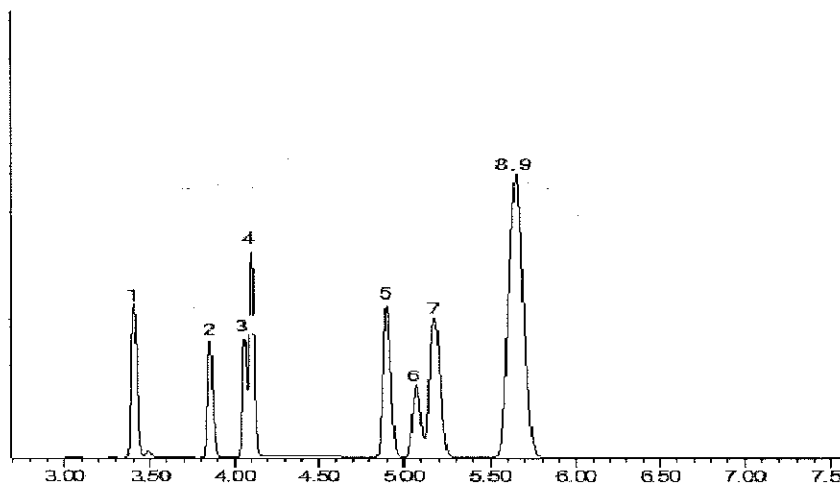
200°C

Det. Temp:

250°C

Det. Type:

MSD



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

Lane Kibe
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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V#2B_00231



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.:** A0171518
Description : Custom V # 2B Standard
Custom V #2B Standard 12,500-125,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2023 **Storage:** 0°C or colder
Ship: Ambient

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

Specific Reference Material Notes:

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

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

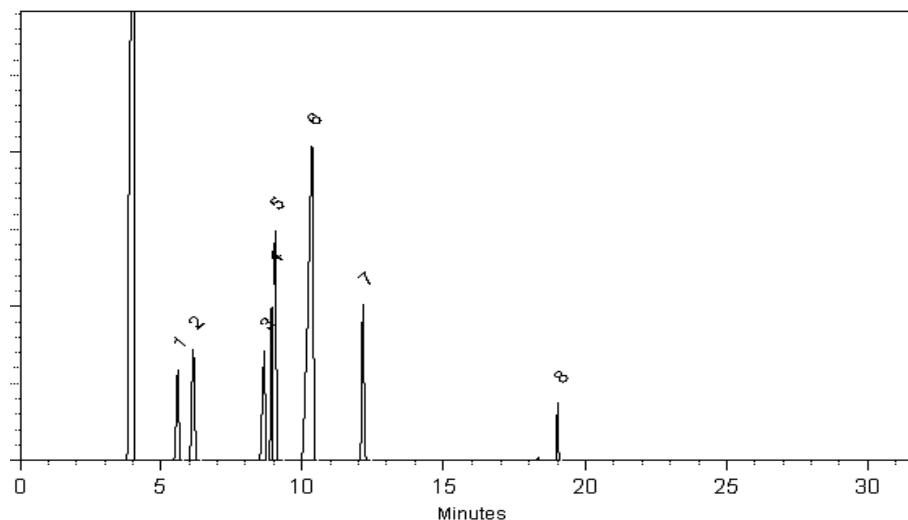
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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


Erik Strommer - Operations Tech I

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


Marlina Cowan - Operations Tech I

Date Passed: 23-Apr-2021

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

General Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ 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

MSV_V_Ketones_00014



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.:** A0168313

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

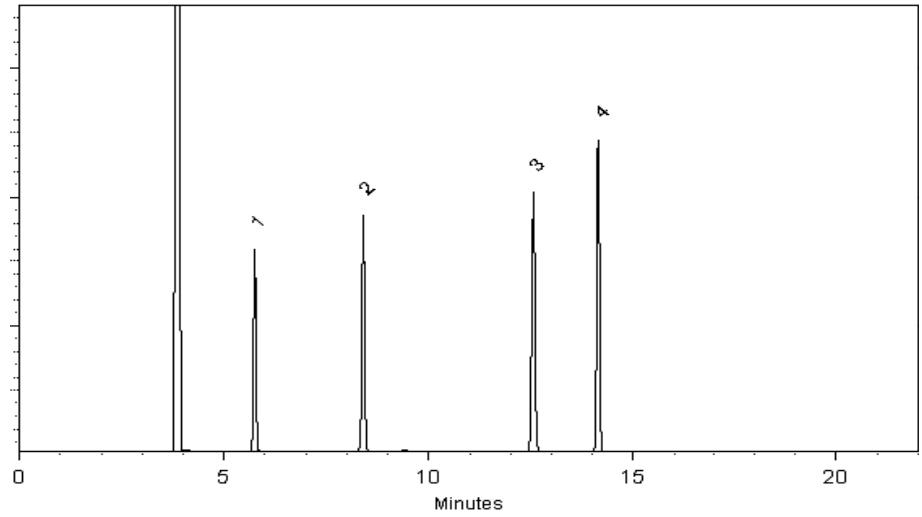
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

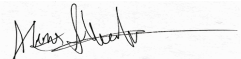
Det. Type:
FID



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


Cathleen Soltis - Mix Technician

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


Alexis Shelov - Operations Tech I

Date Passed: 21-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V_Ketones_00050



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

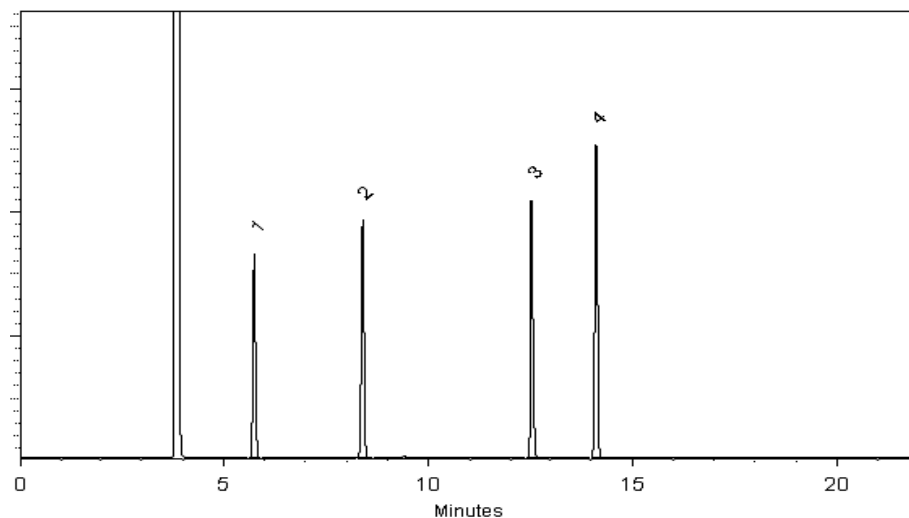
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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 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.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V_PentaCL_00005



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)

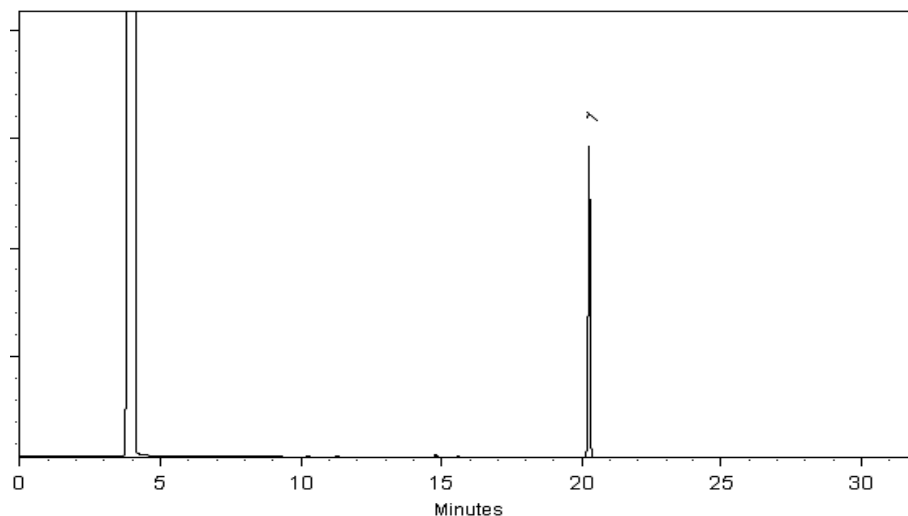
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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 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.
- 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

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73936-1

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	410-73936-1	97 cn	99 cn	100 cn	89 cn
HD-COD-SW-7-0/1-0	410-73936-2	98 cn	105 cn	100 cn	89 cn
HD-COD-SW-8-0/1-0	410-73936-3	97 cn	100 cn	100 cn	89 cn
HD-COD-SW-9-0/1-0	410-73936-4	97 cn	106 cn	100 cn	88 cn
HD-COD-SW-13-0/1-0	410-73936-5	98 cn	102 cn	100 cn	89 cn
HD-COD-SW-15-0/1-0	410-73936-6	98 cn	104 cn	99 cn	88 cn
HD-COD-SW-16-0/1-0	410-73936-7	95 cn	102 cn	99 cn	89 cn
HD-COD-SW-17-0/1-0	410-73936-8	98 cn	102 cn	99 cn	89 cn
HD-COD-SW-17-0/1-0 DL	410-73936-8 DL	97	102	99	88
HD-COD-SW-26-0/1-0	410-73936-9	98 cn	102 cn	100 cn	89 cn
HD-COD-SW-27-0/1-0	410-73936-10	96 cn	104 cn	100 cn	89 cn
HD-COD-SW-28-0/1-0	410-73936-11	98 cn	104 cn	102 cn	91 cn
HD-COD-SW-29-0/1-0	410-73936-12	97 cn	103 cn	100 cn	90 cn
HD-QC1-0/1-1	410-73936-13	99 cn	103 cn	97 cn	87 cn
HD-QC1-0/1-1 DL	410-73936-13 DL	97	101	97	88
HD-QC1-0/1-2	410-73936-14	96 cn	101 cn	99 cn	88 cn
	MB 410-228139/7	96	101	100	88
	MB 410-229111/7	98	104	99	89
	LCS 410-228139/4	95	100	99	93
	LCS 410-229111/4	97	103	99	94
	LCSD 410-228139/5	95	99	101	95
	LCSD 410-229111/5	95	103	98	92
HD-COD-SW-15-0/1-0 MS MS	410-73936-6 MS	96	99	99	93
HD-COD-SW-15-0/1-0 MSD MSD	410-73936-6 MSD	96	101	99	94

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
Env, LLC

Job No.: 410-73936-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IF28X03.D

Lab ID: LCS 410-228139/4

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.61	112	71-134	
1,1,1-Trichloroethane	5.00	5.12	102	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.31	126	75-123	*+
1,1,2-Trichloroethane	5.00	5.95	119	80-120	
1,1-Dichloroethane	5.00	5.30	106	74-120	
1,1-Dichloroethene	5.00	5.52	110	80-131	
1,2-Dibromoethane (EDB)	5.00	5.79	116	80-120	
1,2-Dichloroethane	5.00	5.21	104	69-122	
1,2-Dichloropropane	5.00	5.92	118	80-120	
2-Butanone (MEK)	62.5	80.5	129	59-141	
2-Hexanone	62.5	83.9	134	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	80.0	128	55-140	
Acetone	62.5	65.0	104	60-146	
Benzene	5.00	5.61	112	80-120	
Bromochloromethane	5.00	5.59	112	80-120	
Bromodichloromethane	5.00	5.87	117	73-124	
Bromoform	5.00	6.30	126	49-144	
Bromomethane	5.00	4.69	94	60-136	
Carbon disulfide	5.00	5.76	115	67-130	
Carbon tetrachloride	5.00	5.27	105	64-141	
Chlorobenzene	5.00	5.56	111	80-120	
Chloroethane	5.00	4.68	94	63-120	
Chloroform	5.00	5.31	106	80-120	
Chloromethane	5.00	5.40	108	56-124	
cis-1,2-Dichloroethene	5.00	5.43	109	80-122	
cis-1,3-Dichloropropene	5.00	5.80	116	67-121	
Dibromochloromethane	5.00	6.08	122	64-138	
Ethylbenzene	5.00	5.47	109	80-120	
Methyl tert-butyl ether	5.00	5.02	100	69-120	
Methylene Chloride	5.00	5.30	106	80-120	
Styrene	5.00	5.38	108	80-120	
Tetrachloroethene	5.00	5.60	112	80-120	
Toluene	5.00	5.47	109	80-120	
trans-1,2-Dichloroethene	5.00	5.17	103	80-122	
trans-1,3-Dichloropropene	5.00	6.05	121	61-129	
Trichloroethene	5.00	5.42	108	80-120	
Vinyl chloride	5.00	4.93	99	60-125	
Xylenes, Total	15.0	16.1	108	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories
Env, LLC

Job No.: 410-73936-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IM02X03.D

Lab ID: LCS 410-229111/4

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.57	111	71-134	
1,1,1-Trichloroethane	5.00	5.00	100	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.20	124	75-123	*+
1,1,2-Trichloroethane	5.00	5.88	118	80-120	
1,1-Dichloroethane	5.00	5.05	101	74-120	
1,1-Dichloroethene	5.00	5.17	103	80-131	
1,2-Dibromoethane (EDB)	5.00	5.83	117	80-120	
1,2-Dichloroethane	5.00	5.08	102	69-122	
1,2-Dichloropropane	5.00	5.61	112	80-120	
2-Butanone (MEK)	62.5	76.5	122	59-141	
2-Hexanone	62.5	80.3	129	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	75.5	121	55-140	
Acetone	62.5	60.7	97	60-146	
Benzene	5.00	5.38	108	80-120	
Bromochloromethane	5.00	5.51	110	80-120	
Bromodichloromethane	5.00	5.73	115	73-124	
Bromoform	5.00	6.48	130	49-144	
Bromomethane	5.00	4.40	88	60-136	
Carbon disulfide	5.00	5.21	104	67-130	
Carbon tetrachloride	5.00	5.24	105	64-141	
Chlorobenzene	5.00	5.56	111	80-120	
Chloroethane	5.00	4.38	88	63-120	
Chloroform	5.00	5.18	104	80-120	
Chloromethane	5.00	4.65	93	56-124	
cis-1,2-Dichloroethene	5.00	5.35	107	80-122	
cis-1,3-Dichloropropene	5.00	5.54	111	67-121	
Dibromochloromethane	5.00	6.12	122	64-138	
Ethylbenzene	5.00	5.34	107	80-120	
Methyl tert-butyl ether	5.00	4.92	98	69-120	
Methylene Chloride	5.00	5.28	106	80-120	
Styrene	5.00	5.31	106	80-120	
Tetrachloroethene	5.00	5.61	112	80-120	
Toluene	5.00	5.41	108	80-120	
trans-1,2-Dichloroethene	5.00	5.06	101	80-122	
trans-1,3-Dichloropropene	5.00	5.93	119	61-129	
Trichloroethene	5.00	5.27	105	80-120	
Vinyl chloride	5.00	4.58	92	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 DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories
Env, LLC

Job No.: 410-73936-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IF28X04.D

Lab ID: LCSD 410-228139/5

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	5.53	111	1	30	71-134	
1,1,1-Trichloroethane	5.00	5.13	103	0	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.25	125	1	30	75-123	*+
1,1,2-Trichloroethane	5.00	5.99	120	1	30	80-120	
1,1-Dichloroethane	5.00	5.33	107	0	30	74-120	
1,1-Dichloroethene	5.00	5.50	110	0	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.80	116	0	30	80-120	
1,2-Dichloroethane	5.00	5.23	105	0	30	69-122	
1,2-Dichloropropane	5.00	5.92	118	0	30	80-120	
2-Butanone (MEK)	62.5	80.7	129	0	30	59-141	
2-Hexanone	62.5	84.1	134	0	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	80.3	128	0	30	55-140	
Acetone	62.5	65.2	104	0	30	60-146	
Benzene	5.00	5.58	112	1	30	80-120	
Bromochloromethane	5.00	5.44	109	3	30	80-120	
Bromodichloromethane	5.00	5.84	117	0	30	73-124	
Bromoform	5.00	6.25	125	1	30	49-144	
Bromomethane	5.00	4.55	91	3	30	60-136	
Carbon disulfide	5.00	5.64	113	2	30	67-130	
Carbon tetrachloride	5.00	5.22	104	1	30	64-141	
Chlorobenzene	5.00	5.57	111	0	30	80-120	
Chloroethane	5.00	4.63	93	1	30	63-120	
Chloroform	5.00	5.30	106	0	30	80-120	
Chloromethane	5.00	5.13	103	5	30	56-124	
cis-1,2-Dichloroethene	5.00	5.37	107	1	30	80-122	
cis-1,3-Dichloropropene	5.00	5.73	115	1	30	67-121	
Dibromochloromethane	5.00	6.08	122	0	30	64-138	
Ethylbenzene	5.00	5.53	111	1	30	80-120	
Methyl tert-butyl ether	5.00	4.98	100	1	30	69-120	
Methylene Chloride	5.00	5.35	107	1	30	80-120	
Styrene	5.00	5.40	108	0	30	80-120	
Tetrachloroethene	5.00	5.62	112	0	30	80-120	
Toluene	5.00	5.52	110	1	30	80-120	
trans-1,2-Dichloroethene	5.00	5.21	104	1	30	80-122	
trans-1,3-Dichloropropene	5.00	6.05	121	0	30	61-129	
Trichloroethene	5.00	5.38	108	1	30	80-120	
Vinyl chloride	5.00	4.82	96	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 LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories
Env, LLC

Job No.: 410-73936-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IM02X04.D

Lab ID: LCSD 410-229111/5

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	5.54	111	1	30	71-134	
1,1,1-Trichloroethane	5.00	4.97	99	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.21	124	0	30	75-123	*+
1,1,2-Trichloroethane	5.00	5.83	117	1	30	80-120	
1,1-Dichloroethane	5.00	5.08	102	1	30	74-120	
1,1-Dichloroethene	5.00	5.21	104	1	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.80	116	1	30	80-120	
1,2-Dichloroethane	5.00	5.18	104	2	30	69-122	
1,2-Dichloropropane	5.00	5.67	113	1	30	80-120	
2-Butanone (MEK)	62.5	74.4	119	3	30	59-141	
2-Hexanone	62.5	77.6	124	3	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	72.9	117	3	30	55-140	
Acetone	62.5	58.4	93	4	30	60-146	
Benzene	5.00	5.36	107	0	30	80-120	
Bromochloromethane	5.00	5.77	115	5	30	80-120	
Bromodichloromethane	5.00	5.71	114	0	30	73-124	
Bromoform	5.00	6.33	127	2	30	49-144	
Bromomethane	5.00	4.31	86	2	30	60-136	
Carbon disulfide	5.00	5.09	102	2	30	67-130	
Carbon tetrachloride	5.00	5.13	103	2	30	64-141	
Chlorobenzene	5.00	5.42	108	3	30	80-120	
Chloroethane	5.00	4.24	85	3	30	63-120	
Chloroform	5.00	5.17	103	0	30	80-120	
Chloromethane	5.00	4.50	90	3	30	56-124	
cis-1,2-Dichloroethene	5.00	5.23	105	2	30	80-122	
cis-1,3-Dichloropropene	5.00	5.62	112	1	30	67-121	
Dibromochloromethane	5.00	6.08	122	1	30	64-138	
Ethylbenzene	5.00	5.26	105	2	30	80-120	
Methyl tert-butyl ether	5.00	4.89	98	1	30	69-120	
Methylene Chloride	5.00	5.20	104	1	30	80-120	
Styrene	5.00	5.23	105	1	30	80-120	
Tetrachloroethene	5.00	5.48	110	2	30	80-120	
Toluene	5.00	5.22	104	3	30	80-120	
trans-1,2-Dichloroethene	5.00	5.03	101	1	30	80-122	
trans-1,3-Dichloropropene	5.00	5.88	118	1	30	61-129	
Trichloroethene	5.00	5.23	105	1	30	80-120	
Vinyl chloride	5.00	4.41	88	4	30	60-125	
Xylenes, Total	15.0	15.7	105	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
Env, LLC

Job No.: 410-73936-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IF28X15.D

Lab ID: 410-73936-6 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	5.71	114	71-134	
1,1,1-Trichloroethane	5.00	0.29 J	5.81	110	78-126	
1,1,2,2-Tetrachloroethane	5.00	ND	6.54	131	75-123	FH
1,1,2-Trichloroethane	5.00	ND	6.16	123	80-120	FH
1,1-Dichloroethane	5.00	0.15 J	5.77	112	74-120	
1,1-Dichloroethene	5.00	0.18 J	6.24	121	80-131	
1,2-Dibromoethane (EDB)	5.00	ND	5.96	119	80-120	
1,2-Dichloroethane	5.00	ND	5.48	110	69-122	
1,2-Dichloropropane	5.00	ND	6.26	125	80-120	FH
2-Butanone (MEK)	62.6	ND	77.1	123	59-141	
2-Hexanone	62.6	ND	81.3	130	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	ND	77.3	124	55-140	
Acetone	62.6	ND	63.0	101	60-146	
Benzene	5.00	ND	5.88	117	80-120	
Bromochloromethane	5.00	ND	5.77	115	80-120	
Bromodichloromethane	5.00	ND	6.08	121	73-124	
Bromoform	5.00	ND	6.37	127	49-144	
Bromomethane	5.00	ND	4.86	97	60-136	
Carbon disulfide	5.00	ND	6.13	122	67-130	
Carbon tetrachloride	5.00	ND	5.82	116	64-141	
Chlorobenzene	5.00	ND	5.87	117	80-120	
Chloroethane	5.00	ND	4.93	99	63-120	
Chloroform	5.00	0.27 J	5.80	111	80-120	
Chloromethane	5.00	ND	5.48	109	80-120	
cis-1,2-Dichloroethene	5.00	1.9	7.72	115	80-122	
cis-1,3-Dichloropropene	5.00	ND	5.95	119	67-121	
Dibromochloromethane	5.00	ND	6.28	125	64-138	
Ethylbenzene	5.00	ND	5.75	115	80-120	
Methyl tert-butyl ether	5.00	ND	5.15	103	69-120	
Methylene Chloride	5.00	ND	5.65	113	80-120	
Styrene	5.00	ND	5.58	112	80-120	
Tetrachloroethene	5.00	6.4	12.3	119	80-120	
Toluene	5.00	ND	5.84	117	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.62	112	80-122	
trans-1,3-Dichloropropene	5.00	ND	6.13	123	61-129	
Trichloroethene	5.00	1.7	7.42	114	80-120	
Vinyl chloride	5.00	ND	5.30	106	60-125	
Xylenes, Total	15.0	ND	17.0	113	80-120	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories
Env, LLC

Job No.: 410-73936-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IF28X16.D

Lab ID: 410-73936-6 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	5.57	111	2	30	71-134	
1,1,1-Trichloroethane	5.00	5.74	109	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.33	126	3	30	75-123	FH
1,1,2-Trichloroethane	5.00	5.97	119	3	30	80-120	
1,1-Dichloroethane	5.00	5.71	111	1	30	74-120	
1,1-Dichloroethene	5.00	6.07	118	3	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.82	116	2	30	80-120	
1,2-Dichloroethane	5.00	5.31	106	3	30	69-122	
1,2-Dichloropropane	5.00	6.22	124	1	30	80-120	FH
2-Butanone (MEK)	62.6	73.3	117	5	30	59-141	
2-Hexanone	62.6	76.7	123	6	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	73.3	117	5	30	55-140	
Acetone	62.6	59.0	94	7	30	60-146	
Benzene	5.00	5.85	117	0	30	80-120	
Bromochloromethane	5.00	5.72	114	1	30	80-120	
Bromodichloromethane	5.00	6.05	121	0	30	73-124	
Bromoform	5.00	6.18	124	3	30	49-144	
Bromomethane	5.00	4.88	98	0	30	60-136	
Carbon disulfide	5.00	5.89	118	4	30	67-130	
Carbon tetrachloride	5.00	5.70	114	2	30	64-141	
Chlorobenzene	5.00	5.73	115	2	30	80-120	
Chloroethane	5.00	4.94	99	0	30	63-120	
Chloroform	5.00	5.78	110	0	30	80-120	
Chloromethane	5.00	5.42	108	1	30	80-120	
cis-1,2-Dichloroethene	5.00	7.64	114	1	30	80-122	
cis-1,3-Dichloropropene	5.00	5.90	118	1	30	67-121	
Dibromochloromethane	5.00	6.23	124	1	30	64-138	
Ethylbenzene	5.00	5.69	114	1	30	80-120	
Methyl tert-butyl ether	5.00	5.12	102	1	30	69-120	
Methylene Chloride	5.00	5.57	111	1	30	80-120	
Styrene	5.00	5.57	111	0	30	80-120	
Tetrachloroethene	5.00	12.0	113	3	30	80-120	
Toluene	5.00	5.73	115	2	30	80-120	
trans-1,2-Dichloroethene	5.00	5.45	109	3	30	80-122	
trans-1,3-Dichloropropene	5.00	6.23	124	2	30	61-129	
Trichloroethene	5.00	7.41	114	0	30	80-120	
Vinyl chloride	5.00	5.29	106	0	30	60-125	
Xylenes, Total	15.0	16.9	113	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.: 410-73936-1
Env, LLC

SDG No.: _____

Lab File ID: IF28X06.D Lab Sample ID: MB 410-228139/7

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

Instrument ID: 19930 Date Analyzed: 02/28/2022 12:26

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 410-228139/4	IF28X03.D	02/28/2022 11:23
	LCSD 410-228139/5	IF28X04.D	02/28/2022 11:44
HD-QC1-0/1-2	410-73936-14	IF28X07.D	02/28/2022 12:48
HD-COD-SW-6-0/1-0	410-73936-1	IF28X09.D	02/28/2022 13:30
HD-COD-SW-7-0/1-0	410-73936-2	IF28X10.D	02/28/2022 13:52
HD-COD-SW-8-0/1-0	410-73936-3	IF28X11.D	02/28/2022 14:13
HD-COD-SW-9-0/1-0	410-73936-4	IF28X12.D	02/28/2022 14:34
HD-COD-SW-13-0/1-0	410-73936-5	IF28X13.D	02/28/2022 14:55
HD-COD-SW-15-0/1-0	410-73936-6	IF28X14.D	02/28/2022 15:16
HD-COD-SW-15-0/1-0 MS MS	410-73936-6 MS	IF28X15.D	02/28/2022 15:38
HD-COD-SW-15-0/1-0 MSD MSD	410-73936-6 MSD	IF28X16.D	02/28/2022 15:59
HD-COD-SW-16-0/1-0	410-73936-7	IF28X18.D	02/28/2022 16:41
HD-COD-SW-17-0/1-0	410-73936-8	IF28X19.D	02/28/2022 17:03
HD-COD-SW-17-0/1-0 DL	410-73936-8 DL	IF28X20.D	02/28/2022 17:24
HD-COD-SW-26-0/1-0	410-73936-9	IF28X21.D	02/28/2022 17:45
HD-COD-SW-27-0/1-0	410-73936-10	IF28X22.D	02/28/2022 18:06
HD-COD-SW-28-0/1-0	410-73936-11	IF28X23.D	02/28/2022 18:27
HD-COD-SW-29-0/1-0	410-73936-12	IF28X24.D	02/28/2022 18:48
HD-QC1-0/1-1	410-73936-13	IF28X25.D	02/28/2022 19:10

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-73936-1
 Env, LLC
SDG No.:
Lab File ID: IM02X06.D Lab Sample ID: MB 410-229111/7
Matrix: Water Heated Purge: (Y/N) N
Instrument ID: 19930 Date Analyzed: 03/02/2022 11:49
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 410-229111/4	IM02X03.D	03/02/2022 10:45
	LCSD 410-229111/5	IM02X04.D	03/02/2022 11:06
HD-QC1-0/1-1 DL	410-73936-13 DL	IM02X17.D	03/02/2022 15:42

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1

SDG No.: _____

Lab File ID: IG23T01.D BFB Injection Date: 08/23/2021

Instrument ID: 19930 BFB Injection Time: 20:56

Analysis Batch No.: 163707

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	1.1	(1.2) 1
174	Greater than 50% of mass 95	92.2	
175	5.0 - 9.0 % of mass 174	7.2	(7.8) 1
176	95.0 - 101.0 % of mass 174	87.7	(95.2) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-163707/12	IG23I01.D	08/24/2021	0:45
	ICIS 410-163707/13	IG23I02.D	08/24/2021	1:06
	IC 410-163707/14	IG23I03.D	08/24/2021	1:27
	IC 410-163707/15	IG23I04.D	08/24/2021	1:48
	IC 410-163707/16	IG23I05.D	08/24/2021	2:09
	IC 410-163707/17	IG23I06.D	08/24/2021	2:30
	IC 410-163707/18	IG23I07.D	08/24/2021	2:52
	ICV 410-163707/19	IG23V01.D	08/24/2021	3:13

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1

SDG No.: _____

Lab File ID: IF28T01.D BFB Injection Date: 02/28/2022

Instrument ID: 19930 BFB Injection Time: 10:27

Analysis Batch No.: 228139

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	16.9
75	30.0 - 60.0 % of mass 95	46.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.5
173	Less than 2.0 % of mass 174	0.3 (0.4) 1
174	Greater than 50% of mass 95	84.0
175	5.0 - 9.0 % of mass 174	6.5 (7.8) 1
176	95.0 - 101.0 % of mass 174	83.3 (99.2) 1
177	5.0 - 9.0 % of mass 176	5.3 (6.3) 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 410-228139/3	IF28X02.D	02/28/2022	11:02
	LCS 410-228139/4	IF28X03.D	02/28/2022	11:23
	LCSD 410-228139/5	IF28X04.D	02/28/2022	11:44
	MB 410-228139/7	IF28X06.D	02/28/2022	12:26
HD-QC1-0/1-2	410-73936-14	IF28X07.D	02/28/2022	12:48
HD-COD-SW-6-0/1-0	410-73936-1	IF28X09.D	02/28/2022	13:30
HD-COD-SW-7-0/1-0	410-73936-2	IF28X10.D	02/28/2022	13:52
HD-COD-SW-8-0/1-0	410-73936-3	IF28X11.D	02/28/2022	14:13
HD-COD-SW-9-0/1-0	410-73936-4	IF28X12.D	02/28/2022	14:34
HD-COD-SW-13-0/1-0	410-73936-5	IF28X13.D	02/28/2022	14:55
HD-COD-SW-15-0/1-0	410-73936-6	IF28X14.D	02/28/2022	15:16
HD-COD-SW-15-0/1-0 MS MS	410-73936-6 MS	IF28X15.D	02/28/2022	15:38
HD-COD-SW-15-0/1-0 MSD MSD	410-73936-6 MSD	IF28X16.D	02/28/2022	15:59
HD-COD-SW-16-0/1-0	410-73936-7	IF28X18.D	02/28/2022	16:41
HD-COD-SW-17-0/1-0	410-73936-8	IF28X19.D	02/28/2022	17:03
HD-COD-SW-17-0/1-0 DL	410-73936-8 DL	IF28X20.D	02/28/2022	17:24
HD-COD-SW-26-0/1-0	410-73936-9	IF28X21.D	02/28/2022	17:45
HD-COD-SW-27-0/1-0	410-73936-10	IF28X22.D	02/28/2022	18:06
HD-COD-SW-28-0/1-0	410-73936-11	IF28X23.D	02/28/2022	18:27
HD-COD-SW-29-0/1-0	410-73936-12	IF28X24.D	02/28/2022	18:48
HD-QC1-0/1-1	410-73936-13	IF28X25.D	02/28/2022	19:10

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1

SDG No.: _____

Lab File ID: IM02T03.D BFB Injection Date: 03/02/2022

Instrument ID: 19930 BFB Injection Time: 09:50

Analysis Batch No.: 229111

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	15.7
75	30.0 - 60.0 % of mass 95	42.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.7
173	Less than 2.0 % of mass 174	1.2 (1.3) 1
174	Greater than 50% of mass 95	94.0
175	5.0 - 9.0 % of mass 174	7.2 (7.6) 1
176	95.0 - 101.0 % of mass 174	92.3 (98.2) 1
177	5.0 - 9.0 % of mass 176	5.9 (6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-229111/3	IM02X02.D	03/02/2022	10:24
	LCS 410-229111/4	IM02X03.D	03/02/2022	10:45
	LCSD 410-229111/5	IM02X04.D	03/02/2022	11:06
	MB 410-229111/7	IM02X06.D	03/02/2022	11:49
HD-QC1-0/1-1 DL	410-73936-13 DL	IM02X17.D	03/02/2022	15:42

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Sample No.: ICIS 410-163707/13 Date Analyzed: 08/24/2021 01:06
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IG23I02.D Heated Purge: (Y/N) N
 Calibration ID: 29976

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	165205	4.27	2122537	7.74	1640634	11.18	
UPPER LIMIT	330410	4.77	4245074	8.24	3281268	11.68	
LOWER LIMIT	82603	3.77	1061269	7.24	820317	10.68	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-163707/19		170769	4.26	2182088	7.74	1693972	11.18
CCVIS 410-228139/3		151468	4.26	2250205	7.71	1775080	11.16
CCVIS 410-229111/3		174163	4.23	2329589	7.71	1872825	11.15

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.: 410-73936-1
 SDG No.: _____
 Sample No.: ICIS 410-163707/13 Date Analyzed: 08/24/2021 01:06
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IG23I02.D Heated Purge: (Y/N) N
 Calibration ID: 29976

	DCBd4		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	963407	13.06				
UPPER LIMIT	1926814	13.56				
LOWER LIMIT	481704	12.56				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-163707/19		994893	13.06			
CCVIS 410-228139/3		938183	13.03			
CCVIS 410-229111/3		1026665	13.03			

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.: 410-73936-1
 SDG No.: _____
 Sample No.: CCVIS 410-228139/3 Date Analyzed: 02/28/2022 11:02
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IF28X02.D Heated Purge: (Y/N) N
 Calibration ID: 29976

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	151468	4.26	2250205	7.71	1775080	11.16	
UPPER LIMIT	302936	4.76	4500410	8.21	3550160	11.66	
LOWER LIMIT	75734	3.76	1125103	7.21	887540	10.66	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-228139/4		165832	4.24	2503813	7.71	1955837	11.16
LCSD 410-228139/5		147281	4.24	2238896	7.71	1723922	11.16
MB 410-228139/7		137009	4.26	2277959	7.71	1741977	11.16
410-73936-14	HD-QC1-0/1-2	157174	4.28	2212241	7.71	1695858	11.16
410-73936-1	HD-COD-SW-6-0/1-0	123884	4.26	2195493	7.71	1680911	11.16
410-73936-2	HD-COD-SW-7-0/1-0	146462	4.27	2176425	7.71	1666258	11.16
410-73936-3	HD-COD-SW-8-0/1-0	152861	4.27	2179274	7.71	1662418	11.16
410-73936-4	HD-COD-SW-9-0/1-0	178825	4.26	2128356	7.71	1648048	11.16
410-73936-5	HD-COD-SW-13-0/1-0	152445	4.26	2136044	7.71	1643747	11.16
410-73936-6	HD-COD-SW-15-0/1-0	139714	4.26	2147201	7.71	1657407	11.16
410-73936-6 MS	HD-COD-SW-15-0/1-0 MS MS	153166	4.26	2206816	7.71	1727036	11.16
410-73936-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	161931	4.25	2212835	7.71	1737911	11.16
410-73936-7	HD-COD-SW-16-0/1-0	157308	4.26	2208969	7.71	1701056	11.16
410-73936-8	HD-COD-SW-17-0/1-0	140931	4.25	2204072	7.71	1706301	11.16
410-73936-8 DL	HD-COD-SW-17-0/1-0 DL	142823	4.25	2226656	7.71	1720250	11.16
410-73936-9	HD-COD-SW-26-0/1-0	145875	4.25	2153187	7.71	1656395	11.16
410-73936-10	HD-COD-SW-27-0/1-0	163622	4.28	2134793	7.71	1641244	11.16
410-73936-11	HD-COD-SW-28-0/1-0	173905	4.28	2126235	7.71	1620937	11.16
410-73936-12	HD-COD-SW-29-0/1-0	159556	4.25	2123808	7.71	1627857	11.16
410-73936-13	HD-QC1-0/1-1	154683	4.26	2154891	7.71	1708796	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.: 410-73936-1
 SDG No.: _____
 Sample No.: CCVIS 410-228139/3 Date Analyzed: 02/28/2022 11:02
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IF28X02.D Heated Purge: (Y/N) N
 Calibration ID: 29976

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		938183	13.03				
UPPER LIMIT		1876366	13.53				
LOWER LIMIT		469092	12.53				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-228139/4		1019036	13.03				
LCSD 410-228139/5		924051	13.03				
MB 410-228139/7		866919	13.03				
410-73936-14	HD-QC1-0/1-2	832990	13.03				
410-73936-1	HD-COD-SW-6-0/1-0	845188	13.03				
410-73936-2	HD-COD-SW-7-0/1-0	848127	13.03				
410-73936-3	HD-COD-SW-8-0/1-0	832688	13.03				
410-73936-4	HD-COD-SW-9-0/1-0	828201	13.03				
410-73936-5	HD-COD-SW-13-0/1-0	807717	13.03				
410-73936-6	HD-COD-SW-15-0/1-0	818071	13.03				
410-73936-6 MS	HD-COD-SW-15-0/1-0 MS	904291	13.03				
410-73936-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	908671	13.03				
410-73936-7	HD-COD-SW-16-0/1-0	846890	13.03				
410-73936-8	HD-COD-SW-17-0/1-0	835076	13.03				
410-73936-8 DL	HD-COD-SW-17-0/1-0 DL	832242	13.03				
410-73936-9	HD-COD-SW-26-0/1-0	823999	13.03				
410-73936-10	HD-COD-SW-27-0/1-0	819698	13.03				
410-73936-11	HD-COD-SW-28-0/1-0	807118	13.03				
410-73936-12	HD-COD-SW-29-0/1-0	816178	13.03				
410-73936-13	HD-QC1-0/1-1	831822	13.03				

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.: 410-73936-1
 SDG No.: _____
 Sample No.: CCVIS 410-229111/3 Date Analyzed: 03/02/2022 10:24
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IM02X02.D Heated Purge: (Y/N) N
 Calibration ID: 29976

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	174163	4.23	2329589	7.71	1872825	11.15	
UPPER LIMIT	348326	4.73	4659178	8.21	3745650	11.65	
LOWER LIMIT	87082	3.73	1164795	7.21	936413	10.65	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-229111/4	163800	4.25	2400666	7.71	1870000	11.16	
LCSD 410-229111/5	173923	4.25	2458448	7.71	1945126	11.16	
MB 410-229111/7	176882	4.26	2380925	7.71	1856491	11.16	
410-73936-13 DL	HD-QC1-0/1-1 DL	125051	4.26	2389584	7.71	1881176	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.: 410-73936-1
 SDG No.: _____
 Sample No.: CCVIS 410-229111/3 Date Analyzed: 03/02/2022 10:24
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IM02X02.D Heated Purge: (Y/N) N
 Calibration ID: 29976

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		1026665	13.03				
UPPER LIMIT		2053330	13.53				
LOWER LIMIT		513333	12.53				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-229111/4		1013134	13.03				
LCSD 410-229111/5		1034586	13.03				
MB 410-229111/7		971429	13.03				
410-73936-13 DL	HD-QC1-0/1-1 DL	943816	13.03				

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 E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-73936-1
 Matrix: Water Lab File ID: IF28X09.D
 Analysis Method: 8260D Date Collected: 02/22/2022 10:10
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 13:30
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.3	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.062	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	ND	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-73936-1
 Matrix: Water Lab File ID: IF28X09.D
 Analysis Method: 8260D Date Collected: 02/22/2022 10:10
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 13:30
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.064	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	89	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	97	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D
 Lims ID: 410-73936-A-1
 Client ID: HD-COD-SW-6-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 13:30:30 ALS Bottle#: 9 Worklist Smp#: 10
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-010
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:00:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	7
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	7
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.605	3.593	0.012	66	8645	1.26	M
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	24	123884	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	U
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	1	4079	0.0615	a
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.616	6.610	0.006	86	4249	0.0397	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	537827	9.72	
47 1,1,1-Trichloroethane	97		6.836				ND	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.275	0.012	67	109491	9.90	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	100	2195493	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	93	4262	0.0642	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	93	2166553	9.97	
76 Toluene	92		9.787				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	87	1956	0.0255	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1680911	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	739845	8.91	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	845188	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D

Injection Date: 28-Feb-2022 13:30:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-1

Lab Sample ID: 410-73936-1

Worklist Smp#: 10

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

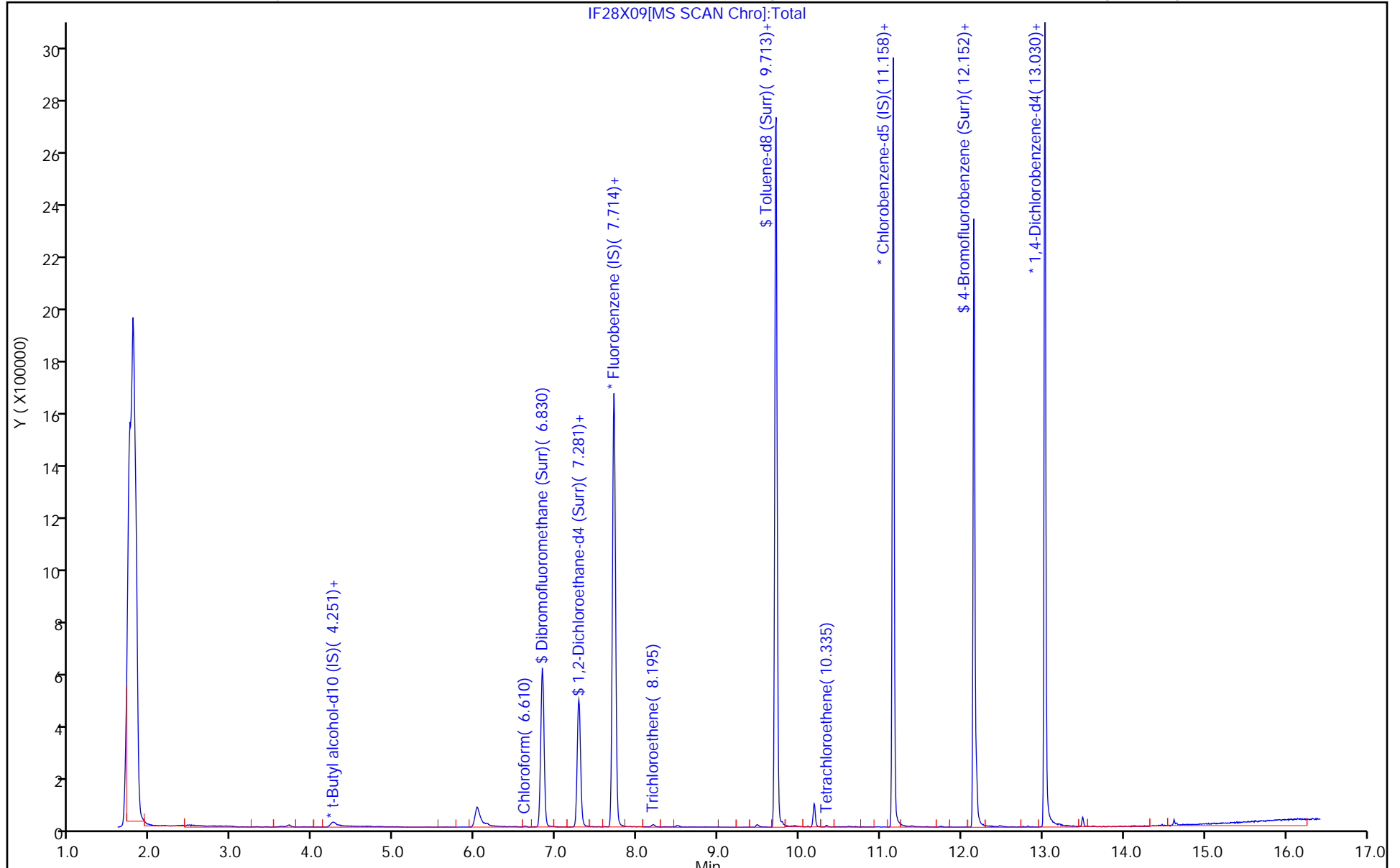
ALS Bottle#: 9

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D
 Lims ID: 410-73936-A-1
 Client ID: HD-COD-SW-6-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 13:30:30 ALS Bottle#: 9 Worklist Smp#: 10
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-010
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:00:21

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.72	97.24
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	9.90	98.96
\$ 75 Toluene-d8 (Surr)	10.0	9.97	99.74
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.91	89.12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D

Injection Date: 28-Feb-2022 13:30:30

Instrument ID: 19930

Lims ID: 410-73936-A-1

Lab Sample ID: 410-73936-1

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

Operator ID: KNK41612

ALS Bottle#: 9

Worklist Smp#: 10

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

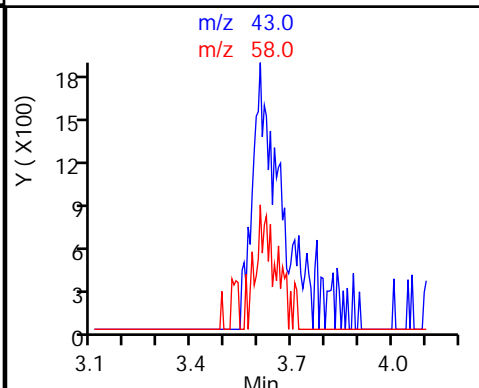
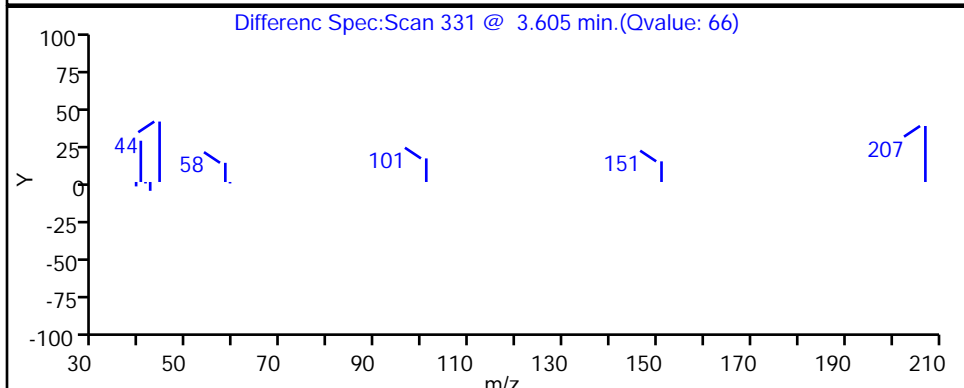
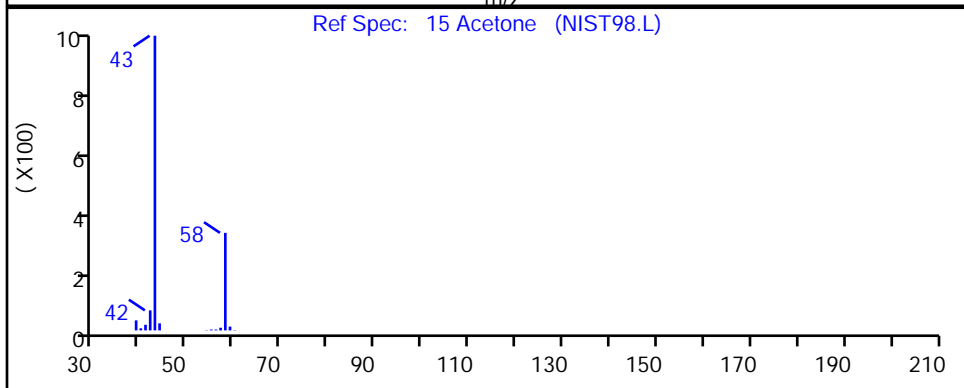
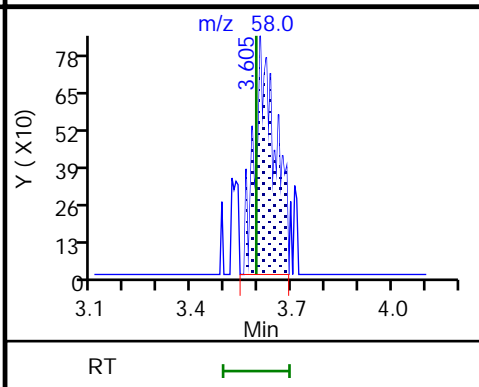
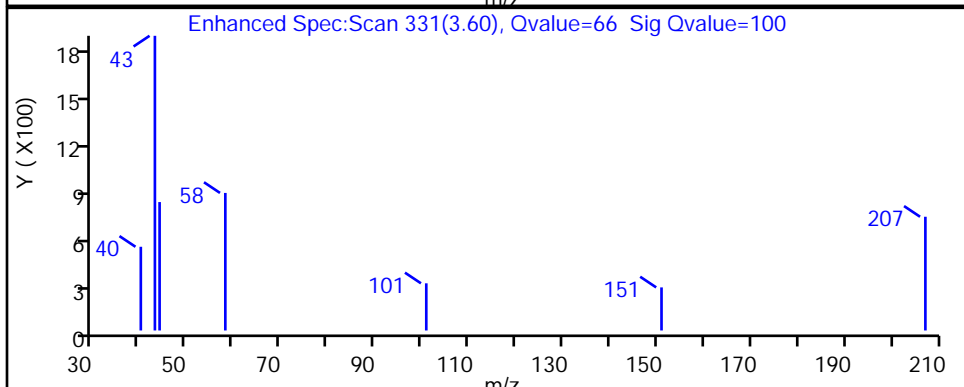
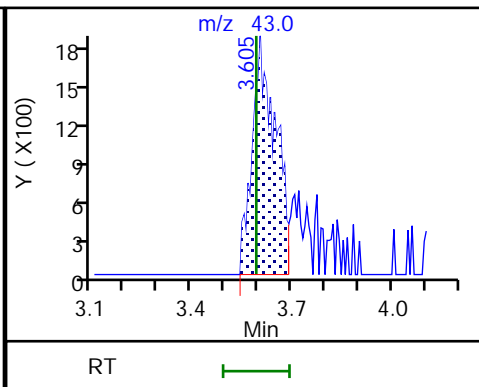
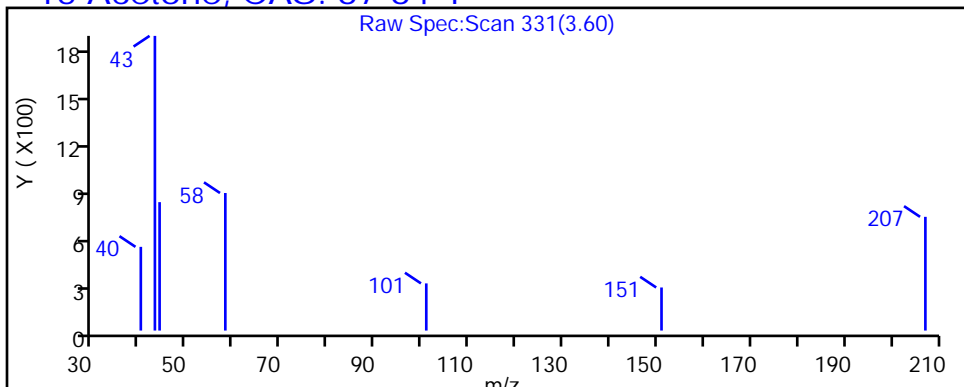
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D

Injection Date: 28-Feb-2022 13:30:30

Instrument ID: 19930

Lims ID: 410-73936-A-1

Lab Sample ID: 410-73936-1

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

Operator ID: KNK41612

ALS Bottle#: 9

Worklist Smp#: 10

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

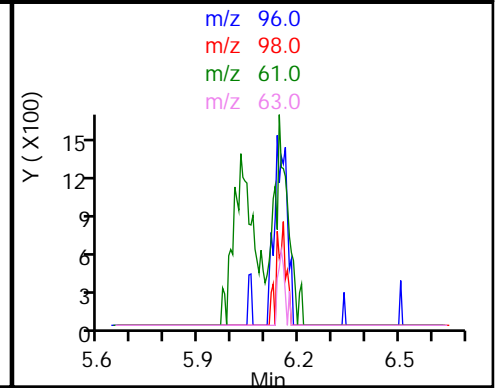
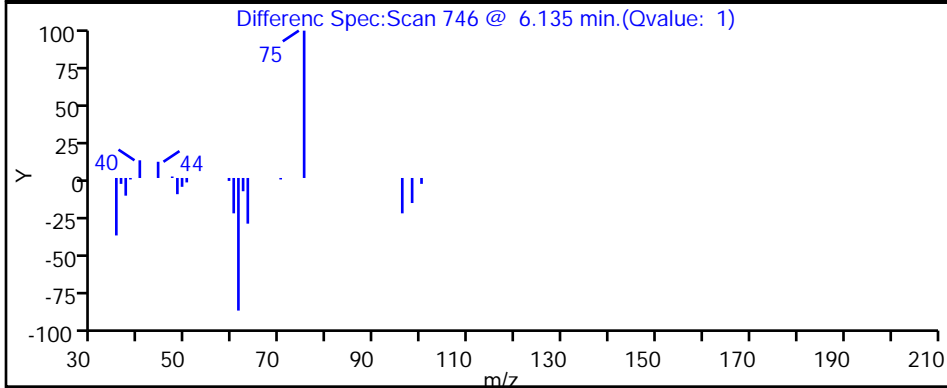
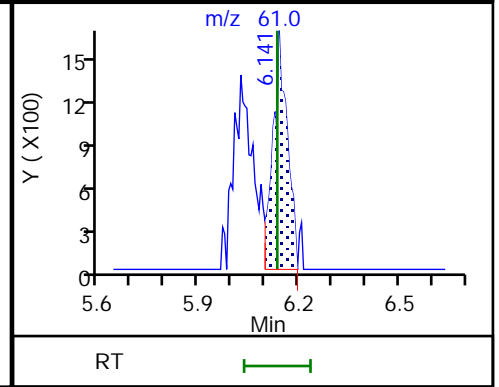
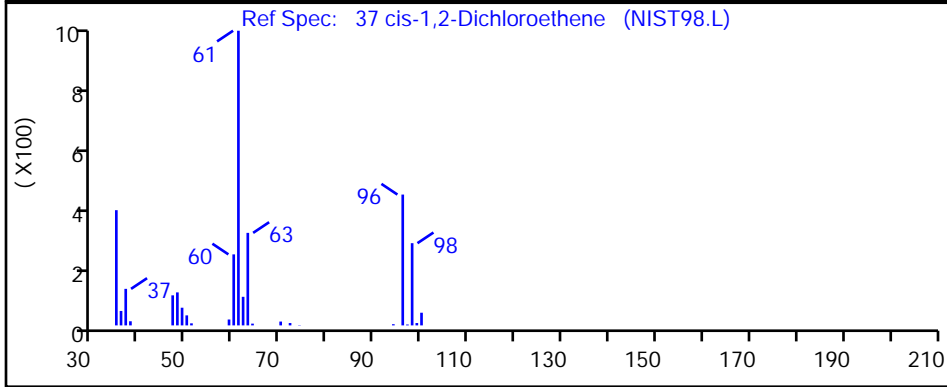
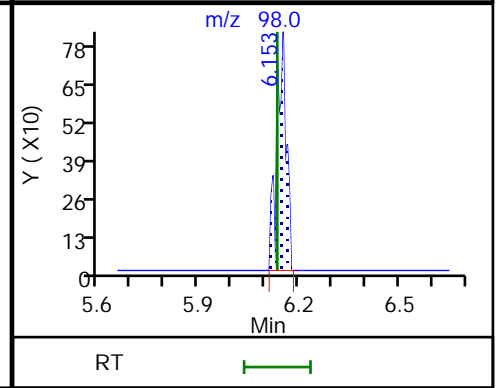
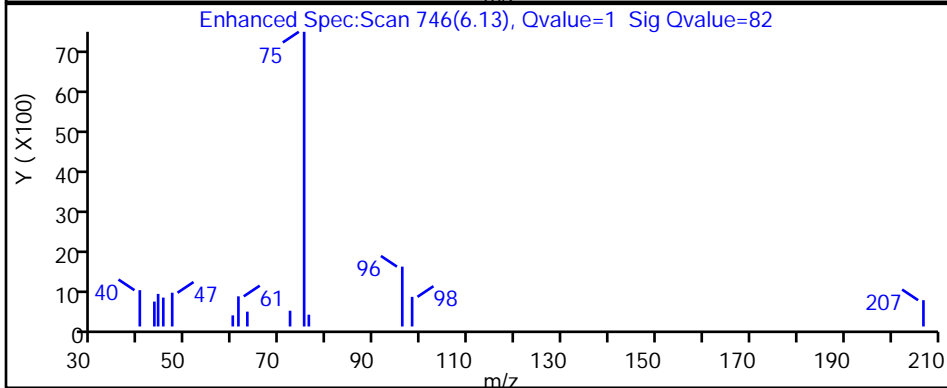
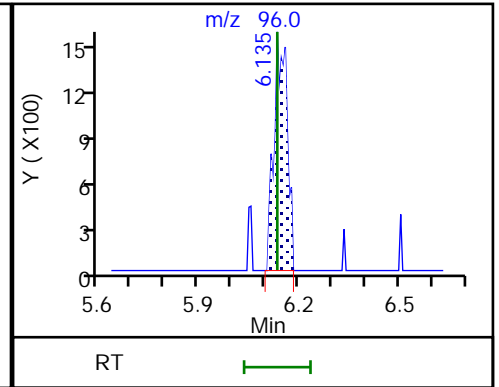
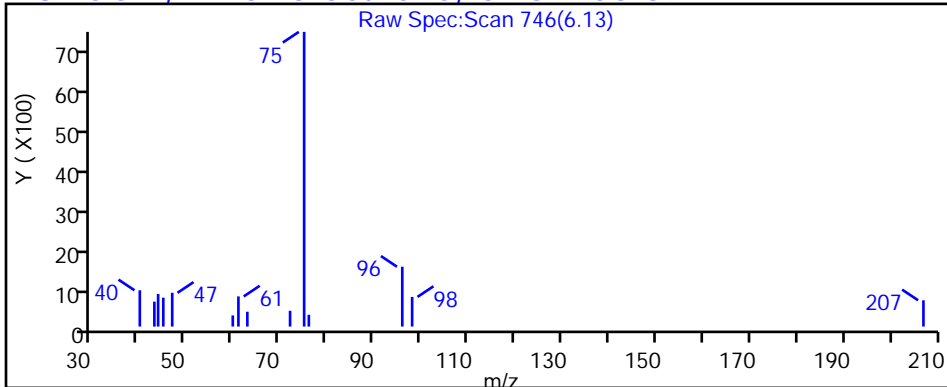
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

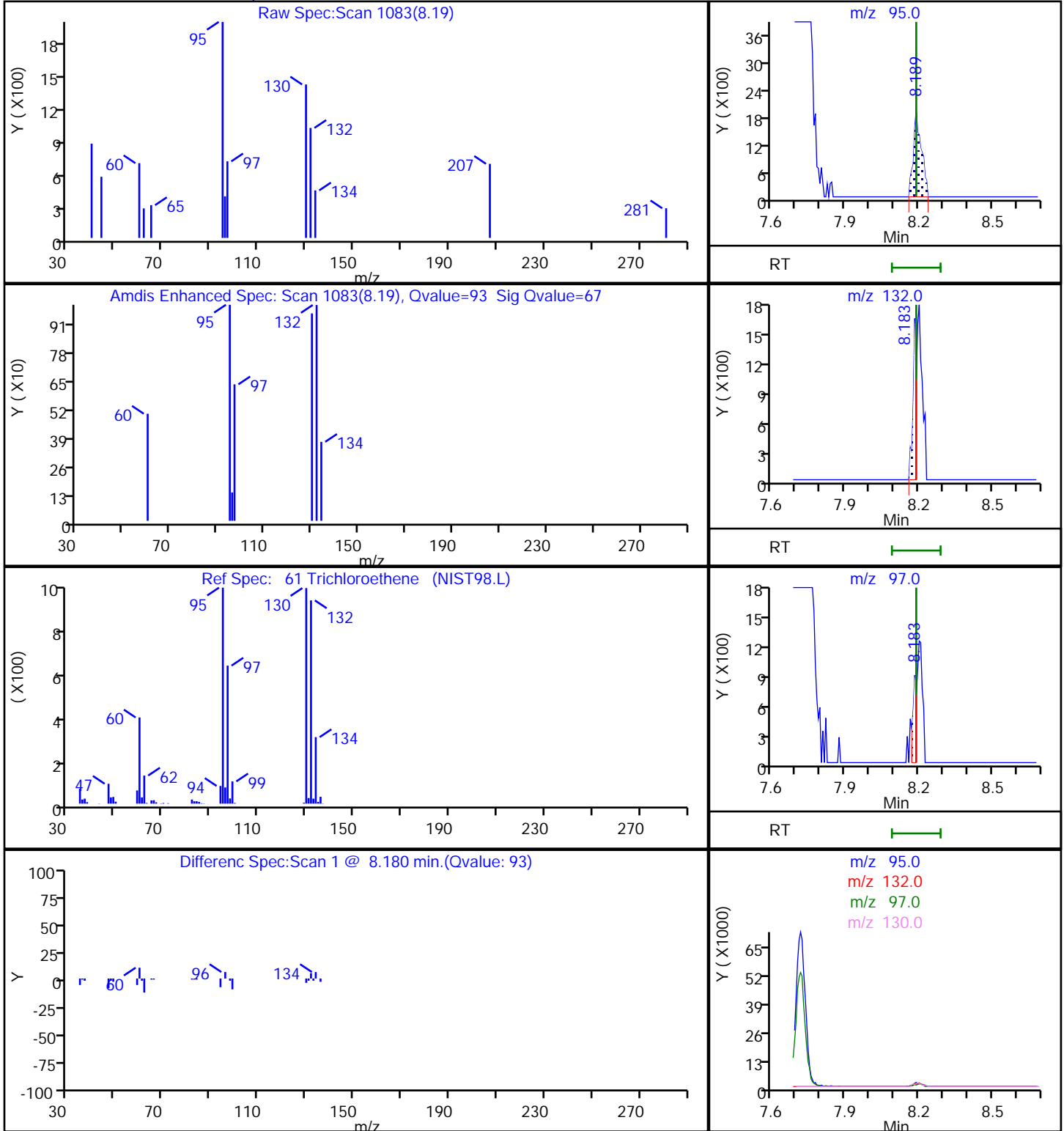
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D
Injection Date: 28-Feb-2022 13:30:30 Instrument ID: 19930
Lims ID: 410-73936-A-1 Lab Sample ID: 410-73936-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: KNK41612 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

61 Trichloroethene, CAS: 79-01-6

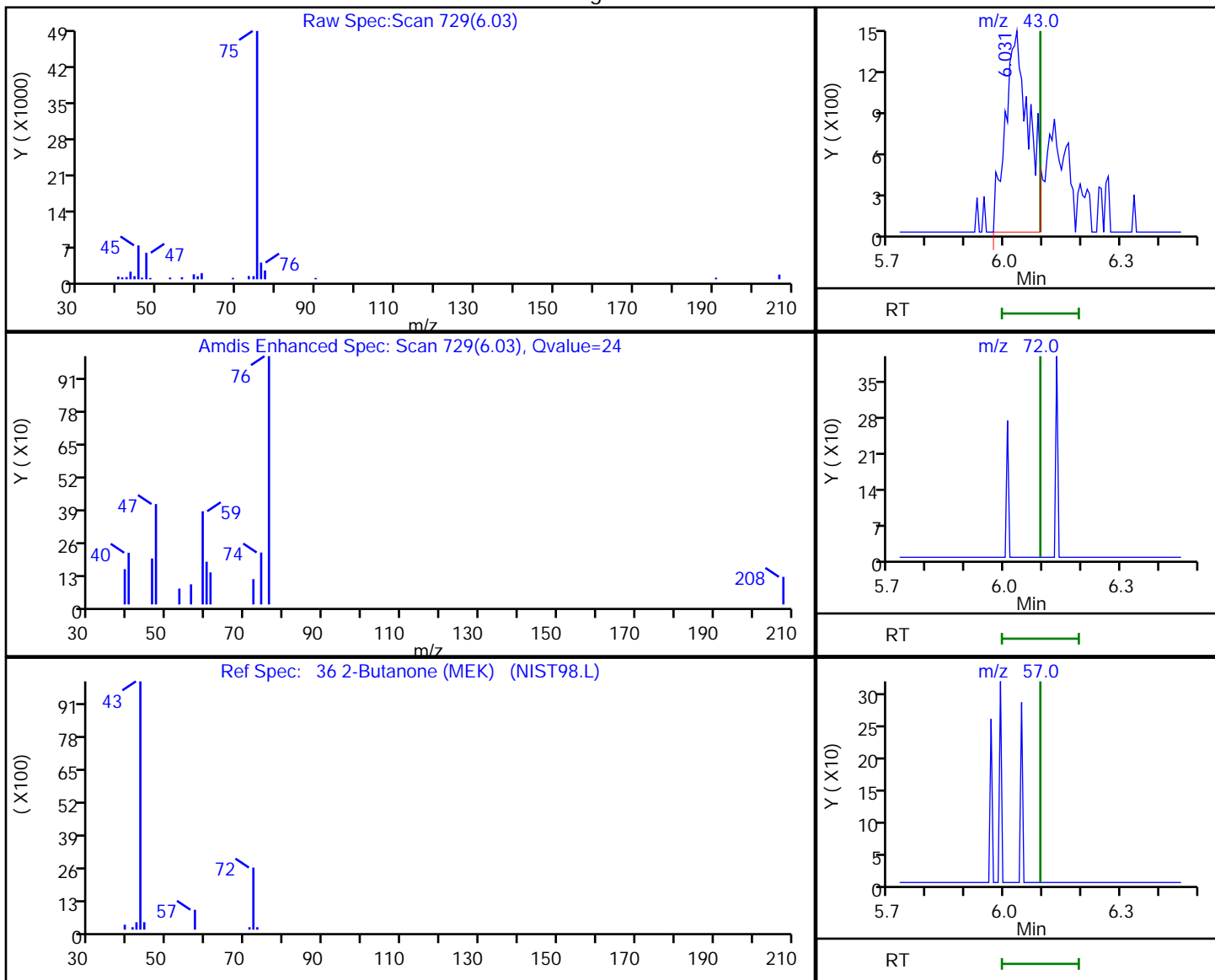


Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D
Injection Date: 28-Feb-2022 13:30:30 Instrument ID: 19930
Lims ID: 410-73936-A-1 Lab Sample ID: 410-73936-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: KNK41612 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.03	43.00	6240	0.519273
6.09	72.00	0	
6.09	57.00	0	

Reviewer: beckerk, 28-Feb-2022 16:59:59

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

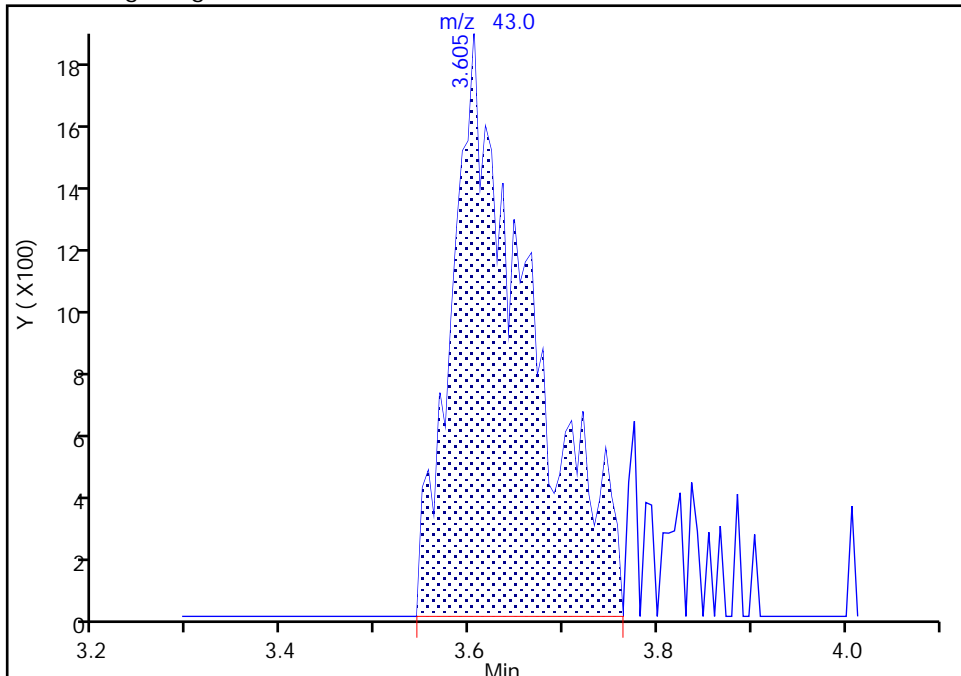
Data File:	\\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D		
Injection Date:	28-Feb-2022 13:30:30	Instrument ID:	19930
Lims ID:	410-73936-A-1	Lab Sample ID:	410-73936-1
Client ID:	HD-COD-SW-6-0/1-0		
Operator ID:	KNK41612	ALS Bottle#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	10

15 Acetone, CAS: 67-64-1

Signal: 1

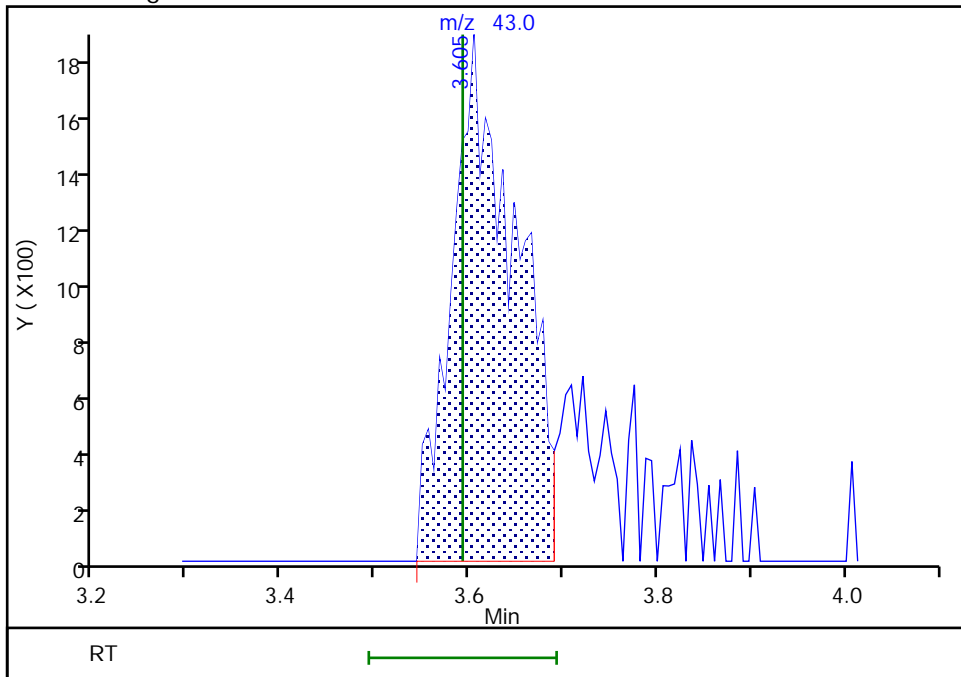
RT: 3.60
 Area: 10423
 Amount: 1.514528
 Amount Units: ug/l

Processing Integration Results



RT: 3.60
 Area: 8645
 Amount: 1.256173
 Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 16:59:53
 Audit Action: Split an Integrated Peak

Audit Reason: Split Peak
 Page 210 of 659

Eurofins Lancaster Laboratories Env, LLC

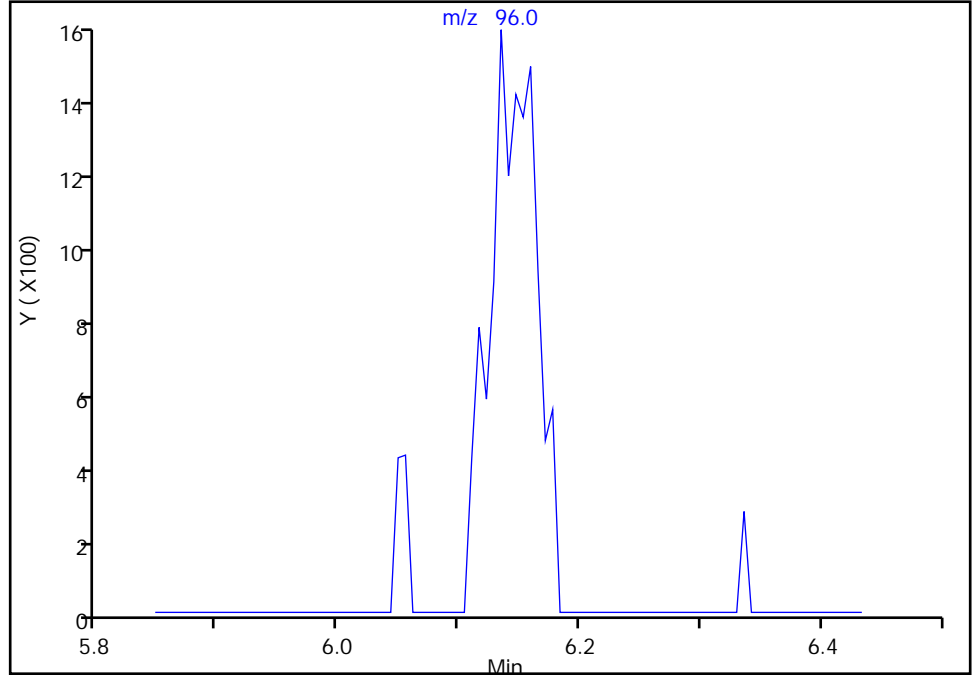
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X09.D
Injection Date: 28-Feb-2022 13:30:30 Instrument ID: 19930
Lims ID: 410-73936-A-1 Lab Sample ID: 410-73936-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: KNK41612 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

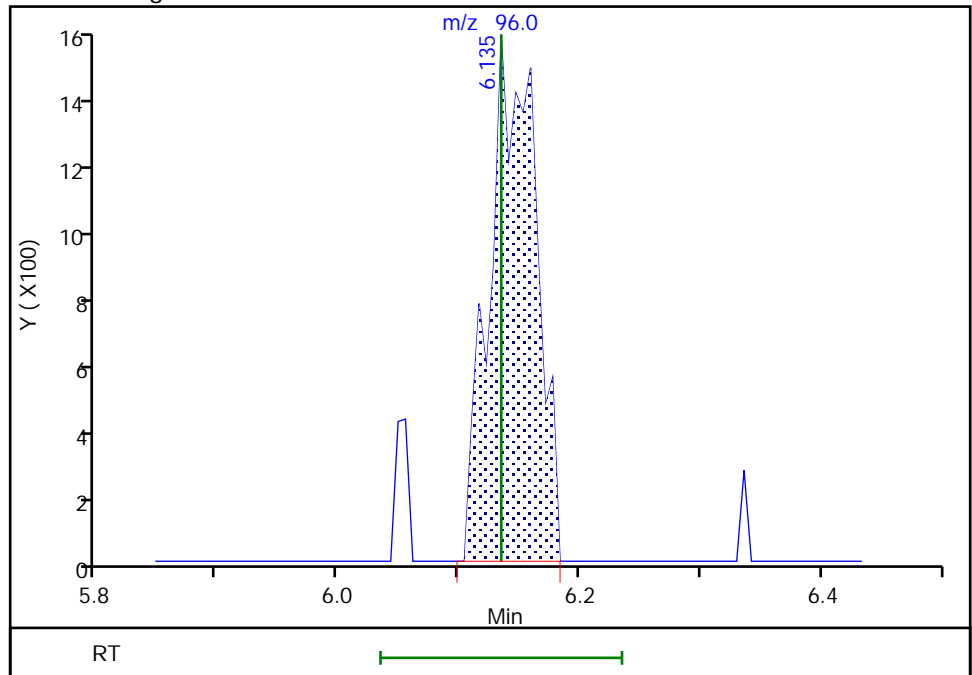
Signal: 1

Not Detected
Expected RT: 6.13

Processing Integration Results



Manual Integration Results



RT: 6.13
Area: 4079
Amount: 0.061521
Amount Units: ug/l

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-73936-2
 Matrix: Water Lab File ID: IF28X10.D
 Analysis Method: 8260D Date Collected: 02/22/2022 10:55
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 13:52
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.6	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.083	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.061	J cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-73936-2
 Matrix: Water Lab File ID: IF28X10.D
 Analysis Method: 8260D Date Collected: 02/22/2022 10:55
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 13:52
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.12	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	89	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	98	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X10.D
 Lims ID: 410-73936-A-2
 Client ID: HD-COD-SW-7-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 13:52:30 ALS Bottle#: 10 Worklist Smp#: 11
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-011
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:19:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	7
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.599	3.593	0.006	98	12885	1.58	M
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.263	0.006	23	146462	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.153	6.135	0.018	54	5449	0.0829	a
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.616	6.610	0.006	90	6572	0.0620	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	535562	9.77	
47 1,1,1-Trichloroethane	97		6.836				ND	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	114635	10.5	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2176425	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	94	7811	0.1188	M
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2160299	10.0	
76 Toluene	92	9.786	9.787	0.000	95	4458	0.0279	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	93	4663	0.0613	M
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1666258	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	731618	8.89	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	848127	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X10.D

Injection Date: 28-Feb-2022 13:52:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-2

Lab Sample ID: 410-73936-2

Worklist Smp#: 11

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

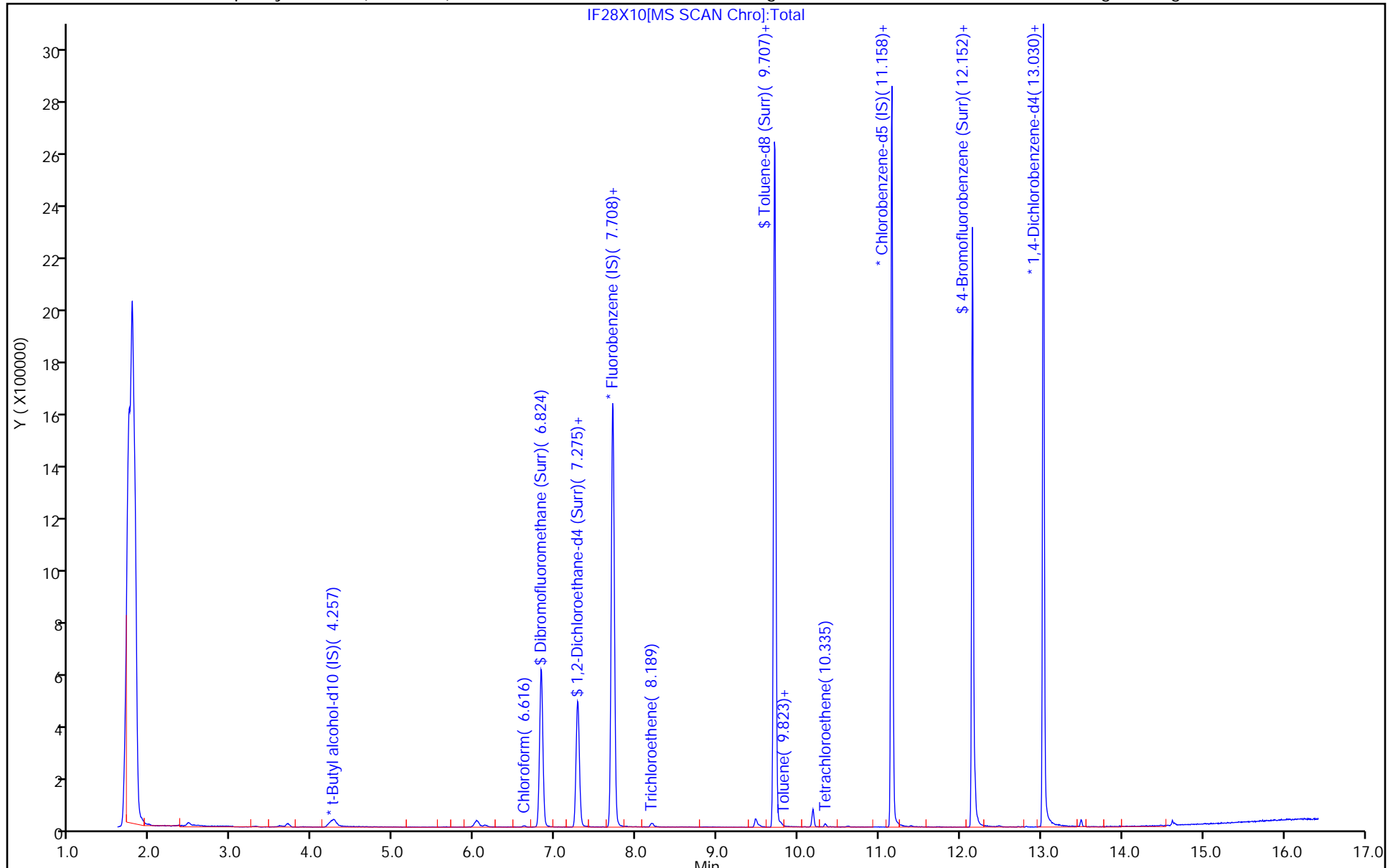
ALS Bottle#: 10

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X10.D
 Lims ID: 410-73936-A-2
 Client ID: HD-COD-SW-7-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 13:52:30 ALS Bottle#: 10 Worklist Smp#: 11
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-011
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:19:00

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.77	97.68
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.52
\$ 75 Toluene-d8 (Surr)	10.0	10.0	100.32
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.89	88.90

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X10.D

Injection Date: 28-Feb-2022 13:52:30

Instrument ID: 19930

Lims ID: 410-73936-A-2

Lab Sample ID: 410-73936-2

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

Operator ID: KNK41612

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

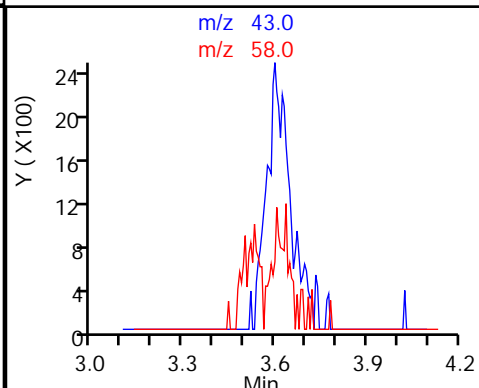
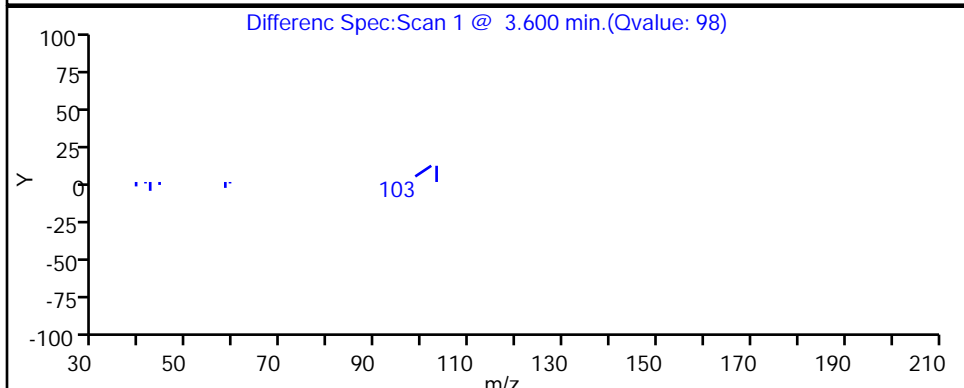
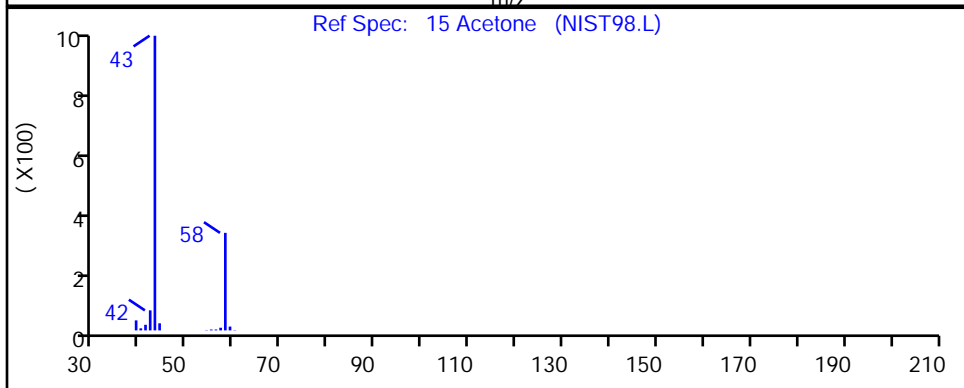
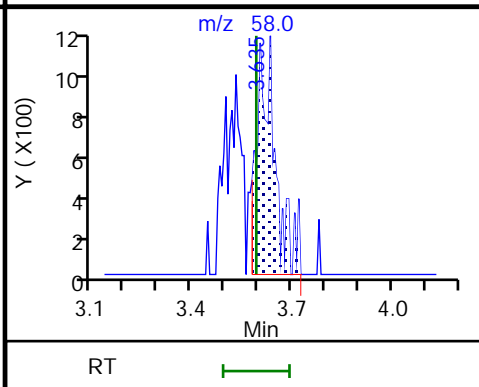
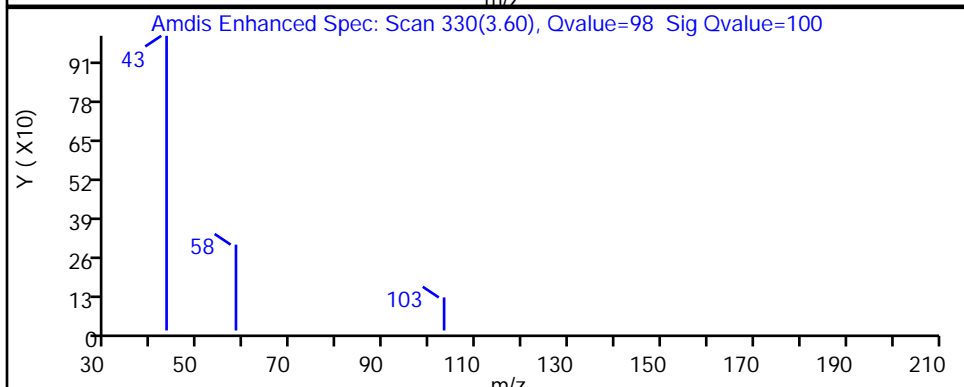
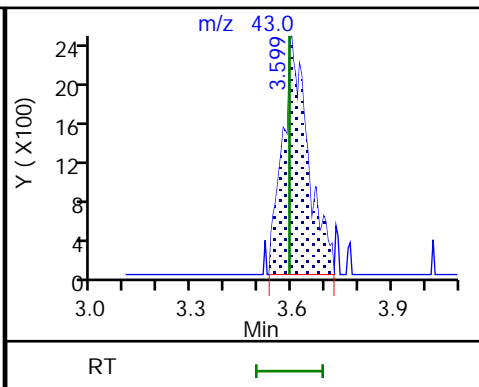
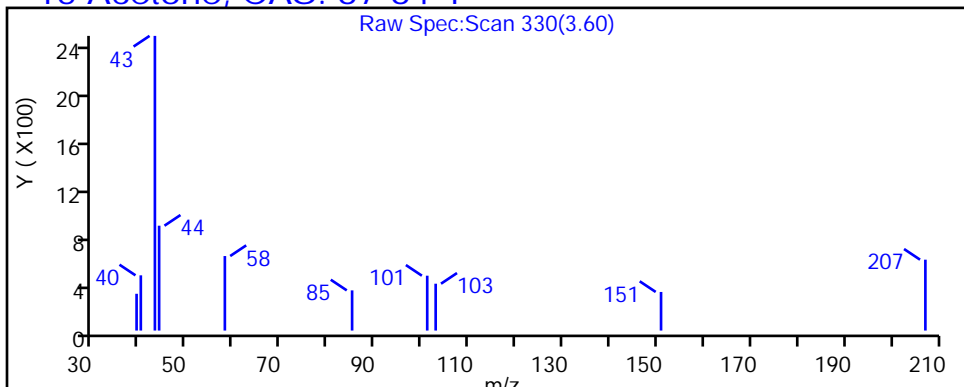
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X10.D

Injection Date: 28-Feb-2022 13:52:30

Instrument ID: 19930

Lims ID: 410-73936-A-2

Lab Sample ID: 410-73936-2

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

Operator ID: KNK41612

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

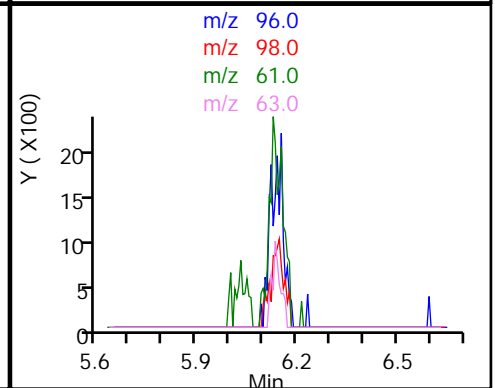
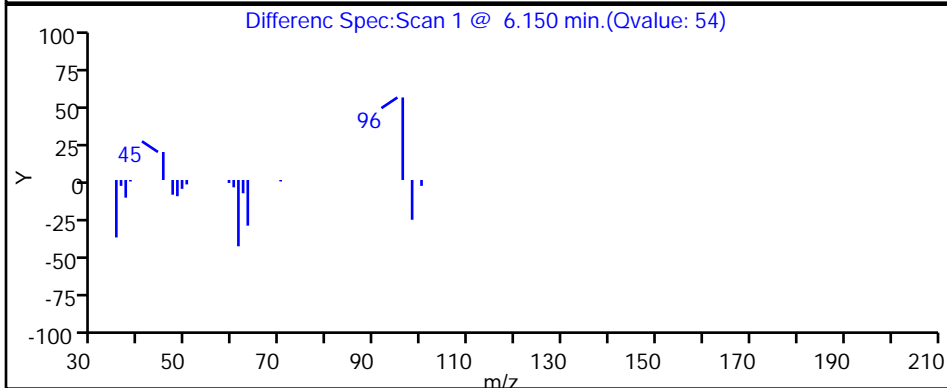
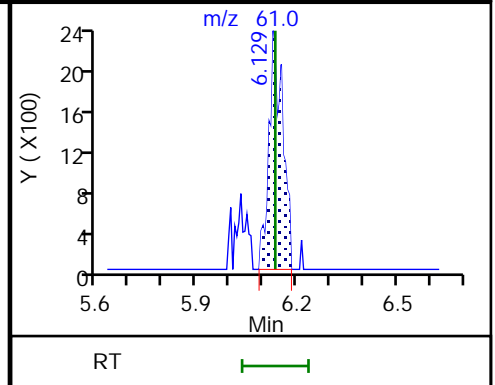
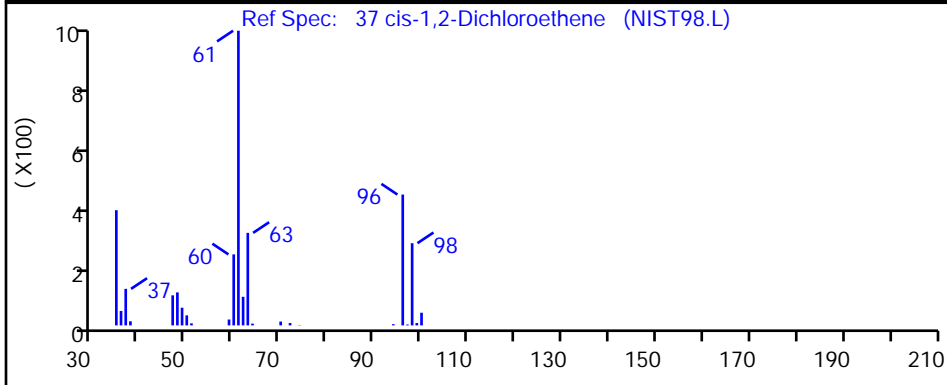
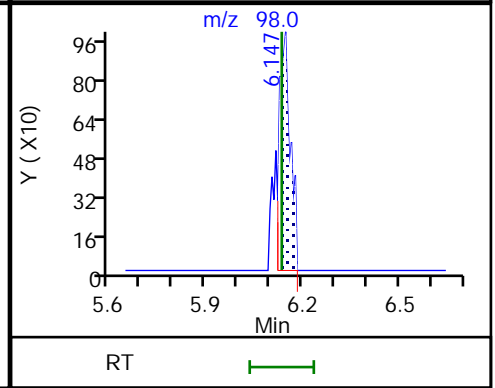
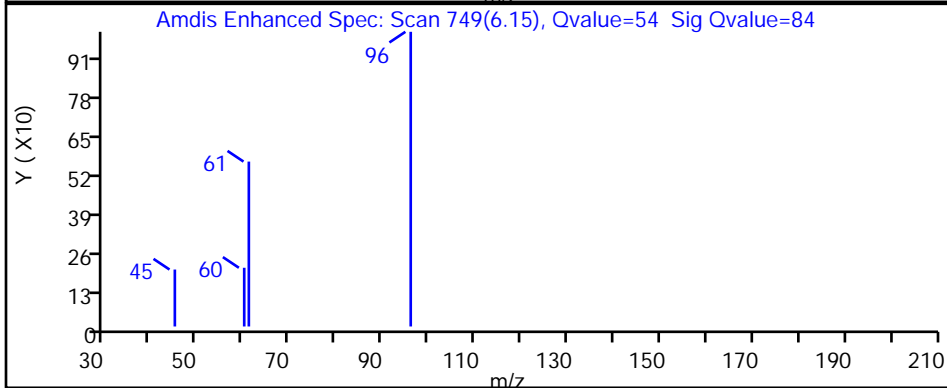
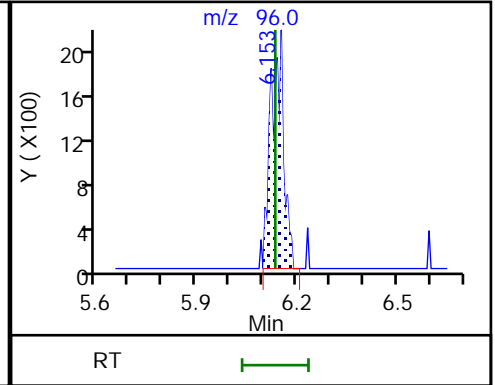
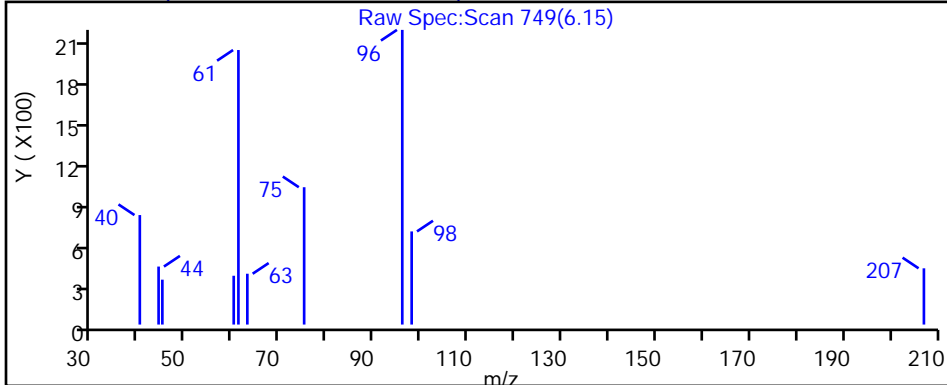
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X10.D

Injection Date: 28-Feb-2022 13:52:30

Instrument ID: 19930

Lims ID: 410-73936-A-2

Lab Sample ID: 410-73936-2

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

Operator ID: KNK41612

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

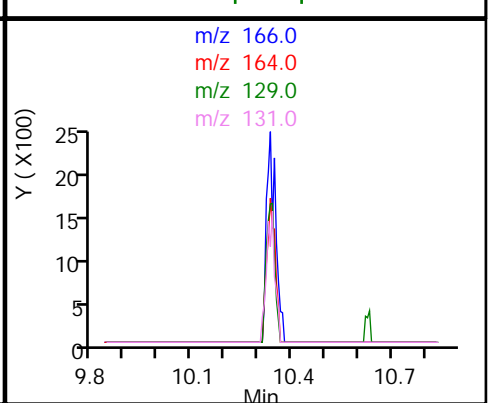
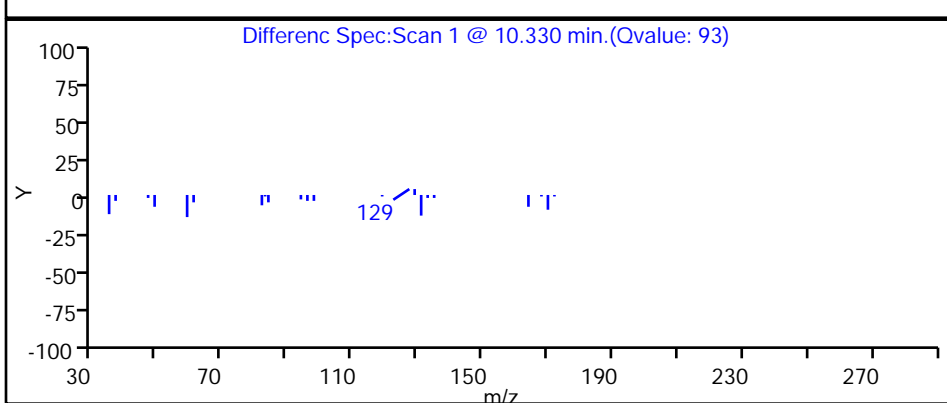
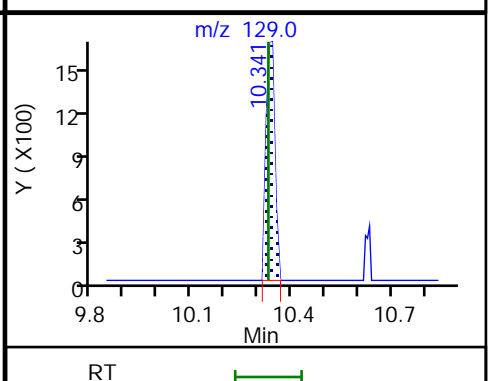
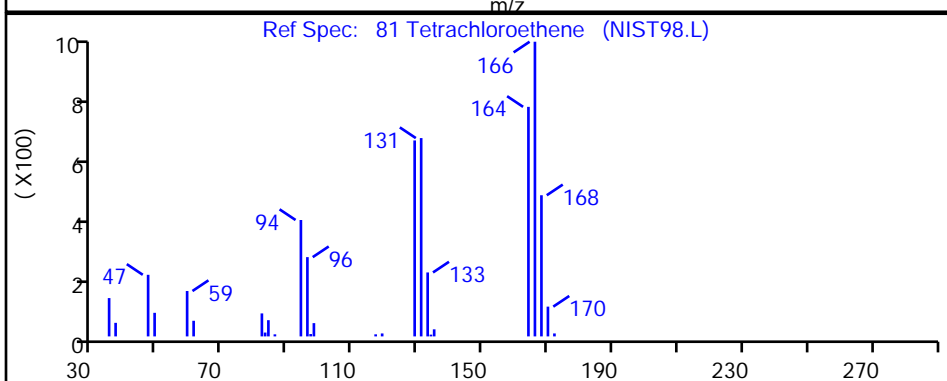
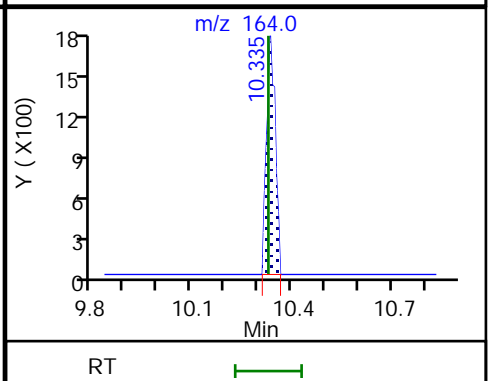
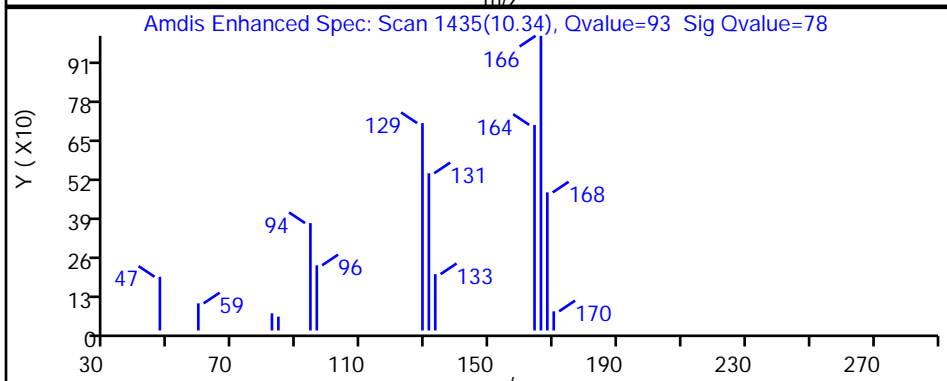
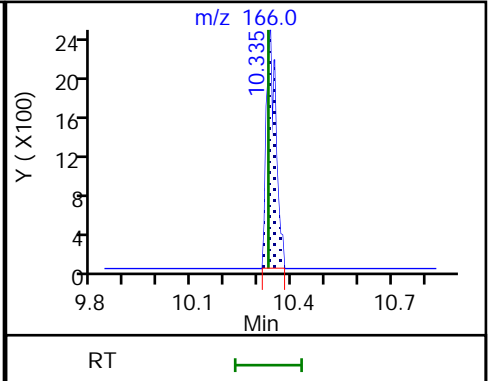
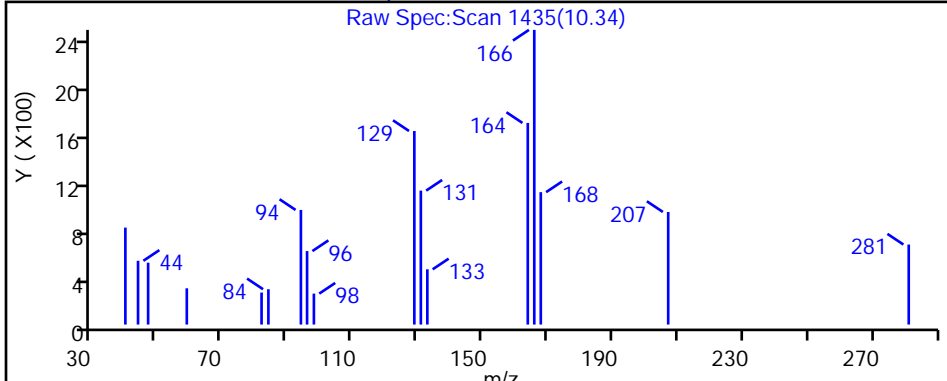
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X10.D

Injection Date: 28-Feb-2022 13:52:30

Instrument ID: 19930

Lims ID: 410-73936-A-2

Lab Sample ID: 410-73936-2

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

Operator ID: KNK41612

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

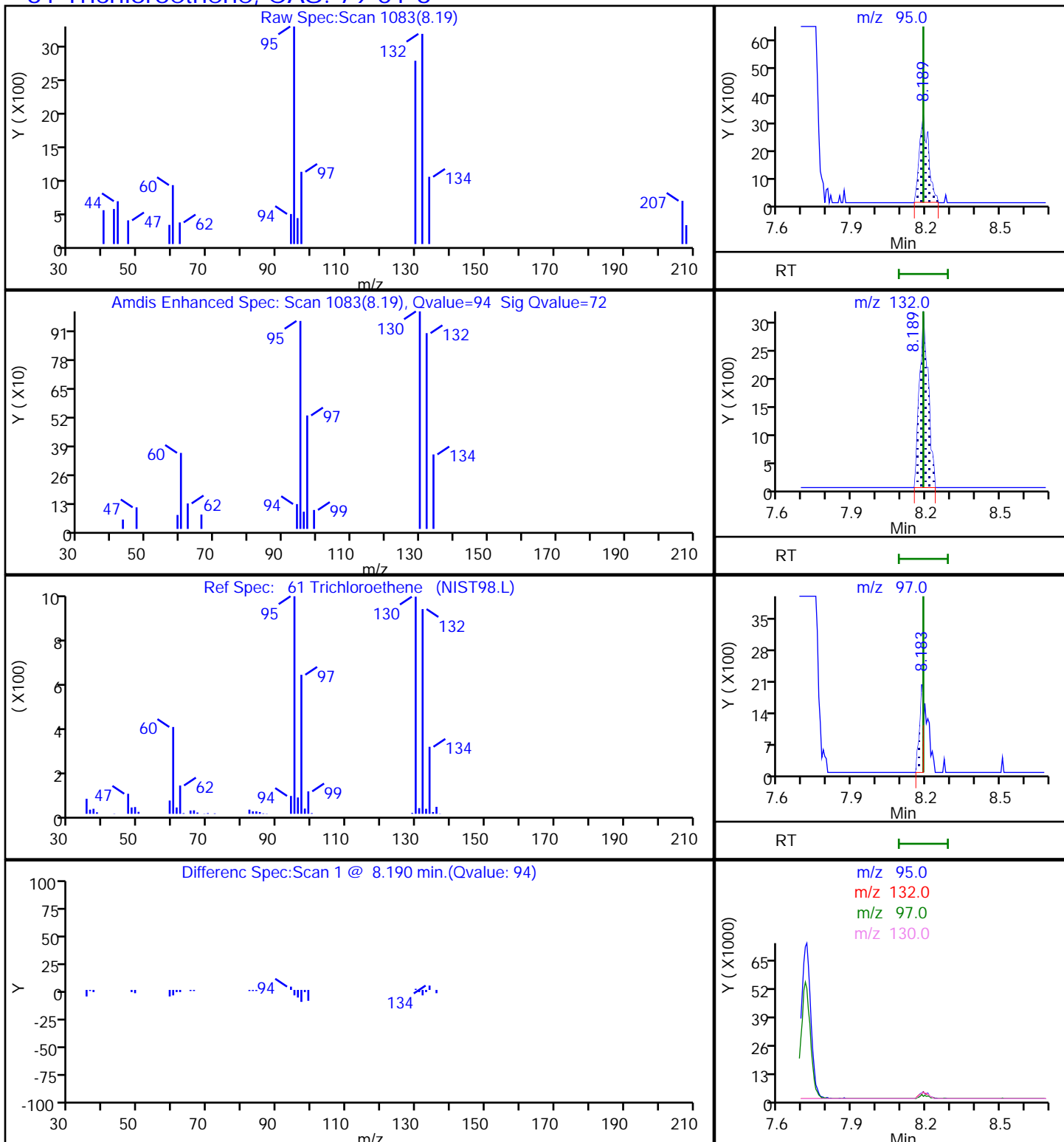
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

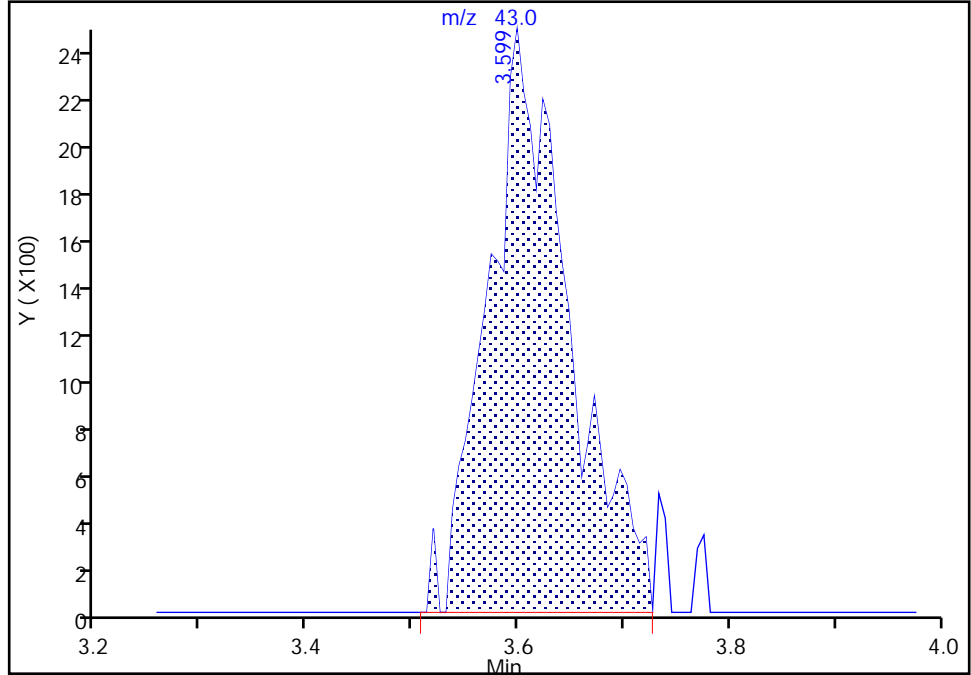
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X10.D
Injection Date: 28-Feb-2022 13:52:30 Instrument ID: 19930
Lims ID: 410-73936-A-2 Lab Sample ID: 410-73936-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: KNK41612 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

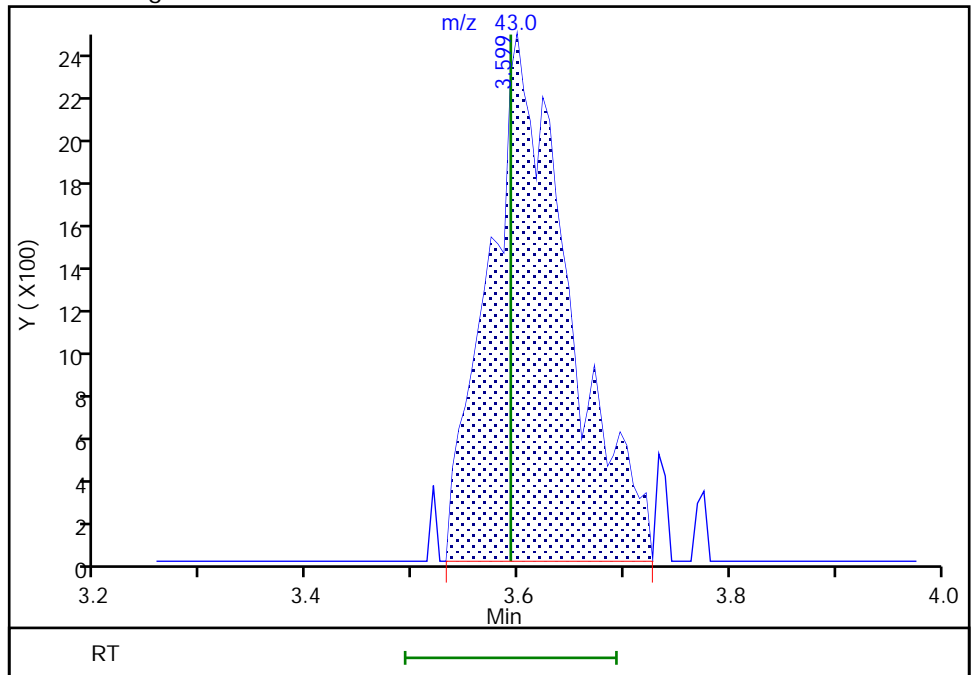
RT: 3.60
Area: 13012
Amount: 1.599259
Amount Units: ug/l

Processing Integration Results



RT: 3.60
Area: 12885
Amount: 1.583650
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 17:00:39
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC

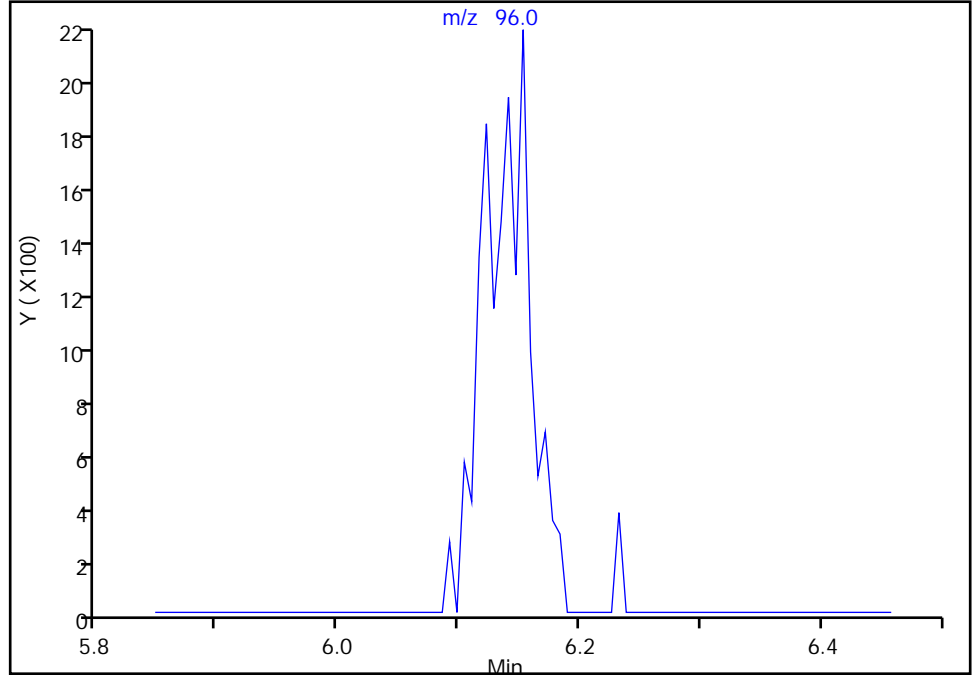
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X10.D
Injection Date: 28-Feb-2022 13:52:30 Instrument ID: 19930
Lims ID: 410-73936-A-2 Lab Sample ID: 410-73936-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: KNK41612 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

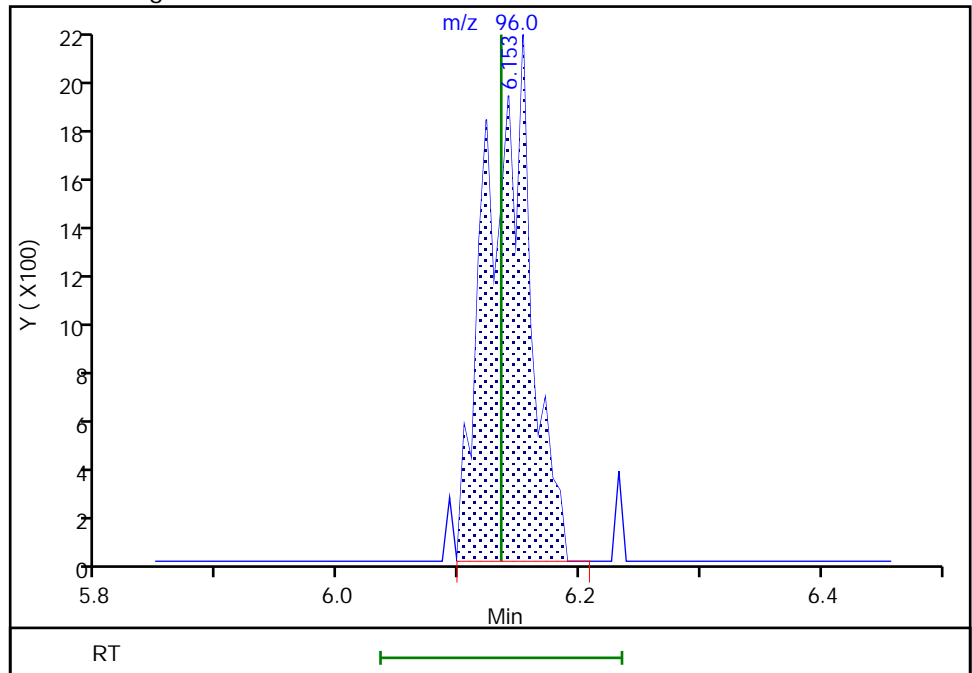
Signal: 1

Not Detected
Expected RT: 6.13

Processing Integration Results



Manual Integration Results



RT: 6.15
Area: 5449
Amount: 0.082904
Amount Units: ug/l

Reviewer: beckerk, 28-Feb-2022 17:00:47
Audit Action: Assigned Compound ID

Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC

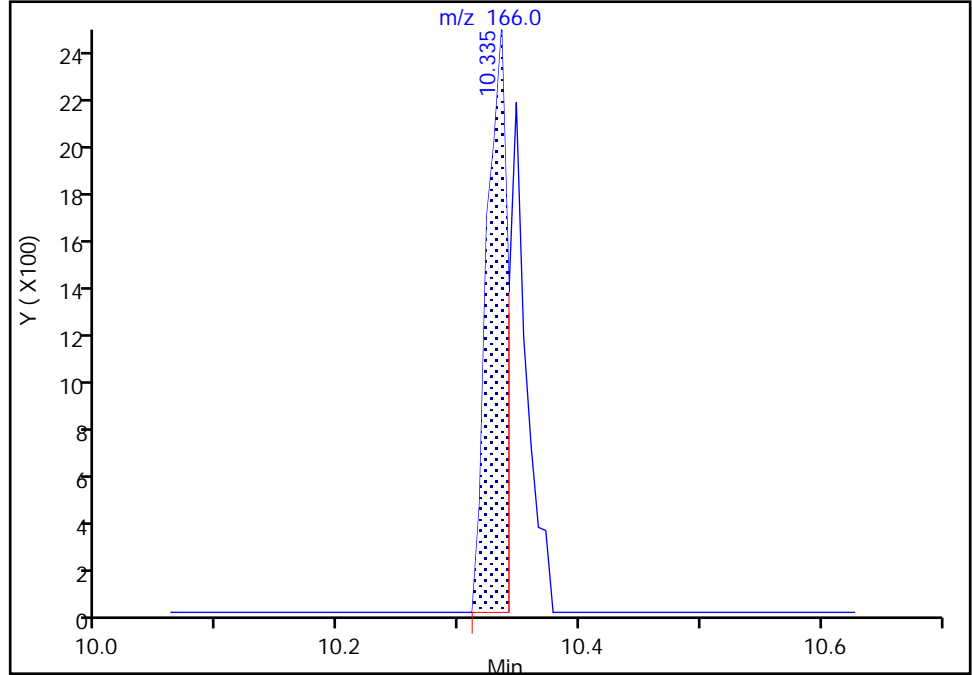
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X10.D
Injection Date: 28-Feb-2022 13:52:30 Instrument ID: 19930
Lims ID: 410-73936-A-2 Lab Sample ID: 410-73936-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: KNK41612 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

81 Tetrachloroethene, CAS: 127-18-4

Signal: 1

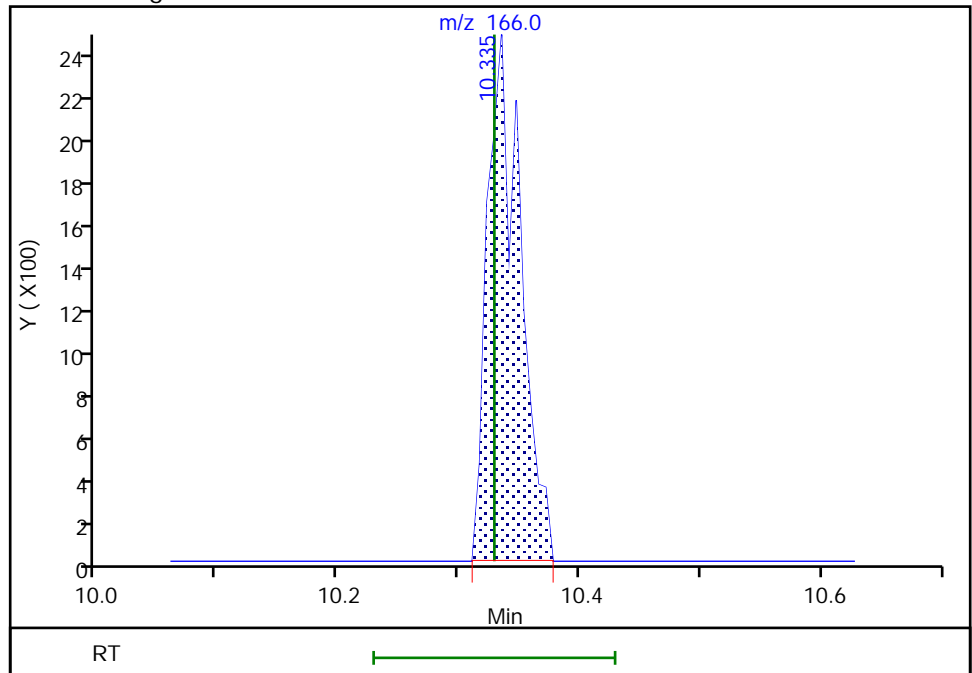
RT: 10.34
Area: 2935
Amount: 0.038569
Amount Units: ug/l

Processing Integration Results



RT: 10.34
Area: 4663
Amount: 0.061276
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 17:18:54
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

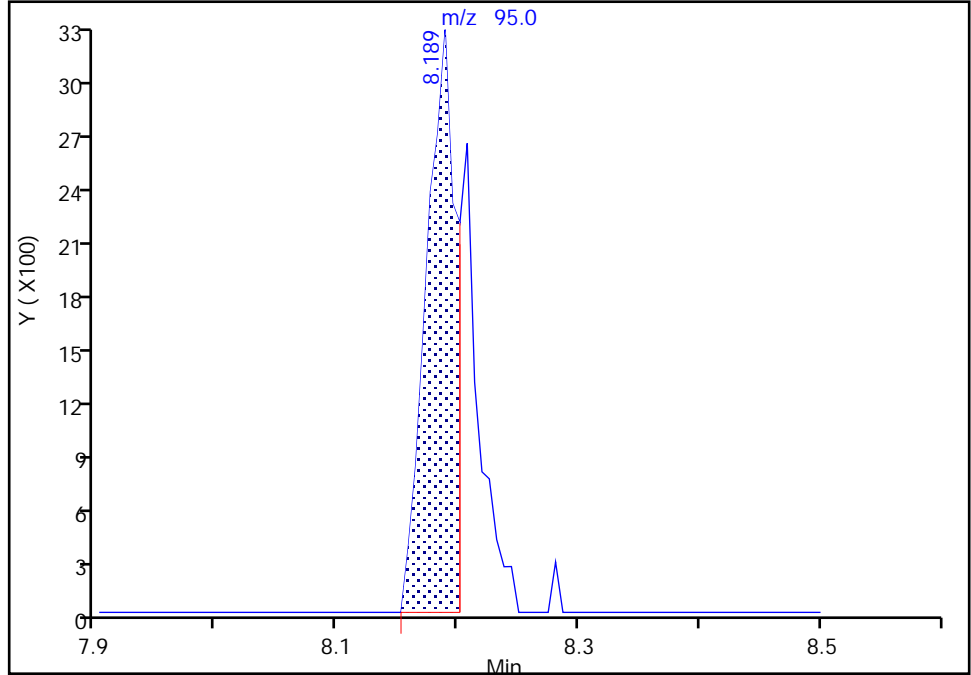
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X10.D
Injection Date: 28-Feb-2022 13:52:30 Instrument ID: 19930
Lims ID: 410-73936-A-2 Lab Sample ID: 410-73936-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: KNK41612 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

61 Trichloroethene, CAS: 79-01-6

Signal: 1

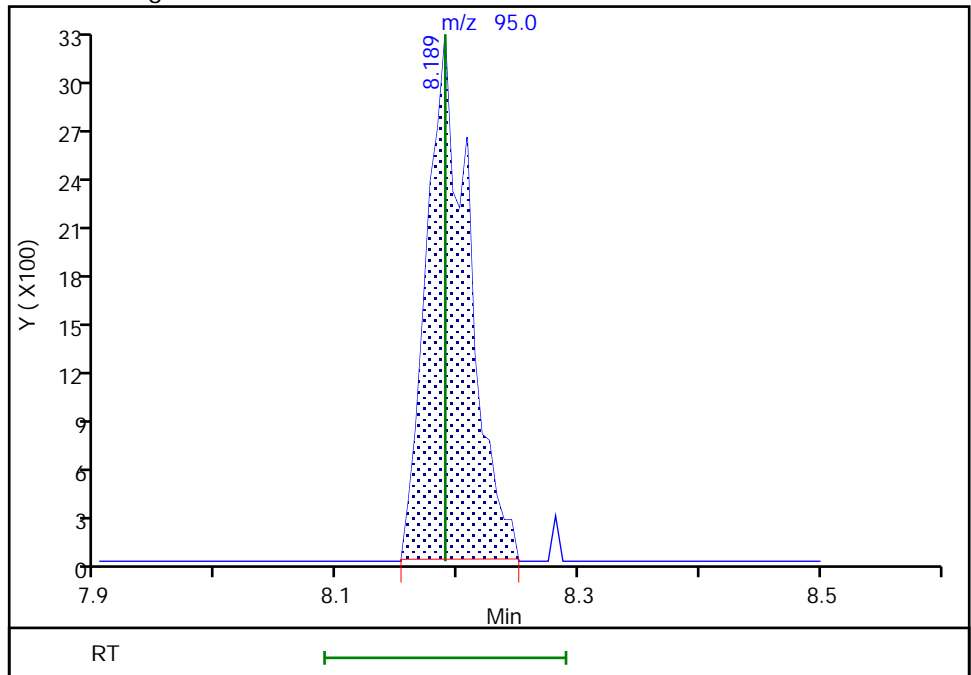
RT: 8.19
Area: 5594
Amount: 0.085060
Amount Units: ug/l

Processing Integration Results



RT: 8.19
Area: 7811
Amount: 0.118770
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 17:01:03
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-73936-3
 Matrix: Water Lab File ID: IF28X11.D
 Analysis Method: 8260D Date Collected: 02/22/2022 08:55
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 14:13
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.9	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.12	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.43	J cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-73936-3
 Matrix: Water Lab File ID: IF28X11.D
 Analysis Method: 8260D Date Collected: 02/22/2022 08:55
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 14:13
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.13	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	89	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	97	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X11.D
 Lims ID: 410-73936-A-3
 Client ID: HD-COD-SW-8-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 14:13:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-012
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:20:03

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	7
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.605	3.593	0.012	93	16090	1.89	M
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.263	0.006	24	152861	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.141	6.135	0.006	73	8004	0.1216	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.616	6.610	0.006	10	3510	0.0331	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	534272	9.73	
47 1,1,1-Trichloroethane	97		6.836				ND	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	67	110312	10.0	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2179274	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	96	8733	0.1326	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	93	2156372	10.0	
76 Toluene	92	9.786	9.787	0.000	97	5127	0.0322	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	97	32452	0.4274	
83 2-Hexanone	43		10.451				ND	7
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1662418	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	95	734136	8.94	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	832688	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X11.D

Injection Date: 28-Feb-2022 14:13:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-3

Lab Sample ID: 410-73936-3

Worklist Smp#: 12

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

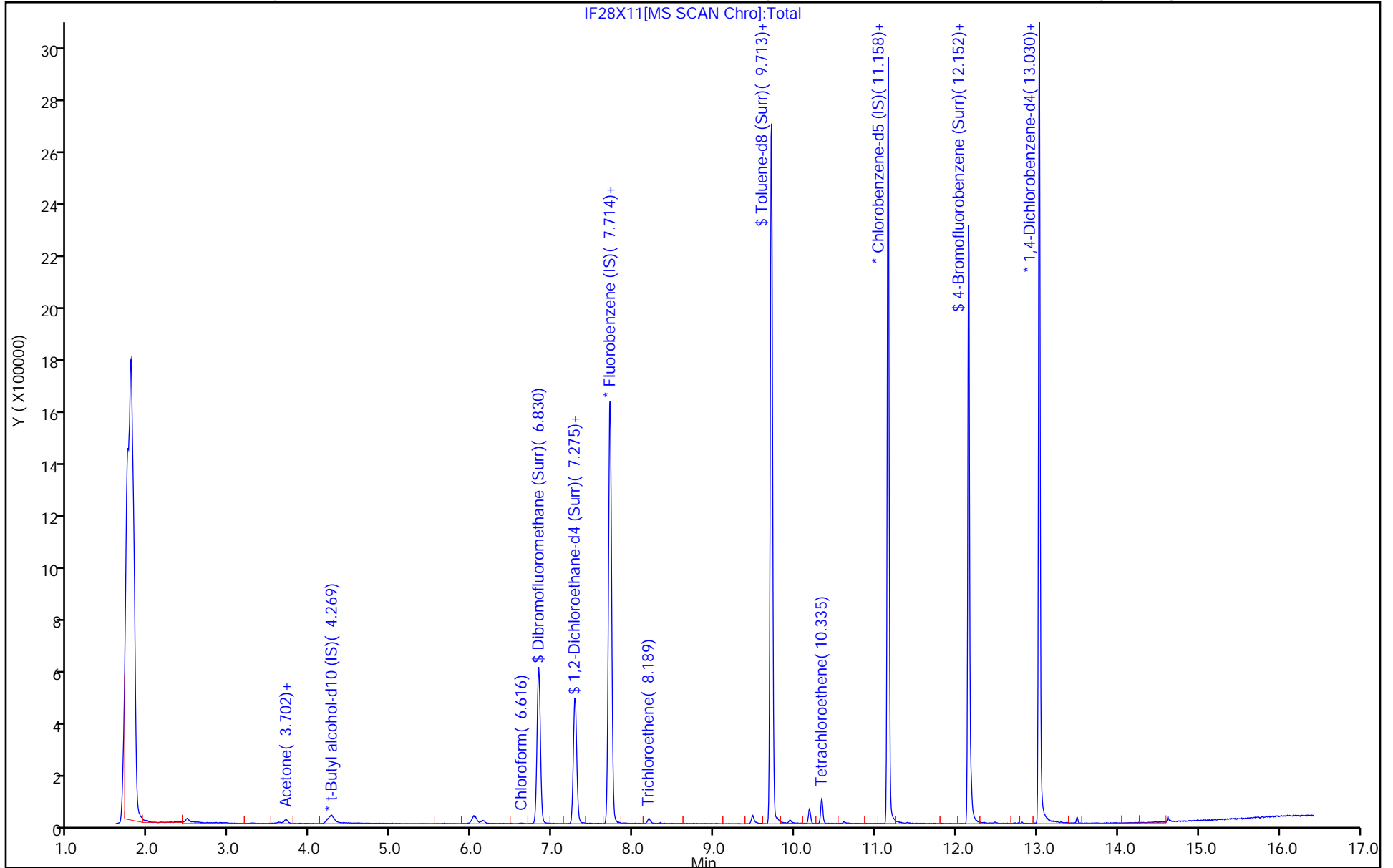
ALS Bottle#: 11

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 Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X11.D
 Lims ID: 410-73936-A-3
 Client ID: HD-COD-SW-8-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 14:13:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-012
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:20:03

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.73	97.32
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.44
\$ 75 Toluene-d8 (Surr)	10.0	10.0	100.37
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.94	89.41

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X11.D

Injection Date: 28-Feb-2022 14:13:30

Instrument ID: 19930

Lims ID: 410-73936-A-3

Lab Sample ID: 410-73936-3

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

Operator ID: KNK41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

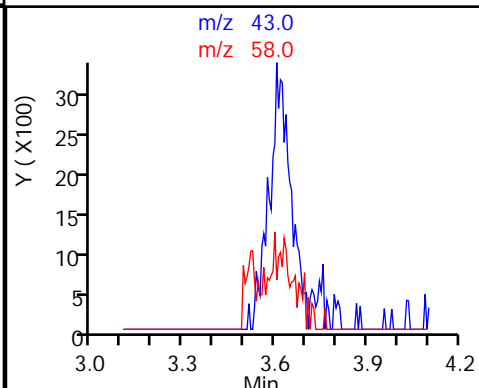
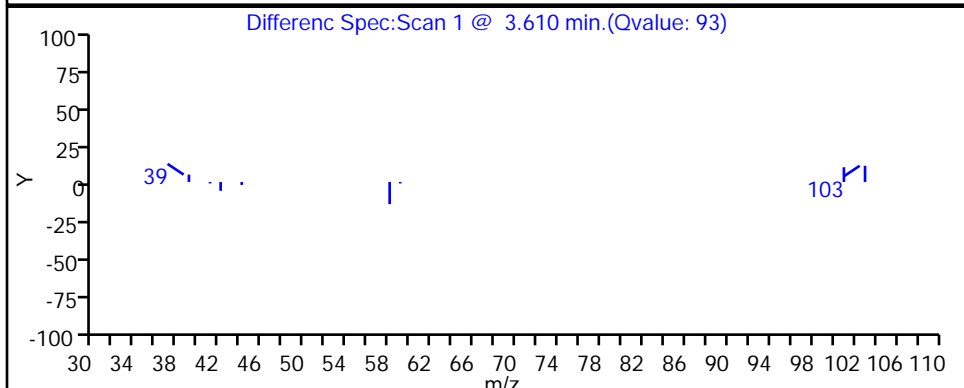
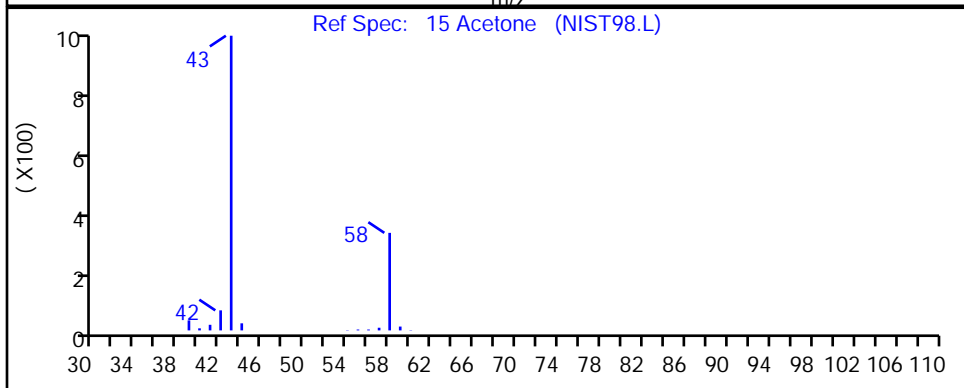
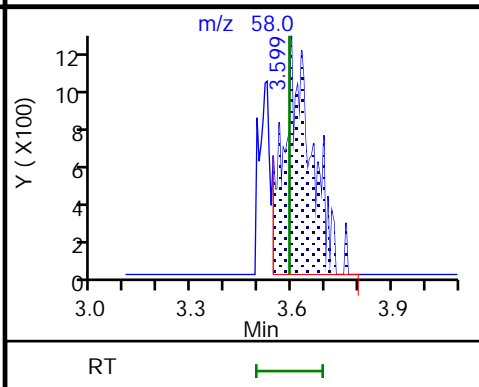
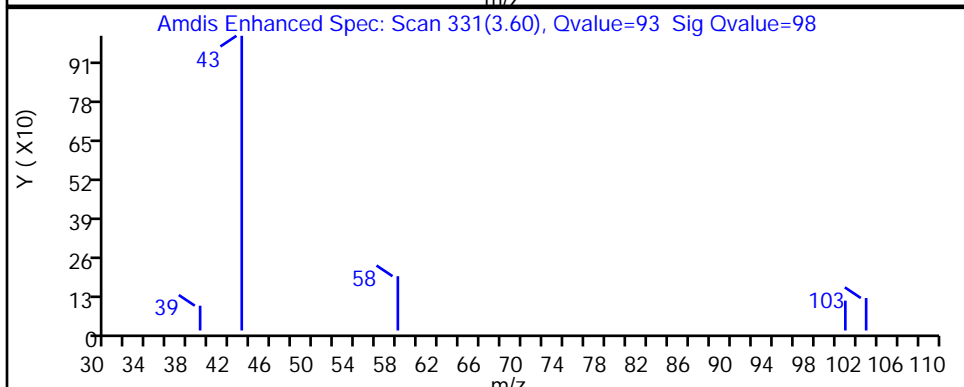
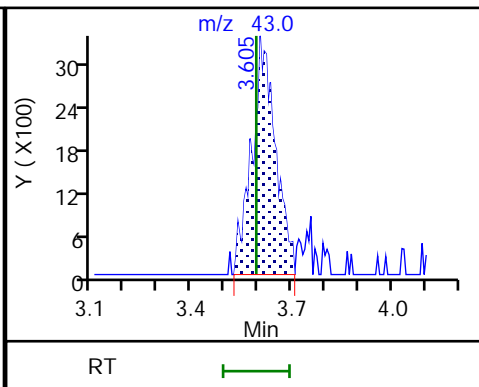
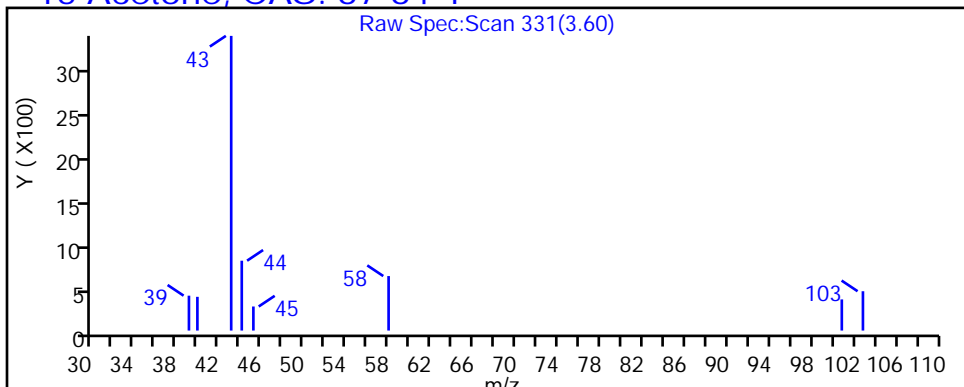
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X11.D

Injection Date: 28-Feb-2022 14:13:30

Instrument ID: 19930

Lims ID: 410-73936-A-3

Lab Sample ID: 410-73936-3

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

Operator ID: KNK41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

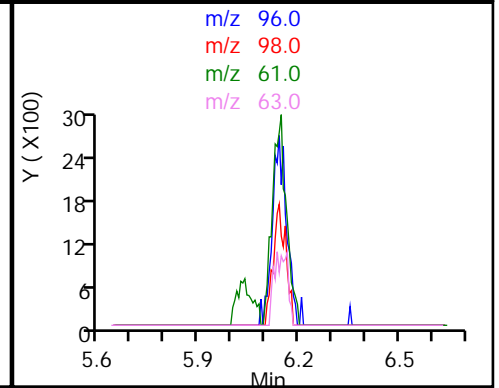
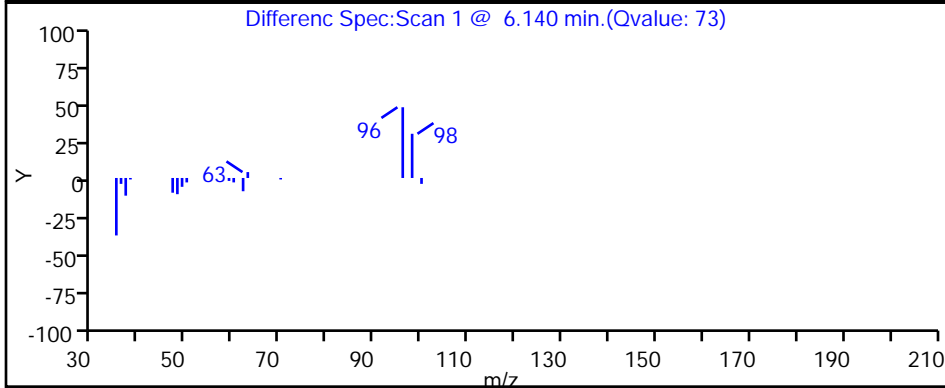
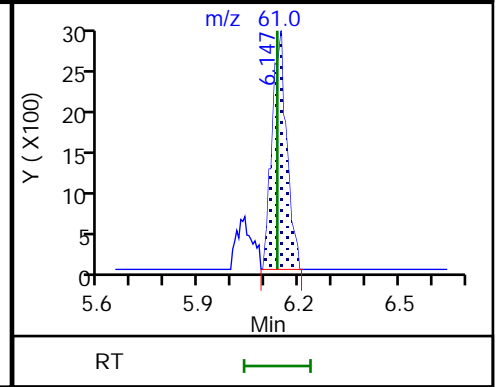
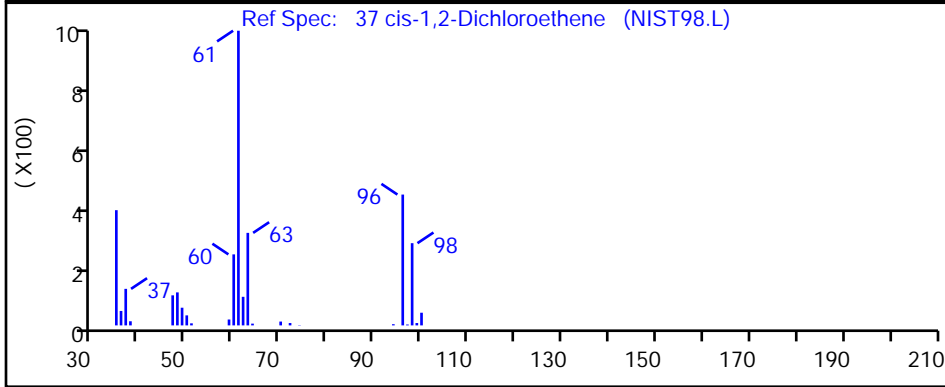
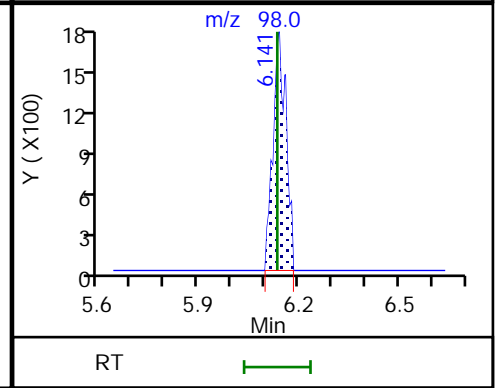
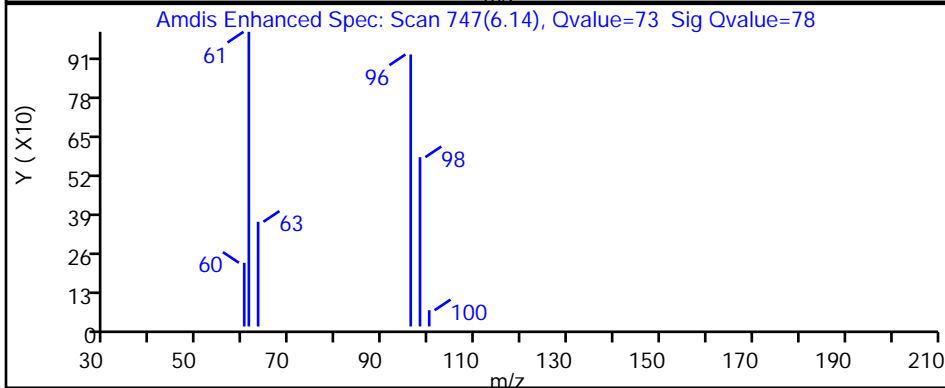
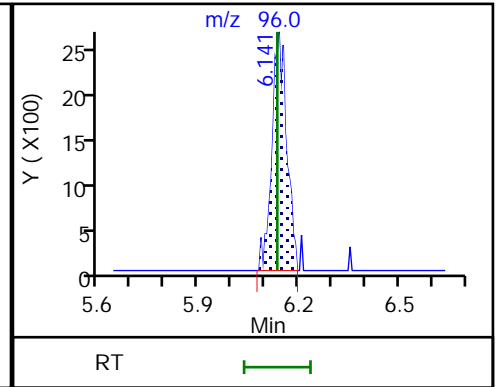
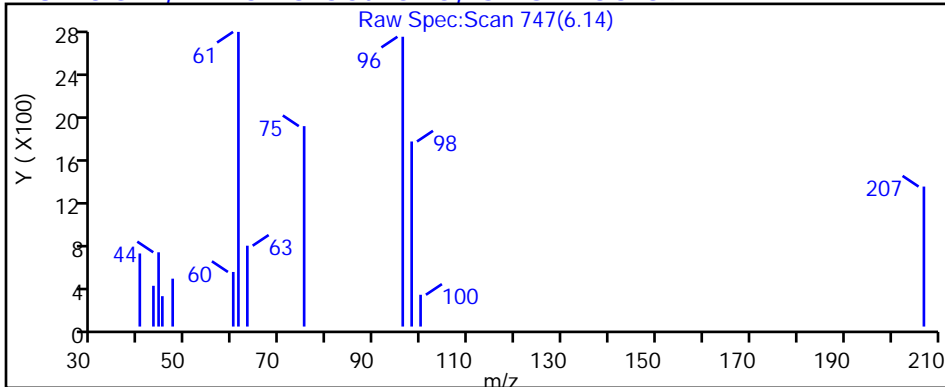
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X11.D

Injection Date: 28-Feb-2022 14:13:30

Instrument ID: 19930

Lims ID: 410-73936-A-3

Lab Sample ID: 410-73936-3

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

Operator ID: KNK41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

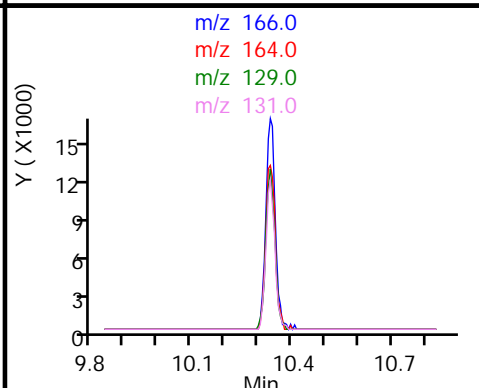
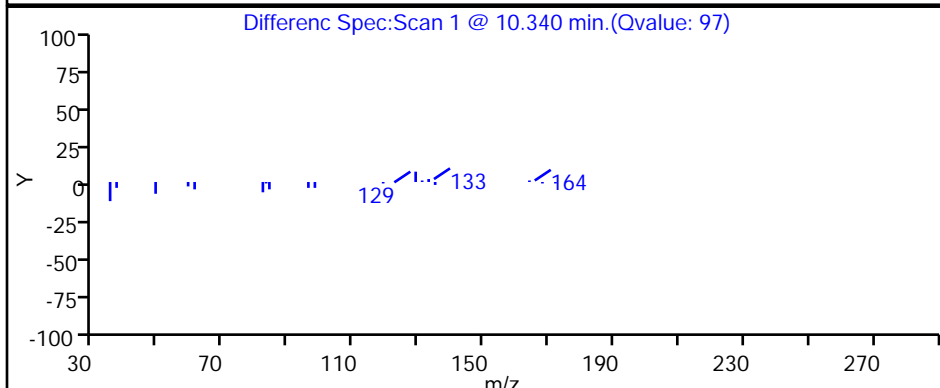
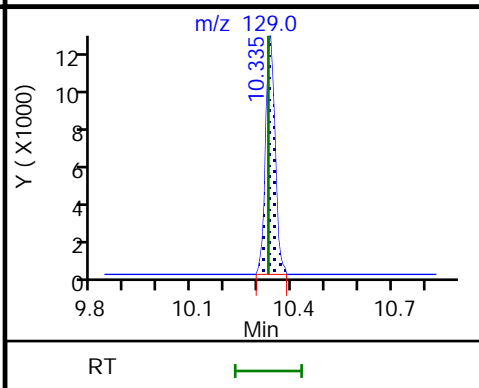
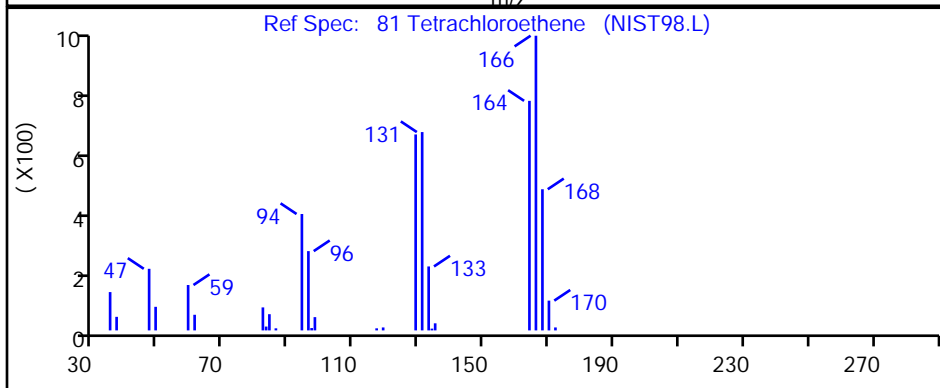
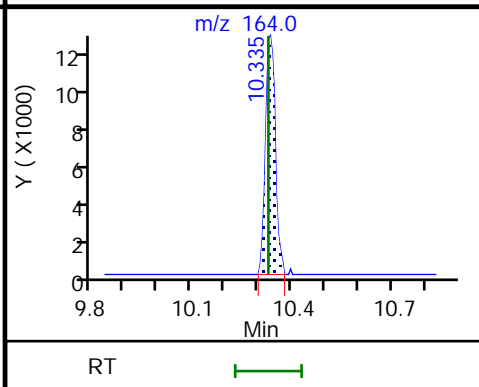
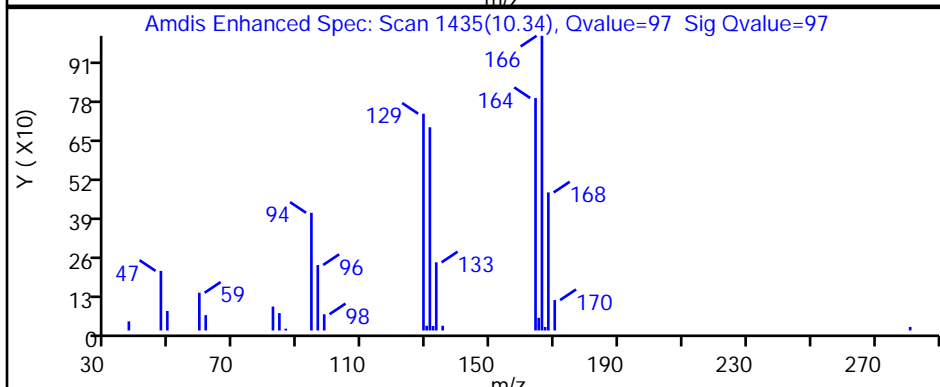
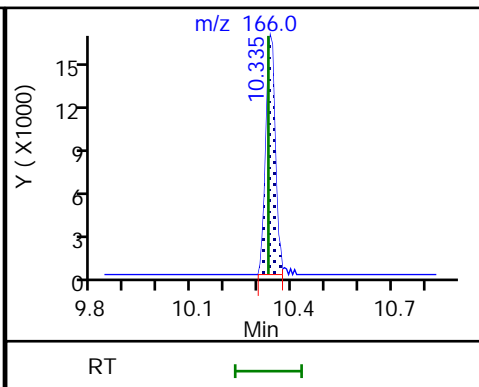
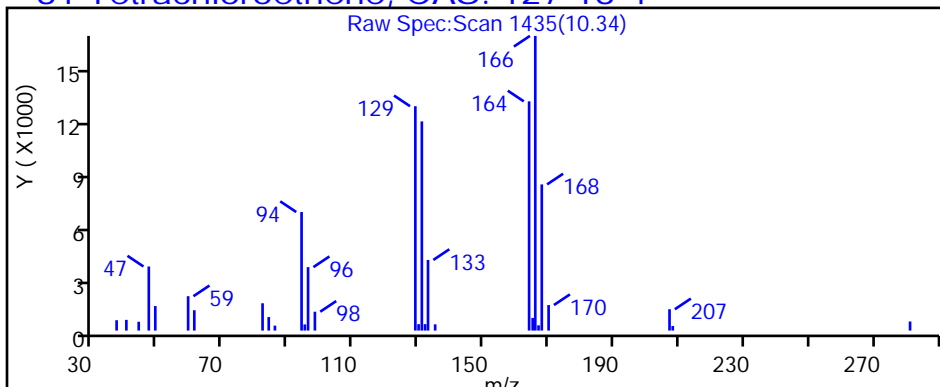
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

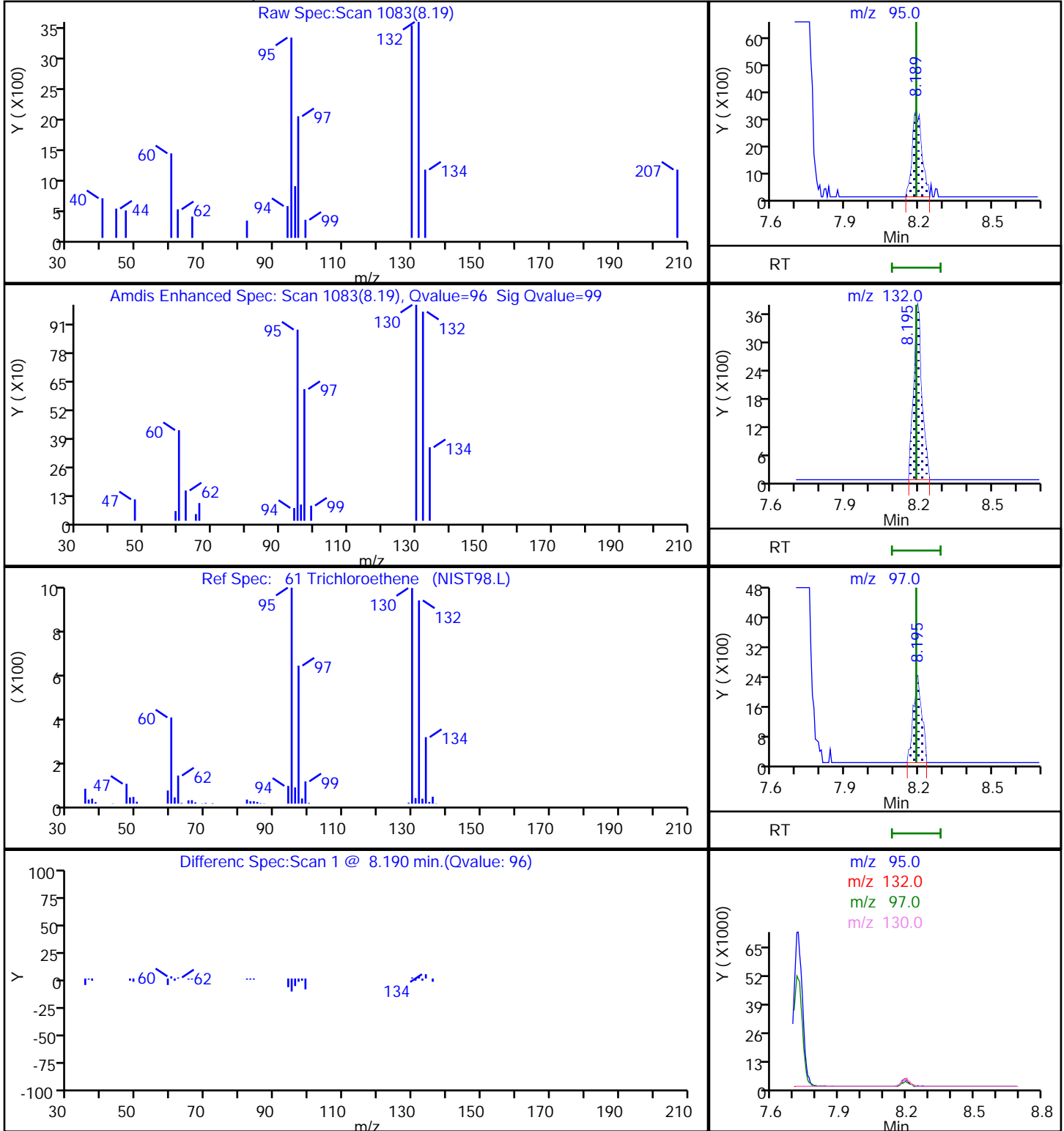
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X11.D
Injection Date: 28-Feb-2022 14:13:30 Instrument ID: 19930
Lims ID: 410-73936-A-3 Lab Sample ID: 410-73936-3
Client ID: HD-COD-SW-8-0/1-0
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) MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

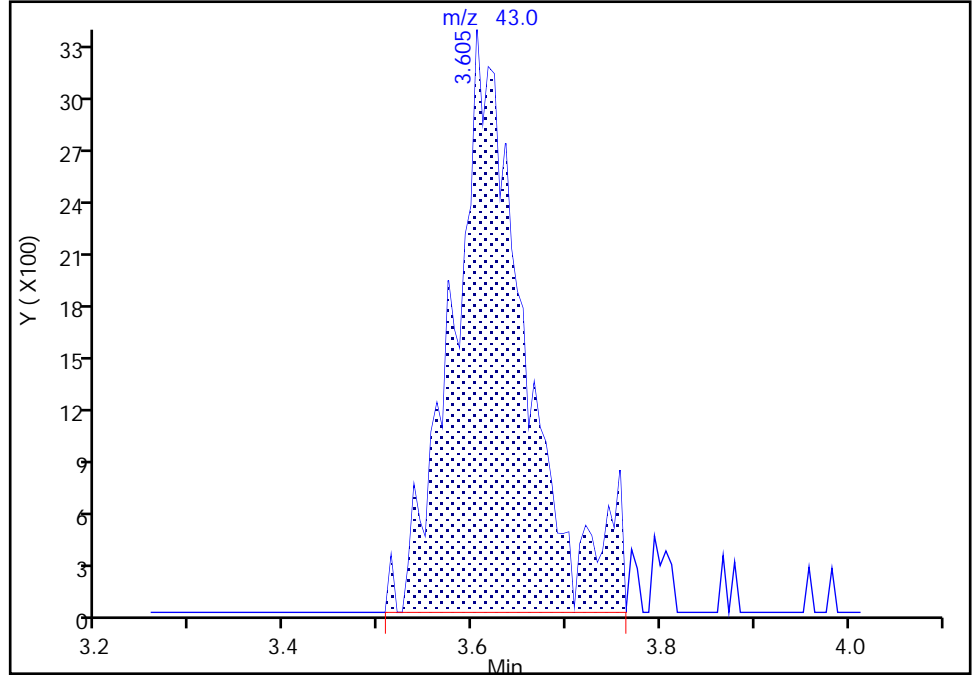
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\VF28X11.D
Injection Date: 28-Feb-2022 14:13:30 Instrument ID: 19930
Lims ID: 410-73936-A-3 Lab Sample ID: 410-73936-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: KNK41612 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

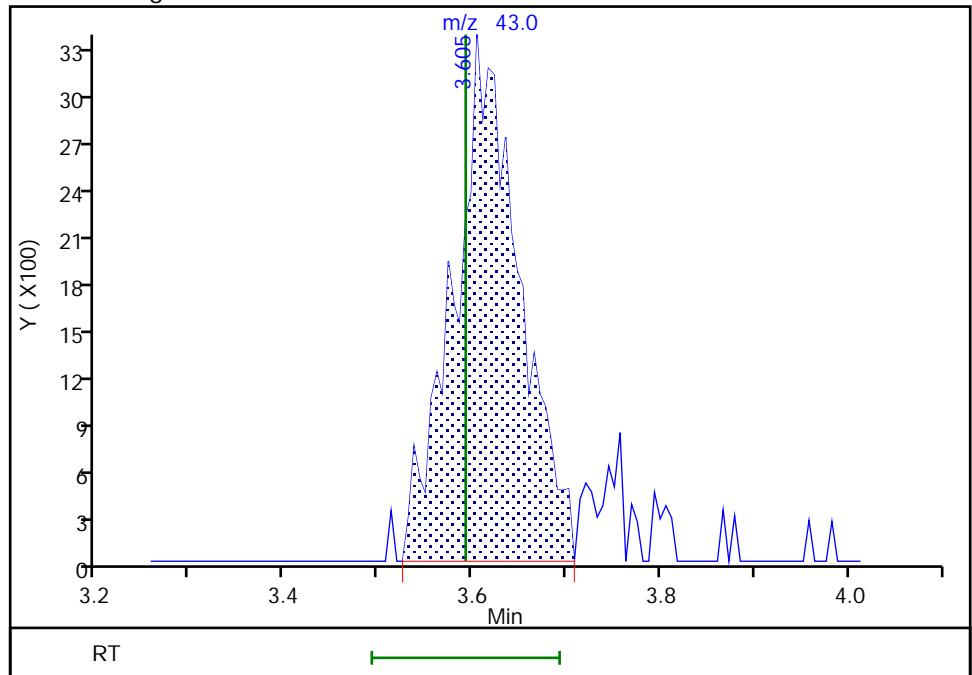
RT: 3.60
Area: 17610
Amount: 2.073778
Amount Units: ug/l

Processing Integration Results



RT: 3.60
Area: 16090
Amount: 1.894781
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 17:19:44
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-73936-4
 Matrix: Water Lab File ID: IF28X12.D
 Analysis Method: 8260D Date Collected: 02/22/2022 12:05
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 14:34
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.7	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.21	J cn	0.50	0.060
108-88-3	Toluene	0.082	J cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-73936-4
 Matrix: Water Lab File ID: IF28X12.D
 Analysis Method: 8260D Date Collected: 02/22/2022 12:05
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 14:34
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.11	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	88	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	97	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D
 Lims ID: 410-73936-A-4
 Client ID: HD-COD-SW-9-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 14:34:30 ALS Bottle#: 12 Worklist Smp#: 13
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-013
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk Date: 28-Feb-2022 17:20:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	7
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.605	3.593	0.012	83	16822	1.69	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.263	0.000	26	178825	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	76	7164	0.1115	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.610	6.610	0.000	92	9226	0.0890	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	520772	9.71	
47 1,1,1-Trichloroethane	97		6.836				ND	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	67	113925	10.6	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2128356	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	94	7284	0.1133	M
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2127406	9.99	
76 Toluene	92	9.786	9.787	0.000	96	12911	0.0817	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	95	15547	0.2066	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1648048	10.0	
90 Chlorobenzene	112		11.183				ND	7
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	715002	8.78	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	828201	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D

Injection Date: 28-Feb-2022 14:34:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-4

Lab Sample ID: 410-73936-4

Worklist Smp#: 13

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

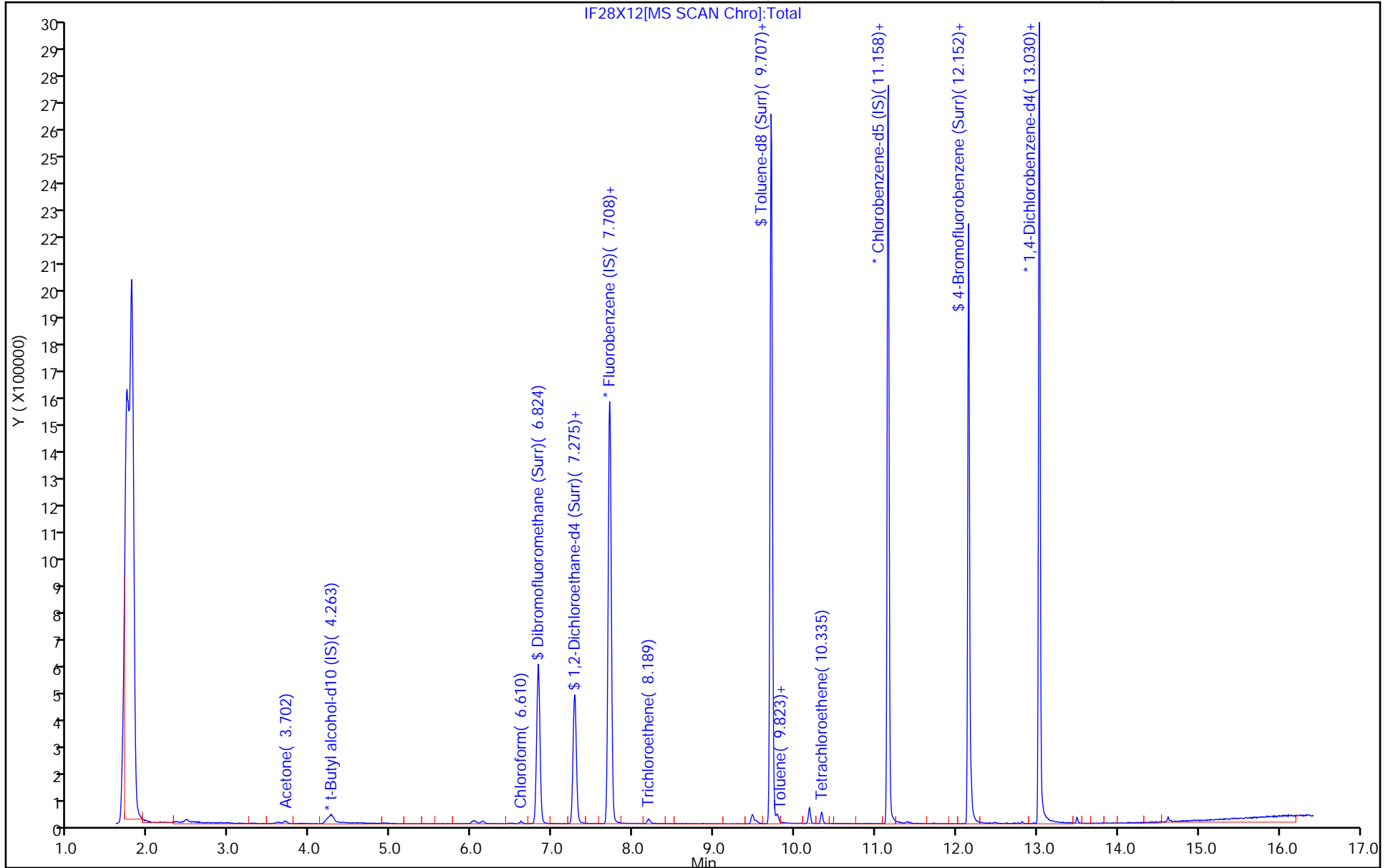
ALS Bottle#: 12

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 Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D
 Lims ID: 410-73936-A-4
 Client ID: HD-COD-SW-9-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 14:34:30 ALS Bottle#: 12 Worklist Smp#: 13
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-013
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:20:41

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.71	97.13
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.22
\$ 75 Toluene-d8 (Surr)	10.0	9.99	99.89
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.78	87.84

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D

Injection Date: 28-Feb-2022 14:34:30

Instrument ID: 19930

Lims ID: 410-73936-A-4

Lab Sample ID: 410-73936-4

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

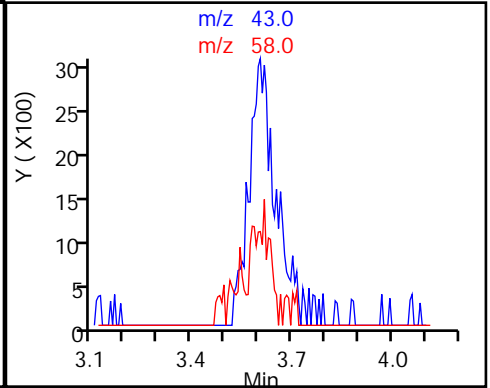
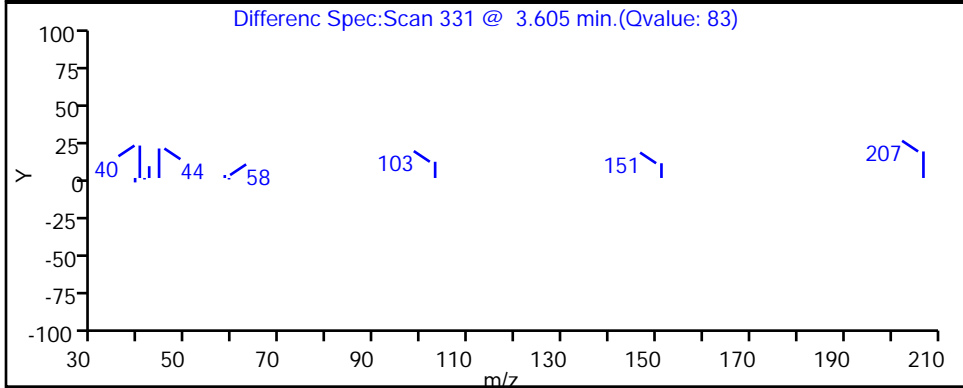
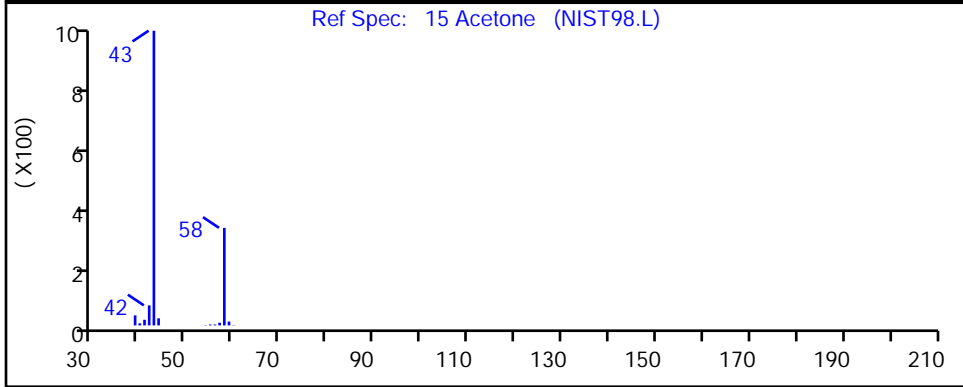
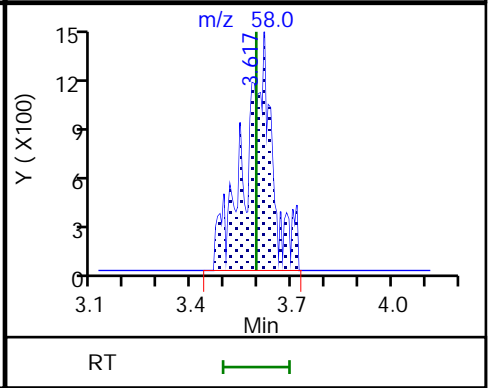
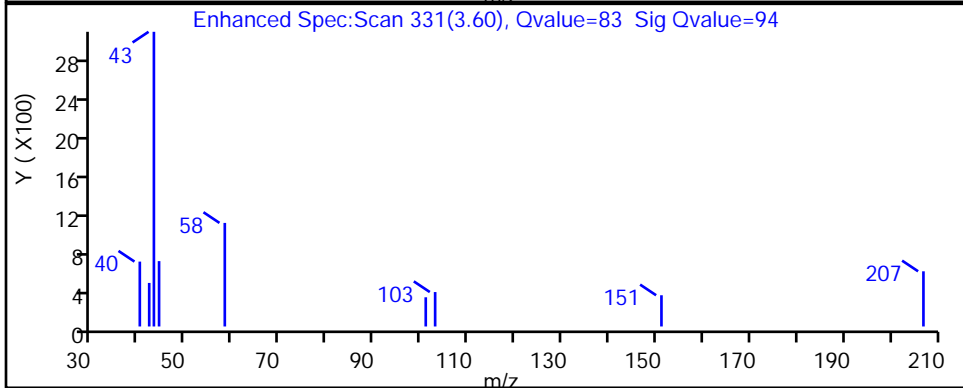
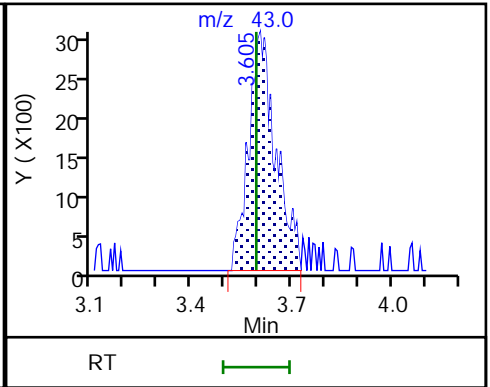
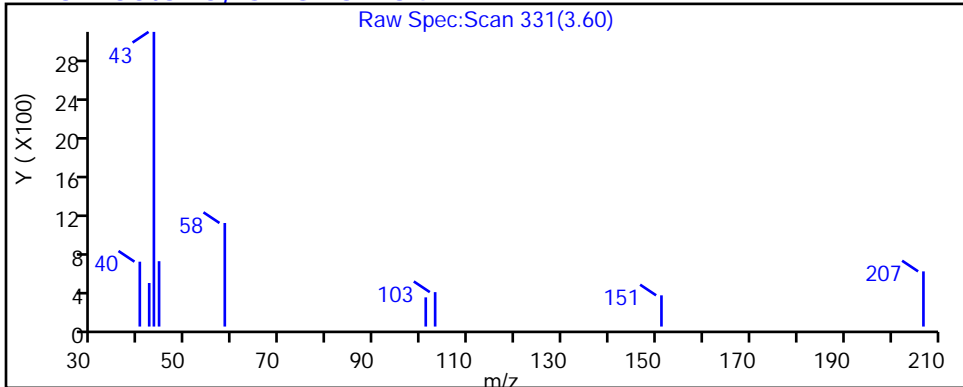
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D

Injection Date: 28-Feb-2022 14:34:30

Instrument ID: 19930

Lims ID: 410-73936-A-4

Lab Sample ID: 410-73936-4

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

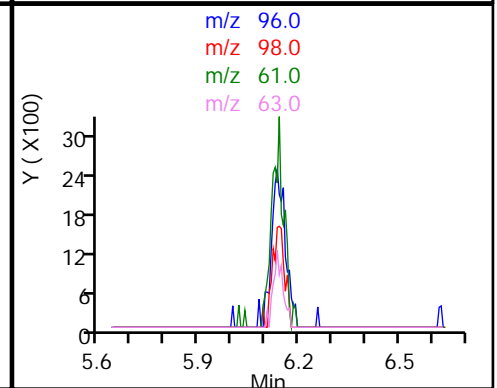
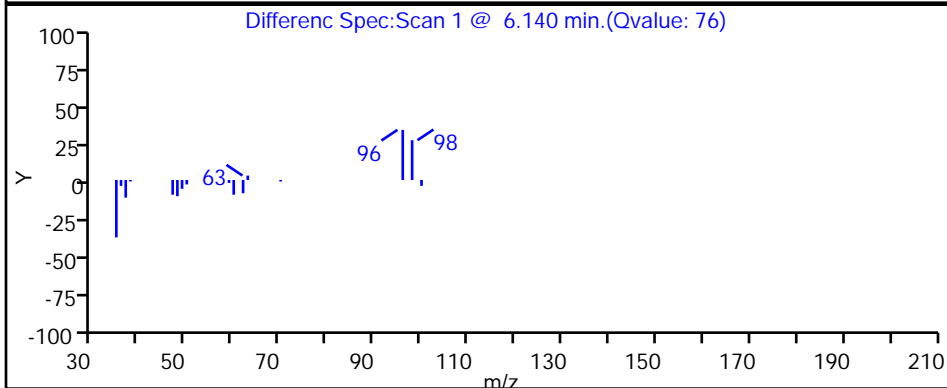
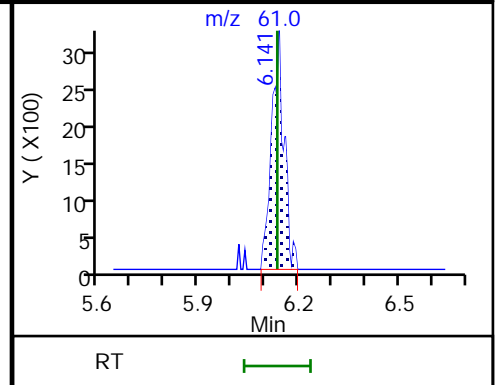
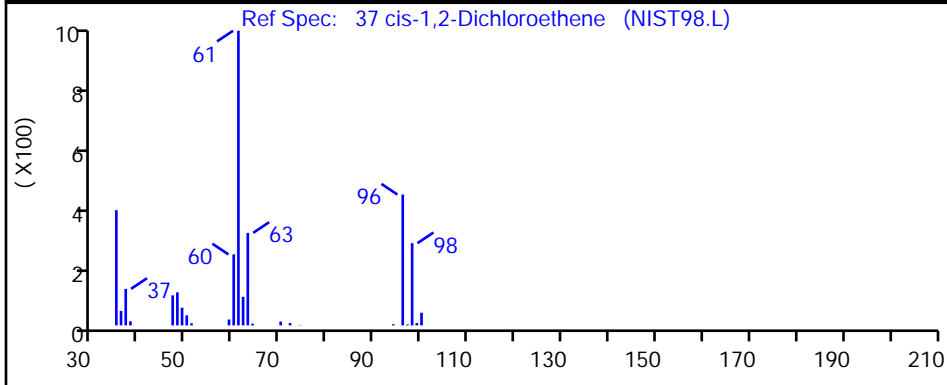
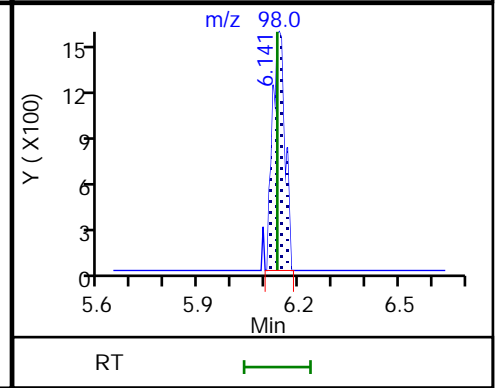
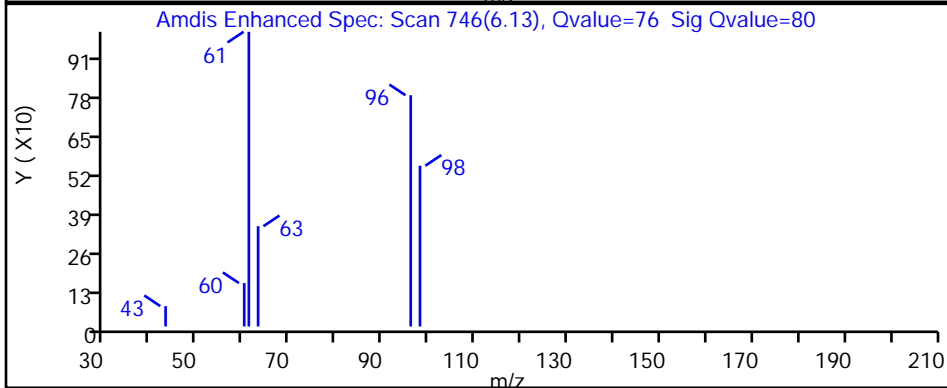
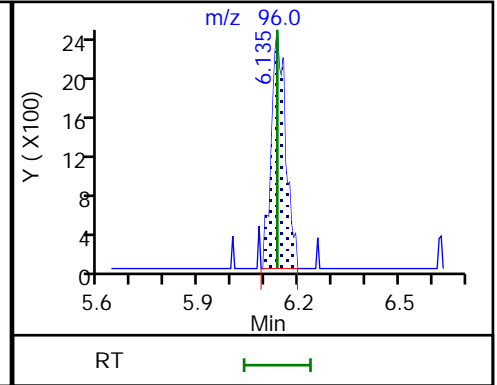
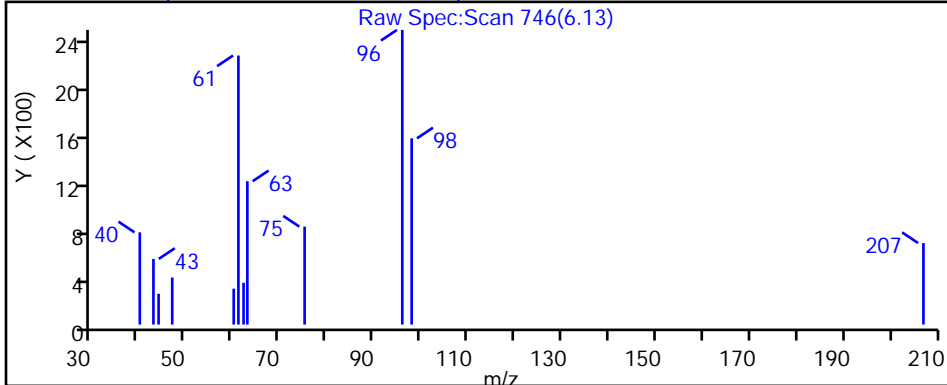
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D

Injection Date: 28-Feb-2022 14:34:30

Instrument ID: 19930

Lims ID: 410-73936-A-4

Lab Sample ID: 410-73936-4

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

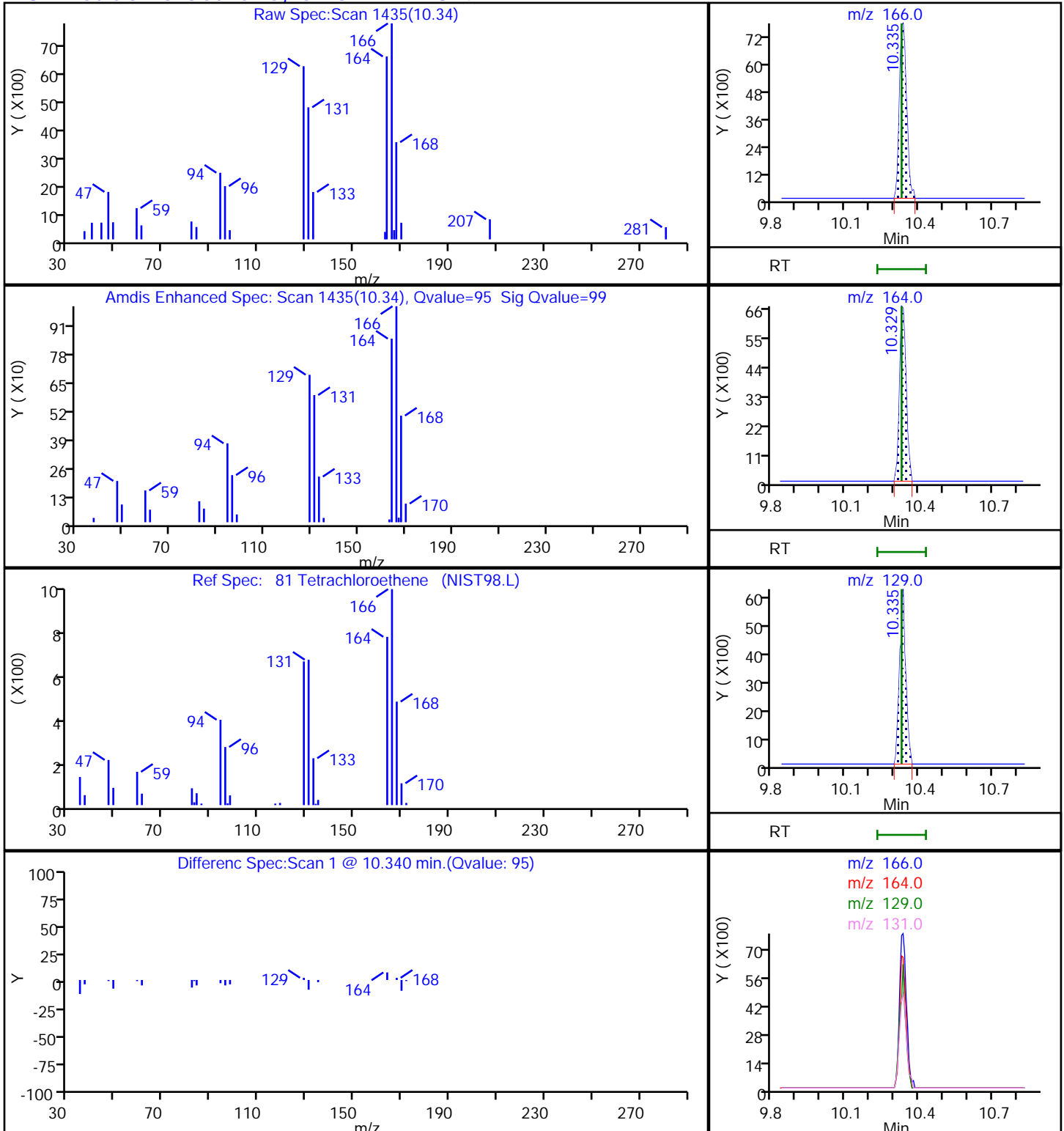
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D

