ANALYTICAL REPORT

Job Number: 410-67460-1

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.
Marrissa C Williams
Project Manager
1/11/2022 3:38 PM

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01/11/2022
Revision: 1

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

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

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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
FL	MS and/or MSD recovery below control limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job Narrative
410-67460-1

REVISION
The report being provided is a revision of the original report sent on 12/30/2021. The report (revision 1) is being revised due to Sample HD-COD-SW-17-0/1-0 (410-67460-8) reported at DF1.

Receipt
The samples were received on 12/17/2021 4:43 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 2.7°C

GC/MS VOA
Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-209587 recovered above the upper control limit for Chloroethane, 2-Hexanone, Vinyl chloride, Bromomethane, Chloromethane, 4-Methyl-2-pentanone and 2-Butanone. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-210047 recovered outside acceptance criteria, low biased, for 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK) and Acetone. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D_LL: Elevated reporting limits are provided for the following sample due to insufficient sample method holding time to perform a re-analysis; therefore, the data has been reported. HD-QC1-0/1-1 (410-67460-13)

Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-211830 recovered above the upper control limit for 1,2-Dichloropropane, 2-Butanone (MEK), 2-Hexanone and 4-Methyl-2-pentanone (MIBK). Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D_LL: The continuing calibration verification (CCV) analyzed on 410-211830 is compliant under 8260C/D method criteria for Bromoform . The software does not display the % Drift data to the whole number as is listed in the method (i.e. limit of 20%). When applying the evaluation to a whole number, the check passes the criteria with a value of 20% Drift.

Method 8260D_LL: Reanalysis of the following sample was performed outside of the analytical holding : HD-COD-SW-17-0/1-0 (410-67460-8).

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: 410-67460-1

Client Sample ID: HD-COD-SW-6-0/1-0 — Lab Sample ID: 410-67460-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.2	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.093	J cn	0.50	0.050	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-7-0/1-0 — Lab Sample ID: 410-67460-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.4	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
Carbon disulfide	0.063	J cn	1.0	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.091	J cn	0.50	0.090	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.091	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.19	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: 410-67460-3

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	0.16	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	0.19	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: 410-67460-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.6	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	0.11	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
Trichloroethene	0.13	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: 410-67460-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.17	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.65	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.19	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: 410-67460-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.18	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.11	J cn	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.12	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.31	J cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.86	cn	0.50	0.050	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.085	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	4.7	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	1.0	cn	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-16-0/1-0 — Lab Sample ID: 410-67460-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.3	J cn	5.0	0.90	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-16-0/1-0 (Continued) — Lab Sample ID: 410-67460-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.071	J ^c cn	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.15	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.71	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.18	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: 410-67460-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.8	H cn	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.56	H cn	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.32	J H cn	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	1.2	J H cn	5.0	0.90	ug/L	1		8260D	Total/NA
Carbon disulfide	0.073	J H cn	1.0	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.30	J H cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	2.5	H cn	0.50	0.050	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.060	J H cn	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	4.5	H cn	0.50	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	31		10	1.2	ug/L	20		8260D	Total/NA

Client Sample ID: HD-COD-SW-26-0/1-0 — Lab Sample ID: 410-67460-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.18	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Bromodichloromethane	0.053	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Chloroform	0.94	cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.073	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.056	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.4	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.20	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: 410-67460-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.94	J ^c cn	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.068	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.13	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.074	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.17	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: 410-67460-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.2	J ^c 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	0.16	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-COD-SW-29-0/1-0 — Lab Sample ID: 410-67460-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.0	J ^c cn	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.094	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.16	J cn	0.50	0.050	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Lab Sample ID: 410-67460-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.32	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.20	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-67460-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.7	J cn	5.0	0.60	ug/L	10		8260D	Total/NA
cis-1,2-Dichloroethene	2.4	J cn	5.0	0.50	ug/L	10		8260D	Total/NA
Tetrachloroethene	31	cn	5.0	0.60	ug/L	10		8260D	Total/NA
Trichloroethene	4.2	J cn	5.0	0.60	ug/L	10		8260D	Total/NA

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

Lab Sample ID: 410-67460-14

No Detections.

This Detection Summary does not include radiochemical test results.

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

Date Collected: 12/17/21 10:05
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 13:49	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 13:49	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 13:49	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/28/21 13:49	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/28/21 13:49	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/28/21 13:49	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/28/21 13:49	1
Acetone	**1.2**	**J cn**	5.0	0.90	ug/L			12/28/21 13:49	1
Benzene	ND	cn	0.50	0.050	ug/L			12/28/21 13:49	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 13:49	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 13:49	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/28/21 13:49	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 13:49	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/28/21 13:49	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/28/21 13:49	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 13:49	1
Chloroform	ND	cn	0.50	0.090	ug/L			12/28/21 13:49	1
Chloromethane	ND	^c cn	0.50	0.060	ug/L			12/28/21 13:49	1
cis-1,2-Dichloroethene	**0.093**	**J cn**	0.50	0.050	ug/L			12/28/21 13:49	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/28/21 13:49	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/28/21 13:49	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/28/21 13:49	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/28/21 13:49	1
Styrene	ND	cn	0.50	0.050	ug/L			12/28/21 13:49	1
Tetrachloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
Toluene	ND	cn	0.50	0.070	ug/L			12/28/21 13:49	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/28/21 13:49	1
Trichloroethene	**0.11**	**J cn**	0.50	0.060	ug/L			12/28/21 13:49	1
Vinyl chloride	ND	^c cn	0.50	0.10	ug/L			12/28/21 13:49	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/28/21 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*	*cn*	*80 - 120*		*12/28/21 13:49*	*1*
4-Bromofluorobenzene (Surr)	*93*	*cn*	*80 - 120*		*12/28/21 13:49*	*1*
Dibromofluoromethane (Surr)	*103*	*cn*	*80 - 120*		*12/28/21 13:49*	*1*
Toluene-d8 (Surr)	*102*	*cn*	*80 - 120*		*12/28/21 13:49*	*1*

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

Date Collected: 12/17/21 10:45
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:10	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:10	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:10	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:10	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/28/21 14:10	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/28/21 14:10	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/28/21 14:10	1
Acetone	**2.4**	**J cn**	5.0	0.90	ug/L			12/28/21 14:10	1
Benzene	ND	cn	0.50	0.050	ug/L			12/28/21 14:10	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:10	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:10	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/28/21 14:10	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 14:10	1
Carbon disulfide	**0.063**	**J cn**	1.0	0.060	ug/L			12/28/21 14:10	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/28/21 14:10	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 14:10	1
Chloroform	**0.091**	**J cn**	0.50	0.090	ug/L			12/28/21 14:10	1
Chloromethane	ND	^c cn	0.50	0.060	ug/L			12/28/21 14:10	1
cis-1,2-Dichloroethene	ND	cn	0.50	0.050	ug/L			12/28/21 14:10	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/28/21 14:10	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:10	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/28/21 14:10	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/28/21 14:10	1
Styrene	ND	cn	0.50	0.050	ug/L			12/28/21 14:10	1
Tetrachloroethene	**0.091**	**J cn**	0.50	0.060	ug/L			12/28/21 14:10	1
Toluene	ND	cn	0.50	0.070	ug/L			12/28/21 14:10	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/28/21 14:10	1
Trichloroethene	**0.19**	**J cn**	0.50	0.060	ug/L			12/28/21 14:10	1
Vinyl chloride	ND	^c cn	0.50	0.10	ug/L			12/28/21 14:10	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/28/21 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*	*cn*	*80 - 120*		*12/28/21 14:10*	*1*
4-Bromofluorobenzene (Surr)	*92*	*cn*	*80 - 120*		*12/28/21 14:10*	*1*
Dibromofluoromethane (Surr)	*102*	*cn*	*80 - 120*		*12/28/21 14:10*	*1*
Toluene-d8 (Surr)	*101*	*cn*	*80 - 120*		*12/28/21 14:10*	*1*

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

Date Collected: 12/17/21 08:43
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:31	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:31	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:31	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:31	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/28/21 14:31	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/28/21 14:31	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/28/21 14:31	1
Acetone	**1.6**	**J cn**	5.0	0.90	ug/L			12/28/21 14:31	1
Benzene	ND	cn	0.50	0.050	ug/L			12/28/21 14:31	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:31	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:31	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/28/21 14:31	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 14:31	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/28/21 14:31	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/28/21 14:31	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 14:31	1
Chloroform	ND	cn	0.50	0.090	ug/L			12/28/21 14:31	1
Chloromethane	ND	^c cn	0.50	0.060	ug/L			12/28/21 14:31	1
cis-1,2-Dichloroethene	**0.16**	**J cn**	0.50	0.050	ug/L			12/28/21 14:31	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/28/21 14:31	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:31	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/28/21 14:31	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/28/21 14:31	1
Styrene	ND	cn	0.50	0.050	ug/L			12/28/21 14:31	1
Tetrachloroethene	**0.50**	**cn**	0.50	0.060	ug/L			12/28/21 14:31	1
Toluene	ND	cn	0.50	0.070	ug/L			12/28/21 14:31	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/28/21 14:31	1
Trichloroethene	**0.19**	**J cn**	0.50	0.060	ug/L			12/28/21 14:31	1
Vinyl chloride	ND	^c cn	0.50	0.10	ug/L			12/28/21 14:31	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/28/21 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*	*cn*	*80 - 120*		*12/28/21 14:31*	*1*
4-Bromofluorobenzene (Surr)	*92*	*cn*	*80 - 120*		*12/28/21 14:31*	*1*
Dibromofluoromethane (Surr)	*102*	*cn*	*80 - 120*		*12/28/21 14:31*	*1*
Toluene-d8 (Surr)	*101*	*cn*	*80 - 120*		*12/28/21 14:31*	*1*

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

Date Collected: 12/17/21 11:45
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:52	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:52	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:52	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:52	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/28/21 14:52	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/28/21 14:52	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/28/21 14:52	1
Acetone	**2.6**	**J cn**	5.0	0.90	ug/L			12/28/21 14:52	1
Benzene	ND	cn	0.50	0.050	ug/L			12/28/21 14:52	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:52	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 14:52	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/28/21 14:52	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 14:52	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/28/21 14:52	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/28/21 14:52	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 14:52	1
Chloroform	**0.10**	**J cn**	0.50	0.090	ug/L			12/28/21 14:52	1
Chloromethane	ND	^c cn	0.50	0.060	ug/L			12/28/21 14:52	1
cis-1,2-Dichloroethene	**0.11**	**J cn**	0.50	0.050	ug/L			12/28/21 14:52	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/28/21 14:52	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/28/21 14:52	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/28/21 14:52	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/28/21 14:52	1
Styrene	ND	cn	0.50	0.050	ug/L			12/28/21 14:52	1
Tetrachloroethene	**0.23**	**J cn**	0.50	0.060	ug/L			12/28/21 14:52	1
Toluene	ND	cn	0.50	0.070	ug/L			12/28/21 14:52	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/28/21 14:52	1
Trichloroethene	**0.13**	**J cn**	0.50	0.060	ug/L			12/28/21 14:52	1
Vinyl chloride	ND	^c cn	0.50	0.10	ug/L			12/28/21 14:52	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/28/21 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*	*cn*	*80 - 120*		*12/28/21 14:52*	*1*
4-Bromofluorobenzene (Surr)	*91*	*cn*	*80 - 120*		*12/28/21 14:52*	*1*
Dibromofluoromethane (Surr)	*103*	*cn*	*80 - 120*		*12/28/21 14:52*	*1*
Toluene-d8 (Surr)	*101*	*cn*	*80 - 120*		*12/28/21 14:52*	*1*

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

Date Collected: 12/17/21 09:00
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 15:13	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 15:13	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 15:13	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/28/21 15:13	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/28/21 15:13	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/28/21 15:13	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/28/21 15:13	1
Acetone	**1.5**	**J cn**	5.0	0.90	ug/L			12/28/21 15:13	1
Benzene	ND	cn	0.50	0.050	ug/L			12/28/21 15:13	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 15:13	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 15:13	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/28/21 15:13	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 15:13	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/28/21 15:13	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/28/21 15:13	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 15:13	1
Chloroform	ND	cn	0.50	0.090	ug/L			12/28/21 15:13	1
Chloromethane	ND	^c cn	0.50	0.060	ug/L			12/28/21 15:13	1
cis-1,2-Dichloroethene	**0.17**	**J cn**	0.50	0.050	ug/L			12/28/21 15:13	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/28/21 15:13	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/28/21 15:13	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/28/21 15:13	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/28/21 15:13	1
Styrene	ND	cn	0.50	0.050	ug/L			12/28/21 15:13	1
Tetrachloroethene	**0.65**	**cn**	0.50	0.060	ug/L			12/28/21 15:13	1
Toluene	ND	cn	0.50	0.070	ug/L			12/28/21 15:13	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/28/21 15:13	1
Trichloroethene	**0.19**	**J cn**	0.50	0.060	ug/L			12/28/21 15:13	1
Vinyl chloride	ND	^c cn	0.50	0.10	ug/L			12/28/21 15:13	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/28/21 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*	*cn*	*80 - 120*		*12/28/21 15:13*	*1*
4-Bromofluorobenzene (Surr)	*91*	*cn*	*80 - 120*		*12/28/21 15:13*	*1*
Dibromofluoromethane (Surr)	*104*	*cn*	*80 - 120*		*12/28/21 15:13*	*1*
Toluene-d8 (Surr)	*102*	*cn*	*80 - 120*		*12/28/21 15:13*	*1*

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

Date Collected: 12/17/21 11:15
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 15:34	1
1,1,1-Trichloroethane	**0.18**	**J cn**	0.50	0.060	ug/L			12/28/21 15:34	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 15:34	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 15:34	1
1,1-Dichloroethane	**0.11**	**J cn**	0.50	0.070	ug/L			12/28/21 15:34	1
1,1-Dichloroethene	**0.12**	**J cn**	0.50	0.060	ug/L			12/28/21 15:34	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/28/21 15:34	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/28/21 15:34	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/28/21 15:34	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/28/21 15:34	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/28/21 15:34	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/28/21 15:34	1
Acetone	ND	cn	5.0	0.90	ug/L			12/28/21 15:34	1
Benzene	ND	cn	0.50	0.050	ug/L			12/28/21 15:34	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 15:34	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 15:34	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/28/21 15:34	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 15:34	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/28/21 15:34	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/28/21 15:34	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/28/21 15:34	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 15:34	1
Chloroform	**0.31**	**J cn**	0.50	0.090	ug/L			12/28/21 15:34	1
Chloromethane	ND	^c FL cn	0.50	0.060	ug/L			12/28/21 15:34	1
cis-1,2-Dichloroethene	**0.86**	**cn**	0.50	0.050	ug/L			12/28/21 15:34	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/28/21 15:34	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/28/21 15:34	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/28/21 15:34	1
Methyl tert-butyl ether	**0.085**	**J cn**	0.50	0.050	ug/L			12/28/21 15:34	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/28/21 15:34	1
Styrene	ND	cn	0.50	0.050	ug/L			12/28/21 15:34	1
Tetrachloroethene	**4.7**	**cn**	0.50	0.060	ug/L			12/28/21 15:34	1
Toluene	ND	cn	0.50	0.070	ug/L			12/28/21 15:34	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 15:34	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/28/21 15:34	1
Trichloroethene	**1.0**	**cn**	0.50	0.060	ug/L			12/28/21 15:34	1
Vinyl chloride	ND	^c cn	0.50	0.10	ug/L			12/28/21 15:34	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/28/21 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*	*cn*	*80 - 120*		*12/28/21 15:34*	*1*
4-Bromofluorobenzene (Surr)	*92*	*cn*	*80 - 120*		*12/28/21 15:34*	*1*
Dibromofluoromethane (Surr)	*103*	*cn*	*80 - 120*		*12/28/21 15:34*	*1*
Toluene-d8 (Surr)	*102*	*cn*	*80 - 120*		*12/28/21 15:34*	*1*

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

Date Collected: 12/17/21 09:25
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 17:00	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 17:00	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/28/21 17:00	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/28/21 17:00	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/28/21 17:00	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/28/21 17:00	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/28/21 17:00	1
Acetone	**2.3**	**J cn**	5.0	0.90	ug/L			12/28/21 17:00	1
Benzene	ND	cn	0.50	0.050	ug/L			12/28/21 17:00	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 17:00	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/28/21 17:00	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/28/21 17:00	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 17:00	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/28/21 17:00	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/28/21 17:00	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			12/28/21 17:00	1
Chloroform	ND	cn	0.50	0.090	ug/L			12/28/21 17:00	1
Chloromethane	**0.071**	**J ^c cn**	0.50	0.060	ug/L			12/28/21 17:00	1
cis-1,2-Dichloroethene	**0.15**	**J cn**	0.50	0.050	ug/L			12/28/21 17:00	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/28/21 17:00	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/28/21 17:00	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/28/21 17:00	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/28/21 17:00	1
Styrene	ND	cn	0.50	0.050	ug/L			12/28/21 17:00	1
Tetrachloroethene	**0.71**	**cn**	0.50	0.060	ug/L			12/28/21 17:00	1
Toluene	ND	cn	0.50	0.070	ug/L			12/28/21 17:00	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/28/21 17:00	1
Trichloroethene	**0.18**	**J cn**	0.50	0.060	ug/L			12/28/21 17:00	1
Vinyl chloride	ND	^c cn	0.50	0.10	ug/L			12/28/21 17:00	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/28/21 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*	*cn*	*80 - 120*		*12/28/21 17:00*	*1*
4-Bromofluorobenzene (Surr)	*92*	*cn*	*80 - 120*		*12/28/21 17:00*	*1*
Dibromofluoromethane (Surr)	*101*	*cn*	*80 - 120*		*12/28/21 17:00*	*1*
Toluene-d8 (Surr)	*101*	*cn*	*80 - 120*		*12/28/21 17:00*	*1*

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

Date Collected: 12/17/21 09:35
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	H cn	0.50	0.070	ug/L			01/05/22 14:12	1
1,1,1-Trichloroethane	**2.8**	**H cn**	0.50	0.060	ug/L			01/05/22 14:12	1
1,1,2,2-Tetrachloroethane	ND	*+ H cn	0.50	0.070	ug/L			01/05/22 14:12	1
1,1,2-Trichloroethane	ND	H *+ cn	0.50	0.060	ug/L			01/05/22 14:12	1
1,1-Dichloroethane	**0.56**	**H cn**	0.50	0.070	ug/L			01/05/22 14:12	1
1,1-Dichloroethene	**0.32**	**J H cn**	0.50	0.060	ug/L			01/05/22 14:12	1
1,2-Dibromoethane (EDB)	ND	H cn	0.50	0.060	ug/L			01/05/22 14:12	1
1,2-Dichloroethane	ND	H cn	0.50	0.050	ug/L			01/05/22 14:12	1
1,2-Dichloropropane	ND	H ^c *+ cn	0.50	0.060	ug/L			01/05/22 14:12	1
2-Butanone (MEK)	ND	H ^c cn	5.0	0.60	ug/L			01/05/22 14:12	1
2-Hexanone	ND	*+ H ^c cn	5.0	0.60	ug/L			01/05/22 14:12	1
4-Methyl-2-pentanone (MIBK)	ND	H ^c cn	5.0	0.70	ug/L			01/05/22 14:12	1
Acetone	**1.2**	**J H cn**	5.0	0.90	ug/L			01/05/22 14:12	1
Benzene	ND	H cn	0.50	0.050	ug/L			01/05/22 14:12	1
Bromochloromethane	ND	H cn	0.50	0.050	ug/L			01/05/22 14:12	1
Bromodichloromethane	ND	H cn	0.50	0.050	ug/L			01/05/22 14:12	1
Bromoform	ND	H ^c cn	1.0	0.30	ug/L			01/05/22 14:12	1
Bromomethane	ND	H cn	0.50	0.070	ug/L			01/05/22 14:12	1
Carbon disulfide	**0.073**	**J H cn**	1.0	0.060	ug/L			01/05/22 14:12	1
Carbon tetrachloride	ND	H cn	0.50	0.070	ug/L			01/05/22 14:12	1
Chlorobenzene	ND	H cn	0.50	0.060	ug/L			01/05/22 14:12	1
Chloroethane	ND	H cn	0.50	0.070	ug/L			01/05/22 14:12	1
Chloroform	**0.30**	**J H cn**	0.50	0.090	ug/L			01/05/22 14:12	1
Chloromethane	ND	H cn	0.50	0.060	ug/L			01/05/22 14:12	1
cis-1,2-Dichloroethene	**2.5**	**H cn**	0.50	0.050	ug/L			01/05/22 14:12	1
cis-1,3-Dichloropropene	ND	H cn	0.50	0.050	ug/L			01/05/22 14:12	1
Dibromochloromethane	ND	H cn	0.50	0.070	ug/L			01/05/22 14:12	1
Ethylbenzene	ND	H cn	0.50	0.060	ug/L			01/05/22 14:12	1
Methyl tert-butyl ether	**0.060**	**J H cn**	0.50	0.050	ug/L			01/05/22 14:12	1
Methylene Chloride	ND	H cn	0.50	0.070	ug/L			01/05/22 14:12	1
Styrene	ND	H cn	0.50	0.050	ug/L			01/05/22 14:12	1
Toluene	ND	H cn	0.50	0.070	ug/L			01/05/22 14:12	1
trans-1,2-Dichloroethene	ND	H cn	0.50	0.060	ug/L			01/05/22 14:12	1
trans-1,3-Dichloropropene	ND	H cn	0.50	0.060	ug/L			01/05/22 14:12	1
Trichloroethene	**4.5**	**H cn**	0.50	0.060	ug/L			01/05/22 14:12	1
Vinyl chloride	ND	H cn	0.50	0.10	ug/L			01/05/22 14:12	1
Xylenes, Total	ND	H cn	1.0	0.15	ug/L			01/05/22 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*	*cn*	*80 - 120*		*01/05/22 14:12*	*1*
4-Bromofluorobenzene (Surr)	*94*	*cn*	*80 - 120*		*01/05/22 14:12*	*1*
Dibromofluoromethane (Surr)	*100*	*cn*	*80 - 120*		*01/05/22 14:12*	*1*
Toluene-d8 (Surr)	*102*	*cn*	*80 - 120*		*01/05/22 14:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**31**		10	1.2	ug/L			12/29/21 16:57	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*12/29/21 16:57*	*20*

Client Sample ID: HD-COD-SW-17-0/1-0
Lab Sample ID: 410-67460-8

Date Collected: 12/17/21 09:35
Matrix: Water
Date Received: 12/17/21 16:43

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/29/21 16:57*	*20*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*12/29/21 16:57*	*20*
Toluene-d8 (Surr)	*89*		*80 - 120*		*12/29/21 16:57*	*20*

Client Sample ID: HD-COD-SW-26-0/1-0
Lab Sample ID: 410-67460-9

Date Collected: 12/17/21 10:35
Matrix: Water
Date Received: 12/17/21 16:43

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			12/29/21 15:14	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:14	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:14	1
1,1-Dichloroethene	**0.18**	**J cn**	0.50	0.060	ug/L			12/29/21 15:14	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/29/21 15:14	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/29/21 15:14	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/29/21 15:14	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/29/21 15:14	1
Acetone	ND	^c cn	5.0	0.90	ug/L			12/29/21 15:14	1
Benzene	ND	cn	0.50	0.050	ug/L			12/29/21 15:14	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 15:14	1
Bromodichloromethane	**0.053**	**J cn**	0.50	0.050	ug/L			12/29/21 15:14	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/29/21 15:14	1
Bromomethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:14	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/29/21 15:14	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/29/21 15:14	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
Chloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:14	1
Chloroform	**0.94**	**cn**	0.50	0.090	ug/L			12/29/21 15:14	1
Chloromethane	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
cis-1,2-Dichloroethene	**0.073**	**J cn**	0.50	0.050	ug/L			12/29/21 15:14	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/29/21 15:14	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:14	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
Methyl tert-butyl ether	**0.056**	**J cn**	0.50	0.050	ug/L			12/29/21 15:14	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/29/21 15:14	1
Styrene	ND	cn	0.50	0.050	ug/L			12/29/21 15:14	1
Tetrachloroethene	**3.4**	**cn**	0.50	0.060	ug/L			12/29/21 15:14	1
Toluene	ND	cn	0.50	0.070	ug/L			12/29/21 15:14	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/29/21 15:14	1
Trichloroethene	**0.20**	**J cn**	0.50	0.060	ug/L			12/29/21 15:14	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			12/29/21 15:14	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/29/21 15:14	1

Client Sample ID: HD-COD-SW-26-0/1-0
Lab Sample ID: 410-67460-9

Date Collected: 12/17/21 10:35
Matrix: Water
Date Received: 12/17/21 16:43

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107	cn	80 - 120		12/29/21 15:14	1
4-Bromofluorobenzene (Surr)	103	cn	80 - 120		12/29/21 15:14	1
Dibromofluoromethane (Surr)	107	cn	80 - 120		12/29/21 15:14	1
Toluene-d8 (Surr)	89	cn	80 - 120		12/29/21 15:14	1

Client Sample ID: HD-COD-SW-27-0/1-0
Lab Sample ID: 410-67460-10

Date Collected: 12/17/21 11:05
Matrix: Water
Date Received: 12/17/21 16:43

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			12/29/21 15:34	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:34	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:34	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/29/21 15:34	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/29/21 15:34	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/29/21 15:34	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/29/21 15:34	1
Acetone	**0.94**	**J ^c cn**	5.0	0.90	ug/L			12/29/21 15:34	1
Benzene	ND	cn	0.50	0.050	ug/L			12/29/21 15:34	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 15:34	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 15:34	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/29/21 15:34	1
Bromomethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:34	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/29/21 15:34	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/29/21 15:34	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
Chloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:34	1
Chloroform	ND	cn	0.50	0.090	ug/L			12/29/21 15:34	1
Chloromethane	**0.068**	**J cn**	0.50	0.060	ug/L			12/29/21 15:34	1
cis-1,2-Dichloroethene	**0.13**	**J cn**	0.50	0.050	ug/L			12/29/21 15:34	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/29/21 15:34	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:34	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/29/21 15:34	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/29/21 15:34	1
Styrene	ND	cn	0.50	0.050	ug/L			12/29/21 15:34	1
Tetrachloroethene	**0.074**	**J cn**	0.50	0.060	ug/L			12/29/21 15:34	1
Toluene	ND	cn	0.50	0.070	ug/L			12/29/21 15:34	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/29/21 15:34	1
Trichloroethene	**0.17**	**J cn**	0.50	0.060	ug/L			12/29/21 15:34	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			12/29/21 15:34	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/29/21 15:34	1

Client Sample ID: HD-COD-SW-27-0/1-0
Lab Sample ID: 410-67460-10

Date Collected: 12/17/21 11:05
Matrix: Water
Date Received: 12/17/21 16:43

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*106*	*cn*	*80 - 120*		*12/29/21 15:34*	*1*
4-Bromofluorobenzene (Surr)	*102*	*cn*	*80 - 120*		*12/29/21 15:34*	*1*
Dibromofluoromethane (Surr)	*107*	*cn*	*80 - 120*		*12/29/21 15:34*	*1*
Toluene-d8 (Surr)	*90*	*cn*	*80 - 120*		*12/29/21 15:34*	*1*

Client Sample ID: HD-COD-SW-28-0/1-0
Lab Sample ID: 410-67460-11

Date Collected: 12/17/21 11:55
Matrix: Water
Date Received: 12/17/21 16:43

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			12/29/21 15:55	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:55	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:55	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/29/21 15:55	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/29/21 15:55	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/29/21 15:55	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/29/21 15:55	1
Acetone	**1.2**	**J ^c cn**	5.0	0.90	ug/L			12/29/21 15:55	1
Benzene	ND	cn	0.50	0.050	ug/L			12/29/21 15:55	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 15:55	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 15:55	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/29/21 15:55	1
Bromomethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:55	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/29/21 15:55	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/29/21 15:55	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
Chloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:55	1
Chloroform	ND	cn	0.50	0.090	ug/L			12/29/21 15:55	1
Chloromethane	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
cis-1,2-Dichloroethene	**0.11**	**J cn**	0.50	0.050	ug/L			12/29/21 15:55	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/29/21 15:55	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/29/21 15:55	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/29/21 15:55	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/29/21 15:55	1
Styrene	ND	cn	0.50	0.050	ug/L			12/29/21 15:55	1
Tetrachloroethene	**0.16**	**J cn**	0.50	0.060	ug/L			12/29/21 15:55	1
Toluene	ND	cn	0.50	0.070	ug/L			12/29/21 15:55	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/29/21 15:55	1
Trichloroethene	**0.14**	**J cn**	0.50	0.060	ug/L			12/29/21 15:55	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			12/29/21 15:55	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/29/21 15:55	1