Injection Date: 28-Feb-2022 14:34:30

Instrument ID: 19930

Lims ID: 410-73936-A-4

Lab Sample ID: 410-73936-4

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

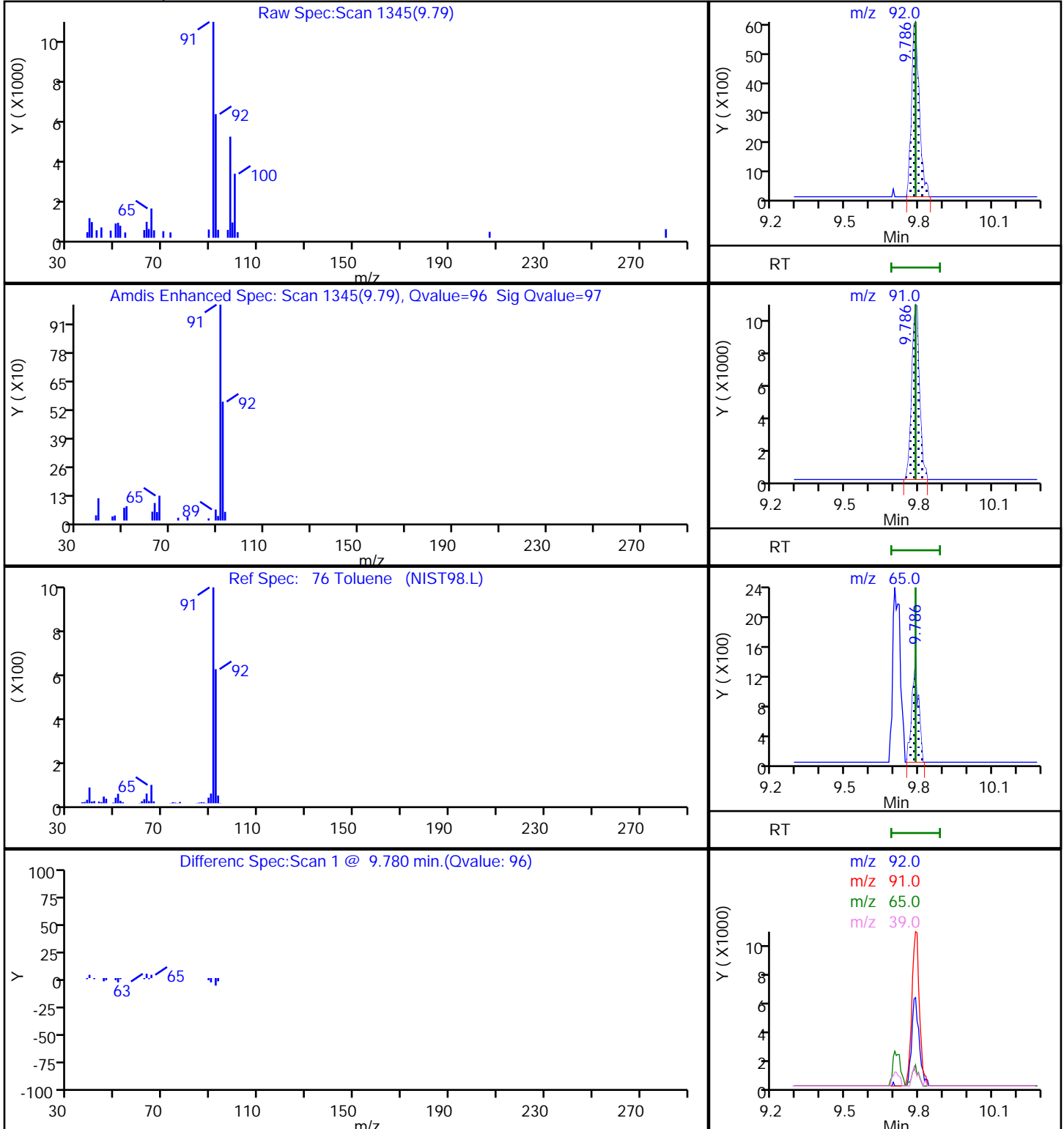
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

76 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D

Injection Date: 28-Feb-2022 14:34:30

Instrument ID: 19930

Lims ID: 410-73936-A-4

Lab Sample ID: 410-73936-4

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

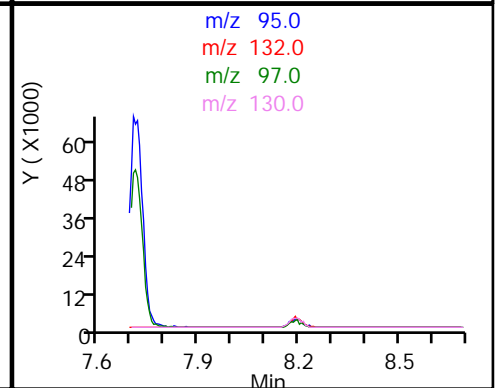
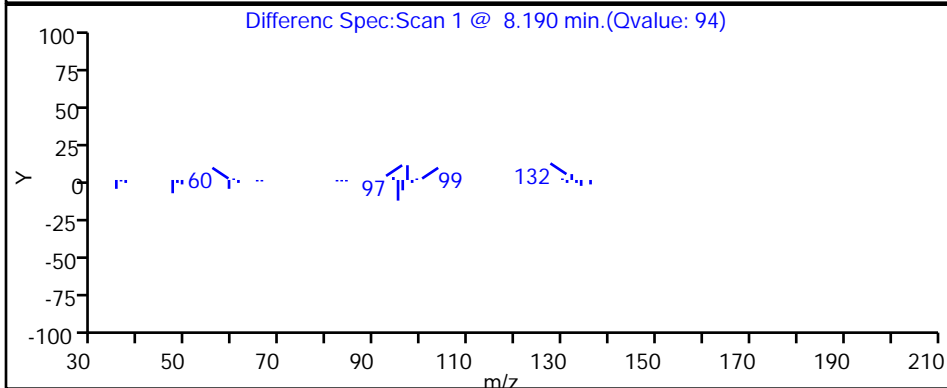
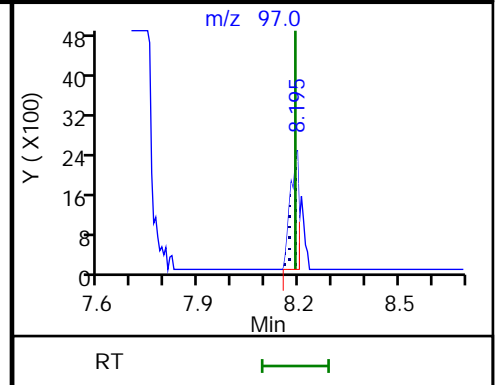
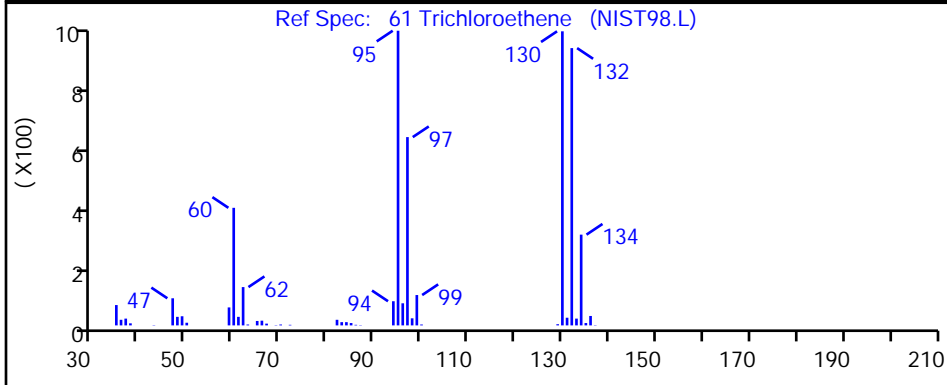
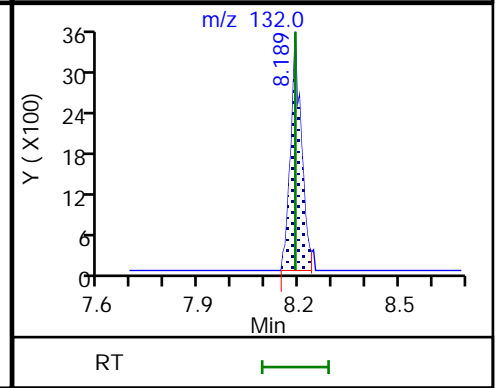
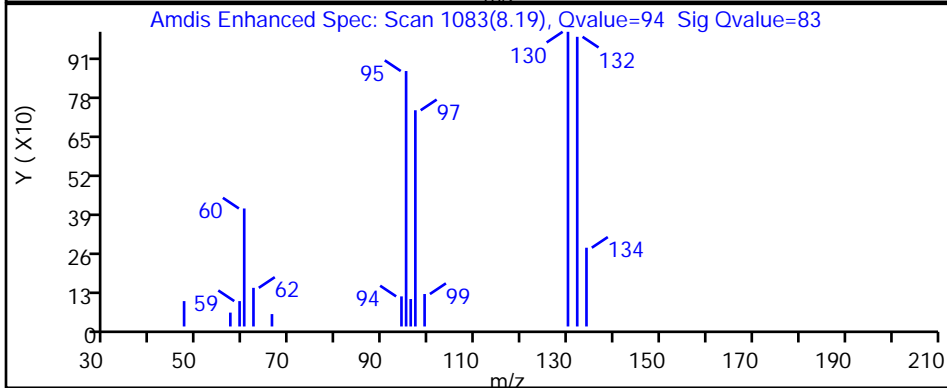
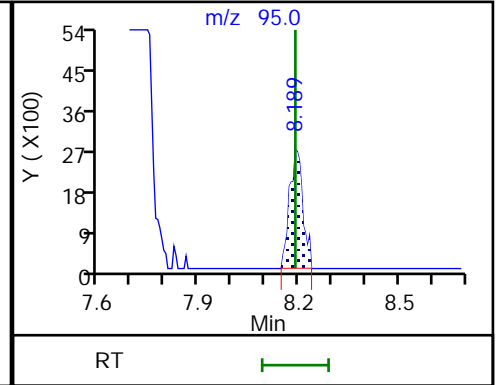
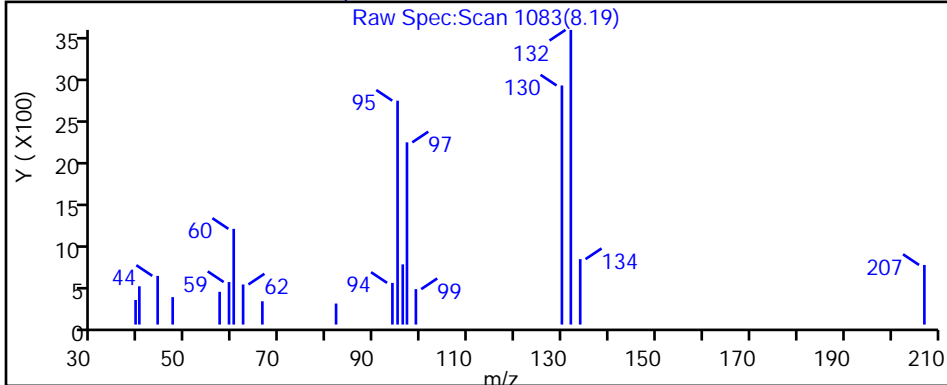
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

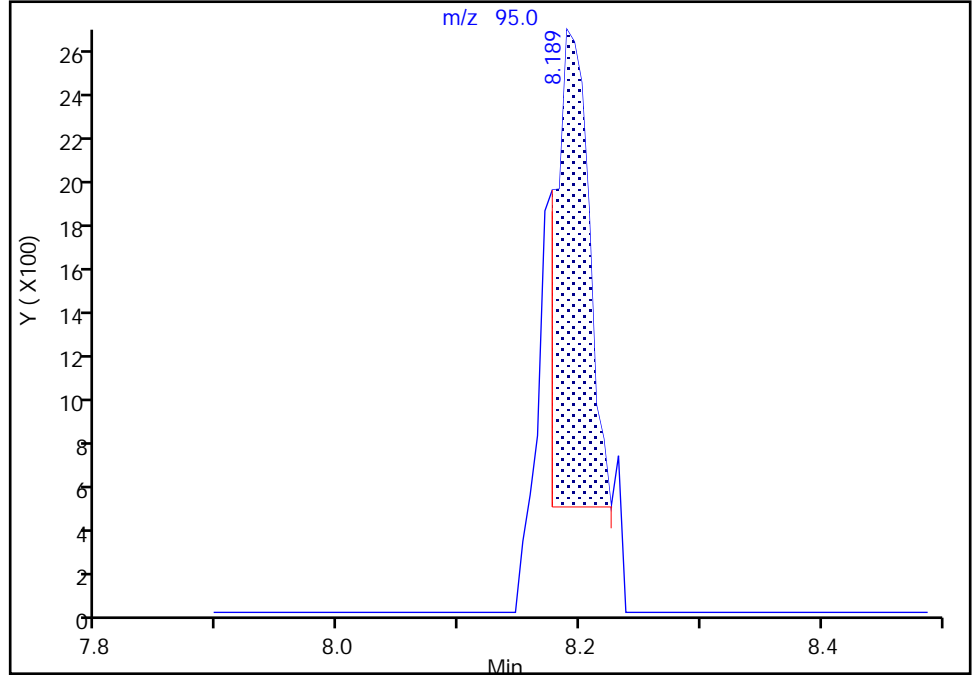
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X12.D
Injection Date: 28-Feb-2022 14:34:30 Instrument ID: 19930
Lims ID: 410-73936-A-4 Lab Sample ID: 410-73936-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: KNK41612 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

61 Trichloroethene, CAS: 79-01-6

Signal: 1

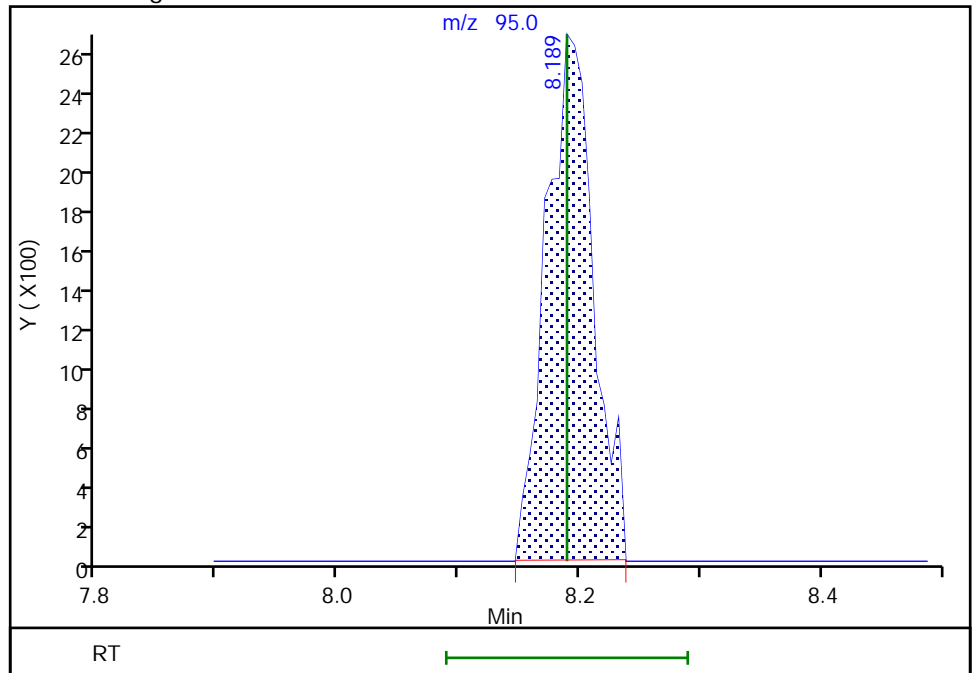
RT: 8.19
Area: 4164
Amount: 0.064746
Amount Units: ug/l

Processing Integration Results



RT: 8.19
Area: 7284
Amount: 0.113258
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 17:20:30
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-73936-5
 Matrix: Water Lab File ID: IF28X13.D
 Analysis Method: 8260D Date Collected: 02/22/2022 09:15
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 14:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	2.0	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.50	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-73936-5
 Matrix: Water Lab File ID: IF28X13.D
 Analysis Method: 8260D Date Collected: 02/22/2022 09:15
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 14:55
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.13	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	89	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	98	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X13.D
 Lims ID: 410-73936-A-5
 Client ID: HD-COD-SW-13-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 14:55:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-014
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:21:06

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	7
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.599	3.593	0.006	99	16689	1.97	
19 Carbon disulfide	76	3.879	3.873	0.006	63	5356	0.0381	
23 Methylene Chloride	84		4.239				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	25	152445	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	U
37 cis-1,2-Dichloroethene	96	6.141	6.135	0.006	77	7313	0.1134	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.616	6.610	0.006	84	3309	0.0318	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	525879	9.77	
47 1,1,1-Trichloroethane	97		6.836				ND	7
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	109329	10.2	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2136044	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	92	8444	0.1308	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2120275	9.98	
76 Toluene	92	9.780	9.787	-0.006	99	4602	0.0292	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	95	37268	0.4964	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1643747	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	724024	8.92	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	807717	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X13.D

Injection Date: 28-Feb-2022 14:55:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-5

Lab Sample ID: 410-73936-5

Worklist Smp#: 14

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

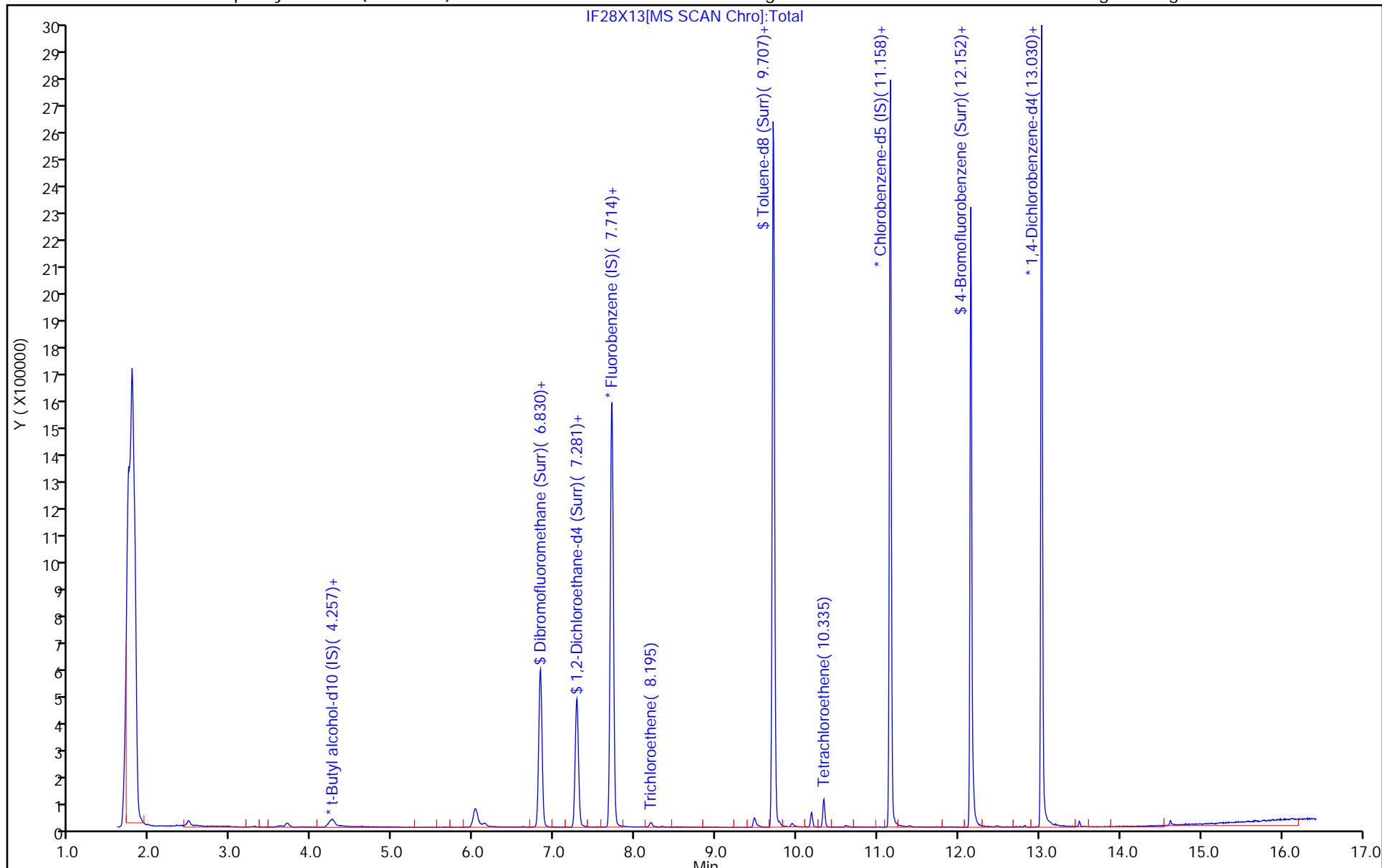
ALS Bottle#: 13

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 Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X13.D
 Lims ID: 410-73936-A-5
 Client ID: HD-COD-SW-13-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 14:55:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-014
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:21:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.77	97.73
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.56
\$ 75 Toluene-d8 (Surr)	10.0	9.98	99.81
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.92	89.18

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\1F28X13.D

Injection Date: 28-Feb-2022 14:55:30

Instrument ID: 19930

Lims ID: 410-73936-A-5

Lab Sample ID: 410-73936-5

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

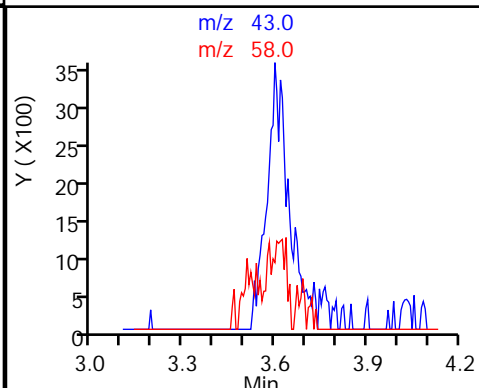
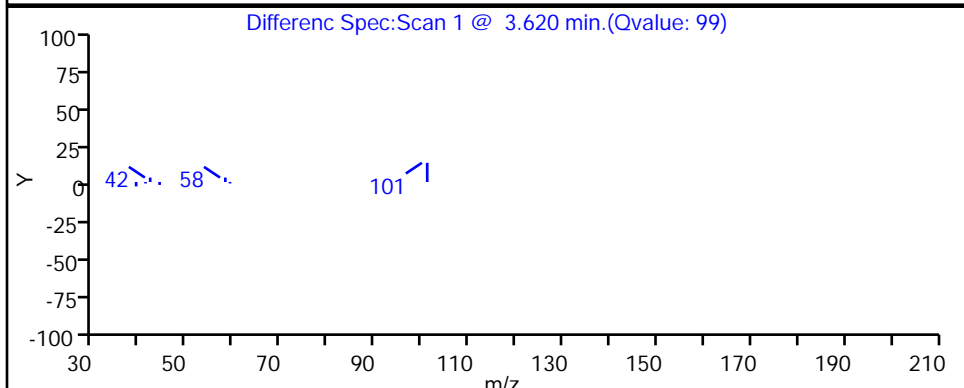
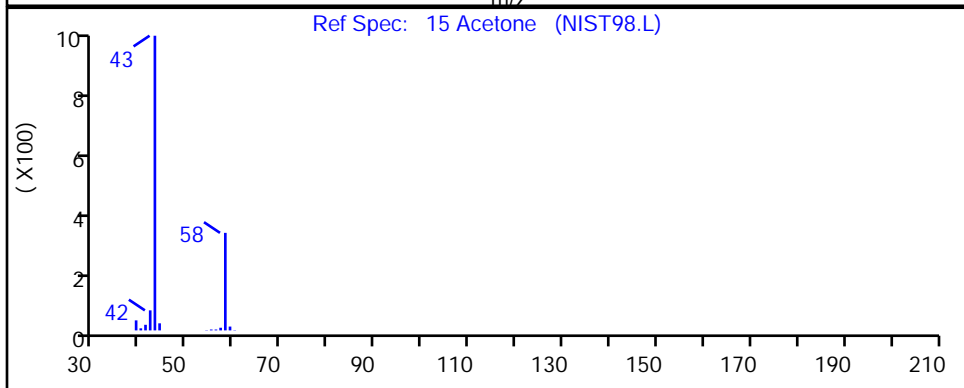
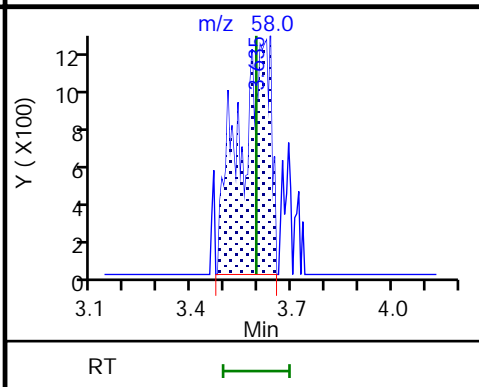
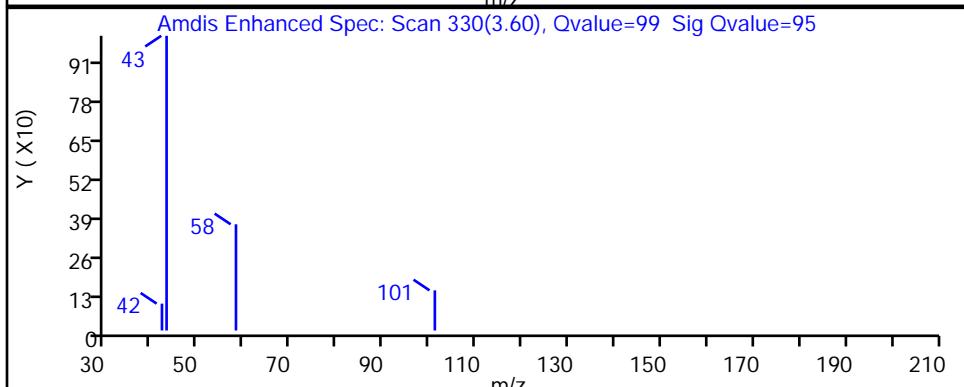
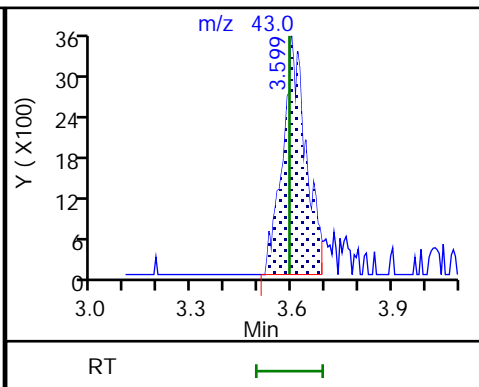
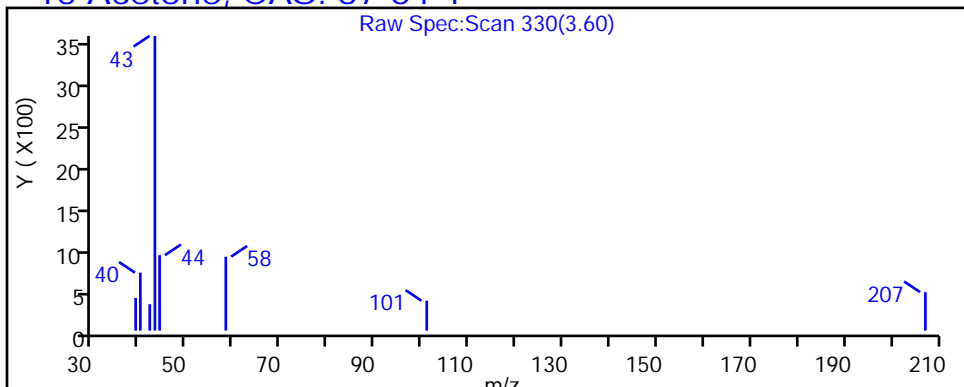
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X13.D

Injection Date: 28-Feb-2022 14:55:30

Instrument ID: 19930

Lims ID: 410-73936-A-5

Lab Sample ID: 410-73936-5

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

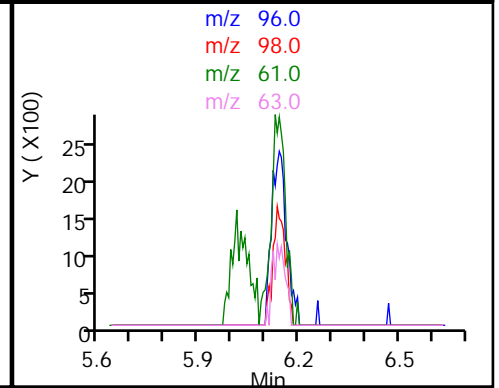
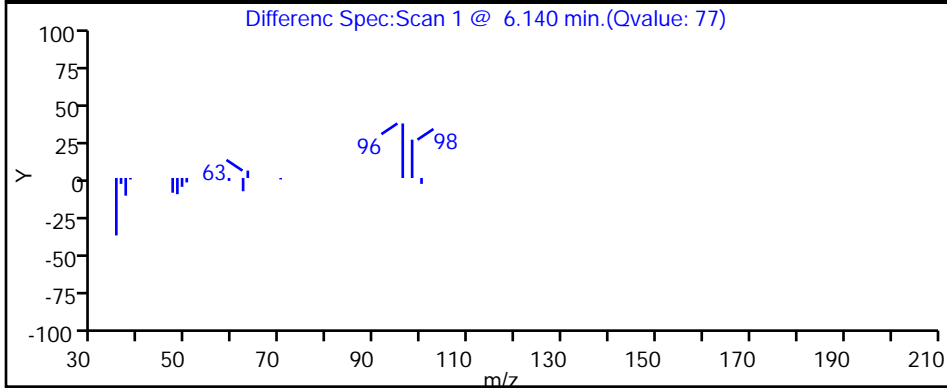
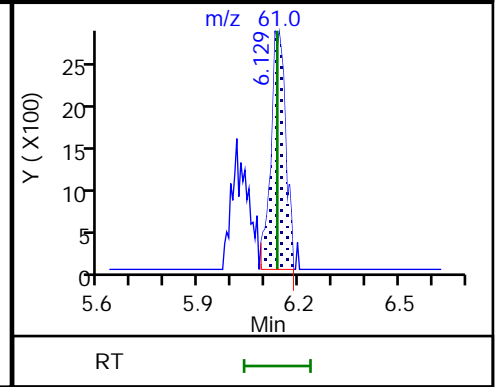
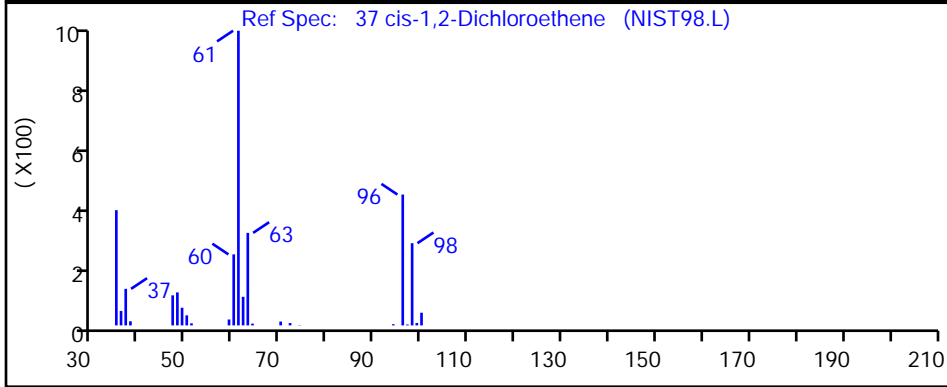
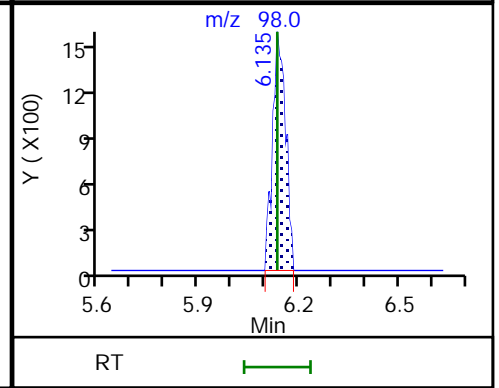
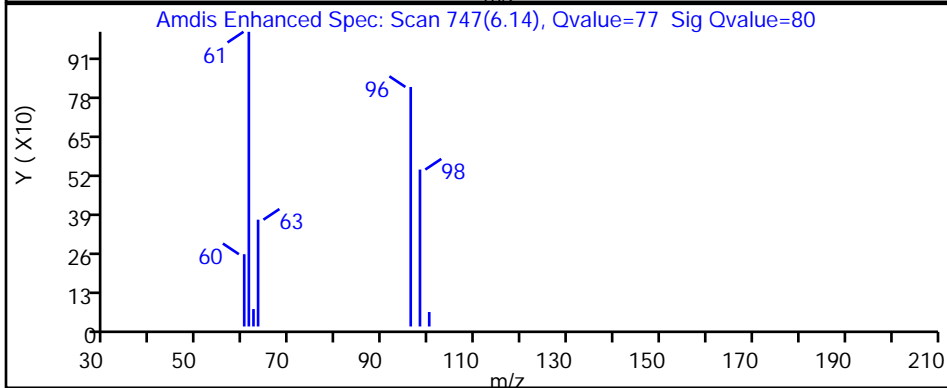
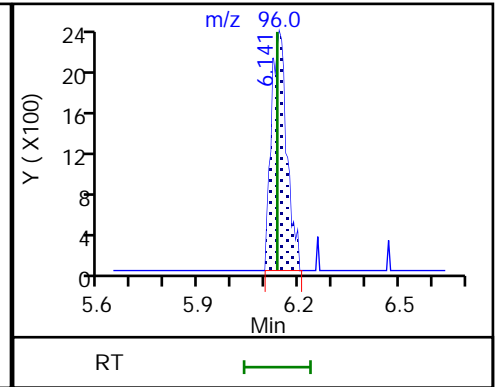
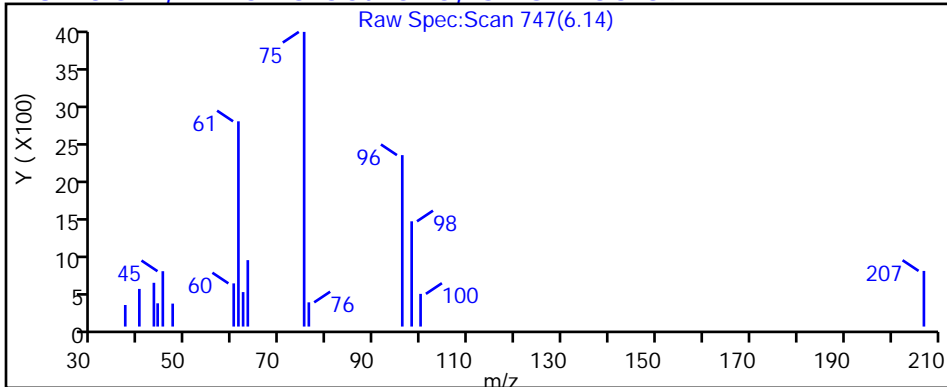
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X13.D

Injection Date: 28-Feb-2022 14:55:30

Instrument ID: 19930

Lims ID: 410-73936-A-5

Lab Sample ID: 410-73936-5

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

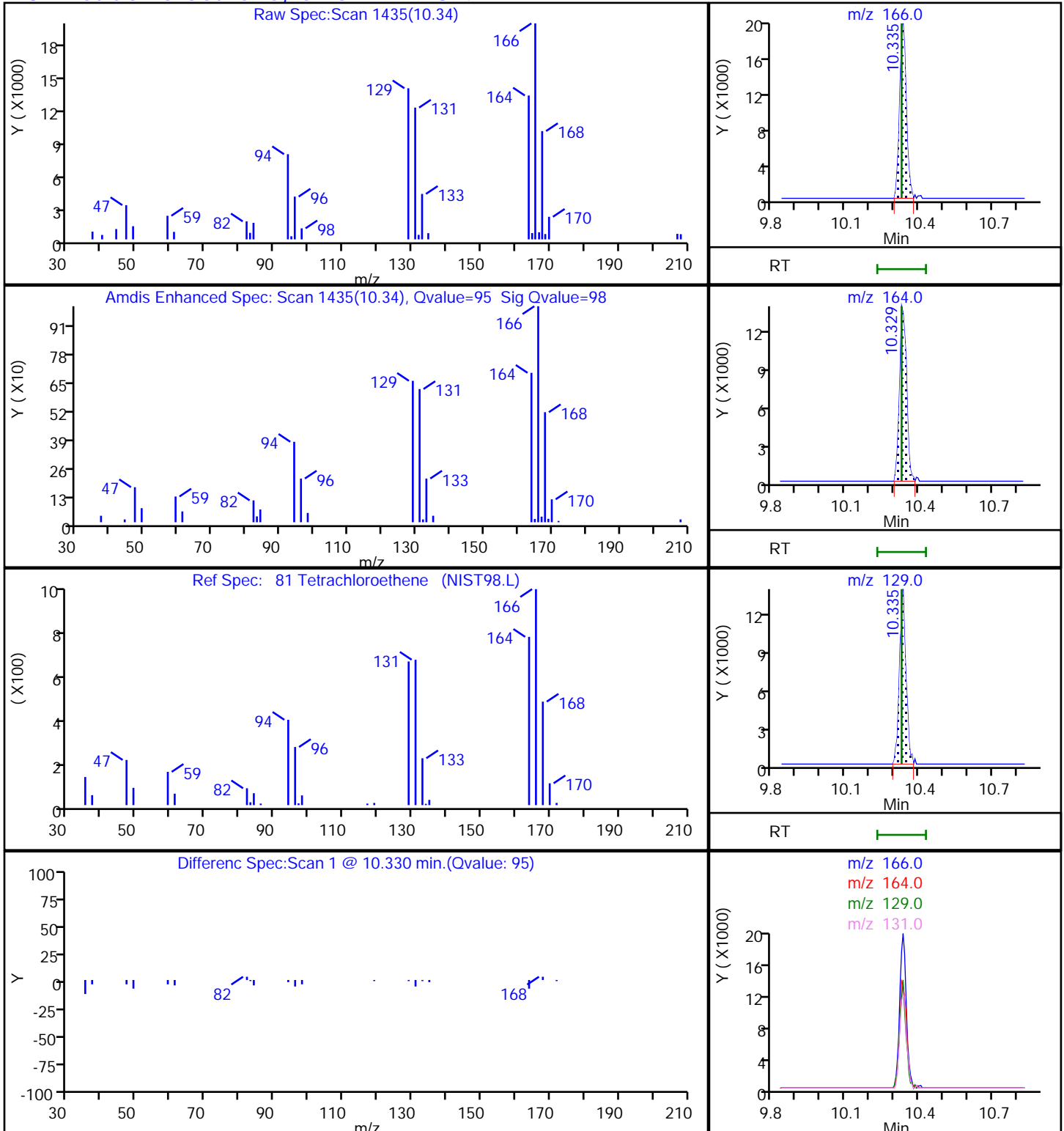
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X13.D

Injection Date: 28-Feb-2022 14:55:30

Instrument ID: 19930

Lims ID: 410-73936-A-5

Lab Sample ID: 410-73936-5

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

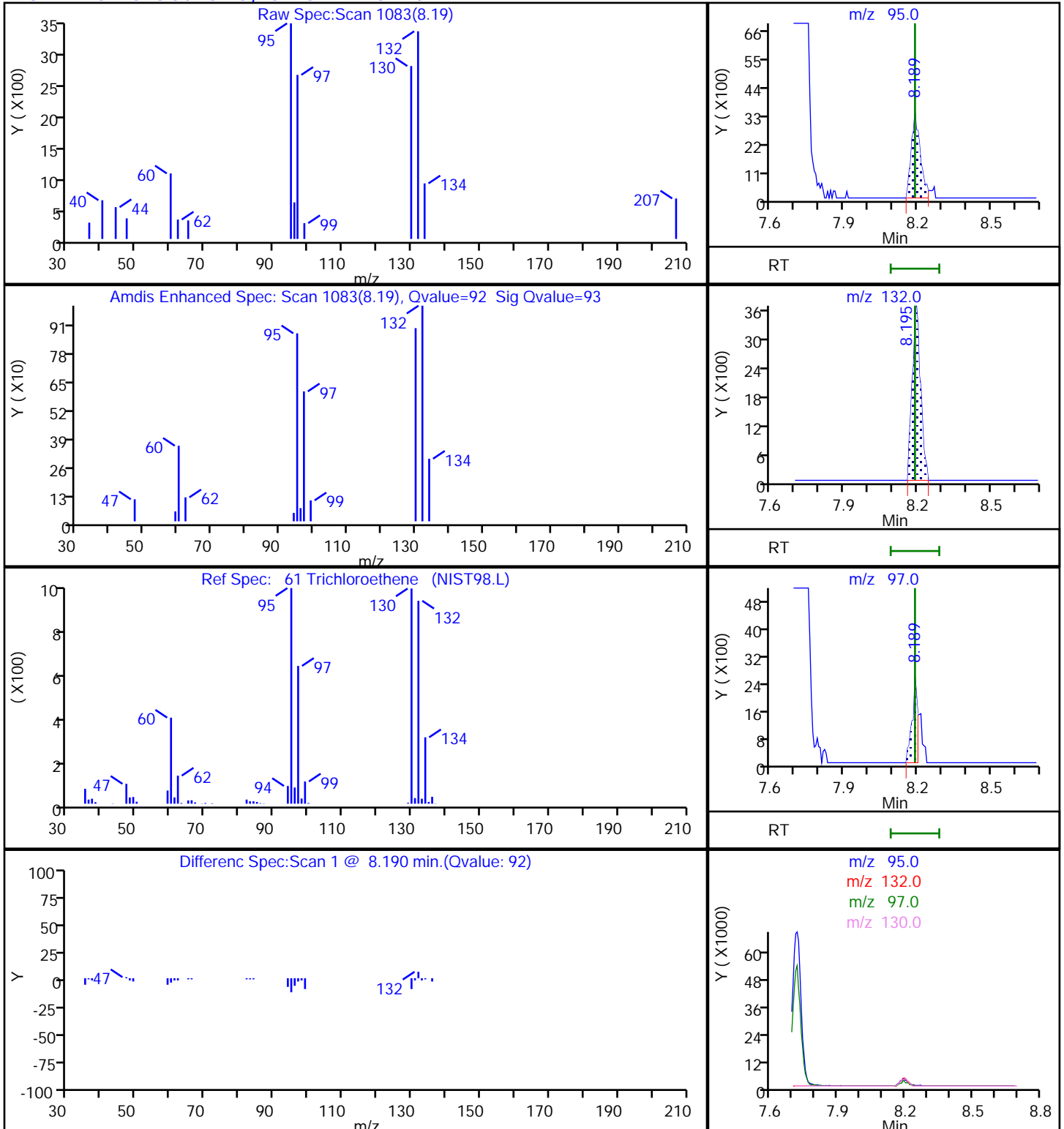
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6

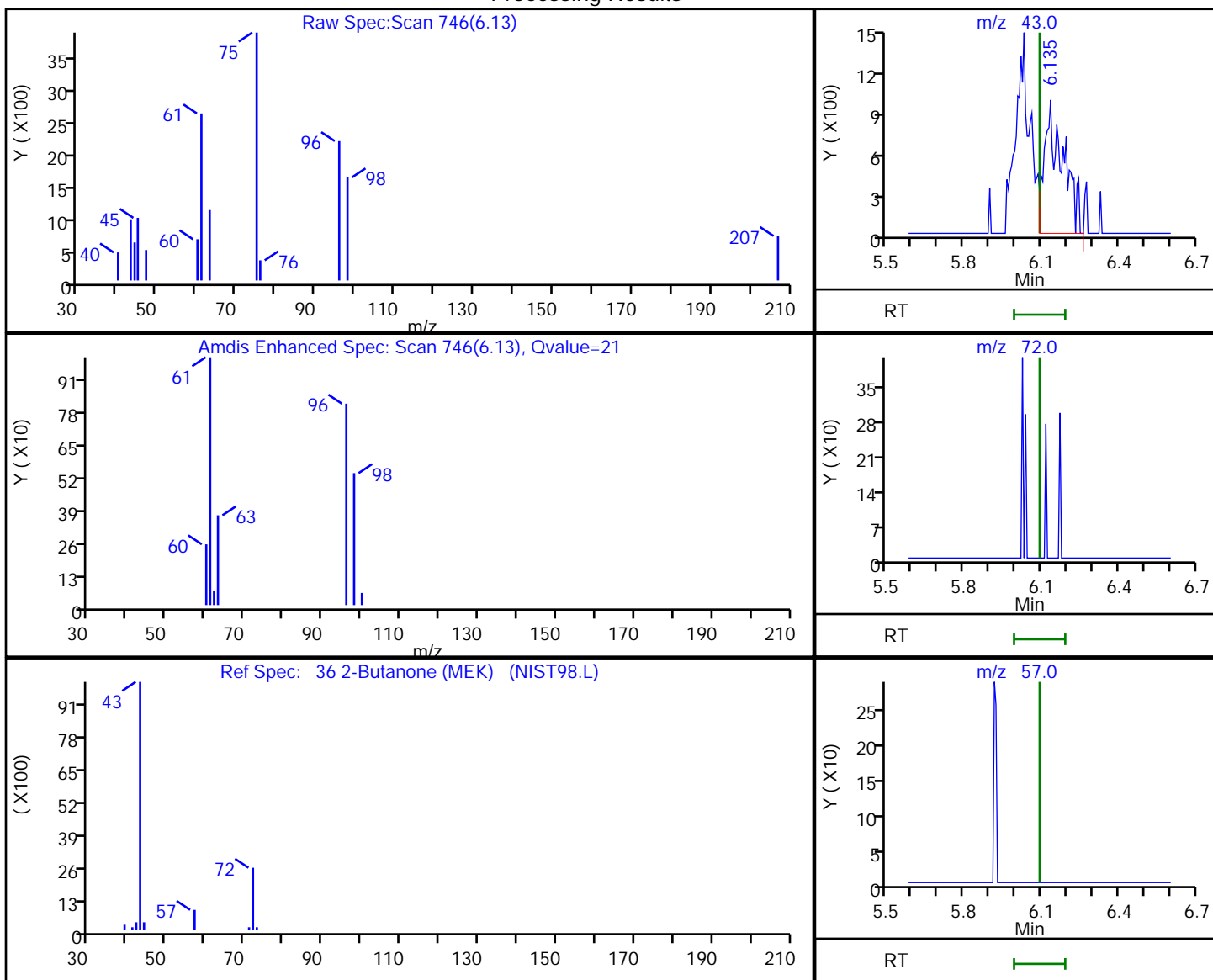


Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfms\Lancaster\ChromData\19930\20220228-51281.b\IF28X13.D
 Injection Date: 28-Feb-2022 14:55:30 Instrument ID: 19930
 Lims ID: 410-73936-A-5 Lab Sample ID: 410-73936-5
 Client ID: HD-COD-SW-13-0/1-0
 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

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.13	43.00	4792	0.324063
6.09	72.00	0	
6.09	57.00	0	

Reviewer: beckerk, 28-Feb-2022 17:20:52

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-73936-6
 Matrix: Water Lab File ID: IF28X14.D
 Analysis Method: 8260D Date Collected: 02/22/2022 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 15:16
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.29	J cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** FH cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	FH cn	0.50	0.060
75-34-3	1,1-Dichloroethane	0.15	J cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.18	J cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	FH cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	0.27	J cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	1.9	cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	6.4	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-73936-6
 Matrix: Water Lab File ID: IF28X14.D
 Analysis Method: 8260D Date Collected: 02/22/2022 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 15:16
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	1.7	cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	88	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	98	cn	80-120
2037-26-5	Toluene-d8 (Surr)	99	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D
 Lims ID: 410-73936-A-6
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 15:16:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-015
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk Date: 28-Feb-2022 17:22:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.947				ND	
2 Chlorodifluoromethane	51		1.989				ND	
3 Dimethyl ether	45		2.050				ND	
4 Chloromethane	50		2.154				ND	
5 Vinyl chloride	62		2.251				ND	
6 Butadiene	39		2.300				ND	7
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
9 Dichlorofluoromethane	67		2.946				ND	7
10 Trichlorofluoromethane	101		3.001				ND	
11 Ethyl ether	59		3.251				ND	
T 200 Ethanol TIC	45		3.288				ND	7
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.343				ND	
13 Acrolein	56		3.428				ND	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	94	9242	0.1803	
15 Acetone	43	3.641	3.593	0.048	35	5152	0.6638	
16 112TCTFE	101		3.611				ND	
17 Iodomethane	142		3.769				ND	
18 Ethyl bromide	108		3.794				ND	
19 Carbon disulfide	76		3.873				ND	7
20 Acetonitrile	41		3.995				ND	
21 Methyl acetate	43		4.007				ND	
22 3-Chloro-1-propene	41		4.044				ND	
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	23	139714	50.0	
25 2-Methyl-2-propanol	59		4.367				ND	
26 Acrylonitrile	53		4.574				ND	
27 Methyl tert-butyl ether	73	4.635	4.641	-0.006	54	6470	0.0443	
28 trans-1,2-Dichloroethene	96		4.659				ND	
29 Hexane	57		5.074				ND	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	94	16127	0.1527	
30 Vinyl acetate	43		5.312				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
T 208 Vinyl acetate (TIC)	43		5.336				ND	
32 Isopropyl ether	45		5.367				ND	
33 2-Chloro-1,3-butadiene	53		5.415				ND	
34 Tert-butyl ethyl ether	59		5.903				ND	7
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.147	6.135	0.012	79	125906	1.94	
38 2,2-Dichloropropane	77		6.147				ND	7
S 35 1,2-Dichloroethene, Total	100				0		1.94	
40 Propionitrile	54		6.177				ND	
39 Ethyl acetate	43		6.190				ND	
41 Methyl acrylate	55		6.220				ND	
42 Methacrylonitrile	67		6.397				ND	
43 Chlorobromomethane	128		6.464				ND	
44 Tetrahydrofuran	71		6.470				ND	
45 Chloroform	83	6.622	6.610	0.012	92	28127	0.2688	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	527995	9.76	
47 1,1,1-Trichloroethane	97	6.854	6.836	0.018	97	28282	0.2909	
48 Cyclohexane	56		6.940				ND	
49 1-Chlorobutane	56		7.019				ND	
51 1,1-Dichloropropene	75		7.049				ND	
50 Carbon tetrachloride	117	7.055	7.049	0.006	25	3618	0.0431	
52 Isobutyl alcohol	41		7.196				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	112879	10.4	
54 Benzene	78		7.305				ND	
56 1,2-Dichloroethane	62		7.378				ND	
55 Isopropyl acetate	43		7.415				ND	
57 Tert-amyl methyl ether	73		7.500				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2147201	10.0	
59 n-Heptane	43		7.720				ND	
60 n-Butanol	56		8.073				ND	
61 Trichloroethene	95	8.189	8.189	0.000	97	111155	1.71	
62 Methylcyclohexane	83		8.500				ND	
63 1,2-Dichloropropane	63		8.512				ND	
64 Methyl methacrylate	69		8.598				ND	
65 1,4-Dioxane	88		8.610				ND	
66 Dibromomethane	93		8.628				ND	
67 n-Propyl acetate	43		8.707				ND	
68 Dichlorobromomethane	83		8.860				ND	
69 2-Nitropropane	41		9.122				ND	
70 Chloroacetonitrile	75		9.226				ND	
72 1-Bromo-2-chloroethane	63		9.250				ND	
71 2-Chloroethyl vinyl ether	63		9.256				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	92	2129067	9.94	a
76 Toluene	92	9.786	9.787	0.000	98	4201	0.0264	
T 150 Epibromohydrin TIC	57		10.000				ND	
T 152 Vinyl bromide TIC	106		10.000				ND	U
T 153 Epichlorohydrin TIC	57		10.000				ND	U
T 154 2-Bromo-3-chloropropene TIC	75		10.000				ND	U
T 148 Monochloroacetic acid TIC	50		10.000				ND	U
T 155 Ethylene oxide TIC	44		10.000				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
T 149 2-Chloroethanol TIC	44		10.000				ND	U
T 156 2,3-Dibromopropene TIC	119		10.000				ND	U
T 147 2-Bromoethanol TIC	45		10.000				ND	U
T 151 Chloroacetaldehyde TIC	50		10.000				ND	U
T 146 2,3-Dibromo-1-propanol TIC	57		10.000				ND	U
T 157 3-Chloro-1,2-propanediol TIC	44		10.000				ND	
78 trans-1,3-Dichloropropene	75		10.036				ND	
S 77 1,3-Dichloropropene, Total	100		10.060				ND	7
79 Ethyl methacrylate	69		10.097				ND	
80 1,1,2-Trichloroethane	97	10.256	10.244	0.012	1	1143	0.0270	
81 Tetrachloroethene	166	10.335	10.329	0.006	98	483638	6.39	
82 1,3-Dichloropropane	76		10.402				ND	
83 2-Hexanone	43		10.451				ND	
84 n-Butyl acetate	43		10.603				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1657407	10.0	
88 1-Chlorohexane	91		11.164				ND	7
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
97 Isopropylbenzene	105		12.006				ND	
98 cis-1,4-Dichloro-2-butene	88		12.079				ND	U
99 Cyclohexanone	55		12.121				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	720517	8.80	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
102 Bromobenzene	156		12.268				ND	
103 trans-1,4-Dichloro-2-butene	53		12.274				ND	
104 1,2,3-Trichloropropane	110		12.292				ND	
105 N-Propylbenzene	91		12.335				ND	
106 2-Chlorotoluene	126		12.408				ND	
107 1,3,5-Trimethylbenzene	105		12.469				ND	
108 4-Chlorotoluene	126		12.505				ND	
109 tert-Butylbenzene	134		12.707				ND	
110 Pentachloroethane	167		12.743				ND	
111 1,2,4-Trimethylbenzene	105		12.749				ND	7
112 sec-Butylbenzene	105		12.871				ND	
113 1,3-Dichlorobenzene	146		12.975				ND	7
114 4-Isopropyltoluene	119		12.981				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	818071	10.0	
116 1,4-Dichlorobenzene	146		13.048				ND	7
117 1,2,3-Trimethylbenzene	120		13.054				ND	7
118 Benzyl chloride	126		13.121				ND	
119 n-Butylbenzene	92		13.268				ND	
120 1,2-Dichlorobenzene	146		13.304				ND	
121 Hexachloroethane	117		13.542				ND	
122 1,2-Dibromo-3-Chloropropane	155		13.847				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
123 1,3,5-Trichlorobenzene	180		13.969				ND	
124 1,2,4-Trichlorobenzene	180		14.389				ND	
125 Hexachlorobutadiene	225		14.475				ND	
126 Naphthalene	128		14.572				ND	7
127 1,2,3-Trichlorobenzene	180		14.712				ND	
128 Dodecane	57		0.000				ND	
130 Chlorotrifluoroethene	1		0.000				ND	
T 212 Octamethylcyclotetrasiloxane TIC	280		0.000				ND	U
204 Pentane	43		0.000				ND	
206 Pentachloroethane TIC	1		0.000				ND	
142 2-Bromo-1-chloropropane	1		0.000				ND	
131 tert-Butyl Formate	1		0.000				ND	
132 Methylal	1		0.000				ND	
133 t-Amyl alcohol	1		0.000				ND	
T 201 Isopropyl alcohol TIC	45		0.000				ND	U
134 Isopropyl alcohol	45		0.000				ND	
141 1-Chloropropane	1		0.000				ND	
129 Propene oxide	1		0.000				ND	
207 Acetonitrile TIC	1		0.000				ND	
T 211 Nitrobenzene TIC	77		0.000				ND	
205 1,1-Dichloroacetone	1		0.000				ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	
136 2-Chloro-1,1,1-Trifluoroethane	1		0.000				ND	
135 p-Diethylbenzene	1		0.000				ND	
137 2-Methylnaphthalene	142		0.000				ND	
138 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
202 1,3-Dichloro-2-propanol TIC	1		0.000				ND	
203 Propargyl alcohol TIC	1		0.000				ND	
T 209 Decamethylcyclopentasiloxane TIC	251		0.000				ND	
210 Hexachloroethane TIC	1		0.000				ND	
139 1-Bromo-3-Chloropropane	1		0.000				ND	
143 n-Decane	57		0.000				ND	
140 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_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D

Injection Date: 28-Feb-2022 15:16:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-6

Lab Sample ID: 410-73936-6

Worklist Smp#: 15

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

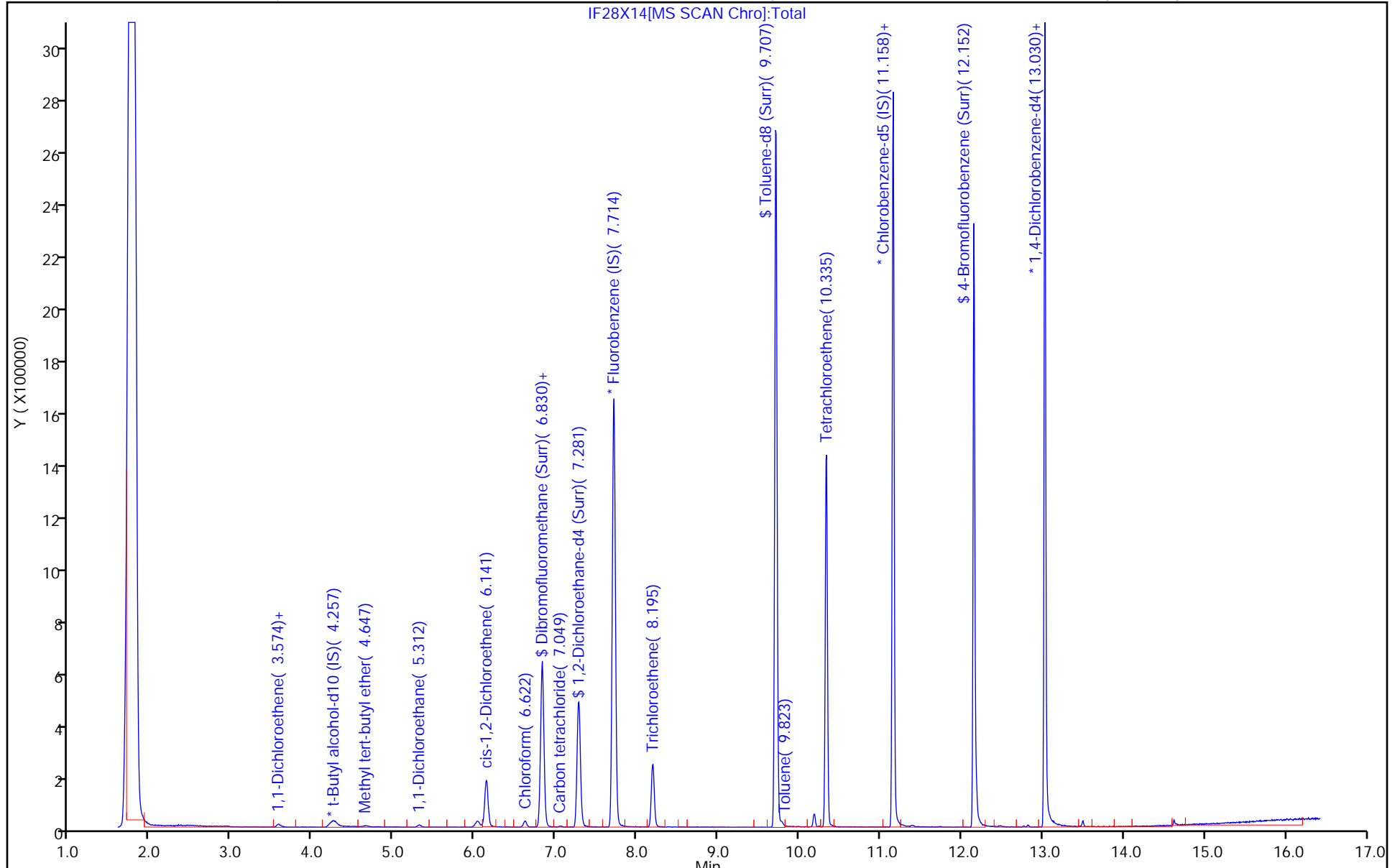
ALS Bottle#: 14

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D
 Lims ID: 410-73936-A-6
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 15:16:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-015
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:22:35

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.76	97.61
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.32
\$ 75 Toluene-d8 (Surr)	10.0	9.94	99.40
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.80	88.02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D

Injection Date: 28-Feb-2022 15:16:30

Instrument ID: 19930

Lims ID: 410-73936-A-6

Lab Sample ID: 410-73936-6

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

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

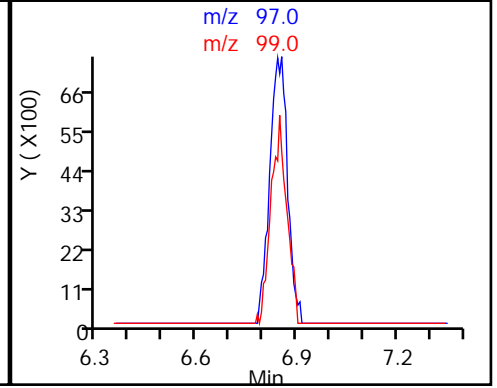
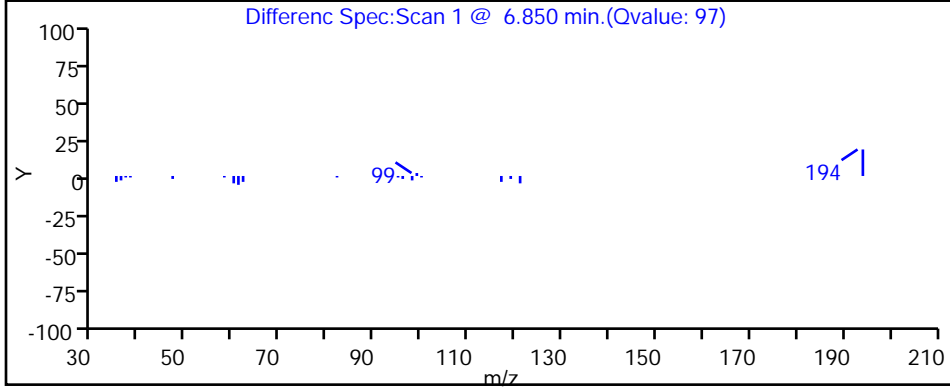
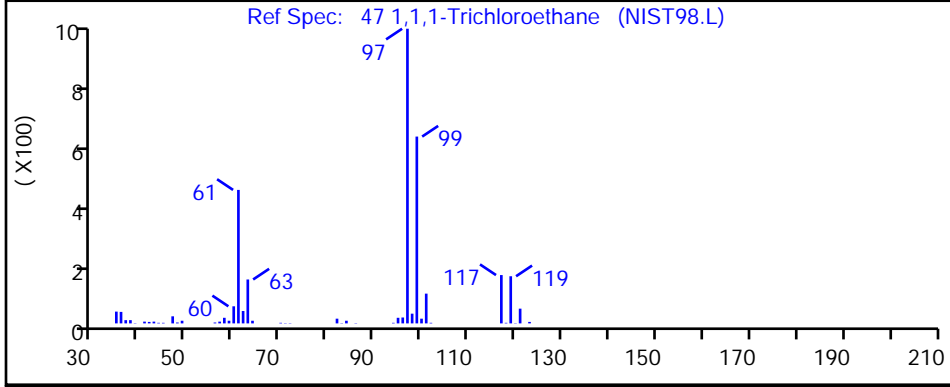
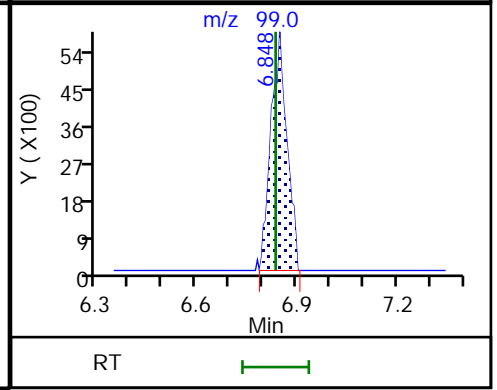
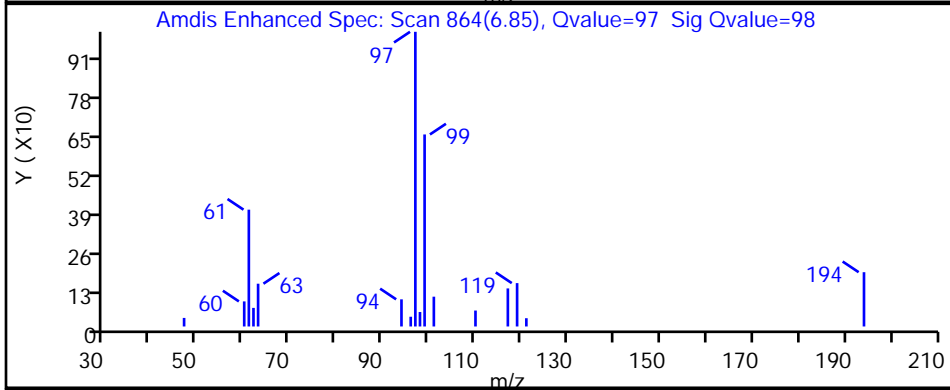
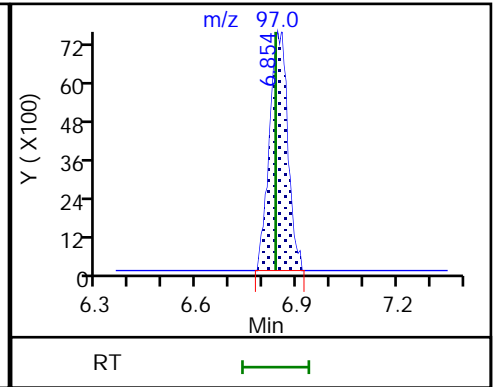
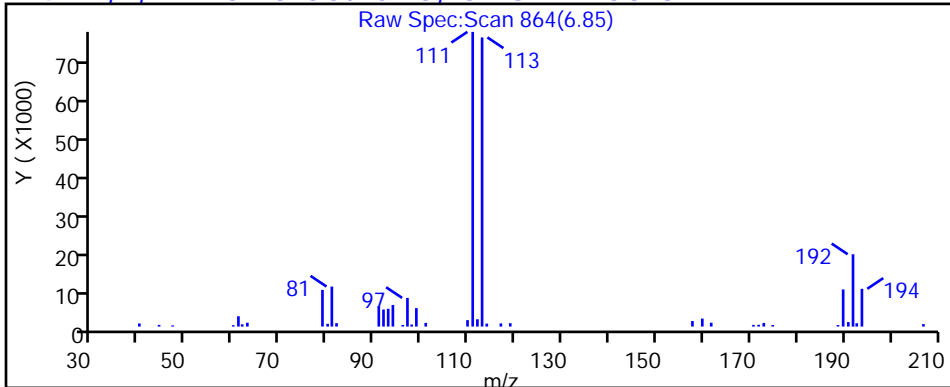
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D

Injection Date: 28-Feb-2022 15:16:30

Instrument ID: 19930

Lims ID: 410-73936-A-6

Lab Sample ID: 410-73936-6

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

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

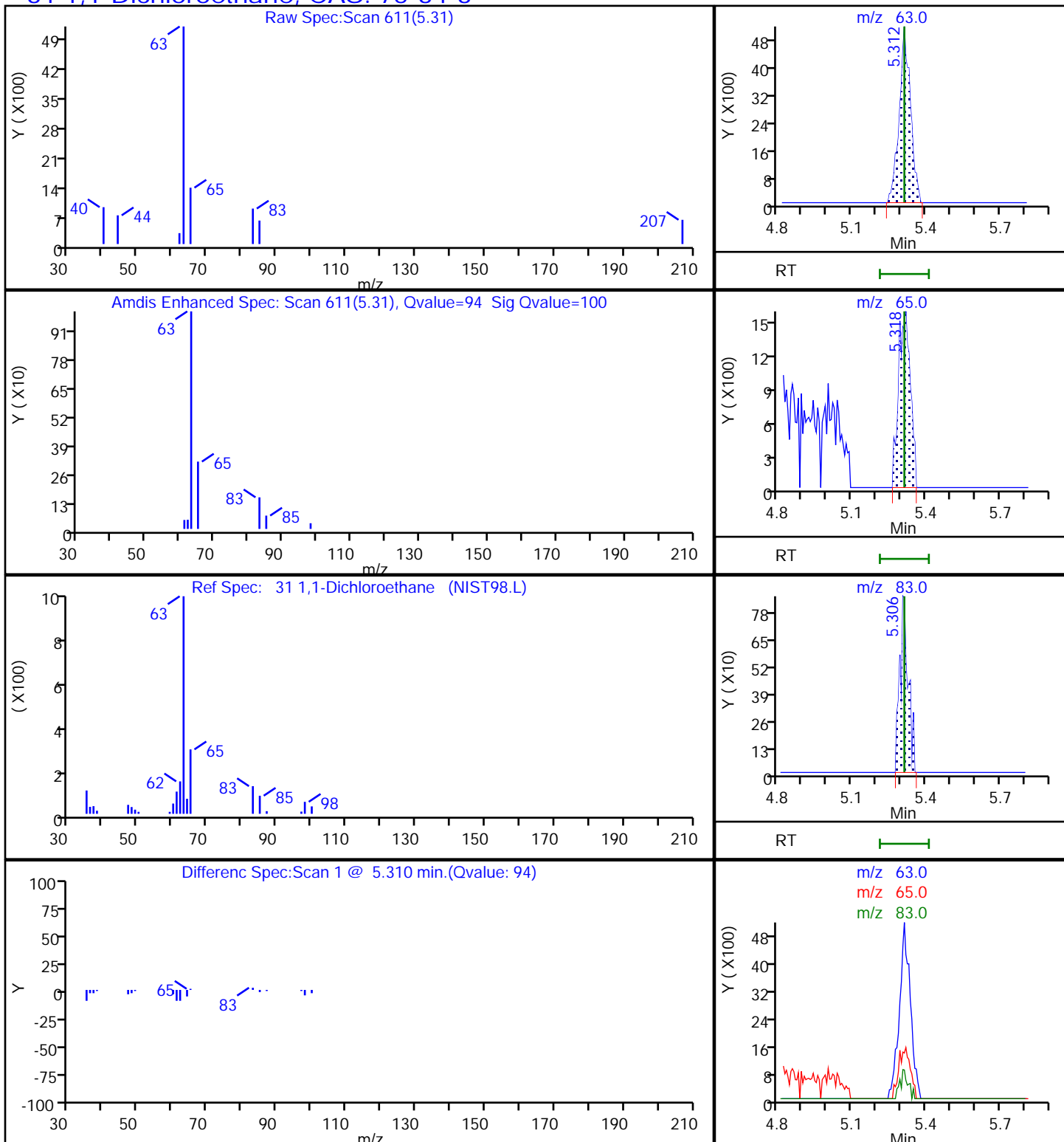
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D

Injection Date: 28-Feb-2022 15:16:30

Instrument ID: 19930

Lims ID: 410-73936-A-6

Lab Sample ID: 410-73936-6

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

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

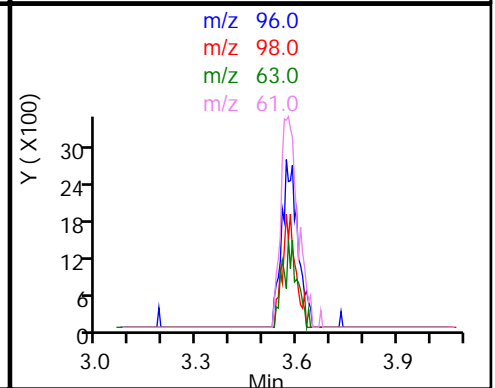
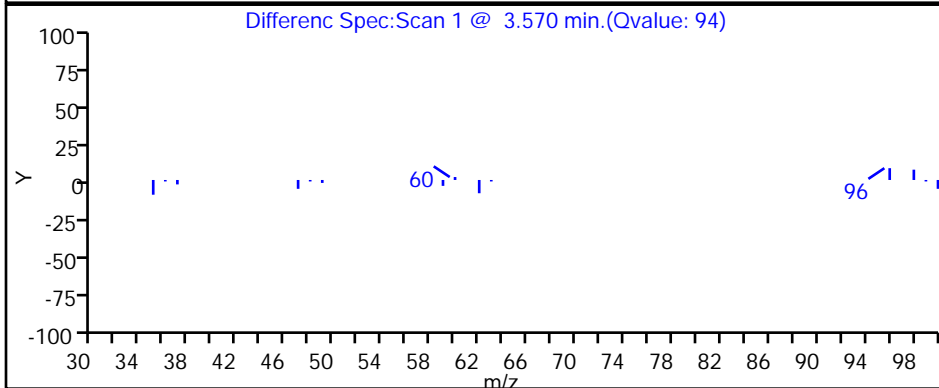
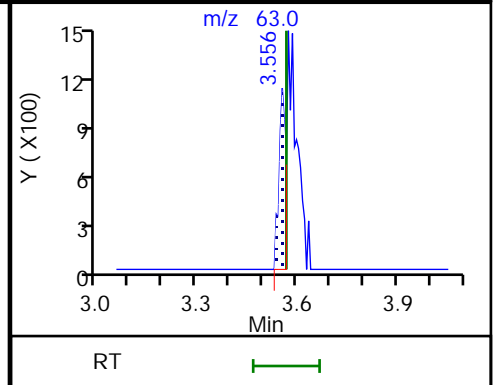
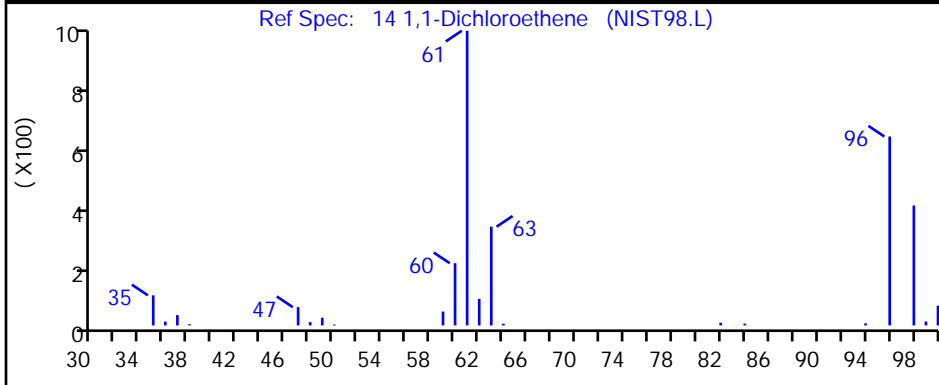
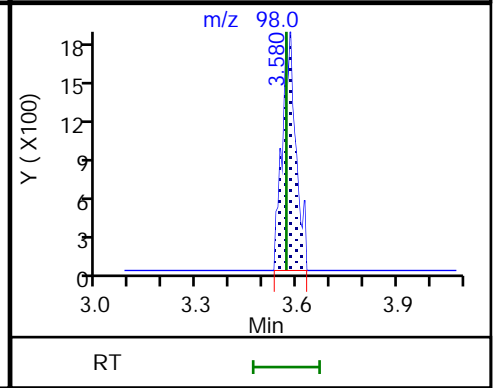
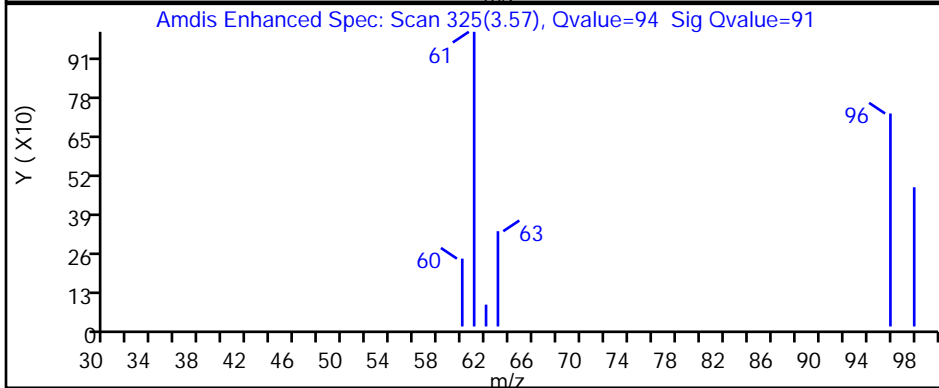
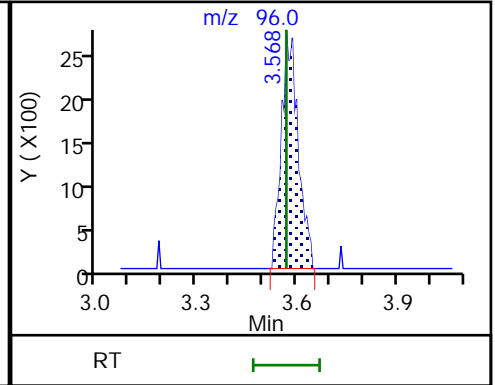
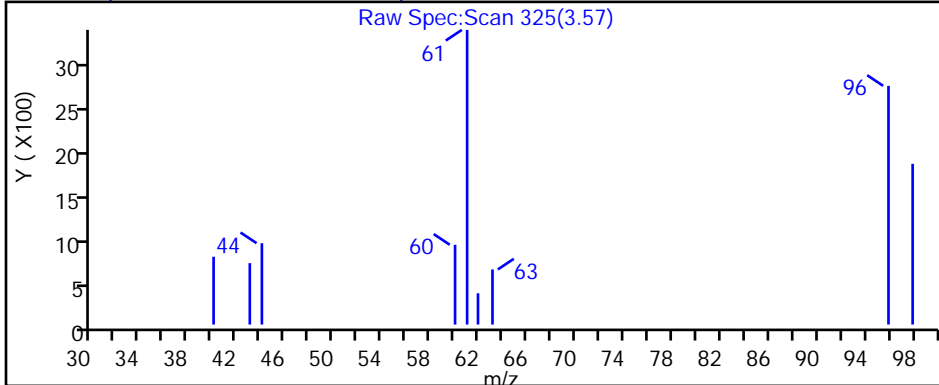
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D

Injection Date: 28-Feb-2022 15:16:30

Instrument ID: 19930

Lims ID: 410-73936-A-6

Lab Sample ID: 410-73936-6

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

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

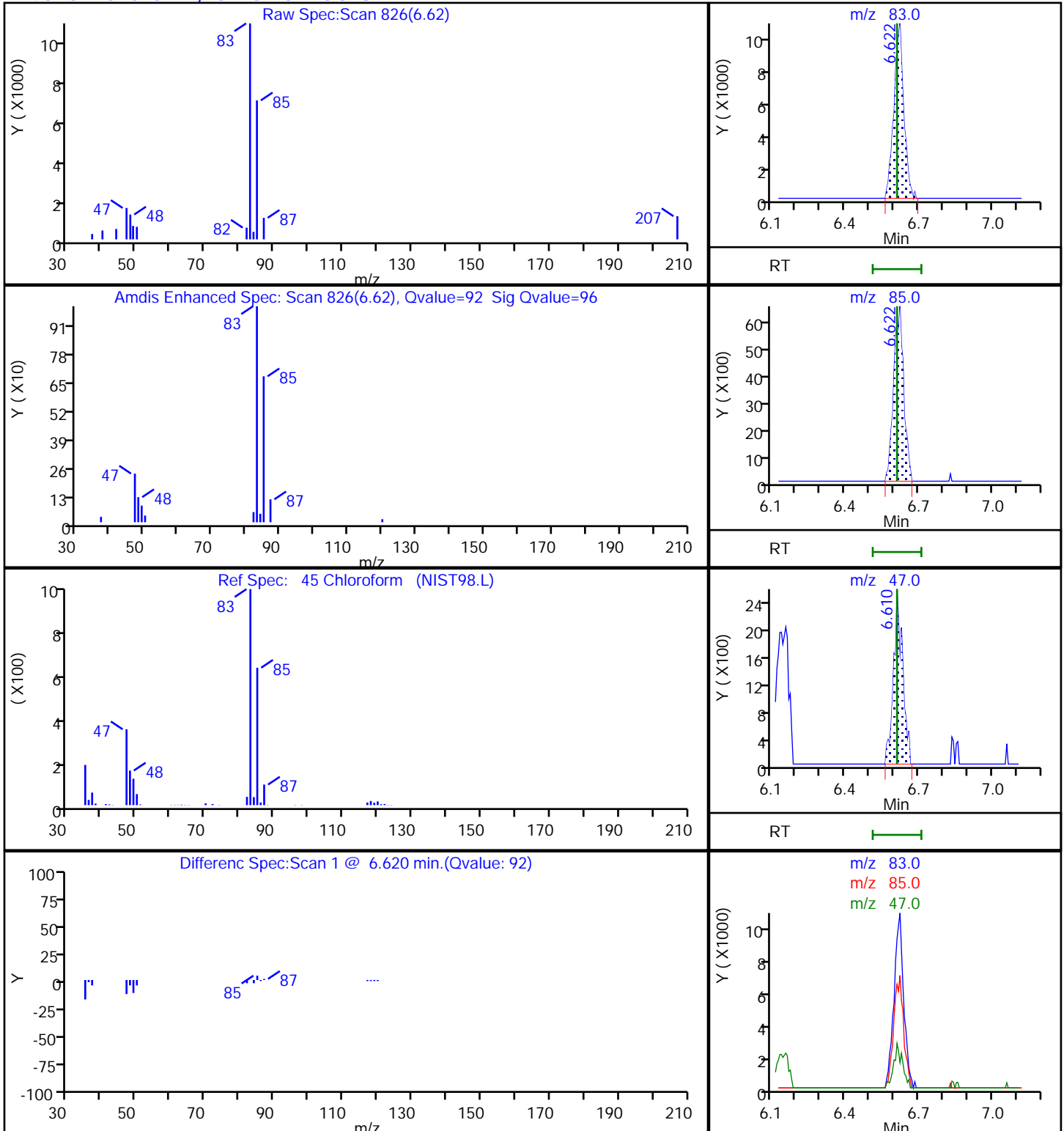
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D

Injection Date: 28-Feb-2022 15:16:30

Instrument ID: 19930

Lims ID: 410-73936-A-6

Lab Sample ID: 410-73936-6

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

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

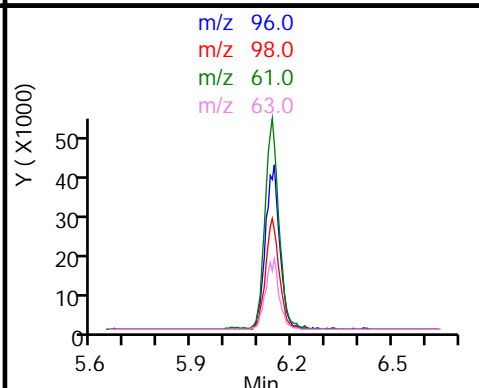
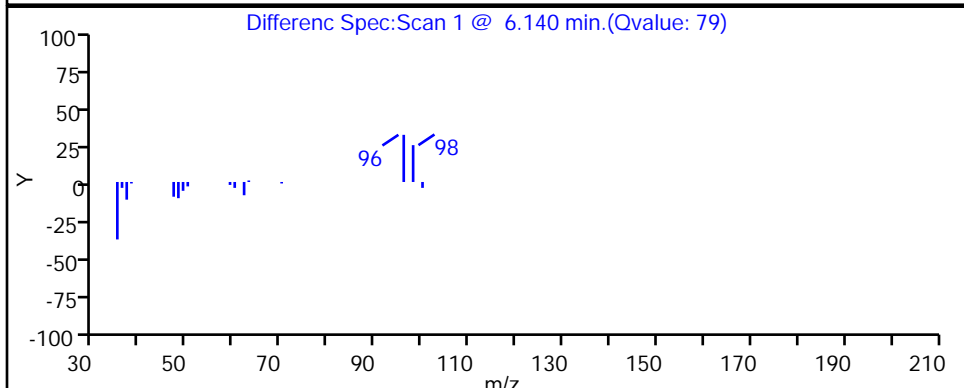
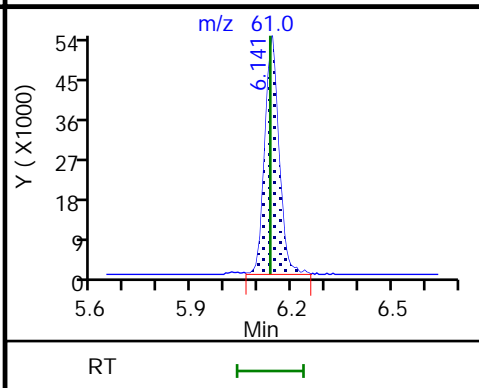
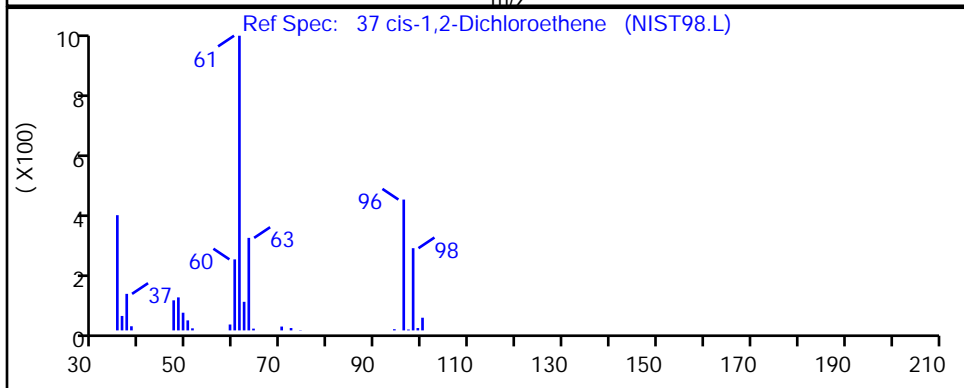
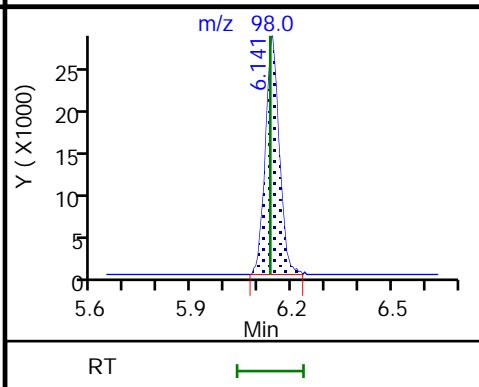
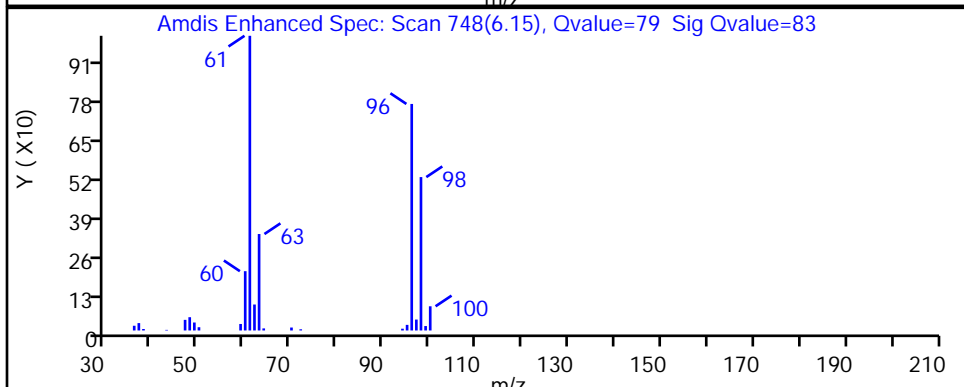
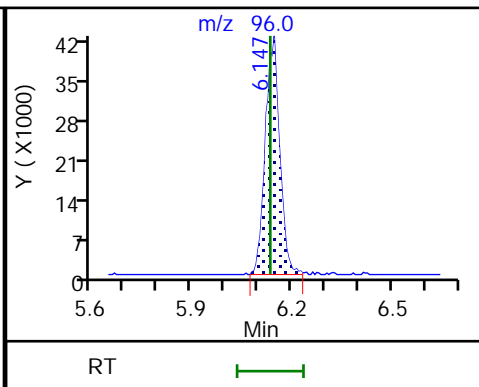
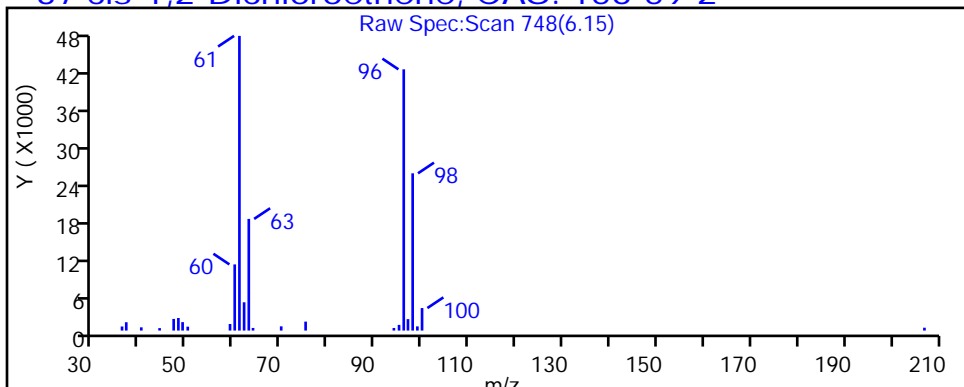
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D

Injection Date: 28-Feb-2022 15:16:30

Instrument ID: 19930

Lims ID: 410-73936-A-6

Lab Sample ID: 410-73936-6

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

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

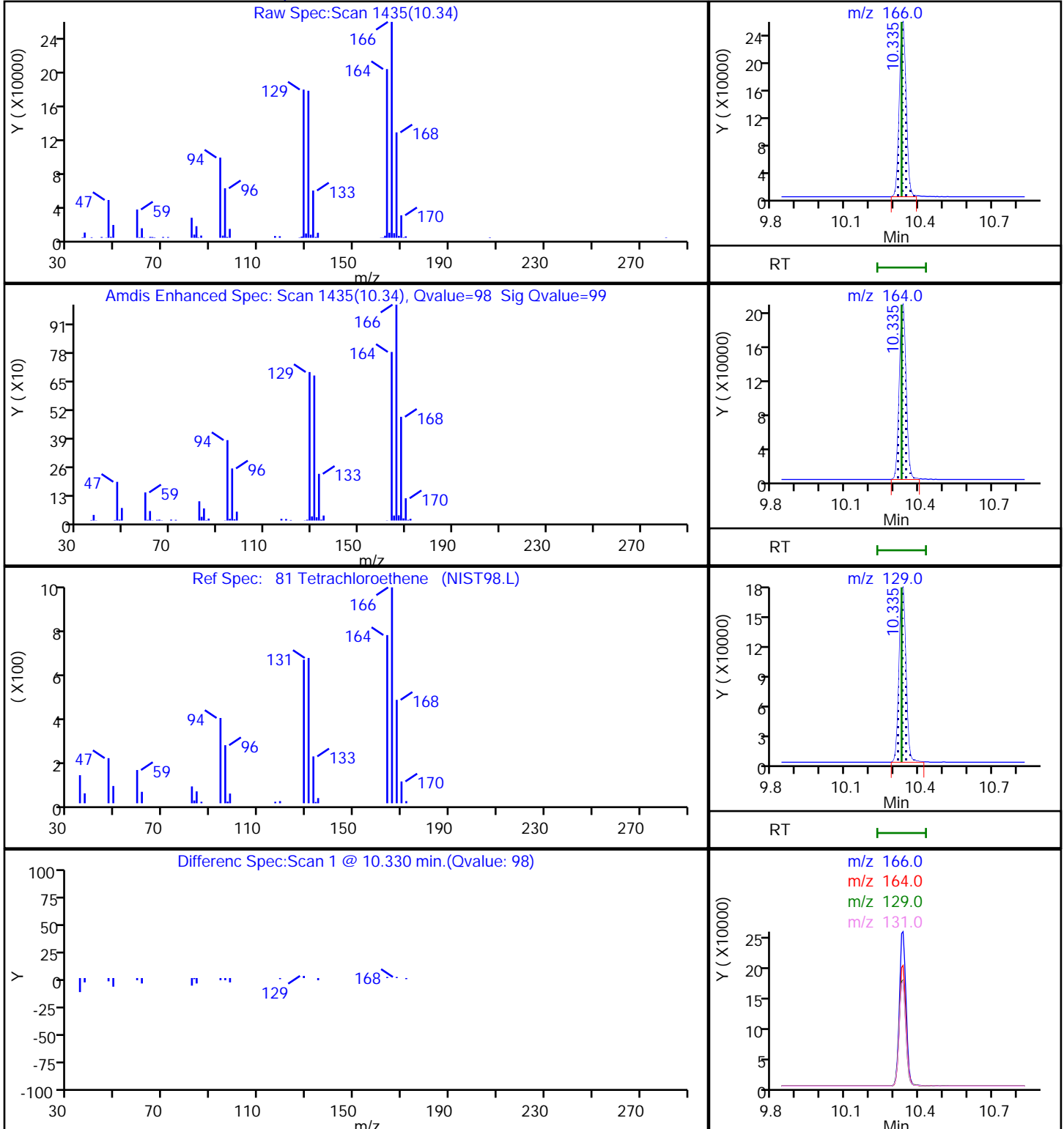
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

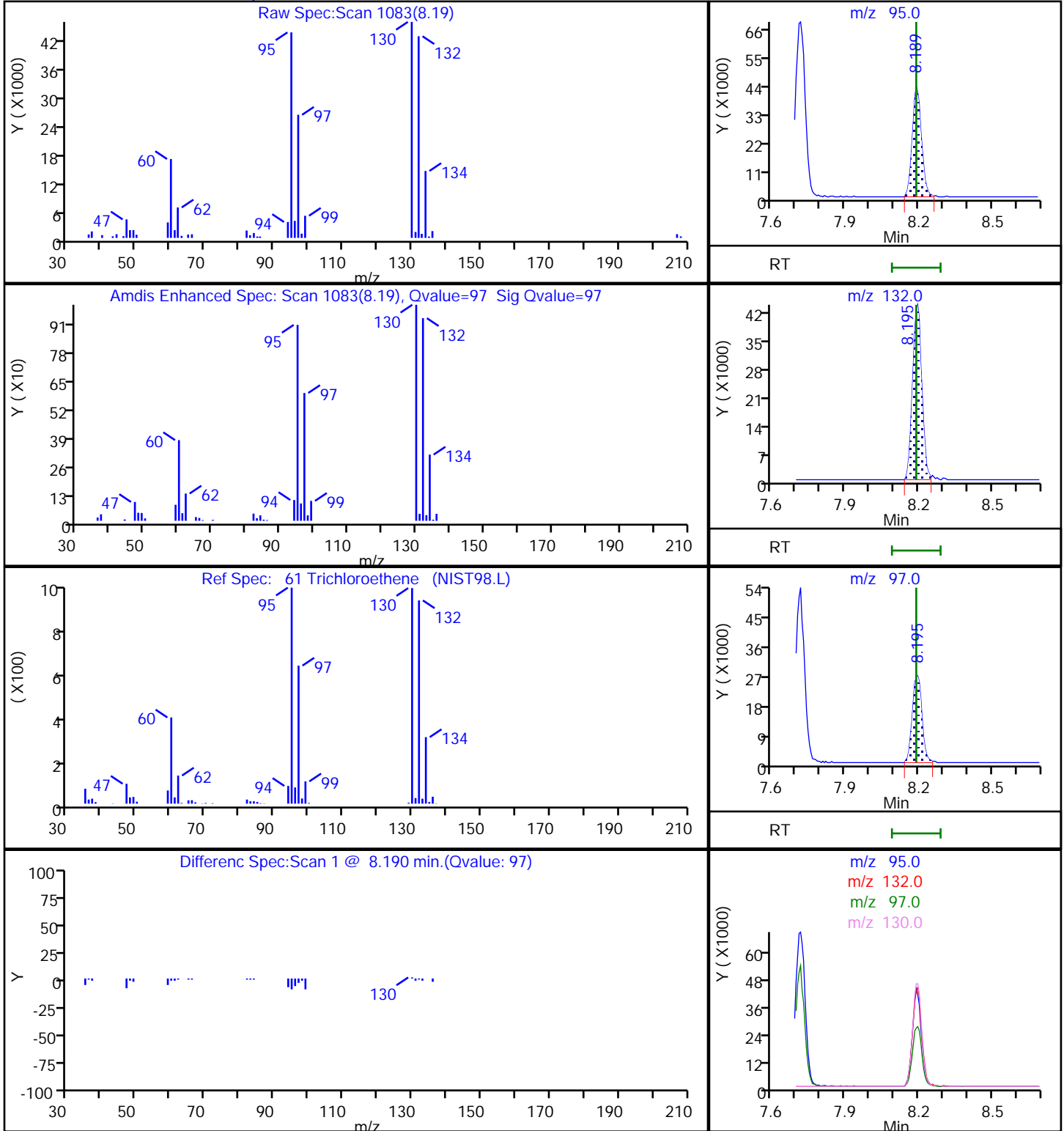
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D
Injection Date: 28-Feb-2022 15:16:30 Instrument ID: 19930
Lims ID: 410-73936-A-6 Lab Sample ID: 410-73936-6
Client ID: HD-COD-SW-15-0/1-0
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

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

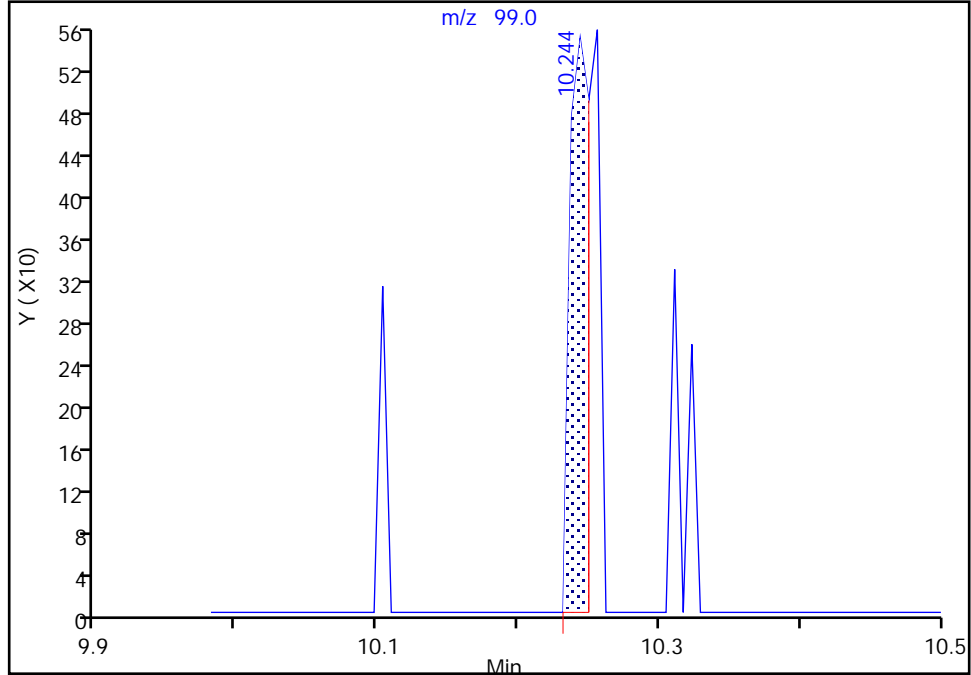
Data File:	\\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D		
Injection Date:	28-Feb-2022 15:16:30	Instrument ID:	19930
Lims ID:	410-73936-A-6	Lab Sample ID:	410-73936-6
Client ID:	HD-COD-SW-15-0/1-0		
Operator ID:	KNK41612	ALS Bottle#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	15

80 1,1,2-Trichloroethane, CAS: 79-00-5

Signal: 2

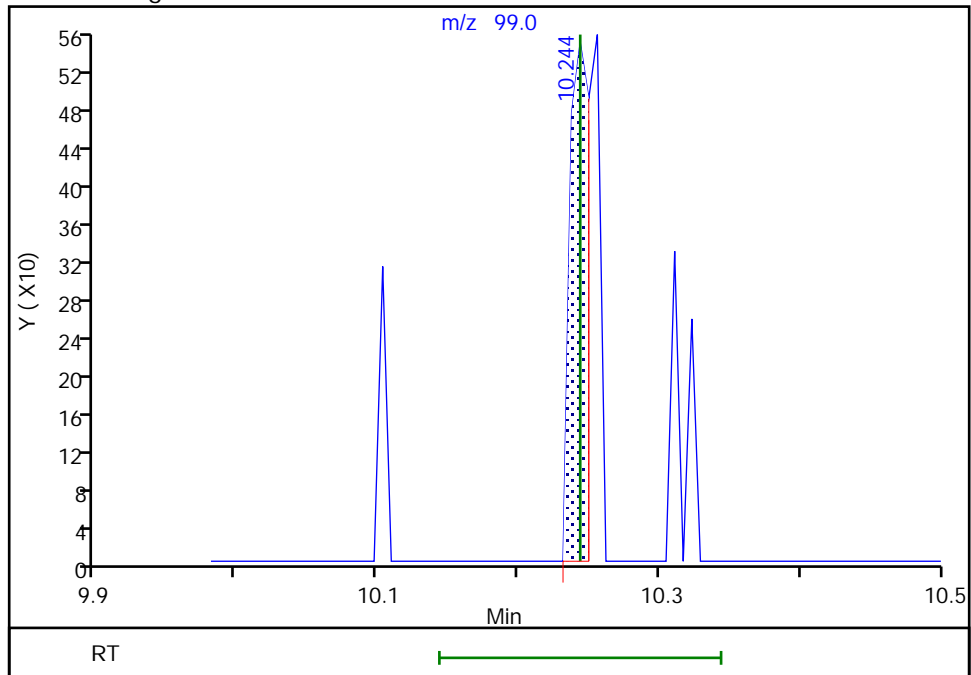
RT: 10.24
 Area: 549
 Amount: 0.026970
 Amount Units: ug/l

Processing Integration Results



RT: 10.24
 Area: 549
 Amount: 0.026970
 Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 17:22:05
 Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

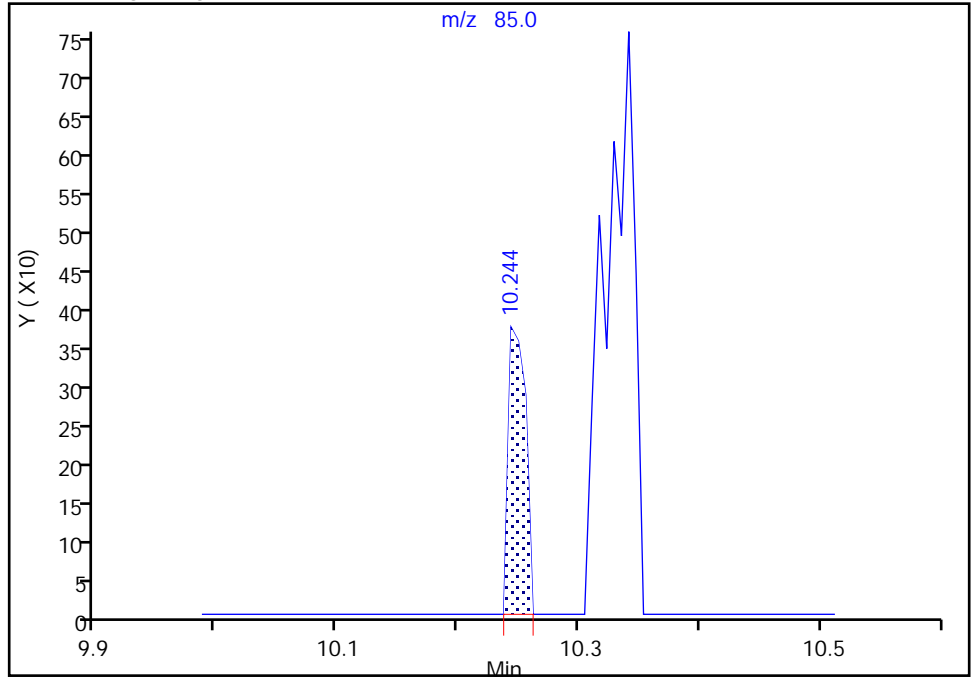
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D
Injection Date: 28-Feb-2022 15:16:30 Instrument ID: 19930
Lims ID: 410-73936-A-6 Lab Sample ID: 410-73936-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: KNK41612 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

80 1,1,2-Trichloroethane, CAS: 79-00-5

Signal: 3

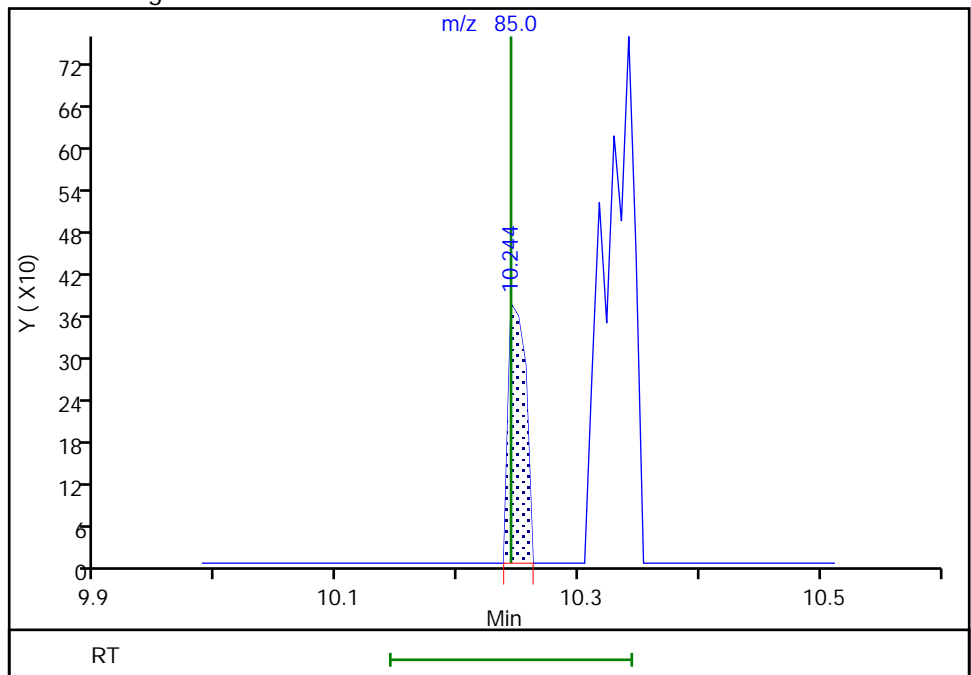
RT: 10.24
Area: 372
Amount: 0.026970
Amount Units: ug/l

Processing Integration Results



RT: 10.24
Area: 372
Amount: 0.026970
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

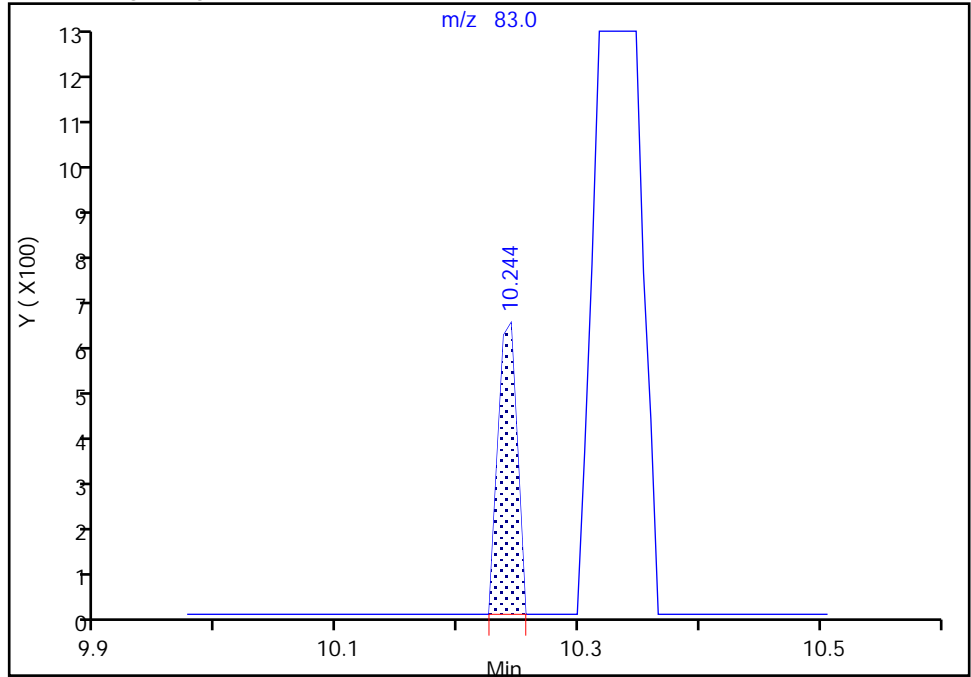
Data File:	\\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D		
Injection Date:	28-Feb-2022 15:16:30	Instrument ID:	19930
Lims ID:	410-73936-A-6	Lab Sample ID:	410-73936-6
Client ID:	HD-COD-SW-15-0/1-0		
Operator ID:	KNK41612	ALS Bottle#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	15

80 1,1,2-Trichloroethane, CAS: 79-00-5

Signal: 4

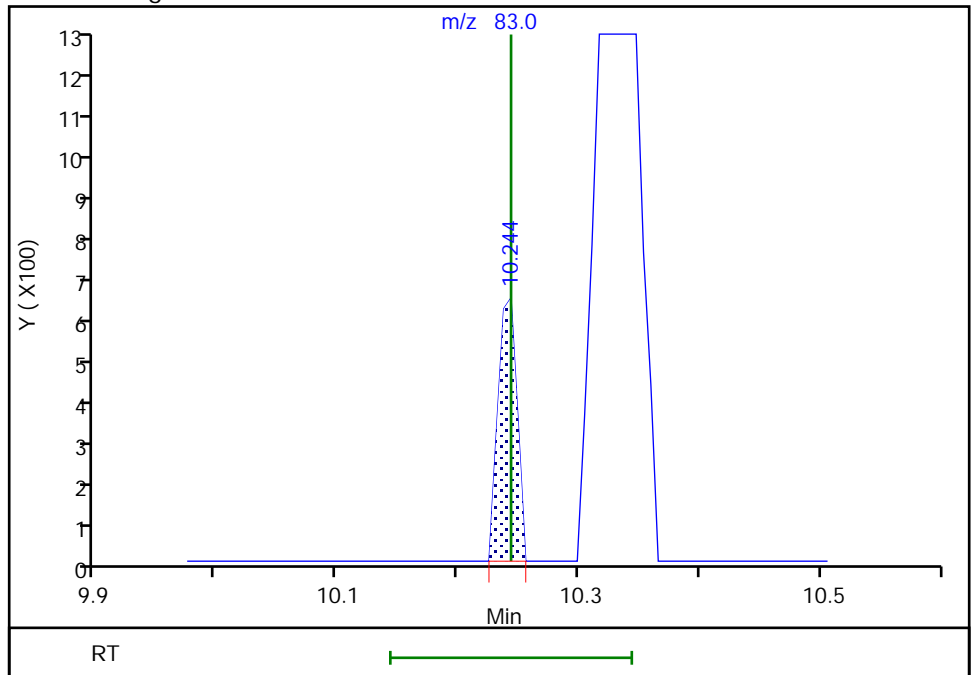
RT: 10.24
 Area: 696
 Amount: 0.026970
 Amount Units: ug/l

Processing Integration Results



RT: 10.24
 Area: 696
 Amount: 0.026970
 Amount Units: ug/l

Manual Integration Results



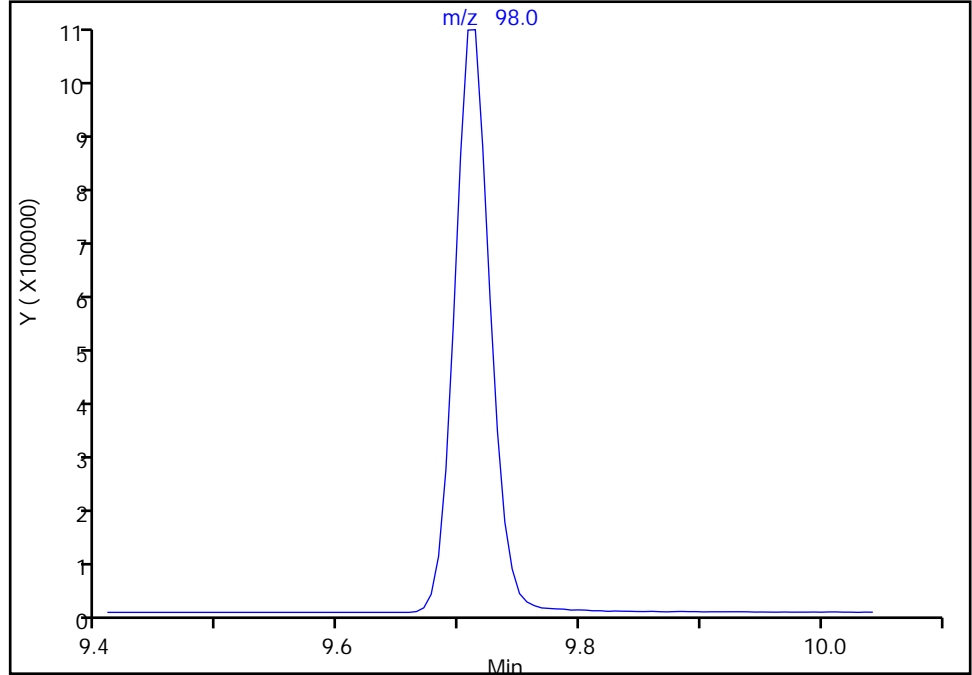
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X14.D
Injection Date: 28-Feb-2022 15:16:30 Instrument ID: 19930
Lims ID: 410-73936-A-6 Lab Sample ID: 410-73936-6
Client ID: HD-COD-SW-15-0/1-0
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

\$ 75 Toluene-d8 (Surr), CAS: 2037-26-5
Signal: 1

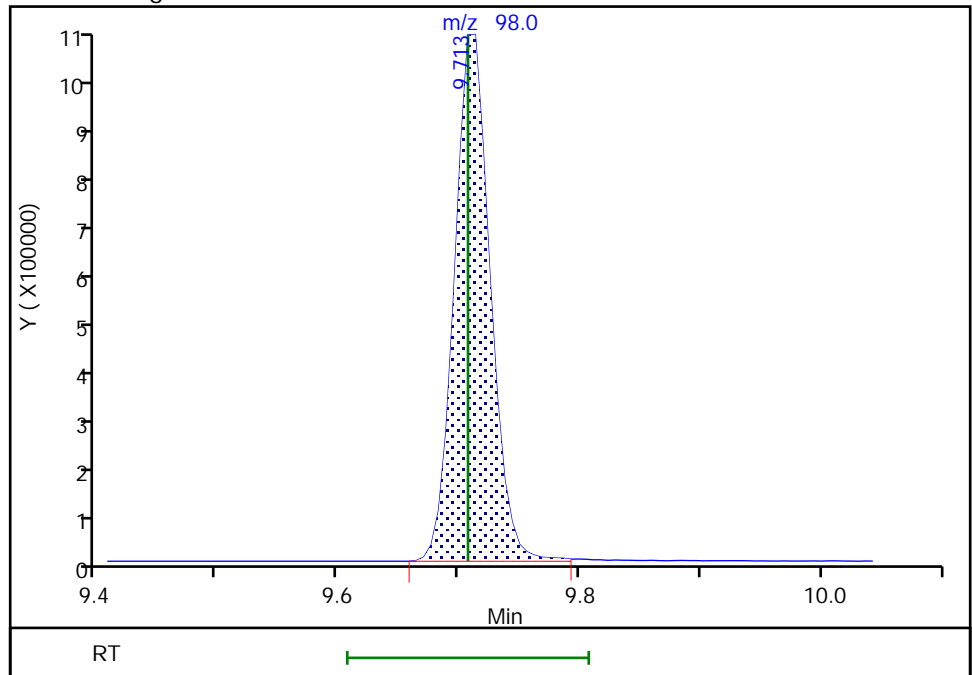
Not Detected
Expected RT: 9.71

Processing Integration Results



Manual Integration Results

RT: 9.71
Area: 2129067
Amount: 9.940179
Amount Units: ug/l



Reviewer: beckerk, 28-Feb-2022 17:21:59
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-73936-7
 Matrix: Water Lab File ID: IF28X18.D
 Analysis Method: 8260D Date Collected: 02/22/2022 09:45
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 16:41
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.6	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.74	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-73936-7
 Matrix: Water Lab File ID: IF28X18.D
 Analysis Method: 8260D Date Collected: 02/22/2022 09:45
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 16:41
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.14	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	89	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	95	cn	80-120
2037-26-5	Toluene-d8 (Surr)	99	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X18.D
 Lims ID: 410-73936-A-7
 Client ID: HD-COD-SW-16-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 16:41:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-019
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:28:07

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.154	2.154	0.000	1	3299	0.0419	
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.605	3.593	0.012	21	13933	1.59	M
19 Carbon disulfide	76	3.873	3.873	0.000	69	5129	0.0352	
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	24	157308	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	77	7369	0.1105	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.610	6.610	0.000	77	3602	0.0335	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	529911	9.52	
47 1,1,1-Trichloroethane	97	6.854	6.836	0.018	35	5500	0.0550	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	113732	10.2	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2208969	10.0	
61 Trichloroethene	95	8.195	8.189	0.006	87	9664	0.1448	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2177488	9.91	
76 Toluene	92	9.780	9.787	-0.006	97	4190	0.0257	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	96	57247	0.7369	
83 2-Hexanone	43		10.451				ND	7
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1701056	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	751763	8.95	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	846890	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X18.D

Injection Date: 28-Feb-2022 16:41:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-7

Lab Sample ID: 410-73936-7

Worklist Smp#: 19

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

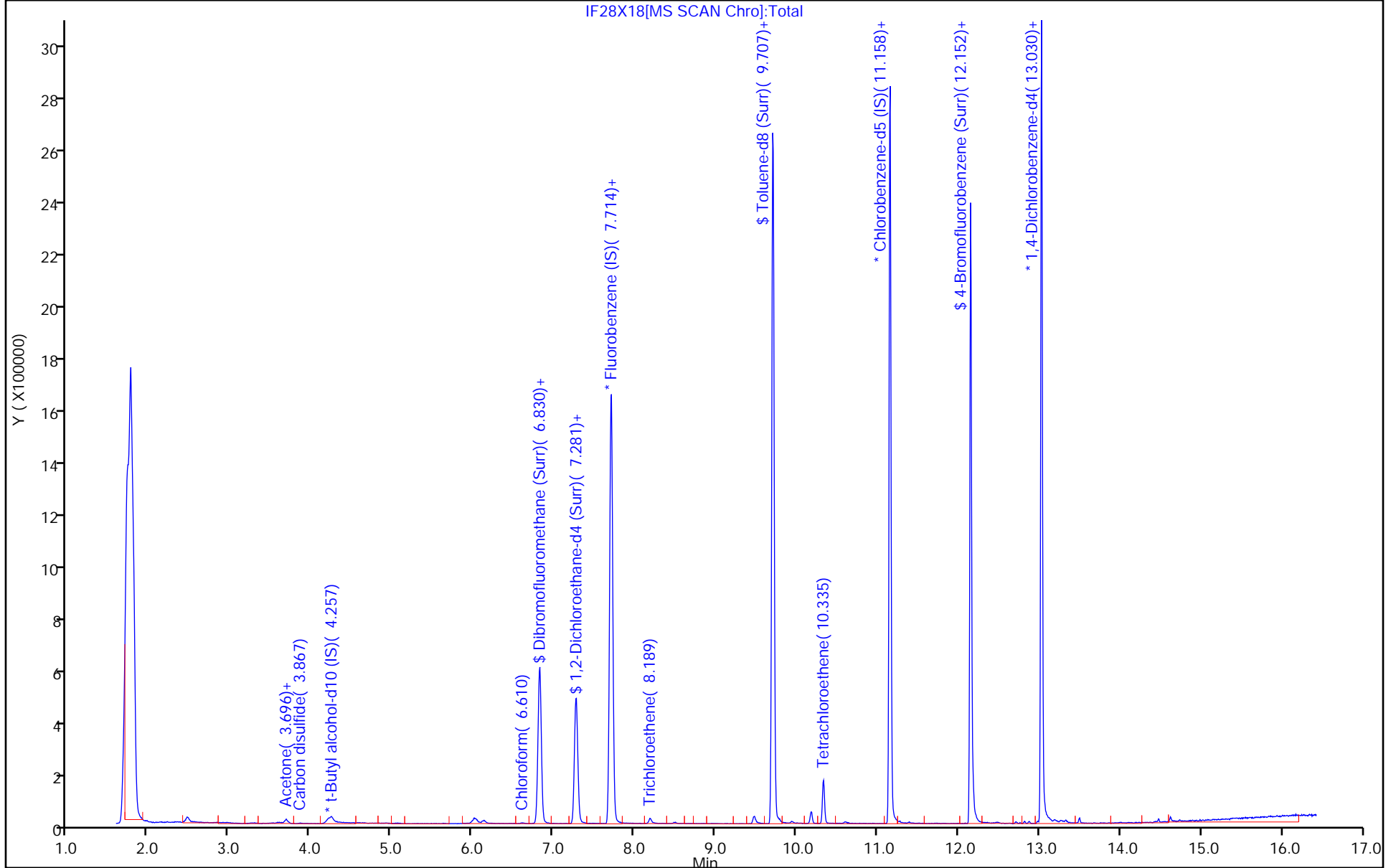
ALS Bottle#: 18

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X18.D
 Lims ID: 410-73936-A-7
 Client ID: HD-COD-SW-16-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 16:41:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-019
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:28:07

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.52	95.23
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.17
\$ 75 Toluene-d8 (Surr)	10.0	9.91	99.05
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.95	89.48

Eurolins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X18.D

Injection Date: 28-Feb-2022 16:41:30

Instrument ID: 19930

Lims ID: 410-73936-A-7

Lab Sample ID: 410-73936-7

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

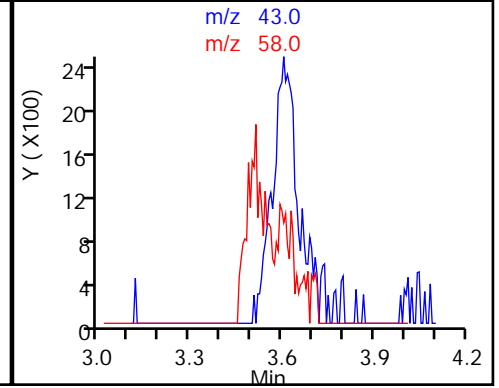
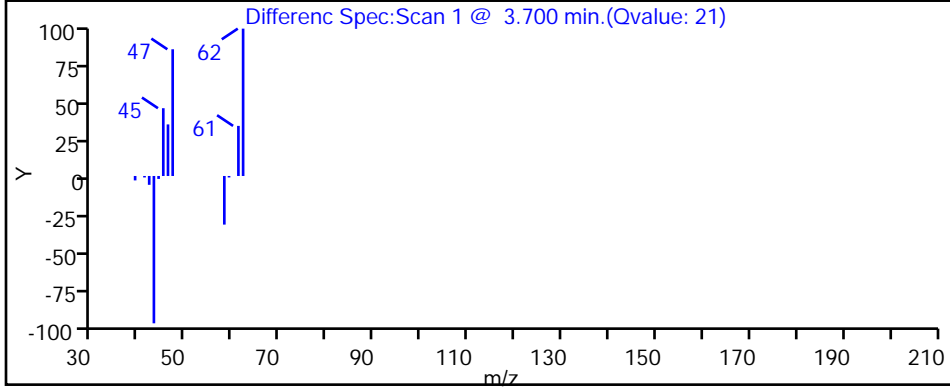
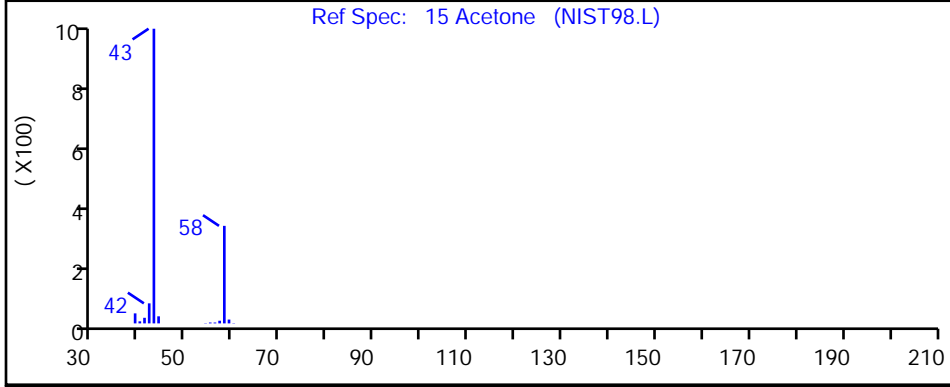
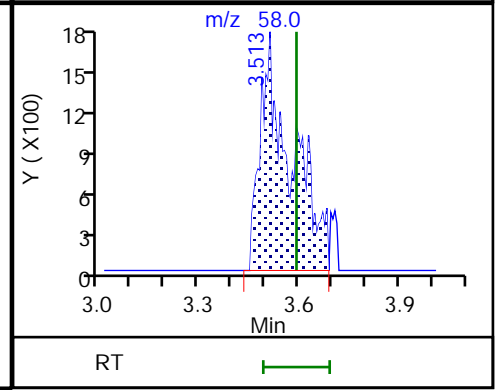
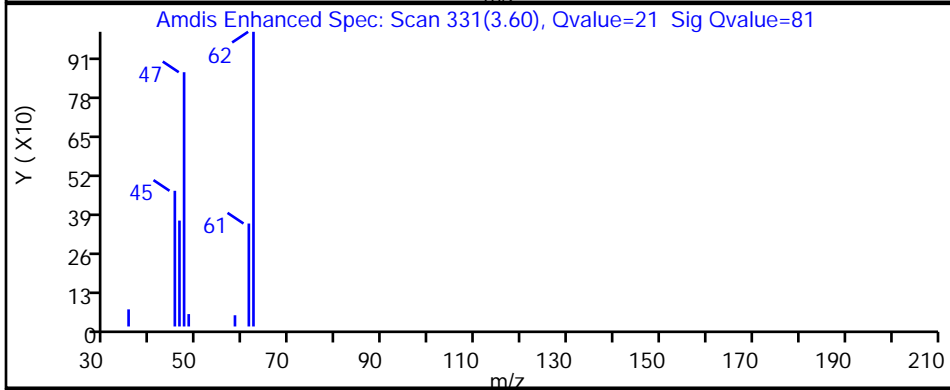
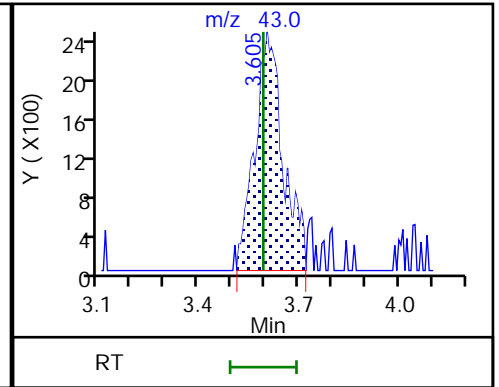
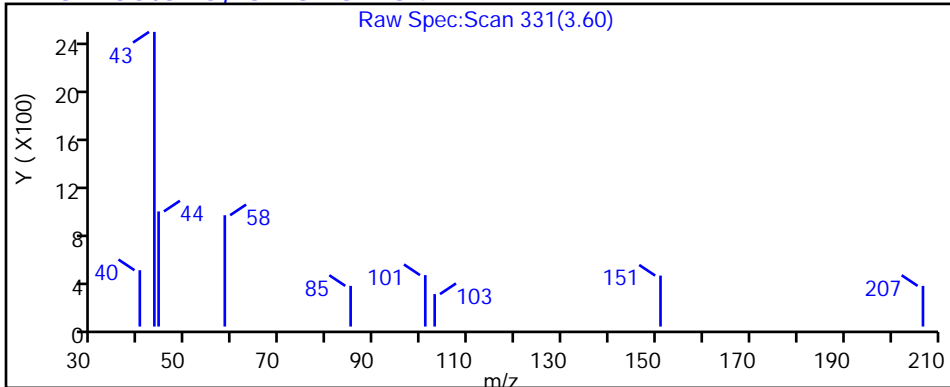
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X18.D

Injection Date: 28-Feb-2022 16:41:30

Instrument ID: 19930

Lims ID: 410-73936-A-7

Lab Sample ID: 410-73936-7

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

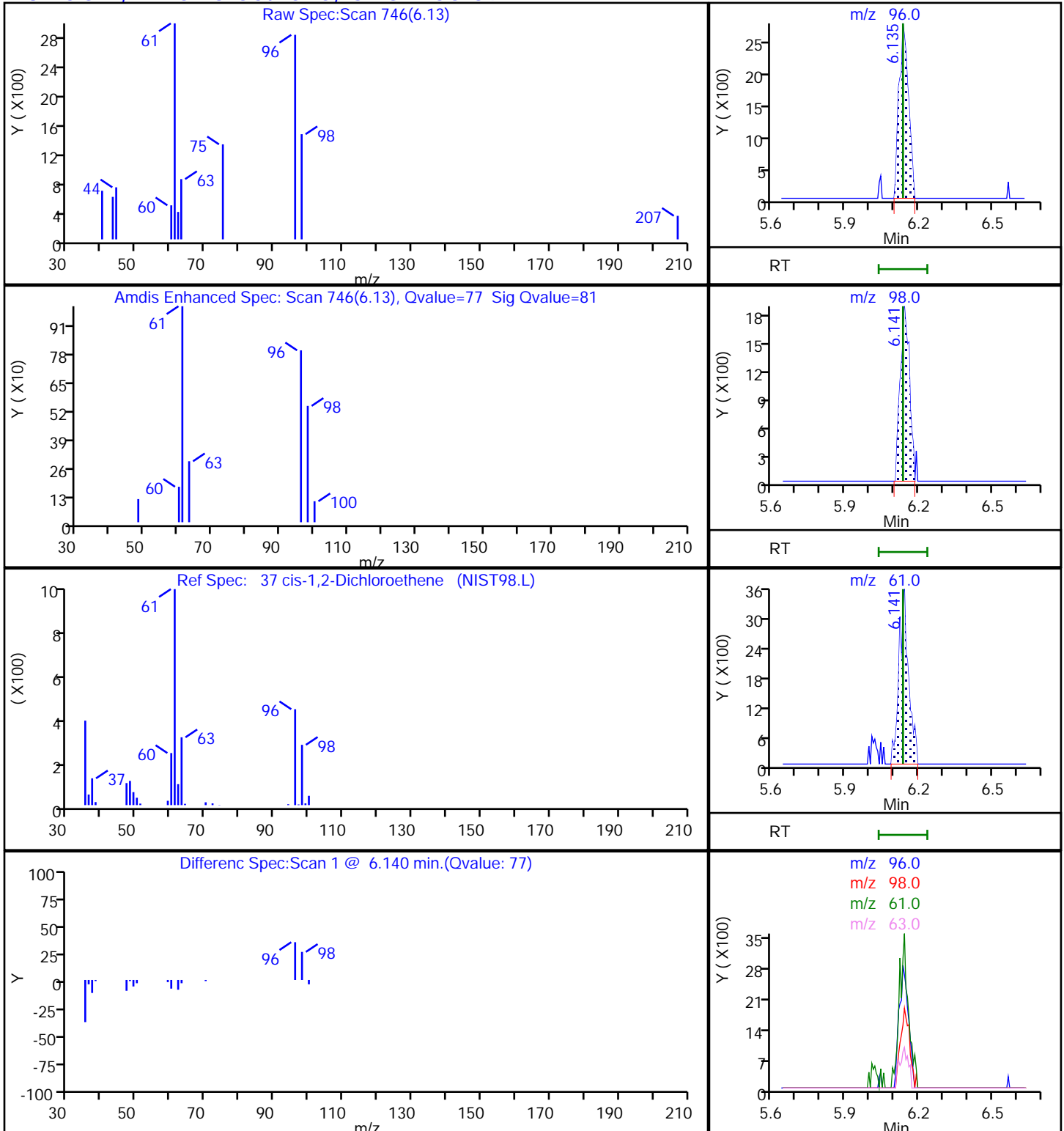
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X18.D

Injection Date: 28-Feb-2022 16:41:30

Instrument ID: 19930

Lims ID: 410-73936-A-7

Lab Sample ID: 410-73936-7

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

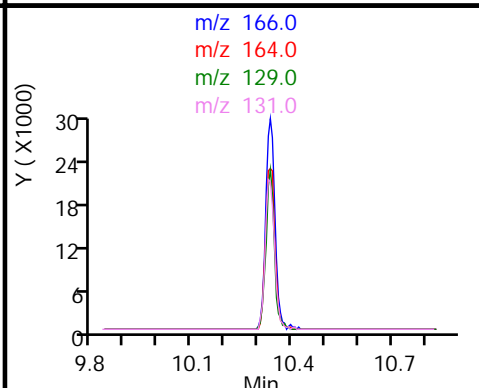
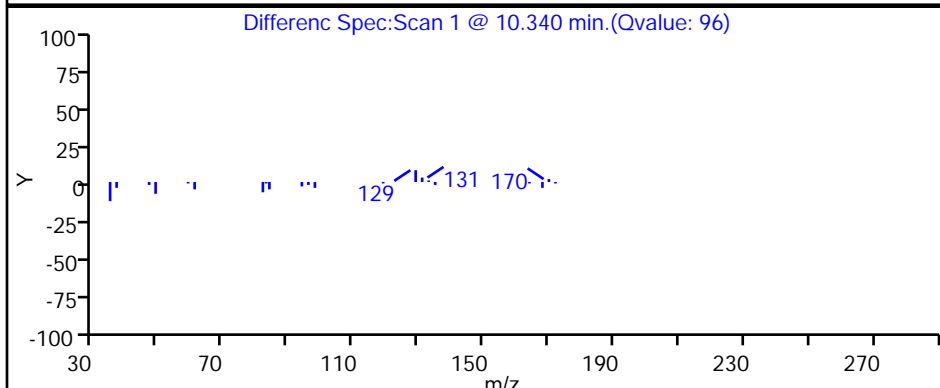
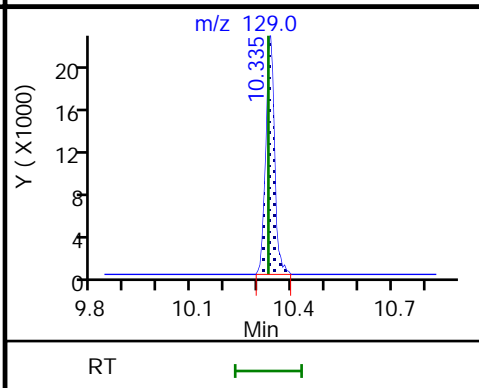
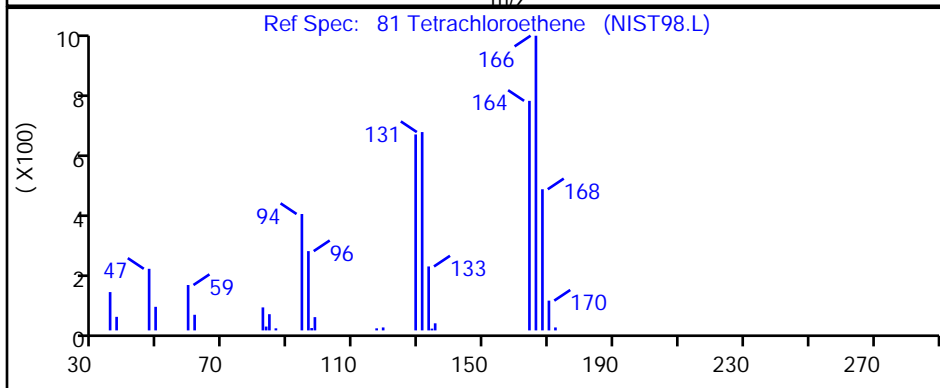
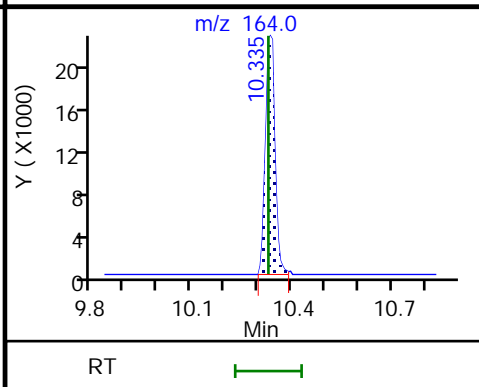
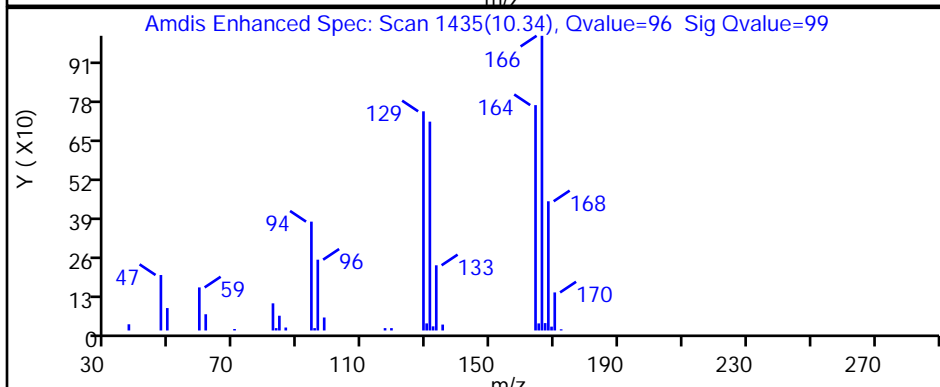
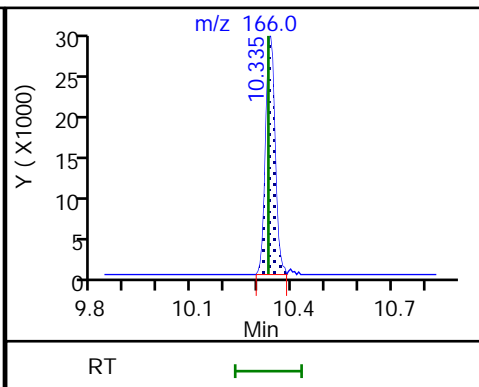
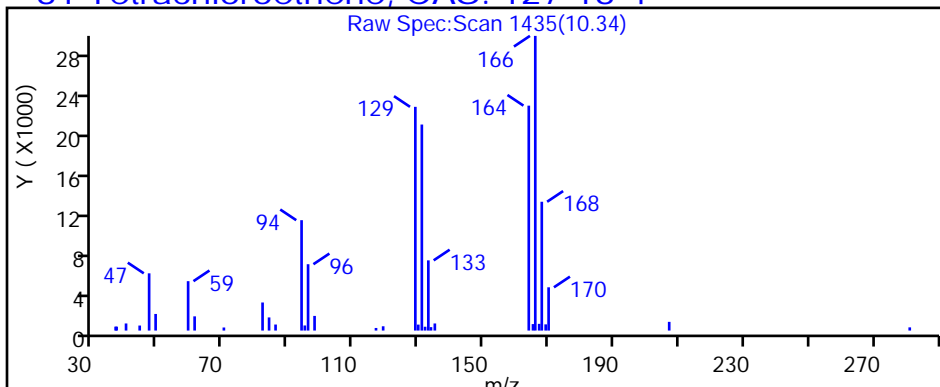
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X18.D

Injection Date: 28-Feb-2022 16:41:30

Instrument ID: 19930

Lims ID: 410-73936-A-7

Lab Sample ID: 410-73936-7

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

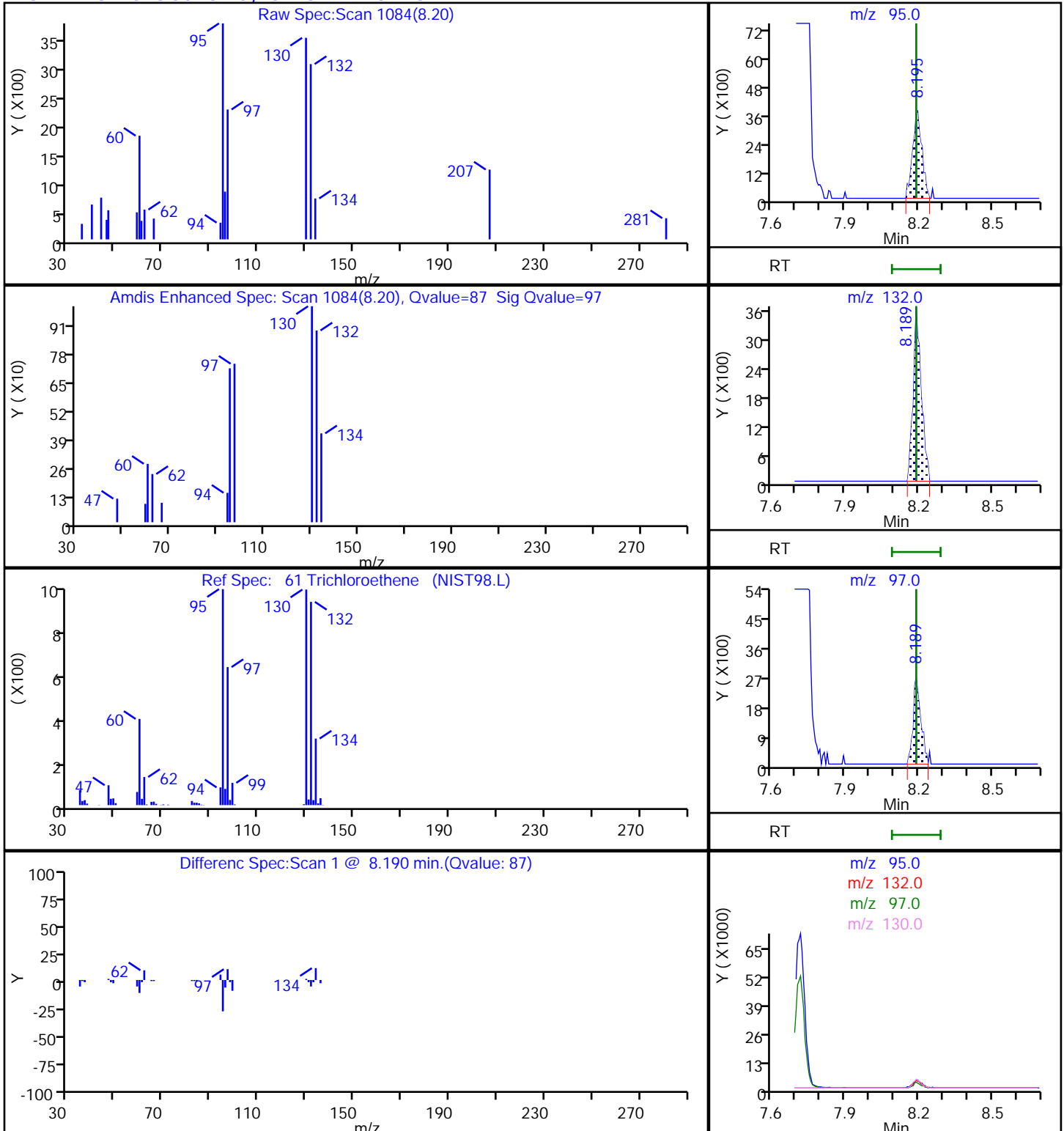
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Euofins Lancaster Laboratories Env, LLC

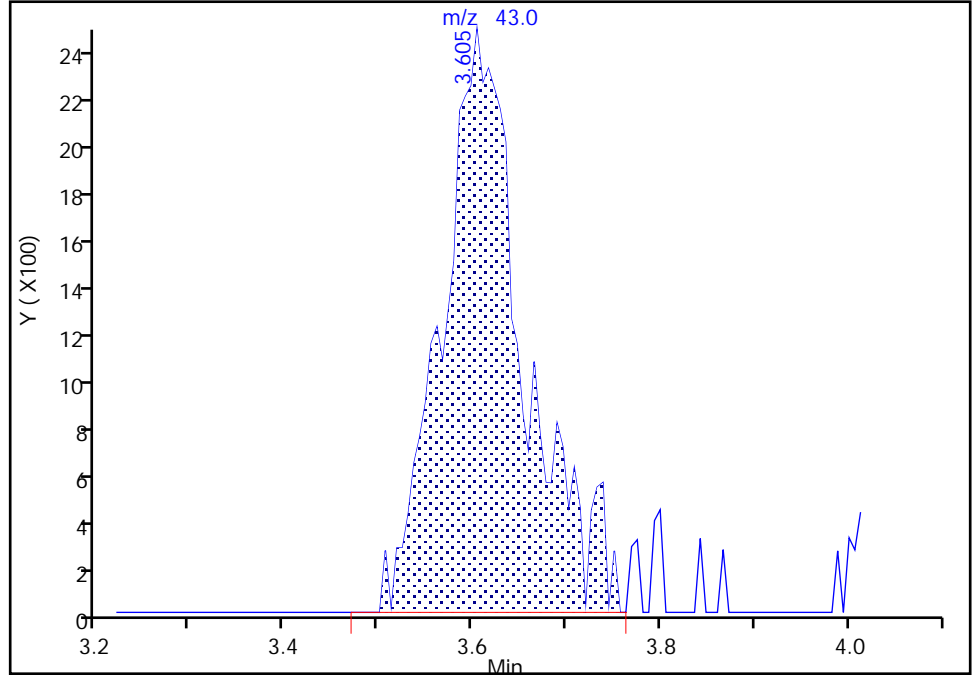
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X18.D
Injection Date: 28-Feb-2022 16:41:30 Instrument ID: 19930
Lims ID: 410-73936-A-7 Lab Sample ID: 410-73936-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: KNK41612 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

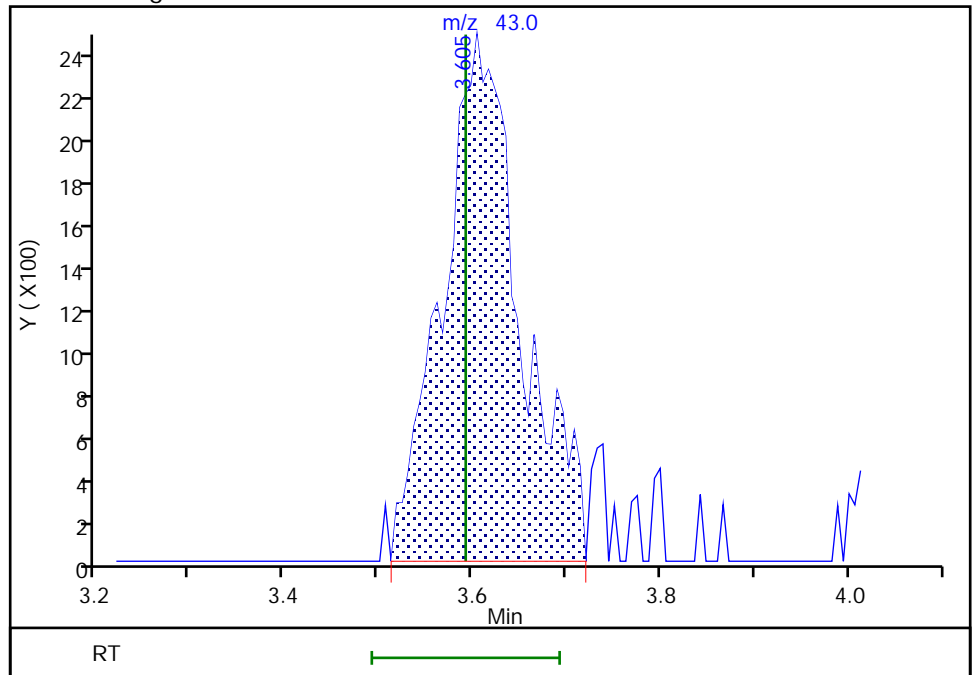
RT: 3.60
Area: 14659
Amount: 1.677464
Amount Units: ug/l

Processing Integration Results



RT: 3.60
Area: 13933
Amount: 1.594386
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 17:27:43
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-73936-8
 Matrix: Water Lab File ID: IF28X19.D
 Analysis Method: 8260D Date Collected: 02/22/2022 09:55
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 17:03
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	7.1	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	1.2	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.57	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	0.25	J cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.4	cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	5.4	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-73936-8
 Matrix: Water Lab File ID: IF28X19.D
 Analysis Method: 8260D Date Collected: 02/22/2022 09:55
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 17:03
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	89	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	98	cn	80-120
2037-26-5	Toluene-d8 (Surr)	99	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D
 Lims ID: 410-73936-A-8
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 17:03:30 ALS Bottle#: 19 Worklist Smp#: 20
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-020
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:51:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	
5 Vinyl chloride	62		2.251				ND	7
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	95	29849	0.5674	
15 Acetone	43		3.593				ND	7
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.263	-0.012	26	140931	50.0	
27 Methyl tert-butyl ether	73	4.653	4.641	0.012	32	5978	0.0398	M
28 trans-1,2-Dichloroethene	96		4.659				ND	7
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	132225	1.22	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	79	295459	4.44	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.610	6.610	0.000	93	26731	0.2489	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	542313	9.77	
47 1,1,1-Trichloroethane	97	6.842	6.836	0.006	98	711297	7.13	
50 Carbon tetrachloride	117	7.049	7.049	0.000	38	3439	0.0399	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	67	112776	10.2	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2204072	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	97	357009	5.36	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2179247	9.88	
76 Toluene	92		9.787				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	1	1422	0.0326	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	98	7781398	99.9	E
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1706301	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	753865	8.95	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	835076	10.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D

Injection Date: 28-Feb-2022 17:03:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-8

Lab Sample ID: 410-73936-8

Worklist Smp#: 20

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

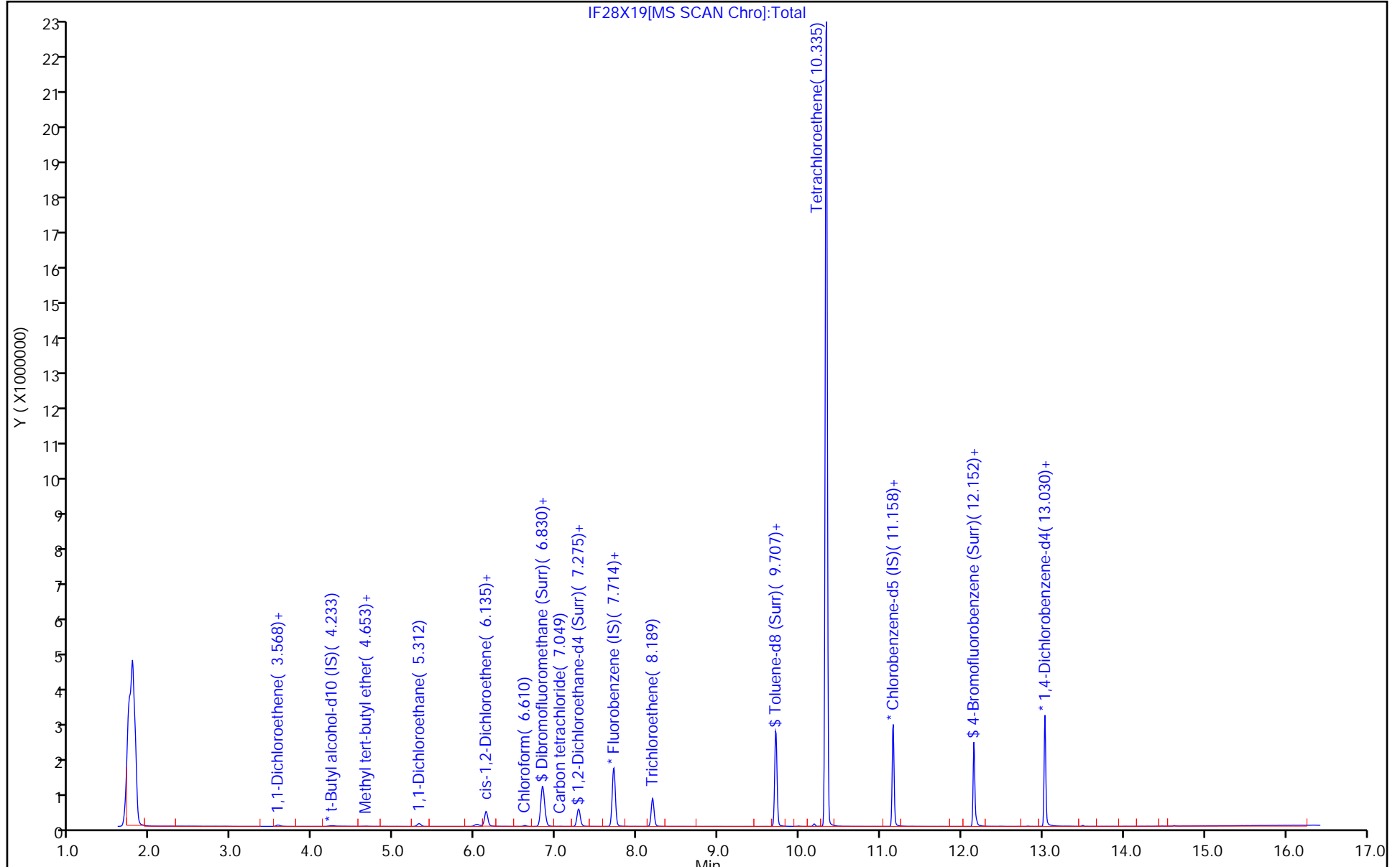
ALS Bottle#: 19

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D
 Lims ID: 410-73936-A-8
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 17:03:30 ALS Bottle#: 19 Worklist Smp#: 20
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-020
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:51:10

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.77	97.67
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.53
\$ 75 Toluene-d8 (Surr)	10.0	9.88	98.83
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.95	89.45

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X19.D

Injection Date: 28-Feb-2022 17:03:30

Instrument ID: 19930

Lims ID: 410-73936-A-8

Lab Sample ID: 410-73936-8

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

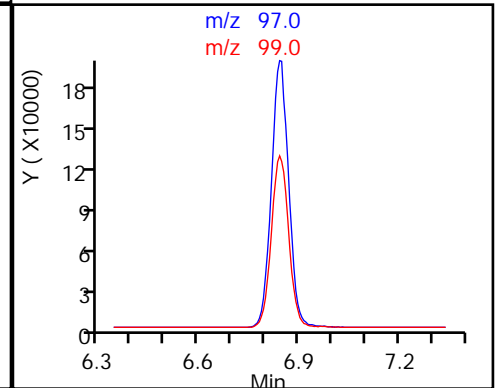
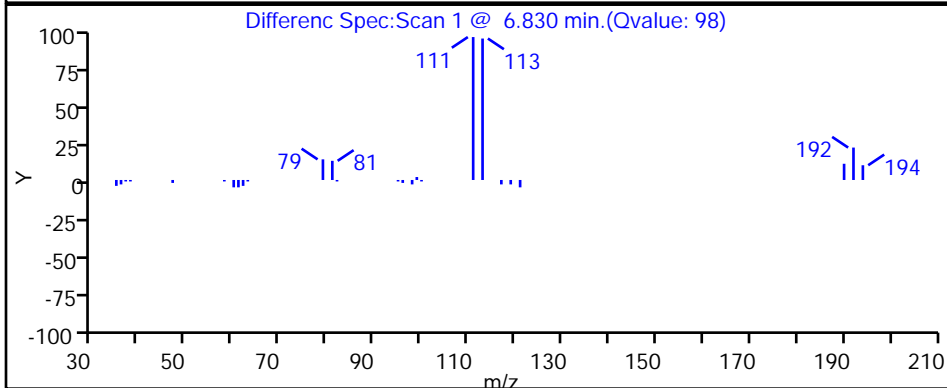
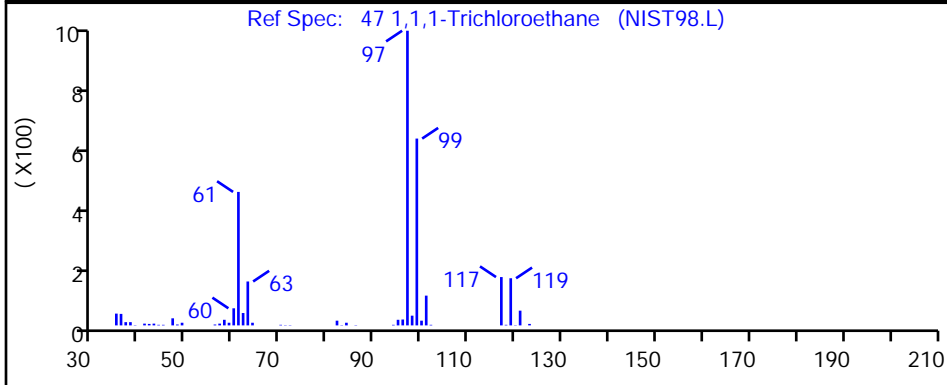
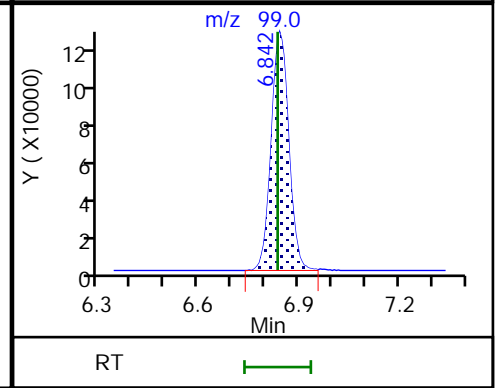
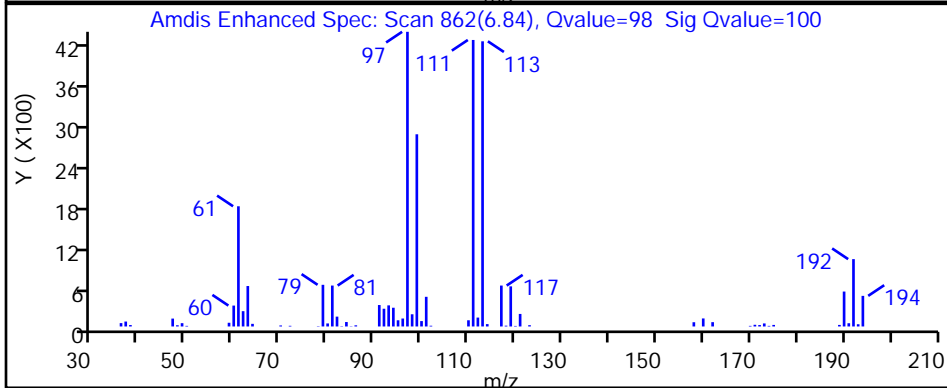
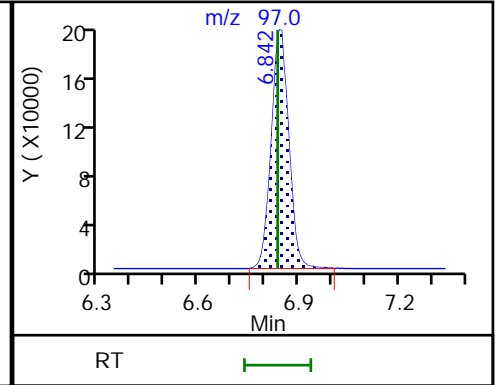
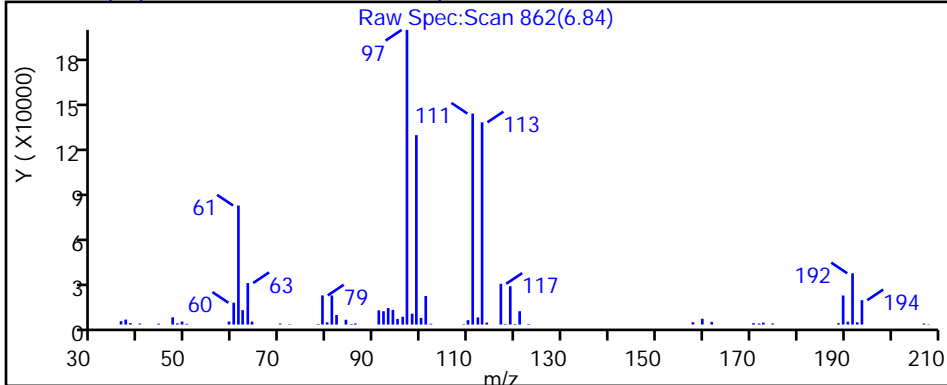
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D

Injection Date: 28-Feb-2022 17:03:30

Instrument ID: 19930

Lims ID: 410-73936-A-8

Lab Sample ID: 410-73936-8

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

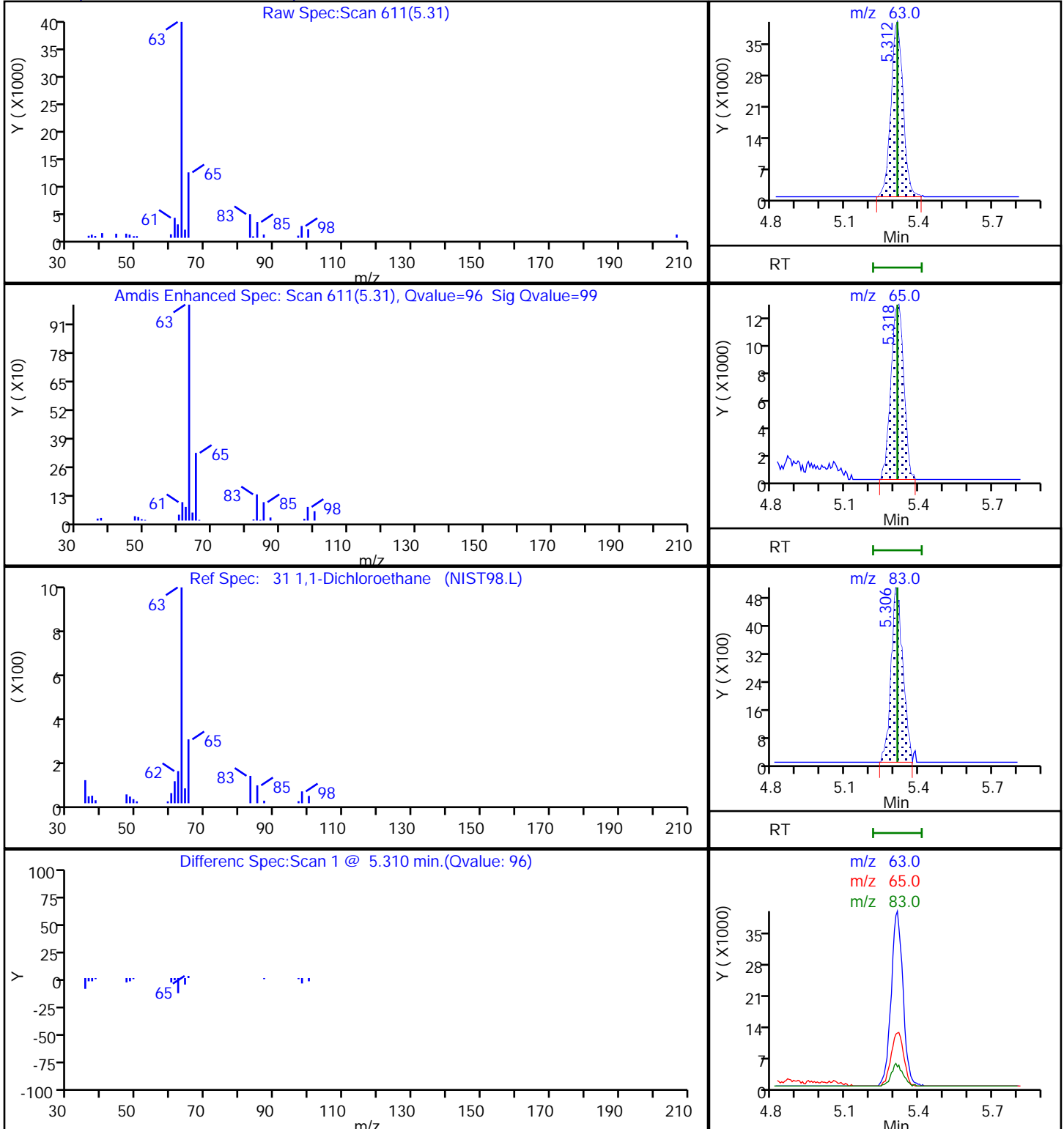
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D

Injection Date: 28-Feb-2022 17:03:30

Instrument ID: 19930

Lims ID: 410-73936-A-8

Lab Sample ID: 410-73936-8

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

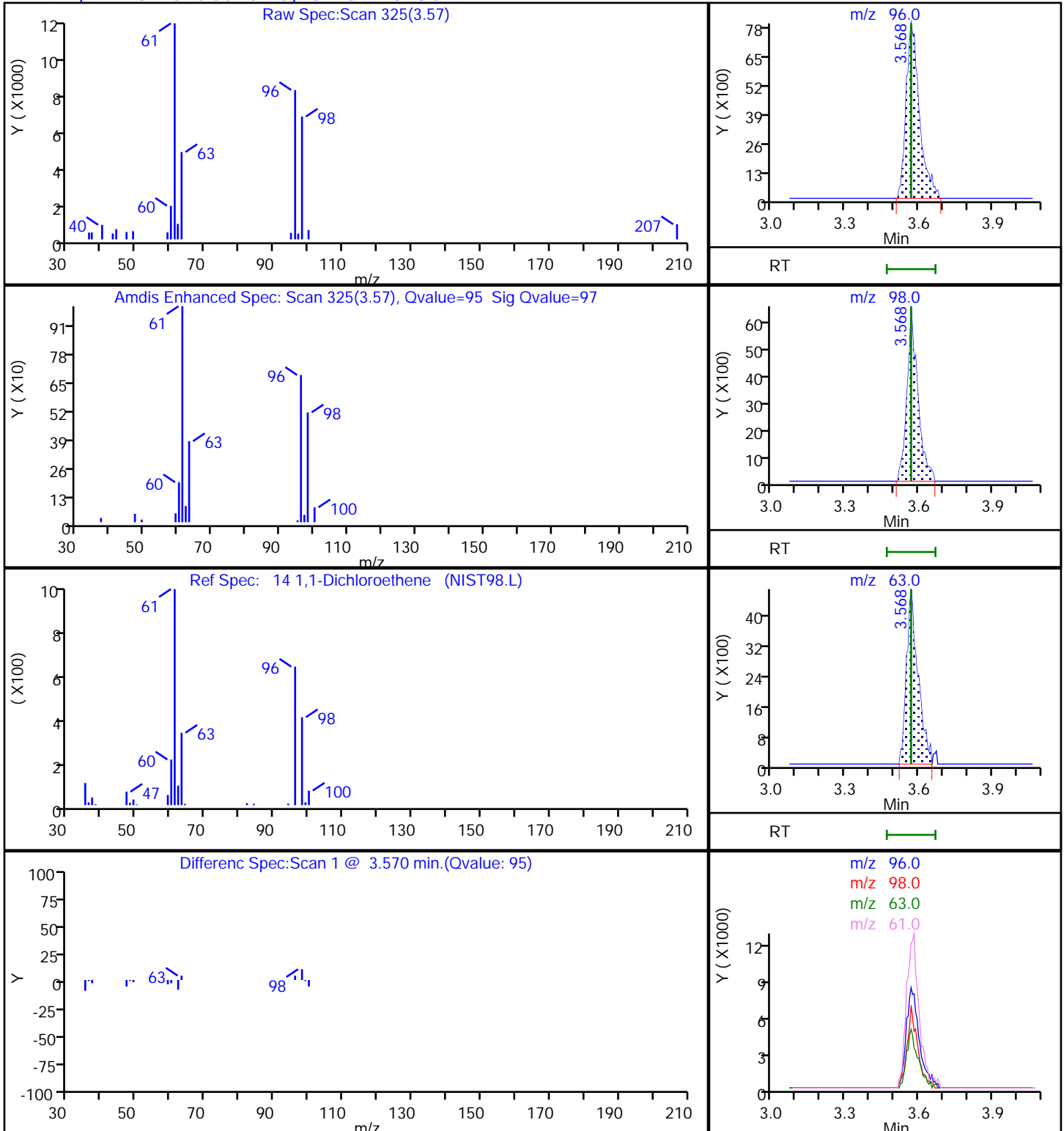
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D

Injection Date: 28-Feb-2022 17:03:30

Instrument ID: 19930

Lims ID: 410-73936-A-8

Lab Sample ID: 410-73936-8

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

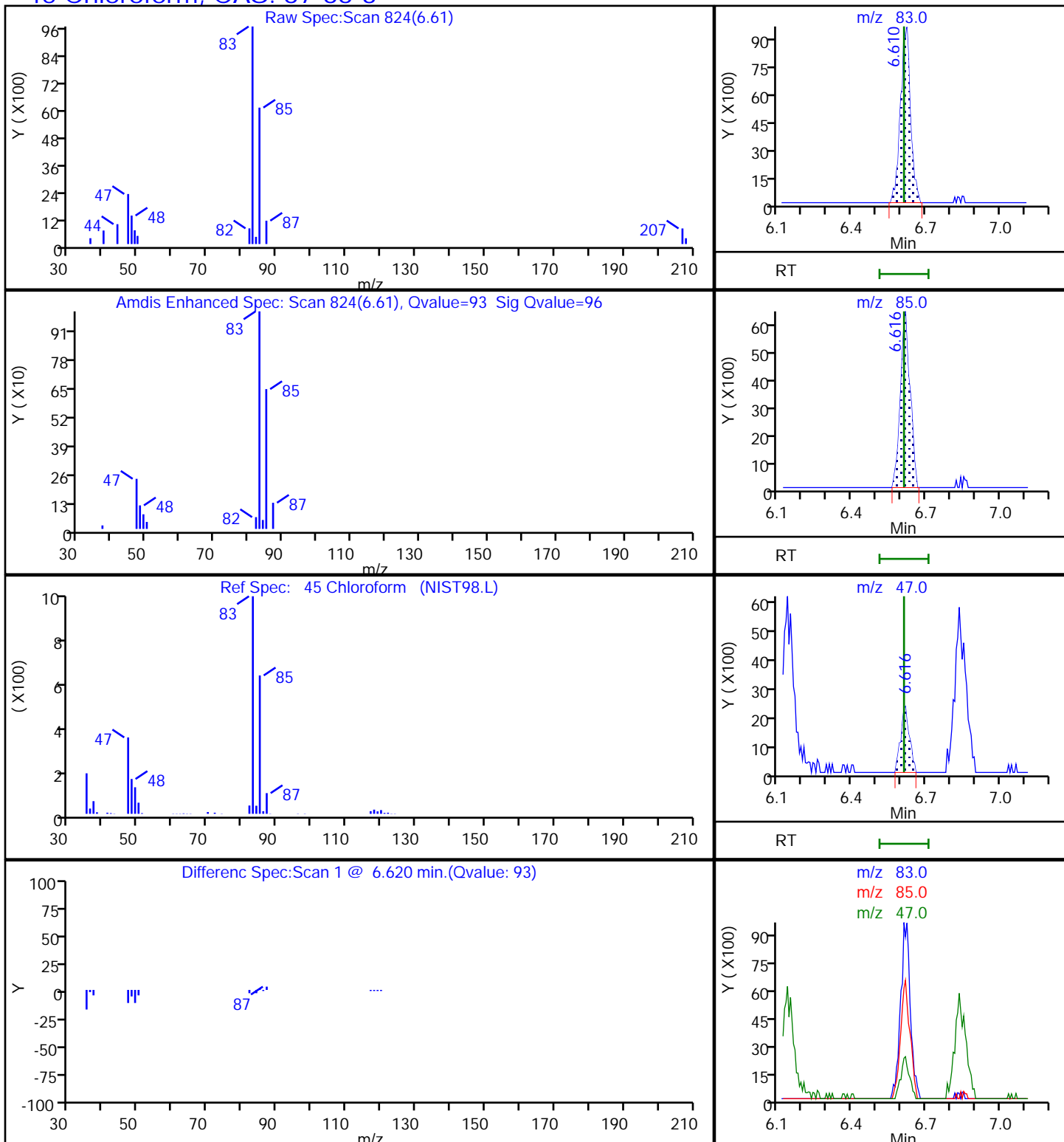
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D

Injection Date: 28-Feb-2022 17:03:30

Instrument ID: 19930

Lims ID: 410-73936-A-8

Lab Sample ID: 410-73936-8

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

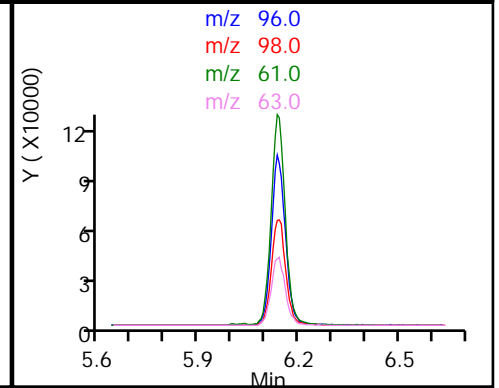
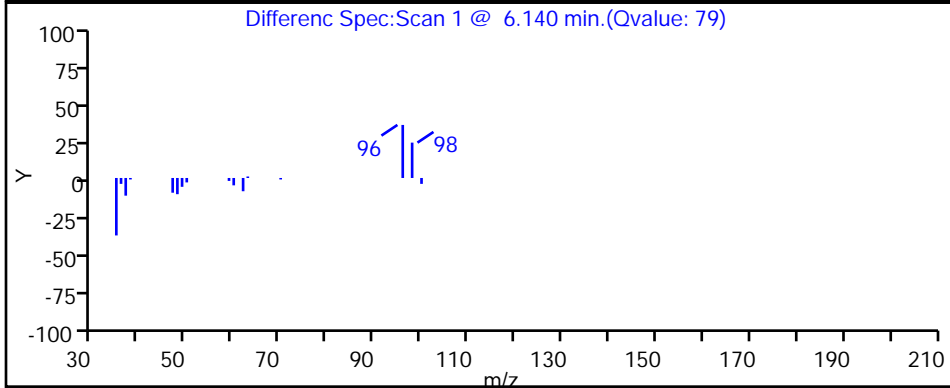
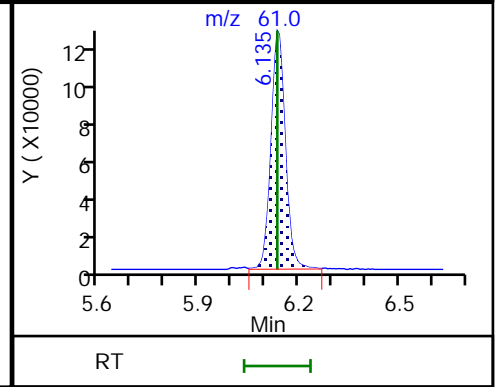
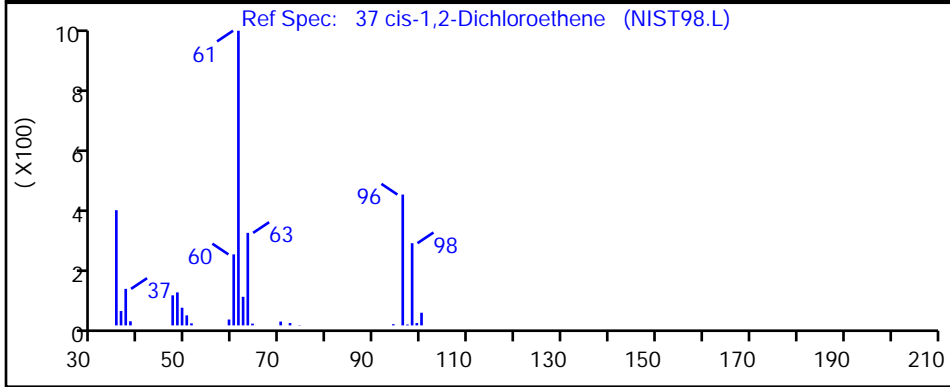
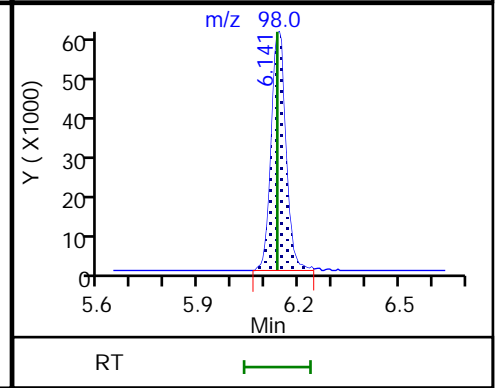
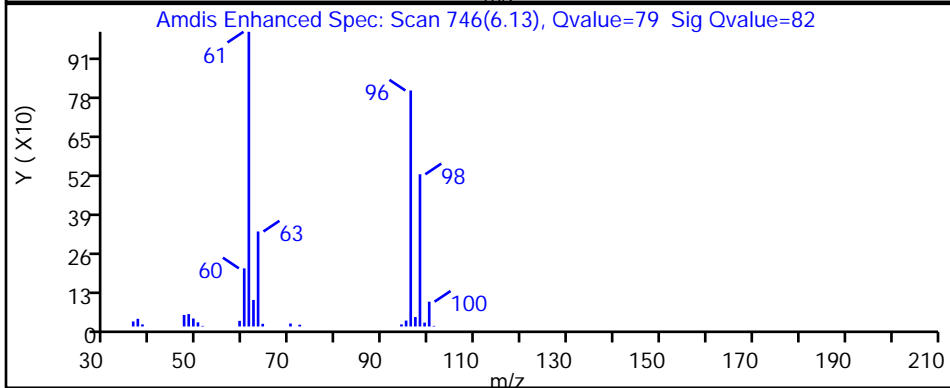
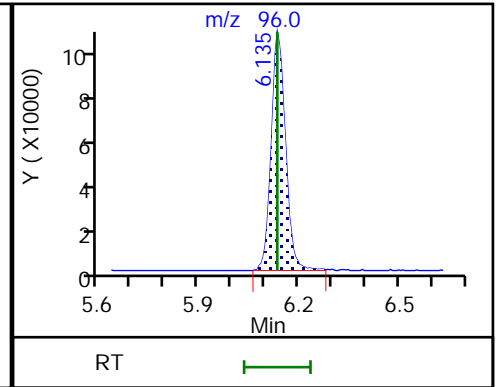
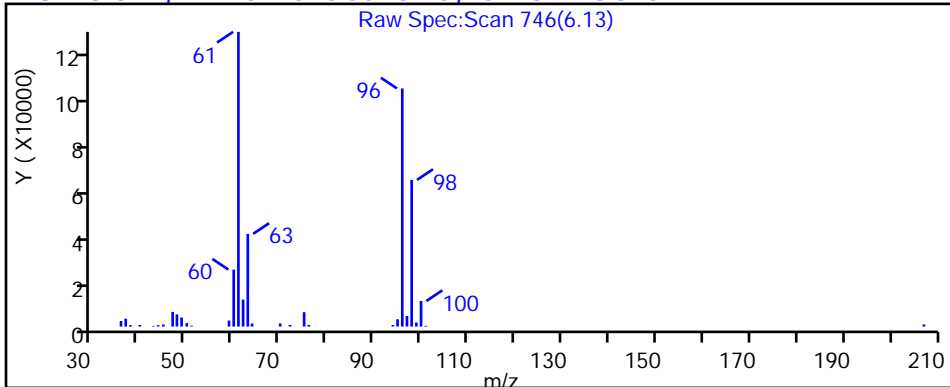
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D

Injection Date: 28-Feb-2022 17:03:30

Instrument ID: 19930

Lims ID: 410-73936-A-8

Lab Sample ID: 410-73936-8

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

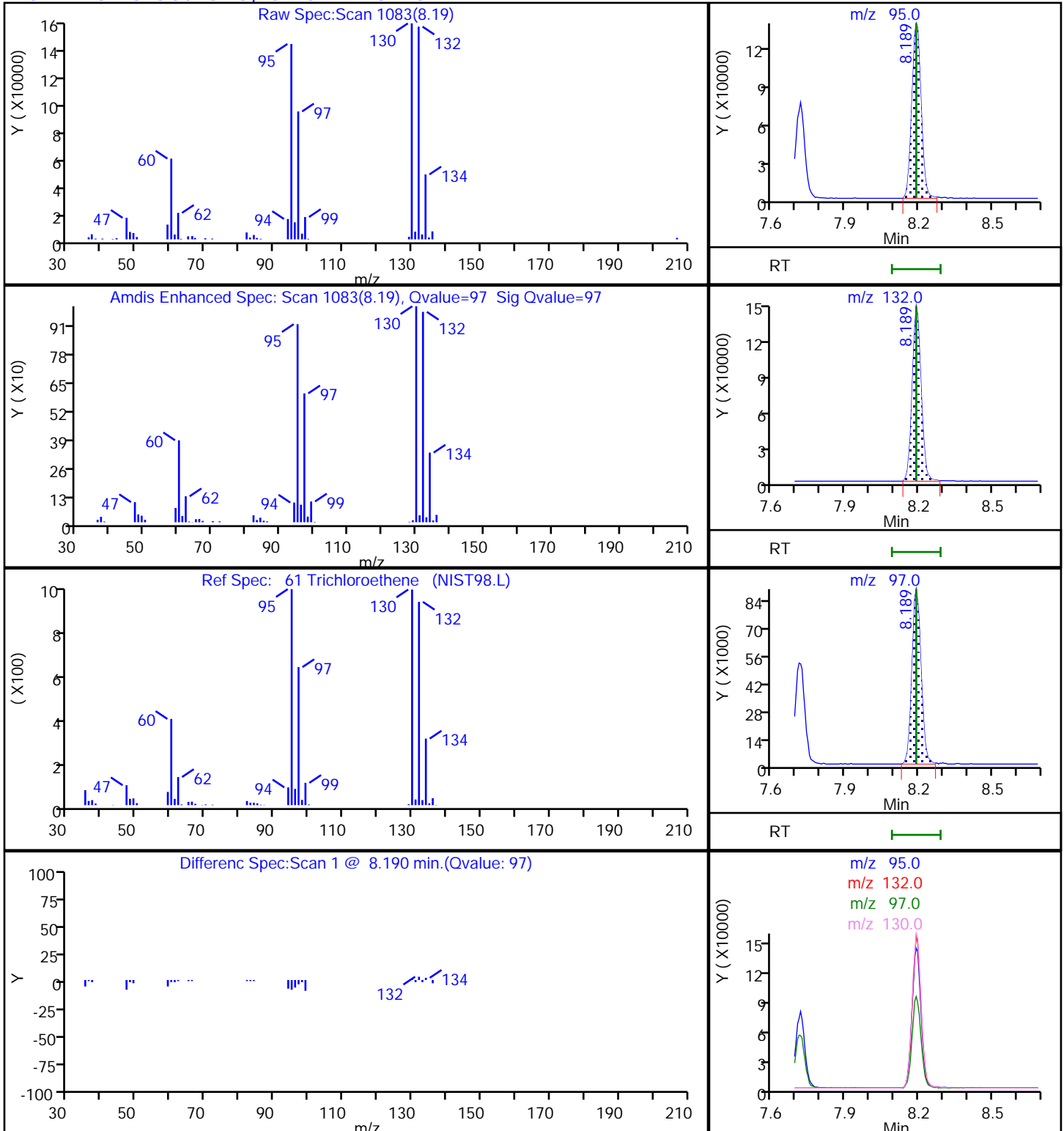
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

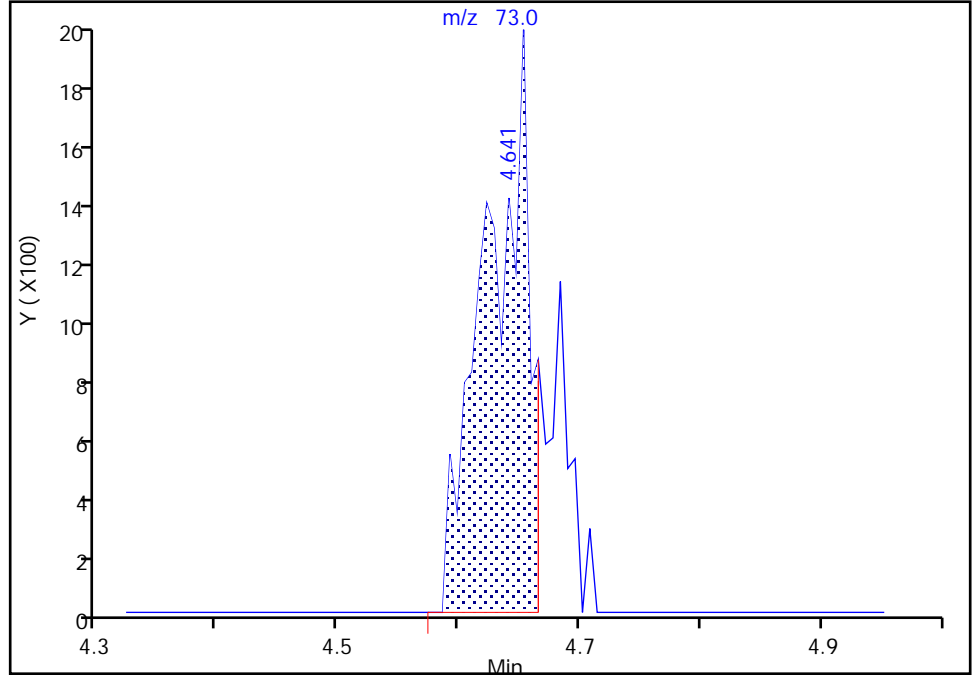
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X19.D
Injection Date: 28-Feb-2022 17:03:30 Instrument ID: 19930
Lims ID: 410-73936-A-8 Lab Sample ID: 410-73936-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: KNK41612 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

27 Methyl tert-butyl ether, CAS: 1634-04-4

Signal: 1

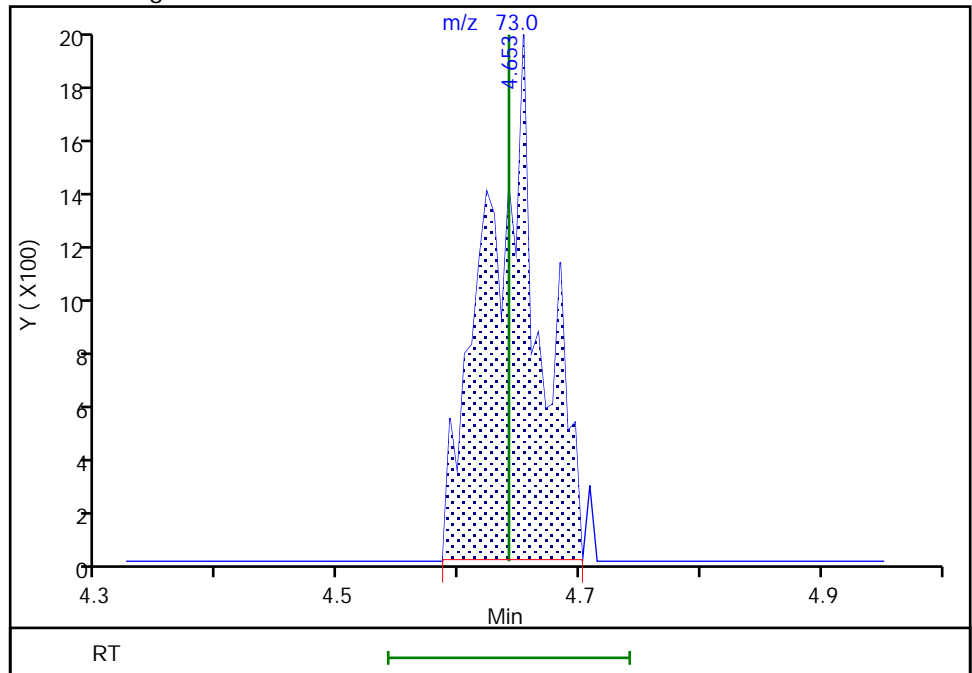
RT: 4.64
Area: 4827
Amount: 0.032167
Amount Units: ug/l

Processing Integration Results



RT: 4.65
Area: 5978
Amount: 0.039837
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 20:50:45
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 DL Lab Sample ID: 410-73936-8 DL
 Matrix: Water Lab File ID: IF28X20.D
 Analysis Method: 8260D Date Collected: 02/22/2022 09:55
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 17:24
 Soil Aliquot Vol: _____ Dilution Factor: 20
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	84		10	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X20.D
 Lims ID: 410-73936-B-8 DL
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 17:24:30 ALS Bottle#: 20 Worklist Smp#: 21
 Purge Vol: 25.000 mL Dil. Factor: 20.0000
 Sample Info: 410-0051281-021
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk Date: 28-Feb-2022 20:51:39

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	7
15 Acetone	43		3.593				ND	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.263	-0.018	26	142823	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63	5.318	5.312	0.006	89	5405	0.0493	a
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	77	13406	0.1994	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83		6.610				ND	7
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	544847	9.71	
47 1,1,1-Trichloroethane	97	6.848	6.836	0.012	36	30057	0.2981	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	67	114388	10.2	
54 Benzene	78		7.305				ND	
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2226656	10.0	
61 Trichloroethene	95	8.195	8.189	0.006	93	15482	0.2301	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2207539	9.93	
76 Toluene	92		9.787				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	98	328203	4.18	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1720250	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	744122	8.76	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	832242	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X20.D

Injection Date: 28-Feb-2022 17:24:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-B-8 DL

Lab Sample ID: 410-73936-8

Worklist Smp#: 21

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

Purge Vol: 25.000 mL

Dil. Factor: 20.0000

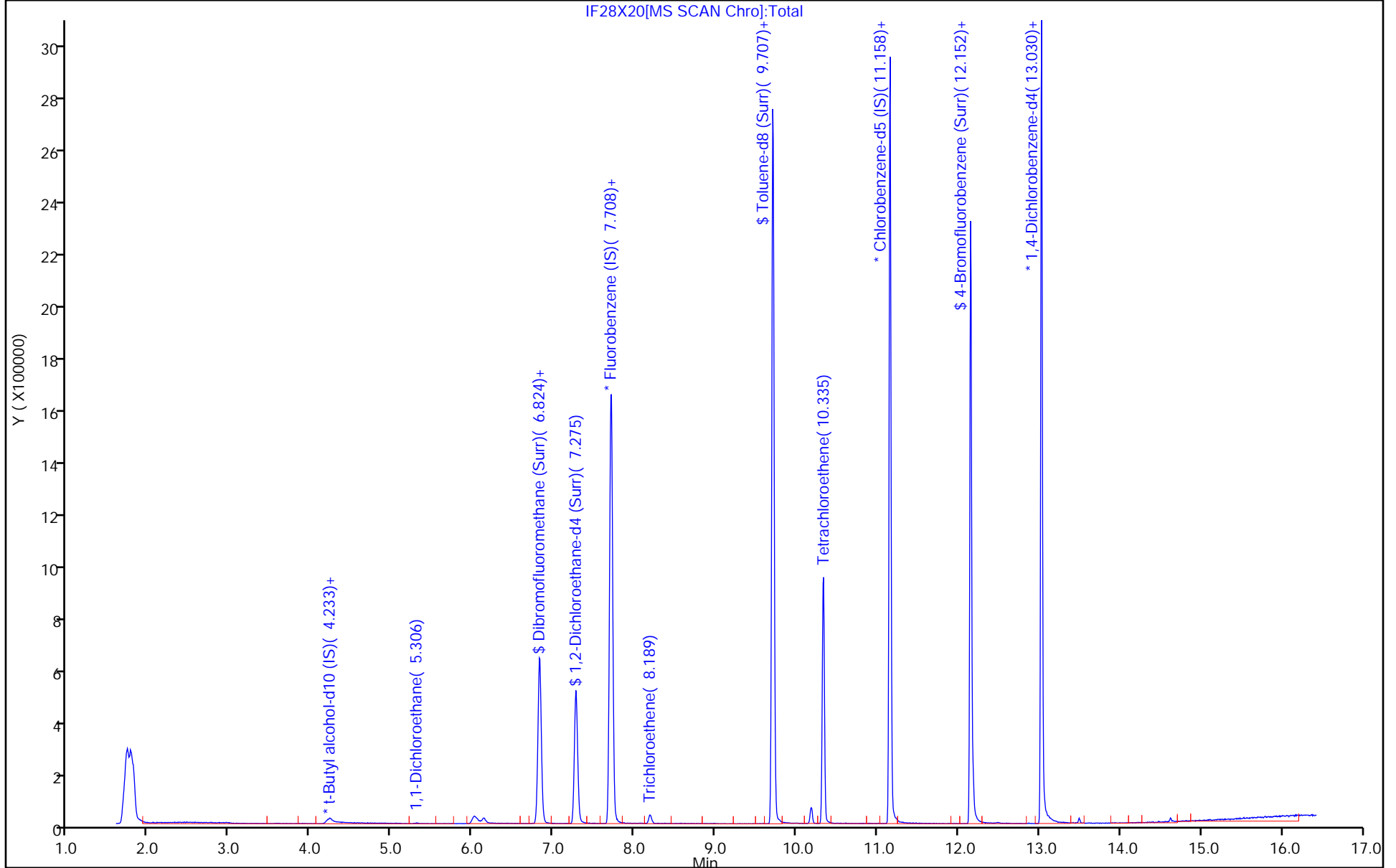
ALS Bottle#: 20

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X20.D
 Lims ID: 410-73936-B-8 DL
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 17:24:30 ALS Bottle#: 20 Worklist Smp#: 21
 Purge Vol: 25.000 mL Dil. Factor: 20.0000
 Sample Info: 410-0051281-021
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:51:39

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.71	97.14
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.94
\$ 75 Toluene-d8 (Surr)	10.0	9.93	99.30
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.76	87.58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X20.D

Injection Date: 28-Feb-2022 17:24:30

Instrument ID: 19930

Lims ID: 410-73936-B-8 DL

Lab Sample ID: 410-73936-8

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

Operator ID: KNK41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 20.0000

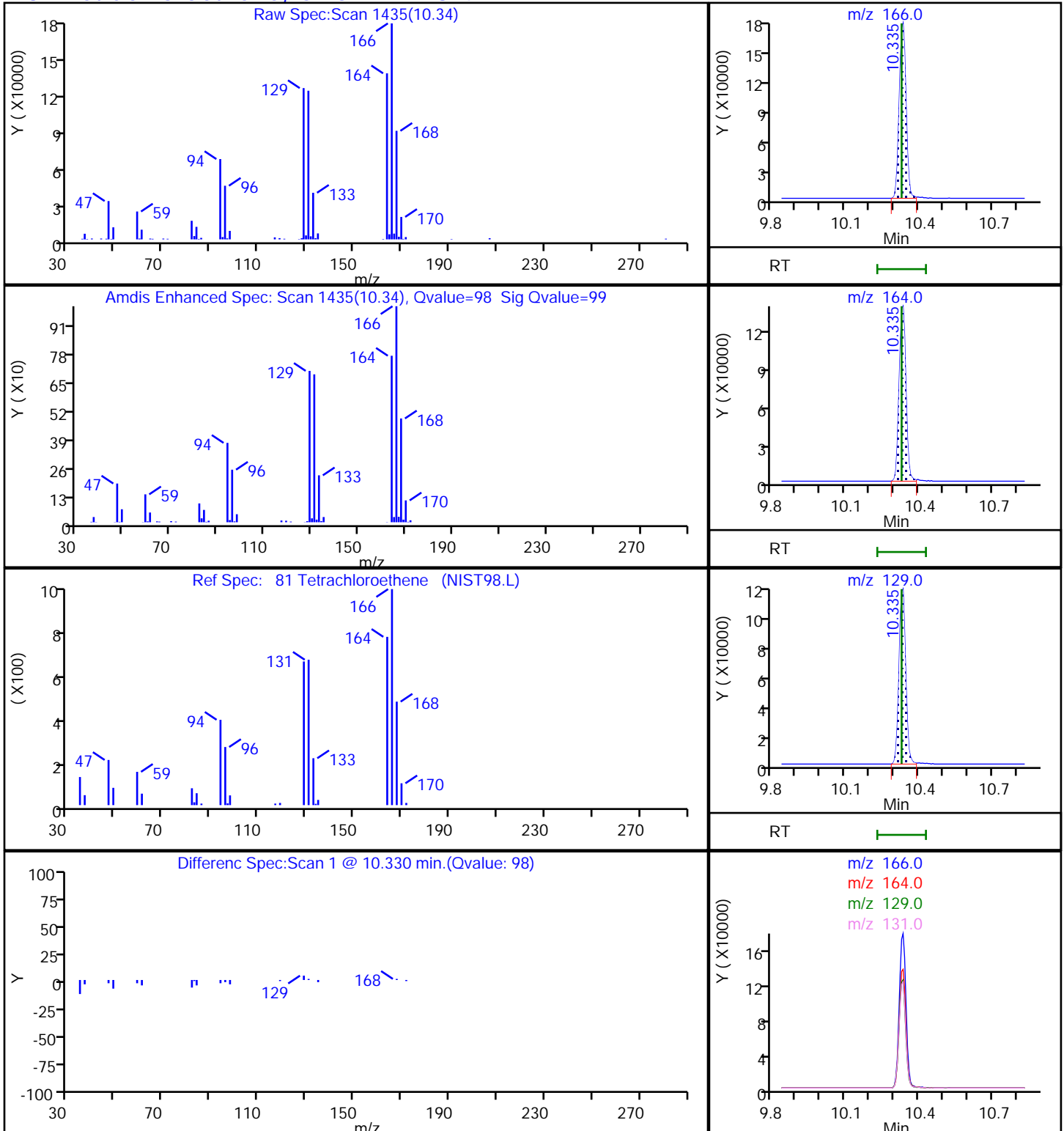
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-73936-9
 Matrix: Water Lab File ID: IF28X21.D
 Analysis Method: 8260D Date Collected: 02/22/2022 10:40
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 17:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.10	J cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	0.58	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.065	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	2.9	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-73936-9
 Matrix: Water Lab File ID: IF28X21.D
 Analysis Method: 8260D Date Collected: 02/22/2022 10:40
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 17:45
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.15	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	89	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	98	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D
 Lims ID: 410-73936-A-9
 Client ID: HD-COD-SW-26-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 17:45:30 ALS Bottle#: 21 Worklist Smp#: 22
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-022
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:52:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96	3.586	3.568	0.018	93	5260	0.1023	
15 Acetone	43		3.593				ND	U
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.263	-0.018	24	145875	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.147	6.135	0.012	71	4246	0.0653	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.622	6.610	0.012	93	61048	0.5819	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	529015	9.75	
47 1,1,1-Trichloroethane	97		6.836				ND	7
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	110490	10.2	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2153187	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	96	9619	0.1478	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	93	2139851	10.0	
76 Toluene	92		9.787				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	98	218400	2.89	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1656395	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	728484	8.90	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	823999	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D

Injection Date: 28-Feb-2022 17:45:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-9

Lab Sample ID: 410-73936-9

Worklist Smp#: 22

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

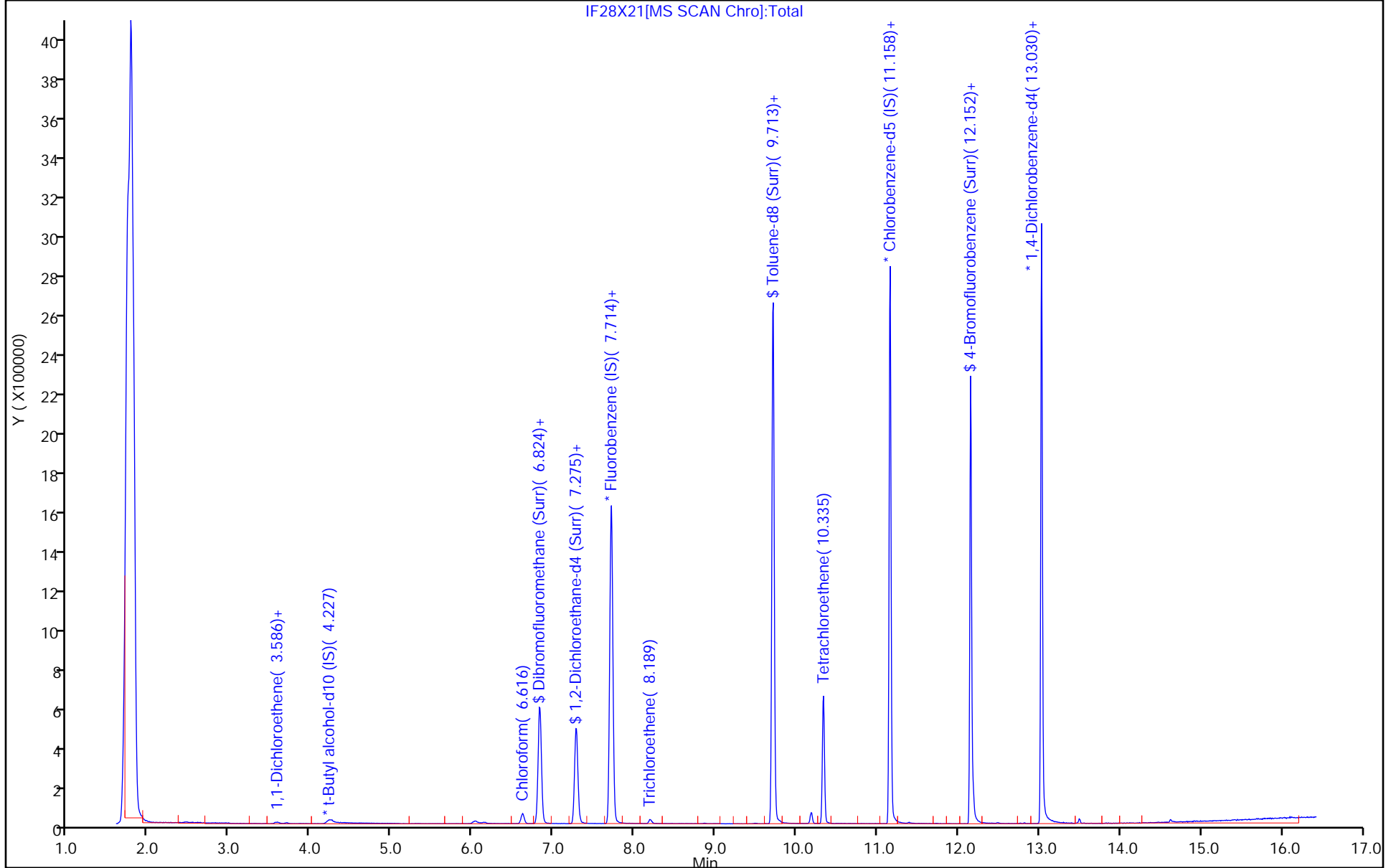
ALS Bottle#: 21

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D
 Lims ID: 410-73936-A-9
 Client ID: HD-COD-SW-26-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 17:45:30 ALS Bottle#: 21 Worklist Smp#: 22
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-022
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:52:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.75	97.53
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.83
\$ 75 Toluene-d8 (Surr)	10.0	10.0	99.97
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.90	89.05

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D

Injection Date: 28-Feb-2022 17:45:30

Instrument ID: 19930

Lims ID: 410-73936-A-9

Lab Sample ID: 410-73936-9

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

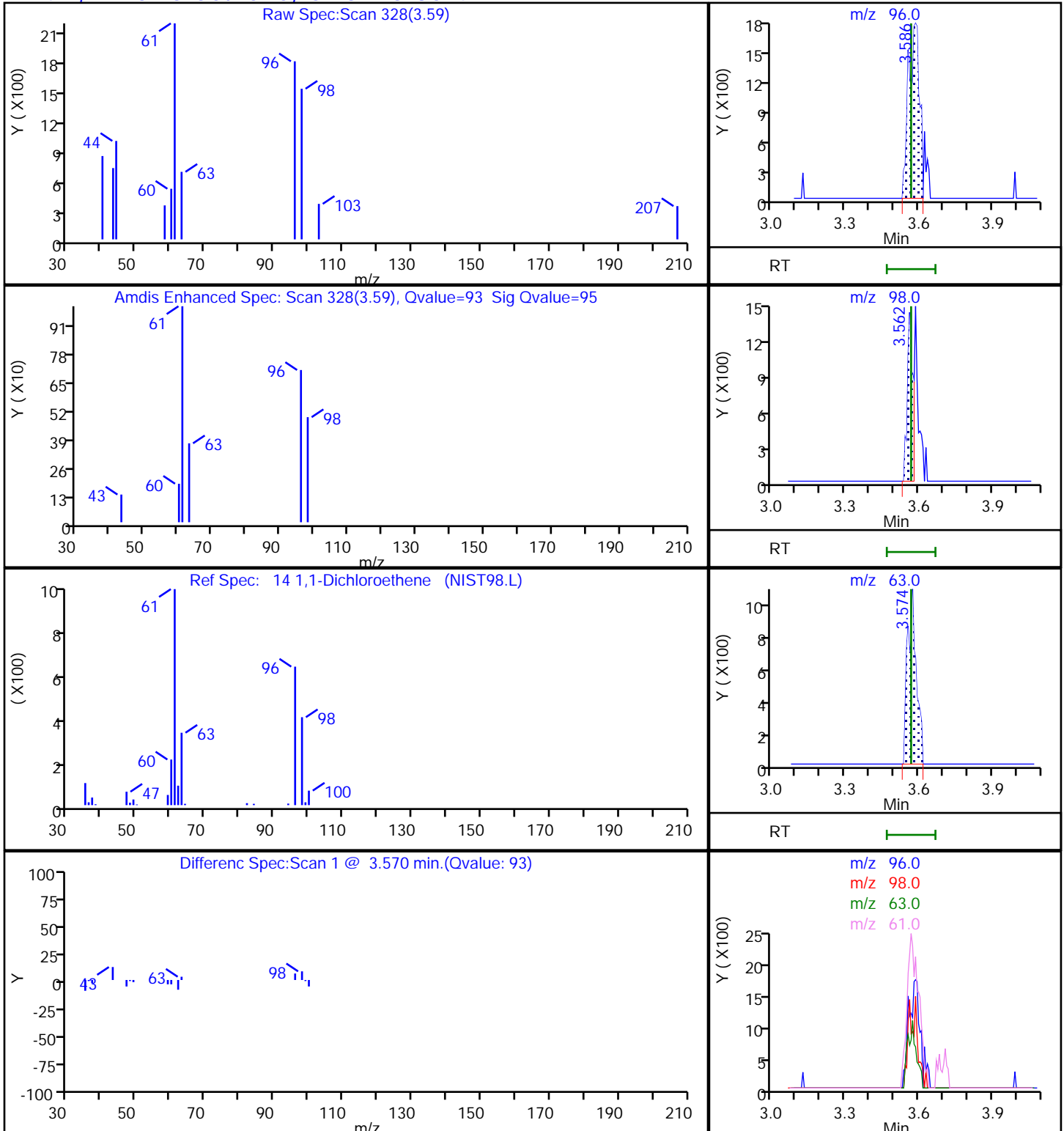
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D

Injection Date: 28-Feb-2022 17:45:30

Instrument ID: 19930

Lims ID: 410-73936-A-9

Lab Sample ID: 410-73936-9

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

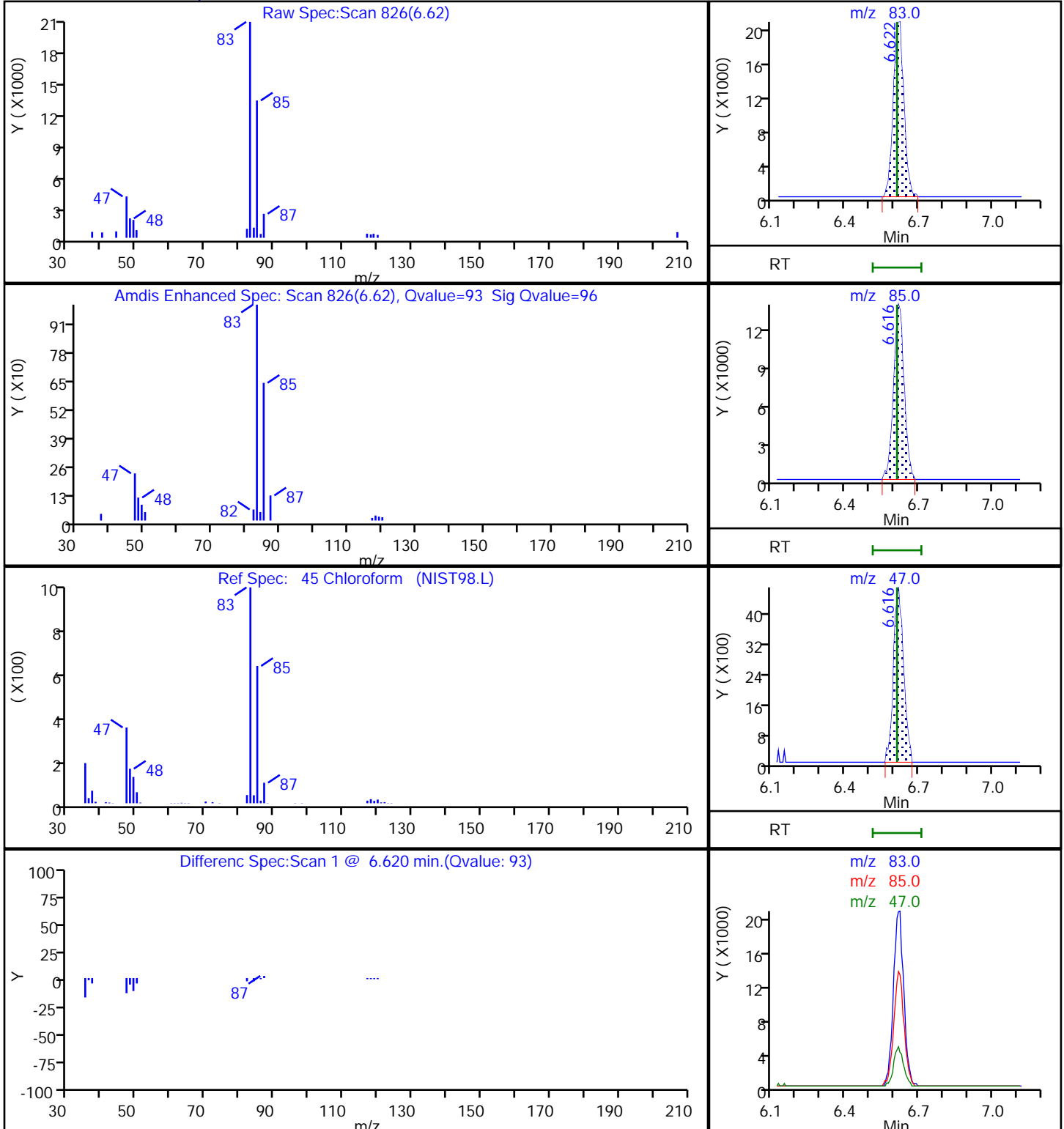
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

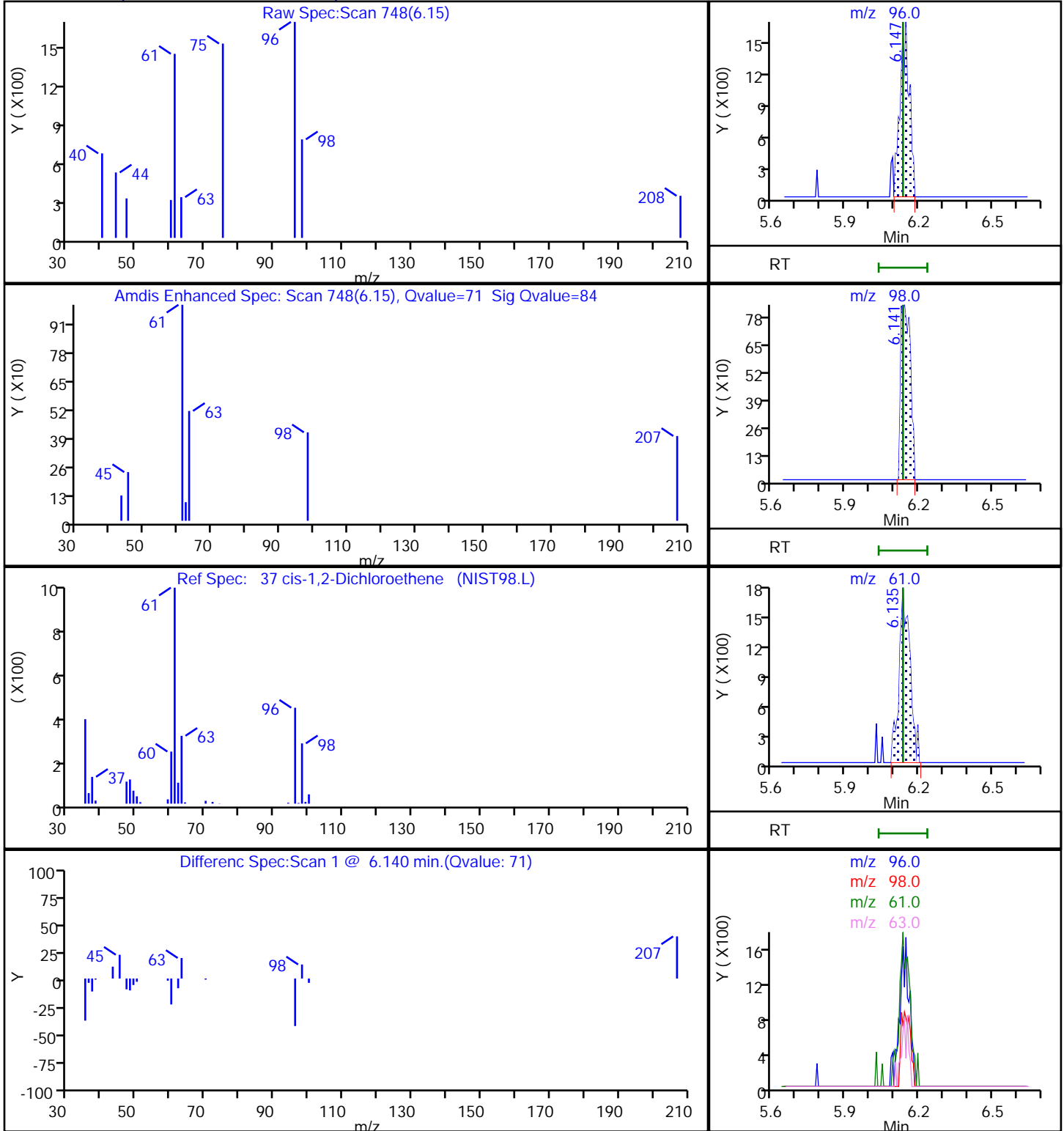
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D
Injection Date: 28-Feb-2022 17:45:30 Instrument ID: 19930
Lims ID: 410-73936-A-9 Lab Sample ID: 410-73936-9
Client ID: HD-COD-SW-26-0/1-0
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

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D

Injection Date: 28-Feb-2022 17:45:30

Instrument ID: 19930

Lims ID: 410-73936-A-9

Lab Sample ID: 410-73936-9

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

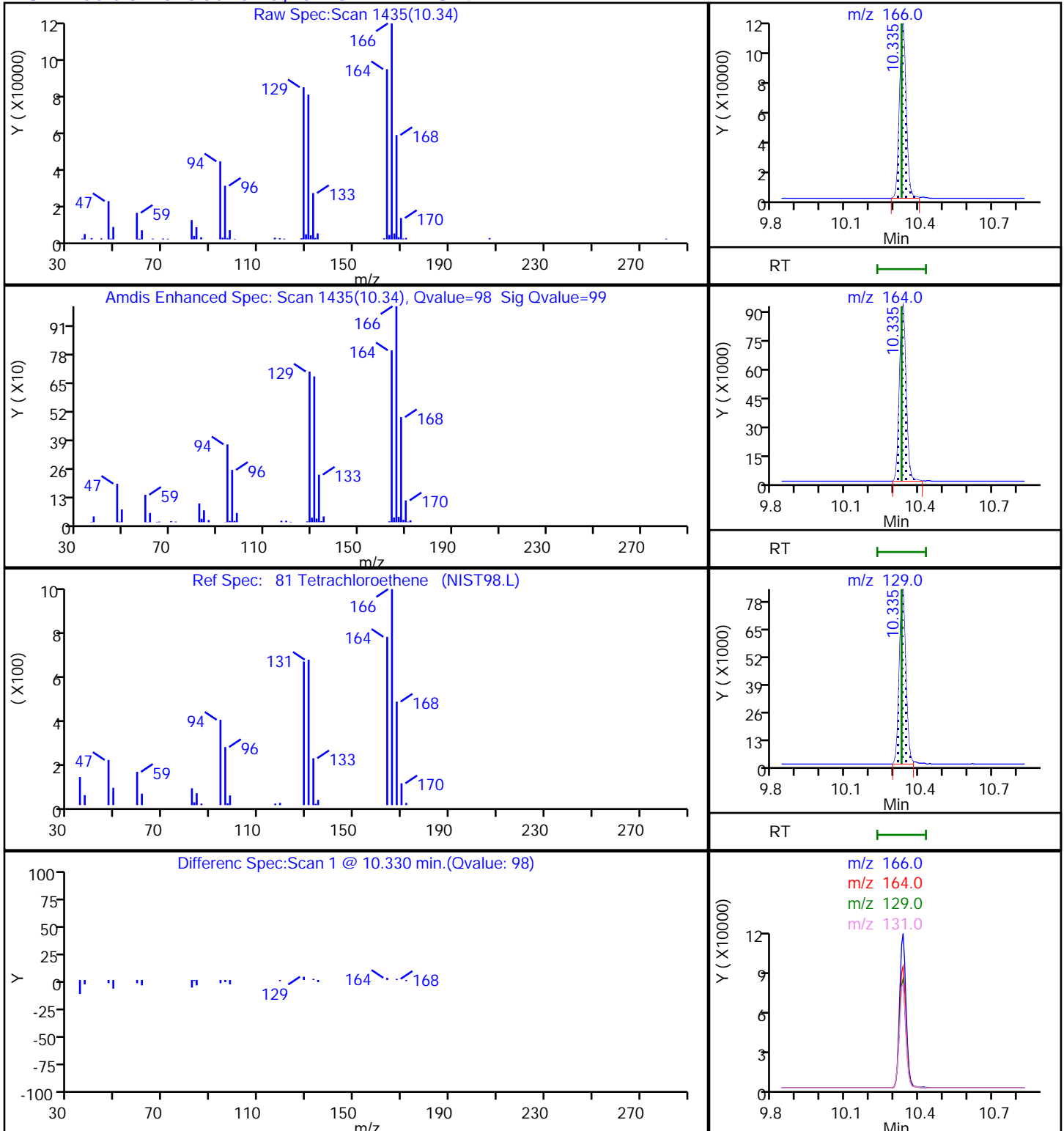
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D

Injection Date: 28-Feb-2022 17:45:30

Instrument ID: 19930

Lims ID: 410-73936-A-9

Lab Sample ID: 410-73936-9

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

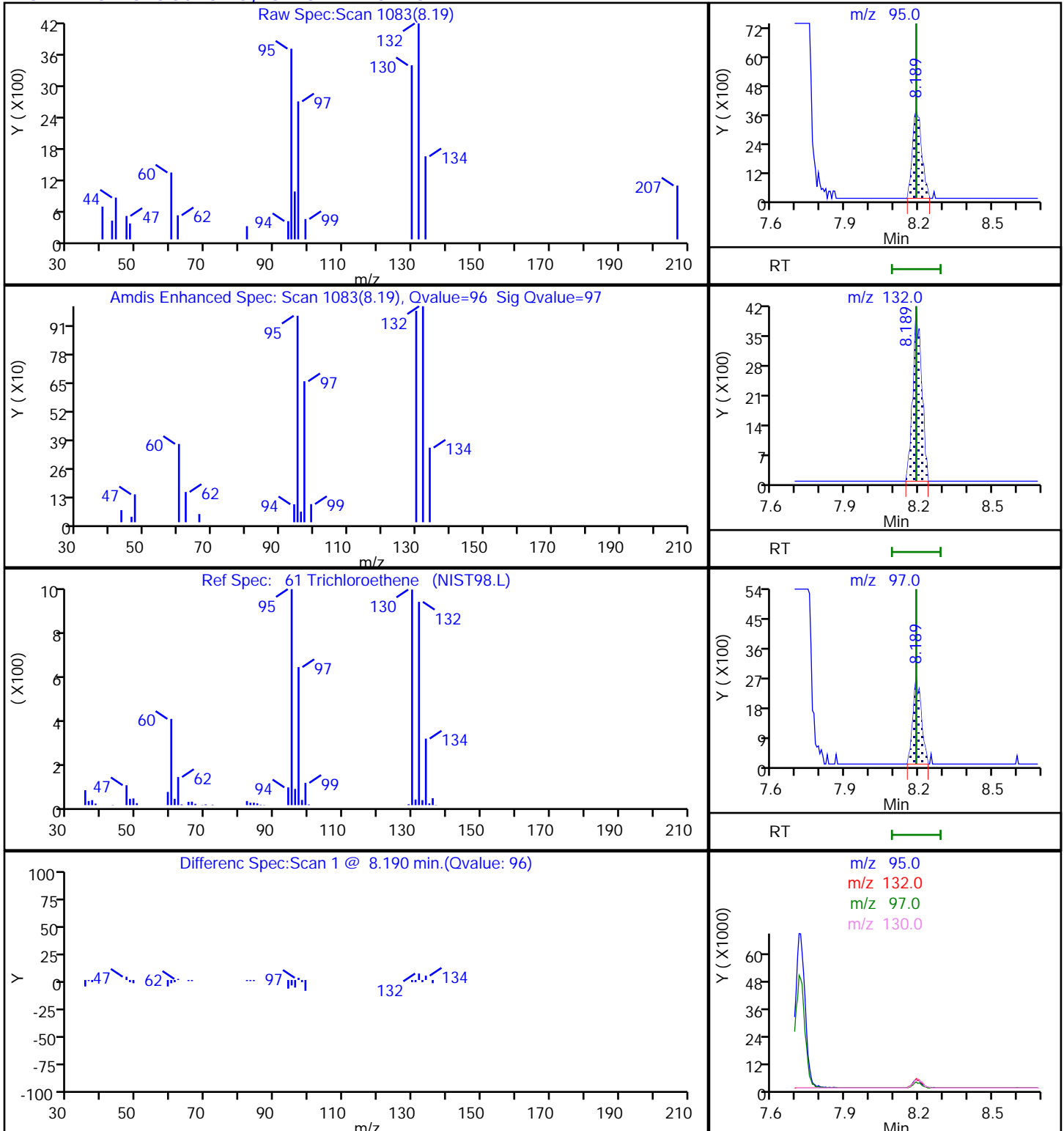
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X21.D

Injection Date: 28-Feb-2022 17:45:30

Instrument ID: 19930

Lims ID: 410-73936-A-9

Lab Sample ID: 410-73936-9

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

Method: 8260 25ml HP31

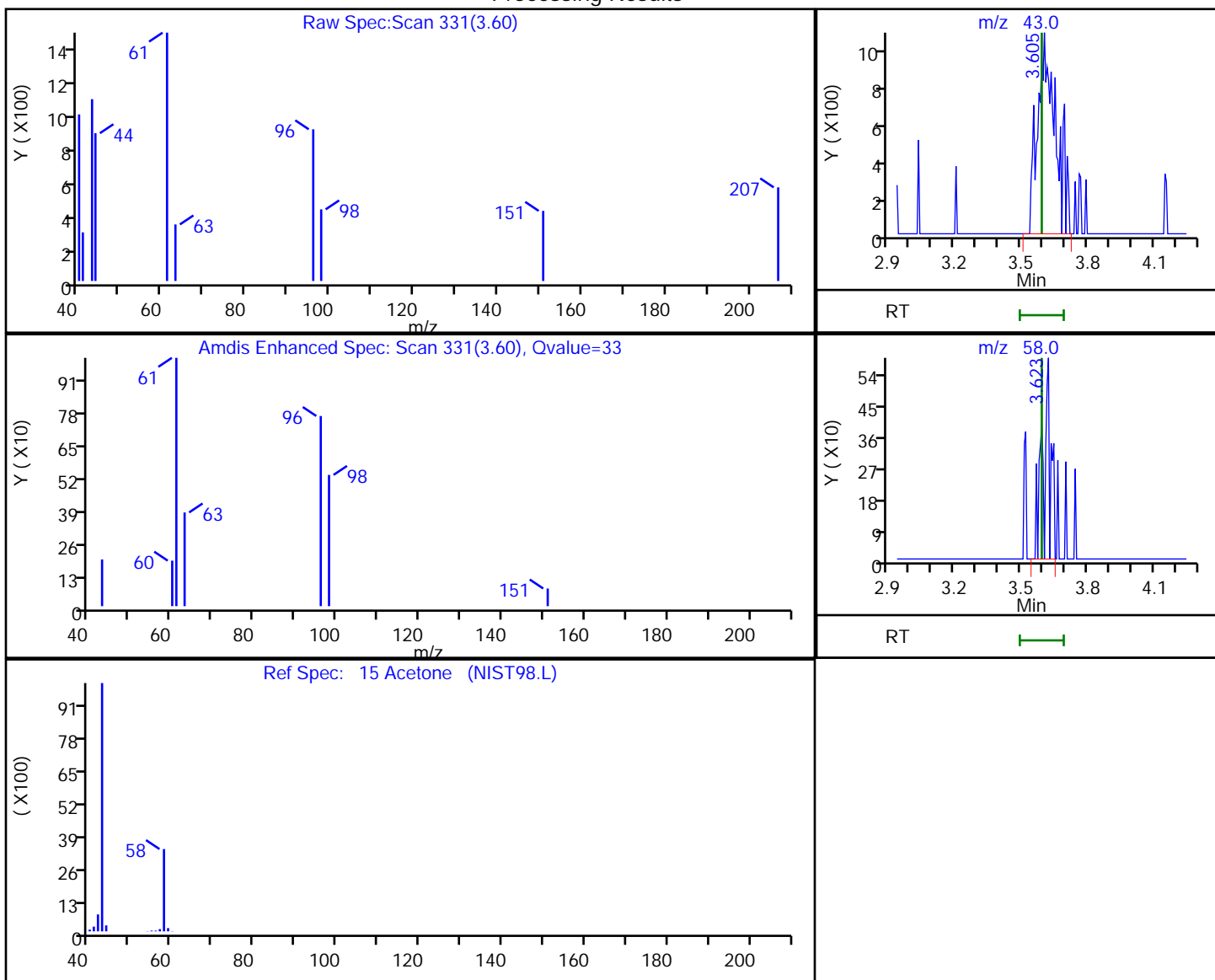
Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1

Processing Results



RT	Mass	Response	Amount
3.60	43.00	6108	0.753733
3.62	58.00	1450	

Reviewer: beckerk, 28-Feb-2022 20:52:04

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-73936-10
 Matrix: Water Lab File ID: IF28X22.D
 Analysis Method: 8260D Date Collected: 02/22/2022 11:15
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 18:06
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.6	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.10	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.090	J cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-73936-10
 Matrix: Water Lab File ID: IF28X22.D
 Analysis Method: 8260D Date Collected: 02/22/2022 11:15
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 18:06
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.12	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	89	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	96	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X22.D
 Lims ID: 410-73936-A-10
 Client ID: HD-COD-SW-27-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 18:06:30 ALS Bottle#: 22 Worklist Smp#: 23
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-023
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:52:47

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.148	2.154	-0.006	1	2547	0.0335	
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.611	3.593	0.018	78	14229	1.57	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.275	4.263	0.012	26	163622	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.141	6.135	0.006	75	6572	0.1019	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.622	6.610	0.012	91	5506	0.0529	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	517894	9.63	
47 1,1,1-Trichloroethane	97		6.836				ND	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	111430	10.4	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2134793	10.0	
61 Trichloroethene	95	8.195	8.189	0.006	94	7992	0.1239	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	93	2123398	10.0	
76 Toluene	92	9.786	9.787	0.000	99	4942	0.0314	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	93	6715	0.0896	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1641244	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	719957	8.88	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	819698	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X22.D

Injection Date: 28-Feb-2022 18:06:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-10

Lab Sample ID: 410-73936-10

Worklist Smp#: 23

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

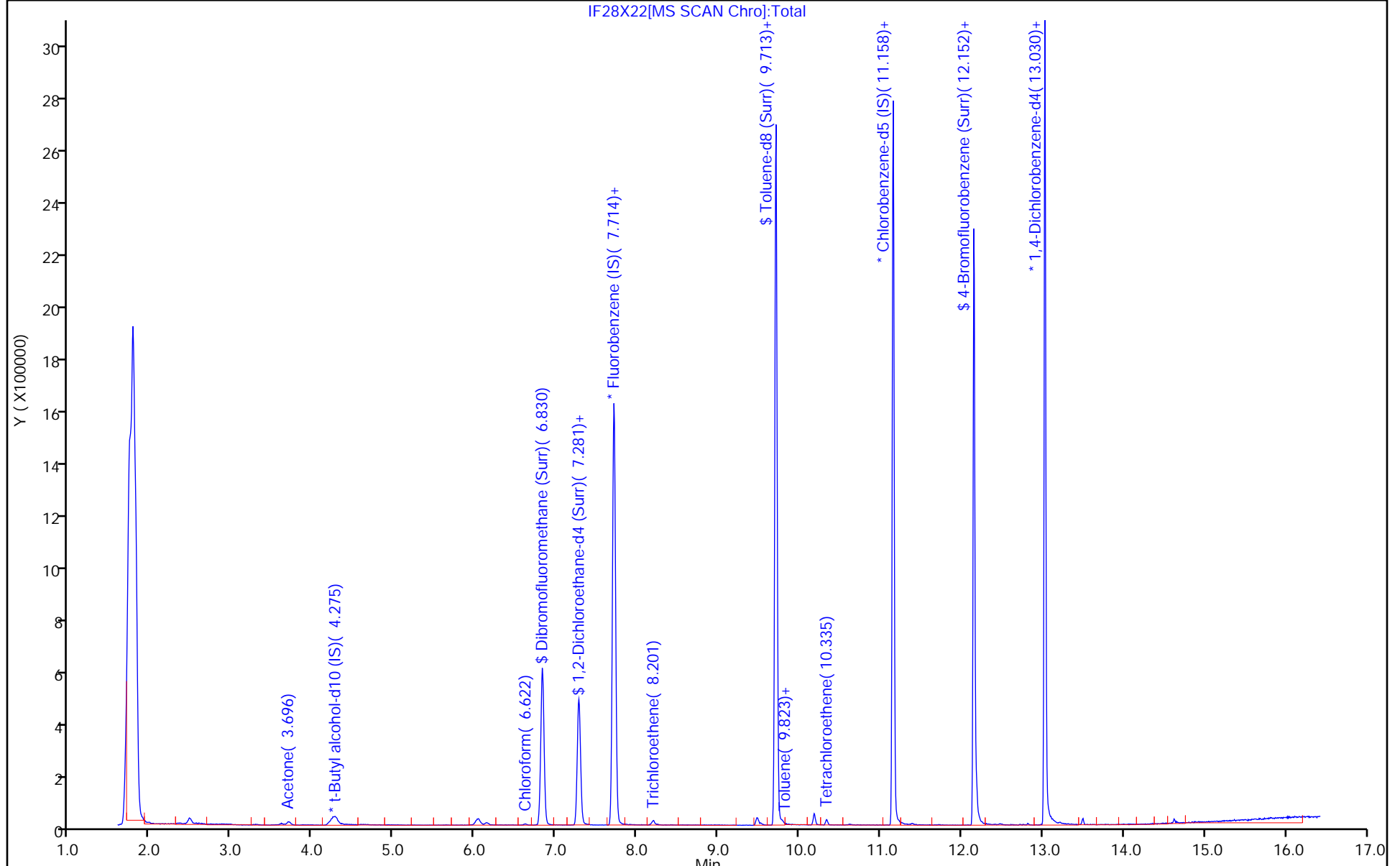
ALS Bottle#: 22

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X22.D
 Lims ID: 410-73936-A-10
 Client ID: HD-COD-SW-27-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 18:06:30 ALS Bottle#: 22 Worklist Smp#: 23
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-023
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:52:47

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.63	96.30
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.58
\$ 75 Toluene-d8 (Surr)	10.0	10.0	100.11
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.88	88.82

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X22.D

Injection Date: 28-Feb-2022 18:06:30

Instrument ID: 19930

Lims ID: 410-73936-A-10

Lab Sample ID: 410-73936-10

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

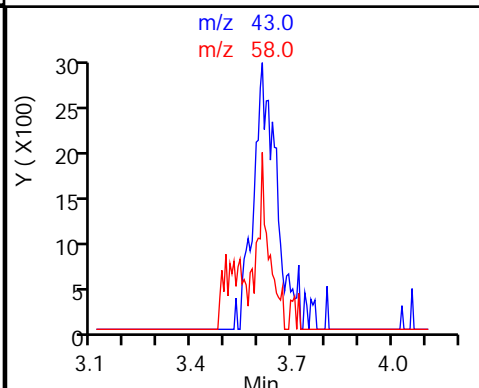
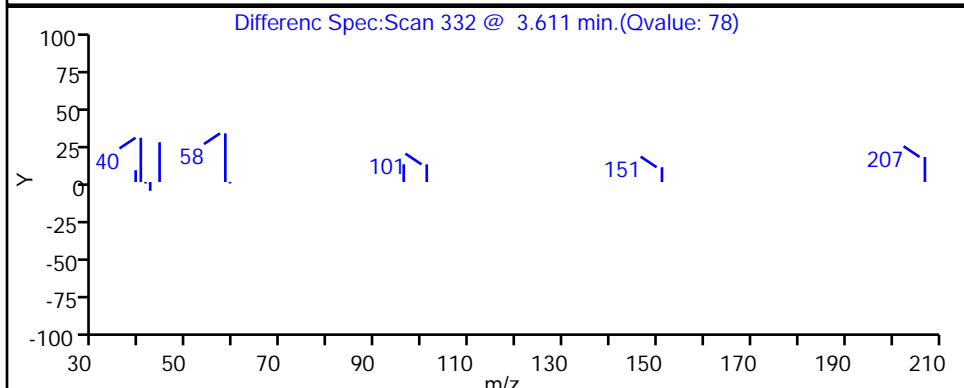
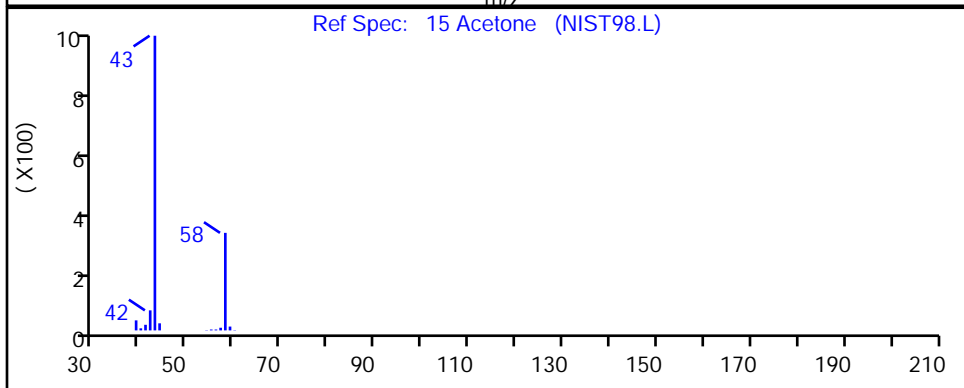
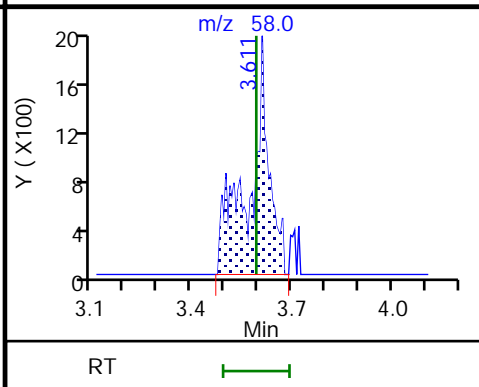
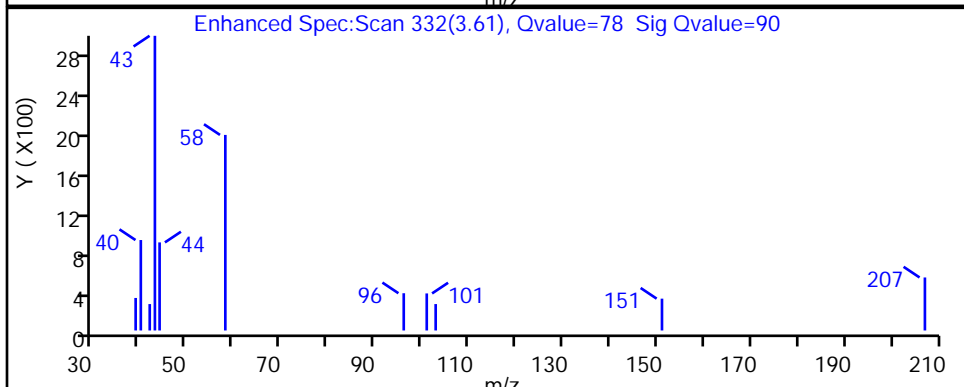
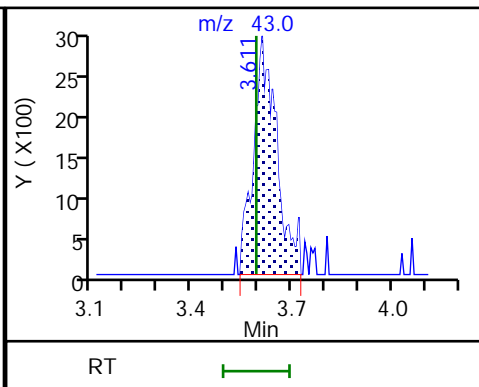
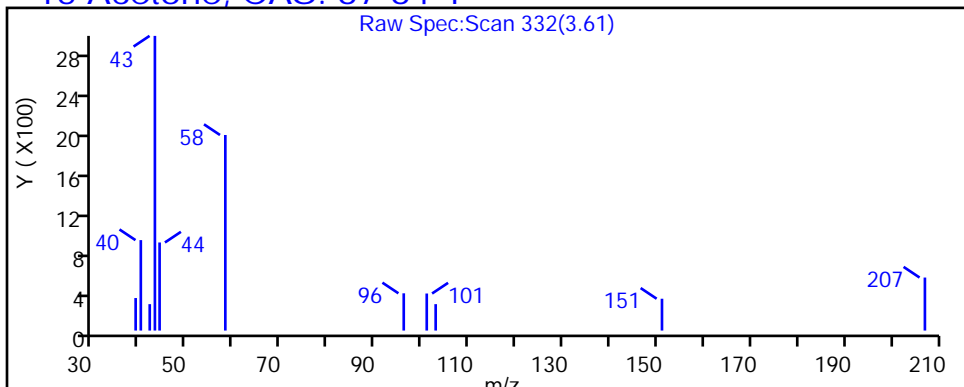
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X22.D

Injection Date: 28-Feb-2022 18:06:30

Instrument ID: 19930

Lims ID: 410-73936-A-10

Lab Sample ID: 410-73936-10

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

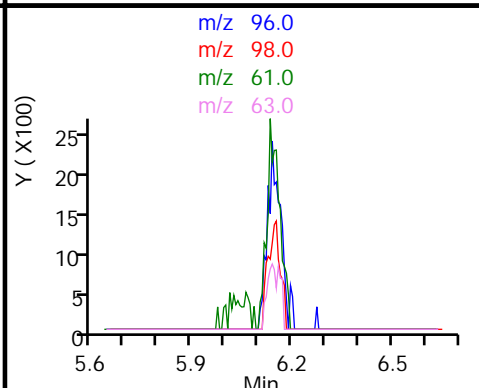
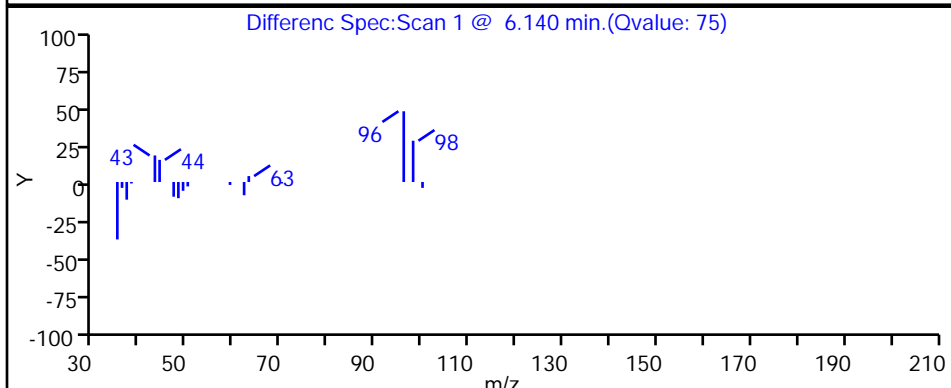
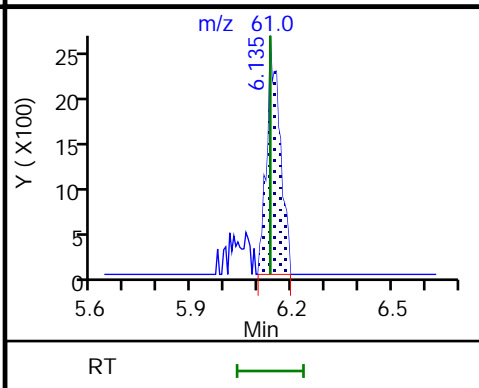
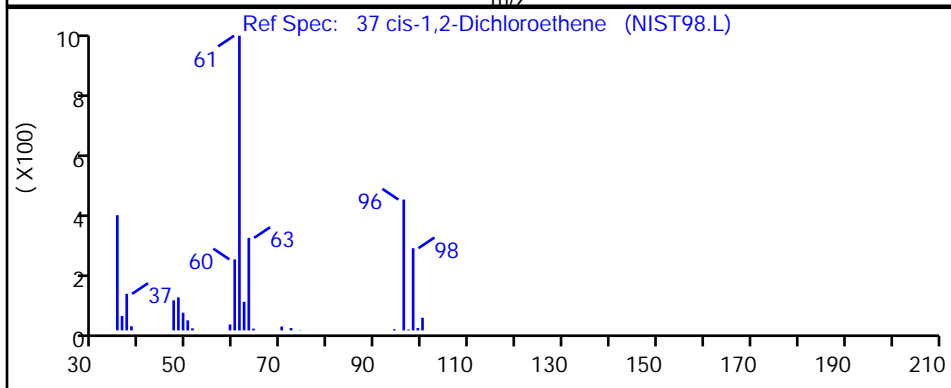
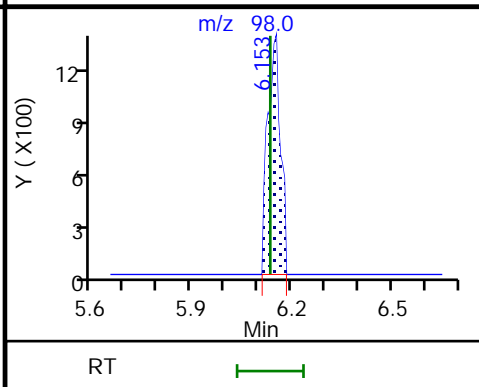
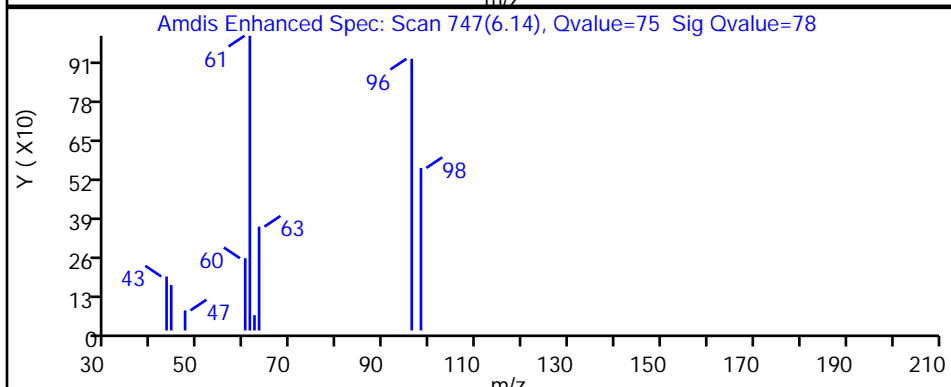
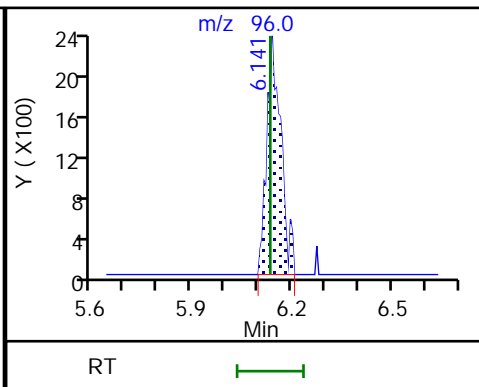
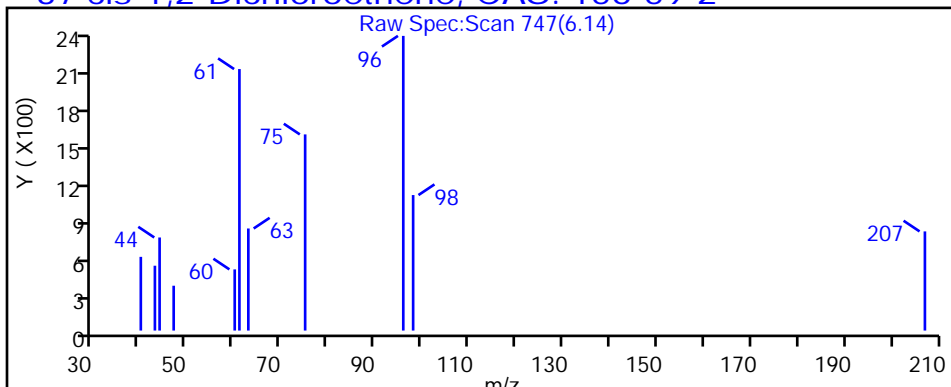
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X22.D

Injection Date: 28-Feb-2022 18:06:30

Instrument ID: 19930

Lims ID: 410-73936-A-10

Lab Sample ID: 410-73936-10

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

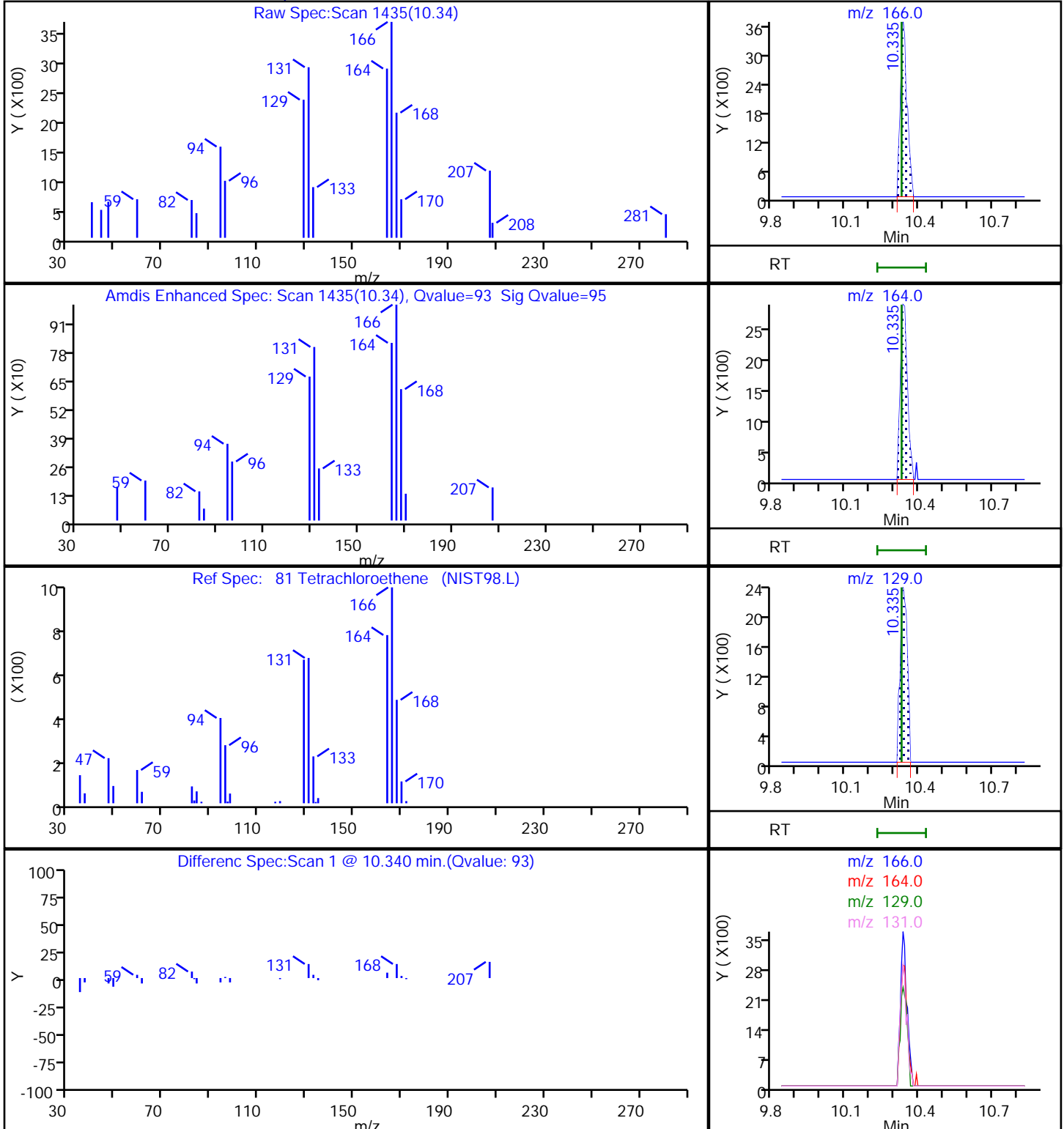
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X22.D

Injection Date: 28-Feb-2022 18:06:30

Instrument ID: 19930

Lims ID: 410-73936-A-10

Lab Sample ID: 410-73936-10

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

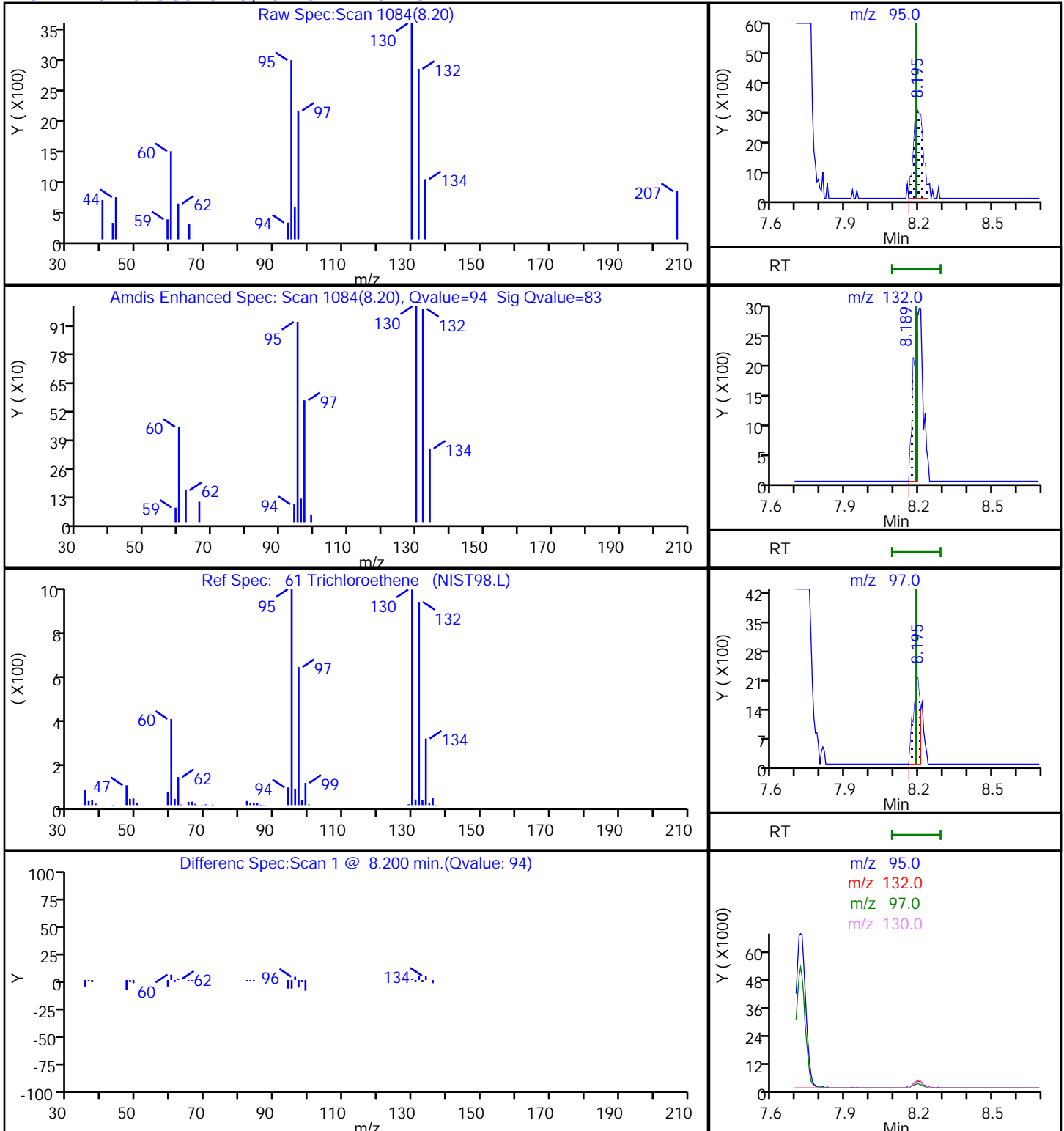
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-73936-11
 Matrix: Water Lab File ID: IF28X23.D
 Analysis Method: 8260D Date Collected: 02/22/2022 12:15
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 18:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.8	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	0.10	J cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.10	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.23	J cn	0.50	0.060
108-88-3	Toluene	0.094	J cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-73936-11
 Matrix: Water Lab File ID: IF28X23.D
 Analysis Method: 8260D Date Collected: 02/22/2022 12:15
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 18:27
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.13	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	91	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	98	cn	80-120
2037-26-5	Toluene-d8 (Surr)	102	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D
 Lims ID: 410-73936-A-11
 Client ID: HD-COD-SW-28-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 18:27:30 ALS Bottle#: 23 Worklist Smp#: 24
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-024
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:53:29

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	7
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.617	3.593	0.024	83	17170	1.78	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.275	4.263	0.012	28	173905	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	U
37 cis-1,2-Dichloroethene	96	6.147	6.135	0.012	78	6623	0.1031	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.616	6.610	0.006	93	10434	0.1007	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	526733	9.83	
47 1,1,1-Trichloroethane	97		6.836				ND	7
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.275	0.012	67	111969	10.4	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2126235	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	95	8294	0.1291	M
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	94	2131482	10.2	
76 Toluene	92	9.786	9.787	0.000	97	14545	0.0936	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	95	17321	0.2340	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1620937	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	725979	9.07	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	807118	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D

Injection Date: 28-Feb-2022 18:27:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-11

Lab Sample ID: 410-73936-11

Worklist Smp#: 24

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

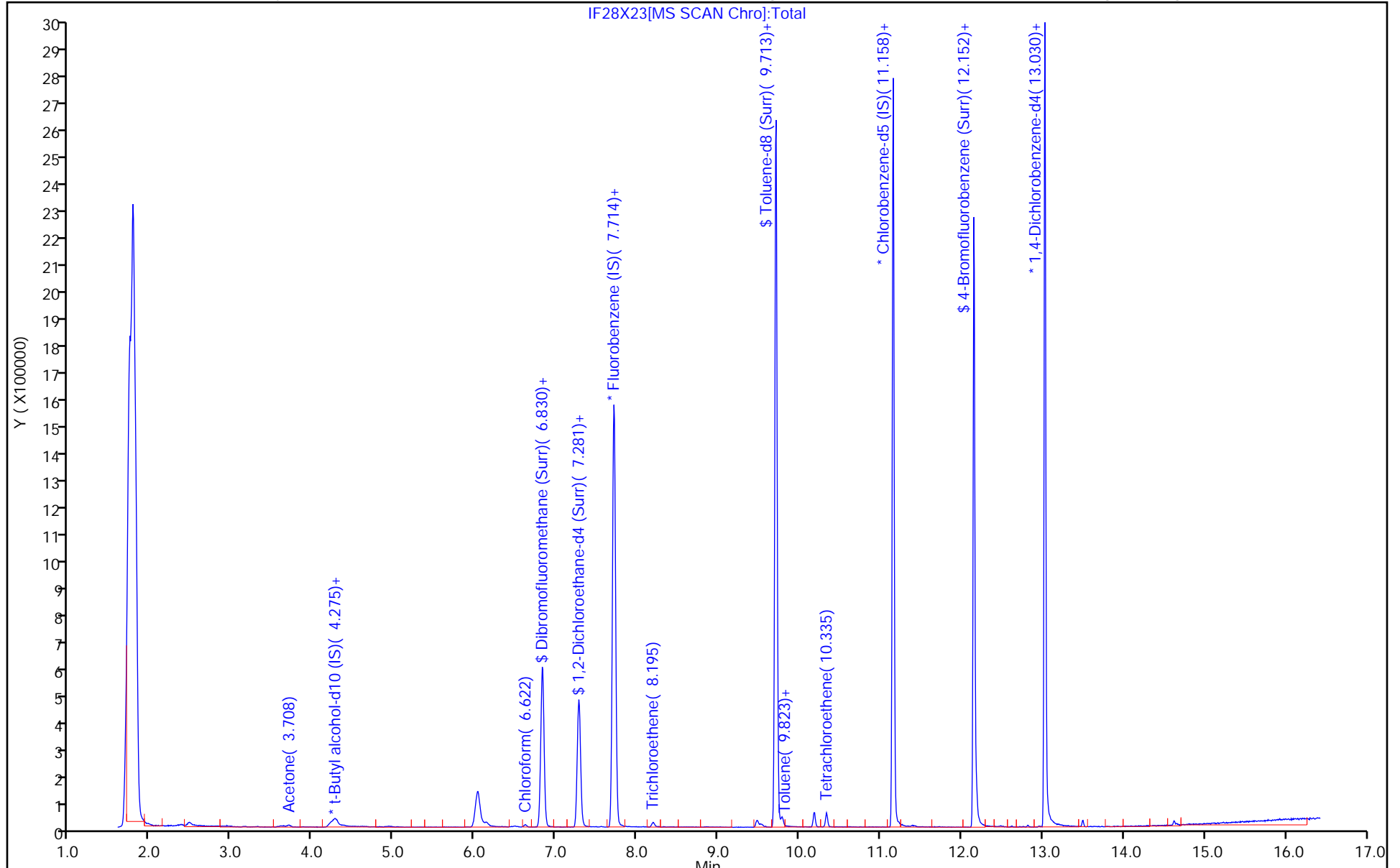
ALS Bottle#: 23

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D
 Lims ID: 410-73936-A-11
 Client ID: HD-COD-SW-28-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 18:27:30 ALS Bottle#: 23 Worklist Smp#: 24
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-024
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk Date: 28-Feb-2022 20:53:29

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.83	98.34
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.50
\$ 75 Toluene-d8 (Surr)	10.0	10.2	101.75
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.07	90.68

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D

Injection Date: 28-Feb-2022 18:27:30

Instrument ID: 19930

Lims ID: 410-73936-A-11

Lab Sample ID: 410-73936-11

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

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

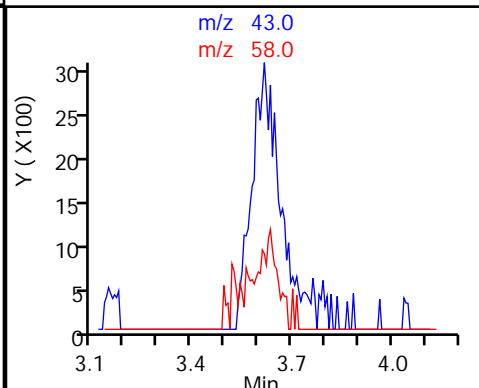
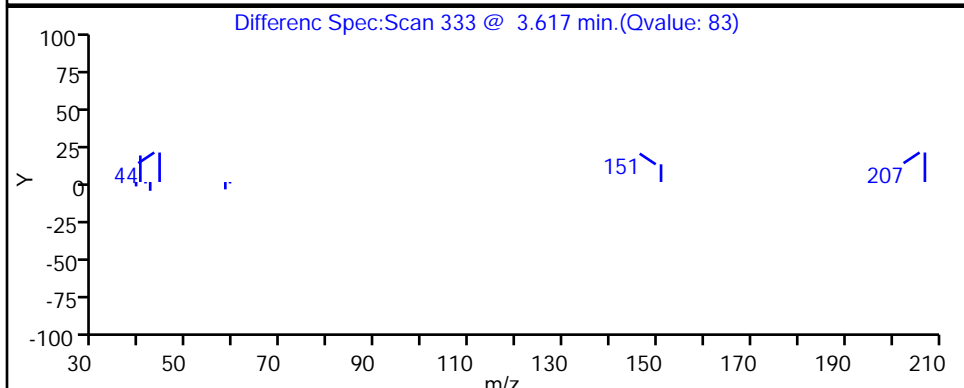
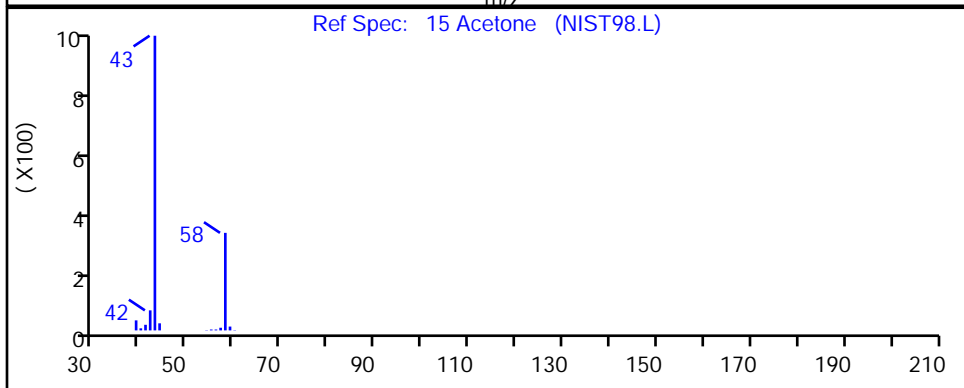
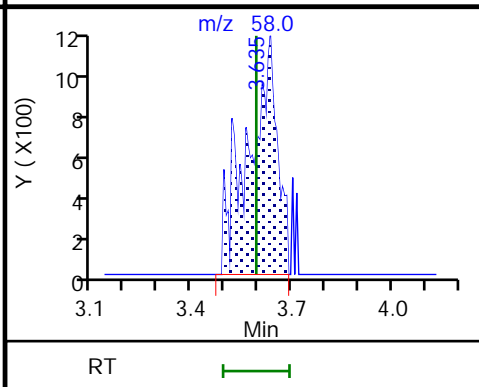
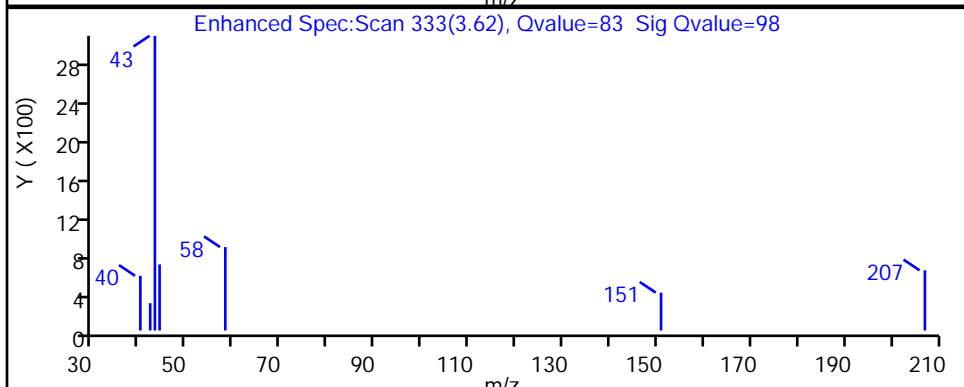
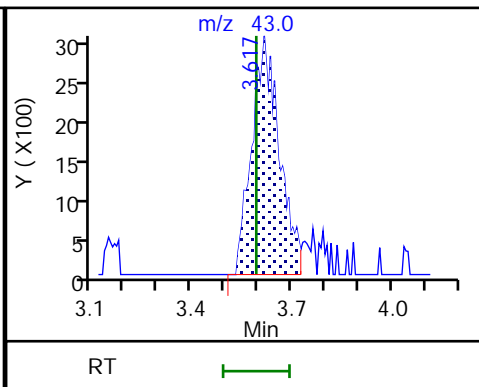
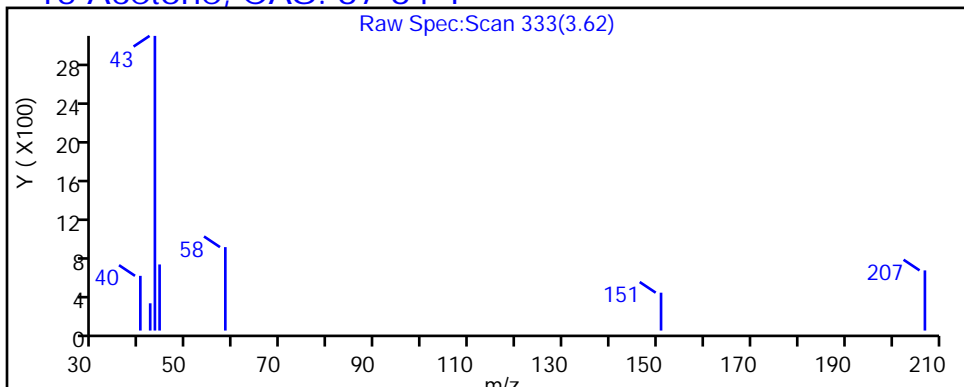
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D

Injection Date: 28-Feb-2022 18:27:30

Instrument ID: 19930

Lims ID: 410-73936-A-11

Lab Sample ID: 410-73936-11

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

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

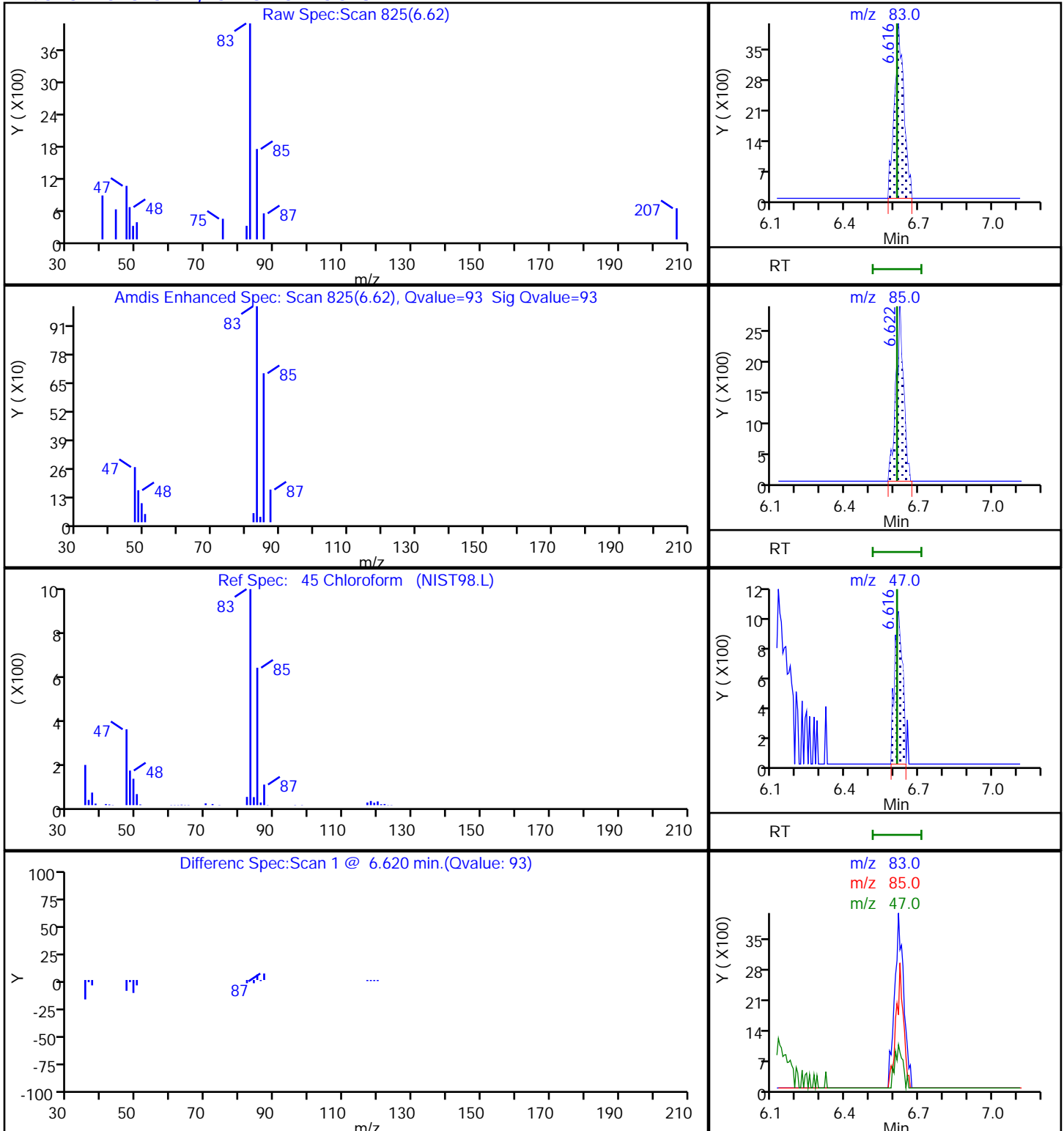
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D

Injection Date: 28-Feb-2022 18:27:30

Instrument ID: 19930

Lims ID: 410-73936-A-11

Lab Sample ID: 410-73936-11

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

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

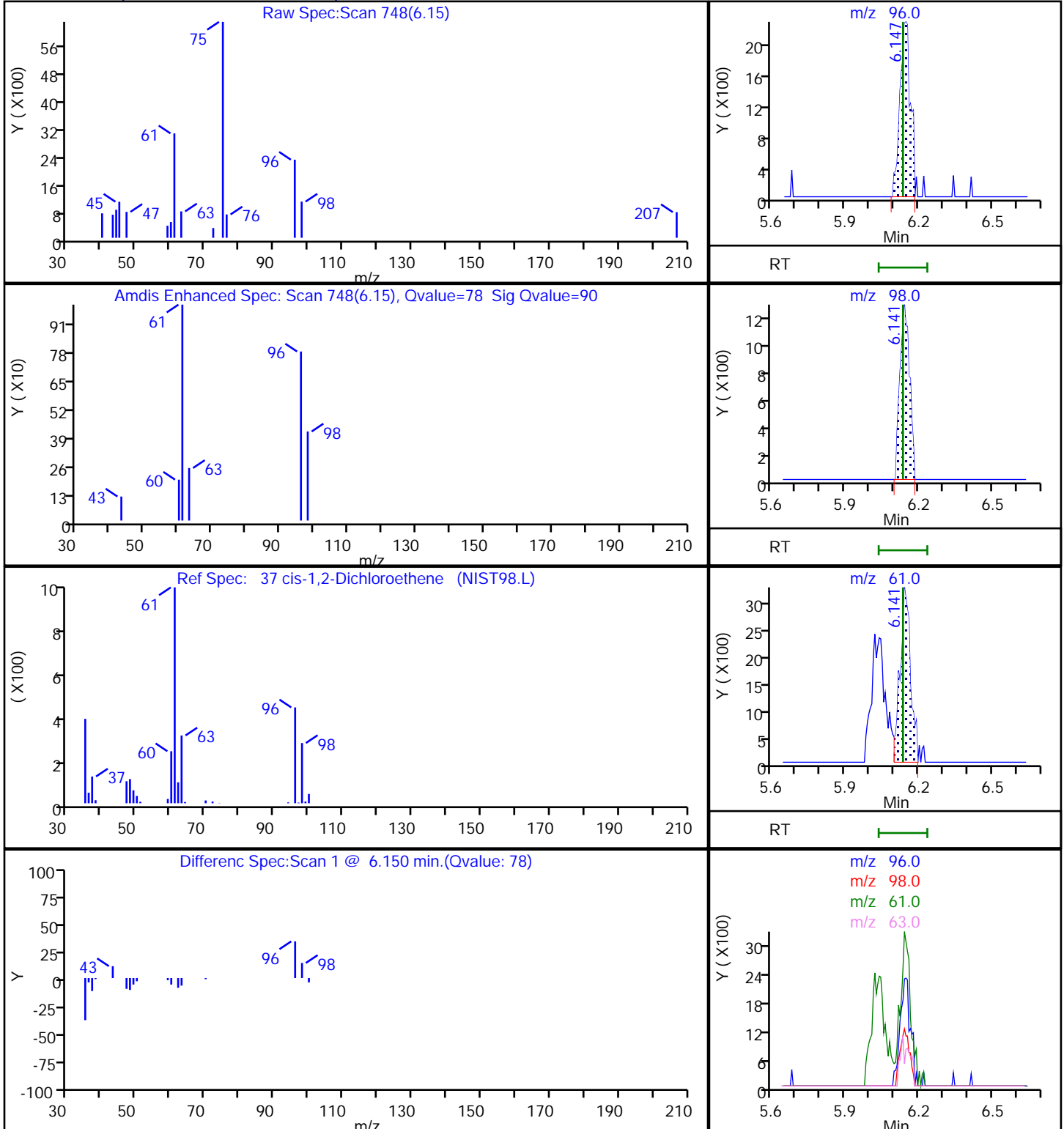
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X23.D

Injection Date: 28-Feb-2022 18:27:30

Instrument ID: 19930

Lims ID: 410-73936-A-11

Lab Sample ID: 410-73936-11

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

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

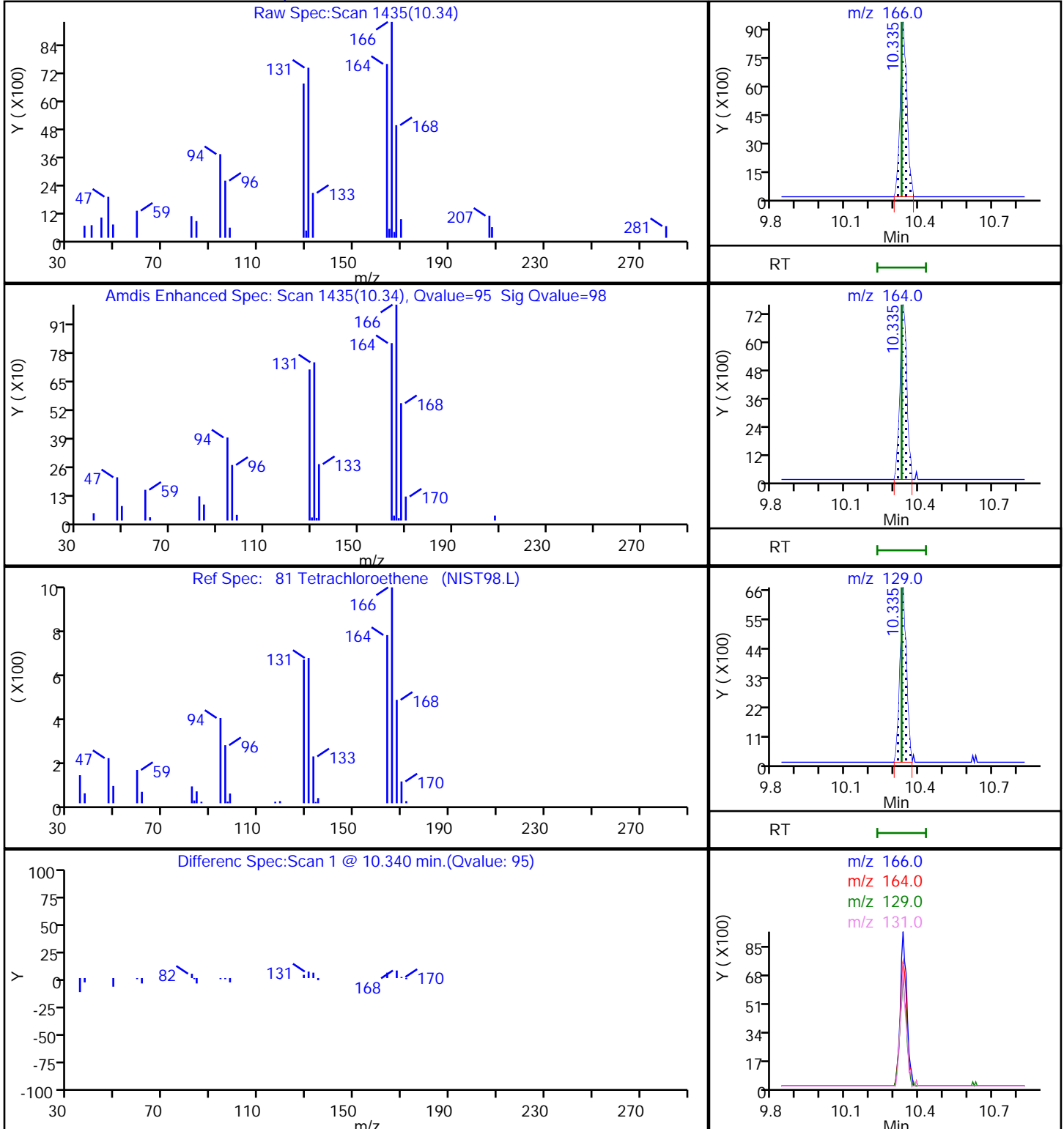
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D

Injection Date: 28-Feb-2022 18:27:30

Instrument ID: 19930

Lims ID: 410-73936-A-11

Lab Sample ID: 410-73936-11

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

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

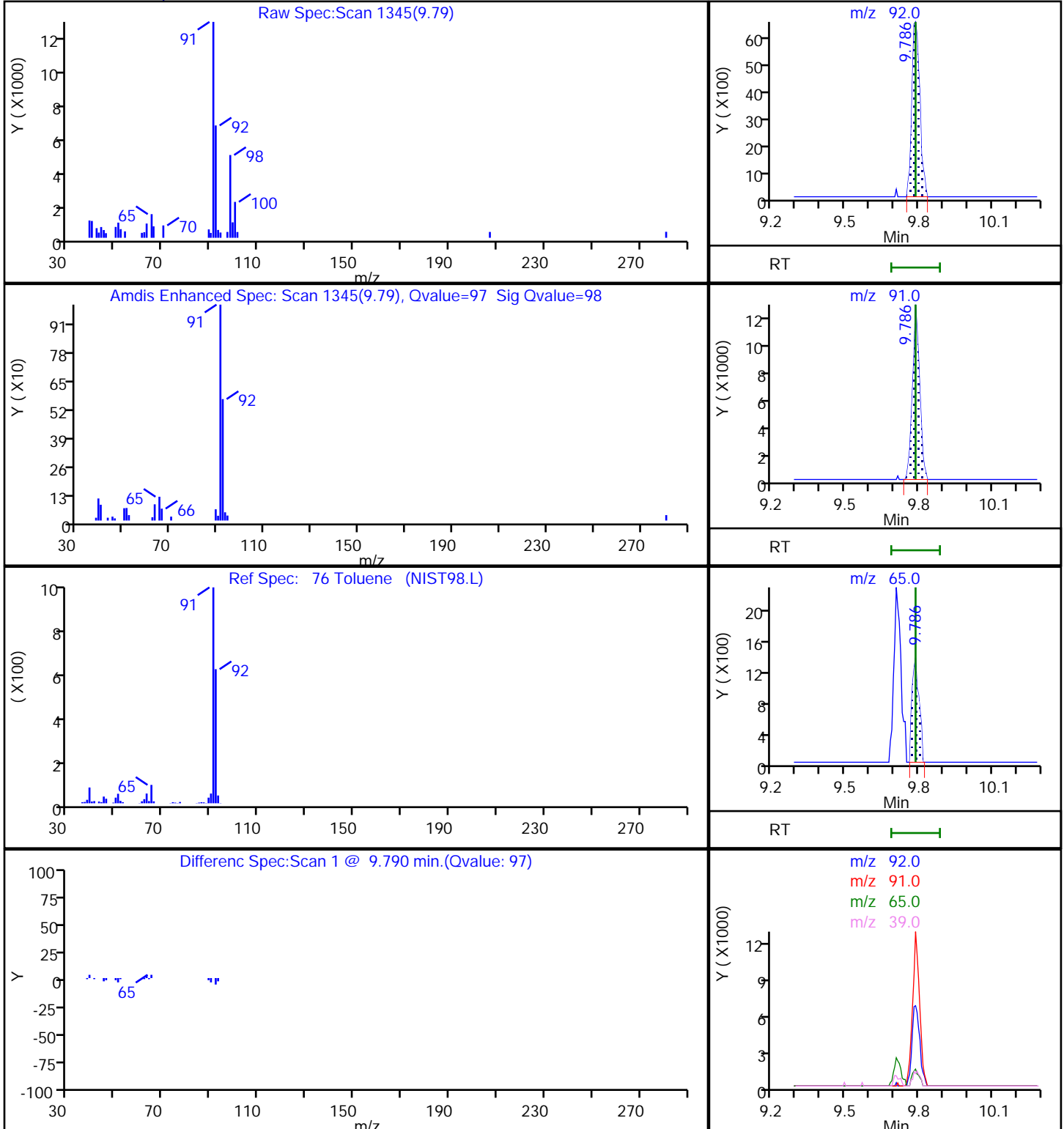
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

76 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D

Injection Date: 28-Feb-2022 18:27:30

Instrument ID: 19930

Lims ID: 410-73936-A-11

Lab Sample ID: 410-73936-11

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

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

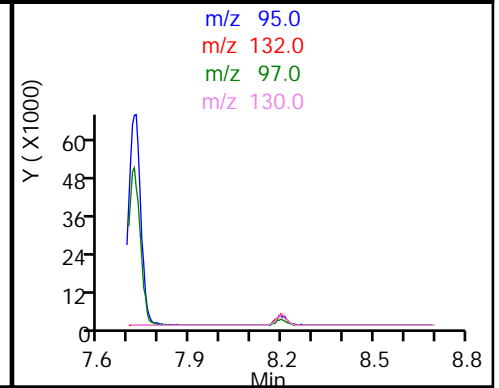
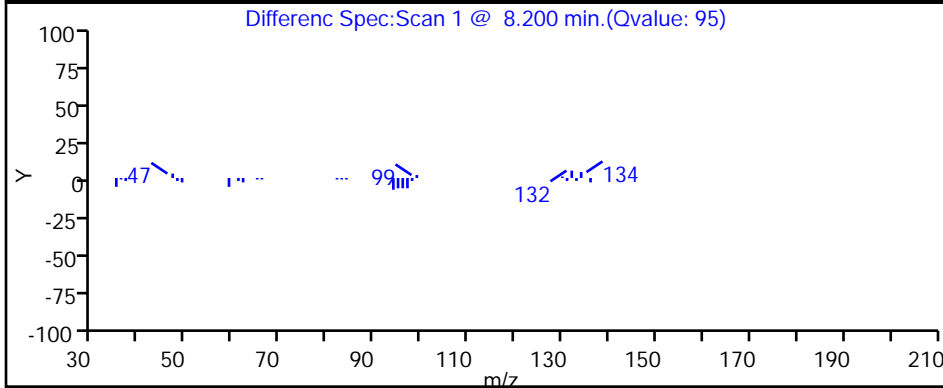
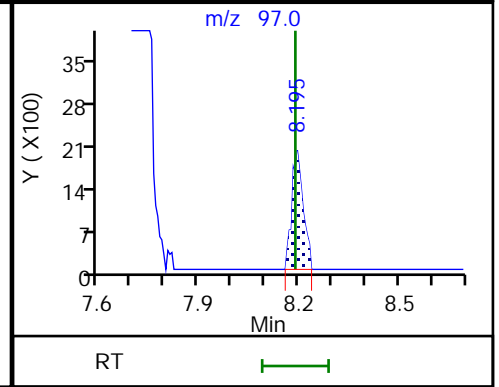
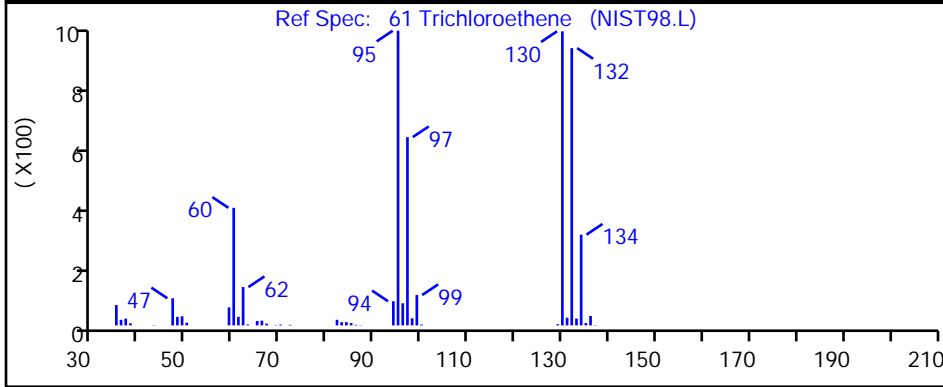
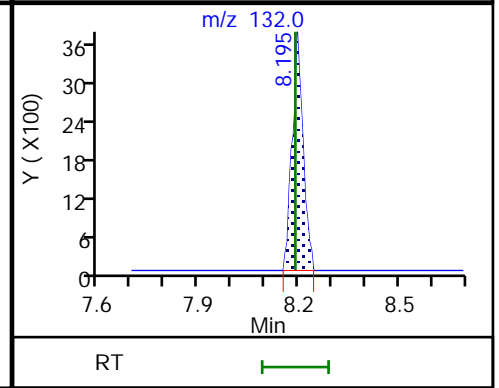
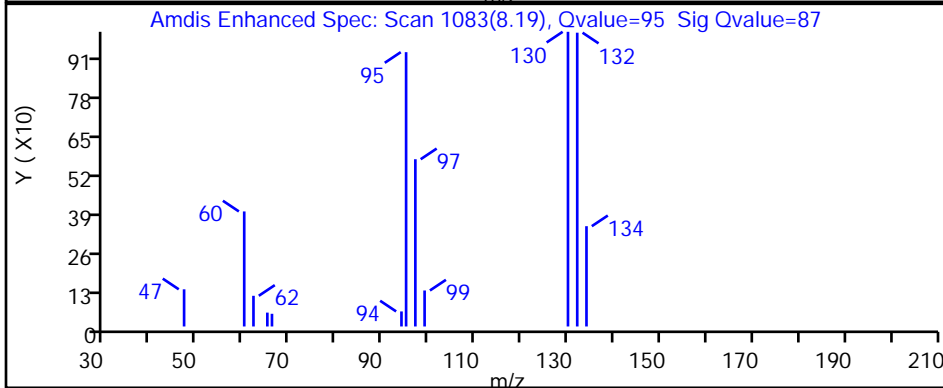
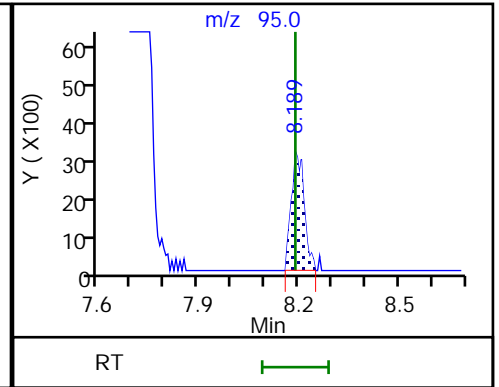
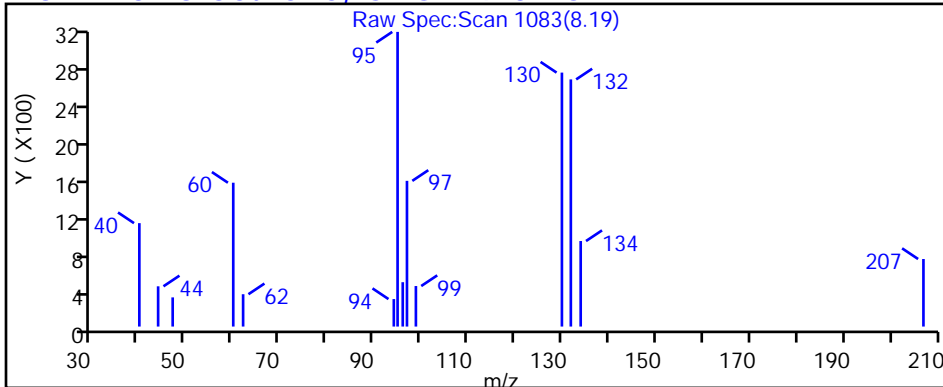
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6

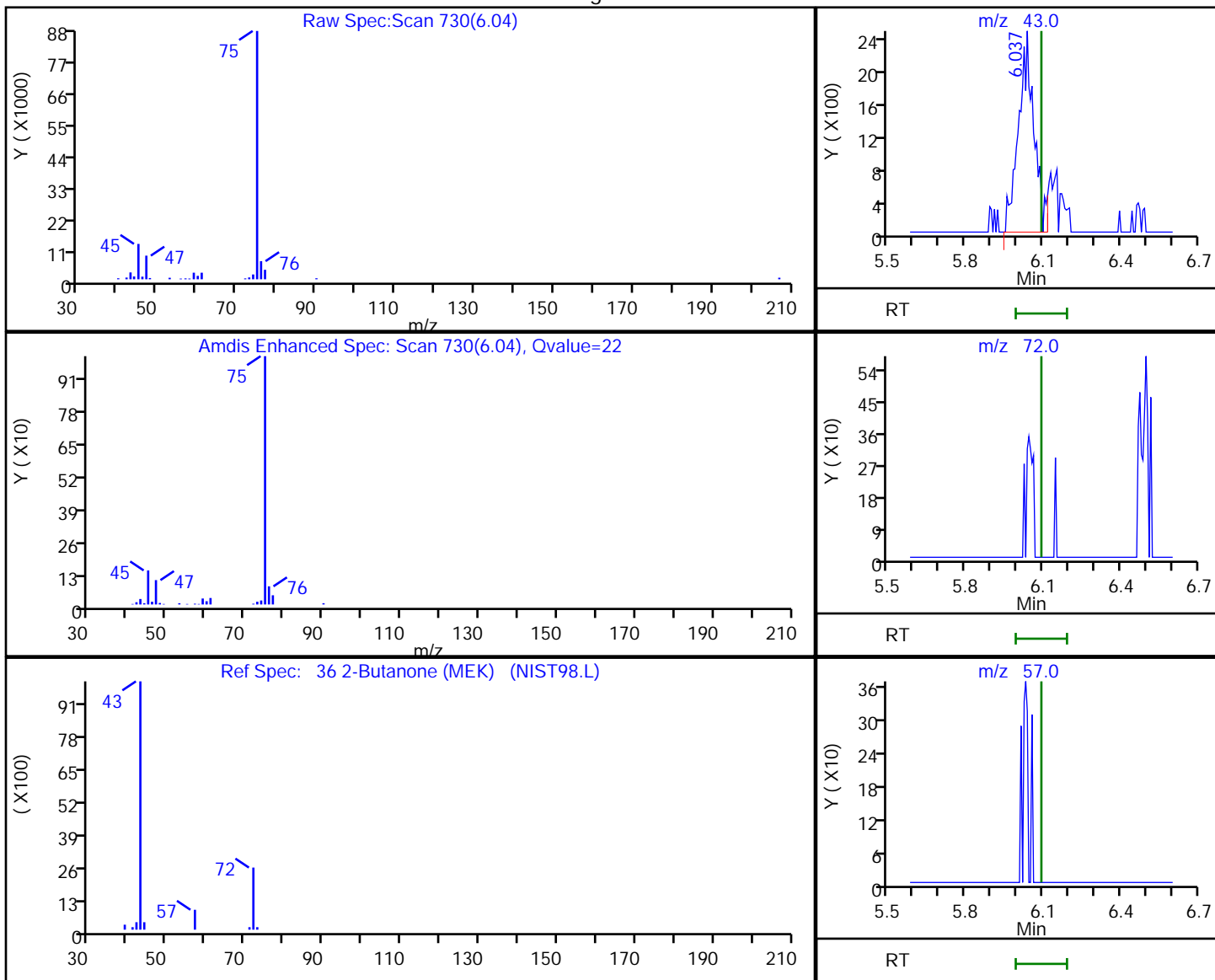


Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X23.D
 Injection Date: 28-Feb-2022 18:27:30 Instrument ID: 19930
 Lims ID: 410-73936-A-11 Lab Sample ID: 410-73936-11
 Client ID: HD-COD-SW-28-0/1-0
 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

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.04	43.00	10061	0.596424
6.09	72.00	0	
6.09	57.00	0	

Reviewer: beckerk, 28-Feb-2022 20:52:55

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

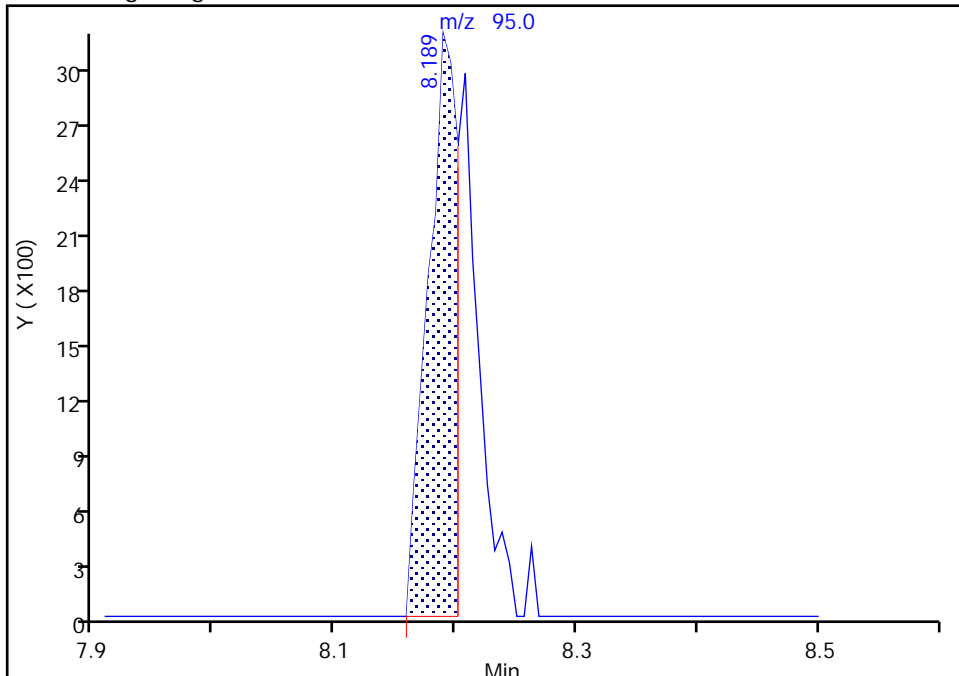
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X23.D
Injection Date: 28-Feb-2022 18:27:30 Instrument ID: 19930
Lims ID: 410-73936-A-11 Lab Sample ID: 410-73936-11
Client ID: HD-COD-SW-28-0/1-0
Operator ID: KNK41612 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

61 Trichloroethene, CAS: 79-01-6

Signal: 1

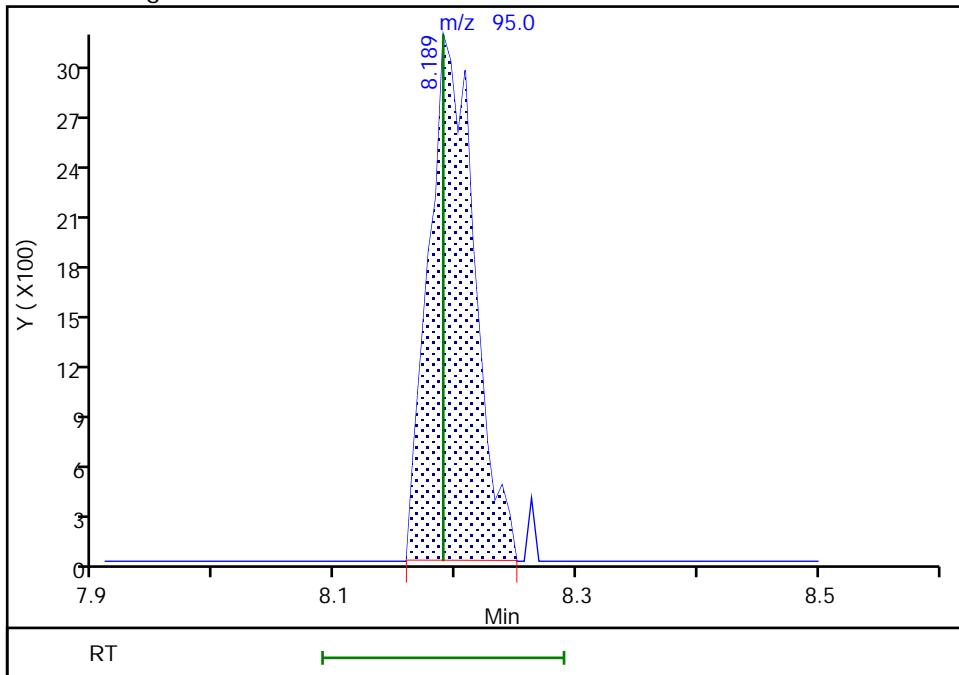
RT: 8.19
Area: 5389
Amount: 0.083877
Amount Units: ug/l

Processing Integration Results



RT: 8.19
Area: 8294
Amount: 0.129091
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Feb-2022 20:53:20
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-73936-12
 Matrix: Water Lab File ID: IF28X24.D
 Analysis Method: 8260D Date Collected: 02/22/2022 08:45
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 18:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.7	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.12	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.27	J cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-73936-12
 Matrix: Water Lab File ID: IF28X24.D
 Analysis Method: 8260D Date Collected: 02/22/2022 08:45
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 18:48
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.14	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	90	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	97	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X24.D
 Lims ID: 410-73936-A-12
 Client ID: HD-COD-SW-29-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 18:48:30 ALS Bottle#: 24 Worklist Smp#: 25
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-025
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:53:58

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	7
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.599	3.593	0.006	95	15337	1.73	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.263	-0.018	26	159556	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96	6.123	6.135	-0.012	76	7540	0.1176	a
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.610	6.610	0.000	14	3961	0.0383	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	518677	9.69	
47 1,1,1-Trichloroethane	97		6.836				ND	7
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	67	110755	10.3	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2123808	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	95	9254	0.1442	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2096939	9.97	
76 Toluene	92	9.786	9.787	0.000	97	5419	0.0347	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	96	20293	0.2730	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1627857	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	719801	8.95	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	816178	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X24.D

Injection Date: 28-Feb-2022 18:48:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-12

Lab Sample ID: 410-73936-12

Worklist Smp#: 25

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

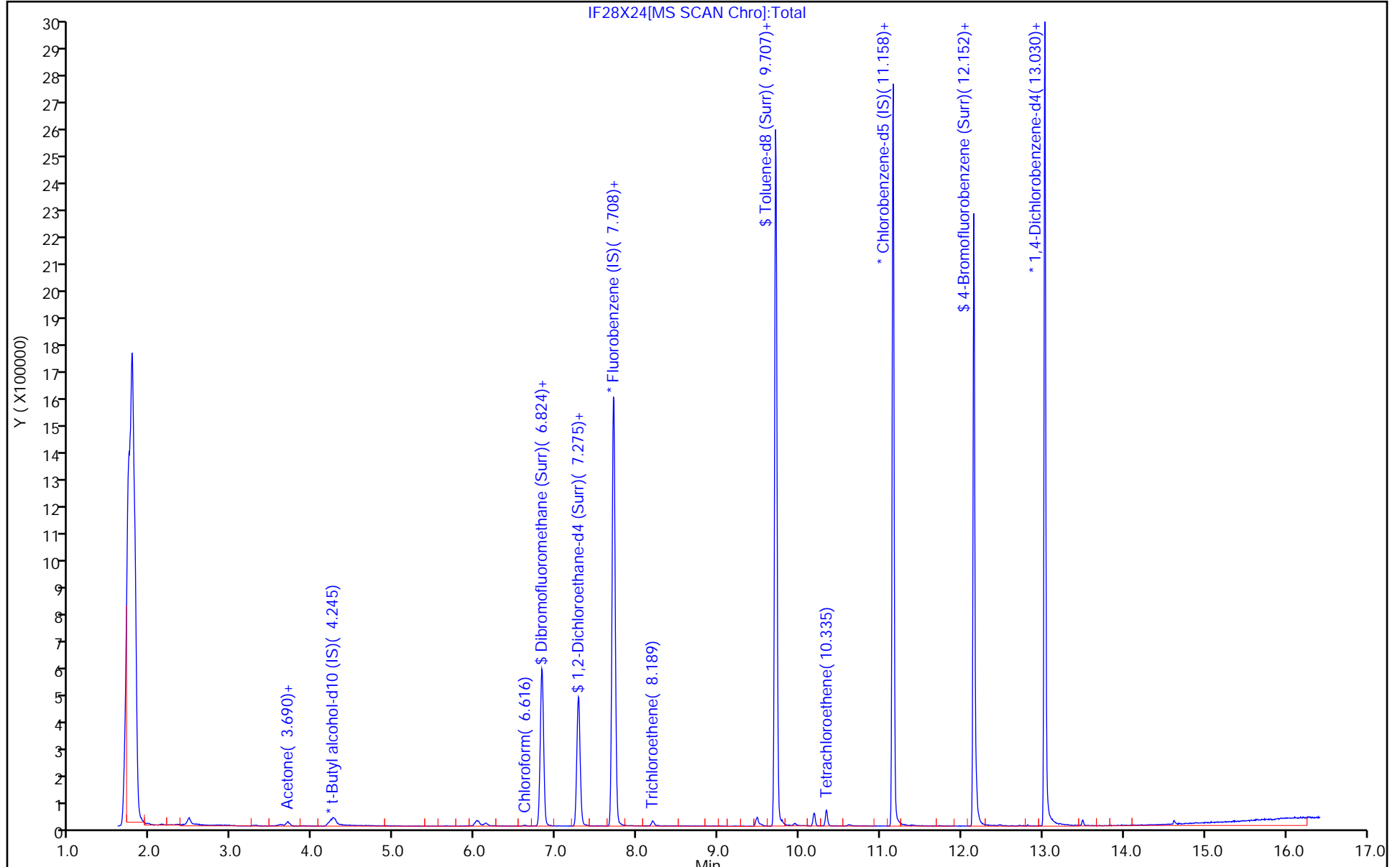
ALS Bottle#: 24

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X24.D
 Lims ID: 410-73936-A-12
 Client ID: HD-COD-SW-29-0/1-0
 Sample Type: Client
 Inject. Date: 28-Feb-2022 18:48:30 ALS Bottle#: 24 Worklist Smp#: 25
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-025
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:53:58

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.69	96.95
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	103.48
\$ 75 Toluene-d8 (Surr)	10.0	9.97	99.68
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.95	89.53

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X24.D

Injection Date: 28-Feb-2022 18:48:30

Instrument ID: 19930

Lims ID: 410-73936-A-12

Lab Sample ID: 410-73936-12

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

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

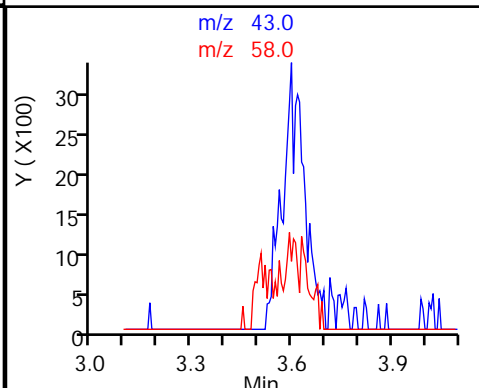
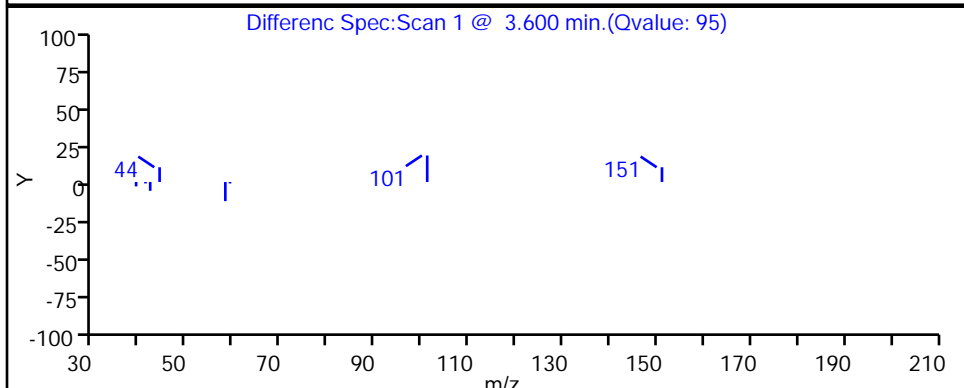
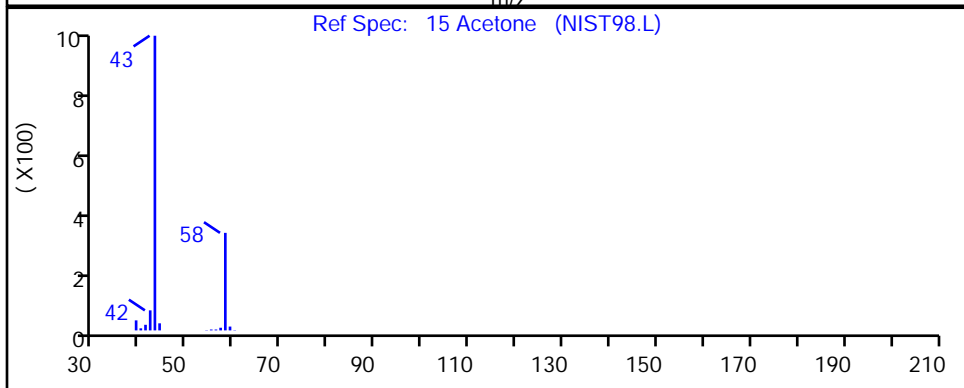
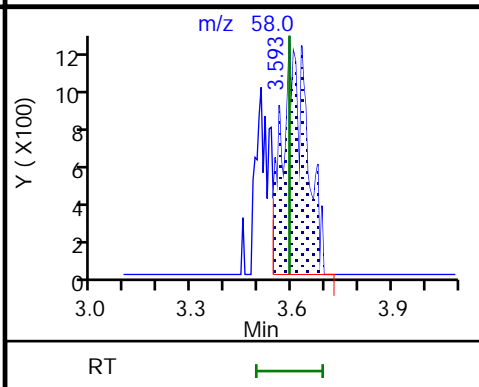
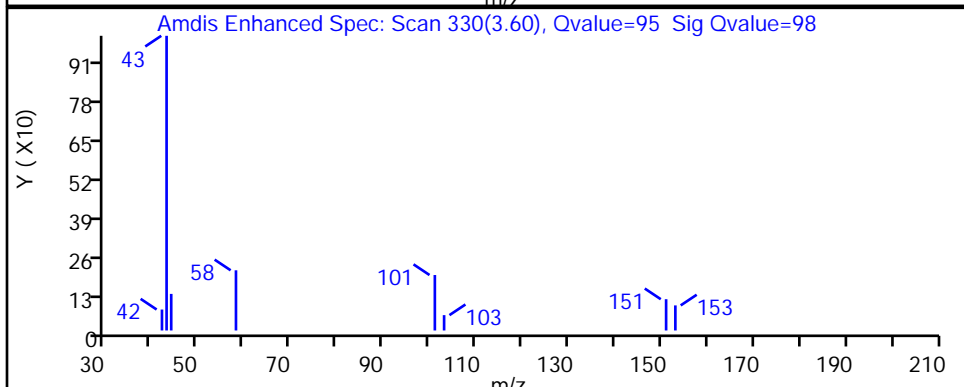
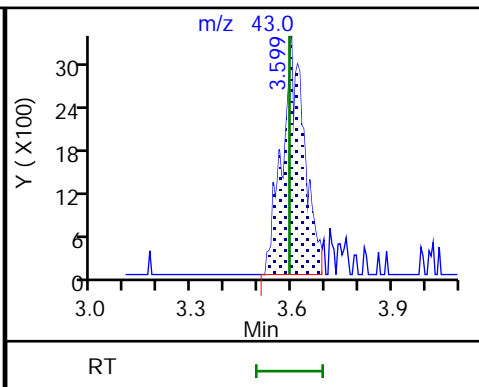
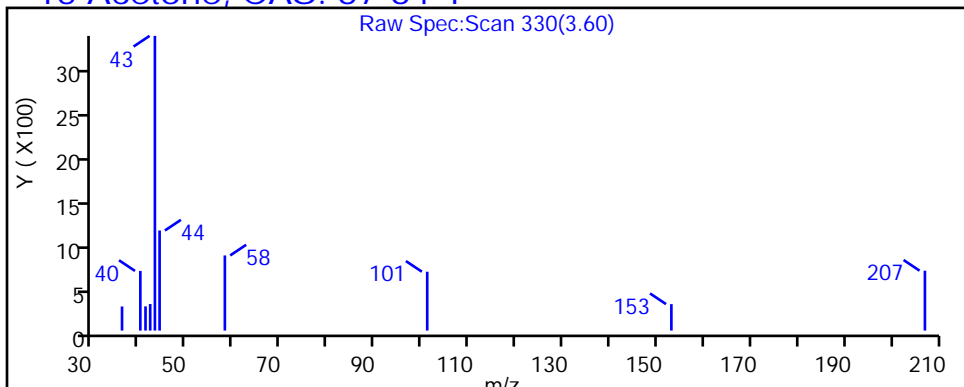
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X24.D

Injection Date: 28-Feb-2022 18:48:30

Instrument ID: 19930

Lims ID: 410-73936-A-12

Lab Sample ID: 410-73936-12

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

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

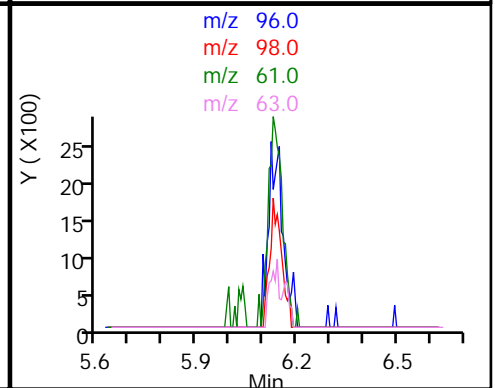
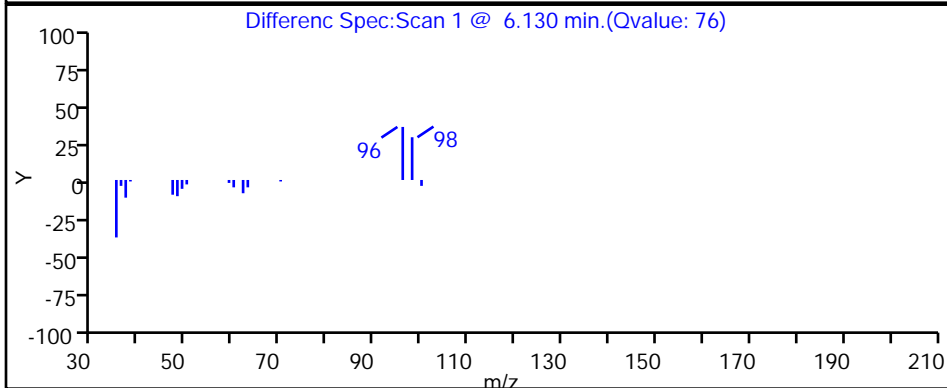
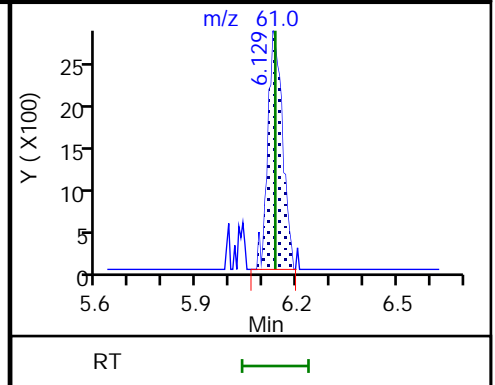
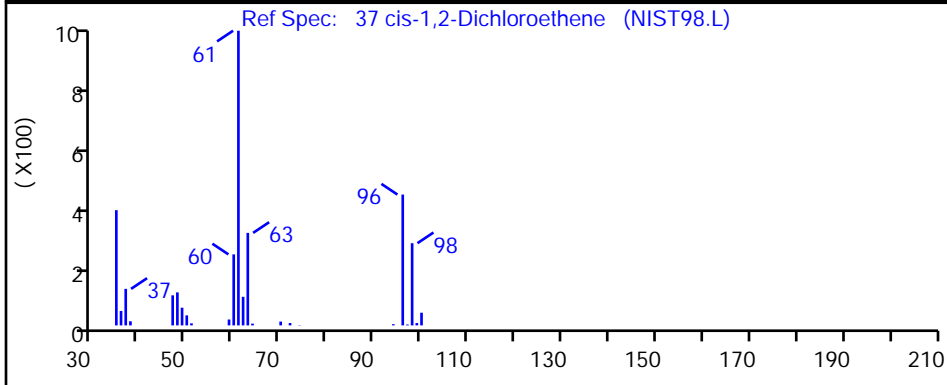
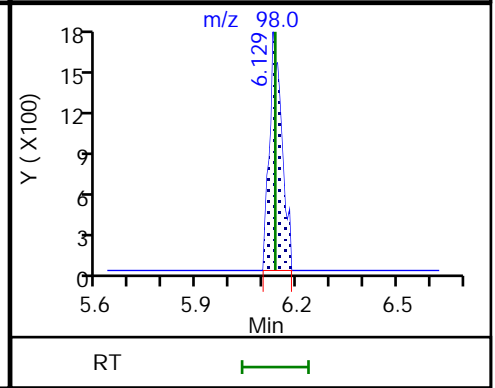
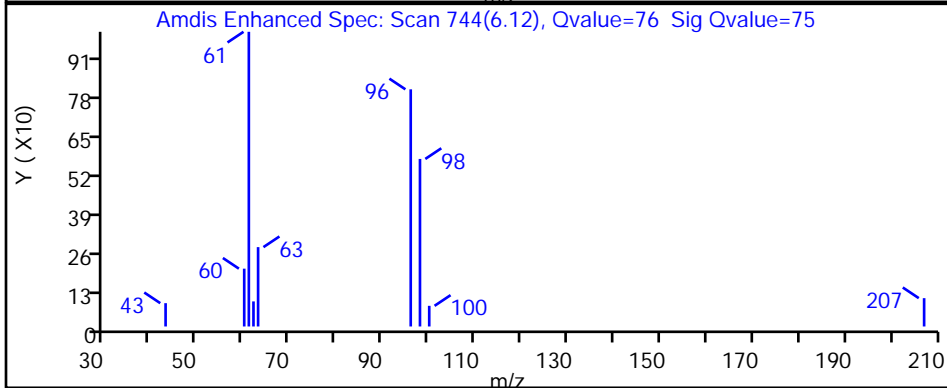
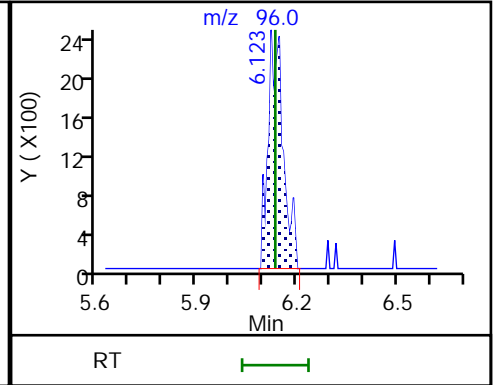
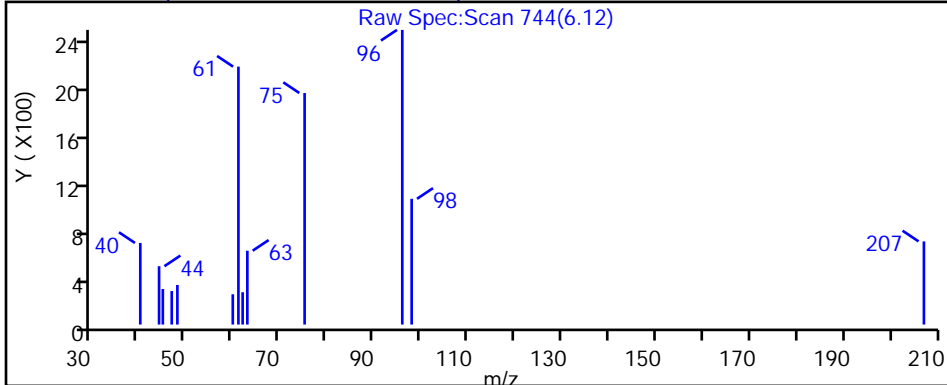
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X24.D

Injection Date: 28-Feb-2022 18:48:30

Instrument ID: 19930

Lims ID: 410-73936-A-12

Lab Sample ID: 410-73936-12

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

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

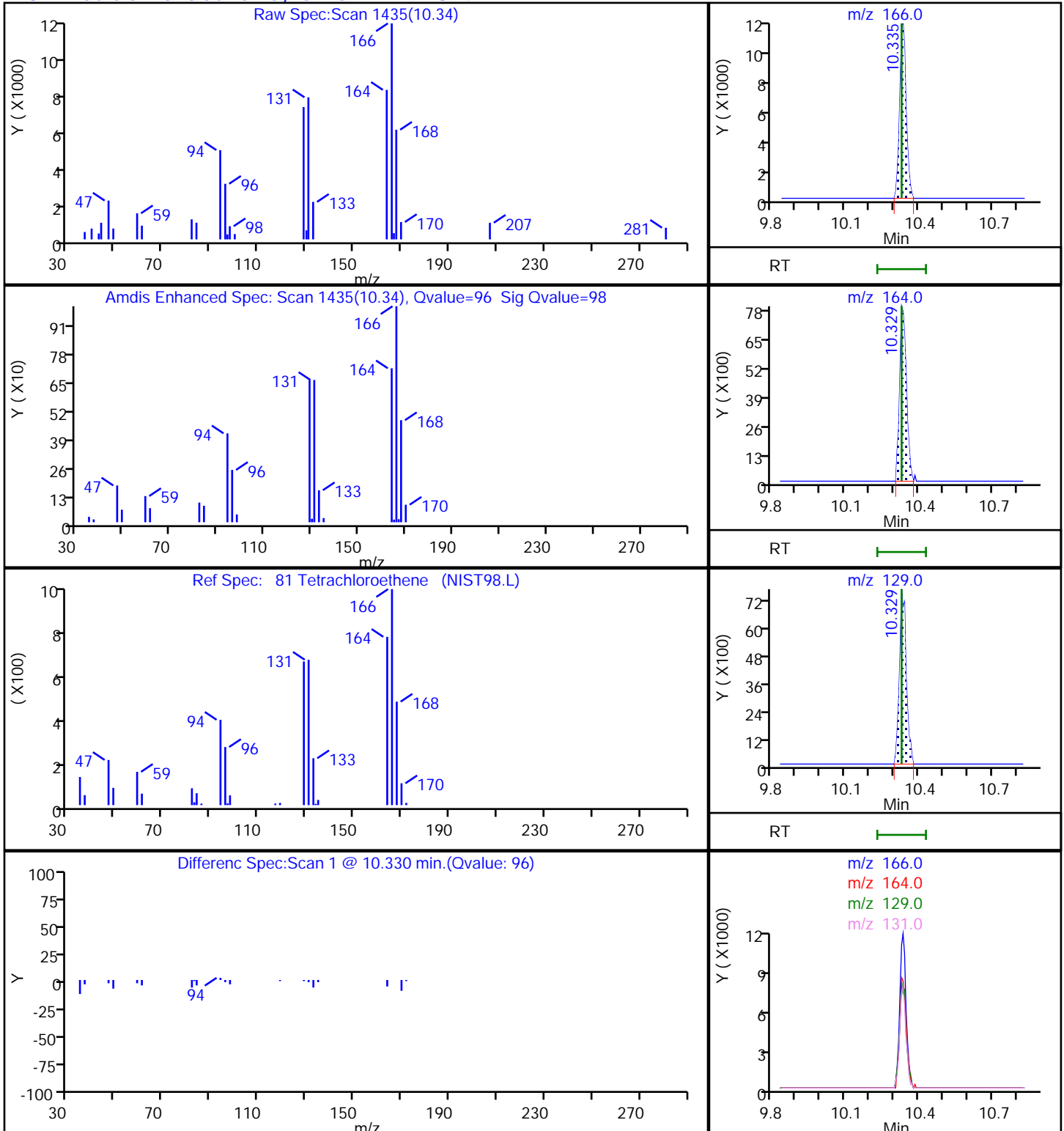
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X24.D

Injection Date: 28-Feb-2022 18:48:30

Instrument ID: 19930

Lims ID: 410-73936-A-12

Lab Sample ID: 410-73936-12

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

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

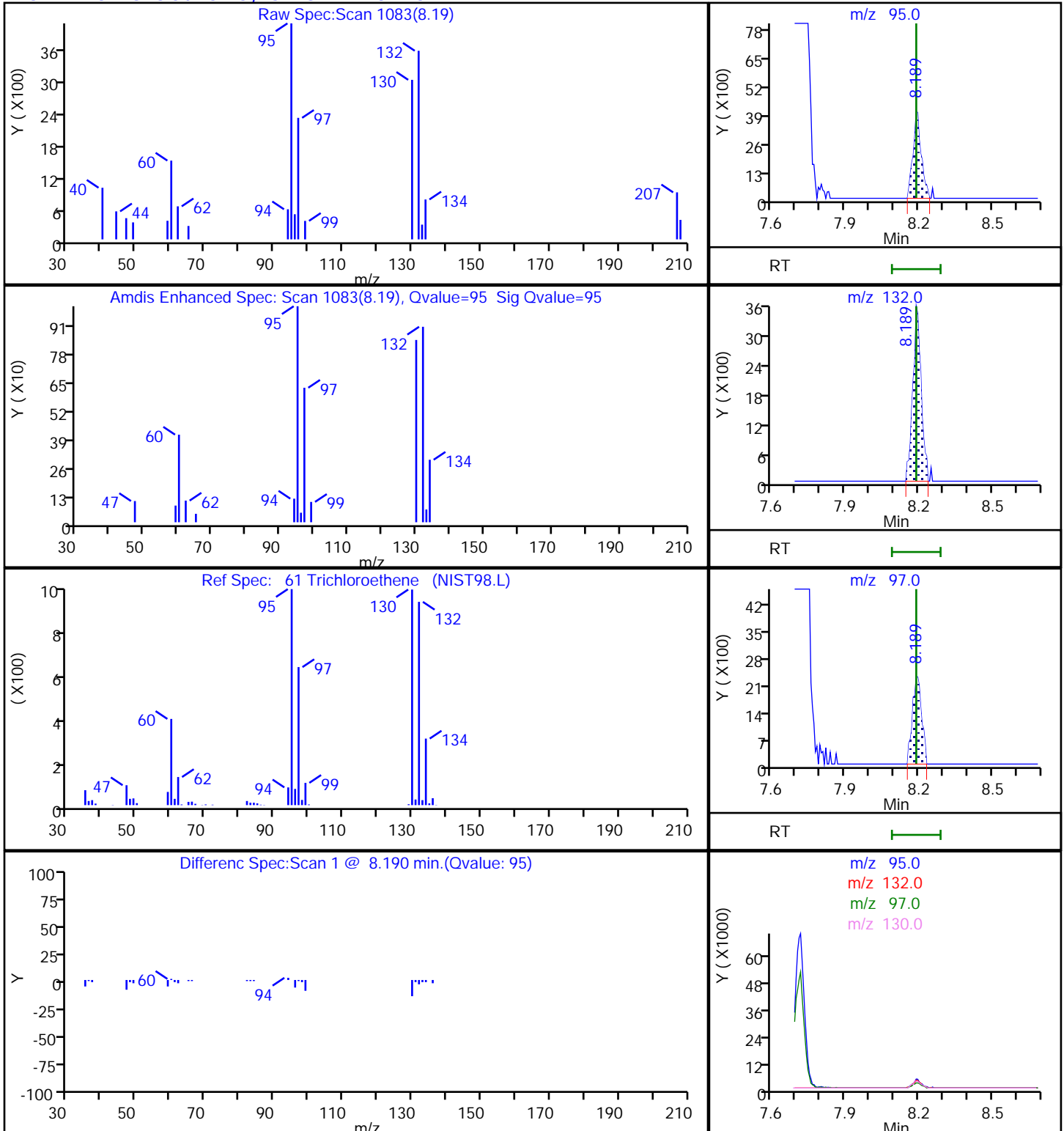
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

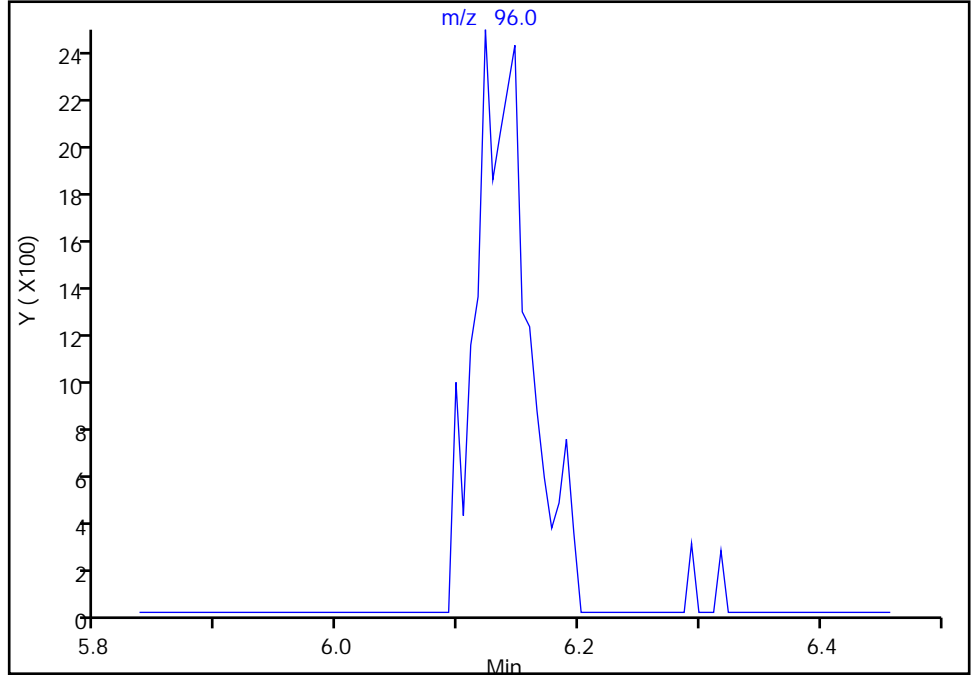
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X24.D
Injection Date: 28-Feb-2022 18:48:30 Instrument ID: 19930
Lims ID: 410-73936-A-12 Lab Sample ID: 410-73936-12
Client ID: HD-COD-SW-29-0/1-0
Operator ID: KNK41612 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

Signal: 1

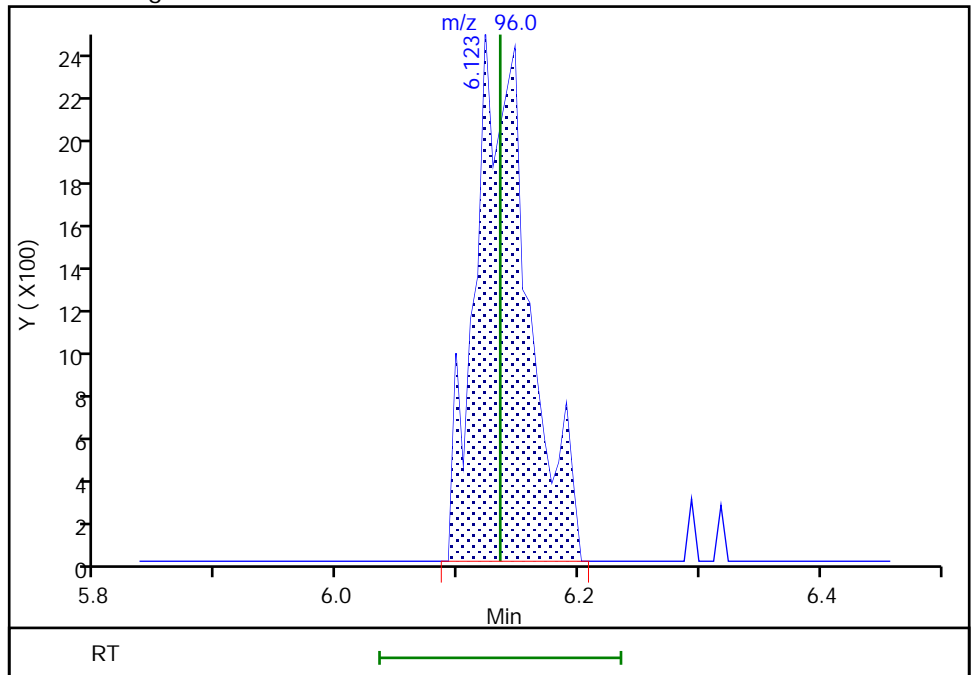
Not Detected
Expected RT: 6.13

Processing Integration Results



Manual Integration Results

RT: 6.12
Area: 7540
Amount: 0.117559
Amount Units: ug/l



Reviewer: beckerk, 28-Feb-2022 20:53:41
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-73936-13
 Matrix: Water Lab File ID: IF28X25.D
 Analysis Method: 8260D Date Collected: 02/22/2022 12:00
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 19:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	7.1	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c *+ cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	1.2	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.59	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	0.24	J cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.4	cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	5.4	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-73936-13
 Matrix: Water Lab File ID: IF28X25.D
 Analysis Method: 8260D Date Collected: 02/22/2022 12:00
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 19:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	87	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	99	cn	80-120
2037-26-5	Toluene-d8 (Surr)	97	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D
 Lims ID: 410-73936-A-13
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 28-Feb-2022 19:10:30 ALS Bottle#: 25 Worklist Smp#: 26
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-026
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:55:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	
5 Vinyl chloride	62		2.251				ND	7
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96	3.580	3.568	0.012	94	30560	0.5942	
15 Acetone	43		3.593				ND	7
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	23	154683	50.0	
27 Methyl tert-butyl ether	73	4.653	4.641	0.012	4	5555	0.0379	
28 trans-1,2-Dichloroethene	96	4.647	4.659	-0.012	10	1918	0.0328	Ma
31 1,1-Dichloroethane	63	5.306	5.312	-0.006	96	132355	1.25	
36 2-Butanone (MEK)	43		6.092				ND	
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	79	285645	4.39	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.622	6.610	0.012	92	25128	0.2393	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	538203	9.91	
47 1,1,1-Trichloroethane	97	6.842	6.836	0.006	98	695269	7.13	
50 Carbon tetrachloride	117		7.049				ND	7
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	67	111380	10.3	
54 Benzene	78		7.305				ND	7
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2154891	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	97	352945	5.42	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2140479	9.69	
76 Toluene	92		9.787				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	0	1569	0.0359	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	98	7581131	97.1	E
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1708796	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	732083	8.67	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	831822	10.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D

Injection Date: 28-Feb-2022 19:10:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-13

Lab Sample ID: 410-73936-13

Worklist Smp#: 26

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

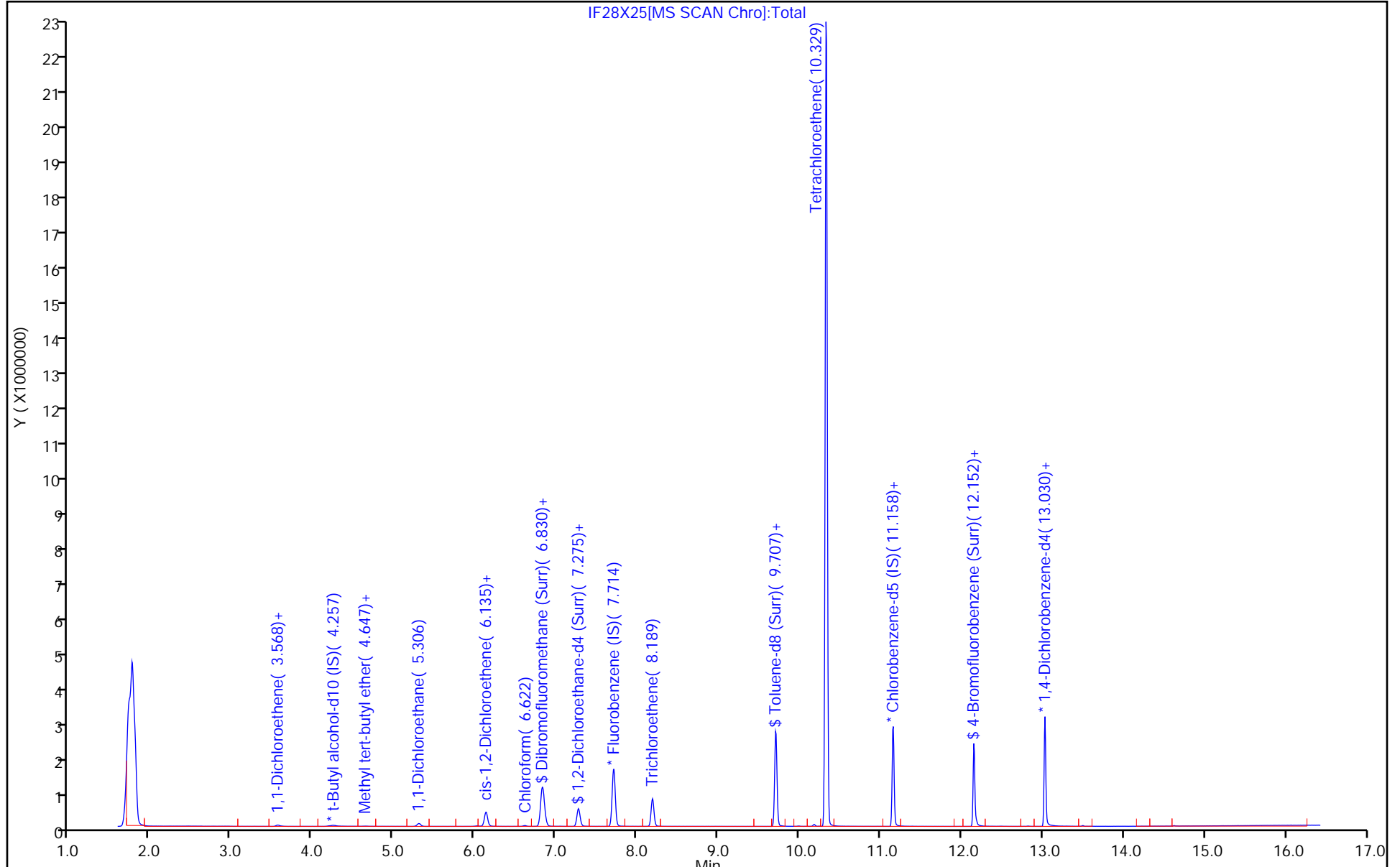
ALS Bottle#: 25

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D
 Lims ID: 410-73936-A-13
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 28-Feb-2022 19:10:30 ALS Bottle#: 25 Worklist Smp#: 26
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-026
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 20:58:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 20:55:29

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.91	99.15
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	102.56
\$ 75 Toluene-d8 (Surr)	10.0	9.69	96.93
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.67	86.74

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D

Injection Date: 28-Feb-2022 19:10:30

Instrument ID: 19930

Lims ID: 410-73936-A-13

Lab Sample ID: 410-73936-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

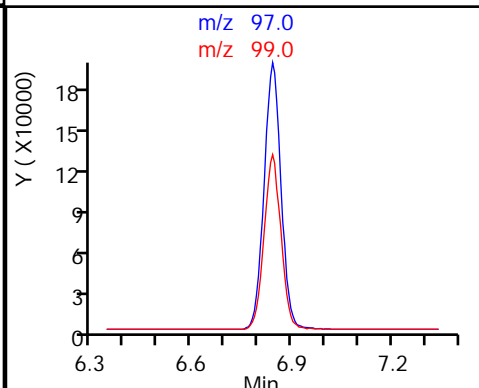
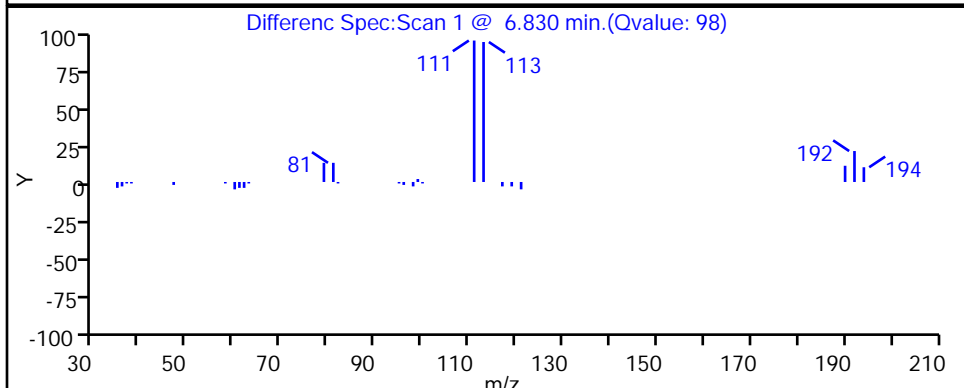
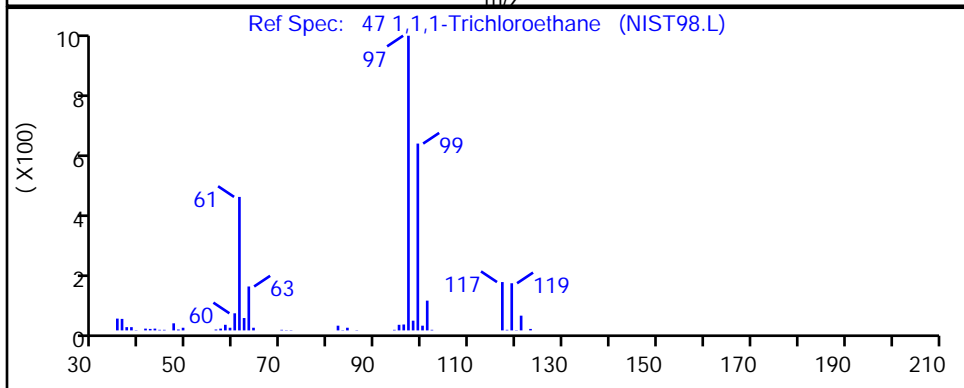
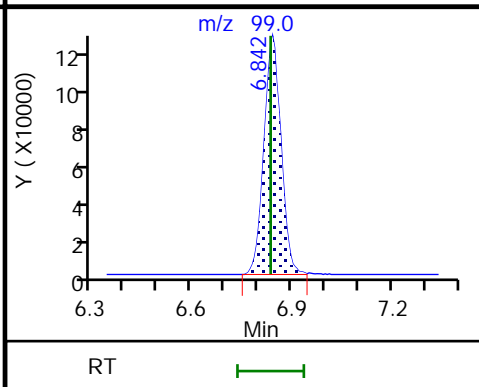
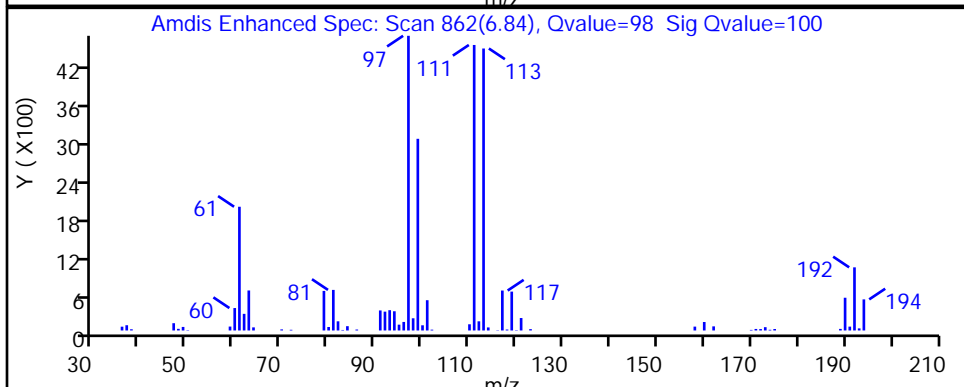
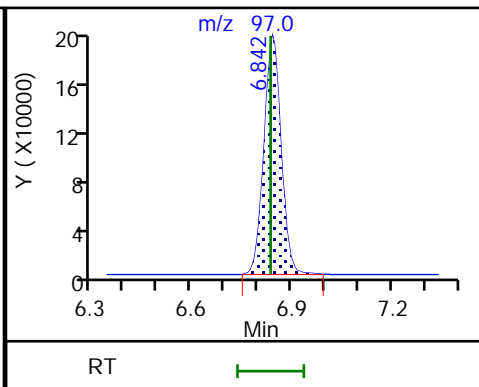
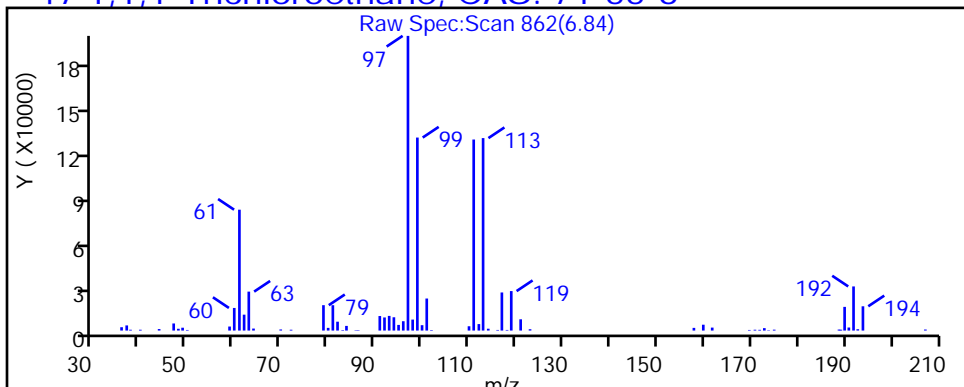
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D

Injection Date: 28-Feb-2022 19:10:30

Instrument ID: 19930

Lims ID: 410-73936-A-13

Lab Sample ID: 410-73936-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

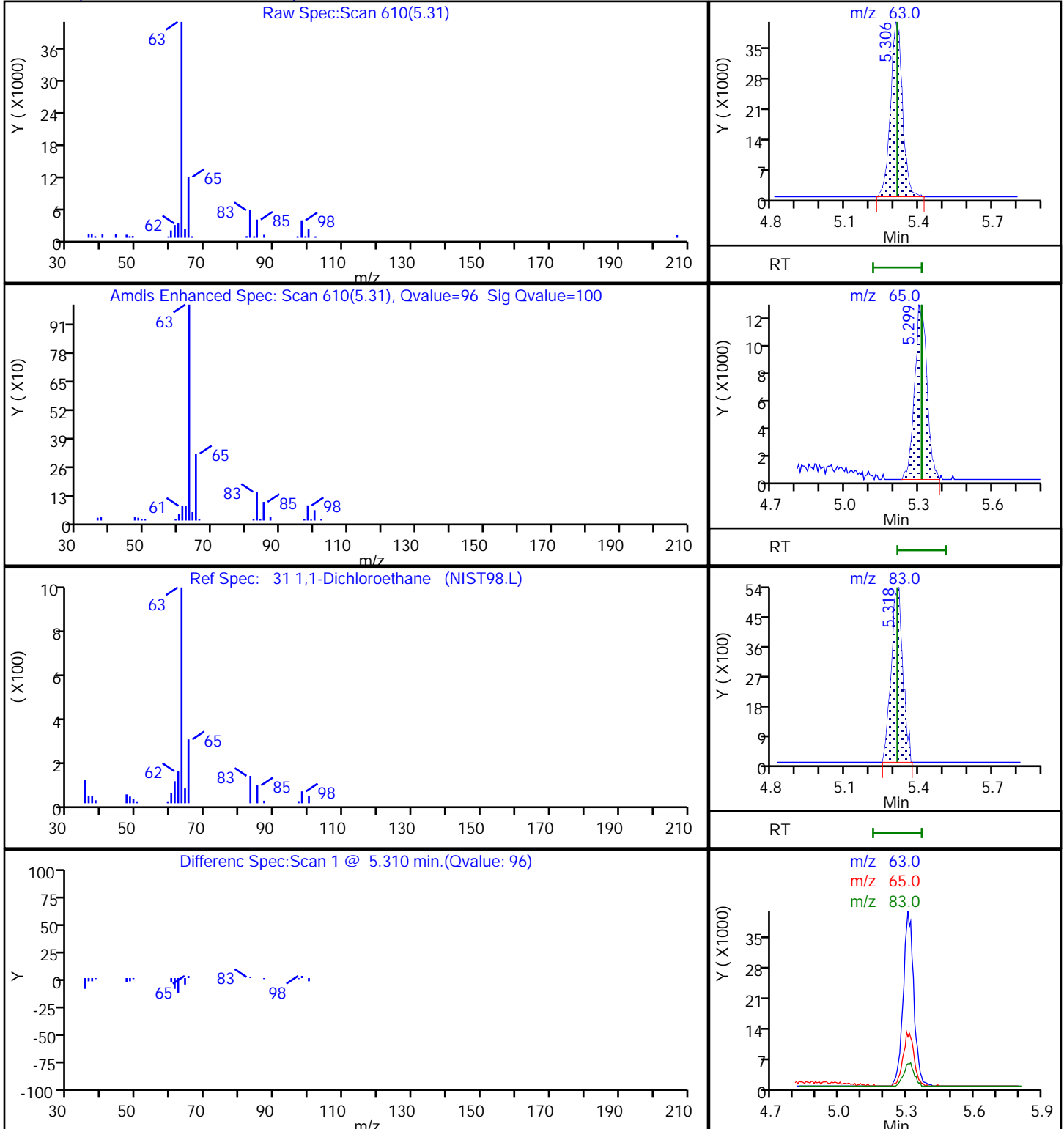
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D

Injection Date: 28-Feb-2022 19:10:30

Instrument ID: 19930

Lims ID: 410-73936-A-13

Lab Sample ID: 410-73936-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

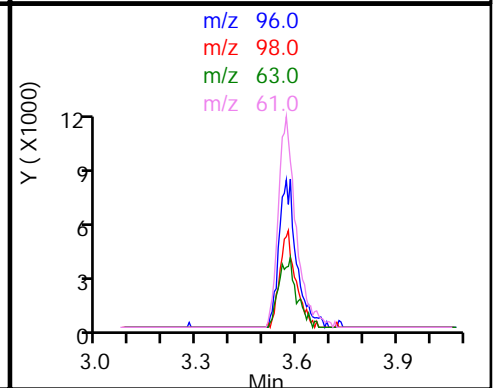
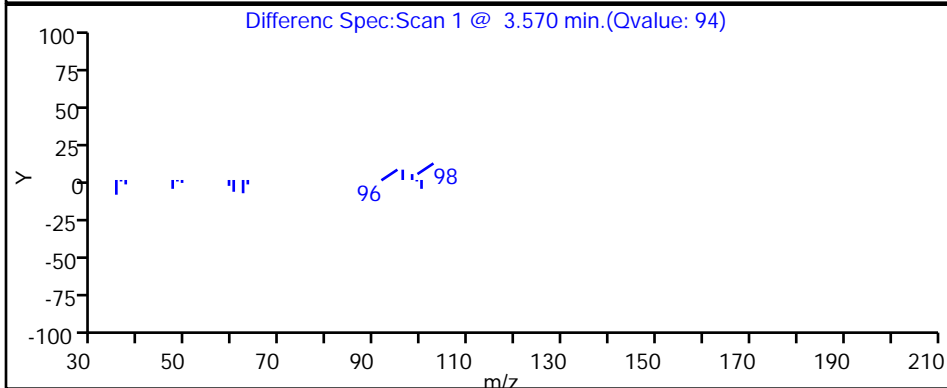
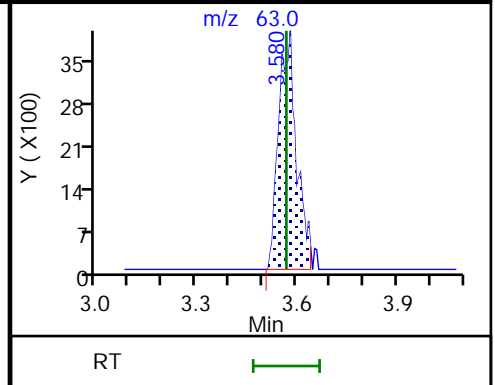
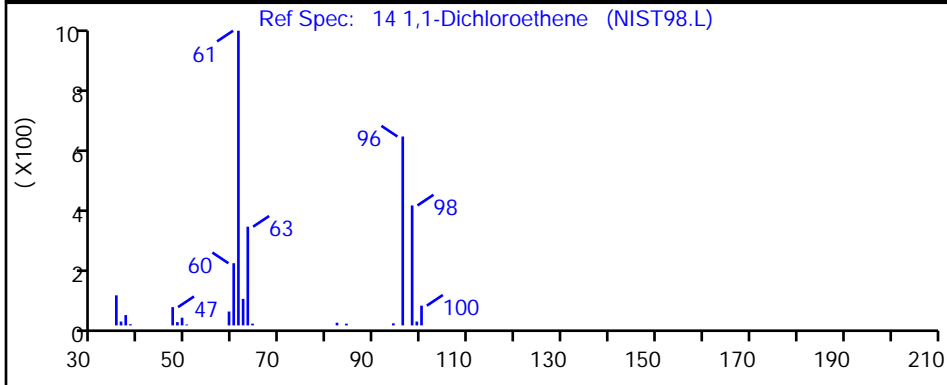
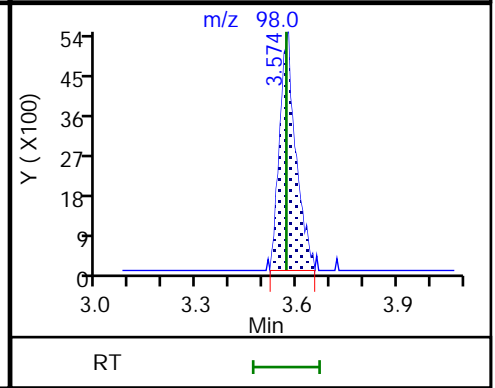
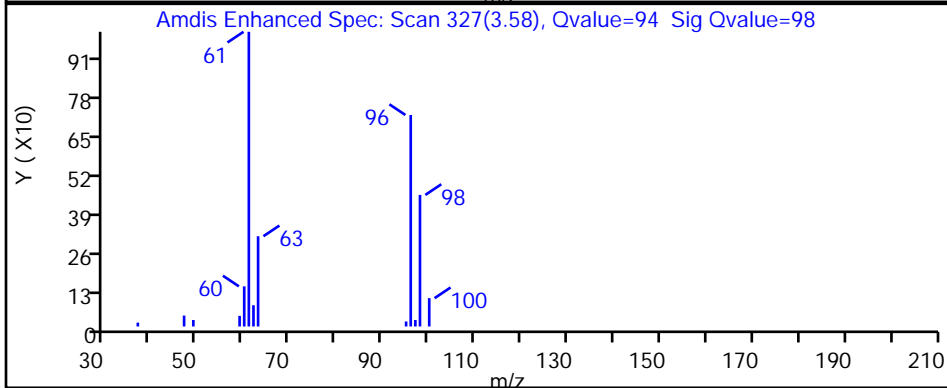
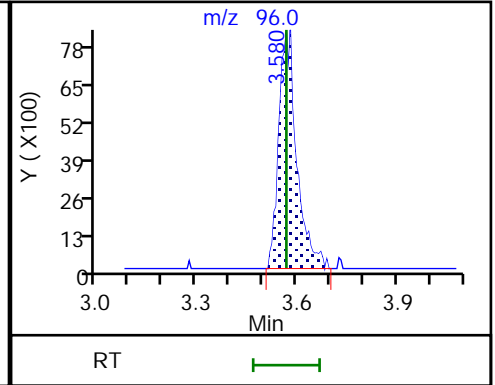
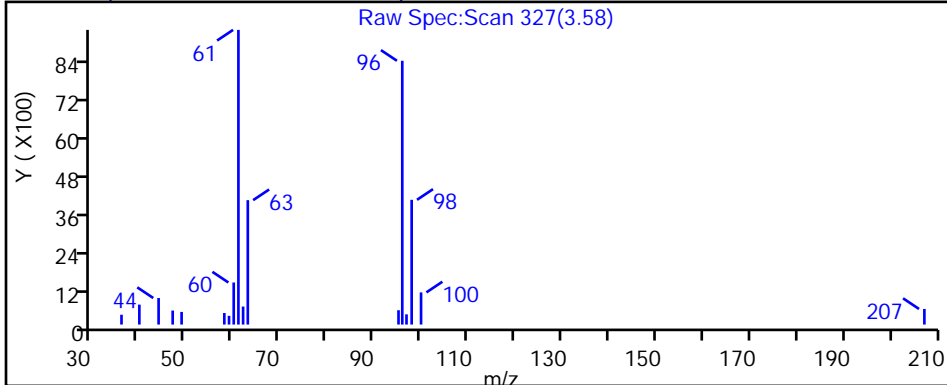
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D

Injection Date: 28-Feb-2022 19:10:30

Instrument ID: 19930

Lims ID: 410-73936-A-13

Lab Sample ID: 410-73936-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

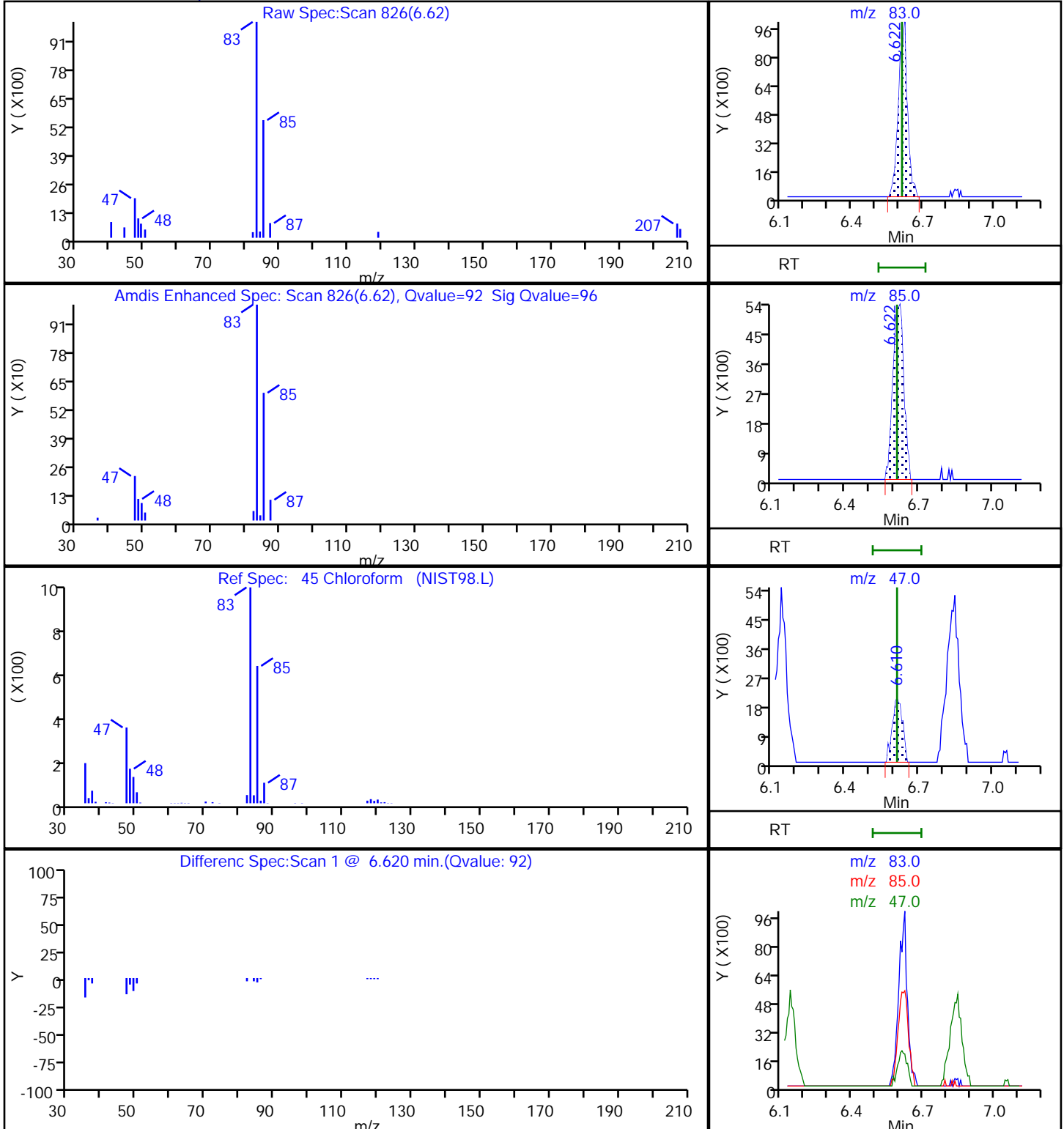
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D

Injection Date: 28-Feb-2022 19:10:30

Instrument ID: 19930

Lims ID: 410-73936-A-13

Lab Sample ID: 410-73936-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

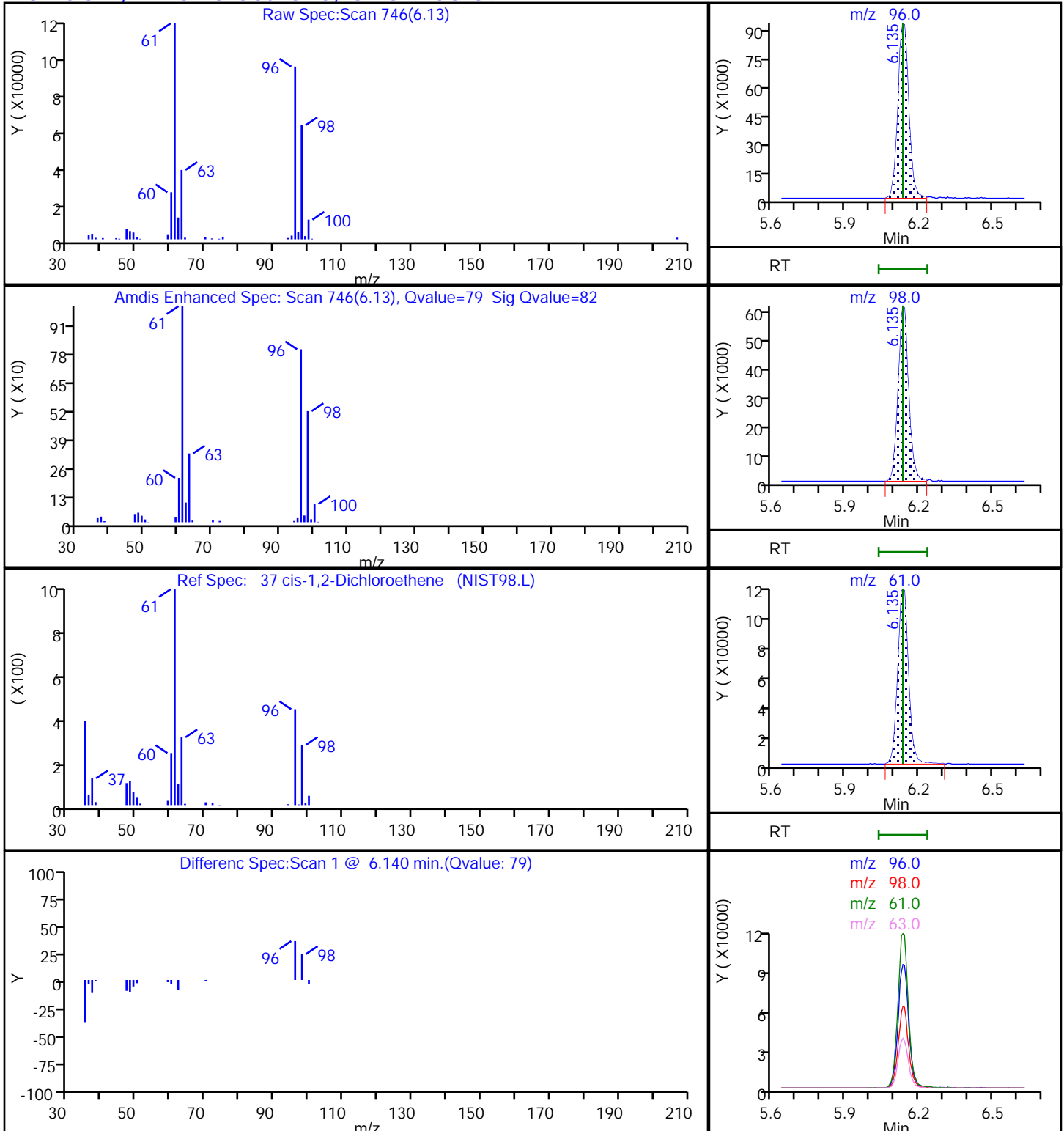
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X25.D

Injection Date: 28-Feb-2022 19:10:30

Instrument ID: 19930

Lims ID: 410-73936-A-13

Lab Sample ID: 410-73936-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

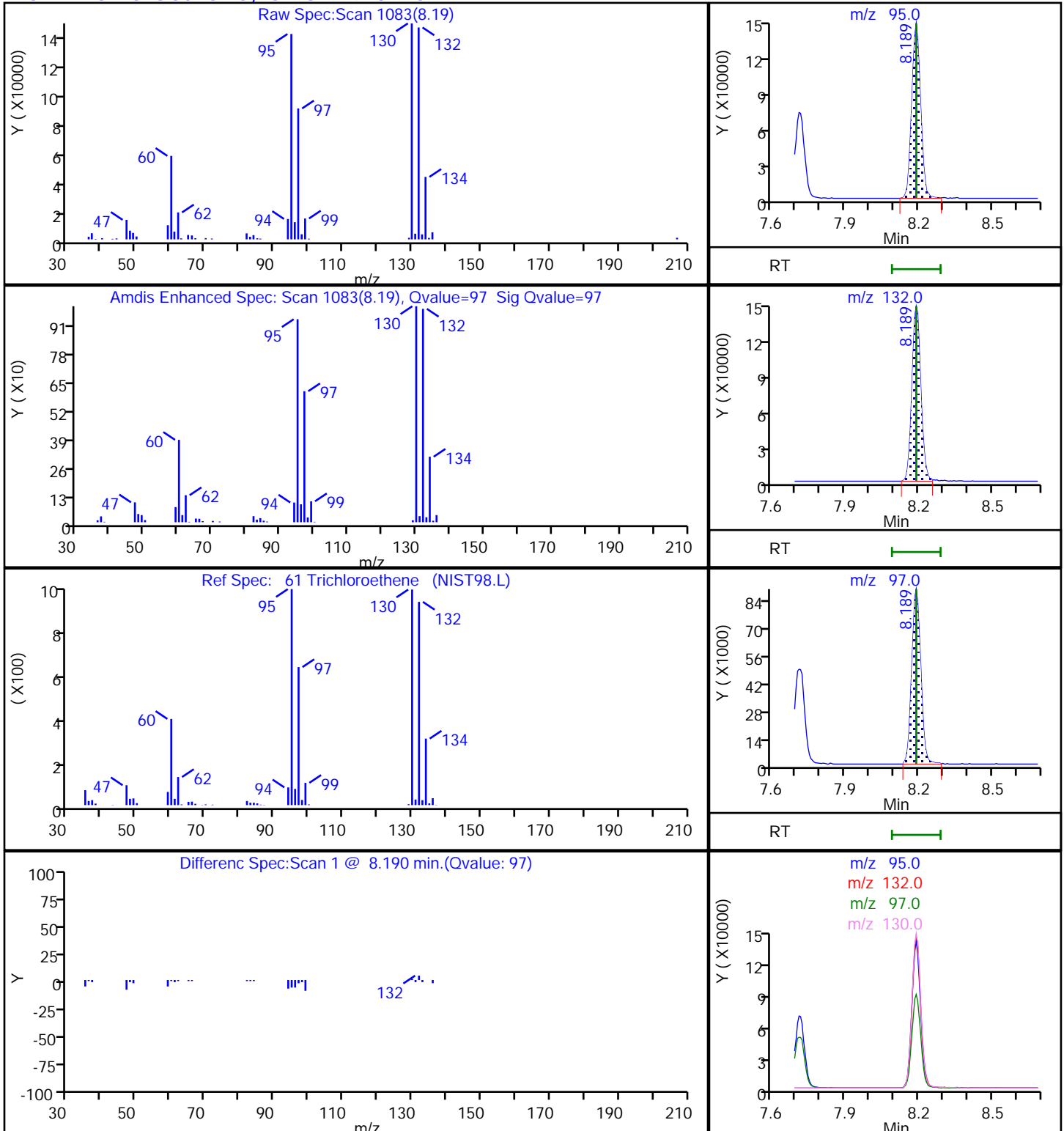
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

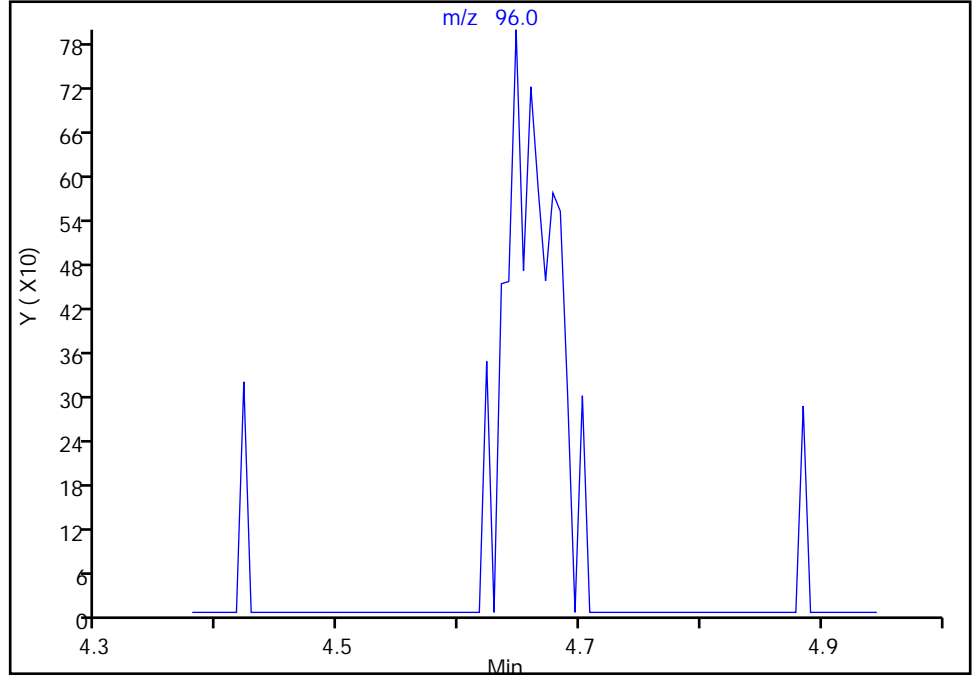
Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X25.D
Injection Date: 28-Feb-2022 19:10:30 Instrument ID: 19930
Lims ID: 410-73936-A-13 Lab Sample ID: 410-73936-13
Client ID: HD-QC1-0/1-1
Operator ID: KNK41612 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

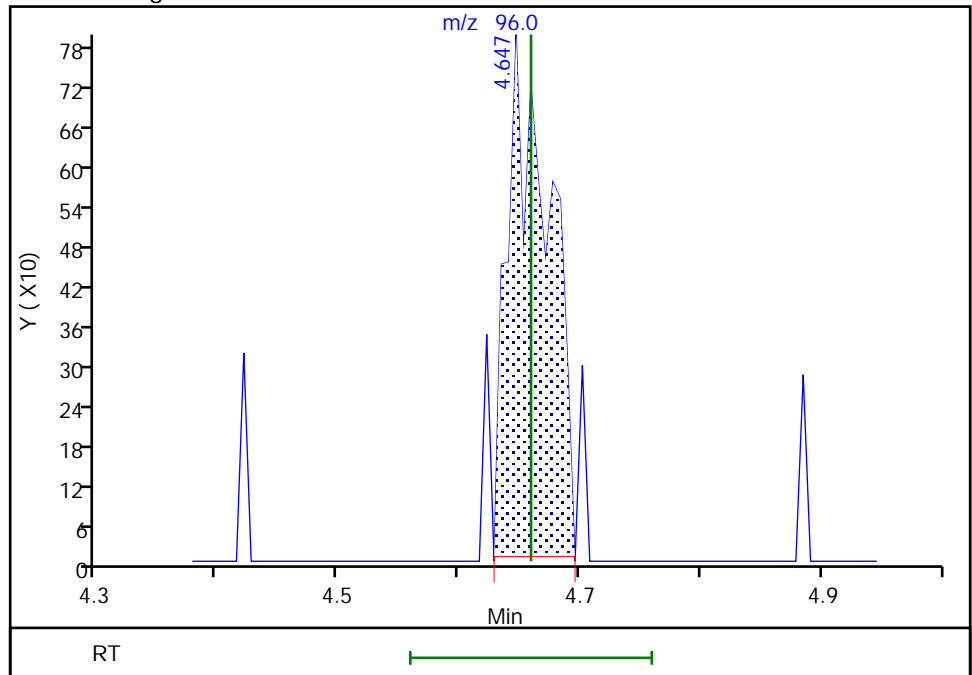
Not Detected
Expected RT: 4.66

Processing Integration Results



Manual Integration Results

RT: 4.65
Area: 1918
Amount: 0.032836
Amount Units: ug/l



Reviewer: beckerk, 28-Feb-2022 20:55:01
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 DL Lab Sample ID: 410-73936-13 DL
 Matrix: Water Lab File ID: IM02X17.D
 Analysis Method: 8260D Date Collected: 02/22/2022 12:00
 Sample wt/vol: 25 (mL) Date Analyzed: 03/02/2022 15:42
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229111 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	86		5.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	97		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X17.D
 Lims ID: 410-73936-B-13 DL
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 02-Mar-2022 15:42:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 10.0000
 Sample Info: 410-0051485-018
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 18:49:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: beckerk

Date: 02-Mar-2022 18:37:20

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.148	2.142	0.006	1	3962	0.0465	
5 Vinyl chloride	62		2.245				ND	
7 Bromomethane	94		2.599				ND	7
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96	3.574	3.562	0.012	37	2509	0.0440	
15 Acetone	43		3.587				ND	U
19 Carbon disulfide	76		3.867				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.227	0.030	25	125051	50.0	
23 Methylene Chloride	84		4.233				ND	7
27 Methyl tert-butyl ether	73		4.641				ND	
28 trans-1,2-Dichloroethene	96		4.653				ND	
31 1,1-Dichloroethane	63	5.324	5.312	0.012	94	12776	0.1087	
36 2-Butanone (MEK)	43		6.098				ND	7
37 cis-1,2-Dichloroethene	96	6.147	6.135	0.012	77	30101	0.4171	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83		6.610				ND	7
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	586311	9.74	
47 1,1,1-Trichloroethane	97	6.848	6.836	0.012	98	67508	0.6240	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	68	121502	10.1	
54 Benzene	78		7.305				ND	
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2389584	10.0	
61 Trichloroethene	95	8.195	8.189	0.006	98	34537	0.4783	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	93	2369012	9.74	
76 Toluene	92		9.787				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	97	739804	8.61	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.725				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.152	0.006	84	1881176	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.378				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	96	815963	8.78	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	943816	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X17.D

Injection Date: 02-Mar-2022 15:42:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-B-13 DL