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

Lab Sample ID: 410-67460-11

Date Collected: 12/17/21 11:55
Matrix: Water
Date Received: 12/17/21 16:43

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*	*cn*	*80 - 120*		*12/29/21 15:55*	*1*
4-Bromofluorobenzene (Surr)	*102*	*cn*	*80 - 120*		*12/29/21 15:55*	*1*
Dibromofluoromethane (Surr)	*108*	*cn*	*80 - 120*		*12/29/21 15:55*	*1*
Toluene-d8 (Surr)	*89*	*cn*	*80 - 120*		*12/29/21 15:55*	*1*

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

Lab Sample ID: 410-67460-12

Date Collected: 12/17/21 08:30
Matrix: Water
Date Received: 12/17/21 16:43

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			12/29/21 16:15	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 16:15	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 16:15	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/29/21 16:15	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/29/21 16:15	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/29/21 16:15	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/29/21 16:15	1
Acetone	**1.0**	**J ^c cn**	5.0	0.90	ug/L			12/29/21 16:15	1
Benzene	ND	cn	0.50	0.050	ug/L			12/29/21 16:15	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 16:15	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 16:15	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/29/21 16:15	1
Bromomethane	ND	cn	0.50	0.070	ug/L			12/29/21 16:15	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/29/21 16:15	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/29/21 16:15	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
Chloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 16:15	1
Chloroform	ND	cn	0.50	0.090	ug/L			12/29/21 16:15	1
Chloromethane	**0.094**	**J cn**	0.50	0.060	ug/L			12/29/21 16:15	1
cis-1,2-Dichloroethene	**0.16**	**J cn**	0.50	0.050	ug/L			12/29/21 16:15	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/29/21 16:15	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/29/21 16:15	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/29/21 16:15	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/29/21 16:15	1
Styrene	ND	cn	0.50	0.050	ug/L			12/29/21 16:15	1
Tetrachloroethene	**0.32**	**J cn**	0.50	0.060	ug/L			12/29/21 16:15	1
Toluene	ND	cn	0.50	0.070	ug/L			12/29/21 16:15	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/29/21 16:15	1
Trichloroethene	**0.20**	**J cn**	0.50	0.060	ug/L			12/29/21 16:15	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			12/29/21 16:15	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/29/21 16:15	1

Client Sample ID: HD-COD-SW-29-0/1-0
Lab Sample ID: 410-67460-12

Date Collected: 12/17/21 08:30
Matrix: Water
Date Received: 12/17/21 16:43

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*104*	*cn*	*80 - 120*		*12/29/21 16:15*	*1*
4-Bromofluorobenzene (Surr)	*103*	*cn*	*80 - 120*		*12/29/21 16:15*	*1*
Dibromofluoromethane (Surr)	*107*	*cn*	*80 - 120*		*12/29/21 16:15*	*1*
Toluene-d8 (Surr)	*89*	*cn*	*80 - 120*		*12/29/21 16:15*	*1*

Client Sample ID: HD-QC1-0/1-1
Lab Sample ID: 410-67460-13

Date Collected: 12/17/21 08:00
Matrix: Water
Date Received: 12/17/21 16:43

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	5.0	0.70	ug/L			12/29/21 16:36	10
1,1,1-Trichloroethane	**2.7**	**J cn**	5.0	0.60	ug/L			12/29/21 16:36	10
1,1,2,2-Tetrachloroethane	ND	cn	5.0	0.70	ug/L			12/29/21 16:36	10
1,1,2-Trichloroethane	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
1,1-Dichloroethane	ND	cn	5.0	0.70	ug/L			12/29/21 16:36	10
1,1-Dichloroethene	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
1,2-Dibromoethane (EDB)	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
1,2-Dichloroethane	ND	cn	5.0	0.50	ug/L			12/29/21 16:36	10
1,2-Dichloropropane	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
2-Butanone (MEK)	ND	^c cn	50	6.0	ug/L			12/29/21 16:36	10
2-Hexanone	ND	^c cn	50	6.0	ug/L			12/29/21 16:36	10
4-Methyl-2-pentanone (MIBK)	ND	^c cn	50	7.0	ug/L			12/29/21 16:36	10
Acetone	ND	^c cn	50	9.0	ug/L			12/29/21 16:36	10
Benzene	ND	cn	5.0	0.50	ug/L			12/29/21 16:36	10
Bromochloromethane	ND	cn	5.0	0.50	ug/L			12/29/21 16:36	10
Bromodichloromethane	ND	cn	5.0	0.50	ug/L			12/29/21 16:36	10
Bromoform	ND	cn	10	3.0	ug/L			12/29/21 16:36	10
Bromomethane	ND	cn	5.0	0.70	ug/L			12/29/21 16:36	10
Carbon disulfide	ND	cn	10	0.60	ug/L			12/29/21 16:36	10
Carbon tetrachloride	ND	cn	5.0	0.70	ug/L			12/29/21 16:36	10
Chlorobenzene	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
Chloroethane	ND	cn	5.0	0.70	ug/L			12/29/21 16:36	10
Chloroform	ND	cn	5.0	0.90	ug/L			12/29/21 16:36	10
Chloromethane	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
cis-1,2-Dichloroethene	**2.4**	**J cn**	5.0	0.50	ug/L			12/29/21 16:36	10
cis-1,3-Dichloropropene	ND	cn	5.0	0.50	ug/L			12/29/21 16:36	10
Dibromochloromethane	ND	cn	5.0	0.70	ug/L			12/29/21 16:36	10
Ethylbenzene	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
Methyl tert-butyl ether	ND	cn	5.0	0.50	ug/L			12/29/21 16:36	10
Methylene Chloride	ND	cn	5.0	0.70	ug/L			12/29/21 16:36	10
Styrene	ND	cn	5.0	0.50	ug/L			12/29/21 16:36	10
Tetrachloroethene	**31**	**cn**	5.0	0.60	ug/L			12/29/21 16:36	10
Toluene	ND	cn	5.0	0.70	ug/L			12/29/21 16:36	10
trans-1,2-Dichloroethene	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
trans-1,3-Dichloropropene	ND	cn	5.0	0.60	ug/L			12/29/21 16:36	10
Trichloroethene	**4.2**	**J cn**	5.0	0.60	ug/L			12/29/21 16:36	10
Vinyl chloride	ND	cn	5.0	1.0	ug/L			12/29/21 16:36	10
Xylenes, Total	ND	cn	10	1.5	ug/L			12/29/21 16:36	10

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

Date Collected: 12/17/21 08:00
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-13

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*	*cn*	*80 - 120*		*12/29/21 16:36*	*10*
4-Bromofluorobenzene (Surr)	*102*	*cn*	*80 - 120*		*12/29/21 16:36*	*10*
Dibromofluoromethane (Surr)	*106*	*cn*	*80 - 120*		*12/29/21 16:36*	*10*
Toluene-d8 (Surr)	*89*	*cn*	*80 - 120*		*12/29/21 16:36*	*10*

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

Date Collected: 12/17/21 00:00
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			12/29/21 13:10	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
2-Butanone (MEK)	ND	^c cn	5.0	0.60	ug/L			12/29/21 13:10	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			12/29/21 13:10	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			12/29/21 13:10	1
Acetone	ND	^c cn	5.0	0.90	ug/L			12/29/21 13:10	1
Benzene	ND	cn	0.50	0.050	ug/L			12/29/21 13:10	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 13:10	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			12/29/21 13:10	1
Bromoform	ND	cn	1.0	0.30	ug/L			12/29/21 13:10	1
Bromomethane	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			12/29/21 13:10	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
Chloroethane	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
Chloroform	ND	cn	0.50	0.090	ug/L			12/29/21 13:10	1
Chloromethane	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
cis-1,2-Dichloroethene	ND	cn	0.50	0.050	ug/L			12/29/21 13:10	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			12/29/21 13:10	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			12/29/21 13:10	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
Styrene	ND	cn	0.50	0.050	ug/L			12/29/21 13:10	1
Tetrachloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
Toluene	ND	cn	0.50	0.070	ug/L			12/29/21 13:10	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
Trichloroethene	ND	cn	0.50	0.060	ug/L			12/29/21 13:10	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			12/29/21 13:10	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			12/29/21 13:10	1

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

Date Collected: 12/17/21 00:00
Date Received: 12/17/21 16:43

Lab Sample ID: 410-67460-14

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108	cn	80 - 120		12/29/21 13:10	1
4-Bromofluorobenzene (Surr)	103	cn	80 - 120		12/29/21 13:10	1
Dibromofluoromethane (Surr)	107	cn	80 - 120		12/29/21 13:10	1
Toluene-d8 (Surr)	89	cn	80 - 120		12/29/21 13:10	1

Default Detection Limits

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

Job ID: 410-67460-1

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: 410-67460-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-67460-1	HD-COD-SW-6-0/1-0	107 cn	93 cn	103 cn	102 cn
410-67460-2	HD-COD-SW-7-0/1-0	108 cn	92 cn	102 cn	101 cn
410-67460-3	HD-COD-SW-8-0/1-0	107 cn	92 cn	102 cn	101 cn
410-67460-4	HD-COD-SW-9-0/1-0	107 cn	91 cn	103 cn	101 cn
410-67460-5	HD-COD-SW-13-0/1-0	108 cn	91 cn	104 cn	102 cn
410-67460-6	HD-COD-SW-15-0/1-0	107 cn	92 cn	103 cn	102 cn
410-67460-6 MS	HD-COD-SW-15-0/1-0 MS	106	97	100	102
410-67460-6 MSD	HD-COD-SW-15-0/1-0 MSD	106	97	99	102
410-67460-7	HD-COD-SW-16-0/1-0	107 cn	92 cn	101 cn	101 cn
410-67460-8 - DL	HD-COD-SW-17-0/1-0	103	103	107	89
410-67460-8	HD-COD-SW-17-0/1-0	105 cn	94 cn	100 cn	102 cn
410-67460-9	HD-COD-SW-26-0/1-0	107 cn	103 cn	107 cn	89 cn
410-67460-10	HD-COD-SW-27-0/1-0	106 cn	102 cn	107 cn	90 cn
410-67460-11	HD-COD-SW-28-0/1-0	107 cn	102 cn	108 cn	89 cn
410-67460-12	HD-COD-SW-29-0/1-0	104 cn	103 cn	107 cn	89 cn
410-67460-13	HD-QC1-0/1-1	107 cn	102 cn	106 cn	89 cn
410-67460-14	HD-QC1-0/1-2	108 cn	103 cn	107 cn	89 cn
LCS 410-209587/4	Lab Control Sample	105	98	101	102
LCS 410-210047/4	Lab Control Sample	106	104	108	90
LCS 410-211830/4	Lab Control Sample	104	97	99	102
LCSD 410-209587/5	Lab Control Sample Dup	104	96	99	101
LCSD 410-210047/5	Lab Control Sample Dup	104	103	107	91
LCSD 410-211830/5	Lab Control Sample Dup	101	97	99	102
MB 410-209587/7	Method Blank	107	94	102	100
MB 410-210047/7	Method Blank	106	103	107	90
MB 410-211830/11	Method Blank	106	93	102	103

Surrogate Legend

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

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

Lab Sample ID: MB 410-209587/7
Matrix: Water
Analysis Batch: 209587

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			12/28/21 11:29	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			12/28/21 11:29	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			12/28/21 11:29	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			12/28/21 11:29	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			12/28/21 11:29	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			12/28/21 11:29	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			12/28/21 11:29	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			12/28/21 11:29	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			12/28/21 11:29	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			12/28/21 11:29	1
2-Hexanone	ND		5.0	0.60	ug/L			12/28/21 11:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			12/28/21 11:29	1
Acetone	ND		5.0	0.90	ug/L			12/28/21 11:29	1
Benzene	ND		0.50	0.050	ug/L			12/28/21 11:29	1
Bromochloromethane	ND		0.50	0.050	ug/L			12/28/21 11:29	1
Bromodichloromethane	ND		0.50	0.050	ug/L			12/28/21 11:29	1
Bromoform	ND		1.0	0.30	ug/L			12/28/21 11:29	1
Bromomethane	ND		0.50	0.070	ug/L			12/28/21 11:29	1
Carbon disulfide	ND		1.0	0.060	ug/L			12/28/21 11:29	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			12/28/21 11:29	1
Chlorobenzene	ND		0.50	0.060	ug/L			12/28/21 11:29	1
Chloroethane	ND		0.50	0.070	ug/L			12/28/21 11:29	1
Chloroform	ND		0.50	0.090	ug/L			12/28/21 11:29	1
Chloromethane	ND		0.50	0.060	ug/L			12/28/21 11:29	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			12/28/21 11:29	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			12/28/21 11:29	1
Dibromochloromethane	ND		0.50	0.070	ug/L			12/28/21 11:29	1
Ethylbenzene	ND		0.50	0.060	ug/L			12/28/21 11:29	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			12/28/21 11:29	1
Methylene Chloride	ND		0.50	0.070	ug/L			12/28/21 11:29	1
Styrene	ND		0.50	0.050	ug/L			12/28/21 11:29	1
Tetrachloroethene	ND		0.50	0.060	ug/L			12/28/21 11:29	1
Toluene	ND		0.50	0.070	ug/L			12/28/21 11:29	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			12/28/21 11:29	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			12/28/21 11:29	1
Trichloroethene	ND		0.50	0.060	ug/L			12/28/21 11:29	1
Vinyl chloride	ND		0.50	0.10	ug/L			12/28/21 11:29	1
Xylenes, Total	ND		1.0	0.15	ug/L			12/28/21 11:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*12/28/21 11:29*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*12/28/21 11:29*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*12/28/21 11:29*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/28/21 11:29*	*1*

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

Lab Sample ID: LCS 410-209587/4
Matrix: Water
Analysis Batch: 209587

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	5.45		ug/L		109	71 - 134
1,1,1-Trichloroethane	5.00	5.23		ug/L		105	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.49		ug/L		110	75 - 123
1,1,2-Trichloroethane	5.00	5.78		ug/L		116	80 - 120
1,1-Dichloroethane	5.00	5.19		ug/L		104	74 - 120
1,1-Dichloroethene	5.00	5.49		ug/L		110	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.47		ug/L		109	80 - 120
1,2-Dichloroethane	5.00	5.16		ug/L		103	69 - 122
1,2-Dichloropropane	5.00	5.65		ug/L		113	80 - 120
2-Butanone (MEK)	62.5	78.9		ug/L		126	59 - 141
2-Hexanone	62.5	81.7		ug/L		131	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	77.0		ug/L		123	55 - 140
Acetone	62.5	63.9		ug/L		102	60 - 146
Benzene	5.00	5.52		ug/L		110	80 - 120
Bromochloromethane	5.00	5.62		ug/L		112	80 - 120
Bromodichloromethane	5.00	5.71		ug/L		114	73 - 124
Bromoform	5.00	5.81		ug/L		116	49 - 144
Bromomethane	5.00	4.82		ug/L		96	60 - 136
Carbon disulfide	5.00	5.50		ug/L		110	67 - 130
Carbon tetrachloride	5.00	5.56		ug/L		111	64 - 141
Chlorobenzene	5.00	5.54		ug/L		111	80 - 120
Chloroethane	5.00	5.28		ug/L		106	63 - 120
Chloroform	5.00	5.36		ug/L		107	80 - 120
Chloromethane	5.00	4.76		ug/L		95	56 - 124
cis-1,2-Dichloroethene	5.00	5.42		ug/L		108	80 - 122
cis-1,3-Dichloropropene	5.00	5.44		ug/L		109	67 - 121
Dibromochloromethane	5.00	5.74		ug/L		115	64 - 138
Ethylbenzene	5.00	5.33		ug/L		107	80 - 120
Methyl tert-butyl ether	5.00	4.86		ug/L		97	69 - 120
Methylene Chloride	5.00	5.34		ug/L		107	80 - 120
Styrene	5.00	5.36		ug/L		107	80 - 120
Tetrachloroethene	5.00	5.62		ug/L		112	80 - 120
Toluene	5.00	5.40		ug/L		108	80 - 120
trans-1,2-Dichloroethene	5.00	5.26		ug/L		105	80 - 122
trans-1,3-Dichloropropene	5.00	5.63		ug/L		113	61 - 129
Trichloroethene	5.00	5.39		ug/L		108	80 - 120
Vinyl chloride	5.00	4.90		ug/L		98	60 - 125
Xylenes, Total	15.0	16.0		ug/L		107	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: LCSD 410-209587/5
Matrix: Water
Analysis Batch: 209587

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	5.42		ug/L		108	71 - 134	0	30
1,1,1-Trichloroethane			5.00	5.32		ug/L		106	78 - 126	2	30
1,1,2,2-Tetrachloroethane			5.00	5.60		ug/L		112	75 - 123	2	30
1,1,2-Trichloroethane			5.00	5.68		ug/L		114	80 - 120	2	30
1,1-Dichloroethane			5.00	5.24		ug/L		105	74 - 120	1	30
1,1-Dichloroethene			5.00	5.64		ug/L		113	80 - 131	3	30
1,2-Dibromoethane (EDB)			5.00	5.47		ug/L		109	80 - 120	0	30
1,2-Dichloroethane			5.00	5.27		ug/L		105	69 - 122	2	30
1,2-Dichloropropane			5.00	5.68		ug/L		114	80 - 120	1	30
2-Butanone (MEK)			62.5	72.1		ug/L		115	59 - 141	9	30
2-Hexanone			62.5	73.7		ug/L		118	52 - 140	10	30
4-Methyl-2-pentanone (MIBK)			62.5	69.9		ug/L		112	55 - 140	10	30
Acetone			62.5	61.4		ug/L		98	60 - 146	4	30
Benzene			5.00	5.53		ug/L		111	80 - 120	0	30
Bromochloromethane			5.00	5.76		ug/L		115	80 - 120	2	30
Bromodichloromethane			5.00	5.75		ug/L		115	73 - 124	1	30
Bromoform			5.00	5.72		ug/L		114	49 - 144	1	30
Bromomethane			5.00	4.92		ug/L		98	60 - 136	2	30
Carbon disulfide			5.00	5.60		ug/L		112	67 - 130	2	30
Carbon tetrachloride			5.00	5.52		ug/L		110	64 - 141	1	30
Chlorobenzene			5.00	5.50		ug/L		110	80 - 120	1	30
Chloroethane			5.00	5.25		ug/L		105	63 - 120	1	30
Chloroform			5.00	5.35		ug/L		107	80 - 120	0	30
Chloromethane			5.00	5.05		ug/L		101	56 - 124	6	30
cis-1,2-Dichloroethene			5.00	5.49		ug/L		110	80 - 122	1	30
cis-1,3-Dichloropropene			5.00	5.37		ug/L		107	67 - 121	1	30
Dibromochloromethane			5.00	5.64		ug/L		113	64 - 138	2	30
Ethylbenzene			5.00	5.32		ug/L		106	80 - 120	0	30
Methyl tert-butyl ether			5.00	4.93		ug/L		99	69 - 120	1	30
Methylene Chloride			5.00	5.42		ug/L		108	80 - 120	1	30
Styrene			5.00	5.43		ug/L		109	80 - 120	1	30
Tetrachloroethene			5.00	5.57		ug/L		111	80 - 120	1	30
Toluene			5.00	5.43		ug/L		109	80 - 120	0	30
trans-1,2-Dichloroethene			5.00	5.36		ug/L		107	80 - 122	2	30
trans-1,3-Dichloropropene			5.00	5.56		ug/L		111	61 - 129	1	30
Trichloroethene			5.00	5.45		ug/L		109	80 - 120	1	30
Vinyl chloride			5.00	5.09		ug/L		102	60 - 125	4	30
Xylenes, Total			15.0	16.2		ug/L		108	80 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

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

Lab Sample ID: 410-67460-6 MS
Matrix: Water
Analysis Batch: 209587

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND	cn	5.00	5.45		ug/L		109	71 - 134
1,1,1-Trichloroethane	0.18	J cn	5.00	5.77		ug/L		112	78 - 126
1,1,2,2-Tetrachloroethane	ND	cn	5.00	5.28		ug/L		106	75 - 123
1,1,2-Trichloroethane	ND	cn	5.00	5.75		ug/L		115	80 - 120
1,1-Dichloroethane	0.11	J cn	5.00	5.60		ug/L		110	74 - 120
1,1-Dichloroethene	0.12	J cn	5.00	6.16		ug/L		121	80 - 131
1,2-Dibromoethane (EDB)	ND	cn	5.00	5.33		ug/L		106	80 - 120
1,2-Dichloroethane	ND	cn	5.00	5.28		ug/L		106	69 - 122
1,2-Dichloropropane	ND	cn	5.00	5.89		ug/L		118	80 - 120
2-Butanone (MEK)	ND	^c cn	62.6	75.1		ug/L		120	59 - 141
2-Hexanone	ND	^c cn	62.6	76.4		ug/L		122	52 - 140
4-Methyl-2-pentanone (MIBK)	ND	^c cn	62.6	73.2		ug/L		117	55 - 140
Acetone	ND	cn	62.6	62.4		ug/L		100	60 - 146
Benzene	ND	cn	5.00	5.81		ug/L		116	80 - 120
Bromochloromethane	ND	cn	5.00	5.82		ug/L		116	80 - 120
Bromodichloromethane	ND	cn	5.00	5.77		ug/L		115	73 - 124
Bromoform	ND	cn	5.00	5.55		ug/L		111	49 - 144
Bromomethane	ND	^c cn	5.00	4.50		ug/L		90	60 - 136
Carbon disulfide	ND	cn	5.00	6.04		ug/L		121	67 - 130
Carbon tetrachloride	ND	cn	5.00	5.99		ug/L		120	64 - 141
Chlorobenzene	ND	cn	5.00	5.62		ug/L		112	80 - 120
Chloroethane	ND	^c cn	5.00	5.30		ug/L		106	63 - 120
Chloroform	0.31	J cn	5.00	5.87		ug/L		111	80 - 120
Chloromethane	ND	^c FL cn	5.00	4.08		ug/L		82	80 - 120
cis-1,2-Dichloroethene	0.86	cn	5.00	6.53		ug/L		113	80 - 122
cis-1,3-Dichloropropene	ND	cn	5.00	5.50		ug/L		110	67 - 121
Dibromochloromethane	ND	cn	5.00	5.58		ug/L		112	64 - 138
Ethylbenzene	ND	cn	5.00	5.53		ug/L		111	80 - 120
Methyl tert-butyl ether	0.085	J cn	5.00	4.93		ug/L		97	69 - 120
Methylene Chloride	ND	cn	5.00	5.65		ug/L		113	80 - 120
Styrene	ND	cn	5.00	5.46		ug/L		109	80 - 120
Tetrachloroethene	4.7	cn	5.00	10.3		ug/L		113	80 - 120
Toluene	ND	cn	5.00	5.61		ug/L		112	80 - 120
trans-1,2-Dichloroethene	ND	cn	5.00	5.63		ug/L		113	80 - 122
trans-1,3-Dichloropropene	ND	cn	5.00	5.51		ug/L		110	61 - 129
Trichloroethene	1.0	cn	5.00	6.69		ug/L		113	80 - 120
Vinyl chloride	ND	^c cn	5.00	4.81		ug/L		96	60 - 125
Xylenes, Total	ND	cn	15.0	16.5		ug/L		110	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: 410-67460-6 MSD
Matrix: Water
Analysis Batch: 209587

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND	cn	5.00	5.48		ug/L		109	71 - 134	1	30
1,1,1-Trichloroethane	0.18	J cn	5.00	5.76		ug/L		111	78 - 126	0	30
1,1,2,2-Tetrachloroethane	ND	cn	5.00	5.28		ug/L		106	75 - 123	0	30
1,1,2-Trichloroethane	ND	cn	5.00	5.69		ug/L		114	80 - 120	1	30
1,1-Dichloroethane	0.11	J cn	5.00	5.52		ug/L		108	74 - 120	2	30
1,1-Dichloroethene	0.12	J cn	5.00	6.18		ug/L		121	80 - 131	0	30
1,2-Dibromoethane (EDB)	ND	cn	5.00	5.45		ug/L		109	80 - 120	2	30
1,2-Dichloroethane	ND	cn	5.00	5.14		ug/L		103	69 - 122	3	30
1,2-Dichloropropane	ND	cn	5.00	5.92		ug/L		118	80 - 120	0	30
2-Butanone (MEK)	ND	^c cn	62.6	79.0		ug/L		126	59 - 141	5	30
2-Hexanone	ND	^c cn	62.6	83.1		ug/L		133	52 - 140	8	30
4-Methyl-2-pentanone (MIBK)	ND	^c cn	62.6	78.3		ug/L		125	55 - 140	7	30
Acetone	ND	cn	62.6	65.2		ug/L		104	60 - 146	4	30
Benzene	ND	cn	5.00	5.81		ug/L		116	80 - 120	0	30
Bromochloromethane	ND	cn	5.00	5.77		ug/L		115	80 - 120	1	30
Bromodichloromethane	ND	cn	5.00	5.79		ug/L		116	73 - 124	0	30
Bromoform	ND	cn	5.00	5.49		ug/L		110	49 - 144	1	30
Bromomethane	ND	^c cn	5.00	4.75		ug/L		95	60 - 136	5	30
Carbon disulfide	ND	cn	5.00	6.00		ug/L		120	67 - 130	1	30
Carbon tetrachloride	ND	cn	5.00	5.96		ug/L		119	64 - 141	1	30
Chlorobenzene	ND	cn	5.00	5.60		ug/L		112	80 - 120	0	30
Chloroethane	ND	^c cn	5.00	5.31		ug/L		106	63 - 120	0	30
Chloroform	0.31	J cn	5.00	5.81		ug/L		110	80 - 120	1	30
Chloromethane	ND	^c FL cn	5.00	3.72	FL	ug/L		74	80 - 120	9	30
cis-1,2-Dichloroethene	0.86	cn	5.00	6.54		ug/L		113	80 - 122	0	30
cis-1,3-Dichloropropene	ND	cn	5.00	5.50		ug/L		110	67 - 121	0	30
Dibromochloromethane	ND	cn	5.00	5.67		ug/L		113	64 - 138	2	30
Ethylbenzene	ND	cn	5.00	5.53		ug/L		110	80 - 120	0	30
Methyl tert-butyl ether	0.085	J cn	5.00	4.89		ug/L		96	69 - 120	1	30
Methylene Chloride	ND	cn	5.00	5.56		ug/L		111	80 - 120	2	30
Styrene	ND	cn	5.00	5.45		ug/L		109	80 - 120	0	30
Tetrachloroethene	4.7	cn	5.00	10.4		ug/L		115	80 - 120	1	30
Toluene	ND	cn	5.00	5.65		ug/L		113	80 - 120	1	30
trans-1,2-Dichloroethene	ND	cn	5.00	5.63		ug/L		112	80 - 122	0	30
trans-1,3-Dichloropropene	ND	cn	5.00	5.48		ug/L		109	61 - 129	1	30
Trichloroethene	1.0	cn	5.00	6.70		ug/L		113	80 - 120	0	30
Vinyl chloride	ND	^c cn	5.00	4.38		ug/L		87	60 - 125	9	30
Xylenes, Total	ND	cn	15.0	16.6		ug/L		110	80 - 120	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: MB 410-210047/7
Matrix: Water
Analysis Batch: 210047

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			12/29/21 12:21	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			12/29/21 12:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			12/29/21 12:21	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			12/29/21 12:21	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			12/29/21 12:21	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			12/29/21 12:21	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			12/29/21 12:21	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			12/29/21 12:21	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			12/29/21 12:21	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			12/29/21 12:21	1
2-Hexanone	ND		5.0	0.60	ug/L			12/29/21 12:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			12/29/21 12:21	1
Acetone	ND		5.0	0.90	ug/L			12/29/21 12:21	1
Benzene	ND		0.50	0.050	ug/L			12/29/21 12:21	1
Bromochloromethane	ND		0.50	0.050	ug/L			12/29/21 12:21	1
Bromodichloromethane	ND		0.50	0.050	ug/L			12/29/21 12:21	1
Bromoform	ND		1.0	0.30	ug/L			12/29/21 12:21	1
Bromomethane	ND		0.50	0.070	ug/L			12/29/21 12:21	1
Carbon disulfide	ND		1.0	0.060	ug/L			12/29/21 12:21	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			12/29/21 12:21	1
Chlorobenzene	ND		0.50	0.060	ug/L			12/29/21 12:21	1
Chloroethane	ND		0.50	0.070	ug/L			12/29/21 12:21	1
Chloroform	ND		0.50	0.090	ug/L			12/29/21 12:21	1
Chloromethane	ND		0.50	0.060	ug/L			12/29/21 12:21	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			12/29/21 12:21	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			12/29/21 12:21	1
Dibromochloromethane	ND		0.50	0.070	ug/L			12/29/21 12:21	1
Ethylbenzene	ND		0.50	0.060	ug/L			12/29/21 12:21	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			12/29/21 12:21	1
Methylene Chloride	ND		0.50	0.070	ug/L			12/29/21 12:21	1
Styrene	ND		0.50	0.050	ug/L			12/29/21 12:21	1
Tetrachloroethene	ND		0.50	0.060	ug/L			12/29/21 12:21	1
Toluene	ND		0.50	0.070	ug/L			12/29/21 12:21	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			12/29/21 12:21	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			12/29/21 12:21	1
Trichloroethene	ND		0.50	0.060	ug/L			12/29/21 12:21	1
Vinyl chloride	ND		0.50	0.10	ug/L			12/29/21 12:21	1
Xylenes, Total	ND		1.0	0.15	ug/L			12/29/21 12:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*12/29/21 12:21*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/29/21 12:21*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*12/29/21 12:21*	*1*
Toluene-d8 (Surr)	*90*		*80 - 120*		*12/29/21 12:21*	*1*