Lab Sample ID: 410-73936-13

Worklist Smp#: 18

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

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

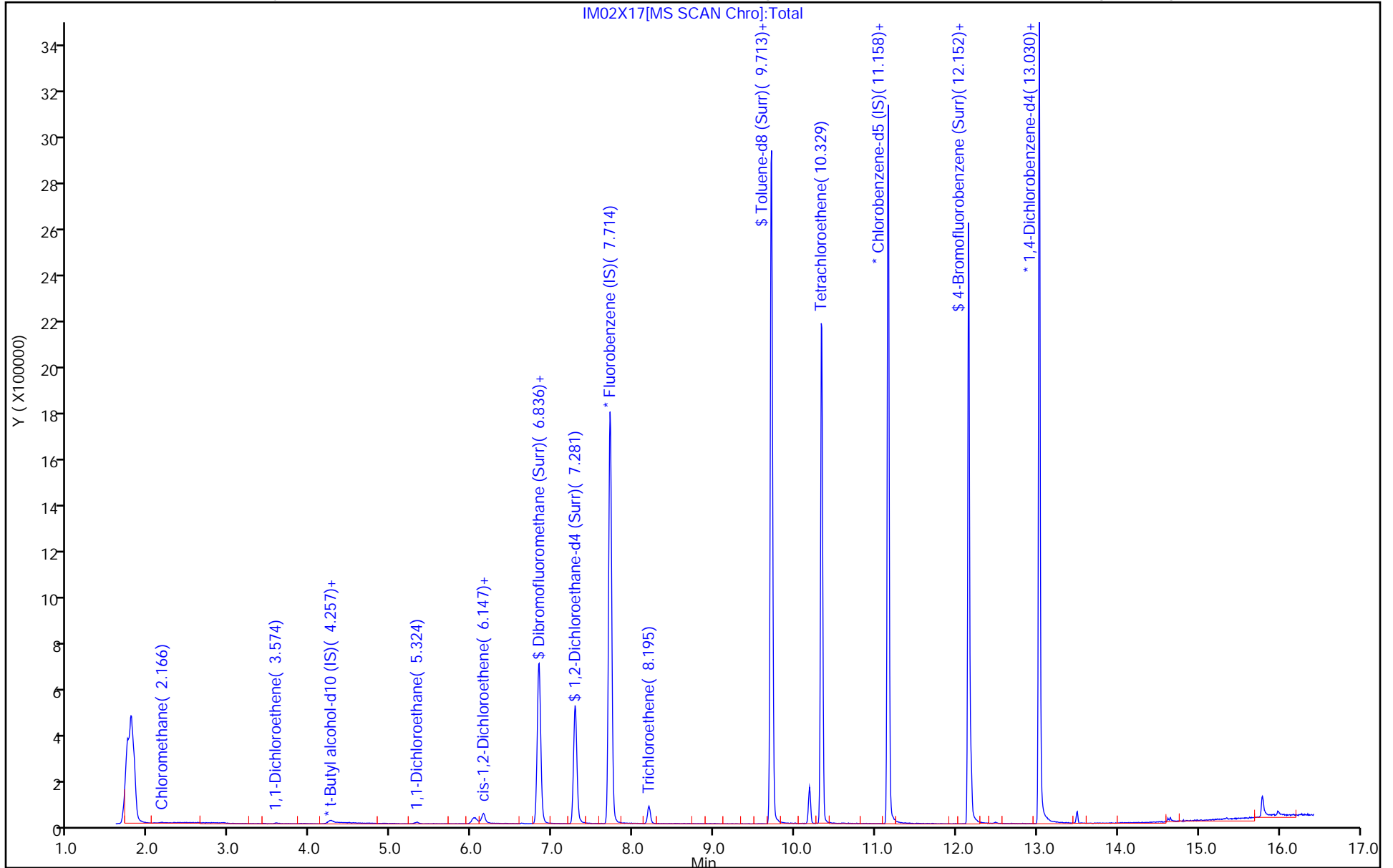
ALS Bottle#: 17

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X17.D
 Lims ID: 410-73936-B-13 DL
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 02-Mar-2022 15:42:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 10.0000
 Sample Info: 410-0051485-018
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 18:49:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: beckerk

Date: 02-Mar-2022 18:37:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.74	97.40
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.90
\$ 75 Toluene-d8 (Surr)	10.0	9.74	97.45
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.78	87.82

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X17.D

Injection Date: 02-Mar-2022 15:42:30

Instrument ID: 19930

Lims ID: 410-73936-B-13 DL

Lab Sample ID: 410-73936-13

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

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

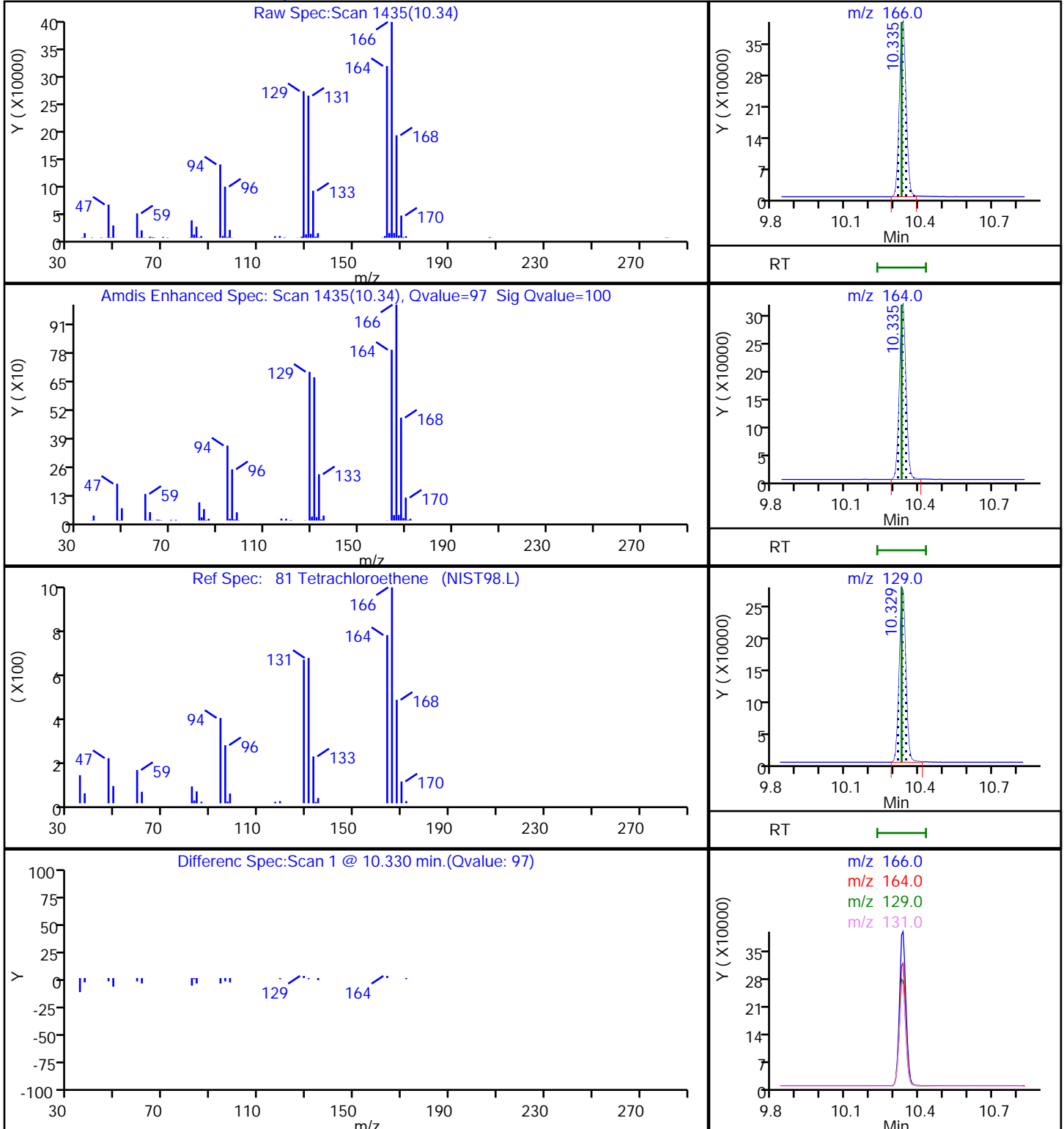
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-73936-14
 Matrix: Water Lab File ID: IF28X07.D
 Analysis Method: 8260D Date Collected: 02/22/2022 00:00
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 12:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	^c ** cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND	cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	ND	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-73936-14
 Matrix: Water Lab File ID: IF28X07.D
 Analysis Method: 8260D Date Collected: 02/22/2022 00:00
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 12:48
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND	cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	88	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	96	cn	80-120
2037-26-5	Toluene-d8 (Surr)	99	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X07.D
 Lims ID: 410-73936-A-14
 Client ID: HD-QC1-0/1-2
 Sample Type: Client
 Inject. Date: 28-Feb-2022 12:48:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-008
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk Date: 28-Feb-2022 16:58:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.154				ND	
5 Vinyl chloride	62		2.251				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.703				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.629	3.593	0.036	69	5358	0.6137	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.275	4.263	0.012	23	157174	50.0	
27 Methyl tert-butyl ether	73		4.641				ND	
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.092				ND	7
37 cis-1,2-Dichloroethene	96		6.135				ND	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83		6.610				ND	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	537702	9.65	
47 1,1,1-Trichloroethane	97		6.836				ND	
50 Carbon tetrachloride	117		7.049				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.275	0.012	67	112839	10.1	
54 Benzene	78		7.305				ND	
56 1,2-Dichloroethane	62		7.378				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2212241	10.0	
61 Trichloroethene	95		8.189				ND	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.860				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	93	2176266	9.93	
76 Toluene	92		9.787				ND	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166		10.329				ND	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1695858	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	741239	8.85	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	832990	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X07.D

Injection Date: 28-Feb-2022 12:48:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-73936-A-14

Lab Sample ID: 410-73936-14

Worklist Smp#: 8

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

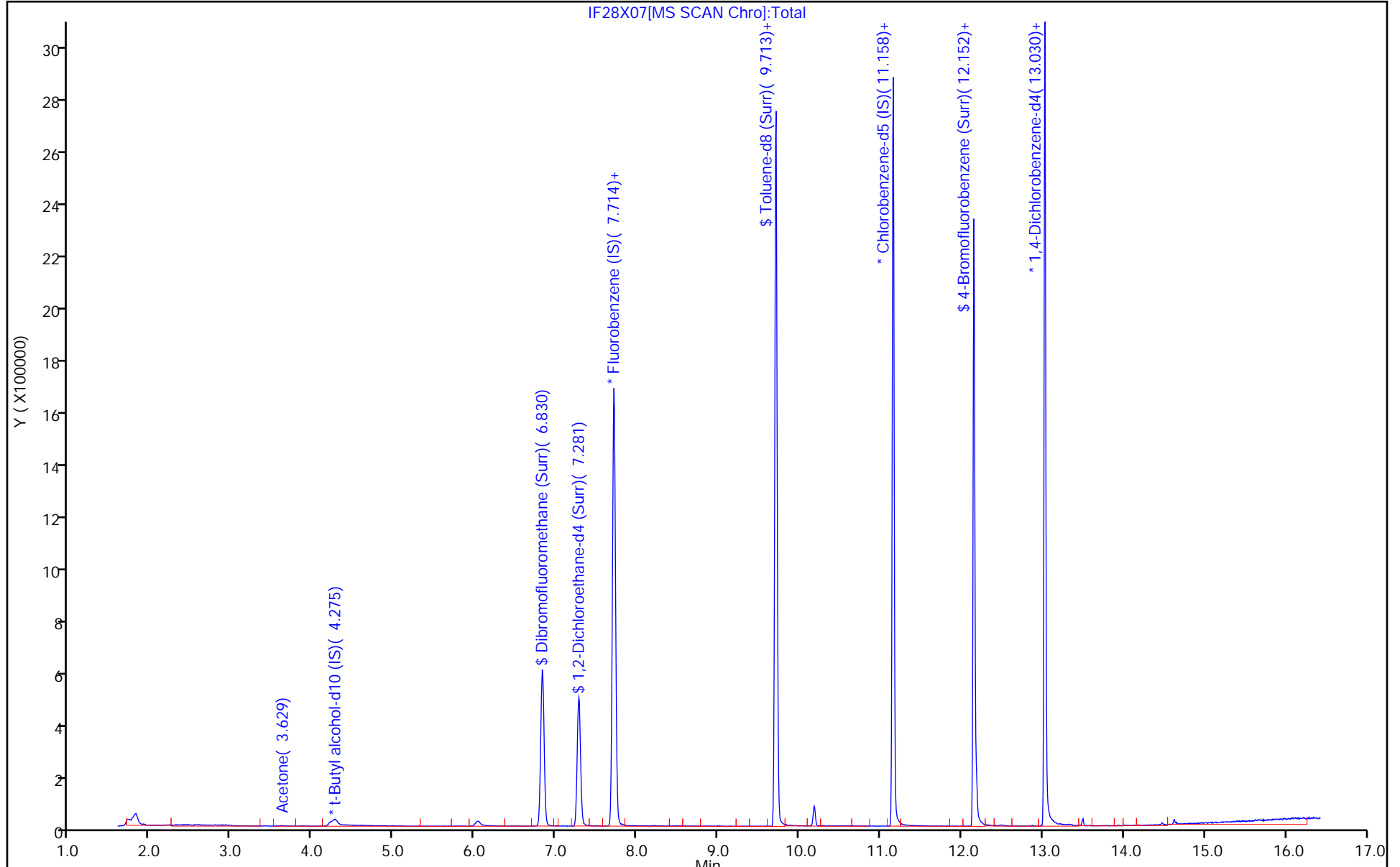
ALS Bottle#: 7

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 Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X07.D
 Lims ID: 410-73936-A-14
 Client ID: HD-QC1-0/1-2
 Sample Type: Client
 Inject. Date: 28-Feb-2022 12:48:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-008
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 16:58:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.65	96.49
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.21
\$ 75 Toluene-d8 (Surr)	10.0	9.93	99.30
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.85	88.50

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-163707/18	IG23I07.D
Level 2	IC 410-163707/17	IG23I06.D
Level 3	IC 410-163707/16	IG23I05.D
Level 4	IC 410-163707/15	IG23I04.D
Level 5	IC 410-163707/14	IG23I03.D
Level 6	ICIS 410-163707/13	IG23I02.D
Level 7	IC 410-163707/12	IG23I01.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Dichlorodifluoromethane	+++++ 0.3627	0.1956 0.3416	0.3040	0.3114	0.3614	Ave		0.312 8		0.1000	20.0		20.0				
Chloromethane	0.3737 0.3692	0.3520 0.3545	0.3277	0.3398	0.3774	Ave		0.356 3		0.1000	5.2		20.0				
1,3-Butadiene	0.3583 0.3381	0.2781 0.3239	0.3216	0.3194	0.3521	Ave		0.327 3			8.1		20.0				
Vinyl chloride	0.3684 0.3847	0.3183 0.3656	0.3364	0.3472	0.3941	Ave		0.359 2		0.1000	7.5		20.0				
Bromomethane	0.2807 0.2701	0.2528 0.2477	0.2440	0.2517	0.2754	Ave		0.260 3		0.1000	5.6		20.0				
Chloroethane	0.2262 0.2246	0.2056 0.2112	0.2036	0.2037	0.2325	Ave		0.215 3		0.1000	5.6		20.0				
Dichlorofluoromethane	0.5615 0.5385	0.4859 0.5023	0.4850	0.4979	0.5538	Ave		0.517 9		0.1000	6.3		20.0				
Trichlorofluoromethane	0.4066 0.5339	0.3297 0.4864	0.4638	0.4671	0.5530	Ave		0.462 9		0.1000	16.4		20.0				
Ethyl ether	0.1835 0.2078	0.1655 0.1915	0.1744	0.1885	0.2053	Ave		0.188 1			8.2		20.0				
Freon 123a	0.3286 0.3668	0.2778 0.3340	0.3179	0.3278	0.3686	Ave		0.331 6			9.3		20.0				
Acrolein	2.0754 2.1510	2.0273 2.2464	2.2746	1.9732	2.5490	Ave		2.185 3			8.9		20.0				
1,1-Dichloroethene	0.2236 0.2614	0.2129 0.2407	0.2396	0.2214	0.2711	Ave		0.238 7		0.1000	9.0		20.0				
Acetone	3.3948 2.6081	2.6279 2.6013	2.5719	2.6885	2.9507	Ave		2.777 6		0.1000	10.8		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Freon 113	0.1793 0.2949	0.1939 0.2778	0.2561	0.2365	0.3061	Ave		0.249 2		0.1000	19.6		20.0				
Methyl iodide	0.4365 0.5164	0.4581 0.4791	0.4744	0.4472	0.5281	Ave		0.477 1			7.2		20.0				
Carbon disulfide	0.6241 0.7230	0.6085 0.6809	0.6272	0.6081	0.7397	Ave		0.658 8		0.1000	8.4		20.0				
Methyl acetate	10.223 7.9164	6.6486 7.6664	7.2485	8.2644	9.2657	Ave		8.176 2		0.1000	14.9		20.0				
Allyl chloride	0.4039 0.4122	0.3756 0.3872	0.3811	0.3562	0.4244	Ave		0.391 5			6.0		20.0				
Methylene Chloride	0.2524 0.2798	0.2487 0.2570	0.2549	0.2470	0.2837	Ave		0.260 5		0.1000	5.7		20.0				
t-Butyl alcohol	1.0156 1.1288	0.9511 0.9655	1.0279	1.1110	1.1697	Ave		1.052 8			8.0		20.0				
Acrylonitrile	3.3547 3.7261	3.2482 3.8697	3.8210	3.4385	4.4580	Ave		3.702 3			11.1		20.0				
Methyl tert-butyl ether	0.6479 0.7420	0.6277 0.6762	0.6717	0.6482	0.7521	Ave		0.680 8		0.1000	7.1		20.0				
trans-1,2-Dichloroethene	0.2636 0.2920	0.2568 0.2706	0.2670	0.2508	0.2967	Ave		0.271 1		0.1000	6.4		20.0				
n-Hexane	0.2986 0.4503	0.2876 0.4202	0.3712	0.3567	0.4652	Ave		0.378 5			18.5		20.0				
1,1-Dichloroethane	0.4529 0.5299	0.4771 0.4952	0.4797	0.4692	0.5393	Ave		0.491 9		0.2000	6.5		20.0				
di-Isopropyl ether	0.7902 0.8812	0.7740 0.8214	0.8046	0.7810	0.8994	Ave		0.821 7			6.0		20.0				
2-Chloro-1,3-butadiene	0.3795 0.4481	0.3757 0.4209	0.4011	0.3850	0.4606	Ave		0.410 1			8.3		20.0				
Ethyl t-butyl ether	0.7755 0.8660	0.7525 0.7962	0.7910	0.7665	0.8768	Ave		0.803 5			6.1		20.0				
2-Butanone (MEK)	4.4727 4.7324	4.7875 4.9530	5.0137	4.4128	5.5781	Ave		4.850 0		0.1000	8.1		20.0				
cis-1,2-Dichloroethene	0.3085 0.3204	0.2792 0.2984	0.2962	0.2831	0.3282	Ave		0.302 0		0.1000	6.0		20.0				
2,2-Dichloropropane	0.3889 0.4654	0.4050 0.4361	0.4203	0.4002	0.4780	Ave		0.427 7			7.9		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Propionitrile	1.0665 1.3670	1.1664 1.3682	1.3168	1.2026	1.5295	Ave		1.288 2			12.0		20.0				
Methacrylonitrile	4.4612 4.7621	4.5433 5.1194	5.0070	4.3591	5.8587	Ave		4.873 0			10.6		20.0				
Bromochloromethane	0.1221 0.1403	0.1231 0.1291	0.1294	0.1262	0.1421	Ave		0.130 3			6.1		20.0				
Tetrahydrofuran	1.3973 1.4262	1.2691 1.4530	1.4982	1.3139	1.7126	Ave		1.438 6			10.0		20.0				
Chloroform	0.4692 0.5205	0.4652 0.4830	0.4841	0.4582	0.5306	Ave		0.487 3		0.2000	5.7		20.0				
1,1,1-Trichloroethane	0.4073 0.4942	0.4194 0.4640	0.4484	0.4274	0.5086	Ave		0.452 8		0.1000	8.5		20.0				
Cyclohexane	0.3570 0.5244	0.3518 0.4941	0.4506	0.4210	0.5435	Ave		0.448 9		0.1000	17.1		20.0				
1,1-Dichloropropene	0.3433 0.4231	0.3424 0.3973	0.3762	0.3598	0.4316	Ave		0.382 0			9.5		20.0				
Carbon tetrachloride	0.3364 0.4445	0.3351 0.4154	0.3838	0.3693	0.4512	Ave		0.390 8		0.1000	12.2		20.0				
Isobutyl alcohol	0.3505 0.3456	0.3053 0.3093	0.3476	0.3308	0.3625	Ave		0.335 9			6.5		20.0				
Benzene	1.0786 1.2043	1.0806 1.1169	1.1054	1.0522	1.2324	Ave		1.124 3		0.5000	6.0		20.0				
1,2-Dichloroethane	0.3196 0.3205	0.2889 0.2988	0.3010	0.2768	0.3267	Ave		0.304 6		0.1000	6.0		20.0				
t-Amyl methyl ether	0.7373 0.8084	0.6853 0.7420	0.7269	0.7135	0.8081	Ave		0.745 9			6.2		20.0				
n-Heptane	0.3735 0.4318	0.3278 0.4065	0.3870	0.3498	0.4481	Ave		0.389 2			11.1		20.0				
n-Butanol	0.2672 0.3373	0.2899 0.2908	0.3219	0.3041	0.3716	Ave		0.311 8			11.2		20.0				
Trichloroethene	0.2830 0.3275	0.2877 0.3071	0.2935	0.2799	0.3365	Ave		0.302 2		0.2000	7.4		20.0				
Methylcyclohexane	0.4104 0.5911	0.3880 0.5530	0.4960	0.4766	0.6030	Ave		0.502 6		0.1000	16.8		20.0				
1,2-Dichloropropane	0.2449 0.3041	0.2530 0.2850	0.2751	0.2653	0.3056	Ave		0.276 1		0.1000	8.6		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Methyl methacrylate	8.2957 9.7081	7.9901 10.530	10.080	8.6383	11.802	Ave		9.577 7			14.2		20.0				
1,4-Dioxane	++++ 0.0928	0.0580 0.0531	0.0734	0.0840	0.0900	Qua	-2.62 5	0.121 9	-0.000053	0.0050				0.9980		0.9900	
Dibromomethane	0.1367 0.1448	0.1222 0.1357	0.1296	0.1288	0.1470	Ave		0.135 0			6.6		20.0				
Bromodichloromethane	0.3016 0.3705	0.3121 0.3529	0.3183	0.3156	0.3722	Ave		0.334 7		0.2000	8.8		20.0				
2-Nitropropane	2.4224 2.6776	2.5126 2.9919	2.8529	2.4822	3.2402	Ave		2.740 0			11.0		20.0				
cis-1,3-Dichloropropene	0.3774 0.4708	0.3700 0.4485	0.4057	0.4003	0.4712	Ave		0.420 6		0.2000	10.1		20.0				
4-Methyl-2-pentanone (MIBK)	11.172 12.055	11.105 12.848	12.660	11.139	14.512	Ave		12.21 3		0.1000	10.2		20.0				
Toluene	0.9391 1.0243	0.9229 0.9386	0.9435	0.8884	1.0533	Ave		0.958 6		0.4000	6.1		20.0				
trans-1,3-Dichloropropene	0.3935 0.5015	0.3900 0.4685	0.4231	0.4193	0.4982	Ave		0.442 0		0.1000	10.7		20.0				
Ethyl methacrylate	0.3292 0.4153	0.3108 0.3888	0.3532	0.3657	0.4193	Ave		0.368 9			11.2		20.0				
1,1,2-Trichloroethane	0.2499 0.2775	0.2390 0.2510	0.2485	0.2458	0.2782	Ave		0.255 7		0.1000	6.1		20.0				
Tetrachloroethene	0.4216 0.5030	0.4243 0.4609	0.4444	0.4314	0.5113	Ave		0.456 7		0.2000	8.1		20.0				
1,3-Dichloropropane	0.4271 0.4684	0.3991 0.4306	0.4298	0.4146	0.4743	Ave		0.434 8			6.3		20.0				
2-Hexanone	7.1827 8.6184	7.7352 9.2473	8.7474	7.7260	10.621	Ave		8.554 0		0.1000	13.5		20.0				
Dibromochloromethane	0.2708 0.3553	0.2672 0.3375	0.3010	0.2956	0.3536	Ave		0.311 6			12.0		20.0				
1,2-Dibromoethane (EDB)	0.2369 0.2698	0.2170 0.2484	0.2455	0.2352	0.2740	Ave		0.246 7		0.1000	8.1		20.0				
1-Chlorohexane	0.5866 0.6070	0.5028 0.5563	0.5366	0.5151	0.6198	Ave		0.560 6			8.1		20.0				
Chlorobenzene	1.0341 1.1413	0.9999 1.0474	1.0475	1.0015	1.1613	Ave		1.061 9		0.5000	6.1		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
1,1,1,2-Tetrachloroethane	0.3534 0.4134	0.3288 0.3804	0.3561	0.3538	0.4095	Ave		0.370 8			8.5		20.0				
Ethylbenzene	1.7775 1.9981	1.7418 1.8269	1.8103	1.7297	2.0370	Ave		1.845 9		0.1000	6.6		20.0				
m&p-Xylene	0.6807 0.7933	0.6907 0.7223	0.7223	0.6883	0.8070	Ave		0.729 2		0.1000	7.0		20.0				
o-Xylene	0.6801 0.7828	0.6824 0.7198	0.6941	0.6804	0.7980	Ave		0.719 7		0.3000	7.0		20.0				
Styrene	1.0572 1.2839	1.0757 1.1766	1.1444	1.1001	1.2948	Ave		1.161 8		0.3000	8.3		20.0				
Bromoform	0.1542 0.2215	0.1570 0.2127	0.1737	0.1730	0.2145	Ave		0.186 7		0.1000	15.4		20.0				
Isopropylbenzene	1.7707 2.0794	1.7890 1.8647	1.8702	1.8099	2.1154	Ave		1.899 9		0.1000	7.4		20.0				
1,1,2,2-Tetrachloroethane	0.5284 0.6088	0.5040 0.5492	0.5500	0.5207	0.6085	Ave		0.552 8		0.3000	7.5		20.0				
Bromobenzene	0.7239 0.8313	0.7007 0.7595	0.7325	0.7127	0.8423	Ave		0.757 6			7.5		20.0				
trans-1,4-Dichloro-2-butene	3.6060 4.4989	3.8773 5.0332	4.4651	3.9395	5.5047	Ave		4.417 8			15.3		20.0				
1,2,3-Trichloropropane	0.1459 0.1691	0.1352 0.1485	0.1493	0.1459	0.1700	Ave		0.152 0			8.5		20.0				
N-Propylbenzene	3.4241 4.1059	3.4158 3.5771	3.6026	3.4783	4.1391	Ave		3.677 5			8.5		20.0				
2-Chlorotoluene	0.6886 0.8261	0.6965 0.7589	0.7527	0.7210	0.8383	Ave		0.754 6			7.8		20.0				
1,3,5-Trimethylbenzene	2.4877 3.0046	2.4892 2.6889	2.6091	2.5128	3.0071	Ave		2.685 6			8.6		20.0				
4-Chlorotoluene	0.7206 0.8363	0.7144 0.7728	0.7625	0.7264	0.8610	Ave		0.770 6			7.5		20.0				
tert-Butylbenzene	0.5220 0.6578	0.5491 0.5957	0.5757	0.5601	0.6625	Ave		0.589 0			9.1		20.0				
Pentachloroethane	0.4318 0.5591	0.3812 0.5124	0.4425	0.4642	0.5385	Ave		0.475 7			13.4		20.0				
1,2,4-Trimethylbenzene	2.5034 3.0669	2.5332 2.7532	2.7222	2.5837	3.1073	Ave		2.752 8			9.0		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
sec-Butylbenzene	3.0988 3.7882	3.1067 3.3969	3.3230	3.2189	3.8259	Ave		3.394 1			8.9		20.0				
1,3-Dichlorobenzene	1.4232 1.7010	1.3877 1.5496	1.5218	1.4220	1.6882	Ave		1.527 7		0.6000	8.4		20.0				
p-Isopropyltoluene	2.7768 3.3546	2.7485 2.9902	2.9177	2.8376	3.3892	Ave		3.002 1			8.9		20.0				
1,4-Dichlorobenzene	1.5011 1.7091	1.4485 1.5576	1.5299	1.4598	1.7250	Ave		1.561 6		0.5000	7.2		20.0				
1,2,3-Trimethylbenzene	1.1533 1.3366	1.1447 1.2073	1.2071	1.1607	1.3161	Ave		1.218 0			6.4		20.0				
Benzyl chloride	0.1628 0.2764	0.1957 0.2557	0.2131	0.2136	0.2660	Ave		0.226 2			18.3		20.0				
n-Butylbenzene	1.2960 1.5824	1.2462 1.4394	1.3589	1.3122	1.5855	Ave		1.402 9			9.8		20.0				
1,2-Dichlorobenzene	1.3272 1.5336	1.2611 1.3757	1.3800	1.3430	1.5513	Ave		1.396 0		0.4000	7.7		20.0				
1,2-Dibromo-3-Chloropropane	0.0593 0.1030	0.0659 0.0884	0.0775	0.0818	0.0933	Ave		0.081 3		0.0500	18.8		20.0				
1,3,5-Trichlorobenzene	1.0011 1.2847	1.0067 1.1450	1.0702	1.0496	1.2682	Ave		1.117 9			10.6		20.0				
1,2,4-Trichlorobenzene	0.8399 1.0952	0.8063 0.9601	0.9241	0.9014	1.0764	Ave		0.943 3		0.2000	11.7		20.0				
Hexachlorobutadiene	0.4823 0.4373	0.3756 0.3936	0.3835	0.3656	0.4307	Ave		0.409 8			10.2		20.0				
Naphthalene	1.7619 2.0429	1.5776 1.6639	1.7607	1.7878	1.9900	Ave		1.797 8			9.3		20.0				
1,2,3-Trichlorobenzene	0.8050 0.9264	0.7050 0.7725	0.7921	0.7919	0.9136	Ave		0.815 2			9.7		20.0				
Dibromofluoromethane (Surr)	0.2500 0.2511	0.2526 0.2515	0.2525	0.2532	0.2524	Ave		0.251 9			0.4		20.0				
1,2-Dichloroethane-d4 (Surr)	0.0506 0.0506	0.0495 0.0507	0.0502	0.0508	0.0504	Ave		0.050 4			0.9		20.0				
Toluene-d8 (Surr)	1.3069 1.2913	1.2928 1.2642	1.3038	1.3008	1.2863	Ave		1.292 3			1.1		20.0				
4-Bromofluorobenzene (Surr)	0.4980 0.4916	0.4938 0.4919	0.4982	0.4929	0.4908	Ave		0.493 9			0.6		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-163707/18	IG23I07.D
Level 2	IC 410-163707/17	IG23I06.D
Level 3	IC 410-163707/16	IG23I05.D
Level 4	IC 410-163707/15	IG23I04.D
Level 5	IC 410-163707/14	IG23I03.D
Level 6	ICIS 410-163707/13	IG23I02.D
Level 7	IC 410-163707/12	IG23I01.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	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	++++ 769929	23341 1976750	65891	133370	382263	++++ 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	16469 783649	42004 2051431	71033	145518	399273	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	15788 717606	33180 1874306	69705	136810	372442	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	16237 816639	37981 2115370	72933	148690	416864	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	12369 573256	30163 1433103	52904	107796	291289	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	9968 476638	24539 1221840	44138	87256	245993	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	24746 1143054	57981 2906691	105130	213271	585859	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	17920 1133164	39345 2814367	100534	200068	585022	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	8085 440991	19745 1108291	37819	80725	217146	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Freon 123a	FB	Ave	14481 778462	33147 1932434	68921	140380	389865	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd 10	Ave	67296 3553431	164868 8611114	325453	642849	1712613	10.00 500	25.0 1250	50.0	100.0	250
1,1-Dichloroethene	FB	Ave	9853 554846	25406 1392957	51944	94828	286821	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd 10	Ave	22016	42743	73600	175187	396518	2.00	5.00	10.0	20.0	50.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 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
			861750	1994344				100	250			
Freon 113	FB	Ave	7902 625953	23135 1607495	55518	101316	323788	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl iodide	FB	Ave	19236 1095984	54663 2772320	102843	191541	558589	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon disulfide	FB	Ave	27501 1534600	72614 3939815	135959	260459	782475	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd 10	Ave	6630 261567	10814 587766	20743	53852	124512	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	17799 874837	44817 2240583	82613	152579	448975	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	11123 593991	29677 1487176	55257	105792	300072	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd 10	Ave	13173 745936	30939 1480411	58831	144787	314368	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd 10	Ave	5439 307786	13208 741706	27336	56014	149768	0.500 25.0	1.25 62.5	2.50	5.00	12.5
Methyl tert-butyl ether	FB	Ave	28552 1574902	74896 3912928	145601	277645	795636	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	11615 619693	30641 1566059	57886	107403	313872	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	13158 955763	34316 2431187	80465	152797	492058	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	19958 1124834	56931 2865291	103998	200971	570521	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	34823 1870451	92363 4752763	174418	334487	951429	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	16724 951023	44829 2435652	86951	164913	487276	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	34174 1838180	89795 4606991	171468	328284	927469	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd 10	Ave	29007	77869	143475	287542	749581	2.00	5.00	10.0	20.0	50.0

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 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
			1563634	3797344				100	250			
cis-1,2-Dichloroethene	FB	Ave	13593 679972	33313 1726698	64220	121250	347207	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	17139 987902	48330 2523281	91101	171411	505614	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd 10	Ave	13833 903317	37944 2097921	75368	156726	411078	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd 10	Ave	28932 1573429	73898 3924933	143284	284046	787287	2.00 100	5.00 250	10.0	20.0	50.0
Bromochloromethane	FB	Ave	5382 297719	14686 746910	28049	54068	150285	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd 10	Ave	4531 235618	10321 557004	21437	42808	115070	1.00 50.0	2.50 125	5.00	10.0	25.0
Chloroform	FB	Ave	20677 1104772	55513 2794705	104933	196244	561287	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	17947 1048975	50051 2684937	97208	183060	537958	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	15734 1113121	41983 2858999	97677	180314	574963	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	15129 898023	40862 2298795	81553	154095	456566	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	14826 943497	39984 2403582	83203	158160	477332	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	TBAd 10	Ave	11365 570979	24830 1185567	49738	107772	243578	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	47533 2556166	128948 6462549	239616	450649	1303704	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	14085 680372	34473 1729238	65256	118544	345575	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	32493 1715769	81778 4293680	157576	305576	854837	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	16461	39115	83896	149822	473994	0.200	0.500	1.00	2.00	5.00

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 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
			916472	2352079				10.0	25.0			
n-Butanol	TBAd 10	Ave	15162	41262	80599	173400	436929	17.5	43.8	87.5	175	438
			975208	1950741				875	2188			
Trichloroethene	FB	Ave	12472	34329	63618	119880	356004	0.200	0.500	1.00	2.00	5.00
			695086	1777081				10.0	25.0			
Methylcyclohexane	FB	Ave	18086	46295	107529	204137	637877	0.200	0.500	1.00	2.00	5.00
			1254685	3199658				10.0	25.0			
1,2-Dichloropropane	FB	Ave	10792	30184	59643	113623	323309	0.200	0.500	1.00	2.00	5.00
			645492	1648952				10.0	25.0			
Methyl methacrylate	TBAd 10	Ave	5380	12996	28845	56288	158597	0.200	0.500	1.00	2.00	5.00
			320765	807321				10.0	25.0			
1,4-Dioxane	TBAd 10	Qua	+++++	4720	10496	27358	60485	+++++	25.0	50.0	100	250
			153335	203588				500	1250			
Dibromomethane	FB	Ave	6024	14579	28100	55146	155460	0.200	0.500	1.00	2.00	5.00
			307242	785220				10.0	25.0			
Bromodichloromethane	FB	Ave	13292	37237	68991	135182	393721	0.200	0.500	1.00	2.00	5.00
			786321	2042180				10.0	25.0			
2-Nitropropane	TBAd 10	Ave	7855	20434	40821	80872	217711	1.00	2.50	5.00	10.0	25.0
			442348	1146903				50.0	125			
cis-1,3-Dichloropropene	FB	Ave	16632	44155	87948	171443	498450	0.200	0.500	1.00	2.00	5.00
			999345	2594937				10.0	25.0			
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	72451	180620	362286	725808	1950081	2.00	5.00	10.0	20.0	50.0
			3982955	9850003				100	250			
Toluene	CBZd 5	Ave	31541	85173	156583	294006	865208	0.200	0.500	1.00	2.00	5.00
			1680421	4295450				10.0	25.0			
trans-1,3-Dichloropropene	CBZd 5	Ave	13216	35995	70216	138743	409218	0.200	0.500	1.00	2.00	5.00
			822825	2144165				10.0	25.0			
Ethyl methacrylate	CBZd 5	Ave	11059	28685	58617	121040	344439	0.200	0.500	1.00	2.00	5.00

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 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
			681452	1779294				10.0	25.0			
1,1,2-Trichloroethane	CBZd 5	Ave	8395	22055	41236	81343	228498	0.200	0.500	1.00	2.00	5.00
			455229	1148961				10.0	25.0			
Tetrachloroethene	CBZd 5	Ave	14161	39159	73750	142779	419950	0.200	0.500	1.00	2.00	5.00
			825293	2109166				10.0	25.0			
1,3-Dichloropropane	CBZd 5	Ave	14346	36830	71333	137217	389560	0.200	0.500	1.00	2.00	5.00
			768446	1970914				10.0	25.0			
2-Hexanone	TBAd 10	Ave	46582	125813	250322	503437	1427211	2.00	5.00	10.0	20.0	50.0
			2847614	7089653				100	250			
Dibromochloromethane	CBZd 5	Ave	9097	24663	49956	97832	290417	0.200	0.500	1.00	2.00	5.00
			582989	1544832				10.0	25.0			
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7956	20030	40746	77838	225049	0.200	0.500	1.00	2.00	5.00
			442687	1136711				10.0	25.0			
1-Chlorohexane	CBZd 5	Ave	19704	46401	89057	170447	509095	0.200	0.500	1.00	2.00	5.00
			995910	2545795				10.0	25.0			
Chlorobenzene	CBZd 5	Ave	34732	92274	173851	331442	953872	0.200	0.500	1.00	2.00	5.00
			1872527	4793510				10.0	25.0			
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	11871	30345	59106	117075	336401	0.200	0.500	1.00	2.00	5.00
			678162	1740796				10.0	25.0			
Ethylbenzene	CBZd 5	Ave	59702	160740	300446	572417	1673213	0.200	0.500	1.00	2.00	5.00
			3278221	8361092				10.0	25.0			
m&p-Xylene	CBZd 5	Ave	45724	127477	239751	455535	1325681	0.400	1.00	2.00	4.00	10.0
			2602971	6611583				20.0	50.0			
o-Xylene	CBZd 5	Ave	22844	62976	115204	225160	655445	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.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 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
			1284350	3294215				10.0	25.0			
Styrene	CBZd 5	Ave	35508	99275	189931	364056	1063582	0.200	0.500	1.00	2.00	5.00
			2106471	5384777				10.0	25.0			
Bromoform	CBZd 5	Ave	5180	14486	28833	57249	176181	0.200	0.500	1.00	2.00	5.00
			363441	973418				10.0	25.0			
Isopropylbenzene	CBZd 5	Ave	59476	165096	310386	598946	1737611	0.200	0.500	1.00	2.00	5.00
			3411517	8533967				10.0	25.0			
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10699	27777	54325	102513	293036	0.200	0.500	1.00	2.00	5.00
			586534	1493325				10.0	25.0			
Bromobenzene	DCBd 4	Ave	14657	38617	72358	140306	405579	0.200	0.500	1.00	2.00	5.00
			800922	2065190				10.0	25.0			
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	23386	63065	127777	256704	739718	2.00	5.00	10.0	20.0	50.0
			1486472	3858821				100	250			
1,2,3-Trichloropropane	DCBd 4	Ave	2954	7449	14746	28724	81857	0.200	0.500	1.00	2.00	5.00
			162926	403698				10.0	25.0			
N-Propylbenzene	DCBd 4	Ave	69326	188239	355852	684747	1993107	0.200	0.500	1.00	2.00	5.00
			3955616	9726346				10.0	25.0			
2-Chlorotoluene	DCBd 4	Ave	13941	38383	74353	141927	403661	0.200	0.500	1.00	2.00	5.00
			795839	2063363				10.0	25.0			
1,3,5-Trimethylbenzene	DCBd 4	Ave	50366	137180	257721	494667	1448018	0.200	0.500	1.00	2.00	5.00
			2894636	7311288				10.0	25.0			
4-Chlorotoluene	DCBd 4	Ave	14590	39370	75316	142990	414612	0.200	0.500	1.00	2.00	5.00
			805714	2101375				10.0	25.0			
tert-Butylbenzene	DCBd 4	Ave	10568	30260	56868	110262	319038	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.: 410-73936-1

Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 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
			633713	1619763				10.0	25.0			
Pentachloroethane	DCBd 4	Ave	8742	21010	43712	91381	259289	0.200	0.500	1.00	2.00	5.00
			538681	1393099				10.0	25.0			
1,2,4-Trimethylbenzene	DCBd 4	Ave	50685	139600	268890	508634	1496260	0.200	0.500	1.00	2.00	5.00
			2954664	7486072				10.0	25.0			
sec-Butylbenzene	DCBd 4	Ave	62740	171209	328234	633668	1842298	0.200	0.500	1.00	2.00	5.00
			3649559	9236299				10.0	25.0			
1,3-Dichlorobenzene	DCBd 4	Ave	28815	76475	150321	279932	812939	0.200	0.500	1.00	2.00	5.00
			1638792	4213523				10.0	25.0			
p-Isopropyltoluene	DCBd 4	Ave	56219	151465	288208	558603	1632038	0.200	0.500	1.00	2.00	5.00
			3231863	8130505				10.0	25.0			
1,4-Dichlorobenzene	DCBd 4	Ave	30392	79823	151116	287369	830653	0.200	0.500	1.00	2.00	5.00
			1646605	4235116				10.0	25.0			
1,2,3-Trimethylbenzene	DCBd 4	Ave	23351	63083	119238	228500	633734	0.200	0.500	1.00	2.00	5.00
			1287655	3282745				10.0	25.0			
Benzyl chloride	DCBd 4	Ave	3297	10785	21047	42047	128109	0.200	0.500	1.00	2.00	5.00
			266255	695344				10.0	25.0			
n-Butylbenzene	DCBd 4	Ave	26239	68676	134228	258320	763485	0.200	0.500	1.00	2.00	5.00
			1524448	3913754				10.0	25.0			
1,2-Dichlorobenzene	DCBd 4	Ave	26871	69498	136312	264385	746995	0.200	0.500	1.00	2.00	5.00
			1477507	3740715				10.0	25.0			
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1200	3634	7659	16104	44921	0.200	0.500	1.00	2.00	5.00
			99189	240431				10.0	25.0			
1,3,5-Trichlorobenzene	DCBd 4	Ave	20269	55476	105716	206620	610685	0.200	0.500	1.00	2.00	5.00

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 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
			1237730	3113277				10.0	25.0			
1,2,4-Trichlorobenzene	DCBd 4	Ave	17004	44434	91280	177445	518320	0.200	0.500	1.00	2.00	5.00
			1055085	2610571				10.0	25.0			
Hexachlorobutadiene	DCBd 4	Ave	9764	20700	37885	71973	207395	0.200	0.500	1.00	2.00	5.00
			421345	1070139				10.0	25.0			
Naphthalene	DCBd 4	Ave	35671	86939	173919	351951	958252	0.200	0.500	1.00	2.00	5.00
			1968173	4524102				10.0	25.0			
1,2,3-Trichlorobenzene	DCBd 4	Ave	16298	38854	78245	155892	439919	0.200	0.500	1.00	2.00	5.00
			892480	2100548				10.0	25.0			
Dibromofluoromethane (Surr)	FB	Ave	550850	602854	547419	542329	533947	10.0	10.0	10.0	10.0	10.0
			533065	582034				10.0	10.0			
1,2-Dichloroethane-d4 (Surr)	FB	Ave	111473	118060	108914	108754	106534	10.0	10.0	10.0	10.0	10.0
			107464	117327				10.0	10.0			
Toluene-d8 (Surr)	CBZd 5	Ave	2194797	2386226	2163909	2152292	2113101	10.0	10.0	10.0	10.0	10.0
			2118631	2314329				10.0	10.0			
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	836413	911479	826851	815520	806331	10.0	10.0	10.0	10.0	10.0
			806596	900526				10.0	10.0			

Curve Type Legend

Ave = Average ISTD
Qua = Quadratic ISTD

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-163707/18	IG23I07.D
Level 2	IC 410-163707/17	IG23I06.D
Level 3	IC 410-163707/16	IG23I05.D
Level 4	IC 410-163707/15	IG23I04.D
Level 5	IC 410-163707/14	IG23I03.D
Level 6	ICIS 410-163707/13	IG23I02.D
Level 7	IC 410-163707/12	IG23I01.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Dichlorodifluoromethane	++++ 9.2	-37.5	-2.8	-0.4	15.5	16.0	30	50	30	30	30	30
Chloromethane	4.9 -0.5	-1.2	-8.0	-4.7	5.9	3.6	50 30	30	30	30	30	30
1,3-Butadiene	9.4 -1.0	-15.1	-1.8	-2.4	7.6	3.3	50 30	30	30	30	30	30
Vinyl chloride	2.6 1.8	-11.4	-6.3	-3.4	9.7	7.1	50 30	30	30	30	30	30
Bromomethane	7.8 -4.9	-2.9	-6.3	-3.3	5.8	3.7	50 30	30	30	30	30	30
Chloroethane	5.0 -1.9	-4.5	-5.5	-5.4	8.0	4.3	50 30	30	30	30	30	30
Dichlorofluoromethane	8.4 -3.0	-6.2	-6.4	-3.8	6.9	4.0	50 30	30	30	30	30	30
Trichlorofluoromethane	-12.2 5.1	-28.8	0.2	0.9	19.5	15.3	50 30	30	30	30	30	30
Ethyl ether	-2.4 1.8	-12.0	-7.2	0.2	9.2	10.5	50 30	30	30	30	30	30
Freon 123a	-0.9 0.7	-16.2	-4.1	-1.2	11.1	10.6	50 30	30	30	30	30	30
Acrolein	-5.0 2.8	-7.2	4.1	-9.7	16.6	-1.6	50 30	30	30	30	30	30
1,1-Dichloroethene	-6.3 0.9	-10.8	0.4	-7.2	13.6	9.5	50 30	30	30	30	30	30
Acetone	22.2 -6.3	-5.4	-7.4	-3.2	6.2	-6.1	50 30	30	30	30	30	30
Freon 113	-28.1 11.5	-22.2	2.8	-5.1	22.8	18.3	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Methyl iodide	-8.5 0.4	-4.0	-0.6	-6.3	10.7	8.2	50 30	30	30	30	30	30
Carbon disulfide	-5.3 3.4	-7.6	-4.8	-7.7	12.3	9.7	50 30	30	30	30	30	30
Methyl acetate	25.0 -6.2	-18.7	-11.3	1.1	13.3	-3.2	50 30	30	30	30	30	30
Allyl chloride	3.2 -1.1	-4.1	-2.7	-9.0	8.4	5.3	50 30	30	30	30	30	30
Methylene Chloride	-3.1 -1.3	-4.5	-2.2	-5.2	8.9	7.4	50 30	30	30	30	30	30
t-Butyl alcohol	-3.5 -8.3	-9.7	-2.4	5.5	11.1	7.2	50 30	30	30	30	30	30
Acrylonitrile	-9.4 4.5	-12.3	3.2	-7.1	20.4	0.6	50 30	30	30	30	30	30
Methyl tert-butyl ether	-4.8 -0.7	-7.8	-1.3	-4.8	10.5	9.0	50 30	30	30	30	30	30
trans-1,2-Dichloroethene	-2.8 -0.2	-5.3	-1.5	-7.5	9.5	7.7	50 30	30	30	30	30	30
n-Hexane	-21.1 11.0	-24.0	-1.9	-5.8	22.9	19.0	50 30	30	30	30	30	30
1,1-Dichloroethane	-7.9 0.7	-3.0	-2.5	-4.6	9.6	7.7	50 30	30	30	30	30	30
di-Isopropyl ether	-3.8 0.0	-5.8	-2.1	-5.0	9.5	7.2	50 30	30	30	30	30	30
2-Chloro-1,3-butadiene	-7.5 2.6	-8.4	-2.2	-6.1	12.3	9.2	50 30	30	30	30	30	30
Ethyl t-butyl ether	-3.5 -0.9	-6.3	-1.6	-4.6	9.1	7.8	50 30	30	30	30	30	30
2-Butanone (MEK)	-7.8 2.1	-1.3	3.4	-9.0	15.0	-2.4	50 30	30	30	30	30	30
cis-1,2-Dichloroethene	2.1 -1.2	-7.6	-1.9	-6.3	8.7	6.1	50 30	30	30	30	30	30
2,2-Dichloropropane	-9.1 2.0	-5.3	-1.7	-6.4	11.8	8.8	50 30	30	30	30	30	30
Propionitrile	-17.2 6.2	-9.4	2.2	-6.6	18.7	6.1	50 30	30	30	30	30	30
Methacrylonitrile	-8.5 5.1	-6.8	2.8	-10.5	20.2	-2.3	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Bromochloromethane	-6.3 -1.0	-5.6	-0.7	-3.1	9.0	7.6	50 30	30	30	30	30	30
Tetrahydrofuran	-2.9 1.0	-11.8	4.1	-8.7	19.0	-0.9	50 30	30	30	30	30	30
Chloroform	-3.7 -0.9	-4.5	-0.7	-6.0	8.9	6.8	50 30	30	30	30	30	30
1,1,1-Trichloroethane	-10.1 2.5	-7.4	-1.0	-5.6	12.3	9.2	50 30	30	30	30	30	30
Cyclohexane	-20.5 10.1	-21.6	0.4	-6.2	21.1	16.8	50 30	30	30	30	30	30
1,1-Dichloropropene	-10.1 4.0	-10.3	-1.5	-5.8	13.0	10.8	50 30	30	30	30	30	30
Carbon tetrachloride	-13.9 6.3	-14.3	-1.8	-5.5	15.5	13.7	50 30	30	30	30	30	30
Isobutyl alcohol	4.3 -7.9	-9.1	3.5	-1.5	7.9	2.9	50 30	30	30	30	30	30
Benzene	-4.1 -0.7	-3.9	-1.7	-6.4	9.6	7.1	50 30	30	30	30	30	30
1,2-Dichloroethane	4.9 -1.9	-5.2	-1.2	-9.1	7.2	5.2	50 30	30	30	30	30	30
t-Amyl methyl ether	-1.2 -0.5	-8.1	-2.6	-4.4	8.3	8.4	50 30	30	30	30	30	30
n-Heptane	-4.0 4.4	-15.8	-0.6	-10.1	15.1	10.9	50 30	30	30	30	30	30
n-Butanol	-14.3 -6.7	-7.0	3.2	-2.5	19.2	8.2	50 30	30	30	30	30	30
Trichloroethene	-6.3 1.6	-4.8	-2.9	-7.4	11.4	8.4	50 30	30	30	30	30	30
Methylcyclohexane	-18.3 10.0	-22.8	-1.3	-5.2	20.0	17.6	50 30	30	30	30	30	30
1,2-Dichloropropane	-11.3 3.2	-8.4	-0.4	-3.9	10.7	10.1	50 30	30	30	30	30	30
Methyl methacrylate	-13.4 9.9	-16.6	5.2	-9.8	23.2	1.4	50 30	30	30	30	30	30
1,4-Dioxane	++++ -17.8	35.8	5.7	-5.7	-8.4	4.1	30	50	30	30	30	30
Dibromomethane	1.3 0.6	-9.5	-3.9	-4.6	8.9	7.3	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-73936-1

Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Bromodichloromethane	-9.9 5.4	-6.8	-4.9	-5.7	11.2	10.7	50 30	30	30	30	30	30
2-Nitropropane	-11.6 9.2	-8.3	4.1	-9.4	18.3	-2.3	50 30	30	30	30	30	30
cis-1,3-Dichloropropene	-10.3 6.6	-12.0	-3.5	-4.8	12.0	12.0	50 30	30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	-8.5 5.2	-9.1	3.7	-8.8	18.8	-1.3	50 30	30	30	30	30	30
Toluene	-2.0 -2.1	-3.7	-1.6	-7.3	9.9	6.9	50 30	30	30	30	30	30
trans-1,3-Dichloropropene	-11.0 6.0	-11.8	-4.3	-5.1	12.7	13.5	50 30	30	30	30	30	30
Ethyl methacrylate	-10.8 5.4	-15.7	-4.3	-0.9	13.7	12.6	50 30	30	30	30	30	30
1,1,2-Trichloroethane	-2.3 -1.8	-6.5	-2.8	-3.9	8.8	8.5	50 30	30	30	30	30	30
Tetrachloroethene	-7.7 0.9	-7.1	-2.7	-5.5	11.9	10.1	50 30	30	30	30	30	30
1,3-Dichloropropane	-1.8 -1.0	-8.2	-1.2	-4.6	9.1	7.7	50 30	30	30	30	30	30
2-Hexanone	-16.0 8.1	-9.6	2.3	-9.7	24.2	0.8	50 30	30	30	30	30	30
Dibromochloromethane	-13.1 8.3	-14.2	-3.4	-5.1	13.5	14.0	50 30	30	30	30	30	30
1,2-Dibromoethane (EDB)	-4.0 0.7	-12.0	-0.5	-4.7	11.1	9.4	50 30	30	30	30	30	30
1-Chlorohexane	4.6 -0.8	-10.3	-4.3	-8.1	10.6	8.3	50 30	30	30	30	30	30
Chlorobenzene	-2.6 -1.4	-5.8	-1.4	-5.7	9.4	7.5	50 30	30	30	30	30	30
1,1,1,2-Tetrachloroethane	-4.7 2.6	-11.3	-3.9	-4.6	10.5	11.5	50 30	30	30	30	30	30
Ethylbenzene	-3.7 -1.0	-5.6	-1.9	-6.3	10.4	8.2	50 30	30	30	30	30	30
m&p-Xylene	-6.7 -0.9	-5.3	-0.9	-5.6	10.7	8.8	50 30	30	30	30	30	30
o-Xylene	-5.5 0.0	-5.2	-3.5	-5.5	10.9	8.8	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.: 410-73936-1

Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930

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

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Styrene	-9.0 1.3	-7.4	-1.5	-5.3	11.4	10.5	50 30	30	30	30	30	30
Bromoform	-17.4 13.9	-15.9	-6.9	-7.3	14.9	18.7	50 30	30	30	30	30	30
Isopropylbenzene	-6.8 -1.9	-5.8	-1.6	-4.7	11.3	9.4	50 30	30	30	30	30	30
1,1,2,2-Tetrachloroethane	-4.4 -0.7	-8.8	-0.5	-5.8	10.1	10.1	50 30	30	30	30	30	30
Bromobenzene	-4.4 0.3	-7.5	-3.3	-5.9	11.2	9.7	50 30	30	30	30	30	30
trans-1,4-Dichloro-2-butene	-18.4 13.9	-12.2	1.1	-10.8	24.6	1.8	50 30	30	30	30	30	30
1,2,3-Trichloropropane	-4.0 -2.3	-11.1	-1.8	-4.0	11.9	11.3	50 30	30	30	30	30	30
N-Propylbenzene	-6.9 -2.7	-7.1	-2.0	-5.4	12.5	11.6	50 30	30	30	30	30	30
2-Chlorotoluene	-8.7 0.6	-7.7	-0.2	-4.5	11.1	9.5	50 30	30	30	30	30	30
1,3,5-Trimethylbenzene	-7.4 0.1	-7.3	-2.8	-6.4	12.0	11.9	50 30	30	30	30	30	30
4-Chlorotoluene	-6.5 0.3	-7.3	-1.1	-5.7	11.7	8.5	50 30	30	30	30	30	30
tert-Butylbenzene	-11.4 1.1	-6.8	-2.3	-4.9	12.5	11.7	50 30	30	30	30	30	30
Pentachloroethane	-9.2 7.7	-19.9	-7.0	-2.4	13.2	17.5	50 30	30	30	30	30	30
1,2,4-Trimethylbenzene	-9.1 0.0	-8.0	-1.1	-6.1	12.9	11.4	50 30	30	30	30	30	30
sec-Butylbenzene	-8.7 0.1	-8.5	-2.1	-5.2	12.7	11.6	50 30	30	30	30	30	30
1,3-Dichlorobenzene	-6.8 1.4	-9.2	-0.4	-6.9	10.5	11.3	50 30	30	30	30	30	30
p-Isopropyltoluene	-7.5 -0.4	-8.4	-2.8	-5.5	12.9	11.7	50 30	30	30	30	30	30
1,4-Dichlorobenzene	-3.9 -0.3	-7.2	-2.0	-6.5	10.5	9.5	50 30	30	30	30	30	30
1,2,3-Trimethylbenzene	-5.3 -0.9	-6.0	-0.9	-4.7	8.1	9.7	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.: 410-73936-1 Analy Batch No.: 163707

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Benzyl chloride	-28.0 13.1	-13.5	-5.8	-5.6	17.6	22.2	50 30	30	30	30	30	30
n-Butylbenzene	-7.6 2.6	-11.2	-3.1	-6.5	13.0	12.8	50 30	30	30	30	30	30
1,2-Dichlorobenzene	-4.9 -1.5	-9.7	-1.1	-3.8	11.1	9.9	50 30	30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-27.1 8.7	-18.9	-4.6	0.6	14.7	26.6	50 30	30	30	30	30	30
1,3,5-Trichlorobenzene	-10.4 2.4	-10.0	-4.3	-6.1	13.4	14.9	50 30	30	30	30	30	30
1,2,4-Trichlorobenzene	-11.0 1.8	-14.5	-2.0	-4.4	14.1	16.1	50 30	30	30	30	30	30
Hexachlorobutadiene	17.7 -4.0	-8.3	-6.4	-10.8	5.1	6.7	50 30	30	30	30	30	30
Naphthalene	-2.0 -7.5	-12.3	-2.1	-0.6	10.7	13.6	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	-1.3 -5.2	-13.5	-2.8	-2.9	12.1	13.6	50 30	30	30	30	30	30
Dibromofluoromethane (Surr)	-0.8 -0.2	0.3	0.2	0.5	0.2	-0.3	50 30	30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	0.4 0.6	-1.8	-0.3	0.8	-0.1	0.5	50 30	30	30	30	30	30
Toluene-d8 (Surr)	1.1 -2.2	0.0	0.9	0.7	-0.5	-0.1	50 30	30	30	30	30	30
4-Bromofluorobenzene (Surr)	0.8 -0.4	0.0	0.9	-0.2	-0.6	-0.5	50 30	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23101.D
 Lims ID: IC std7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 24-Aug-2021 00:45:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0037607-012
 Misc. Info.: IC STD7
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:55:02 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: longj

Date: 24-Aug-2021 15:00:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	1976750	25.0	27.3	
4 Chloromethane	50	2.172	2.172	0.000	99	2051431	25.0	24.9	
6 Butadiene	39	2.294	2.288	0.006	90	1874306	25.0	24.7	
5 Vinyl chloride	62	2.294	2.294	0.000	96	2115370	25.0	25.4	
7 Bromomethane	94	2.623	2.623	0.000	91	1433103	25.0	23.8	
8 Chloroethane	64	2.709	2.709	0.000	100	1221840	25.0	24.5	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	2906691	25.0	24.3	
10 Trichlorofluoromethane	101	3.013	3.020	-0.007	97	2814367	25.0	26.3	
11 Ethyl ether	59	3.263	3.257	0.006	90	1108291	25.0	25.5	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.355	3.343	0.012	91	1932434	25.0	25.2	
13 Acrolein	56	3.434	3.428	0.006	99	8611114	1250.0	1284.9	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	1392957	25.0	25.2	
15 Acetone	43	3.605	3.599	0.006	100	1994344	250.0	234.1	
16 112TCTFE	101	3.617	3.611	0.006	91	1607495	25.0	27.9	
17 Iodomethane	142	3.776	3.769	0.007	99	2772320	25.0	25.1	
18 Ethyl bromide	108	3.806	3.794	0.012	99	1256154	25.0	25.0	
19 Carbon disulfide	76	3.885	3.879	0.006	99	3939815	25.0	25.8	
21 Methyl acetate	43	4.032	4.038	-0.006	97	587766	25.0	23.4	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	91	2240583	25.0	24.7	
23 Methylene Chloride	84	4.245	4.239	0.006	91	1487176	25.0	24.7	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	95	153335	50.0	50.0	
25 2-Methyl-2-propanol	59	4.391	4.397	-0.006	100	1480411	500.0	458.5	
26 Acrylonitrile	53	4.586	4.592	-0.006	100	741706	62.5	65.3	
27 Methyl tert-butyl ether	73	4.653	4.659	-0.006	95	3912928	25.0	24.8	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	1566059	25.0	25.0	
29 Hexane	57	5.092	5.086	0.006	91	2431187	25.0	27.7	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	2865291	25.0	25.2	
32 Isopropyl ether	45	5.385	5.385	0.000	94	4752763	25.0	25.0	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	91	2435652	25.0	25.7	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	4606991	25.0	24.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.129	6.116	0.013	99	3797344	250.0	255.3	
S 35 1,2-Dichloroethene, Total	100				0			49.7	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	1726698	25.0	24.7	
38 2,2-Dichloropropane	77	6.177	6.171	0.006	86	2523281	25.0	25.5	
40 Propionitrile	54	6.208	6.208	0.000	99	2097921	500.0	531.1	
42 Methacrylonitrile	67	6.427	6.415	0.012	91	3924933	250.0	262.6	
43 Chlorobromomethane	128	6.488	6.482	0.006	89	746910	25.0	24.8	
44 Tetrahydrofuran	71	6.501	6.494	0.007	79	557004	125.0	126.3	
45 Chloroform	83	6.641	6.635	0.006	93	2794705	25.0	24.8	
\$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	582034	10.0	9.98	
47 1,1,1-Trichloroethane	97	6.866	6.860	0.006	98	2684937	25.0	25.6	
48 Cyclohexane	56	6.964	6.964	0.000	89	2858999	25.0	27.5	
50 Carbon tetrachloride	117	7.080	7.067	0.013	87	2403582	25.0	26.6	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	96	2298795	25.0	26.0	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	1185567	1250.0	1150.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	84	117327	10.0	10.1	
54 Benzene	78	7.336	7.336	0.000	96	6462549	25.0	24.8	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	1729238	25.0	24.5	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	98	4293680	25.0	24.9	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2314551	10.0	10.0	
59 n-Heptane	43	7.750	7.744	0.006	90	2352079	25.0	26.1	
60 n-Butanol	56	8.092	8.098	-0.006	87	1950741	2187.5	2039.9	
61 Trichloroethene	95	8.220	8.214	0.006	97	1777081	25.0	25.4	
62 Methylcyclohexane	83	8.525	8.525	0.000	93	3199658	25.0	27.5	
63 1,2-Dichloropropane	63	8.549	8.543	0.006	93	1648952	25.0	25.8	
64 Methyl methacrylate	69	8.622	8.628	-0.006	89	807321	25.0	27.5	
65 1,4-Dioxane	88	8.634	8.640	-0.006	32	203588	1250.0	1026.9	M
66 Dibromomethane	93	8.659	8.653	0.006	93	785220	25.0	25.1	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	2042180	25.0	26.4	
69 2-Nitropropane	41	9.153	9.152	0.000	97	1146903	125.0	136.5	
72 1-Bromo-2-chloroethane	63	9.281	9.280	0.001	98	1613213	25.0	25.7	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	98	2594937	25.0	26.7	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	95	9850003	250.0	263.0	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2314329	10.0	9.78	
76 Toluene	92	9.817	9.811	0.006	98	4295450	25.0	24.5	
S 77 1,3-Dichloropropene, Total	100				0			53.2	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	2144165	25.0	26.5	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	1779294	25.0	26.3	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	1148961	25.0	24.5	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	2109166	25.0	25.2	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	1970914	25.0	24.8	
83 2-Hexanone	43	10.482	10.481	0.001	96	7089653	250.0	270.3	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	1544832	25.0	27.1	
86 Ethylene Dibromide	107	10.762	10.756	0.006	99	1136711	25.0	25.2	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	86	1830649	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	96	2545795	25.0	24.8	
90 Chlorobenzene	112	11.213	11.213	0.000	95	4793510	25.0	24.7	
S 89 Xylenes, Total	106				0			74.5	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	97	1740796	25.0	25.6	
92 Ethylbenzene	91	11.298	11.298	0.000	98	8361092	25.0	24.7	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	6611583	50.0	49.5	
94 o-Xylene	106	11.737	11.737	0.000	96	3294215	25.0	25.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	5384777	25.0	25.3	
96 Bromoform	173	11.914	11.914	0.000	98	973418	25.0	28.5	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	8533967	25.0	24.5	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	900526	10.0	9.96	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	1493325	25.0	24.8	
102 Bromobenzene	156	12.298	12.298	0.000	95	2065190	25.0	25.1	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	3858821	250.0	284.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	403698	25.0	24.4	
105 N-Propylbenzene	91	12.365	12.365	0.000	98	9726346	25.0	24.3	
106 2-Chlorotoluene	126	12.445	12.444	0.001	97	2063363	25.0	25.1	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	7311288	25.0	25.0	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	2101375	25.0	25.1	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	1619763	25.0	25.3	
110 Pentachloroethane	167	12.774	12.774	0.000	94	1393099	25.0	26.9	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	7486072	25.0	25.0	
112 sec-Butylbenzene	105	12.908	12.902	0.006	96	9236299	25.0	25.0	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	4213523	25.0	25.4	
114 4-Isopropyltoluene	119	13.012	13.011	0.001	96	8130505	25.0	24.9	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	93	1087615	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	94	4235116	25.0	24.9	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	98	3282745	25.0	24.8	
118 Benzyl chloride	126	13.152	13.158	-0.006	98	695344	25.0	28.3	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	3913754	25.0	25.6	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	3740715	25.0	24.6	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	90	240431	25.0	27.2	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	3113277	25.0	25.6	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	2610571	25.0	25.4	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	1070139	25.0	24.0	
126 Naphthalene	128	14.609	14.609	0.000	97	4524102	25.0	23.1	
127 1,2,3-Trichlorobenzene	180	14.749	14.755	-0.006	96	2100548	25.0	23.7	
134 Isopropyl alcohol	45		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	

QC Flag Legend

Processing Flags

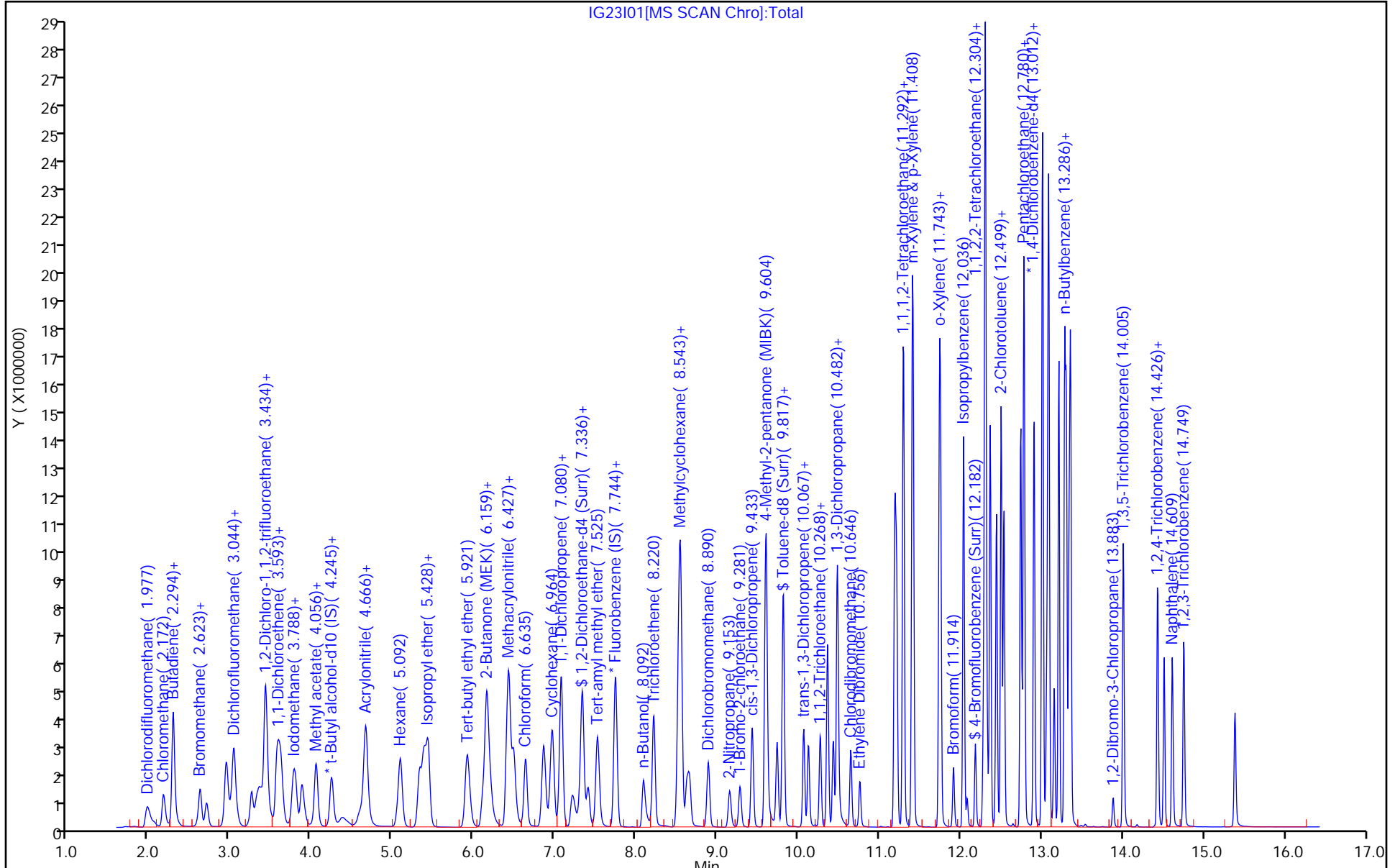
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added: 25.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

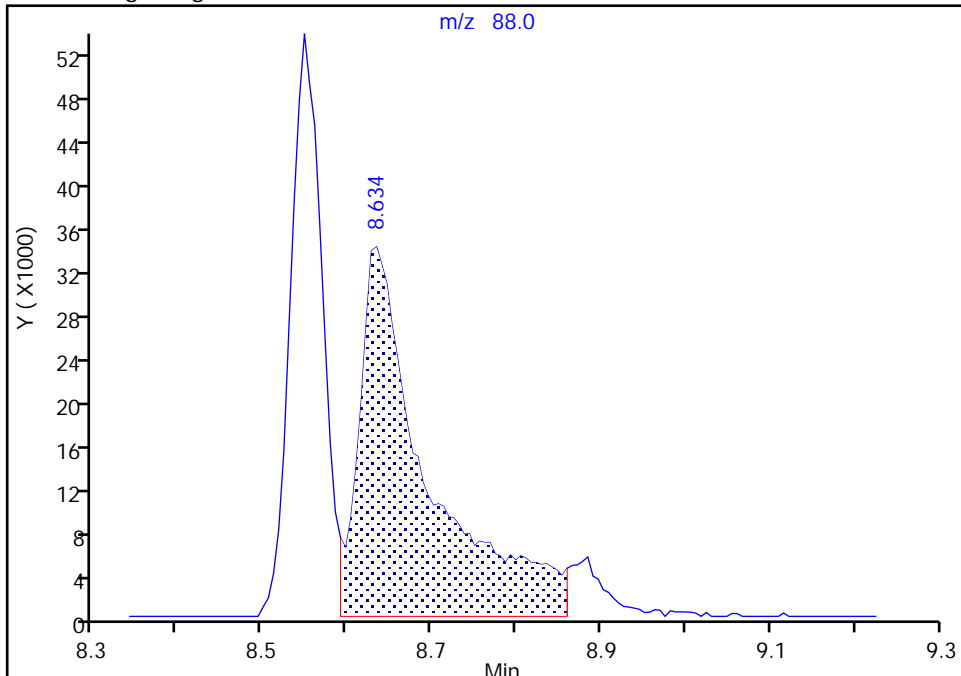
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23101.D
Injection Date: 24-Aug-2021 00:45:30 Instrument ID: 19930
Lims ID: IC std7
Client ID:
Operator ID: mec29284 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

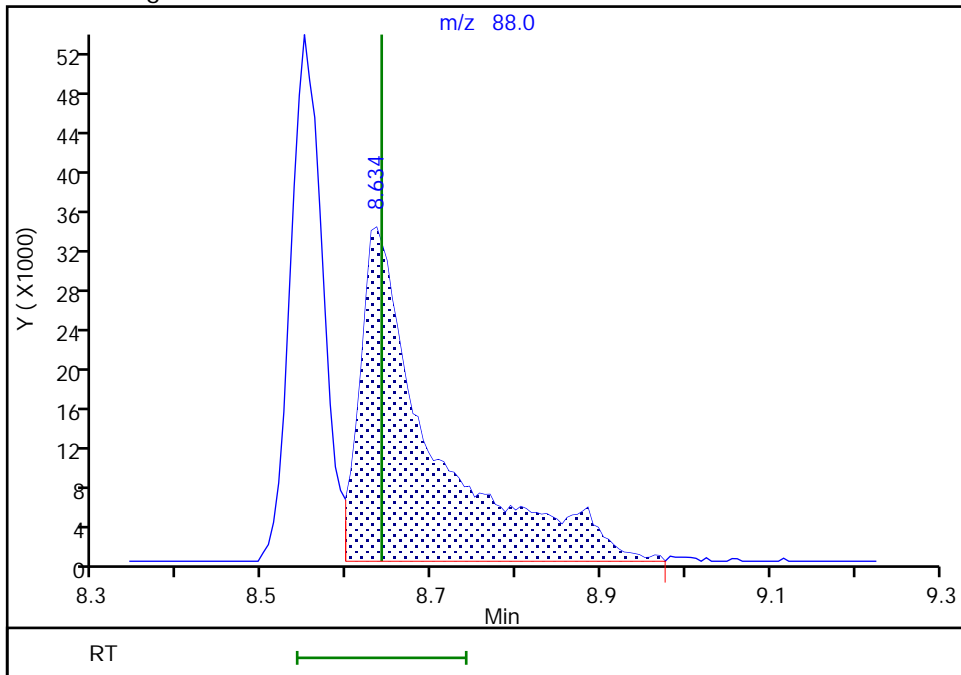
RT: 8.63
Area: 191805
Amount: 912.6603
Amount Units: ug/l

Processing Integration Results



RT: 8.63
Area: 203588
Amount: 1026.9040
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:03:46
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23102.D
 Lims ID: ICIS - LG
 Client ID:
 Sample Type: ICIS Calib Level: 6
 Inject. Date: 24-Aug-2021 01:06:30 ALS Bottle#: 12 Worklist Smp#: 13
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0037607-013
 Misc. Info.: ICIS - LG
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:55:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: spositok

Date: 24-Aug-2021 14:22:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.983	0.000	99	769929	10.0	11.6	
4 Chloromethane	50	2.184	2.184	0.000	99	783649	10.0	10.4	
6 Butadiene	39	2.300	2.300	0.000	90	717606	10.0	10.3	
5 Vinyl chloride	62	2.300	2.300	0.000	97	816639	10.0	10.7	
7 Bromomethane	94	2.635	2.635	0.000	90	573256	10.0	10.4	
8 Chloroethane	64	2.715	2.715	0.000	100	476638	10.0	10.4	
9 Dichlorofluoromethane	67	2.952	2.952	0.000	97	1143054	10.0	10.4	
10 Trichlorofluoromethane	101	3.026	3.026	0.000	97	1133164	10.0	11.5	
11 Ethyl ether	59	3.269	3.269	0.000	90	440991	10.0	11.0	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.355	3.355	0.000	91	778462	10.0	11.1	
13 Acrolein	56	3.440	3.440	0.000	99	3553431	500.0	492.1	
14 1,1-Dichloroethene	96	3.580	3.580	0.000	98	554846	10.0	11.0	
15 Acetone	43	3.611	3.611	0.000	100	861750	100.0	93.9	
16 112TCTFE	101	3.623	3.623	0.000	91	625953	10.0	11.8	
17 Iodomethane	142	3.781	3.781	0.000	99	1095984	10.0	10.8	
18 Ethyl bromide	108	3.812	3.812	0.000	99	498873	10.0	10.8	
19 Carbon disulfide	76	3.891	3.891	0.000	99	1534600	10.0	11.0	
21 Methyl acetate	43	4.031	4.031	0.000	97	261567	10.0	9.68	
22 3-Chloro-1-propene	41	4.068	4.068	0.000	91	874837	10.0	10.5	
23 Methylene Chloride	84	4.257	4.257	0.000	91	593991	10.0	10.7	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.269	0.000	96	165205	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.385	0.000	100	745936	200.0	214.4	
26 Acrylonitrile	53	4.592	4.592	0.000	100	307786	25.0	25.2	
27 Methyl tert-butyl ether	73	4.665	4.665	0.000	94	1574902	10.0	10.9	
28 trans-1,2-Dichloroethene	96	4.678	4.678	0.000	100	619693	10.0	10.8	
29 Hexane	57	5.104	5.104	0.000	91	955763	10.0	11.9	
31 1,1-Dichloroethane	63	5.336	5.336	0.000	96	1124834	10.0	10.8	
32 Isopropyl ether	45	5.391	5.391	0.000	94	1870451	10.0	10.7	
33 2-Chloro-1,3-butadiene	53	5.446	5.446	0.000	90	951023	10.0	10.9	
34 Tert-butyl ethyl ether	59	5.921	5.921	0.000	97	1838180	10.0	10.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.122	6.122	0.000	99	1563634	100.0	97.6	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	679972	10.0	10.6	
38 2,2-Dichloropropane	77	6.177	6.177	0.000	86	987902	10.0	10.9	
40 Propionitrile	54	6.208	6.208	0.000	99	903317	200.0	212.2	
42 Methacrylonitrile	67	6.427	6.427	0.000	90	1573429	100.0	97.7	
43 Chlorobromomethane	128	6.488	6.488	0.000	91	297719	10.0	10.8	
44 Tetrahydrofuran	71	6.500	6.500	0.000	77	235618	50.0	49.6	
45 Chloroform	83	6.641	6.641	0.000	93	1104772	10.0	10.7	
\$ 46 Dibromofluoromethane (Surr)	113	6.854	6.854	0.000	94	533065	10.0	9.97	
47 1,1,1-Trichloroethane	97	6.866	6.866	0.000	98	1048975	10.0	10.9	
48 Cyclohexane	56	6.970	6.970	0.000	89	1113121	10.0	11.7	
50 Carbon tetrachloride	117	7.080	7.080	0.000	89	943497	10.0	11.4	
51 1,1-Dichloropropene	75	7.080	7.080	0.000	96	898023	10.0	11.1	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	570979	500.0	514.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.305	0.000	83	107464	10.0	10.0	
54 Benzene	78	7.342	7.342	0.000	96	2556166	10.0	10.7	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	680372	10.0	10.5	
57 Tert-amyl methyl ether	73	7.525	7.525	0.000	99	1715769	10.0	10.8	
* 58 Fluorobenzene (IS)	96	7.744	7.744	0.000	99	2122537	10.0	10.0	
59 n-Heptane	43	7.750	7.750	0.000	92	916472	10.0	11.1	
60 n-Butanol	56	8.098	8.098	0.000	87	975208	875.0	946.5	
61 Trichloroethene	95	8.220	8.220	0.000	97	695086	10.0	10.8	
62 Methylcyclohexane	83	8.524	8.524	0.000	93	1254685	10.0	11.8	
63 1,2-Dichloropropane	63	8.549	8.549	0.000	77	645492	10.0	11.0	
64 Methyl methacrylate	69	8.628	8.628	0.000	89	320765	10.0	10.1	
65 1,4-Dioxane	88	8.640	8.640	0.000	42	153335	500.0	520.7	
66 Dibromomethane	93	8.659	8.659	0.000	93	307242	10.0	10.7	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	786321	10.0	11.1	
69 2-Nitropropane	41	9.152	9.152	0.000	98	442348	50.0	48.9	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	642543	10.0	11.2	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	97	999345	10.0	11.2	
74 4-Methyl-2-pentanone (MIBK)	43	9.603	9.603	0.000	96	3982955	100.0	98.7	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2118631	10.0	10.0	
76 Toluene	92	9.817	9.817	0.000	98	1680421	10.0	10.7	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	822825	10.0	11.3	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	681452	10.0	11.3	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	90	455229	10.0	10.9	
81 Tetrachloroethene	166	10.359	10.359	0.000	98	825293	10.0	11.0	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	768446	10.0	10.8	
83 2-Hexanone	43	10.481	10.481	0.000	96	2847614	100.0	100.8	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	582989	10.0	11.4	
86 Ethylene Dibromide	107	10.762	10.762	0.000	98	442687	10.0	10.9	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1640634	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	995910	10.0	10.8	
90 Chlorobenzene	112	11.213	11.213	0.000	95	1872527	10.0	10.7	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	96	678162	10.0	11.1	
92 Ethylbenzene	91	11.298	11.298	0.000	98	3278221	10.0	10.8	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	2602971	20.0	21.8	
94 o-Xylene	106	11.737	11.737	0.000	96	1284350	10.0	10.9	
95 Styrene	104	11.756	11.756	0.000	95	2106471	10.0	11.1	
96 Bromoform	173	11.914	11.914	0.000	98	363441	10.0	11.9	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	3411517	10.0	10.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	806596	10.0	9.95	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	586534	10.0	11.0	
102 Bromobenzene	156	12.298	12.298	0.000	94	800922	10.0	11.0	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	1486472	100.0	101.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	83	162926	10.0	11.1	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	3955616	10.0	11.2	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	795839	10.0	10.9	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	2894636	10.0	11.2	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	805714	10.0	10.9	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	633713	10.0	11.2	
110 Pentachloroethane	167	12.774	12.774	0.000	92	538681	10.0	11.8	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	2954664	10.0	11.1	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	3649559	10.0	11.2	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	1638792	10.0	11.1	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	3231863	10.0	11.2	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	963407	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	95	1646605	10.0	10.9	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	1287655	10.0	11.0	
118 Benzyl chloride	126	13.158	13.158	0.000	98	266255	10.0	12.2	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	1524448	10.0	11.3	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	1477507	10.0	11.0	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	99189	10.0	12.7	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	1237730	10.0	11.5	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	1055085	10.0	11.6	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	421345	10.0	10.7	
126 Naphthalene	128	14.609	14.609	0.000	97	1968173	10.0	11.4	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	892480	10.0	11.4	
134 Isopropyl alcohol	45		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	

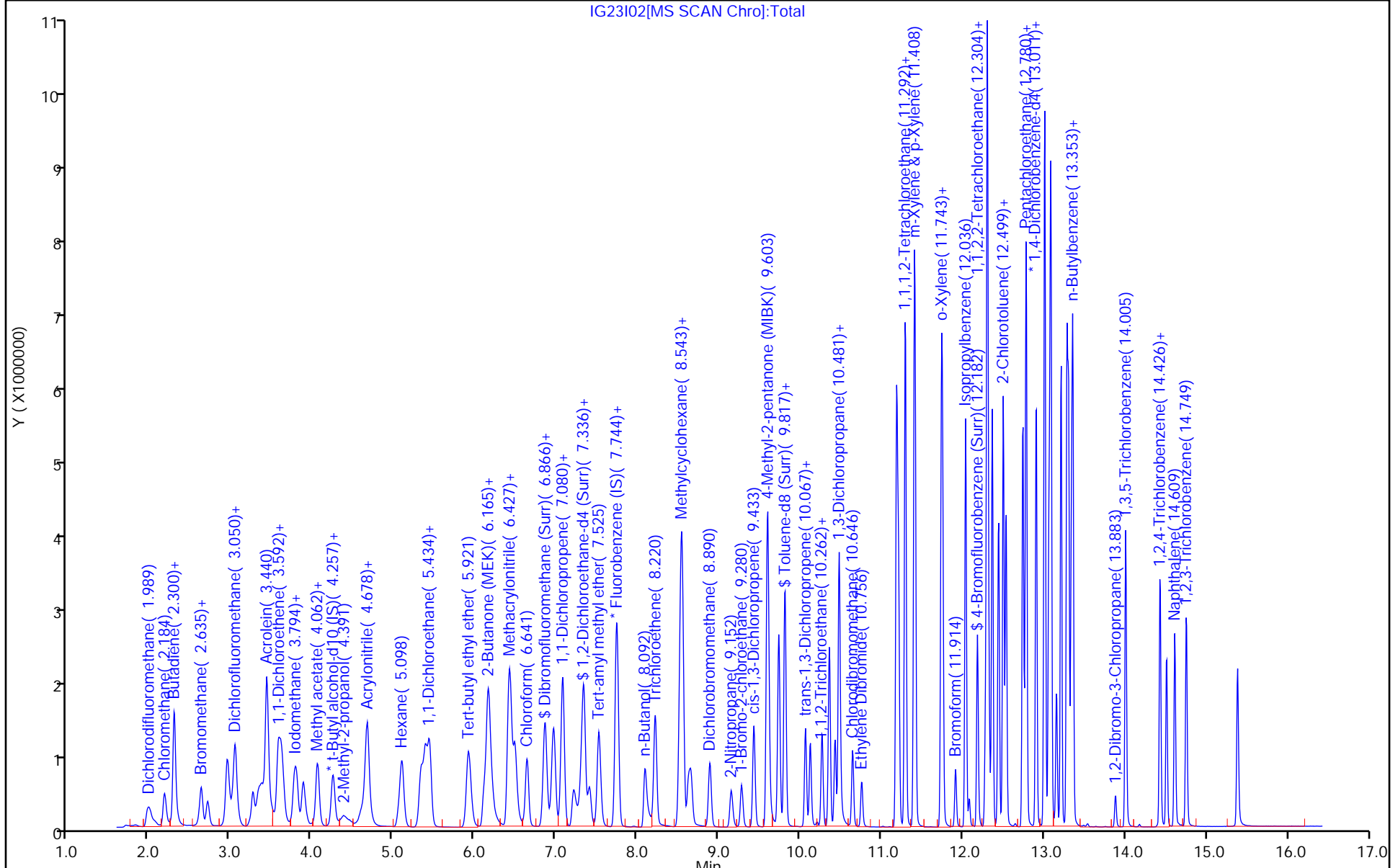
QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MSV_LL_#1_826_00015	Amount Added: 10.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 10.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 10.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23103.D
 Lims ID: IC std5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 24-Aug-2021 01:27:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0037607-014
 Misc. Info.: IC STD5
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:55:11 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: longj

Date: 24-Aug-2021 15:02:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.983	-0.006	99	382263	5.00	5.78	
4 Chloromethane	50	2.178	2.184	-0.006	99	399273	5.00	5.30	
6 Butadiene	39	2.294	2.300	-0.006	89	372442	5.00	5.38	
5 Vinyl chloride	62	2.294	2.300	-0.006	98	416864	5.00	5.48	
7 Bromomethane	94	2.623	2.635	-0.012	92	291289	5.00	5.29	
8 Chloroethane	64	2.709	2.715	-0.006	100	245993	5.00	5.40	
9 Dichlorofluoromethane	67	2.946	2.952	-0.006	97	585859	5.00	5.35	
10 Trichlorofluoromethane	101	3.019	3.026	-0.007	97	585022	5.00	5.97	
11 Ethyl ether	59	3.257	3.269	-0.012	91	217146	5.00	5.46	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.349	3.355	-0.006	92	389865	5.00	5.56	
13 Acrolein	56	3.434	3.440	-0.006	99	1712613	250.0	291.6	
14 1,1-Dichloroethene	96	3.574	3.580	-0.006	98	286821	5.00	5.68	
15 Acetone	43	3.605	3.611	-0.006	100	396518	50.0	53.1	
16 112TCTFE	101	3.617	3.623	-0.006	90	323788	5.00	6.14	
17 Iodomethane	142	3.775	3.781	-0.006	99	558589	5.00	5.53	
18 Ethyl bromide	108	3.800	3.812	-0.012	98	254448	5.00	5.53	
19 Carbon disulfide	76	3.885	3.891	-0.006	99	782475	5.00	5.61	
21 Methyl acetate	43	4.031	4.031	0.000	97	124512	5.00	5.67	
22 3-Chloro-1-propene	41	4.056	4.068	-0.012	91	448975	5.00	5.42	
23 Methylene Chloride	84	4.245	4.257	-0.012	91	300072	5.00	5.44	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.269	-0.018	95	134380	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.385	0.000	100	314368	100.0	111.1	
26 Acrylonitrile	53	4.592	4.592	0.000	99	149768	12.5	15.1	
27 Methyl tert-butyl ether	73	4.653	4.665	-0.012	94	795636	5.00	5.52	
28 trans-1,2-Dichloroethene	96	4.672	4.678	-0.006	99	313872	5.00	5.47	
29 Hexane	57	5.098	5.104	-0.006	91	492058	5.00	6.14	
31 1,1-Dichloroethane	63	5.330	5.336	-0.006	96	570521	5.00	5.48	
32 Isopropyl ether	45	5.385	5.391	-0.006	94	951429	5.00	5.47	
33 2-Chloro-1,3-butadiene	53	5.440	5.446	-0.006	90	487276	5.00	5.62	
34 Tert-butyl ethyl ether	59	5.915	5.921	-0.006	97	927469	5.00	5.46	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.116	6.122	-0.006	99	749581	50.0	57.5	
S 35 1,2-Dichloroethene, Total	100				0			10.9	
37 cis-1,2-Dichloroethene	96	6.153	6.159	-0.006	82	347207	5.00	5.43	
38 2,2-Dichloropropane	77	6.171	6.177	-0.006	90	505614	5.00	5.59	
40 Propionitrile	54	6.208	6.208	0.000	99	411078	100.0	118.7	
42 Methacrylonitrile	67	6.421	6.427	-0.006	90	787287	50.0	60.1	
43 Chlorobromomethane	128	6.488	6.488	0.000	91	150285	5.00	5.45	
44 Tetrahydrofuran	71	6.500	6.500	0.000	77	115070	25.0	29.8	
45 Chloroform	83	6.635	6.641	-0.006	93	561287	5.00	5.44	
\$ 46 Dibromofluoromethane (Surr)	113	6.848	6.854	-0.006	94	533947	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.860	6.866	-0.006	98	537958	5.00	5.62	
48 Cyclohexane	56	6.964	6.970	-0.006	89	574963	5.00	6.05	
50 Carbon tetrachloride	117	7.080	7.080	0.000	91	477332	5.00	5.77	
51 1,1-Dichloropropene	75	7.074	7.080	-0.006	95	456566	5.00	5.65	
52 Isobutyl alcohol	41	7.214	7.214	0.000	94	243578	250.0	269.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.305	-0.006	98	106534	10.0	10.0	
54 Benzene	78	7.336	7.342	-0.006	97	1303704	5.00	5.48	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	345575	5.00	5.36	
57 Tert-amyl methyl ether	73	7.519	7.525	-0.006	98	854837	5.00	5.42	
* 58 Fluorobenzene (IS)	96	7.738	7.744	-0.006	99	2115642	10.0	10.0	
59 n-Heptane	43	7.750	7.750	0.000	90	473994	5.00	5.76	
60 n-Butanol	56	8.092	8.098	-0.006	87	436929	437.5	521.3	
61 Trichloroethene	95	8.214	8.220	-0.006	98	356004	5.00	5.57	
62 Methylcyclohexane	83	8.524	8.524	0.000	93	637877	5.00	6.00	
63 1,2-Dichloropropane	63	8.543	8.549	-0.006	85	323309	5.00	5.53	
64 Methyl methacrylate	69	8.622	8.628	-0.006	89	158597	5.00	6.16	
65 1,4-Dioxane	88	8.628	8.640	-0.012	61	60485	250.0	229.1	M
66 Dibromomethane	93	8.653	8.659	-0.006	93	155460	5.00	5.44	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	393721	5.00	5.56	
69 2-Nitropropane	41	9.152	9.152	0.000	98	217711	25.0	29.6	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	98	317759	5.00	5.54	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	97	498450	5.00	5.60	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.603	-0.006	96	1950081	50.0	59.4	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2113101	10.0	9.95	
76 Toluene	92	9.811	9.817	-0.006	98	865208	5.00	5.49	
S 77 1,3-Dichloropropene, Total	100				0			11.2	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	409218	5.00	5.64	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	344439	5.00	5.68	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	228498	5.00	5.44	
81 Tetrachloroethene	166	10.360	10.359	0.001	98	419950	5.00	5.60	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	389560	5.00	5.45	
83 2-Hexanone	43	10.481	10.481	0.000	96	1427211	50.0	62.1	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	290417	5.00	5.67	
86 Ethylene Dibromide	107	10.762	10.762	0.000	98	225049	5.00	5.55	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.000	86	1642811	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	509095	5.00	5.53	
90 Chlorobenzene	112	11.213	11.213	0.000	96	953872	5.00	5.47	
S 89 Xylenes, Total	106				0			16.6	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	336401	5.00	5.52	
92 Ethylbenzene	91	11.298	11.298	0.000	98	1673213	5.00	5.52	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	1325681	10.0	11.1	
94 o-Xylene	106	11.737	11.737	0.000	96	655445	5.00	5.54	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	1063582	5.00	5.57	
96 Bromoform	173	11.914	11.914	0.000	98	176181	5.00	5.75	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	1737611	5.00	5.57	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	806331	10.0	9.94	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	293036	5.00	5.50	
102 Bromobenzene	156	12.298	12.298	0.000	95	405579	5.00	5.56	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	739718	50.0	62.3	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	81857	5.00	5.59	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1993107	5.00	5.63	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	403661	5.00	5.55	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1448018	5.00	5.60	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	414612	5.00	5.59	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	319038	5.00	5.62	
110 Pentachloroethane	167	12.774	12.774	0.000	92	259289	5.00	5.66	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1496260	5.00	5.64	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1842298	5.00	5.64	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	812939	5.00	5.53	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1632038	5.00	5.64	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	97	963071	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	96	830653	5.00	5.52	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	633734	5.00	5.40	
118 Benzyl chloride	126	13.158	13.158	0.000	98	128109	5.00	5.88	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	763485	5.00	5.65	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	746995	5.00	5.56	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	44921	5.00	5.74	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	610685	5.00	5.67	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	518320	5.00	5.71	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	207395	5.00	5.25	
126 Naphthalene	128	14.609	14.609	0.000	97	958252	5.00	5.53	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	439919	5.00	5.60	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

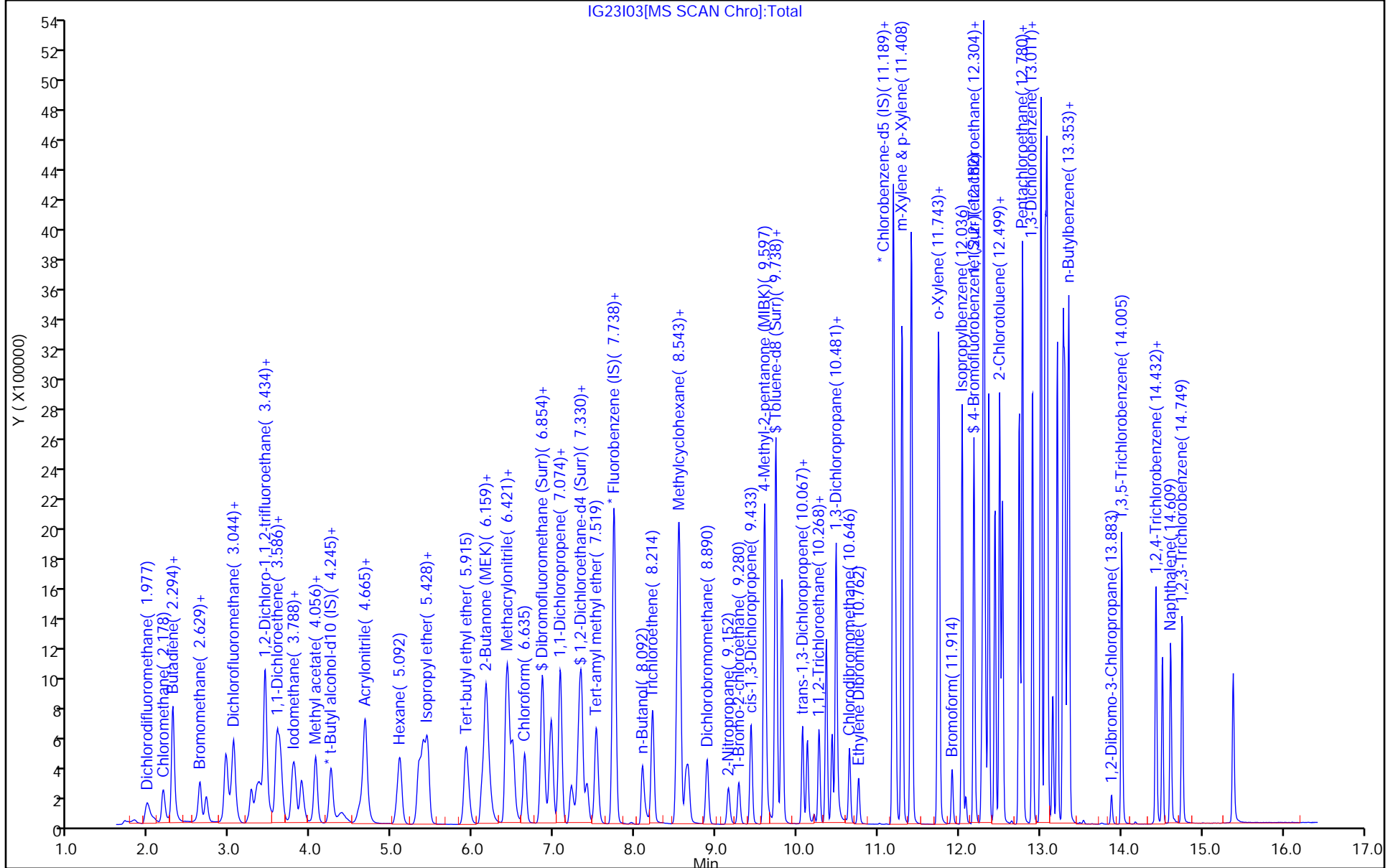
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added: 5.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 5.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 5.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

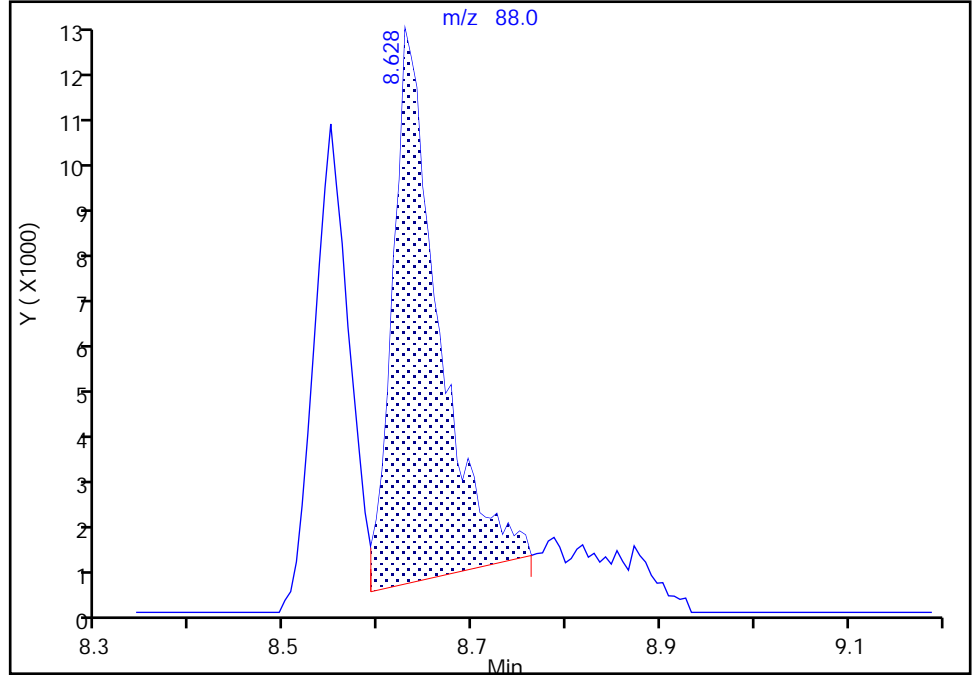
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23103.D
Injection Date: 24-Aug-2021 01:27:30 Instrument ID: 19930
Lims ID: IC std5
Client ID:
Operator ID: mec29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

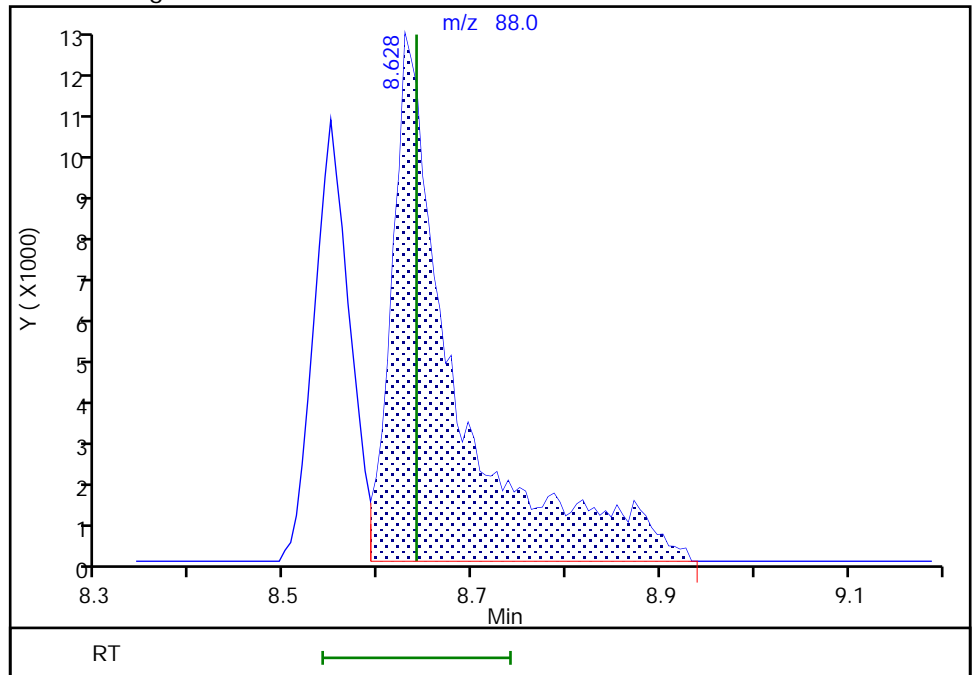
RT: 8.63
Area: 40941
Amount: 236.6358
Amount Units: ug/l

Processing Integration Results



RT: 8.63
Area: 60485
Amount: 229.0877
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:02:20
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23104.D
 Lims ID: IC std4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 24-Aug-2021 01:48:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0037607-015
 Misc. Info.: IC STD4
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:55:16 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: longj

Date: 24-Aug-2021 15:04:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.965	1.965	0.000	99	133370	2.00	1.99	
4 Chloromethane	50	2.172	2.172	0.000	99	145518	2.00	1.91	
6 Butadiene	39	2.288	2.288	0.000	89	136810	2.00	1.95	
5 Vinyl chloride	62	2.294	2.294	0.000	75	148690	2.00	1.93	
7 Bromomethane	94	2.623	2.623	0.000	92	107796	2.00	1.93	
8 Chloroethane	64	2.709	2.709	0.000	99	87256	2.00	1.89	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	213271	2.00	1.92	
10 Trichlorofluoromethane	101	3.020	3.020	0.000	96	200068	2.00	2.02	
11 Ethyl ether	59	3.257	3.257	0.000	90	80725	2.00	2.00	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.343	3.343	0.000	91	140380	2.00	1.98	
13 Acrolein	56	3.428	3.428	0.000	99	642849	100.0	90.3	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	99	94828	2.00	1.86	
15 Acetone	43	3.599	3.599	0.000	100	175187	20.0	19.4	
16 112TCTFE	101	3.611	3.611	0.000	90	101316	2.00	1.90	
17 Iodomethane	142	3.769	3.769	0.000	99	191541	2.00	1.87	
18 Ethyl bromide	108	3.794	3.794	0.000	98	90853	2.00	1.95	
19 Carbon disulfide	76	3.879	3.879	0.000	99	260459	2.00	1.85	
21 Methyl acetate	43	4.038	4.038	0.000	96	53852	2.00	2.02	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	92	152579	2.00	1.82	
23 Methylene Chloride	84	4.239	4.239	0.000	91	105792	2.00	1.90	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	94	162903	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.397	4.397	0.000	99	144787	40.0	42.2	
26 Acrylonitrile	53	4.592	4.592	0.000	97	56014	5.00	4.64	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	88	277645	2.00	1.90	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	107403	2.00	1.85	
29 Hexane	57	5.086	5.086	0.000	91	152797	2.00	1.88	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	200971	2.00	1.91	
32 Isopropyl ether	45	5.385	5.385	0.000	94	334487	2.00	1.90	
33 2-Chloro-1,3-butadiene	53	5.434	5.434	0.000	91	164913	2.00	1.88	
34 Tert-butyl ethyl ether	59	5.915	5.915	0.000	96	328284	2.00	1.91	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.116	6.116	0.000	99	287542	20.0	18.2	
S 35 1,2-Dichloroethene, Total	100				0			3.72	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	83	121250	2.00	1.87	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	77	171411	2.00	1.87	
40 Propionitrile	54	6.208	6.208	0.000	99	156726	40.0	37.3	
42 Methacrylonitrile	67	6.415	6.415	0.000	91	284046	20.0	17.9	
43 Chlorobromomethane	128	6.482	6.482	0.000	91	54068	2.00	1.94	
44 Tetrahydrofuran	71	6.494	6.494	0.000	77	42808	10.0	9.13	
45 Chloroform	83	6.635	6.635	0.000	93	196244	2.00	1.88	
\$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	542329	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	97	183060	2.00	1.89	
48 Cyclohexane	56	6.964	6.964	0.000	88	180314	2.00	1.88	
50 Carbon tetrachloride	117	7.067	7.067	0.000	90	158160	2.00	1.89	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	95	154095	2.00	1.88	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	107772	100.0	98.5	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	91	108754	10.0	10.1	
54 Benzene	78	7.336	7.336	0.000	96	450649	2.00	1.87	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	118544	2.00	1.82	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	99	305576	2.00	1.91	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	98	2141536	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	74	149822	2.00	1.80	
60 n-Butanol	56	8.098	8.098	0.000	87	173400	175.0	170.7	
61 Trichloroethene	95	8.214	8.214	0.000	97	119880	2.00	1.85	
62 Methylcyclohexane	83	8.525	8.525	0.000	91	204137	2.00	1.90	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	83	113623	2.00	1.92	
64 Methyl methacrylate	69	8.628	8.628	0.000	86	56288	2.00	1.80	
65 1,4-Dioxane	88	8.640	8.640	0.000	38	27358	100.0	94.3	M
66 Dibromomethane	93	8.653	8.653	0.000	93	55146	2.00	1.91	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	135182	2.00	1.89	
69 2-Nitropropane	41	9.152	9.152	0.000	99	80872	10.0	9.06	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	116897	2.00	2.01	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	171443	2.00	1.90	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	725808	20.0	18.2	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2152292	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	98	294006	2.00	1.85	
S 77 1,3-Dichloropropene, Total	100				0			3.80	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	138743	2.00	1.90	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	121040	2.00	1.98	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	81343	2.00	1.92	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	142779	2.00	1.89	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	89	137217	2.00	1.91	
83 2-Hexanone	43	10.481	10.481	0.000	96	503437	20.0	18.1	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	97832	2.00	1.90	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	77838	2.00	1.91	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	86	1654646	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	170447	2.00	1.84	
90 Chlorobenzene	112	11.213	11.213	0.000	97	331442	2.00	1.89	
S 89 Xylenes, Total	106				0			5.67	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	94	117075	2.00	1.91	
92 Ethylbenzene	91	11.298	11.298	0.000	98	572417	2.00	1.87	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	455535	4.00	3.78	
94 o-Xylene	106	11.737	11.737	0.000	96	225160	2.00	1.89	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	364056	2.00	1.89	
96 Bromoform	173	11.914	11.914	0.000	97	57249	2.00	1.85	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	598946	2.00	1.91	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	815520	10.0	9.98	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	102513	2.00	1.88	
102 Bromobenzene	156	12.298	12.298	0.000	95	140306	2.00	1.88	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	256704	20.0	17.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	28724	2.00	1.92	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	684747	2.00	1.89	
106 2-Chlorotoluene	126	12.444	12.444	0.000	98	141927	2.00	1.91	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	93	494667	2.00	1.87	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	142990	2.00	1.89	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	110262	2.00	1.90	
110 Pentachloroethane	167	12.774	12.774	0.000	90	91381	2.00	1.95	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	508634	2.00	1.88	
112 sec-Butylbenzene	105	12.902	12.902	0.000	94	633668	2.00	1.90	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	279932	2.00	1.86	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	558603	2.00	1.89	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	984300	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	96	287369	2.00	1.87	
117 1,2,3-Trimethylbenzene	120	13.085	13.085	0.000	98	228500	2.00	1.91	
118 Benzyl chloride	126	13.158	13.158	0.000	98	42047	2.00	1.89	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	258320	2.00	1.87	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	264385	2.00	1.92	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	87	16104	2.00	2.01	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	97	206620	2.00	1.88	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	177445	2.00	1.91	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	71973	2.00	1.78	
126 Naphthalene	128	14.609	14.609	0.000	97	351951	2.00	1.99	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	155892	2.00	1.94	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

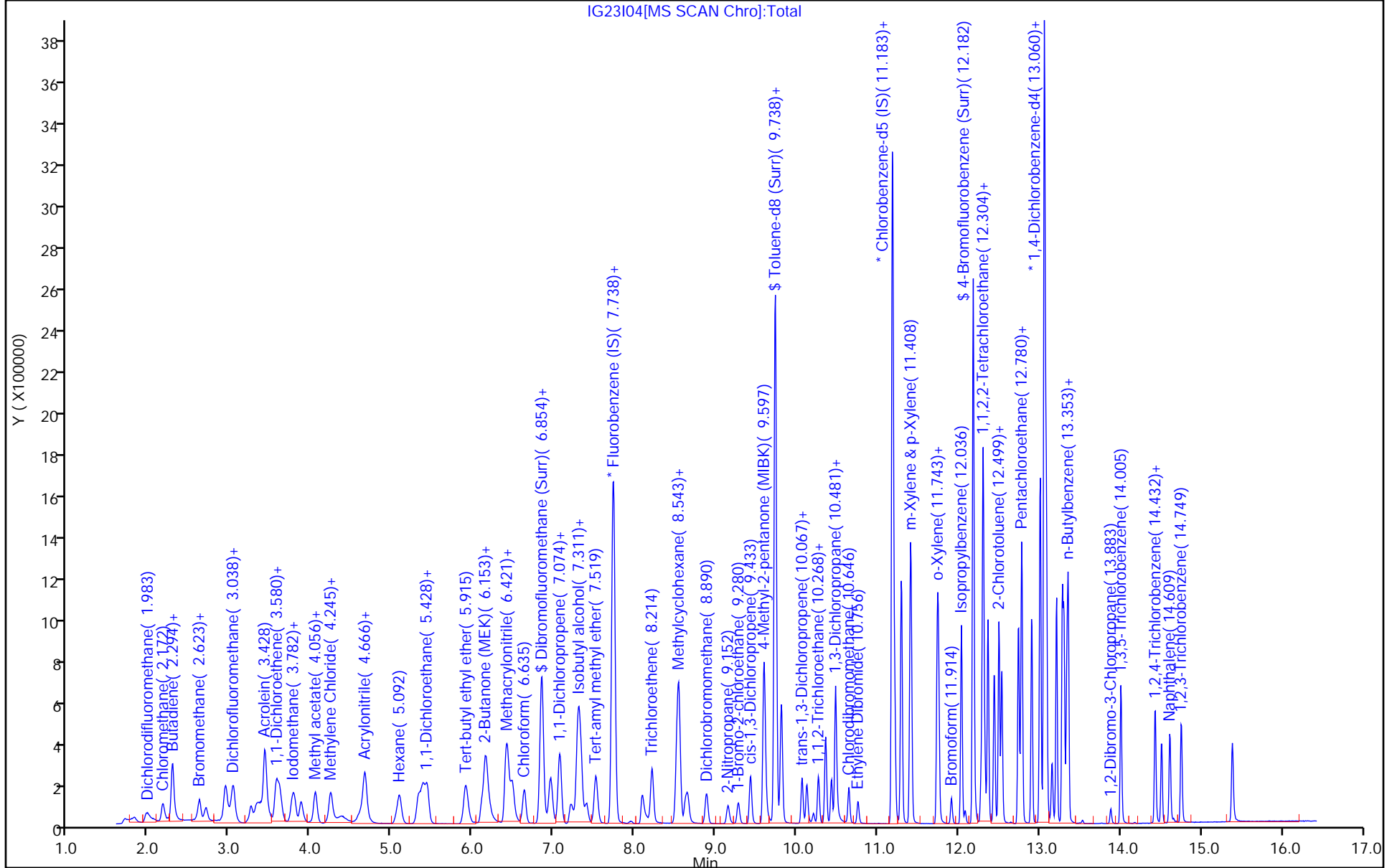
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



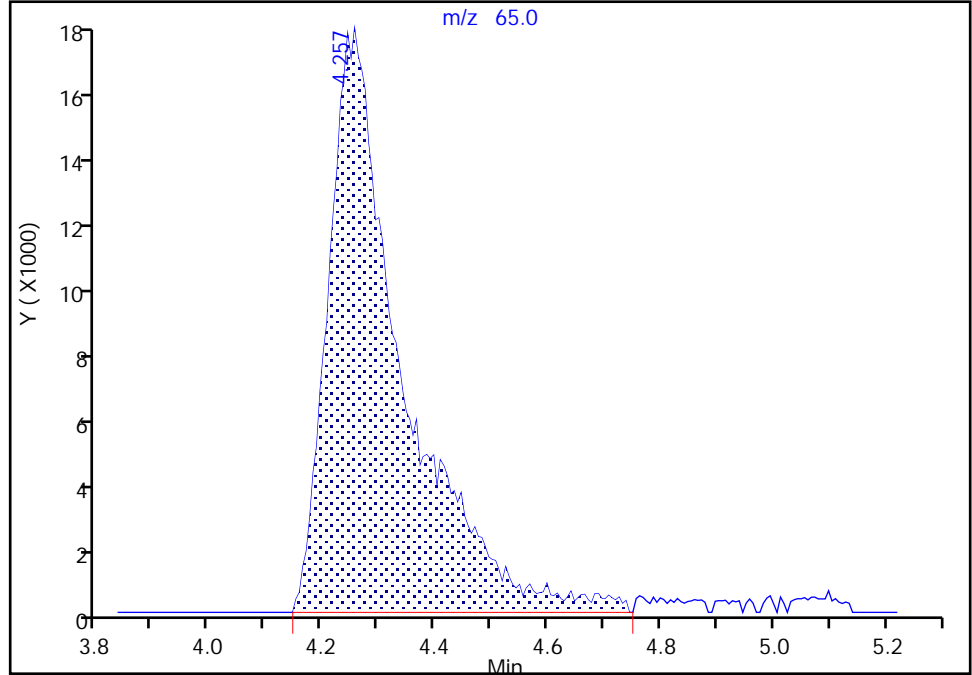
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23104.D
Injection Date: 24-Aug-2021 01:48:30 Instrument ID: 19930
Lims ID: IC std4
Client ID:
Operator ID: mec29284 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

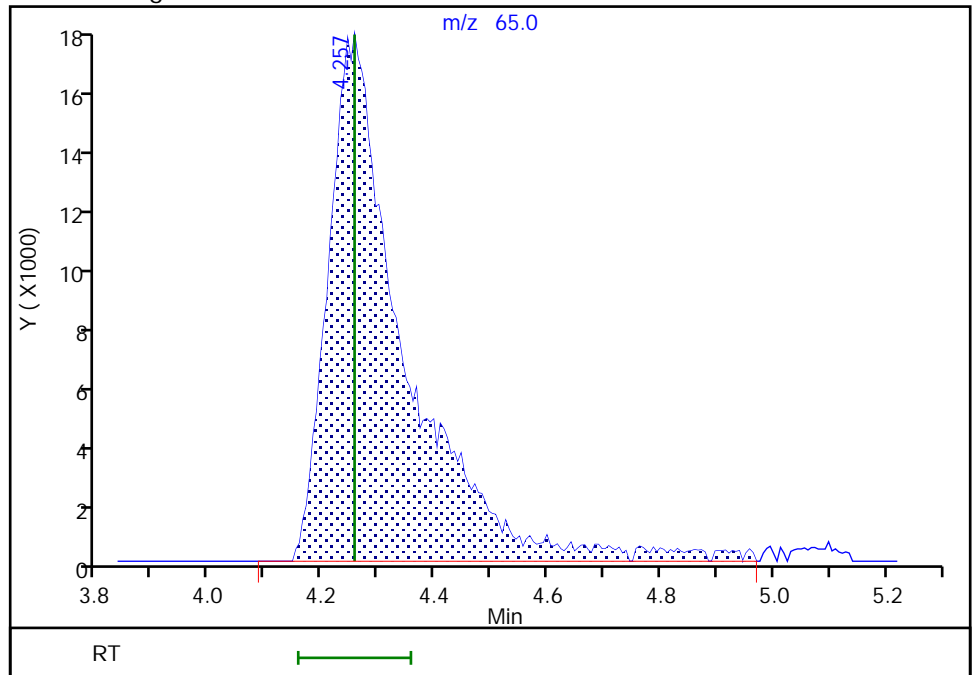
RT: 4.26
Area: 158849
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.26
Area: 162903
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:16:21
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

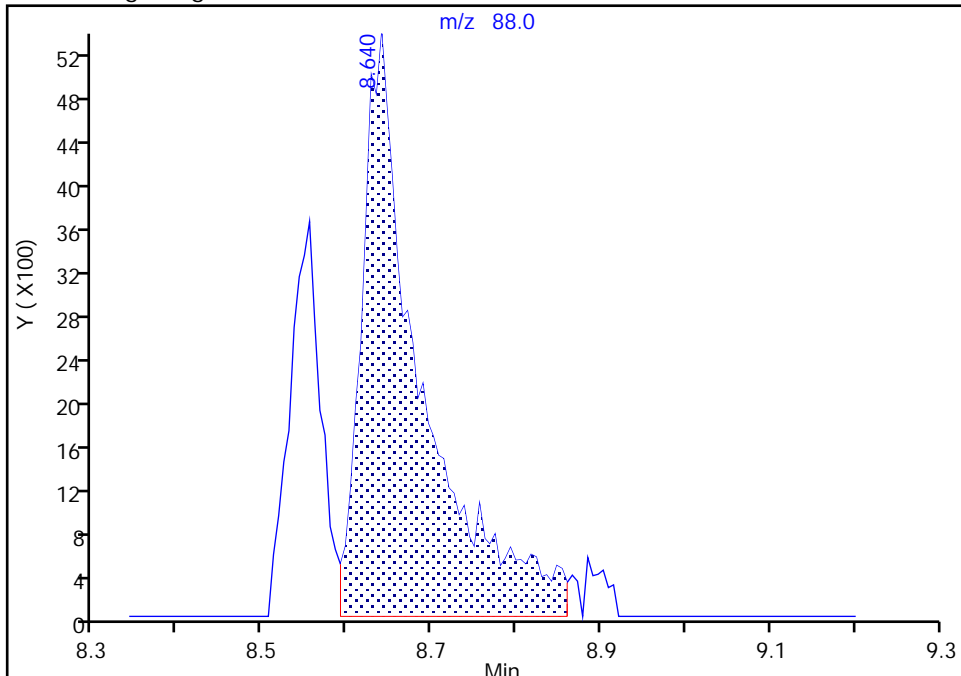
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23104.D
Injection Date: 24-Aug-2021 01:48:30 Instrument ID: 19930
Lims ID: IC std4
Client ID:
Operator ID: mec29284 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

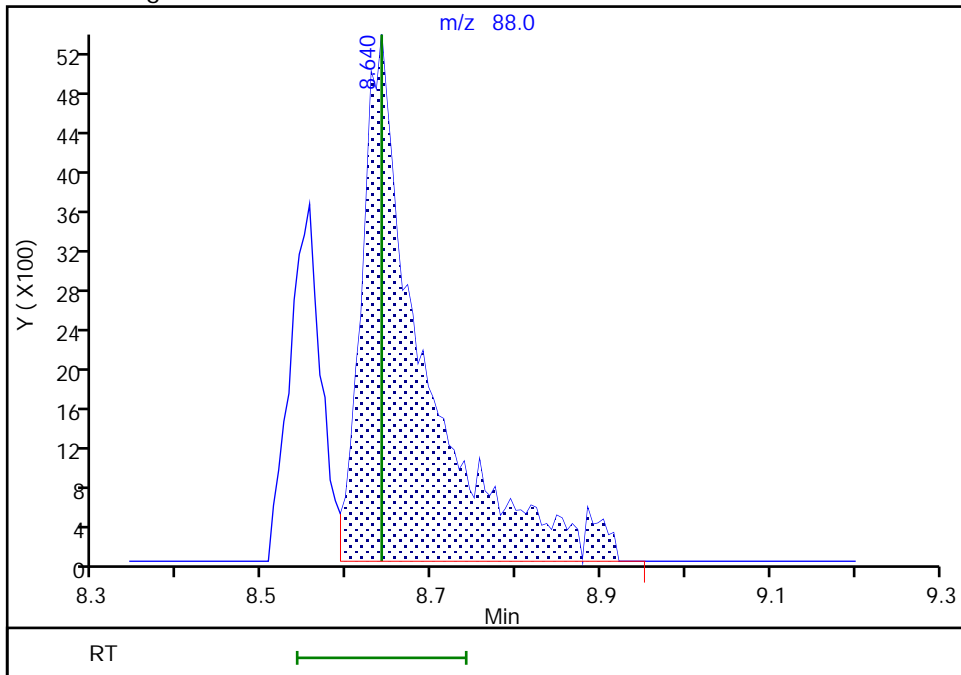
RT: 8.64
Area: 26261
Amount: 119.8515
Amount Units: ug/l

Processing Integration Results



RT: 8.64
Area: 27358
Amount: 94.303495
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:15:48
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23105.D
 Lims ID: IC std3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 24-Aug-2021 02:09:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0037607-016
 Misc. Info.: IC STD3
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:55:22 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:07:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	65891	1.00	0.9718	
4 Chloromethane	50	2.178	2.172	0.006	99	71033	1.00	0.9196	
6 Butadiene	39	2.294	2.288	0.006	91	69705	1.00	0.9823	
5 Vinyl chloride	62	2.294	2.294	0.000	72	72933	1.00	0.9365	
7 Bromomethane	94	2.629	2.623	0.006	91	52904	1.00	0.9375	
8 Chloroethane	64	2.709	2.709	0.000	99	44138	1.00	0.9455	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	105130	1.00	0.9365	
10 Trichlorofluoromethane	101	3.019	3.020	-0.001	97	100534	1.00	1.00	
11 Ethyl ether	59	3.263	3.257	0.006	90	37819	1.00	0.9277	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.361	3.343	0.018	91	68921	1.00	0.9587	
13 Acrolein	56	3.434	3.428	0.006	99	325453	50.0	52.0	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	51944	1.00	1.00	
15 Acetone	43	3.617	3.599	0.018	97	73600	10.0	9.26	M
16 112TCTFE	101	3.623	3.611	0.012	90	55518	1.00	1.03	
17 Iodomethane	142	3.775	3.769	0.006	99	102843	1.00	0.99	
18 Ethyl bromide	108	3.800	3.794	0.006	99	43980	1.00	0.9328	
19 Carbon disulfide	76	3.885	3.879	0.006	99	135959	1.00	0.9520	
21 Methyl acetate	43	4.044	4.038	0.006	40	20743	1.00	0.8865	
22 3-Chloro-1-propene	41	4.062	4.056	0.006	90	82613	1.00	0.9734	
23 Methylene Chloride	84	4.245	4.239	0.006	91	55257	1.00	0.9785	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.257	0.006	92	143084	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.397	-0.012	99	58831	20.0	19.5	
26 Acrylonitrile	53	4.611	4.592	0.019	98	27336	2.50	2.58	
27 Methyl tert-butyl ether	73	4.647	4.659	-0.012	94	145601	1.00	0.9865	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	57886	1.00	0.9851	
29 Hexane	57	5.104	5.086	0.018	91	80465	1.00	0.9806	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	103998	1.00	0.9753	
32 Isopropyl ether	45	5.385	5.385	0.000	94	174418	1.00	0.9792	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	90	86951	1.00	0.9780	
34 Tert-butyl ethyl ether	59	5.909	5.915	-0.006	97	171468	1.00	0.9844	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.116	6.116	0.000	100	143475	10.0	10.3	
S 35 1,2-Dichloroethene, Total	100				0			1.97	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	64220	1.00	0.9810	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	88	91101	1.00	0.9826	
40 Propionitrile	54	6.214	6.208	0.006	98	75368	20.0	20.4	
42 Methacrylonitrile	67	6.421	6.415	0.006	92	143284	10.0	10.3	
43 Chlorobromomethane	128	6.488	6.482	0.006	86	28049	1.00	0.99	
44 Tetrahydrofuran	71	6.494	6.494	0.000	69	21437	5.00	5.21	
45 Chloroform	83	6.641	6.635	0.006	93	104933	1.00	0.99	
\$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	547419	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	97	97208	1.00	0.99	
48 Cyclohexane	56	6.964	6.964	0.000	89	97677	1.00	1.00	
50 Carbon tetrachloride	117	7.080	7.067	0.013	92	83203	1.00	0.9821	
51 1,1-Dichloropropene	75	7.080	7.074	0.006	95	81553	1.00	0.9849	
52 Isobutyl alcohol	41	7.214	7.214	0.000	92	49738	50.0	51.7	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	85	108914	10.0	9.97	
54 Benzene	78	7.336	7.336	0.000	94	239616	1.00	0.9831	
56 1,2-Dichloroethane	62	7.403	7.409	-0.006	98	65256	1.00	0.9882	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	98	157576	1.00	0.9745	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2167768	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	82	83896	1.00	0.99	
60 n-Butanol	56	8.098	8.098	0.000	88	80599	87.5	90.3	
61 Trichloroethene	95	8.220	8.214	0.006	97	63618	1.00	0.9712	
62 Methylcyclohexane	83	8.525	8.525	-0.001	93	107529	1.00	0.9870	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	72	59643	1.00	1.00	
64 Methyl methacrylate	69	8.628	8.628	0.000	87	28845	1.00	1.05	
65 1,4-Dioxane	88	8.646	8.640	0.006	37	10496	50.0	52.8	M
66 Dibromomethane	93	8.659	8.653	0.006	93	28100	1.00	0.9605	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	68991	1.00	0.9508	
69 2-Nitropropane	41	9.152	9.152	0.000	99	40821	5.00	5.21	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	98	54880	1.00	0.9343	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	87948	1.00	0.9647	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	362286	10.0	10.4	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2163909	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	98	156583	1.00	0.9842	
S 77 1,3-Dichloropropene, Total	100				0			1.92	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	70216	1.00	0.9572	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	58617	1.00	0.9574	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	41236	1.00	0.9717	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	73750	1.00	0.9730	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	91	71333	1.00	0.9884	
83 2-Hexanone	43	10.481	10.481	0.000	95	250322	10.0	10.2	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	49956	1.00	0.9660	
86 Ethylene Dibromide	107	10.762	10.756	0.006	98	40746	1.00	1.00	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	87	1659651	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	96	89057	1.00	0.9572	
90 Chlorobenzene	112	11.213	11.213	0.000	95	173851	1.00	0.9865	
S 89 Xylenes, Total	106				0			2.95	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	59106	1.00	0.9605	
92 Ethylbenzene	91	11.298	11.298	0.000	98	300446	1.00	0.9807	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	239751	2.00	1.98	
94 o-Xylene	106	11.737	11.737	0.000	96	115204	1.00	0.9645	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	189931	1.00	0.9850	
96 Bromoform	173	11.914	11.914	0.000	97	28833	1.00	0.9307	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	310386	1.00	0.9844	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	826851	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	92	54325	1.00	0.99	
102 Bromobenzene	156	12.298	12.298	0.000	95	72358	1.00	0.9669	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	127777	10.0	10.1	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	80	14746	1.00	0.9823	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	355852	1.00	0.9796	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	74353	1.00	1.00	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	95	257721	1.00	0.9715	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	75316	1.00	0.9895	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	56868	1.00	0.9775	
110 Pentachloroethane	167	12.774	12.774	0.000	78	43712	1.00	0.9303	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	268890	1.00	0.9889	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	328234	1.00	0.9791	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	150321	1.00	1.00	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	288208	1.00	0.9719	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	987778	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	95	151116	1.00	0.9797	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	97	119238	1.00	0.99	
118 Benzyl chloride	126	13.158	13.158	0.000	98	21047	1.00	0.9420	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	134228	1.00	0.9686	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	98	136312	1.00	0.9885	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	85	7659	1.00	0.9535	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	105716	1.00	0.9573	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	91280	1.00	0.9796	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	37885	1.00	0.9359	
126 Naphthalene	128	14.609	14.609	0.000	97	173919	1.00	0.9794	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	78245	1.00	0.9717	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

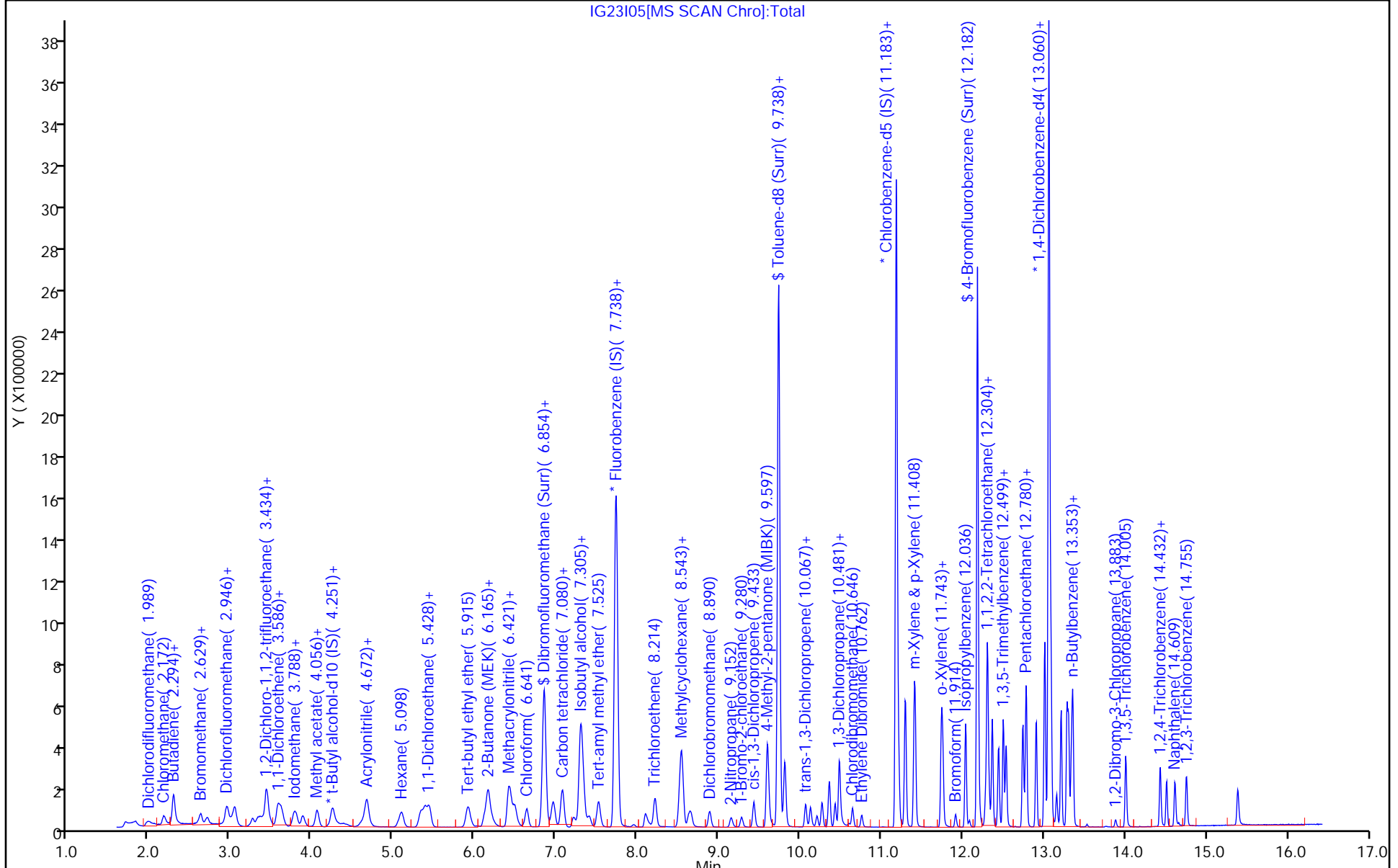
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



IG23105[MS SCAN Chro]:Total

Eurofins Lancaster Laboratories Env, LLC

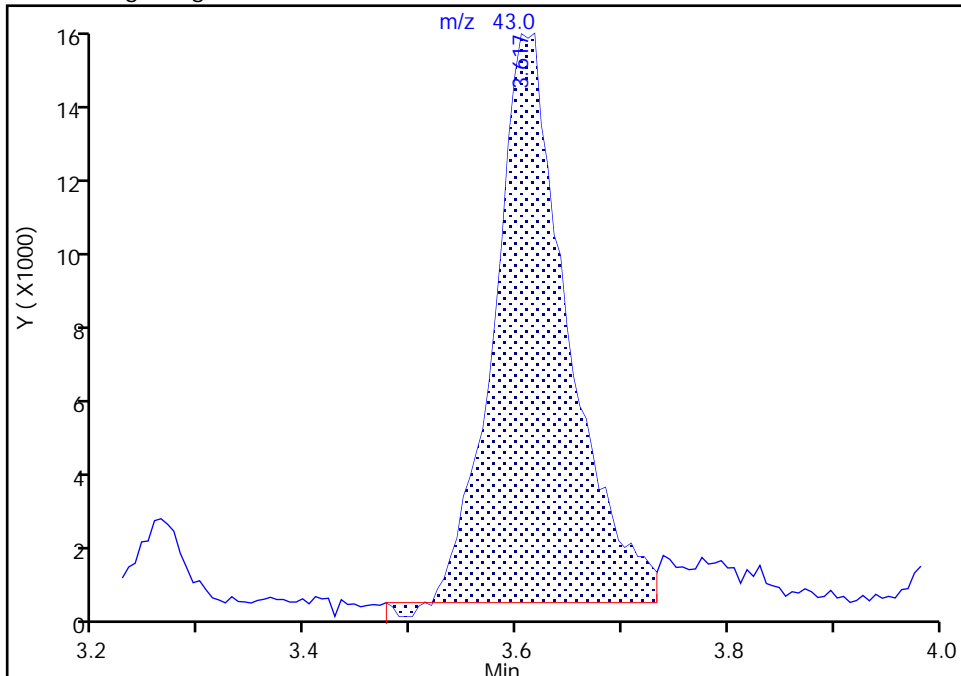
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23105.D
Injection Date: 24-Aug-2021 02:09:30 Instrument ID: 19930
Lims ID: IC std3
Client ID:
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

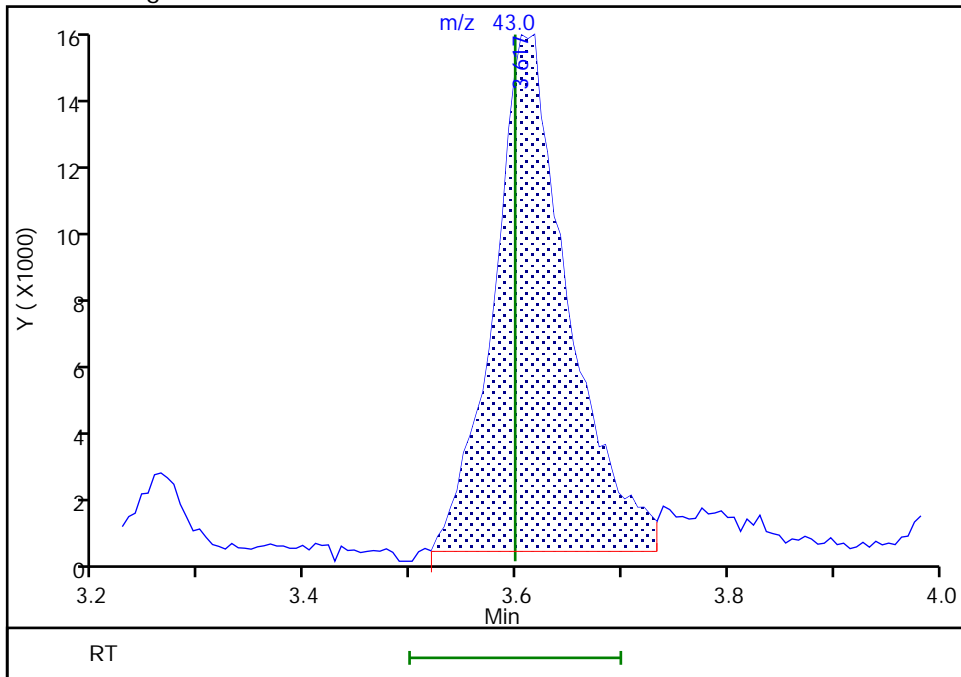
RT: 3.62
Area: 72163
Amount: 9.070107
Amount Units: ug/l

Processing Integration Results



RT: 3.62
Area: 73600
Amount: 9.259476
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:05:40
Audit Action: Manually Integrated

Audit Reason: Baseline
Page 425 of 659

Euofins Lancaster Laboratories Env, LLC

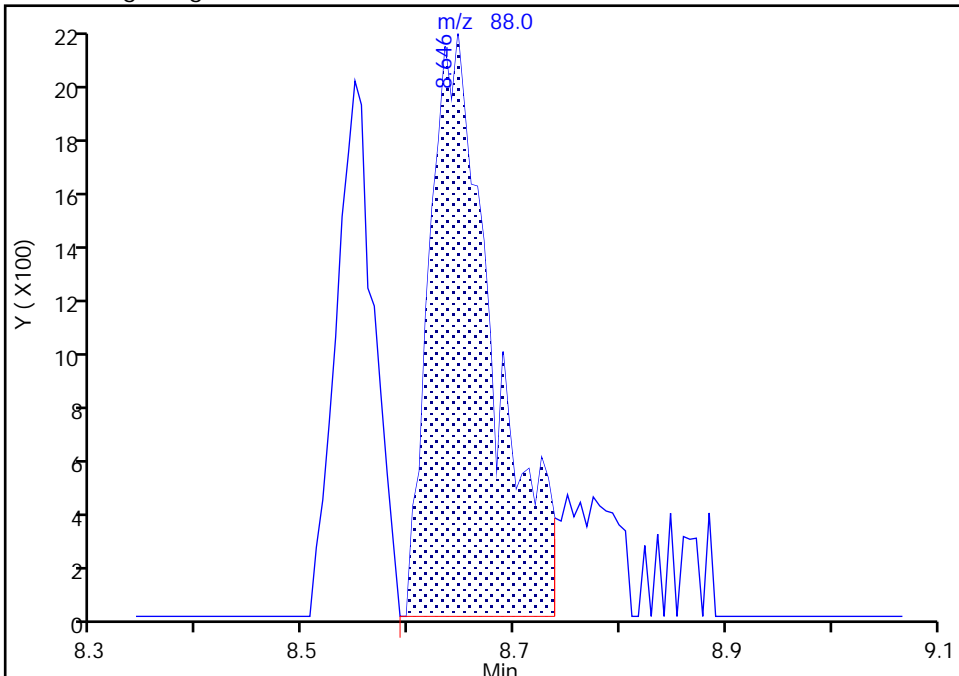
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23105.D
Injection Date: 24-Aug-2021 02:09:30 Instrument ID: 19930
Lims ID: IC std3
Client ID:
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

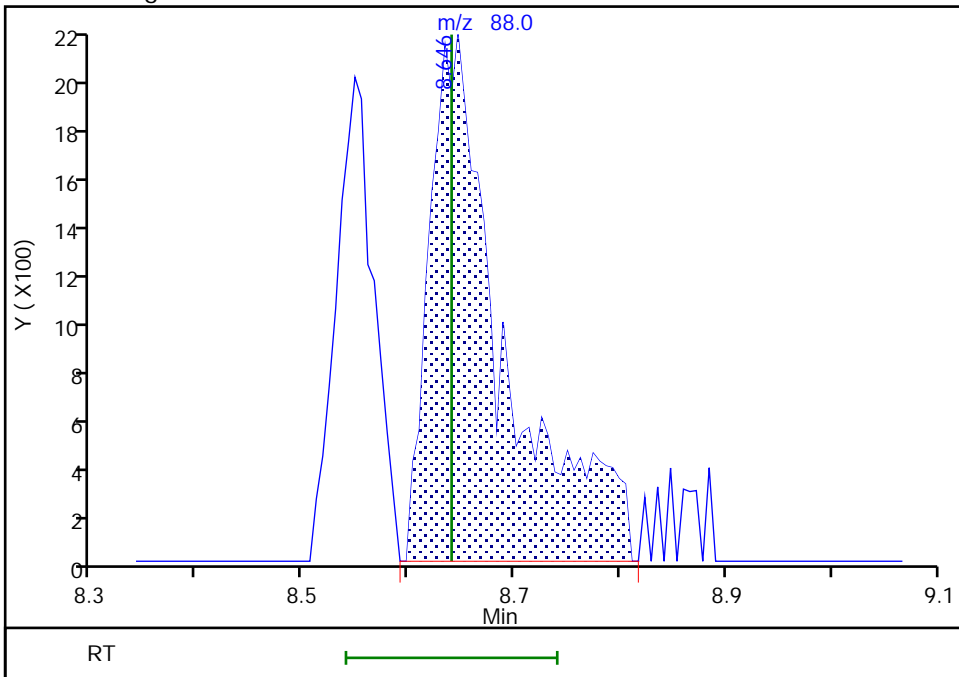
RT: 8.65
Area: 8965
Amount: 45.300089
Amount Units: ug/l

Processing Integration Results



RT: 8.65
Area: 10496
Amount: 52.840483
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:17:15
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23106.D
 Lims ID: IC std2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 24-Aug-2021 02:30:30 ALS Bottle#: 16 Worklist Smp#: 17
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0037607-017
 Misc. Info.: IC STD2
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:55:27 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:08:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.965	0.018	98	23341	0.5000	0.3127	
4 Chloromethane	50	2.178	2.172	0.006	99	42004	0.5000	0.4939	
6 Butadiene	39	2.300	2.288	0.012	93	33180	0.5000	0.4247	
5 Vinyl chloride	62	2.294	2.294	0.000	81	37981	0.5000	0.4430	
7 Bromomethane	94	2.629	2.623	0.006	91	30163	0.5000	0.4855	
8 Chloroethane	64	2.715	2.709	0.006	99	24539	0.5000	0.4775	
9 Dichlorofluoromethane	67	2.952	2.946	0.006	97	57981	0.5000	0.4691	
10 Trichlorofluoromethane	101	3.026	3.020	0.006	96	39345	0.5000	0.3561	
11 Ethyl ether	59	3.269	3.257	0.012	90	19745	0.5000	0.4400	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	33147	0.5000	0.4188	
13 Acrolein	56	3.446	3.428	0.018	98	164868	25.0	23.2	
14 1,1-Dichloroethene	96	3.580	3.568	0.012	98	25406	0.5000	0.4460	
15 Acetone	43	3.617	3.599	0.018	99	42743	5.00	4.73	
16 112TCTFE	101	3.629	3.611	0.018	87	23135	0.5000	0.3890	
17 Iodomethane	142	3.775	3.769	0.006	99	54663	0.5000	0.4801	
18 Ethyl bromide	108	3.812	3.794	0.018	97	23524	0.4997	0.4532	
19 Carbon disulfide	76	3.891	3.879	0.012	99	72614	0.5000	0.4619	
21 Methyl acetate	43	4.050	4.038	0.012	90	10814	0.5000	0.4066	M
22 3-Chloro-1-propene	41	4.068	4.056	0.012	91	44817	0.5000	0.4797	
23 Methylene Chloride	84	4.251	4.239	0.012	90	29677	0.5000	0.4774	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.257	0.006	99	162651	50.0	50.0	
25 2-Methyl-2-propanol	59	4.410	4.397	0.013	100	30939	10.0	9.03	
26 Acrylonitrile	53	4.623	4.592	0.031	81	13208	1.25	1.10	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	87	74896	0.5000	0.4610	
28 trans-1,2-Dichloroethene	96	4.678	4.672	0.006	99	30641	0.5000	0.4737	
29 Hexane	57	5.105	5.086	0.018	91	34316	0.5000	0.3799	
31 1,1-Dichloroethane	63	5.336	5.330	0.006	96	56931	0.5000	0.4849	
32 Isopropyl ether	45	5.391	5.385	0.006	97	92363	0.5000	0.4710	
33 2-Chloro-1,3-butadiene	53	5.452	5.434	0.018	91	44829	0.5000	0.4580	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	89795	0.5000	0.4683	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.129	6.116	0.013	99	77869	5.00	4.94	
S 35 1,2-Dichloroethene, Total	100				0			0.9359	
37 cis-1,2-Dichloroethene	96	6.165	6.159	0.006	82	33313	0.5000	0.4622	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	69	48330	0.5000	0.4735	
40 Propionitrile	54	6.226	6.208	0.018	91	37944	10.0	9.06	
42 Methacrylonitrile	67	6.427	6.415	0.012	90	73898	5.00	4.66	
43 Chlorobromomethane	128	6.494	6.482	0.012	89	14686	0.5000	0.4722	
44 Tetrahydrofuran	71	6.494	6.494	0.000	76	10321	2.50	2.21	
45 Chloroform	83	6.641	6.635	0.006	93	55513	0.5000	0.4774	
\$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	602854	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.872	6.860	0.012	97	50051	0.5000	0.4632	
48 Cyclohexane	56	6.964	6.964	0.000	89	41983	0.5000	0.3919	
50 Carbon tetrachloride	117	7.080	7.067	0.013	88	39984	0.5000	0.4287	
51 1,1-Dichloropropene	75	7.080	7.074	0.006	95	40862	0.5000	0.4483	
52 Isobutyl alcohol	41	7.232	7.214	0.018	95	24830	25.0	22.7	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	118060	10.0	9.82	
54 Benzene	78	7.336	7.336	0.000	95	128948	0.5000	0.4806	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	96	34473	0.5000	0.4742	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	99	81778	0.5000	0.4594	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2386508	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	48	39115	0.5000	0.4211	
60 n-Butanol	56	8.104	8.098	0.006	87	41262	43.8	40.7	
61 Trichloroethene	95	8.220	8.214	0.006	98	34329	0.5000	0.4760	
62 Methylcyclohexane	83	8.531	8.525	0.006	92	46295	0.5000	0.3860	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	73	30184	0.5000	0.4580	
64 Methyl methacrylate	69	8.634	8.628	0.006	90	12996	0.5000	0.4171	
65 1,4-Dioxane	88	8.640	8.640	0.000	38	4720	25.0	33.9	M
66 Dibromomethane	93	8.653	8.653	0.000	92	14579	0.5000	0.4527	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	37237	0.5000	0.4661	
69 2-Nitropropane	41	9.152	9.152	0.000	98	20434	2.50	2.29	
72 1-Bromo-2-chloroethane	63	9.281	9.280	0.001	98	27429	0.5000	0.4241	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	44155	0.5000	0.4399	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	96	180620	5.00	4.55	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2386226	10.0	10.0	
76 Toluene	92	9.817	9.811	0.006	98	85173	0.5000	0.4814	
S 77 1,3-Dichloropropene, Total	100				0			0.8811	
78 trans-1,3-Dichloropropene	75	10.073	10.067	0.006	92	35995	0.5000	0.4412	
79 Ethyl methacrylate	69	10.134	10.128	0.006	89	28685	0.5000	0.4213	
80 1,1,2-Trichloroethane	97	10.274	10.268	0.006	90	22055	0.5000	0.4673	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	39159	0.5000	0.4646	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	36830	0.5000	0.4589	
83 2-Hexanone	43	10.482	10.481	0.001	96	125813	5.00	4.52	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	24663	0.5000	0.4288	
86 Ethylene Dibromide	107	10.756	10.756	0.000	99	20030	0.5000	0.4399	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	85	1845718	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	94	46401	0.5000	0.4484	
90 Chlorobenzene	112	11.213	11.213	0.000	96	92274	0.5000	0.4708	
S 89 Xylenes, Total	106				0			1.42	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	30345	0.5000	0.4434	
92 Ethylbenzene	91	11.298	11.298	0.000	98	160740	0.5000	0.4718	
93 m-Xylene & p-Xylene	106	11.414	11.408	0.006	99	127477	1.00	0.9471	
94 o-Xylene	106	11.737	11.737	0.000	96	62976	0.5000	0.4741	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	99275	0.5000	0.4630	
96 Bromoform	173	11.914	11.914	0.000	96	14486	0.5000	0.4205	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	165096	0.5000	0.4708	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	911479	10.0	10.0	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	27777	0.5000	0.4559	
102 Bromobenzene	156	12.298	12.298	0.000	96	38617	0.5000	0.4625	
103 trans-1,4-Dichloro-2-butene	53	12.310	12.304	0.006	94	63065	5.00	4.39	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	80	7449	0.5000	0.4447	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	188239	0.5000	0.4644	
106 2-Chlorotoluene	126	12.445	12.444	0.001	97	38383	0.5000	0.4615	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	137180	0.5000	0.4634	
108 4-Chlorotoluene	126	12.536	12.536	0.000	98	39370	0.5000	0.4635	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	30260	0.5000	0.4661	
110 Pentachloroethane	167	12.774	12.774	0.000	89	21010	0.5000	0.4007	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	139600	0.5000	0.4601	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	171209	0.5000	0.4577	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	76475	0.5000	0.4542	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	151465	0.5000	0.4578	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	1102182	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	95	79823	0.5000	0.4638	
117 1,2,3-Trimethylbenzene	120	13.085	13.085	0.000	95	63083	0.5000	0.4699	
118 Benzyl chloride	126	13.158	13.158	0.000	98	10785	0.5000	0.4326	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	68676	0.5000	0.4441	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	98	69498	0.5000	0.4517	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	88	3634	0.5000	0.4055	
123 1,3,5-Trichlorobenzene	180	14.011	14.005	0.006	95	55476	0.5000	0.4502	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	95	44434	0.5000	0.4274	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	20700	0.5000	0.4583	
126 Naphthalene	128	14.615	14.609	0.006	97	86939	0.5000	0.4387	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	94	38854	0.5000	0.4324	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

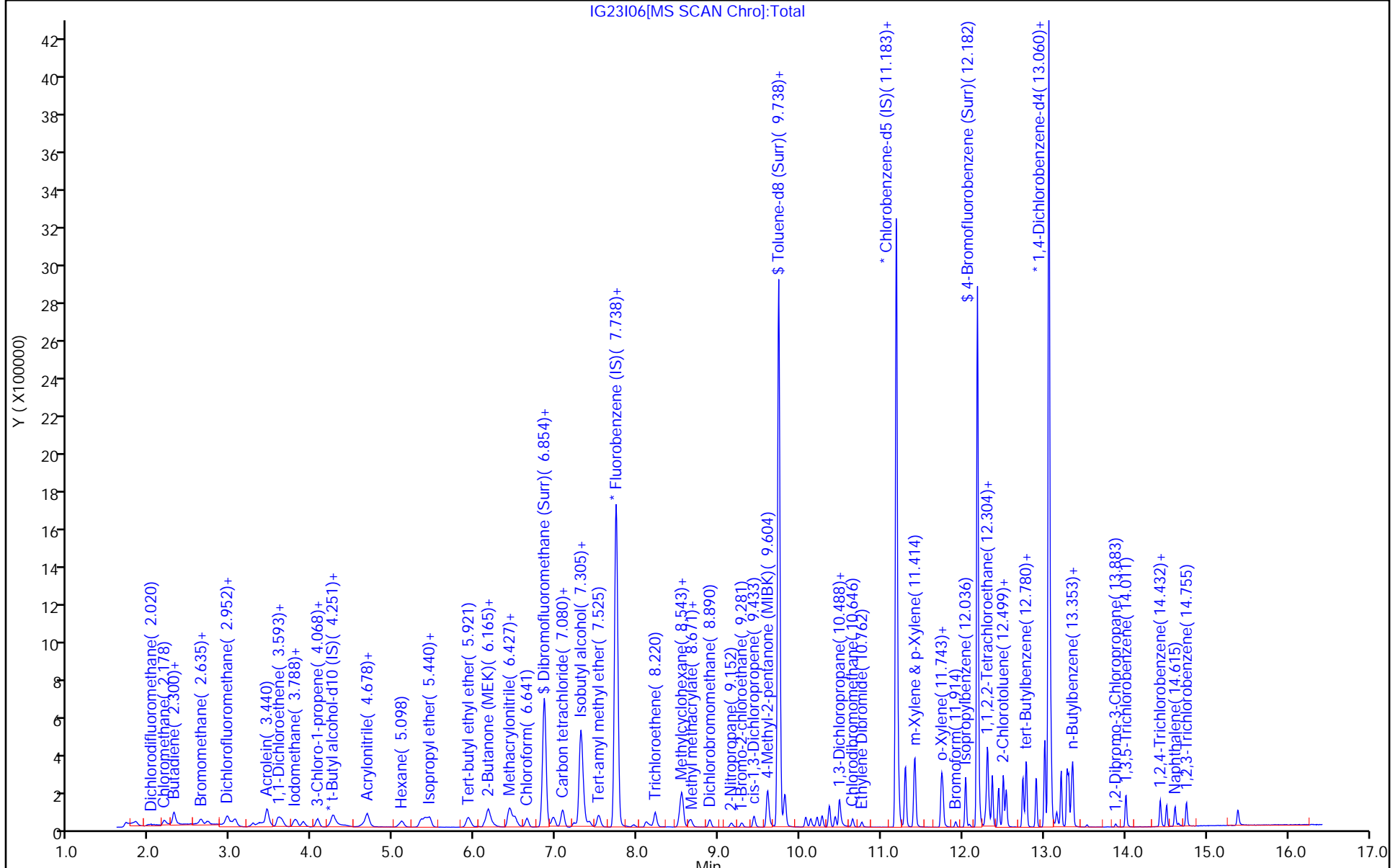
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Euofins Lancaster Laboratories Env, LLC

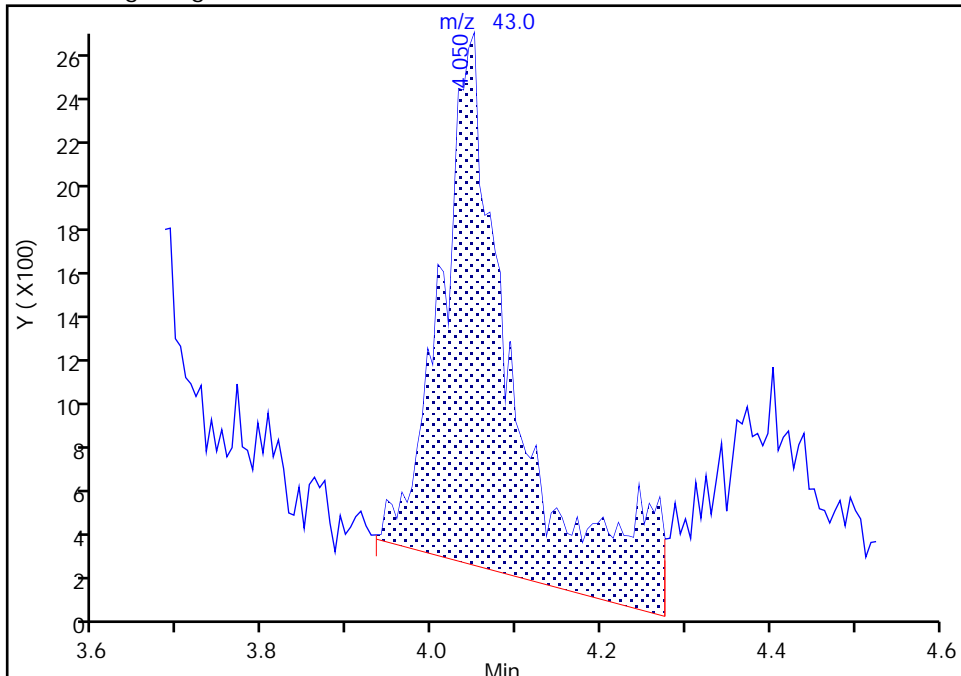
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23106.D
Injection Date: 24-Aug-2021 02:30:30 Instrument ID: 19930
Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

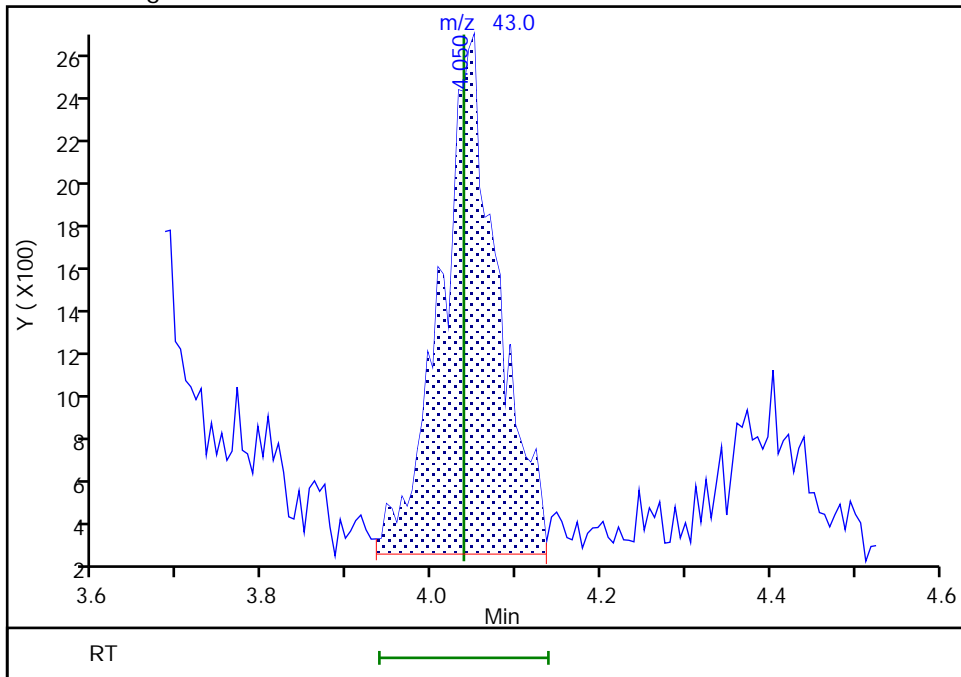
RT: 4.05
Area: 14429
Amount: 0.507597
Amount Units: ug/l

Processing Integration Results



RT: 4.05
Area: 10814
Amount: 0.406583
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:07:57
Audit Action: Manually Integrated

Audit Reason: Baseline
Page 431 of 659

Eurofins Lancaster Laboratories Env, LLC

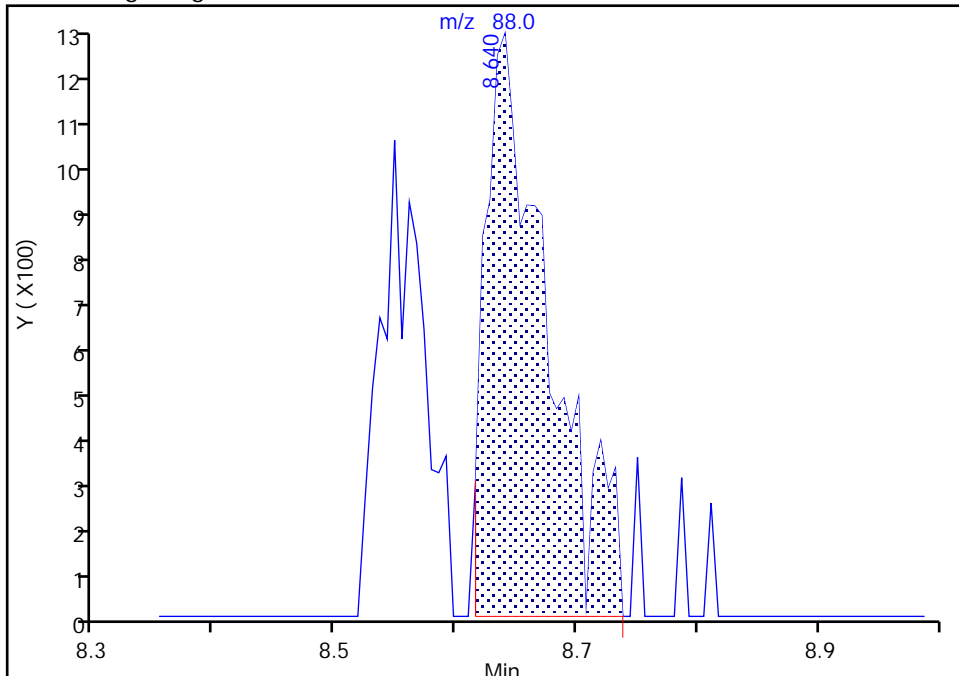
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23106.D
Injection Date: 24-Aug-2021 02:30:30 Instrument ID: 19930
Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

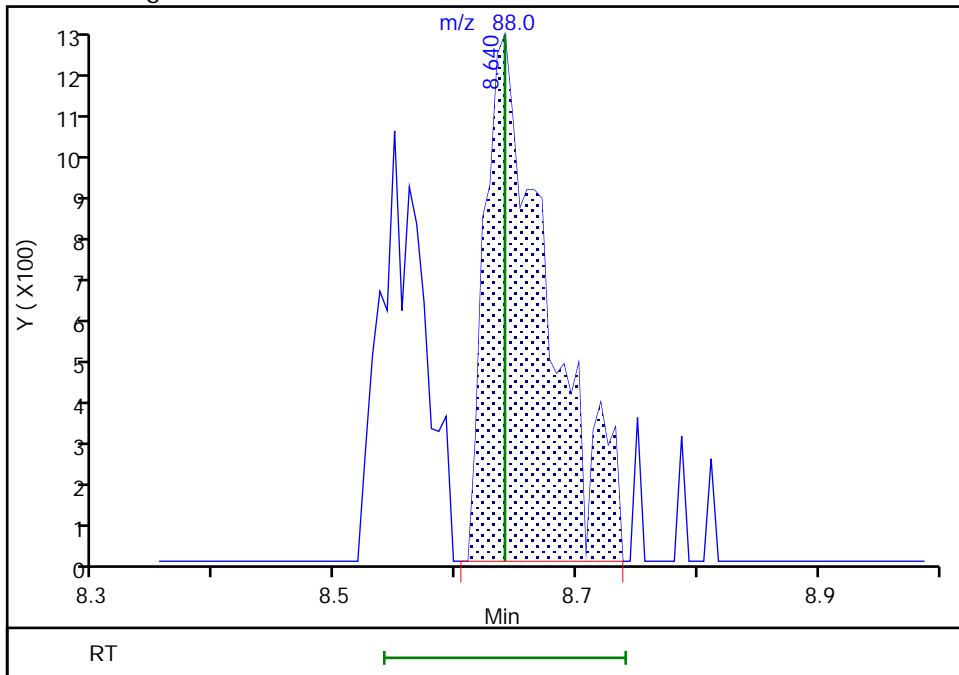
RT: 8.64
Area: 4720
Amount: 19.712558
Amount Units: ug/l

Processing Integration Results



RT: 8.64
Area: 4720
Amount: 33.937684
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:07:35
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Lims ID: IC std1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 24-Aug-2021 02:52:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0037607-018
 Misc. Info.: IC STD1
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:55:32 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:55:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.965	0.018	98	10622	0.2000	0.1541	
4 Chloromethane	50	2.172	2.172	0.000	98	16469	0.2000	0.2098	
6 Butadiene	39	2.294	2.288	0.006	89	15788	0.2000	0.2189	
5 Vinyl chloride	62	2.294	2.294	0.000	79	16237	0.2000	0.2051	
7 Bromomethane	94	2.617	2.623	-0.006	93	12369	0.2000	0.2156	
8 Chloroethane	64	2.702	2.709	-0.007	98	9968	0.2000	0.2101	
9 Dichlorofluoromethane	67	2.952	2.946	0.006	96	24746	0.2000	0.2169	
10 Trichlorofluoromethane	101	3.019	3.020	-0.001	94	17920	0.2000	0.1757	
11 Ethyl ether	59	3.263	3.257	0.006	89	8085	0.2000	0.1951	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	14481	0.2000	0.1982	
13 Acrolein	56	3.434	3.428	0.006	99	67296	10.0	9.50	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	97	9853	0.2000	0.1873	
15 Acetone	43	3.623	3.599	0.024	91	22016	2.00	2.44	
16 112TCTFE	101	3.623	3.611	0.012	67	7902	0.2000	0.1439	
17 Iodomethane	142	3.769	3.769	0.000	99	19236	0.2000	0.1830	
18 Ethyl bromide	108	3.800	3.794	0.006	97	9559	0.1999	0.1995	
19 Carbon disulfide	76	3.885	3.879	0.006	98	27501	0.2000	0.1895	
21 Methyl acetate	43	4.025	4.038	-0.013	24	6630	0.2000	0.2501	M
22 3-Chloro-1-propene	41	4.062	4.056	0.006	91	17799	0.2000	0.2063	
23 Methylene Chloride	84	4.251	4.239	0.012	92	11123	0.2000	0.1938	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	87	162132	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.397	-0.012	96	13173	4.00	3.86	
26 Acrylonitrile	53	4.598	4.592	0.006	93	5439	0.5000	0.4531	
27 Methyl tert-butyl ether	73	4.672	4.659	0.013	94	28552	0.2000	0.1903	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	98	11615	0.2000	0.1945	
29 Hexane	57	5.092	5.086	0.006	89	13158	0.2000	0.1578	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	94	19958	0.2000	0.1841	
32 Isopropyl ether	45	5.379	5.385	-0.006	92	34823	0.2000	0.1923	
33 2-Chloro-1,3-butadiene	53	5.434	5.434	0.000	90	16724	0.2000	0.1851	
34 Tert-butyl ethyl ether	59	5.915	5.915	0.000	95	34174	0.2000	0.1930	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.135	6.116	0.019	99	29007	2.00	1.84	
S 35 1,2-Dichloroethene, Total	100				0			0.3987	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	80	13593	0.2000	0.2043	
38 2,2-Dichloropropane	77	6.165	6.171	-0.006	75	17139	0.2000	0.1819	
40 Propionitrile	54	6.226	6.208	0.018	96	13833	4.00	3.31	
42 Methacrylonitrile	67	6.433	6.415	0.018	91	28932	2.00	1.83	
43 Chlorobromomethane	128	6.494	6.482	0.012	89	5382	0.2000	0.1874	
44 Tetrahydrofuran	71	6.500	6.494	0.006	73	4531	1.00	0.9713	
45 Chloroform	83	6.641	6.635	0.006	93	20677	0.2000	0.1926	
\$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	550850	10.0	9.92	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	37	17947	0.2000	0.1799	
48 Cyclohexane	56	6.964	6.964	0.000	88	15734	0.2000	0.1591	
50 Carbon tetrachloride	117	7.080	7.067	0.013	89	14826	0.2000	0.1722	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	92	15129	0.2000	0.1798	
52 Isobutyl alcohol	41	7.238	7.214	0.024	98	11365	10.0	10.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	83	111473	10.0	10.0	
54 Benzene	78	7.342	7.336	0.006	92	47533	0.2000	0.1919	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	96	14085	0.2000	0.2098	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	98	32493	0.2000	0.1977	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	2203428	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	37	16461	0.2000	0.1919	
60 n-Butanol	56	8.110	8.098	0.012	88	15162	17.5	15.0	
61 Trichloroethene	95	8.214	8.214	0.000	97	12472	0.2000	0.1873	
62 Methylcyclohexane	83	8.518	8.525	-0.007	90	18086	0.2000	0.1633	
63 1,2-Dichloropropane	63	8.549	8.543	0.006	72	10792	0.2000	0.1774	
64 Methyl methacrylate	69	8.634	8.628	0.006	69	5380	0.2000	0.1732	
65 1,4-Dioxane	88	8.659	8.640	0.019	36	1410	10.0	25.4	
66 Dibromomethane	93	8.665	8.653	0.012	96	6024	0.2000	0.2026	
68 Dichlorobromomethane	83	8.884	8.890	-0.006	98	13292	0.2000	0.1802	
69 2-Nitropropane	41	9.152	9.152	0.000	98	7855	1.00	0.8841	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	95	11412	0.2000	0.1911	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	16632	0.2000	0.1795	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	95	72451	2.00	1.83	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2194797	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	97	31541	0.2000	0.1959	
S 77 1,3-Dichloropropene, Total	100				0			0.3575	
78 trans-1,3-Dichloropropene	75	10.073	10.067	0.006	93	13216	0.2000	0.1780	
79 Ethyl methacrylate	69	10.140	10.128	0.012	86	11059	0.2000	0.1785	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	88	8395	0.2000	0.1955	
81 Tetrachloroethene	166	10.366	10.360	0.006	97	14161	0.2000	0.1846	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	86	14346	0.2000	0.1964	
83 2-Hexanone	43	10.487	10.481	0.006	96	46582	2.00	1.68	
85 Chlorodibromomethane	129	10.646	10.646	0.000	91	9097	0.2000	0.1738	
86 Ethylene Dibromide	107	10.762	10.756	0.006	96	7956	0.2000	0.1920	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	86	1679409	10.0	10.0	
88 1-Chlorohexane	91	11.195	11.189	0.006	74	19704	0.2000	0.2093	
90 Chlorobenzene	112	11.213	11.213	0.000	96	34732	0.2000	0.1948	
S 89 Xylenes, Total	106				0			0.5624	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	92	11871	0.2000	0.1906	
92 Ethylbenzene	91	11.298	11.298	0.000	98	59702	0.2000	0.1926	
93 m-Xylene & p-Xylene	106	11.414	11.408	0.006	100	45724	0.4000	0.3734	
94 o-Xylene	106	11.737	11.737	0.000	96	22844	0.2000	0.1890	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	35508	0.2000	0.1820	
96 Bromoform	173	11.920	11.914	0.006	96	5180	0.2000	0.1652	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	59476	0.2000	0.1864	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	836413	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	91	10699	0.2000	0.1912	
102 Bromobenzene	156	12.298	12.298	0.000	94	14657	0.2000	0.1911	
103 trans-1,4-Dichloro-2-butene	53	12.310	12.304	0.006	94	23386	2.00	1.63	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	79	2954	0.2000	0.1920	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	69326	0.2000	0.1862	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	13941	0.2000	0.1825	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	95	50366	0.2000	0.1853	
108 4-Chlorotoluene	126	12.536	12.536	0.000	96	14590	0.2000	0.1870	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	10568	0.2000	0.1772	
110 Pentachloroethane	167	12.774	12.774	0.000	81	8742	0.2000	0.1815	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	50685	0.2000	0.1819	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	62740	0.2000	0.1826	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	97	28815	0.2000	0.1863	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	56219	0.2000	0.1850	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	1012314	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	94	30392	0.2000	0.1923	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	96	23351	0.2000	0.1894	
118 Benzyl chloride	126	13.164	13.158	0.006	98	3297	0.2000	0.1440	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	26239	0.2000	0.1848	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	97	26871	0.2000	0.1901	
122 1,2-Dibromo-3-Chloropropane	155	13.889	13.883	0.006	79	1200	0.2000	0.1458	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	97	20269	0.2000	0.1791	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	17004	0.2000	0.1781	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	94	9764	0.2000	0.2354	
126 Naphthalene	128	14.615	14.609	0.006	97	35671	0.2000	0.1960	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	16298	0.2000	0.1975	
134 Isopropyl alcohol	45		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	

QC Flag Legend

Processing Flags

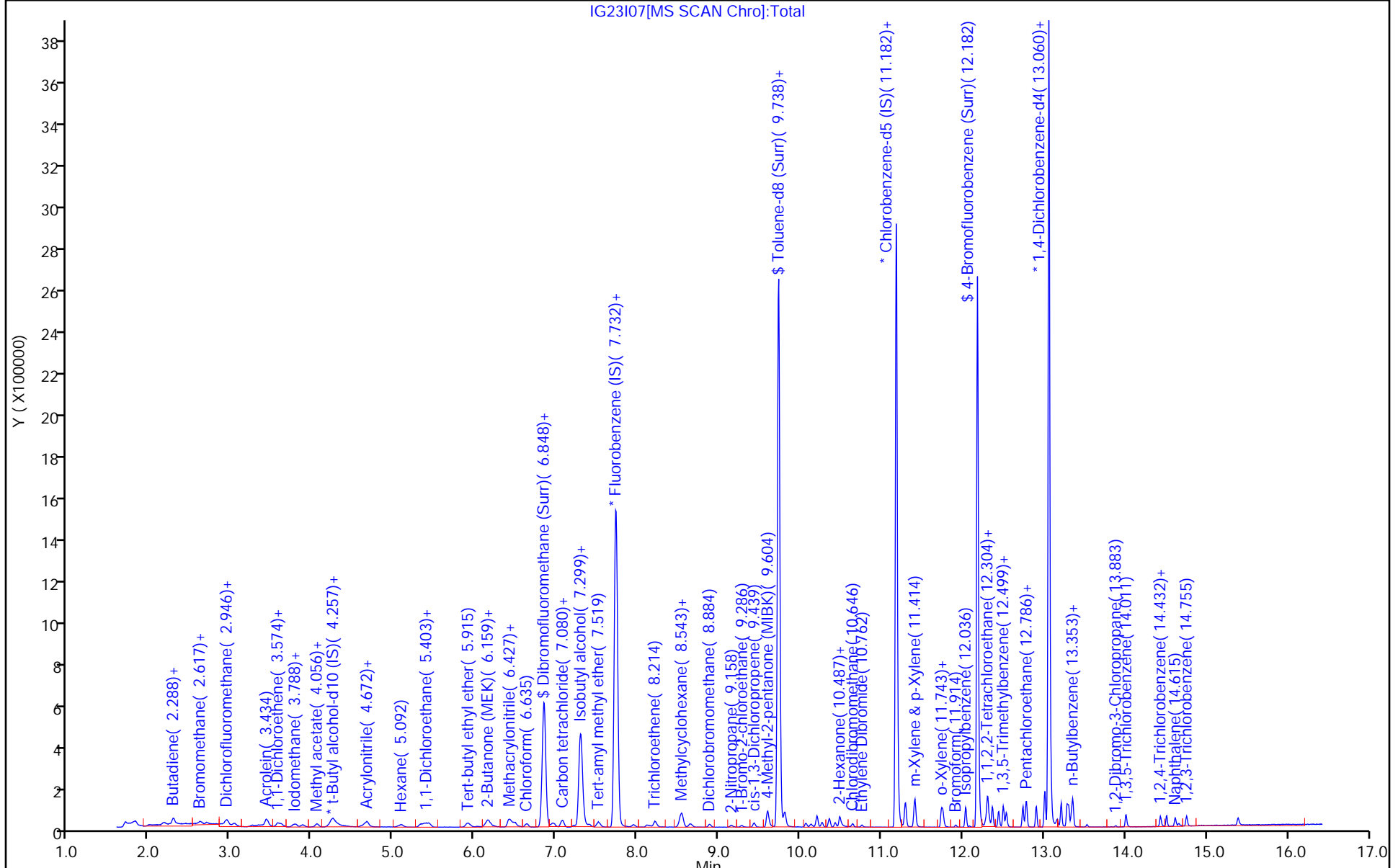
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

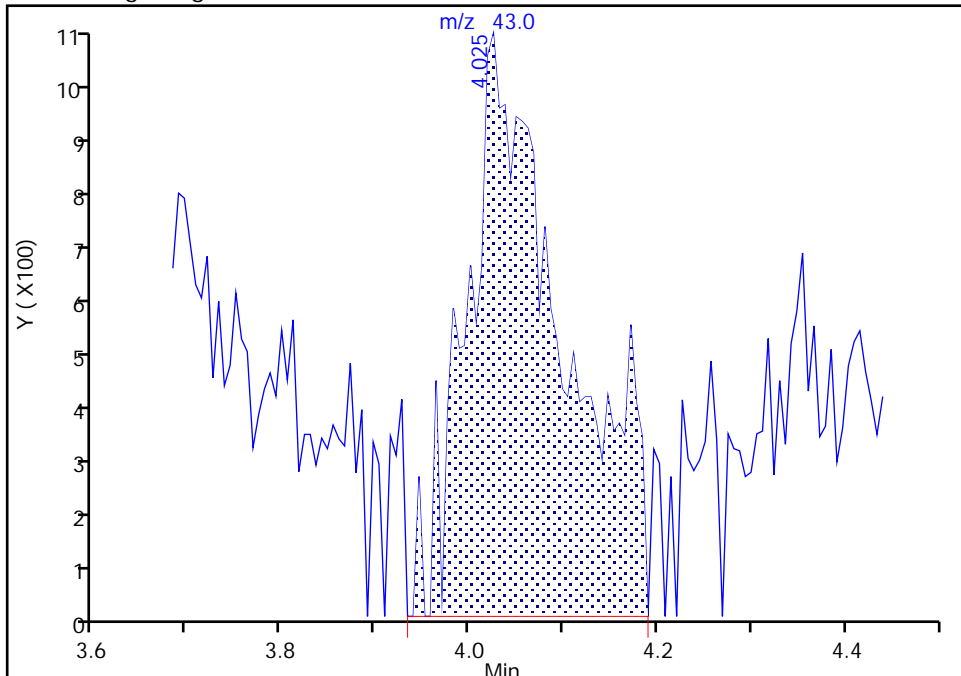
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
Injection Date: 24-Aug-2021 02:52:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

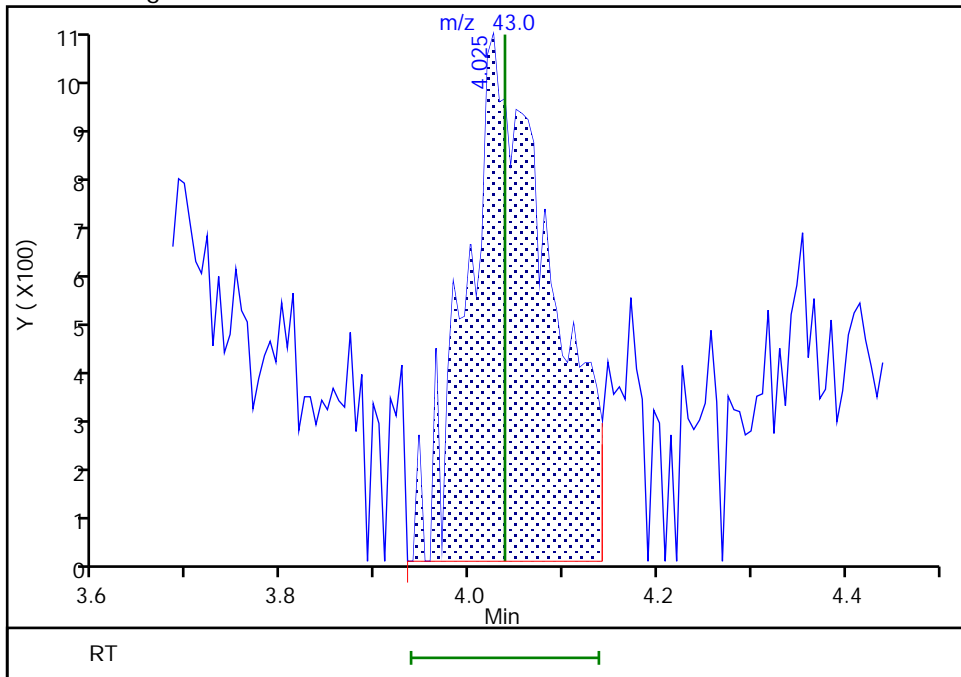
RT: 4.03
Area: 7604
Amount: 0.278475
Amount Units: ug/l

Processing Integration Results



RT: 4.03
Area: 6630
Amount: 0.250072
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:08:28
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

Calibration

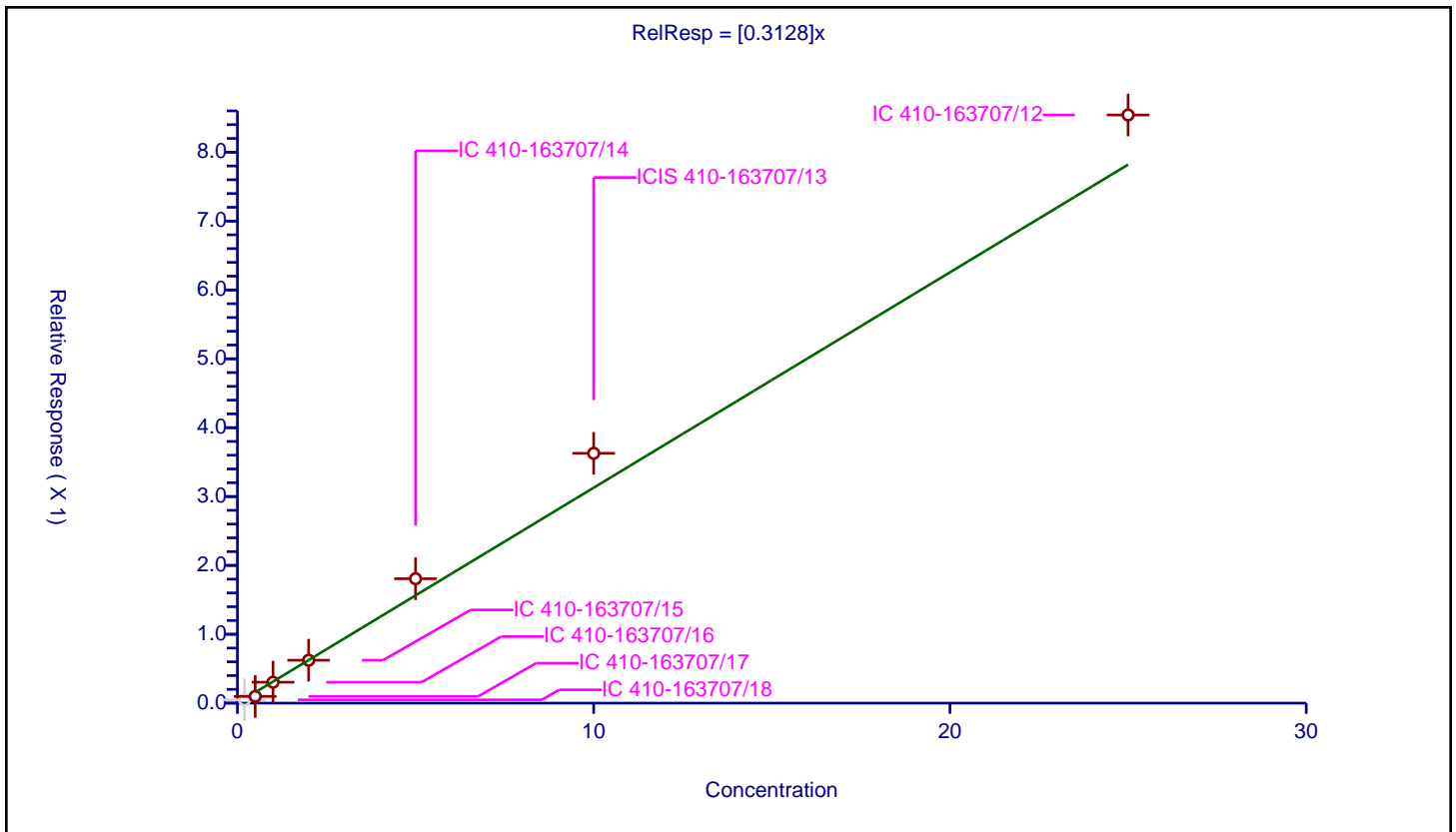
/ Dichlorodifluoromethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3128

Error Coefficients	
Standard Error:	966000
Relative Standard Error:	20.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.954

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.048207	10.0	2203428.0	0.241034	N
2	IC 410-163707/17	0.5	0.097804	10.0	2386508.0	0.195608	Y
3	IC 410-163707/16	1.0	0.303958	10.0	2167768.0	0.303958	Y
4	IC 410-163707/15	2.0	0.622777	10.0	2141536.0	0.311389	Y
5	IC 410-163707/14	5.0	1.806842	10.0	2115642.0	0.361368	Y
6	ICIS 410-163707/13	10.0	3.6274	10.0	2122537.0	0.36274	Y
7	IC 410-163707/12	25.0	8.540533	10.0	2314551.0	0.341621	Y



Calibration

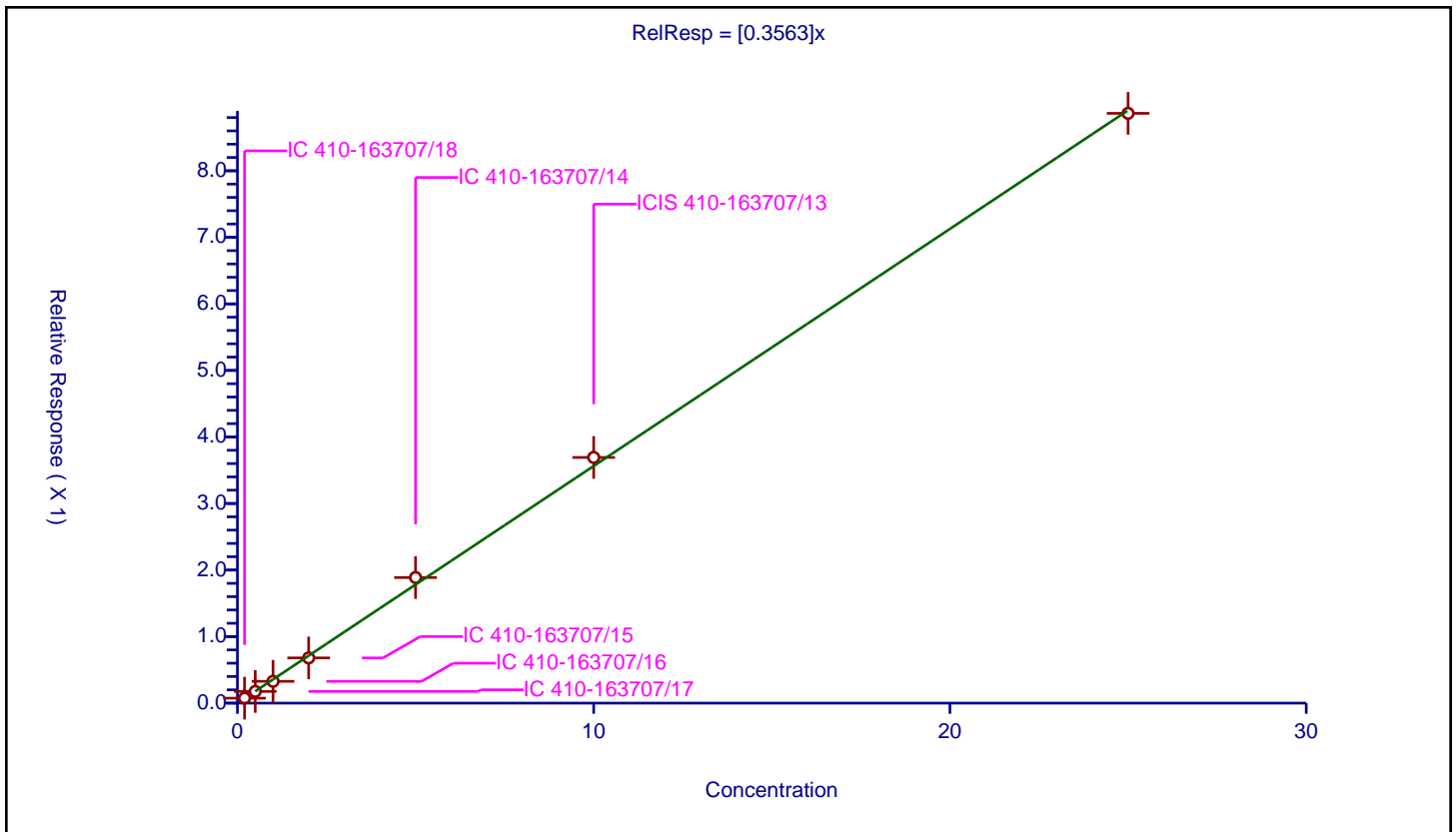
/ Chloromethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3563

Error Coefficients	
Standard Error:	914000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.074743	10.0	2203428.0	0.373713	Y
2	IC 410-163707/17	0.5	0.176006	10.0	2386508.0	0.352012	Y
3	IC 410-163707/16	1.0	0.327678	10.0	2167768.0	0.327678	Y
4	IC 410-163707/15	2.0	0.679503	10.0	2141536.0	0.339751	Y
5	IC 410-163707/14	5.0	1.887243	10.0	2115642.0	0.377449	Y
6	ICIS 410-163707/13	10.0	3.692039	10.0	2122537.0	0.369204	Y
7	IC 410-163707/12	25.0	8.863192	10.0	2314551.0	0.354528	Y



Calibration

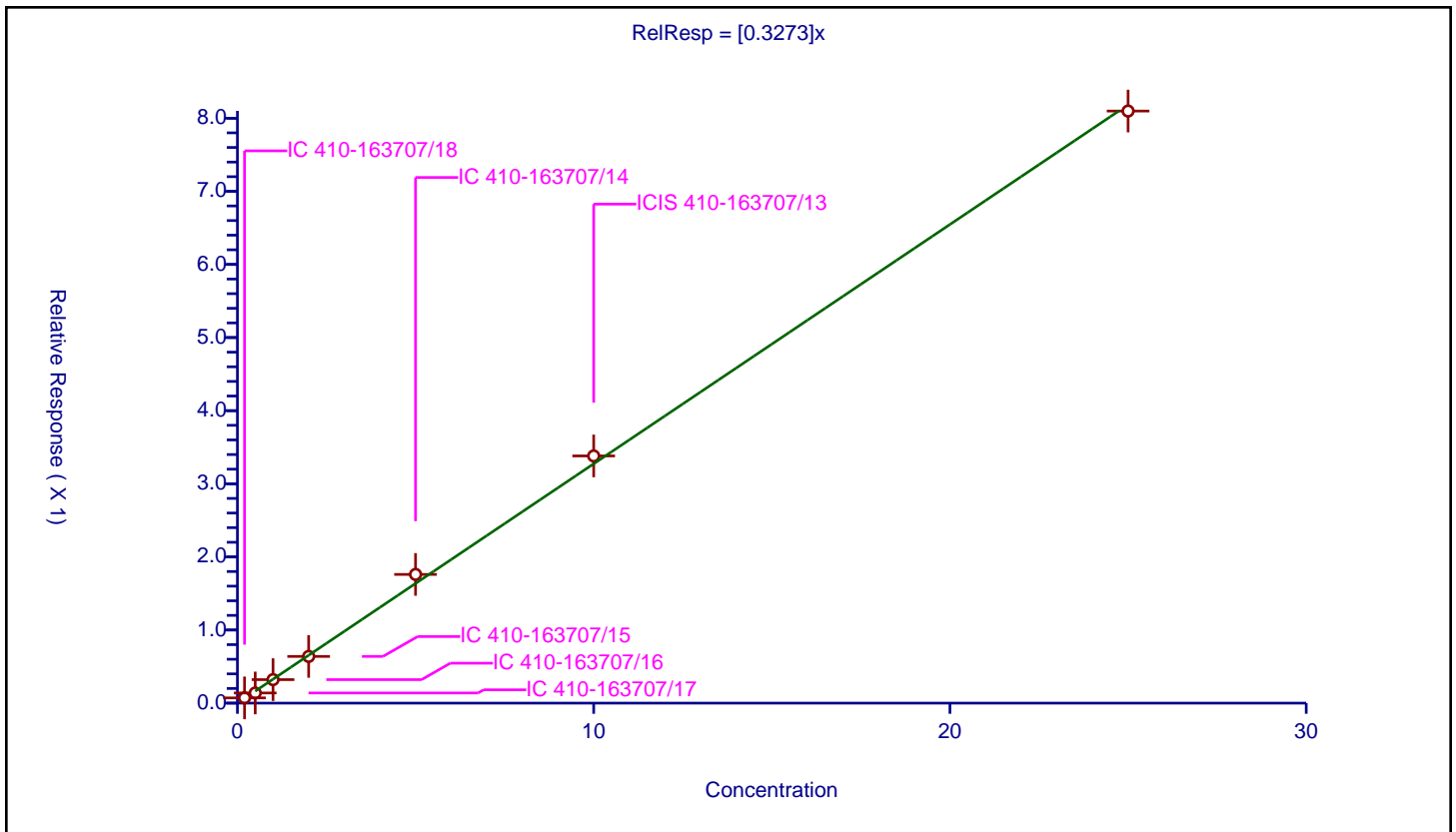
/ Butadiene

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

Curve Coefficients	
Intercept:	0
Slope:	0.3273

Error Coefficients	
Standard Error:	836000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.071652	10.0	2203428.0	0.35826	Y
2	IC 410-163707/17	0.5	0.139032	10.0	2386508.0	0.278063	Y
3	IC 410-163707/16	1.0	0.321552	10.0	2167768.0	0.321552	Y
4	IC 410-163707/15	2.0	0.638841	10.0	2141536.0	0.31942	Y
5	IC 410-163707/14	5.0	1.760421	10.0	2115642.0	0.352084	Y
6	ICIS 410-163707/13	10.0	3.380888	10.0	2122537.0	0.338089	Y
7	IC 410-163707/12	25.0	8.097925	10.0	2314551.0	0.323917	Y



Calibration

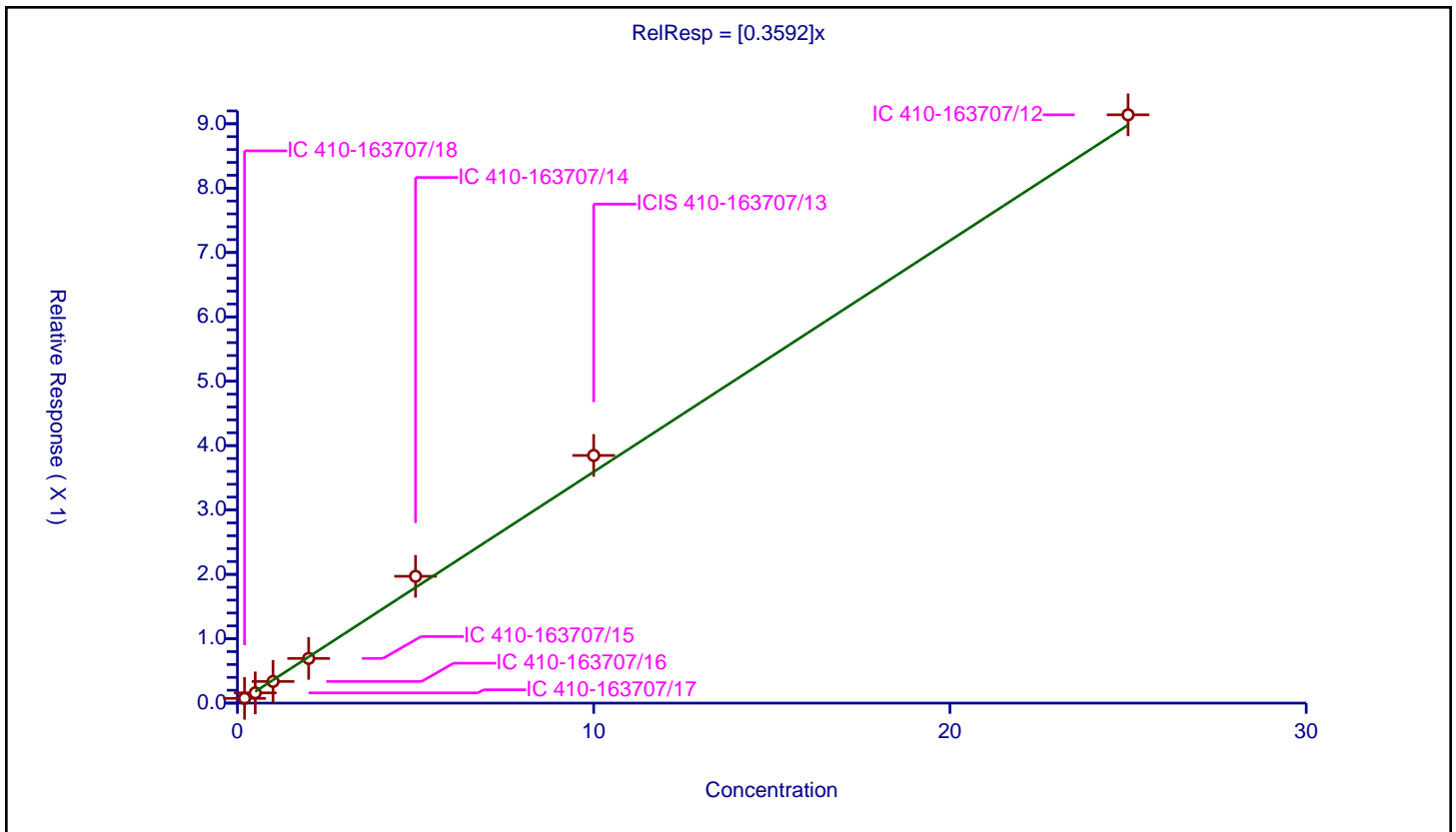
/ Vinyl chloride

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

Curve Coefficients	
Intercept:	0
Slope:	0.3592

Error Coefficients	
Standard Error:	944000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.07369	10.0	2203428.0	0.368449	Y
2	IC 410-163707/17	0.5	0.159149	10.0	2386508.0	0.318298	Y
3	IC 410-163707/16	1.0	0.336443	10.0	2167768.0	0.336443	Y
4	IC 410-163707/15	2.0	0.694315	10.0	2141536.0	0.347157	Y
5	IC 410-163707/14	5.0	1.97039	10.0	2115642.0	0.394078	Y
6	ICIS 410-163707/13	10.0	3.847466	10.0	2122537.0	0.384747	Y
7	IC 410-163707/12	25.0	9.13944	10.0	2314551.0	0.365578	Y



Calibration

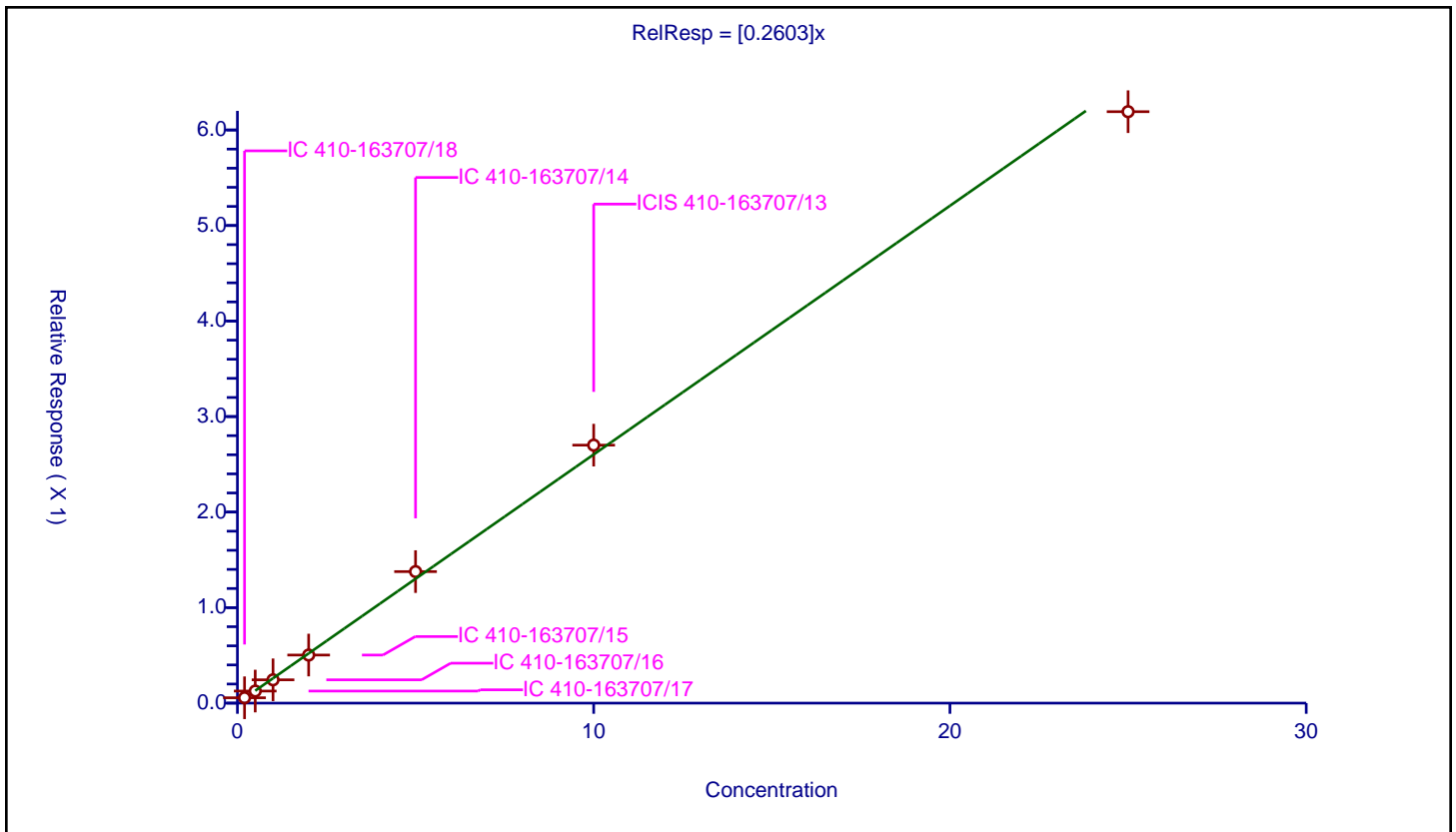
/ Bromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2603

Error Coefficients	
Standard Error:	643000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.056135	10.0	2203428.0	0.280676	Y
2	IC 410-163707/17	0.5	0.12639	10.0	2386508.0	0.252779	Y
3	IC 410-163707/16	1.0	0.244048	10.0	2167768.0	0.244048	Y
4	IC 410-163707/15	2.0	0.503358	10.0	2141536.0	0.251679	Y
5	IC 410-163707/14	5.0	1.376835	10.0	2115642.0	0.275367	Y
6	ICIS 410-163707/13	10.0	2.700806	10.0	2122537.0	0.270081	Y
7	IC 410-163707/12	25.0	6.191711	10.0	2314551.0	0.247668	Y



Calibration

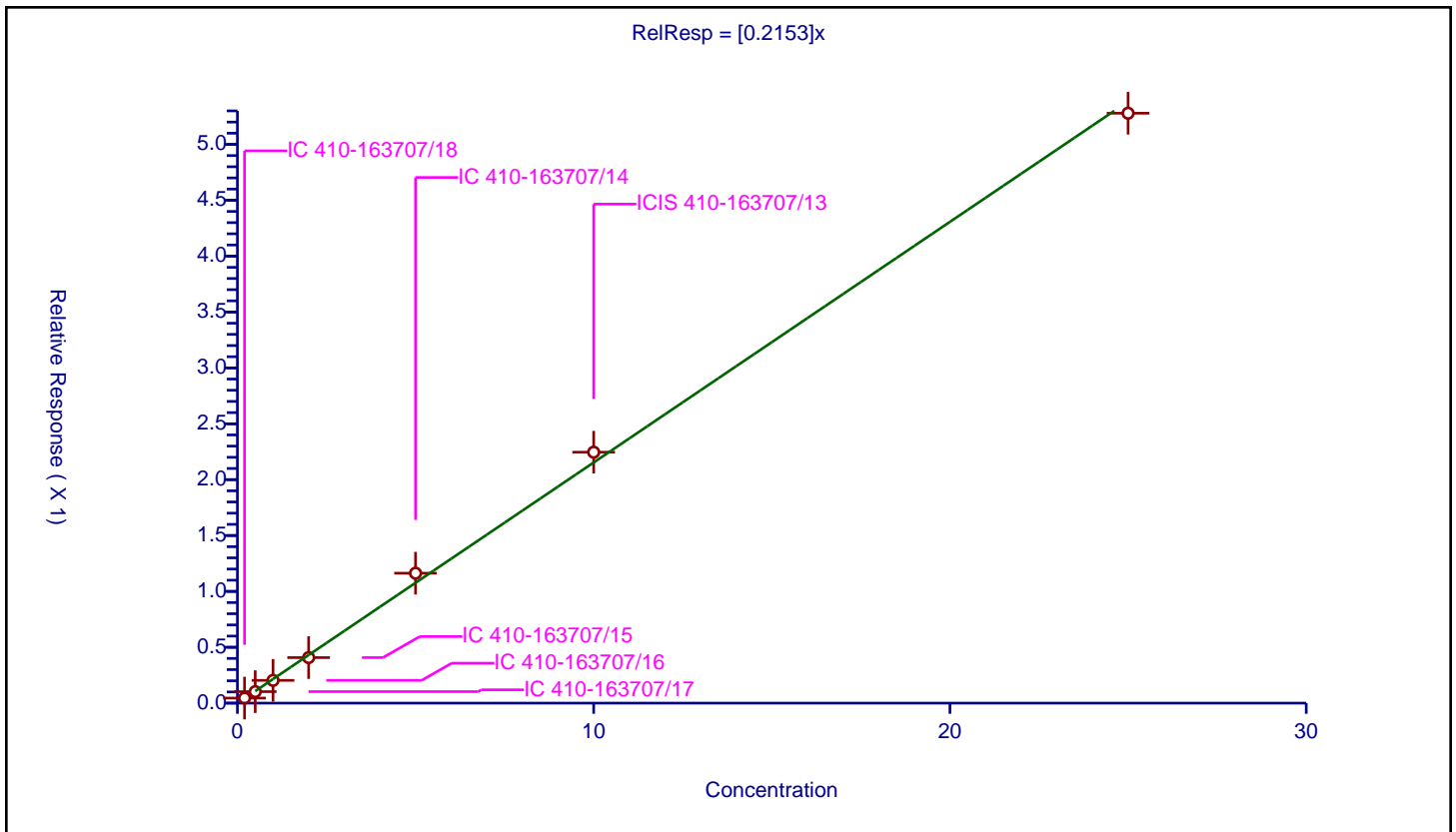
/ Chloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2153

Error Coefficients	
Standard Error:	546000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.045239	10.0	2203428.0	0.226193	Y
2	IC 410-163707/17	0.5	0.102824	10.0	2386508.0	0.205648	Y
3	IC 410-163707/16	1.0	0.20361	10.0	2167768.0	0.20361	Y
4	IC 410-163707/15	2.0	0.407446	10.0	2141536.0	0.203723	Y
5	IC 410-163707/14	5.0	1.162735	10.0	2115642.0	0.232547	Y
6	ICIS 410-163707/13	10.0	2.245605	10.0	2122537.0	0.224561	Y
7	IC 410-163707/12	25.0	5.27895	10.0	2314551.0	0.211158	Y



Calibration

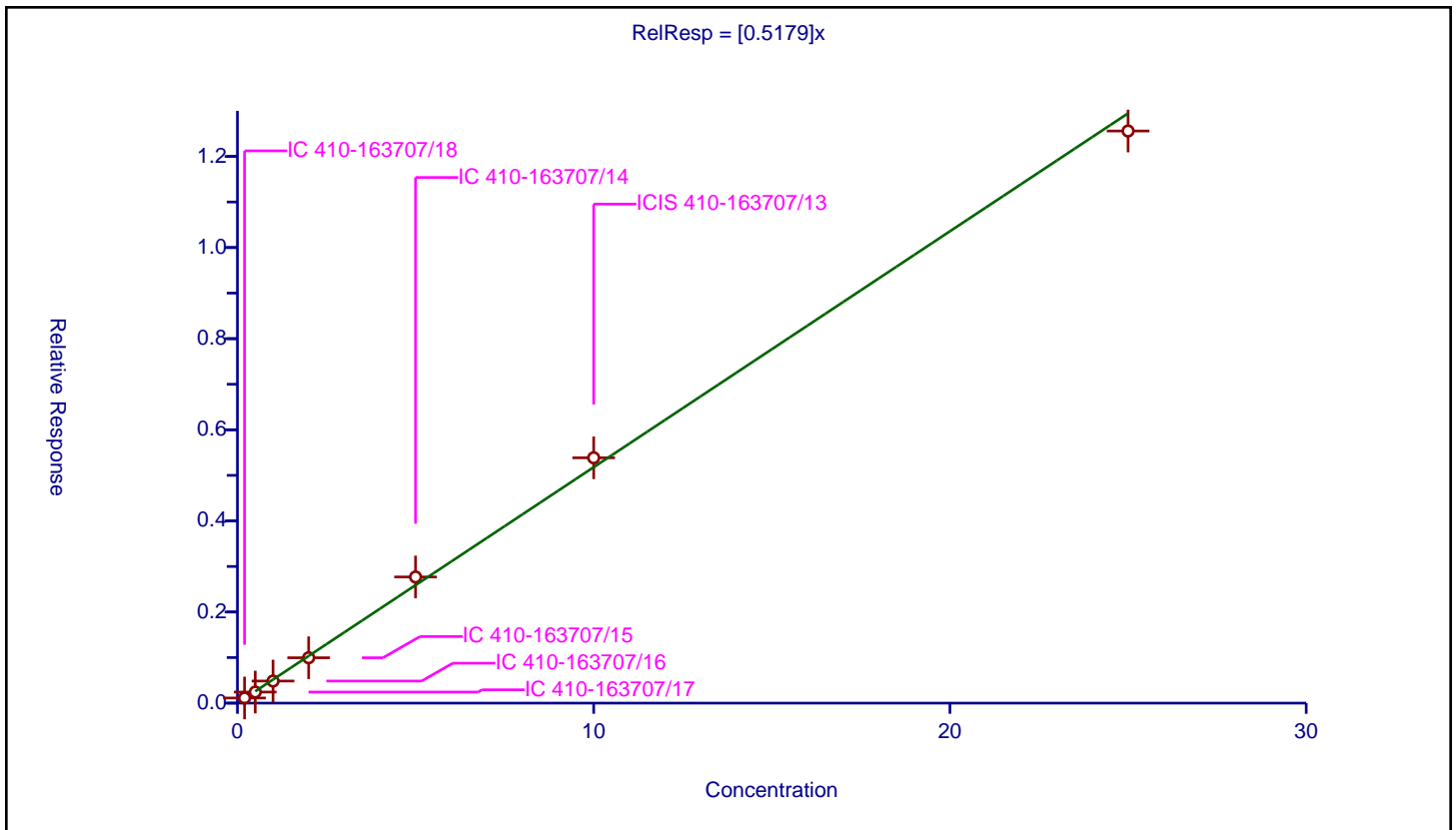
/ Dichlorofluoromethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.5179

Error Coefficients	
Standard Error:	1300000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.112307	10.0	2203428.0	0.561534	Y
2	IC 410-163707/17	0.5	0.242953	10.0	2386508.0	0.485907	Y
3	IC 410-163707/16	1.0	0.484969	10.0	2167768.0	0.484969	Y
4	IC 410-163707/15	2.0	0.995879	10.0	2141536.0	0.497939	Y
5	IC 410-163707/14	5.0	2.769178	10.0	2115642.0	0.553836	Y
6	ICIS 410-163707/13	10.0	5.38532	10.0	2122537.0	0.538532	Y
7	IC 410-163707/12	25.0	12.558336	10.0	2314551.0	0.502333	Y



Calibration

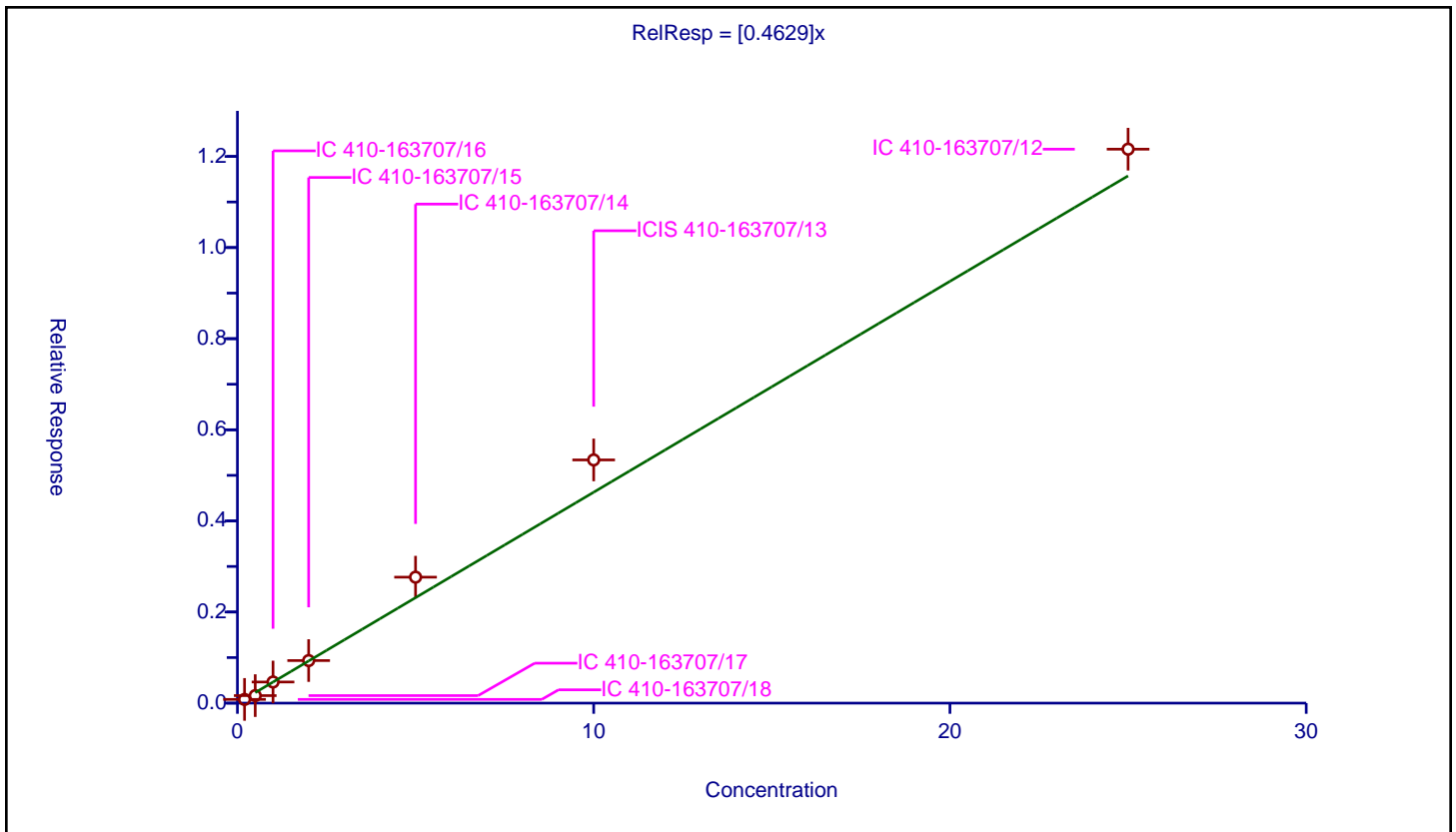
/ Trichlorofluoromethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4629

Error Coefficients	
Standard Error:	1260000
Relative Standard Error:	16.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.969

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.081328	10.0	2203428.0	0.406639	Y
2	IC 410-163707/17	0.5	0.164864	10.0	2386508.0	0.329729	Y
3	IC 410-163707/16	1.0	0.463767	10.0	2167768.0	0.463767	Y
4	IC 410-163707/15	2.0	0.934227	10.0	2141536.0	0.467113	Y
5	IC 410-163707/14	5.0	2.765222	10.0	2115642.0	0.553044	Y
6	ICIS 410-163707/13	10.0	5.338724	10.0	2122537.0	0.533872	Y
7	IC 410-163707/12	25.0	12.159451	10.0	2314551.0	0.486378	Y



Calibration

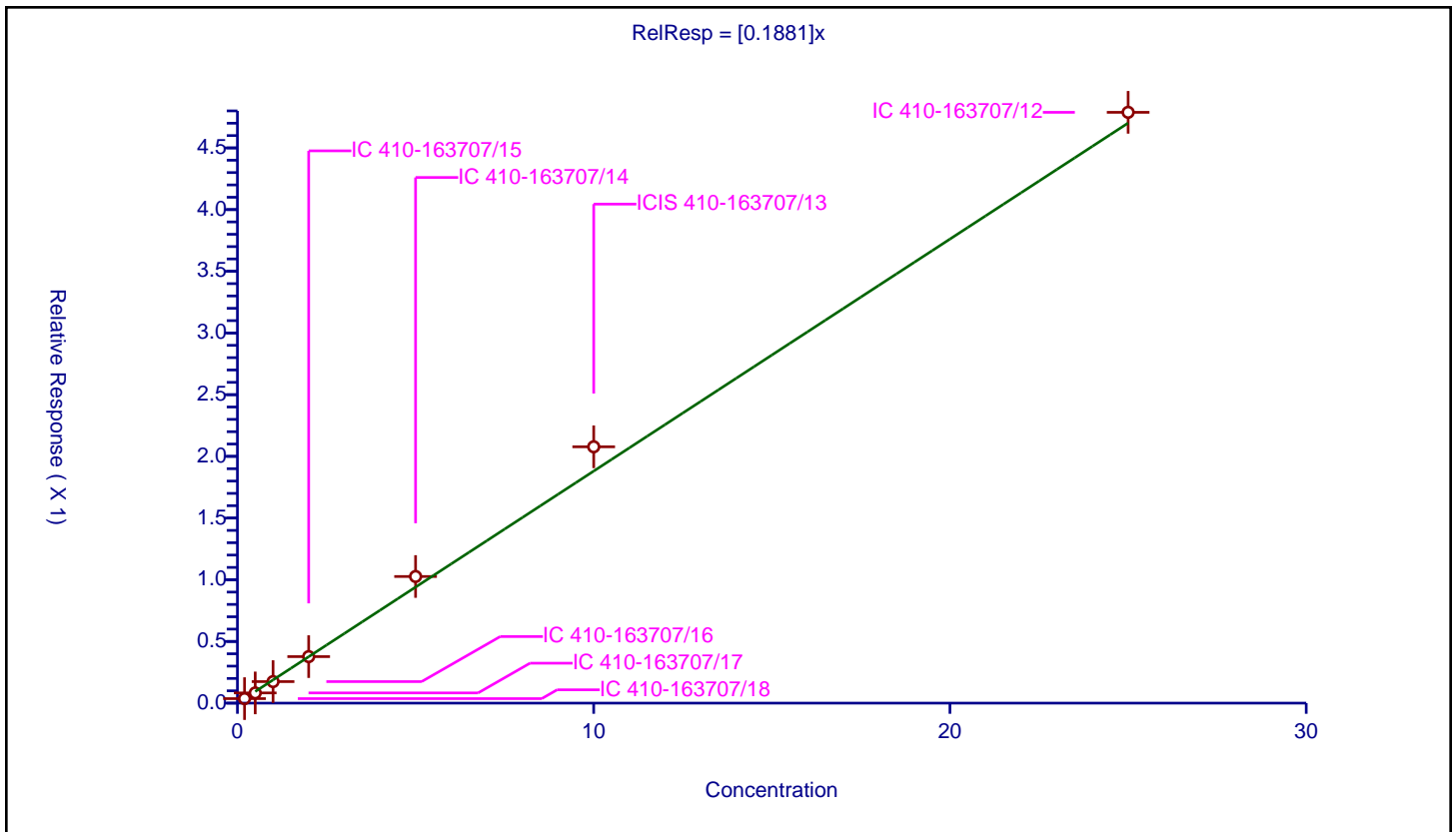
/ Ethyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.1881

Error Coefficients	
Standard Error:	496000
Relative Standard Error:	8.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.200014	0.036693	10.0	2203428.0	0.183451	Y
2	IC 410-163707/17	0.500035	0.082736	10.0	2386508.0	0.16546	Y
3	IC 410-163707/16	1.000069	0.174461	10.0	2167768.0	0.174448	Y
4	IC 410-163707/15	2.000138	0.376949	10.0	2141536.0	0.188461	Y
5	IC 410-163707/14	5.000346	1.026383	10.0	2115642.0	0.205262	Y
6	ICIS 410-163707/13	10.000692	2.07766	10.0	2122537.0	0.207752	Y
7	IC 410-163707/12	25.00173	4.788363	10.0	2314551.0	0.191521	Y



Calibration

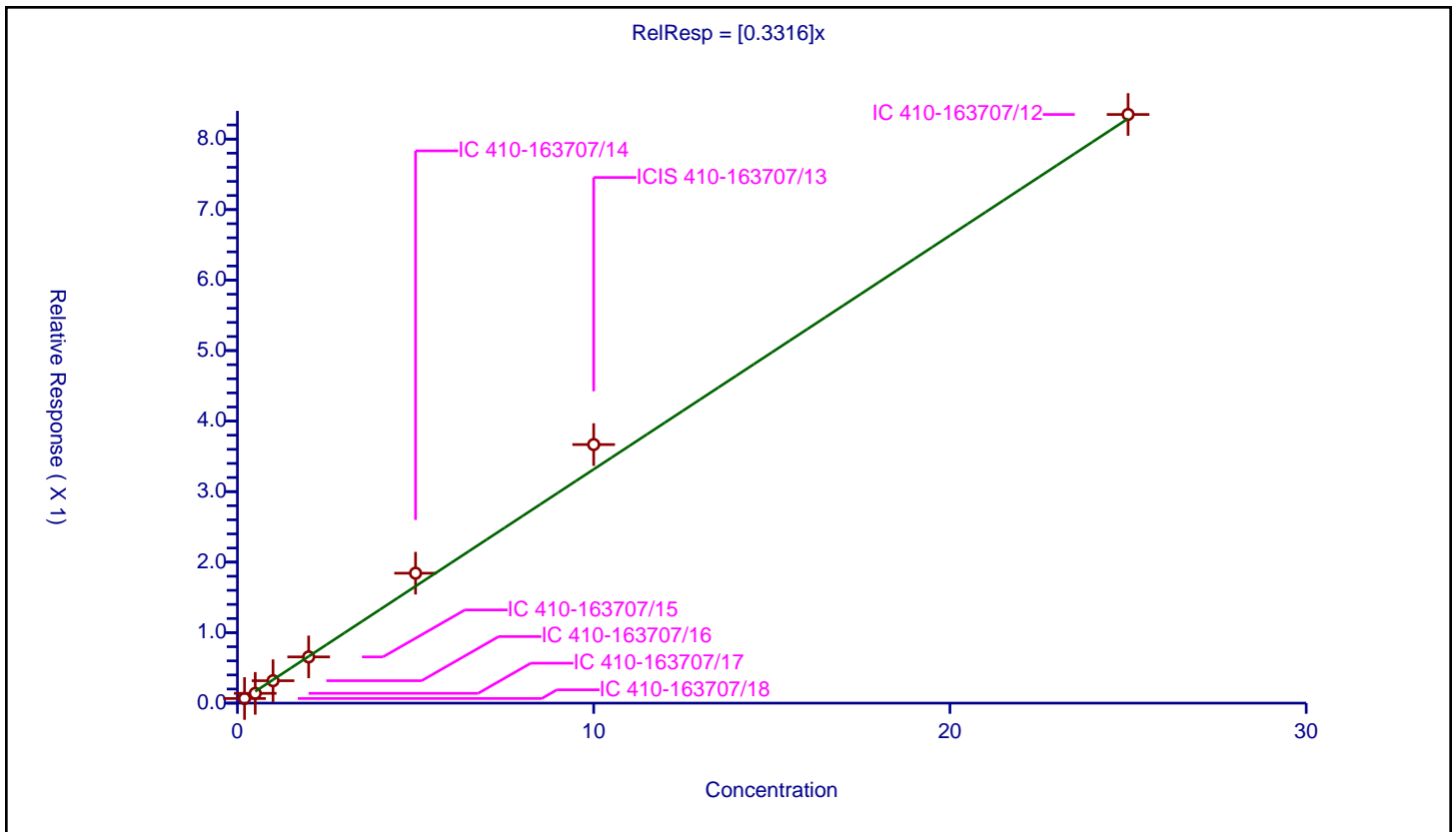
/ 1,2-Dichloro-1,1,2-trifluoroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3316

Error Coefficients	
Standard Error:	868000
Relative Standard Error:	9.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.06572	10.0	2203428.0	0.328602	Y
2	IC 410-163707/17	0.5	0.138893	10.0	2386508.0	0.277787	Y
3	IC 410-163707/16	1.0	0.317935	10.0	2167768.0	0.317935	Y
4	IC 410-163707/15	2.0	0.655511	10.0	2141536.0	0.327755	Y
5	IC 410-163707/14	5.0	1.842774	10.0	2115642.0	0.368555	Y
6	ICIS 410-163707/13	10.0	3.667602	10.0	2122537.0	0.36676	Y
7	IC 410-163707/12	25.0	8.349066	10.0	2314551.0	0.333963	Y



Calibration

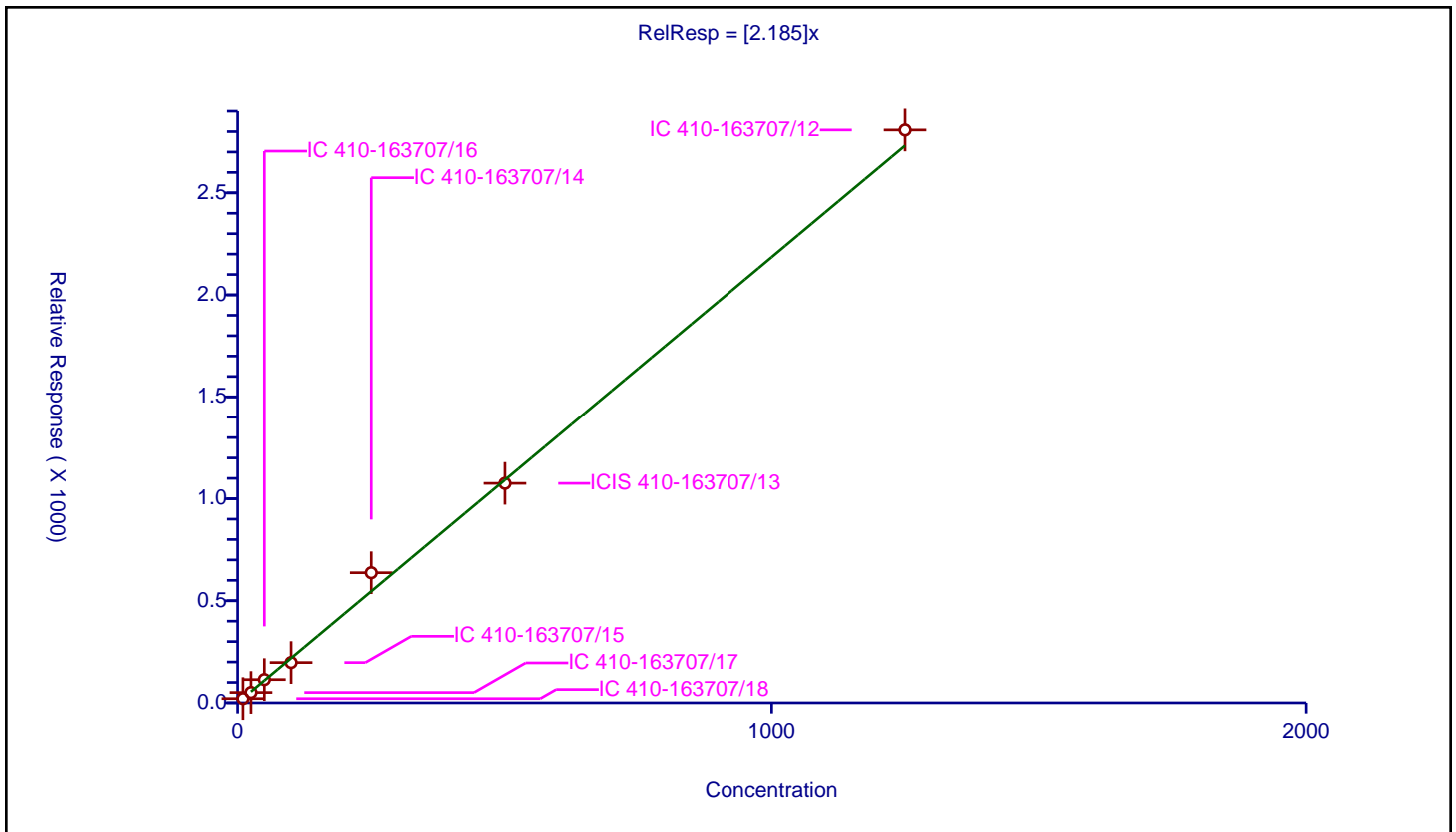
/ Acrolein

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

Curve Coefficients	
Intercept:	0
Slope:	2.185

Error Coefficients	
Standard Error:	3880000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	9.999702	20.75346	50.0	162132.0	2.075408	Y
2	IC 410-163707/17	24.999254	50.681521	50.0	162651.0	2.027321	Y
3	IC 410-163707/16	49.998508	113.72795	50.0	143084.0	2.274627	Y
4	IC 410-163707/15	99.997016	197.310363	50.0	162903.0	1.973163	Y
5	IC 410-163707/14	249.992539	637.227638	50.0	134380.0	2.548987	Y
6	ICIS 410-163707/13	499.985078	1075.461094	50.0	165205.0	2.150986	Y
7	IC 410-163707/12	1249.962694	2807.941435	50.0	153335.0	2.24642	Y



Calibration

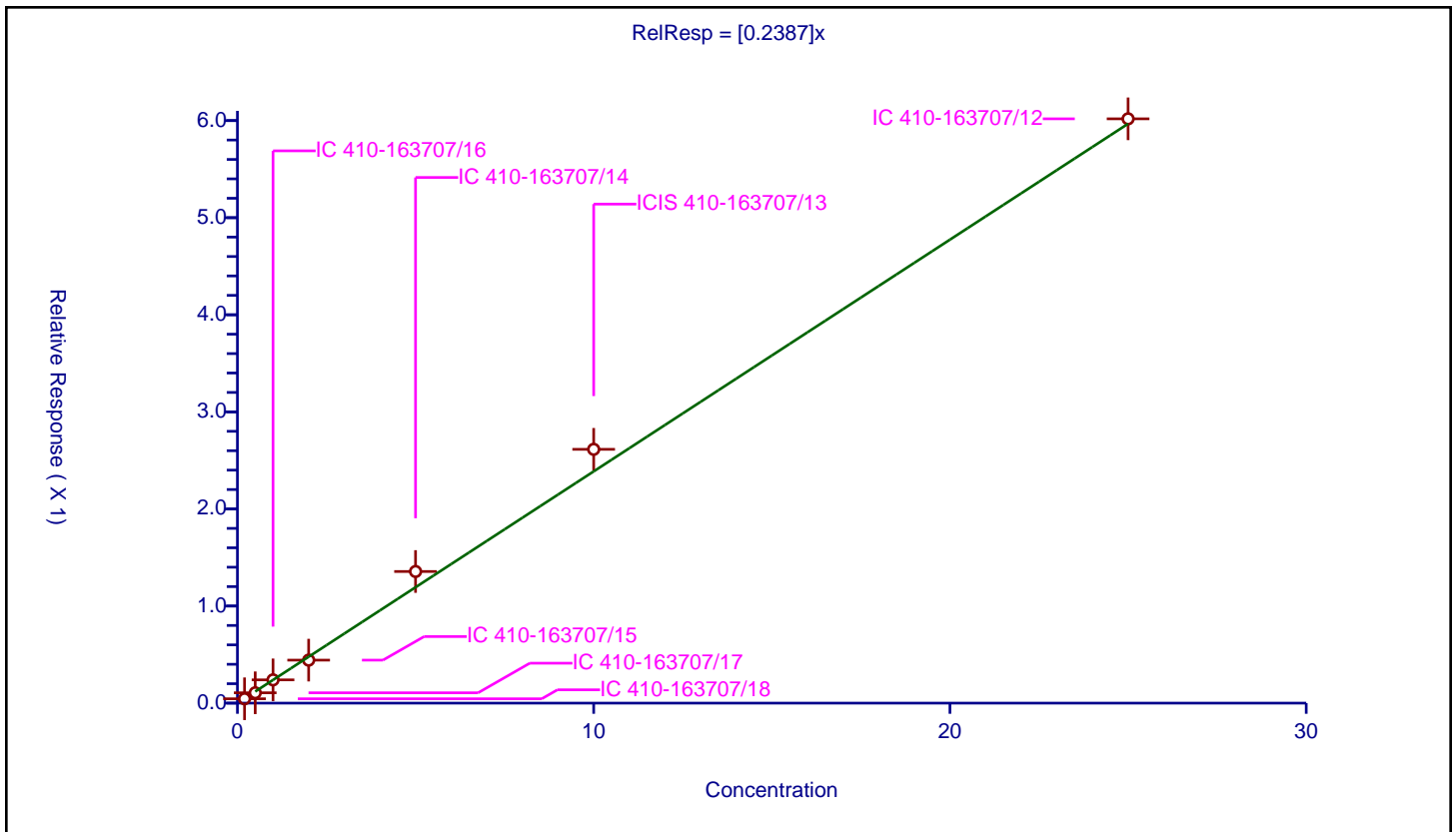
/ 1,1-Dichloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.2387

Error Coefficients	
Standard Error:	625000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.044717	10.0	2203428.0	0.223583	Y
2	IC 410-163707/17	0.5	0.106457	10.0	2386508.0	0.212914	Y
3	IC 410-163707/16	1.0	0.23962	10.0	2167768.0	0.23962	Y
4	IC 410-163707/15	2.0	0.442804	10.0	2141536.0	0.221402	Y
5	IC 410-163707/14	5.0	1.355716	10.0	2115642.0	0.271143	Y
6	ICIS 410-163707/13	10.0	2.61407	10.0	2122537.0	0.261407	Y
7	IC 410-163707/12	25.0	6.01826	10.0	2314551.0	0.24073	Y



Calibration

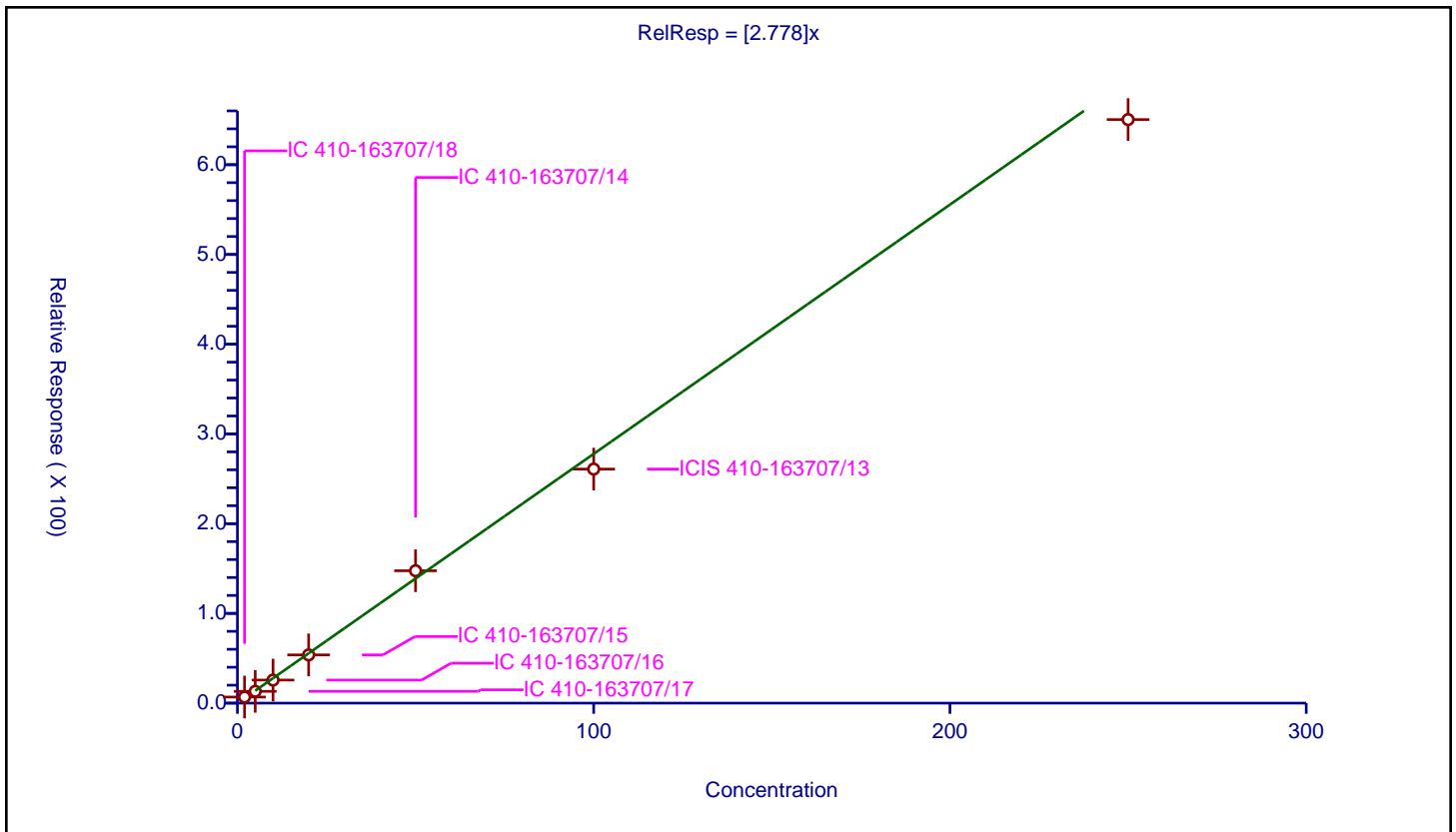
/ Acetone

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

Curve Coefficients	
Intercept:	0
Slope:	2.778

Error Coefficients	
Standard Error:	905000
Relative Standard Error:	10.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	6.78953	50.0	162132.0	3.394765	Y
2	IC 410-163707/17	5.0	13.139483	50.0	162651.0	2.627897	Y
3	IC 410-163707/16	10.0	25.719158	50.0	143084.0	2.571916	Y
4	IC 410-163707/15	20.0	53.770342	50.0	162903.0	2.688517	Y
5	IC 410-163707/14	50.0	147.536092	50.0	134380.0	2.950722	Y
6	ICIS 410-163707/13	100.0	260.812324	50.0	165205.0	2.608123	Y
7	IC 410-163707/12	250.0	650.322496	50.0	153335.0	2.60129	Y



Calibration

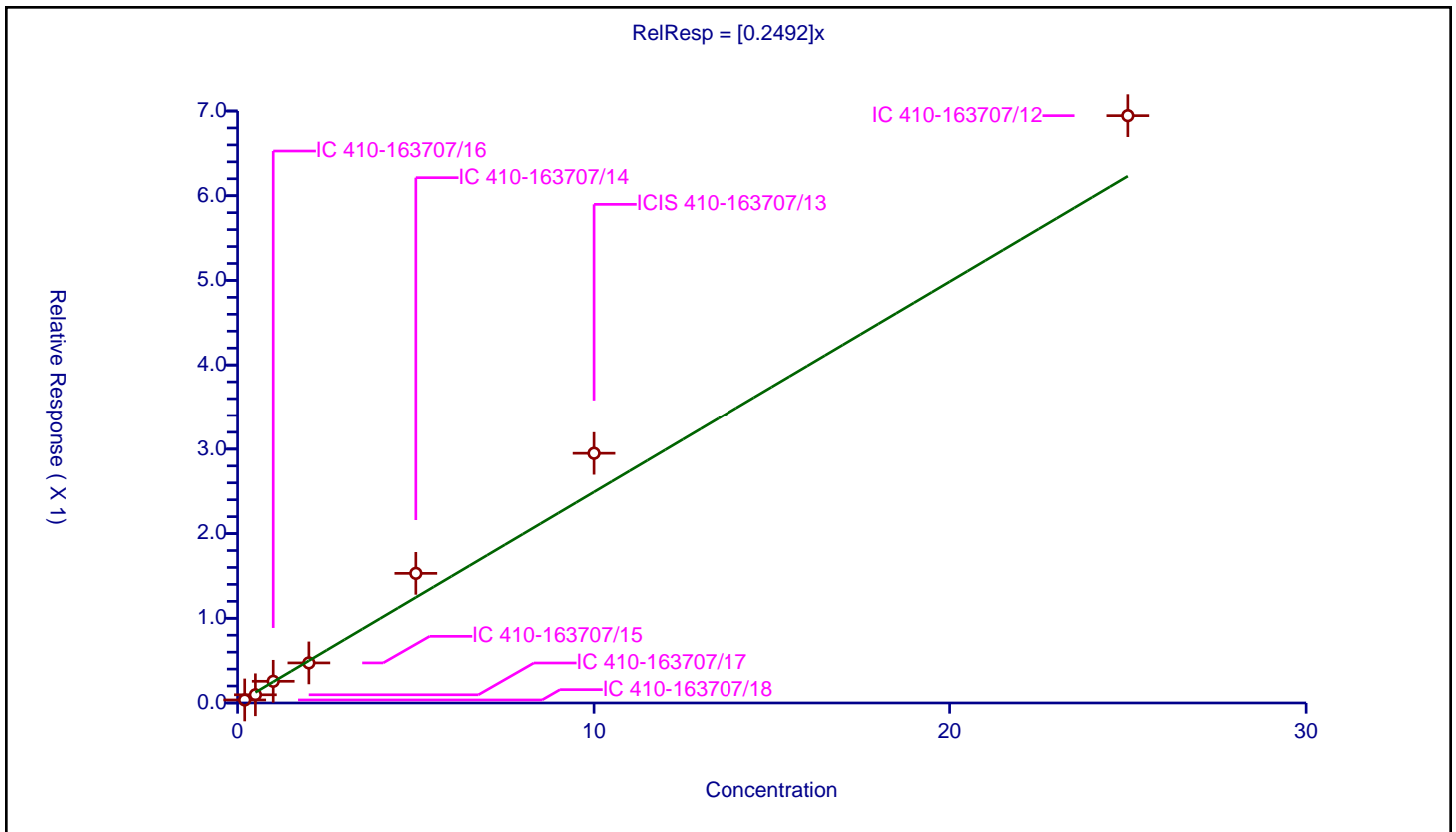
/ 1,1,2-Trichloro-1,2,2-trifluoroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2492

Error Coefficients	
Standard Error:	718000
Relative Standard Error:	19.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.959

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.035862	10.0	2203428.0	0.179312	Y
2	IC 410-163707/17	0.5	0.096941	10.0	2386508.0	0.193882	Y
3	IC 410-163707/16	1.0	0.256107	10.0	2167768.0	0.256107	Y
4	IC 410-163707/15	2.0	0.4731	10.0	2141536.0	0.23655	Y
5	IC 410-163707/14	5.0	1.530448	10.0	2115642.0	0.30609	Y
6	ICIS 410-163707/13	10.0	2.949079	10.0	2122537.0	0.294908	Y
7	IC 410-163707/12	25.0	6.94517	10.0	2314551.0	0.277807	Y



Calibration

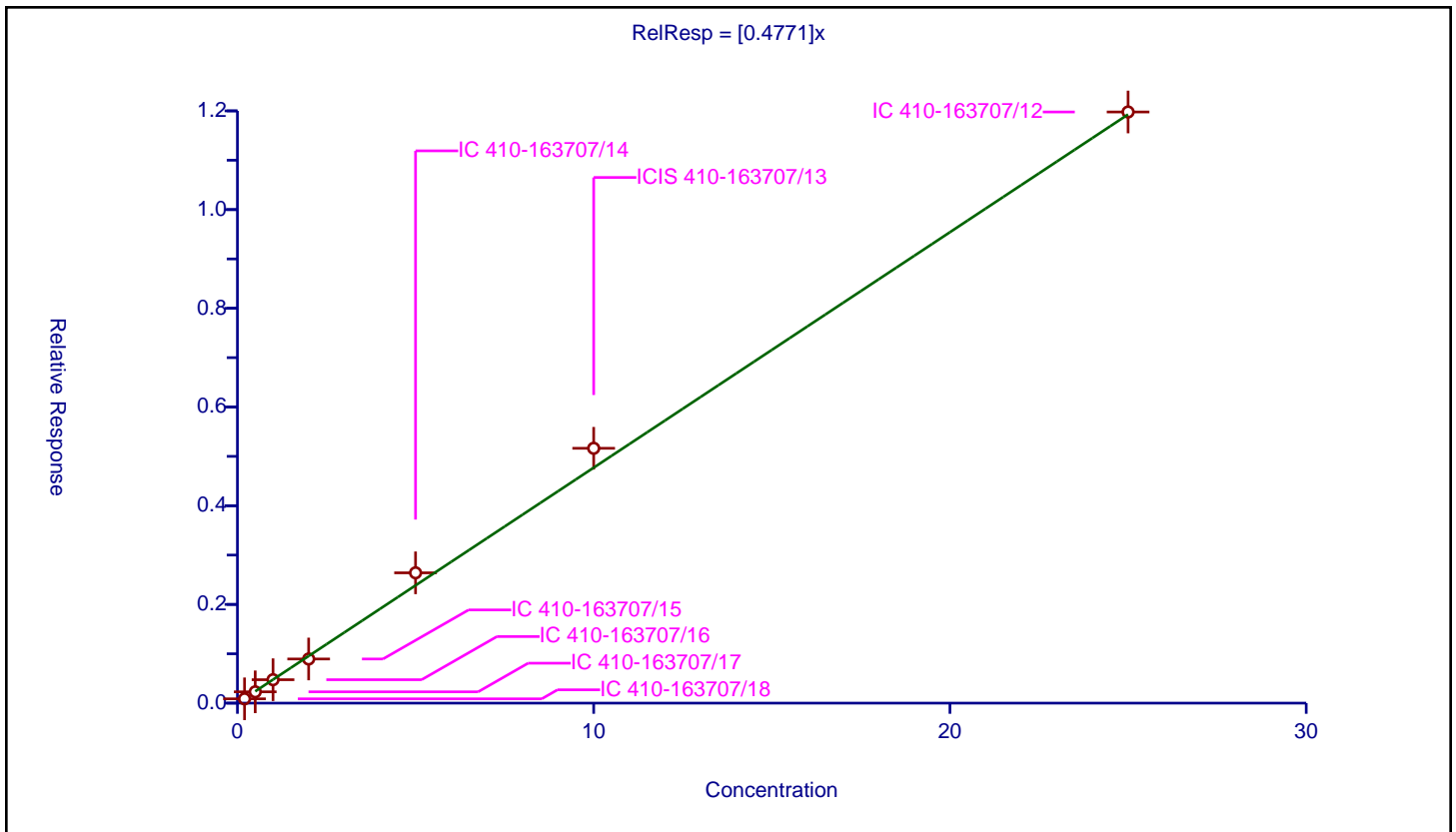
/ Iodomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4771

Error Coefficients	
Standard Error:	1240000
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.0873	10.0	2203428.0	0.436502	Y
2	IC 410-163707/17	0.5	0.22905	10.0	2386508.0	0.4581	Y
3	IC 410-163707/16	1.0	0.474419	10.0	2167768.0	0.474419	Y
4	IC 410-163707/15	2.0	0.894409	10.0	2141536.0	0.447205	Y
5	IC 410-163707/14	5.0	2.640281	10.0	2115642.0	0.528056	Y
6	ICIS 410-163707/13	10.0	5.163557	10.0	2122537.0	0.516356	Y
7	IC 410-163707/12	25.0	11.977787	10.0	2314551.0	0.479111	Y



Calibration

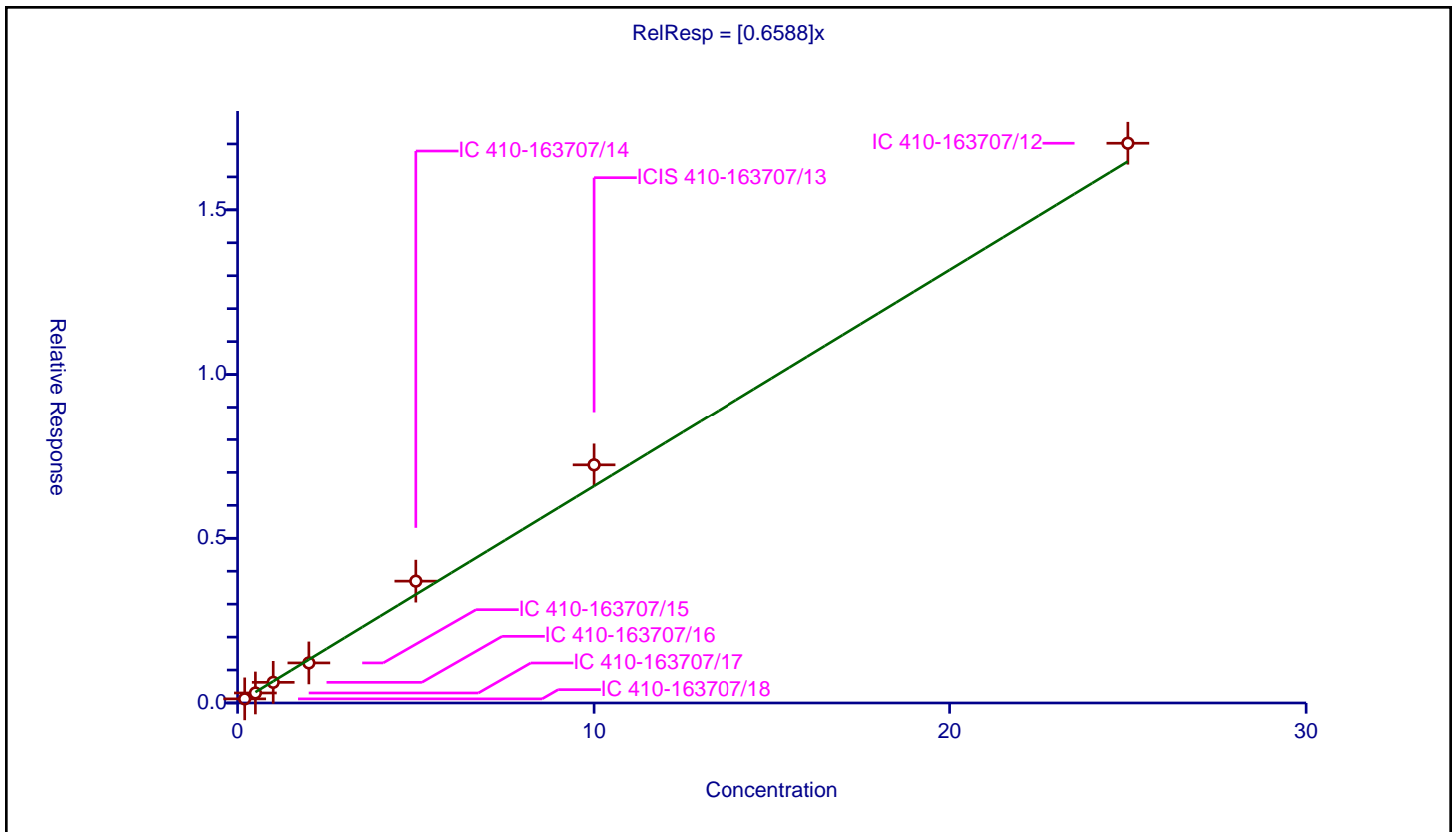
/ Carbon disulfide

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

Curve Coefficients	
Intercept:	0
Slope:	0.6588

Error Coefficients	
Standard Error:	1760000
Relative Standard Error:	8.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.12481	10.0	2203428.0	0.62405	Y
2	IC 410-163707/17	0.5	0.304269	10.0	2386508.0	0.608538	Y
3	IC 410-163707/16	1.0	0.627184	10.0	2167768.0	0.627184	Y
4	IC 410-163707/15	2.0	1.216225	10.0	2141536.0	0.608113	Y
5	IC 410-163707/14	5.0	3.698523	10.0	2115642.0	0.739705	Y
6	ICIS 410-163707/13	10.0	7.230027	10.0	2122537.0	0.723003	Y
7	IC 410-163707/12	25.0	17.021941	10.0	2314551.0	0.680878	Y



Calibration

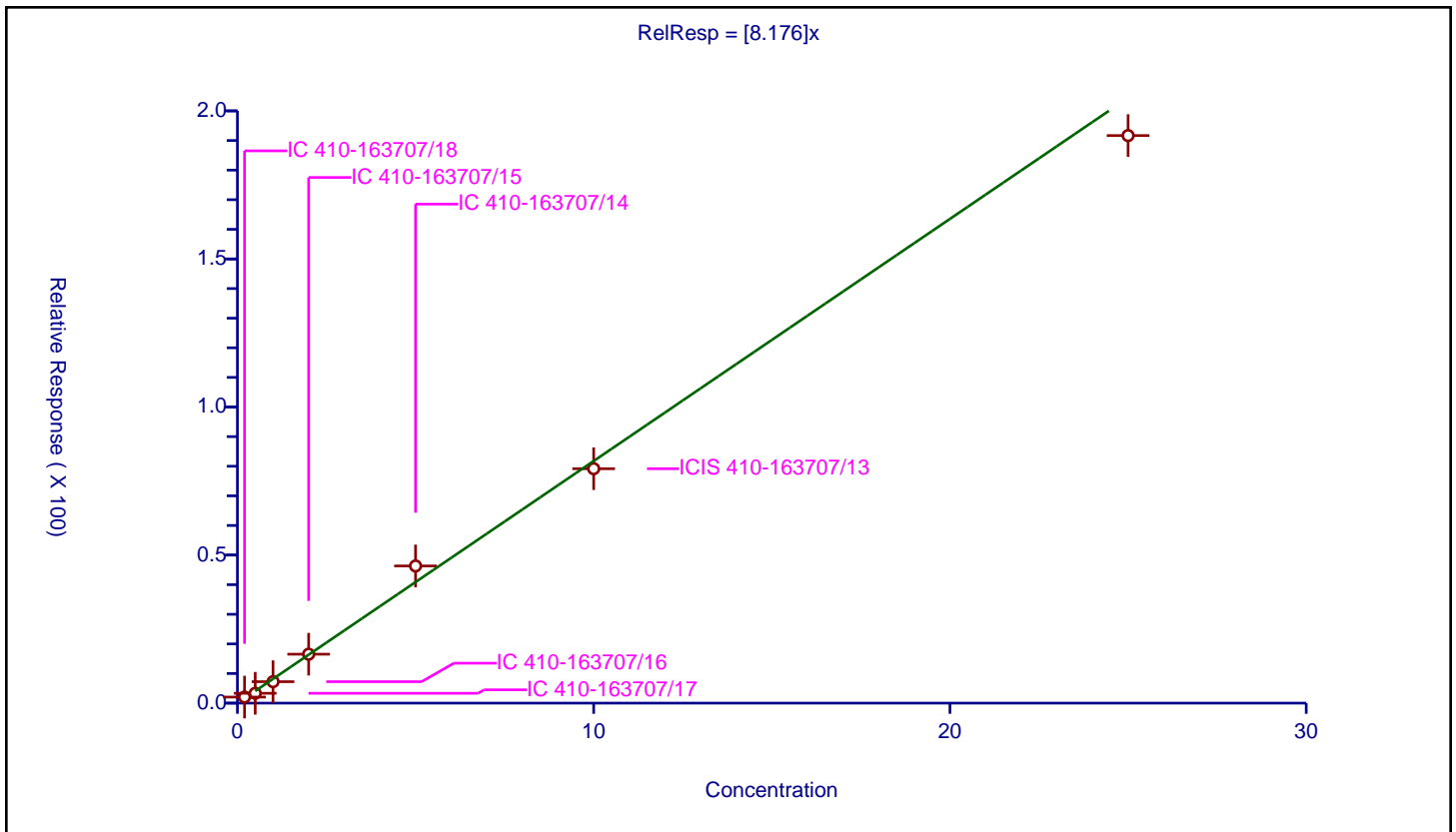
/ Methyl acetate

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

Curve Coefficients	
Intercept:	0
Slope:	8.176

Error Coefficients	
Standard Error:	269000
Relative Standard Error:	14.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.967

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	2.04463	50.0	162132.0	10.223152	Y
2	IC 410-163707/17	0.5	3.324296	50.0	162651.0	6.648591	Y
3	IC 410-163707/16	1.0	7.248539	50.0	143084.0	7.248539	Y
4	IC 410-163707/15	2.0	16.528855	50.0	162903.0	8.264427	Y
5	IC 410-163707/14	5.0	46.328323	50.0	134380.0	9.265665	Y
6	ICIS 410-163707/13	10.0	79.164372	50.0	165205.0	7.916437	Y
7	IC 410-163707/12	25.0	191.660743	50.0	153335.0	7.66643	Y



Calibration

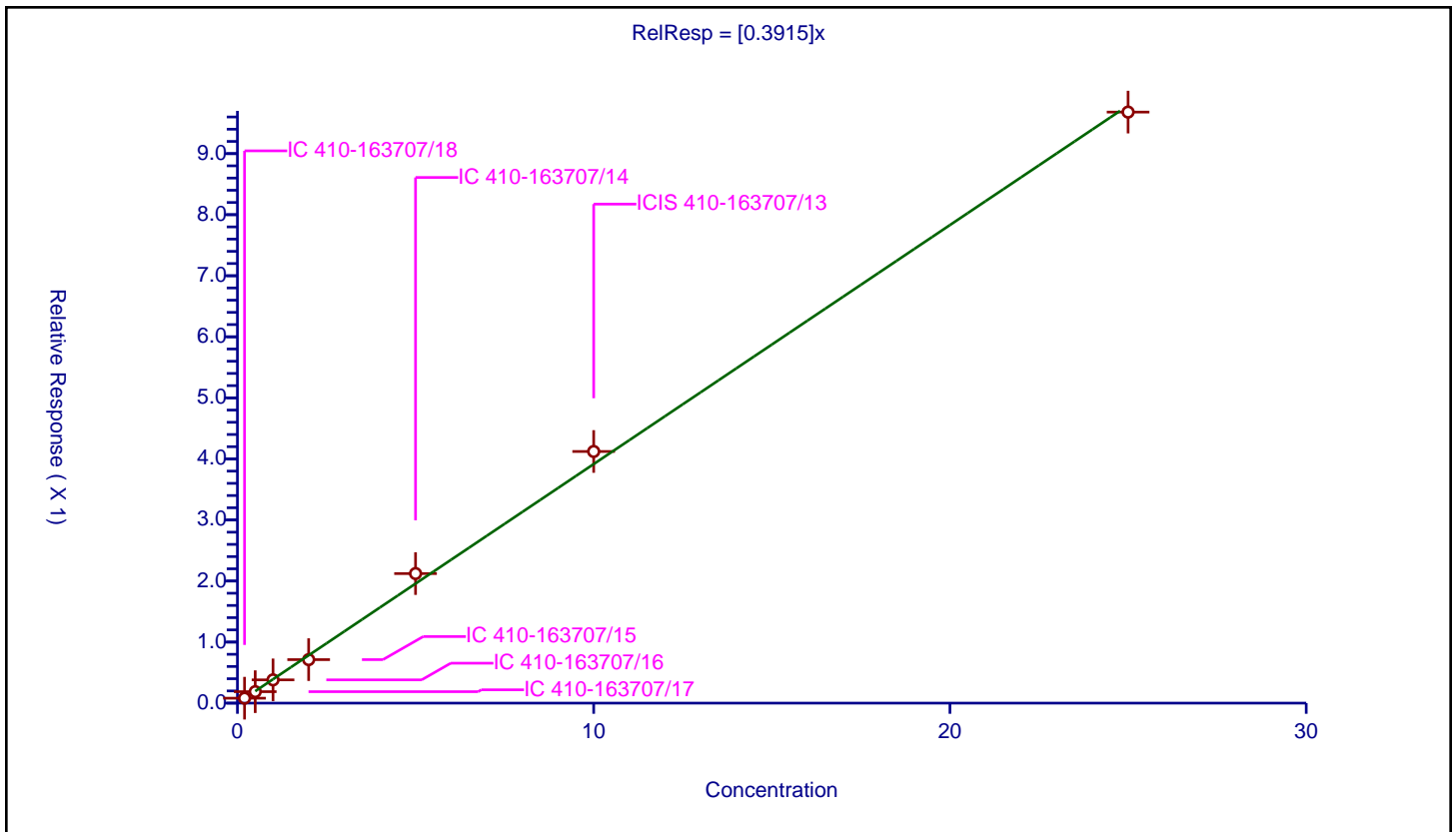
/ 3-Chloro-1-propene

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

Curve Coefficients	
Intercept:	0
Slope:	0.3915

Error Coefficients	
Standard Error:	1000000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.080779	10.0	2203428.0	0.403893	Y
2	IC 410-163707/17	0.5	0.187793	10.0	2386508.0	0.375586	Y
3	IC 410-163707/16	1.0	0.381097	10.0	2167768.0	0.381097	Y
4	IC 410-163707/15	2.0	0.712475	10.0	2141536.0	0.356237	Y
5	IC 410-163707/14	5.0	2.122169	10.0	2115642.0	0.424434	Y
6	ICIS 410-163707/13	10.0	4.121657	10.0	2122537.0	0.412166	Y
7	IC 410-163707/12	25.0	9.680422	10.0	2314551.0	0.387217	Y



Calibration

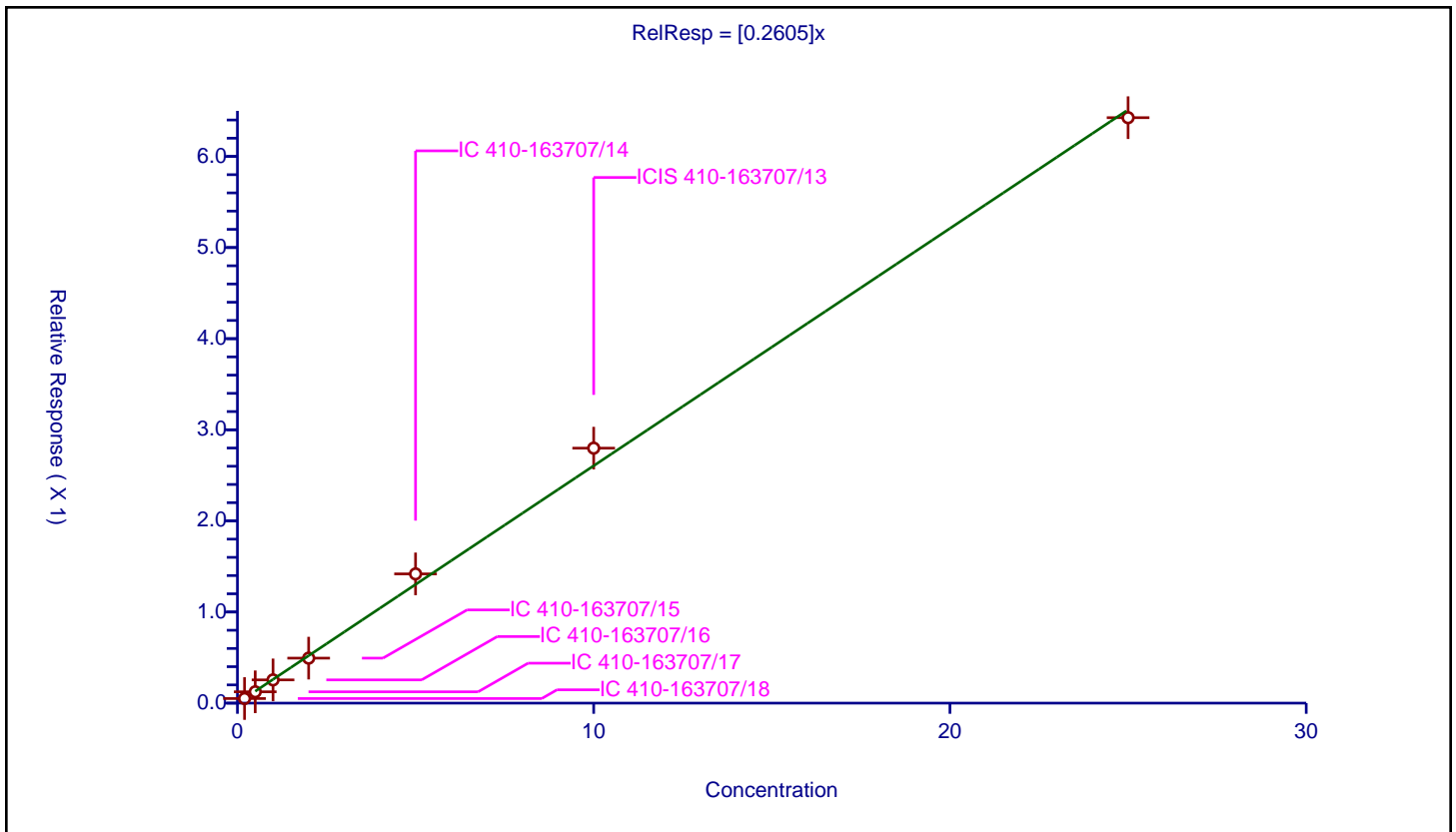
/ Methylene Chloride

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

Curve Coefficients	
Intercept:	0
Slope:	0.2605

Error Coefficients	
Standard Error:	667000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.05048	10.0	2203428.0	0.252402	Y
2	IC 410-163707/17	0.5	0.124353	10.0	2386508.0	0.248706	Y
3	IC 410-163707/16	1.0	0.254903	10.0	2167768.0	0.254903	Y
4	IC 410-163707/15	2.0	0.494001	10.0	2141536.0	0.247	Y
5	IC 410-163707/14	5.0	1.41835	10.0	2115642.0	0.28367	Y
6	ICIS 410-163707/13	10.0	2.798495	10.0	2122537.0	0.27985	Y
7	IC 410-163707/12	25.0	6.425333	10.0	2314551.0	0.257013	Y



Calibration

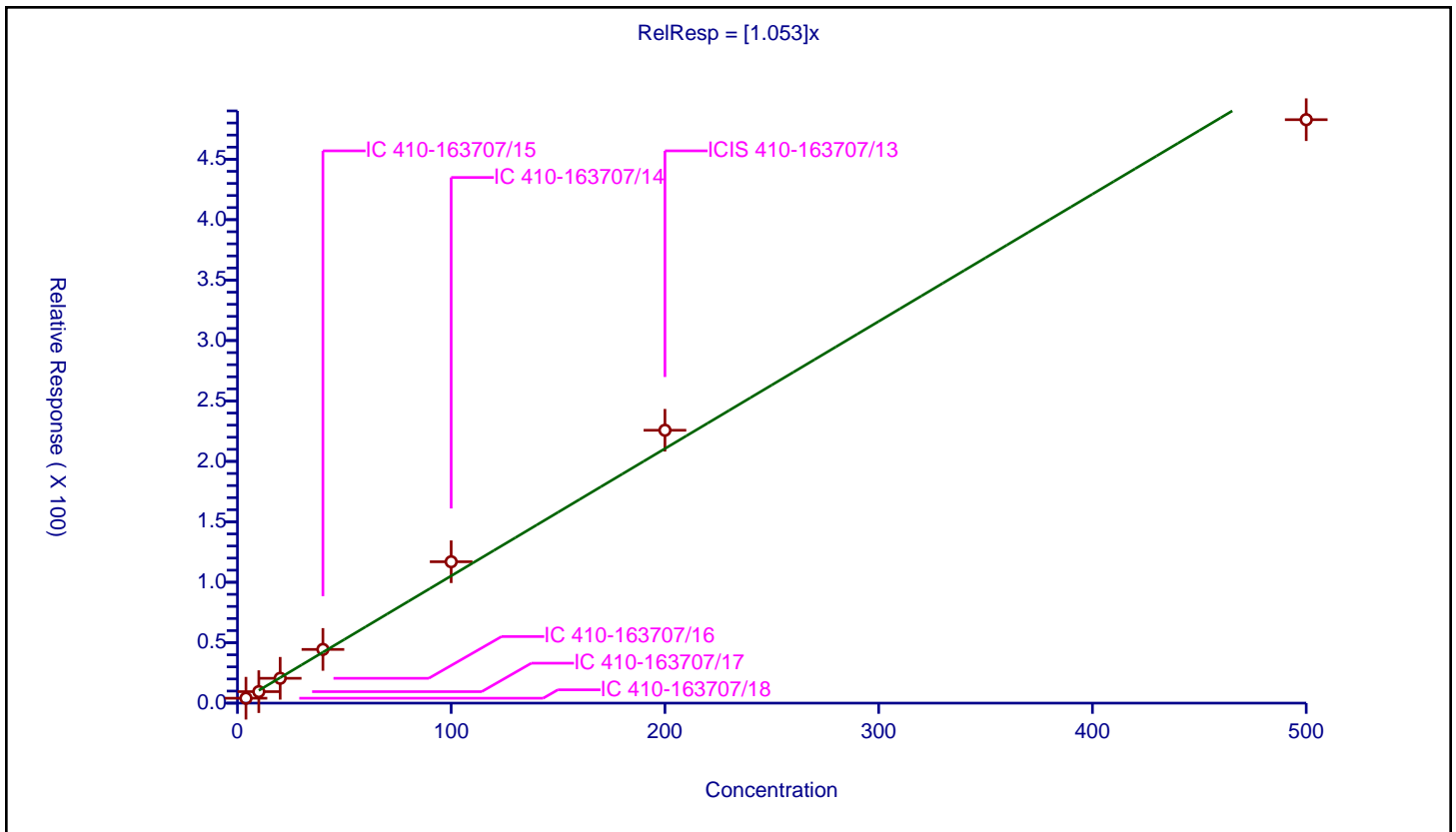
/ 2-Methyl-2-propanol

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

Curve Coefficients	
Intercept:	0
Slope:	1.053

Error Coefficients	
Standard Error:	692000
Relative Standard Error:	8.0
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	4.0	4.062431	50.0	162132.0	1.015608	Y
2	IC 410-163707/17	10.0	9.510855	50.0	162651.0	0.951085	Y
3	IC 410-163707/16	20.0	20.558204	50.0	143084.0	1.02791	Y
4	IC 410-163707/15	40.0	44.439636	50.0	162903.0	1.110991	Y
5	IC 410-163707/14	100.0	116.969787	50.0	134380.0	1.169698	Y
6	ICIS 410-163707/13	200.0	225.760722	50.0	165205.0	1.128804	Y
7	IC 410-163707/12	500.0	482.73747	50.0	153335.0	0.965475	Y



Calibration

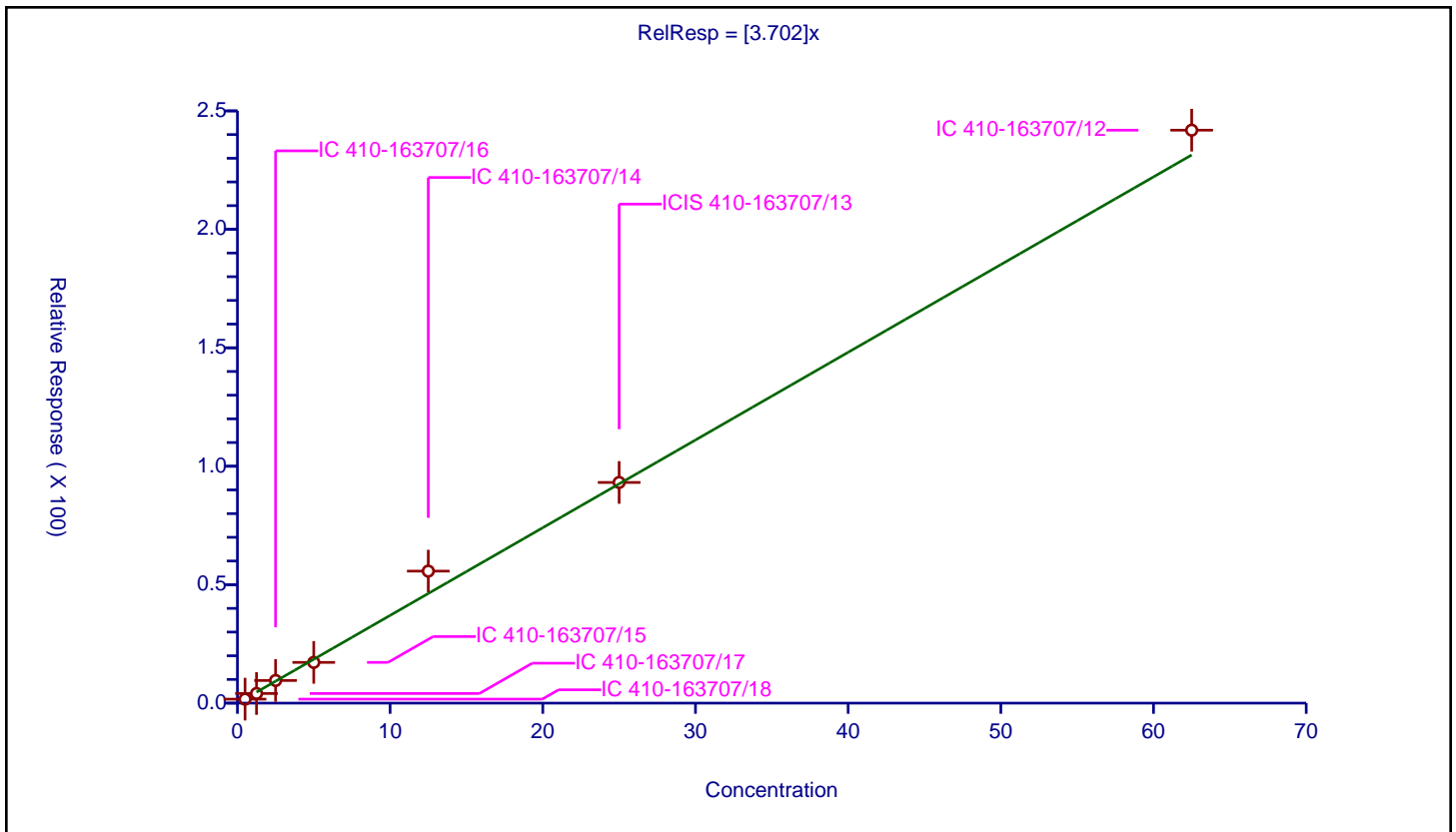
/ Acrylonitrile

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

Curve Coefficients	
Intercept:	0
Slope:	3.702

Error Coefficients	
Standard Error:	334000
Relative Standard Error:	11.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.5	1.677337	50.0	162132.0	3.354674	Y
2	IC 410-163707/17	1.25	4.060227	50.0	162651.0	3.248182	Y
3	IC 410-163707/16	2.5	9.552431	50.0	143084.0	3.820972	Y
4	IC 410-163707/15	5.0	17.19244	50.0	162903.0	3.438488	Y
5	IC 410-163707/14	12.5	55.725554	50.0	134380.0	4.458044	Y
6	ICIS 410-163707/13	25.0	93.15275	50.0	165205.0	3.72611	Y
7	IC 410-163707/12	62.5	241.858023	50.0	153335.0	3.869728	Y



Calibration

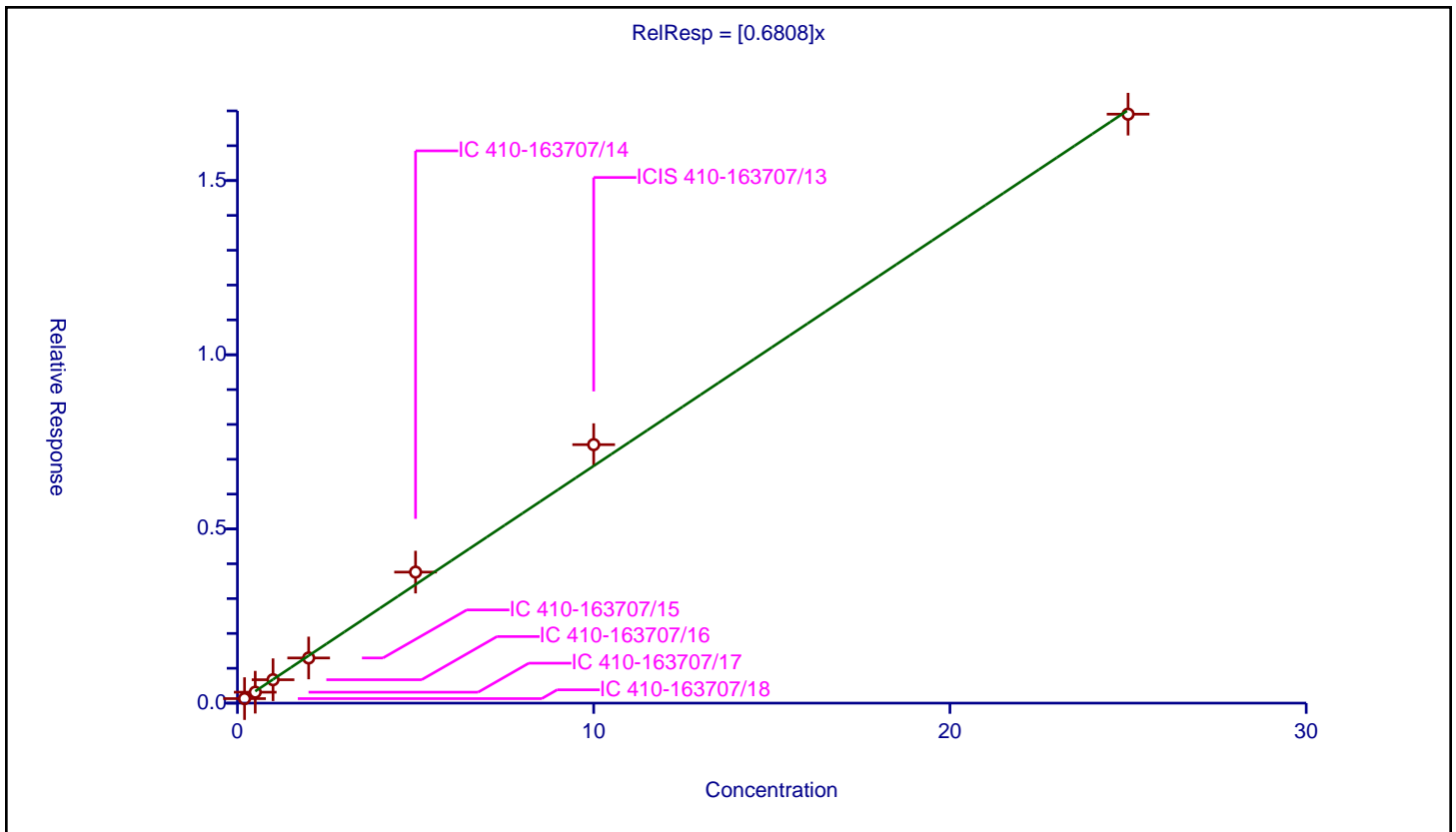
/ Methyl tert-butyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.6808

Error Coefficients	
Standard Error:	1760000
Relative Standard Error:	7.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.12958	10.0	2203428.0	0.6479	Y
2	IC 410-163707/17	0.5	0.313831	10.0	2386508.0	0.627662	Y
3	IC 410-163707/16	1.0	0.671663	10.0	2167768.0	0.671663	Y
4	IC 410-163707/15	2.0	1.296476	10.0	2141536.0	0.648238	Y
5	IC 410-163707/14	5.0	3.760731	10.0	2115642.0	0.752146	Y
6	ICIS 410-163707/13	10.0	7.419904	10.0	2122537.0	0.74199	Y
7	IC 410-163707/12	25.0	16.905776	10.0	2314551.0	0.676231	Y



Calibration

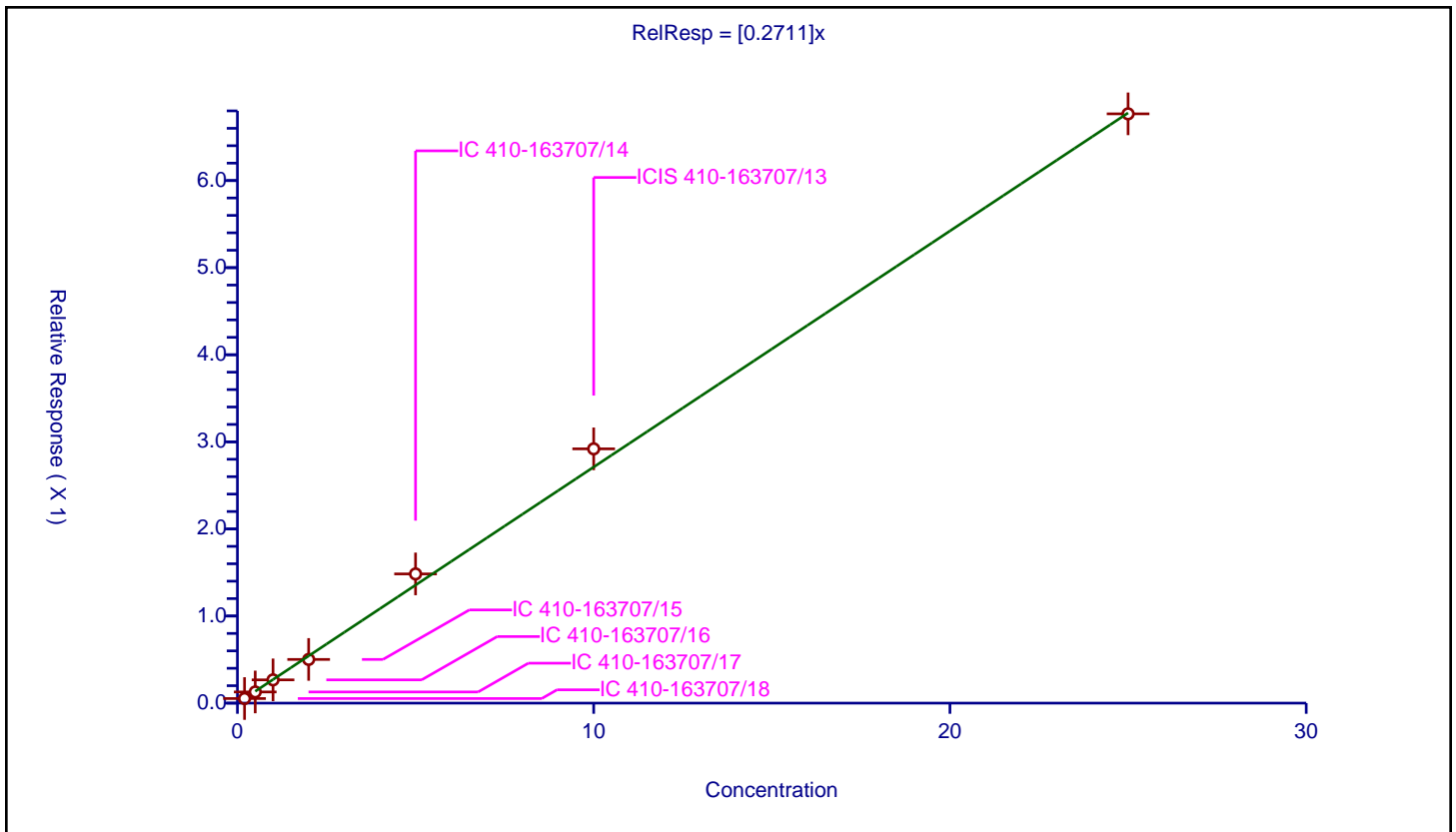
/ trans-1,2-Dichloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.2711

Error Coefficients	
Standard Error:	701000
Relative Standard Error:	6.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.052713	10.0	2203428.0	0.263567	Y
2	IC 410-163707/17	0.5	0.128393	10.0	2386508.0	0.256785	Y
3	IC 410-163707/16	1.0	0.26703	10.0	2167768.0	0.26703	Y
4	IC 410-163707/15	2.0	0.501523	10.0	2141536.0	0.250762	Y
5	IC 410-163707/14	5.0	1.483578	10.0	2115642.0	0.296716	Y
6	ICIS 410-163707/13	10.0	2.919586	10.0	2122537.0	0.291959	Y
7	IC 410-163707/12	25.0	6.766146	10.0	2314551.0	0.270646	Y



Calibration

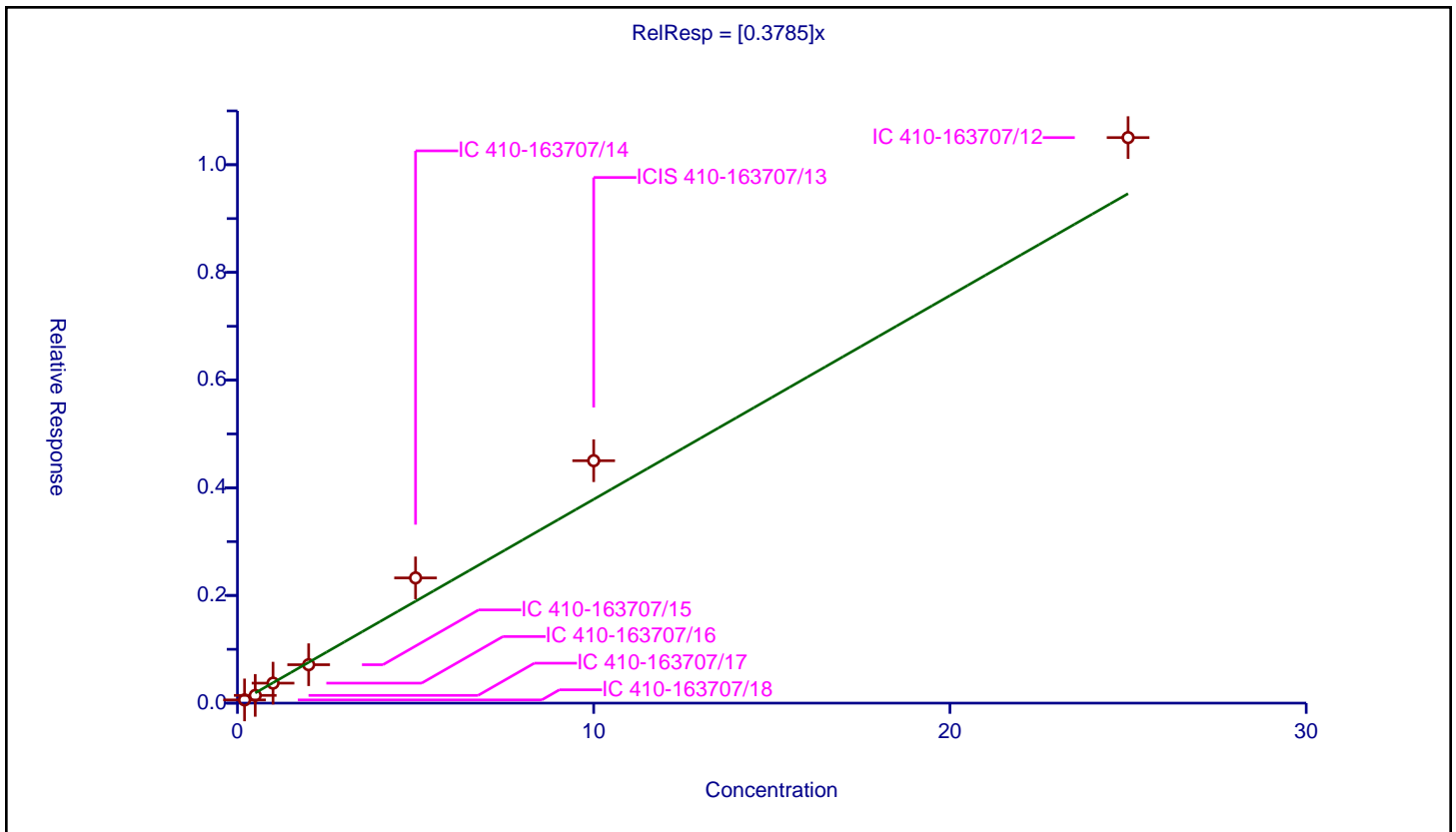
/ Hexane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3785

Error Coefficients	
Standard Error:	1090000
Relative Standard Error:	18.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.059716	10.0	2203428.0	0.29858	Y
2	IC 410-163707/17	0.5	0.143792	10.0	2386508.0	0.287583	Y
3	IC 410-163707/16	1.0	0.371188	10.0	2167768.0	0.371188	Y
4	IC 410-163707/15	2.0	0.713493	10.0	2141536.0	0.356746	Y
5	IC 410-163707/14	5.0	2.325809	10.0	2115642.0	0.465162	Y
6	ICIS 410-163707/13	10.0	4.502927	10.0	2122537.0	0.450293	Y
7	IC 410-163707/12	25.0	10.503925	10.0	2314551.0	0.420157	Y



Calibration

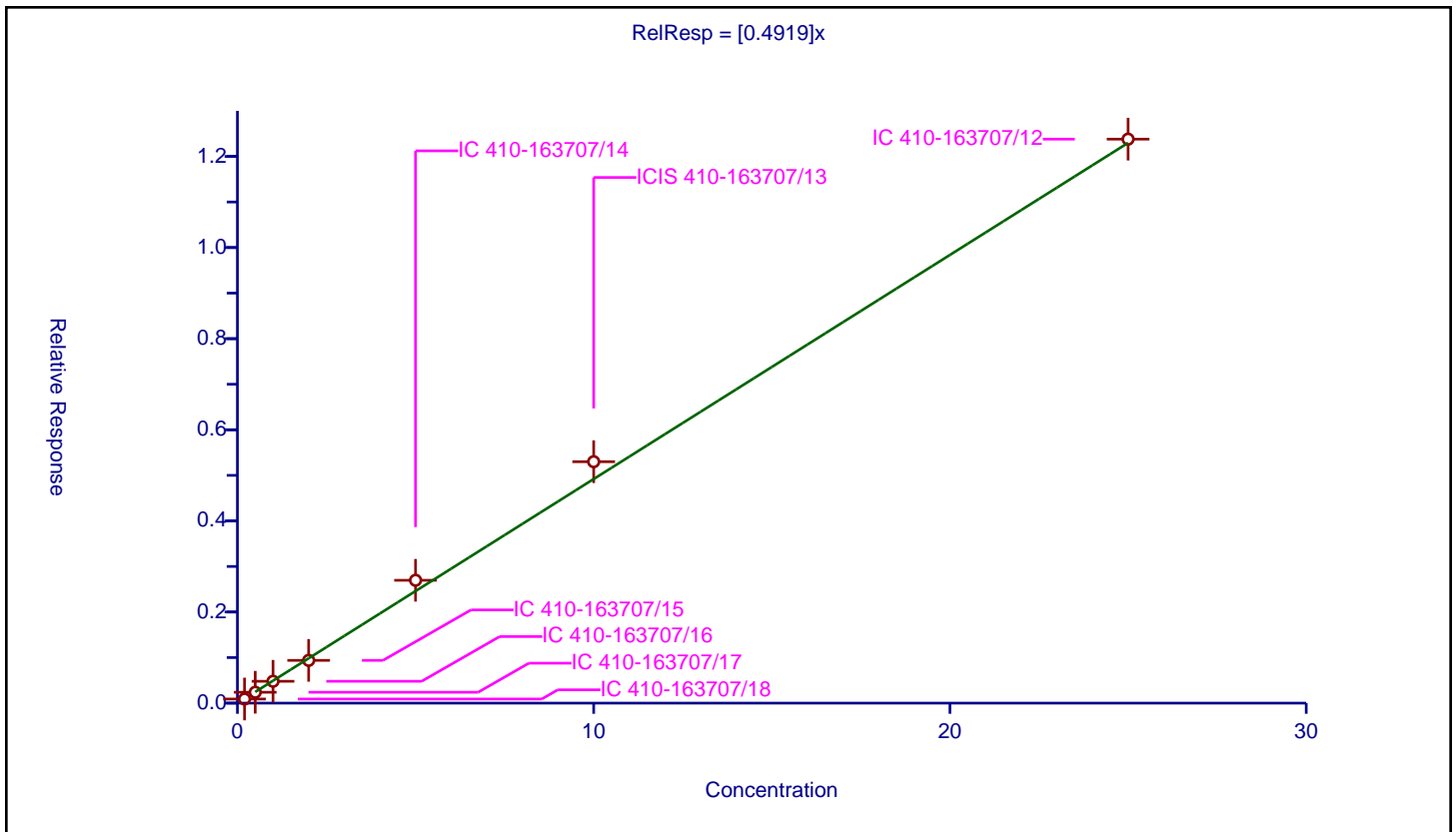
/ 1,1-Dichloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4919

Error Coefficients	
Standard Error:	1280000
Relative Standard Error:	6.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.090577	10.0	2203428.0	0.452885	Y
2	IC 410-163707/17	0.5	0.238554	10.0	2386508.0	0.477107	Y
3	IC 410-163707/16	1.0	0.479747	10.0	2167768.0	0.479747	Y
4	IC 410-163707/15	2.0	0.938443	10.0	2141536.0	0.469222	Y
5	IC 410-163707/14	5.0	2.69668	10.0	2115642.0	0.539336	Y
6	ICIS 410-163707/13	10.0	5.299479	10.0	2122537.0	0.529948	Y
7	IC 410-163707/12	25.0	12.379468	10.0	2314551.0	0.495179	Y



Calibration

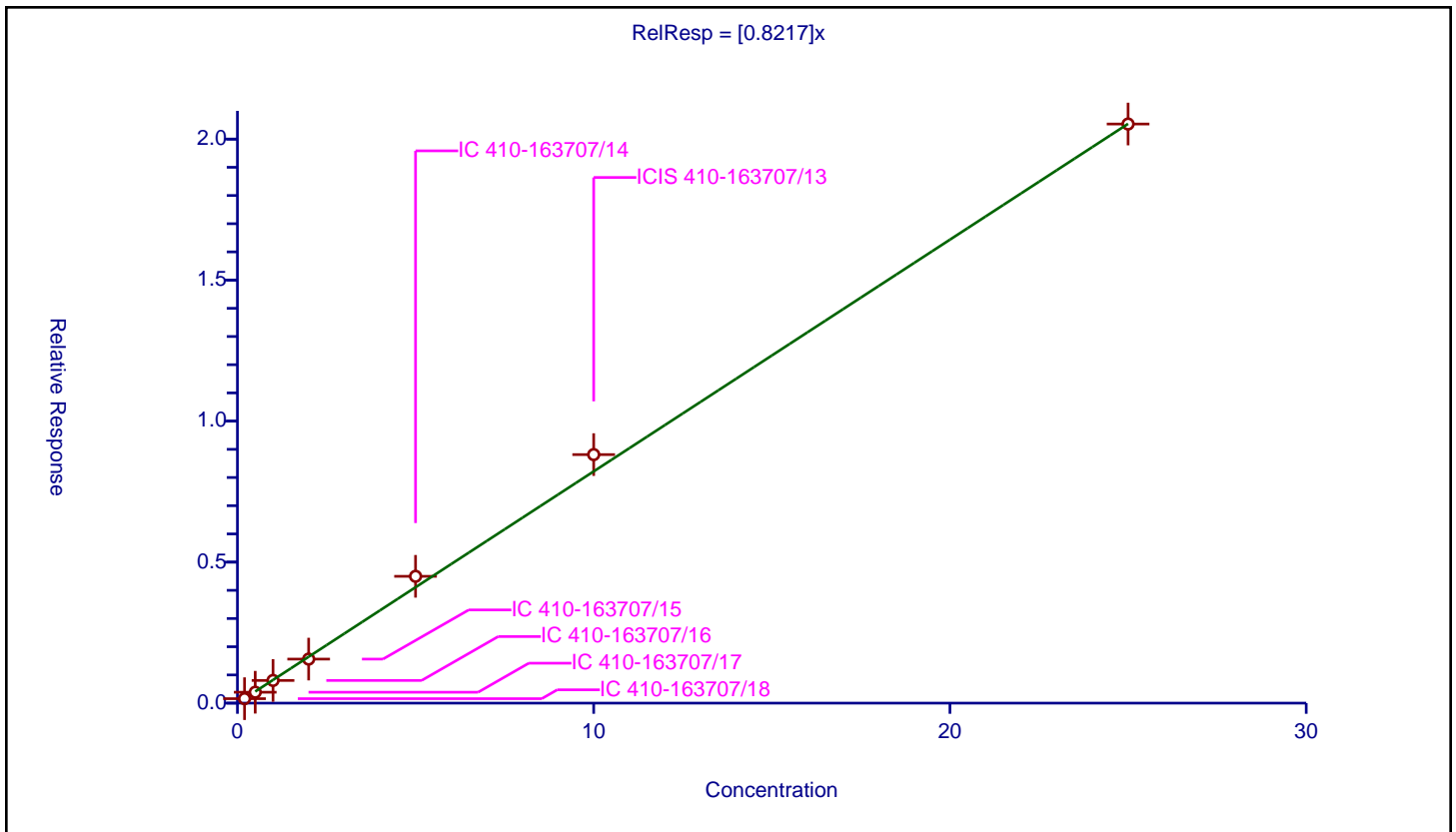
/ Isopropyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.8217

Error Coefficients	
Standard Error:	2130000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.15804	10.0	2203428.0	0.790201	Y
2	IC 410-163707/17	0.5	0.387022	10.0	2386508.0	0.774043	Y
3	IC 410-163707/16	1.0	0.804597	10.0	2167768.0	0.804597	Y
4	IC 410-163707/15	2.0	1.561902	10.0	2141536.0	0.780951	Y
5	IC 410-163707/14	5.0	4.497117	10.0	2115642.0	0.899423	Y
6	ICIS 410-163707/13	10.0	8.812336	10.0	2122537.0	0.881234	Y
7	IC 410-163707/12	25.0	20.534276	10.0	2314551.0	0.821371	Y



Calibration

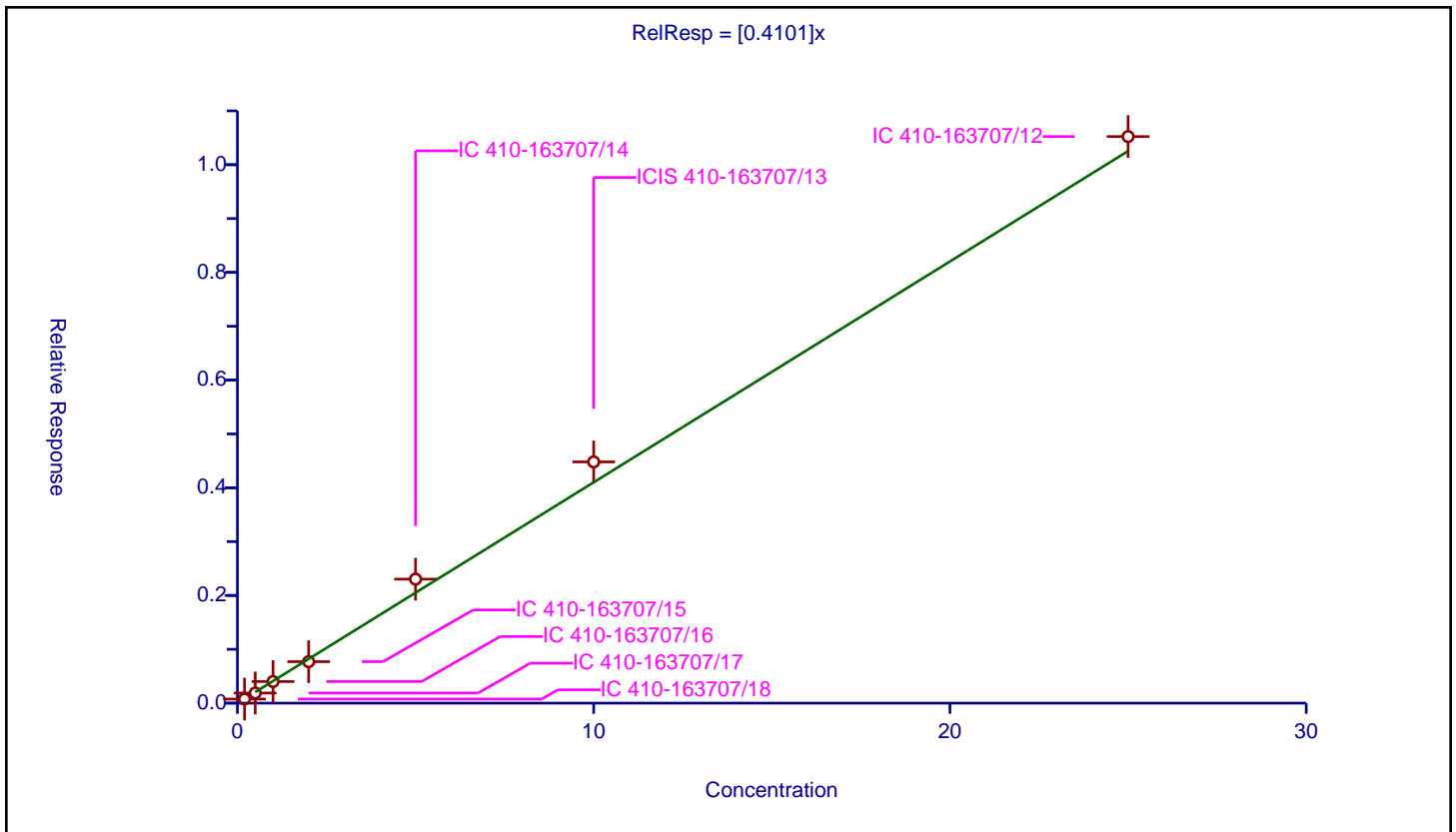
/ 2-Chloro-1,3-butadiene

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

Curve Coefficients	
Intercept:	0
Slope:	0.4101

Error Coefficients	
Standard Error:	1090000
Relative Standard Error:	8.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.0759	10.0	2203428.0	0.3795	Y
2	IC 410-163707/17	0.5	0.187843	10.0	2386508.0	0.375687	Y
3	IC 410-163707/16	1.0	0.401108	10.0	2167768.0	0.401108	Y
4	IC 410-163707/15	2.0	0.770069	10.0	2141536.0	0.385034	Y
5	IC 410-163707/14	5.0	2.303206	10.0	2115642.0	0.460641	Y
6	ICIS 410-163707/13	10.0	4.480596	10.0	2122537.0	0.44806	Y
7	IC 410-163707/12	25.0	10.523216	10.0	2314551.0	0.420929	Y



Calibration

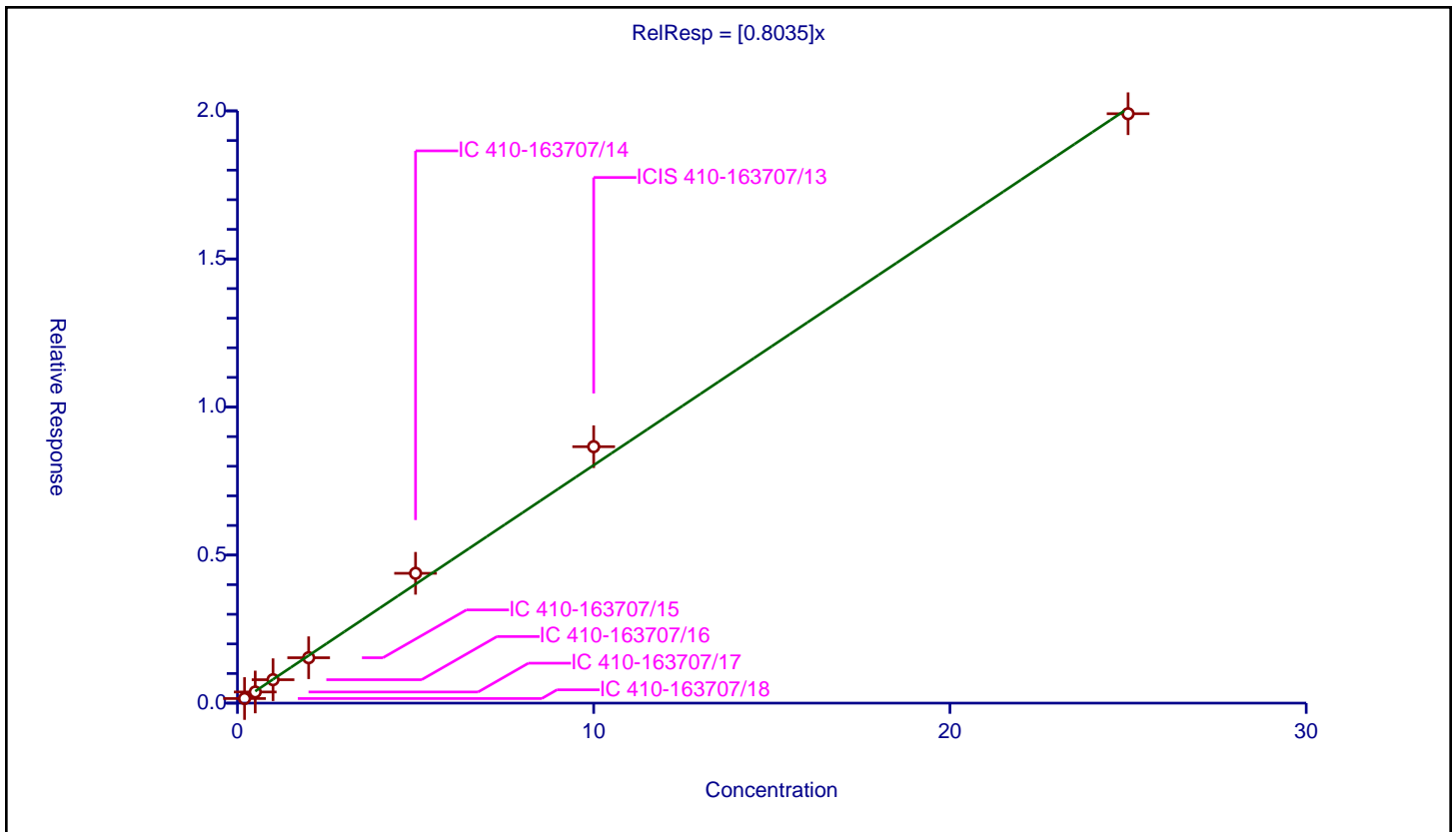
/ Tert-butyl ethyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.8035

Error Coefficients	
Standard Error:	2070000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.155095	10.0	2203428.0	0.775473	Y
2	IC 410-163707/17	0.5	0.376261	10.0	2386508.0	0.752522	Y
3	IC 410-163707/16	1.0	0.790989	10.0	2167768.0	0.790989	Y
4	IC 410-163707/15	2.0	1.532937	10.0	2141536.0	0.766469	Y
5	IC 410-163707/14	5.0	4.383866	10.0	2115642.0	0.876773	Y
6	ICIS 410-163707/13	10.0	8.660297	10.0	2122537.0	0.86603	Y
7	IC 410-163707/12	25.0	19.90447	10.0	2314551.0	0.796179	Y



Calibration

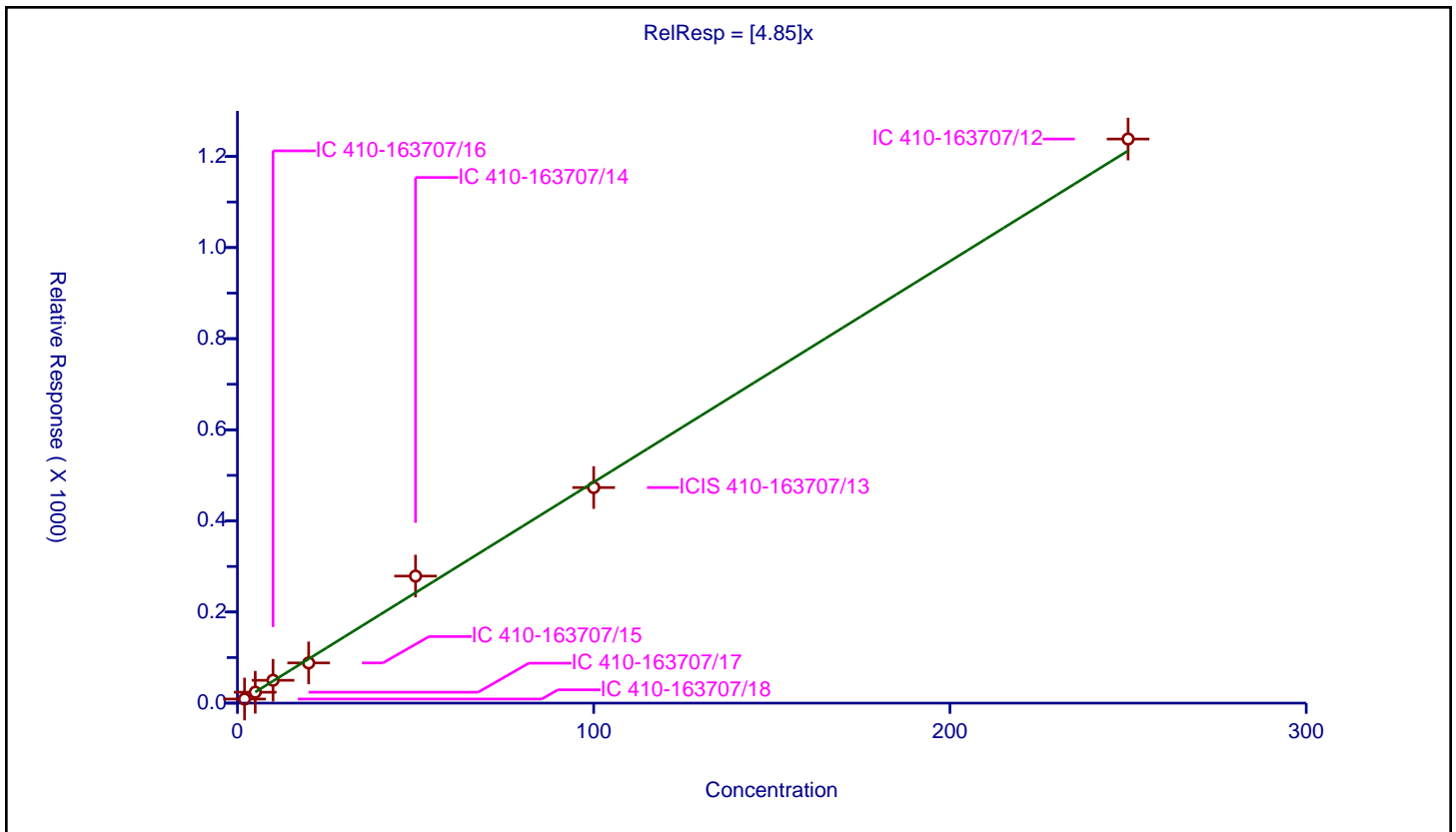
/ 2-Butanone (MEK)

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

Curve Coefficients	
Intercept:	0
Slope:	4.85

Error Coefficients	
Standard Error:	1710000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	8.945489	50.0	162132.0	4.472744	Y
2	IC 410-163707/17	5.0	23.937449	50.0	162651.0	4.78749	Y
3	IC 410-163707/16	10.0	50.136633	50.0	143084.0	5.013663	Y
4	IC 410-163707/15	20.0	88.255588	50.0	162903.0	4.412779	Y
5	IC 410-163707/14	50.0	278.903483	50.0	134380.0	5.57807	Y
6	ICIS 410-163707/13	100.0	473.240519	50.0	165205.0	4.732405	Y
7	IC 410-163707/12	250.0	1238.250889	50.0	153335.0	4.953004	Y



Calibration

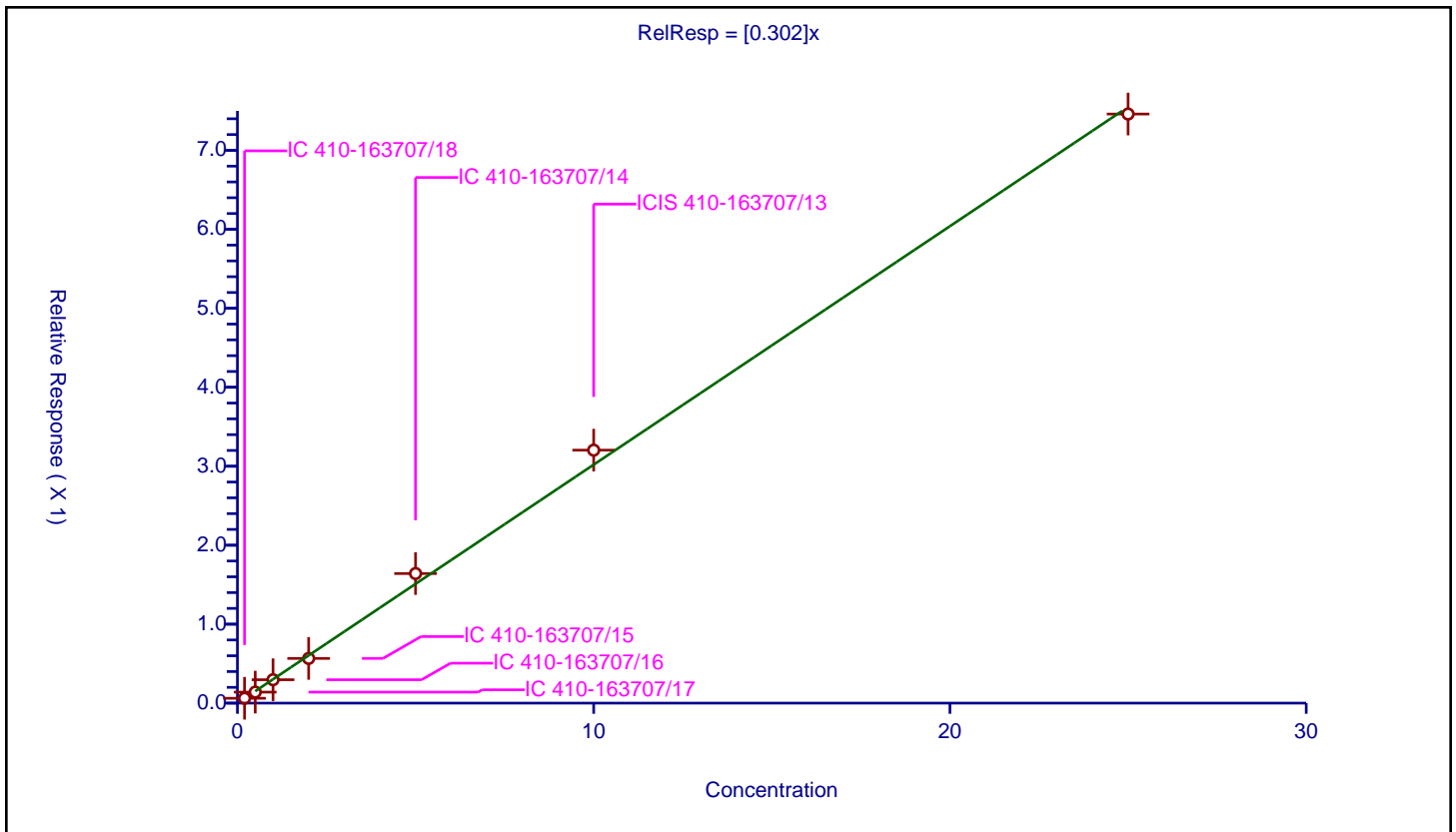
/ cis-1,2-Dichloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.302

Error Coefficients	
Standard Error:	773000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.06169	10.0	2203428.0	0.308451	Y
2	IC 410-163707/17	0.5	0.139589	10.0	2386508.0	0.279178	Y
3	IC 410-163707/16	1.0	0.296249	10.0	2167768.0	0.296249	Y
4	IC 410-163707/15	2.0	0.566182	10.0	2141536.0	0.283091	Y
5	IC 410-163707/14	5.0	1.641142	10.0	2115642.0	0.328228	Y
6	ICIS 410-163707/13	10.0	3.203581	10.0	2122537.0	0.320358	Y
7	IC 410-163707/12	25.0	7.460186	10.0	2314551.0	0.298407	Y



Calibration

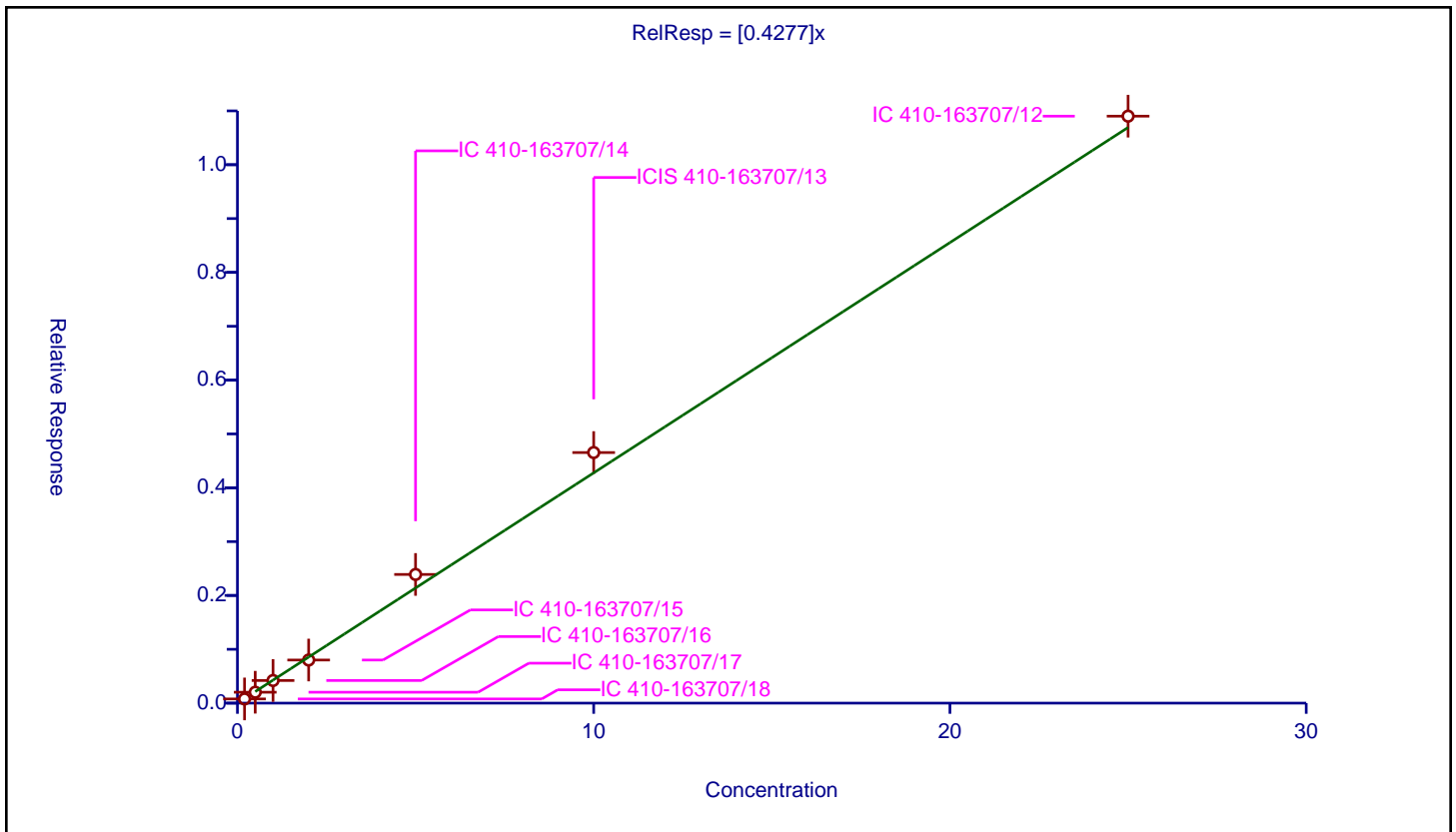
/ 2,2-Dichloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4277

Error Coefficients	
Standard Error:	1130000
Relative Standard Error:	7.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.077783	10.0	2203428.0	0.388917	Y
2	IC 410-163707/17	0.5	0.202513	10.0	2386508.0	0.405027	Y
3	IC 410-163707/16	1.0	0.420253	10.0	2167768.0	0.420253	Y
4	IC 410-163707/15	2.0	0.800411	10.0	2141536.0	0.400206	Y
5	IC 410-163707/14	5.0	2.389884	10.0	2115642.0	0.477977	Y
6	ICIS 410-163707/13	10.0	4.654345	10.0	2122537.0	0.465435	Y
7	IC 410-163707/12	25.0	10.901816	10.0	2314551.0	0.436073	Y



Calibration

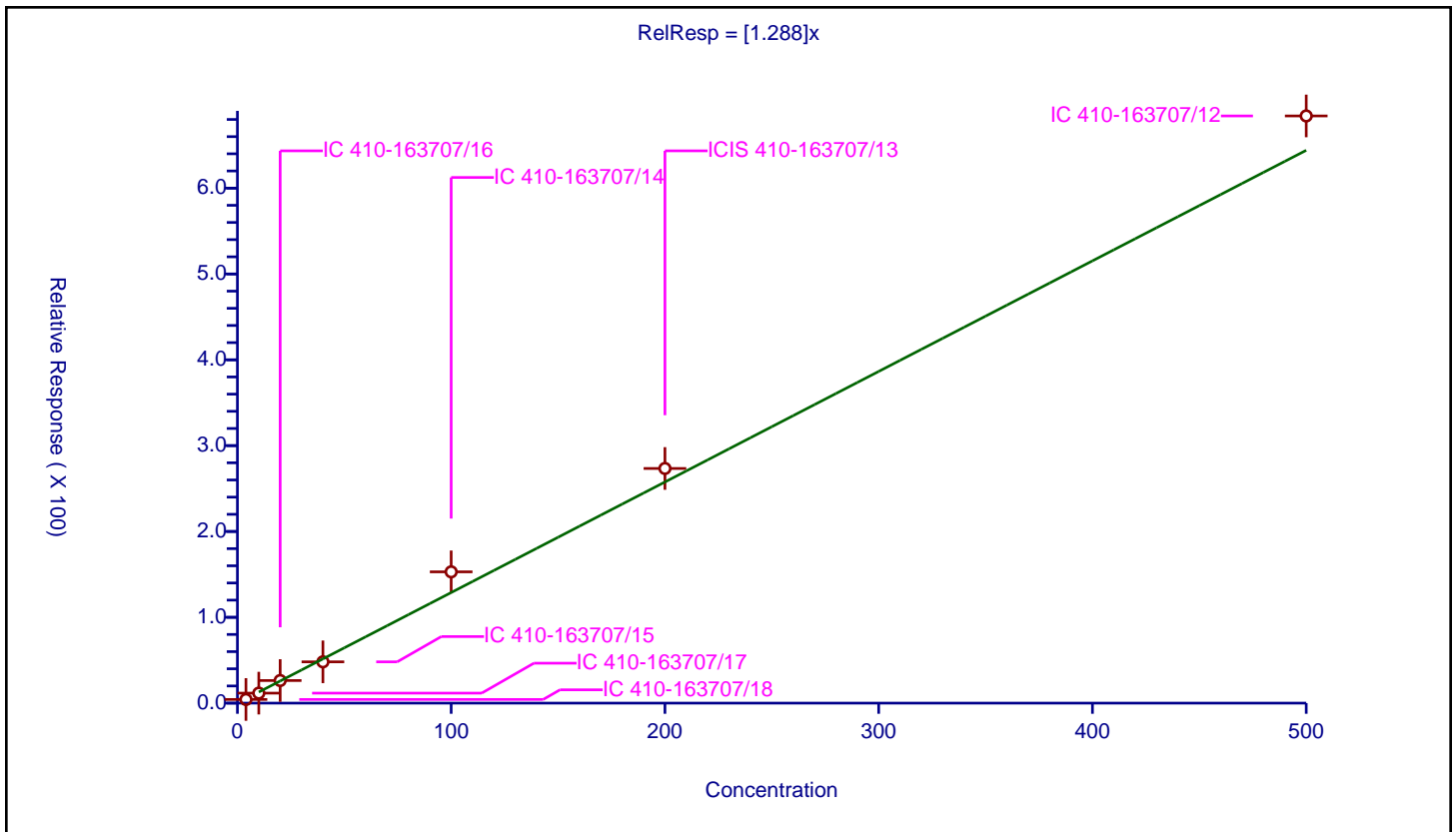
/ Propionitrile

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

Curve Coefficients	
Intercept:	0
Slope:	1.288

Error Coefficients	
Standard Error:	950000
Relative Standard Error:	12.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	4.0	4.265968	50.0	162132.0	1.066492	Y
2	IC 410-163707/17	10.0	11.664238	50.0	162651.0	1.166424	Y
3	IC 410-163707/16	20.0	26.336977	50.0	143084.0	1.316849	Y
4	IC 410-163707/15	40.0	48.104086	50.0	162903.0	1.202602	Y
5	IC 410-163707/14	100.0	152.953565	50.0	134380.0	1.529536	Y
6	ICIS 410-163707/13	200.0	273.392754	50.0	165205.0	1.366964	Y
7	IC 410-163707/12	500.0	684.097238	50.0	153335.0	1.368194	Y



Calibration

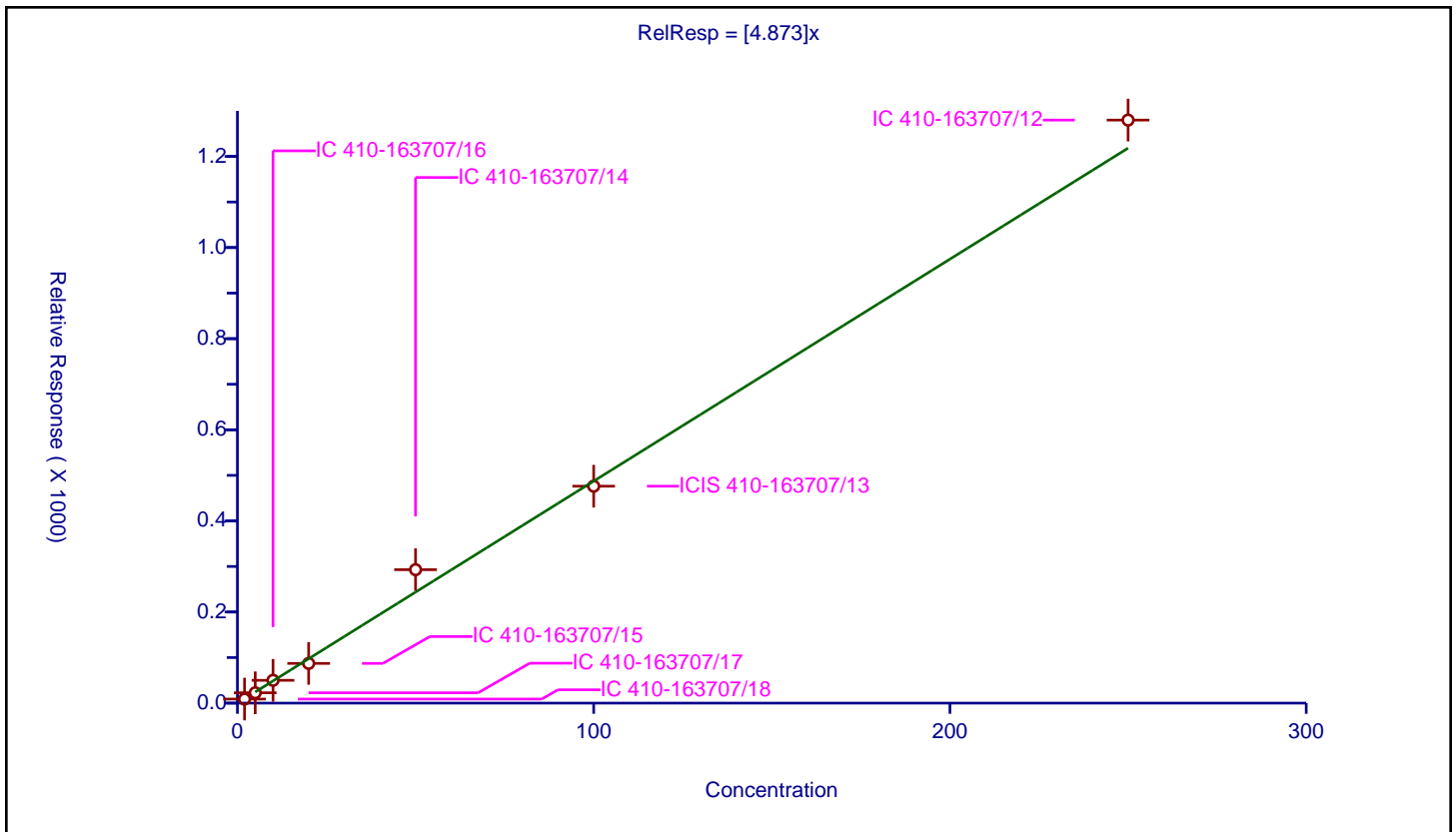
/ Methacrylonitrile

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

Curve Coefficients	
Intercept:	0
Slope:	4.873

Error Coefficients	
Standard Error:	1760000
Relative Standard Error:	10.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	8.92236	50.0	162132.0	4.46118	Y
2	IC 410-163707/17	5.0	22.716737	50.0	162651.0	4.543347	Y
3	IC 410-163707/16	10.0	50.069889	50.0	143084.0	5.006989	Y
4	IC 410-163707/15	20.0	87.182556	50.0	162903.0	4.359128	Y
5	IC 410-163707/14	50.0	292.9331	50.0	134380.0	5.858662	Y
6	ICIS 410-163707/13	100.0	476.205018	50.0	165205.0	4.76205	Y
7	IC 410-163707/12	250.0	1279.855545	50.0	153335.0	5.119422	Y



Calibration

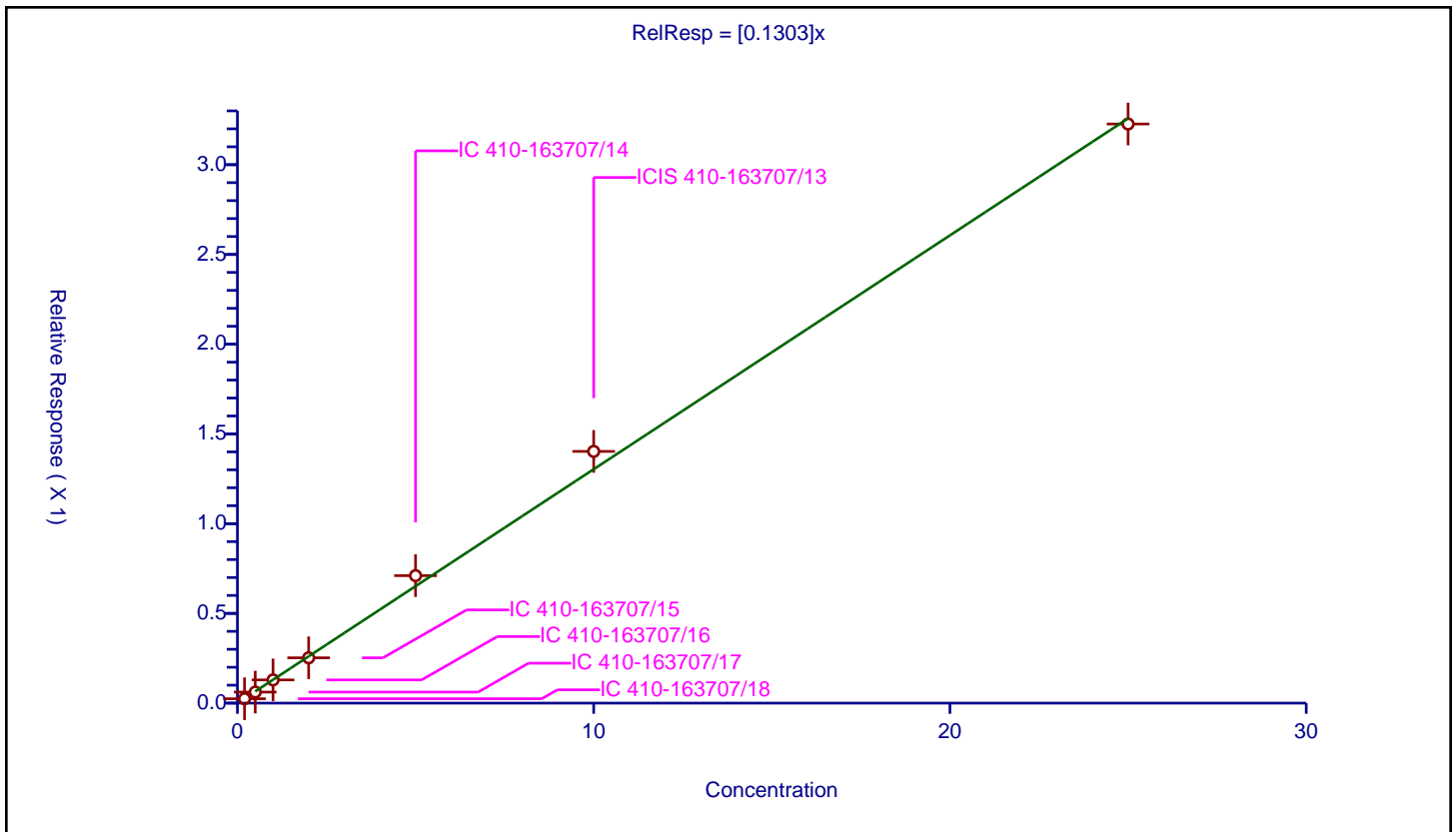
/ Chlorobromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.1303

Error Coefficients	
Standard Error:	335000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.024426	10.0	2203428.0	0.122128	Y
2	IC 410-163707/17	0.5	0.061538	10.0	2386508.0	0.123075	Y
3	IC 410-163707/16	1.0	0.129391	10.0	2167768.0	0.129391	Y
4	IC 410-163707/15	2.0	0.252473	10.0	2141536.0	0.126236	Y
5	IC 410-163707/14	5.0	0.710352	10.0	2115642.0	0.14207	Y
6	ICIS 410-163707/13	10.0	1.402656	10.0	2122537.0	0.140266	Y
7	IC 410-163707/12	25.0	3.227019	10.0	2314551.0	0.129081	Y



Calibration

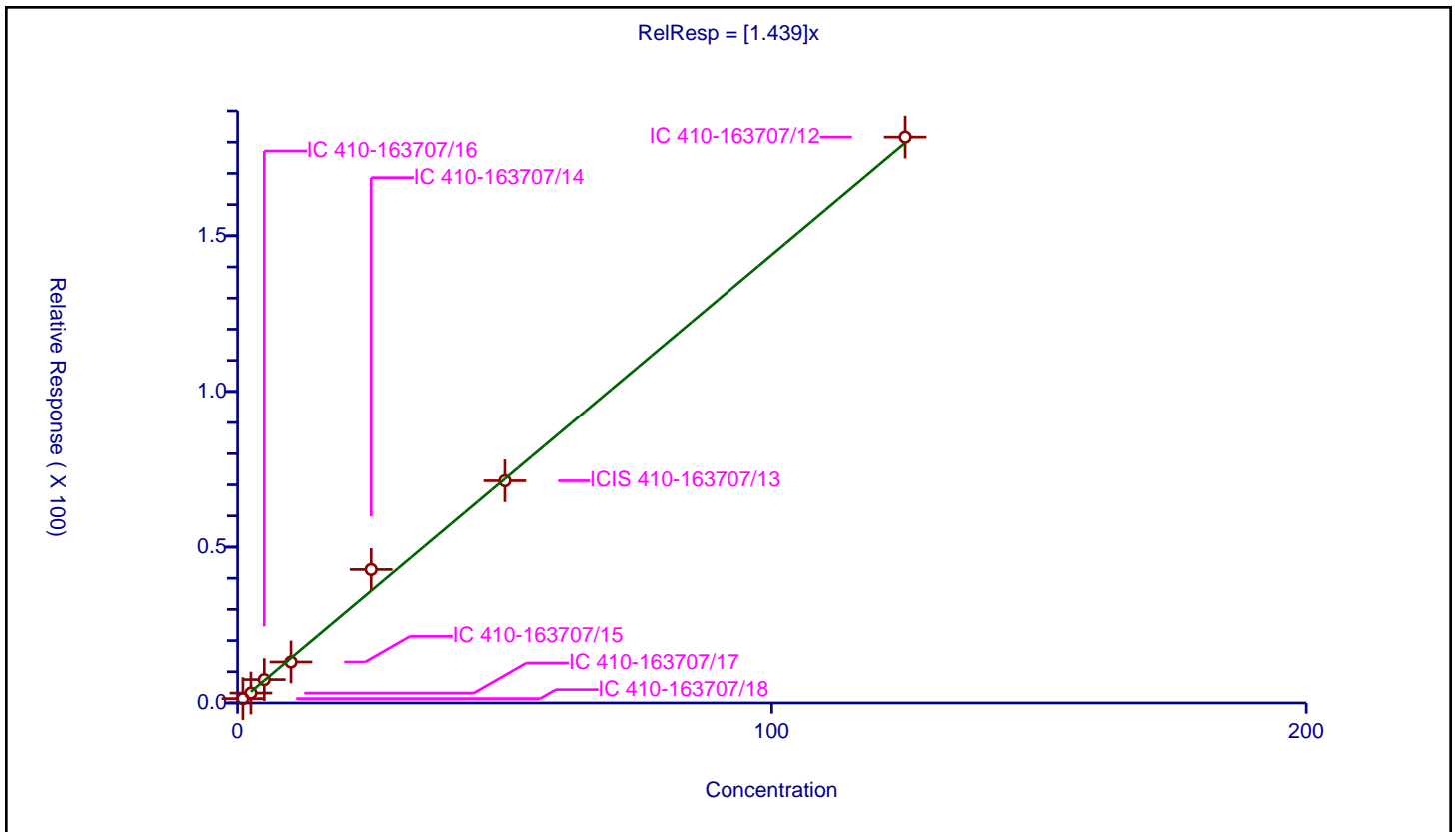
/ Tetrahydrofuran

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

Curve Coefficients	
Intercept:	0
Slope:	1.439

Error Coefficients	
Standard Error:	252000
Relative Standard Error:	10.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	1.0	1.397318	50.0	162132.0	1.397318	Y
2	IC 410-163707/17	2.5	3.172744	50.0	162651.0	1.269098	Y
3	IC 410-163707/16	5.0	7.491054	50.0	143084.0	1.498211	Y
4	IC 410-163707/15	10.0	13.139107	50.0	162903.0	1.313911	Y
5	IC 410-163707/14	25.0	42.815151	50.0	134380.0	1.712606	Y
6	ICIS 410-163707/13	50.0	71.310796	50.0	165205.0	1.426216	Y
7	IC 410-163707/12	125.0	181.629765	50.0	153335.0	1.453038	Y



Calibration

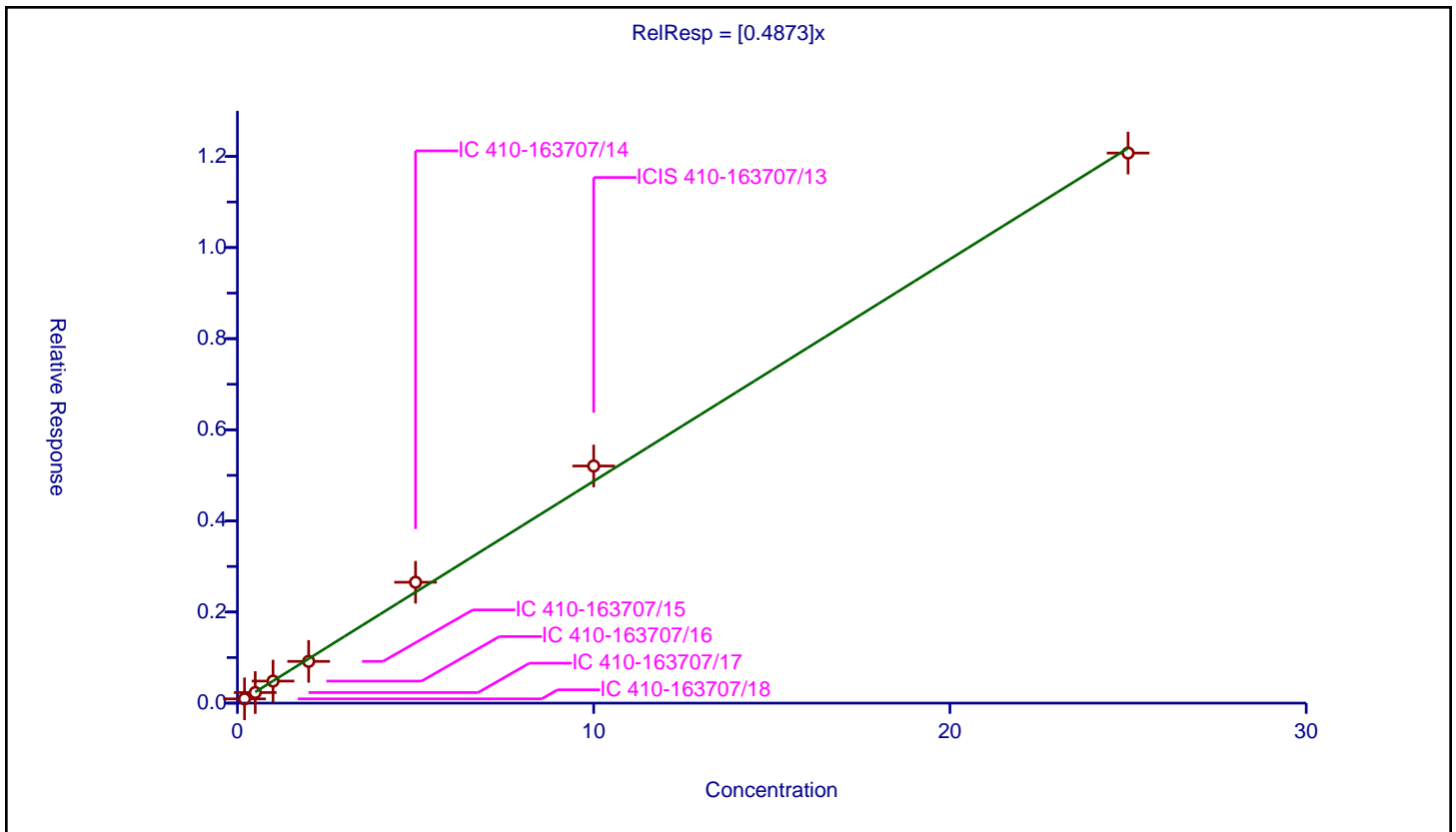
/ Chloroform

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

Curve Coefficients	
Intercept:	0
Slope:	0.4873

Error Coefficients	
Standard Error:	1250000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.09384	10.0	2203428.0	0.469201	Y
2	IC 410-163707/17	0.5	0.232612	10.0	2386508.0	0.465224	Y
3	IC 410-163707/16	1.0	0.48406	10.0	2167768.0	0.48406	Y
4	IC 410-163707/15	2.0	0.91637	10.0	2141536.0	0.458185	Y
5	IC 410-163707/14	5.0	2.653034	10.0	2115642.0	0.530607	Y
6	ICIS 410-163707/13	10.0	5.20496	10.0	2122537.0	0.520496	Y
7	IC 410-163707/12	25.0	12.074502	10.0	2314551.0	0.48298	Y



Calibration

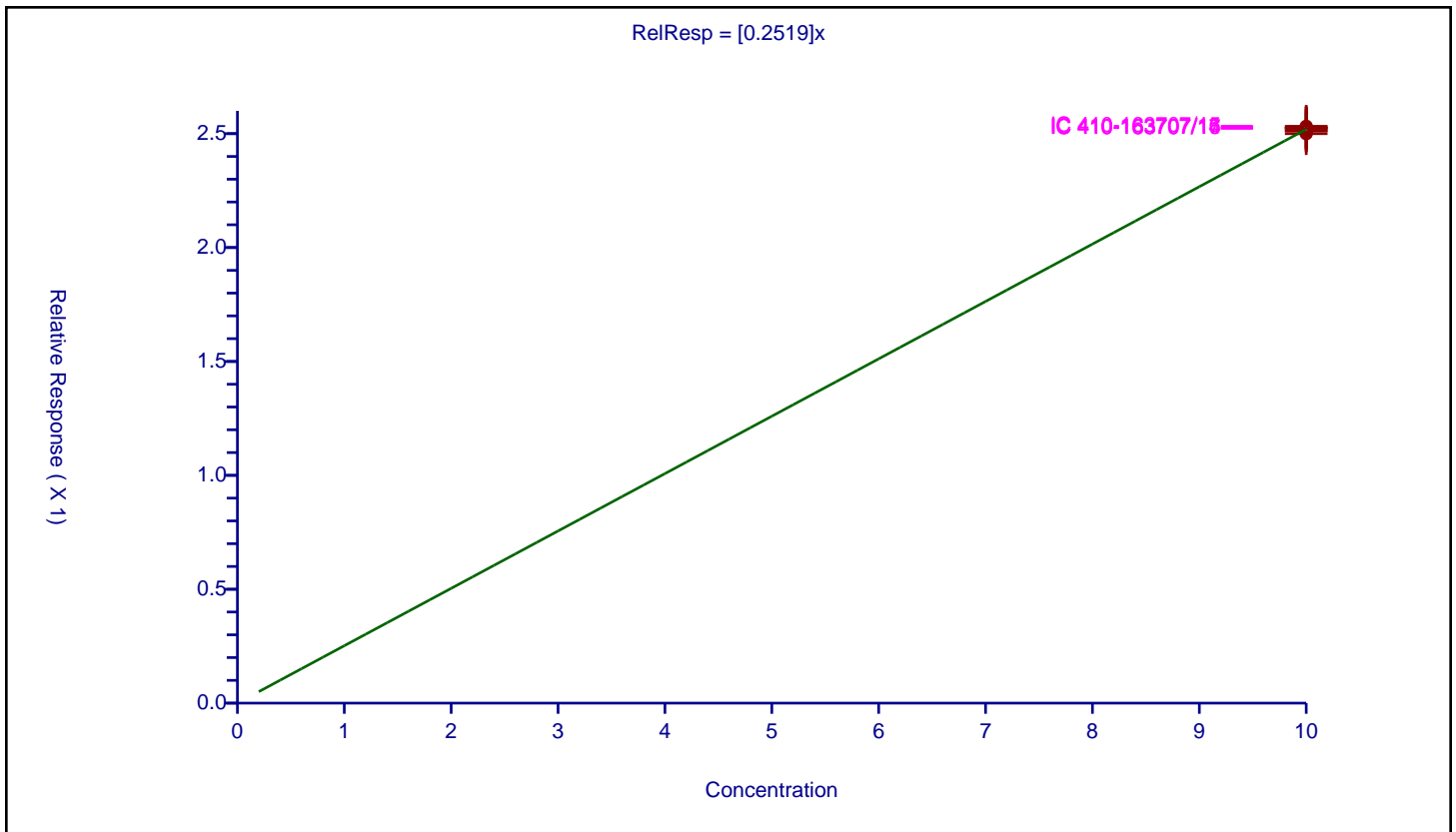
/ Dibromofluoromethane (Surr)

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

Curve Coefficients	
Intercept:	0
Slope:	0.2519

Error Coefficients	
Standard Error:	601000
Relative Standard Error:	0.4
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/12	10.0	2.514673	10.0	2314551.0	0.251467	Y
2	ICIS 410-163707/13	10.0	2.511452	10.0	2122537.0	0.251145	Y
3	IC 410-163707/14	10.0	2.523806	10.0	2115642.0	0.252381	Y
4	IC 410-163707/15	10.0	2.53243	10.0	2141536.0	0.253243	Y
5	IC 410-163707/16	10.0	2.525266	10.0	2167768.0	0.252527	Y
6	IC 410-163707/17	10.0	2.526093	10.0	2386508.0	0.252609	Y
7	IC 410-163707/18	10.0	2.499968	10.0	2203428.0	0.249997	Y



Calibration

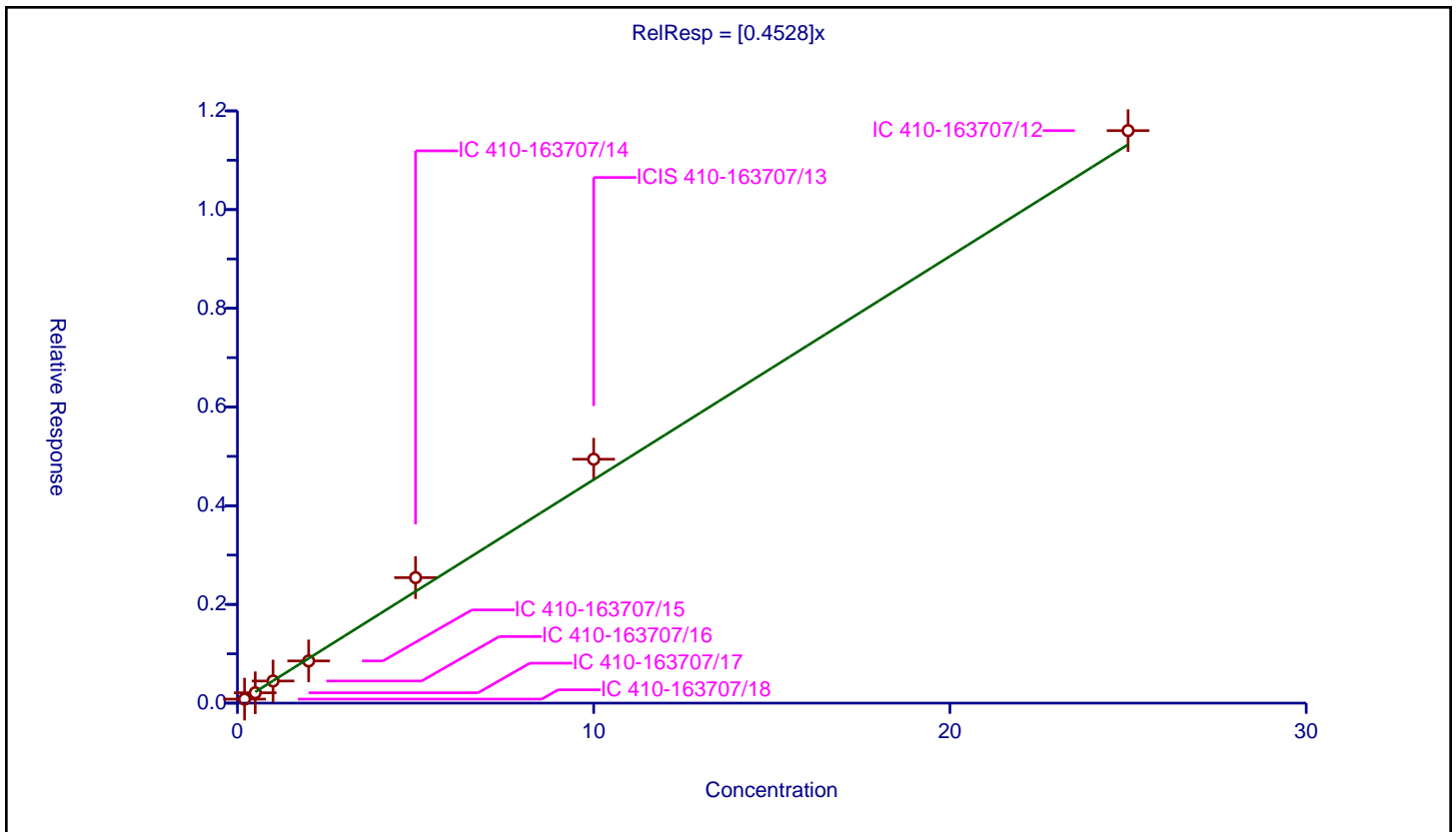
/ 1,1,1-Trichloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4528

Error Coefficients	
Standard Error:	1200000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.08145	10.0	2203428.0	0.407252	Y
2	IC 410-163707/17	0.5	0.209725	10.0	2386508.0	0.41945	Y
3	IC 410-163707/16	1.0	0.448424	10.0	2167768.0	0.448424	Y
4	IC 410-163707/15	2.0	0.854807	10.0	2141536.0	0.427404	Y
5	IC 410-163707/14	5.0	2.542765	10.0	2115642.0	0.508553	Y
6	ICIS 410-163707/13	10.0	4.942081	10.0	2122537.0	0.494208	Y
7	IC 410-163707/12	25.0	11.60025	10.0	2314551.0	0.46401	Y



Calibration

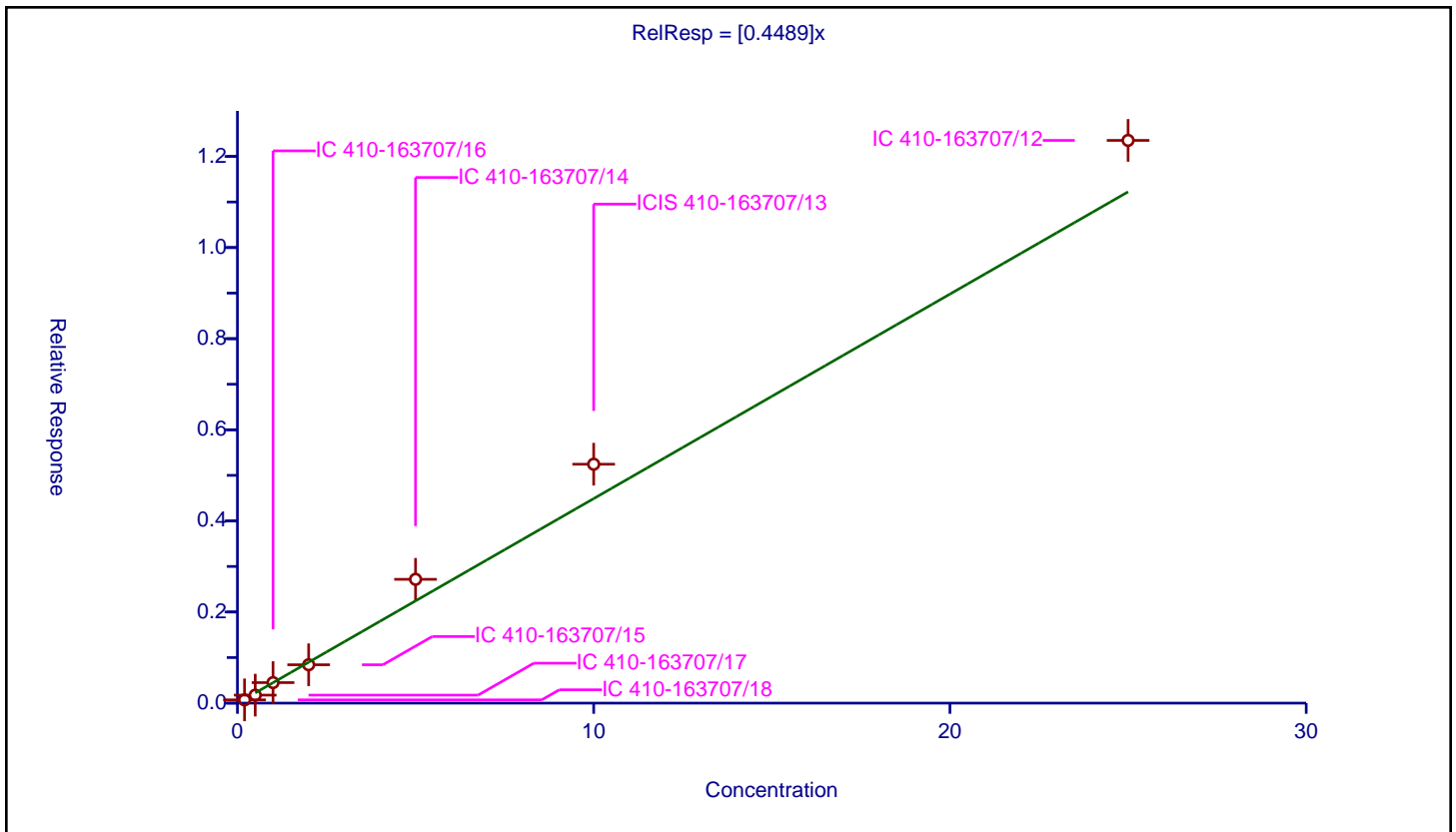
/ Cyclohexane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4489

Error Coefficients	
Standard Error:	1280000
Relative Standard Error:	17.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.967

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.071407	10.0	2203428.0	0.357035	Y
2	IC 410-163707/17	0.5	0.175918	10.0	2386508.0	0.351836	Y
3	IC 410-163707/16	1.0	0.450588	10.0	2167768.0	0.450588	Y
4	IC 410-163707/15	2.0	0.841984	10.0	2141536.0	0.420992	Y
5	IC 410-163707/14	5.0	2.717676	10.0	2115642.0	0.543535	Y
6	ICIS 410-163707/13	10.0	5.244295	10.0	2122537.0	0.524429	Y
7	IC 410-163707/12	25.0	12.352283	10.0	2314551.0	0.494091	Y



Calibration

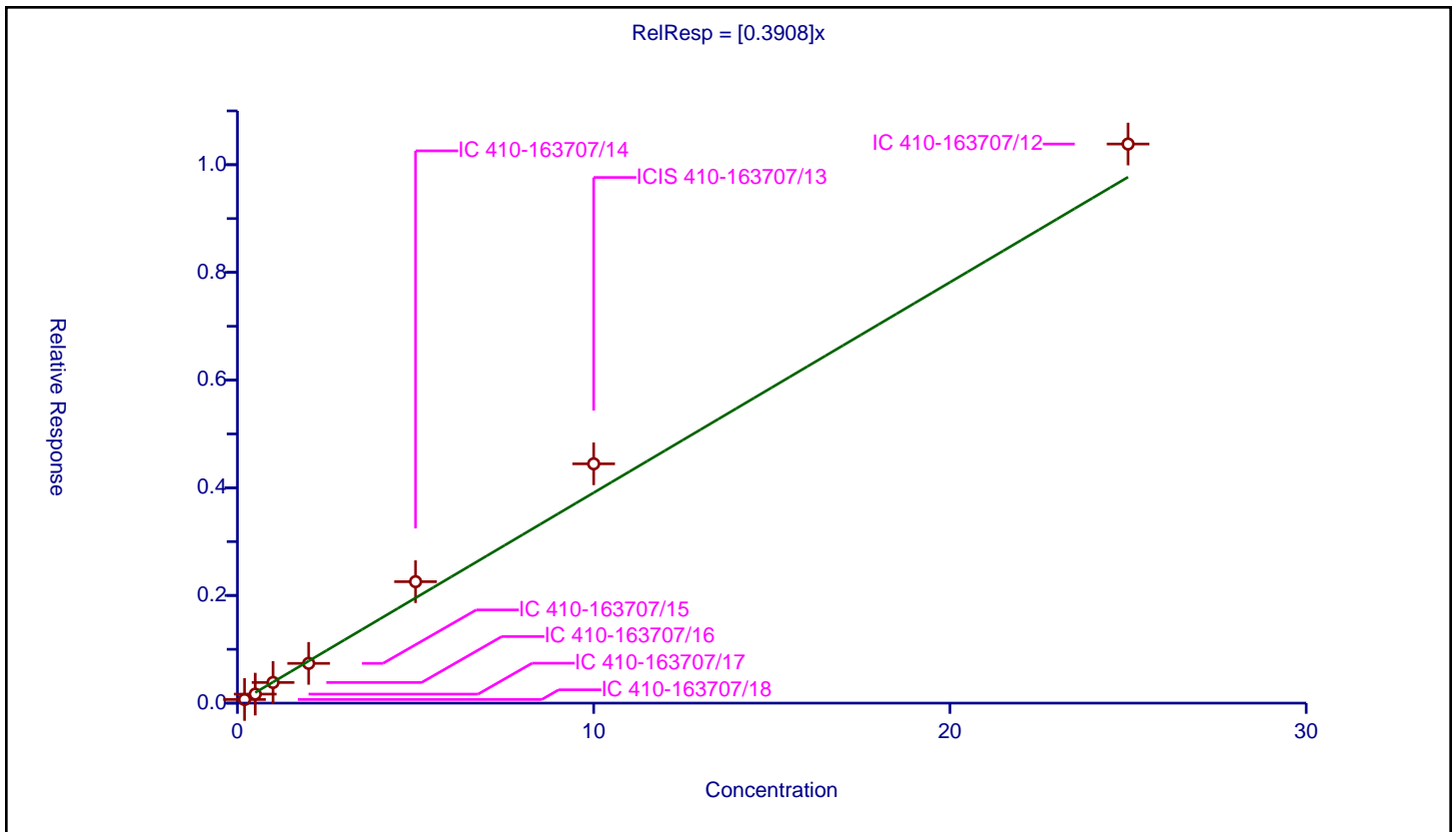
/ Carbon tetrachloride

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

Curve Coefficients	
Intercept:	0
Slope:	0.3908

Error Coefficients	
Standard Error:	1070000
Relative Standard Error:	12.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.067286	10.0	2203428.0	0.33643	Y
2	IC 410-163707/17	0.5	0.167542	10.0	2386508.0	0.335084	Y
3	IC 410-163707/16	1.0	0.383819	10.0	2167768.0	0.383819	Y
4	IC 410-163707/15	2.0	0.738535	10.0	2141536.0	0.369268	Y
5	IC 410-163707/14	5.0	2.256204	10.0	2115642.0	0.451241	Y
6	ICIS 410-163707/13	10.0	4.445138	10.0	2122537.0	0.444514	Y
7	IC 410-163707/12	25.0	10.384658	10.0	2314551.0	0.415386	Y



Calibration

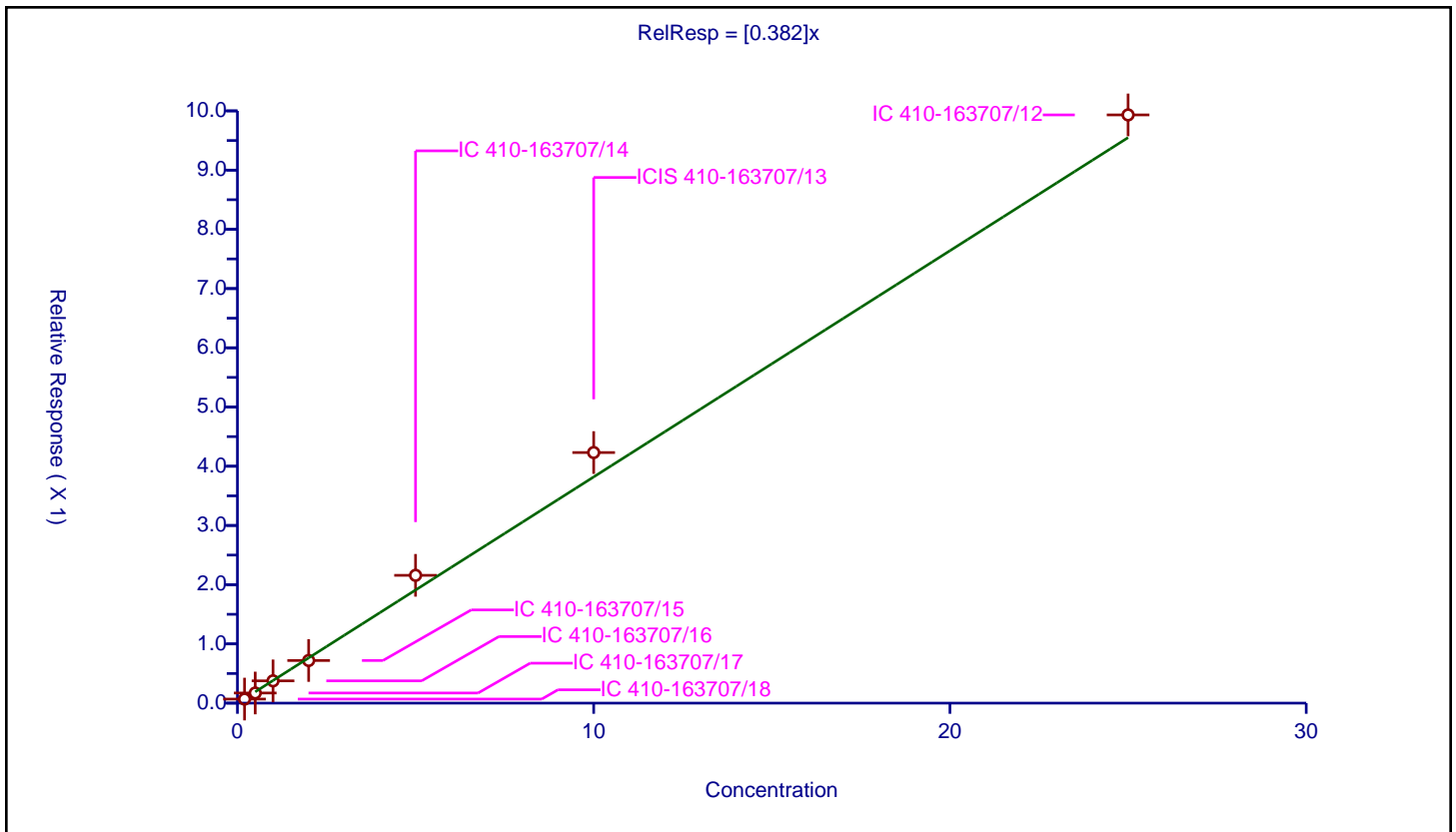
/ 1,1-Dichloropropene

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

Curve Coefficients	
Intercept:	0
Slope:	0.382

Error Coefficients	
Standard Error:	1030000
Relative Standard Error:	9.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.068661	10.0	2203428.0	0.343306	Y
2	IC 410-163707/17	0.5	0.171221	10.0	2386508.0	0.342442	Y
3	IC 410-163707/16	1.0	0.376207	10.0	2167768.0	0.376207	Y
4	IC 410-163707/15	2.0	0.719554	10.0	2141536.0	0.359777	Y
5	IC 410-163707/14	5.0	2.158049	10.0	2115642.0	0.43161	Y
6	ICIS 410-163707/13	10.0	4.230894	10.0	2122537.0	0.423089	Y
7	IC 410-163707/12	25.0	9.931926	10.0	2314551.0	0.397277	Y



Calibration

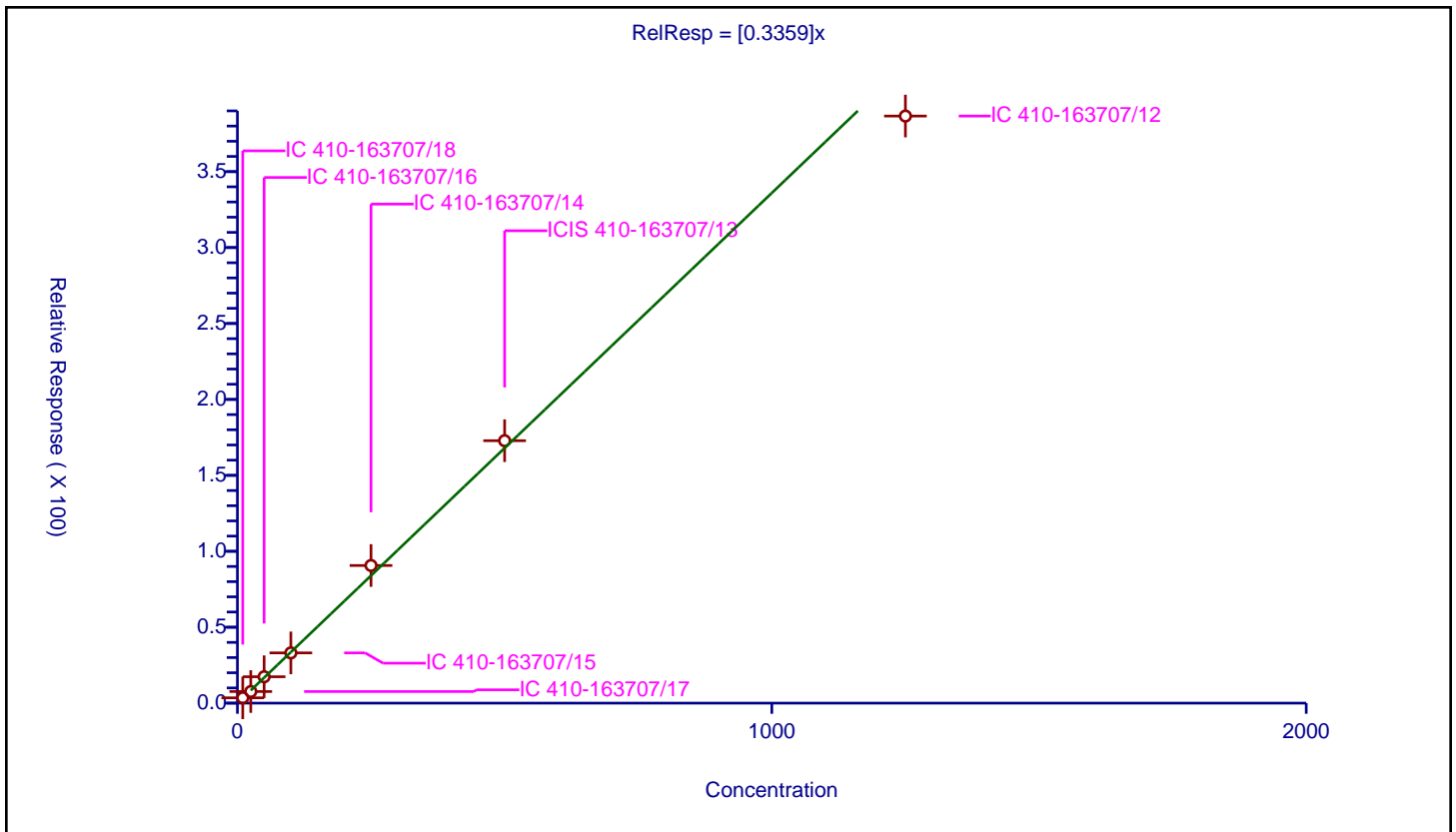
/ Isobutyl alcohol

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

Curve Coefficients	
Intercept:	0
Slope:	0.3359

Error Coefficients	
Standard Error:	548000
Relative Standard Error:	6.5
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	10.0	3.50486	50.0	162132.0	0.350486	Y
2	IC 410-163707/17	25.0	7.632907	50.0	162651.0	0.305316	Y
3	IC 410-163707/16	50.0	17.380699	50.0	143084.0	0.347614	Y
4	IC 410-163707/15	100.0	33.078581	50.0	162903.0	0.330786	Y
5	IC 410-163707/14	250.0	90.630302	50.0	134380.0	0.362521	Y
6	ICIS 410-163707/13	500.0	172.809237	50.0	165205.0	0.345618	Y
7	IC 410-163707/12	1250.0	386.593733	50.0	153335.0	0.309275	Y



Calibration

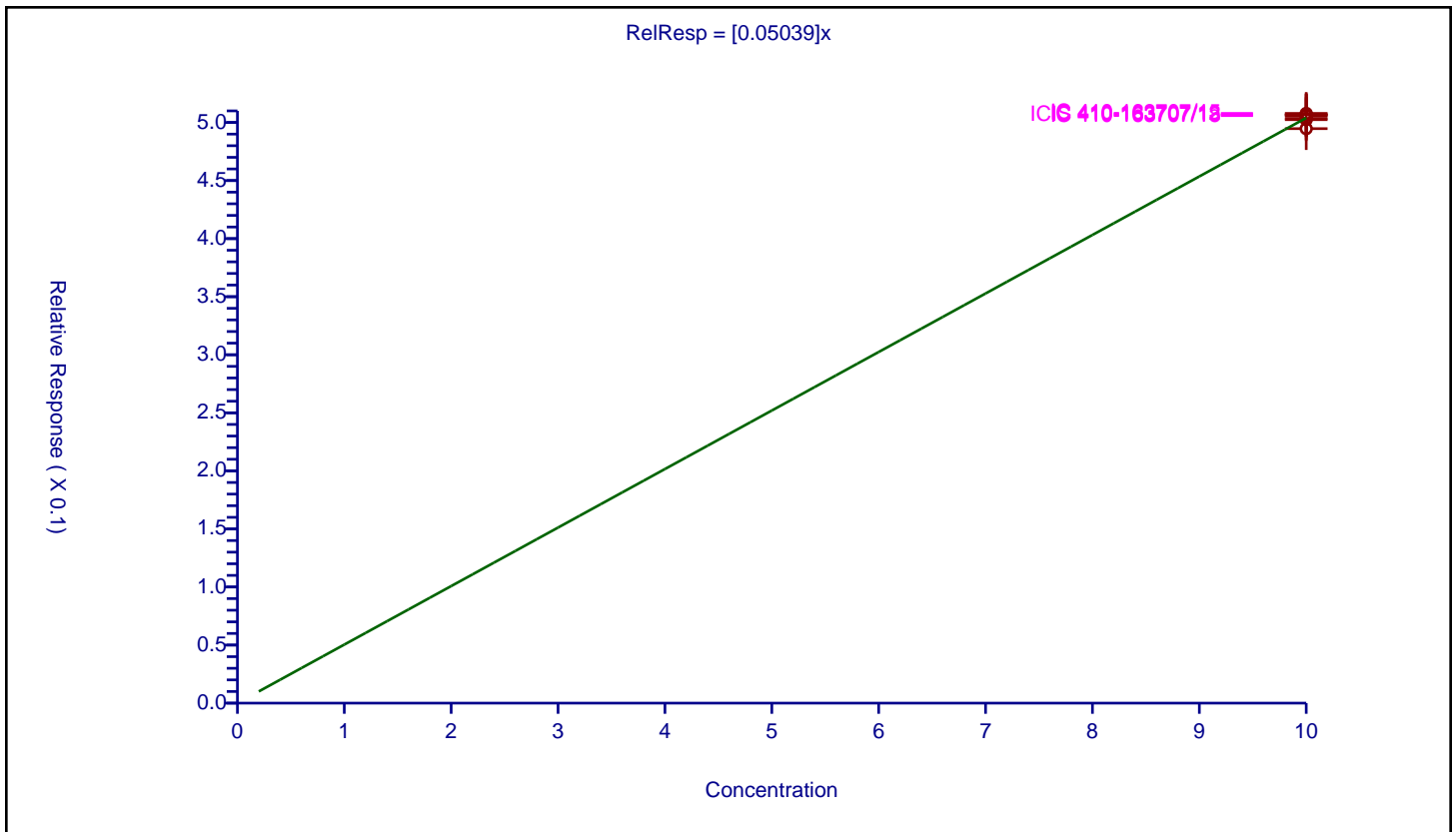
/ 1,2-Dichloroethane-d4 (Surr)