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

Lab Sample ID: LCS 410-210047/4
Matrix: Water
Analysis Batch: 210047

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	4.61		ug/L		92	71 - 134
1,1,1-Trichloroethane	5.00	5.50		ug/L		110	78 - 126
1,1,2,2-Tetrachloroethane	5.00	4.55		ug/L		91	75 - 123
1,1,2-Trichloroethane	5.00	4.62		ug/L		92	80 - 120
1,1-Dichloroethane	5.00	5.52		ug/L		110	74 - 120
1,1-Dichloroethene	5.00	5.64		ug/L		113	80 - 131
1,2-Dibromoethane (EDB)	5.00	4.61		ug/L		92	80 - 120
1,2-Dichloroethane	5.00	5.50		ug/L		110	69 - 122
1,2-Dichloropropane	5.00	5.61		ug/L		112	80 - 120
2-Butanone (MEK)	62.5	41.9		ug/L		67	59 - 141
2-Hexanone	62.5	40.3		ug/L		65	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	39.0		ug/L		62	55 - 140
Acetone	62.5	41.1		ug/L		66	60 - 146
Benzene	5.00	5.63		ug/L		113	80 - 120
Bromochloromethane	5.00	5.77		ug/L		115	80 - 120
Bromodichloromethane	5.00	5.90		ug/L		118	73 - 124
Bromoform	5.00	5.60		ug/L		112	49 - 144
Bromomethane	5.00	5.64		ug/L		113	60 - 136
Carbon disulfide	5.00	6.42		ug/L		128	67 - 130
Carbon tetrachloride	5.00	5.49		ug/L		110	64 - 141
Chlorobenzene	5.00	4.50		ug/L		90	80 - 120
Chloroethane	5.00	5.69		ug/L		114	63 - 120
Chloroform	5.00	5.58		ug/L		112	80 - 120
Chloromethane	5.00	5.35		ug/L		107	56 - 124
cis-1,2-Dichloroethene	5.00	5.76		ug/L		115	80 - 122
cis-1,3-Dichloropropene	5.00	5.64		ug/L		113	67 - 121
Dibromochloromethane	5.00	5.07		ug/L		101	64 - 138
Ethylbenzene	5.00	4.56		ug/L		91	80 - 120
Methyl tert-butyl ether	5.00	5.86		ug/L		117	69 - 120
Methylene Chloride	5.00	5.46		ug/L		109	80 - 120
Styrene	5.00	4.67		ug/L		93	80 - 120
Tetrachloroethene	5.00	4.45		ug/L		89	80 - 120
Toluene	5.00	4.48		ug/L		90	80 - 120
trans-1,2-Dichloroethene	5.00	5.62		ug/L		112	80 - 122
trans-1,3-Dichloropropene	5.00	4.80		ug/L		96	61 - 129
Trichloroethene	5.00	5.67		ug/L		113	80 - 120
Vinyl chloride	5.00	5.31		ug/L		106	60 - 125
Xylenes, Total	15.0	13.7		ug/L		91	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*108*		*80 - 120*
Toluene-d8 (Surr)	*90*		*80 - 120*

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

Lab Sample ID: LCSD 410-210047/5
Matrix: Water
Analysis Batch: 210047

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	4.49		ug/L		90	71 - 134	2	30
1,1,1-Trichloroethane			5.00	5.41		ug/L		108	78 - 126	2	30
1,1,2,2-Tetrachloroethane			5.00	4.49		ug/L		90	75 - 123	1	30
1,1,2-Trichloroethane			5.00	4.60		ug/L		92	80 - 120	1	30
1,1-Dichloroethane			5.00	5.35		ug/L		107	74 - 120	3	30
1,1-Dichloroethene			5.00	5.47		ug/L		109	80 - 131	3	30
1,2-Dibromoethane (EDB)			5.00	4.59		ug/L		92	80 - 120	1	30
1,2-Dichloroethane			5.00	5.35		ug/L		107	69 - 122	3	30
1,2-Dichloropropane			5.00	5.51		ug/L		110	80 - 120	2	30
2-Butanone (MEK)			62.5	42.6		ug/L		68	59 - 141	2	30
2-Hexanone			62.5	40.4		ug/L		65	52 - 140	0	30
4-Methyl-2-pentanone (MIBK)			62.5	38.8		ug/L		62	55 - 140	1	30
Acetone			62.5	40.9		ug/L		65	60 - 146	1	30
Benzene			5.00	5.49		ug/L		110	80 - 120	3	30
Bromochloromethane			5.00	5.66		ug/L		113	80 - 120	2	30
Bromodichloromethane			5.00	5.76		ug/L		115	73 - 124	2	30
Bromoform			5.00	5.51		ug/L		110	49 - 144	2	30
Bromomethane			5.00	5.52		ug/L		110	60 - 136	2	30
Carbon disulfide			5.00	6.27		ug/L		125	67 - 130	2	30
Carbon tetrachloride			5.00	5.36		ug/L		107	64 - 141	2	30
Chlorobenzene			5.00	4.42		ug/L		88	80 - 120	2	30
Chloroethane			5.00	5.67		ug/L		113	63 - 120	0	30
Chloroform			5.00	5.44		ug/L		109	80 - 120	3	30
Chloromethane			5.00	5.48		ug/L		110	56 - 124	2	30
cis-1,2-Dichloroethene			5.00	5.61		ug/L		112	80 - 122	3	30
cis-1,3-Dichloropropene			5.00	5.61		ug/L		112	67 - 121	1	30
Dibromochloromethane			5.00	4.93		ug/L		99	64 - 138	3	30
Ethylbenzene			5.00	4.50		ug/L		90	80 - 120	1	30
Methyl tert-butyl ether			5.00	5.67		ug/L		113	69 - 120	3	30
Methylene Chloride			5.00	5.34		ug/L		107	80 - 120	2	30
Styrene			5.00	4.57		ug/L		91	80 - 120	2	30
Tetrachloroethene			5.00	4.36		ug/L		87	80 - 120	2	30
Toluene			5.00	4.45		ug/L		89	80 - 120	1	30
trans-1,2-Dichloroethene			5.00	5.50		ug/L		110	80 - 122	2	30
trans-1,3-Dichloropropene			5.00	4.69		ug/L		94	61 - 129	2	30
Trichloroethene			5.00	5.56		ug/L		111	80 - 120	2	30
Vinyl chloride			5.00	5.29		ug/L		106	60 - 125	0	30
Xylenes, Total			15.0	13.5		ug/L		90	80 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*91*		*80 - 120*

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

Lab Sample ID: MB 410-211830/11
Matrix: Water
Analysis Batch: 211830

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			01/05/22 12:05	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			01/05/22 12:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			01/05/22 12:05	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			01/05/22 12:05	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			01/05/22 12:05	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			01/05/22 12:05	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			01/05/22 12:05	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			01/05/22 12:05	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			01/05/22 12:05	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			01/05/22 12:05	1
2-Hexanone	ND		5.0	0.60	ug/L			01/05/22 12:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			01/05/22 12:05	1
Acetone	ND		5.0	0.90	ug/L			01/05/22 12:05	1
Benzene	ND		0.50	0.050	ug/L			01/05/22 12:05	1
Bromochloromethane	ND		0.50	0.050	ug/L			01/05/22 12:05	1
Bromodichloromethane	ND		0.50	0.050	ug/L			01/05/22 12:05	1
Bromoform	ND		1.0	0.30	ug/L			01/05/22 12:05	1
Bromomethane	ND		0.50	0.070	ug/L			01/05/22 12:05	1
Carbon disulfide	ND		1.0	0.060	ug/L			01/05/22 12:05	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			01/05/22 12:05	1
Chlorobenzene	ND		0.50	0.060	ug/L			01/05/22 12:05	1
Chloroethane	ND		0.50	0.070	ug/L			01/05/22 12:05	1
Chloroform	ND		0.50	0.090	ug/L			01/05/22 12:05	1
Chloromethane	ND		0.50	0.060	ug/L			01/05/22 12:05	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			01/05/22 12:05	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			01/05/22 12:05	1
Dibromochloromethane	ND		0.50	0.070	ug/L			01/05/22 12:05	1
Ethylbenzene	ND		0.50	0.060	ug/L			01/05/22 12:05	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			01/05/22 12:05	1
Methylene Chloride	ND		0.50	0.070	ug/L			01/05/22 12:05	1
Styrene	ND		0.50	0.050	ug/L			01/05/22 12:05	1
Tetrachloroethene	ND		0.50	0.060	ug/L			01/05/22 12:05	1
Toluene	ND		0.50	0.070	ug/L			01/05/22 12:05	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			01/05/22 12:05	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			01/05/22 12:05	1
Trichloroethene	ND		0.50	0.060	ug/L			01/05/22 12:05	1
Vinyl chloride	ND		0.50	0.10	ug/L			01/05/22 12:05	1
Xylenes, Total	ND		1.0	0.15	ug/L			01/05/22 12:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*01/05/22 12:05*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*01/05/22 12:05*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*01/05/22 12:05*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*01/05/22 12:05*	*1*

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

Lab Sample ID: LCS 410-211830/4
Matrix: Water
Analysis Batch: 211830

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	5.59		ug/L		112	71 - 134
1,1,1-Trichloroethane	5.00	5.14		ug/L		103	78 - 126
1,1,2,2-Tetrachloroethane	5.00	6.25	*+	ug/L		125	75 - 123
1,1,2-Trichloroethane	5.00	6.13	*+	ug/L		123	80 - 120
1,1-Dichloroethane	5.00	5.43		ug/L		109	74 - 120
1,1-Dichloroethene	5.00	5.54		ug/L		111	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.89		ug/L		118	80 - 120
1,2-Dichloroethane	5.00	5.53		ug/L		111	69 - 122
1,2-Dichloropropane	5.00	6.13	*+	ug/L		123	80 - 120
2-Butanone (MEK)	62.5	82.4		ug/L		132	59 - 141
2-Hexanone	62.5	89.6	*+	ug/L		143	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	84.3		ug/L		135	55 - 140
Acetone	62.5	64.4		ug/L		103	60 - 146
Benzene	5.00	5.73		ug/L		115	80 - 120
Bromochloromethane	5.00	5.61		ug/L		112	80 - 120
Bromodichloromethane	5.00	5.98		ug/L		120	73 - 124
Bromoform	5.00	5.94		ug/L		119	49 - 144
Bromomethane	5.00	4.28		ug/L		86	60 - 136
Carbon disulfide	5.00	5.64		ug/L		113	67 - 130
Carbon tetrachloride	5.00	5.25		ug/L		105	64 - 141
Chlorobenzene	5.00	5.74		ug/L		115	80 - 120
Chloroethane	5.00	4.35		ug/L		87	63 - 120
Chloroform	5.00	5.48		ug/L		110	80 - 120
Chloromethane	5.00	5.03		ug/L		101	56 - 124
cis-1,2-Dichloroethene	5.00	5.43		ug/L		109	80 - 122
cis-1,3-Dichloropropene	5.00	5.81		ug/L		116	67 - 121
Dibromochloromethane	5.00	5.98		ug/L		120	64 - 138
Ethylbenzene	5.00	5.60		ug/L		112	80 - 120
Methyl tert-butyl ether	5.00	4.93		ug/L		99	69 - 120
Methylene Chloride	5.00	5.54		ug/L		111	80 - 120
Styrene	5.00	5.55		ug/L		111	80 - 120
Tetrachloroethene	5.00	5.62		ug/L		112	80 - 120
Toluene	5.00	5.60		ug/L		112	80 - 120
trans-1,2-Dichloroethene	5.00	5.27		ug/L		105	80 - 122
trans-1,3-Dichloropropene	5.00	6.02		ug/L		120	61 - 129
Trichloroethene	5.00	5.46		ug/L		109	80 - 120
Vinyl chloride	5.00	4.61		ug/L		92	60 - 125
Xylenes, Total	15.0	16.6		ug/L		111	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: LCSD 410-211830/5
Matrix: Water
Analysis Batch: 211830

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	5.40		ug/L		108	71 - 134	3	30
1,1,1-Trichloroethane			5.00	4.99		ug/L		100	78 - 126	3	30
1,1,2,2-Tetrachloroethane			5.00	6.21	*+	ug/L		124	75 - 123	1	30
1,1,2-Trichloroethane			5.00	5.92		ug/L		118	80 - 120	4	30
1,1-Dichloroethane			5.00	5.36		ug/L		107	74 - 120	1	30
1,1-Dichloroethene			5.00	5.41		ug/L		108	80 - 131	2	30
1,2-Dibromoethane (EDB)			5.00	5.74		ug/L		115	80 - 120	3	30
1,2-Dichloroethane			5.00	5.46		ug/L		109	69 - 122	1	30
1,2-Dichloropropane			5.00	5.88		ug/L		118	80 - 120	4	30
2-Butanone (MEK)			62.5	83.8		ug/L		134	59 - 141	2	30
2-Hexanone			62.5	92.2	*+	ug/L		147	52 - 140	3	30
4-Methyl-2-pentanone (MIBK)			62.5	85.2		ug/L		136	55 - 140	1	30
Acetone			62.5	64.1		ug/L		102	60 - 146	1	30
Benzene			5.00	5.56		ug/L		111	80 - 120	3	30
Bromochloromethane			5.00	5.53		ug/L		111	80 - 120	2	30
Bromodichloromethane			5.00	5.81		ug/L		116	73 - 124	3	30
Bromoform			5.00	5.73		ug/L		115	49 - 144	4	30
Bromomethane			5.00	4.15		ug/L		83	60 - 136	3	30
Carbon disulfide			5.00	5.46		ug/L		109	67 - 130	3	30
Carbon tetrachloride			5.00	5.12		ug/L		102	64 - 141	3	30
Chlorobenzene			5.00	5.53		ug/L		111	80 - 120	4	30
Chloroethane			5.00	4.28		ug/L		86	63 - 120	2	30
Chloroform			5.00	5.42		ug/L		108	80 - 120	1	30
Chloromethane			5.00	4.79		ug/L		96	56 - 124	5	30
cis-1,2-Dichloroethene			5.00	5.38		ug/L		108	80 - 122	1	30
cis-1,3-Dichloropropene			5.00	5.60		ug/L		112	67 - 121	4	30
Dibromochloromethane			5.00	5.81		ug/L		116	64 - 138	3	30
Ethylbenzene			5.00	5.43		ug/L		109	80 - 120	3	30
Methyl tert-butyl ether			5.00	4.81		ug/L		96	69 - 120	3	30
Methylene Chloride			5.00	5.47		ug/L		109	80 - 120	1	30
Styrene			5.00	5.42		ug/L		108	80 - 120	2	30
Tetrachloroethene			5.00	5.42		ug/L		108	80 - 120	4	30
Toluene			5.00	5.41		ug/L		108	80 - 120	3	30
trans-1,2-Dichloroethene			5.00	5.19		ug/L		104	80 - 122	1	30
trans-1,3-Dichloropropene			5.00	5.86		ug/L		117	61 - 129	3	30
Trichloroethene			5.00	5.47		ug/L		109	80 - 120	0	30
Vinyl chloride			5.00	4.27		ug/L		85	60 - 125	8	30
Xylenes, Total			15.0	16.0		ug/L		106	80 - 120	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

GC/MS VOA

Analysis Batch: 209587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67460-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260D	
410-67460-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260D	
410-67460-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260D	
410-67460-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260D	
410-67460-5	HD-COD-SW-13-0/1-0	Total/NA	Water	8260D	
410-67460-6	HD-COD-SW-15-0/1-0	Total/NA	Water	8260D	
410-67460-7	HD-COD-SW-16-0/1-0	Total/NA	Water	8260D	
MB 410-209587/7	Method Blank	Total/NA	Water	8260D	
LCS 410-209587/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-209587/5	Lab Control Sample Dup	Total/NA	Water	8260D	
410-67460-6 MS	HD-COD-SW-15-0/1-0 MS	Total/NA	Water	8260D	
410-67460-6 MSD	HD-COD-SW-15-0/1-0 MSD	Total/NA	Water	8260D	

Analysis Batch: 210047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67460-8 - DL	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-67460-9	HD-COD-SW-26-0/1-0	Total/NA	Water	8260D	
410-67460-10	HD-COD-SW-27-0/1-0	Total/NA	Water	8260D	
410-67460-11	HD-COD-SW-28-0/1-0	Total/NA	Water	8260D	
410-67460-12	HD-COD-SW-29-0/1-0	Total/NA	Water	8260D	
410-67460-13	HD-QC1-0/1-1	Total/NA	Water	8260D	
410-67460-14	HD-QC1-0/1-2	Total/NA	Water	8260D	
MB 410-210047/7	Method Blank	Total/NA	Water	8260D	
LCS 410-210047/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-210047/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 211830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-67460-8	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
MB 410-211830/11	Method Blank	Total/NA	Water	8260D	
LCS 410-211830/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-211830/5	Lab Control Sample Dup	Total/NA	Water	8260D	

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

Lab Sample ID: 410-67460-1

Date Collected: 12/17/21 10:05

Matrix: Water

Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	209587	12/28/21 13:49	DVW2	ELLE

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

Lab Sample ID: 410-67460-2

Date Collected: 12/17/21 10:45

Matrix: Water

Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	209587	12/28/21 14:10	DVW2	ELLE

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

Lab Sample ID: 410-67460-3

Date Collected: 12/17/21 08:43

Matrix: Water

Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	209587	12/28/21 14:31	DVW2	ELLE

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

Lab Sample ID: 410-67460-4

Date Collected: 12/17/21 11:45

Matrix: Water

Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	209587	12/28/21 14:52	DVW2	ELLE

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

Lab Sample ID: 410-67460-5

Date Collected: 12/17/21 09:00

Matrix: Water

Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	209587	12/28/21 15:13	DVW2	ELLE

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

Lab Sample ID: 410-67460-6

Date Collected: 12/17/21 11:15

Matrix: Water

Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	209587	12/28/21 15:34	DVW2	ELLE

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

Lab Sample ID: 410-67460-7

Date Collected: 12/17/21 09:25

Matrix: Water

Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	209587	12/28/21 17:00	DVW2	ELLE

Client Sample ID: HD-COD-SW-17-0/1-0
Lab Sample ID: 410-67460-8
Date Collected: 12/17/21 09:35
Matrix: Water
Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D	DL	20	210047	12/29/21 16:57	DVW2	ELLE
Total/NA	Analysis	8260D		1	211830	01/05/22 14:12	UKAD	ELLE

Client Sample ID: HD-COD-SW-26-0/1-0
Lab Sample ID: 410-67460-9
Date Collected: 12/17/21 10:35
Matrix: Water
Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	210047	12/29/21 15:14	DVW2	ELLE

Client Sample ID: HD-COD-SW-27-0/1-0
Lab Sample ID: 410-67460-10
Date Collected: 12/17/21 11:05
Matrix: Water
Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	210047	12/29/21 15:34	DVW2	ELLE

Client Sample ID: HD-COD-SW-28-0/1-0
Lab Sample ID: 410-67460-11
Date Collected: 12/17/21 11:55
Matrix: Water
Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	210047	12/29/21 15:55	DVW2	ELLE

Client Sample ID: HD-COD-SW-29-0/1-0
Lab Sample ID: 410-67460-12
Date Collected: 12/17/21 08:30
Matrix: Water
Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	210047	12/29/21 16:15	DVW2	ELLE

Client Sample ID: HD-QC1-0/1-1
Lab Sample ID: 410-67460-13
Date Collected: 12/17/21 08:00
Matrix: Water
Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	210047	12/29/21 16:36	DVW2	ELLE

Client Sample ID: HD-QC1-0/1-2
Lab Sample ID: 410-67460-14
Date Collected: 12/17/21 00:00
Matrix: Water
Date Received: 12/17/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	210047	12/29/21 13:10	DVW2	ELLE

Lab Chronicle

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

Job ID: 410-67460-1

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
Job ID: 410-67460-1
Project/Site: fYNOP Monthly Surface Water

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

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

Method Summary

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

Job ID: 410-67460-1

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: 410-67460-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-67460-1	HD-COD-SW-6-0/1-0	Water	12/17/21 10:05	12/17/21 16:43
410-67460-2	HD-COD-SW-7-0/1-0	Water	12/17/21 10:45	12/17/21 16:43
410-67460-3	HD-COD-SW-8-0/1-0	Water	12/17/21 08:43	12/17/21 16:43
410-67460-4	HD-COD-SW-9-0/1-0	Water	12/17/21 11:45	12/17/21 16:43
410-67460-5	HD-COD-SW-13-0/1-0	Water	12/17/21 09:00	12/17/21 16:43
410-67460-6	HD-COD-SW-15-0/1-0	Water	12/17/21 11:15	12/17/21 16:43
410-67460-7	HD-COD-SW-16-0/1-0	Water	12/17/21 09:25	12/17/21 16:43
410-67460-8	HD-COD-SW-17-0/1-0	Water	12/17/21 09:35	12/17/21 16:43
410-67460-9	HD-COD-SW-26-0/1-0	Water	12/17/21 10:35	12/17/21 16:43
410-67460-10	HD-COD-SW-27-0/1-0	Water	12/17/21 11:05	12/17/21 16:43
410-67460-11	HD-COD-SW-28-0/1-0	Water	12/17/21 11:55	12/17/21 16:43
410-67460-12	HD-COD-SW-29-0/1-0	Water	12/17/21 08:30	12/17/21 16:43
410-67460-13	HD-QC1-0/1-1	Water	12/17/21 08:00	12/17/21 16:43
410-67460-14	HD-QC1-0/1-2	Water	12/17/21 00:00	12/17/21 16:43

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 207981

Lab Sample ID: IC 410-207981/14 Client Sample ID:

Date Analyzed: 12/21/21 18:35 Lab File ID: HD21I11.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
sec-Butylbenzene	12.85	Peak assignment corrected	campbellme	12/21/21 20:39

Lab Sample ID: ICIS 410-207981/15 Client Sample ID:

Date Analyzed: 12/21/21 18:56 Lab File ID: HD21I12.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.59	Split Peak	campbellme	12/21/21 20:40

Lab Sample ID: IC 410-207981/16 Client Sample ID:

Date Analyzed: 12/21/21 19:16 Lab File ID: HD21I13.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.96	Incomplete Integration	campbellme	12/21/21 20:41

Lab Sample ID: IC 410-207981/17 Client Sample ID:

Date Analyzed: 12/21/21 19:37 Lab File ID: HD21I14.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Butanol	8.04	Incomplete Integration	campbellme	12/21/21 21:07
1,4-Dioxane	8.59	Incomplete Integration	campbellme	12/21/21 20:42

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 207981

Lab Sample ID: IC 410-207981/18 Client Sample ID:

Date Analyzed: 12/21/21 19:57 Lab File ID: HD21I15.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.26	Baseline	kellerk	12/27/21 09:08
Vinyl chloride	2.26	Incomplete Integration	campbellme	12/21/21 20:42
Bromomethane	2.59	Incomplete Integration	campbellme	12/21/21 20:43

Lab Sample ID: IC 410-207981/19 Client Sample ID:

Date Analyzed: 12/21/21 20:18 Lab File ID: HD21I16.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.26	Baseline	kellerk	12/27/21 09:09
Methyl acetate	4.00	Incomplete Integration	campbellme	12/21/21 20:44
Isobutyl alcohol	7.19	Incomplete Integration	campbellme	12/21/21 20:44
n-Butanol	8.08	Incomplete Integration	campbellme	12/21/21 21:08

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 207981

Lab Sample ID: IC 410-207981/20 Client Sample ID:

Date Analyzed: 12/21/21 20:38 Lab File ID: HD21I17.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.58	Incomplete Integration	campbellme	12/21/21 21:02
t-Butyl alcohol	4.29	Incomplete Integration	campbellme	12/21/21 21:03
Acrylonitrile	4.55	Incomplete Integration	campbellme	12/21/21 21:03
Methacrylonitrile	6.37	Incomplete Integration	campbellme	12/21/21 21:03
Isobutyl alcohol	7.16	Incomplete Integration	campbellme	12/21/21 21:03
n-Butanol	8.07	Incomplete Integration	campbellme	12/21/21 21:04
1,4-Dioxane	8.60	Incomplete Integration	campbellme	12/21/21 21:04
2-Nitropropane	9.09	Incomplete Integration	campbellme	12/21/21 21:04
1,1,2,2-Tetrachloroethane	12.23	Incomplete Integration	campbellme	12/21/21 21:04

Lab Sample ID: ICV 410-207981/21 Client Sample ID:

Date Analyzed: 12/21/21 21:20 Lab File ID: HD21V11.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.58	Incomplete Integration	campbellme	12/21/21 22:23

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 210047

Lab Sample ID: CCVIS 410-210047/3 Client Sample ID:

Date Analyzed: 12/29/21 10:59 Lab File ID: HD29X02.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.97	Incomplete Integration	kephartk	12/29/21 11:26

Lab Sample ID: 410-67460-9 Client Sample ID: HD-COD-SW-26-0/1-0

Date Analyzed: 12/29/21 15:14 Lab File ID: HD29X14.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloroethane		Invalid Compound ID	beckerk	12/29/21 16:57
1,1-Dichloroethane		Invalid Compound ID	beckerk	12/29/21 16:57

Lab Sample ID: 410-67460-10 Client Sample ID: HD-COD-SW-27-0/1-0

Date Analyzed: 12/29/21 15:34 Lab File ID: HD29X15.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.56	Split Peak	beckerk	12/29/21 17:15

Lab Sample ID: 410-67460-11 Client Sample ID: HD-COD-SW-28-0/1-0

Date Analyzed: 12/29/21 15:55 Lab File ID: HD29X16.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.58	Split Peak	beckerk	12/29/21 17:15
Trichloroethene	8.17	Incomplete Integration	beckerk	12/29/21 17:16

Lab Sample ID: 410-67460-12 Client Sample ID: HD-COD-SW-29-0/1-0

Date Analyzed: 12/29/21 16:15 Lab File ID: HD29X17.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.59	Split Peak	beckerk	12/29/21 17:16

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 210047

Lab Sample ID: 410-67460-13 Client Sample ID: HD-QC1-0/1-1

Date Analyzed: 12/29/21 16:36 Lab File ID: HD29X18.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloroethane		Invalid Compound ID	beckerk	12/29/21 17:16

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 163707

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

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

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

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

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

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

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

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

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

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

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

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 163707

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

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

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

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

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

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

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

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

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 209587

Lab Sample ID: CCVIS 410-209587/3 Client Sample ID:

Date Analyzed: 12/28/21 10:04 Lab File ID: ID28X02.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	3.01	Incomplete Integration	kephartk	12/28/21 10:35
Methyl acetate	4.01	Incomplete Integration	kephartk	12/28/21 10:35
2-Butanone (MEK)	6.10	Incomplete Integration	kephartk	12/28/21 10:35
1,4-Dioxane	8.62	Incomplete Integration	kephartk	12/28/21 10:36

Lab Sample ID: 410-67460-1 Client Sample ID: HD-COD-SW-6-0/1-0

Date Analyzed: 12/28/21 13:49 Lab File ID: ID28X11.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.59	Split Peak	beckerk	12/28/21 17:53
Trichloroethene	8.20	Incomplete Integration	beckerk	12/28/21 17:54

Lab Sample ID: 410-67460-2 Client Sample ID: HD-COD-SW-7-0/1-0

Date Analyzed: 12/28/21 14:10 Lab File ID: ID28X12.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.59	Split Peak	beckerk	12/28/21 17:54
2-Butanone (MEK)		Invalid Compound ID	beckerk	12/28/21 17:54

Lab Sample ID: 410-67460-3 Client Sample ID: HD-COD-SW-8-0/1-0

Date Analyzed: 12/28/21 14:31 Lab File ID: ID28X13.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	12/28/21 17:54
Bromomethane		Invalid Compound ID	beckerk	12/28/21 17:54

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 209587

Lab Sample ID: 410-67460-4 Client Sample ID: HD-COD-SW-9-0/1-0

Date Analyzed: 12/28/21 14:52 Lab File ID: ID28X14.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	12/28/21 17:55

Lab Sample ID: 410-67460-5 Client Sample ID: HD-COD-SW-13-0/1-0

Date Analyzed: 12/28/21 15:13 Lab File ID: ID28X15.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	12/28/21 17:55
1,1,1-Trichloroethane		Invalid Compound ID	beckerk	12/28/21 17:55
2-Butanone (MEK)		Invalid Compound ID	beckerk	12/28/21 17:55

Lab Sample ID: 410-67460-6 Client Sample ID: HD-COD-SW-15-0/1-0

Date Analyzed: 12/28/21 15:34 Lab File ID: ID28X16.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.56	Incomplete Integration	beckerk	12/28/21 17:56
Acetone		Invalid Compound ID	beckerk	12/28/21 17:56

Lab Sample ID: 410-67460-7 Client Sample ID: HD-COD-SW-16-0/1-0

Date Analyzed: 12/28/21 17:00 Lab File ID: ID28X20.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	12/28/21 17:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-67460-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 211830

Lab Sample ID: CCVIS 410-211830/3 Client Sample ID:

Date Analyzed: 01/05/22 09:16 Lab File ID: IJ05X02.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.02	Incomplete Integration	kephartk	01/05/22 09:55
1,4-Dioxane	8.62	Incomplete Integration	kephartk	01/05/22 09:55

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

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_00032	01/20/22	12/21/21	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00039	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_00041	1 mL	Carbon disulfide	40 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	40 ug/mL
					MSV_Q_Ketones_00040	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_00039	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_00041	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00040	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_00033	01/27/22	12/28/21	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00040	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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00042	1 mL	Carbon disulfide	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
					MSV_Q_Ketones_00041	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_00040	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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	1000 ug/mL
							trans-1,3-Dichloropropene	1000 ug/mL
							Trichloroethene	1000 ug/mL
.MSV_M_MIX2SEC_00042	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00041	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_00034	02/02/22	01/03/22	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00041	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_00044	1 mL	Carbon disulfide	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
					MSV_Q_Ketones_00043	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_00041	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00044	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00043	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
							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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichloropropane	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
							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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00027	12/25/21	12/06/21	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00040	50 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Chloro-1-propene	50 ug/mL
							Acrylonitrile	125 ug/mL
							Benzyl chloride	50 ug/mL
							Carbon disulfide	50 ug/mL
							Cyclohexane	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Isopropyl ether	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl acetate	50 ug/mL
							Methyl methacrylate	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							n-Butanol	4375 ug/mL
							n-Heptane	50 ug/mL
							Propionitrile	1000 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
							Tetrahydrofuran	250 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
					MSV_CCV_VOC#3_00039	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	2505.38 ug/mL
					MSV_V_VOA2_00117	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_00040	01/05/22	12/06/21	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00038	1 mL	1,1,1,2-Tetrachloroethane	1000 ug/mL
							1,1,1-Trichloroethane	1000 ug/mL
							1,1,2,2-Tetrachloroethane	1000 ug/mL
							1,1,2-Trichloroethane	1000 ug/mL
							1,1-Dichloroethane	1000 ug/mL
							1,1-Dichloroethene	1000 ug/mL
							1,1-Dichloropropene	1000 ug/mL
							1,2,3-Trichlorobenzene	1000 ug/mL
							1,2,3-Trichloropropane	1000 ug/mL
							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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00038	1 mL	1,1,2-Trichloro-1,2,2-trifluoroethane	1000 ug/mL
							1,2,3-Trimethylbenzene	1000 ug/mL
							1,3,5-Trichlorobenzene	1000 ug/mL
							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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Chloro-1-propene	1000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzyl chloride	1000 ug/mL
							Carbon disulfide	1000 ug/mL
							Cyclohexane	1000 ug/mL
							Ethyl methacrylate	1000 ug/mL
							Hexane	1000 ug/mL
							Iodomethane	1000 ug/mL
							Isobutyl alcohol	12500 ug/mL
							Isopropyl ether	1000 ug/mL
							Methacrylonitrile	2500 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl methacrylate	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
							Methylcyclohexane	1000 ug/mL
							n-Butanol	12500 ug/mL
							n-Heptane	1000 ug/mL
							Propionitrile	5000 ug/mL
							Tert-amyl methyl ether	1000 ug/mL
							Tert-butyl ethyl ether	1000 ug/mL
							Tetrahydrofuran	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_MegaMIX#1_00038	01/06/22		Restek, Lot A0171634		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	5000 ug/mL
							1,1,1-Trichloroethane	5000 ug/mL
							1,1,2,2-Tetrachloroethane	5000 ug/mL
							1,1,2-Trichloroethane	5000 ug/mL
							1,1-Dichloroethane	5000 ug/mL
							1,1-Dichloroethene	5000 ug/mL
							1,1-Dichloropropene	5000 ug/mL
							1,2,3-Trichlorobenzene	5000 ug/mL
							1,2,3-Trichloropropane	5000 ug/mL
							1,2,4-Trichlorobenzene	5000 ug/mL
							1,2,4-Trimethylbenzene	5000 ug/mL
							1,2-Dibromo-3-Chloropropane	5000 ug/mL
							1,2-Dibromoethane (EDB)	5000 ug/mL
							1,2-Dichlorobenzene	5000 ug/mL
							1,2-Dichloroethane	5000 ug/mL
							1,2-Dichloropropane	5000 ug/mL
							1,3,5-Trimethylbenzene	5000 ug/mL
							1,3-Dichlorobenzene	5000 ug/mL
							1,3-Dichloropropane	5000 ug/mL
							1,4-Dichlorobenzene	5000 ug/mL
							2,2-Dichloropropane	5000 ug/mL
							2-Chlorotoluene	5000 ug/mL
							4-Chlorotoluene	5000 ug/mL
							4-Isopropyltoluene	5000 ug/mL
							Benzene	5000 ug/mL
							Bromobenzene	5000 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00038	01/06/22		Restek, Lot A0173454		(Purchased Reagent)		1,1,2-Trichloro-1,2,2-trifluoroethane	5000 ug/mL
							1,2,3-Trimethylbenzene	5000 ug/mL
							1,3,5-Trichlorobenzene	5000 ug/mL
							1,4-Dioxane	62500 ug/mL
							1-Chlorohexane	5000 ug/mL
							2-Chloro-1,3-butadiene	5000 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							2-Nitropropane	25000 ug/mL
							3-Chloro-1-propene	5000 ug/mL
							Acrylonitrile	12500 ug/mL
							Benzyl chloride	5000 ug/mL
							Carbon disulfide	5000 ug/mL
							Cyclohexane	5000 ug/mL
							Ethyl methacrylate	5000 ug/mL
							Hexane	5000 ug/mL
							Iodomethane	5000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropyl ether	5000 ug/mL
							Methacrylonitrile	12500 ug/mL
							Methyl acetate	5000 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00039	12/25/21	12/06/21	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00037	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_00020	0.5 mL	Acrolein	12526.9 ug/mL
..MSV_V_Ketones_00037	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_00020	12/25/21	10/26/21	Methanol, Lot EB679	10 mL	MSV_VACR_STK_00022	9.252 mL	Acrolein	125269 ug/mL
...MSV_VACR_STK_00022	12/25/21	10/26/21	Methanol, Lot EB679	10 mL	MSV_ACROLEIN_00015	1.445 g	Acrolein	135397 ug/mL
....MSV_ACROLEIN_00015	12/31/21	Chem Service, Lot 12255200			(Purchased Reagent)		Acrolein	0.937 g/g
.MSV_V_VOA2_00117	01/05/22	12/06/21	Methanol, Lot EB679	5 mL	MSV_V#2B_00246	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_00246	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_00029	01/20/22	12/21/21	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00044	50 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2-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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00043	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_00044	01/20/22	12/21/21	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00042	1 mL	1,1,1,2-Tetrachloroethane	1000 ug/mL
							1,1,1-Trichloroethane	1000 ug/mL
							1,1,2,2-Tetrachloroethane	1000 ug/mL
							1,1,2-Trichloroethane	1000 ug/mL
							1,1-Dichloroethane	1000 ug/mL
							1,1-Dichloroethene	1000 ug/mL
							1,2-Dibromoethane (EDB)	1000 ug/mL
							1,2-Dichloroethane	1000 ug/mL
							1,2-Dichloropropane	1000 ug/mL
							Benzene	1000 ug/mL
							Bromochloromethane	1000 ug/mL
							Bromodichloromethane	1000 ug/mL
							Bromoform	1000 ug/mL
							Carbon tetrachloride	1000 ug/mL
							Chlorobenzene	1000 ug/mL
							Chloroform	1000 ug/mL
							cis-1,2-Dichloroethene	1000 ug/mL
							cis-1,3-Dichloropropene	1000 ug/mL
							Dibromochloromethane	1000 ug/mL
							Ethylbenzene	1000 ug/mL
							Methylene Chloride	1000 ug/mL
							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

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	1000 ug/mL
					MSV_MegaMix#2_00042	1 mL	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
..MSV_MegaMIX#1_00042	01/20/22		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_00042	01/20/22		Restek, Lot A0173454		(Purchased Reagent)		Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_CCV_VOC#3_00043	01/20/22	12/21/21	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00041	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_00041	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_LL_#1_826_00030	01/27/22	12/28/21	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00045	50 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2-Dibromoethane (EDB)	50 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00044	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_00045	01/27/22	12/28/21	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00043	1 mL	1,1,1,2-Tetrachloroethane	1000 ug/mL
							1,1,1-Trichloroethane	1000 ug/mL
							1,1,2,2-Tetrachloroethane	1000 ug/mL
							1,1,2-Trichloroethane	1000 ug/mL
							1,1-Dichloroethane	1000 ug/mL
							1,1-Dichloroethene	1000 ug/mL
							1,2-Dibromoethane (EDB)	1000 ug/mL
							1,2-Dichloroethane	1000 ug/mL
							1,2-Dichloropropane	1000 ug/mL
							Benzene	1000 ug/mL
							Bromochloromethane	1000 ug/mL
							Bromodichloromethane	1000 ug/mL
							Bromoform	1000 ug/mL
							Carbon tetrachloride	1000 ug/mL
							Chlorobenzene	1000 ug/mL
							Chloroform	1000 ug/mL
							cis-1,2-Dichloroethene	1000 ug/mL
							cis-1,3-Dichloropropene	1000 ug/mL
							Dibromochloromethane	1000 ug/mL
							Ethylbenzene	1000 ug/mL
							Methylene Chloride	1000 ug/mL
							Styrene	1000 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00043	1 mL	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
..MSV_MegaMIX#1_00043	01/27/22		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_00043	01/27/22		Restek, Lot A0173454		(Purchased Reagent)		Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_CCV_VOC#3_00044	01/27/22	12/28/21	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00042	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_00042	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_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

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MSV_EE_MISCSK_00006	10/14/21	04/14/21	Methanol, Lot DZ644	10 mL	MSV_EE_Neat_00005	0.5028 g	Ethyl ether	50280 ug/mL
...MSV_EE_Neat_00005	11/30/21	Chem Service, Lot 11028800			(Purchased Reagent)		Ethyl ether	1 g/g
.MSV_V_PentaCL_00005	09/15/21	Restek, Lot A0171341			(Purchased Reagent)		Pentachloroethane	5000 ug/mL
MSV_LL_#2_826_00031	12/22/21	12/06/21	Methanol, Lot EB679	1 mL	MSV_CCV_EE_00001	50 uL	Ethyl ether	49.9999 ug/mL
					MSV_V_PentaCL_00009	10 uL	Pentachloroethane	50 ug/mL
.MSV_CCV_EE_00001	05/29/22	11/29/21	Methanol, Lot EB679	50 mL	MSV_EE_MISCSK_00009	0.999 mL	Ethyl ether	999.999 ug/mL
..MSV_EE_MISCSK_00009	05/29/22	11/29/21	Methanol, Lot EB679	10 mL	MSV_EE_Neat_00006	0.5005 g	Ethyl ether	50050 ug/mL
...MSV_EE_Neat_00006	12/31/25	Chem Service, Lot 12123300			(Purchased Reagent)		Ethyl ether	1 g/g
.MSV_V_PentaCL_00009	12/29/21	Restek, Lot A0171341			(Purchased Reagent)		Pentachloroethane	5000 ug/mL
MSV_LL_GAS826_00027	08/30/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_CCV_GASES_00060	25 uL	1,2-Dichloro-1,1,2-trifluoroethane	50 ug/mL
							Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_CCV_GASES_00060	08/30/21	Restek, Lot A0172364			(Purchased Reagent)		1,2-Dichloro-1,1,2-trifluoroethane	2000 ug/mL
							Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_LL_GAS826_00056	12/27/21	12/20/21	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00123	25 uL	1,2-Dichloro-1,1,2-trifluoroethane	50 ug/mL
							Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_CCV_GASES_00123	12/27/21	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_LL_GAS826_00057	01/03/22	12/27/21	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00125	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_CCV_GASES_00125	01/03/22		Restek, Lot A0172364		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_LL_GAS826_00058	01/10/22	01/03/22	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00128	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_CCV_GASES_00128	01/10/22		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_Cus826_IS_00310	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5 (IS)	50 ug/mL
							Fluorobenzene (IS)	50 ug/mL
							t-Butyl alcohol-d10 (IS)	250 ug/mL
.MSV_8260_SS_00366	03/31/22		Restek, Lot A0146938		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
.MSV_Cus826_IS_00310	05/31/23		Restek, Lot A0160586		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
MSV_LLcentISS_00002	04/18/22	10/18/21	Methanol, Lot EB679	50 mL	MSV_8260_SS_00493	1 mL	1,2-Dichloroethane-d4 (Surr)	50 ug/mL
							4-Bromofluorobenzene (Surr)	50 ug/mL
							Dibromofluoromethane (Surr)	50 ug/mL
							Toluene-d8 (Surr)	50 ug/mL
					MSV_Cus826_IS_00361	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5 (IS)	50 ug/mL
							Fluorobenzene (IS)	50 ug/mL
							t-Butyl alcohol-d10 (IS)	250 ug/mL
.MSV_8260_SS_00493	04/30/24		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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_Cus826_IS_00361	08/31/24		Restek, Lot A0175453		(Purchased Reagent)		1,4-Dichlorobenzene-d4	2500 ug/mL
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
MSV_QC_Gas826_00026	08/30/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_QC_2K_GAS_00030	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00030	08/30/21		Restek, Lot A0172021		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_QC_Gas826_00056	12/23/21	12/20/21	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00063	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00063	12/23/21		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_00057	01/02/22	12/26/21	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00065	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00065	01/02/22		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_00059	01/10/22	01/03/22	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00068	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00068	01/10/22		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	
							Xylenes, Total	
					MSV_VBFB_STK_00006	0.129 mL	BFB	49.8611 ug/mL
.MSV_VBFB_STK_00006	01/07/22	07/07/21	Methanol, Lot DZ644	10 mL	MSV_4BFB_NEAT_00006	0.9663 g	BFB	96630 ug/mL
..MSV_4BFB_NEAT_00006	02/28/25		Chem Service, Lot 10727100		(Purchased Reagent)		BFB	1 g/g

Reagent

MSV_8260_SS_00366

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260A Surrogate Mix

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

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

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

CERTIFIED VALUES

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

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

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

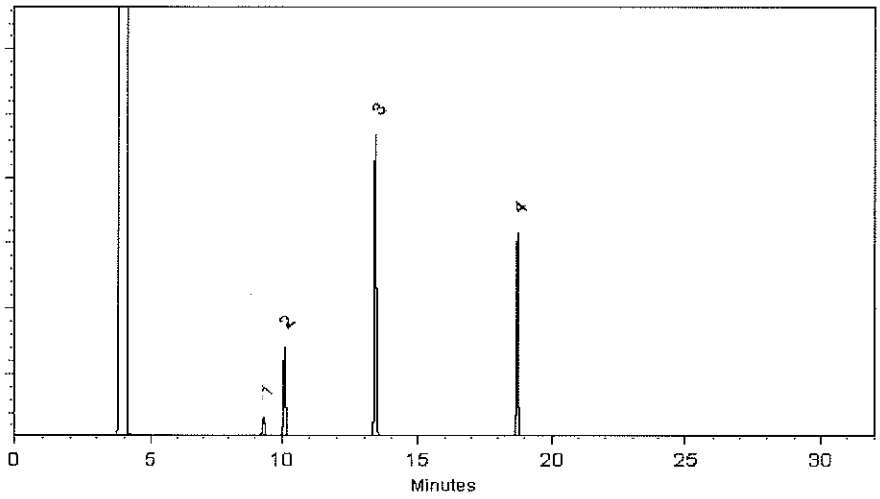
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Maggie Wang
Maggie Wang - Operations Technician I

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

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 15-Mar-2019

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_8260_SS_00493

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

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

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 0012016) **Purity** 99%	2,509.0 µg/mL	+/- 14.7242 µg/mL +/- 140.6914 µg/mL +/- 143.9827 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	2,503.0 µg/mL	+/- 14.6890 µg/mL +/- 140.3549 µg/mL +/- 143.6384 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-31750) **Purity** 99%	2,501.5 µg/mL	+/- 14.6802 µg/mL +/- 140.2708 µg/mL +/- 143.5523 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	2,520.0 µg/mL	+/- 14.7888 µg/mL +/- 141.3082 µg/mL +/- 144.6140 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)

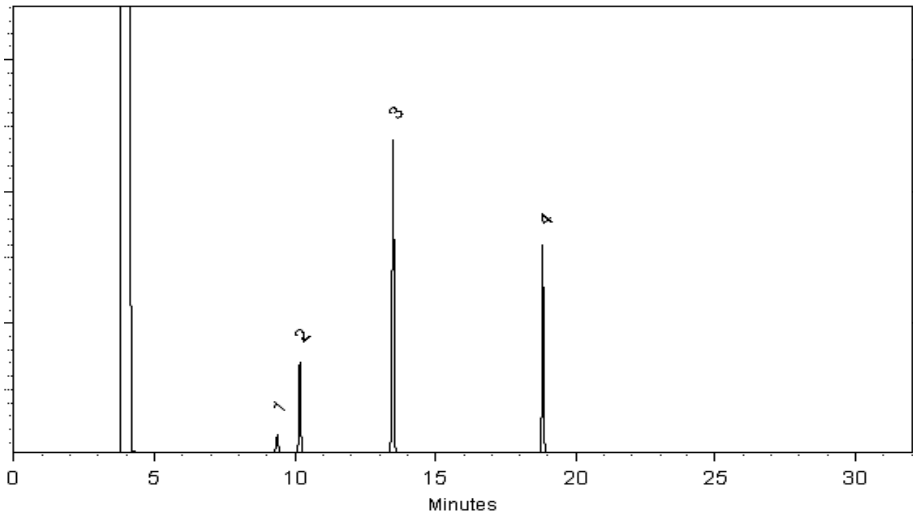
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_ACROLEIN_00015

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

Acrolein

CATALOG NUMBER	RPN-11030-1G
LOT NUMBER	12255200
DATE CERTIFIED	12/04/20
EXPIRATION DATE	12/31/21
CAS NUMBER	107-02-8
MOLECULAR FORMULA	C3H4O
MOLECULAR WEIGHT	56.06
STORAGE	Refrigerator storage (2 - 8 °C)
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.
NOTES	Contains water and hydroquinone as an inhibitor.

Analytical Test	Value
% PURITY (GC/TCD)	93.5

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

PJLA Testing

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
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info@chemservice.com • www.chemservice.com

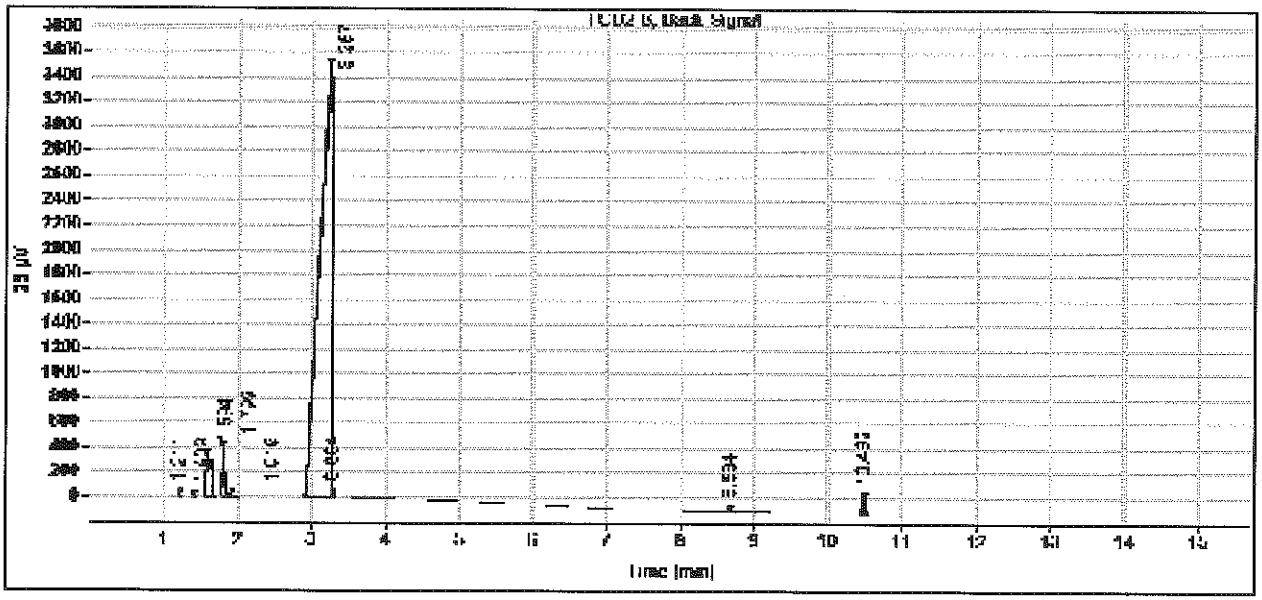
CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2020 DATA\1220\SIG2022772.D

Sample name: Acrolein

Instrument:	GC 1	**Sample type:**	Sample
Injection date:	12/4/2020 1:45:52 PM	**Location:**	Vial 31
Acq. method:	TCD SCREEN.M	**Injection volume:**	1.0uL
Column name:	DB-624 (30m x 0.53mm x 3.0um)		



Signal: TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
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1.409	BB	0.0247	7.6905	4.7989	0.0184
1.594	BB	0.0629	1551.1411	329.7883	3.7040
1.799	BB	0.0279	730.9922	389.9341	1.7456
1.919	BB	0.0458	50.7625	15.2495	0.1212
3.257	BV	0.1398	39170.9805	3495.0222	93.5384
3.304	VB	0.0206	34.7462	26.0533	0.0830
8.684	BB	0.0316	26.4009	13.0682	0.0630
10.492	BB	0.0367	280.9432	124.5451	0.6021

Sun

PJLA Testing

Reagent

MSV_CCV_GASES_00060

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Gases Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

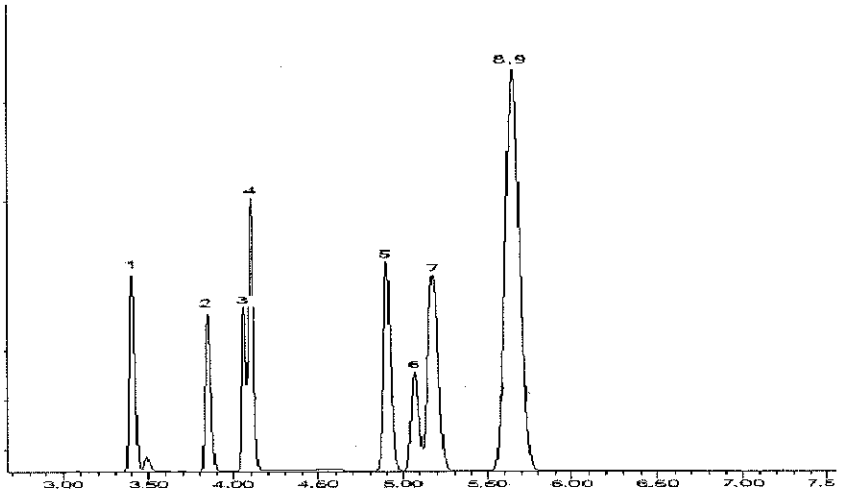
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Tom Suckar - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 577488 **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)

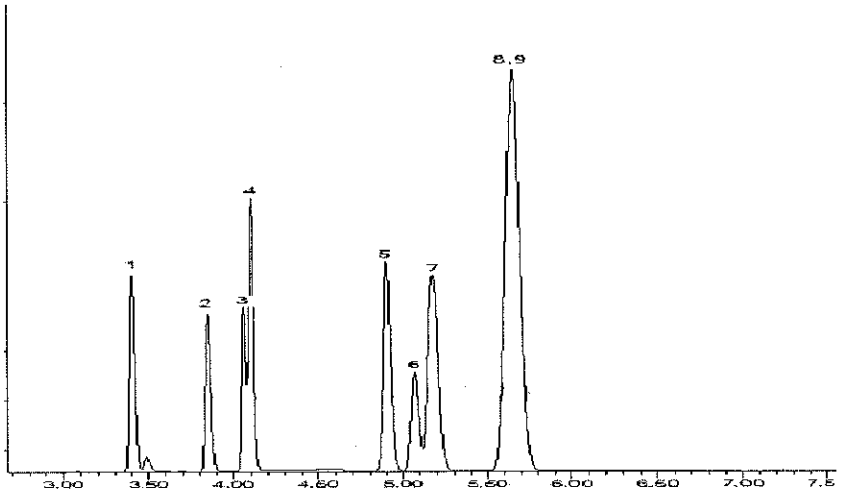
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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Tom Suckar - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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

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Rtx-502.2 (cat.#10916)

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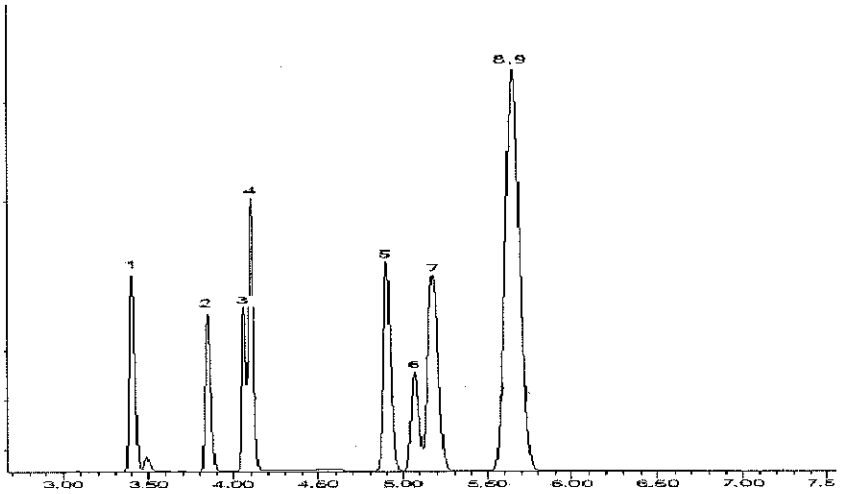
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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Tom Suckar - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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Manufacturing Notes:

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Reagent

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Description : Custom Gases Standard

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

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	CAS # 74-83-9 (Lot 101604)		+/- 112.6669 µg/mL	Unstressed
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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
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CAS # 67-56-1
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Rtx-502.2 (cat.#10916)

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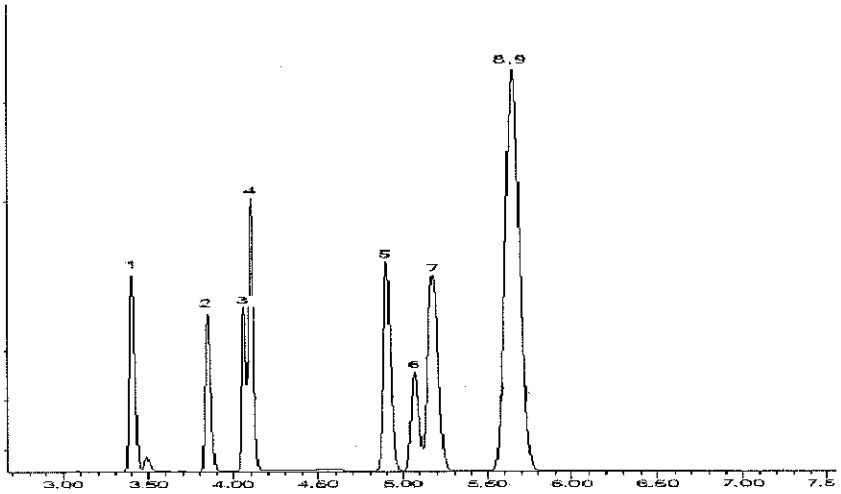
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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Tom Suckar - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