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

Curve Coefficients	
Intercept:	0
Slope:	0.05039

Error Coefficients	
Standard Error:	120000
Relative Standard Error:	0.9
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/12	10.0	0.50691	10.0	2314551.0	0.050691	Y
2	ICIS 410-163707/13	10.0	0.5063	10.0	2122537.0	0.05063	Y
3	IC 410-163707/14	10.0	0.503554	10.0	2115642.0	0.050355	Y
4	IC 410-163707/15	10.0	0.507832	10.0	2141536.0	0.050783	Y
5	IC 410-163707/16	10.0	0.502425	10.0	2167768.0	0.050242	Y
6	IC 410-163707/17	10.0	0.494698	10.0	2386508.0	0.04947	Y
7	IC 410-163707/18	10.0	0.505907	10.0	2203428.0	0.050591	Y



Calibration

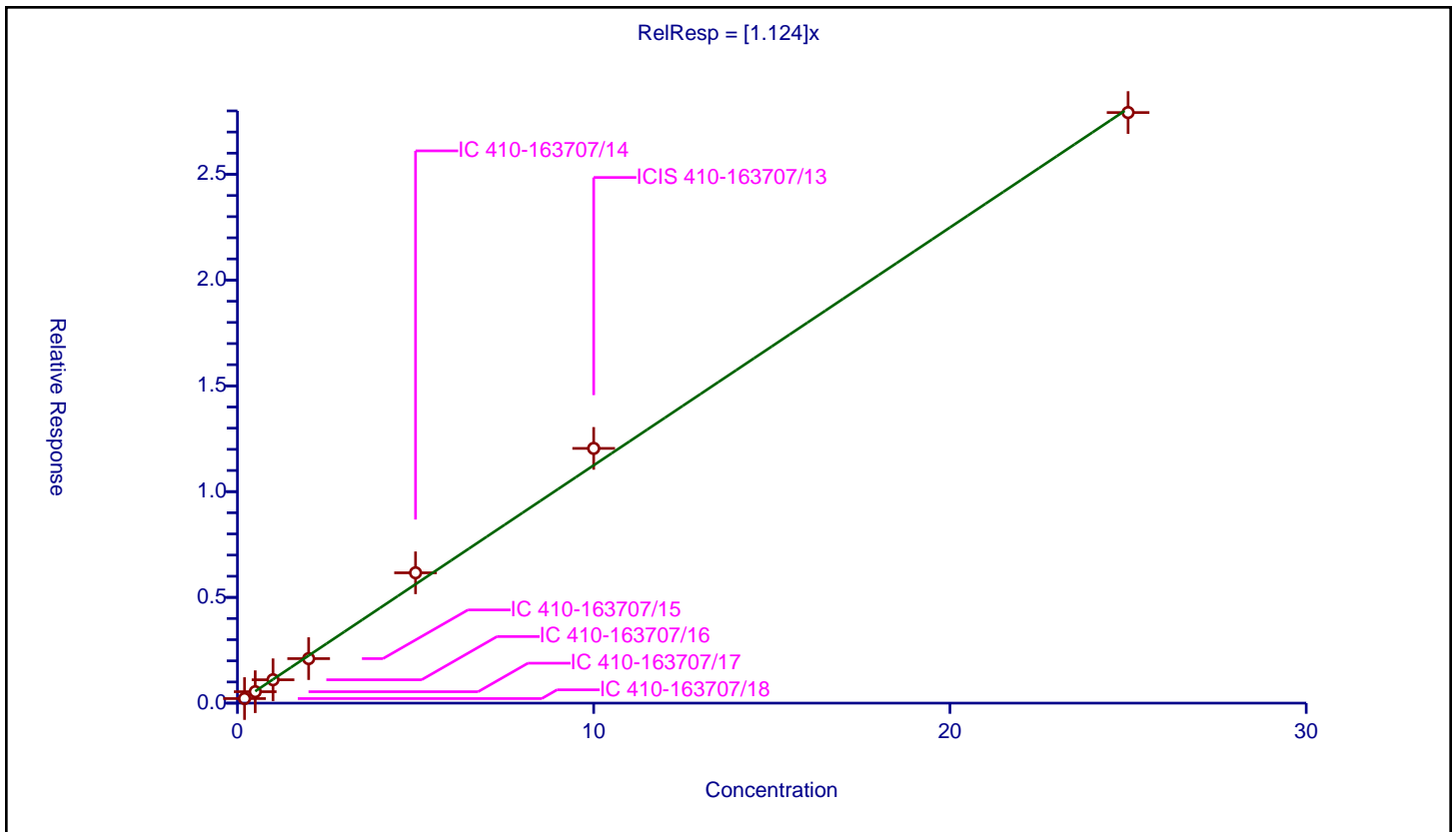
/ Benzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.124

Error Coefficients	
Standard Error:	2890000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.215723	10.0	2203428.0	1.078615	Y
2	IC 410-163707/17	0.5	0.540321	10.0	2386508.0	1.080642	Y
3	IC 410-163707/16	1.0	1.105358	10.0	2167768.0	1.105358	Y
4	IC 410-163707/15	2.0	2.104326	10.0	2141536.0	1.052163	Y
5	IC 410-163707/14	5.0	6.162215	10.0	2115642.0	1.232443	Y
6	ICIS 410-163707/13	10.0	12.042975	10.0	2122537.0	1.204297	Y
7	IC 410-163707/12	25.0	27.921394	10.0	2314551.0	1.116856	Y



Calibration

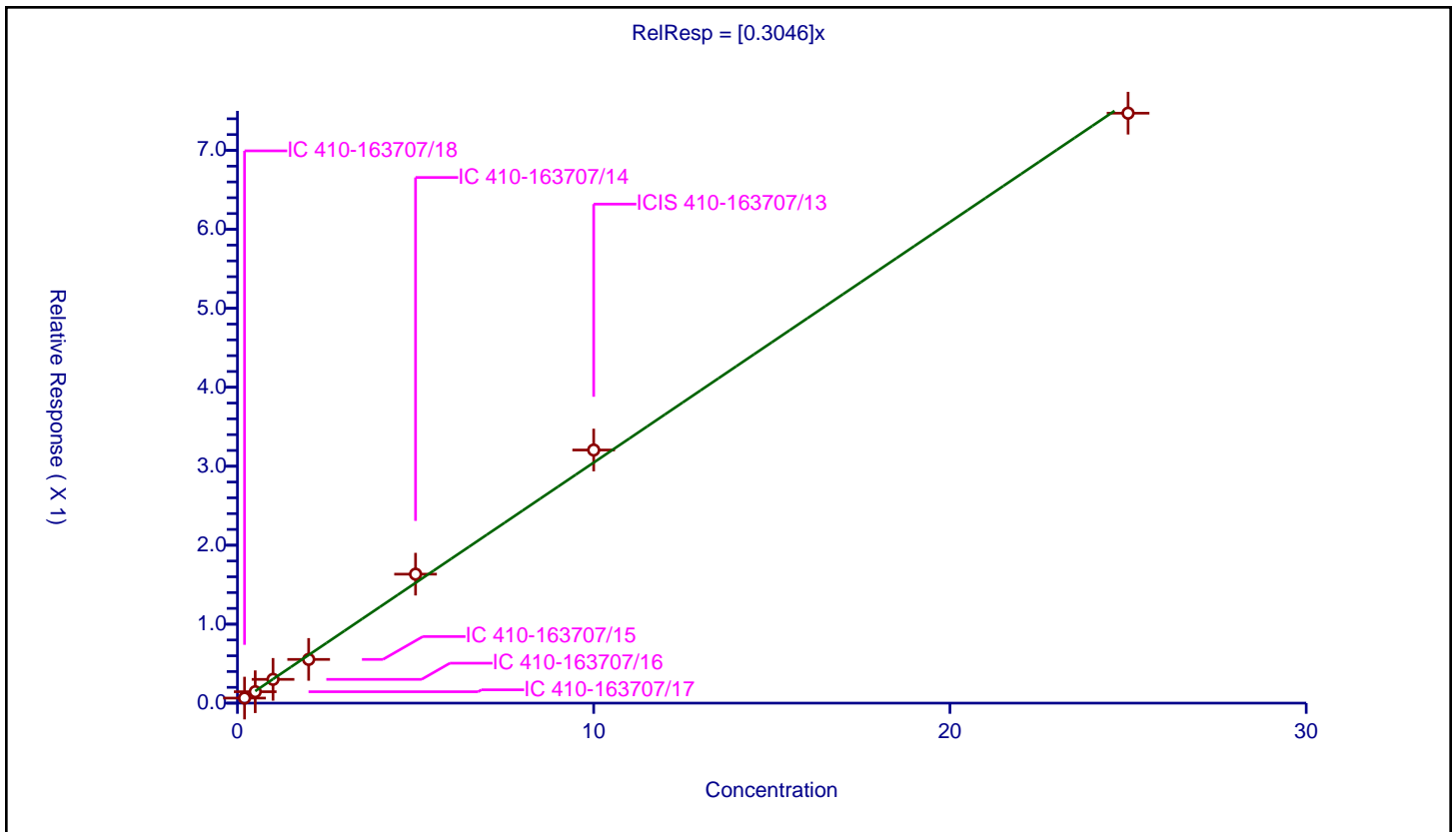
/ 1,2-Dichloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3046

Error Coefficients	
Standard Error:	774000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.063923	10.0	2203428.0	0.319616	Y
2	IC 410-163707/17	0.5	0.14445	10.0	2386508.0	0.288899	Y
3	IC 410-163707/16	1.0	0.301029	10.0	2167768.0	0.301029	Y
4	IC 410-163707/15	2.0	0.553547	10.0	2141536.0	0.276773	Y
5	IC 410-163707/14	5.0	1.633429	10.0	2115642.0	0.326686	Y
6	ICIS 410-163707/13	10.0	3.205466	10.0	2122537.0	0.320547	Y
7	IC 410-163707/12	25.0	7.47116	10.0	2314551.0	0.298846	Y



Calibration

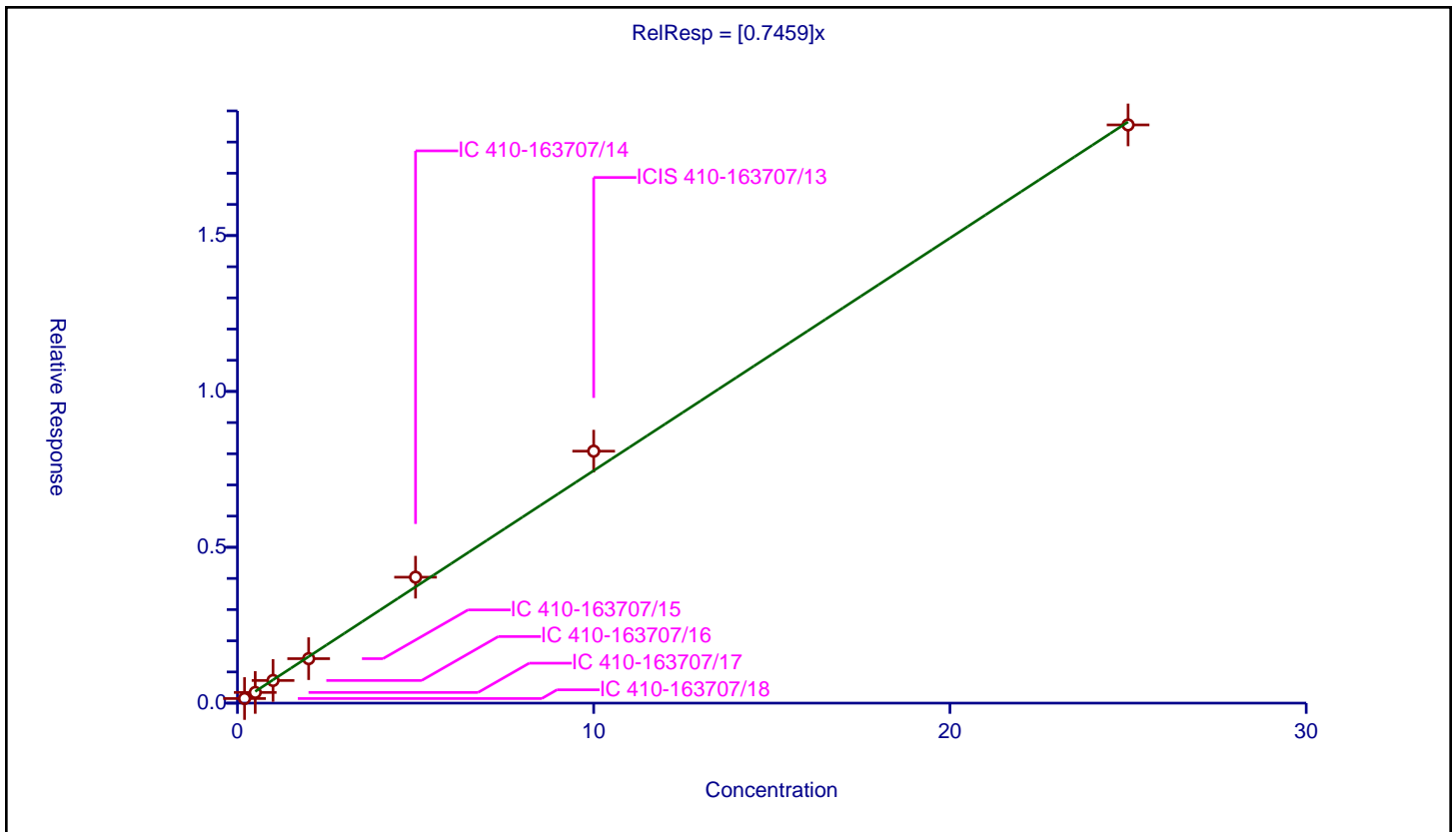
/ Tert-amyl methyl ether

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

Curve Coefficients	
Intercept:	0
Slope:	0.7459

Error Coefficients	
Standard Error:	1930000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.147466	10.0	2203428.0	0.737328	Y
2	IC 410-163707/17	0.5	0.342668	10.0	2386508.0	0.685336	Y
3	IC 410-163707/16	1.0	0.726904	10.0	2167768.0	0.726904	Y
4	IC 410-163707/15	2.0	1.426901	10.0	2141536.0	0.713451	Y
5	IC 410-163707/14	5.0	4.040556	10.0	2115642.0	0.808111	Y
6	ICIS 410-163707/13	10.0	8.083576	10.0	2122537.0	0.808358	Y
7	IC 410-163707/12	25.0	18.550812	10.0	2314551.0	0.742032	Y



Calibration

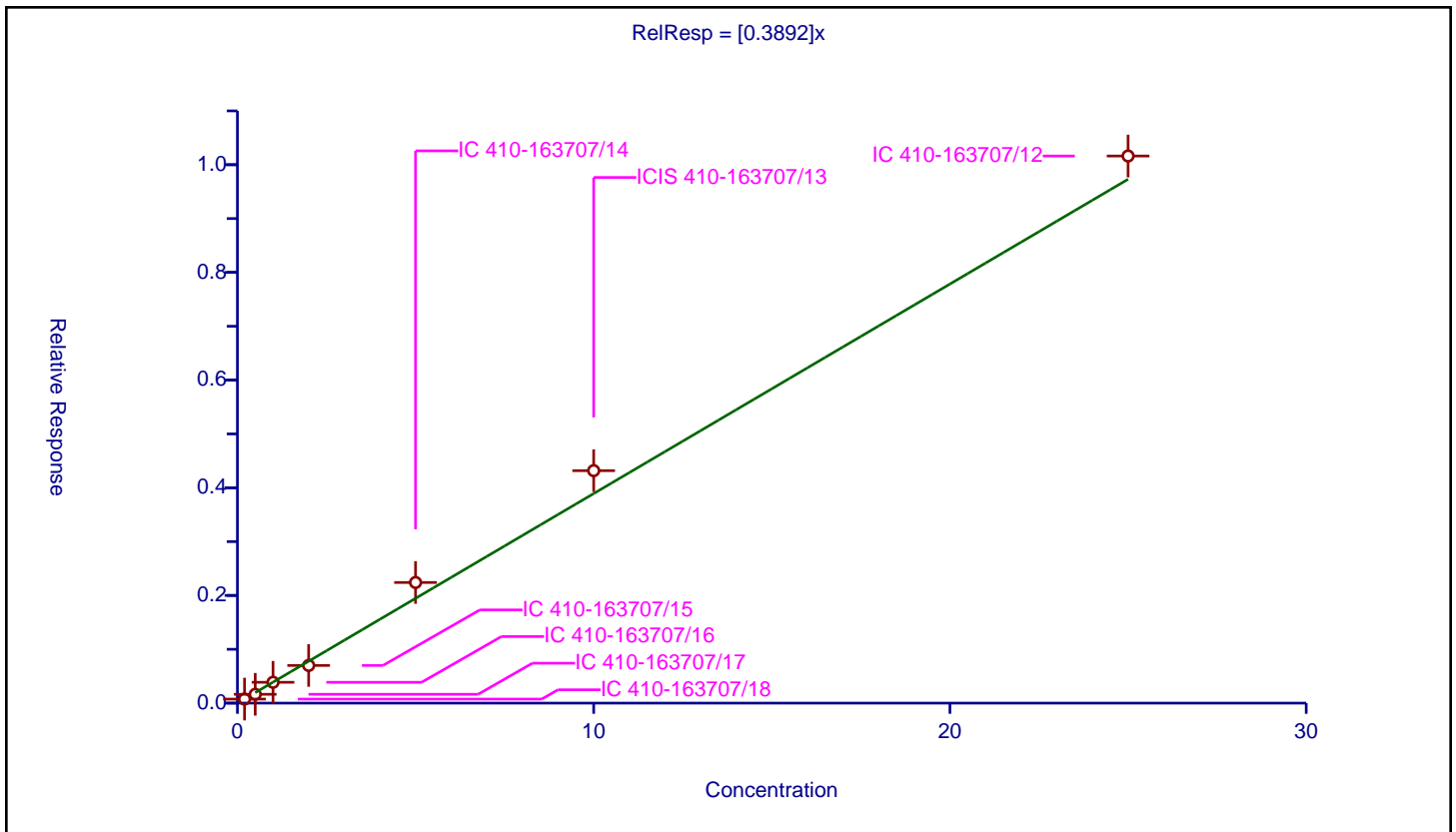
/ n-Heptane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3892

Error Coefficients	
Standard Error:	1050000
Relative Standard Error:	11.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.074706	10.0	2203428.0	0.373532	Y
2	IC 410-163707/17	0.5	0.163901	10.0	2386508.0	0.327801	Y
3	IC 410-163707/16	1.0	0.387016	10.0	2167768.0	0.387016	Y
4	IC 410-163707/15	2.0	0.699601	10.0	2141536.0	0.3498	Y
5	IC 410-163707/14	5.0	2.240426	10.0	2115642.0	0.448085	Y
6	ICIS 410-163707/13	10.0	4.317814	10.0	2122537.0	0.431781	Y
7	IC 410-163707/12	25.0	10.162139	10.0	2314551.0	0.406486	Y



Calibration

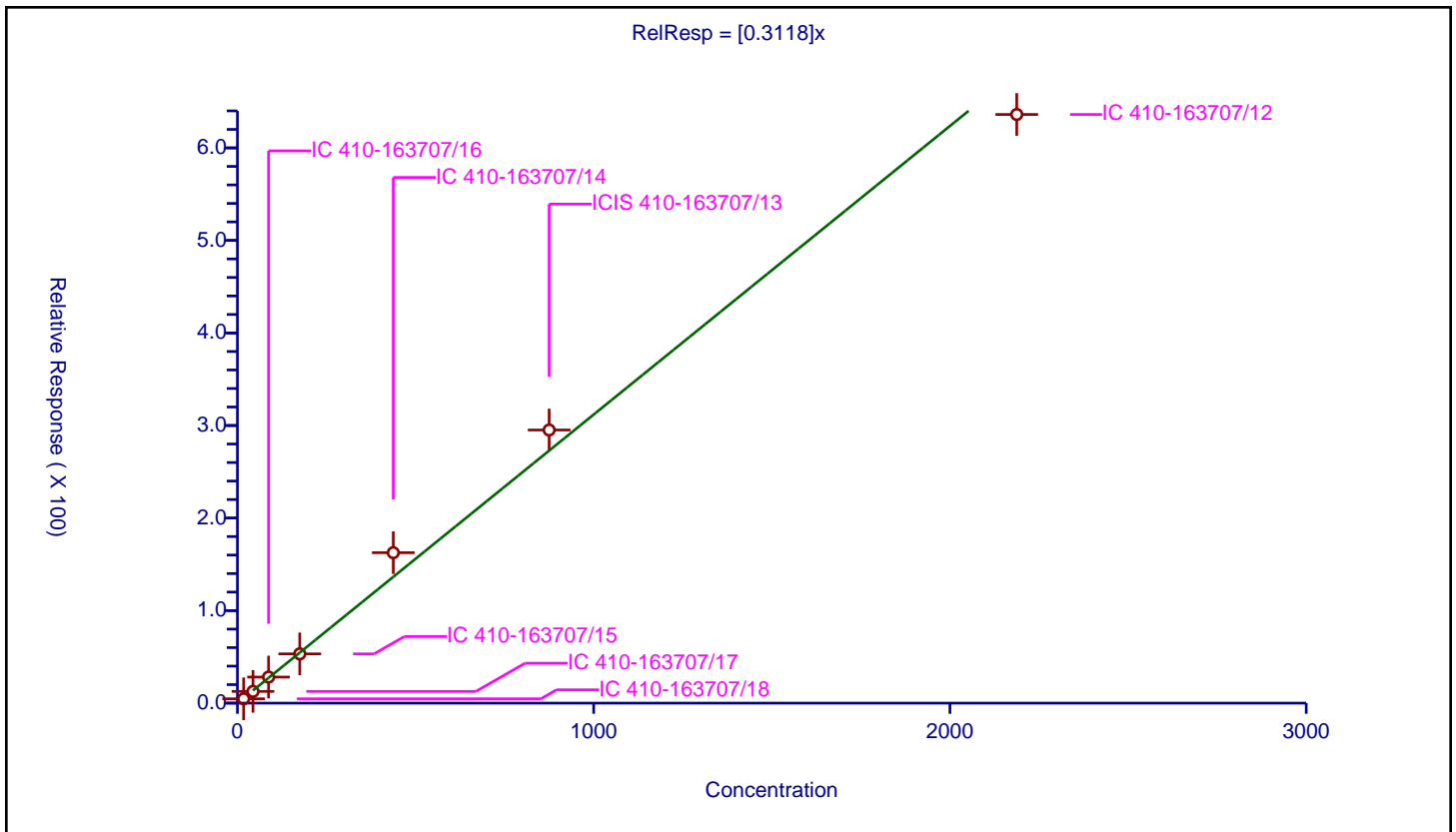
/ n-Butanol

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

Curve Coefficients	
Intercept:	0
Slope:	0.3118

Error Coefficients	
Standard Error:	911000
Relative Standard Error:	11.2
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	17.5	4.67582	50.0	162132.0	0.26719	Y
2	IC 410-163707/17	43.75	12.684213	50.0	162651.0	0.289925	Y
3	IC 410-163707/16	87.5	28.164924	50.0	143084.0	0.321885	Y
4	IC 410-163707/15	175.0	53.221856	50.0	162903.0	0.304125	Y
5	IC 410-163707/14	437.5	162.572183	50.0	134380.0	0.371594	Y
6	ICIS 410-163707/13	875.0	295.150873	50.0	165205.0	0.337315	Y
7	IC 410-163707/12	2187.5	636.104281	50.0	153335.0	0.290791	Y



Calibration

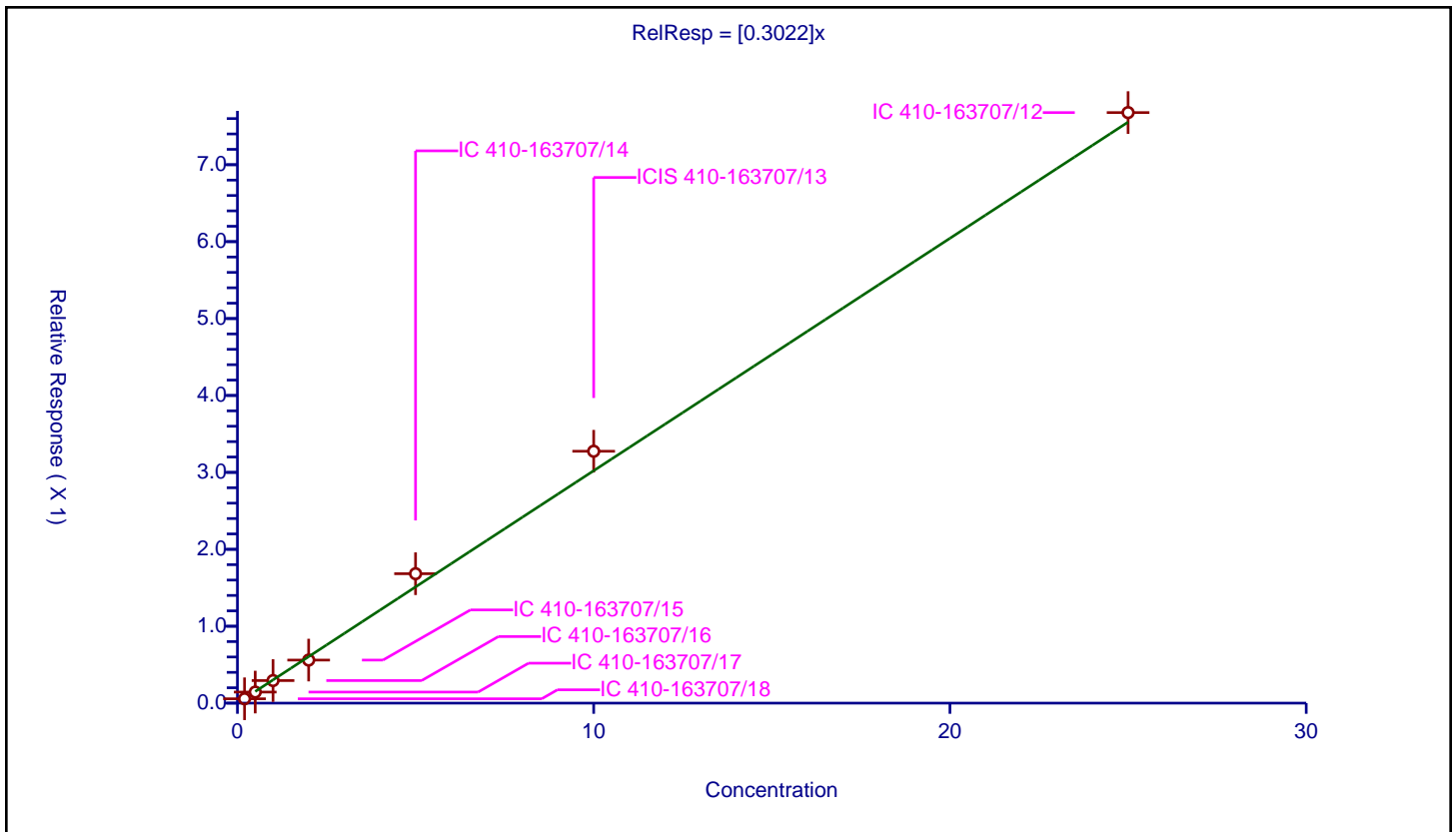
/ Trichloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.3022

Error Coefficients	
Standard Error:	795000
Relative Standard Error:	7.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.056603	10.0	2203428.0	0.283014	Y
2	IC 410-163707/17	0.5	0.143846	10.0	2386508.0	0.287692	Y
3	IC 410-163707/16	1.0	0.293472	10.0	2167768.0	0.293472	Y
4	IC 410-163707/15	2.0	0.559785	10.0	2141536.0	0.279893	Y
5	IC 410-163707/14	5.0	1.682723	10.0	2115642.0	0.336545	Y
6	ICIS 410-163707/13	10.0	3.274789	10.0	2122537.0	0.327479	Y
7	IC 410-163707/12	25.0	7.677865	10.0	2314551.0	0.307115	Y



Calibration

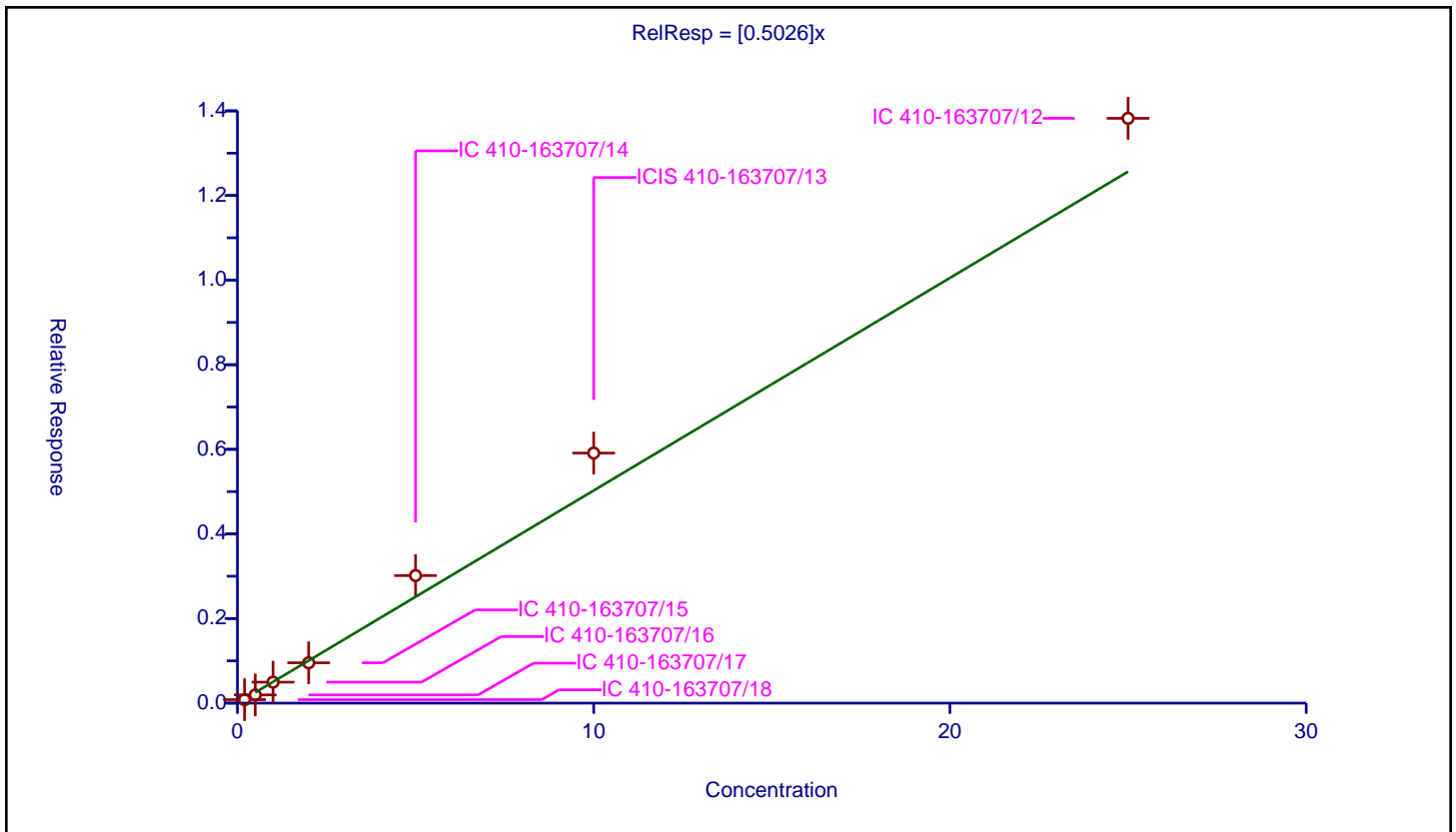
/ Methylcyclohexane

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

Curve Coefficients	
Intercept:	0
Slope:	0.5026

Error Coefficients	
Standard Error:	1430000
Relative Standard Error:	16.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.968

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.082081	10.0	2203428.0	0.410406	Y
2	IC 410-163707/17	0.5	0.193986	10.0	2386508.0	0.387973	Y
3	IC 410-163707/16	1.0	0.496036	10.0	2167768.0	0.496036	Y
4	IC 410-163707/15	2.0	0.953227	10.0	2141536.0	0.476614	Y
5	IC 410-163707/14	5.0	3.015052	10.0	2115642.0	0.60301	Y
6	ICIS 410-163707/13	10.0	5.911251	10.0	2122537.0	0.591125	Y
7	IC 410-163707/12	25.0	13.824098	10.0	2314551.0	0.552964	Y



Calibration

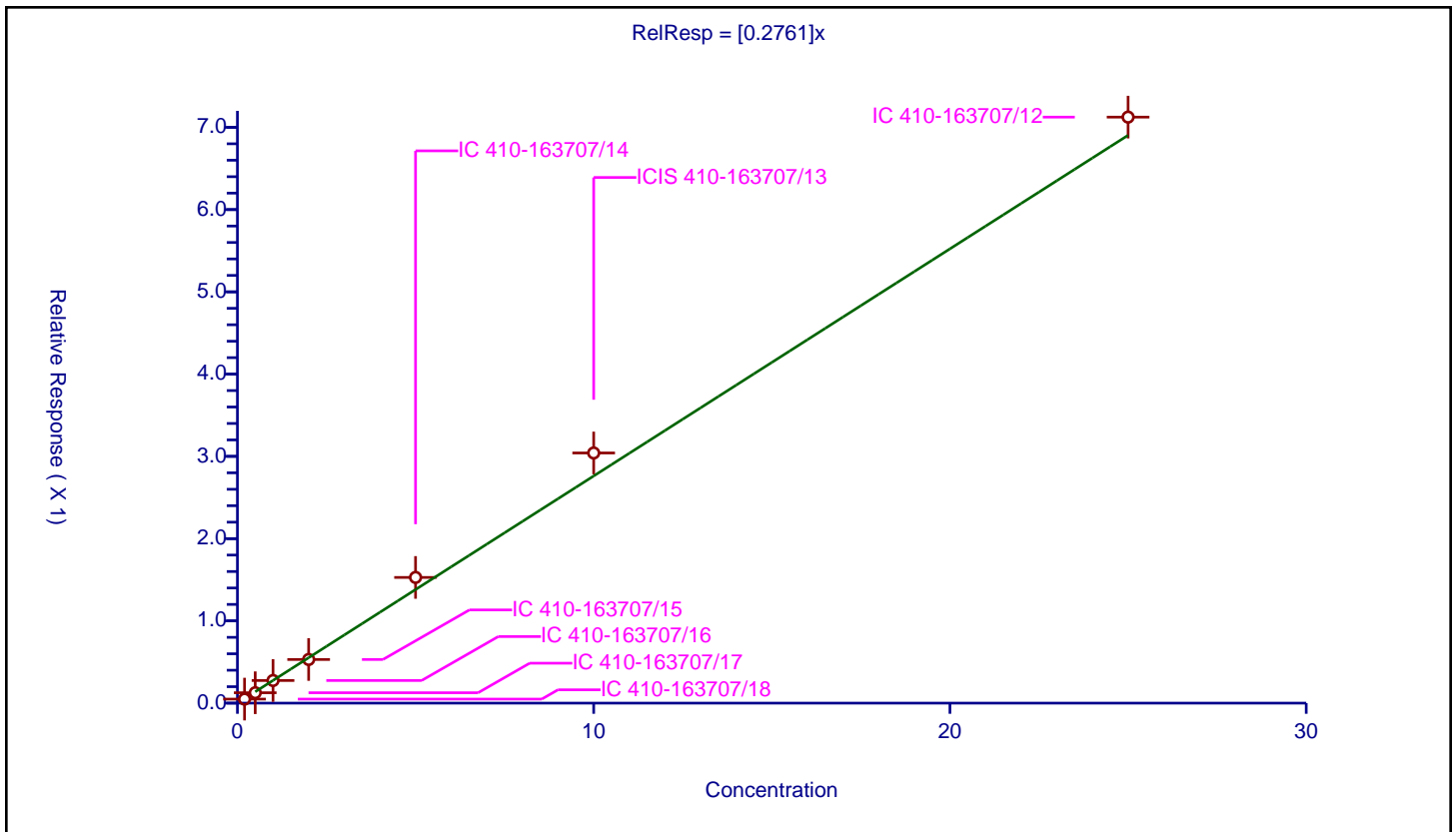
/ 1,2-Dichloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2761

Error Coefficients	
Standard Error:	737000
Relative Standard Error:	8.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.048978	10.0	2203428.0	0.244891	Y
2	IC 410-163707/17	0.5	0.126478	10.0	2386508.0	0.252955	Y
3	IC 410-163707/16	1.0	0.275136	10.0	2167768.0	0.275136	Y
4	IC 410-163707/15	2.0	0.530568	10.0	2141536.0	0.265284	Y
5	IC 410-163707/14	5.0	1.528184	10.0	2115642.0	0.305637	Y
6	ICIS 410-163707/13	10.0	3.041134	10.0	2122537.0	0.304113	Y
7	IC 410-163707/12	25.0	7.124285	10.0	2314551.0	0.284971	Y



Calibration

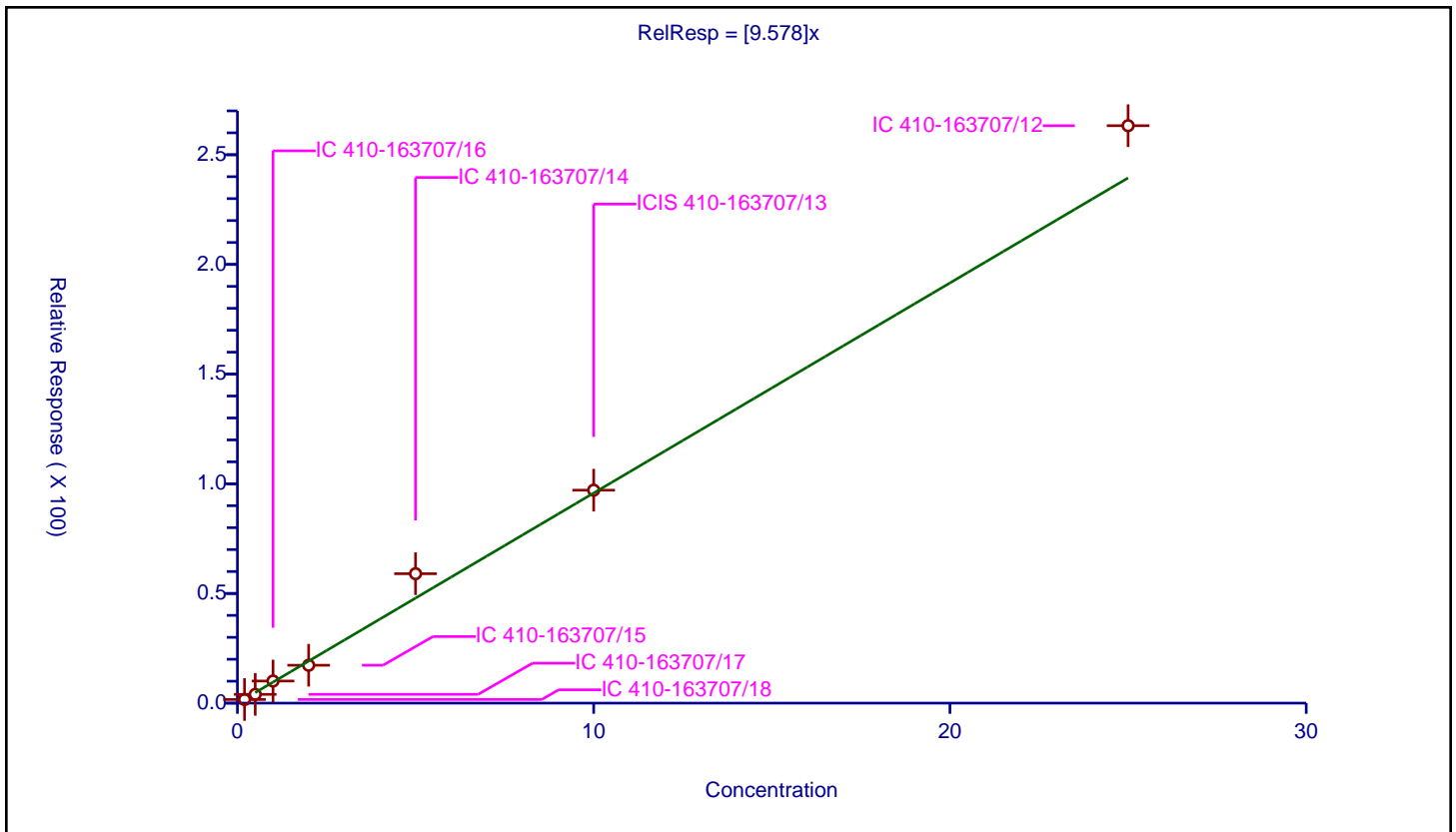
/ Methyl methacrylate

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

Curve Coefficients	
Intercept:	0
Slope:	9.578

Error Coefficients	
Standard Error:	361000
Relative Standard Error:	14.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	1.659142	50.0	162132.0	8.29571	Y
2	IC 410-163707/17	0.5	3.995057	50.0	162651.0	7.990114	Y
3	IC 410-163707/16	1.0	10.079743	50.0	143084.0	10.079743	Y
4	IC 410-163707/15	2.0	17.276539	50.0	162903.0	8.638269	Y
5	IC 410-163707/14	5.0	59.010641	50.0	134380.0	11.802128	Y
6	ICIS 410-163707/13	10.0	97.080899	50.0	165205.0	9.70809	Y
7	IC 410-163707/12	25.0	263.253986	50.0	153335.0	10.530159	Y



Calibration

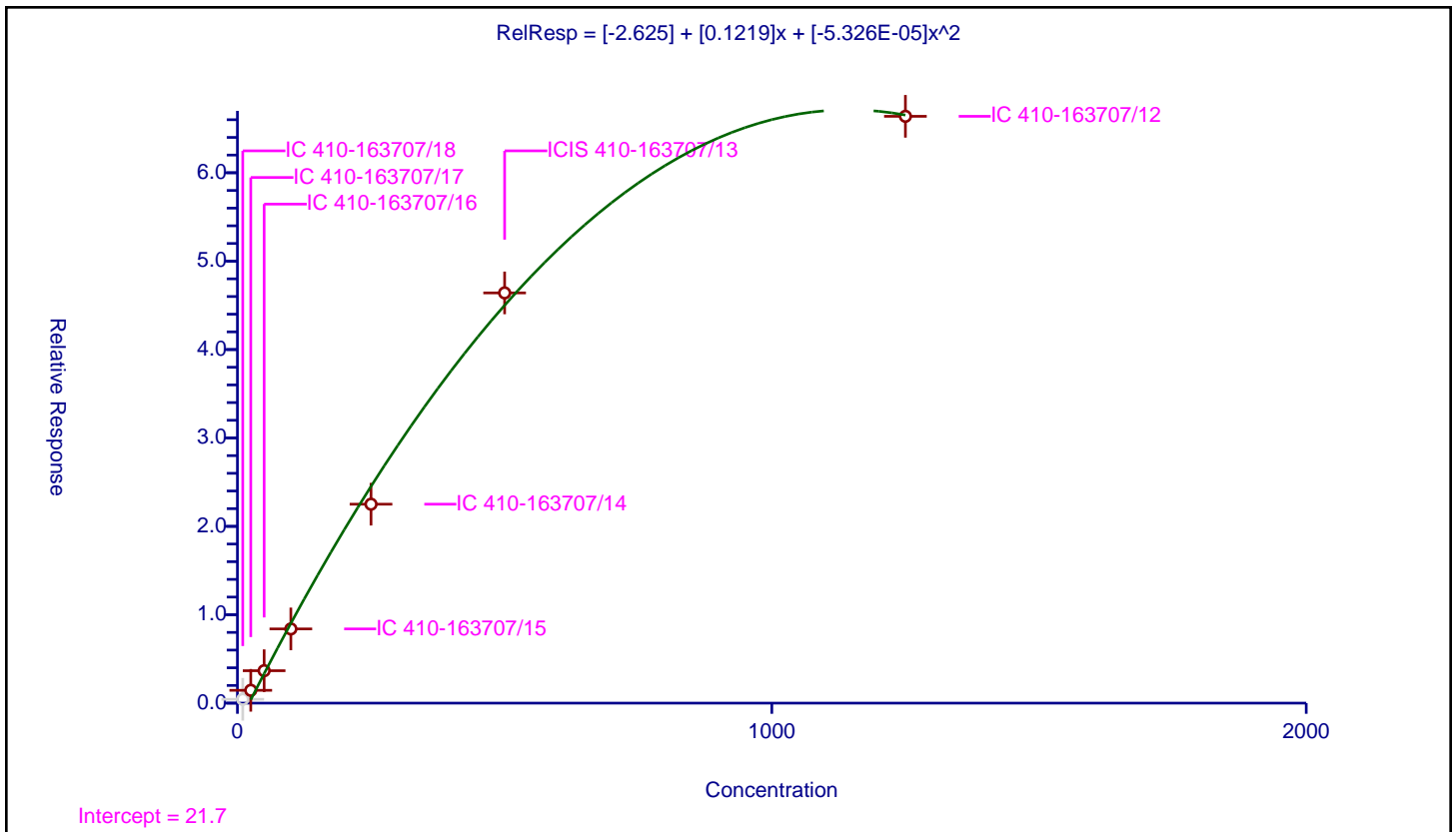
/ 1,4-Dioxane

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

Curve Coefficients	
Intercept:	-2.625
Slope:	0.1219
Second Order:	-5.326E-05

Error Coefficients	
Standard Error:	152000
Relative Standard Error:	24.1
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	10.0	0.434831	50.0	162132.0	0.043483	N
2	IC 410-163707/17	25.0	1.450959	50.0	162651.0	0.058038	Y
3	IC 410-163707/16	50.0	3.667776	50.0	143084.0	0.073356	Y
4	IC 410-163707/15	100.0	8.397022	50.0	162903.0	0.08397	Y
5	IC 410-163707/14	250.0	22.505209	50.0	134380.0	0.090021	Y
6	ICIS 410-163707/13	500.0	46.407494	50.0	165205.0	0.092815	Y
7	IC 410-163707/12	1250.0	66.38667	50.0	153335.0	0.053109	Y



Calibration

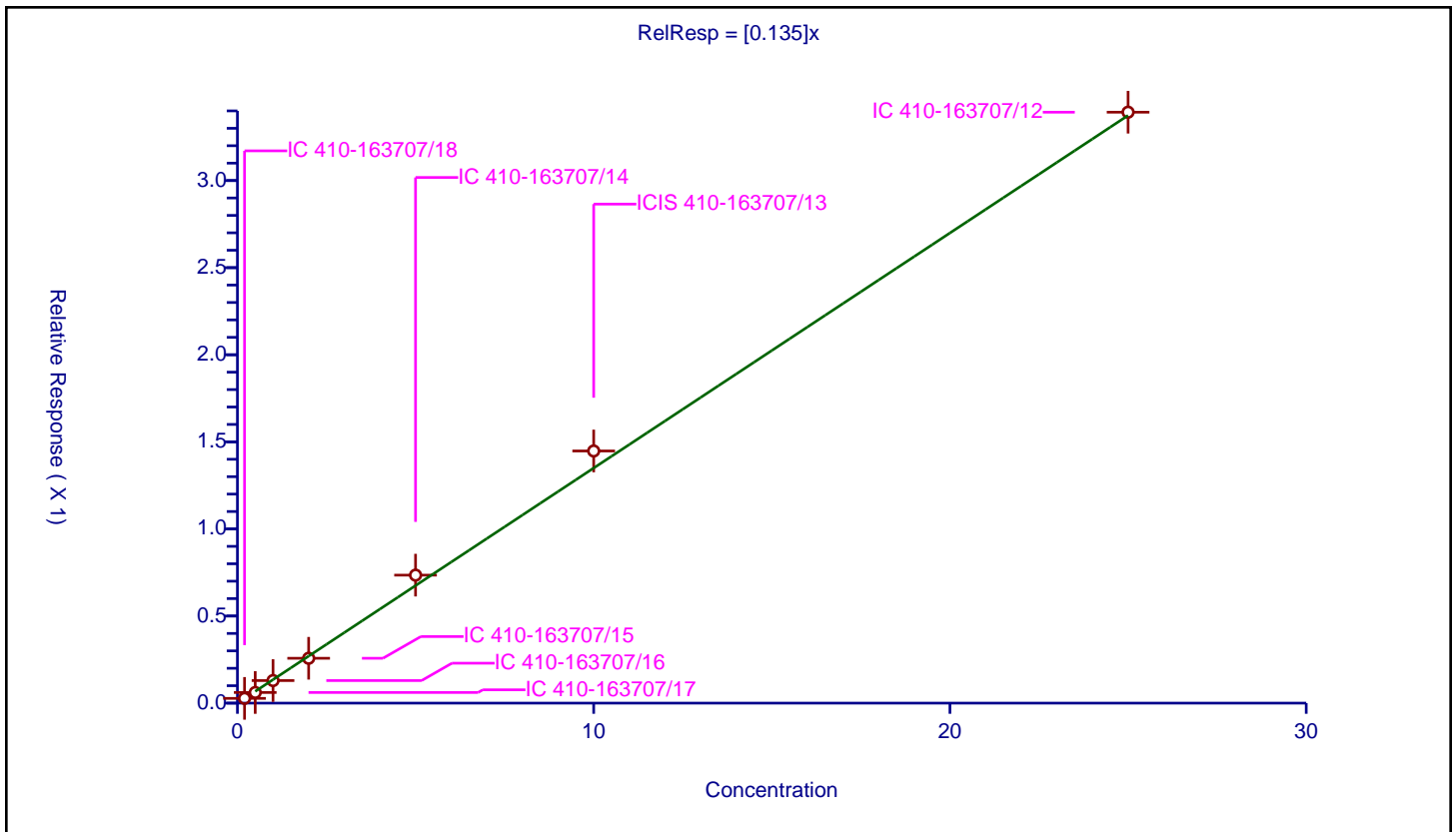
/ Dibromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.135

Error Coefficients	
Standard Error:	351000
Relative Standard Error:	6.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.027339	10.0	2203428.0	0.136696	Y
2	IC 410-163707/17	0.5	0.061089	10.0	2386508.0	0.122179	Y
3	IC 410-163707/16	1.0	0.129626	10.0	2167768.0	0.129626	Y
4	IC 410-163707/15	2.0	0.257507	10.0	2141536.0	0.128753	Y
5	IC 410-163707/14	5.0	0.734812	10.0	2115642.0	0.146962	Y
6	ICIS 410-163707/13	10.0	1.447522	10.0	2122537.0	0.144752	Y
7	IC 410-163707/12	25.0	3.392537	10.0	2314551.0	0.135701	Y



Calibration

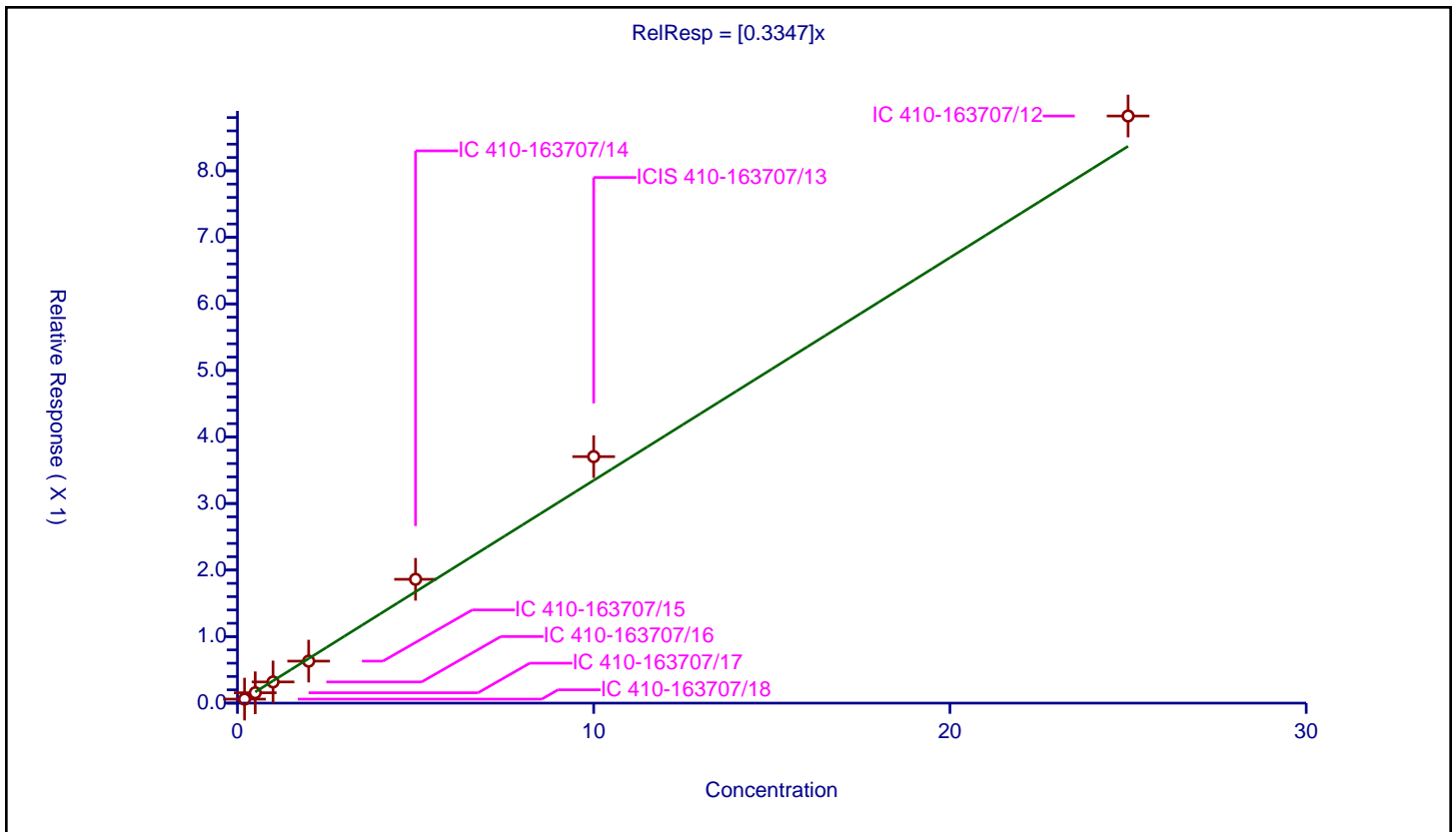
/ Dichlorobromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3347

Error Coefficients	
Standard Error:	910000
Relative Standard Error:	8.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.060324	10.0	2203428.0	0.301621	Y
2	IC 410-163707/17	0.5	0.156031	10.0	2386508.0	0.312063	Y
3	IC 410-163707/16	1.0	0.318258	10.0	2167768.0	0.318258	Y
4	IC 410-163707/15	2.0	0.631239	10.0	2141536.0	0.315619	Y
5	IC 410-163707/14	5.0	1.861	10.0	2115642.0	0.3722	Y
6	ICIS 410-163707/13	10.0	3.704628	10.0	2122537.0	0.370463	Y
7	IC 410-163707/12	25.0	8.823223	10.0	2314551.0	0.352929	Y



Calibration

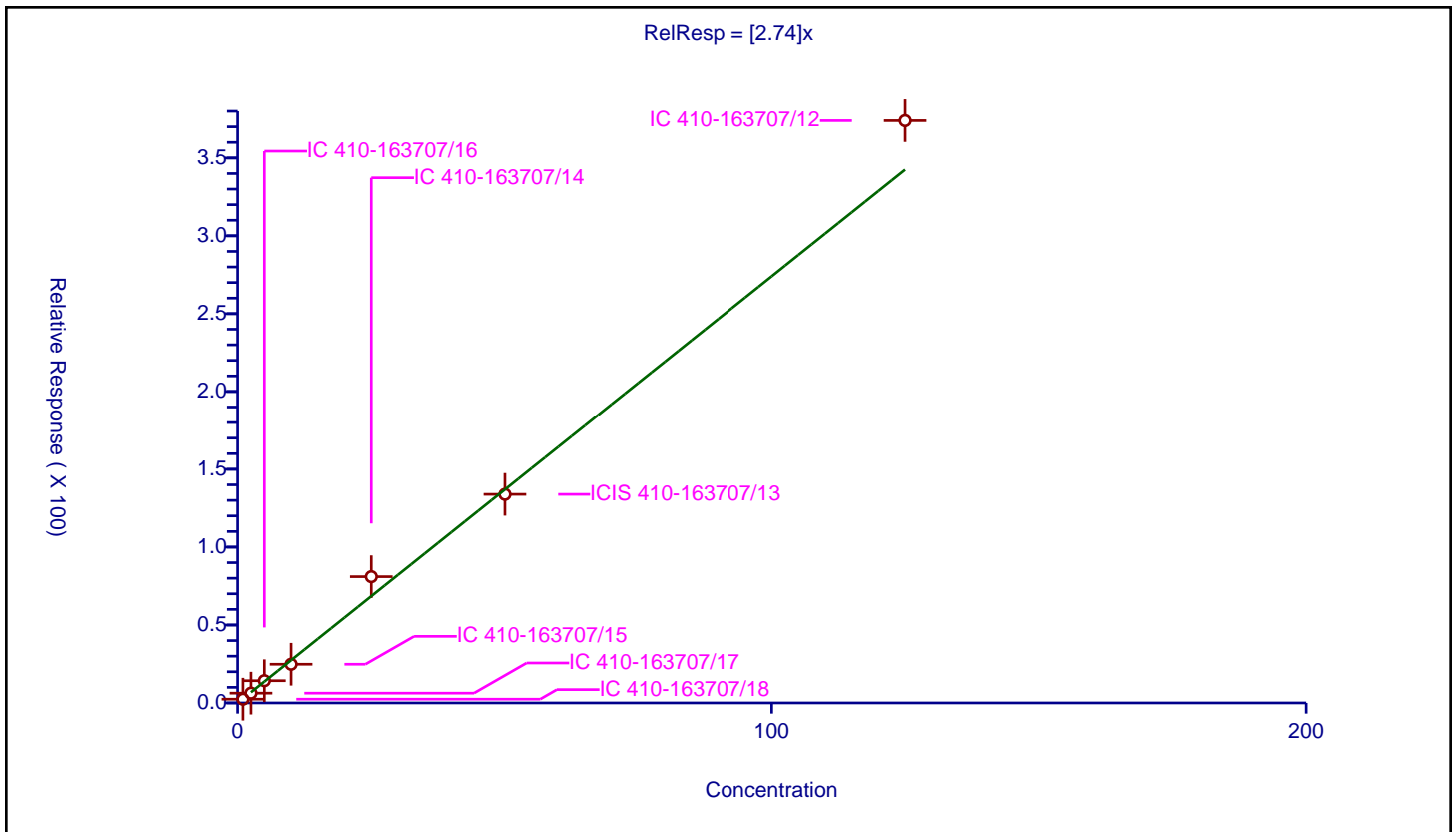
/ 2-Nitropropane

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

Curve Coefficients	
Intercept:	0
Slope:	2.74

Error Coefficients	
Standard Error:	511000
Relative Standard Error:	11.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	1.0	2.422409	50.0	162132.0	2.422409	Y
2	IC 410-163707/17	2.5	6.281548	50.0	162651.0	2.512619	Y
3	IC 410-163707/16	5.0	14.264698	50.0	143084.0	2.85294	Y
4	IC 410-163707/15	10.0	24.822133	50.0	162903.0	2.482213	Y
5	IC 410-163707/14	25.0	81.00573	50.0	134380.0	3.240229	Y
6	ICIS 410-163707/13	50.0	133.878515	50.0	165205.0	2.67757	Y
7	IC 410-163707/12	125.0	373.986044	50.0	153335.0	2.991888	Y



Calibration

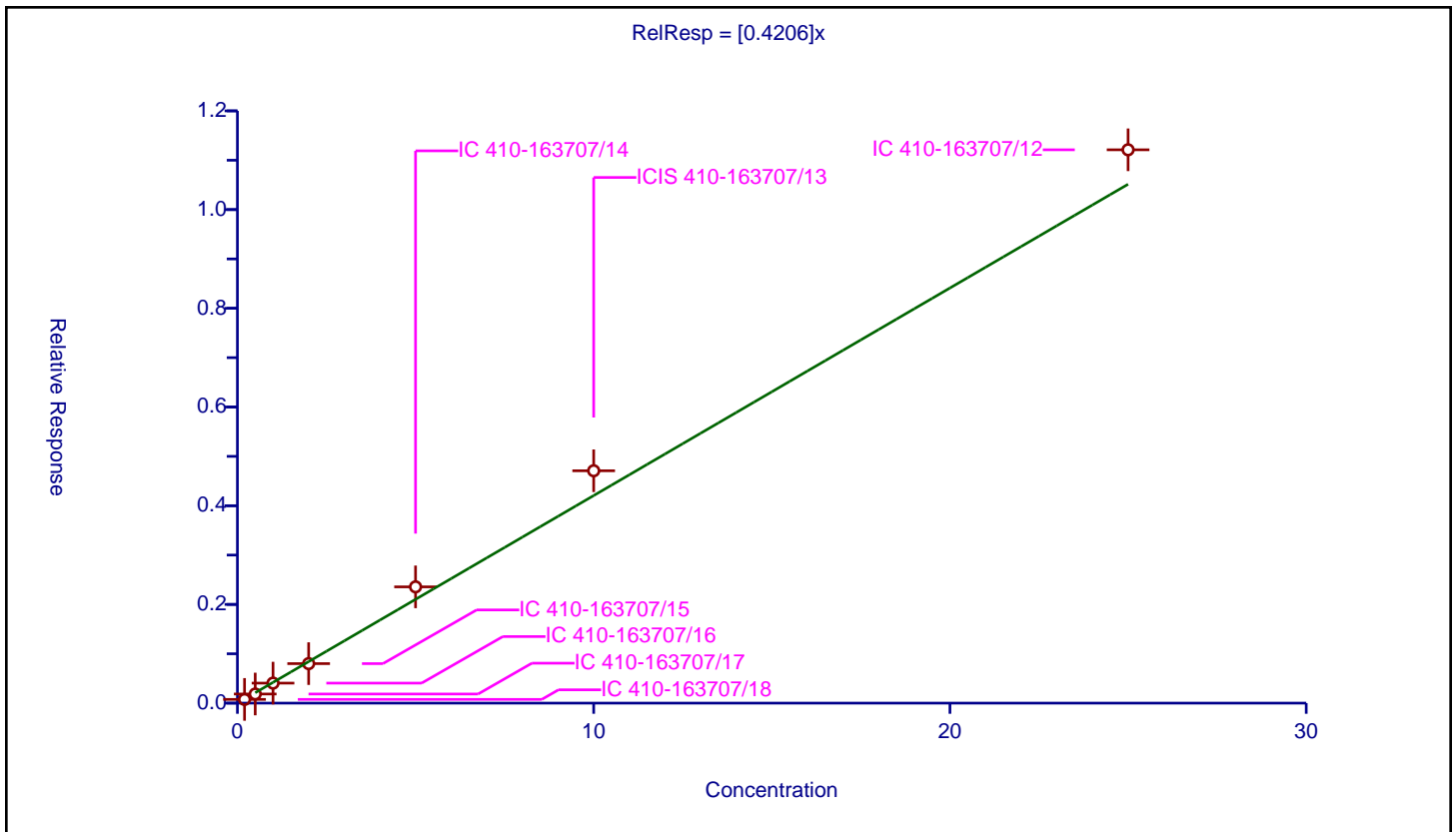
/ cis-1,3-Dichloropropene

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

Curve Coefficients	
Intercept:	0
Slope:	0.4206

Error Coefficients	
Standard Error:	1160000
Relative Standard Error:	10.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.075482	10.0	2203428.0	0.377412	Y
2	IC 410-163707/17	0.5	0.185019	10.0	2386508.0	0.370039	Y
3	IC 410-163707/16	1.0	0.405708	10.0	2167768.0	0.405708	Y
4	IC 410-163707/15	2.0	0.800561	10.0	2141536.0	0.40028	Y
5	IC 410-163707/14	5.0	2.356022	10.0	2115642.0	0.471204	Y
6	ICIS 410-163707/13	10.0	4.708257	10.0	2122537.0	0.470826	Y
7	IC 410-163707/12	25.0	11.211406	10.0	2314551.0	0.448456	Y



Calibration

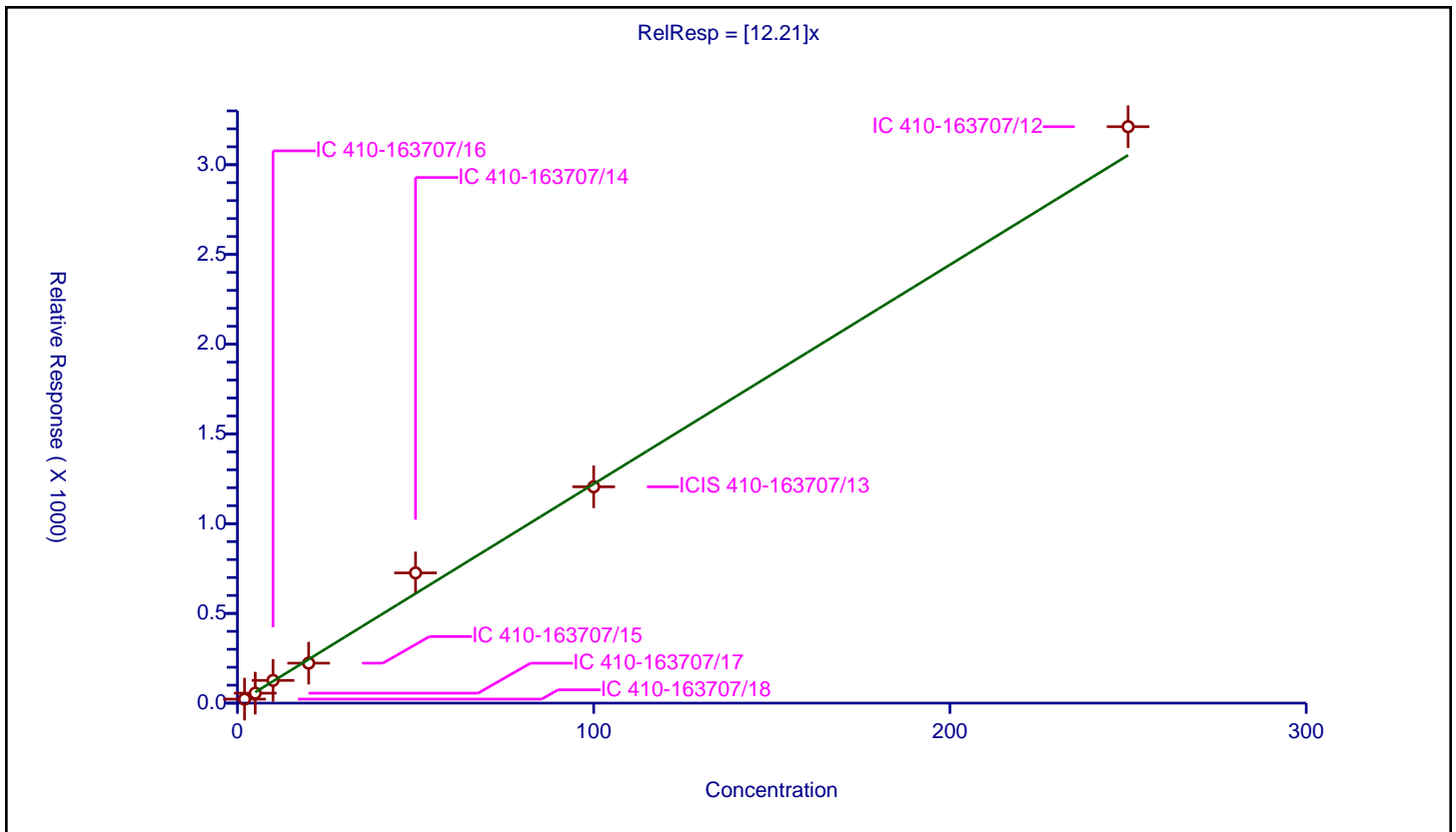
/ 4-Methyl-2-pentanone (MIBK)

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

Curve Coefficients	
Intercept:	0
Slope:	12.21

Error Coefficients	
Standard Error:	4420000
Relative Standard Error:	10.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	22.343214	50.0	162132.0	11.171607	Y
2	IC 410-163707/17	5.0	55.52379	50.0	162651.0	11.104758	Y
3	IC 410-163707/16	10.0	126.599061	50.0	143084.0	12.659906	Y
4	IC 410-163707/15	20.0	222.773061	50.0	162903.0	11.138653	Y
5	IC 410-163707/14	50.0	725.584536	50.0	134380.0	14.511691	Y
6	ICIS 410-163707/13	100.0	1205.45837	50.0	165205.0	12.054584	Y
7	IC 410-163707/12	250.0	3211.922588	50.0	153335.0	12.84769	Y



Calibration

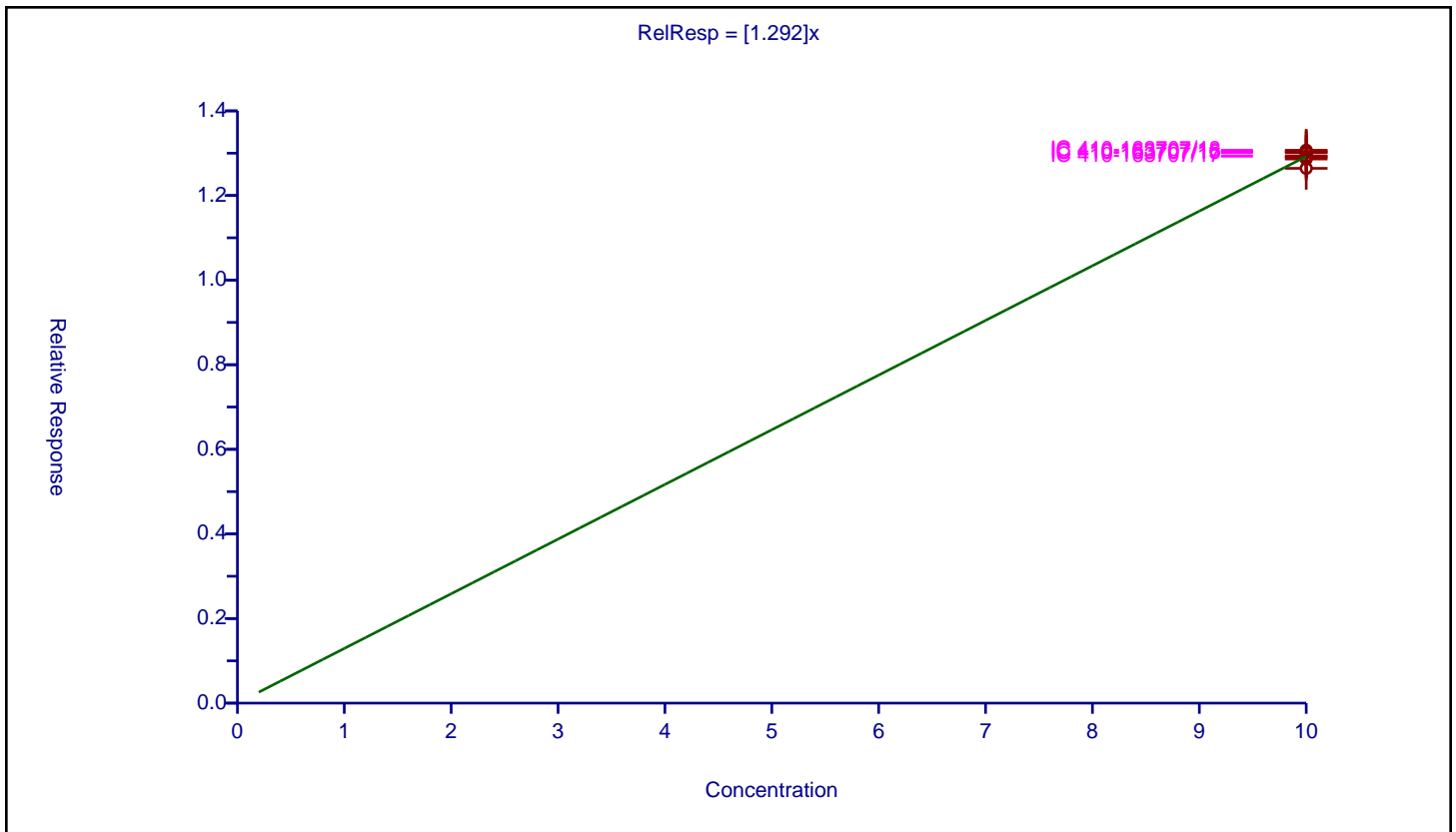
/ Toluene-d8 (Surr)

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

Curve Coefficients	
Intercept:	0
Slope:	1.292

Error Coefficients	
Standard Error:	2390000
Relative Standard Error:	1.1
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/12	10.0	12.642123	10.0	1830649.0	1.264212	Y
2	ICIS 410-163707/13	10.0	12.91349	10.0	1640634.0	1.291349	Y
3	IC 410-163707/14	10.0	12.862715	10.0	1642811.0	1.286272	Y
4	IC 410-163707/15	10.0	13.007568	10.0	1654646.0	1.300757	Y
5	IC 410-163707/16	10.0	13.038338	10.0	1659651.0	1.303834	Y
6	IC 410-163707/17	10.0	12.928443	10.0	1845718.0	1.292844	Y
7	IC 410-163707/18	10.0	13.068865	10.0	1679409.0	1.306887	Y



Calibration

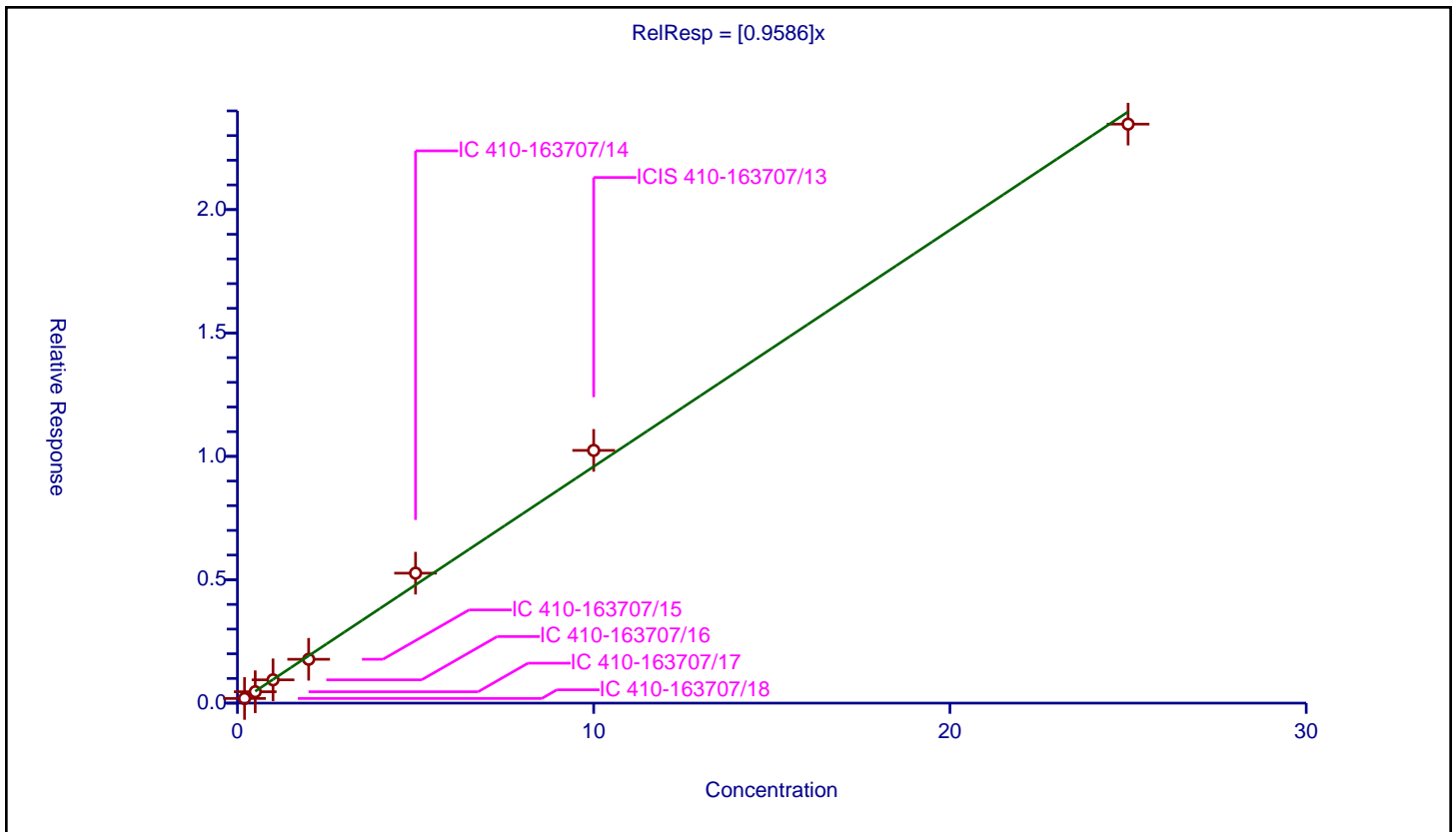
/ Toluene

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

Curve Coefficients	
Intercept:	0
Slope:	0.9586

Error Coefficients	
Standard Error:	1920000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.18781	10.0	1679409.0	0.939051	Y
2	IC 410-163707/17	0.5	0.461463	10.0	1845718.0	0.922925	Y
3	IC 410-163707/16	1.0	0.943469	10.0	1659651.0	0.943469	Y
4	IC 410-163707/15	2.0	1.776851	10.0	1654646.0	0.888426	Y
5	IC 410-163707/14	5.0	5.266631	10.0	1642811.0	1.053326	Y
6	ICIS 410-163707/13	10.0	10.24251	10.0	1640634.0	1.024251	Y
7	IC 410-163707/12	25.0	23.464083	10.0	1830649.0	0.938563	Y



Calibration

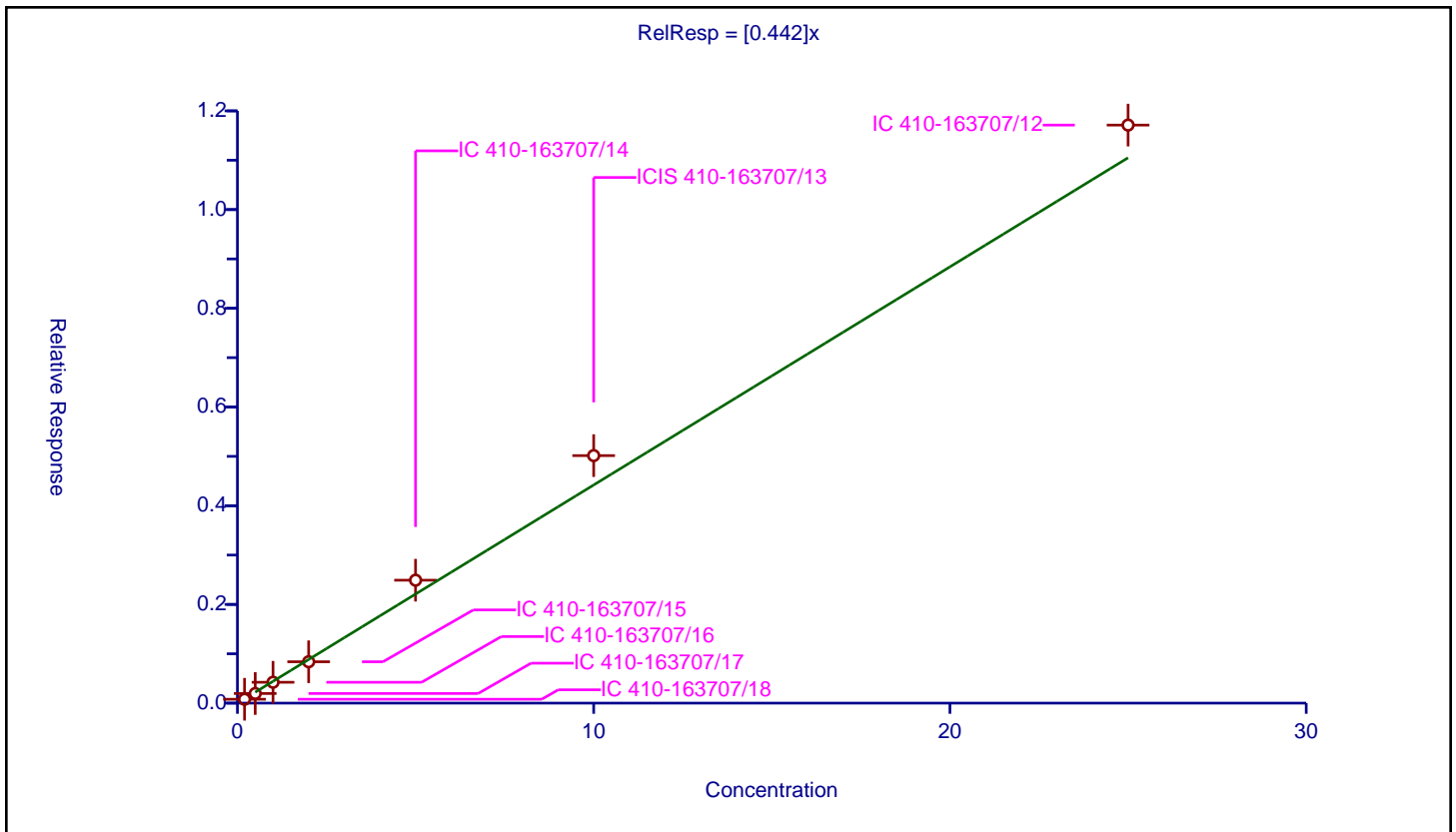
/ trans-1,3-Dichloropropene

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

Curve Coefficients	
Intercept:	0
Slope:	0.442

Error Coefficients	
Standard Error:	955000
Relative Standard Error:	10.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.078694	10.0	1679409.0	0.393472	Y
2	IC 410-163707/17	0.5	0.195019	10.0	1845718.0	0.390038	Y
3	IC 410-163707/16	1.0	0.423077	10.0	1659651.0	0.423077	Y
4	IC 410-163707/15	2.0	0.838506	10.0	1654646.0	0.419253	Y
5	IC 410-163707/14	5.0	2.490962	10.0	1642811.0	0.498192	Y
6	ICIS 410-163707/13	10.0	5.015287	10.0	1640634.0	0.501529	Y
7	IC 410-163707/12	25.0	11.712595	10.0	1830649.0	0.468504	Y



Calibration

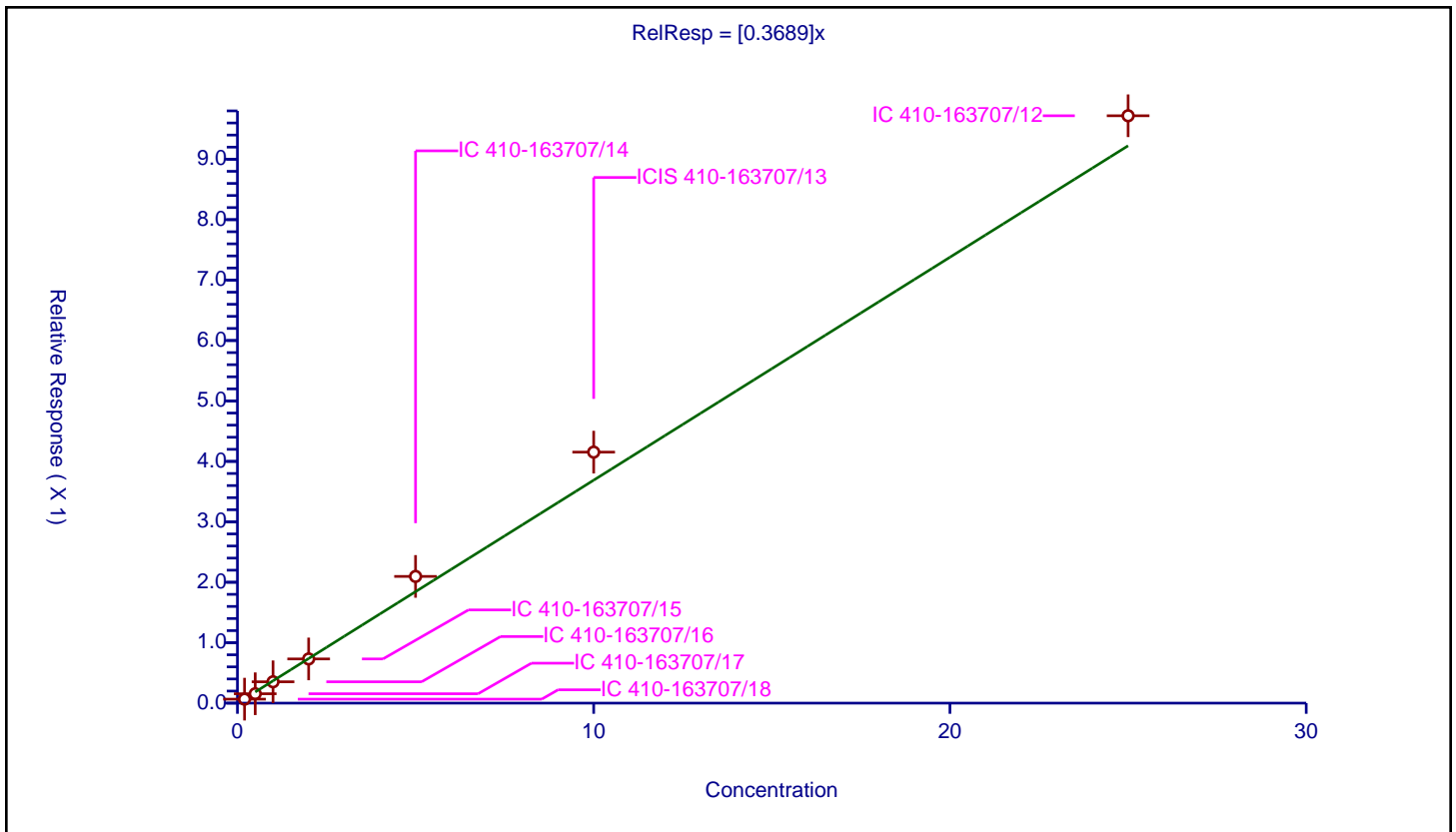
/ Ethyl methacrylate

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

Curve Coefficients	
Intercept:	0
Slope:	0.3689

Error Coefficients	
Standard Error:	792000
Relative Standard Error:	11.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.200009	0.065851	10.0	1679409.0	0.329238	Y
2	IC 410-163707/17	0.500022	0.155414	10.0	1845718.0	0.310814	Y
3	IC 410-163707/16	1.000044	0.353189	10.0	1659651.0	0.353173	Y
4	IC 410-163707/15	2.000088	0.731516	10.0	1654646.0	0.365742	Y
5	IC 410-163707/14	5.000219	2.096644	10.0	1642811.0	0.41931	Y
6	ICIS 410-163707/13	10.000438	4.153589	10.0	1640634.0	0.415341	Y
7	IC 410-163707/12	25.001094	9.719471	10.0	1830649.0	0.388762	Y



Calibration

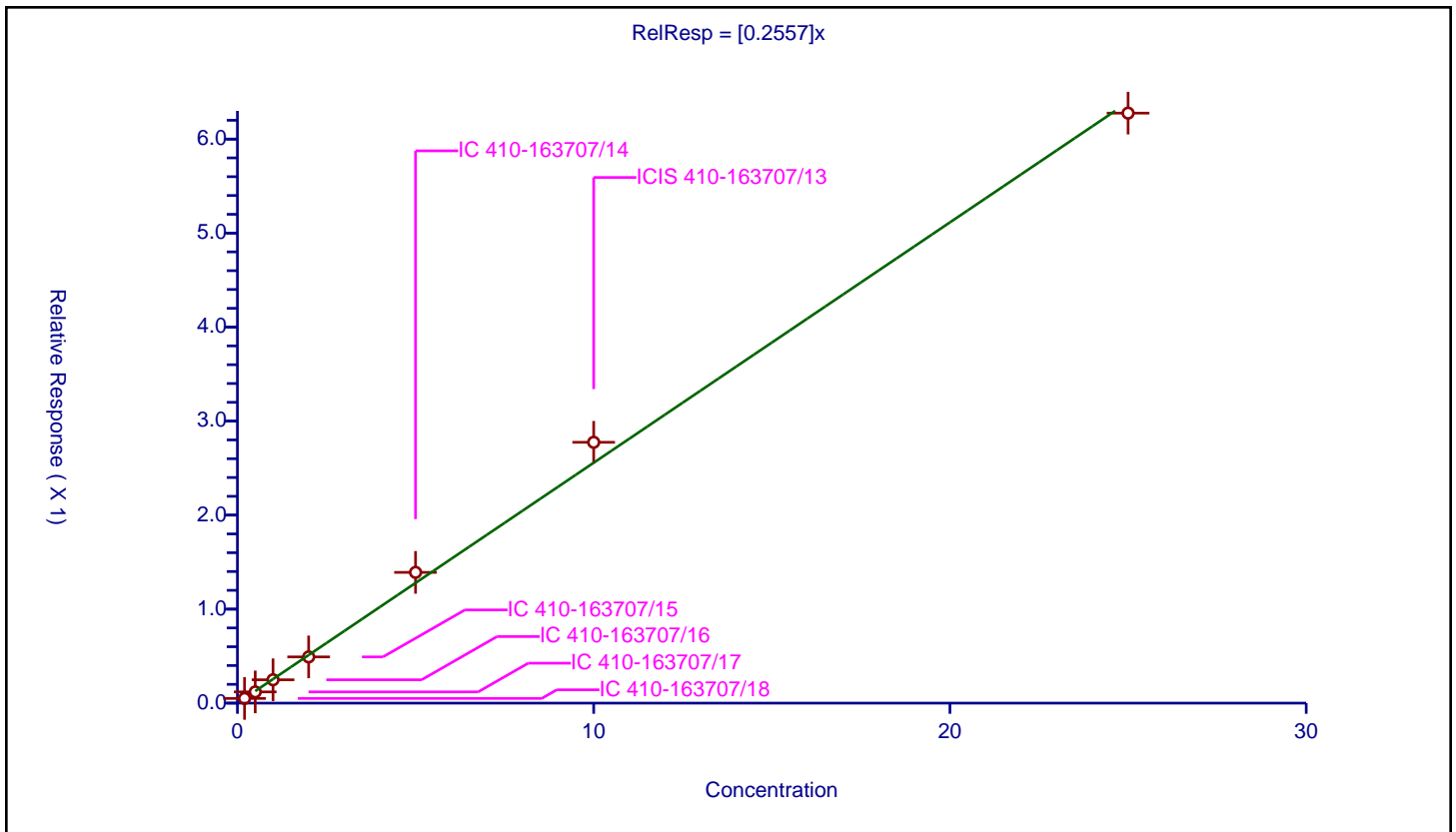
/ 1,1,2-Trichloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.2557

Error Coefficients	
Standard Error:	515000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.049988	10.0	1679409.0	0.249939	Y
2	IC 410-163707/17	0.5	0.119493	10.0	1845718.0	0.238986	Y
3	IC 410-163707/16	1.0	0.248462	10.0	1659651.0	0.248462	Y
4	IC 410-163707/15	2.0	0.491604	10.0	1654646.0	0.245802	Y
5	IC 410-163707/14	5.0	1.390896	10.0	1642811.0	0.278179	Y
6	ICIS 410-163707/13	10.0	2.774714	10.0	1640634.0	0.277471	Y
7	IC 410-163707/12	25.0	6.27625	10.0	1830649.0	0.25105	Y



Calibration

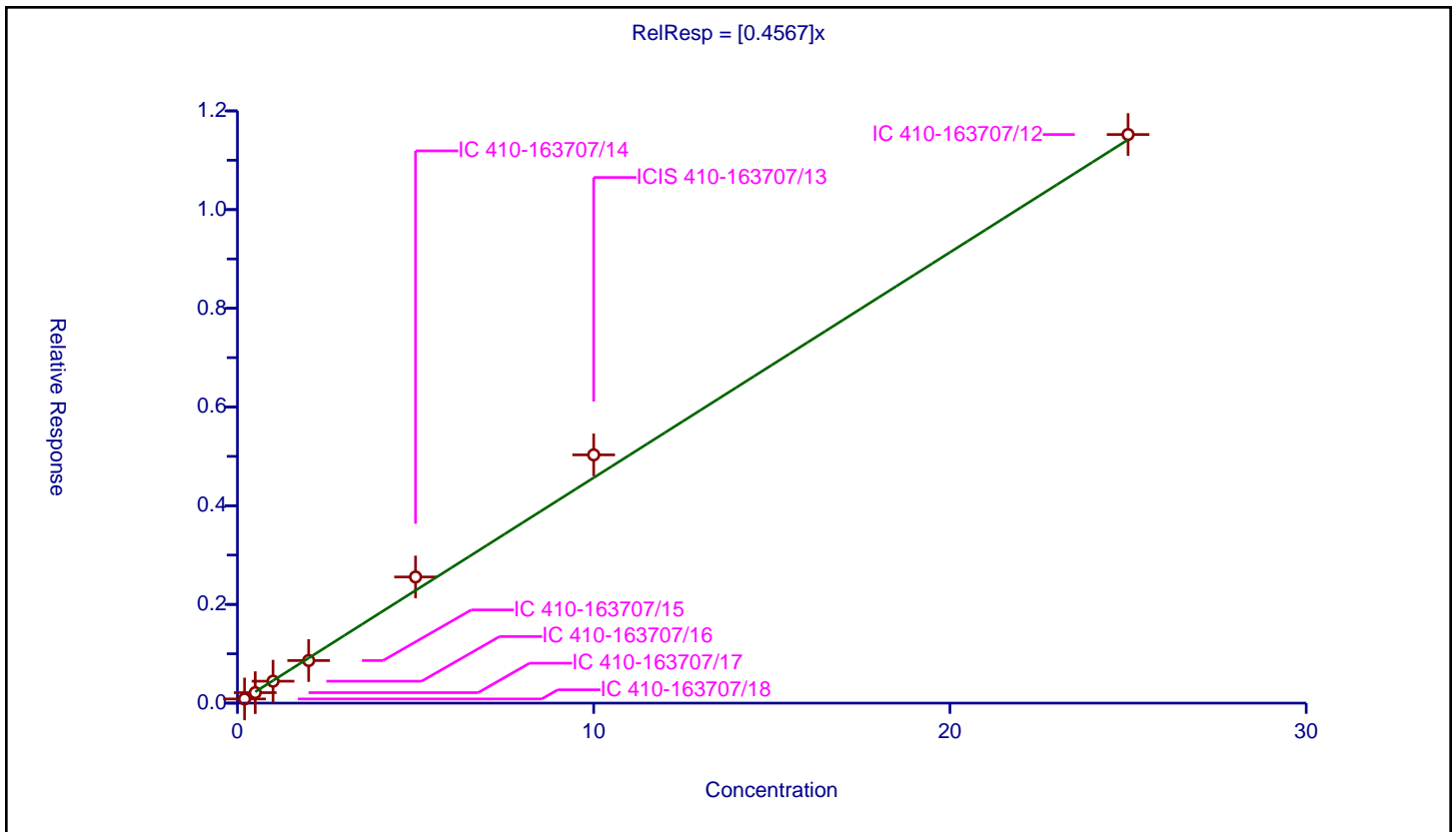
/ Tetrachloroethene

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

Curve Coefficients	
Intercept:	0
Slope:	0.4567

Error Coefficients	
Standard Error:	943000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.084321	10.0	1679409.0	0.421607	Y
2	IC 410-163707/17	0.5	0.212161	10.0	1845718.0	0.424323	Y
3	IC 410-163707/16	1.0	0.444371	10.0	1659651.0	0.444371	Y
4	IC 410-163707/15	2.0	0.862898	10.0	1654646.0	0.431449	Y
5	IC 410-163707/14	5.0	2.556289	10.0	1642811.0	0.511258	Y
6	ICIS 410-163707/13	10.0	5.03033	10.0	1640634.0	0.503033	Y
7	IC 410-163707/12	25.0	11.521411	10.0	1830649.0	0.460856	Y



Calibration

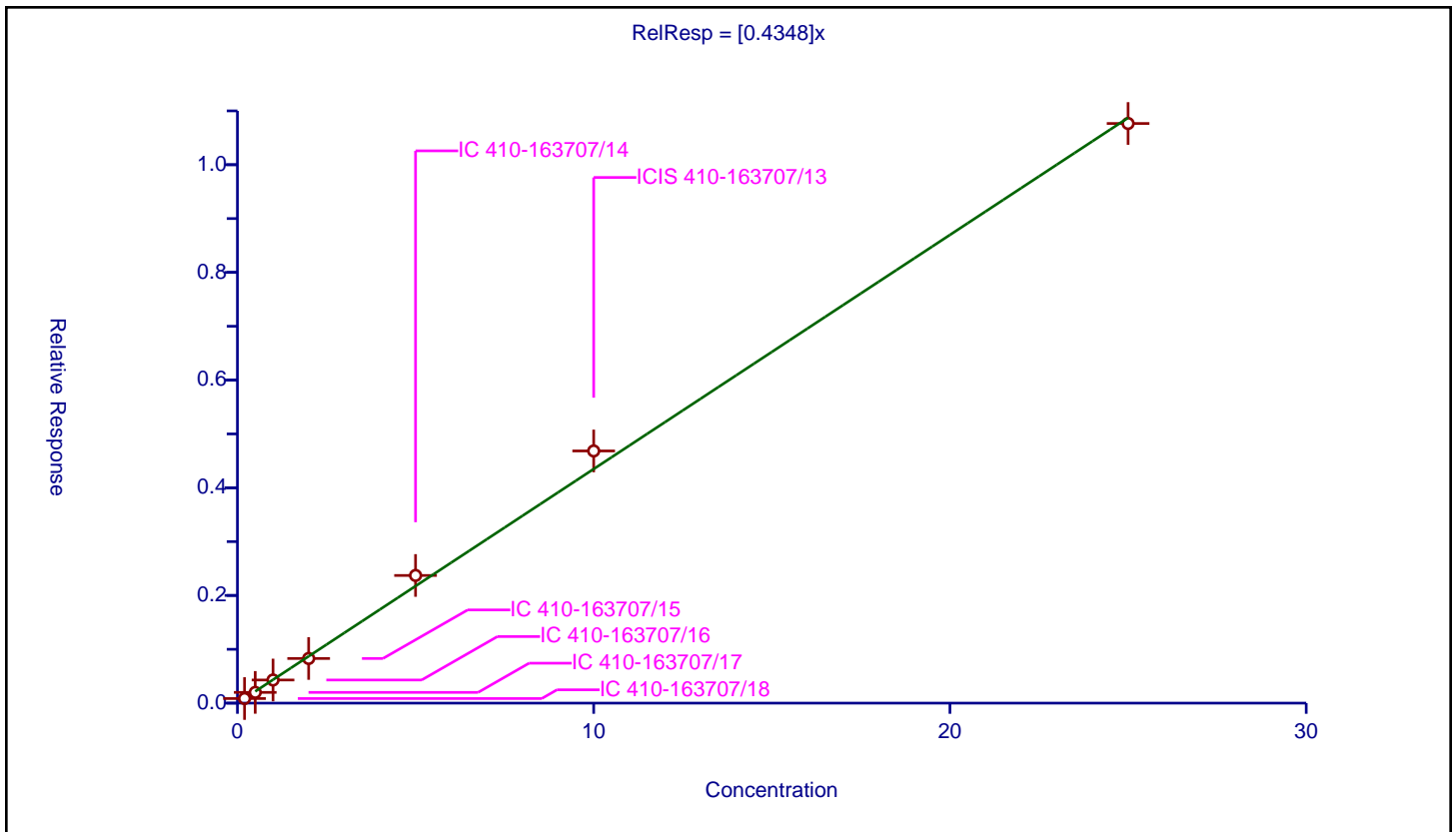
/ 1,3-Dichloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4348

Error Coefficients	
Standard Error:	881000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.085423	10.0	1679409.0	0.427115	Y
2	IC 410-163707/17	0.5	0.199543	10.0	1845718.0	0.399086	Y
3	IC 410-163707/16	1.0	0.429807	10.0	1659651.0	0.429807	Y
4	IC 410-163707/15	2.0	0.829283	10.0	1654646.0	0.414642	Y
5	IC 410-163707/14	5.0	2.371301	10.0	1642811.0	0.47426	Y
6	ICIS 410-163707/13	10.0	4.683836	10.0	1640634.0	0.468384	Y
7	IC 410-163707/12	25.0	10.766204	10.0	1830649.0	0.430648	Y



Calibration

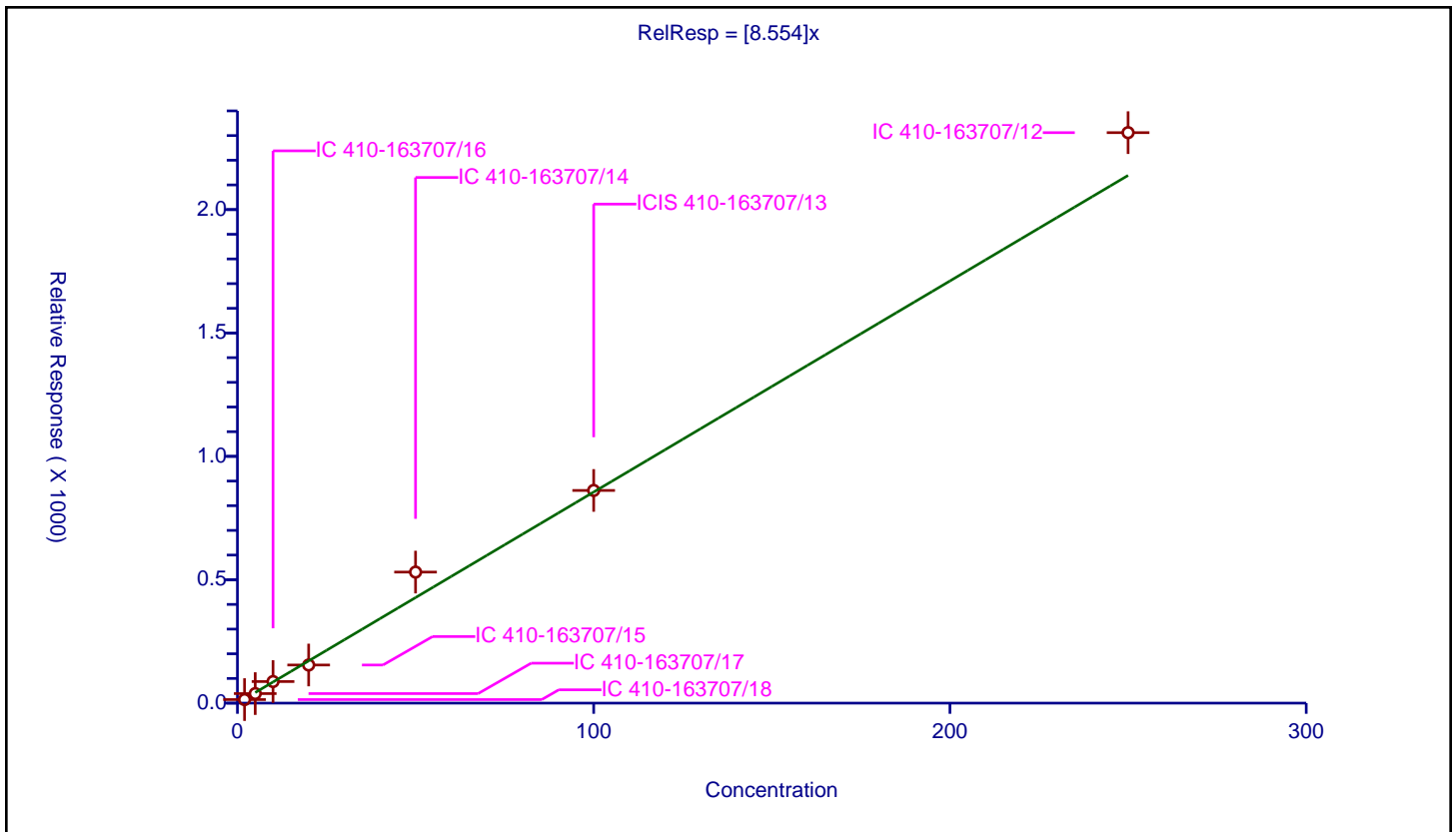
/ 2-Hexanone

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

Curve Coefficients	
Intercept:	0
Slope:	8.554

Error Coefficients	
Standard Error:	3180000
Relative Standard Error:	13.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	14.365455	50.0	162132.0	7.182728	Y
2	IC 410-163707/17	5.0	38.675754	50.0	162651.0	7.735151	Y
3	IC 410-163707/16	10.0	87.473792	50.0	143084.0	8.747379	Y
4	IC 410-163707/15	20.0	154.520482	50.0	162903.0	7.726024	Y
5	IC 410-163707/14	50.0	531.035496	50.0	134380.0	10.62071	Y
6	ICIS 410-163707/13	100.0	861.842559	50.0	165205.0	8.618426	Y
7	IC 410-163707/12	250.0	2311.818241	50.0	153335.0	9.247273	Y



Calibration

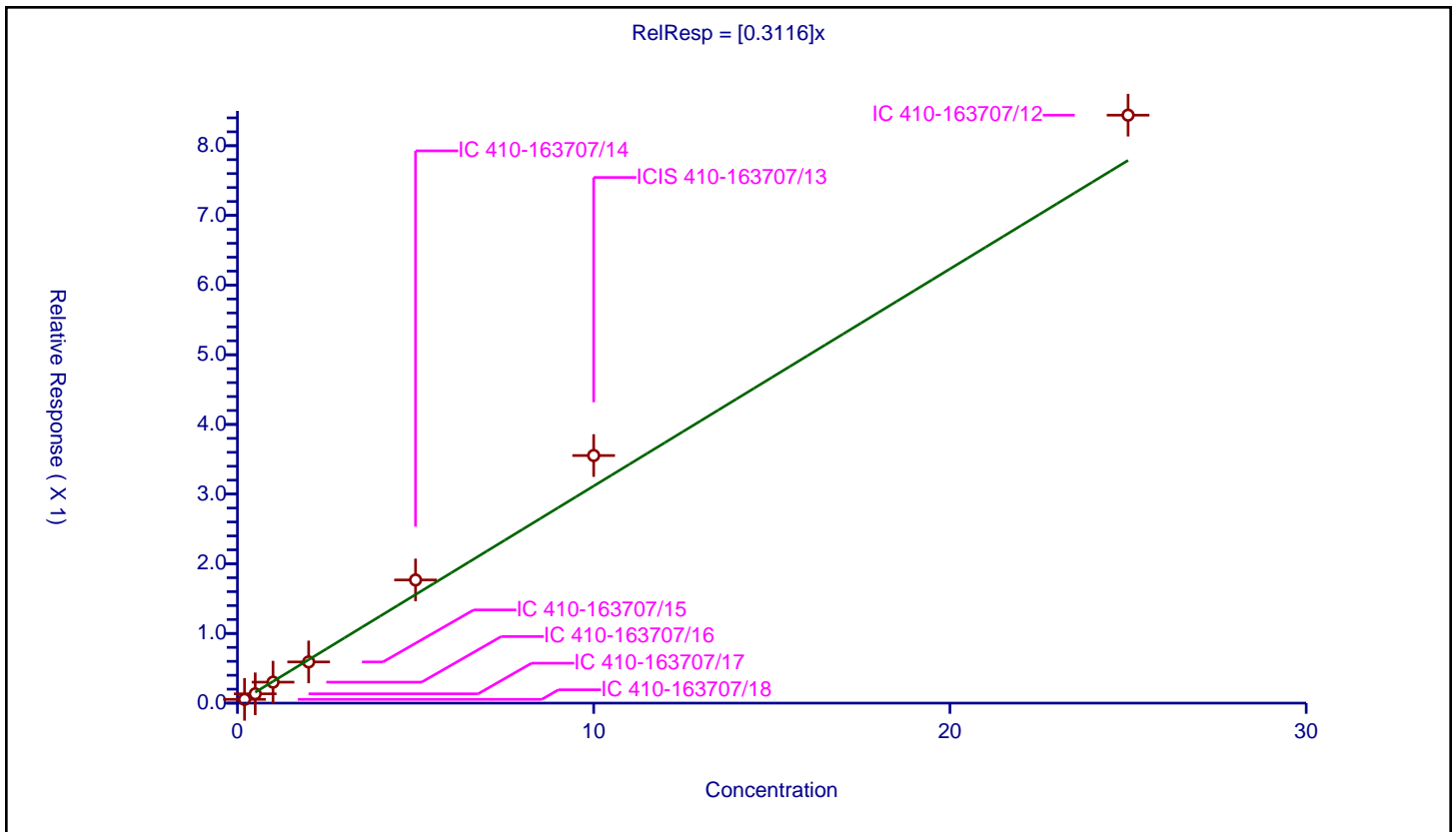
/ Chlorodibromomethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3116

Error Coefficients	
Standard Error:	686000
Relative Standard Error:	12.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.054168	10.0	1679409.0	0.270839	Y
2	IC 410-163707/17	0.5	0.133623	10.0	1845718.0	0.267246	Y
3	IC 410-163707/16	1.0	0.301003	10.0	1659651.0	0.301003	Y
4	IC 410-163707/15	2.0	0.591256	10.0	1654646.0	0.295628	Y
5	IC 410-163707/14	5.0	1.767805	10.0	1642811.0	0.353561	Y
6	ICIS 410-163707/13	10.0	3.553437	10.0	1640634.0	0.355344	Y
7	IC 410-163707/12	25.0	8.438712	10.0	1830649.0	0.337548	Y



Calibration

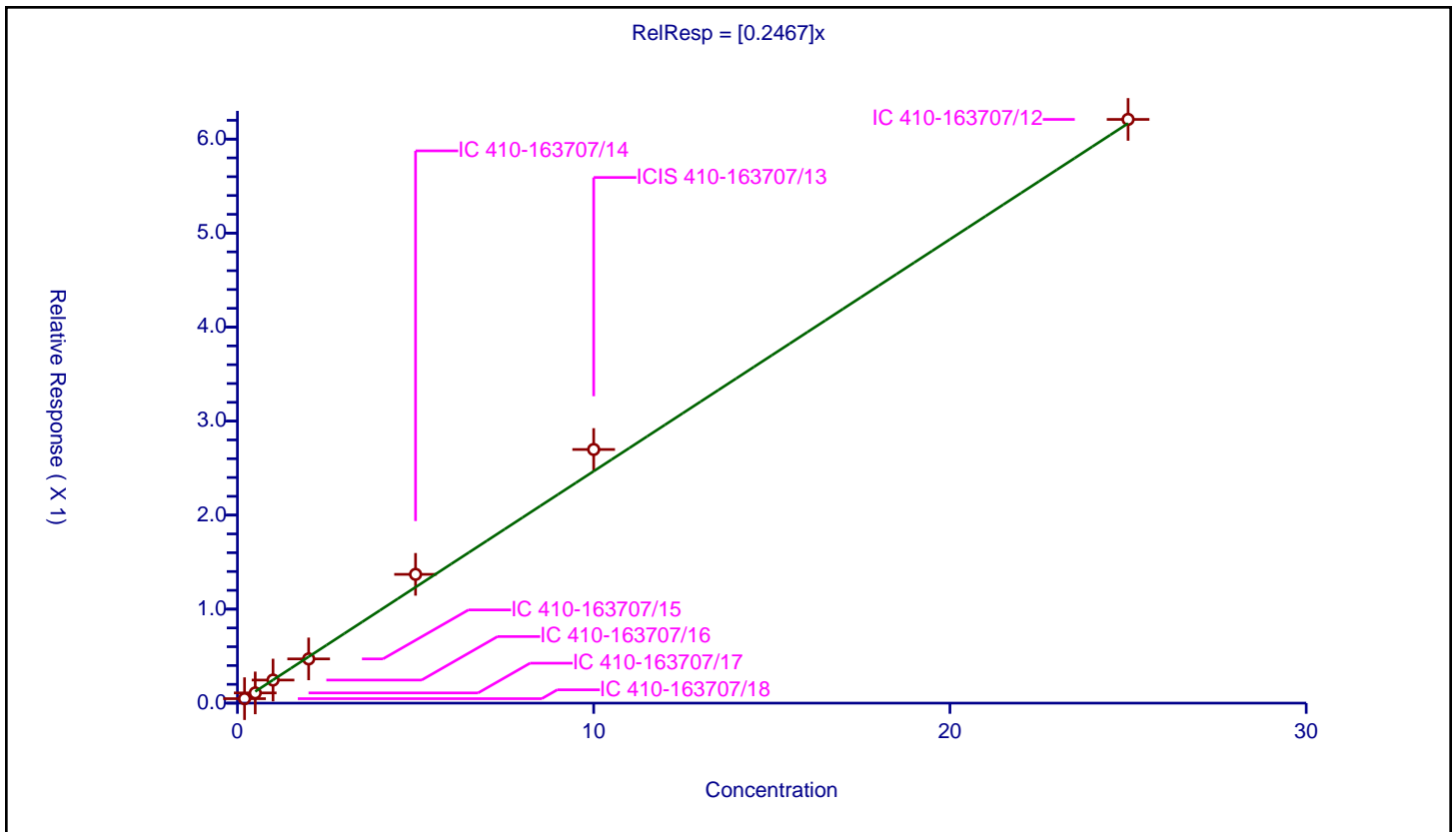
/ Ethylene Dibromide

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

Curve Coefficients	
Intercept:	0
Slope:	0.2467

Error Coefficients	
Standard Error:	508000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.047374	10.0	1679409.0	0.236869	Y
2	IC 410-163707/17	0.5	0.108521	10.0	1845718.0	0.217043	Y
3	IC 410-163707/16	1.0	0.245509	10.0	1659651.0	0.245509	Y
4	IC 410-163707/15	2.0	0.470421	10.0	1654646.0	0.23521	Y
5	IC 410-163707/14	5.0	1.369902	10.0	1642811.0	0.27398	Y
6	ICIS 410-163707/13	10.0	2.698268	10.0	1640634.0	0.269827	Y
7	IC 410-163707/12	25.0	6.209333	10.0	1830649.0	0.248373	Y



Calibration

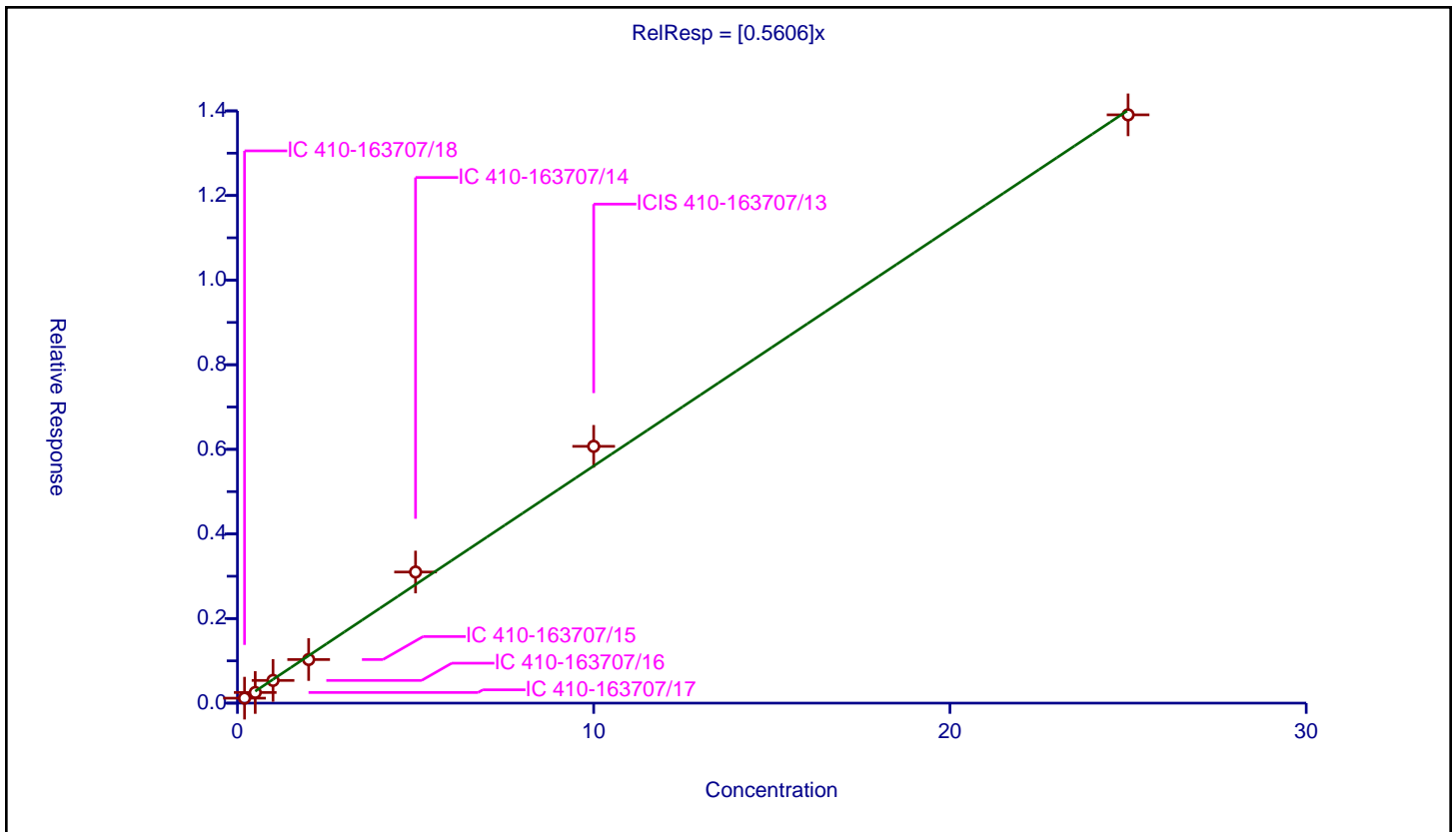
/ 1-Chlorohexane

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

Curve Coefficients	
Intercept:	0
Slope:	0.5606

Error Coefficients	
Standard Error:	1140000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.117327	10.0	1679409.0	0.586635	Y
2	IC 410-163707/17	0.5	0.251398	10.0	1845718.0	0.502796	Y
3	IC 410-163707/16	1.0	0.536601	10.0	1659651.0	0.536601	Y
4	IC 410-163707/15	2.0	1.030112	10.0	1654646.0	0.515056	Y
5	IC 410-163707/14	5.0	3.098926	10.0	1642811.0	0.619785	Y
6	ICIS 410-163707/13	10.0	6.070275	10.0	1640634.0	0.607028	Y
7	IC 410-163707/12	25.0	13.906516	10.0	1830649.0	0.556261	Y



Calibration

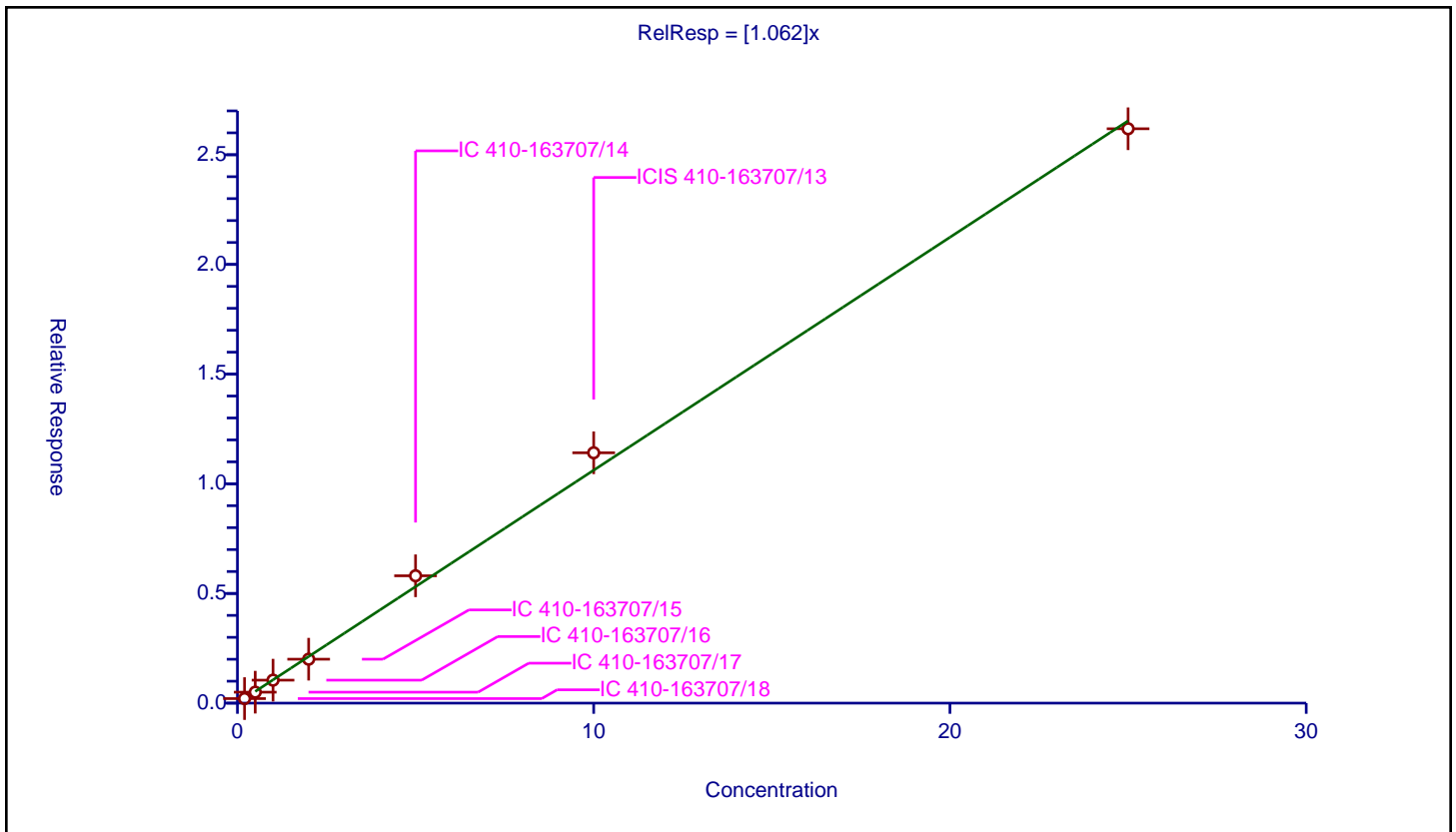
/ Chlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.062

Error Coefficients	
Standard Error:	2140000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.206811	10.0	1679409.0	1.034054	Y
2	IC 410-163707/17	0.5	0.499936	10.0	1845718.0	0.999871	Y
3	IC 410-163707/16	1.0	1.047515	10.0	1659651.0	1.047515	Y
4	IC 410-163707/15	2.0	2.003099	10.0	1654646.0	1.00155	Y
5	IC 410-163707/14	5.0	5.80634	10.0	1642811.0	1.161268	Y
6	ICIS 410-163707/13	10.0	11.413435	10.0	1640634.0	1.141344	Y
7	IC 410-163707/12	25.0	26.184757	10.0	1830649.0	1.04739	Y



Calibration

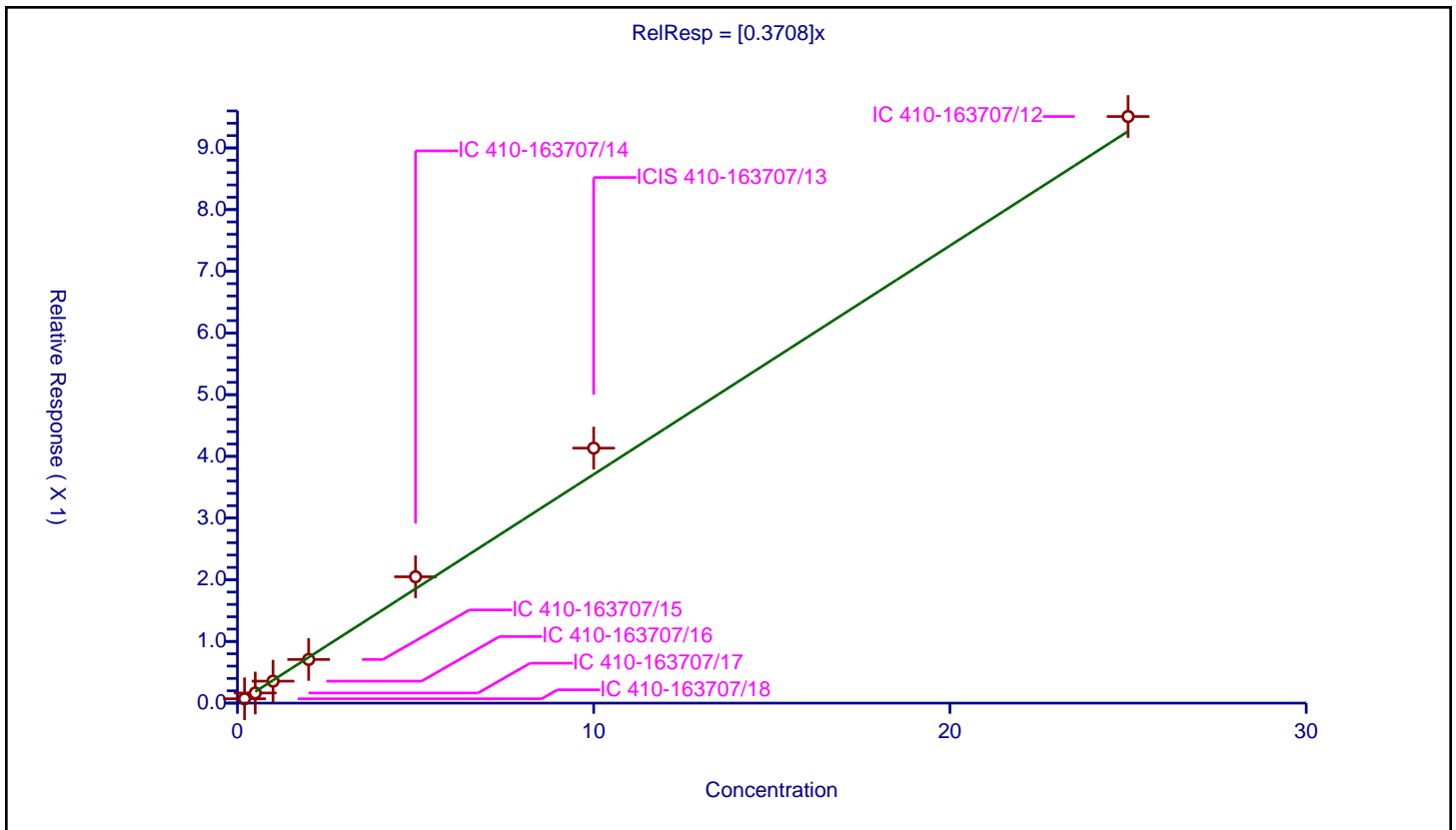
/ 1,1,1,2-Tetrachloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.3708

Error Coefficients	
Standard Error:	777000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.070686	10.0	1679409.0	0.353428	Y
2	IC 410-163707/17	0.5	0.164408	10.0	1845718.0	0.328815	Y
3	IC 410-163707/16	1.0	0.356135	10.0	1659651.0	0.356135	Y
4	IC 410-163707/15	2.0	0.707553	10.0	1654646.0	0.353777	Y
5	IC 410-163707/14	5.0	2.047716	10.0	1642811.0	0.409543	Y
6	ICIS 410-163707/13	10.0	4.133536	10.0	1640634.0	0.413354	Y
7	IC 410-163707/12	25.0	9.509174	10.0	1830649.0	0.380367	Y



Calibration

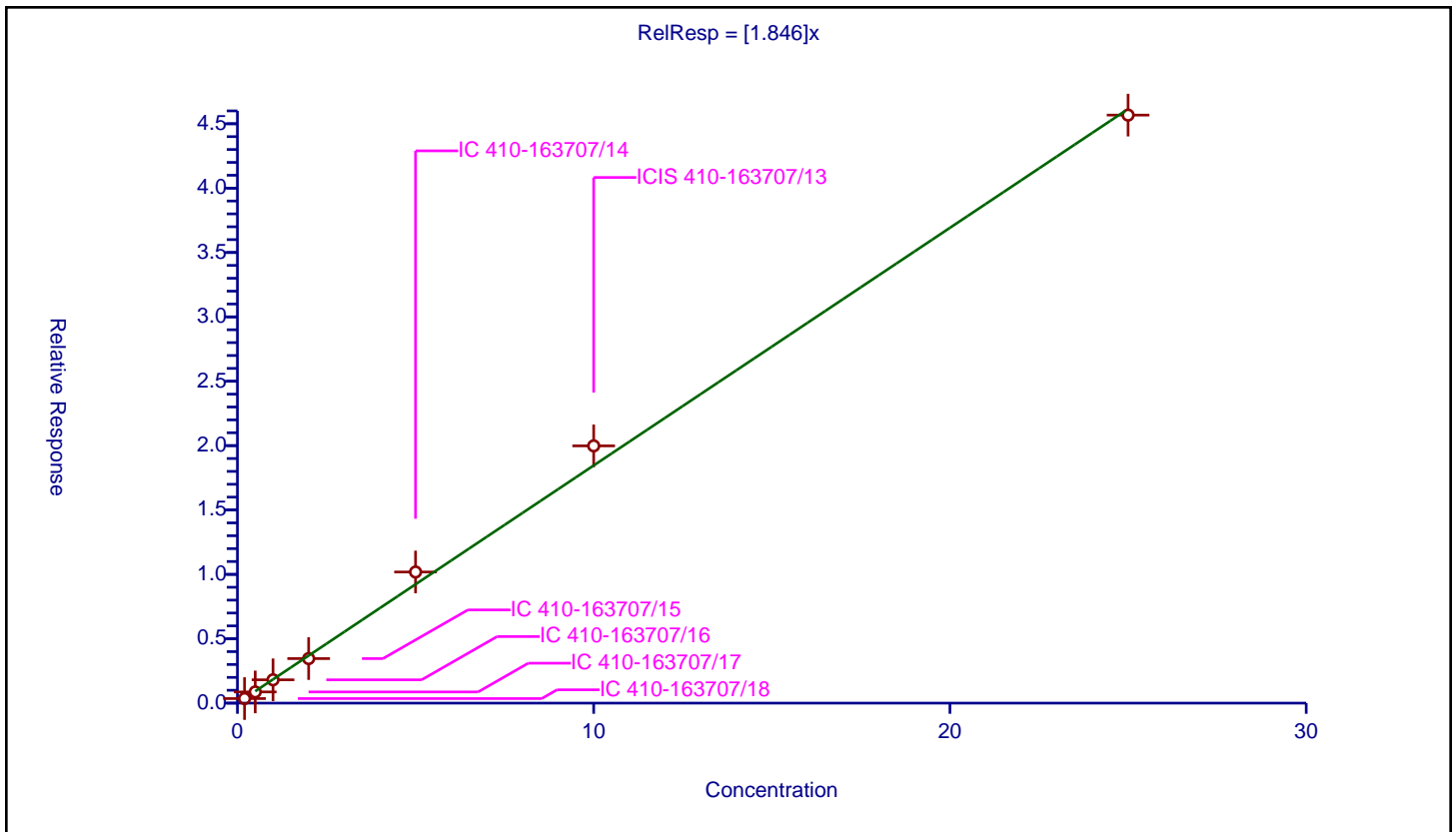
/ Ethylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.846

Error Coefficients	
Standard Error:	3740000
Relative Standard Error:	6.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.355494	10.0	1679409.0	1.777471	Y
2	IC 410-163707/17	0.5	0.870881	10.0	1845718.0	1.741761	Y
3	IC 410-163707/16	1.0	1.810296	10.0	1659651.0	1.810296	Y
4	IC 410-163707/15	2.0	3.459453	10.0	1654646.0	1.729726	Y
5	IC 410-163707/14	5.0	10.185061	10.0	1642811.0	2.037012	Y
6	ICIS 410-163707/13	10.0	19.981428	10.0	1640634.0	1.998143	Y
7	IC 410-163707/12	25.0	45.67283	10.0	1830649.0	1.826913	Y



Calibration

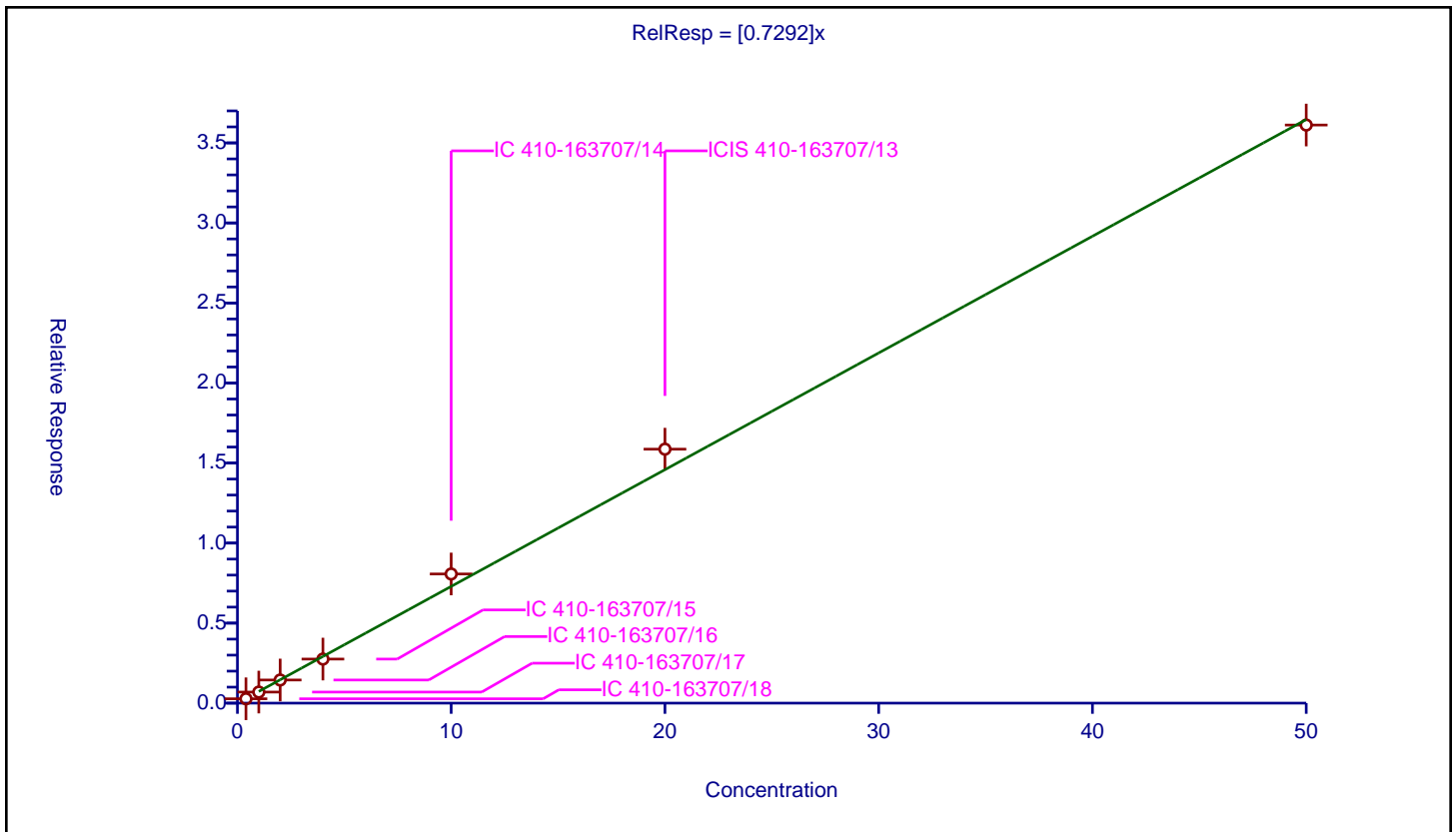
/ m-Xylene & p-Xylene

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

Curve Coefficients	
Intercept:	0
Slope:	0.7292

Error Coefficients	
Standard Error:	2960000
Relative Standard Error:	7.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.4	0.272262	10.0	1679409.0	0.680656	Y
2	IC 410-163707/17	1.0	0.690663	10.0	1845718.0	0.690663	Y
3	IC 410-163707/16	2.0	1.444587	10.0	1659651.0	0.722293	Y
4	IC 410-163707/15	4.0	2.753066	10.0	1654646.0	0.688267	Y
5	IC 410-163707/14	10.0	8.069589	10.0	1642811.0	0.806959	Y
6	ICIS 410-163707/13	20.0	15.865641	10.0	1640634.0	0.793282	Y
7	IC 410-163707/12	50.0	36.11606	10.0	1830649.0	0.722321	Y



Calibration

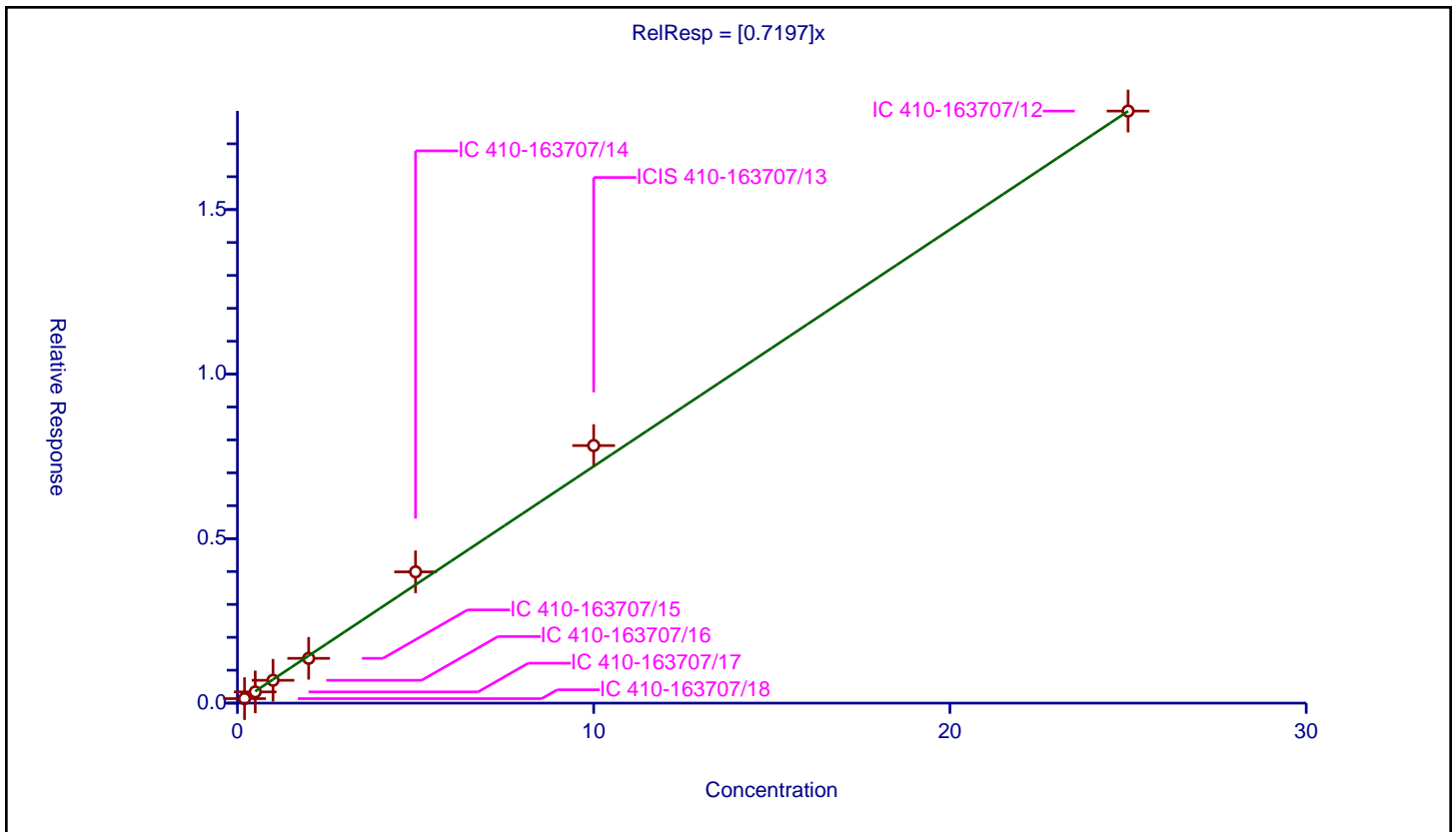
/ o-Xylene

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

Curve Coefficients	
Intercept:	0
Slope:	0.7197

Error Coefficients	
Standard Error:	1470000
Relative Standard Error:	7.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.136024	10.0	1679409.0	0.68012	Y
2	IC 410-163707/17	0.5	0.341201	10.0	1845718.0	0.682401	Y
3	IC 410-163707/16	1.0	0.694146	10.0	1659651.0	0.694146	Y
4	IC 410-163707/15	2.0	1.360774	10.0	1654646.0	0.680387	Y
5	IC 410-163707/14	5.0	3.989777	10.0	1642811.0	0.797955	Y
6	ICIS 410-163707/13	10.0	7.828376	10.0	1640634.0	0.782838	Y
7	IC 410-163707/12	25.0	17.994793	10.0	1830649.0	0.719792	Y



Calibration

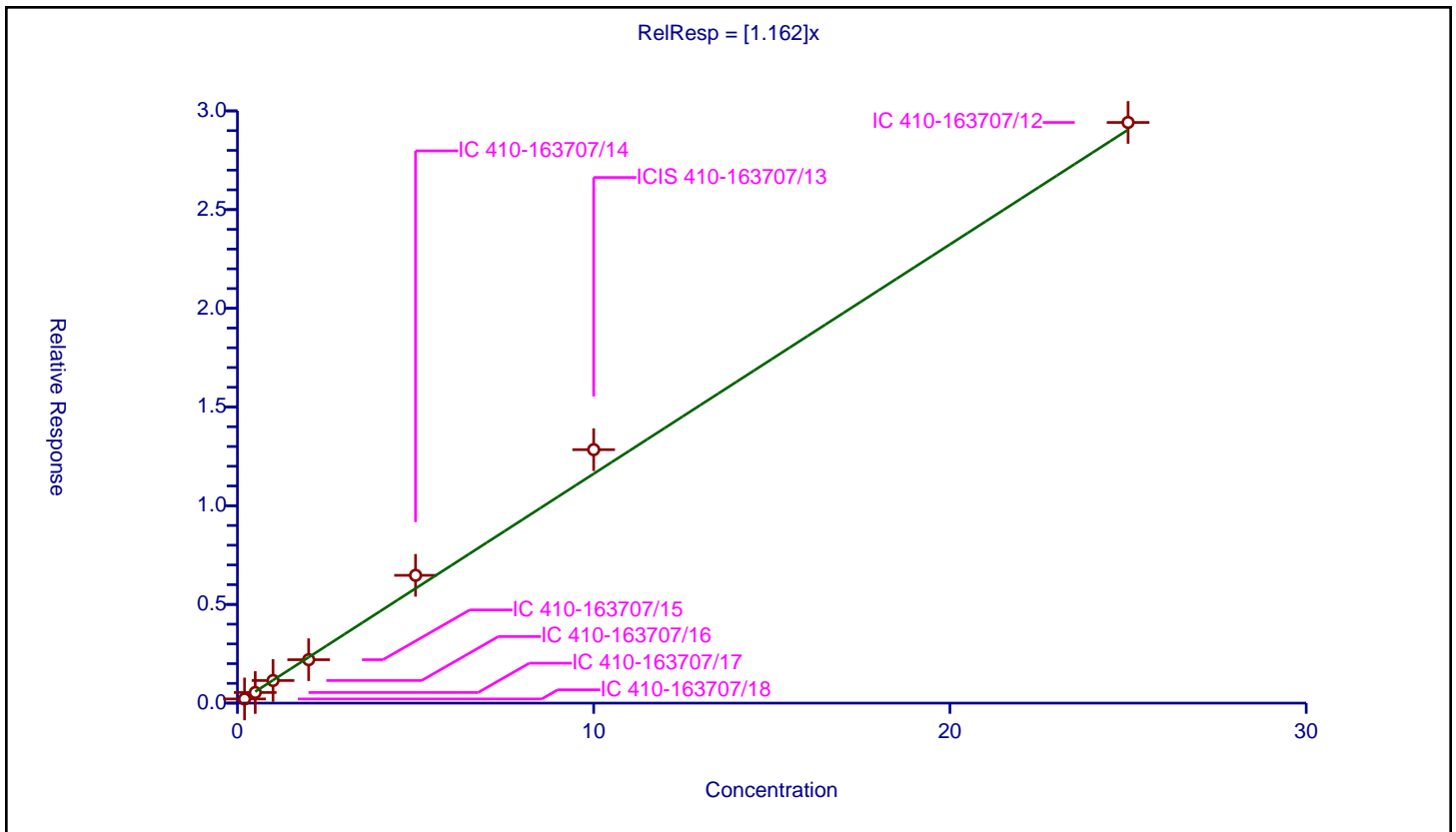
/ Styrene

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

Curve Coefficients	
Intercept:	0
Slope:	1.162

Error Coefficients	
Standard Error:	2410000
Relative Standard Error:	8.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.211432	10.0	1679409.0	1.057158	Y
2	IC 410-163707/17	0.5	0.537867	10.0	1845718.0	1.075733	Y
3	IC 410-163707/16	1.0	1.144403	10.0	1659651.0	1.144403	Y
4	IC 410-163707/15	2.0	2.200205	10.0	1654646.0	1.100102	Y
5	IC 410-163707/14	5.0	6.474159	10.0	1642811.0	1.294832	Y
6	ICIS 410-163707/13	10.0	12.839372	10.0	1640634.0	1.283937	Y
7	IC 410-163707/12	25.0	29.414579	10.0	1830649.0	1.176583	Y



Calibration

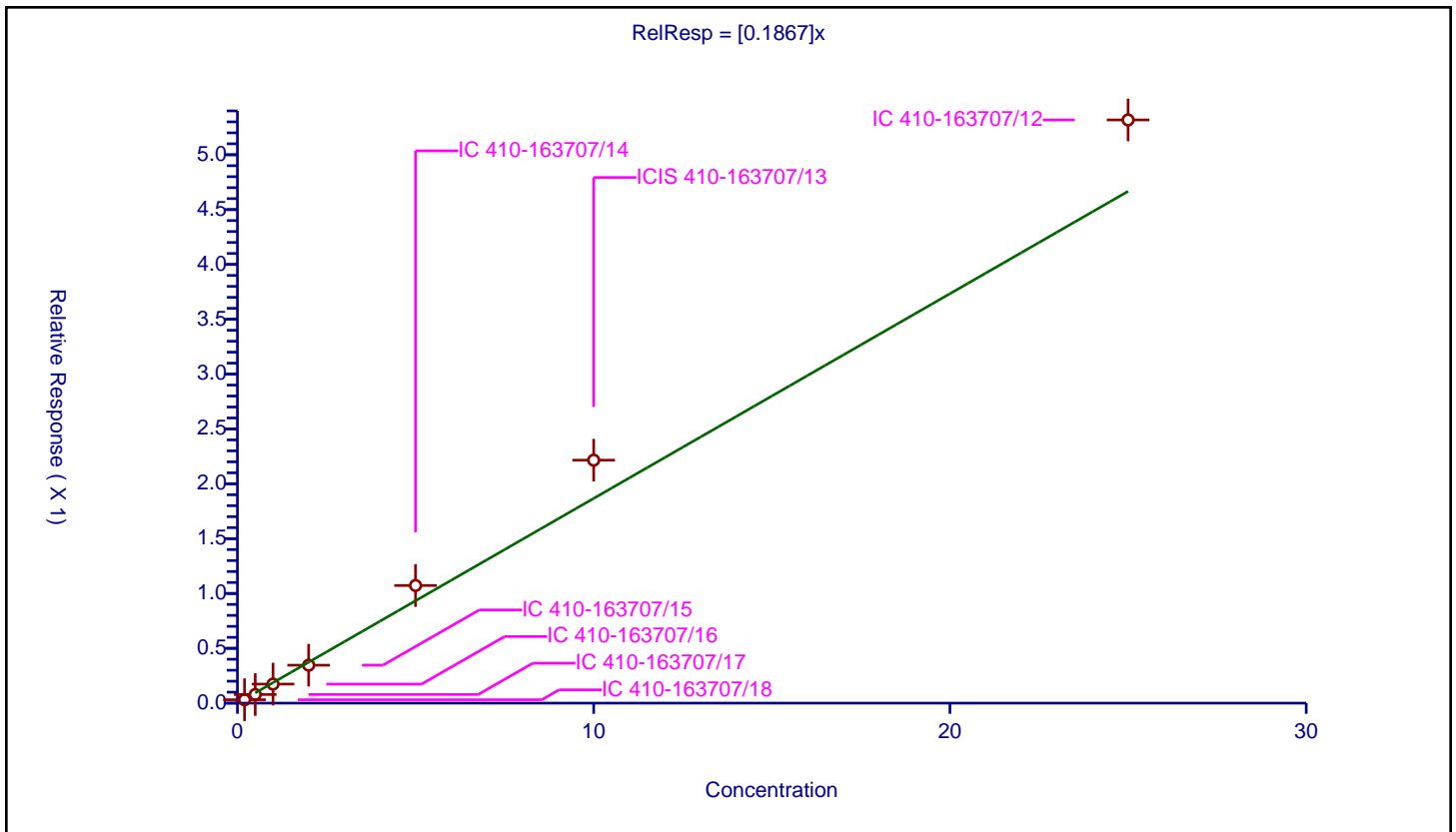
/ Bromoform

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

Curve Coefficients	
Intercept:	0
Slope:	0.1867

Error Coefficients	
Standard Error:	431000
Relative Standard Error:	15.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.030844	10.0	1679409.0	0.154221	Y
2	IC 410-163707/17	0.5	0.078484	10.0	1845718.0	0.156969	Y
3	IC 410-163707/16	1.0	0.173729	10.0	1659651.0	0.173729	Y
4	IC 410-163707/15	2.0	0.345989	10.0	1654646.0	0.172995	Y
5	IC 410-163707/14	5.0	1.072436	10.0	1642811.0	0.214487	Y
6	ICIS 410-163707/13	10.0	2.215247	10.0	1640634.0	0.221525	Y
7	IC 410-163707/12	25.0	5.317338	10.0	1830649.0	0.212694	Y



Calibration

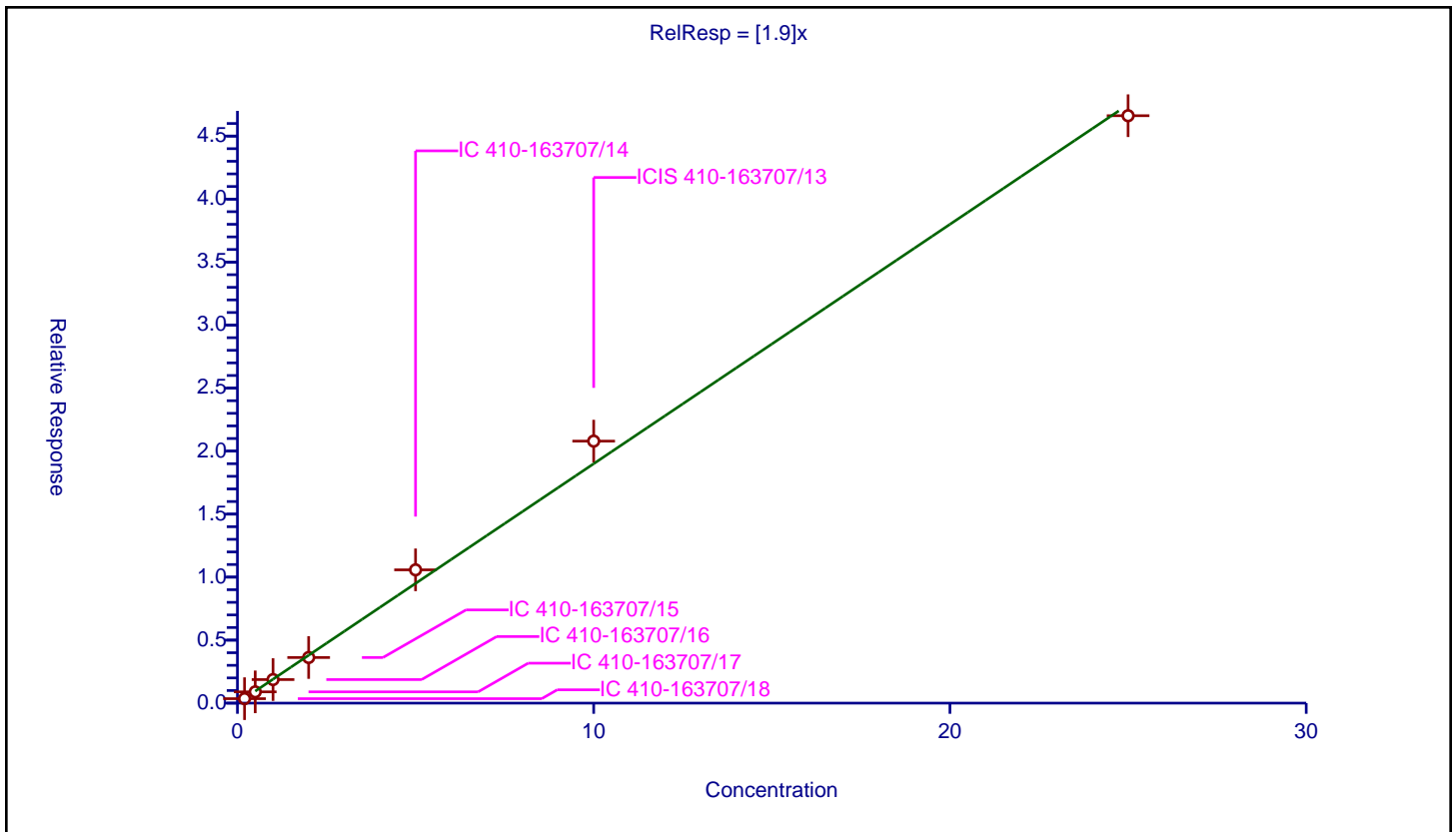
/ Isopropylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.9

Error Coefficients	
Standard Error:	3830000
Relative Standard Error:	7.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.354148	10.0	1679409.0	1.770742	Y
2	IC 410-163707/17	0.5	0.894481	10.0	1845718.0	1.788962	Y
3	IC 410-163707/16	1.0	1.870188	10.0	1659651.0	1.870188	Y
4	IC 410-163707/15	2.0	3.619783	10.0	1654646.0	1.809892	Y
5	IC 410-163707/14	5.0	10.57706	10.0	1642811.0	2.115412	Y
6	ICIS 410-163707/13	10.0	20.793894	10.0	1640634.0	2.079389	Y
7	IC 410-163707/12	25.0	46.617167	10.0	1830649.0	1.864687	Y



Calibration

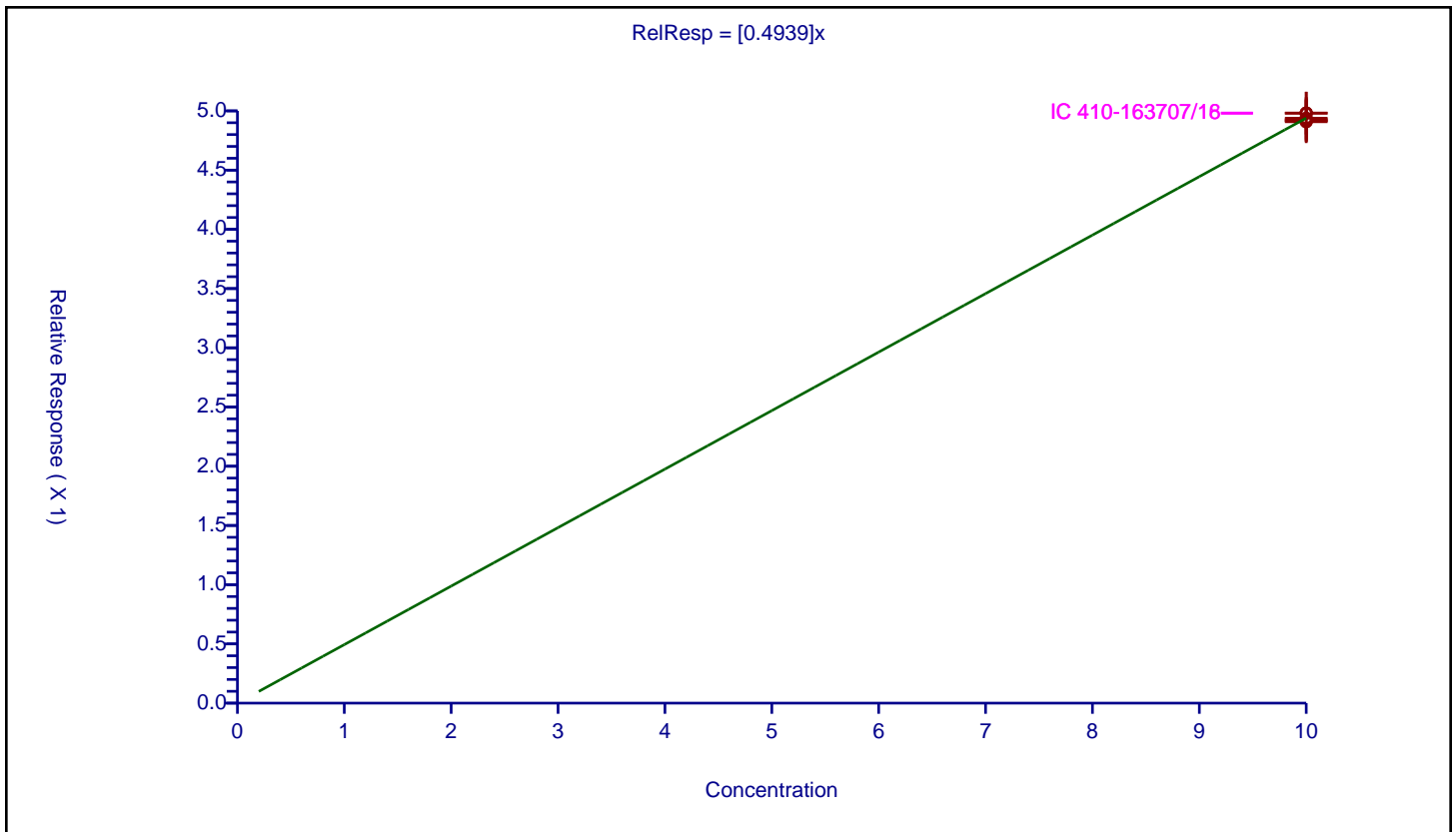
/ 4-Bromofluorobenzene (Surr)

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

Curve Coefficients	
Intercept:	0
Slope:	0.4939

Error Coefficients	
Standard Error:	912000
Relative Standard Error:	0.6
Correlation Coefficient:	0
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/12	10.0	4.919163	10.0	1830649.0	0.491916	Y
2	ICIS 410-163707/13	10.0	4.916368	10.0	1640634.0	0.491637	Y
3	IC 410-163707/14	10.0	4.90824	10.0	1642811.0	0.490824	Y
4	IC 410-163707/15	10.0	4.928668	10.0	1654646.0	0.492867	Y
5	IC 410-163707/16	10.0	4.982078	10.0	1659651.0	0.498208	Y
6	IC 410-163707/17	10.0	4.938344	10.0	1845718.0	0.493834	Y
7	IC 410-163707/18	10.0	4.980401	10.0	1679409.0	0.49804	Y



Calibration

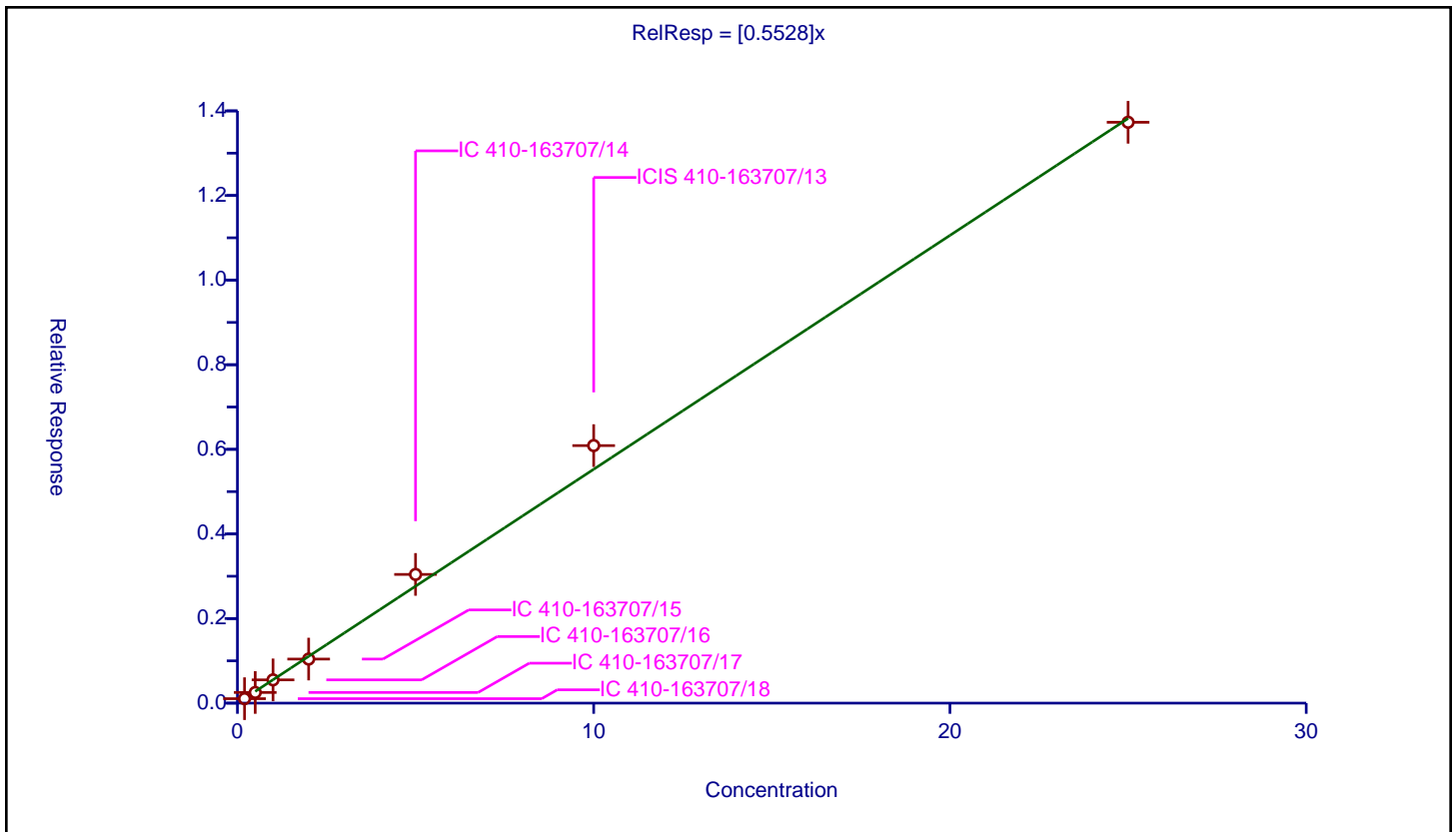
/ 1,1,2,2-Tetrachloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.5528

Error Coefficients	
Standard Error:	668000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.105689	10.0	1012314.0	0.528443	Y
2	IC 410-163707/17	0.5	0.252018	10.0	1102182.0	0.504037	Y
3	IC 410-163707/16	1.0	0.549972	10.0	987778.0	0.549972	Y
4	IC 410-163707/15	2.0	1.041481	10.0	984300.0	0.520741	Y
5	IC 410-163707/14	5.0	3.042725	10.0	963071.0	0.608545	Y
6	ICIS 410-163707/13	10.0	6.088123	10.0	963407.0	0.608812	Y
7	IC 410-163707/12	25.0	13.730272	10.0	1087615.0	0.549211	Y



Calibration

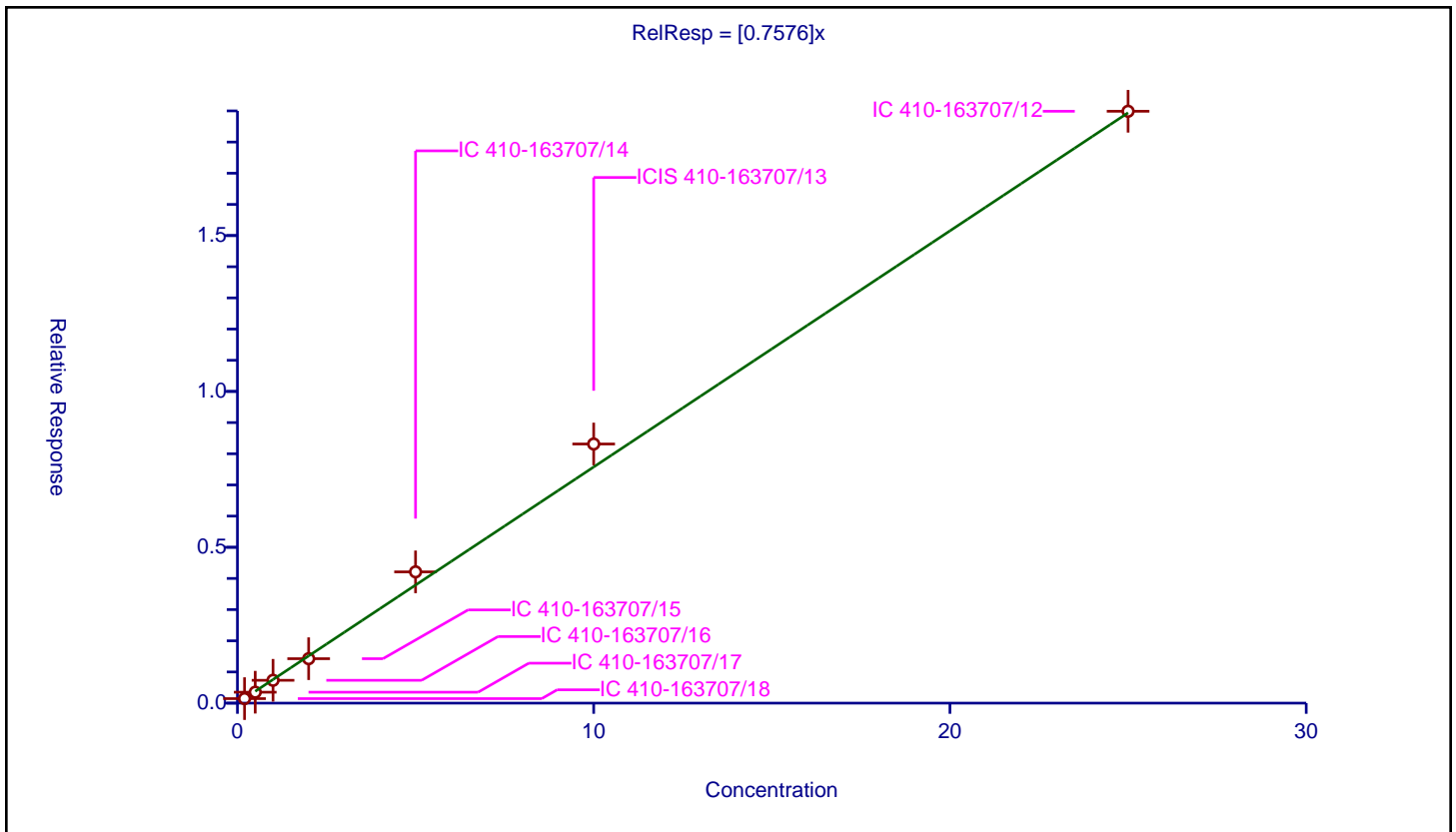
/ Bromobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	0.7576

Error Coefficients	
Standard Error:	922000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.144787	10.0	1012314.0	0.723935	Y
2	IC 410-163707/17	0.5	0.350369	10.0	1102182.0	0.700737	Y
3	IC 410-163707/16	1.0	0.732533	10.0	987778.0	0.732533	Y
4	IC 410-163707/15	2.0	1.425439	10.0	984300.0	0.71272	Y
5	IC 410-163707/14	5.0	4.211309	10.0	963071.0	0.842262	Y
6	ICIS 410-163707/13	10.0	8.313433	10.0	963407.0	0.831343	Y
7	IC 410-163707/12	25.0	18.988245	10.0	1087615.0	0.75953	Y



Calibration

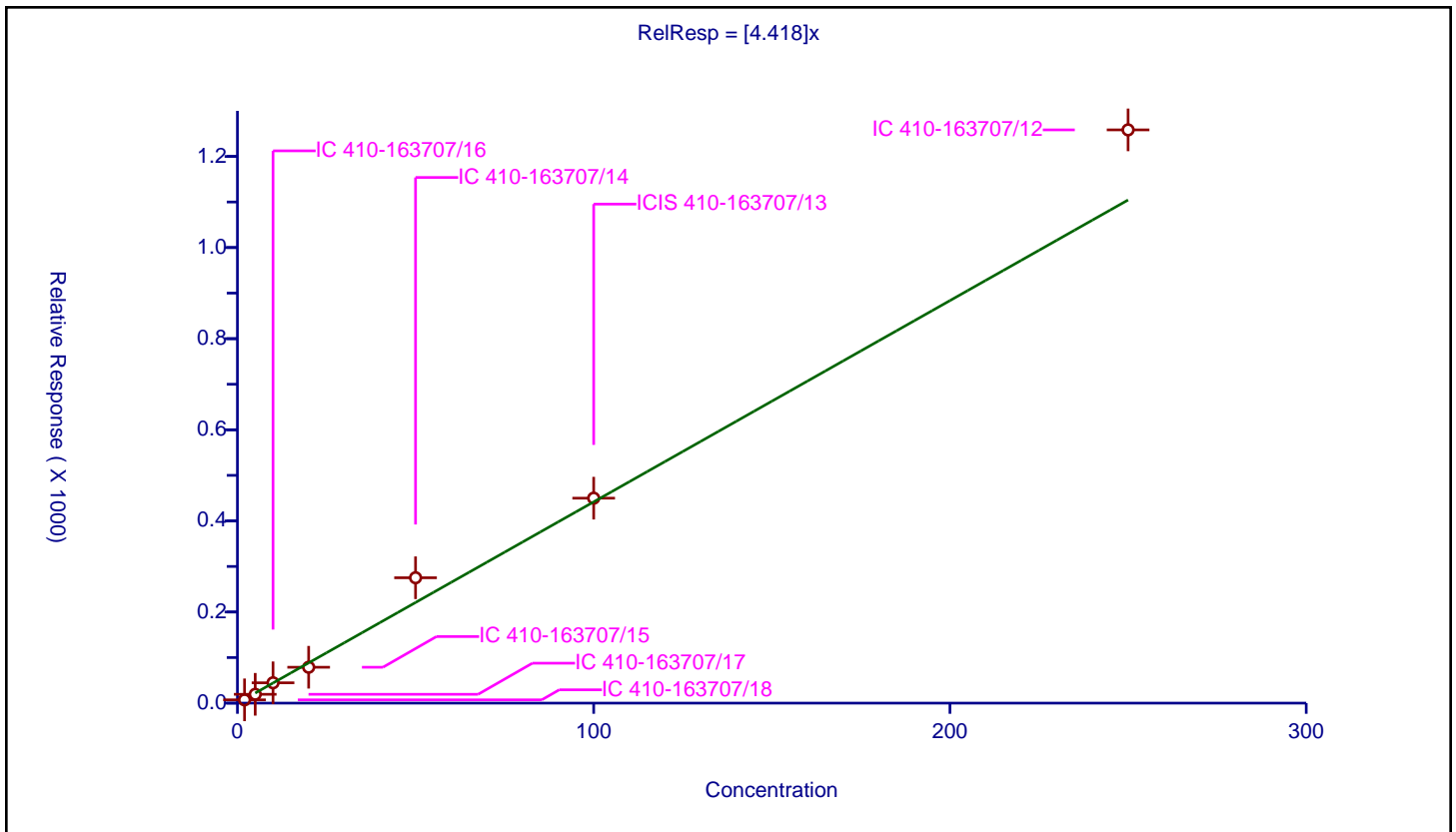
/ trans-1,4-Dichloro-2-butene

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

Curve Coefficients	
Intercept:	0
Slope:	4.418

Error Coefficients	
Standard Error:	1720000
Relative Standard Error:	15.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	7.212025	50.0	162132.0	3.606012	Y
2	IC 410-163707/17	5.0	19.386601	50.0	162651.0	3.87732	Y
3	IC 410-163707/16	10.0	44.651044	50.0	143084.0	4.465104	Y
4	IC 410-163707/15	20.0	78.790446	50.0	162903.0	3.939522	Y
5	IC 410-163707/14	50.0	275.233666	50.0	134380.0	5.504673	Y
6	ICIS 410-163707/13	100.0	449.88711	50.0	165205.0	4.498871	Y
7	IC 410-163707/12	250.0	1258.297519	50.0	153335.0	5.03319	Y



Calibration

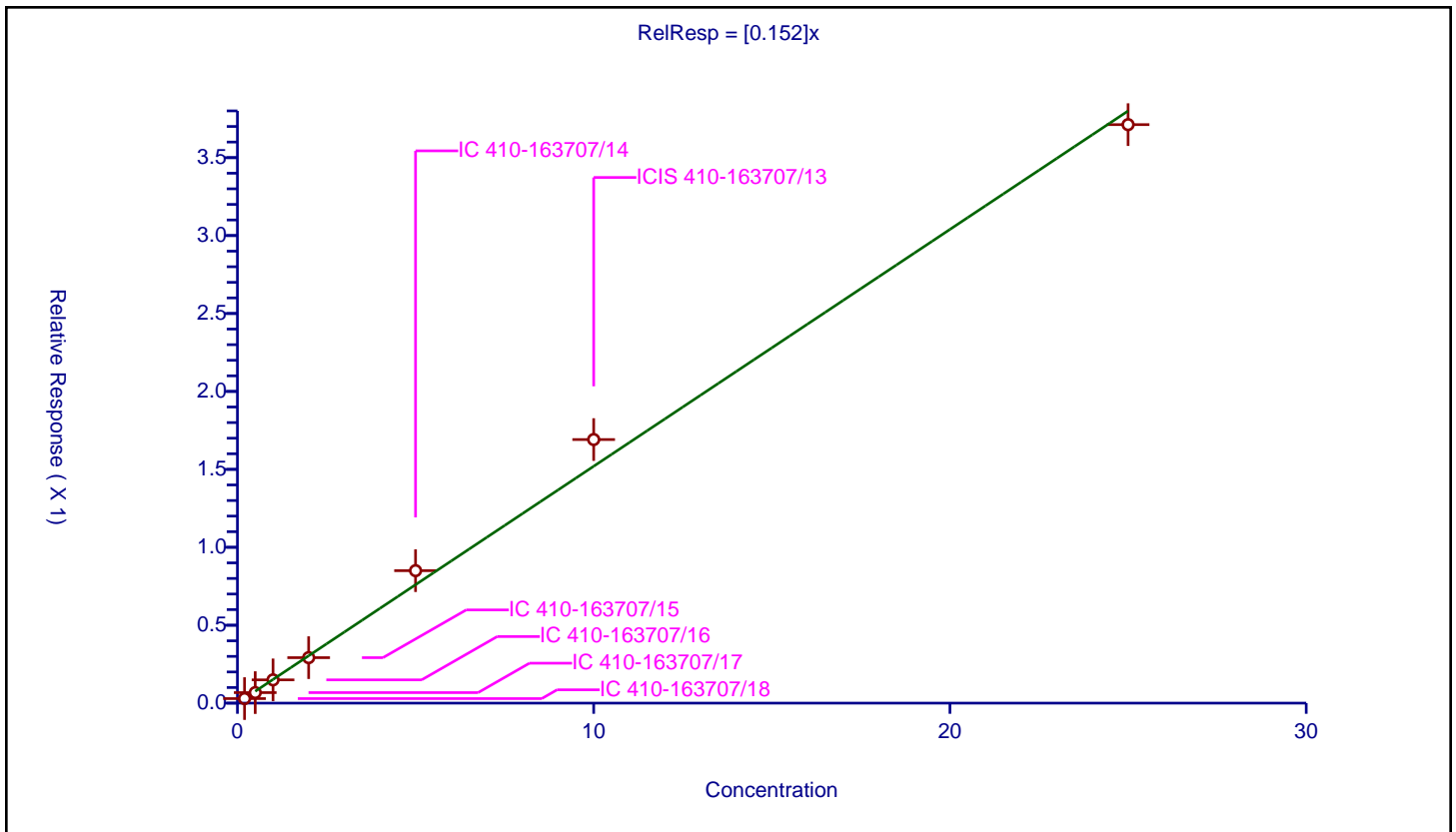
/ 1,2,3-Trichloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.152

Error Coefficients	
Standard Error:	181000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.029181	10.0	1012314.0	0.145903	Y
2	IC 410-163707/17	0.5	0.067584	10.0	1102182.0	0.135168	Y
3	IC 410-163707/16	1.0	0.149285	10.0	987778.0	0.149285	Y
4	IC 410-163707/15	2.0	0.291822	10.0	984300.0	0.145911	Y
5	IC 410-163707/14	5.0	0.849958	10.0	963071.0	0.169992	Y
6	ICIS 410-163707/13	10.0	1.691144	10.0	963407.0	0.169114	Y
7	IC 410-163707/12	25.0	3.711773	10.0	1087615.0	0.148471	Y



Calibration

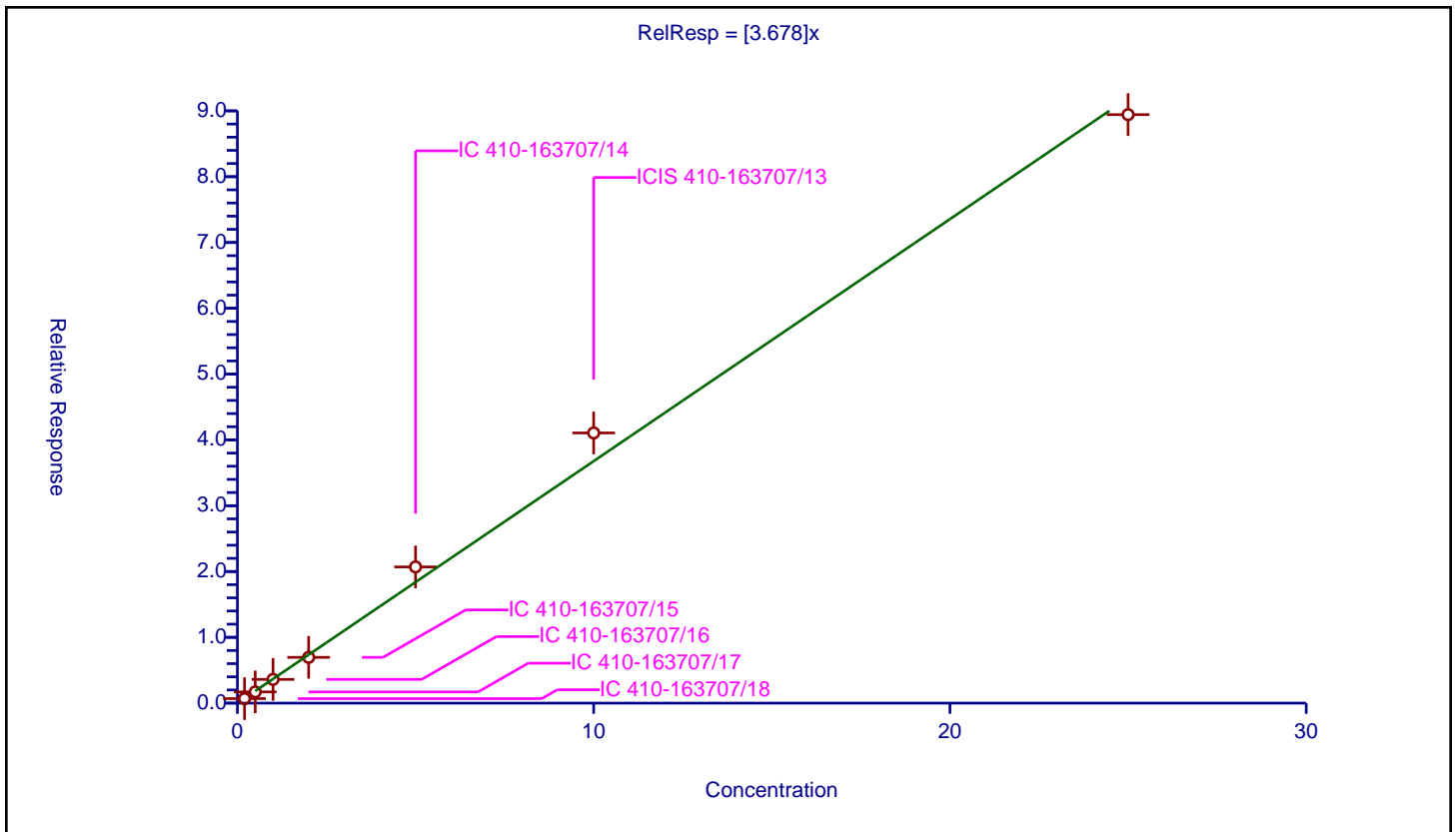
/ N-Propylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	3.678

Error Coefficients	
Standard Error:	4380000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.684827	10.0	1012314.0	3.424135	Y
2	IC 410-163707/17	0.5	1.707876	10.0	1102182.0	3.415752	Y
3	IC 410-163707/16	1.0	3.60255	10.0	987778.0	3.60255	Y
4	IC 410-163707/15	2.0	6.95669	10.0	984300.0	3.478345	Y
5	IC 410-163707/14	5.0	20.695328	10.0	963071.0	4.139066	Y
6	ICIS 410-163707/13	10.0	41.058618	10.0	963407.0	4.105862	Y
7	IC 410-163707/12	25.0	89.428208	10.0	1087615.0	3.577128	Y



Calibration

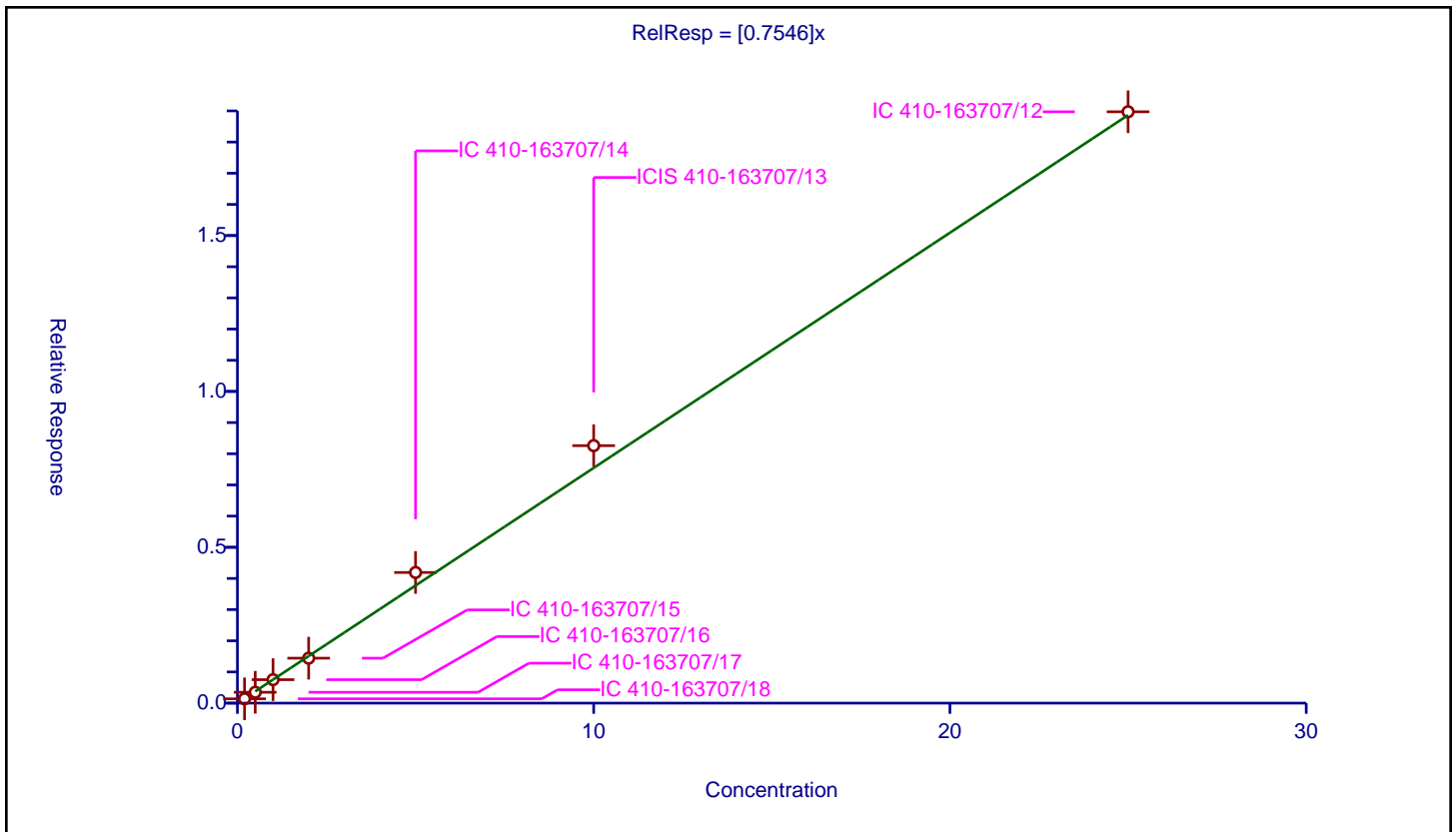
/ 2-Chlorotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	0.7546