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

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom 8260A IS Mix

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

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

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

CERTIFIED VALUES

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

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

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

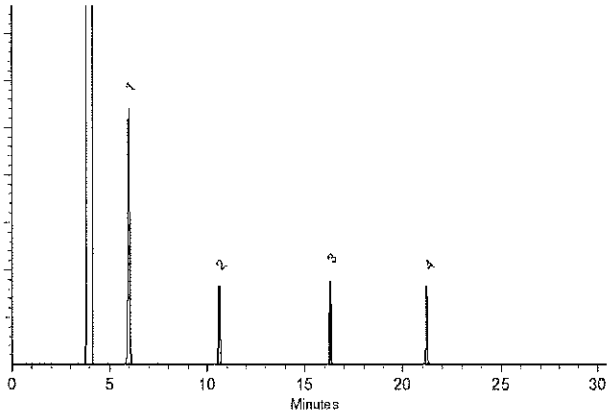
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Kylie Struble - Operations Technician I

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

Justine Albertson - Operations Tech-ARM QC

Date Passed: 06-May-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 558267 **Lot No.:** A0175453

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

Ship: Ambient

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

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Methyl-2-propanol-d10	12,519.0 µg/mL	+/- 73.3015 µg/mL	Gravimetric
	CAS # 53001-22-2 (Lot I-433)		+/- 268.1736 µg/mL	Unstressed
	Purity 99%		+/- 275.9618 µg/mL	Stressed
2	Fluorobenzene	2,505.0 µg/mL	+/- 14.7007 µg/mL	Gravimetric
	CAS # 462-06-6 (Lot BCBZ5549)		+/- 53.6696 µg/mL	Unstressed
	Purity 99%		+/- 55.2277 µg/mL	Stressed
3	Chlorobenzene-d5	2,509.0 µg/mL	+/- 14.7242 µg/mL	Gravimetric
	CAS # 3114-55-4 (Lot PR-29571)		+/- 53.7553 µg/mL	Unstressed
	Purity 99%		+/- 55.3159 µg/mL	Stressed
4	1,4-Dichlorobenzene-d4	2,516.0 µg/mL	+/- 14.7653 µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-30447)		+/- 53.9052 µg/mL	Unstressed
	Purity 99%		+/- 55.4702 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)

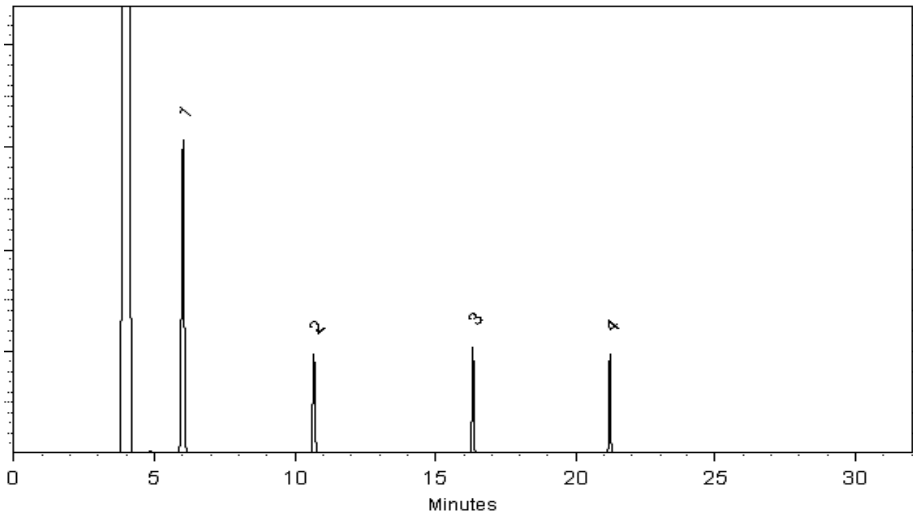
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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: 16-Aug-2021 **Balance:** 1128342314

Marlina Cowan - Operations Tech I

Date Passed: 18-Aug-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:

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

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

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

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CERTIFICATE OF ANALYSIS

Ethyl ether

CATALOG NUMBER	N-11897-1G
LOT NUMBER	12123300
DATE CERTIFIED	12/04/20
EXPIRATION DATE	12/31/25
CAS NUMBER	60-29-7
MOLECULAR FORMULA	C4H10O
MOLECULAR WEIGHT	74.12
STORAGE	Refrigerator storage (2 - 8 °C)
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
% PURITY (GC/TCD)	99.5

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

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

COA Form
Revision 3 (3/2015)

PJLA Testing
Accreditation #63520

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CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2020 DATA\1220\SIG2022771.D

Sample name: Ethylether

Instrument: GC 1
Injection date: 12/4/2020 10:52:03 AM
Acq. method: TCD SCREEN.M
Column name: DB-624 (30m x 0.53mm x 3.0um)

Sample type: Sample
Location: Vial 21
Injection volume: 1.0uL

Signal: TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
1.206	BB	0.0364	16.2548	6.6698	0.0305
1.560	BB	0.0278	55.8996	29.9782	0.1049
1.892	BB	0.0328	64.6527	28.1084	0.1214
2.224	BB	0.0347	9.6188	4.3673	0.0181
2.545	BB S	0.0880	53125.6797	7942.5742	99.7251
		Sum	53272.1055		

PJLA Testing

Reagent

MSV_EthylMeth_00001

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CERTIFICATE OF ANALYSIS

Ethyl methacrylate

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

✓ Rec'd 5/21/2021 JMcB

Analytical Test	Value
% PURITY (GC/FID)	99.5

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

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

COA Form
Revision 3 (3/2015)

PJLA Testing

Print Date: 05/20/21

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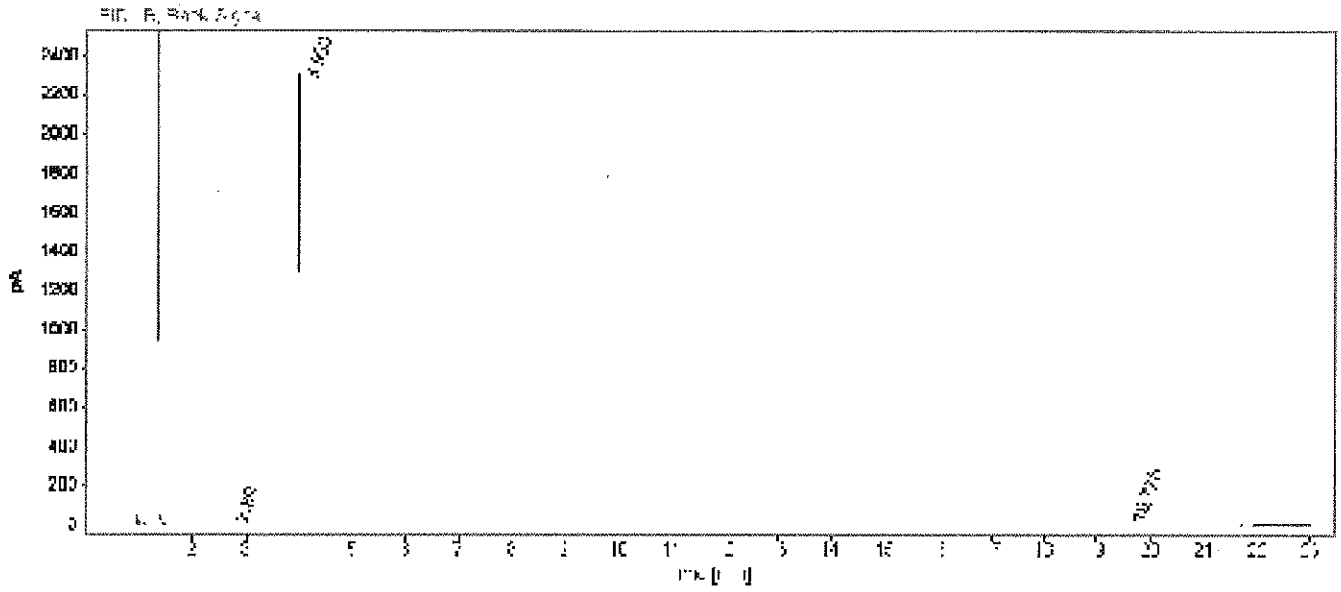
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

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



Signal: FID1 B, Back Signal

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

PJLA Testing

Reagent

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CERTIFIED REFERENCE MATERIAL

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Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix®.SEC #1 Standard

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

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

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

Ship: Ambient

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

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

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

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

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

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

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

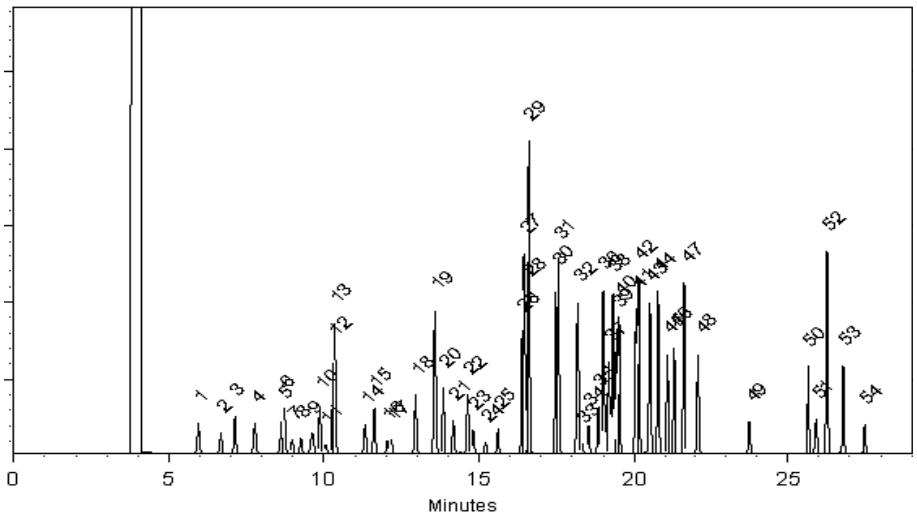
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Bradley Meyer - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 30-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00039

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix®.SEC #1 Standard

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

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

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

Ship: Ambient

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

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

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

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

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

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

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

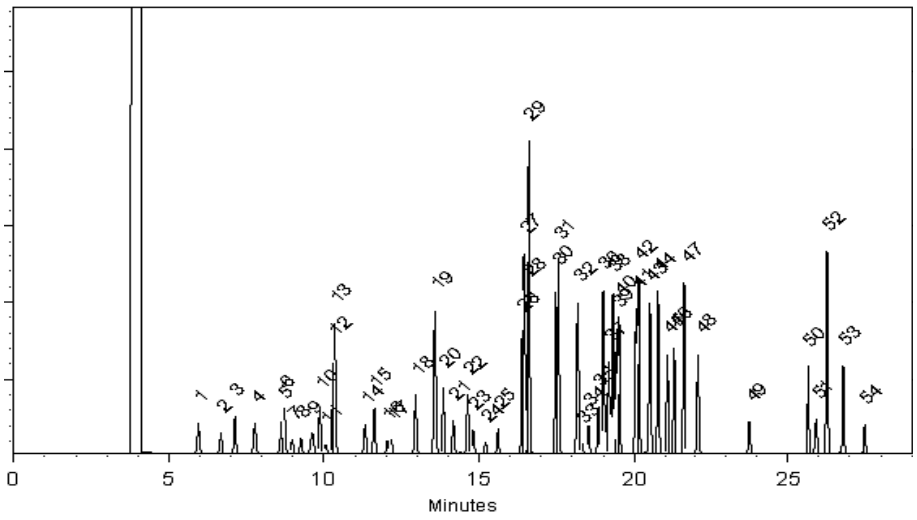
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Bradley Meyer - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 30-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00040

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix®.SEC #1 Standard

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

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

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

Ship: Ambient

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

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

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

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

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

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

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

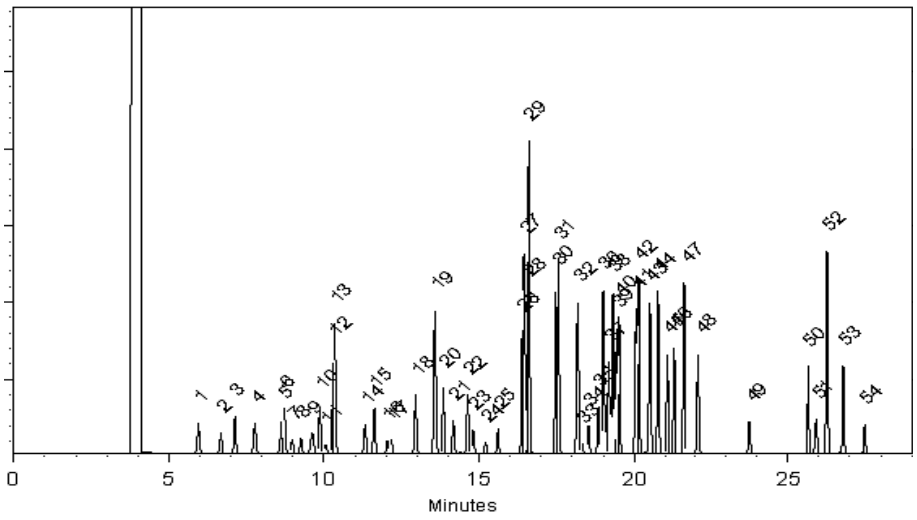
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Bradley Meyer - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 30-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00041

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix®.SEC #1 Standard

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

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

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

Ship: Ambient

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

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

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

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

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

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

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

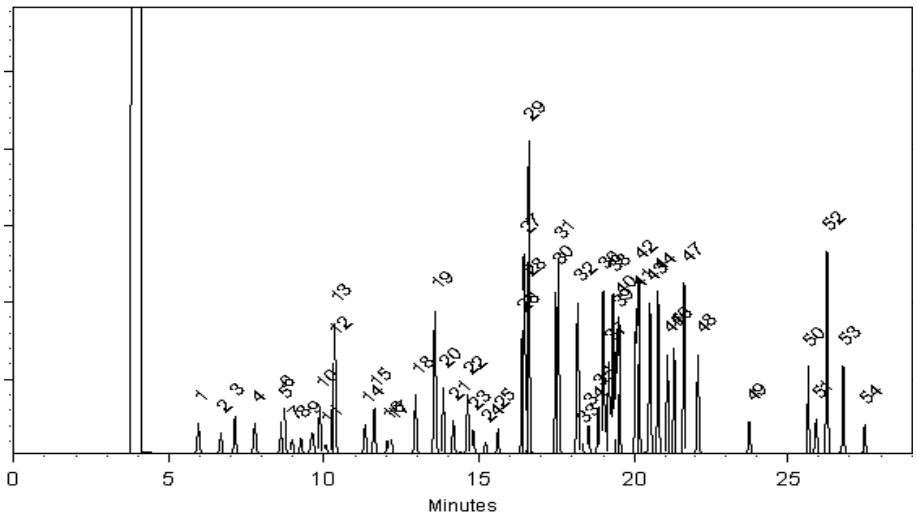
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Bradley Meyer - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 30-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix®.SEC #2 Standard

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

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

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

Ship: Ambient

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

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

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

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

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

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

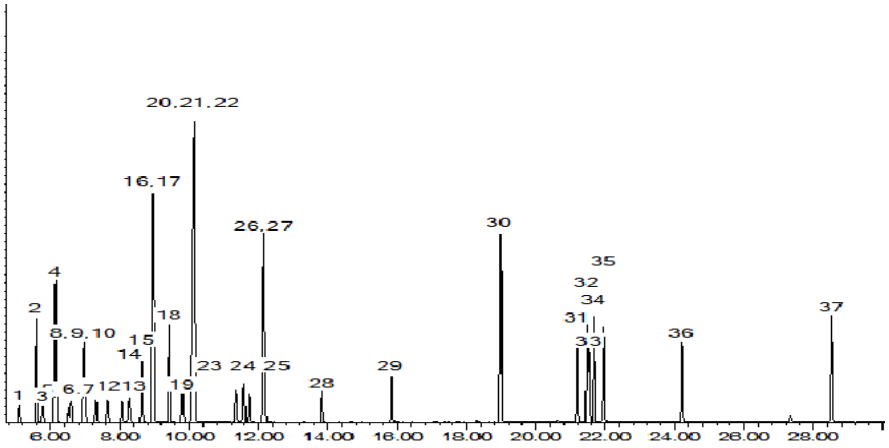
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

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

Alexis Shelow - Operations Tech I

Date Passed: 04-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00041

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix®.SEC #2 Standard

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

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

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

Ship: Ambient

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

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

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

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

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

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

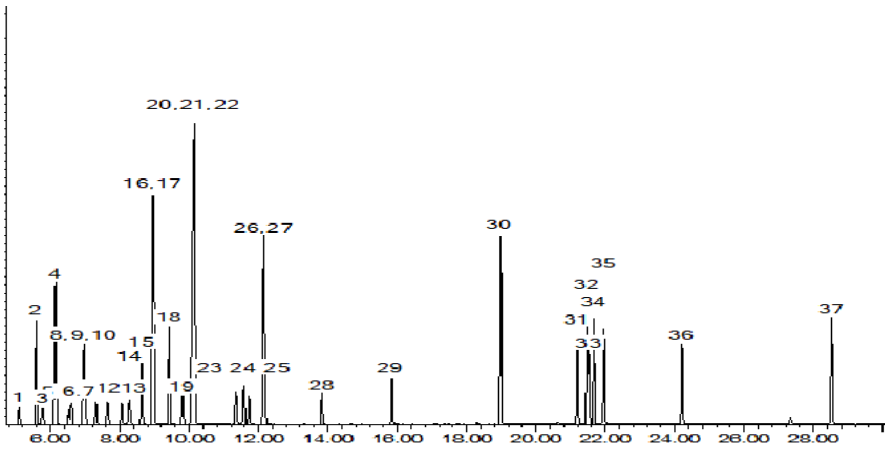
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

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

Alexis Shelow - Operations Tech I

Date Passed: 04-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00042

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix®.SEC #2 Standard

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

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

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

Ship: Ambient

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

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

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

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

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

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

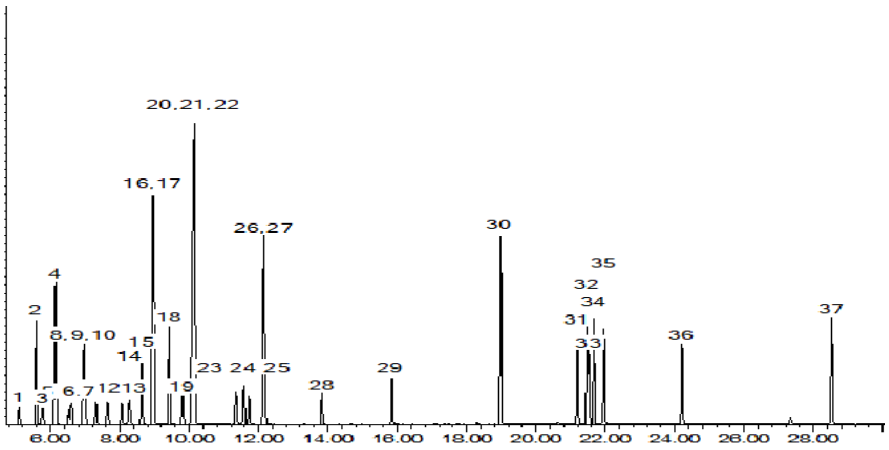
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

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

Alexis Shelow - Operations Tech I

Date Passed: 04-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00044

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix®.SEC #2 Standard

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

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

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

Ship: Ambient

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

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

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

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

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

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

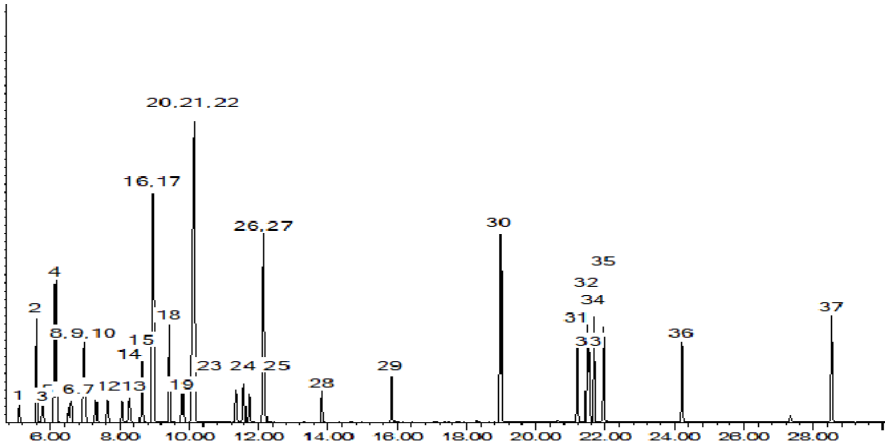
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

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

Alexis Shelow - Operations Tech I

Date Passed: 04-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMIX#1_00015

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix® #1 Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

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

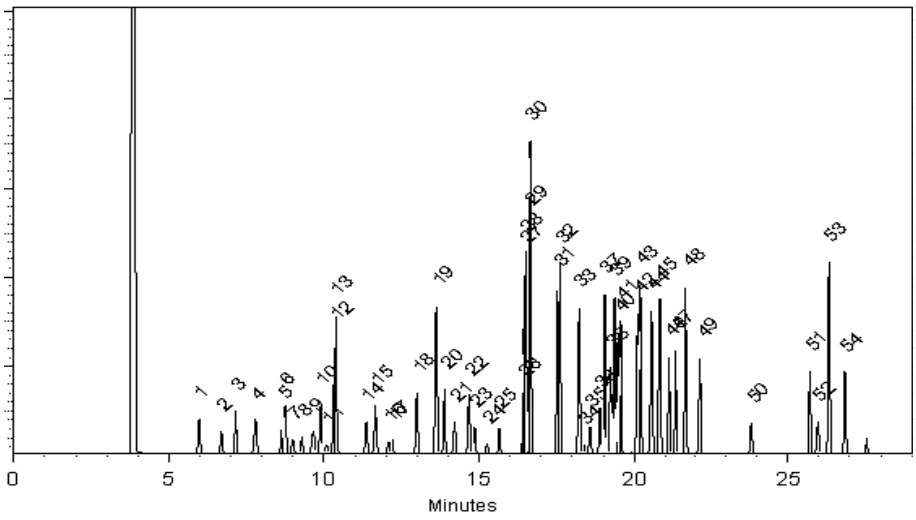
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Walker Workman - Operations Technician I

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

Alexis Shelow - Operations Tech I

Date Passed: 26-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00038

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix® #1 Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

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

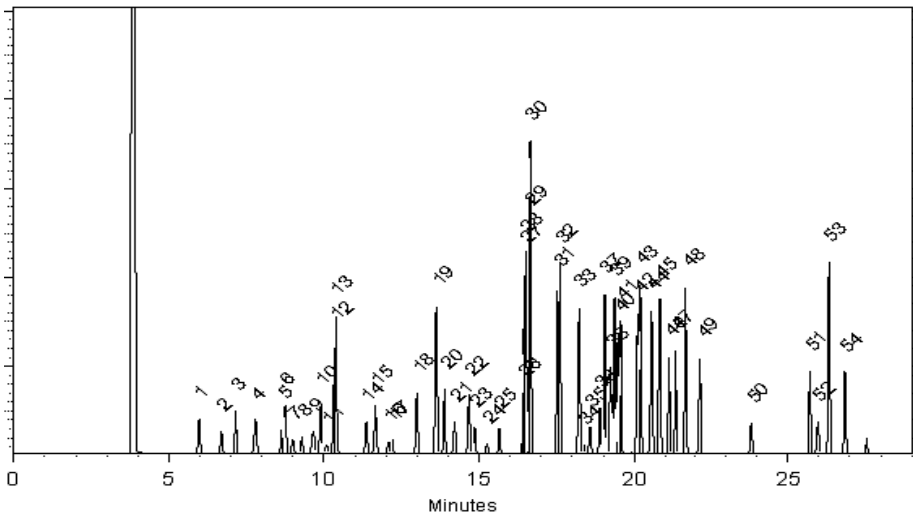
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Walker Workman - Operations Technician I

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

Alexis Shelow - Operations Tech I

Date Passed: 26-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00042

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix® #1 Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

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

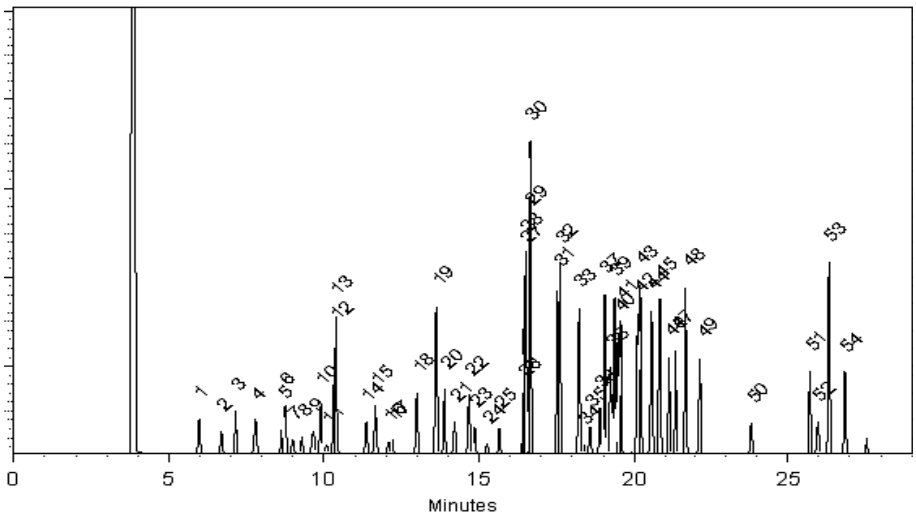
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Walker Workman - Operations Technician I

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

Alexis Shelow - Operations Tech I

Date Passed: 26-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00043

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix® #1 Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

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

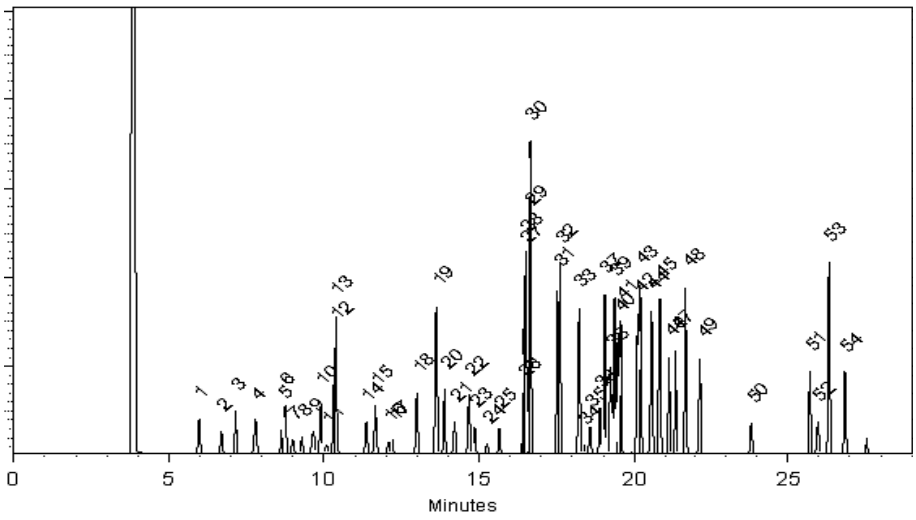
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Walker Workman - Operations Technician I

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

Alexis Shelow - Operations Tech I

Date Passed: 26-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMix#2_00015

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom VOC MegaMix® #2 Standard

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

X8 5/12/21

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

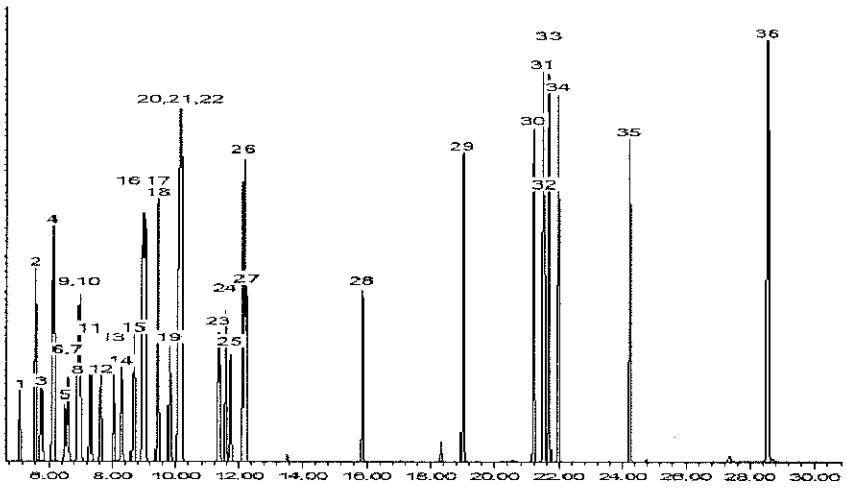
Carrier Gas:
hellum-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Miranda Kline

Miranda Kline - Operations Technician I

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

Alexis Shelow - Operations Tech I

Date Passed: 11-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00038

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

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

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Pentane (C5)	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		5,004.2	µg/mL	+/-	34.9796	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot N28F701)			+/-	248.3058	µg/mL	Unstressed
	Purity 99%				+/-	254.4428	µg/mL	Stressed
9	Acrylonitrile		12,506.0	µg/mL	+/-	73.2254	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot M25F024)			+/-	618.7056	µg/mL	Unstressed
	Purity 99%				+/-	634.0873	µg/mL	Stressed
10	Methyl-tert-butyl ether (MTBE)		5,000.8	µg/mL	+/-	34.9563	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot SHBM3541)			+/-	248.1404	µg/mL	Unstressed
	Purity 99%				+/-	254.2734	µg/mL	Stressed
11	n-Hexane (C6)		5,000.5	µg/mL	+/-	34.9540	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBL9879)			+/-	248.1239	µg/mL	Unstressed
	Purity 99%				+/-	254.2564	µg/mL	Stressed
12	Diisopropyl ether (DIPE)		5,003.3	µg/mL	+/-	34.9738	µg/mL	Gravimetric
	CAS # 108-20-3	(Lot SHBH1927V)			+/-	248.2645	µg/mL	Unstressed
	Purity 99%				+/-	254.4005	µg/mL	Stressed
13	Chloroprene (2-chloro-1,3-butadiene)		5,001.2	µg/mL	+/-	34.9586	µg/mL	Gravimetric
	CAS # 126-99-8	(Lot 210413JLM)			+/-	248.1570	µg/mL	Unstressed
	Purity 99%				+/-	254.2903	µg/mL	Stressed
14	Ethyl-tert-butyl ether (ETBE)		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 637-92-3	(Lot MKCM3774)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
15	Propionitrile		25,006.7	µg/mL	+/-	146.4195	µg/mL	Gravimetric
	CAS # 107-12-0	(Lot BCCC1173)			+/-	1,237.1473	µg/mL	Unstressed
	Purity 99%				+/-	1,267.9041	µg/mL	Stressed
16	Methacrylonitrile		12,500.7	µg/mL	+/-	73.1942	µg/mL	Gravimetric
	CAS # 126-98-7	(Lot 1012020)			+/-	618.4417	µg/mL	Unstressed
	Purity 99%				+/-	633.8168	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,500.7	µg/mL	+/-	365.9551	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBM4836)			+/-	3,092.0767	µg/mL	Unstressed
	Purity 99%				+/-	3,168.9490	µg/mL	Stressed
18	Tetrahydrofuran		25,010.0	µg/mL	+/-	146.4390	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBM8962)			+/-	1,237.3122	µg/mL	Unstressed
	Purity 99%				+/-	1,268.0731	µg/mL	Stressed
19	Cyclohexane		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKCF5831)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
20	1-Butanol		62,504.0	µg/mL	+/-	365.9747	µg/mL	Gravimetric
	CAS # 71-36-3	(Lot SHBM5061)			+/-	3,092.2416	µg/mL	Unstressed
	Purity 99%				+/-	3,169.1180	µg/mL	Stressed
21	tert-Amyl methyl ether (TAME)		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 994-05-8	(Lot HMBG7745V)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
22	n-Heptane (C7)		5,002.3	µg/mL	+/-	34.9668	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot SHBL9221)			+/-	248.2148	µg/mL	Unstressed
	Purity 99%				+/-	254.3496	µg/mL	Stressed
23	tert-Amyl ethyl ether (TAEE)		5,000.2	µg/mL	+/-	34.9516	µg/mL	Gravimetric
	CAS # 919-94-8	(Lot 76U3A)			+/-	248.1073	µg/mL	Unstressed
	Purity 99%				+/-	254.2395	µg/mL	Stressed

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

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

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

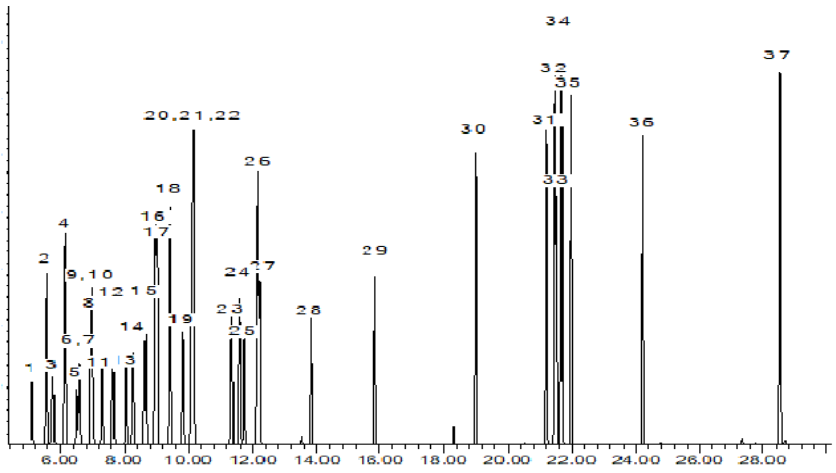
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00042

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

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

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Pentane (C5)	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		5,004.2	µg/mL	+/-	34.9796	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot N28F701)			+/-	248.3058	µg/mL	Unstressed
	Purity 99%				+/-	254.4428	µg/mL	Stressed
9	Acrylonitrile		12,506.0	µg/mL	+/-	73.2254	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot M25F024)			+/-	618.7056	µg/mL	Unstressed
	Purity 99%				+/-	634.0873	µg/mL	Stressed
10	Methyl-tert-butyl ether (MTBE)		5,000.8	µg/mL	+/-	34.9563	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot SHBM3541)			+/-	248.1404	µg/mL	Unstressed
	Purity 99%				+/-	254.2734	µg/mL	Stressed
11	n-Hexane (C6)		5,000.5	µg/mL	+/-	34.9540	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBL9879)			+/-	248.1239	µg/mL	Unstressed
	Purity 99%				+/-	254.2564	µg/mL	Stressed
12	Diisopropyl ether (DIPE)		5,003.3	µg/mL	+/-	34.9738	µg/mL	Gravimetric
	CAS # 108-20-3	(Lot SHBH1927V)			+/-	248.2645	µg/mL	Unstressed
	Purity 99%				+/-	254.4005	µg/mL	Stressed
13	Chloroprene (2-chloro-1,3-butadiene)		5,001.2	µg/mL	+/-	34.9586	µg/mL	Gravimetric
	CAS # 126-99-8	(Lot 210413JLM)			+/-	248.1570	µg/mL	Unstressed
	Purity 99%				+/-	254.2903	µg/mL	Stressed
14	Ethyl-tert-butyl ether (ETBE)		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 637-92-3	(Lot MKCM3774)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
15	Propionitrile		25,006.7	µg/mL	+/-	146.4195	µg/mL	Gravimetric
	CAS # 107-12-0	(Lot BCCC1173)			+/-	1,237.1473	µg/mL	Unstressed
	Purity 99%				+/-	1,267.9041	µg/mL	Stressed
16	Methacrylonitrile		12,500.7	µg/mL	+/-	73.1942	µg/mL	Gravimetric
	CAS # 126-98-7	(Lot 1012020)			+/-	618.4417	µg/mL	Unstressed
	Purity 99%				+/-	633.8168	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,500.7	µg/mL	+/-	365.9551	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBM4836)			+/-	3,092.0767	µg/mL	Unstressed
	Purity 99%				+/-	3,168.9490	µg/mL	Stressed
18	Tetrahydrofuran		25,010.0	µg/mL	+/-	146.4390	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBM8962)			+/-	1,237.3122	µg/mL	Unstressed
	Purity 99%				+/-	1,268.0731	µg/mL	Stressed
19	Cyclohexane		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKCF5831)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
20	1-Butanol		62,504.0	µg/mL	+/-	365.9747	µg/mL	Gravimetric
	CAS # 71-36-3	(Lot SHBM5061)			+/-	3,092.2416	µg/mL	Unstressed
	Purity 99%				+/-	3,169.1180	µg/mL	Stressed
21	tert-Amyl methyl ether (TAME)		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 994-05-8	(Lot HMBG7745V)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
22	n-Heptane (C7)		5,002.3	µg/mL	+/-	34.9668	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot SHBL9221)			+/-	248.2148	µg/mL	Unstressed
	Purity 99%				+/-	254.3496	µg/mL	Stressed
23	tert-Amyl ethyl ether (TAEE)		5,000.2	µg/mL	+/-	34.9516	µg/mL	Gravimetric
	CAS # 919-94-8	(Lot 76U3A)			+/-	248.1073	µg/mL	Unstressed
	Purity 99%				+/-	254.2395	µg/mL	Stressed

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

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

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

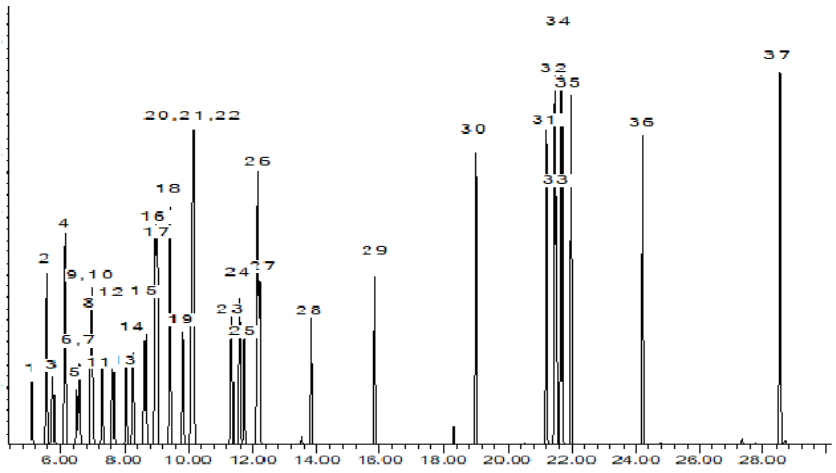
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00043

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

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

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Pentane (C5)	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		5,004.2	µg/mL	+/-	34.9796	µg/mL	Gravimetric
	CAS # 75-15-0	(Lot N28F701)			+/-	248.3058	µg/mL	Unstressed
	Purity 99%				+/-	254.4428	µg/mL	Stressed
9	Acrylonitrile		12,506.0	µg/mL	+/-	73.2254	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot M25F024)			+/-	618.7056	µg/mL	Unstressed
	Purity 99%				+/-	634.0873	µg/mL	Stressed
10	Methyl-tert-butyl ether (MTBE)		5,000.8	µg/mL	+/-	34.9563	µg/mL	Gravimetric
	CAS # 1634-04-4	(Lot SHBM3541)			+/-	248.1404	µg/mL	Unstressed
	Purity 99%				+/-	254.2734	µg/mL	Stressed
11	n-Hexane (C6)		5,000.5	µg/mL	+/-	34.9540	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBL9879)			+/-	248.1239	µg/mL	Unstressed
	Purity 99%				+/-	254.2564	µg/mL	Stressed
12	Diisopropyl ether (DIPE)		5,003.3	µg/mL	+/-	34.9738	µg/mL	Gravimetric
	CAS # 108-20-3	(Lot SHBH1927V)			+/-	248.2645	µg/mL	Unstressed
	Purity 99%				+/-	254.4005	µg/mL	Stressed
13	Chloroprene (2-chloro-1,3-butadiene)		5,001.2	µg/mL	+/-	34.9586	µg/mL	Gravimetric
	CAS # 126-99-8	(Lot 210413JLM)			+/-	248.1570	µg/mL	Unstressed
	Purity 99%				+/-	254.2903	µg/mL	Stressed
14	Ethyl-tert-butyl ether (ETBE)		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 637-92-3	(Lot MKCM3774)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
15	Propionitrile		25,006.7	µg/mL	+/-	146.4195	µg/mL	Gravimetric
	CAS # 107-12-0	(Lot BCCC1173)			+/-	1,237.1473	µg/mL	Unstressed
	Purity 99%				+/-	1,267.9041	µg/mL	Stressed
16	Methacrylonitrile		12,500.7	µg/mL	+/-	73.1942	µg/mL	Gravimetric
	CAS # 126-98-7	(Lot 1012020)			+/-	618.4417	µg/mL	Unstressed
	Purity 99%				+/-	633.8168	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,500.7	µg/mL	+/-	365.9551	µg/mL	Gravimetric
	CAS # 78-83-1	(Lot SHBM4836)			+/-	3,092.0767	µg/mL	Unstressed
	Purity 99%				+/-	3,168.9490	µg/mL	Stressed
18	Tetrahydrofuran		25,010.0	µg/mL	+/-	146.4390	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBM8962)			+/-	1,237.3122	µg/mL	Unstressed
	Purity 99%				+/-	1,268.0731	µg/mL	Stressed
19	Cyclohexane		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKCF5831)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
20	1-Butanol		62,504.0	µg/mL	+/-	365.9747	µg/mL	Gravimetric
	CAS # 71-36-3	(Lot SHBM5061)			+/-	3,092.2416	µg/mL	Unstressed
	Purity 99%				+/-	3,169.1180	µg/mL	Stressed
21	tert-Amyl methyl ether (TAME)		5,001.7	µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 994-05-8	(Lot HMBG7745V)			+/-	248.1818	µg/mL	Unstressed
	Purity 99%				+/-	254.3157	µg/mL	Stressed
22	n-Heptane (C7)		5,002.3	µg/mL	+/-	34.9668	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot SHBL9221)			+/-	248.2148	µg/mL	Unstressed
	Purity 99%				+/-	254.3496	µg/mL	Stressed
23	tert-Amyl ethyl ether (TAEE)		5,000.2	µg/mL	+/-	34.9516	µg/mL	Gravimetric
	CAS # 919-94-8	(Lot 76U3A)			+/-	248.1073	µg/mL	Unstressed
	Purity 99%				+/-	254.2395	µg/mL	Stressed

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

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

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

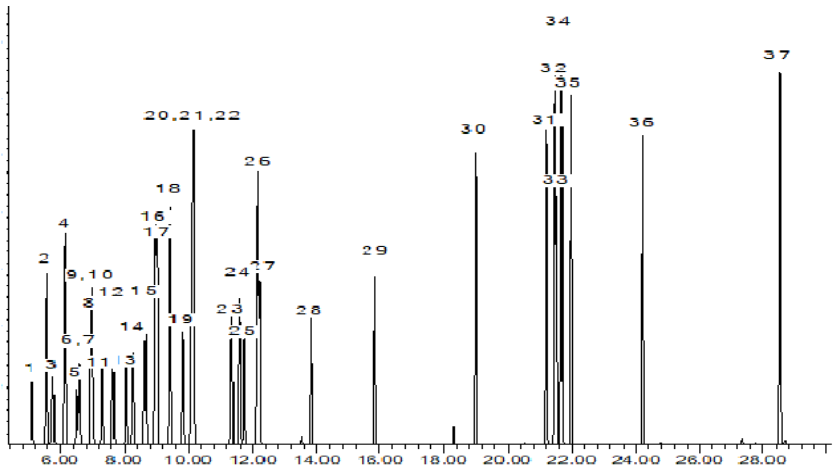
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

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:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Q_Ketones_00019

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

Ship: Ambient

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

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

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

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

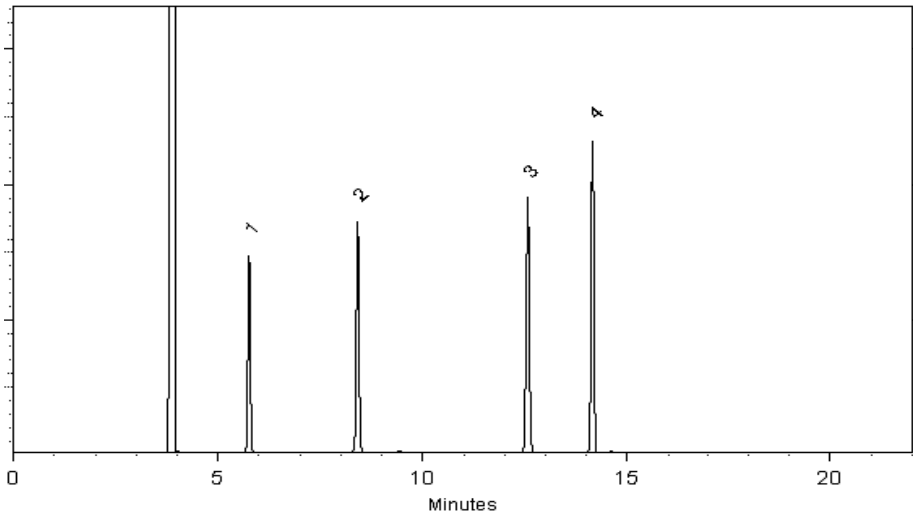
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Cory Meyer - Operations Tech I

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

Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00040

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

Ship: Ambient

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

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

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

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

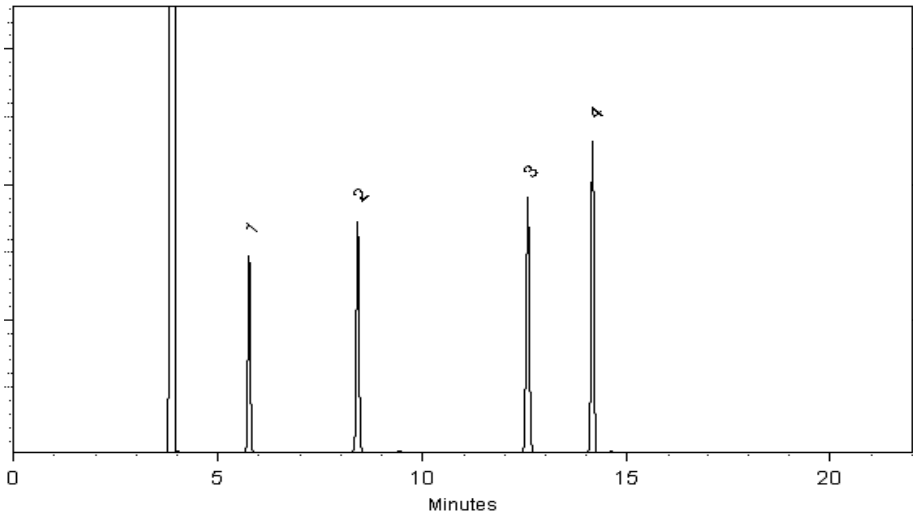
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Cory Meyer - Operations Tech I

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

Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00041

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

Ship: Ambient

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

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

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

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

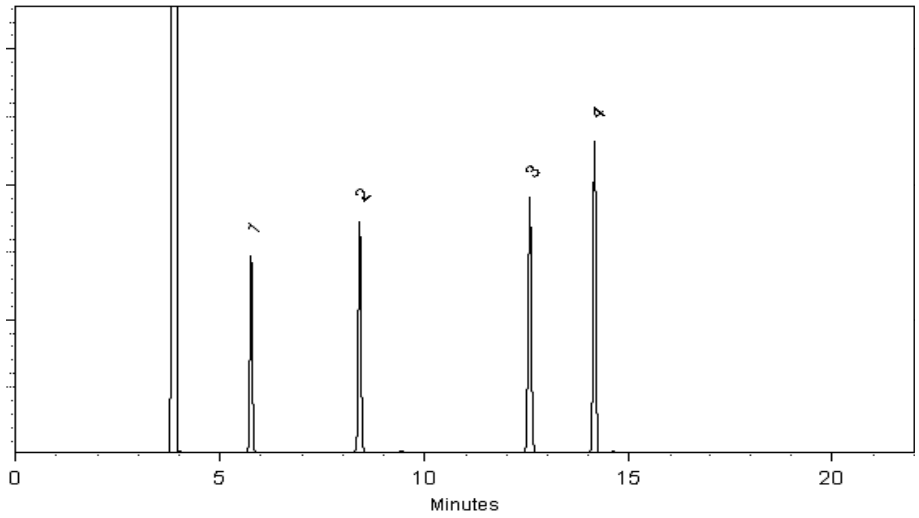
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Cory Meyer - Operations Tech I

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

Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00043

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

Ship: Ambient

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

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

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

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

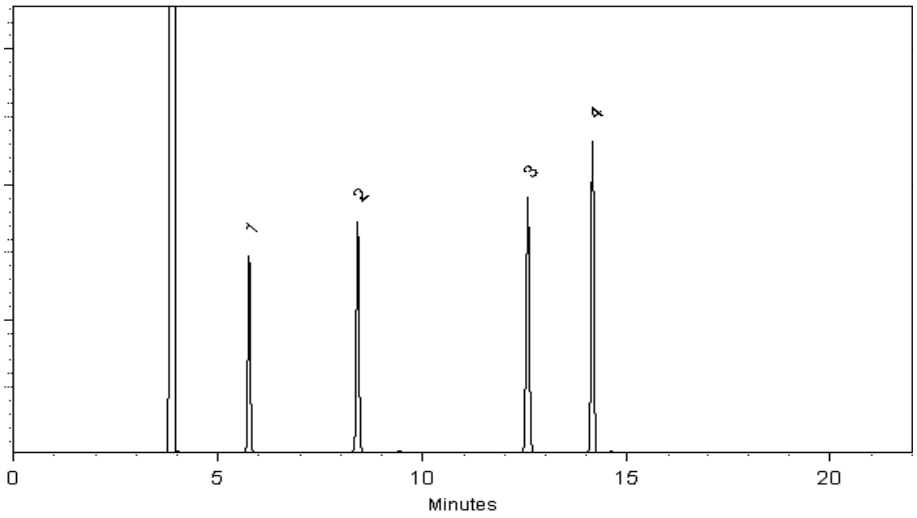
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Cory Meyer - Operations Tech I

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

Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Gases.SEC Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

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

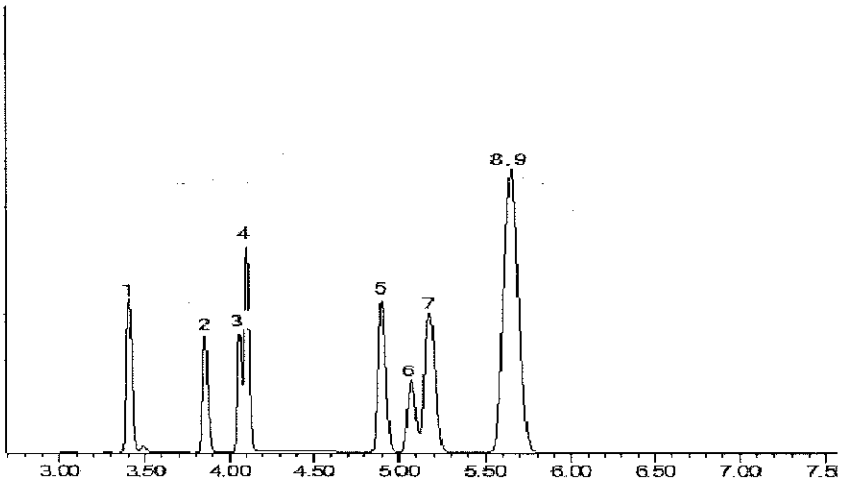
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00063

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Gases.SEC Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

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

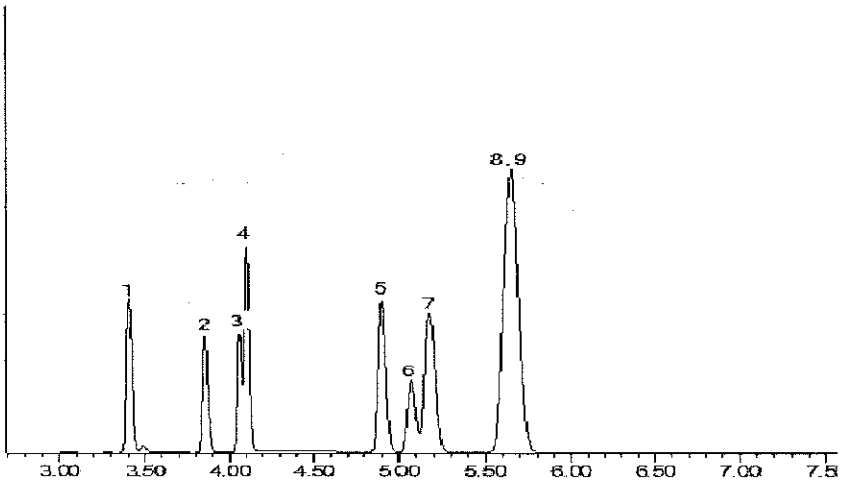
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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Reagent

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

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

Description : Custom Gases.SEC Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

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

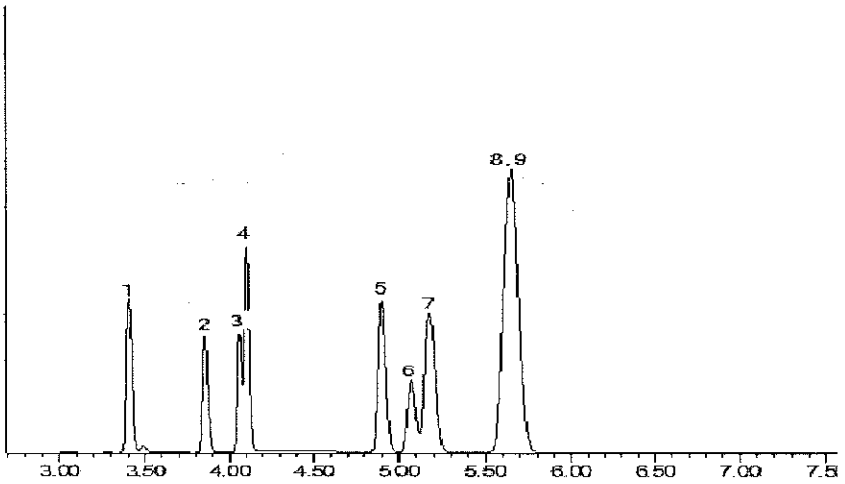
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00068

RESTEK
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Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Gases.SEC Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

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

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

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

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

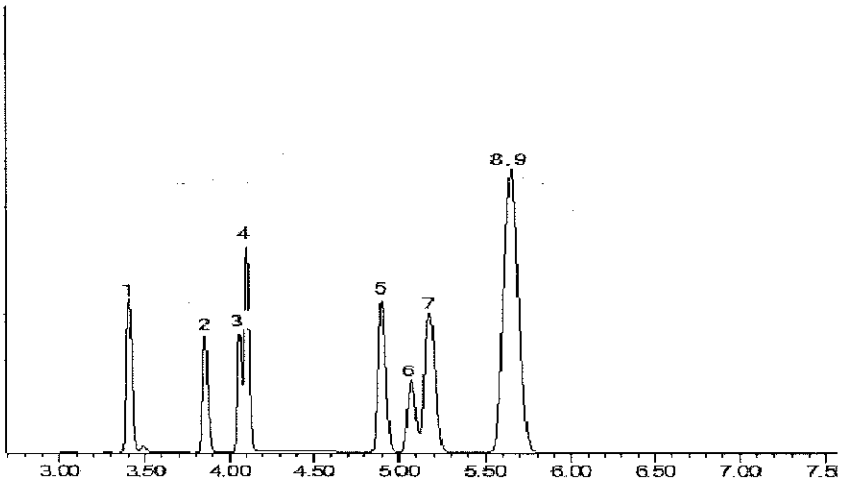
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