Error Coefficients	
Standard Error:	920000
Relative Standard Error:	7.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.137714	10.0	1012314.0	0.688571	Y
2	IC 410-163707/17	0.5	0.348246	10.0	1102182.0	0.696491	Y
3	IC 410-163707/16	1.0	0.75273	10.0	987778.0	0.75273	Y
4	IC 410-163707/15	2.0	1.441908	10.0	984300.0	0.720954	Y
5	IC 410-163707/14	5.0	4.191394	10.0	963071.0	0.838279	Y
6	ICIS 410-163707/13	10.0	8.260673	10.0	963407.0	0.826067	Y
7	IC 410-163707/12	25.0	18.971447	10.0	1087615.0	0.758858	Y



Calibration

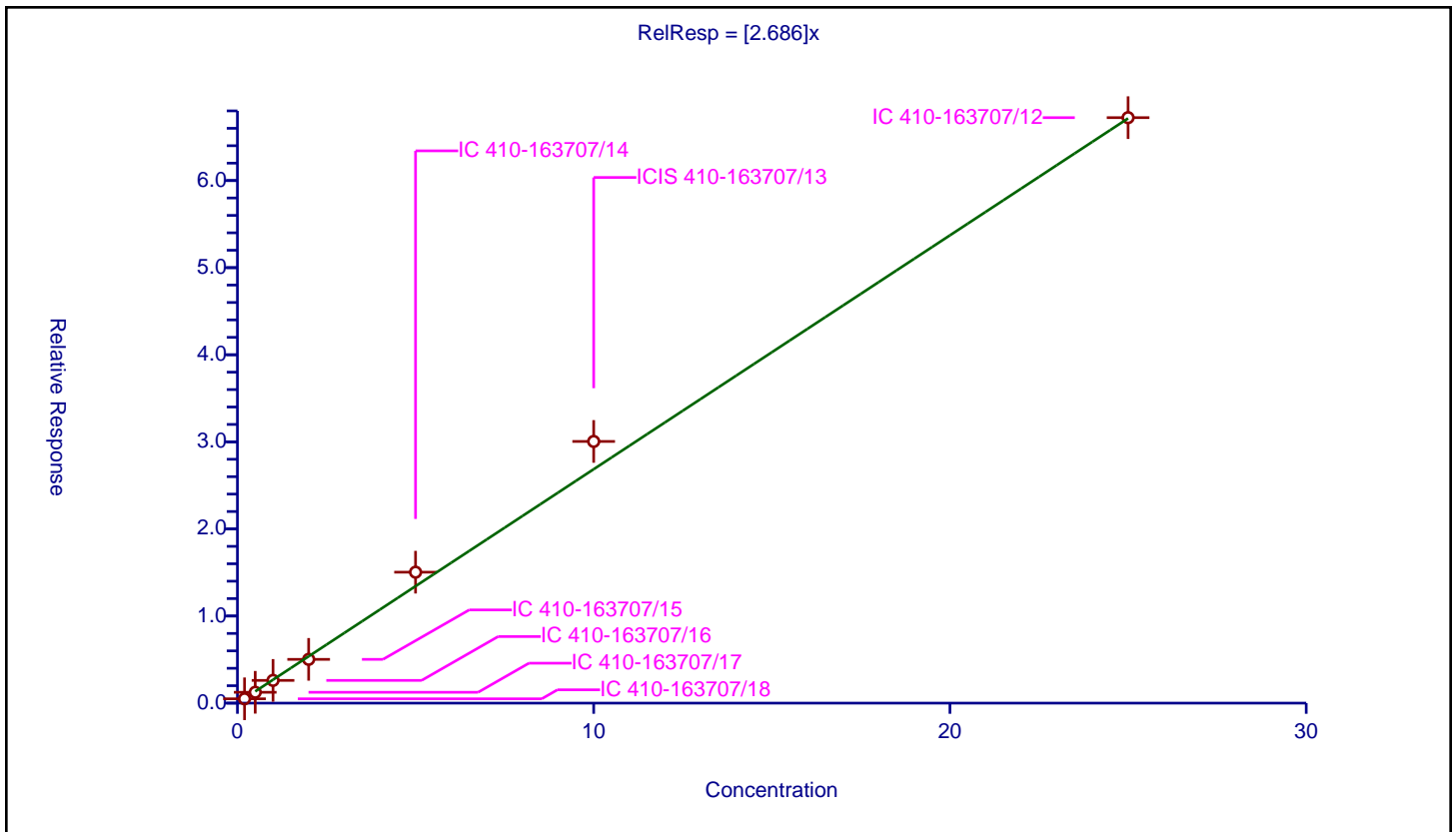
/ 1,3,5-Trimethylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	2.686

Error Coefficients	
Standard Error:	3270000
Relative Standard Error:	8.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.497533	10.0	1012314.0	2.487667	Y
2	IC 410-163707/17	0.5	1.244622	10.0	1102182.0	2.489244	Y
3	IC 410-163707/16	1.0	2.609098	10.0	987778.0	2.609098	Y
4	IC 410-163707/15	2.0	5.025571	10.0	984300.0	2.512786	Y
5	IC 410-163707/14	5.0	15.035423	10.0	963071.0	3.007085	Y
6	ICIS 410-163707/13	10.0	30.045827	10.0	963407.0	3.004583	Y
7	IC 410-163707/12	25.0	67.223126	10.0	1087615.0	2.688925	Y



Calibration

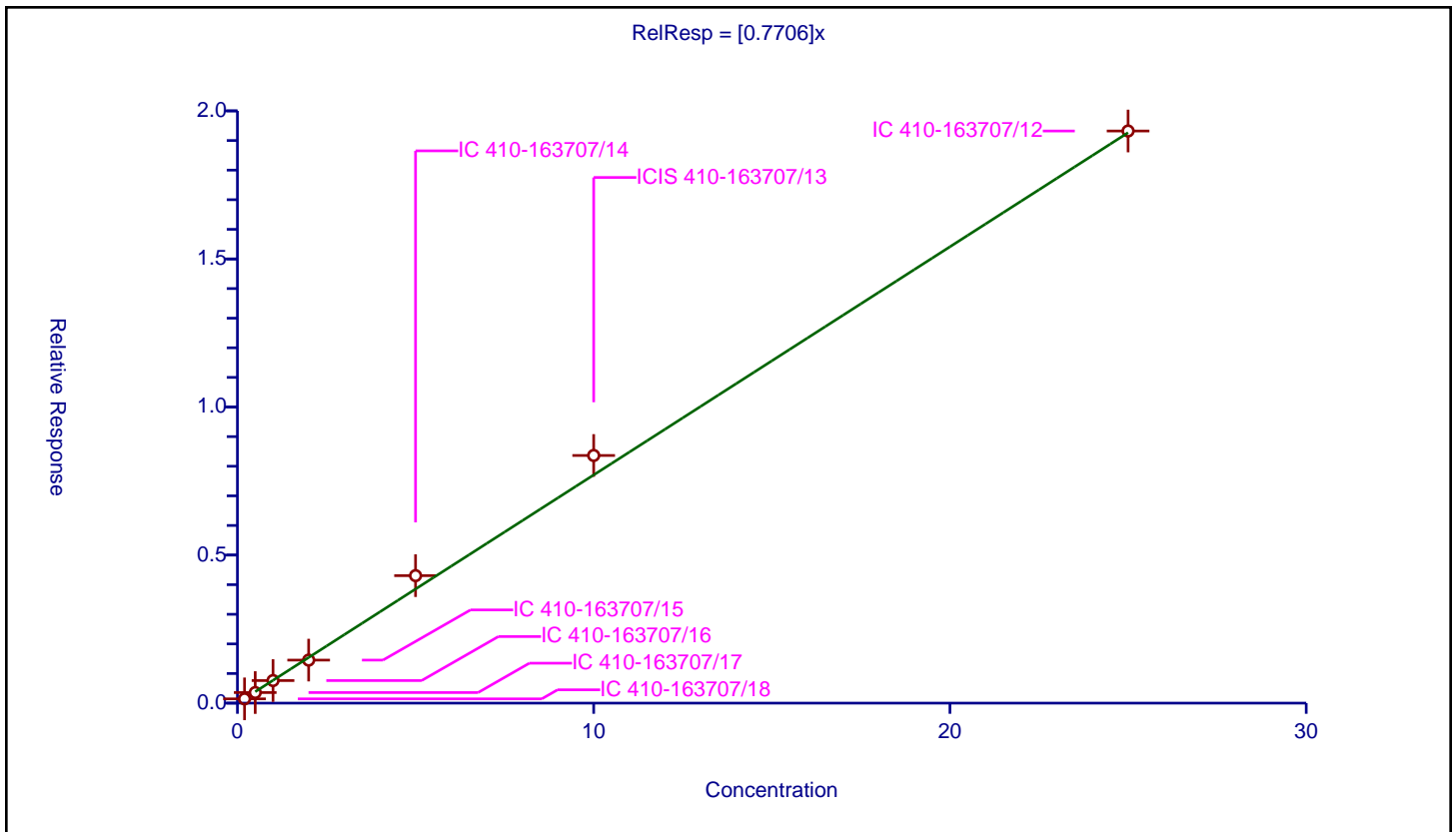
/ 4-Chlorotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	0.7706

Error Coefficients	
Standard Error:	937000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.144125	10.0	1012314.0	0.720626	Y
2	IC 410-163707/17	0.5	0.357201	10.0	1102182.0	0.714401	Y
3	IC 410-163707/16	1.0	0.762479	10.0	987778.0	0.762479	Y
4	IC 410-163707/15	2.0	1.452708	10.0	984300.0	0.726354	Y
5	IC 410-163707/14	5.0	4.305103	10.0	963071.0	0.861021	Y
6	ICIS 410-163707/13	10.0	8.363174	10.0	963407.0	0.836317	Y
7	IC 410-163707/12	25.0	19.320945	10.0	1087615.0	0.772838	Y



Calibration

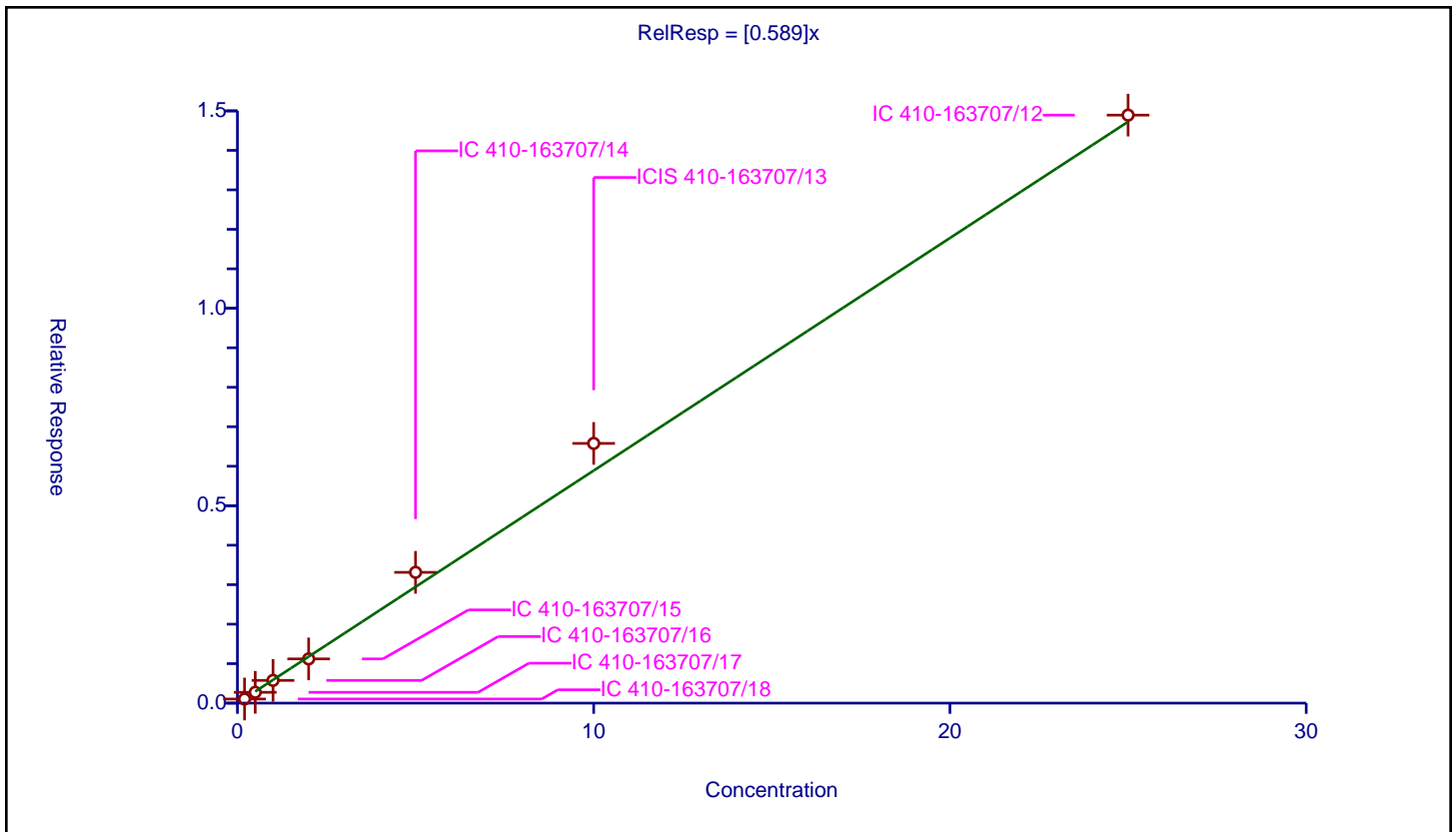
/ tert-Butylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	0.589

Error Coefficients	
Standard Error:	724000
Relative Standard Error:	9.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.104394	10.0	1012314.0	0.521972	Y
2	IC 410-163707/17	0.5	0.274546	10.0	1102182.0	0.549093	Y
3	IC 410-163707/16	1.0	0.575716	10.0	987778.0	0.575716	Y
4	IC 410-163707/15	2.0	1.120207	10.0	984300.0	0.560104	Y
5	IC 410-163707/14	5.0	3.312715	10.0	963071.0	0.662543	Y
6	ICIS 410-163707/13	10.0	6.577833	10.0	963407.0	0.657783	Y
7	IC 410-163707/12	25.0	14.892798	10.0	1087615.0	0.595712	Y



Calibration

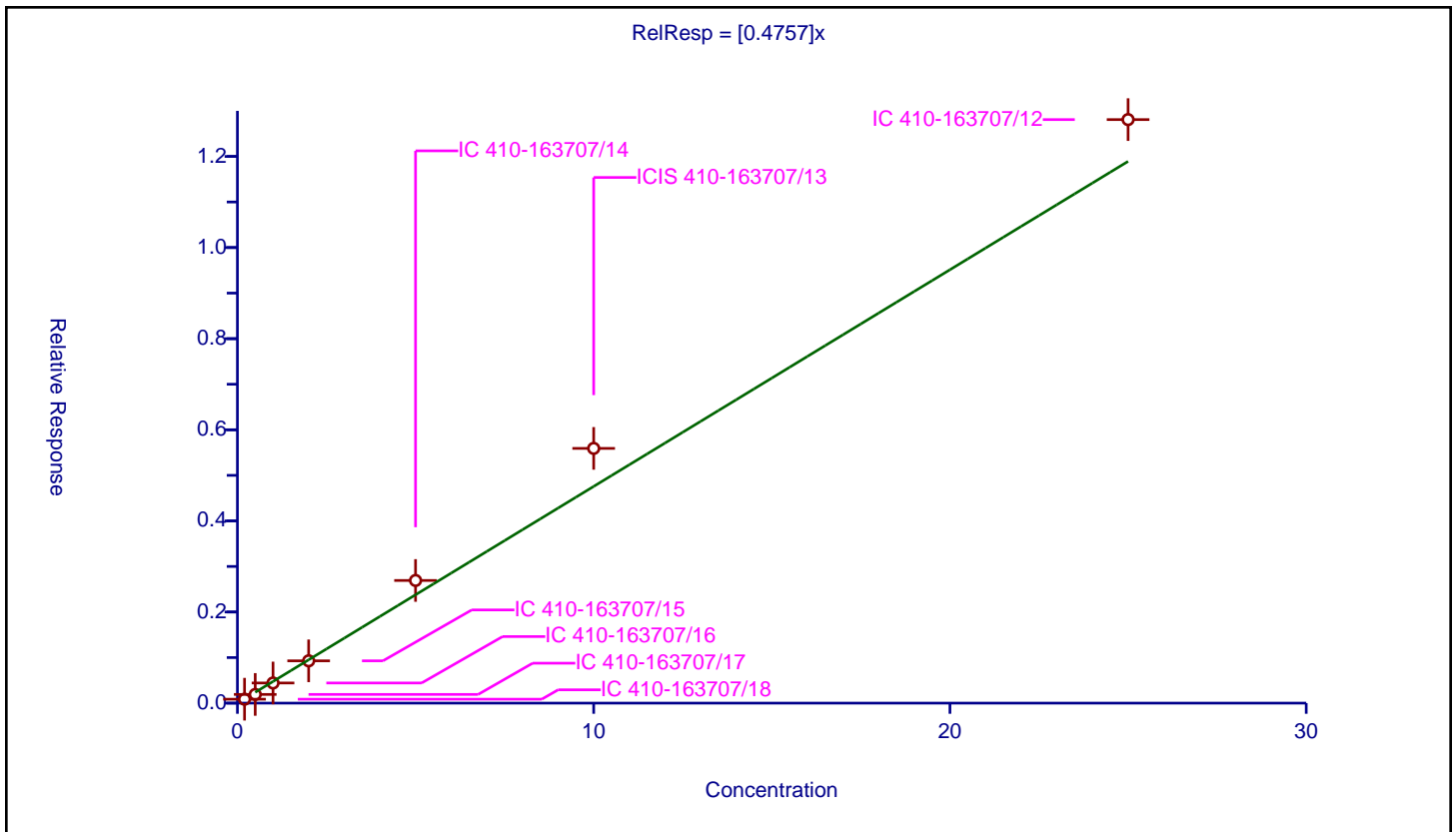
/ Pentachloroethane

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

Curve Coefficients	
Intercept:	0
Slope:	0.4757

Error Coefficients	
Standard Error:	620000
Relative Standard Error:	13.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.086357	10.0	1012314.0	0.431783	Y
2	IC 410-163707/17	0.5	0.190622	10.0	1102182.0	0.381244	Y
3	IC 410-163707/16	1.0	0.442529	10.0	987778.0	0.442529	Y
4	IC 410-163707/15	2.0	0.928386	10.0	984300.0	0.464193	Y
5	IC 410-163707/14	5.0	2.692314	10.0	963071.0	0.538463	Y
6	ICIS 410-163707/13	10.0	5.591417	10.0	963407.0	0.559142	Y
7	IC 410-163707/12	25.0	12.808751	10.0	1087615.0	0.51235	Y



Calibration

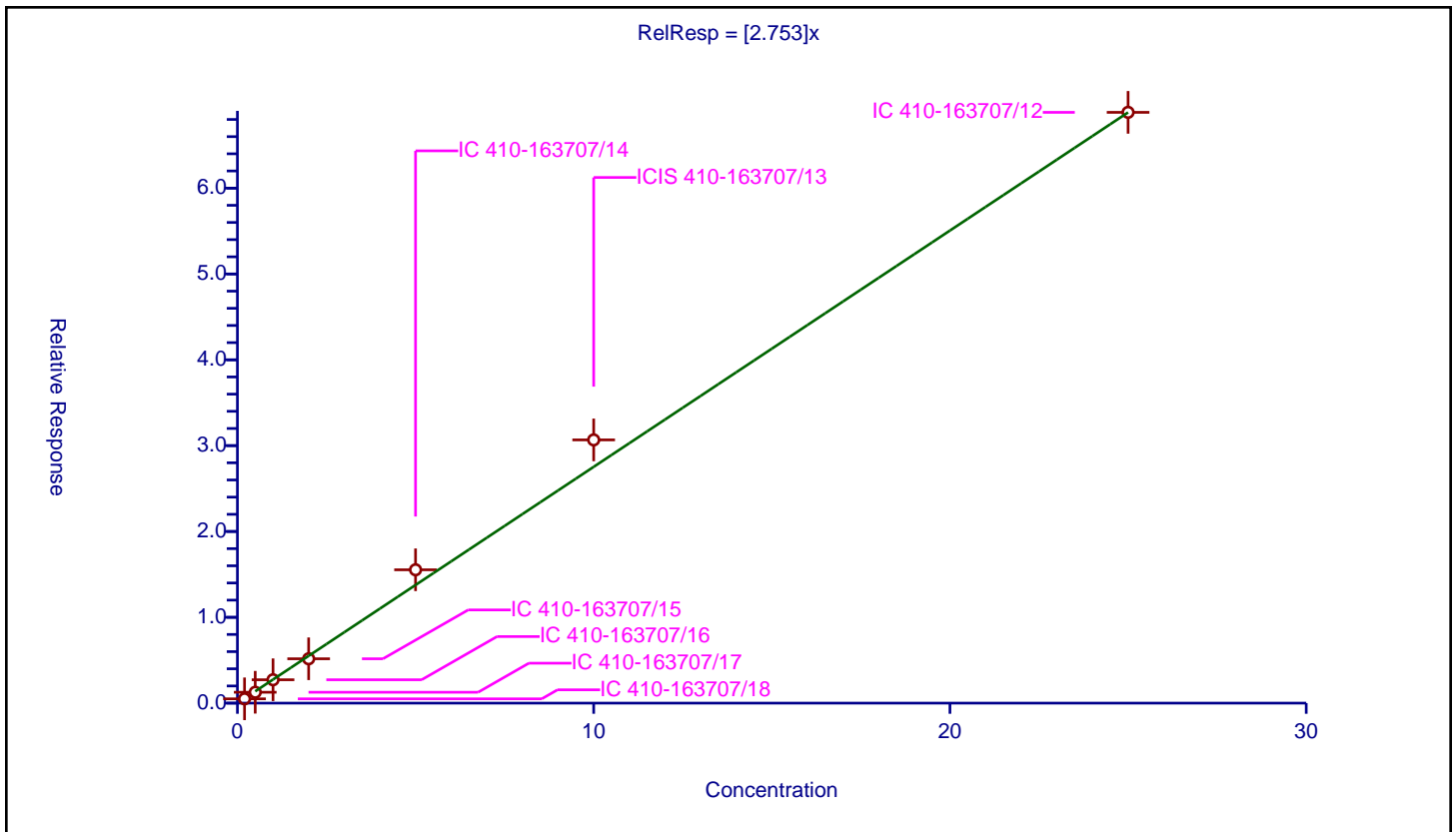
/ 1,2,4-Trimethylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	2.753

Error Coefficients	
Standard Error:	3350000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.500685	10.0	1012314.0	2.503423	Y
2	IC 410-163707/17	0.5	1.266578	10.0	1102182.0	2.533157	Y
3	IC 410-163707/16	1.0	2.72217	10.0	987778.0	2.72217	Y
4	IC 410-163707/15	2.0	5.167469	10.0	984300.0	2.583735	Y
5	IC 410-163707/14	5.0	15.536342	10.0	963071.0	3.107268	Y
6	ICIS 410-163707/13	10.0	30.668907	10.0	963407.0	3.066891	Y
7	IC 410-163707/12	25.0	68.830165	10.0	1087615.0	2.753207	Y



Calibration

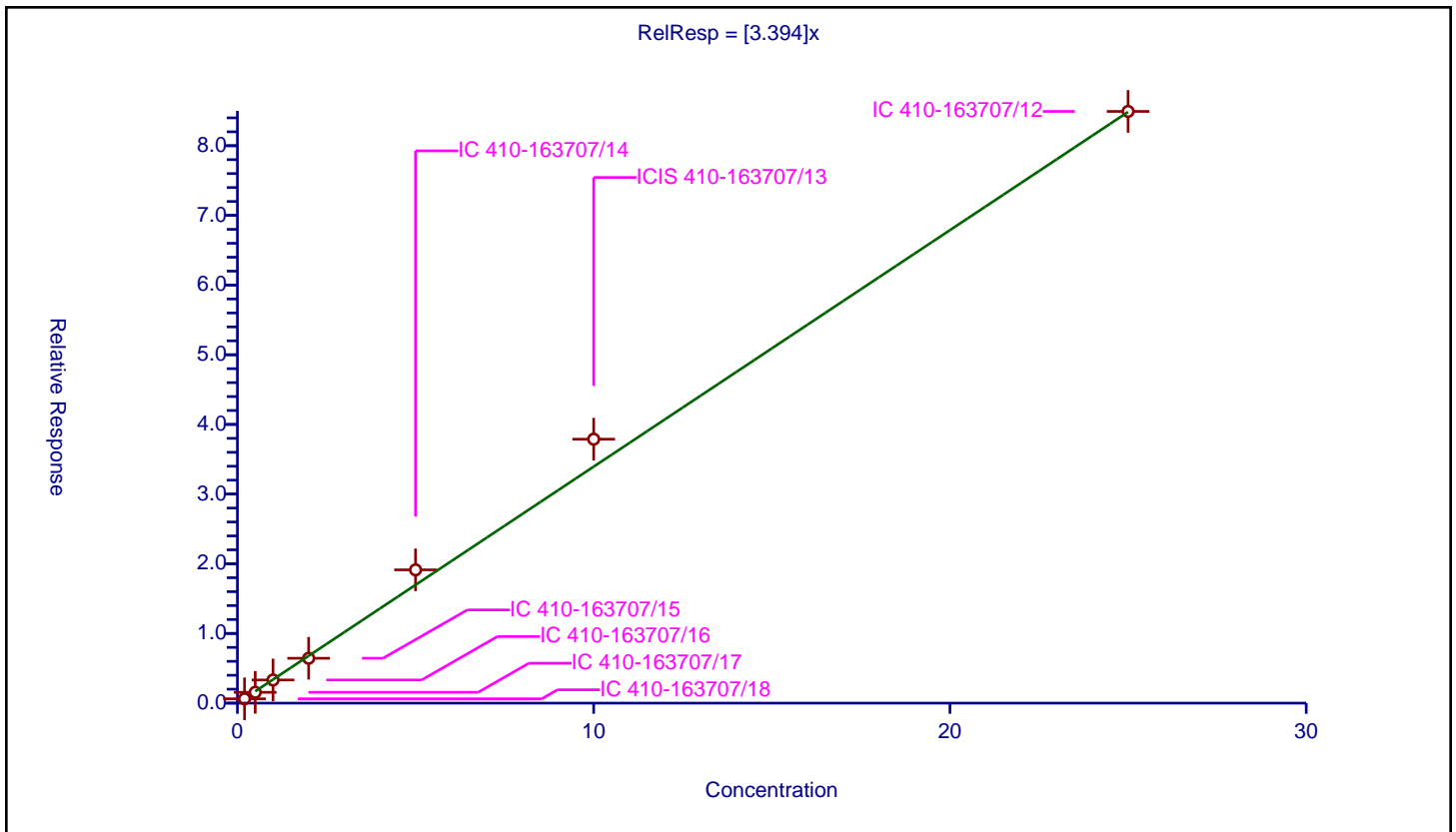
/ sec-Butylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	3.394

Error Coefficients	
Standard Error:	4130000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.619768	10.0	1012314.0	3.098841	Y
2	IC 410-163707/17	0.5	1.553364	10.0	1102182.0	3.106728	Y
3	IC 410-163707/16	1.0	3.322953	10.0	987778.0	3.322953	Y
4	IC 410-163707/15	2.0	6.437753	10.0	984300.0	3.218876	Y
5	IC 410-163707/14	5.0	19.12941	10.0	963071.0	3.825882	Y
6	ICIS 410-163707/13	10.0	37.881799	10.0	963407.0	3.78818	Y
7	IC 410-163707/12	25.0	84.922505	10.0	1087615.0	3.3969	Y



Calibration

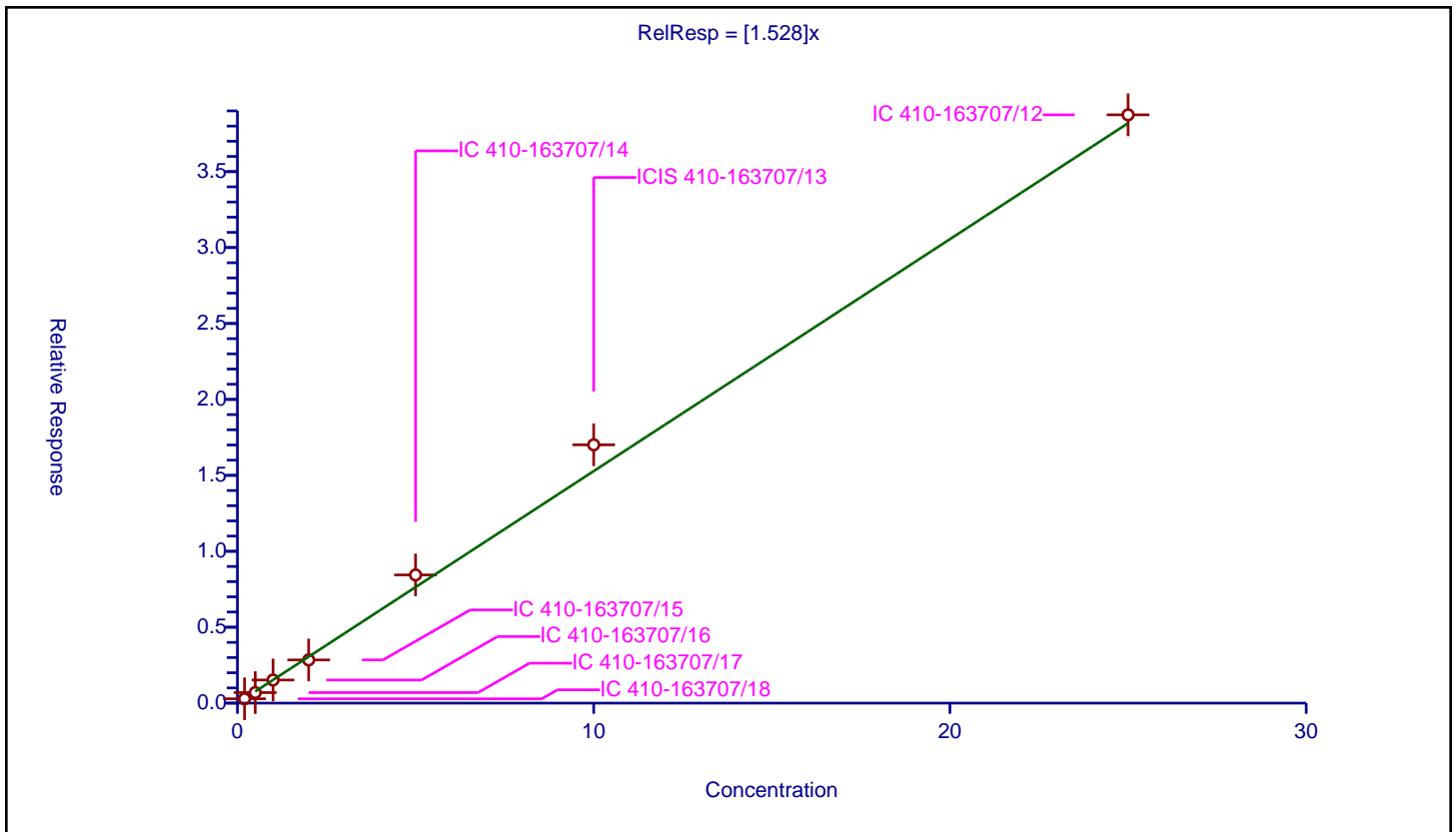
/ 1,3-Dichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.528

Error Coefficients	
Standard Error:	1880000
Relative Standard Error:	8.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.284645	10.0	1012314.0	1.423224	Y
2	IC 410-163707/17	0.5	0.693851	10.0	1102182.0	1.387702	Y
3	IC 410-163707/16	1.0	1.52181	10.0	987778.0	1.52181	Y
4	IC 410-163707/15	2.0	2.84397	10.0	984300.0	1.421985	Y
5	IC 410-163707/14	5.0	8.441112	10.0	963071.0	1.688222	Y
6	ICIS 410-163707/13	10.0	17.010381	10.0	963407.0	1.701038	Y
7	IC 410-163707/12	25.0	38.740942	10.0	1087615.0	1.549638	Y



Calibration

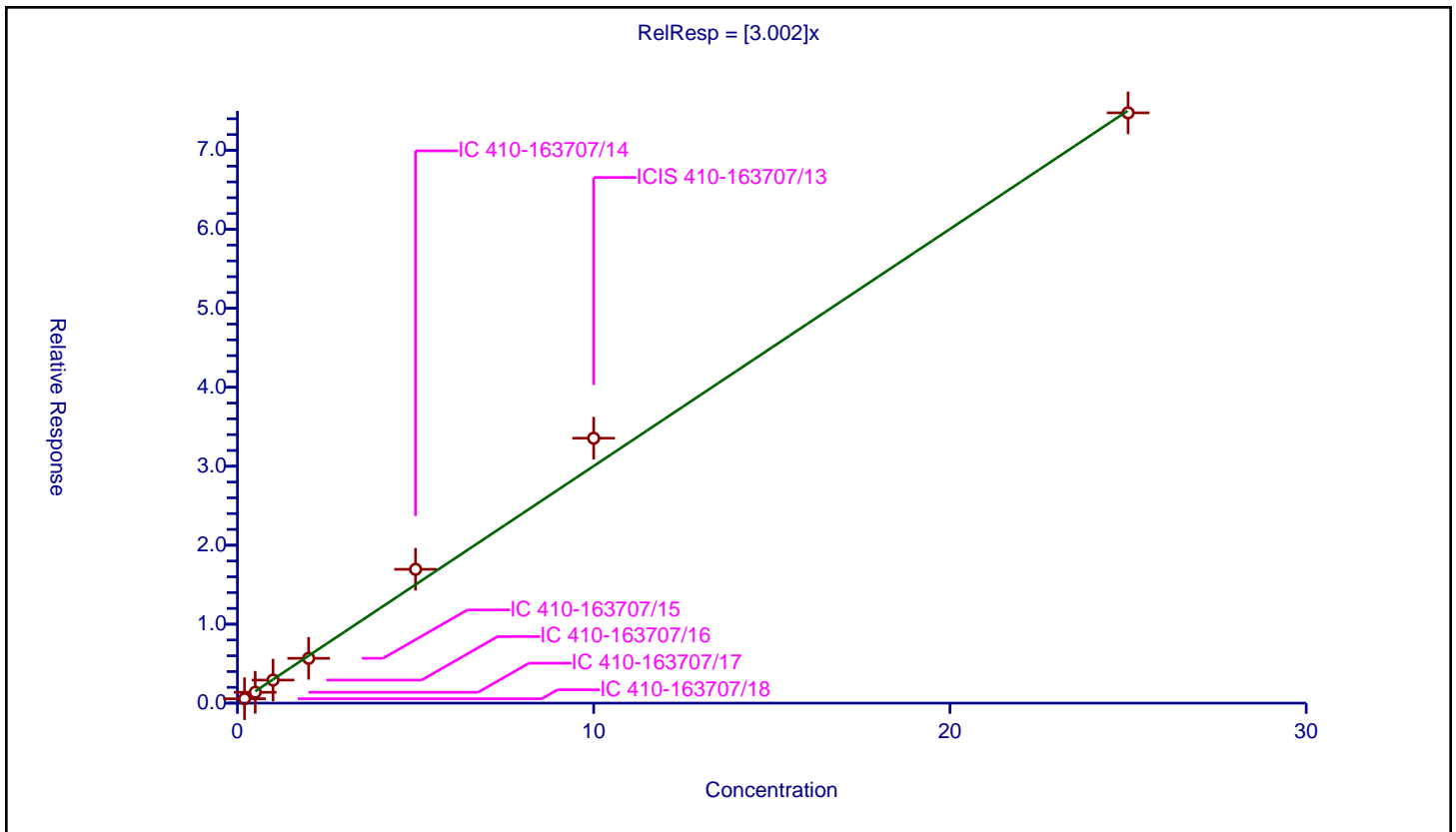
/ 4-Isopropyltoluene

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

Curve Coefficients	
Intercept:	0
Slope:	3.002

Error Coefficients	
Standard Error:	3640000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.555351	10.0	1012314.0	2.776757	Y
2	IC 410-163707/17	0.5	1.374229	10.0	1102182.0	2.748457	Y
3	IC 410-163707/16	1.0	2.917741	10.0	987778.0	2.917741	Y
4	IC 410-163707/15	2.0	5.67513	10.0	984300.0	2.837565	Y
5	IC 410-163707/14	5.0	16.946186	10.0	963071.0	3.389237	Y
6	ICIS 410-163707/13	10.0	33.546186	10.0	963407.0	3.354619	Y
7	IC 410-163707/12	25.0	74.755359	10.0	1087615.0	2.990214	Y



Calibration

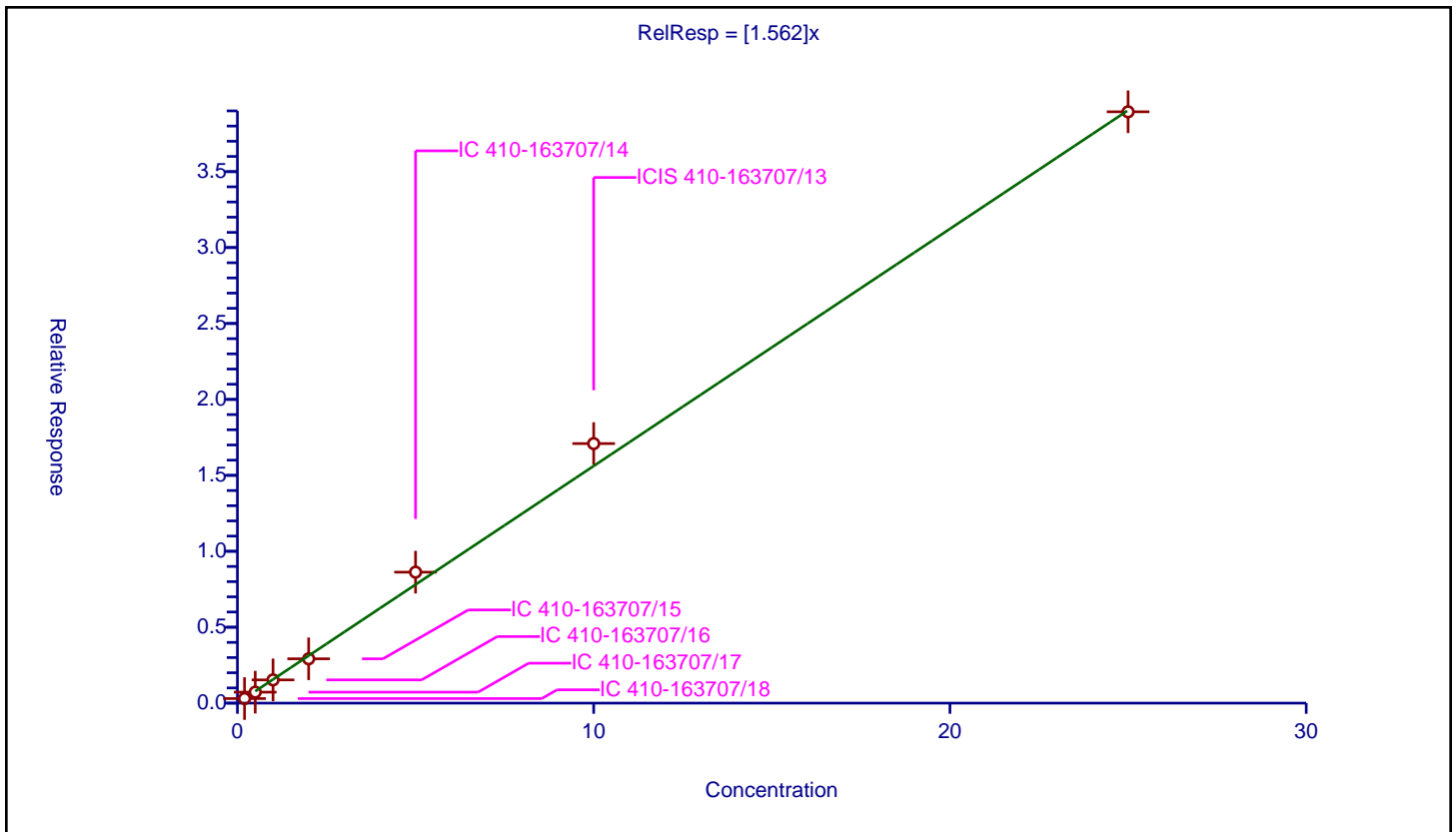
/ 1,4-Dichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.562

Error Coefficients	
Standard Error:	1890000
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.300223	10.0	1012314.0	1.501115	Y
2	IC 410-163707/17	0.5	0.724227	10.0	1102182.0	1.448454	Y
3	IC 410-163707/16	1.0	1.529858	10.0	987778.0	1.529858	Y
4	IC 410-163707/15	2.0	2.919527	10.0	984300.0	1.459763	Y
5	IC 410-163707/14	5.0	8.625044	10.0	963071.0	1.725009	Y
6	ICIS 410-163707/13	10.0	17.091478	10.0	963407.0	1.709148	Y
7	IC 410-163707/12	25.0	38.939478	10.0	1087615.0	1.557579	Y



Calibration

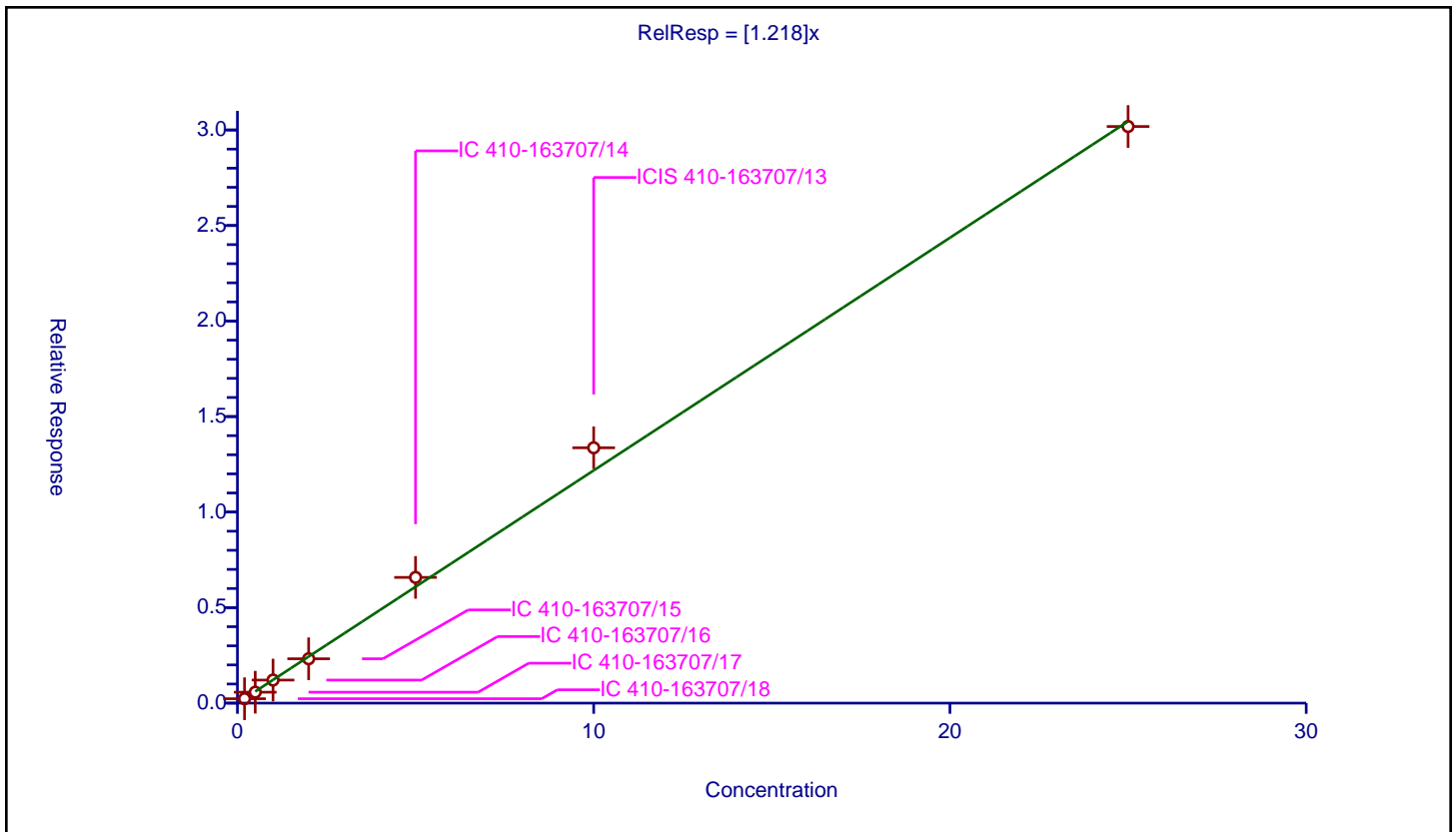
/ 1,2,3-Trimethylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.218

Error Coefficients	
Standard Error:	1470000
Relative Standard Error:	6.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.23067	10.0	1012314.0	1.153348	Y
2	IC 410-163707/17	0.5	0.572346	10.0	1102182.0	1.144693	Y
3	IC 410-163707/16	1.0	1.207134	10.0	987778.0	1.207134	Y
4	IC 410-163707/15	2.0	2.321447	10.0	984300.0	1.160723	Y
5	IC 410-163707/14	5.0	6.580346	10.0	963071.0	1.316069	Y
6	ICIS 410-163707/13	10.0	13.365639	10.0	963407.0	1.336564	Y
7	IC 410-163707/12	25.0	30.182969	10.0	1087615.0	1.207319	Y



Calibration

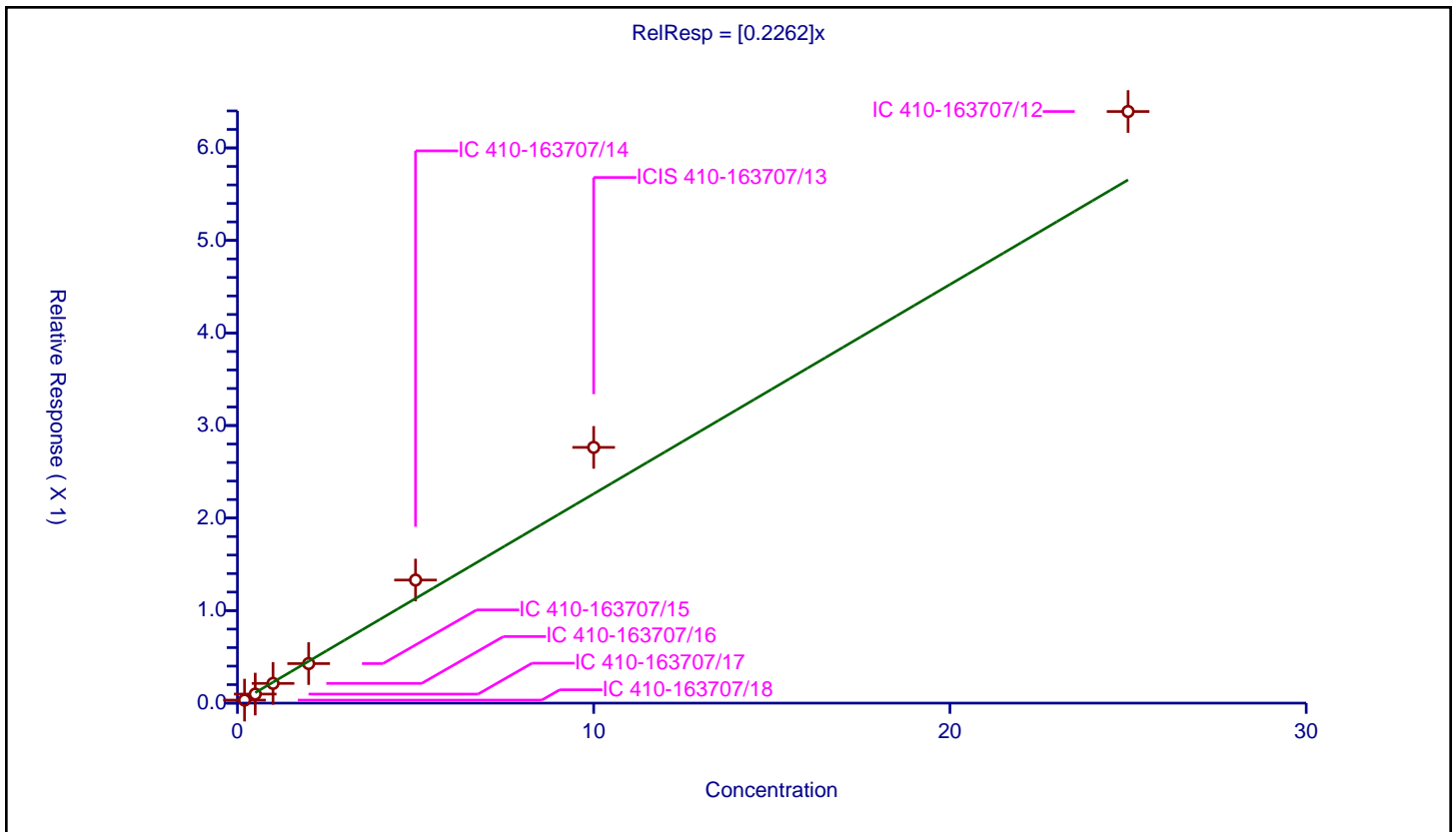
/ Benzyl chloride

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

Curve Coefficients	
Intercept:	0
Slope:	0.2262

Error Coefficients	
Standard Error:	309000
Relative Standard Error:	18.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.032569	10.0	1012314.0	0.162845	Y
2	IC 410-163707/17	0.5	0.097851	10.0	1102182.0	0.195703	Y
3	IC 410-163707/16	1.0	0.213074	10.0	987778.0	0.213074	Y
4	IC 410-163707/15	2.0	0.427177	10.0	984300.0	0.213588	Y
5	IC 410-163707/14	5.0	1.330213	10.0	963071.0	0.266043	Y
6	ICIS 410-163707/13	10.0	2.763681	10.0	963407.0	0.276368	Y
7	IC 410-163707/12	25.0	6.393292	10.0	1087615.0	0.255732	Y



Calibration

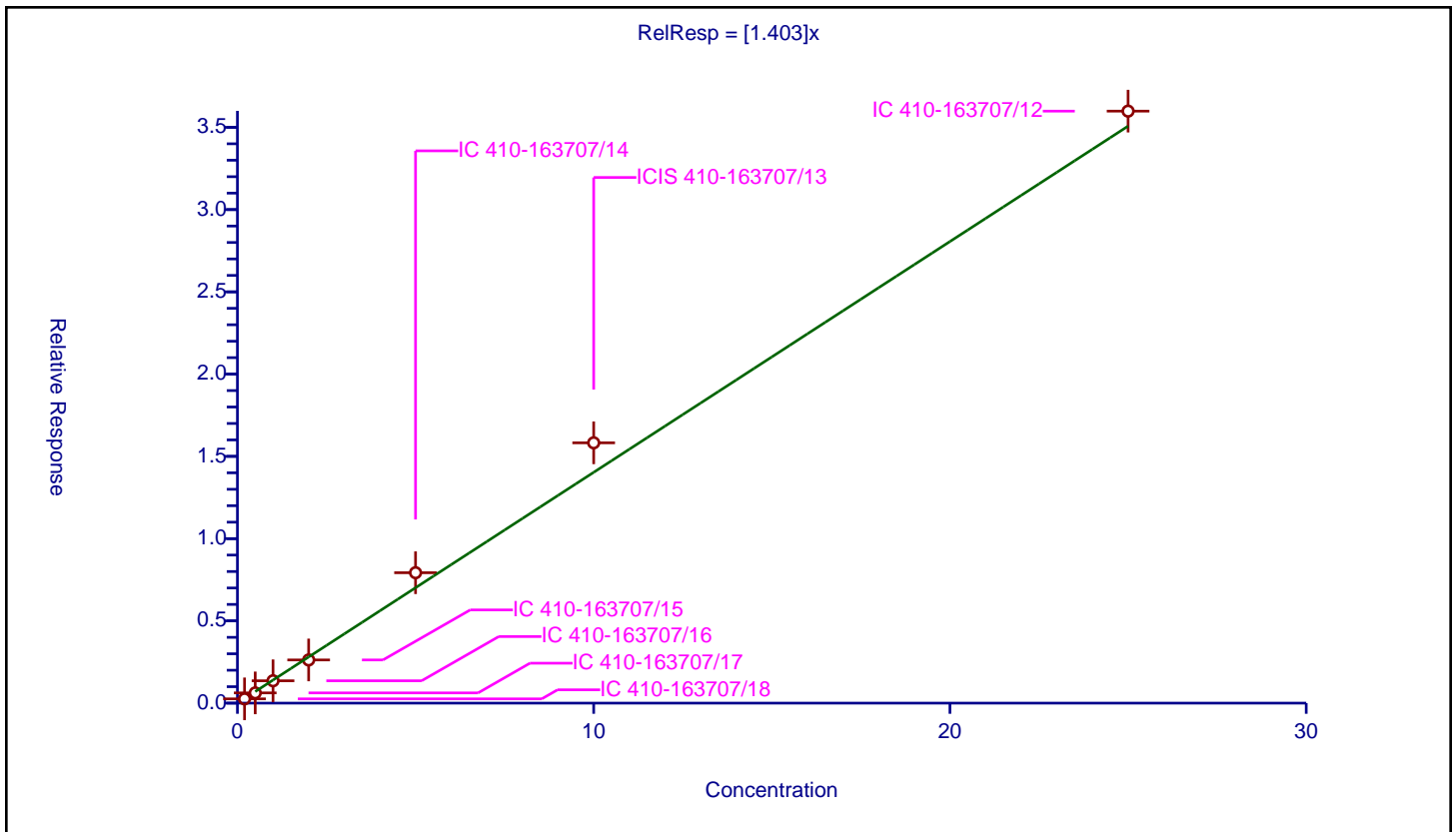
/ n-Butylbenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.403

Error Coefficients	
Standard Error:	1750000
Relative Standard Error:	9.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.259198	10.0	1012314.0	1.295991	Y
2	IC 410-163707/17	0.5	0.623091	10.0	1102182.0	1.246183	Y
3	IC 410-163707/16	1.0	1.358888	10.0	987778.0	1.358888	Y
4	IC 410-163707/15	2.0	2.624403	10.0	984300.0	1.312202	Y
5	IC 410-163707/14	5.0	7.927609	10.0	963071.0	1.585522	Y
6	ICIS 410-163707/13	10.0	15.82351	10.0	963407.0	1.582351	Y
7	IC 410-163707/12	25.0	35.984737	10.0	1087615.0	1.439389	Y



Calibration

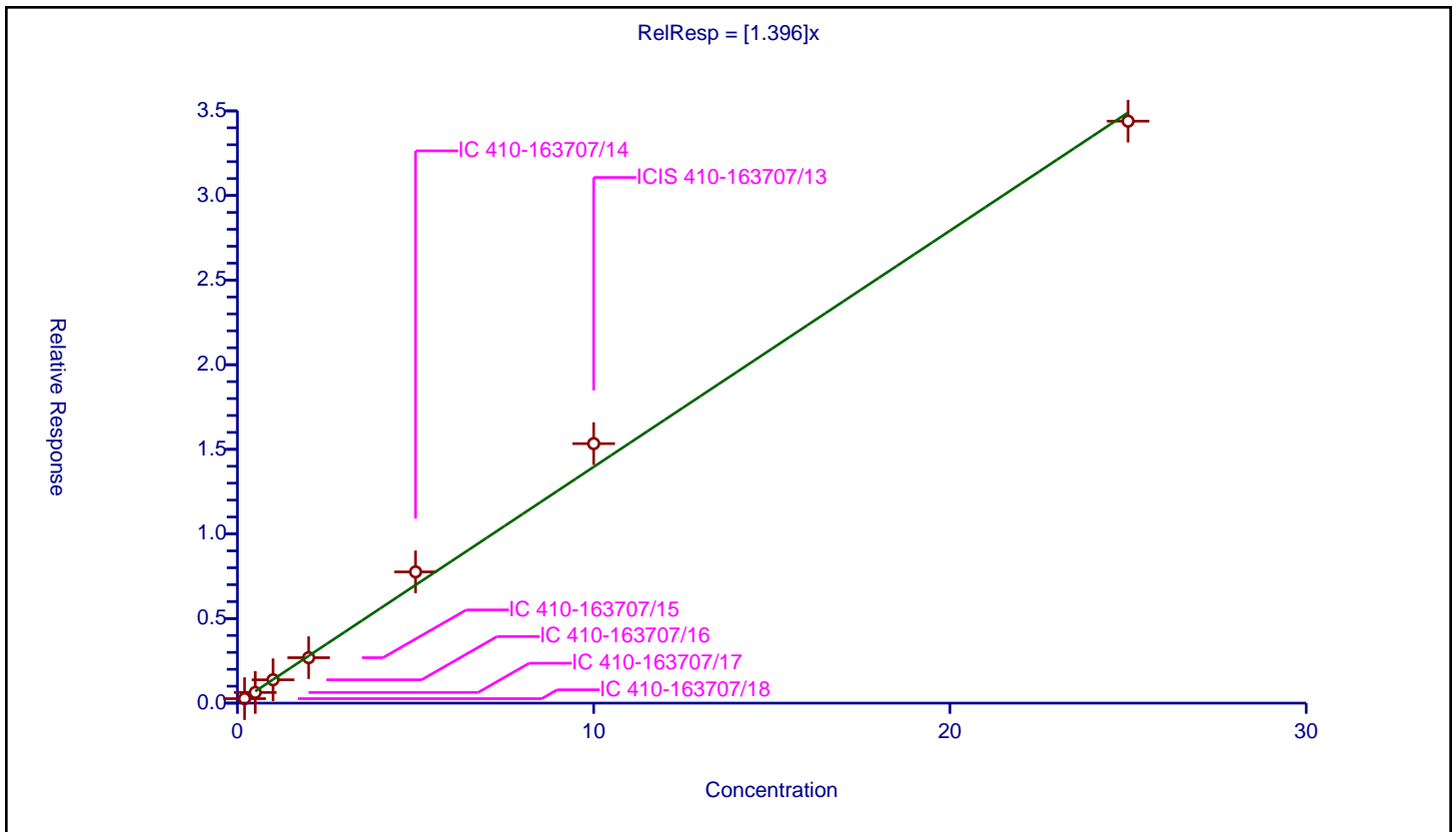
/ 1,2-Dichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.396

Error Coefficients	
Standard Error:	1670000
Relative Standard Error:	7.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.265441	10.0	1012314.0	1.327207	Y
2	IC 410-163707/17	0.5	0.630549	10.0	1102182.0	1.261098	Y
3	IC 410-163707/16	1.0	1.379986	10.0	987778.0	1.379986	Y
4	IC 410-163707/15	2.0	2.686021	10.0	984300.0	1.34301	Y
5	IC 410-163707/14	5.0	7.756386	10.0	963071.0	1.551277	Y
6	ICIS 410-163707/13	10.0	15.33627	10.0	963407.0	1.533627	Y
7	IC 410-163707/12	25.0	34.393742	10.0	1087615.0	1.37575	Y



Calibration

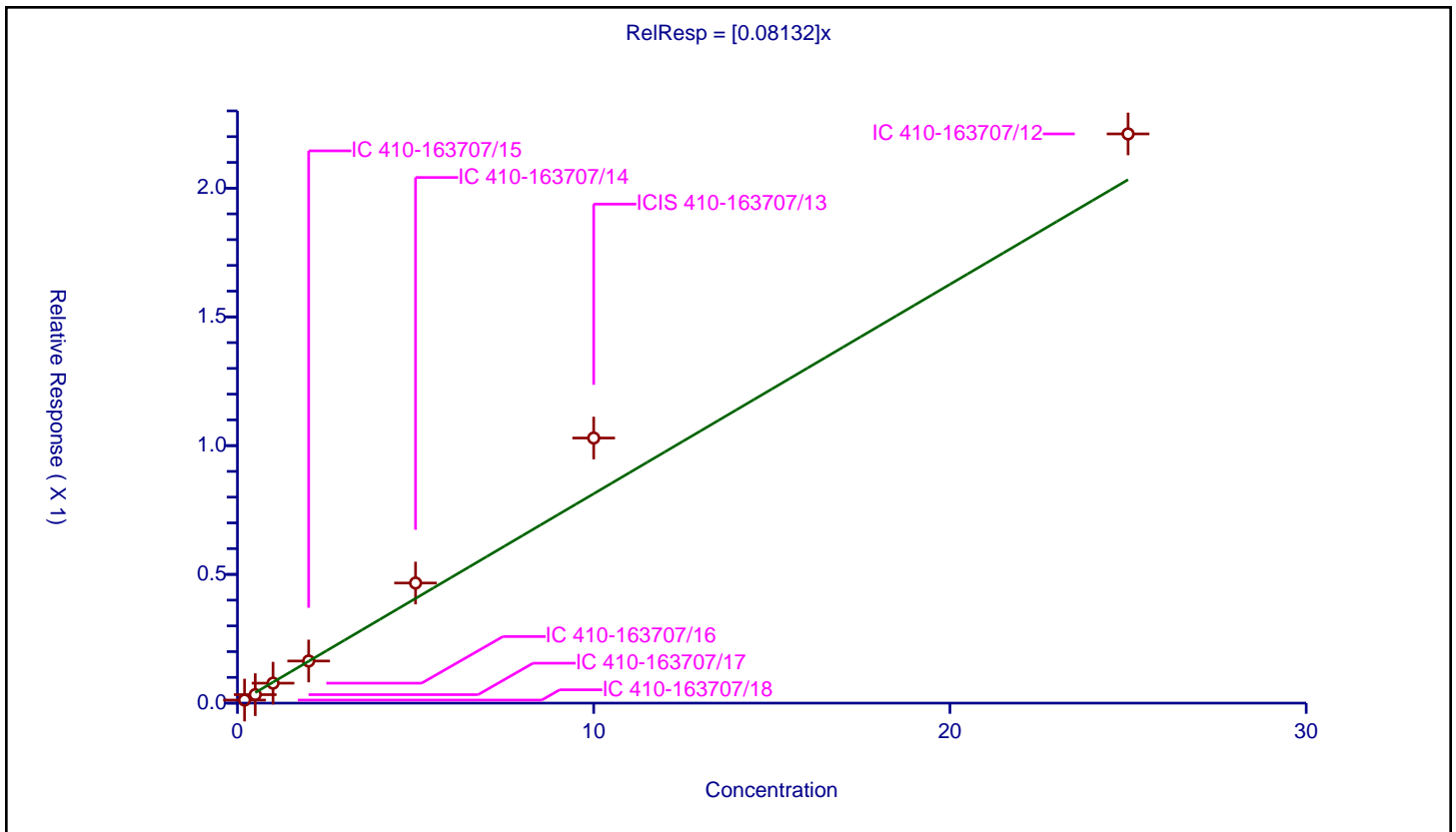
/ 1,2-Dibromo-3-Chloropropane

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

Curve Coefficients	
Intercept:	0
Slope:	0.08132

Error Coefficients	
Standard Error:	108000
Relative Standard Error:	18.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.011854	10.0	1012314.0	0.05927	Y
2	IC 410-163707/17	0.5	0.032971	10.0	1102182.0	0.065942	Y
3	IC 410-163707/16	1.0	0.077538	10.0	987778.0	0.077538	Y
4	IC 410-163707/15	2.0	0.163609	10.0	984300.0	0.081804	Y
5	IC 410-163707/14	5.0	0.466435	10.0	963071.0	0.093287	Y
6	ICIS 410-163707/13	10.0	1.029565	10.0	963407.0	0.102956	Y
7	IC 410-163707/12	25.0	2.210626	10.0	1087615.0	0.088425	Y



Calibration

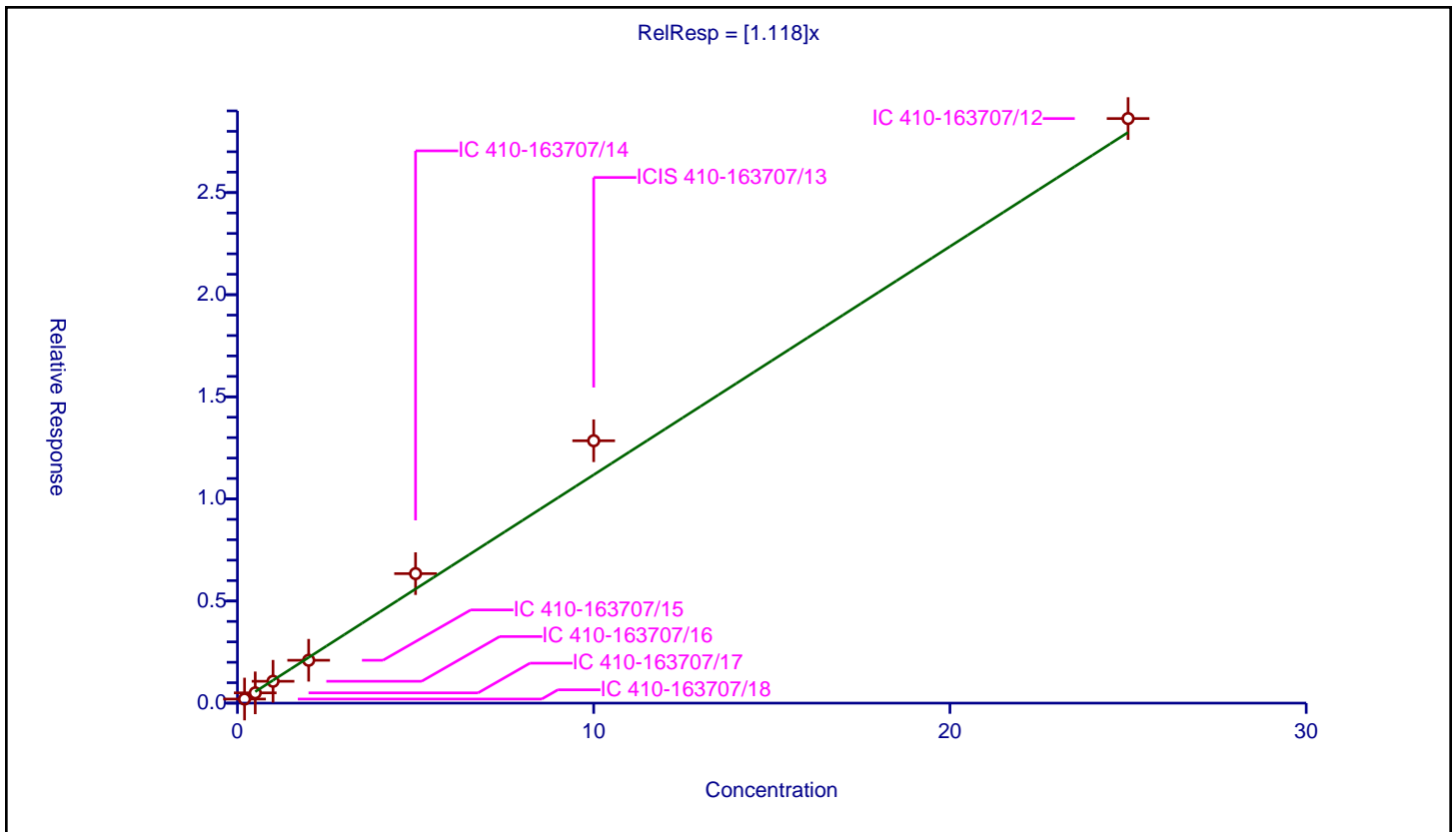
/ 1,3,5-Trichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	1.118

Error Coefficients	
Standard Error:	1390000
Relative Standard Error:	10.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.200224	10.0	1012314.0	1.001122	Y
2	IC 410-163707/17	0.5	0.503329	10.0	1102182.0	1.006658	Y
3	IC 410-163707/16	1.0	1.07024	10.0	987778.0	1.07024	Y
4	IC 410-163707/15	2.0	2.099157	10.0	984300.0	1.049578	Y
5	IC 410-163707/14	5.0	6.341017	10.0	963071.0	1.268203	Y
6	ICIS 410-163707/13	10.0	12.847426	10.0	963407.0	1.284743	Y
7	IC 410-163707/12	25.0	28.624807	10.0	1087615.0	1.144992	Y



Calibration

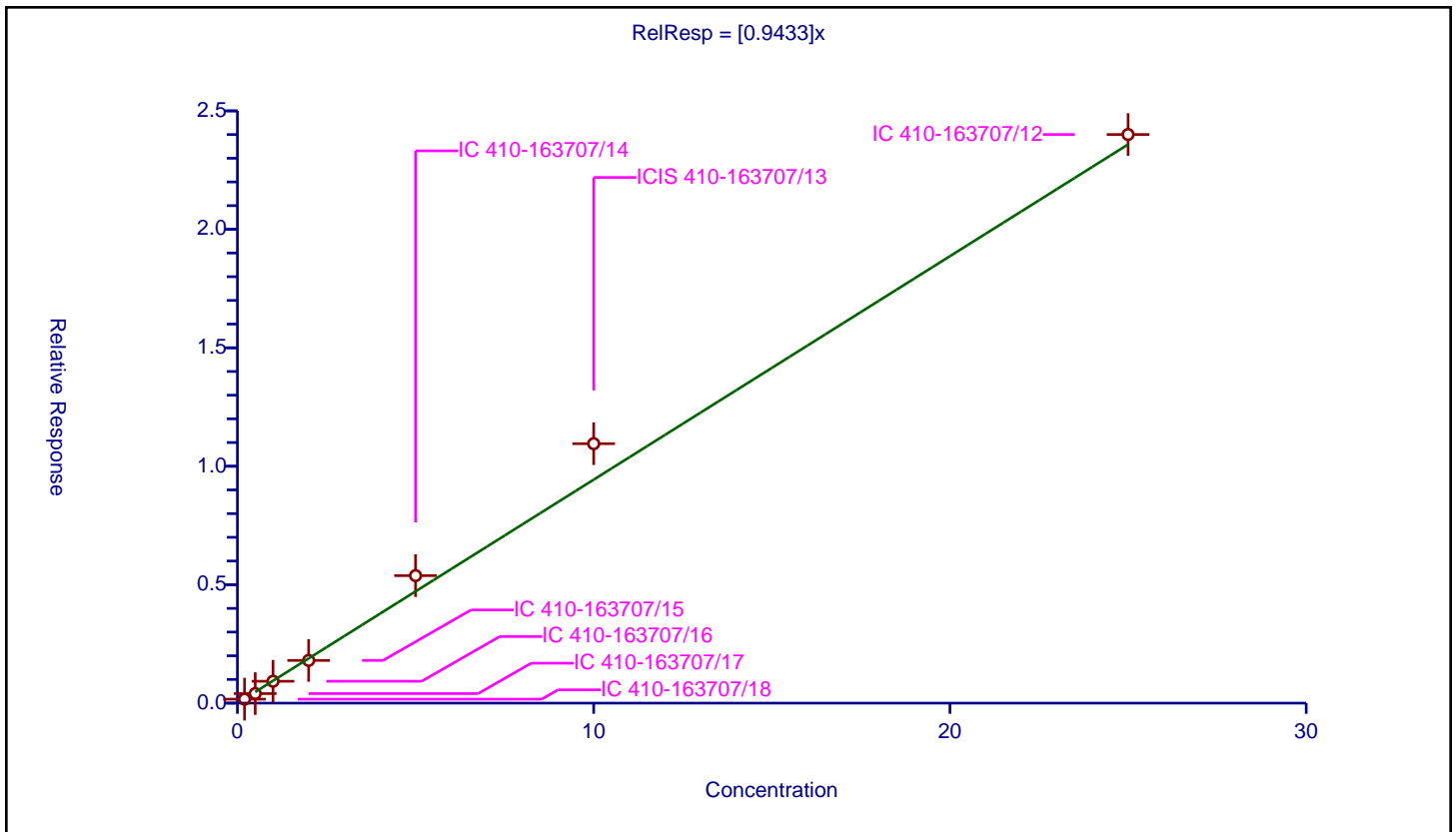
/ 1,2,4-Trichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	0.9433

Error Coefficients	
Standard Error:	1170000
Relative Standard Error:	11.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.167972	10.0	1012314.0	0.839858	Y
2	IC 410-163707/17	0.5	0.403146	10.0	1102182.0	0.806292	Y
3	IC 410-163707/16	1.0	0.924094	10.0	987778.0	0.924094	Y
4	IC 410-163707/15	2.0	1.802753	10.0	984300.0	0.901377	Y
5	IC 410-163707/14	5.0	5.38195	10.0	963071.0	1.07639	Y
6	ICIS 410-163707/13	10.0	10.951602	10.0	963407.0	1.09516	Y
7	IC 410-163707/12	25.0	24.002712	10.0	1087615.0	0.960108	Y



Calibration

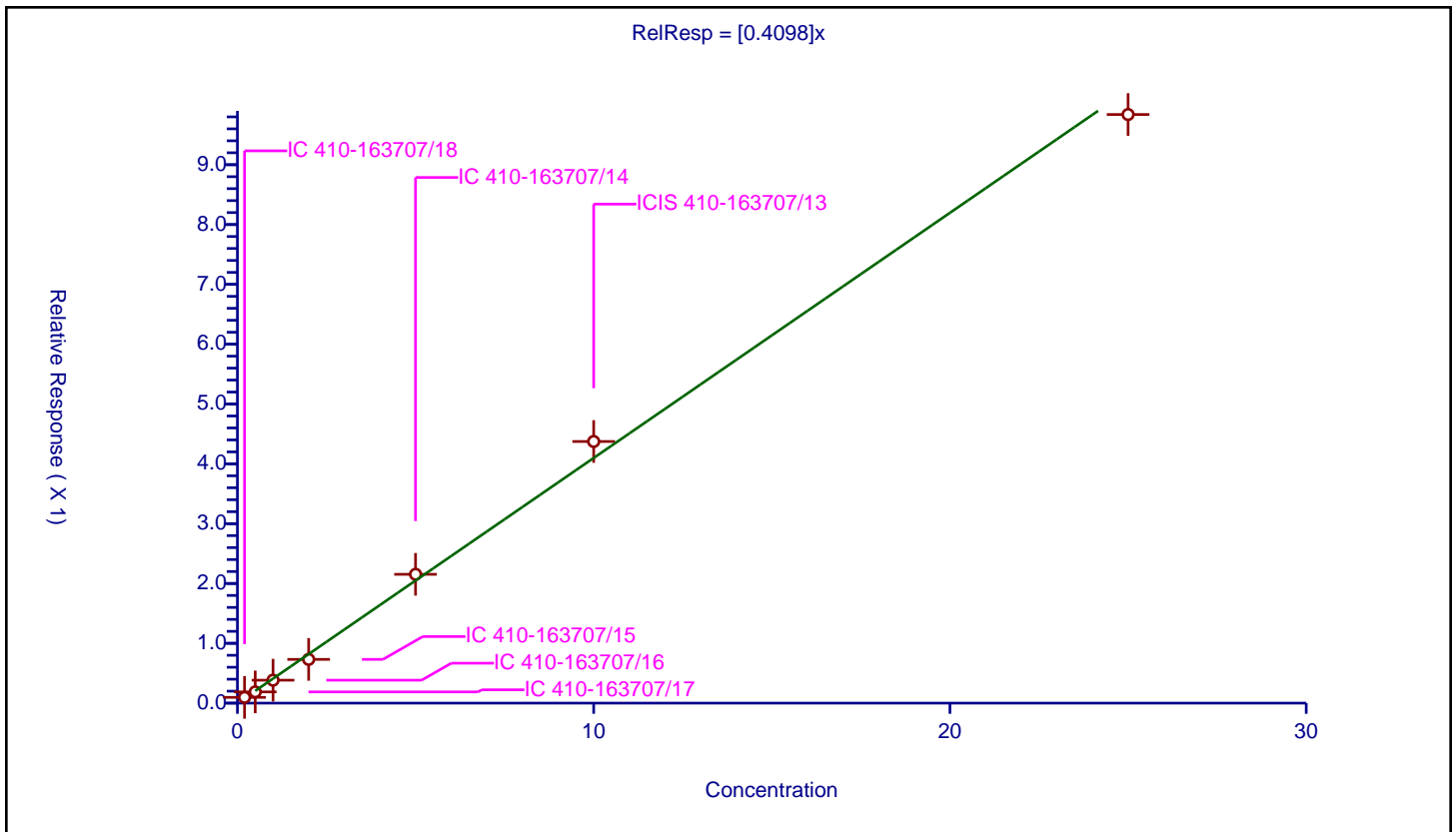
/ Hexachlorobutadiene

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

Curve Coefficients	
Intercept:	0
Slope:	0.4098

Error Coefficients	
Standard Error:	478000
Relative Standard Error:	10.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.096452	10.0	1012314.0	0.482261	Y
2	IC 410-163707/17	0.5	0.187809	10.0	1102182.0	0.375619	Y
3	IC 410-163707/16	1.0	0.383538	10.0	987778.0	0.383538	Y
4	IC 410-163707/15	2.0	0.73121	10.0	984300.0	0.365605	Y
5	IC 410-163707/14	5.0	2.153476	10.0	963071.0	0.430695	Y
6	ICIS 410-163707/13	10.0	4.373489	10.0	963407.0	0.437349	Y
7	IC 410-163707/12	25.0	9.839318	10.0	1087615.0	0.393573	Y



Calibration

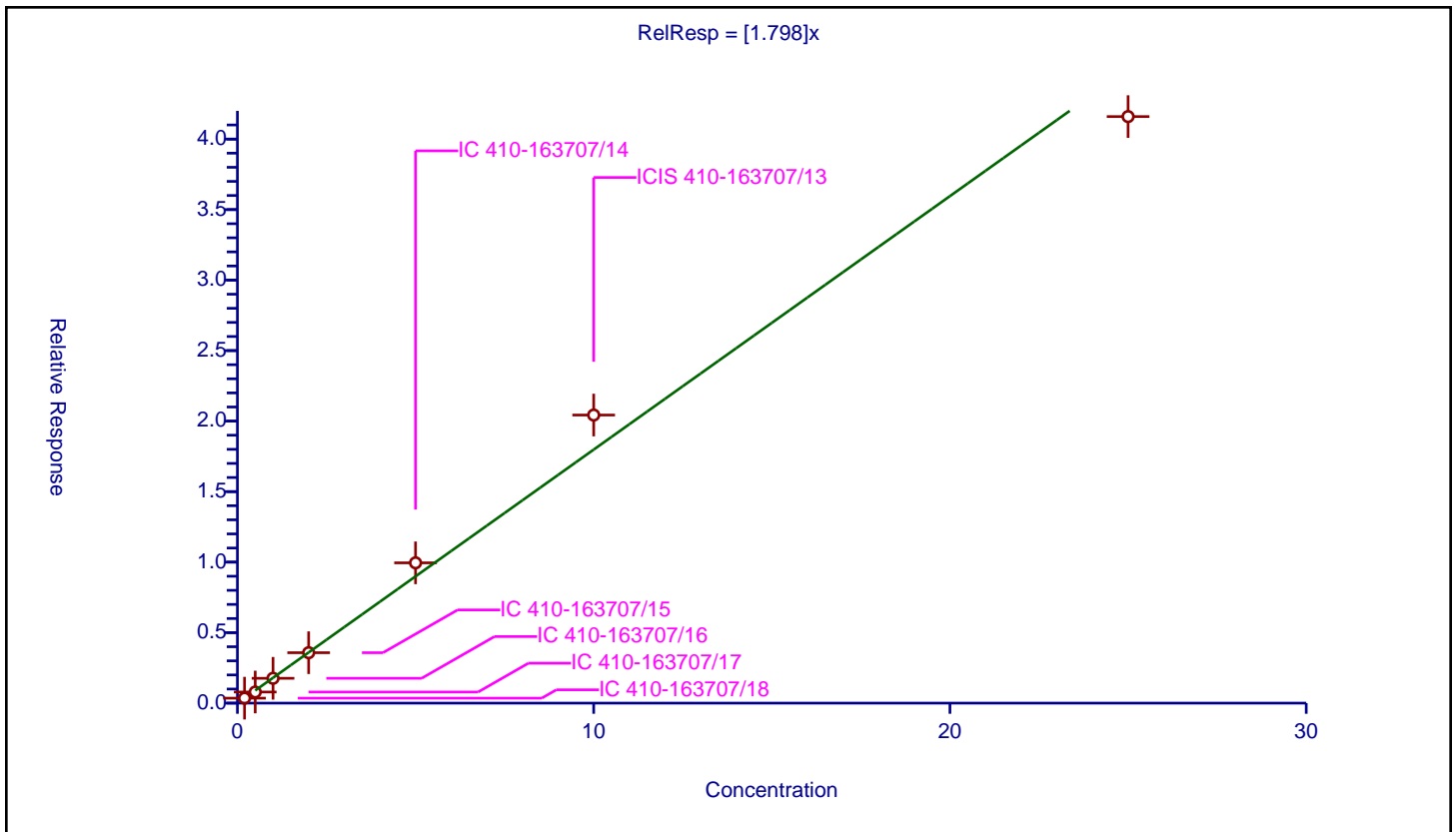
/ Naphthalene

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

Curve Coefficients	
Intercept:	0
Slope:	1.798

Error Coefficients	
Standard Error:	2060000
Relative Standard Error:	9.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.352371	10.0	1012314.0	1.761855	Y
2	IC 410-163707/17	0.5	0.78879	10.0	1102182.0	1.57758	Y
3	IC 410-163707/16	1.0	1.760709	10.0	987778.0	1.760709	Y
4	IC 410-163707/15	2.0	3.575648	10.0	984300.0	1.787824	Y
5	IC 410-163707/14	5.0	9.949962	10.0	963071.0	1.989992	Y
6	ICIS 410-163707/13	10.0	20.429299	10.0	963407.0	2.04293	Y
7	IC 410-163707/12	25.0	41.596539	10.0	1087615.0	1.663862	Y



Calibration

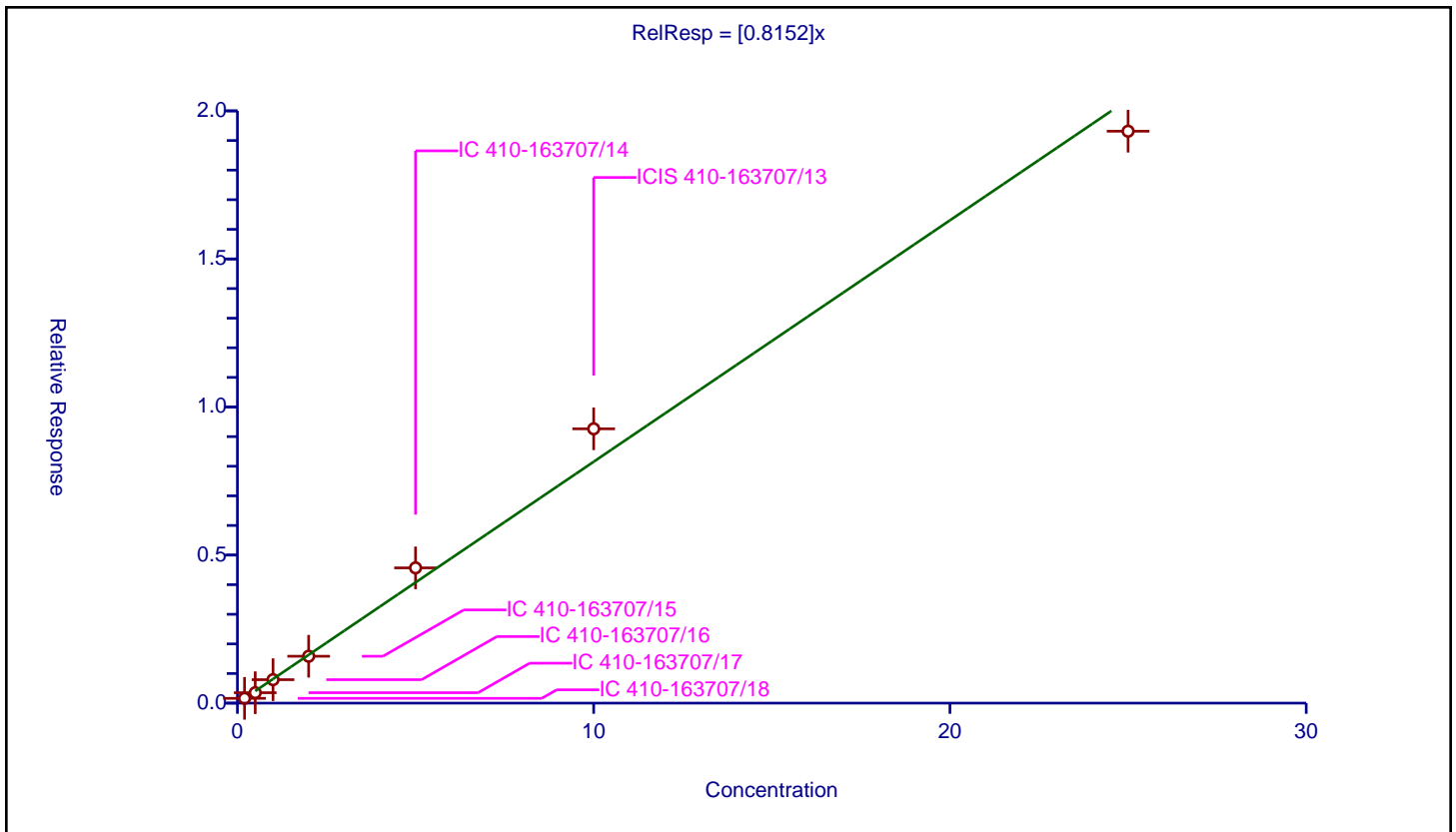
/ 1,2,3-Trichlorobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	0.8152

Error Coefficients	
Standard Error:	952000
Relative Standard Error:	9.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.160997	10.0	1012314.0	0.804987	Y
2	IC 410-163707/17	0.5	0.352519	10.0	1102182.0	0.705038	Y
3	IC 410-163707/16	1.0	0.792131	10.0	987778.0	0.792131	Y
4	IC 410-163707/15	2.0	1.583785	10.0	984300.0	0.791893	Y
5	IC 410-163707/14	5.0	4.567877	10.0	963071.0	0.913575	Y
6	ICIS 410-163707/13	10.0	9.26379	10.0	963407.0	0.926379	Y
7	IC 410-163707/12	25.0	19.313342	10.0	1087615.0	0.772534	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3128	0.4012	0.1000	6.41	5.00	28.3	30.0
Chloromethane	Ave	0.3563	0.4028	0.1000	5.65	5.00	13.1	30.0
1,3-Butadiene	Ave	0.3273	0.3543		5.41	5.00	8.2	30.0
Vinyl chloride	Ave	0.3592	0.4047	0.1000	5.63	5.00	12.7	30.0
Bromomethane	Ave	0.2603	0.2760	0.1000	5.30	5.00	6.0	30.0
Chloroethane	Ave	0.2153	0.2327	0.1000	5.40	5.00	8.0	30.0
Dichlorofluoromethane	Ave	0.5179	0.5713		5.52	5.00	10.3	30.0
Trichlorofluoromethane	Ave	0.4629	0.5399	0.1000	5.83	5.00	16.6	30.0
Ethyl ether	Ave	0.1881	0.2057		5.49	5.02	9.4	30.0
Freon 123a	Ave	0.3316	0.3652		5.51	5.00	10.1	30.0
Acrolein	Ave	2.185	1.997		34.3	37.5	-8.6	30.0
1,1-Dichloroethene	Ave	0.2387	0.2623	0.1000	5.49	5.00	9.9	30.0
Acetone	Ave	2.778	2.636	0.1000	59.3	62.5	-5.1	30.0
Freon 113	Ave	0.2492	0.2962	0.1000	5.94	5.00	18.9	30.0
Methyl iodide	Ave	0.4771	0.4962		5.20	5.00	4.0	30.0
Ethyl bromide	Ave	0.2175	0.2179		5.08	5.07	0.2	30.0
Carbon disulfide	Ave	0.6588	0.6766	0.1000	5.13	5.00	2.7	30.0
Methyl acetate	Ave	8.176	7.833	0.1000	4.79	5.00	-4.2	30.0
Allyl chloride	Ave	0.3915	0.4032		5.15	5.00	3.0	30.0
Methylene Chloride	Ave	0.2605	0.2761	0.1000	5.30	5.00	6.0	30.0
t-Butyl alcohol	Ave	1.053	1.191		56.5	50.0	13.1	30.0
Acrylonitrile	Ave	3.702	3.627		24.5	25.0	-2.0	30.0
Methyl tert-butyl ether	Ave	0.6808	0.7048	0.1000	5.18	5.00	3.5	30.0
trans-1,2-Dichloroethene	Ave	0.2711	0.2791	0.1000	5.15	5.00	3.0	30.0
n-Hexane	Ave	0.3785	0.4044		5.34	5.00	6.8	30.0
1,1-Dichloroethane	Ave	0.4919	0.5032	0.2000	5.11	5.00	2.3	30.0
di-Isopropyl ether	Ave	0.8217	0.8382		5.10	5.00	2.0	30.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.4431		5.40	5.00	8.0	30.0
Ethyl t-butyl ether	Ave	0.8035	0.8446		5.26	5.00	5.1	30.0
2-Butanone (MEK)	Ave	4.850	4.673	0.1000	60.2	62.5	-3.6	30.0
cis-1,2-Dichloroethene	Ave	0.3020	0.3231	0.1000	5.35	5.00	7.0	30.0
2,2-Dichloropropane	Ave	0.4277	0.4657		5.44	5.00	8.9	30.0
Propionitrile	Ave	1.288	1.276		37.1	37.5	-1.0	30.0
Methacrylonitrile	Ave	4.873	4.712		36.3	37.5	-3.3	30.0
Bromochloromethane	Ave	0.1303	0.1399		5.37	5.00	7.4	30.0
Tetrahydrofuran	Ave	1.439	1.378		24.0	25.0	-4.2	30.0
Chloroform	Ave	0.4873	0.5033	0.2000	5.16	5.00	3.3	30.0
1,1,1-Trichloroethane	Ave	0.4528	0.4766	0.1000	5.26	5.00	5.3	30.0
Cyclohexane	Ave	0.4489	0.4960	0.1000	5.52	5.00	10.5	30.0
1,1-Dichloropropene	Ave	0.3820	0.4120		5.39	5.00	7.9	30.0
Carbon tetrachloride	Ave	0.3908	0.4267	0.1000	5.46	5.00	9.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.3359	0.3165		118	125	-5.8	30.0
Benzene	Ave	1.124	1.170	0.5000	5.20	5.00	4.1	30.0
1,2-Dichloroethane	Ave	0.3046	0.3151	0.1000	5.17	5.00	3.4	30.0
t-Amyl methyl ether	Ave	0.7459	0.7680		5.15	5.00	3.0	30.0
n-Heptane	Ave	0.3892	0.3904		5.02	5.00	0.3	30.0
n-Butanol	Ave	0.3118	0.2802		225	250	-10.1	30.0
Trichloroethene	Ave	0.3022	0.3091	0.2000	5.11	5.00	2.3	30.0
Methylcyclohexane	Ave	0.5026	0.5536	0.1000	5.51	5.00	10.2	30.0
1,2-Dichloropropane	Ave	0.2761	0.2930	0.1000	5.30	5.00	6.1	30.0
Methyl methacrylate	Ave	9.578	8.737		4.56	5.00	-8.8	30.0
1,4-Dioxane	Qua		0.0634	0.0050	90.1	125	-27.9	30.0
Dibromomethane	Ave	0.1350	0.1409		5.22	5.00	4.4	30.0
Bromodichloromethane	Ave	0.3347	0.3576	0.2000	5.34	5.00	6.8	30.0
2-Nitropropane	Ave	2.740	2.491		4.55	5.00	-9.1	30.0
1-Bromo-2-chloroethane	Ave	0.2710	0.2981		5.50	5.00	10.0	30.0
cis-1,3-Dichloropropene	Ave	0.4206	0.4319	0.2000	5.14	5.00	2.7	30.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	11.92	0.1000	61.0	62.5	-2.4	30.0
Toluene	Ave	0.9586	0.9823	0.4000	5.12	5.00	2.5	30.0
trans-1,3-Dichloropropene	Ave	0.4420	0.4752	0.1000	5.38	5.00	7.5	30.0
Ethyl methacrylate	Ave	0.3689	0.3973		5.38	5.00	7.7	30.0
1,1,2-Trichloroethane	Ave	0.2557	0.2675	0.1000	5.23	5.00	4.6	30.0
Tetrachloroethene	Ave	0.4567	0.4774	0.2000	5.23	5.00	4.5	30.0
1,3-Dichloropropane	Ave	0.4348	0.4514		5.19	5.00	3.8	30.0
2-Hexanone	Ave	8.554	8.599	0.1000	62.8	62.5	0.5	30.0
Dibromochloromethane	Ave	0.3116	0.3290		5.28	5.00	5.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2581	0.1000	5.23	5.00	4.6	30.0
1-Chlorohexane	Ave	0.5606	0.5563		4.96	5.00	-0.8	30.0
Chlorobenzene	Ave	1.062	1.085	0.5000	5.11	5.00	2.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.3938		5.31	5.00	6.2	30.0
Ethylbenzene	Ave	1.846	1.912	0.1000	5.18	5.00	3.6	30.0
m&p-Xylene	Ave	0.7292	0.7597	0.1000	10.4	10.0	4.2	30.0
o-Xylene	Ave	0.7197	0.7348	0.3000	5.11	5.00	2.1	30.0
Styrene	Ave	1.162	1.221	0.3000	5.26	5.00	5.1	30.0
Bromoform	Ave	0.1867	0.1983	0.1000	5.31	5.00	6.2	30.0
Isopropylbenzene	Ave	1.900	2.013	0.1000	5.30	5.00	6.0	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5528	0.5817	0.3000	5.26	5.00	5.2	30.0
Bromobenzene	Ave	0.7576	0.8189		5.40	5.00	8.1	30.0
trans-1,4-Dichloro-2-butene	Ave	4.418	4.184		23.7	25.0	-5.3	30.0
1,2,3-Trichloropropane	Ave	0.1520	0.1646		5.42	5.00	8.3	30.0
N-Propylbenzene	Ave	3.678	3.868		5.26	5.00	5.2	30.0
2-Chlorotoluene	Ave	0.7546	0.7854		5.20	5.00	4.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.686	2.787		5.19	5.00	3.8	30.0
4-Chlorotoluene	Ave	0.7706	0.7862		5.10	5.00	2.0	30.0
tert-Butylbenzene	Ave	0.5890	0.6160		5.23	5.00	4.6	30.0
Pentachloroethane	Ave	0.4757	0.5156		5.42	5.00	8.4	30.0
1,2,4-Trimethylbenzene	Ave	2.753	2.852		5.18	5.00	3.6	30.0
sec-Butylbenzene	Ave	3.394	3.596		5.30	5.00	5.9	30.0
1,3-Dichlorobenzene	Ave	1.528	1.566	0.6000	5.12	5.00	2.5	30.0
p-Isopropyltoluene	Ave	3.002	3.128		5.21	5.00	4.2	30.0
1,4-Dichlorobenzene	Ave	1.562	1.579	0.5000	5.06	5.00	1.1	30.0
1,2,3-Trimethylbenzene	Ave	1.218	1.249		5.13	5.00	2.5	30.0
Benzyl chloride	Ave	0.2262	0.2392		5.29	5.00	5.7	30.0
n-Butylbenzene	Ave	1.403	1.417		5.05	5.00	1.0	30.0
1,2-Dichlorobenzene	Ave	1.396	1.438	0.4000	5.15	5.00	3.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.0870	0.0500	5.35	5.00	7.0	30.0
1,3,5-Trichlorobenzene	Ave	1.118	1.122		5.02	5.00	0.3	30.0
1,2,4-Trichlorobenzene	Ave	0.9433	0.9382	0.2000	4.97	5.00	-0.5	30.0
Hexachlorobutadiene	Ave	0.4098	0.3745		4.57	5.00	-8.6	30.0
Naphthalene	Ave	1.798	1.746		4.85	5.00	-2.9	30.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.7774		4.77	5.00	-4.6	30.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2541		10.1	10.0	0.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0504		10.0	10.0	0.0	30.0
Toluene-d8 (Surr)	Ave	1.292	1.296		10.0	10.0	0.3	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4907		9.94	10.0	-0.6	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D
 Lims ID: ICV LG
 Client ID:
 Sample Type: ICV
 Inject. Date: 24-Aug-2021 03:13:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0037607-019
 Misc. Info.: ICV LG
 Operator ID: mec29284 Instrument ID: 19930
 Sublist:

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:57:03 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 16:07:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	437699	5.00	6.41	
4 Chloromethane	50	2.178	2.172	0.006	99	439513	5.00	5.65	
6 Butadiene	39	2.294	2.288	0.006	90	386504	5.00	5.41	
5 Vinyl chloride	62	2.300	2.294	0.006	73	441552	5.00	5.63	
7 Bromomethane	94	2.623	2.623	0.000	90	301136	5.00	5.30	
8 Chloroethane	64	2.708	2.709	-0.001	100	253839	5.00	5.40	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	623302	5.00	5.52	
10 Trichlorofluoromethane	101	3.013	3.020	-0.007	97	589092	5.00	5.83	
11 Ethyl ether	59	3.263	3.257	0.006	90	225441	5.02	5.49	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	398432	5.00	5.51	
13 Acrolein	56	3.440	3.428	0.012	98	255737	37.5	34.3	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	286176	5.00	5.49	
15 Acetone	43	3.611	3.599	0.012	100	562768	62.5	59.3	
16 112TCTFE	101	3.617	3.611	0.006	91	323206	5.00	5.94	
17 Iodomethane	142	3.775	3.769	0.006	100	541414	5.00	5.20	
18 Ethyl bromide	108	3.806	3.794	0.012	99	240936	5.07	5.08	
19 Carbon disulfide	76	3.885	3.879	0.006	99	738164	5.00	5.13	
21 Methyl acetate	43	4.037	4.038	-0.001	97	133771	5.00	4.79	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	91	439940	5.00	5.15	
23 Methylene Chloride	84	4.245	4.239	0.006	90	301185	5.00	5.30	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	95	170769	50.0	50.0	
25 2-Methyl-2-propanol	59	4.397	4.397	0.000	99	203324	50.0	56.5	
26 Acrylonitrile	53	4.586	4.592	-0.006	99	309652	25.0	24.5	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	94	768950	5.00	5.18	
28 trans-1,2-Dichloroethene	96	4.671	4.672	-0.001	99	304528	5.00	5.15	
29 Hexane	57	5.092	5.086	0.006	91	441246	5.00	5.34	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	549029	5.00	5.11	
32 Isopropyl ether	45	5.385	5.385	0.000	94	914534	5.00	5.10	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	91	483480	5.00	5.40	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	921451	5.00	5.26	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.116	6.116	0.000	99	997599	62.5	60.2	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	352537	5.00	5.35	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	90	508145	5.00	5.44	
40 Propionitrile	54	6.208	6.208	0.000	98	163382	37.5	37.1	
42 Methacrylonitrile	67	6.421	6.415	0.006	91	603546	37.5	36.3	
43 Chlorobromomethane	128	6.494	6.482	0.012	91	152671	5.00	5.37	
44 Tetrahydrofuran	71	6.494	6.494	0.000	80	117689	25.0	24.0	
45 Chloroform	83	6.641	6.635	0.006	93	549073	5.00	5.16	
\$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	554531	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.866	6.860	0.006	98	519977	5.00	5.26	
48 Cyclohexane	56	6.964	6.964	0.000	89	541150	5.00	5.52	
50 Carbon tetrachloride	117	7.080	7.067	0.013	90	465504	5.00	5.46	
51 1,1-Dichloropropene	75	7.073	7.074	-0.001	96	449547	5.00	5.39	
52 Isobutyl alcohol	41	7.214	7.214	0.000	94	135141	125.0	117.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	93	110057	10.0	10.0	
54 Benzene	78	7.336	7.336	0.000	96	1276844	5.00	5.20	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	97	343788	5.00	5.17	
57 Tert-amyl methyl ether	73	7.518	7.519	-0.001	99	837925	5.00	5.15	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2182088	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	92	425979	5.00	5.02	
60 n-Butanol	56	8.092	8.098	-0.006	88	239239	250.0	224.6	
61 Trichloroethene	95	8.213	8.214	-0.001	97	337234	5.00	5.11	
62 Methylcyclohexane	83	8.524	8.525	-0.001	93	604005	5.00	5.51	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	82	319656	5.00	5.30	
64 Methyl methacrylate	69	8.628	8.628	0.000	88	149196	5.00	4.56	
65 1,4-Dioxane	88	8.634	8.640	-0.006	31	27070	125.0	90.1	M
66 Dibromomethane	93	8.652	8.653	-0.001	93	153739	5.00	5.22	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	390138	5.00	5.34	
69 2-Nitropropane	41	9.152	9.152	0.000	98	42545	5.00	4.55	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	325188	5.00	5.50	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	471258	5.00	5.14	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	2543694	62.5	61.0	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2195010	10.0	10.0	
76 Toluene	92	9.811	9.811	0.000	98	831998	5.00	5.12	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	402527	5.00	5.38	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	336492	5.00	5.38	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	90	226603	5.00	5.23	
81 Tetrachloroethene	166	10.359	10.360	-0.001	98	404374	5.00	5.23	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	382334	5.00	5.19	
83 2-Hexanone	43	10.481	10.481	0.000	96	1835506	62.5	62.8	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	278622	5.00	5.28	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	218638	5.00	5.23	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	86	1693972	10.0	10.0	
88 1-Chlorohexane	91	11.188	11.189	-0.001	96	471211	5.00	4.96	
90 Chlorobenzene	112	11.213	11.213	0.000	95	919057	5.00	5.11	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	333557	5.00	5.31	
92 Ethylbenzene	91	11.298	11.298	0.000	98	1619334	5.00	5.18	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	1286861	10.0	10.4	
94 o-Xylene	106	11.737	11.737	0.000	96	622361	5.00	5.11	
95 Styrene	104	11.755	11.756	-0.001	95	1034424	5.00	5.26	
96 Bromoform	173	11.914	11.914	0.000	97	167946	5.00	5.31	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	1705372	5.00	5.30	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	831259	10.0	9.94	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	289381	5.00	5.26	
102 Bromobenzene	156	12.298	12.298	0.000	97	407348	5.00	5.40	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	89	357283	25.0	23.7	
104 1,2,3-Trichloropropane	110	12.329	12.329	-0.001	83	81877	5.00	5.42	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1924114	5.00	5.26	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	390702	5.00	5.20	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1386314	5.00	5.19	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	391109	5.00	5.10	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	306426	5.00	5.23	
110 Pentachloroethane	167	12.774	12.774	0.000	93	256460	5.00	5.42	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1418708	5.00	5.18	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	1788570	5.00	5.30	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	778901	5.00	5.12	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1555925	5.00	5.21	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	994893	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	95	785427	5.00	5.06	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	98	621165	5.00	5.13	
118 Benzyl chloride	126	13.158	13.158	0.000	98	118974	5.00	5.29	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	704682	5.00	5.05	
120 1,2-Dichlorobenzene	146	13.341	13.341	-0.001	99	715454	5.00	5.15	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	88	43268	5.00	5.35	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	557931	5.00	5.02	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	466716	5.00	4.97	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	186275	5.00	4.57	
126 Naphthalene	128	14.609	14.609	0.000	97	868382	5.00	4.85	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	95	386694	5.00	4.77	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

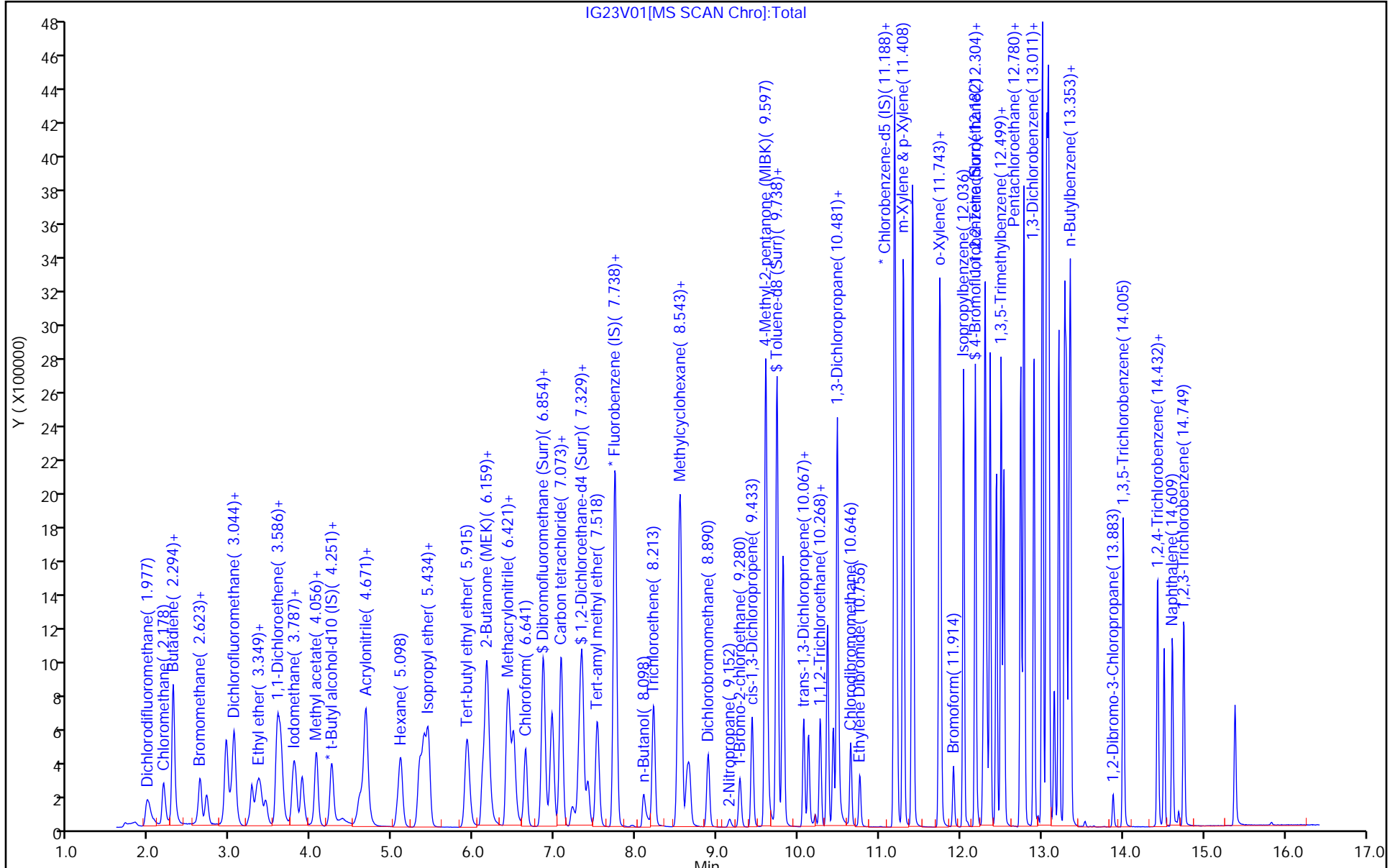
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_EE_00004	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00015	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00017	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00006	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00026	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

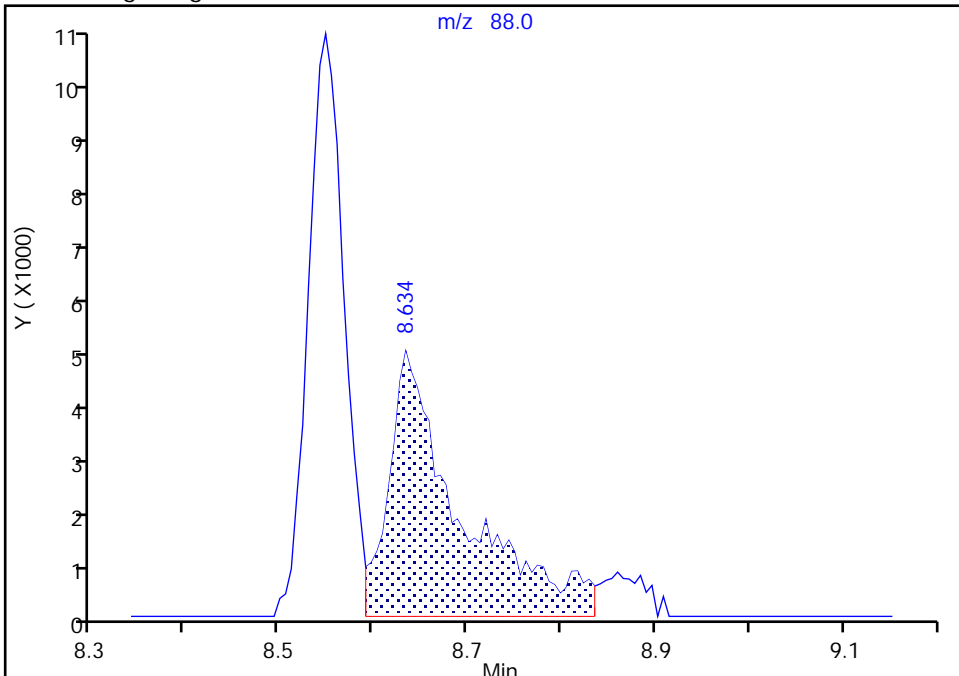
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D
Injection Date: 24-Aug-2021 03:13:30 Instrument ID: 19930
Lims ID: ICV LG
Client ID:
Operator ID: mec29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

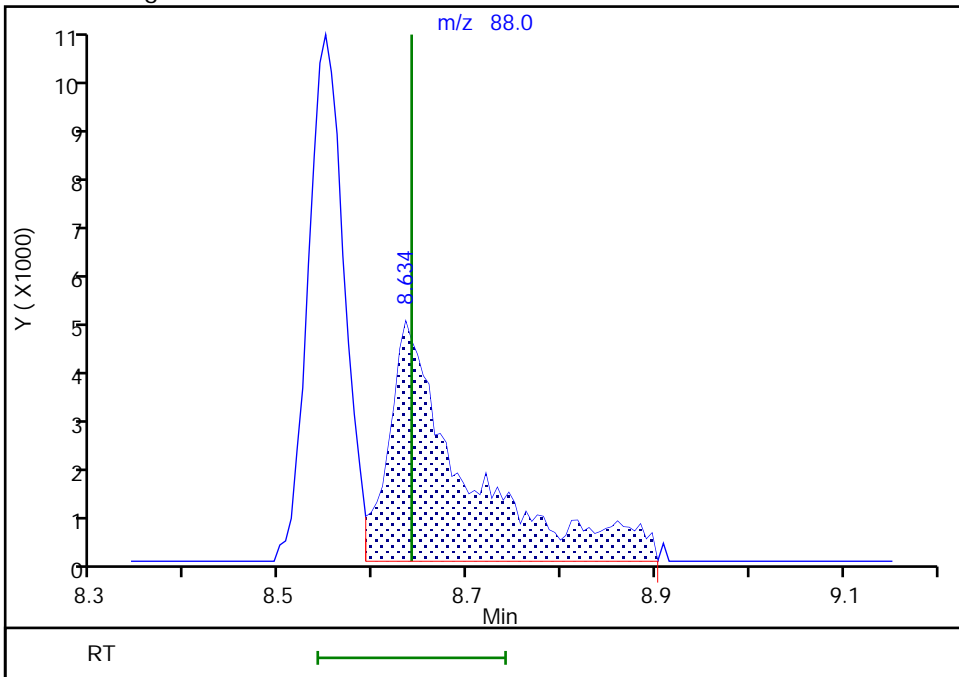
RT: 8.63
Area: 24779
Amount: 87.218368
Amount Units: ug/l

Processing Integration Results



RT: 8.63
Area: 27070
Amount: 90.099969
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:37:39
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Lab Sample ID: CCVIS 410-228139/3 Calibration Date: 02/28/2022 11:02

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IF28X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3128	0.2865	0.1000	9.16	10.0	-8.4	20.0
Chloromethane	Ave	0.3563	0.3492	0.1000	9.80	10.0	-2.0	20.0
Vinyl chloride	Ave	0.3592	0.3306	0.1000	9.20	10.0	-8.0	20.0
1,3-Butadiene	Ave	0.3273	0.3968		12.1	10.0	21.2*	20.0
Bromomethane	Ave	0.2603	0.2419	0.1000	9.29	10.0	-7.1	20.0
Chloroethane	Ave	0.2153	0.1966	0.1000	9.13	10.0	-8.7	20.0
Dichlorofluoromethane	Ave	0.5179	0.4564		8.81	10.0	-11.9	20.0
Trichlorofluoromethane	Ave	0.4629	0.4236	0.1000	9.15	10.0	-8.5	20.0
Ethyl ether	Ave	0.1881	0.1767		9.40	10.0	-6.0	20.0
Freon 123a	Ave	0.3316	0.3356		10.1	10.0	1.2	20.0
Acrolein	Ave	2.185	2.081		476	500	-4.8	20.0
1,1-Dichloroethene	Ave	0.2387	0.2314	0.1000	9.70	10.0	-3.0	20.0
Acetone	Ave	2.778	2.824	0.1000	102	100	1.7	20.0
Freon 113	Ave	0.2492	0.2031	0.1000	8.15	10.0	-18.5	20.0
Methyl iodide	Ave	0.4771	0.4237		8.88	10.0	-11.2	20.0
Ethyl bromide	Ave	0.2175	0.2213		10.2	10.0	1.7	20.0
Carbon disulfide	Ave	0.6588	0.5901	0.1000	8.96	10.0	-10.4	20.0
Methyl acetate	Ave	8.176	9.211	0.1000	11.3	10.0	12.7	20.0
Allyl chloride	Ave	0.3915	0.3873		9.89	10.0	-1.1	20.0
Methylene Chloride	Ave	0.2605	0.2608	0.1000	10.0	10.0	0.1	20.0
t-Butyl alcohol	Ave	1.053	0.8667		165	200	-17.7	20.0
Acrylonitrile	Ave	3.702	4.345		29.3	25.0	17.4	20.0
Methyl tert-butyl ether	Ave	0.6808	0.6447	0.1000	9.47	10.0	-5.3	20.0
trans-1,2-Dichloroethene	Ave	0.2711	0.2685	0.1000	9.90	10.0	-1.0	20.0
n-Hexane	Ave	0.3785	0.3352		8.85	10.0	-11.5	20.0
1,1-Dichloroethane	Ave	0.4919	0.5100	0.2000	10.4	10.0	3.7	20.0
di-Isopropyl ether	Ave	0.8217	0.8552		10.4	10.0	4.1	20.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.4040		9.85	10.0	-1.5	20.0
Ethyl t-butyl ether	Ave	0.8035	0.7839		9.76	10.0	-2.4	20.0
2-Butanone (MEK)	Ave	4.850	6.026	0.1000	124	100	24.2*	20.0
cis-1,2-Dichloroethene	Ave	0.3020	0.3062	0.1000	10.1	10.0	1.4	20.0
2,2-Dichloropropane	Ave	0.4277	0.4237		9.91	10.0	-0.9	20.0
Propionitrile	Ave	1.288	1.629		253	200	26.5*	20.0
Methacrylonitrile	Ave	4.873	5.884		121	100	20.8*	20.0
Bromochloromethane	Ave	0.1303	0.1402		10.8	10.0	7.6	20.0
Tetrahydrofuran	Ave	1.439	1.615		56.1	50.0	12.3	20.0
Chloroform	Ave	0.4873	0.5058	0.2000	10.4	10.0	3.8	20.0
1,1,1-Trichloroethane	Ave	0.4528	0.4512	0.1000	9.97	10.0	-0.3	20.0
Cyclohexane	Ave	0.4489	0.4259	0.1000	9.49	10.0	-5.1	20.0
1,1-Dichloropropene	Ave	0.3820	0.4049		10.6	10.0	6.0	20.0
Carbon tetrachloride	Ave	0.3908	0.3974	0.1000	10.2	10.0	1.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-228139/3 Calibration Date: 02/28/2022 11:02
 Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52
 Lab File ID: IF28X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.3359	0.3990		594	500	18.8	20.0
Benzene	Ave	1.124	1.210	0.5000	10.8	10.0	7.6	20.0
1,2-Dichloroethane	Ave	0.3046	0.3165	0.1000	10.4	10.0	3.9	20.0
t-Amyl methyl ether	Ave	0.7459	0.7331		9.83	10.0	-1.7	20.0
n-Heptane	Ave	0.3892	0.3741		9.61	10.0	-3.9	20.0
n-Butanol	Ave	0.3118	0.3517		987	875	12.8	20.0
Trichloroethene	Ave	0.3022	0.3241	0.2000	10.7	10.0	7.3	20.0
Methylcyclohexane	Ave	0.5026	0.4679	0.1000	9.31	10.0	-6.9	20.0
1,2-Dichloropropane	Ave	0.2761	0.3188	0.1000	11.5	10.0	15.5	20.0
Methyl methacrylate	Ave	9.578	11.87		12.4	10.0	24.0*	20.0
1,4-Dioxane	Qua		0.0667	0.0050	348	500	-30.4*	20.0
Dibromomethane	Ave	0.1350	0.1503		11.1	10.0	11.4	20.0
Bromodichloromethane	Ave	0.3347	0.3820	0.2000	11.4	10.0	14.1	20.0
2-Nitropropane	Ave	2.740	3.261		59.5	50.0	19.0	20.0
1-Bromo-2-chloroethane	Ave	0.2710	0.3392		12.5	10.0	25.2*	20.0
cis-1,3-Dichloropropene	Ave	0.4206	0.4870	0.2000	11.6	10.0	15.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	15.38	0.1000	126	100	26.0*	20.0
Toluene	Ave	0.9586	1.017	0.4000	10.6	10.0	6.1	20.0
trans-1,3-Dichloropropene	Ave	0.4420	0.5210	0.1000	11.8	10.0	17.9	20.0
Ethyl methacrylate	Ave	0.3689	0.4085		11.1	10.0	10.7	20.0
1,1,2-Trichloroethane	Ave	0.2557	0.2914	0.1000	11.4	10.0	14.0	20.0
Tetrachloroethene	Ave	0.4567	0.4923	0.2000	10.8	10.0	7.8	20.0
1,3-Dichloropropane	Ave	0.4348	0.5027		11.6	10.0	15.6	20.0
2-Hexanone	Ave	8.554	11.29	0.1000	132	100	32.0*	20.0
Dibromochloromethane	Ave	0.3116	0.3724		12.0	10.0	19.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2796	0.1000	11.3	10.0	13.4	20.0
1-Chlorohexane	Ave	0.5606	0.5829		10.4	10.0	4.0	20.0
Chlorobenzene	Ave	1.062	1.179	0.5000	11.1	10.0	11.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.4020		10.8	10.0	8.4	20.0
Ethylbenzene	Ave	1.846	1.984	0.1000	10.8	10.0	7.5	20.0
m&p-Xylene	Ave	0.7292	0.7897	0.1000	21.7	20.0	8.3	20.0
o-Xylene	Ave	0.7197	0.7482	0.3000	10.4	10.0	4.0	20.0
Styrene	Ave	1.162	1.250	0.3000	10.8	10.0	7.6	20.0
Bromoform	Ave	0.1867	0.2369	0.1000	12.7	10.0	26.9*	20.0
Isopropylbenzene	Ave	1.900	1.940	0.1000	10.2	10.0	2.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5528	0.6681	0.3000	12.1	10.0	20.8*	20.0
Bromobenzene	Ave	0.7576	0.8933		11.8	10.0	17.9	20.0
trans-1,4-Dichloro-2-butene	Ave	4.418	4.438		100	100	0.5	20.0
1,2,3-Trichloropropane	Ave	0.1520	0.1844		12.1	10.0	21.3*	20.0
N-Propylbenzene	Ave	3.678	4.446		12.1	10.0	20.9*	20.0
2-Chlorotoluene	Ave	0.7546	0.9027		12.0	10.0	19.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Lab Sample ID: CCVIS 410-228139/3 Calibration Date: 02/28/2022 11:02

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IF28X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.686	3.086		11.5	10.0	14.9	20.0
4-Chlorotoluene	Ave	0.7706	0.9385		12.2	10.0	21.8*	20.0
tert-Butylbenzene	Ave	0.5890	0.6918		11.7	10.0	17.4	20.0
Pentachloroethane	Ave	0.4757	0.5972		12.6	10.0	25.6*	20.0
1,2,4-Trimethylbenzene	Ave	2.753	3.139		11.4	10.0	14.0	20.0
sec-Butylbenzene	Ave	3.394	3.938		11.6	10.0	16.0	20.0
1,3-Dichlorobenzene	Ave	1.528	1.756	0.6000	11.5	10.0	14.9	20.0
p-Isopropyltoluene	Ave	3.002	3.411		11.4	10.0	13.6	20.0
1,4-Dichlorobenzene	Ave	1.562	1.757	0.5000	11.3	10.0	12.5	20.0
1,2,3-Trimethylbenzene	Ave	1.218	1.348		11.1	10.0	10.7	20.0
Benzyl chloride	Ave	0.2262	0.2812		12.4	10.0	24.3*	20.0
n-Butylbenzene	Ave	1.403	1.632		11.6	10.0	16.3	20.0
1,2-Dichlorobenzene	Ave	1.396	1.567	0.4000	11.2	10.0	12.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.0999	0.0500	12.3	10.0	22.9*	20.0
1,3,5-Trichlorobenzene	Ave	1.118	1.207		10.8	10.0	8.0	20.0
1,2,4-Trichlorobenzene	Ave	0.9433	0.9736	0.2000	10.3	10.0	3.2	20.0
Hexachlorobutadiene	Ave	0.4098	0.4016		9.80	10.0	-2.0	20.0
Naphthalene	Ave	1.798	1.742		9.69	10.0	-3.1	20.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.8020		9.84	10.0	-1.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2420		9.61	10.0	-3.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0499		9.91	10.0	-0.9	20.0
Toluene-d8 (Surr)	Ave	1.292	1.271		9.83	10.0	-1.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4614		9.34	10.0	-6.6	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X02.D
 Lims ID: CCVIS VSTD10
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 28-Feb-2022 11:02:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-003
 Misc. Info.: CCVIS
 Operator ID: KNK41612 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 12:11:32 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 28-Feb-2022 11:27:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.947	1.947	0.000	99	644574	10.0	9.16	
4 Chloromethane	50	2.154	2.154	0.000	99	785766	10.0	9.80	
5 Vinyl chloride	62	2.251	2.251	0.000	98	744030	10.0	9.20	
6 Butadiene	39	2.300	2.300	0.000	91	892921	10.0	12.1	
7 Bromomethane	94	2.611	2.611	0.000	91	544327	10.0	9.29	
8 Chloroethane	64	2.703	2.703	0.000	100	442348	10.0	9.13	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	1027090	10.0	8.81	
10 Trichlorofluoromethane	101	3.001	3.001	0.000	96	953097	10.0	9.15	
11 Ethyl ether	59	3.251	3.251	0.000	92	397702	10.0	9.40	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.343	3.343	0.000	94	755213	10.0	10.1	
13 Acrolein	56	3.428	3.428	0.000	100	3152746	500.0	476.2	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	98	520749	10.0	9.70	
15 Acetone	43	3.593	3.593	0.000	99	855498	100.0	101.7	
16 112TCTFE	101	3.611	3.611	0.000	91	457101	10.0	8.15	
17 Iodomethane	142	3.769	3.769	0.000	98	953386	10.0	8.88	
18 Ethyl bromide	108	3.794	3.794	0.000	98	497802	10.0	10.2	
19 Carbon disulfide	76	3.873	3.873	0.000	99	1327804	10.0	8.96	
21 Methyl acetate	43	4.007	4.007	0.000	97	279043	10.0	11.3	
22 3-Chloro-1-propene	41	4.044	4.044	0.000	93	871562	10.0	9.89	
23 Methylene Chloride	84	4.239	4.239	0.000	92	586937	10.0	10.0	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.263	0.000	94	151468	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.367	4.367	0.000	100	525097	200.0	164.6	
26 Acrylonitrile	53	4.574	4.574	0.000	99	329064	25.0	29.3	
27 Methyl tert-butyl ether	73	4.641	4.641	0.000	95	1450819	10.0	9.47	
28 trans-1,2-Dichloroethene	96	4.659	4.659	0.000	99	604139	10.0	9.90	
29 Hexane	57	5.074	5.074	0.000	92	754197	10.0	8.85	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	1147710	10.0	10.4	
32 Isopropyl ether	45	5.367	5.367	0.000	95	1924424	10.0	10.4	
33 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	90	909131	10.0	9.85	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	97	1763863	10.0	9.76	

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	100	1825379	100.0	124.2	
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	689111	10.0	10.1	
38 2,2-Dichloropropane	77	6.147	6.147	0.000	87	953518	10.0	9.91	
40 Propionitrile	54	6.177	6.177	0.000	99	986961	200.0	252.9	
42 Methacrylonitrile	67	6.397	6.397	0.000	92	1782592	100.0	120.8	
43 Chlorobromomethane	128	6.464	6.464	0.000	93	315532	10.0	10.8	
44 Tetrahydrofuran	71	6.470	6.470	0.000	80	244665	50.0	56.1	
45 Chloroform	83	6.610	6.610	0.000	93	1138219	10.0	10.4	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	544613	10.0	9.61	
47 1,1,1-Trichloroethane	97	6.836	6.836	0.000	98	1015353	10.0	9.97	
48 Cyclohexane	56	6.940	6.940	0.000	89	958337	10.0	9.49	
51 1,1-Dichloropropene	75	7.049	7.049	0.000	97	911190	10.0	10.6	
50 Carbon tetrachloride	117	7.049	7.049	0.000	97	894225	10.0	10.2	
52 Isobutyl alcohol	41	7.196	7.196	0.000	95	604419	500.0	593.9	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	98	112380	10.0	9.91	
54 Benzene	78	7.305	7.305	0.000	96	2723417	10.0	10.8	
56 1,2-Dichloroethane	62	7.378	7.378	0.000	97	712256	10.0	10.4	
57 Tert-amyl methyl ether	73	7.500	7.500	0.000	99	1649619	10.0	9.83	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2250205	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	92	841884	10.0	9.61	
60 n-Butanol	56	8.073	8.073	0.000	88	932128	875.0	986.7	
61 Trichloroethene	95	8.189	8.189	0.000	97	729252	10.0	10.7	
62 Methylcyclohexane	83	8.500	8.500	0.000	91	1052905	10.0	9.31	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	86	717437	10.0	11.5	
64 Methyl methacrylate	69	8.598	8.598	0.000	90	359726	10.0	12.4	
65 1,4-Dioxane	88	8.610	8.610	0.000	34	101065	500.0	348.2	M
66 Dibromomethane	93	8.628	8.628	0.000	94	338195	10.0	11.1	
68 Dichlorobromomethane	83	8.860	8.860	0.000	100	859660	10.0	11.4	
69 2-Nitropropane	41	9.122	9.122	0.000	98	493963	50.0	59.5	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	763171	10.0	12.5	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	1095955	10.0	11.6	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	96	4660505	100.0	126.0	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2255472	10.0	9.83	
76 Toluene	92	9.787	9.787	0.000	98	1805083	10.0	10.6	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	92	924853	10.0	11.8	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	725101	10.0	11.1	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	91	517285	10.0	11.4	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	873844	10.0	10.8	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	892245	10.0	11.6	
83 2-Hexanone	43	10.451	10.451	0.000	96	3419556	100.0	132.0	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	661121	10.0	12.0	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	496381	10.0	11.3	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1775080	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	97	1034749	10.0	10.4	
90 Chlorobenzene	112	11.183	11.183	0.000	96	2092364	10.0	11.1	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	97	713503	10.0	10.8	
92 Ethylbenzene	91	11.268	11.268	0.000	98	3522641	10.0	10.8	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	2803702	20.0	21.7	
94 o-Xylene	106	11.707	11.707	0.000	96	1328123	10.0	10.4	
95 Styrene	104	11.725	11.725	0.000	95	2219676	10.0	10.8	
96 Bromoform	173	11.884	11.884	0.000	98	420529	10.0	12.7	
97 Isopropylbenzene	105	12.006	12.006	0.000	95	3444474	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
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	819021	10.0	9.34	
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	626754	10.0	12.1	
102 Bromobenzene	156	12.268	12.268	0.000	95	838110	10.0	11.8	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	91	1344440	100.0	100.5	
104 1,2,3-Trichloropropane	110	12.292	12.292	0.000	79	172969	10.0	12.1	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	4171555	10.0	12.1	
106 2-Chlorotoluene	126	12.408	12.408	0.000	97	846891	10.0	12.0	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	2895553	10.0	11.5	
108 4-Chlorotoluene	126	12.505	12.505	0.000	96	880466	10.0	12.2	
109 tert-Butylbenzene	134	12.707	12.707	0.000	93	648999	10.0	11.7	
110 Pentachloroethane	167	12.743	12.743	0.000	95	560307	10.0	12.6	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	97	2944718	10.0	11.4	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	3694383	10.0	11.6	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	1647201	10.0	11.5	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	3200199	10.0	11.4	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	93	938183	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	1648210	10.0	11.3	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	1264713	10.0	11.1	
118 Benzyl chloride	126	13.121	13.121	0.000	98	263863	10.0	12.4	
119 n-Butylbenzene	92	13.268	13.268	0.000	97	1531119	10.0	11.6	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	1469903	10.0	11.2	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	90	93755	10.0	12.3	
123 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	98	1132660	10.0	10.8	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	913444	10.0	10.3	
125 Hexachlorobutadiene	225	14.475	14.475	0.000	96	376817	10.0	9.80	
126 Naphthalene	128	14.572	14.572	0.000	97	1634644	10.0	9.69	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	752458	10.0	9.84	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00037

Amount Added: 20.00

Units: uL

MSV_LL_#2_826_00040

Amount Added: 20.00

Units: uL

MSV_LL_GAS826_00069

Amount Added: 20.00

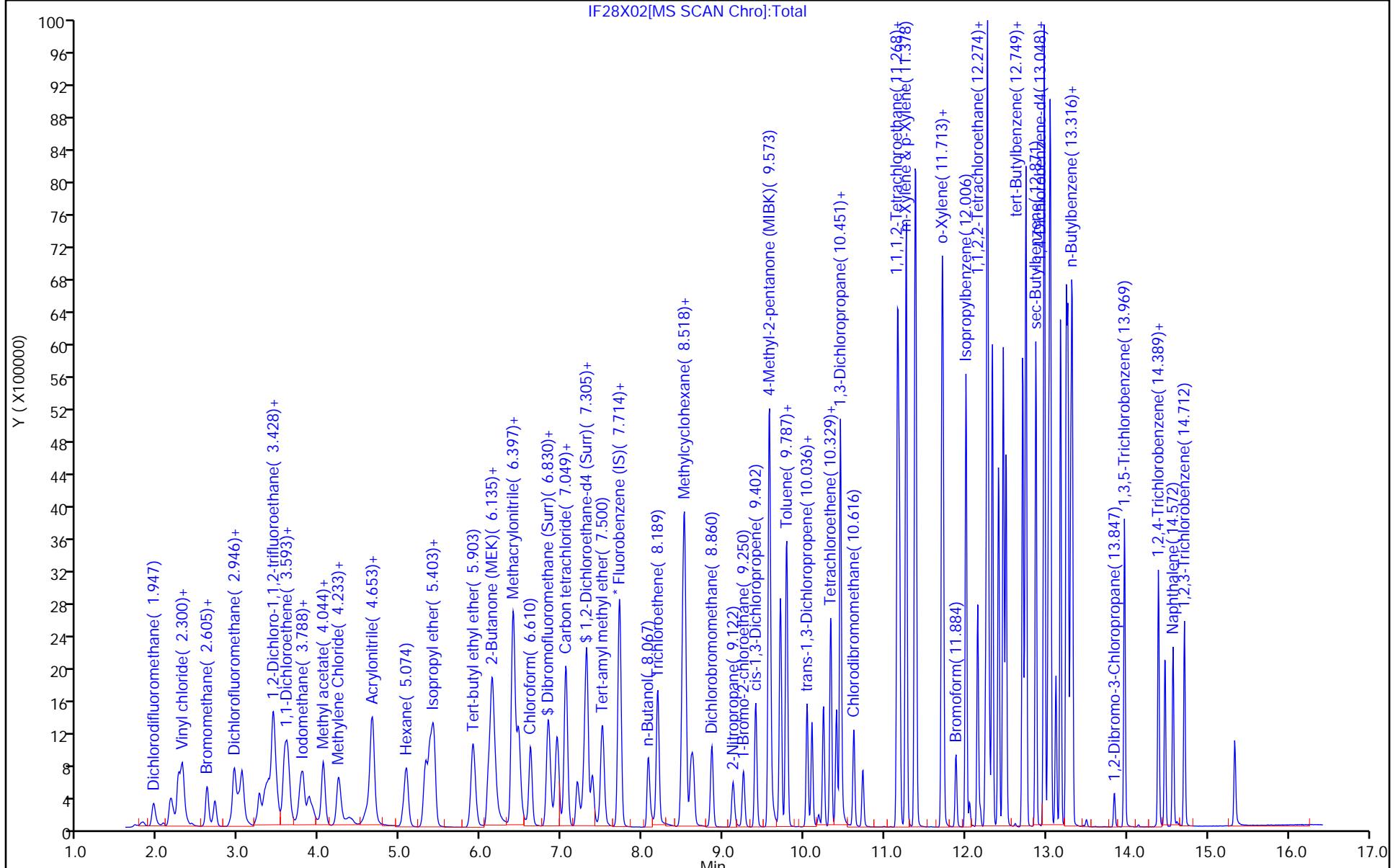
Units: uL

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent



IF28X02[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\F28X02.D

Injection Date: 28-Feb-2022 11:02:30

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)

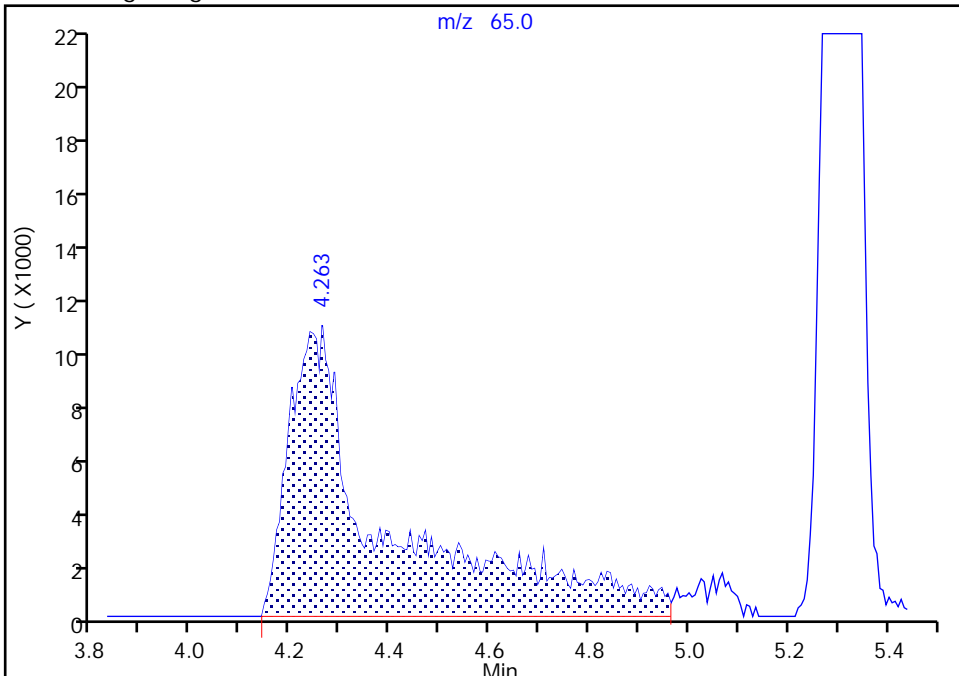
Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

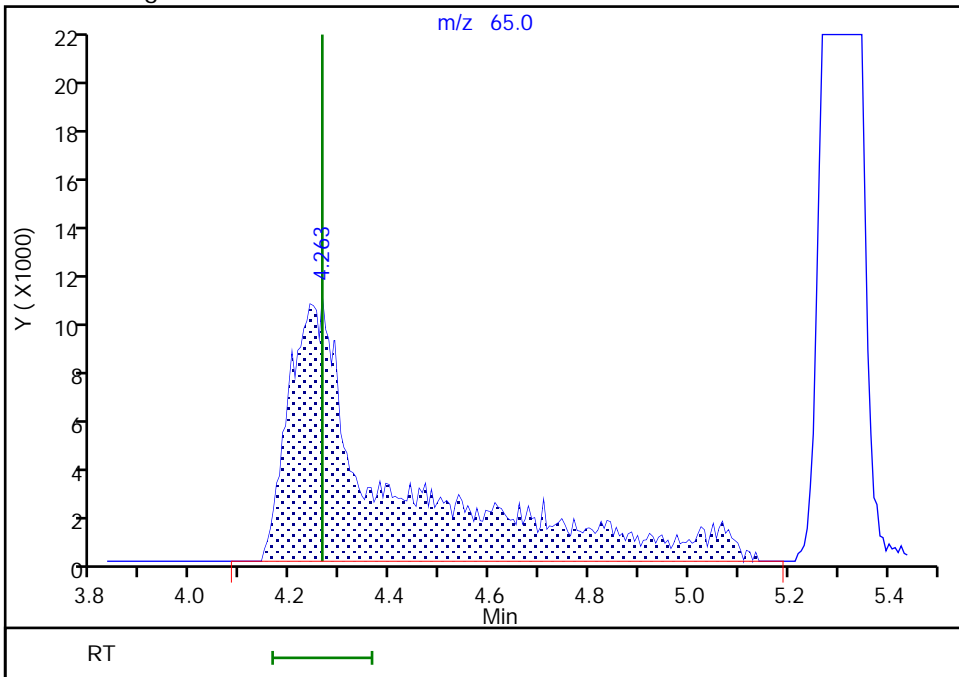
RT: 4.26
Area: 142905
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.26
Area: 151468
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 28-Feb-2022 11:26:16
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

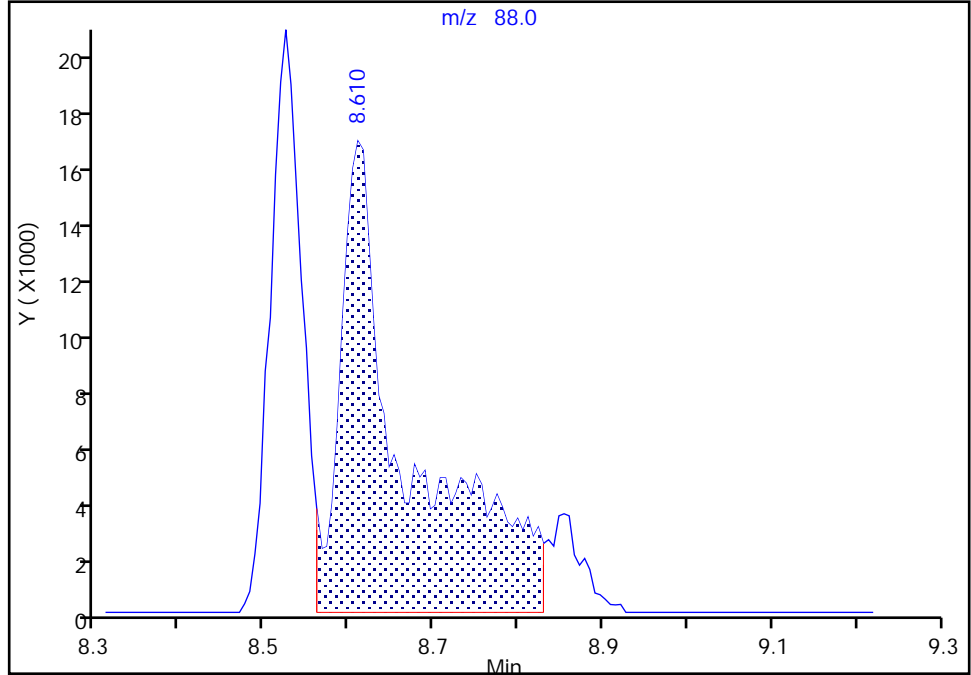
Data File:	\\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X02.D		
Injection Date:	28-Feb-2022 11:02:30	Instrument ID:	19930
Lims ID:	CCVIS VSTD10		
Client ID:			
Operator ID:	KNK41612	ALS Bottle#:	2
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	3

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

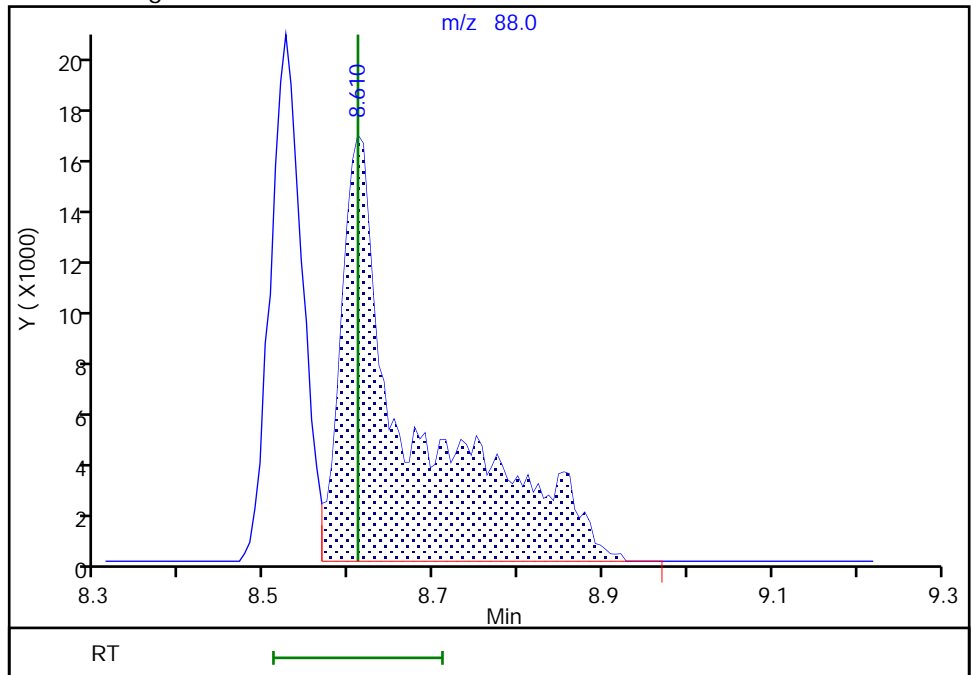
RT: 8.61
 Area: 93263
 Amount: 318.3841
 Amount Units: ug/l

Processing Integration Results



RT: 8.61
 Area: 101065
 Amount: 348.1947
 Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 28-Feb-2022 11:26:33
 Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Lab Sample ID: CCVIS 410-229111/3 Calibration Date: 03/02/2022 10:24

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IM02X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3128	0.2632	0.1000	10.5	12.5	-15.9	20.0
Chloromethane	Ave	0.3563	0.3135	0.1000	11.0	12.5	-12.0	20.0
Vinyl chloride	Ave	0.3592	0.3203	0.1000	11.1	12.5	-10.8	20.0
1,3-Butadiene	Ave	0.3273	0.3910		14.9	12.5	19.4	20.0
Bromomethane	Ave	0.2603	0.2336	0.1000	11.2	12.5	-10.3	20.0
Chloroethane	Ave	0.2153	0.1883	0.1000	10.9	12.5	-12.6	20.0
Dichlorofluoromethane	Ave	0.5179	0.4497		10.9	12.5	-13.2	20.0
Trichlorofluoromethane	Ave	0.4629	0.4228	0.1000	11.4	12.5	-8.7	20.0
Ethyl ether	Ave	0.1881	0.1702		11.3	12.5	-9.5	20.0
Freon 123a	Ave	0.3316	0.3245		12.2	12.5	-2.1	20.0
Acrolein	Ave	2.185	2.036		582	625	-6.8	20.0
1,1-Dichloroethene	Ave	0.2387	0.2256	0.1000	11.8	12.5	-5.5	20.0
Acetone	Ave	2.778	2.598	0.1000	117	125	-6.5	20.0
Freon 113	Ave	0.2492	0.2023	0.1000	10.1	12.5	-18.8	20.0
Methyl iodide	Ave	0.4771	0.4317		11.3	12.5	-9.5	20.0
Ethyl bromide	Ave	0.2175	0.2203		12.7	12.5	1.3	20.0
Carbon disulfide	Ave	0.6588	0.5650	0.1000	10.7	12.5	-14.2	20.0
Methyl acetate	Ave	8.176	8.462	0.1000	12.9	12.5	3.5	20.0
Allyl chloride	Ave	0.3915	0.3645		11.6	12.5	-6.9	20.0
Methylene Chloride	Ave	0.2605	0.2583	0.1000	12.4	12.5	-0.8	20.0
t-Butyl alcohol	Ave	1.053	0.7967		189	250	-24.3*	20.0
Acrylonitrile	Ave	3.702	3.844		32.4	31.3	3.8	20.0
Methyl tert-butyl ether	Ave	0.6808	0.6492	0.1000	11.9	12.5	-4.6	20.0
trans-1,2-Dichloroethene	Ave	0.2711	0.2631	0.1000	12.1	12.5	-2.9	20.0
n-Hexane	Ave	0.3785	0.3145		10.4	12.5	-16.9	20.0
1,1-Dichloroethane	Ave	0.4919	0.4928	0.2000	12.5	12.5	0.2	20.0
di-Isopropyl ether	Ave	0.8217	0.8142		12.4	12.5	-0.9	20.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.3863		11.8	12.5	-5.8	20.0
Ethyl t-butyl ether	Ave	0.8035	0.7723		12.0	12.5	-3.9	20.0
2-Butanone (MEK)	Ave	4.850	5.479	0.1000	141	125	13.0	20.0
cis-1,2-Dichloroethene	Ave	0.3020	0.2997	0.1000	12.4	12.5	-0.8	20.0
2,2-Dichloropropane	Ave	0.4277	0.4139		12.1	12.5	-3.2	20.0
Propionitrile	Ave	1.288	1.547		300	250	20.1*	20.0
Methacrylonitrile	Ave	4.873	5.296		136	125	8.7	20.0
Bromochloromethane	Ave	0.1303	0.1391		13.3	12.5	6.8	20.0
Tetrahydrofuran	Ave	1.439	1.417		61.6	62.5	-1.5	20.0
Chloroform	Ave	0.4873	0.4933	0.2000	12.7	12.5	1.2	20.0
1,1,1-Trichloroethane	Ave	0.4528	0.4436	0.1000	12.2	12.5	-2.0	20.0
Cyclohexane	Ave	0.4489	0.3966	0.1000	11.0	12.5	-11.7	20.0
1,1-Dichloropropene	Ave	0.3820	0.3872		12.7	12.5	1.4	20.0
Carbon tetrachloride	Ave	0.3908	0.3983	0.1000	12.7	12.5	1.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-229111/3 Calibration Date: 03/02/2022 10:24
 Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52
 Lab File ID: IM02X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.3359	0.2744		510	625	-18.3	20.0
Benzene	Ave	1.124	1.169	0.5000	13.0	12.5	4.0	20.0
1,2-Dichloroethane	Ave	0.3046	0.3035	0.1000	12.5	12.5	-0.4	20.0
t-Amyl methyl ether	Ave	0.7459	0.7282		12.2	12.5	-2.4	20.0
n-Heptane	Ave	0.3892	0.3495		11.2	12.5	-10.2	20.0
n-Butanol	Ave	0.3118	0.3340		1170	1090	7.1	20.0
Trichloroethene	Ave	0.3022	0.3163	0.2000	13.1	12.5	4.7	20.0
Methylcyclohexane	Ave	0.5026	0.4439	0.1000	11.0	12.5	-11.7	20.0
1,2-Dichloropropane	Ave	0.2761	0.3081	0.1000	13.9	12.5	11.6	20.0
Methyl methacrylate	Ave	9.578	10.39		13.6	12.5	8.5	20.0
1,4-Dioxane	Qua		0.0642	0.0050	433	625	-30.8*	20.0
Dibromomethane	Ave	0.1350	0.1504		13.9	12.5	11.4	20.0
Bromodichloromethane	Ave	0.3347	0.3788	0.2000	14.1	12.5	13.2	20.0
2-Nitropropane	Ave	2.740	2.915		66.5	62.5	6.4	20.0
1-Bromo-2-chloroethane	Ave	0.2710	0.3365		15.5	12.5	24.2*	20.0
cis-1,3-Dichloropropene	Ave	0.4206	0.4806	0.2000	14.3	12.5	14.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	13.72	0.1000	140	125	12.3	20.0
Toluene	Ave	0.9586	0.9801	0.4000	12.8	12.5	2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4420	0.5059	0.1000	14.3	12.5	14.4	20.0
Ethyl methacrylate	Ave	0.3689	0.4088		13.9	12.5	10.8	20.0
1,1,2-Trichloroethane	Ave	0.2557	0.2913	0.1000	14.2	12.5	13.9	20.0
Tetrachloroethene	Ave	0.4567	0.4987	0.2000	13.6	12.5	9.2	20.0
1,3-Dichloropropane	Ave	0.4348	0.4861		14.0	12.5	11.8	20.0
2-Hexanone	Ave	8.554	10.12	0.1000	148	125	18.3	20.0
Dibromochloromethane	Ave	0.3116	0.3790		15.2	12.5	21.6*	20.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2852	0.1000	14.5	12.5	15.6	20.0
1-Chlorohexane	Ave	0.5606	0.5755		12.8	12.5	2.7	20.0
Chlorobenzene	Ave	1.062	1.137	0.5000	13.4	12.5	7.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.4008		13.5	12.5	8.1	20.0
Ethylbenzene	Ave	1.846	1.915	0.1000	13.0	12.5	3.8	20.0
m&p-Xylene	Ave	0.7292	0.7650	0.1000	26.2	25.0	4.9	20.0
o-Xylene	Ave	0.7197	0.7266	0.3000	12.6	12.5	1.0	20.0
Styrene	Ave	1.162	1.233	0.3000	13.3	12.5	6.1	20.0
Bromoform	Ave	0.1867	0.2449	0.1000	16.4	12.5	31.2*	20.0
Isopropylbenzene	Ave	1.900	1.885	0.1000	12.4	12.5	-0.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5528	0.6486	0.3000	14.7	12.5	17.3	20.0
Bromobenzene	Ave	0.7576	0.8827		14.6	12.5	16.5	20.0
trans-1,4-Dichloro-2-butene	Ave	4.418	3.903		110	125	-11.6	20.0
1,2,3-Trichloropropane	Ave	0.1520	0.1775		14.6	12.5	16.8	20.0
N-Propylbenzene	Ave	3.678	4.103		13.9	12.5	11.6	20.0
2-Chlorotoluene	Ave	0.7546	0.8637		14.3	12.5	14.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Lab Sample ID: CCVIS 410-229111/3 Calibration Date: 03/02/2022 10:24

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IM02X02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.686	2.895		13.5	12.5	7.8	20.0
4-Chlorotoluene	Ave	0.7706	0.8992		14.6	12.5	16.7	20.0
tert-Butylbenzene	Ave	0.5890	0.6701		14.2	12.5	13.8	20.0
Pentachloroethane	Ave	0.4757	0.5850		15.4	12.5	23.0*	20.0
1,2,4-Trimethylbenzene	Ave	2.753	2.930		13.3	12.5	6.4	20.0
sec-Butylbenzene	Ave	3.394	3.698		13.6	12.5	8.9	20.0
1,3-Dichlorobenzene	Ave	1.528	1.708	0.6000	14.0	12.5	11.8	20.0
p-Isopropyltoluene	Ave	3.002	3.249		13.5	12.5	8.2	20.0
1,4-Dichlorobenzene	Ave	1.562	1.702	0.5000	13.6	12.5	9.0	20.0
1,2,3-Trimethylbenzene	Ave	1.218	1.303		13.4	12.5	7.0	20.0
Benzyl chloride	Ave	0.2262	0.2887		16.0	12.5	27.6*	20.0
n-Butylbenzene	Ave	1.403	1.565		13.9	12.5	11.5	20.0
1,2-Dichlorobenzene	Ave	1.396	1.536	0.4000	13.7	12.5	10.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.1029	0.0500	15.8	12.5	26.5*	20.0
1,3,5-Trichlorobenzene	Ave	1.118	1.212		13.5	12.5	8.4	20.0
1,2,4-Trichlorobenzene	Ave	0.9433	1.006	0.2000	13.3	12.5	6.6	20.0
Hexachlorobutadiene	Ave	0.4098	0.4118		12.6	12.5	0.5	20.0
Naphthalene	Ave	1.798	1.725		12.0	12.5	-4.0	20.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.8115		12.4	12.5	-0.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2461		9.77	10.0	-2.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0497		9.87	10.0	-1.3	20.0
Toluene-d8 (Surr)	Ave	1.292	1.249		9.66	10.0	-3.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4628		9.37	10.0	-6.3	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X02.D
 Lims ID: CCVIS VSTD12.5
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 02-Mar-2022 10:24:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051485-003
 Misc. Info.: CCVIS
 Operator ID: KNK41612 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 11:00:38 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: kephartk

Date: 02-Mar-2022 10:50:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.941	1.941	0.000	99	766321	12.5	10.5	
4 Chloromethane	50	2.142	2.142	0.000	99	912909	12.5	11.0	
5 Vinyl chloride	62	2.245	2.245	0.000	98	932773	12.5	11.1	
6 Butadiene	39	2.294	2.294	0.000	91	1138495	12.5	14.9	
7 Bromomethane	94	2.599	2.599	0.000	90	680348	12.5	11.2	
8 Chloroethane	64	2.703	2.703	0.000	100	548262	12.5	10.9	
9 Dichlorofluoromethane	67	2.940	2.940	0.000	97	1309480	12.5	10.9	
10 Trichlorofluoromethane	101	2.989	2.989	0.000	98	1231262	12.5	11.4	
11 Ethyl ether	59	3.251	3.251	0.000	91	495732	12.5	11.3	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.343	3.343	0.000	94	944963	12.5	12.2	
13 Acrolein	56	3.422	3.422	0.000	99	4433780	625.0	582.5	
14 1,1-Dichloroethene	96	3.562	3.562	0.000	98	656838	12.5	11.8	
15 Acetone	43	3.587	3.587	0.000	100	1131341	125.0	116.9	M
16 112TCTFE	101	3.605	3.605	0.000	89	589118	12.5	10.1	M
17 Iodomethane	142	3.757	3.757	0.000	98	1257193	12.5	11.3	
18 Ethyl bromide	108	3.794	3.794	0.000	98	641184	12.5	12.7	
19 Carbon disulfide	76	3.867	3.867	0.000	99	1645290	12.5	10.7	
21 Methyl acetate	43	4.013	4.013	0.000	97	368452	12.5	12.9	M
22 3-Chloro-1-propene	41	4.044	4.044	0.000	93	1061433	12.5	11.6	
* 24 t-Butyl alcohol-d10 (IS)	65	4.227	4.227	0.000	95	174163	50.0	50.0	M
23 Methylene Chloride	84	4.233	4.233	0.000	91	752159	12.5	12.4	
25 2-Methyl-2-propanol	59	4.361	4.361	0.000	99	693814	250.0	189.2	M
26 Acrylonitrile	53	4.568	4.568	0.000	100	418445	31.3	32.4	
27 Methyl tert-butyl ether	73	4.641	4.641	0.000	94	1890543	12.5	11.9	
28 trans-1,2-Dichloroethene	96	4.653	4.653	0.000	100	766177	12.5	12.1	
29 Hexane	57	5.068	5.068	0.000	91	915948	12.5	10.4	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	1435013	12.5	12.5	
32 Isopropyl ether	45	5.367	5.367	0.000	95	2370841	12.5	12.4	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	90	1124773	12.5	11.8	
34 Tert-butyl ethyl ether	59	5.897	5.897	0.000	97	2249019	12.5	12.0	

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	100	2385446	125.0	141.2	
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	872612	12.5	12.4	
38 2,2-Dichloropropane	77	6.147	6.147	0.000	87	1205181	12.5	12.1	
40 Propionitrile	54	6.177	6.177	0.000	99	1346931	250.0	300.2	
42 Methacrylonitrile	67	6.397	6.397	0.000	91	2305732	125.0	135.8	
43 Chlorobromomethane	128	6.458	6.458	0.000	92	405139	12.5	13.3	
44 Tetrahydrofuran	71	6.470	6.470	0.000	79	308484	62.5	61.6	
45 Chloroform	83	6.610	6.610	0.000	93	1436571	12.5	12.7	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	93	573216	10.0	9.77	
47 1,1,1-Trichloroethane	97	6.836	6.836	0.000	98	1291887	12.5	12.2	
48 Cyclohexane	56	6.946	6.946	0.000	89	1154897	12.5	11.0	
51 1,1-Dichloropropene	75	7.049	7.049	0.000	96	1127619	12.5	12.7	
50 Carbon tetrachloride	117	7.049	7.049	0.000	80	1159945	12.5	12.7	
52 Isobutyl alcohol	41	7.189	7.189	0.000	95	597308	625.0	510.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	92	115825	10.0	9.87	
54 Benzene	78	7.305	7.305	0.000	95	3404215	12.5	13.0	
56 1,2-Dichloroethane	62	7.378	7.378	0.000	98	883907	12.5	12.5	
57 Tert-amyl methyl ether	73	7.500	7.500	0.000	99	2120529	12.5	12.2	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2329589	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	91	1017794	12.5	11.2	
60 n-Butanol	56	8.073	8.073	0.000	88	1272429	1093.8	1171.5	
61 Trichloroethene	95	8.189	8.189	0.000	96	921159	12.5	13.1	
62 Methylcyclohexane	83	8.494	8.494	0.000	92	1292695	12.5	11.0	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	85	897256	12.5	13.9	
64 Methyl methacrylate	69	8.598	8.598	0.000	89	452424	12.5	13.6	
65 1,4-Dioxane	88	8.604	8.604	0.000	33	139845	625.0	432.7	M
66 Dibromomethane	93	8.622	8.622	0.000	93	437919	12.5	13.9	
68 Dichlorobromomethane	83	8.860	8.860	0.000	100	1103109	12.5	14.1	
69 2-Nitropropane	41	9.122	9.122	0.000	97	634634	62.5	66.5	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	979836	12.5	15.5	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	1399425	12.5	14.3	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	96	5972321	125.0	140.4	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2338253	10.0	9.66	
76 Toluene	92	9.787	9.787	0.000	98	2294407	12.5	12.8	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	91	1184225	12.5	14.3	
79 Ethyl methacrylate	69	10.097	10.097	0.000	90	957019	12.5	13.9	
80 1,1,2-Trichloroethane	97	10.238	10.238	0.000	90	681856	12.5	14.2	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	1167362	12.5	13.6	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	88	1137981	12.5	14.0	
83 2-Hexanone	43	10.451	10.451	0.000	96	4405744	125.0	147.9	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	887205	12.5	15.2	
86 Ethylene Dibromide	107	10.725	10.725	0.000	98	667670	12.5	14.5	
* 87 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	84	1872825	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	96	1347351	12.5	12.8	
90 Chlorobenzene	112	11.183	11.183	0.000	96	2660638	12.5	13.4	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	97	938213	12.5	13.5	
92 Ethylbenzene	91	11.268	11.268	0.000	98	4483555	12.5	13.0	
93 m-Xylene & p-Xylene	106	11.378	11.378	0.000	100	3581814	25.0	26.2	
94 o-Xylene	106	11.707	11.707	0.000	96	1700926	12.5	12.6	
95 Styrene	104	11.725	11.725	0.000	94	2886635	12.5	13.3	
96 Bromoform	173	11.884	11.884	0.000	99	573305	12.5	16.4	
97 Isopropylbenzene	105	12.006	12.006	0.000	95	4412063	12.5	12.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	96	866737	10.0	9.37	
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	832382	12.5	14.7	
102 Bromobenzene	156	12.268	12.268	0.000	96	1132819	12.5	14.6	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	91	1699544	125.0	110.4	
104 1,2,3-Trichloropropane	110	12.292	12.292	0.000	79	227778	12.5	14.6	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	5265959	12.5	13.9	
106 2-Chlorotoluene	126	12.408	12.408	0.000	98	1108373	12.5	14.3	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	95	3714778	12.5	13.5	
108 4-Chlorotoluene	126	12.499	12.499	0.000	97	1153917	12.5	14.6	
109 tert-Butylbenzene	134	12.707	12.707	0.000	92	860008	12.5	14.2	
110 Pentachloroethane	167	12.743	12.743	0.000	95	750736	12.5	15.4	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	96	3760459	12.5	13.3	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	4745145	12.5	13.6	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	2191607	12.5	14.0	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	4169971	12.5	13.5	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	93	1026665	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	96	2184122	12.5	13.6	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	1671833	12.5	13.4	
118 Benzyl chloride	126	13.121	13.121	0.000	98	370541	12.5	16.0	
119 n-Butylbenzene	92	13.268	13.268	0.000	97	2008254	12.5	13.9	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	1970667	12.5	13.7	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	92	132038	12.5	15.8	
123 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	98	1555077	12.5	13.5	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	1290511	12.5	13.3	
125 Hexachlorobutadiene	225	14.475	14.475	0.000	95	528430	12.5	12.6	
126 Naphthalene	128	14.572	14.572	0.000	97	2214268	12.5	12.0	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	1041369	12.5	12.4	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00037

Amount Added: 25.00

Units: uL

MSV_LL_#2_826_00040

Amount Added: 25.00

Units: uL

MSV_LL_GAS826_00069

Amount Added: 25.00

Units: uL

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X02.D

Injection Date: 02-Mar-2022 10:24:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: CCVIS VSTD12.5

Worklist Smp#: 3

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

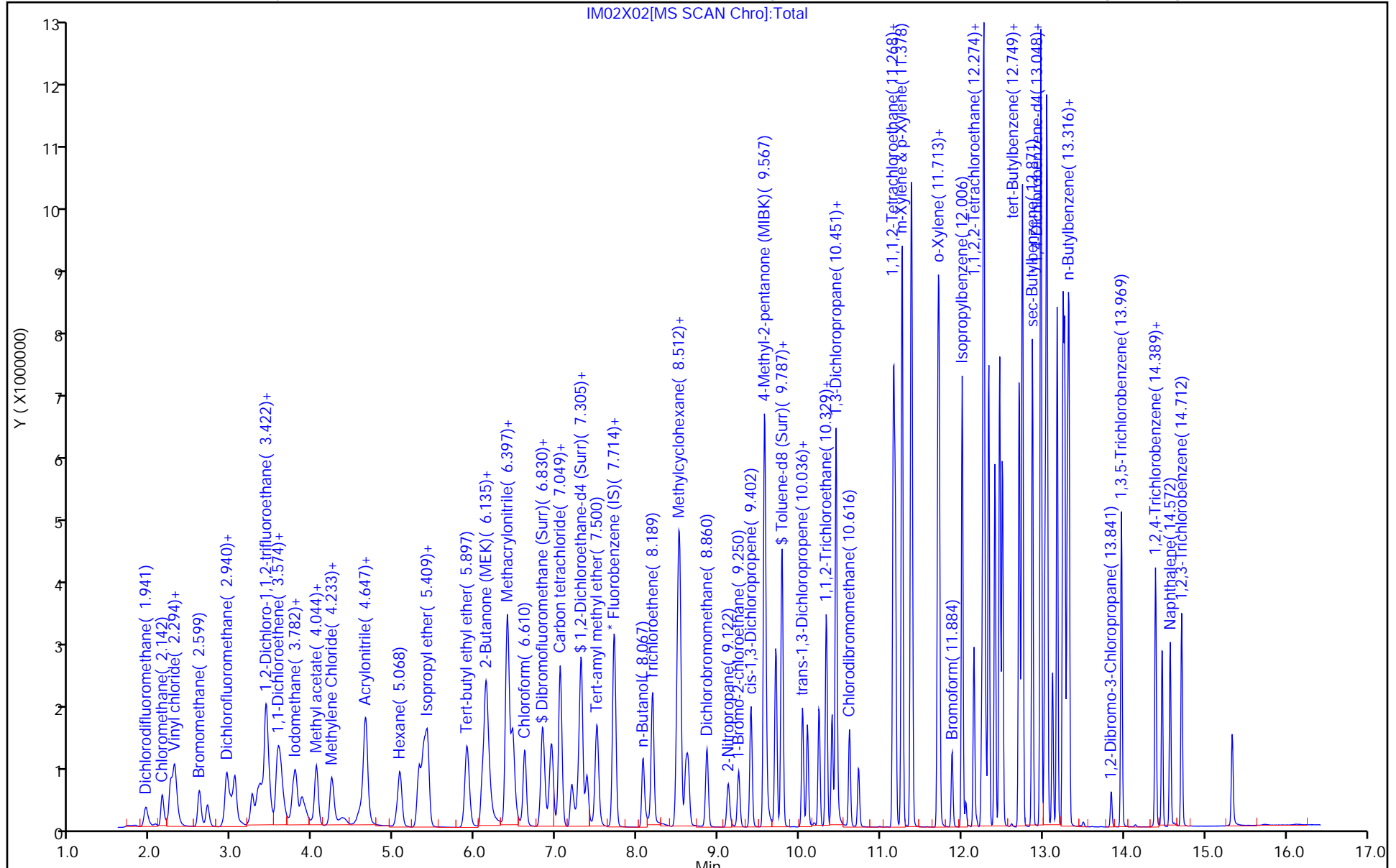
ALS Bottle#: 2

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



Euofins Lancaster Laboratories Env, LLC

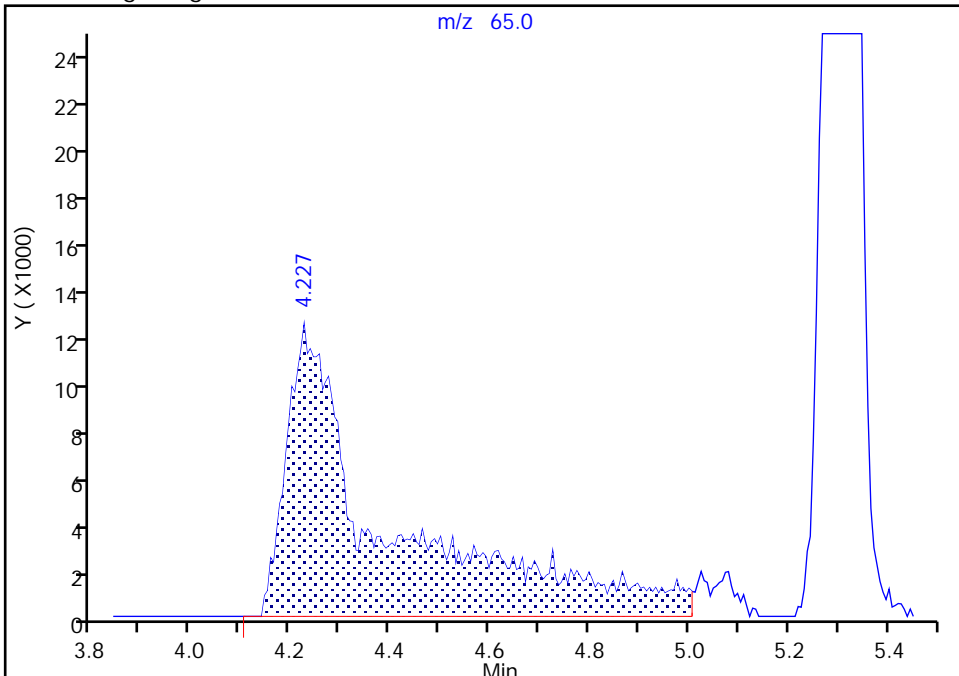
Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X02.D
Injection Date: 02-Mar-2022 10:24:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

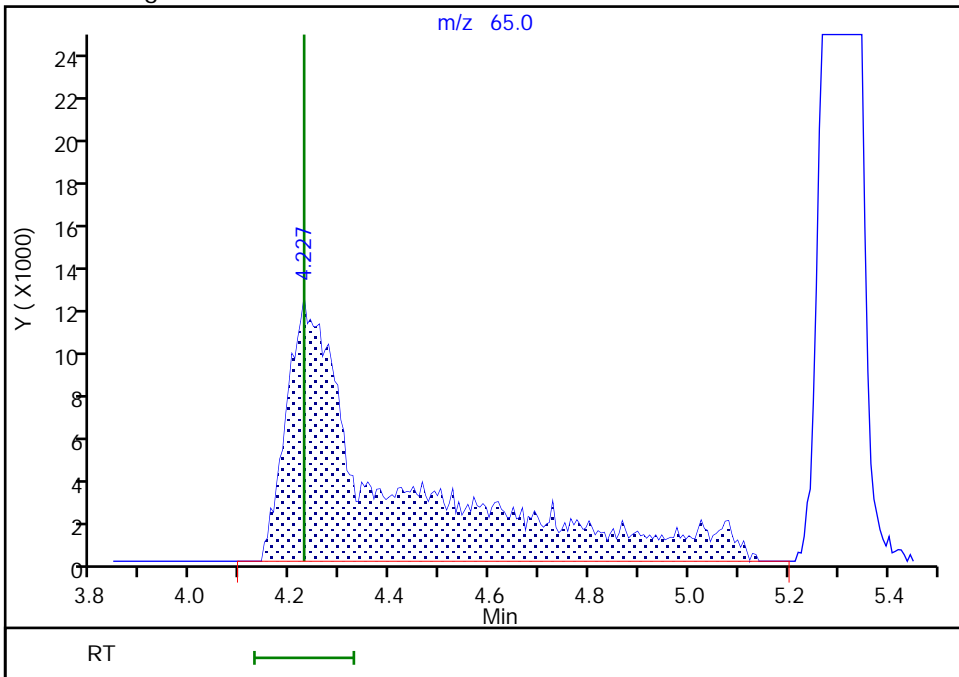
RT: 4.23
Area: 165899
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 174163
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-Mar-2022 10:51:35
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

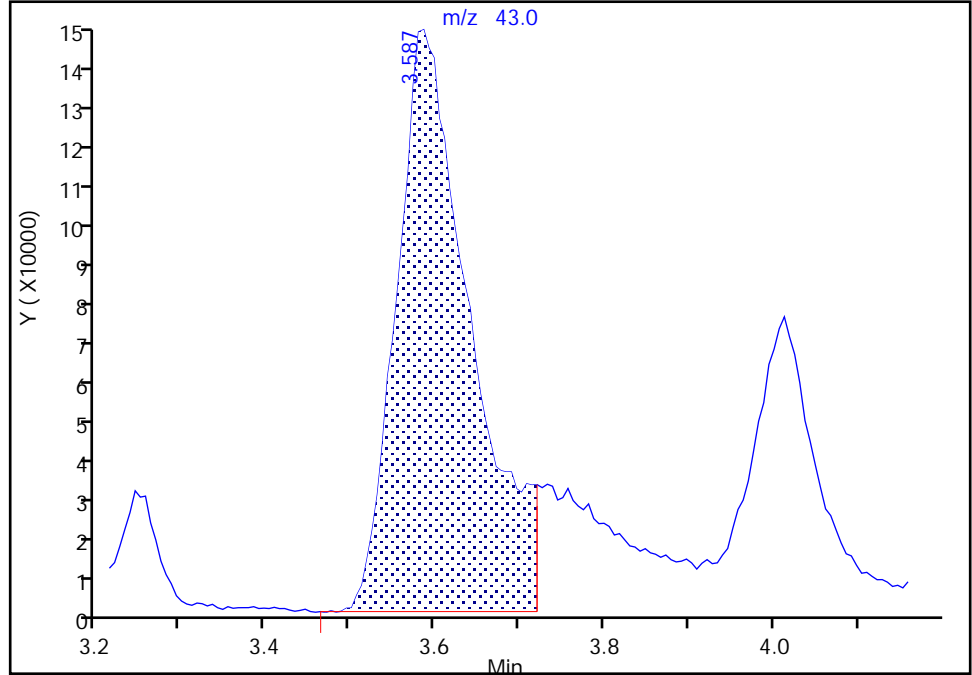
Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X02.D
Injection Date: 02-Mar-2022 10:24:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

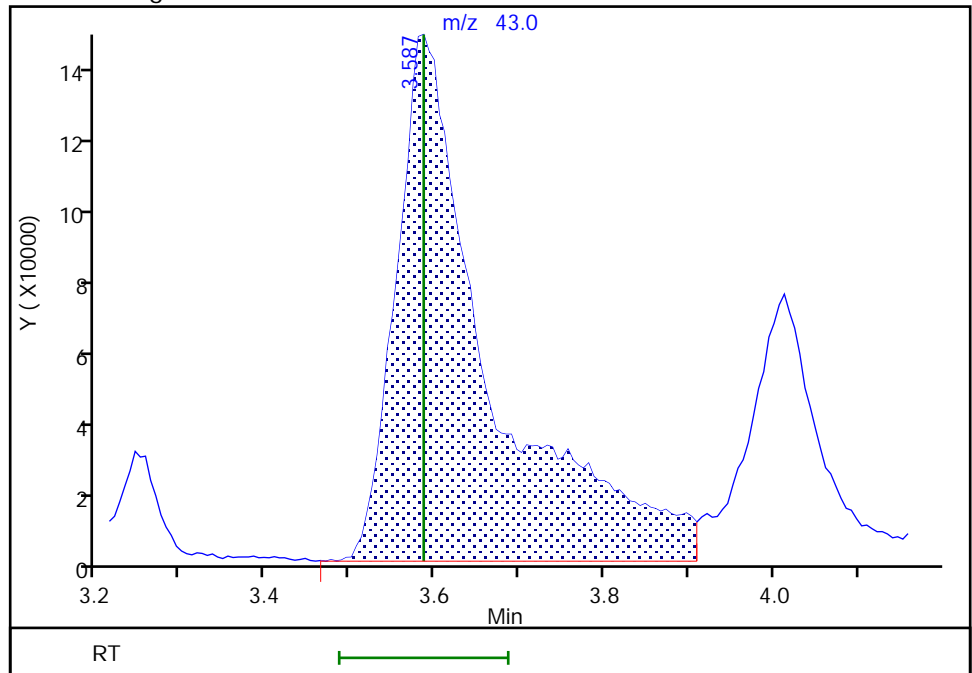
RT: 3.59
Area: 895178
Amount: 92.523734
Amount Units: ug/l

Processing Integration Results



RT: 3.59
Area: 1131341
Amount: 116.9330
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-Mar-2022 10:51:57
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

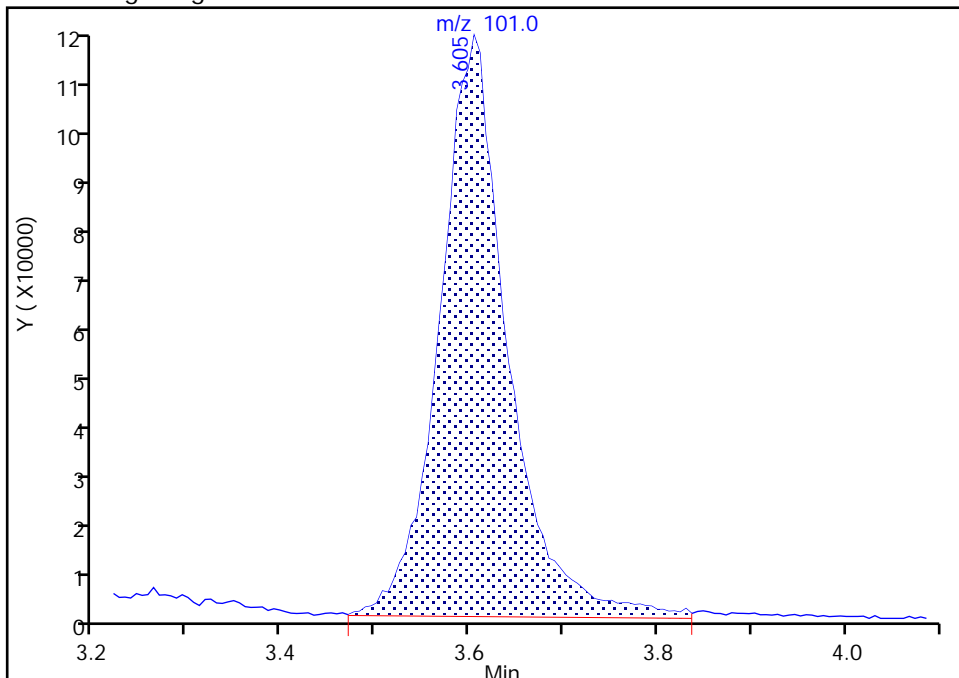
Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X02.D
Injection Date: 02-Mar-2022 10:24:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

16 112TCTFE, CAS: 76-13-1

Signal: 1

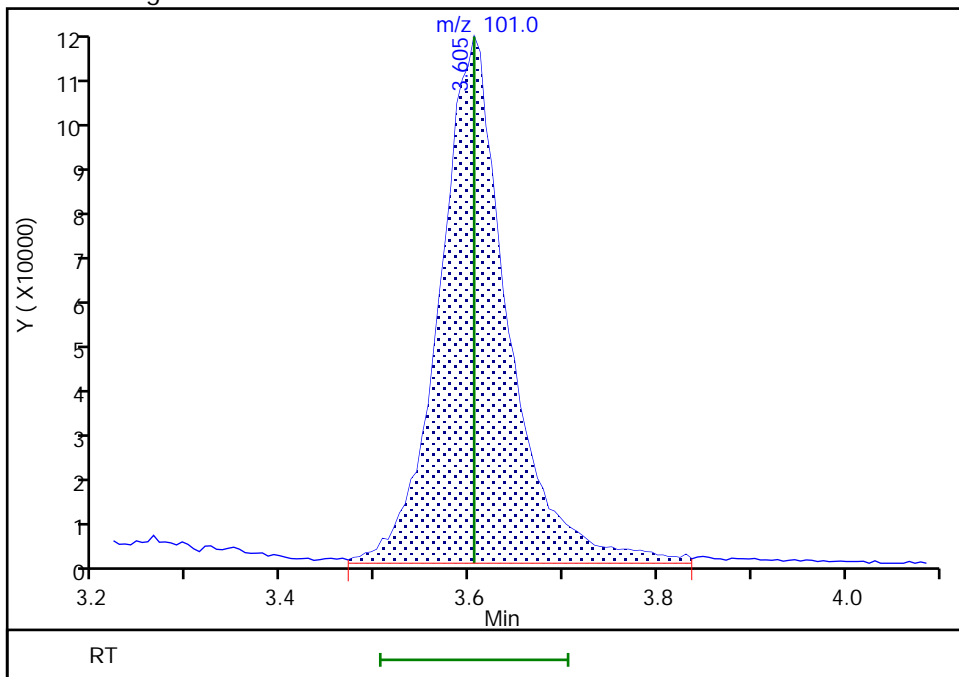
RT: 3.60
Area: 582949
Amount: 10.040145
Amount Units: ug/l

Processing Integration Results



RT: 3.60
Area: 589118
Amount: 10.146394
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-Mar-2022 10:52:38
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

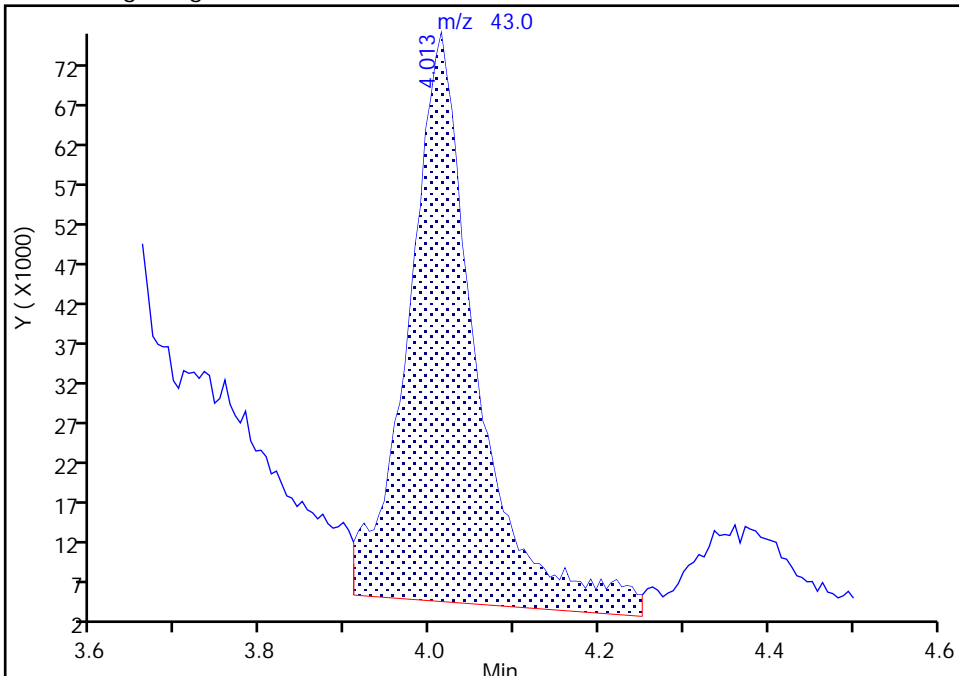
Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X02.D
Injection Date: 02-Mar-2022 10:24:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

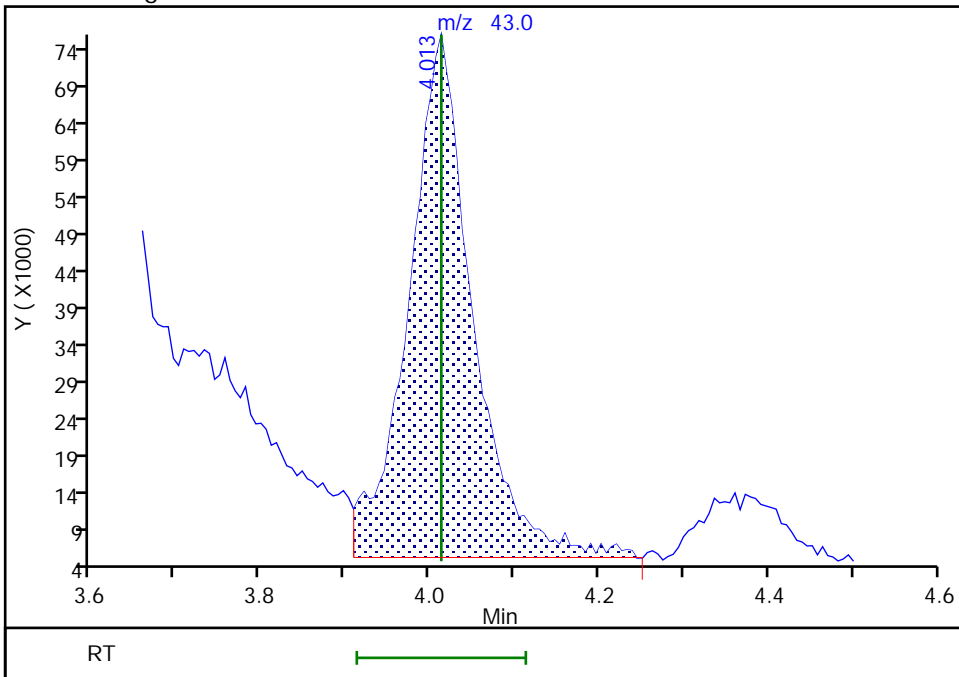
RT: 4.01
Area: 398736
Amount: 14.000684
Amount Units: ug/l

Processing Integration Results



RT: 4.01
Area: 368452
Amount: 12.937332
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-Mar-2022 10:52:56
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