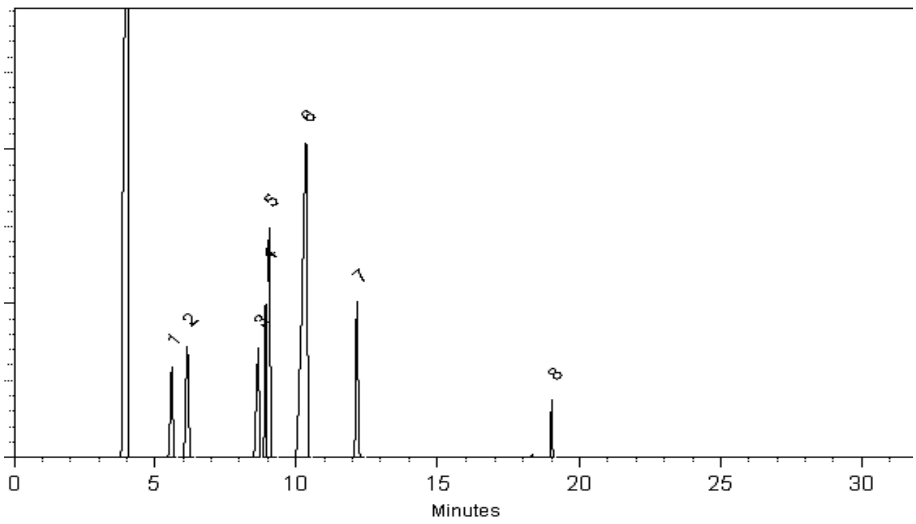
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Uncertainty Value Notes:

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V#2B_00246

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)

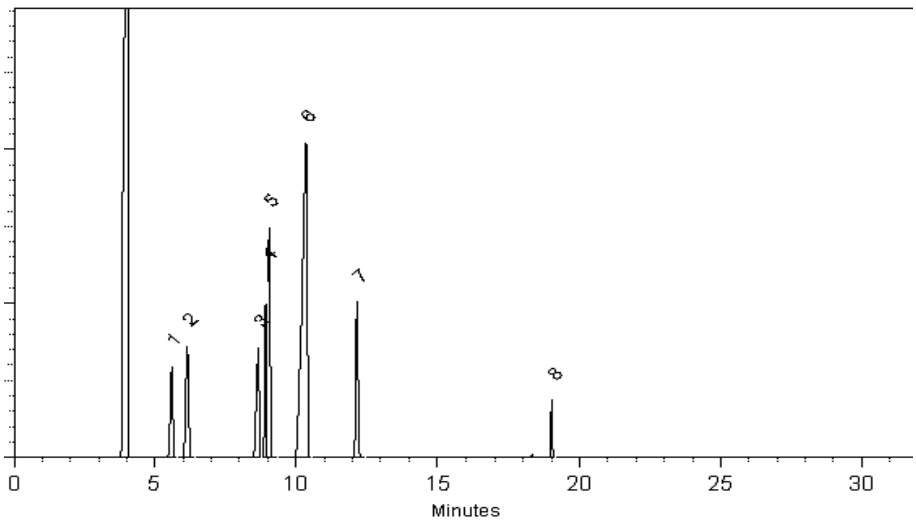
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Uncertainty Value Notes:

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V_Ketones_00014

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

Ship: Ambient

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

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

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

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

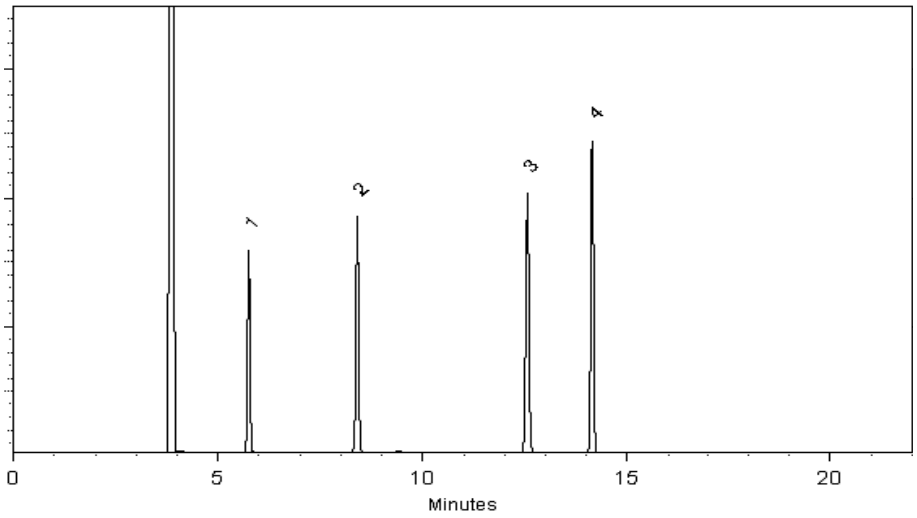
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Cathleen Soltis - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 21-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00037

110 Benner Circle
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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

Ship: Ambient

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)

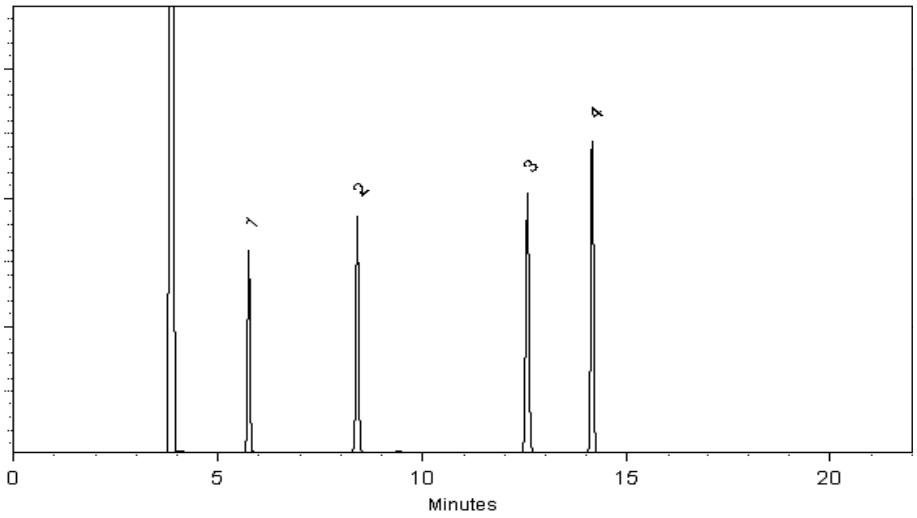
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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 Shelow - Operations Tech I

Date Passed: 21-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00041

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

Ship: Ambient

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

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

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

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

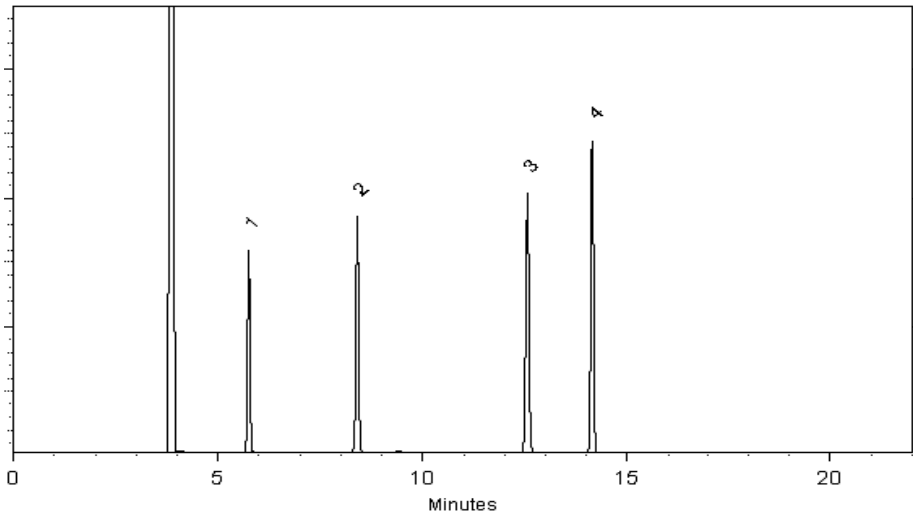
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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Cathleen Soltis - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 21-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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- 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.

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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_00042

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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

Ship: Ambient

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

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

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

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

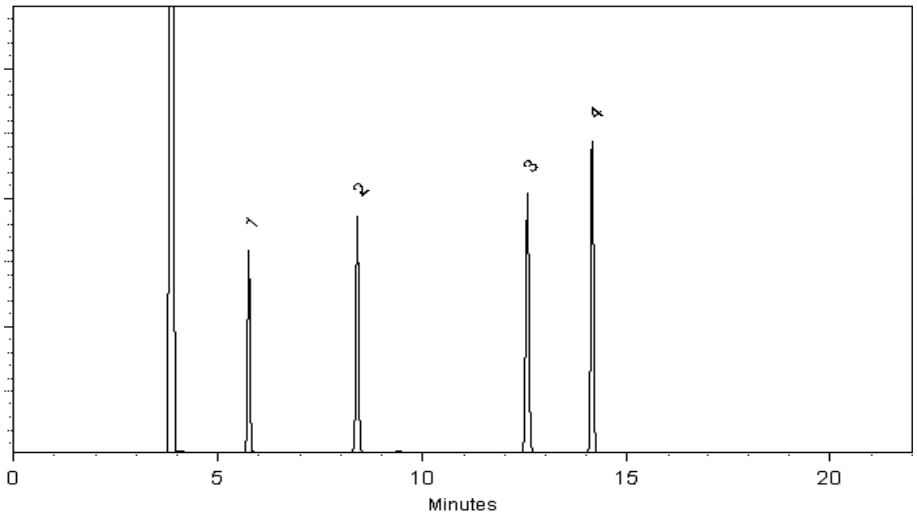
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Cathleen Soltis - Mix Technician

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

Alexis Shelow - Operations Tech I

Date Passed: 21-Jan-2021

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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Bellefonte, PA 16823-8812
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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Pentachloroethane Standard

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

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

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

Ship: Ambient

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

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

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

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

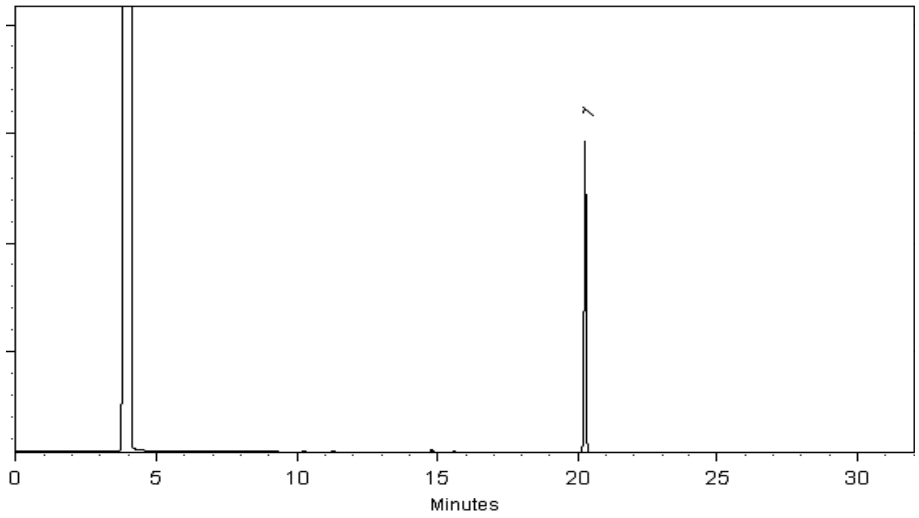
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Jeremy Warefield - Operations Tech I

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

Alexis Shelow - Operations Tech I

Date Passed: 19-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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_00009

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Pentachloroethane Standard

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

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

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

Ship: Ambient

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

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

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

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

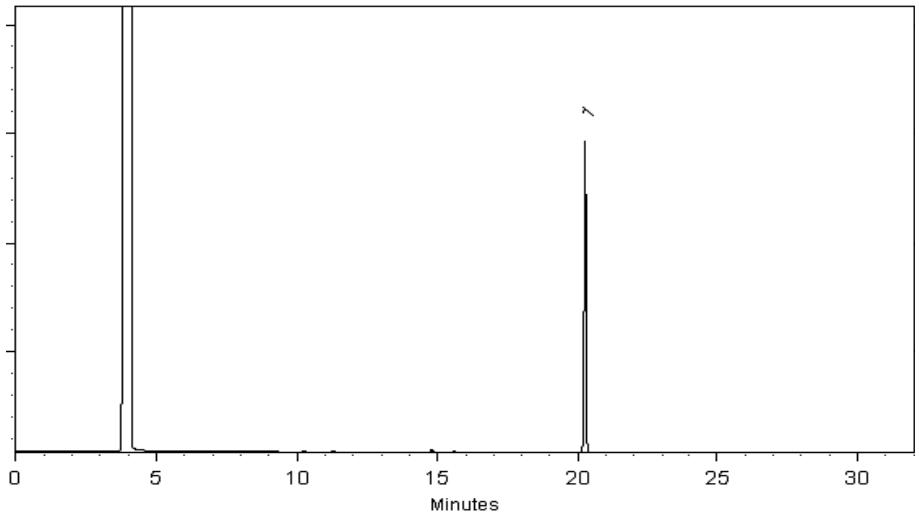
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Jeremy Warefield - Operations Tech I

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

Alexis Shelow - Operations Tech I

Date Passed: 19-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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.: 410-67460-1

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	410-67460-1	103 cn	107 cn	102 cn	93 cn
HD-COD-SW-7-0/1-0	410-67460-2	102 cn	108 cn	101 cn	92 cn
HD-COD-SW-8-0/1-0	410-67460-3	102 cn	107 cn	101 cn	92 cn
HD-COD-SW-9-0/1-0	410-67460-4	103 cn	107 cn	101 cn	91 cn
HD-COD-SW-13-0/1-0	410-67460-5	104 cn	108 cn	102 cn	91 cn
HD-COD-SW-15-0/1-0	410-67460-6	103 cn	107 cn	102 cn	92 cn
HD-COD-SW-16-0/1-0	410-67460-7	101 cn	107 cn	101 cn	92 cn
HD-COD-SW-17-0/1-0	410-67460-8	100 cn	105 cn	102 cn	94 cn
HD-COD-SW-17-0/1-0 DL	410-67460-8 DL	107	103	89	103
HD-COD-SW-26-0/1-0	410-67460-9	107 cn	107 cn	89 cn	103 cn
HD-COD-SW-27-0/1-0	410-67460-10	107 cn	106 cn	90 cn	102 cn
HD-COD-SW-28-0/1-0	410-67460-11	108 cn	107 cn	89 cn	102 cn
HD-COD-SW-29-0/1-0	410-67460-12	107 cn	104 cn	89 cn	103 cn
HD-QC1-0/1-1	410-67460-13	106 cn	107 cn	89 cn	102 cn
HD-QC1-0/1-2	410-67460-14	107 cn	108 cn	89 cn	103 cn
	MB 410-209587/7	102	107	100	94
	MB 410-210047/7	107	106	90	103
	MB 410-211830/11	102	106	103	93
	LCS 410-209587/4	101	105	102	98
	LCS 410-210047/4	108	106	90	104
	LCS 410-211830/4	99	104	102	97
	LCSD 410-209587/5	99	104	101	96
	LCSD 410-210047/5	107	104	91	103
	LCSD 410-211830/5	99	101	102	97
HD-COD-SW-15-0/1-0 MS MS	410-67460-6 MS	100	106	102	97
HD-COD-SW-15-0/1-0 MSD MSD	410-67460-6 MSD	99	106	102	97

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ID28X03.D

Lab ID: LCS 410-209587/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.45	109	71-134	
1,1,1-Trichloroethane	5.00	5.23	105	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.49	110	75-123	
1,1,2-Trichloroethane	5.00	5.78	116	80-120	
1,1-Dichloroethane	5.00	5.19	104	74-120	
1,1-Dichloroethene	5.00	5.49	110	80-131	
1,2-Dibromoethane (EDB)	5.00	5.47	109	80-120	
1,2-Dichloroethane	5.00	5.16	103	69-122	
1,2-Dichloropropane	5.00	5.65	113	80-120	
2-Butanone (MEK)	62.5	78.9	126	59-141	
2-Hexanone	62.5	81.7	131	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	77.0	123	55-140	
Acetone	62.5	63.9	102	60-146	
Benzene	5.00	5.52	110	80-120	
Bromochloromethane	5.00	5.62	112	80-120	
Bromodichloromethane	5.00	5.71	114	73-124	
Bromoform	5.00	5.81	116	49-144	
Bromomethane	5.00	4.82	96	60-136	
Carbon disulfide	5.00	5.50	110	67-130	
Carbon tetrachloride	5.00	5.56	111	64-141	
Chlorobenzene	5.00	5.54	111	80-120	
Chloroethane	5.00	5.28	106	63-120	
Chloroform	5.00	5.36	107	80-120	
Chloromethane	5.00	4.76	95	56-124	
cis-1,2-Dichloroethene	5.00	5.42	108	80-122	
cis-1,3-Dichloropropene	5.00	5.44	109	67-121	
Dibromochloromethane	5.00	5.74	115	64-138	
Ethylbenzene	5.00	5.33	107	80-120	
Methyl tert-butyl ether	5.00	4.86	97	69-120	
Methylene Chloride	5.00	5.34	107	80-120	
Styrene	5.00	5.36	107	80-120	
Tetrachloroethene	5.00	5.62	112	80-120	
Toluene	5.00	5.40	108	80-120	
trans-1,2-Dichloroethene	5.00	5.26	105	80-122	
trans-1,3-Dichloropropene	5.00	5.63	113	61-129	
Trichloroethene	5.00	5.39	108	80-120	
Vinyl chloride	5.00	4.90	98	60-125	
Xylenes, Total	15.0	16.0	107	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.: 410-67460-1

SDG No.:

Matrix: Water Level: Low Lab File ID: HD29X03.D

Lab ID: LCS 410-210047/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.61	92	71-134	
1,1,1-Trichloroethane	5.00	5.50	110	78-126	
1,1,2,2-Tetrachloroethane	5.00	4.55	91	75-123	
1,1,2-Trichloroethane	5.00	4.62	92	80-120	
1,1-Dichloroethane	5.00	5.52	110	74-120	
1,1-Dichloroethene	5.00	5.64	113	80-131	
1,2-Dibromoethane (EDB)	5.00	4.61	92	80-120	
1,2-Dichloroethane	5.00	5.50	110	69-122	
1,2-Dichloropropane	5.00	5.61	112	80-120	
2-Butanone (MEK)	62.5	41.9	67	59-141	
2-Hexanone	62.5	40.3	65	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	39.0	62	55-140	
Acetone	62.5	41.1	66	60-146	
Benzene	5.00	5.63	113	80-120	
Bromochloromethane	5.00	5.77	115	80-120	
Bromodichloromethane	5.00	5.90	118	73-124	
Bromoform	5.00	5.60	112	49-144	
Bromomethane	5.00	5.64	113	60-136	
Carbon disulfide	5.00	6.42	128	67-130	
Carbon tetrachloride	5.00	5.49	110	64-141	
Chlorobenzene	5.00	4.50	90	80-120	
Chloroethane	5.00	5.69	114	63-120	
Chloroform	5.00	5.58	112	80-120	
Chloromethane	5.00	5.35	107	56-124	
cis-1,2-Dichloroethene	5.00	5.76	115	80-122	
cis-1,3-Dichloropropene	5.00	5.64	113	67-121	
Dibromochloromethane	5.00	5.07	101	64-138	
Ethylbenzene	5.00	4.56	91	80-120	
Methyl tert-butyl ether	5.00	5.86	117	69-120	
Methylene Chloride	5.00	5.46	109	80-120	
Styrene	5.00	4.67	93	80-120	
Tetrachloroethene	5.00	4.45	89	80-120	
Toluene	5.00	4.48	90	80-120	
trans-1,2-Dichloroethene	5.00	5.62	112	80-122	
trans-1,3-Dichloropropene	5.00	4.80	96	61-129	
Trichloroethene	5.00	5.67	113	80-120	
Vinyl chloride	5.00	5.31	106	60-125	
Xylenes, Total	15.0	13.7	91	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.: 410-67460-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IJ05X03.D

Lab ID: LCS 410-211830/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.59	112	71-134	
1,1,1-Trichloroethane	5.00	5.14	103	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.25	125	75-123	*+
1,1,2-Trichloroethane	5.00	6.13	123	80-120	*+
1,1-Dichloroethane	5.00	5.43	109	74-120	
1,1-Dichloroethene	5.00	5.54	111	80-131	
1,2-Dibromoethane (EDB)	5.00	5.89	118	80-120	
1,2-Dichloroethane	5.00	5.53	111	69-122	
1,2-Dichloropropane	5.00	6.13	123	80-120	*+
2-Butanone (MEK)	62.5	82.4	132	59-141	
2-Hexanone	62.5	89.6	143	52-140	*+
4-Methyl-2-pentanone (MIBK)	62.5	84.3	135	55-140	
Acetone	62.5	64.4	103	60-146	
Benzene	5.00	5.73	115	80-120	
Bromochloromethane	5.00	5.61	112	80-120	
Bromodichloromethane	5.00	5.98	120	73-124	
Bromoform	5.00	5.94	119	49-144	
Bromomethane	5.00	4.28	86	60-136	
Carbon disulfide	5.00	5.64	113	67-130	
Carbon tetrachloride	5.00	5.25	105	64-141	
Chlorobenzene	5.00	5.74	115	80-120	
Chloroethane	5.00	4.35	87	63-120	
Chloroform	5.00	5.48	110	80-120	
Chloromethane	5.00	5.03	101	56-124	
cis-1,2-Dichloroethene	5.00	5.43	109	80-122	
cis-1,3-Dichloropropene	5.00	5.81	116	67-121	
Dibromochloromethane	5.00	5.98	120	64-138	
Ethylbenzene	5.00	5.60	112	80-120	
Methyl tert-butyl ether	5.00	4.93	99	69-120	
Methylene Chloride	5.00	5.54	111	80-120	
Styrene	5.00	5.55	111	80-120	
Tetrachloroethene	5.00	5.62	112	80-120	
Toluene	5.00	5.60	112	80-120	
trans-1,2-Dichloroethene	5.00	5.27	105	80-122	
trans-1,3-Dichloropropene	5.00	6.02	120	61-129	
Trichloroethene	5.00	5.46	109	80-120	
Vinyl chloride	5.00	4.61	92	60-125	
Xylenes, Total	15.0	16.6	111	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ID28X04.D

Lab ID: LCSD 410-209587/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.42	108	0	30	71-134	
1,1,1-Trichloroethane	5.00	5.32	106	2	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.60	112	2	30	75-123	
1,1,2-Trichloroethane	5.00	5.68	114	2	30	80-120	
1,1-Dichloroethane	5.00	5.24	105	1	30	74-120	
1,1-Dichloroethene	5.00	5.64	113	3	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.47	109	0	30	80-120	
1,2-Dichloroethane	5.00	5.27	105	2	30	69-122	
1,2-Dichloropropane	5.00	5.68	114	1	30	80-120	
2-Butanone (MEK)	62.5	72.1	115	9	30	59-141	
2-Hexanone	62.5	73.7	118	10	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	69.9	112	10	30	55-140	
Acetone	62.5	61.4	98	4	30	60-146	
Benzene	5.00	5.53	111	0	30	80-120	
Bromochloromethane	5.00	5.76	115	2	30	80-120	
Bromodichloromethane	5.00	5.75	115	1	30	73-124	
Bromoform	5.00	5.72	114	1	30	49-144	
Bromomethane	5.00	4.92	98	2	30	60-136	
Carbon disulfide	5.00	5.60	112	2	30	67-130	
Carbon tetrachloride	5.00	5.52	110	1	30	64-141	
Chlorobenzene	5.00	5.50	110	1	30	80-120	
Chloroethane	5.00	5.25	105	1	30	63-120	
Chloroform	5.00	5.35	107	0	30	80-120	
Chloromethane	5.00	5.05	101	6	30	56-124	
cis-1,2-Dichloroethene	5.00	5.49	110	1	30	80-122	
cis-1,3-Dichloropropene	5.00	5.37	107	1	30	67-121	
Dibromochloromethane	5.00	5.64	113	2	30	64-138	
Ethylbenzene	5.00	5.32	106	0	30	80-120	
Methyl tert-butyl ether	5.00	4.93	99	1	30	69-120	
Methylene Chloride	5.00	5.42	108	1	30	80-120	
Styrene	5.00	5.43	109	1	30	80-120	
Tetrachloroethene	5.00	5.57	111	1	30	80-120	
Toluene	5.00	5.43	109	0	30	80-120	
trans-1,2-Dichloroethene	5.00	5.36	107	2	30	80-122	
trans-1,3-Dichloropropene	5.00	5.56	111	1	30	61-129	
Trichloroethene	5.00	5.45	109	1	30	80-120	
Vinyl chloride	5.00	5.09	102	4	30	60-125	
Xylenes, Total	15.0	16.2	108	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Matrix: Water Level: Low Lab File ID: HD29X04.D

Lab ID: LCSD 410-210047/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.49	90	2	30	71-134	
1,1,1-Trichloroethane	5.00	5.41	108	2	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	4.49	90	1	30	75-123	
1,1,2-Trichloroethane	5.00	4.60	92	1	30	80-120	
1,1-Dichloroethane	5.00	5.35	107	3	30	74-120	
1,1-Dichloroethene	5.00	5.47	109	3	30	80-131	
1,2-Dibromoethane (EDB)	5.00	4.59	92	1	30	80-120	
1,2-Dichloroethane	5.00	5.35	107	3	30	69-122	
1,2-Dichloropropane	5.00	5.51	110	2	30	80-120	
2-Butanone (MEK)	62.5	42.6	68	2	30	59-141	
2-Hexanone	62.5	40.4	65	0	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	38.8	62	1	30	55-140	
Acetone	62.5	40.9	65	1	30	60-146	
Benzene	5.00	5.49	110	3	30	80-120	
Bromochloromethane	5.00	5.66	113	2	30	80-120	
Bromodichloromethane	5.00	5.76	115	2	30	73-124	
Bromoform	5.00	5.51	110	2	30	49-144	
Bromomethane	5.00	5.52	110	2	30	60-136	
Carbon disulfide	5.00	6.27	125	2	30	67-130	
Carbon tetrachloride	5.00	5.36	107	2	30	64-141	
Chlorobenzene	5.00	4.42	88	2	30	80-120	
Chloroethane	5.00	5.67	113	0	30	63-120	
Chloroform	5.00	5.44	109	3	30	80-120	
Chloromethane	5.00	5.48	110	2	30	56-124	
cis-1,2-Dichloroethene	5.00	5.61	112	3	30	80-122	
cis-1,3-Dichloropropene	5.00	5.61	112	1	30	67-121	
Dibromochloromethane	5.00	4.93	99	3	30	64-138	
Ethylbenzene	5.00	4.50	90	1	30	80-120	
Methyl tert-butyl ether	5.00	5.67	113	3	30	69-120	
Methylene Chloride	5.00	5.34	107	2	30	80-120	
Styrene	5.00	4.57	91	2	30	80-120	
Tetrachloroethene	5.00	4.36	87	2	30	80-120	
Toluene	5.00	4.45	89	1	30	80-120	
trans-1,2-Dichloroethene	5.00	5.50	110	2	30	80-122	
trans-1,3-Dichloropropene	5.00	4.69	94	2	30	61-129	
Trichloroethene	5.00	5.56	111	2	30	80-120	
Vinyl chloride	5.00	5.29	106	0	30	60-125	
Xylenes, Total	15.0	13.5	90	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IJ05X04.D

Lab ID: LCSD 410-211830/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.40	108	3	30	71-134	
1,1,1-Trichloroethane	5.00	4.99	100	3	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.21	124	1	30	75-123	*+
1,1,2-Trichloroethane	5.00	5.92	118	4	30	80-120	
1,1-Dichloroethane	5.00	5.36	107	1	30	74-120	
1,1-Dichloroethene	5.00	5.41	108	2	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.74	115	3	30	80-120	
1,2-Dichloroethane	5.00	5.46	109	1	30	69-122	
1,2-Dichloropropane	5.00	5.88	118	4	30	80-120	
2-Butanone (MEK)	62.5	83.8	134	2	30	59-141	
2-Hexanone	62.5	92.2	147	3	30	52-140	*+
4-Methyl-2-pentanone (MIBK)	62.5	85.2	136	1	30	55-140	
Acetone	62.5	64.1	102	1	30	60-146	
Benzene	5.00	5.56	111	3	30	80-120	
Bromochloromethane	5.00	5.53	111	2	30	80-120	
Bromodichloromethane	5.00	5.81	116	3	30	73-124	
Bromoform	5.00	5.73	115	4	30	49-144	
Bromomethane	5.00	4.15	83	3	30	60-136	
Carbon disulfide	5.00	5.46	109	3	30	67-130	
Carbon tetrachloride	5.00	5.12	102	3	30	64-141	
Chlorobenzene	5.00	5.53	111	4	30	80-120	
Chloroethane	5.00	4.28	86	2	30	63-120	
Chloroform	5.00	5.42	108	1	30	80-120	
Chloromethane	5.00	4.79	96	5	30	56-124	
cis-1,2-Dichloroethene	5.00	5.38	108	1	30	80-122	
cis-1,3-Dichloropropene	5.00	5.60	112	4	30	67-121	
Dibromochloromethane	5.00	5.81	116	3	30	64-138	
Ethylbenzene	5.00	5.43	109	3	30	80-120	
Methyl tert-butyl ether	5.00	4.81	96	3	30	69-120	
Methylene Chloride	5.00	5.47	109	1	30	80-120	
Styrene	5.00	5.42	108	2	30	80-120	
Tetrachloroethene	5.00	5.42	108	4	30	80-120	
Toluene	5.00	5.41	108	3	30	80-120	
trans-1,2-Dichloroethene	5.00	5.19	104	1	30	80-122	
trans-1,3-Dichloropropene	5.00	5.86	117	3	30	61-129	
Trichloroethene	5.00	5.47	109	0	30	80-120	
Vinyl chloride	5.00	4.27	85	8	30	60-125	
Xylenes, Total	15.0	16.0	106	4	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ID28X17.D