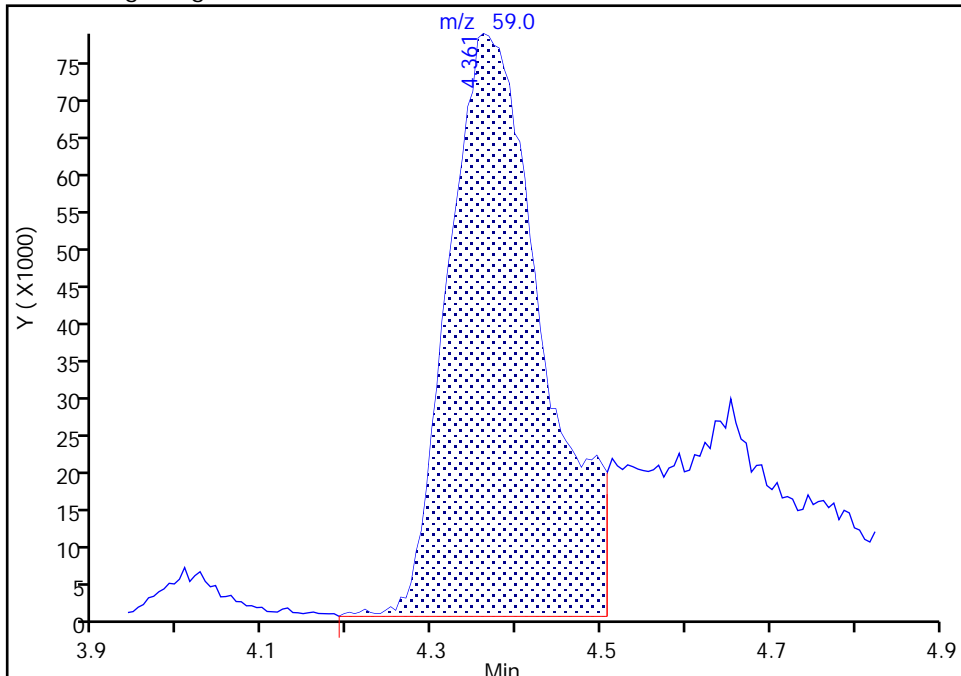
Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X02.D
Injection Date: 02-Mar-2022 10:24:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

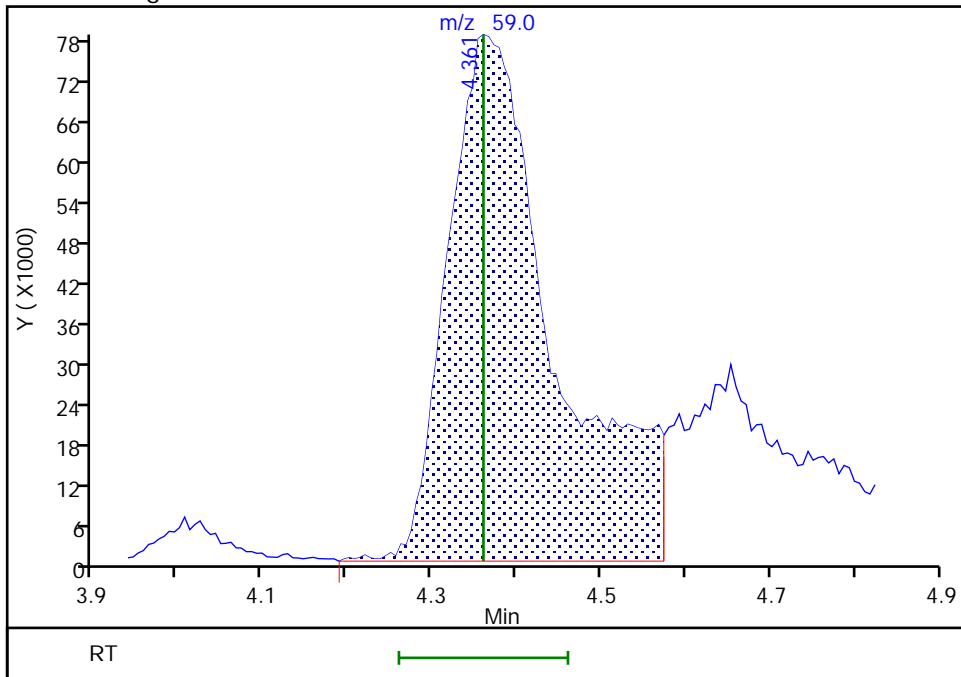
RT: 4.36
Area: 613398
Amount: 167.2678
Amount Units: ug/l

Processing Integration Results



RT: 4.36
Area: 693814
Amount: 189.1965
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-Mar-2022 10:53:30
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

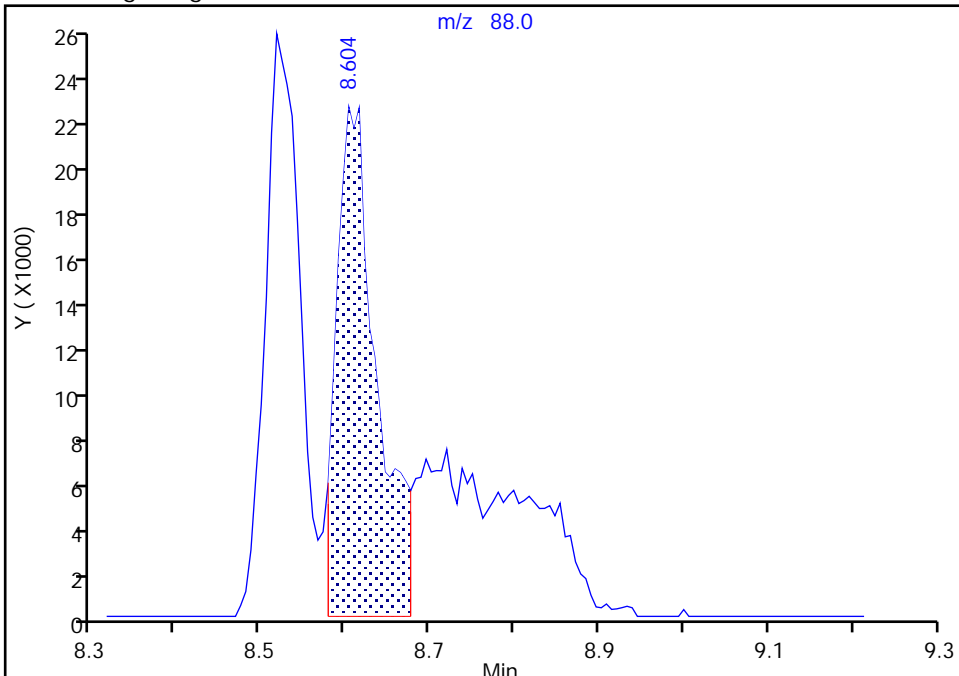
Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X02.D
Injection Date: 02-Mar-2022 10:24:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

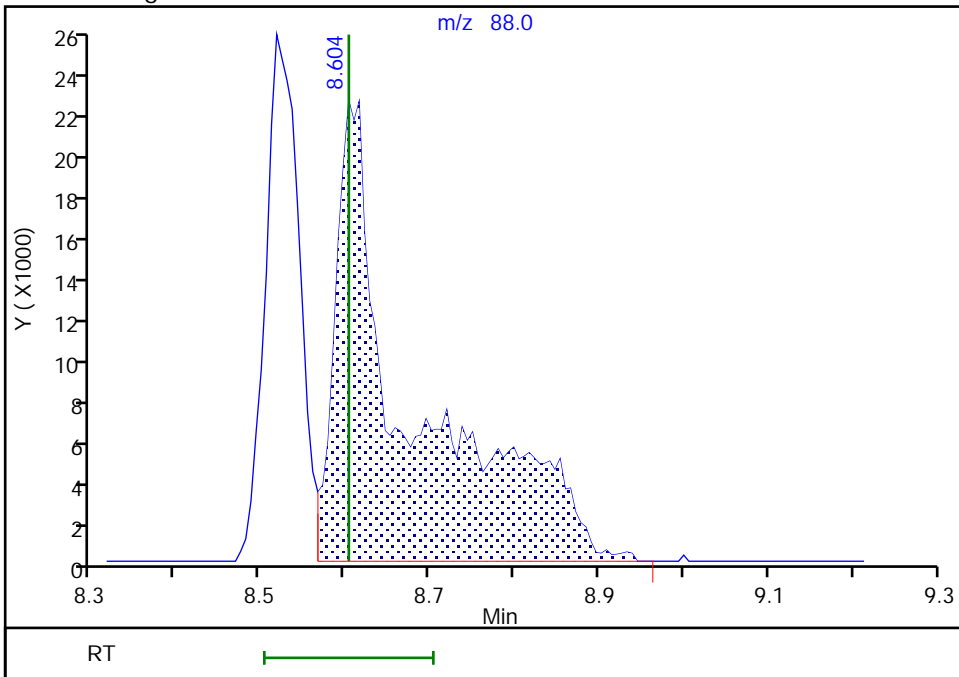
RT: 8.60
Area: 73474
Amount: 214.7200
Amount Units: ug/l

Processing Integration Results



RT: 8.60
Area: 139845
Amount: 432.6953
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-Mar-2022 10:54:10
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D
 Lims ID: bfb
 Client ID:
 Sample Type: BFB
 Inject. Date: 23-Aug-2021 20:56:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info:
 Misc. Info.: BFB
 Operator ID: mec29284 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 24-Aug-2021 15:42:34 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1646

First Level Reviewer: campbellme Date: 23-Aug-2021 21:08:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
----------	-----	-----------	---------------	---------------	---	----------	--------------	----------------	-------

\$ 145 BFB	95	5.190	5.190	0.000	0	215193	NR	NR	
------------	----	-------	-------	-------	---	--------	----	----	--

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

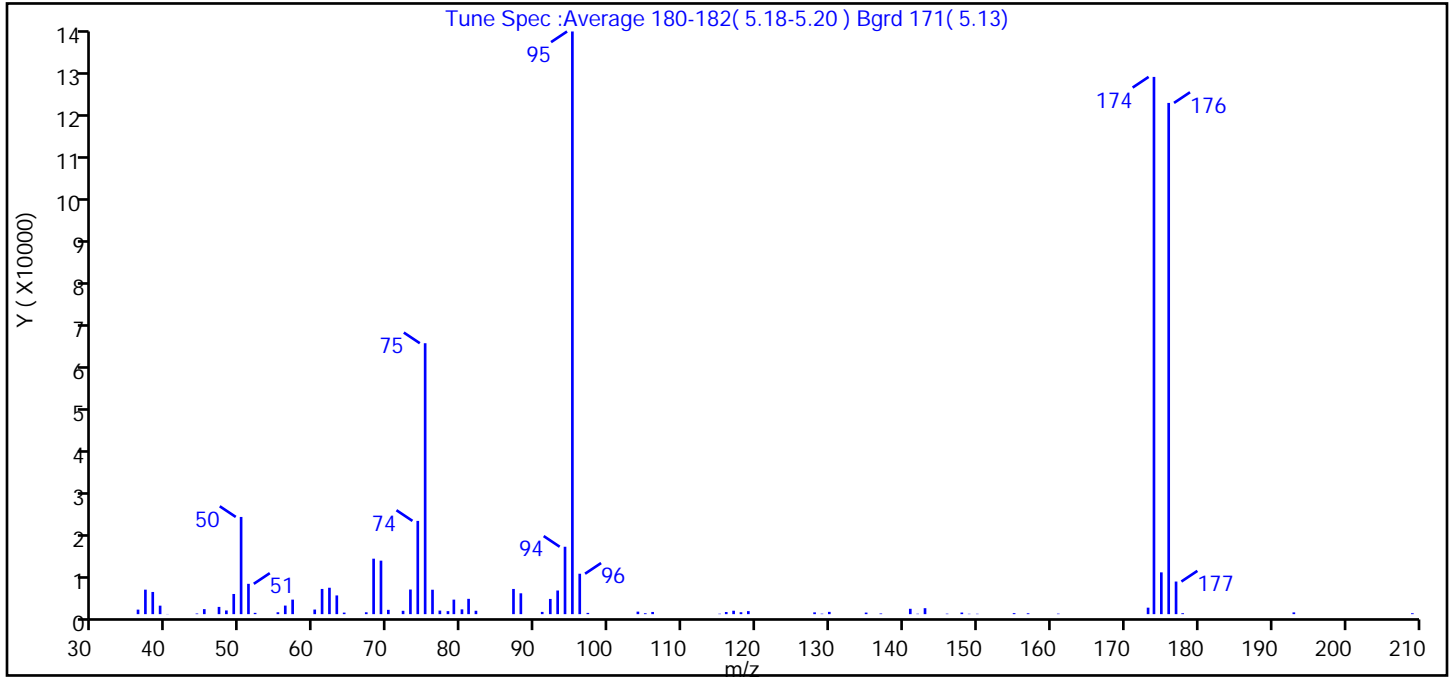
Reagents:

MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D
 Injection Date: 23-Aug-2021 20:56:30 Instrument ID: 19930
 Lims ID: bfb
 Client ID:
 Operator ID: mec29284 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
 Tune Method: BFB Method 1624

\$ 145 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.7
75	30 to 60% of m/z 95	46.5
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	1.1 (1.2)
174	50 to 120% of m/z 95	92.2
175	5 to 9% of m/z 174	7.2 (7.8)
176	Greater than 95% but less than 101% of m/z 174	87.7 (95.2)
177	5 to 9% of m/z 176	5.6 (6.4)

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D\8260 25ml HP31.rsl\spectra.d
 Injection Date: 23-Aug-2021 20:56:30
 Spectrum: Tune Spec :Average 180-182(5.18-5.20) Bgrd 171(5.13)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1061	63.00	4393	91.00	527	137.00	156
37.00	5748	64.00	362	92.00	3571	141.00	1257
38.00	5208	67.00	438	93.00	5550	142.00	96
39.00	1992	68.00	13018	94.00	15820	143.00	1399
40.00	38	69.00	12555	95.00	136768	146.00	111
44.00	148	70.00	1011	96.00	9487	148.00	376
45.00	1176	72.00	785	97.00	292	149.00	83
47.00	1700	73.00	5782	104.00	590	150.00	88
48.00	866	74.00	21888	105.00	210	155.00	237
49.00	4735	75.00	63592	106.00	514	157.00	206
50.00	22816	76.00	5733	115.00	97	161.00	118
51.00	7117	77.00	836	116.00	504	173.00	1521
52.00	304	78.00	708	117.00	803	174.00	126104
55.00	442	79.00	3409	118.00	451	175.00	9808
56.00	2008	80.00	1125	119.00	708	176.00	120000
57.00	3411	81.00	3594	128.00	418	177.00	7653
60.00	1079	82.00	794	129.00	110	178.00	217
61.00	5915	87.00	5915	130.00	532	193.00	410
62.00	6198	88.00	4892	135.00	365	209.00	208

Report Date: 24-Aug-2021 15:42:35

Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D

Injection Date: 23-Aug-2021 20:56:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

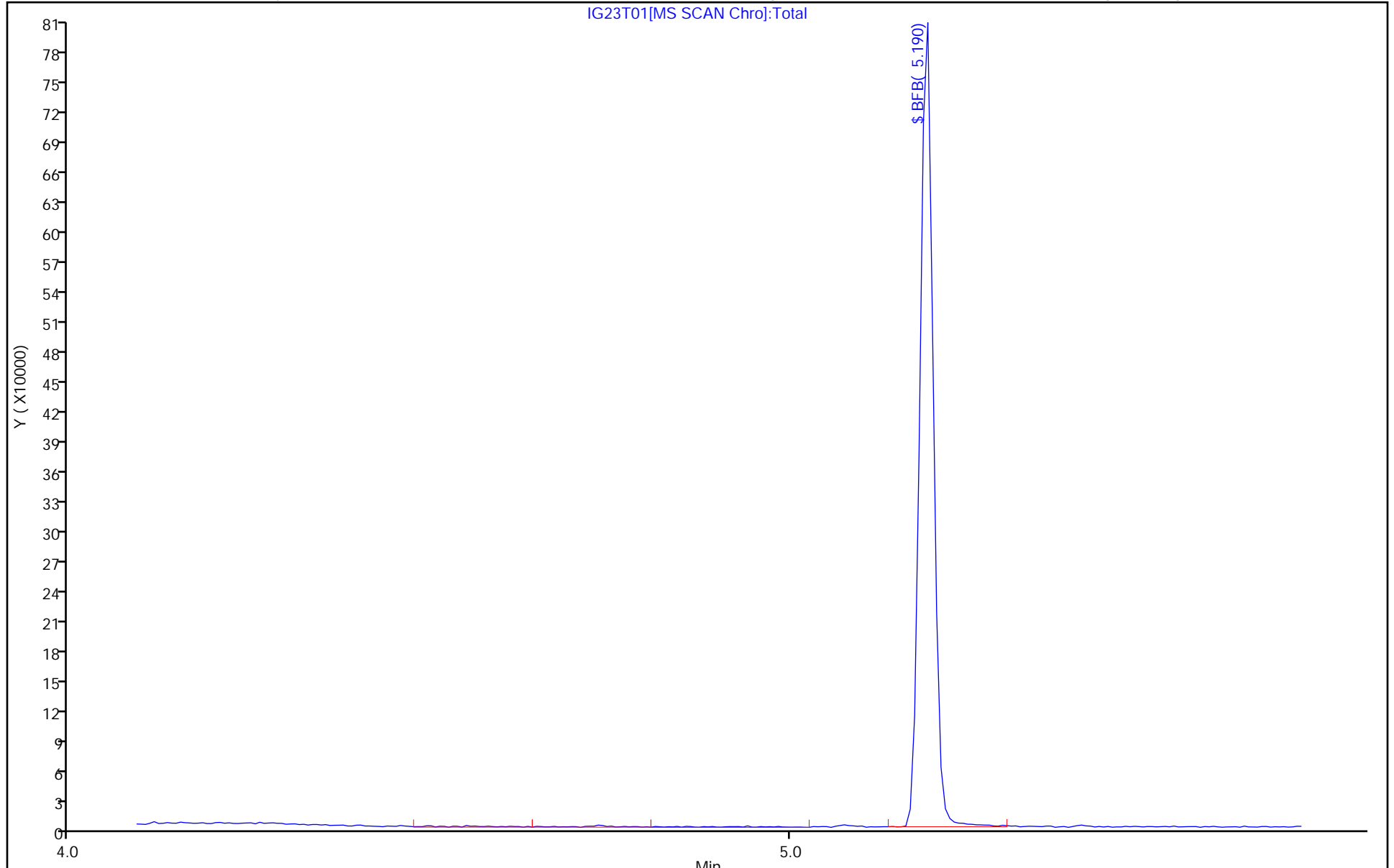
ALS Bottle#: 1

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28T01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 28-Feb-2022 10:27:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0051281-001
 Misc. Info.: BFB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 12:11:31 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 145 BFB	95	5.160	5.160	0.000	0	186938	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

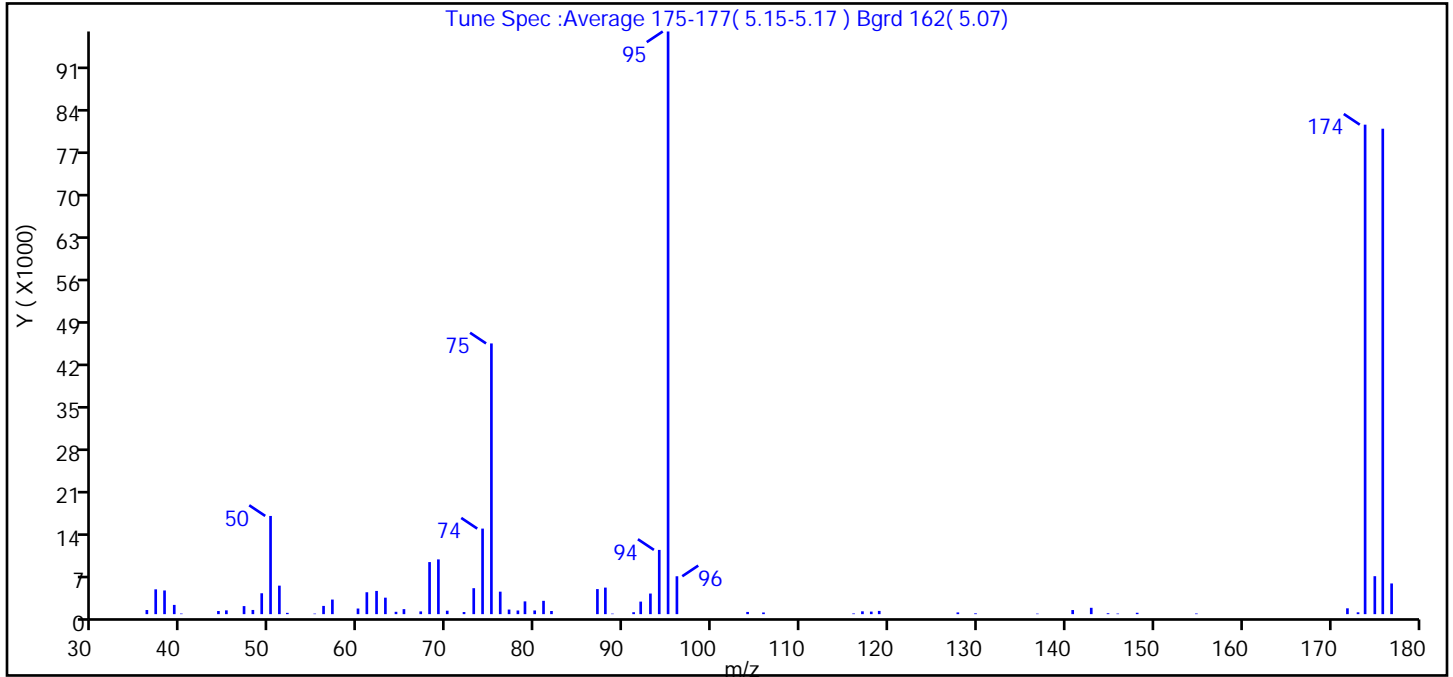
Reagents:

MSV_V_BFB_00007 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28T01.D
 Injection Date: 28-Feb-2022 10:27:30 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

\$ 145 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.9
75	30 to 60% of m/z 95	46.5
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	84.0
175	5 to 9% of m/z 174	6.5 (7.8)
176	Greater than 95% but less than 101% of m/z 174	83.3 (99.2)
177	5 to 9% of m/z 176	5.3 (6.3)

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28T01.D\8260 25ml HP31.rsl\spectra.d
Injection Date: 28-Feb-2022 10:27:30
Spectrum: Tune Spec :Average 175-177(5.15-5.17) Bgrd 162(5.07)
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	684	61.00	3629	80.00	611	119.00	534
37.00	4111	62.00	3846	81.00	2207	128.00	286
38.00	3924	63.00	2730	82.00	522	130.00	133
39.00	1531	64.00	389	87.00	4151	137.00	85
40.00	97	65.00	830	88.00	4399	141.00	681
44.00	517	67.00	453	89.00	84	143.00	1051
45.00	626	68.00	8626	91.00	316	145.00	154
47.00	1334	69.00	9070	92.00	2076	146.00	98
48.00	694	70.00	570	93.00	3413	148.00	229
49.00	3460	72.00	350	94.00	10645	155.00	106
50.00	16271	73.00	4300	95.00	96544	172.00	966
51.00	4723	74.00	14175	96.00	6277	173.00	304
52.00	213	75.00	44856	104.00	366	174.00	81104
55.00	87	76.00	3725	106.00	276	175.00	6289
56.00	1363	77.00	761	116.00	114	176.00	80432
57.00	2417	78.00	604	117.00	468	177.00	5086
60.00	930	79.00	2114	118.00	423		

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28T01.D

Injection Date: 28-Feb-2022 10:27:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

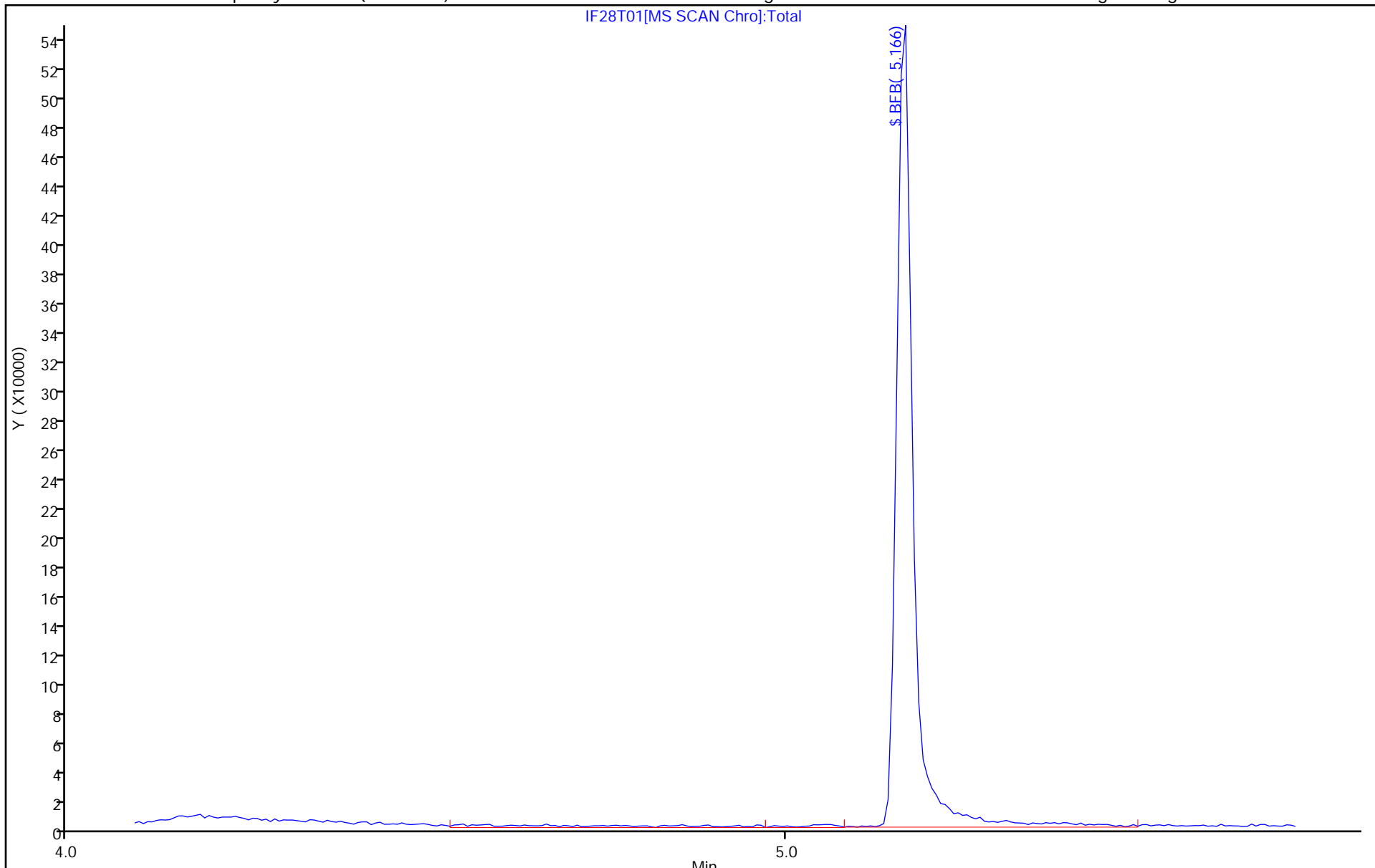
ALS Bottle#: 1

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 Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02T03.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 02-Mar-2022 09:50:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0051485-001
 Misc. Info.: BFB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 11:00:36 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

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	0	116271	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

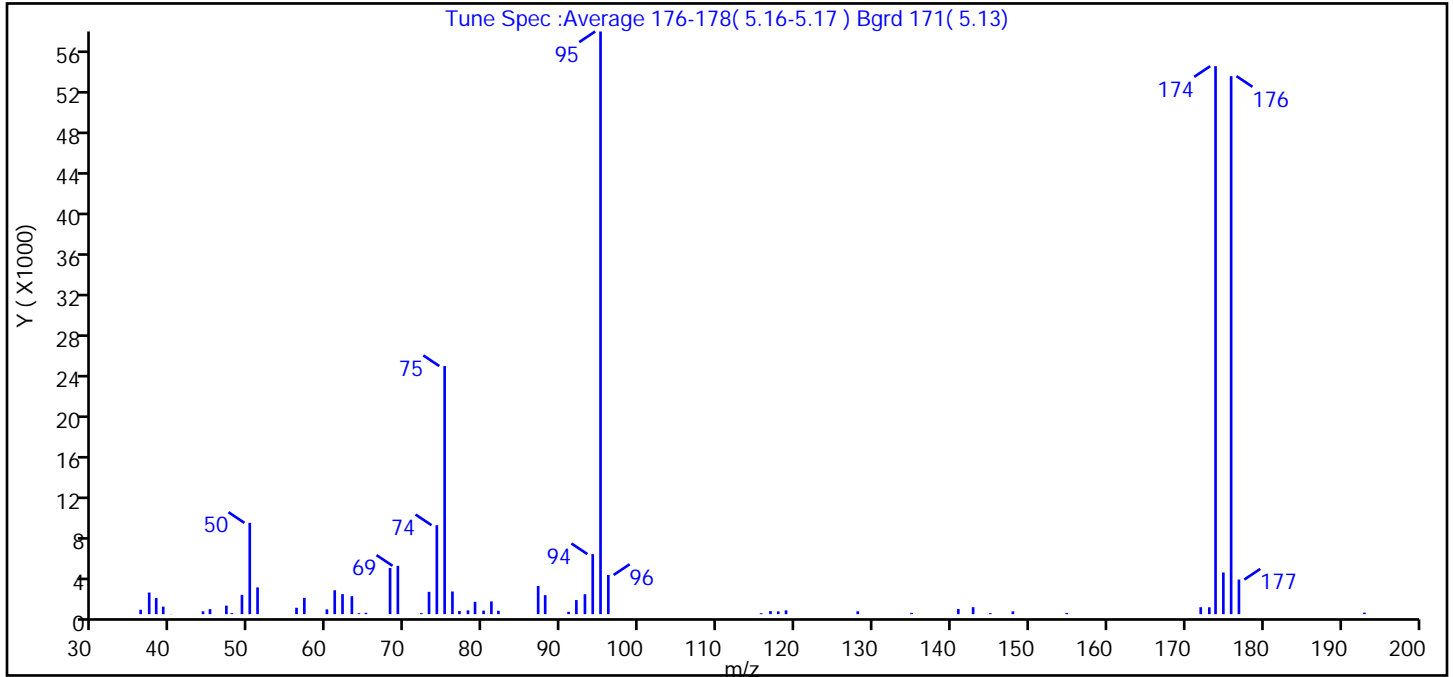
Reagents:

MSV_V_BFB_00007 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02T03.D
 Injection Date: 02-Mar-2022 09:50:30 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

\$ 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	15.7
75	30 to 60% of m/z 95	42.6
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	1.2 (1.3)
174	50 to 120% of m/z 95	94.0
175	5 to 9% of m/z 174	7.2 (7.6)
176	Greater than 95% but less than 101% of m/z 174	92.3 (98.2)
177	5 to 9% of m/z 176	5.9 (6.4)

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02T03.D\8260 25ml HP31.rsl\spectra.d
Injection Date: 02-Mar-2022 09:50:30
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: 59

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	432	61.00	2356	80.00	348	128.00	280
37.00	2132	62.00	1976	81.00	1256	135.00	131
38.00	1595	63.00	1773	82.00	332	141.00	502
39.00	741	64.00	88	87.00	2781	143.00	687
40.00	17	65.00	133	88.00	1875	145.00	100
44.00	279	68.00	4556	91.00	234	148.00	281
45.00	496	69.00	4770	92.00	1391	155.00	116
47.00	839	72.00	103	93.00	1970	172.00	685
48.00	101	73.00	2200	94.00	5923	173.00	676
49.00	1903	74.00	8778	95.00	57496	174.00	54072
50.00	9008	75.00	24480	96.00	3869	175.00	4114
51.00	2639	76.00	2234	116.00	93	176.00	53088
56.00	630	77.00	312	117.00	301	177.00	3410
57.00	1607	78.00	377	118.00	270	193.00	145
60.00	473	79.00	1214	119.00	375		

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02T03.D

Injection Date: 02-Mar-2022 09:50:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

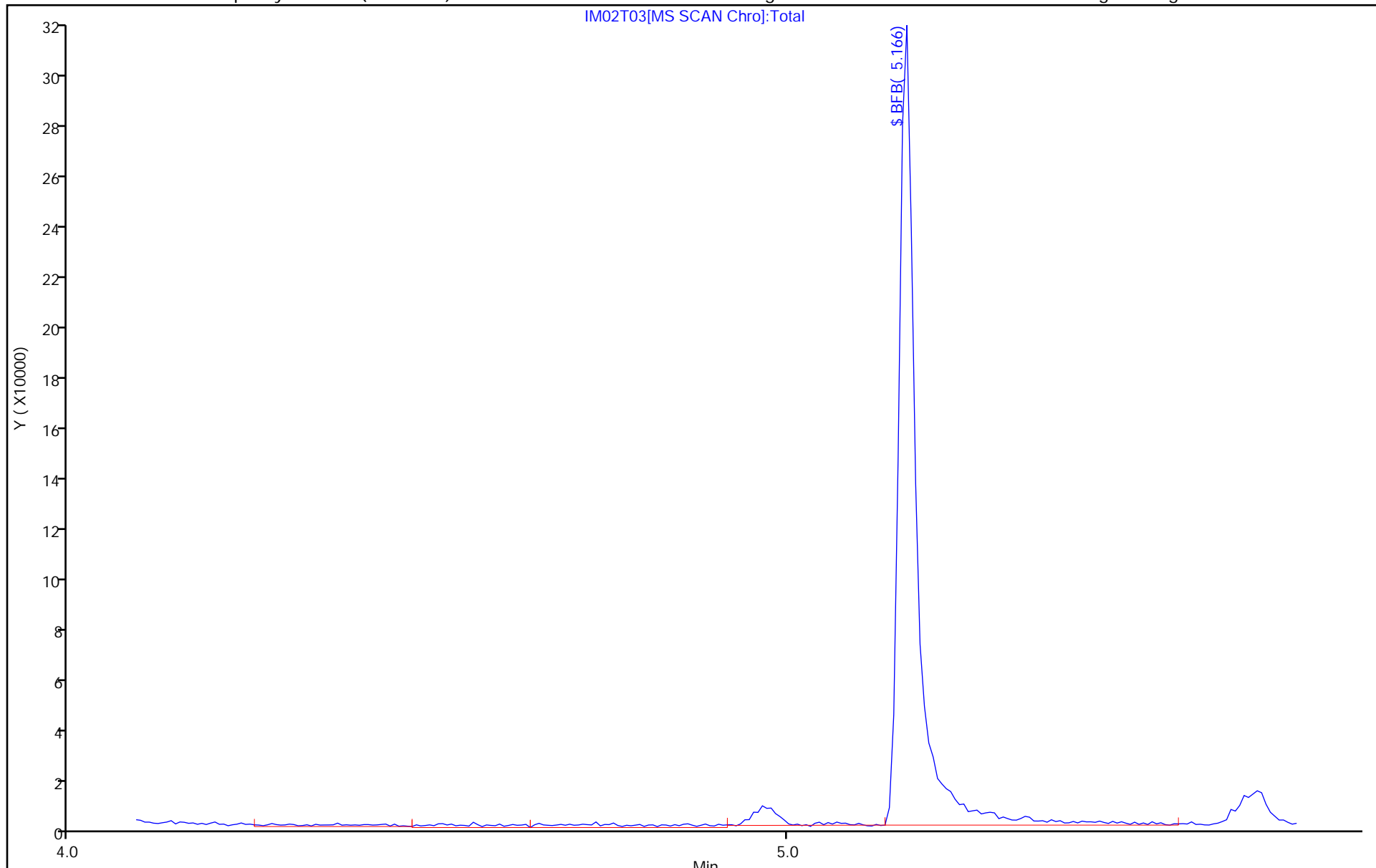
ALS Bottle#: 1

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 E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-228139/7
 Matrix: Water Lab File ID: IF28X06.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 12:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	ND		5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-228139/7
 Matrix: Water Lab File ID: IF28X06.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 12:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	88		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 28-Feb-2022 12:26:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-007
 Misc. Info.: MB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 12:51:00 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk Date: 28-Feb-2022 12:51:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.947					ND	
2 Chlorodifluoromethane	51		1.989					ND	
3 Dimethyl ether	45		2.050					ND	
4 Chloromethane	50		2.154					ND	
5 Vinyl chloride	62		2.251					ND	
6 Butadiene	39		2.300					ND	7
7 Bromomethane	94		2.611					ND	7
8 Chloroethane	64		2.703					ND	
9 Dichlorofluoromethane	67		2.946					ND	
10 Trichlorofluoromethane	101		3.001					ND	
11 Ethyl ether	59		3.251					ND	
12 1,2-Dichloro-1,1,2-trifluoroethane	67		3.343					ND	
13 Acrolein	56		3.428					ND	7
14 1,1-Dichloroethene	96		3.568					ND	
15 Acetone	43		3.593					ND	7
16 112TCTFE	101		3.611					ND	
17 Iodomethane	142		3.769					ND	
18 Ethyl bromide	108		3.794					ND	
19 Carbon disulfide	76		3.873					ND	7
20 Acetonitrile	41		3.995					ND	
21 Methyl acetate	43		4.007					ND	
22 3-Chloro-1-propene	41		4.044					ND	
23 Methylene Chloride	84		4.239					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	25	137009	50.0	50.0	
25 2-Methyl-2-propanol	59		4.367					ND	
26 Acrylonitrile	53		4.574					ND	
27 Methyl tert-butyl ether	73		4.641					ND	
28 trans-1,2-Dichloroethene	96		4.659					ND	
29 Hexane	57		5.074					ND	7
31 1,1-Dichloroethane	63		5.312					ND	
30 Vinyl acetate	43		5.312					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Isopropyl ether	45		5.367					ND	
33 2-Chloro-1,3-butadiene	53		5.415					ND	
34 Tert-butyl ethyl ether	59		5.903					ND	7
36 2-Butanone (MEK)	43		6.092					ND	7
37 cis-1,2-Dichloroethene	96		6.135					ND	
38 2,2-Dichloropropane	77		6.147					ND	7
S 35 1,2-Dichloroethene, Total	100		6.155					ND	7
40 Propionitrile	54		6.177					ND	
39 Ethyl acetate	43		6.190					ND	
41 Methyl acrylate	55		6.220					ND	
42 Methacrylonitrile	67		6.397					ND	
43 Chlorobromomethane	128		6.464					ND	
44 Tetrahydrofuran	71		6.470					ND	
45 Chloroform	83		6.610					ND	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	551242	10.0	9.61	
47 1,1,1-Trichloroethane	97		6.836					ND	
48 Cyclohexane	56		6.940					ND	
49 1-Chlorobutane	56		7.019					ND	
51 1,1-Dichloropropene	75		7.049					ND	
50 Carbon tetrachloride	117		7.049					ND	
52 Isobutyl alcohol	41		7.196					ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	67	116315	10.0	10.1	
54 Benzene	78		7.305					ND	
56 1,2-Dichloroethane	62		7.378					ND	
55 Isopropyl acetate	43		7.415					ND	
57 Tert-amyl methyl ether	73		7.500					ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2277959	10.0	10.0	
59 n-Heptane	43	7.726	7.720	0.006	36	3950		0.0446	
60 n-Butanol	56		8.073					ND	
61 Trichloroethene	95		8.189					ND	
62 Methylcyclohexane	83		8.500					ND	7
63 1,2-Dichloropropane	63		8.512					ND	
64 Methyl methacrylate	69		8.598					ND	
65 1,4-Dioxane	88		8.610					ND	
66 Dibromomethane	93		8.628					ND	
67 n-Propyl acetate	43		8.707					ND	
68 Dichlorobromomethane	83		8.860					ND	
69 2-Nitropropane	41		9.122					ND	
70 Chloroacetonitrile	75		9.226					ND	
72 1-Bromo-2-chloroethane	63		9.250					ND	
71 2-Chloroethyl vinyl ether	63		9.256					ND	
73 cis-1,3-Dichloropropene	75		9.402					ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573					ND	
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	93	2245581	10.0	9.98	
76 Toluene	92		9.787					ND	7
78 trans-1,3-Dichloropropene	75		10.036					ND	
S 77 1,3-Dichloropropene, Total	100		10.060					ND	7
79 Ethyl methacrylate	69		10.097					ND	
80 1,1,2-Trichloroethane	97		10.244					ND	
81 Tetrachloroethene	166		10.329					ND	
82 1,3-Dichloropropane	76		10.402					ND	
83 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
84 n-Butyl acetate	43		10.603					ND	
85 Chlorodibromomethane	129		10.616					ND	
86 Ethylene Dibromide	107		10.731					ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1741977	10.0	10.0	
88 1-Chlorohexane	91		11.164					ND	7
90 Chlorobenzene	112		11.183					ND	
S 89 Xylenes, Total	106		11.245					ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262					ND	
92 Ethylbenzene	91		11.268					ND	
93 m-Xylene & p-Xylene	106		11.384					ND	
94 o-Xylene	106		11.707					ND	
95 Styrene	104		11.725					ND	
96 Bromoform	173		11.884					ND	
97 Isopropylbenzene	105		12.006					ND	
98 cis-1,4-Dichloro-2-butene	88		12.079					ND	U
99 Cyclohexanone	55		12.121					ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	757851	10.0	8.81	
101 1,1,2,2-Tetrachloroethane	83		12.249					ND	
102 Bromobenzene	156		12.268					ND	
103 trans-1,4-Dichloro-2-butene	53		12.274					ND	
104 1,2,3-Trichloropropane	110		12.292					ND	
105 N-Propylbenzene	91		12.335					ND	
106 2-Chlorotoluene	126		12.408					ND	
107 1,3,5-Trimethylbenzene	105		12.469					ND	
108 4-Chlorotoluene	126		12.505					ND	
109 tert-Butylbenzene	134		12.707					ND	7
110 Pentachloroethane	167		12.743					ND	
111 1,2,4-Trimethylbenzene	105		12.749					ND	7
112 sec-Butylbenzene	105		12.871					ND	7
113 1,3-Dichlorobenzene	146		12.975					ND	7
114 4-Isopropyltoluene	119		12.981					ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	866919	10.0	10.0	
116 1,4-Dichlorobenzene	146		13.048					ND	7
117 1,2,3-Trimethylbenzene	120		13.054					ND	7
118 Benzyl chloride	126		13.121					ND	
119 n-Butylbenzene	92		13.268					ND	7
120 1,2-Dichlorobenzene	146		13.304					ND	
121 Hexachloroethane	117		13.542					ND	
122 1,2-Dibromo-3-Chloropropane	155		13.847					ND	
123 1,3,5-Trichlorobenzene	180		13.969					ND	7
124 1,2,4-Trichlorobenzene	180		14.389					ND	7
125 Hexachlorobutadiene	225	14.474	14.475	-0.001	88	3589		0.1010	
126 Naphthalene	128		14.572					ND	7
127 1,2,3-Trichlorobenzene	180	14.737	14.712	0.025	92	3024		0.0428	
128 Dodecane	57		0.000					ND	
132 Methylal	1		0.000					ND	
133 t-Amyl alcohol	1		0.000					ND	
134 Isopropyl alcohol	45		0.000					ND	
141 1-Chloropropane	1		0.000					ND	
129 Propene oxide	1		0.000					ND	
207 Acetonitrile TIC	1		0.000					ND	
130 Chlorotrifluoroethene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
204 Pentane	43		0.000					ND	
206 Pentachloroethane TIC	1		0.000					ND	
142 2-Bromo-1-chloropropane	1		0.000					ND	
131 tert-Butyl Formate	1		0.000					ND	
202 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
203 Propargyl alcohol TIC	1		0.000					ND	
210 Hexachloroethane TIC	1		0.000					ND	
139 1-Bromo-3-Chloropropane	1		0.000					ND	
143 n-Decane	57		0.000					ND	
205 1,1-Dichloroacetone	1		0.000					ND	
144 2-ethoxy-2-methyl butane	1		0.000					ND	
136 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
135 p-Diethylbenzene	1		0.000					ND	
137 2-Methylnaphthalene	142		0.000					ND	
138 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
140 Ethanol	45		3.269					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X06.D

Injection Date: 28-Feb-2022 12:26:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

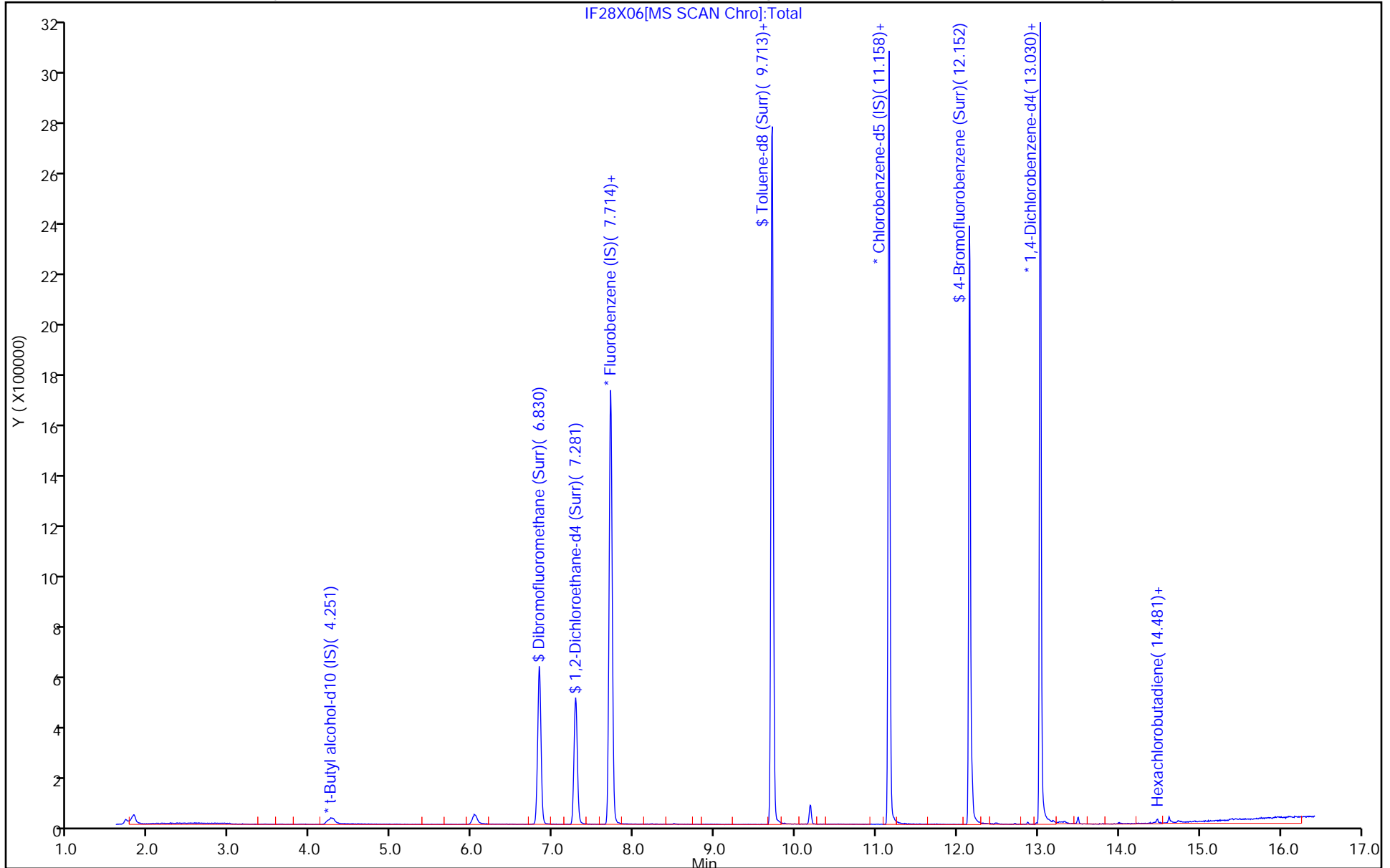
ALS Bottle#: 6

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 Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 28-Feb-2022 12:26:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-007
 Misc. Info.: MB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 12:51:00 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 28-Feb-2022 12:51:00

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.61	96.06
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.32
\$ 75 Toluene-d8 (Surr)	10.0	9.98	99.75
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.81	88.08

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-229111/7
 Matrix: Water Lab File ID: IM02X06.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 03/02/2022 11:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229111 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	ND		5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-229111/7
 Matrix: Water Lab File ID: IM02X06.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 03/02/2022 11:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229111 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	89		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 02-Mar-2022 11:49:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051485-007
 Misc. Info.: MB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 11:16:52 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: kephartk

Date: 02-Mar-2022 12:21:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.941					ND	
2 Chlorodifluoromethane	51		1.989					ND	
3 Dimethyl ether	45		2.050					ND	
4 Chloromethane	50		2.142					ND	
5 Vinyl chloride	62		2.245					ND	
6 Butadiene	39		2.294					ND	7
7 Bromomethane	94		2.599					ND	
8 Chloroethane	64		2.703					ND	
9 Dichlorofluoromethane	67		2.940					ND	
10 Trichlorofluoromethane	101		2.989					ND	
11 Ethyl ether	59		3.251					ND	
12 1,2-Dichloro-1,1,2-trifluoroethane	67		3.343					ND	
13 Acrolein	56		3.422					ND	7
14 1,1-Dichloroethene	96		3.562					ND	
15 Acetone	43		3.587					ND	7
16 112TCTFE	101		3.605					ND	
17 Iodomethane	142		3.757					ND	
18 Ethyl bromide	108		3.794					ND	
19 Carbon disulfide	76		3.867					ND	7
20 Acetonitrile	41		3.995					ND	
21 Methyl acetate	43		4.013					ND	
22 3-Chloro-1-propene	41		4.044					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.227	0.036	26	176882	50.0	50.0	
23 Methylene Chloride	84		4.233					ND	7
25 2-Methyl-2-propanol	59		4.361					ND	
26 Acrylonitrile	53		4.568					ND	
27 Methyl tert-butyl ether	73		4.641					ND	
28 trans-1,2-Dichloroethene	96		4.653					ND	
29 Hexane	57		5.068					ND	7
30 Vinyl acetate	43		5.312					ND	
31 1,1-Dichloroethane	63		5.312					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Isopropyl ether	45		5.367					ND	
33 2-Chloro-1,3-butadiene	53		5.409					ND	
34 Tert-butyl ethyl ether	59		5.897					ND	
36 2-Butanone (MEK)	43		6.098					ND	
37 cis-1,2-Dichloroethene	96		6.135					ND	
38 2,2-Dichloropropane	77		6.147					ND	
S 35 1,2-Dichloroethene, Total	100		6.155					ND	7
40 Propionitrile	54		6.177					ND	
39 Ethyl acetate	43		6.190					ND	
41 Methyl acrylate	55		6.220					ND	
42 Methacrylonitrile	67		6.397					ND	
43 Chlorobromomethane	128		6.458					ND	
44 Tetrahydrofuran	71		6.470					ND	
45 Chloroform	83		6.610					ND	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	587331	10.0	9.79	
47 1,1,1-Trichloroethane	97		6.836					ND	
48 Cyclohexane	56		6.946					ND	
49 1-Chlorobutane	56		7.019					ND	
51 1,1-Dichloropropene	75		7.049					ND	
50 Carbon tetrachloride	117		7.049					ND	
52 Isobutyl alcohol	41		7.189					ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	124741	10.0	10.4	
54 Benzene	78		7.305					ND	
56 1,2-Dichloroethane	62		7.378					ND	
55 Isopropyl acetate	43		7.415					ND	
57 Tert-amyl methyl ether	73		7.500					ND	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2380925	10.0	10.0	
59 n-Heptane	43	7.726	7.720	0.006	36	4175		0.0451	
60 n-Butanol	56		8.073					ND	
61 Trichloroethene	95		8.189					ND	
62 Methylcyclohexane	83		8.494					ND	7
63 1,2-Dichloropropane	63		8.512					ND	
64 Methyl methacrylate	69		8.598					ND	
65 1,4-Dioxane	88		8.604					ND	
66 Dibromomethane	93		8.622					ND	
67 n-Propyl acetate	43		8.707					ND	
68 Dichlorobromomethane	83		8.860					ND	
69 2-Nitropropane	41		9.122					ND	
70 Chloroacetonitrile	75		9.226					ND	
72 1-Bromo-2-chloroethane	63		9.250					ND	
71 2-Chloroethyl vinyl ether	63		9.256					ND	
73 cis-1,3-Dichloropropene	75		9.402					ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567					ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2372804	10.0	9.89	
76 Toluene	92		9.787					ND	7
78 trans-1,3-Dichloropropene	75		10.036					ND	
S 77 1,3-Dichloropropene, Total	100		10.060					ND	7
79 Ethyl methacrylate	69		10.097					ND	
80 1,1,2-Trichloroethane	97		10.238					ND	
81 Tetrachloroethene	166		10.329					ND	
82 1,3-Dichloropropane	76		10.402					ND	
83 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
84 n-Butyl acetate	43		10.603					ND	
85 Chlorodibromomethane	129		10.616					ND	
86 Ethylene Dibromide	107		10.725					ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.152	0.006	84	1856491	10.0	10.0	
88 1-Chlorohexane	91		11.164					ND	7
90 Chlorobenzene	112		11.183					ND	
S 89 Xylenes, Total	106		11.245					ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262					ND	
92 Ethylbenzene	91		11.268					ND	
93 m-Xylene & p-Xylene	106		11.378					ND	
94 o-Xylene	106		11.707					ND	
95 Styrene	104		11.725					ND	
96 Bromoform	173		11.884					ND	
97 Isopropylbenzene	105		12.006					ND	7
98 cis-1,4-Dichloro-2-butene	88		12.079					ND	U
99 Cyclohexanone	55		12.121					ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	96	819969	10.0	8.94	
101 1,1,2,2-Tetrachloroethane	83		12.249					ND	
102 Bromobenzene	156		12.268					ND	
103 trans-1,4-Dichloro-2-butene	53		12.274					ND	
104 1,2,3-Trichloropropane	110		12.292					ND	
105 N-Propylbenzene	91		12.335					ND	
106 2-Chlorotoluene	126		12.408					ND	
107 1,3,5-Trimethylbenzene	105		12.469					ND	
108 4-Chlorotoluene	126		12.499					ND	7
109 tert-Butylbenzene	134		12.707					ND	7
110 Pentachloroethane	167		12.743					ND	
111 1,2,4-Trimethylbenzene	105		12.749					ND	7
112 sec-Butylbenzene	105		12.871					ND	7
113 1,3-Dichlorobenzene	146		12.975					ND	
114 4-Isopropyltoluene	119		12.981					ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	93	971429	10.0	10.0	
116 1,4-Dichlorobenzene	146		13.048					ND	7
117 1,2,3-Trimethylbenzene	120		13.054					ND	7
118 Benzyl chloride	126		13.121					ND	7
119 n-Butylbenzene	92		13.268					ND	7
120 1,2-Dichlorobenzene	146		13.304					ND	
121 Hexachloroethane	117		13.542					ND	
122 1,2-Dibromo-3-Chloropropane	155		13.847					ND	
123 1,3,5-Trichlorobenzene	180		13.969					ND	7
124 1,2,4-Trichlorobenzene	180		14.389					ND	
125 Hexachlorobutadiene	225	14.475	14.475	0.000	89	3241		0.0814	
126 Naphthalene	128		14.572					ND	7
127 1,2,3-Trichlorobenzene	180	14.743	14.712	0.031	92	3468		0.0438	
128 Dodecane	57		0.000					ND	
133 t-Amyl alcohol	1		0.000					ND	
134 Isopropyl alcohol	45		0.000					ND	
141 1-Chloropropane	1		0.000					ND	
129 Propene oxide	1		0.000					ND	
207 Acetonitrile TIC	1		0.000					ND	
130 Chlorotrifluoroethene	1		0.000					ND	
204 Pentane	43		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
206 Pentachloroethane TIC	1		0.000					ND	
142 2-Bromo-1-chloropropane	1		0.000					ND	
131 tert-Butyl Formate	1		0.000					ND	
132 Methylal	1		0.000					ND	
138 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
202 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
203 Propargyl alcohol TIC	1		0.000					ND	
210 Hexachloroethane TIC	1		0.000					ND	
139 1-Bromo-3-Chloropropane	1		0.000					ND	
143 n-Decane	57		0.000					ND	
205 1,1-Dichloroacetone	1		0.000					ND	
144 2-ethoxy-2-methyl butane	1		0.000					ND	
136 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
135 p-Diethylbenzene	1		0.000					ND	
137 2-Methylnaphthalene	142		0.000					ND	
140 Ethanol	45		3.269					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X06.D

Injection Date: 02-Mar-2022 11:49:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

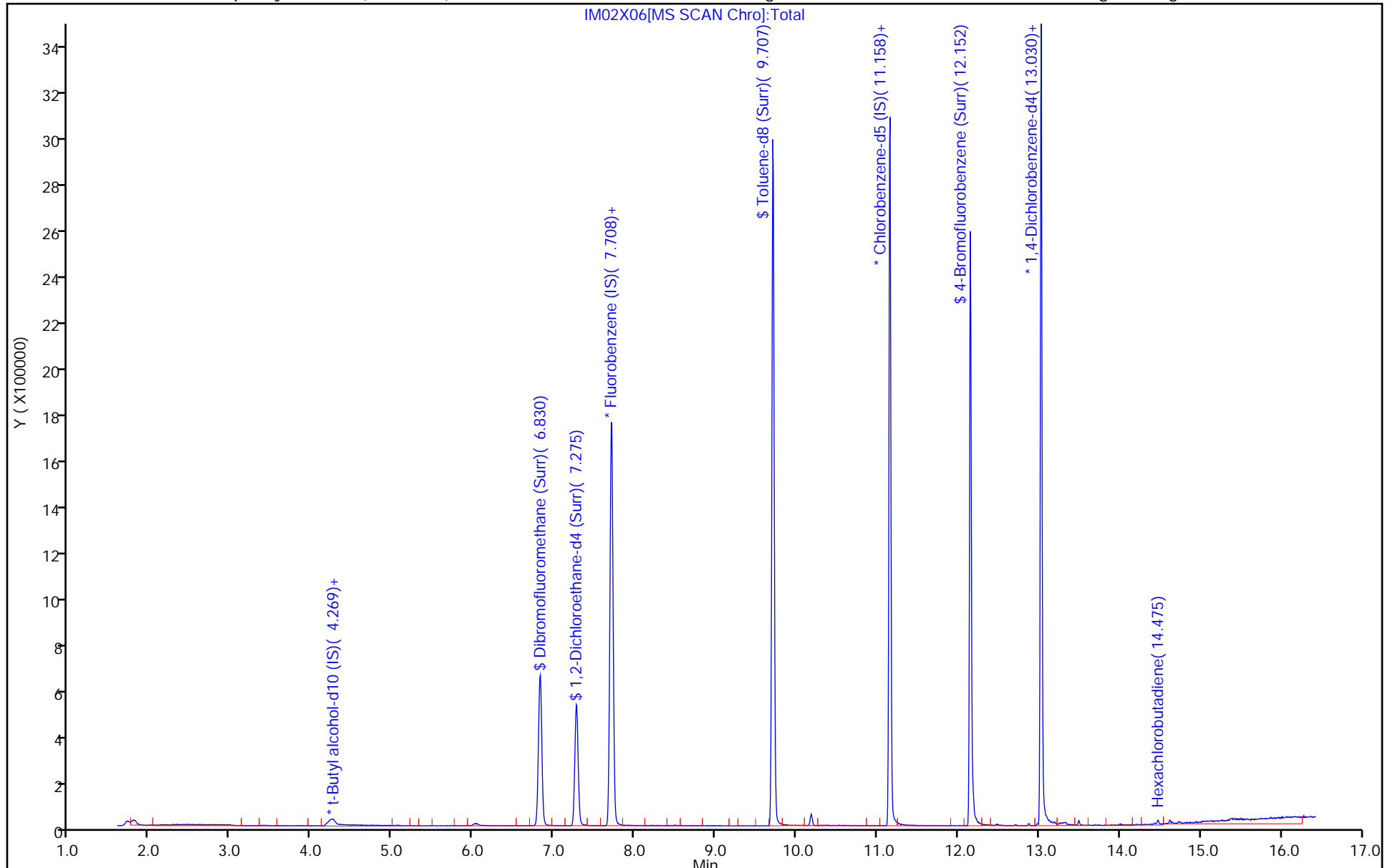
ALS Bottle#: 6

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 Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 02-Mar-2022 11:49:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051485-007
 Misc. Info.: MB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 11:16:52 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: kephartk

Date: 02-Mar-2022 12:21:09

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.79	97.92
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.96
\$ 75 Toluene-d8 (Surr)	10.0	9.89	98.90
\$ 100 4-Bromofluorobenzene (Surr)	10.0	8.94	89.43

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-228139/4
 Matrix: Water Lab File ID: IF28X03.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 11:23
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.61		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.12		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.31		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.95		0.50	0.060
75-34-3	1,1-Dichloroethane	5.30		0.50	0.070
75-35-4	1,1-Dichloroethene	5.52		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.79		0.50	0.060
107-06-2	1,2-Dichloroethane	5.21		0.50	0.050
78-87-5	1,2-Dichloropropane	5.92		0.50	0.060
78-93-3	2-Butanone (MEK)	80.5		5.0	0.60
591-78-6	2-Hexanone	83.9		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	80.0		5.0	0.70
67-64-1	Acetone	65.0		5.0	0.90
71-43-2	Benzene	5.61		0.50	0.050
74-97-5	Bromochloromethane	5.59		0.50	0.050
75-27-4	Bromodichloromethane	5.87		0.50	0.050
75-25-2	Bromoform	6.30		1.0	0.30
74-83-9	Bromomethane	4.69		0.50	0.070
75-15-0	Carbon disulfide	5.76		1.0	0.060
56-23-5	Carbon tetrachloride	5.27		0.50	0.070
108-90-7	Chlorobenzene	5.56		0.50	0.060
75-00-3	Chloroethane	4.68		0.50	0.070
67-66-3	Chloroform	5.31		0.50	0.090
74-87-3	Chloromethane	5.40		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.43		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.80		0.50	0.050
124-48-1	Dibromochloromethane	6.08		0.50	0.070
100-41-4	Ethylbenzene	5.47		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.02		0.50	0.050
75-09-2	Methylene Chloride	5.30		0.50	0.070
100-42-5	Styrene	5.38		0.50	0.050
127-18-4	Tetrachloroethene	5.60		0.50	0.060
108-88-3	Toluene	5.47		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.17		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.05		0.50	0.060
79-01-6	Trichloroethene	5.42		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-228139/4
 Matrix: Water Lab File ID: IF28X03.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 11:23
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.93		0.50	0.10
1330-20-7	Xylenes, Total	16.1		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 28-Feb-2022 11:23:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-004
 Misc. Info.: LCS
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 12:11:32 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 28-Feb-2022 11:55:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.947	0.006	99	393691	5.00	5.03	
4 Chloromethane	50	2.166	2.154	0.012	99	481914	5.00	5.40	
5 Vinyl chloride	62	2.257	2.251	0.006	98	443066	5.00	4.93	
6 Butadiene	39	2.306	2.300	0.006	92	452916	5.00	5.53	
7 Bromomethane	94	2.617	2.611	0.006	91	305705	5.00	4.69	
8 Chloroethane	64	2.709	2.703	0.006	100	252523	5.00	4.68	
9 Dichlorofluoromethane	67	2.952	2.946	0.006	97	620162	5.00	4.78	
10 Trichlorofluoromethane	101	3.007	3.001	0.006	96	560182	5.00	4.83	
11 Ethyl ether	59	3.263	3.251	0.012	90	267959	4.97	5.69	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.349	3.343	0.006	95	421025	5.00	5.07	
13 Acrolein	56	3.428	3.428	0.000	98	245050	37.5	33.8	
14 1,1-Dichloroethene	96	3.580	3.568	0.012	98	329877	5.00	5.52	
15 Acetone	43	3.599	3.593	0.006	98	598630	62.5	65.0	
16 112TCTFE	101	3.617	3.611	0.006	91	311487	5.00	4.99	
17 Iodomethane	142	3.775	3.769	0.006	98	618626	5.00	5.18	
18 Ethyl bromide	108	3.800	3.794	0.006	98	272935	4.99	5.01	
19 Carbon disulfide	76	3.879	3.873	0.006	99	950065	5.00	5.76	
21 Methyl acetate	43	4.019	4.007	0.012	95	182911	5.00	6.75	M
22 3-Chloro-1-propene	41	4.056	4.044	0.012	93	540754	5.00	5.52	
23 Methylene Chloride	84	4.245	4.239	0.006	93	345959	5.00	5.30	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.263	-0.024	94	165832	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.385	4.367	0.018	98	154926	50.0	44.4	
26 Acrylonitrile	53	4.580	4.574	0.006	99	359664	25.0	29.3	
27 Methyl tert-butyl ether	73	4.641	4.641	0.000	96	855079	5.00	5.02	
28 trans-1,2-Dichloroethene	96	4.665	4.659	0.006	100	351020	5.00	5.17	
29 Hexane	57	5.080	5.074	0.006	92	478896	5.00	5.05	
31 1,1-Dichloroethane	63	5.318	5.312	0.006	96	652980	5.00	5.30	
32 Isopropyl ether	45	5.379	5.367	0.012	94	1116068	5.00	5.42	
33 2-Chloro-1,3-butadiene	53	5.421	5.415	0.006	90	552885	5.00	5.38	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	98	1042493	5.00	5.18	
36 2-Butanone (MEK)	43	6.104	6.092	0.012	100	1295661	62.5	80.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	82	410919	5.00	5.43	
38 2,2-Dichloropropane	77	6.159	6.147	0.012	86	564843	5.00	5.27	
40 Propionitrile	54	6.183	6.177	0.006	99	194593	37.5	45.5	
42 Methacrylonitrile	67	6.403	6.397	0.006	92	762974	37.5	47.2	
43 Chlorobromomethane	128	6.470	6.464	0.006	94	182385	5.00	5.59	
44 Tetrahydrofuran	71	6.482	6.470	0.012	83	141361	25.0	29.6	
45 Chloroform	83	6.616	6.610	0.006	93	647801	5.00	5.31	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	599193	10.0	9.50	
47 1,1,1-Trichloroethane	97	6.848	6.836	0.012	98	579859	5.00	5.12	
48 Cyclohexane	56	6.946	6.940	0.006	90	571101	5.00	5.08	
51 1,1-Dichloropropene	75	7.055	7.049	0.006	98	527456	5.00	5.52	
50 Carbon tetrachloride	117	7.061	7.049	0.012	96	515286	5.00	5.27	
52 Isobutyl alcohol	41	7.202	7.196	0.006	93	145092	125.0	130.2	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	82	126399	10.0	10.0	
54 Benzene	78	7.311	7.305	0.006	97	1578813	5.00	5.61	
56 1,2-Dichloroethane	62	7.384	7.378	0.006	97	397668	5.00	5.21	
57 Tert-amyl methyl ether	73	7.506	7.500	0.006	99	937438	5.00	5.02	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2503813	10.0	10.0	
59 n-Heptane	43	7.726	7.720	0.006	90	512542	5.00	5.26	
60 n-Butanol	56	8.079	8.073	0.006	89	307465	250.0	297.3	
61 Trichloroethene	95	8.189	8.189	0.000	97	410081	5.00	5.42	
62 Methylcyclohexane	83	8.500	8.500	0.000	93	619062	5.00	4.92	
63 1,2-Dichloropropane	63	8.518	8.512	0.006	84	409581	5.00	5.92	
64 Methyl methacrylate	69	8.604	8.598	0.006	90	204272	5.00	6.43	
65 1,4-Dioxane	88	8.610	8.610	0.000	33	44308	125.0	139.6	M
66 Dibromomethane	93	8.634	8.628	0.006	94	190970	5.00	5.65	
68 Dichlorobromomethane	83	8.866	8.860	0.006	99	491777	5.00	5.87	
69 2-Nitropropane	41	9.122	9.122	0.000	99	51386	5.00	5.65	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	422300	5.00	6.22	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	610981	5.00	5.80	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	96	3239385	62.5	80.0	
\$ 75 Toluene-d8 (Surr)	98	9.713	9.707	0.006	93	2513683	10.0	9.95	
76 Toluene	92	9.786	9.787	0.000	98	1026081	5.00	5.47	
78 trans-1,3-Dichloropropene	75	10.042	10.036	0.006	92	522774	5.00	6.05	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	408524	5.00	5.66	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	90	297700	5.00	5.95	
81 Tetrachloroethene	166	10.335	10.329	0.006	98	500435	5.00	5.60	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	88	500778	5.00	5.89	
83 2-Hexanone	43	10.451	10.451	0.000	97	2379154	62.5	83.9	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	370674	5.00	6.08	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	279203	5.00	5.79	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1955837	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	97	592239	5.00	5.40	
90 Chlorobenzene	112	11.183	11.183	0.000	95	1154234	5.00	5.56	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	406786	5.00	5.61	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1973376	5.00	5.47	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1556716	10.0	10.9	
94 o-Xylene	106	11.707	11.707	0.000	96	737966	5.00	5.24	
95 Styrene	104	11.725	11.725	0.000	94	1222326	5.00	5.38	
96 Bromoform	173	11.884	11.884	0.000	99	229970	5.00	6.30	
97 Isopropylbenzene	105	12.006	12.006	0.000	95	1964361	5.00	5.29	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	901000	10.0	9.33	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	355594	5.00	6.31	
102 Bromobenzene	156	12.268	12.268	0.000	95	480361	5.00	6.22	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	90	318897	25.0	21.8	
104 1,2,3-Trichloropropane	110	12.298	12.292	0.006	83	95247	5.00	6.15	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	2331251	5.00	6.22	
106 2-Chlorotoluene	126	12.414	12.408	0.006	97	476526	5.00	6.20	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1595667	5.00	5.83	
108 4-Chlorotoluene	126	12.505	12.505	0.000	96	486152	5.00	6.19	
109 tert-Butylbenzene	134	12.713	12.707	0.006	93	375235	5.00	6.25	
110 Pentachloroethane	167	12.743	12.743	0.000	94	295509	5.00	6.10	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	97	1618891	5.00	5.77	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	2108233	5.00	6.10	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	895710	5.00	5.75	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1800016	5.00	5.88	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	1019036	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	914785	5.00	5.75	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	716046	5.00	5.77	
118 Benzyl chloride	126	13.121	13.121	0.000	98	145641	5.00	6.32	
119 n-Butylbenzene	92	13.267	13.268	-0.001	97	846260	5.00	5.92	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	810377	5.00	5.70	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	89	47540	5.00	5.74	
123 1,3,5-Trichlorobenzene	180	13.975	13.969	0.006	98	629467	5.00	5.53	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	93	514809	5.00	5.36	
125 Hexachlorobutadiene	225	14.475	14.475	0.000	95	215674	5.00	5.16	
126 Naphthalene	128	14.572	14.572	0.000	97	935692	5.00	5.11	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	444776	5.00	5.35	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00042	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00046	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00068	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00012	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromf\Lancaster\ChromData\19930\20220228-51281.b\IF28X03.D

Injection Date: 28-Feb-2022 11:23:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

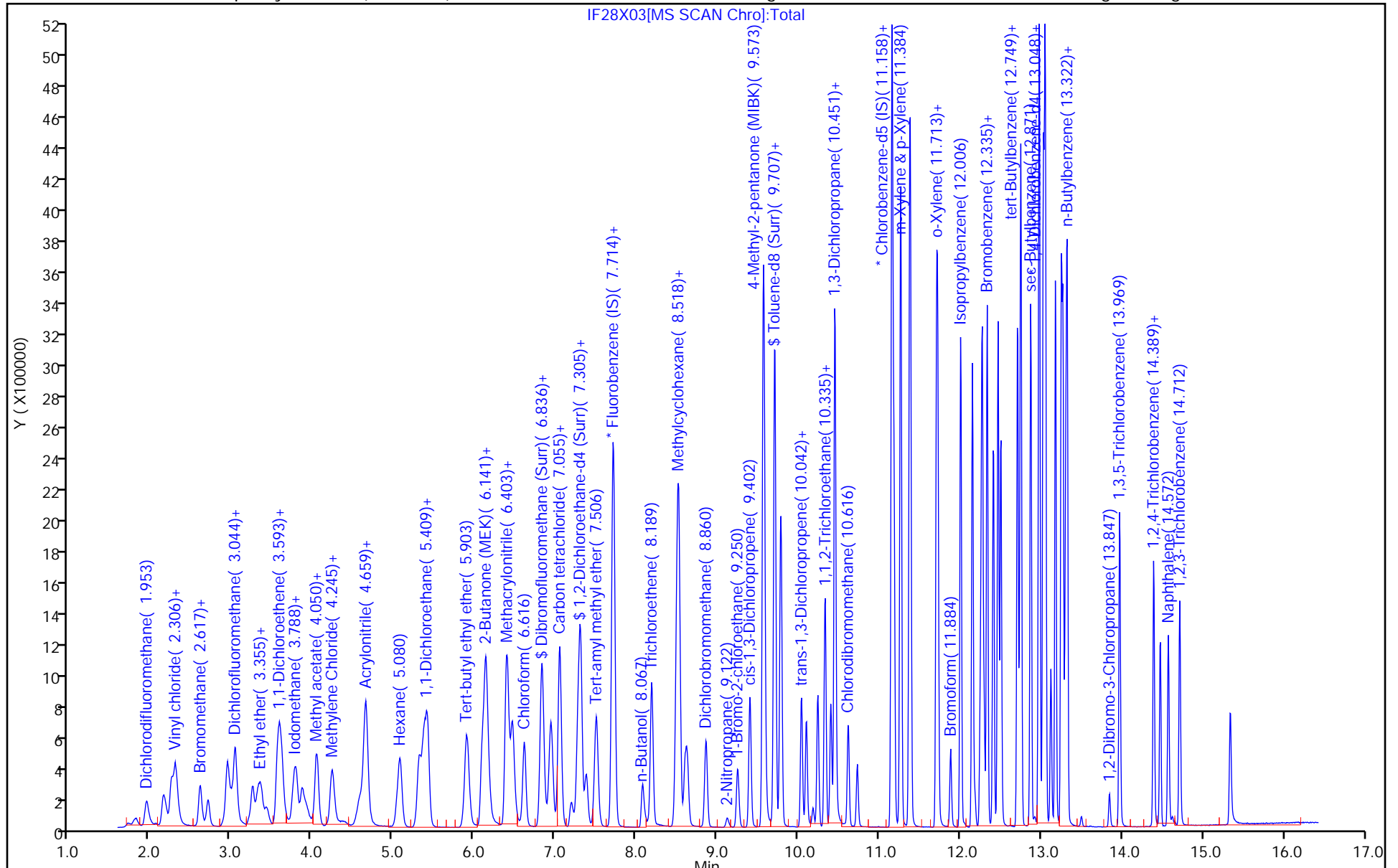
ALS Bottle#: 3

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 Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 28-Feb-2022 11:23:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-004
 Misc. Info.: LCS
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 12:11:32 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 28-Feb-2022 11:55:13

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.50	95.00
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.17
\$ 75 Toluene-d8 (Surr)	10.0	9.95	99.45
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.33	93.27

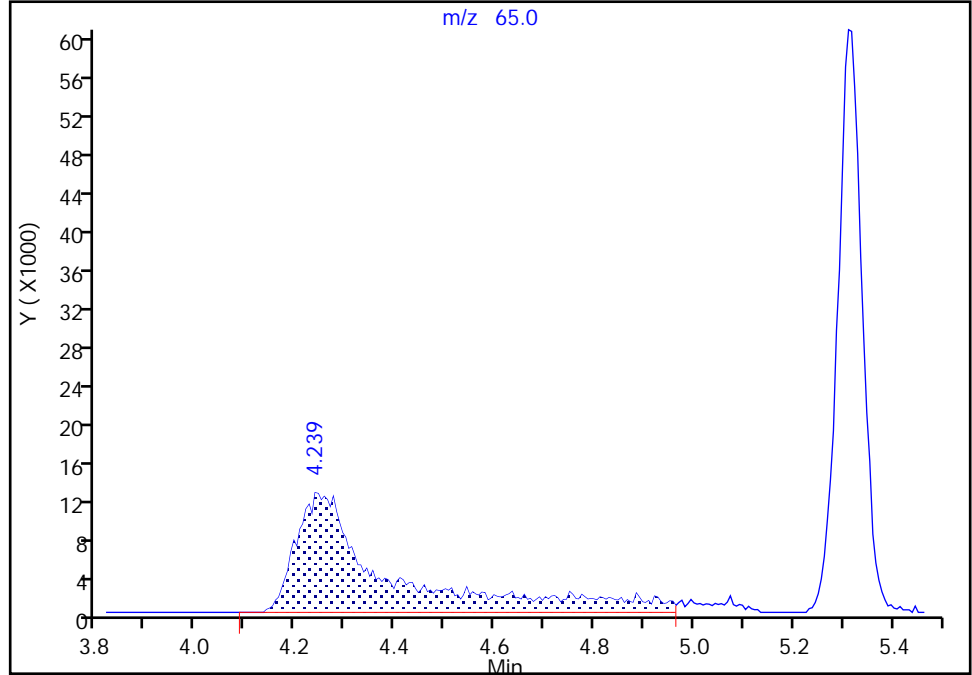
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X03.D
Injection Date: 28-Feb-2022 11:23:30 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

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

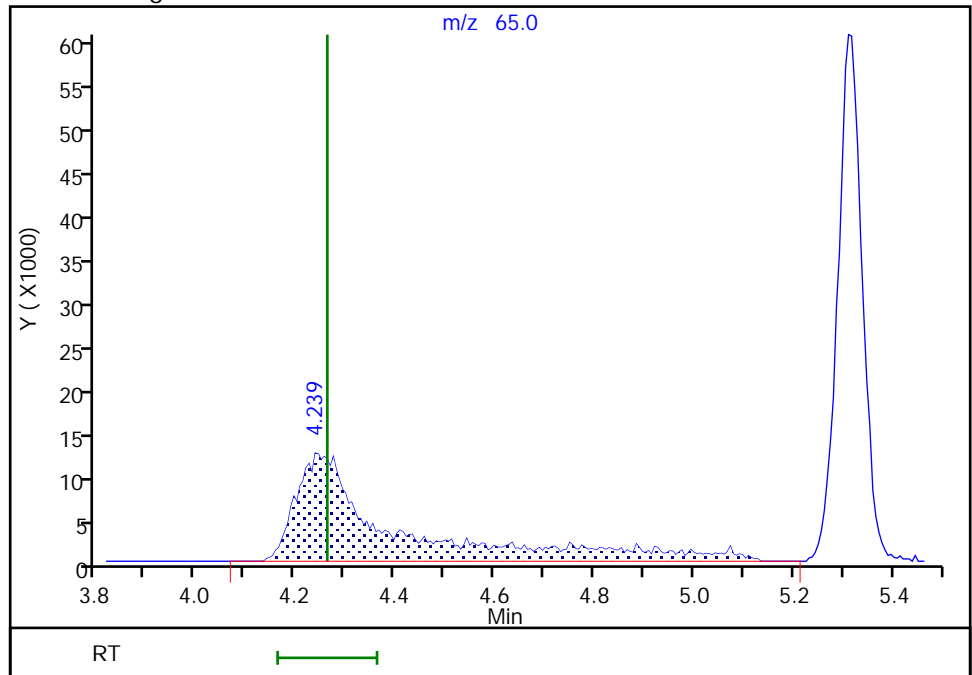
RT: 4.24
Area: 157692
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.24
Area: 165832
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 28-Feb-2022 11:54:30
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-229111/4
 Matrix: Water Lab File ID: IM02X03.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 03/02/2022 10:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229111 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.57		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.00		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.20		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.88		0.50	0.060
75-34-3	1,1-Dichloroethane	5.05		0.50	0.070
75-35-4	1,1-Dichloroethene	5.17		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.83		0.50	0.060
107-06-2	1,2-Dichloroethane	5.08		0.50	0.050
78-87-5	1,2-Dichloropropane	5.61		0.50	0.060
78-93-3	2-Butanone (MEK)	76.5		5.0	0.60
591-78-6	2-Hexanone	80.3		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	75.5		5.0	0.70
67-64-1	Acetone	60.7		5.0	0.90
71-43-2	Benzene	5.38		0.50	0.050
74-97-5	Bromochloromethane	5.51		0.50	0.050
75-27-4	Bromodichloromethane	5.73		0.50	0.050
75-25-2	Bromoform	6.48		1.0	0.30
74-83-9	Bromomethane	4.40		0.50	0.070
75-15-0	Carbon disulfide	5.21		1.0	0.060
56-23-5	Carbon tetrachloride	5.24		0.50	0.070
108-90-7	Chlorobenzene	5.56		0.50	0.060
75-00-3	Chloroethane	4.38		0.50	0.070
67-66-3	Chloroform	5.18		0.50	0.090
74-87-3	Chloromethane	4.65		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.35		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.54		0.50	0.050
124-48-1	Dibromochloromethane	6.12		0.50	0.070
100-41-4	Ethylbenzene	5.34		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.92		0.50	0.050
75-09-2	Methylene Chloride	5.28		0.50	0.070
100-42-5	Styrene	5.31		0.50	0.050
127-18-4	Tetrachloroethene	5.61		0.50	0.060
108-88-3	Toluene	5.41		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.06		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.93		0.50	0.060
79-01-6	Trichloroethene	5.27		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-229111/4
 Matrix: Water Lab File ID: IM02X03.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 03/02/2022 10:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229111 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.58		0.50	0.10
1330-20-7	Xylenes, Total	15.9		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-Mar-2022 10:45:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051485-004
 Misc. Info.: LCS
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 11:39:08 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: kephartk

Date: 02-Mar-2022 11:22:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.934	1.941	-0.006	99	358872	5.00	4.78	
4 Chloromethane	50	2.135	2.142	-0.007	99	397845	5.00	4.65	
5 Vinyl chloride	62	2.239	2.245	-0.006	98	394769	5.00	4.58	
6 Butadiene	39	2.288	2.294	-0.006	91	410846	5.00	5.23	
7 Bromomethane	94	2.593	2.599	-0.006	90	274724	5.00	4.40	
8 Chloroethane	64	2.696	2.703	-0.007	99	226420	5.00	4.38	
9 Dichlorofluoromethane	67	2.934	2.940	-0.006	97	559489	5.00	4.50	
10 Trichlorofluoromethane	101	2.989	2.989	0.000	94	521711	5.00	4.69	
11 Ethyl ether	59	3.251	3.251	0.000	91	248140	4.97	5.50	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.336	3.343	-0.007	94	386683	5.00	4.86	
13 Acrolein	56	3.428	3.422	0.006	99	242796	37.5	33.9	
14 1,1-Dichloroethene	96	3.562	3.562	0.000	98	296186	5.00	5.17	
15 Acetone	43	3.586	3.587	-0.001	100	552755	62.5	60.7	
16 112TCTFE	101	3.592	3.605	-0.013	88	285276	5.00	4.77	
17 Iodomethane	142	3.763	3.757	0.006	98	588122	5.00	5.13	
18 Ethyl bromide	108	3.794	3.794	0.000	98	253171	4.99	4.85	
19 Carbon disulfide	76	3.861	3.867	-0.006	99	824116	5.00	5.21	
21 Methyl acetate	43	4.001	4.013	-0.012	98	183399	5.00	6.85	
22 3-Chloro-1-propene	41	4.044	4.044	0.000	93	475192	5.00	5.06	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.227	0.024	95	163800	50.0	50.0	M
23 Methylene Chloride	84	4.226	4.233	-0.007	92	330283	5.00	5.28	
25 2-Methyl-2-propanol	59	4.373	4.361	0.012	99	110301	50.0	32.0	
26 Acrylonitrile	53	4.562	4.568	-0.006	99	321587	25.0	26.5	
27 Methyl tert-butyl ether	73	4.635	4.641	-0.006	95	804513	5.00	4.92	
28 trans-1,2-Dichloroethene	96	4.653	4.653	0.000	99	329244	5.00	5.06	
29 Hexane	57	5.074	5.068	0.006	91	456386	5.00	5.02	
31 1,1-Dichloroethane	63	5.306	5.312	-0.006	96	596098	5.00	5.05	
32 Isopropyl ether	45	5.373	5.367	0.006	95	1006487	5.00	5.10	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	90	507121	5.00	5.15	
34 Tert-butyl ethyl ether	59	5.903	5.897	0.006	97	968769	5.00	5.02	
36 2-Butanone (MEK)	43	6.098	6.098	0.000	100	1215743	62.5	76.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	387904	5.00	5.35	
38 2,2-Dichloropropane	77	6.147	6.147	0.000	87	529964	5.00	5.16	
40 Propionitrile	54	6.183	6.177	0.006	98	188463	37.5	44.7	
42 Methacrylonitrile	67	6.391	6.397	-0.006	91	713217	37.5	44.7	
43 Chlorobromomethane	128	6.464	6.458	0.006	92	172495	5.00	5.51	
44 Tetrahydrofuran	71	6.476	6.470	0.006	82	141494	25.0	30.0	
45 Chloroform	83	6.610	6.610	0.000	93	606307	5.00	5.18	
\$ 46 Dibromofluoromethane (Surr)	113	6.823	6.824	-0.001	94	585187	10.0	9.68	
47 1,1,1-Trichloroethane	97	6.842	6.836	0.006	98	543960	5.00	5.00	
48 Cyclohexane	56	6.939	6.946	-0.007	89	536776	5.00	4.98	
51 1,1-Dichloropropene	75	7.049	7.049	0.000	97	485821	5.00	5.30	
50 Carbon tetrachloride	117	7.049	7.049	0.000	79	492064	5.00	5.24	
52 Isobutyl alcohol	41	7.195	7.189	0.006	94	124485	125.0	113.1	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	87	124485	10.0	10.3	
54 Benzene	78	7.305	7.305	0.000	96	1452064	5.00	5.38	
56 1,2-Dichloroethane	62	7.378	7.378	0.000	97	371868	5.00	5.08	
57 Tert-amyl methyl ether	73	7.500	7.500	0.000	99	895320	5.00	5.00	
* 58 Fluorobenzene (IS)	96	7.707	7.708	-0.001	99	2400666	10.0	10.0	
59 n-Heptane	43	7.726	7.720	0.006	92	487225	5.00	5.21	
60 n-Butanol	56	8.073	8.073	0.000	89	290442	250.0	284.3	
61 Trichloroethene	95	8.189	8.189	0.000	97	382441	5.00	5.27	
62 Methylcyclohexane	83	8.494	8.494	0.000	93	604075	5.00	5.01	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	84	371703	5.00	5.61	
64 Methyl methacrylate	69	8.598	8.598	0.000	89	181704	5.00	5.79	
65 1,4-Dioxane	88	8.622	8.604	0.018	30	37710	125.0	122.5	M
66 Dibromomethane	93	8.628	8.622	0.006	92	184116	5.00	5.68	
68 Dichlorobromomethane	83	8.860	8.860	0.000	100	460595	5.00	5.73	
69 2-Nitropropane	41	9.122	9.122	0.000	98	53049	5.00	5.91	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	396420	5.00	6.09	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	559314	5.00	5.54	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.567	0.006	96	3018882	62.5	75.5	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2389954	10.0	9.89	
76 Toluene	92	9.780	9.787	-0.007	99	968955	5.00	5.41	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	91	490438	5.00	5.93	
79 Ethyl methacrylate	69	10.097	10.097	0.000	88	380544	5.00	5.52	
80 1,1,2-Trichloroethane	97	10.244	10.238	0.006	90	281021	5.00	5.88	
81 Tetrachloroethene	166	10.329	10.329	0.000	97	478915	5.00	5.61	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	88	474561	5.00	5.84	
83 2-Hexanone	43	10.451	10.451	0.000	97	2251028	62.5	80.3	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	90	356690	5.00	6.12	
86 Ethylene Dibromide	107	10.731	10.725	0.006	99	269057	5.00	5.83	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.152	0.006	84	1870000	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	95	551106	5.00	5.26	
90 Chlorobenzene	112	11.182	11.183	-0.001	96	1104417	5.00	5.56	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	96	385963	5.00	5.57	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1843362	5.00	5.34	
93 m-Xylene & p-Xylene	106	11.384	11.378	0.006	100	1472541	10.0	10.8	
94 o-Xylene	106	11.707	11.707	0.000	96	690947	5.00	5.13	
95 Styrene	104	11.725	11.725	0.000	94	1153447	5.00	5.31	
96 Bromoform	173	11.883	11.884	-0.001	98	226121	5.00	6.48	
97 Isopropylbenzene	105	12.005	12.006	-0.001	95	1843035	5.00	5.19	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	96	869071	10.0	9.41	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	94	347110	5.00	6.20	
102 Bromobenzene	156	12.268	12.268	0.000	93	471055	5.00	6.14	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	90	287905	25.0	19.9	
104 1,2,3-Trichloropropane	110	12.298	12.292	0.006	82	93504	5.00	6.07	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	2176483	5.00	5.84	
106 2-Chlorotoluene	126	12.414	12.408	0.006	98	456381	5.00	5.97	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	95	1519851	5.00	5.59	
108 4-Chlorotoluene	126	12.505	12.499	0.006	96	465515	5.00	5.96	
109 tert-Butylbenzene	134	12.706	12.707	-0.001	92	351699	5.00	5.89	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	97	1522358	5.00	5.46	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	1999898	5.00	5.82	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	869657	5.00	5.62	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1727552	5.00	5.68	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	93	1013134	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	884622	5.00	5.59	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	681584	5.00	5.52	
118 Benzyl chloride	126	13.121	13.121	0.000	98	145932	5.00	6.37	
119 n-Butylbenzene	92	13.267	13.268	-0.001	97	804677	5.00	5.66	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	796301	5.00	5.63	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	91	50083	5.00	6.08	
123 1,3,5-Trichlorobenzene	180	13.968	13.969	-0.001	97	627946	5.00	5.54	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	531712	5.00	5.56	
125 Hexachlorobutadiene	225	14.474	14.475	-0.001	95	223335	5.00	5.38	
126 Naphthalene	128	14.572	14.572	0.000	97	927659	5.00	5.09	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	456278	5.00	5.52	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	

QC Flag Legend

Processing Flags

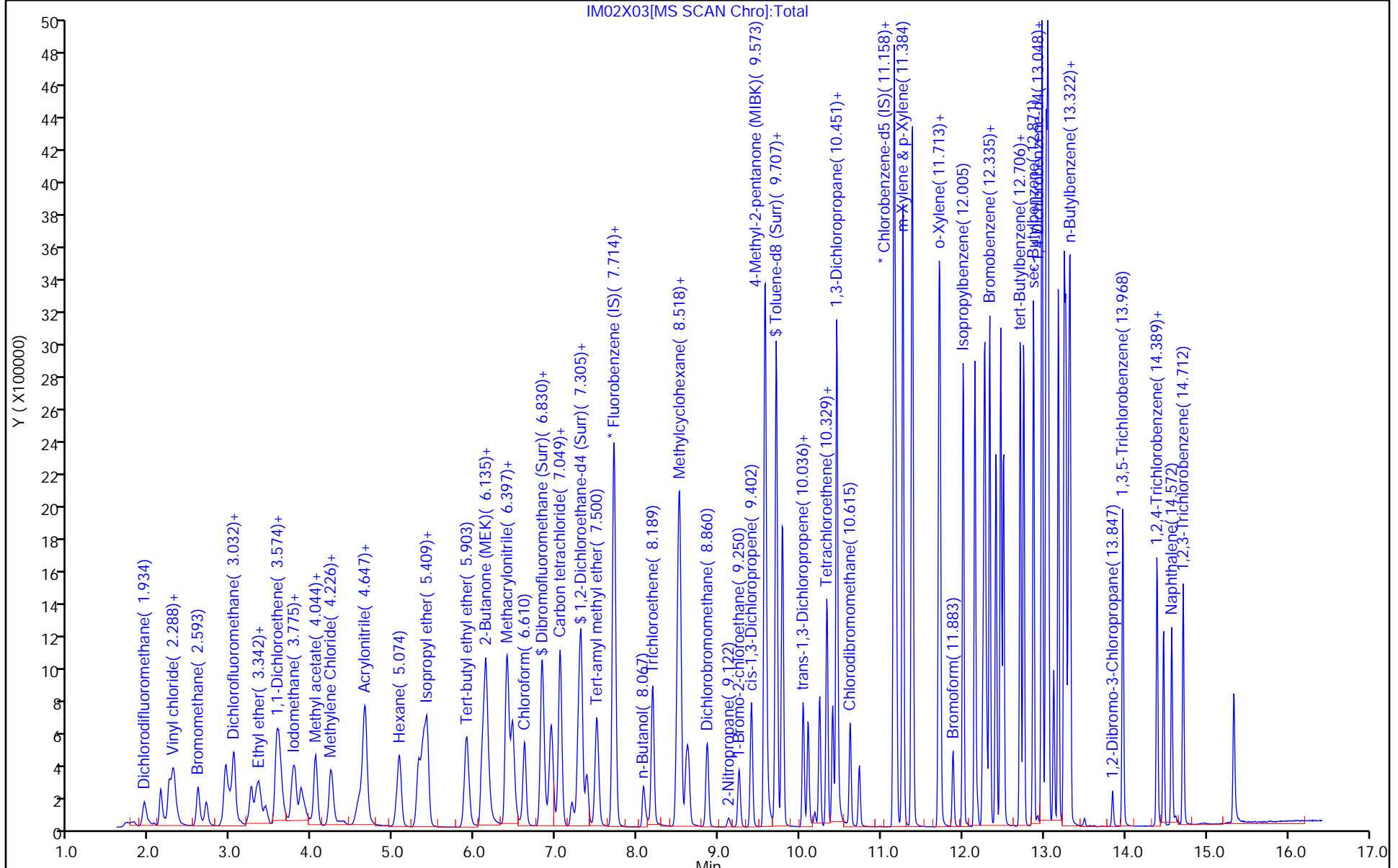
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00042	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00046	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00068	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-Mar-2022 10:45:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051485-004
 Misc. Info.: LCS
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 11:39:08 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: kephartk

Date: 02-Mar-2022 11:22:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.68	96.76
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	102.90
\$ 75 Toluene-d8 (Surr)	10.0	9.89	98.90
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.41	94.10

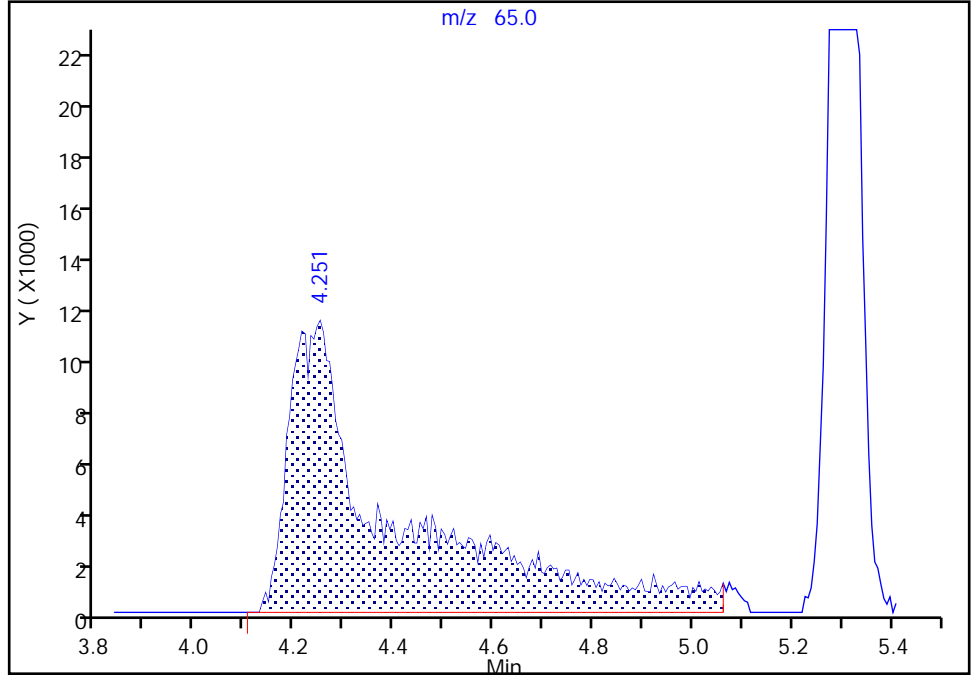
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X03.D
Injection Date: 02-Mar-2022 10:45:30 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

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

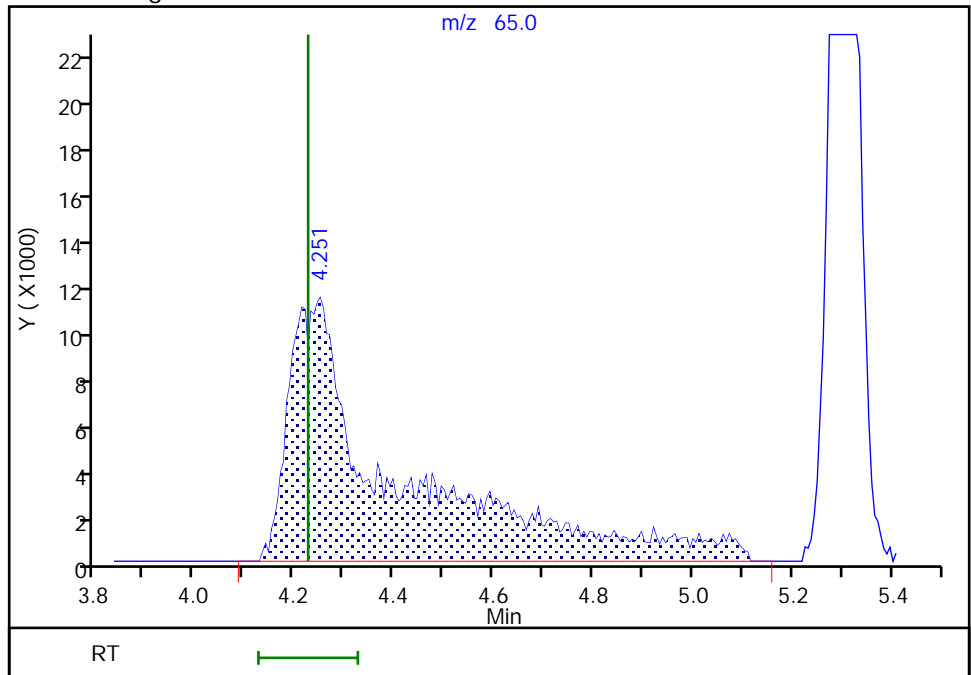
RT: 4.25
Area: 161634
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.25
Area: 163800
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-Mar-2022 11:12:25
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-228139/5
 Matrix: Water Lab File ID: IF28X04.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 11:44
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.53		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.13		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.25		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.99		0.50	0.060
75-34-3	1,1-Dichloroethane	5.33		0.50	0.070
75-35-4	1,1-Dichloroethene	5.50		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.80		0.50	0.060
107-06-2	1,2-Dichloroethane	5.23		0.50	0.050
78-87-5	1,2-Dichloropropane	5.92		0.50	0.060
78-93-3	2-Butanone (MEK)	80.7		5.0	0.60
591-78-6	2-Hexanone	84.1		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	80.3		5.0	0.70
67-64-1	Acetone	65.2		5.0	0.90
71-43-2	Benzene	5.58		0.50	0.050
74-97-5	Bromochloromethane	5.44		0.50	0.050
75-27-4	Bromodichloromethane	5.84		0.50	0.050
75-25-2	Bromoform	6.25		1.0	0.30
74-83-9	Bromomethane	4.55		0.50	0.070
75-15-0	Carbon disulfide	5.64		1.0	0.060
56-23-5	Carbon tetrachloride	5.22		0.50	0.070
108-90-7	Chlorobenzene	5.57		0.50	0.060
75-00-3	Chloroethane	4.63		0.50	0.070
67-66-3	Chloroform	5.30		0.50	0.090
74-87-3	Chloromethane	5.13		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.37		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.73		0.50	0.050
124-48-1	Dibromochloromethane	6.08		0.50	0.070
100-41-4	Ethylbenzene	5.53		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.98		0.50	0.050
75-09-2	Methylene Chloride	5.35		0.50	0.070
100-42-5	Styrene	5.40		0.50	0.050
127-18-4	Tetrachloroethene	5.62		0.50	0.060
108-88-3	Toluene	5.52		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.21		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.05		0.50	0.060
79-01-6	Trichloroethene	5.38		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-228139/5
 Matrix: Water Lab File ID: IF28X04.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 11:44
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.82		0.50	0.10
1330-20-7	Xylenes, Total	16.3		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X04.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 28-Feb-2022 11:44:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-005
 Misc. Info.: LCSD
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 12:11:32 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 28-Feb-2022 12:10:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.940	1.947	-0.007	99	358501	5.00	5.12	
4 Chloromethane	50	2.148	2.154	-0.006	99	409544	5.00	5.13	
5 Vinyl chloride	62	2.245	2.251	-0.006	98	387668	5.00	4.82	
6 Butadiene	39	2.300	2.300	0.000	91	401609	5.00	5.48	
7 Bromomethane	94	2.605	2.611	-0.006	90	264929	5.00	4.55	
8 Chloroethane	64	2.696	2.703	-0.007	100	223326	5.00	4.63	
9 Dichlorofluoromethane	67	2.940	2.946	-0.006	97	540142	5.00	4.66	
10 Trichlorofluoromethane	101	3.001	3.001	0.000	99	486037	5.00	4.69	
11 Ethyl ether	59	3.251	3.251	0.000	91	239222	4.97	5.68	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.343	3.343	0.000	92	376478	5.00	5.07	
13 Acrolein	56	3.422	3.428	-0.006	98	230132	37.5	35.8	
14 1,1-Dichloroethene	96	3.562	3.568	-0.006	98	294093	5.00	5.50	
15 Acetone	43	3.586	3.593	-0.007	100	533212	62.5	65.2	
16 112TCTFE	101	3.611	3.611	0.000	91	275009	5.00	4.93	
17 Iodomethane	142	3.763	3.769	-0.006	98	545739	5.00	5.11	
18 Ethyl bromide	108	3.788	3.794	-0.006	97	245035	4.99	5.03	
19 Carbon disulfide	76	3.867	3.873	-0.006	99	831584	5.00	5.64	
21 Methyl acetate	43	4.013	4.007	0.006	91	168590	5.00	7.00	M
22 3-Chloro-1-propene	41	4.044	4.044	0.000	93	489052	5.00	5.58	
23 Methylene Chloride	84	4.233	4.239	-0.006	91	311752	5.00	5.35	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.263	-0.024	95	147281	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.367	4.367	0.000	93	82631	50.0	26.6	M
26 Acrylonitrile	53	4.568	4.574	-0.006	99	327865	25.0	30.1	
27 Methyl tert-butyl ether	73	4.641	4.641	0.000	95	759257	5.00	4.98	
28 trans-1,2-Dichloroethene	96	4.653	4.659	-0.006	99	316205	5.00	5.21	
29 Hexane	57	5.074	5.074	0.000	92	422495	5.00	4.99	
31 1,1-Dichloroethane	63	5.306	5.312	-0.006	96	586625	5.00	5.33	
32 Isopropyl ether	45	5.367	5.367	0.000	94	1002572	5.00	5.45	
33 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	90	493365	5.00	5.37	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	98	938793	5.00	5.22	
36 2-Butanone (MEK)	43	6.098	6.092	0.006	100	1153226	62.5	80.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	363192	5.00	5.37	
38 2,2-Dichloropropane	77	6.153	6.147	0.006	87	512531	5.00	5.35	
40 Propionitrile	54	6.177	6.177	0.000	99	192468	37.5	50.7	
42 Methacrylonitrile	67	6.397	6.397	0.000	91	684187	37.5	47.7	
43 Chlorobromomethane	128	6.458	6.464	-0.006	93	158681	5.00	5.44	
44 Tetrahydrofuran	71	6.470	6.470	0.000	79	125469	25.0	29.6	
45 Chloroform	83	6.610	6.610	0.000	93	577962	5.00	5.30	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	537061	10.0	9.52	
47 1,1,1-Trichloroethane	97	6.842	6.836	0.006	98	520086	5.00	5.13	
48 Cyclohexane	56	6.946	6.940	0.006	89	512293	5.00	5.10	
51 1,1-Dichloropropene	75	7.049	7.049	0.000	96	469173	5.00	5.49	
50 Carbon tetrachloride	117	7.055	7.049	0.006	96	456974	5.00	5.22	
52 Isobutyl alcohol	41	7.202	7.196	0.006	95	119346	125.0	120.6	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	86	111726	10.0	9.90	
54 Benzene	78	7.311	7.305	0.006	97	1403815	5.00	5.58	
56 1,2-Dichloroethane	62	7.378	7.378	0.000	97	356463	5.00	5.23	
57 Tert-amyl methyl ether	73	7.500	7.500	0.000	99	843821	5.00	5.05	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2238896	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	92	449091	5.00	5.15	
60 n-Butanol	56	8.073	8.073	0.000	88	245341	250.0	267.1	
61 Trichloroethene	95	8.189	8.189	0.000	97	364193	5.00	5.38	
62 Methylcyclohexane	83	8.500	8.500	0.000	91	548456	5.00	4.87	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	97	366134	5.00	5.92	
64 Methyl methacrylate	69	8.598	8.598	0.000	91	173058	5.00	6.13	
65 1,4-Dioxane	88	8.610	8.610	0.000	32	28801	125.0	106.7	
66 Dibromomethane	93	8.628	8.628	0.000	94	171105	5.00	5.66	
68 Dichlorobromomethane	83	8.860	8.860	0.000	100	437561	5.00	5.84	
69 2-Nitropropane	41	9.128	9.122	0.006	98	44369	5.00	5.50	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	377298	5.00	6.22	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	96	539303	5.00	5.73	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	96	2888488	62.5	80.3	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2244538	10.0	10.1	
76 Toluene	92	9.786	9.787	0.000	98	912271	5.00	5.52	
78 trans-1,3-Dichloropropene	75	10.043	10.036	0.007	92	461062	5.00	6.05	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	359472	5.00	5.65	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	90	264042	5.00	5.99	
81 Tetrachloroethene	166	10.335	10.329	0.006	98	442222	5.00	5.62	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	447626	5.00	5.97	
83 2-Hexanone	43	10.451	10.451	0.000	96	2117947	62.5	84.1	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	326374	5.00	6.08	
86 Ethylene Dibromide	107	10.725	10.731	-0.006	98	246704	5.00	5.80	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1723922	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	95	513813	5.00	5.32	
90 Chlorobenzene	112	11.183	11.183	0.000	95	1019210	5.00	5.57	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	94	353332	5.00	5.53	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1759398	5.00	5.53	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1389363	10.0	11.1	
94 o-Xylene	106	11.707	11.707	0.000	96	643888	5.00	5.19	
95 Styrene	104	11.725	11.725	0.000	95	1082061	5.00	5.40	
96 Bromoform	173	11.884	11.884	0.000	98	201248	5.00	6.25	
97 Isopropylbenzene	105	12.006	12.006	0.000	96	1727262	5.00	5.27	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	805045	10.0	9.45	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	319193	5.00	6.25	
102 Bromobenzene	156	12.268	12.268	0.000	95	428139	5.00	6.12	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	90	293817	25.0	22.6	
104 1,2,3-Trichloropropane	110	12.298	12.292	0.006	83	87098	5.00	6.20	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	2042627	5.00	6.01	
106 2-Chlorotoluene	126	12.408	12.408	0.000	97	409922	5.00	5.88	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1414752	5.00	5.70	
108 4-Chlorotoluene	126	12.505	12.505	0.000	96	425424	5.00	5.97	
109 tert-Butylbenzene	134	12.707	12.707	0.000	93	321806	5.00	5.91	
110 Pentachloroethane	167	12.743	12.743	0.000	93	261050	5.00	5.94	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	96	1435430	5.00	5.64	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	1874799	5.00	5.98	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	788778	5.00	5.59	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1593667	5.00	5.74	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	93	924051	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	810809	5.00	5.62	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	629730	5.00	5.60	
118 Benzyl chloride	126	13.121	13.121	0.000	98	128606	5.00	6.15	
119 n-Butylbenzene	92	13.268	13.268	0.000	97	743116	5.00	5.73	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	725187	5.00	5.62	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	89	43541	5.00	5.79	
123 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	98	552583	5.00	5.35	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	93	443837	5.00	5.09	
125 Hexachlorobutadiene	225	14.475	14.475	0.000	96	187032	5.00	4.94	
126 Naphthalene	128	14.572	14.572	0.000	97	802718	5.00	4.83	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	376506	5.00	5.00	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

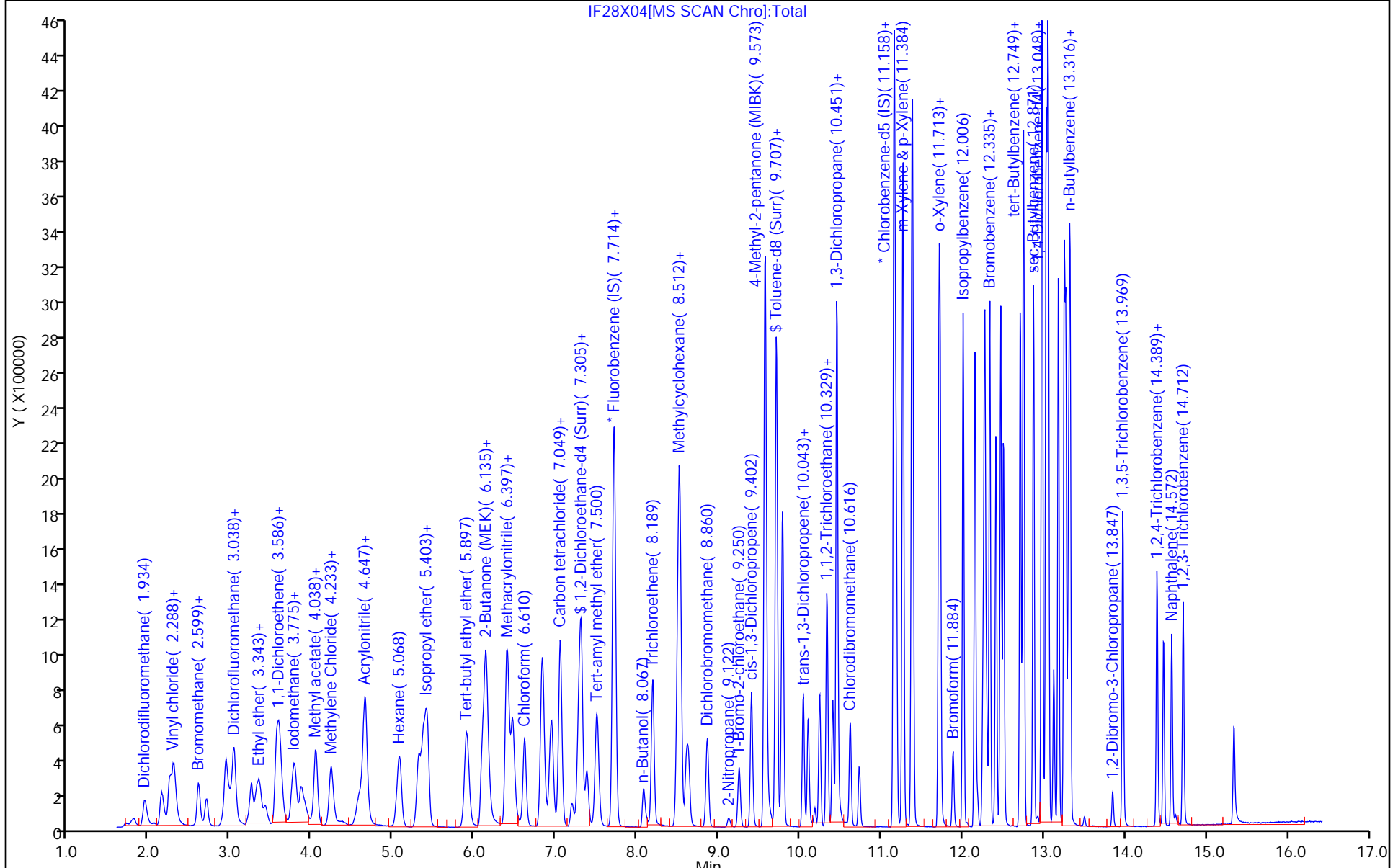
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00042	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00046	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00068	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00012	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X04.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 28-Feb-2022 11:44:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-005
 Misc. Info.: LCSD
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 12:11:32 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 28-Feb-2022 12:10:05

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.52	95.22
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	9.90	99.02
\$ 75 Toluene-d8 (Surr)	10.0	10.1	100.75
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.45	94.55

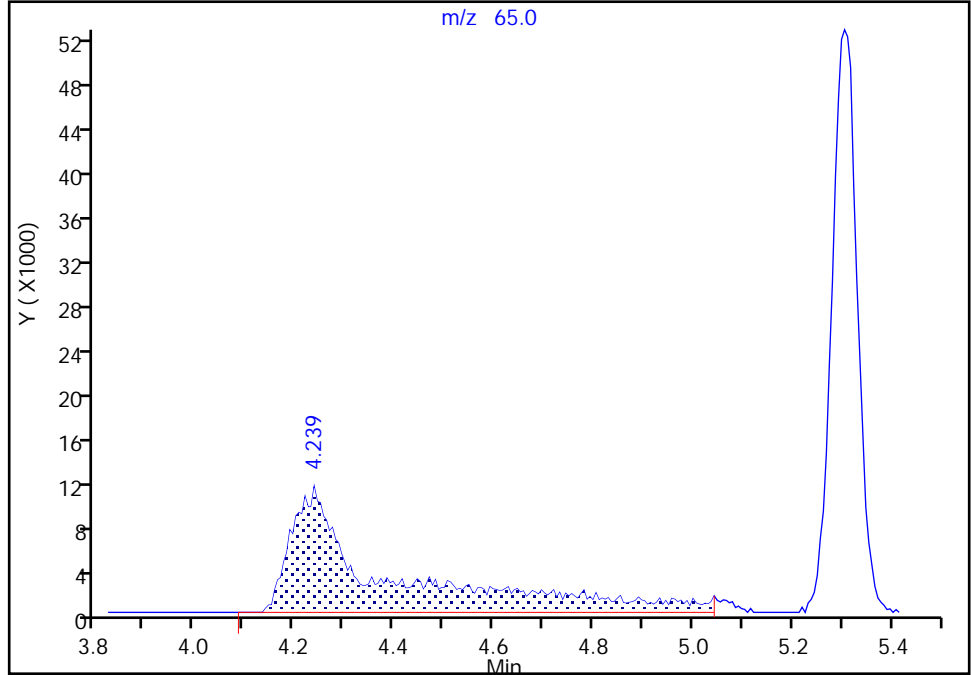
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X04.D
Injection Date: 28-Feb-2022 11:44:30 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

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

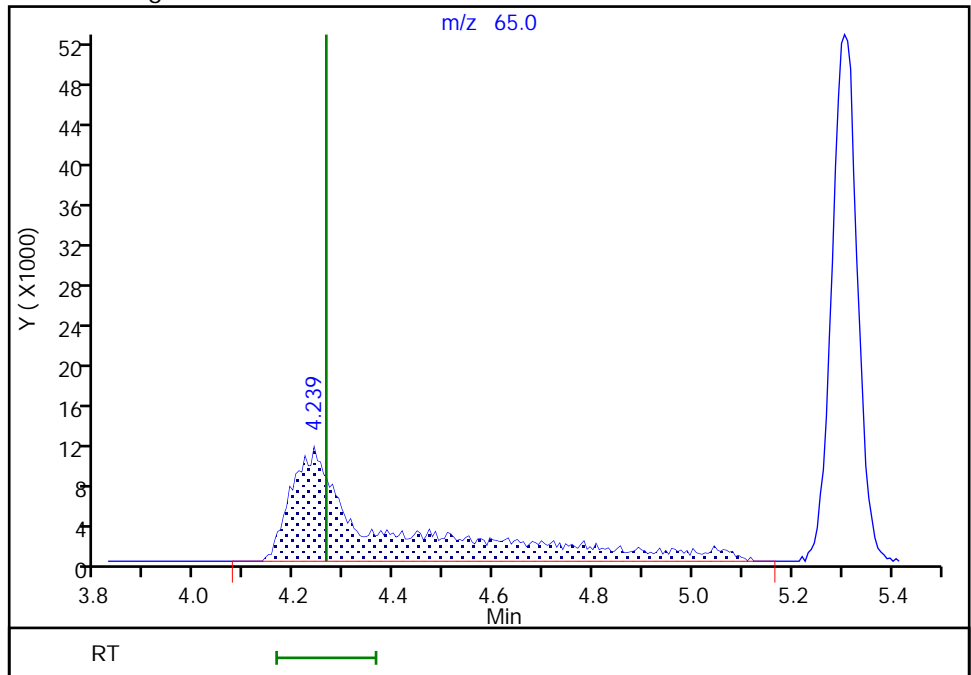
RT: 4.24
Area: 144349
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.24
Area: 147281
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 28-Feb-2022 12:09:05
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 622 of 659

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-229111/5
 Matrix: Water Lab File ID: IM02X04.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 03/02/2022 11:06
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229111 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.54		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.97		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.21		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.83		0.50	0.060
75-34-3	1,1-Dichloroethane	5.08		0.50	0.070
75-35-4	1,1-Dichloroethene	5.21		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.80		0.50	0.060
107-06-2	1,2-Dichloroethane	5.18		0.50	0.050
78-87-5	1,2-Dichloropropane	5.67		0.50	0.060
78-93-3	2-Butanone (MEK)	74.4		5.0	0.60
591-78-6	2-Hexanone	77.6		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	72.9		5.0	0.70
67-64-1	Acetone	58.4		5.0	0.90
71-43-2	Benzene	5.36		0.50	0.050
74-97-5	Bromochloromethane	5.77		0.50	0.050
75-27-4	Bromodichloromethane	5.71		0.50	0.050
75-25-2	Bromoform	6.33		1.0	0.30
74-83-9	Bromomethane	4.31		0.50	0.070
75-15-0	Carbon disulfide	5.09		1.0	0.060
56-23-5	Carbon tetrachloride	5.13		0.50	0.070
108-90-7	Chlorobenzene	5.42		0.50	0.060
75-00-3	Chloroethane	4.24		0.50	0.070
67-66-3	Chloroform	5.17		0.50	0.090
74-87-3	Chloromethane	4.50		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.23		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.62		0.50	0.050
124-48-1	Dibromochloromethane	6.08		0.50	0.070
100-41-4	Ethylbenzene	5.26		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.89		0.50	0.050
75-09-2	Methylene Chloride	5.20		0.50	0.070
100-42-5	Styrene	5.23		0.50	0.050
127-18-4	Tetrachloroethene	5.48		0.50	0.060
108-88-3	Toluene	5.22		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.03		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.88		0.50	0.060
79-01-6	Trichloroethene	5.23		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-229111/5
 Matrix: Water Lab File ID: IM02X04.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 03/02/2022 11:06
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229111 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.41		0.50	0.10
1330-20-7	Xylenes, Total	15.7		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	98		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X04.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 02-Mar-2022 11:06:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051485-005
 Misc. Info.: LCSD
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 11:39:08 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: kephartk

Date: 02-Mar-2022 11:37:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.940	1.941	0.000	99	369781	5.00	4.81	
4 Chloromethane	50	2.142	2.142	0.000	99	394413	5.00	4.50	
5 Vinyl chloride	62	2.245	2.245	0.000	98	389769	5.00	4.41	
6 Butadiene	39	2.294	2.294	0.000	90	409943	5.00	5.09	
7 Bromomethane	94	2.599	2.599	0.000	91	275909	5.00	4.31	
8 Chloroethane	64	2.709	2.703	0.006	100	224556	5.00	4.24	
9 Dichlorofluoromethane	67	2.934	2.940	-0.006	97	556641	5.00	4.37	
10 Trichlorofluoromethane	101	2.989	2.989	0.000	96	522680	5.00	4.59	
11 Ethyl ether	59	3.251	3.251	0.000	91	253518	4.97	5.48	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.337	3.343	-0.007	91	390055	5.00	4.78	
13 Acrolein	56	3.428	3.422	0.006	99	249030	37.5	32.8	
14 1,1-Dichloroethene	96	3.568	3.562	0.006	97	305738	5.00	5.21	
15 Acetone	43	3.593	3.587	0.006	100	564595	62.5	58.4	
16 112TCTFE	101	3.611	3.605	0.006	86	304554	5.00	4.97	
17 Iodomethane	142	3.763	3.757	0.006	98	586528	5.00	5.00	
18 Ethyl bromide	108	3.794	3.794	0.000	98	264814	4.99	4.95	
19 Carbon disulfide	76	3.873	3.867	0.006	99	823826	5.00	5.09	
21 Methyl acetate	43	4.019	4.013	0.006	96	197612	5.00	6.95	
22 3-Chloro-1-propene	41	4.044	4.044	0.000	94	497304	5.00	5.17	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.227	0.018	96	173923	50.0	50.0	M
23 Methylene Chloride	84	4.239	4.233	0.006	90	333319	5.00	5.20	
25 2-Methyl-2-propanol	59	4.391	4.361	0.030	99	129669	50.0	35.4	
26 Acrylonitrile	53	4.580	4.568	0.012	99	333003	25.0	25.9	
27 Methyl tert-butyl ether	73	4.635	4.641	-0.006	94	817832	5.00	4.89	
28 trans-1,2-Dichloroethene	96	4.653	4.653	0.000	99	335198	5.00	5.03	
29 Hexane	57	5.074	5.068	0.006	92	460482	5.00	4.95	
31 1,1-Dichloroethane	63	5.306	5.312	-0.006	96	613968	5.00	5.08	
32 Isopropyl ether	45	5.373	5.367	0.006	95	1022983	5.00	5.06	
33 2-Chloro-1,3-butadiene	53	5.415	5.409	0.006	90	511421	5.00	5.07	
34 Tert-butyl ethyl ether	59	5.903	5.897	0.006	97	993390	5.00	5.03	
36 2-Butanone (MEK)	43	6.098	6.098	0.000	99	1254417	62.5	74.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	388103	5.00	5.23	
38 2,2-Dichloropropane	77	6.153	6.147	0.006	86	535677	5.00	5.09	
40 Propionitrile	54	6.190	6.177	0.013	98	205980	37.5	46.0	
42 Methacrylonitrile	67	6.397	6.397	0.000	91	728893	37.5	43.0	
43 Chlorobromomethane	128	6.464	6.458	0.006	90	184872	5.00	5.77	
44 Tetrahydrofuran	71	6.476	6.470	0.006	84	138066	25.0	27.6	
45 Chloroform	83	6.616	6.610	0.006	93	618867	5.00	5.17	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	589772	10.0	9.52	
47 1,1,1-Trichloroethane	97	6.842	6.836	0.006	98	552738	5.00	4.97	
48 Cyclohexane	56	6.946	6.946	0.000	89	538249	5.00	4.88	
51 1,1-Dichloropropene	75	7.049	7.049	0.000	96	496529	5.00	5.29	
50 Carbon tetrachloride	117	7.049	7.049	0.000	80	493098	5.00	5.13	
52 Isobutyl alcohol	41	7.196	7.189	0.007	93	173868	125.0	148.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	84	127476	10.0	10.3	
54 Benzene	78	7.305	7.305	0.000	97	1480621	5.00	5.36	
56 1,2-Dichloroethane	62	7.378	7.378	0.000	97	387689	5.00	5.18	
57 Tert-amyl methyl ether	73	7.500	7.500	0.000	99	905352	5.00	4.94	
* 58 Fluorobenzene (IS)	96	7.708	7.708	0.000	99	2458448	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	92	497862	5.00	5.20	
60 n-Butanol	56	8.079	8.073	0.006	89	297886	250.0	274.6	
61 Trichloroethene	95	8.189	8.189	0.000	96	388792	5.00	5.23	
62 Methylcyclohexane	83	8.500	8.494	0.006	91	615446	5.00	4.98	
63 1,2-Dichloropropane	63	8.518	8.512	0.006	96	385011	5.00	5.67	
64 Methyl methacrylate	69	8.604	8.598	0.006	87	183481	5.00	5.51	
65 1,4-Dioxane	88	8.610	8.604	0.006	30	32571	125.0	103.0	M
66 Dibromomethane	93	8.628	8.622	0.006	93	186651	5.00	5.63	
68 Dichlorobromomethane	83	8.860	8.860	0.000	99	469706	5.00	5.71	
69 2-Nitropropane	41	9.122	9.122	0.000	98	51039	5.00	5.36	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	404496	5.00	6.07	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	580967	5.00	5.62	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.567	0.006	96	3096552	62.5	72.9	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2454130	10.0	9.76	
76 Toluene	92	9.786	9.787	-0.001	98	973262	5.00	5.22	
78 trans-1,3-Dichloropropene	75	10.043	10.036	0.006	91	505458	5.00	5.88	
79 Ethyl methacrylate	69	10.103	10.097	0.006	88	391275	5.00	5.45	
80 1,1,2-Trichloroethane	97	10.244	10.238	0.006	89	290167	5.00	5.83	
81 Tetrachloroethene	166	10.335	10.329	0.006	98	486646	5.00	5.48	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	88	488326	5.00	5.77	
83 2-Hexanone	43	10.451	10.451	0.000	96	2308896	62.5	77.6	
85 Chlorodibromomethane	129	10.616	10.616	0.000	89	368546	5.00	6.08	
86 Ethylene Dibromide	107	10.731	10.725	0.006	98	278274	5.00	5.80	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.152	0.006	84	1945126	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	94	561997	5.00	5.15	
90 Chlorobenzene	112	11.183	11.183	0.000	96	1118968	5.00	5.42	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	399240	5.00	5.54	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1887291	5.00	5.26	
93 m-Xylene & p-Xylene	106	11.384	11.378	0.006	100	1513406	10.0	10.7	
94 o-Xylene	106	11.707	11.707	0.000	96	701559	5.00	5.01	
95 Styrene	104	11.725	11.725	0.000	95	1183003	5.00	5.23	
96 Bromoform	173	11.884	11.884	0.000	98	229928	5.00	6.33	
97 Isopropylbenzene	105	12.006	12.006	0.000	95	1881366	5.00	5.09	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	96	887738	10.0	9.24	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	355093	5.00	6.21	
102 Bromobenzene	156	12.268	12.268	0.000	93	483262	5.00	6.17	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	90	303610	25.0	19.8	
104 1,2,3-Trichloropropane	110	12.298	12.292	0.006	83	96664	5.00	6.15	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	2236443	5.00	5.88	
106 2-Chlorotoluene	126	12.414	12.408	0.006	98	462528	5.00	5.92	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1539255	5.00	5.54	
108 4-Chlorotoluene	126	12.505	12.499	0.006	96	476251	5.00	5.97	
109 tert-Butylbenzene	134	12.707	12.707	0.000	92	346811	5.00	5.69	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	97	1563119	5.00	5.49	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	2014716	5.00	5.74	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	877426	5.00	5.55	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1752883	5.00	5.64	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	93	1034586	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	900554	5.00	5.57	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	691415	5.00	5.49	
118 Benzyl chloride	126	13.121	13.121	0.000	98	144716	5.00	6.18	
119 n-Butylbenzene	92	13.267	13.268	-0.001	97	795366	5.00	5.48	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	799143	5.00	5.53	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	89	51852	5.00	6.16	
123 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	97	633413	5.00	5.48	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	510402	5.00	5.23	
125 Hexachlorobutadiene	225	14.475	14.475	0.000	95	218753	5.00	5.16	
126 Naphthalene	128	14.572	14.572	0.000	97	925921	5.00	4.98	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	440905	5.00	5.23	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	

QC Flag Legend

Processing Flags

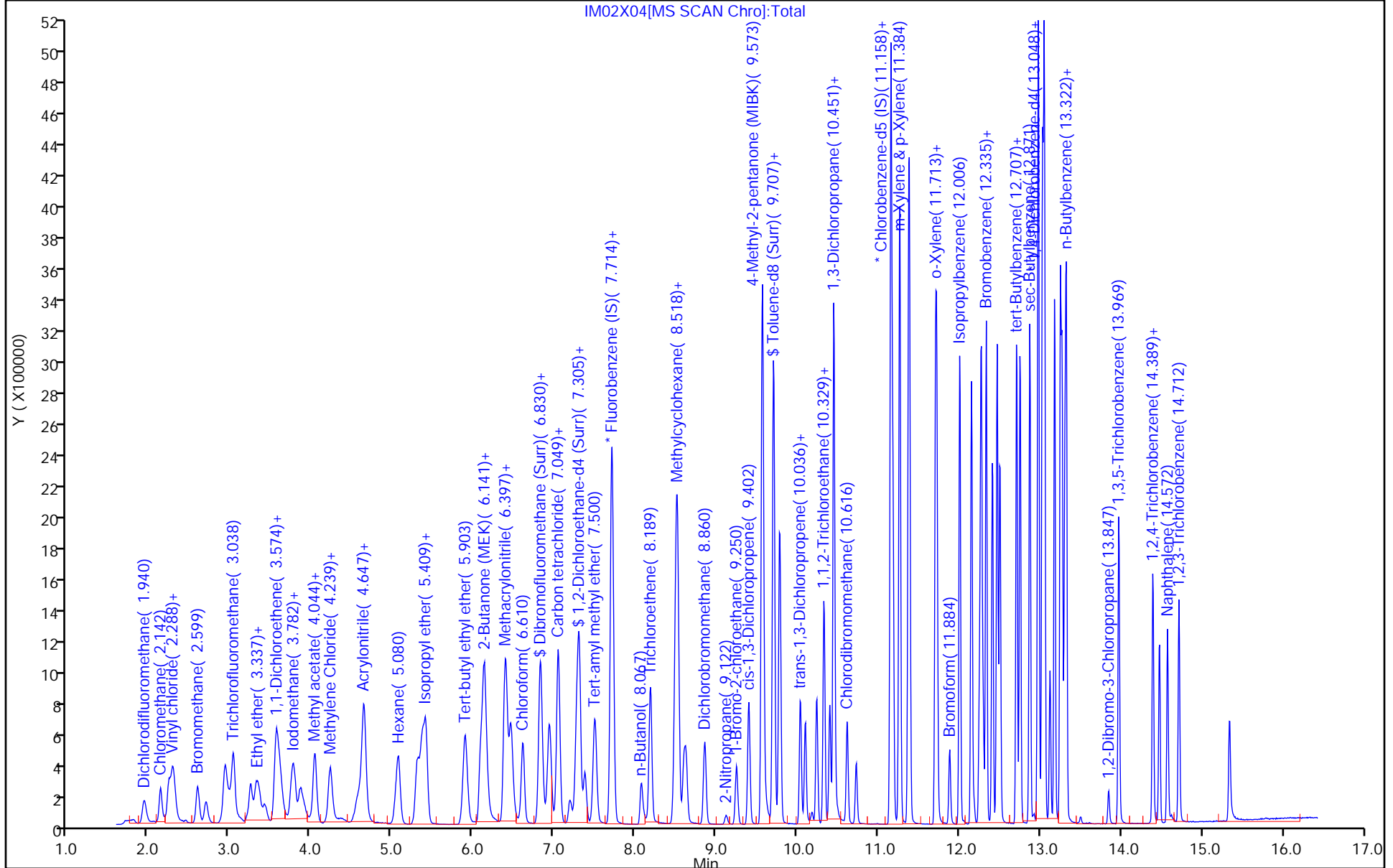
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00042	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00046	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00068	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X04.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 02-Mar-2022 11:06:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051485-005
 Misc. Info.: LCSD
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-Mar-2022 11:39:08 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1602

First Level Reviewer: kephartk Date: 02-Mar-2022 11:37:02

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.52	95.23
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	102.89
\$ 75 Toluene-d8 (Surr)	10.0	9.76	97.63
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.24	92.40

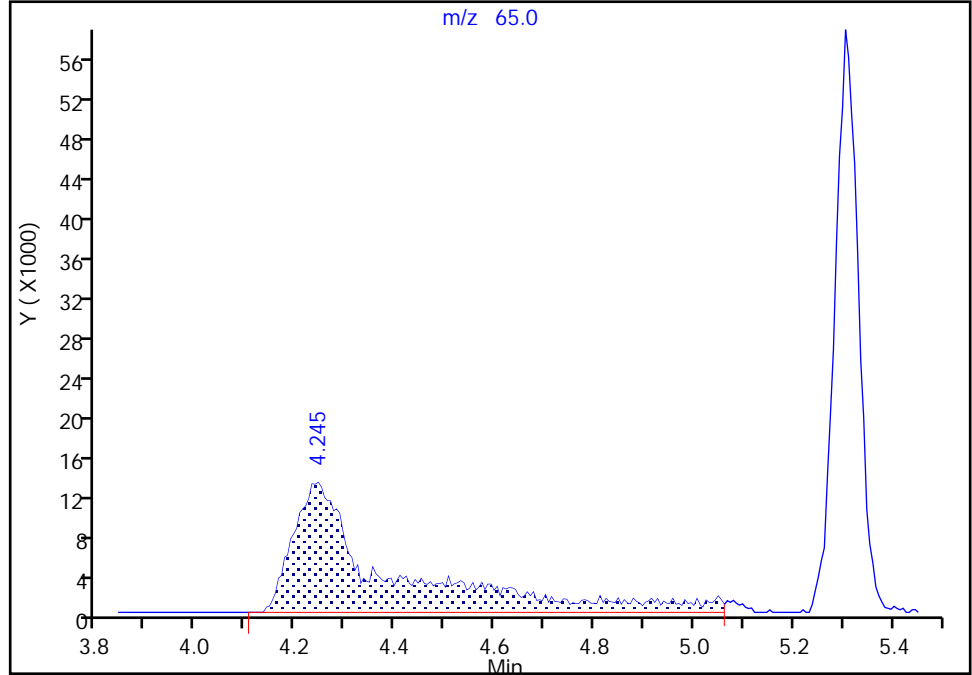
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220302-51485.b\IM02X04.D
Injection Date: 02-Mar-2022 11:06:30 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

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

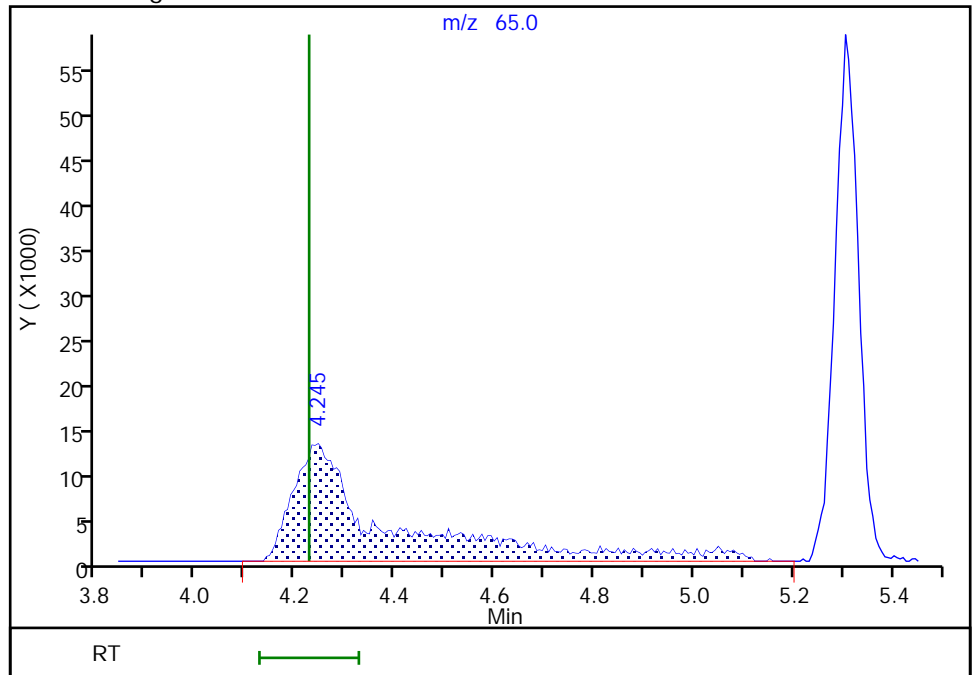
RT: 4.24
Area: 171181
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.24
Area: 173923
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-Mar-2022 11:38:11
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-73936-6 MS
 Matrix: Water Lab File ID: IF28X15.D
 Analysis Method: 8260D Date Collected: 02/22/2022 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 15:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.71		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.81		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.54		0.50	0.070
79-00-5	1,1,2-Trichloroethane	6.16		0.50	0.060
75-34-3	1,1-Dichloroethane	5.77		0.50	0.070
75-35-4	1,1-Dichloroethene	6.24		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.96		0.50	0.060
107-06-2	1,2-Dichloroethane	5.48		0.50	0.050
78-87-5	1,2-Dichloropropane	6.26		0.50	0.060
78-93-3	2-Butanone (MEK)	77.1		5.0	0.60
591-78-6	2-Hexanone	81.3		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	77.3		5.0	0.70
67-64-1	Acetone	63.0		5.0	0.90
71-43-2	Benzene	5.88		0.50	0.050
74-97-5	Bromochloromethane	5.77		0.50	0.050
75-27-4	Bromodichloromethane	6.08		0.50	0.050
75-25-2	Bromoform	6.37		1.0	0.30
74-83-9	Bromomethane	4.86		0.50	0.070
75-15-0	Carbon disulfide	6.13		1.0	0.060
56-23-5	Carbon tetrachloride	5.82		0.50	0.070
108-90-7	Chlorobenzene	5.87		0.50	0.060
75-00-3	Chloroethane	4.93		0.50	0.070
67-66-3	Chloroform	5.80		0.50	0.090
74-87-3	Chloromethane	5.48		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	7.72		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.95		0.50	0.050
124-48-1	Dibromochloromethane	6.28		0.50	0.070
100-41-4	Ethylbenzene	5.75		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.15		0.50	0.050
75-09-2	Methylene Chloride	5.65		0.50	0.070
100-42-5	Styrene	5.58		0.50	0.050
127-18-4	Tetrachloroethene	12.3		0.50	0.060
108-88-3	Toluene	5.84		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.62		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.13		0.50	0.060
79-01-6	Trichloroethene	7.42		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-73936-6 MS
 Matrix: Water Lab File ID: IF28X15.D
 Analysis Method: 8260D Date Collected: 02/22/2022 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 15:38
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	5.30		0.50	0.10
1330-20-7	Xylenes, Total	17.0		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X15.D
 Lims ID: 410-73936-A-6 MS
 Client ID: HD-COD-SW-15-0/1-0 MS
 Sample Type: MS
 Inject. Date: 28-Feb-2022 15:38:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-016
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:26:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.947	0.006	99	447209	5.00	6.48	
4 Chloromethane	50	2.154	2.154	0.000	99	430856	5.00	5.48	
5 Vinyl chloride	62	2.251	2.251	0.000	98	420082	5.00	5.30	
6 Butadiene	39	2.306	2.300	0.006	93	447676	5.00	6.20	
7 Bromomethane	94	2.611	2.611	0.000	90	279149	5.00	4.86	
8 Chloroethane	64	2.708	2.703	0.005	99	234506	5.00	4.93	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	573043	5.00	5.01	
10 Trichlorofluoromethane	101	3.001	3.001	0.000	96	573511	5.00	5.61	
11 Ethyl ether	59	3.263	3.251	0.012	91	235420	4.98	5.67	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.349	3.343	0.006	92	419097	5.00	5.73	
13 Acrolein	56	3.440	3.428	0.012	99	227178	37.5	33.9	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	328760	5.00	6.24	
15 Acetone	43	3.605	3.593	0.012	99	536177	62.6	63.0	
16 112TCTFE	101	3.611	3.611	0.000	89	336106	5.00	6.11	
17 Iodomethane	142	3.775	3.769	0.006	98	570226	5.00	5.42	
18 Ethyl bromide	108	3.800	3.794	0.006	97	256543	5.00	5.34	
19 Carbon disulfide	76	3.873	3.873	0.000	99	890575	5.00	6.13	
21 Methyl acetate	43	4.031	4.007	0.024	98	176972	5.00	7.07	
22 3-Chloro-1-propene	41	4.050	4.044	0.006	93	510695	5.00	5.91	
23 Methylene Chloride	84	4.245	4.239	0.006	92	324907	5.00	5.65	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	94	153166	50.0	50.0	
25 2-Methyl-2-propanol	59	4.373	4.367	0.006	99	119802	50.0	37.1	
26 Acrylonitrile	53	4.574	4.574	0.000	99	326138	25.0	28.8	
27 Methyl tert-butyl ether	73	4.647	4.641	0.006	95	773932	5.00	5.15	
28 trans-1,2-Dichloroethene	96	4.665	4.659	0.006	99	336417	5.00	5.62	
29 Hexane	57	5.080	5.074	0.006	93	530095	5.00	6.35	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	626708	5.00	5.77	
32 Isopropyl ether	45	5.379	5.367	0.012	94	1001006	5.00	5.52	
33 2-Chloro-1,3-butadiene	53	5.421	5.415	0.006	90	532911	5.00	5.89	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	98	933199	5.00	5.26	
36 2-Butanone (MEK)	43	6.098	6.092	0.006	100	1145260	62.6	77.1	
37 cis-1,2-Dichloroethene	96	6.141	6.135	0.006	80	514293	5.00	7.72	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 2,2-Dichloropropane	77	6.159	6.147	0.012	86	541681	5.00	5.74	
40 Propionitrile	54	6.196	6.177	0.019	97	179407	37.5	45.5	
42 Methacrylonitrile	67	6.403	6.397	0.006	92	677743	37.5	45.4	
43 Chlorobromomethane	128	6.470	6.464	0.006	94	165964	5.00	5.77	
44 Tetrahydrofuran	71	6.482	6.470	0.012	81	127430	25.0	28.9	
45 Chloroform	83	6.622	6.610	0.012	93	623888	5.00	5.80	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.824	0.006	94	531487	10.0	9.56	
47 1,1,1-Trichloroethane	97	6.842	6.836	0.006	98	580507	5.00	5.81	
48 Cyclohexane	56	6.945	6.940	0.005	89	618974	5.00	6.25	
51 1,1-Dichloropropene	75	7.055	7.049	0.006	96	507890	5.00	6.03	
50 Carbon tetrachloride	117	7.061	7.049	0.012	95	501896	5.00	5.82	
52 Isobutyl alcohol	41	7.202	7.196	0.006	94	144963	125.1	140.9	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	89	110576	10.0	9.94	
54 Benzene	78	7.311	7.305	0.006	97	1458359	5.00	5.88	
56 1,2-Dichloroethane	62	7.384	7.378	0.006	97	368459	5.00	5.48	
57 Tert-amyl methyl ether	73	7.506	7.500	0.006	99	851044	5.00	5.17	
* 58 Fluorobenzene (IS)	96	7.714	7.708	0.006	99	2206816	10.0	10.0	
59 n-Heptane	43	7.726	7.720	0.006	93	579632	5.00	6.75	
60 n-Butanol	56	8.085	8.073	0.012	88	256223	250.2	268.2	
61 Trichloroethene	95	8.195	8.189	0.006	97	494574	5.00	7.42	
62 Methylcyclohexane	83	8.500	8.500	0.000	92	687964	5.00	6.20	
63 1,2-Dichloropropane	63	8.518	8.512	0.006	97	381287	5.00	6.26	
64 Methyl methacrylate	69	8.604	8.598	0.006	90	177670	5.00	6.06	
65 1,4-Dioxane	88	8.622	8.610	0.012	30	28563	125.1	102.6	
66 Dibromomethane	93	8.628	8.628	0.000	95	178056	5.00	5.98	
68 Dichlorobromomethane	83	8.860	8.860	0.000	100	449044	5.00	6.08	
69 2-Nitropropane	41	9.128	9.122	0.006	96	47442	5.00	5.65	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	384784	5.00	6.43	
73 cis-1,3-Dichloropropene	75	9.408	9.402	0.006	96	552012	5.00	5.95	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	96	2891504	62.6	77.3	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2217574	10.0	9.94	
76 Toluene	92	9.786	9.787	0.000	98	967019	5.00	5.84	
78 trans-1,3-Dichloropropene	75	10.042	10.036	0.006	92	468091	5.00	6.13	
79 Ethyl methacrylate	69	10.103	10.097	0.006	89	366101	5.00	5.75	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	90	271907	5.00	6.16	
81 Tetrachloroethene	166	10.335	10.329	0.006	98	973472	5.00	12.3	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	455420	5.00	6.06	
83 2-Hexanone	43	10.457	10.451	0.006	97	2130813	62.6	81.3	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	90	337887	5.00	6.28	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	254111	5.00	5.96	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1727036	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	97	570717	5.00	5.89	
90 Chlorobenzene	112	11.182	11.183	-0.001	96	1076108	5.00	5.87	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	97	365648	5.00	5.71	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1832965	5.00	5.75	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1452352	10.0	11.5	
94 o-Xylene	106	11.707	11.707	0.000	96	677500	5.00	5.45	
95 Styrene	104	11.725	11.725	0.000	94	1119919	5.00	5.58	
96 Bromoform	173	11.884	11.884	0.000	97	205445	5.00	6.37	
97 Isopropylbenzene	105	12.005	12.006	-0.001	96	1811456	5.00	5.52	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	790506	10.0	9.27	
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	326847	5.00	6.54	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Bromobenzene	156	12.268	12.268	0.000	94	443351	5.00	6.47	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	90	298782	25.0	22.1	
104 1,2,3-Trichloropropane	110	12.298	12.292	0.006	83	86388	5.00	6.29	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	2168381	5.00	6.52	
106 2-Chlorotoluene	126	12.414	12.408	0.006	97	431465	5.00	6.32	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1479794	5.00	6.09	
108 4-Chlorotoluene	126	12.505	12.505	0.000	97	450557	5.00	6.47	
109 tert-Butylbenzene	134	12.713	12.707	0.006	93	343877	5.00	6.46	
110 Pentachloroethane	167	12.743	12.743	0.000	93	244991	5.00	5.70	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	97	1503244	5.00	6.04	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	1973751	5.00	6.43	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	828862	5.00	6.00	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1668712	5.00	6.15	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	904291	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	831825	5.00	5.89	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	655278	5.00	5.95	
118 Benzyl chloride	126	13.121	13.121	0.000	98	130379	5.00	6.37	
119 n-Butylbenzene	92	13.267	13.268	-0.001	97	785902	5.00	6.19	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	746014	5.00	5.91	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	90	42839	5.00	5.83	
123 1,3,5-Trichlorobenzene	180	13.968	13.969	-0.001	97	571244	5.00	5.65	
124 1,2,4-Trichlorobenzene	180	14.395	14.389	0.006	93	447494	5.00	5.25	
125 Hexachlorobutadiene	225	14.474	14.475	-0.001	96	197815	5.00	5.34	
126 Naphthalene	128	14.572	14.572	0.000	97	782075	5.00	4.81	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	378073	5.00	5.13	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

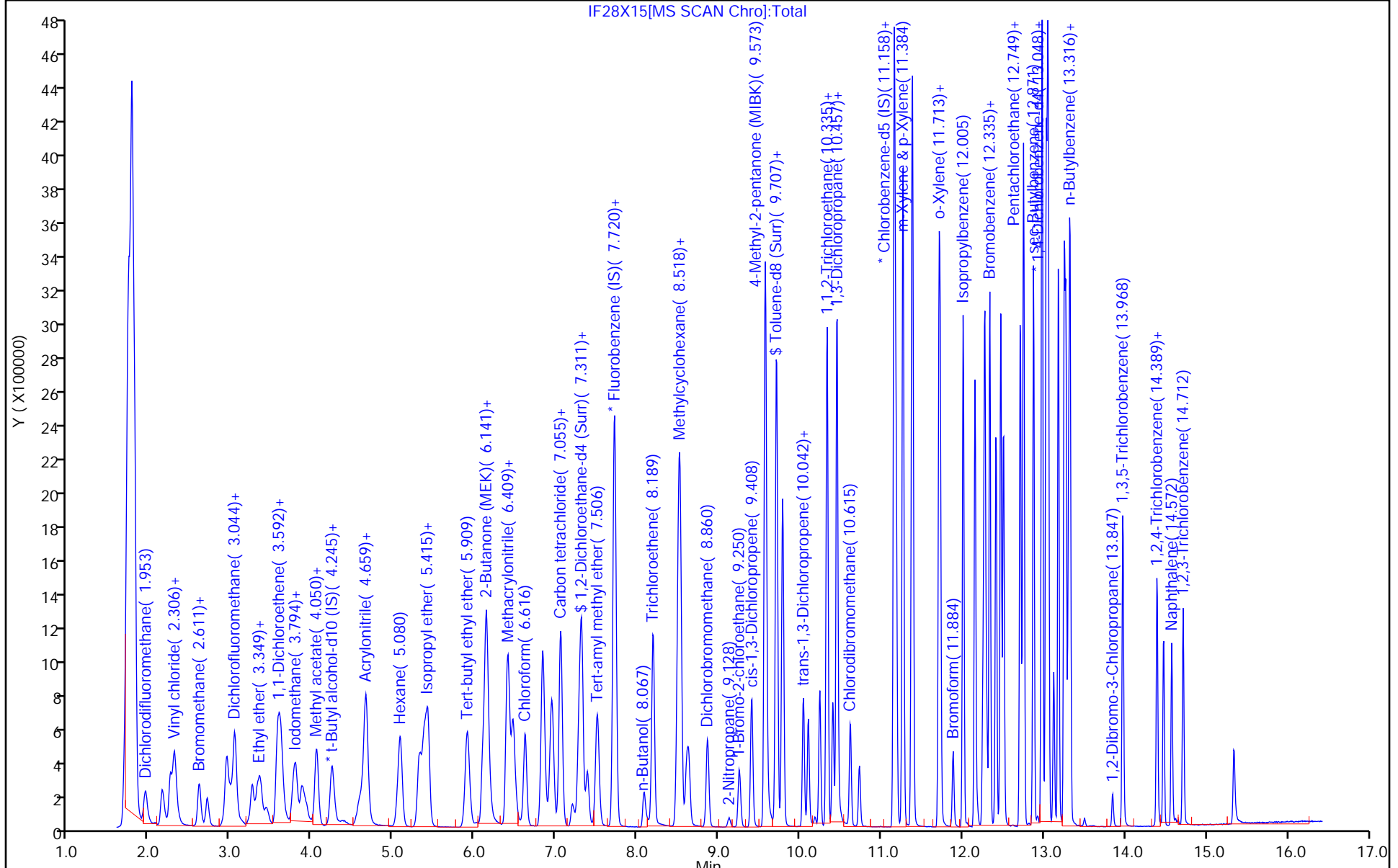
QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MSV_LCS_EE_00001	Amount Added: 5.38	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 5.38	Units: uL	
MSV_LCS_VOC#1_00042	Amount Added: 5.38	Units: uL	
MSV_LCS_ACROL_00046	Amount Added: 5.38	Units: uL	
MSV_QC_Gas826_00068	Amount Added: 5.38	Units: uL	
MSV_LCS_Penta_00012	Amount Added: 5.38	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X15.D
 Lims ID: 410-73936-A-6 MS
 Client ID: HD-COD-SW-15-0/1-0 MS
 Sample Type: MS
 Inject. Date: 28-Feb-2022 15:38:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-016
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:26:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.56	95.61
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	9.94	99.43
\$ 75 Toluene-d8 (Surr)	10.0	9.94	99.36
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.27	92.67

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-73936-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MSD Lab Sample ID: 410-73936-6 MSD
 MSD
 Matrix: Water Lab File ID: IF28X16.D
 Analysis Method: 8260D Date Collected: 02/22/2022 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 02/28/2022 15:59
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228139 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.57		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.74		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.33		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.97		0.50	0.060
75-34-3	1,1-Dichloroethane	5.71		0.50	0.070
75-35-4	1,1-Dichloroethene	6.07		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.82		0.50	0.060
107-06-2	1,2-Dichloroethane	5.31		0.50	0.050
78-87-5	1,2-Dichloropropane	6.22		0.50	0.060
78-93-3	2-Butanone (MEK)	73.3		5.0	0.60
591-78-6	2-Hexanone	76.7		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	73.3		5.0	0.70
67-64-1	Acetone	59.0		5.0	0.90
71-43-2	Benzene	5.85		0.50	0.050
74-97-5	Bromochloromethane	5.72		0.50	0.050
75-27-4	Bromodichloromethane	6.05		0.50	0.050
75-25-2	Bromoform	6.18		1.0	0.30
74-83-9	Bromomethane	4.88		0.50	0.070
75-15-0	Carbon disulfide	5.89		1.0	0.060
56-23-5	Carbon tetrachloride	5.70		0.50	0.070
108-90-7	Chlorobenzene	5.73		0.50	0.060
75-00-3	Chloroethane	4.94		0.50	0.070
67-66-3	Chloroform	5.78		0.50	0.090
74-87-3	Chloromethane	5.42		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	7.64		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.90		0.50	0.050
124-48-1	Dibromochloromethane	6.23		0.50	0.070
100-41-4	Ethylbenzene	5.69		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.12		0.50	0.050
75-09-2	Methylene Chloride	5.57		0.50	0.070
100-42-5	Styrene	5.57		0.50	0.050
127-18-4	Tetrachloroethene	12.0		0.50	0.060
108-88-3	Toluene	5.73		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.45		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.23		0.50	0.060

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X16.D
 Lims ID: 410-73936-A-6 MSD
 Client ID: HD-COD-SW-15-0/1-0 MSD
 Sample Type: MSD
 Inject. Date: 28-Feb-2022 15:59:30 ALS Bottle#: 16 Worklist Smp#: 17
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-017
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:27:18

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.940	1.947	-0.007	99	446524	5.00	6.45	
4 Chloromethane	50	2.148	2.154	-0.006	99	427604	5.00	5.42	
5 Vinyl chloride	62	2.245	2.251	-0.006	98	420359	5.00	5.29	
6 Butadiene	39	2.294	2.300	-0.006	90	451186	5.00	6.23	
7 Bromomethane	94	2.599	2.611	-0.012	91	281252	5.00	4.88	
8 Chloroethane	64	2.696	2.703	-0.007	99	235360	5.00	4.94	
9 Dichlorofluoromethane	67	2.940	2.946	-0.006	97	579363	5.00	5.06	
10 Trichlorofluoromethane	101	2.989	3.001	-0.012	96	552699	5.00	5.40	
11 Ethyl ether	59	3.245	3.251	-0.006	91	241025	4.98	5.79	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.336	3.343	-0.007	93	419135	5.00	5.71	
13 Acrolein	56	3.428	3.428	0.000	98	230859	37.5	32.6	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	98	320499	5.00	6.07	
15 Acetone	43	3.586	3.593	-0.007	100	531120	62.6	59.0	
16 112TCTFE	101	3.605	3.611	-0.006	91	337350	5.00	6.12	
17 Iodomethane	142	3.763	3.769	-0.006	98	565111	5.00	5.35	
18 Ethyl bromide	108	3.794	3.794	0.000	98	250863	5.00	5.21	
19 Carbon disulfide	76	3.867	3.873	-0.006	99	858462	5.00	5.89	
21 Methyl acetate	43	4.013	4.007	0.006	96	155946	5.00	5.89	
22 3-Chloro-1-propene	41	4.044	4.044	0.000	93	501714	5.00	5.79	
23 Methylene Chloride	84	4.233	4.239	-0.006	92	321170	5.00	5.57	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.263	-0.012	94	161931	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.367	0.018	99	115730	50.0	33.9	
26 Acrylonitrile	53	4.580	4.574	0.006	100	320057	25.0	26.7	
27 Methyl tert-butyl ether	73	4.635	4.641	-0.006	96	771706	5.00	5.12	
28 trans-1,2-Dichloroethene	96	4.653	4.659	-0.006	99	327031	5.00	5.45	
29 Hexane	57	5.074	5.074	0.000	92	529039	5.00	6.32	
31 1,1-Dichloroethane	63	5.306	5.312	-0.006	96	621939	5.00	5.71	
32 Isopropyl ether	45	5.373	5.367	0.006	95	1007036	5.00	5.54	
33 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	90	525484	5.00	5.79	
34 Tert-butyl ethyl ether	59	5.897	5.903	-0.006	97	935553	5.00	5.26	
36 2-Butanone (MEK)	43	6.098	6.092	0.006	100	1150757	62.6	73.3	
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	510836	5.00	7.64	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 2,2-Dichloropropane	77	6.147	6.147	0.000	86	542251	5.00	5.73	
40 Propionitrile	54	6.196	6.177	0.019	98	180034	37.5	43.2	
42 Methacrylonitrile	67	6.403	6.397	0.006	91	679154	37.5	43.0	
43 Chlorobromomethane	128	6.464	6.464	0.000	93	165021	5.00	5.72	
44 Tetrahydrofuran	71	6.476	6.470	0.006	82	126664	25.0	27.2	
45 Chloroform	83	6.616	6.610	0.006	93	623392	5.00	5.78	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.824	0.000	94	534187	10.0	9.58	
47 1,1,1-Trichloroethane	97	6.842	6.836	0.006	98	574648	5.00	5.74	
48 Cyclohexane	56	6.939	6.940	-0.001	90	606982	5.00	6.11	
51 1,1-Dichloropropene	75	7.049	7.049	0.000	97	505030	5.00	5.98	
50 Carbon tetrachloride	117	7.055	7.049	0.006	97	492838	5.00	5.70	
52 Isobutyl alcohol	41	7.195	7.196	-0.001	95	138747	125.1	127.5	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	96	112646	10.0	10.1	
54 Benzene	78	7.305	7.305	0.000	97	1456401	5.00	5.85	
56 1,2-Dichloroethane	62	7.378	7.378	0.000	97	358234	5.00	5.31	
57 Tert-amyl methyl ether	73	7.506	7.500	0.006	99	849508	5.00	5.15	
* 58 Fluorobenzene (IS)	96	7.707	7.708	-0.001	99	2212835	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	92	566681	5.00	6.58	
60 n-Butanol	56	8.079	8.073	0.006	88	267733	250.2	265.1	
61 Trichloroethene	95	8.183	8.189	-0.006	98	495204	5.00	7.41	
62 Methylcyclohexane	83	8.500	8.500	0.000	92	687133	5.00	6.18	
63 1,2-Dichloropropane	63	8.518	8.512	0.006	85	379920	5.00	6.22	
64 Methyl methacrylate	69	8.604	8.598	0.006	89	177073	5.00	5.71	
65 1,4-Dioxane	88	8.604	8.610	-0.006	29	22612	125.1	81.7	
66 Dibromomethane	93	8.628	8.628	0.000	93	168481	5.00	5.64	
68 Dichlorobromomethane	83	8.860	8.860	0.000	99	448188	5.00	6.05	
69 2-Nitropropane	41	9.128	9.122	0.006	98	49063	5.00	5.53	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	385197	5.00	6.42	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	548916	5.00	5.90	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	96	2900472	62.6	73.3	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2215150	10.0	9.86	
76 Toluene	92	9.786	9.787	0.000	98	954818	5.00	5.73	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	92	478380	5.00	6.23	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	361126	5.00	5.63	
80 1,1,2-Trichloroethane	97	10.237	10.244	-0.007	91	265395	5.00	5.97	
81 Tetrachloroethene	166	10.335	10.329	0.006	98	954941	5.00	12.0	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	457512	5.00	6.05	
83 2-Hexanone	43	10.451	10.451	0.000	96	2125761	62.6	76.7	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	89	337395	5.00	6.23	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	249399	5.00	5.82	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1737911	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	96	557993	5.00	5.73	
90 Chlorobenzene	112	11.182	11.183	-0.001	95	1057727	5.00	5.73	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	359129	5.00	5.57	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1825534	5.00	5.69	
93 m-Xylene & p-Xylene	106	11.378	11.384	-0.006	100	1453405	10.0	11.5	
94 o-Xylene	106	11.707	11.707	0.000	96	678410	5.00	5.42	
95 Styrene	104	11.725	11.725	0.000	95	1124189	5.00	5.57	
96 Bromoform	173	11.883	11.884	-0.001	98	200528	5.00	6.18	
97 Isopropylbenzene	105	12.005	12.006	-0.001	96	1810737	5.00	5.48	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	805211	10.0	9.38	
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	317892	5.00	6.33	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Bromobenzene	156	12.268	12.268	0.000	95	440767	5.00	6.40	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	92	295495	25.0	20.7	
104 1,2,3-Trichloropropane	110	12.298	12.292	0.006	83	84824	5.00	6.14	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	2148451	5.00	6.43	
106 2-Chlorotoluene	126	12.414	12.408	0.006	97	431706	5.00	6.30	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1459957	5.00	5.98	
108 4-Chlorotoluene	126	12.505	12.505	0.000	97	441900	5.00	6.31	
109 tert-Butylbenzene	134	12.713	12.707	0.006	93	343465	5.00	6.42	
110 Pentachloroethane	167	12.743	12.743	0.000	91	256804	5.00	5.94	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	97	1483961	5.00	5.93	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	1943159	5.00	6.30	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	809174	5.00	5.83	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1652565	5.00	6.06	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	908671	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	820079	5.00	5.78	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	652908	5.00	5.90	
118 Benzyl chloride	126	13.121	13.121	0.000	98	128643	5.00	6.26	
119 n-Butylbenzene	92	13.267	13.268	-0.001	97	775968	5.00	6.09	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	738054	5.00	5.82	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	89	42355	5.00	5.73	
123 1,3,5-Trichlorobenzene	180	13.968	13.969	-0.001	98	566997	5.00	5.58	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	447501	5.00	5.22	
125 Hexachlorobutadiene	225	14.474	14.475	-0.001	96	196669	5.00	5.28	
126 Naphthalene	128	14.572	14.572	0.000	97	814850	5.00	4.99	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	386241	5.00	5.21	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

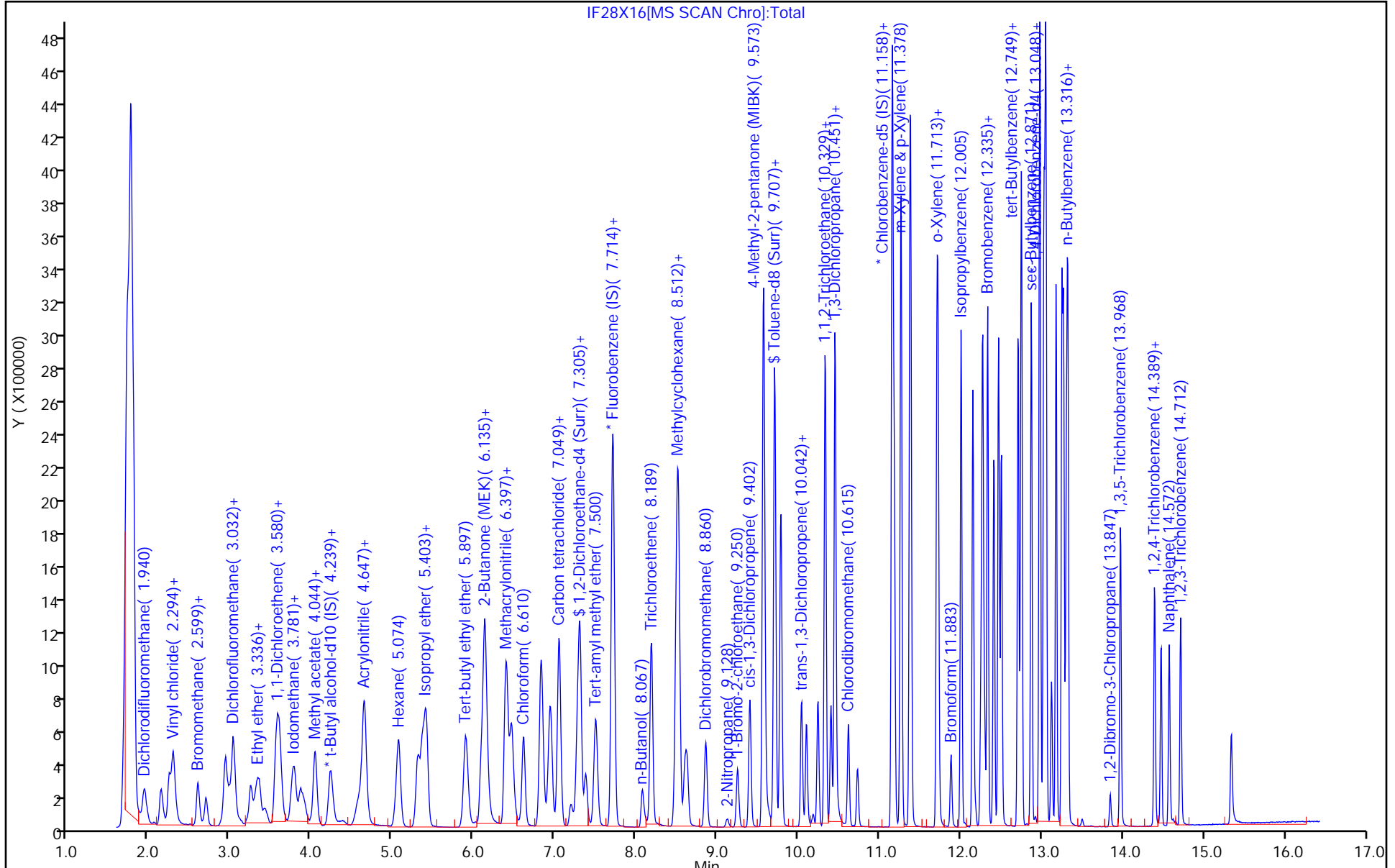
QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MSV_LCS_EE_00001	Amount Added: 5.38	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 5.38	Units: uL	
MSV_LCS_VOC#1_00042	Amount Added: 5.38	Units: uL	
MSV_LCS_ACROL_00046	Amount Added: 5.38	Units: uL	
MSV_QC_Gas826_00068	Amount Added: 5.38	Units: uL	
MSV_LCS_Penta_00012	Amount Added: 5.38	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\IF28X16.D
 Lims ID: 410-73936-A-6 MSD
 Client ID: HD-COD-SW-15-0/1-0 MSD
 Sample Type: MSD
 Inject. Date: 28-Feb-2022 15:59:30 ALS Bottle#: 16 Worklist Smp#: 17
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0051281-017
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220228-51281.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 28-Feb-2022 17:28:07 Calib Date: 24-Aug-2021 02:52:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1618

First Level Reviewer: beckerk

Date: 28-Feb-2022 17:27:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.58	95.83
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.01
\$ 75 Toluene-d8 (Surr)	10.0	9.86	98.63
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.38	93.81

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930Start Date: 08/23/2021 20:56Analysis Batch Number: 163707End Date: 08/24/2021 03:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-163707/1		08/23/2021 20:56	1	IG23T01.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/3		08/23/2021 21:31	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/4		08/23/2021 21:52	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/5		08/23/2021 22:14	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/6		08/23/2021 22:35	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/7		08/23/2021 22:57	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/8		08/23/2021 23:18	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/9		08/23/2021 23:40	1		R-624SilMS 30m 0.25 (mm)
ICV 410-163707/10		08/24/2021 00:02	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/12		08/24/2021 00:45	1	IG23I01.D	R-624SilMS 30m 0.25 (mm)
ICIS 410-163707/13		08/24/2021 01:06	1	IG23I02.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/14		08/24/2021 01:27	1	IG23I03.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/15		08/24/2021 01:48	1	IG23I04.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/16		08/24/2021 02:09	1	IG23I05.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/17		08/24/2021 02:30	1	IG23I06.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/18		08/24/2021 02:52	1	IG23I07.D	R-624SilMS 30m 0.25 (mm)
ICV 410-163707/19		08/24/2021 03:13	1	IG23V01.D	R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930 Start Date: 02/28/2022 10:27

Analysis Batch Number: 228139 End Date: 02/28/2022 20:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-228139/1		02/28/2022 10:27	1	IF28T01.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-228139/3		02/28/2022 11:02	1	IF28X02.D	R-624SilMS 30m 0.25 (mm)
LCS 410-228139/4		02/28/2022 11:23	1	IF28X03.D	R-624SilMS 30m 0.25 (mm)
LCSD 410-228139/5		02/28/2022 11:44	1	IF28X04.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/28/2022 12:05	1		R-624SilMS 30m 0.25 (mm)
MB 410-228139/7		02/28/2022 12:26	1	IF28X06.D	R-624SilMS 30m 0.25 (mm)
410-73936-14	HD-QC1-0/1-2	02/28/2022 12:48	1	IF28X07.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/28/2022 13:09	1		R-624SilMS 30m 0.25 (mm)
410-73936-1	HD-COD-SW-6-0/1-0	02/28/2022 13:30	1	IF28X09.D	R-624SilMS 30m 0.25 (mm)
410-73936-2	HD-COD-SW-7-0/1-0	02/28/2022 13:52	1	IF28X10.D	R-624SilMS 30m 0.25 (mm)
410-73936-3	HD-COD-SW-8-0/1-0	02/28/2022 14:13	1	IF28X11.D	R-624SilMS 30m 0.25 (mm)
410-73936-4	HD-COD-SW-9-0/1-0	02/28/2022 14:34	1	IF28X12.D	R-624SilMS 30m 0.25 (mm)
410-73936-5	HD-COD-SW-13-0/1-0	02/28/2022 14:55	1	IF28X13.D	R-624SilMS 30m 0.25 (mm)
410-73936-6	HD-COD-SW-15-0/1-0	02/28/2022 15:16	1	IF28X14.D	R-624SilMS 30m 0.25 (mm)
410-73936-6 MS	HD-COD-SW-15-0/1-0 MS	02/28/2022 15:38	1	IF28X15.D	R-624SilMS 30m 0.25 (mm)
410-73936-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	02/28/2022 15:59	1	IF28X16.D	R-624SilMS 30m 0.25 (mm)
410-73936-7	HD-COD-SW-16-0/1-0	02/28/2022 16:41	1	IF28X18.D	R-624SilMS 30m 0.25 (mm)
410-73936-8	HD-COD-SW-17-0/1-0	02/28/2022 17:03	1	IF28X19.D	R-624SilMS 30m 0.25 (mm)
410-73936-8 DL	HD-COD-SW-17-0/1-0 DL	02/28/2022 17:24	20	IF28X20.D	R-624SilMS 30m 0.25 (mm)
410-73936-9	HD-COD-SW-26-0/1-0	02/28/2022 17:45	1	IF28X21.D	R-624SilMS 30m 0.25 (mm)
410-73936-10	HD-COD-SW-27-0/1-0	02/28/2022 18:06	1	IF28X22.D	R-624SilMS 30m 0.25 (mm)
410-73936-11	HD-COD-SW-28-0/1-0	02/28/2022 18:27	1	IF28X23.D	R-624SilMS 30m 0.25 (mm)
410-73936-12	HD-COD-SW-29-0/1-0	02/28/2022 18:48	1	IF28X24.D	R-624SilMS 30m 0.25 (mm)
410-73936-13	HD-QC1-0/1-1	02/28/2022 19:10	1	IF28X25.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/28/2022 19:31	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/28/2022 19:52	100		R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/28/2022 20:13	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/28/2022 20:35	10		R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-73936-1

SDG No.: _____

Instrument ID: 19930 Start Date: 03/02/2022 09:50

Analysis Batch Number: 229111 End Date: 03/02/2022 19:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-229111/1		03/02/2022 09:50	1	IM02T03.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-229111/3		03/02/2022 10:24	1	IM02X02.D	R-624SilMS 30m 0.25 (mm)
LCS 410-229111/4		03/02/2022 10:45	1	IM02X03.D	R-624SilMS 30m 0.25 (mm)
LCSD 410-229111/5		03/02/2022 11:06	1	IM02X04.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 11:27	1		R-624SilMS 30m 0.25 (mm)
MB 410-229111/7		03/02/2022 11:49	1	IM02X06.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 12:10	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 12:31	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 12:53	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 13:14	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 13:35	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 13:56	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 14:18	20		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 14:39	50		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 15:00	2		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 15:21	20		R-624SilMS 30m 0.25 (mm)
410-73936-13 DL	HD-QC1-0/1-1 DL	03/02/2022 15:42	10	IM02X17.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 16:04	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 16:25	20		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 16:46	2		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 17:07	20		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 17:29	500		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 17:50	500		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 18:11	500		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 18:53	5000		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 19:14	200		R-624SilMS 30m 0.25 (mm)
ZZZZZ		03/02/2022 19:36	2000		R-624SilMS 30m 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73936-1

SDG No.: _____

Batch Number: 163707 Batch Start Date: 08/23/21 20:56 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Lot#Vial	MSV_LCS_ACROL 00017	MSV_LCS_Penta 00006	MSV_LCS_VOC#1 00015
BFB 410-163707/1		8260D		1 uL	1 uL				
IC 410-163707/12		8260D		25 mL	25 mL	2602			
ICIS 410-163707/13		8260D		25 mL	25 mL	2602			
IC 410-163707/14		8260D		25 mL	25 mL	2602			
IC 410-163707/15		8260D		25 mL	25 mL	2602			
IC 410-163707/16		8260D		25 mL	25 mL	2602			
IC 410-163707/17		8260D		25 mL	25 mL	2602			
IC 410-163707/18		8260D		25 mL	25 mL	2602			
ICV 410-163707/19		8260D		25 mL	25 mL	2602	12.5 uL	12.5 uL	12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_#1_826 00015	MSV_LL_#2_826 00015	MSV_LL_GAS826 00027	MSV_LLcentISS 00001	MSV_Q_EE 00004	MSV_Q_ETBR 00008
BFB 410-163707/1		8260D							
IC 410-163707/12		8260D		25 uL	25 uL	25 uL	5 uL		
ICIS 410-163707/13		8260D		10 uL	10 uL	10 uL	5 uL		
IC 410-163707/14		8260D		5 uL	5 uL	5 uL	5 uL		
IC 410-163707/15		8260D		2 uL	2 uL	2 uL	5 uL		
IC 410-163707/16		8260D		2 uL	2 uL	2 uL	5 uL		
IC 410-163707/17		8260D		2 uL	2 uL	2 uL	5 uL		
IC 410-163707/18		8260D		2 uL	2 uL	2 uL	5 uL		
ICV 410-163707/19		8260D					5 uL	12.5 uL	12.5 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.: 410-73936-1

SDG No.: _____

Batch Number: 163707 Batch Start Date: 08/23/21 20:56 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QC_Gas826 00026	MSV_V_BFB 00006				
BFB 410-163707/1		8260D			1 uL				
IC 410-163707/12		8260D							
ICIS 410-163707/13		8260D							
IC 410-163707/14		8260D							
IC 410-163707/15		8260D							
IC 410-163707/16		8260D							
IC 410-163707/17		8260D							
IC 410-163707/18		8260D							
ICV 410-163707/19		8260D		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.: 410-73936-1

SDG No.: _____

Batch Number: 228139 Batch Start Date: 02/28/22 10:27 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 410-228139/1		8260D		1 uL	1 uL				
CCVIS 410-228139/3		8260D		25 mL	25 mL				2617
LCS 410-228139/4		8260D		25 mL	25 mL				2617
LCS 410-228139/5		8260D		25 mL	25 mL				2617
MB 410-228139/7		8260D		25 mL	25 mL				2617
410-73936-A-14	HD-QC1-0/1-2	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-1	HD-COD-SW-6-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-2	HD-COD-SW-7-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-3	HD-COD-SW-8-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-4	HD-COD-SW-9-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-5	HD-COD-SW-13-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-6	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-7	HD-COD-SW-16-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-B-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	2617
410-73936-A-9	HD-COD-SW-26-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-10	HD-COD-SW-27-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-11	HD-COD-SW-28-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-12	HD-COD-SW-29-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-73936-A-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	

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.: 410-73936-1

SDG No.: _____

Batch Number: 228139 Batch Start Date: 02/28/22 10:27 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00046	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_Penta 00012	MSV_LCS_VOC#1 00042	MSV_LL_#1_826 00037
BFB 410-228139/1		8260D							
CCVIS 410-228139/3		8260D							20 uL
LCS 410-228139/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	
LCS 410-228139/5		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	
MB 410-228139/7		8260D							
410-73936-A-14	HD-QC1-0/1-2	8260D	T						
410-73936-A-1	HD-COD-SW-6-0/1-0	8260D	T						
410-73936-A-2	HD-COD-SW-7-0/1-0	8260D	T						
410-73936-A-3	HD-COD-SW-8-0/1-0	8260D	T						
410-73936-A-4	HD-COD-SW-9-0/1-0	8260D	T						
410-73936-A-5	HD-COD-SW-13-0/1-0	8260D	T						
410-73936-A-6	HD-COD-SW-15-0/1-0	8260D	T						
410-73936-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	5.38 uL	5.38 uL
410-73936-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	5.38 uL	5.38 uL
410-73936-A-7	HD-COD-SW-16-0/1-0	8260D	T						
410-73936-A-8	HD-COD-SW-17-0/1-0	8260D	T						
410-73936-B-8	HD-COD-SW-17-0/1-0	8260D	T						
410-73936-A-9	HD-COD-SW-26-0/1-0	8260D	T						
410-73936-A-10	HD-COD-SW-27-0/1-0	8260D	T						
410-73936-A-11	HD-COD-SW-28-0/1-0	8260D	T						
410-73936-A-12	HD-COD-SW-29-0/1-0	8260D	T						
410-73936-A-13	HD-QC1-0/1-1	8260D	T						

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.: 410-73936-1

SDG No.: _____

Batch Number: 228139 Batch Start Date: 02/28/22 10:27 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL #2_826 00040	MSV_LL_GAS826 00069	MSV_LLcentISS 00004	MSV_QC_Gas826 00068	MSV_V_BFB 00007	
BFB 410-228139/1		8260D						1 uL	
CCVIS 410-228139/3		8260D		20 uL	20 uL	5 uL			
LCS 410-228139/4		8260D				5 uL	12.5 uL		
LCS 410-228139/5		8260D				5 uL	12.5 uL		
MB 410-228139/7		8260D				5 uL			
410-73936-A-14	HD-QC1-0/1-2	8260D	T			5 uL			
410-73936-A-1	HD-COD-SW-6-0/1-0	8260D	T			5 uL			
410-73936-A-2	HD-COD-SW-7-0/1-0	8260D	T			5 uL			
410-73936-A-3	HD-COD-SW-8-0/1-0	8260D	T			5 uL			
410-73936-A-4	HD-COD-SW-9-0/1-0	8260D	T			5 uL			
410-73936-A-5	HD-COD-SW-13-0/1-0	8260D	T			5 uL			
410-73936-A-6	HD-COD-SW-15-0/1-0	8260D	T			5 uL			
410-73936-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T			5 uL	5.38 uL		
410-73936-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T			5 uL	5.38 uL		
410-73936-A-7	HD-COD-SW-16-0/1-0	8260D	T			5 uL			
410-73936-A-8	HD-COD-SW-17-0/1-0	8260D	T			5 uL			
410-73936-B-8	HD-COD-SW-17-0/1-0	8260D	T			5 uL			
410-73936-A-9	HD-COD-SW-26-0/1-0	8260D	T			5 uL			
410-73936-A-10	HD-COD-SW-27-0/1-0	8260D	T			5 uL			
410-73936-A-11	HD-COD-SW-28-0/1-0	8260D	T			5 uL			
410-73936-A-12	HD-COD-SW-29-0/1-0	8260D	T			5 uL			
410-73936-A-13	HD-QC1-0/1-1	8260D	T			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.: 410-73936-1

SDG No.: _____

Batch Number: 228139 Batch Start Date: 02/28/22 10:27 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Batch Notes	

Basis	Basis Description
T	Total/NA

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

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-73936-1

SDG No.: _____

Batch Number: 229111 Batch Start Date: 03/02/22 09:50 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 410-229111/1		8260D		1 uL	1 uL				
CCVIS 410-229111/3		8260D		25 mL	25 mL				2622
LCS 410-229111/4		8260D		25 mL	25 mL				2622
LCSD 410-229111/5		8260D		25 mL	25 mL				2622
MB 410-229111/7		8260D		25 mL	25 mL				2622
410-73936-B-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	2622

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00046	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_VOC#1 00042	MSV_LL #1_826 00037	MSV_LL #2_826 00040
BFB 410-229111/1		8260D							
CCVIS 410-229111/3		8260D						25 uL	25 uL
LCS 410-229111/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL		
LCSD 410-229111/5		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL		
MB 410-229111/7		8260D							
410-73936-B-13	HD-QC1-0/1-1	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_GAS826 00069	MSV_LLcentISS 00004	MSV_QC_Gas826 00068	MSV_V_BFB 00007	AnalysisComment	
BFB 410-229111/1		8260D					1 uL		
CCVIS 410-229111/3		8260D		25 uL	5 uL				
LCS 410-229111/4		8260D			5 uL	12.5 uL		see ME form for 1122PCA	
LCSD 410-229111/5		8260D			5 uL	12.5 uL		see ME form for 1122PCA	
MB 410-229111/7		8260D			5 uL				
410-73936-B-13	HD-QC1-0/1-1	8260D	T		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.: 410-73936-1

SDG No.: _____

Batch Number: 229111 Batch Start Date: 03/02/22 09:50 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

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

Environment



410-73936 Chain of Custody

Chain of Custody



Lancaster Laboratories Environmental

Acct. # _____

Sample # _____

1 of 2

Client: Groundwater Sciences Corporation				Matrix			Analyses Requested										For Lab Use Only					
Project Name#: FYNOP Monthly Surface Water		Site ID #: FYNOP, York PA		<input type="checkbox"/> Tissue	<input type="checkbox"/> Ground	<input checked="" type="checkbox"/> Surface	Preservation Codes										SF #: _____					
Project Manager: Chris O'Neil		P.O. #: 10012.49		<input type="checkbox"/> Potable	<input type="checkbox"/> NPDES	Other:	H										SCR #: _____					
Sampler: Casey Littlefield / Erin Peeling		PWSID #: N/A		<input type="checkbox"/> Sediment	<input type="checkbox"/> Water	Total # of Containers	Aqueous VOCs via 8260D (low level - 25 ml purge)										Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ P = H ₃ PO ₄ O = Other					
Phone #: (717) 901-8176 / (717) 756-1246		Quote #:		<input type="checkbox"/> Soil	<input type="checkbox"/> Composite												Remarks					
State where samples were collected: York, PA		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Sample Identification		Collection		Grab	Composite	Soil	Water	Other:	Total # of Containers													
		Date	Time																			
HD-COD-SW-6-0/1-0		2/22/22	17:10	X			X		3	X												
HD-COD-SW-7-0/1-0			10:55	X			X		3	X												
HD-COD-SW-8-0/1-0			08:55	X			X		3	X												
HD-COD-SW-9-0/1-0			12:05	X			X		3	X												
HD-COD-SW-13-0/1-0			09:15	X			X		3	X												
HD-COD-SW-15-0/1-0			11:25	X			X		3	X												
HD-COD-SW-15-0/1-0 MS			11:25	X			X		3	X												
HD-COD-SW-15-0/1-0 MSD			11:25	X			X		3	X												
HD-COD-SW-16-0/1-0			09:45	X			X		3	X												
HD-COD-SW-17-0/1-0			09:55	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>[Signature]</i>		2/22/22	13:00	<i>[Signature]</i>		02/22/22	13:45									
Date results are needed:				Rush results requested by (please check):		Relinquished by:		Date	Time	Received by:		Date	Time									
E-Mail <input type="checkbox"/> Phone <input type="checkbox"/>						<i>[Signature]</i>		2/23/22	11:15	<i>[Signature]</i>		2/23/22	11:15									
E-mail Address:						Relinquished by:		Date	Time	Received by:		Date	Time									
Phone:						Relinquished by:		Date	Time	Received by:		Date	Time									
Data Package Options (please check if required)						Relinquished by:		Date	Time	Received by:		Date	Time									
Type I (Validation/non-CLP)	<input type="checkbox"/>	MA MCP	<input type="checkbox"/>			Relinquished by:		Date	Time	Received by:		Date	Time									
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"/>			Relinquished by:		Date	Time	Received by:		Date	Time									
NJ DKQP	<input type="checkbox"/>	NYSDEC Category	<input type="checkbox"/> A or <input type="checkbox"/> B			Relinquished by Commercial Carrier:				Received by:		Date	Time									
EDD Required?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, format: _____				Relinquished by Commercial Carrier:				Received by:		Date	Time									
CLP Like Deliverables, Project Specific Analyte List						Relinquished by Commercial Carrier:				Received by:		Date	Time									
UPS _____ FedEx _____ Other _____						Relinquished by Commercial Carrier:				Received by:		Date	Time									
Temperature upon receipt						Relinquished by Commercial Carrier:				Received by:		Date	Time									
1.4 °C						Relinquished by Commercial Carrier:				Received by:		Date	Time									

AFH

MF

Environmental Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

Acct. # _____ Group # _____ Sample # _____

2 of 2

Client: Groundwater Sciences Corporation				Matrix			Analyses Requested										For Lab Use Only			
Project Name/#: FYNOP Monthly Surface Water		Site ID #: FYNOP, York PA		<input type="checkbox"/> Soil	<input type="checkbox"/> Tissue	<input type="checkbox"/> Potable	<input type="checkbox"/> Ground	<input checked="" type="checkbox"/> Surface	Preservation Codes										SF #: _____	
Project Manager: Chris O'Neil		P.O. #: 10012.49		<input type="checkbox"/> Water	<input type="checkbox"/> NPDES	<input type="checkbox"/> Other: Trip Blank	Total # of Containers											SCR #: _____		
Sampler: Casey Littlefield / Erin Peeling		PWSID #: N/A																		
Phone #: (717) 901-8176 / (717) 756-1246		Quote #:																		
State where samples were collected: York, PA		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																		
Sample Identification				Collection		Grab	Composite											Remarks		
		Date	Time																	
HD-COD-SW-26-0/1-0		2/22/22	1040	X			3													
HD-COD-SW-27-0/1-0		↓	1115	X			3													
HD-COD-SW-28-0/1-0		↓	1215	X			3													
HD-COD-SW-29-0/1-0		↓	0845	X			3													
HD-QC1-0/1-1		↓	1200	X			3													
HD-QC1-0/1-2		↓	—	X		X	2													
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>E. K...</i>		2/22/22	1300	<i>[Signature]</i>		02/22/22	1345							
Date results are needed:				E-Mail <input type="checkbox"/> Phone <input type="checkbox"/>		Relinquished by:		Date	Time	Received by:		Date	Time							
Rush results requested by (please check):						<i>[Signature]</i>		2/23/22	11:15	<i>[Signature]</i>		2/23/22	11:15							
E-mail Address:						Relinquished by:		Date	Time	Received by:		Date	Time							
Phone:						<i>[Signature]</i>		2/23/22	16:35	<i>[Signature]</i>										
Data Package Options (please check if required)						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>		2/23/22	16:47							
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 <input type="checkbox"/> B			Relinquished by Commercial Carrier:				Temperature upon receipt		14 / °C								
EDD Required?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, format: _____		CLP Like Deliverables, Project Specific Analyte List		UPS _____ FedEx _____ Other _____														

MR

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-73936-1

Login Number: 73936

List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Hess, Anna

Question	Answer	Comment
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	