Lab ID: 410-67460-6 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	5.45	109	71-134	
1,1,1-Trichloroethane	5.00	0.18 J	5.77	112	78-126	
1,1,2,2-Tetrachloroethane	5.00	ND	5.28	106	75-123	
1,1,2-Trichloroethane	5.00	ND	5.75	115	80-120	
1,1-Dichloroethane	5.00	0.11 J	5.60	110	74-120	
1,1-Dichloroethene	5.00	0.12 J	6.16	121	80-131	
1,2-Dibromoethane (EDB)	5.00	ND	5.33	106	80-120	
1,2-Dichloroethane	5.00	ND	5.28	106	69-122	
1,2-Dichloropropane	5.00	ND	5.89	118	80-120	
2-Butanone (MEK)	62.6	ND	75.1	120	59-141	
2-Hexanone	62.6	ND	76.4	122	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	ND	73.2	117	55-140	
Acetone	62.6	ND	62.4	100	60-146	
Benzene	5.00	ND	5.81	116	80-120	
Bromochloromethane	5.00	ND	5.82	116	80-120	
Bromodichloromethane	5.00	ND	5.77	115	73-124	
Bromoform	5.00	ND	5.55	111	49-144	
Bromomethane	5.00	ND	4.50	90	60-136	
Carbon disulfide	5.00	ND	6.04	121	67-130	
Carbon tetrachloride	5.00	ND	5.99	120	64-141	
Chlorobenzene	5.00	ND	5.62	112	80-120	
Chloroethane	5.00	ND	5.30	106	63-120	
Chloroform	5.00	0.31 J	5.87	111	80-120	
Chloromethane	5.00	ND	4.08	82	80-120	
cis-1,2-Dichloroethene	5.00	0.86	6.53	113	80-122	
cis-1,3-Dichloropropene	5.00	ND	5.50	110	67-121	
Dibromochloromethane	5.00	ND	5.58	112	64-138	
Ethylbenzene	5.00	ND	5.53	111	80-120	
Methyl tert-butyl ether	5.00	0.085 J	4.93	97	69-120	
Methylene Chloride	5.00	ND	5.65	113	80-120	
Styrene	5.00	ND	5.46	109	80-120	
Tetrachloroethene	5.00	4.7	10.3	113	80-120	
Toluene	5.00	ND	5.61	112	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.63	113	80-122	
trans-1,3-Dichloropropene	5.00	ND	5.51	110	61-129	
Trichloroethene	5.00	1.0	6.69	113	80-120	
Vinyl chloride	5.00	ND	4.81	96	60-125	
Xylenes, Total	15.0	ND	16.5	110	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ID28X18.D

Lab ID: 410-67460-6 MSD Client ID: HD-COD-SW-15-0/1-0 MSD MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.48	109	1	30	71-134	
1,1,1-Trichloroethane	5.00	5.76	111	0	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.28	106	0	30	75-123	
1,1,2-Trichloroethane	5.00	5.69	114	1	30	80-120	
1,1-Dichloroethane	5.00	5.52	108	2	30	74-120	
1,1-Dichloroethene	5.00	6.18	121	0	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.45	109	2	30	80-120	
1,2-Dichloroethane	5.00	5.14	103	3	30	69-122	
1,2-Dichloropropane	5.00	5.92	118	0	30	80-120	
2-Butanone (MEK)	62.6	79.0	126	5	30	59-141	
2-Hexanone	62.6	83.1	133	8	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	78.3	125	7	30	55-140	
Acetone	62.6	65.2	104	4	30	60-146	
Benzene	5.00	5.81	116	0	30	80-120	
Bromochloromethane	5.00	5.77	115	1	30	80-120	
Bromodichloromethane	5.00	5.79	116	0	30	73-124	
Bromoform	5.00	5.49	110	1	30	49-144	
Bromomethane	5.00	4.75	95	5	30	60-136	
Carbon disulfide	5.00	6.00	120	1	30	67-130	
Carbon tetrachloride	5.00	5.96	119	1	30	64-141	
Chlorobenzene	5.00	5.60	112	0	30	80-120	
Chloroethane	5.00	5.31	106	0	30	63-120	
Chloroform	5.00	5.81	110	1	30	80-120	
Chloromethane	5.00	3.72	74	9	30	80-120	FL
cis-1,2-Dichloroethene	5.00	6.54	113	0	30	80-122	
cis-1,3-Dichloropropene	5.00	5.50	110	0	30	67-121	
Dibromochloromethane	5.00	5.67	113	2	30	64-138	
Ethylbenzene	5.00	5.53	110	0	30	80-120	
Methyl tert-butyl ether	5.00	4.89	96	1	30	69-120	
Methylene Chloride	5.00	5.56	111	2	30	80-120	
Styrene	5.00	5.45	109	0	30	80-120	
Tetrachloroethene	5.00	10.4	115	1	30	80-120	
Toluene	5.00	5.65	113	1	30	80-120	
trans-1,2-Dichloroethene	5.00	5.63	112	0	30	80-122	
trans-1,3-Dichloropropene	5.00	5.48	109	1	30	61-129	
Trichloroethene	5.00	6.70	113	0	30	80-120	
Vinyl chloride	5.00	4.38	87	9	30	60-125	
Xylenes, Total	15.0	16.6	110	0	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Lab File ID: ID28X06.D Lab Sample ID: MB 410-209587/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 19930 Date Analyzed: 12/28/2021 11:29

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 410-209587/4	ID28X03.D	12/28/2021 10:25
	LCSD 410-209587/5	ID28X04.D	12/28/2021 10:46
HD-COD-SW-6-0/1-0	410-67460-1	ID28X11.D	12/28/2021 13:49
HD-COD-SW-7-0/1-0	410-67460-2	ID28X12.D	12/28/2021 14:10
HD-COD-SW-8-0/1-0	410-67460-3	ID28X13.D	12/28/2021 14:31
HD-COD-SW-9-0/1-0	410-67460-4	ID28X14.D	12/28/2021 14:52
HD-COD-SW-13-0/1-0	410-67460-5	ID28X15.D	12/28/2021 15:13
HD-COD-SW-15-0/1-0	410-67460-6	ID28X16.D	12/28/2021 15:34
HD-COD-SW-15-0/1-0 MS MS	410-67460-6 MS	ID28X17.D	12/28/2021 15:56
HD-COD-SW-15-0/1-0 MSD MSD	410-67460-6 MSD	ID28X18.D	12/28/2021 16:17
HD-COD-SW-16-0/1-0	410-67460-7	ID28X20.D	12/28/2021 17:00

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Lab File ID: HD29X06.D Lab Sample ID: MB 410-210047/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 19094 Date Analyzed: 12/29/2021 12:21

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 410-210047/4	HD29X03.D	12/29/2021 11:20
	LCSD 410-210047/5	HD29X04.D	12/29/2021 11:40
HD-QC1-0/1-2	410-67460-14	HD29X08.D	12/29/2021 13:10
HD-COD-SW-26-0/1-0	410-67460-9	HD29X14.D	12/29/2021 15:14
HD-COD-SW-27-0/1-0	410-67460-10	HD29X15.D	12/29/2021 15:34
HD-COD-SW-28-0/1-0	410-67460-11	HD29X16.D	12/29/2021 15:55
HD-COD-SW-29-0/1-0	410-67460-12	HD29X17.D	12/29/2021 16:15
HD-QC1-0/1-1	410-67460-13	HD29X18.D	12/29/2021 16:36
HD-COD-SW-17-0/1-0 DL	410-67460-8 DL	HD29X19.D	12/29/2021 16:57

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-67460-1

SDG No.:

Lab File ID: IJ05X10.D Lab Sample ID: MB 410-211830/11

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 19930 Date Analyzed: 01/05/2022 12:05

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 410-211830/4	IJ05X03.D	01/05/2022 09:36
	LCSD 410-211830/5	IJ05X04.D	01/05/2022 09:58
HD-COD-SW-17-0/1-0	410-67460-8	IJ05X16.D	01/05/2022 14:12

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Lab File ID: HD21T01.D BFB Injection Date: 12/21/2021

Instrument ID: 19094 BFB Injection Time: 14:04

Analysis Batch No.: 207981

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.7	
75	30.0 - 60.0 % of mass 95	48.2	
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	0.8	(0.9) 1
174	Greater than 50% of mass 95	87.5	
175	5.0 - 9.0 % of mass 174	6.3	(7.2) 1
176	95.0 - 101.0 % of mass 174	84.1	(96.1) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.7) 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 410-207981/14	HD21I11.D	12/21/2021	18:35
	ICIS 410-207981/15	HD21I12.D	12/21/2021	18:56
	IC 410-207981/16	HD21I13.D	12/21/2021	19:16
	IC 410-207981/17	HD21I14.D	12/21/2021	19:37
	IC 410-207981/18	HD21I15.D	12/21/2021	19:57
	IC 410-207981/19	HD21I16.D	12/21/2021	20:18
	IC 410-207981/20	HD21I17.D	12/21/2021	20:38
	ICV 410-207981/21	HD21V11.D	12/21/2021	21:20

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Lab File ID: HD29T01.D BFB Injection Date: 12/29/2021

Instrument ID: 19094 BFB Injection Time: 10:25

Analysis Batch No.: 210047

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	46.7	
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	0.8	(1.0) 1
174	Greater than 50% of mass 95	83.6	
175	5.0 - 9.0 % of mass 174	6.3	(7.5) 1
176	95.0 - 101.0 % of mass 174	81.8	(97.9) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.5) 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 410-210047/3	HD29X02.D	12/29/2021	10:59
	LCS 410-210047/4	HD29X03.D	12/29/2021	11:20
	LCSD 410-210047/5	HD29X04.D	12/29/2021	11:40
	MB 410-210047/7	HD29X06.D	12/29/2021	12:21
HD-QC1-0/1-2	410-67460-14	HD29X08.D	12/29/2021	13:10
HD-COD-SW-26-0/1-0	410-67460-9	HD29X14.D	12/29/2021	15:14
HD-COD-SW-27-0/1-0	410-67460-10	HD29X15.D	12/29/2021	15:34
HD-COD-SW-28-0/1-0	410-67460-11	HD29X16.D	12/29/2021	15:55
HD-COD-SW-29-0/1-0	410-67460-12	HD29X17.D	12/29/2021	16:15
HD-QC1-0/1-1	410-67460-13	HD29X18.D	12/29/2021	16:36
HD-COD-SW-17-0/1-0 DL	410-67460-8 DL	HD29X19.D	12/29/2021	16:57

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

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.: 410-67460-1

SDG No.:

Lab File ID: ID28T01.D BFB Injection Date: 12/28/2021

Instrument ID: 19930 BFB Injection Time: 09:26

Analysis Batch No.: 209587

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.0	
75	30.0 - 60.0 % of mass 95	46.6	
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	0.0	(0.0) 1
174	Greater than 50% of mass 95	94.7	
175	5.0 - 9.0 % of mass 174	6.9	(7.3) 1
176	95.0 - 101.0 % of mass 174	91.2	(96.3) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.8) 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 410-209587/3	ID28X02.D	12/28/2021	10:04
	LCS 410-209587/4	ID28X03.D	12/28/2021	10:25
	LCSD 410-209587/5	ID28X04.D	12/28/2021	10:46
	MB 410-209587/7	ID28X06.D	12/28/2021	11:29
HD-COD-SW-6-0/1-0	410-67460-1	ID28X11.D	12/28/2021	13:49
HD-COD-SW-7-0/1-0	410-67460-2	ID28X12.D	12/28/2021	14:10
HD-COD-SW-8-0/1-0	410-67460-3	ID28X13.D	12/28/2021	14:31
HD-COD-SW-9-0/1-0	410-67460-4	ID28X14.D	12/28/2021	14:52
HD-COD-SW-13-0/1-0	410-67460-5	ID28X15.D	12/28/2021	15:13
HD-COD-SW-15-0/1-0	410-67460-6	ID28X16.D	12/28/2021	15:34
HD-COD-SW-15-0/1-0 MS MS	410-67460-6 MS	ID28X17.D	12/28/2021	15:56
HD-COD-SW-15-0/1-0 MSD MSD	410-67460-6 MSD	ID28X18.D	12/28/2021	16:17
HD-COD-SW-16-0/1-0	410-67460-7	ID28X20.D	12/28/2021	17:00

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Lab File ID: IJ05T01.D BFB Injection Date: 01/05/2022

Instrument ID: 19930 BFB Injection Time: 08:42

Analysis Batch No.: 211830

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.8	
75	30.0 - 60.0 % of mass 95	47.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	1.0	(1.1) 1
174	Greater than 50% of mass 95	88.7	
175	5.0 - 9.0 % of mass 174	7.0	(7.9) 1
176	95.0 - 101.0 % of mass 174	87.5	(98.7) 1
177	5.0 - 9.0 % of mass 176	6.2	(7.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-211830/3	IJ05X02.D	01/05/2022	9:16
	LCS 410-211830/4	IJ05X03.D	01/05/2022	9:36
	LCSD 410-211830/5	IJ05X04.D	01/05/2022	9:58
	MB 410-211830/11	IJ05X10.D	01/05/2022	12:05
HD-COD-SW-17-0/1-0	410-67460-8	IJ05X16.D	01/05/2022	14:12

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: ICIS 410-207981/15 Date Analyzed: 12/21/2021 18:56

Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): HD21I12.D Heated Purge: (Y/N) N

Calibration ID: 34118

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		82456	4.20	2239692	7.68	1825218	11.13
UPPER LIMIT		164912	4.70	4479384	8.18	3650436	11.63
LOWER LIMIT		41228	3.70	1119846	7.18	912609	10.63
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-207981/21		100224	4.21	2203408	7.68	1877825	11.13
CCVIS 410-210047/3		118769	4.18	1948263	7.67	2003726	11.13

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: ICIS 410-207981/15 Date Analyzed: 12/21/2021 18:56

Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): HD21I12.D Heated Purge: (Y/N) N

Calibration ID: 34118

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		1033132	13.01				
UPPER LIMIT		2066264	13.51				
LOWER LIMIT		516566	12.51				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-207981/21		1070076	13.01				
CCVIS 410-210047/3		1194652	13.01				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: CCVIS 410-210047/3 Date Analyzed: 12/29/2021 10:59

Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): HD29X02.D Heated Purge: (Y/N) N

Calibration ID: 34118

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		118769	4.18	1948263	7.67	2003726	11.13
UPPER LIMIT		237538	4.68	3896526	8.17	4007452	11.63
LOWER LIMIT		59385	3.68	974132	7.17	1001863	10.63
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-210047/4		124778	4.19	1924164	7.68	1979980	11.13
LCSD 410-210047/5		123949	4.17	1954504	7.68	1998209	11.13
MB 410-210047/7		125543	4.19	1935407	7.67	1997239	11.13
410-67460-14	HD-QC1-0/1-2	124959	4.18	1928576	7.67	1989325	11.13
410-67460-9	HD-COD-SW-26-0/1-0	119018	4.19	1900146	7.68	1964521	11.13
410-67460-10	HD-COD-SW-27-0/1-0	120953	4.20	1892287	7.67	1950750	11.13
410-67460-11	HD-COD-SW-28-0/1-0	118898	4.20	1894873	7.68	1965254	11.13
410-67460-12	HD-COD-SW-29-0/1-0	121078	4.20	1875605	7.68	1942592	11.13
410-67460-13	HD-QC1-0/1-1	116776	4.20	1860922	7.68	1935423	11.13
410-67460-8 DL	HD-COD-SW-17-0/1-0 DL	109053	4.19	1841460	7.68	1908465	11.13

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: CCVIS 410-210047/3 Date Analyzed: 12/29/2021 10:59

Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): HD29X02.D Heated Purge: (Y/N) N

Calibration ID: 34118

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		1194652	13.01				
UPPER LIMIT		2389304	13.51				
LOWER LIMIT		597326	12.51				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-210047/4		1178501	13.01				
LCSD 410-210047/5		1186201	13.01				
MB 410-210047/7		1187973	13.01				
410-67460-14	HD-QC1-0/1-2	1191048	13.01				
410-67460-9	HD-COD-SW-26-0/1-0	1172489	13.01				
410-67460-10	HD-COD-SW-27-0/1-0	1170524	13.01				
410-67460-11	HD-COD-SW-28-0/1-0	1178206	13.01				
410-67460-12	HD-COD-SW-29-0/1-0	1160772	13.01				
410-67460-13	HD-QC1-0/1-1	1148273	13.01				
410-67460-8 DL	HD-COD-SW-17-0/1-0 DL	1136300	13.01				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

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 410-209587/3		122506	4.26	1864377	7.71	1528845	11.16
CCVIS 410-211830/3		144937	4.26	2044408	7.71	1649089	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 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: ICIS 410-163707/13 Date Analyzed: 08/24/2021 01:06

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IG23I02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		963407	13.06				
UPPER LIMIT		1926814	13.56				
LOWER LIMIT		481704	12.56				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-163707/19		994893	13.06				
CCVIS 410-209587/3		874655	13.04				
CCVIS 410-211830/3		897910	13.04				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: CCVIS 410-209587/3 Date Analyzed: 12/28/2021 10:04

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): ID28X02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		122506	4.26	1864377	7.71	1528845	11.16
UPPER LIMIT		245012	4.76	3728754	8.21	3057690	11.66
LOWER LIMIT		61253	3.76	932189	7.21	764423	10.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-209587/4		122897	4.23	1905056	7.71	1528428	11.16
LCSD 410-209587/5		137507	4.24	1912027	7.71	1545162	11.16
MB 410-209587/7		136110	4.24	1868582	7.71	1525091	11.16
410-67460-1	HD-COD-SW-6-0/1-0	130714	4.24	1927239	7.71	1554528	11.16
410-67460-2	HD-COD-SW-7-0/1-0	112031	4.24	1931467	7.71	1567096	11.16
410-67460-3	HD-COD-SW-8-0/1-0	116514	4.26	1920280	7.72	1551445	11.16
410-67460-4	HD-COD-SW-9-0/1-0	114041	4.25	1895975	7.71	1543740	11.16
410-67460-5	HD-COD-SW-13-0/1-0	121661	4.26	1900376	7.72	1548897	11.16
410-67460-6	HD-COD-SW-15-0/1-0	124038	4.26	1907580	7.71	1544143	11.16
410-67460-6 MS	HD-COD-SW-15-0/1-0 MS MS	133804	4.25	2016078	7.71	1639223	11.16
410-67460-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	126625	4.25	2057991	7.71	1671048	11.16
410-67460-7	HD-COD-SW-16-0/1-0	121415	4.26	2008084	7.72	1630027	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 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: CCVIS 410-209587/3 Date Analyzed: 12/28/2021 10:04

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): ID28X02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		874655	13.04				
UPPER LIMIT		1749310	13.54				
LOWER LIMIT		437328	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-209587/4		873658	13.04				
LCSD 410-209587/5		879547	13.04				
MB 410-209587/7		856533	13.04				
410-67460-1	HD-COD-SW-6-0/1-0	860760	13.04				
410-67460-2	HD-COD-SW-7-0/1-0	876748	13.04				
410-67460-3	HD-COD-SW-8-0/1-0	837823	13.04				
410-67460-4	HD-COD-SW-9-0/1-0	851823	13.04				
410-67460-5	HD-COD-SW-13-0/1-0	835120	13.04				
410-67460-6	HD-COD-SW-15-0/1-0	846336	13.04				
410-67460-6 MS	HD-COD-SW-15-0/1-0 MS MS	948416	13.04				
410-67460-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	964702	13.04				
410-67460-7	HD-COD-SW-16-0/1-0	896587	13.04				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: CCVIS 410-211830/3 Date Analyzed: 01/05/2022 09:16

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IJ05X02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		144937	4.26	2044408	7.71	1649089	11.16
UPPER LIMIT		289874	4.76	4088816	8.21	3298178	11.66
LOWER LIMIT		72469	3.76	1022204	7.21	824545	10.66
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-211830/4		160599	4.24	2368512	7.71	1868000	11.16
LCSD 410-211830/5		137670	4.25	2129725	7.71	1678859	11.16
MB 410-211830/11		166742	4.26	2061301	7.71	1612356	11.16
410-67460-8	HD-COD-SW-17-0/1-0	140066	4.23	2100633	7.71	1653025	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 8260D

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Sample No.: CCVIS 410-211830/3 Date Analyzed: 01/05/2022 09:16

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IJ05X02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		897910	13.04				
UPPER LIMIT		1795820	13.54				
LOWER LIMIT		448955	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-211830/4		1014006	13.04				
LCSD 410-211830/5		912930	13.04				
MB 410-211830/11		854750	13.04				
410-67460-8	HD-COD-SW-17-0/1-0	868693	13.04				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260D

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-67460-1

Matrix: Water Lab File ID: ID28X11.D

Analysis Method: 8260D Date Collected: 12/17/2021 10:05

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 13:49

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.: 209587 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	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	1.2	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	cn	1.0	0.30
74-83-9	Bromomethane	ND	^c 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	^c cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	^c cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.093	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
79-01-6	Trichloroethene	0.11	J cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-67460-1

Matrix: Water Lab File ID: ID28X11.D

Analysis Method: 8260D Date Collected: 12/17/2021 10:05

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 13:49

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	^c 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)	107	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	93	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	103	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\20211228-47269.b\ID28X11.D
Lims ID: 410-67460-A-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 13:49:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-012
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

First Level Reviewer: beckerk Date: 28-Dec-2021 17:54:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.160	2.166	-0.006	61	3324	0.0484	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	7
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.592	3.586	0.006	93	8650	1.19	M
19 Carbon disulfide	76	3.861	3.861	0.000	46	5097	0.0401	
23 Methylene Chloride	84		4.226				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	29	130714	50.0	
27 Methyl tert-butyl ether	73		4.635				ND	7
28 trans-1,2-Dichloroethene	96		4.647				ND	
31 1,1-Dichloroethane	63		5.306				ND	
36 2-Butanone (MEK)	43		6.098				ND	7
37 cis-1,2-Dichloroethene	96	6.129	6.135	-0.006	77	5392	0.0926	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.616	6.616	0.000	86	4106	0.0437	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	498591	10.3	
47 1,1,1-Trichloroethane	97		6.842				ND	
50 Carbon tetrachloride	117		7.055				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	67	104114	10.7	
54 Benzene	78		7.311				ND	
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1927239	10.0	
61 Trichloroethene	95	8.195	8.195	0.000	92	6565	0.1127	M
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.866				ND	
73 cis-1,3-Dichloropropene	75		9.408				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579				ND	7
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	2040598	10.2	
76 Toluene	92	9.799	9.792	0.007	98	4819	0.0323	
78 trans-1,3-Dichloropropene	75		10.048				ND	
80 1,1,2-Trichloroethane	97		10.250				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.347	10.341	0.006	94	3432	0.0483	
83 2-Hexanone	43		10.457				ND	
85 Chlorodibromomethane	129		10.628				ND	
86 Ethylene Dibromide	107		10.737				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1554528	10.0	
90 Chlorobenzene	112		11.189				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.274				ND	
93 m-Xylene & p-Xylene	106		11.390				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.731				ND	
96 Bromoform	173		11.890				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	97	713236	9.29	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	860760	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

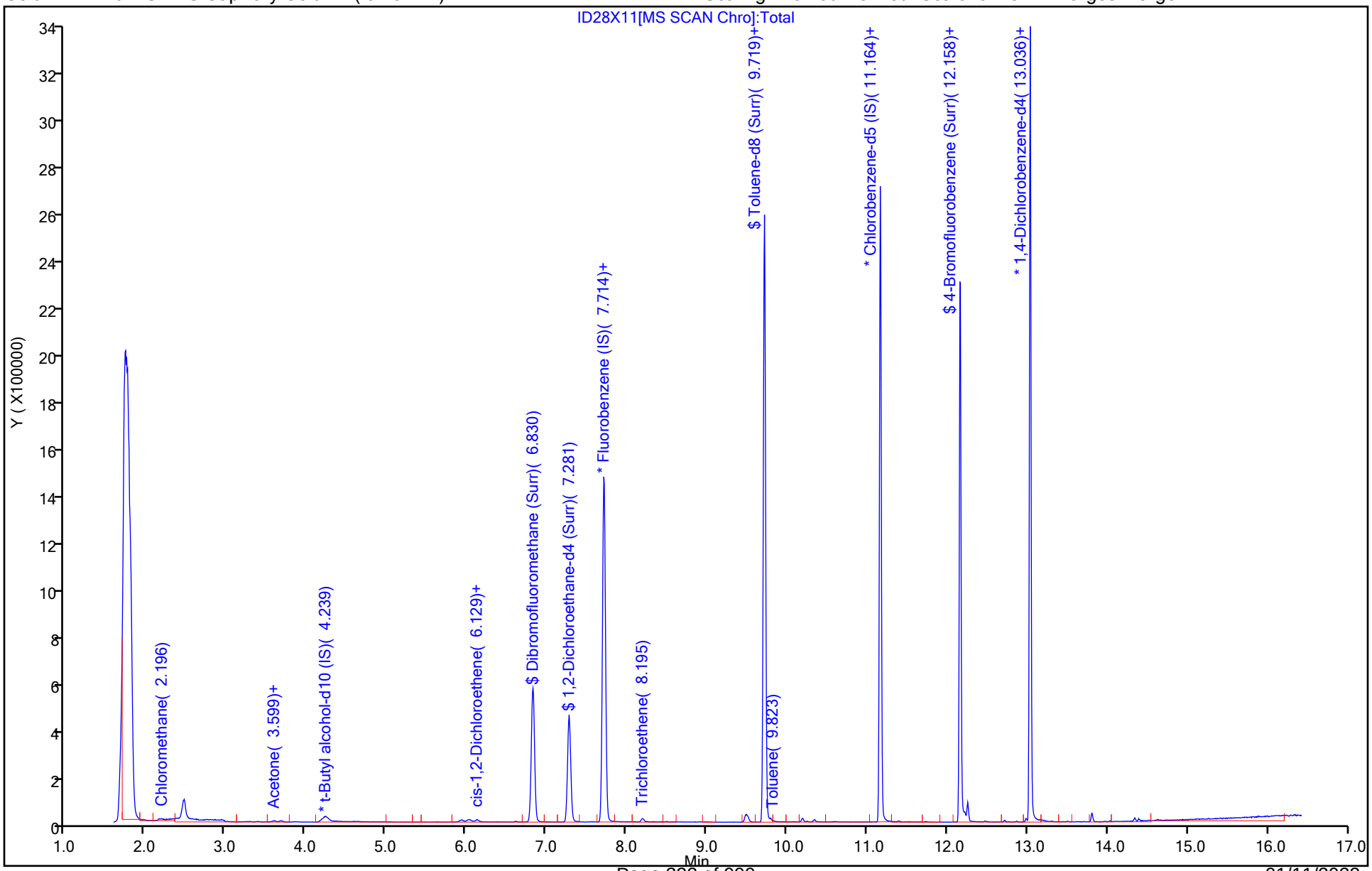
Report Date: 28-Dec-2021 17:58:33 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X11.D

Injection Date:	28-Dec-2021 13:49:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-A-1	Lab Sample ID:	410-67460-1	Worklist Smp#:	12
Client ID:	HD-COD-SW-6-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X11.D				
Lims ID:	410-67460-A-1				
Client ID:	HD-COD-SW-6-0/1-0				
Sample Type:	Client				
Inject. Date:	28-Dec-2021 13:49:30	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047269-012				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Dec-2021 17:57:17	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:	CTX1668				

First Level Reviewer: beckerk Date: 28-Dec-2021 17:54:07

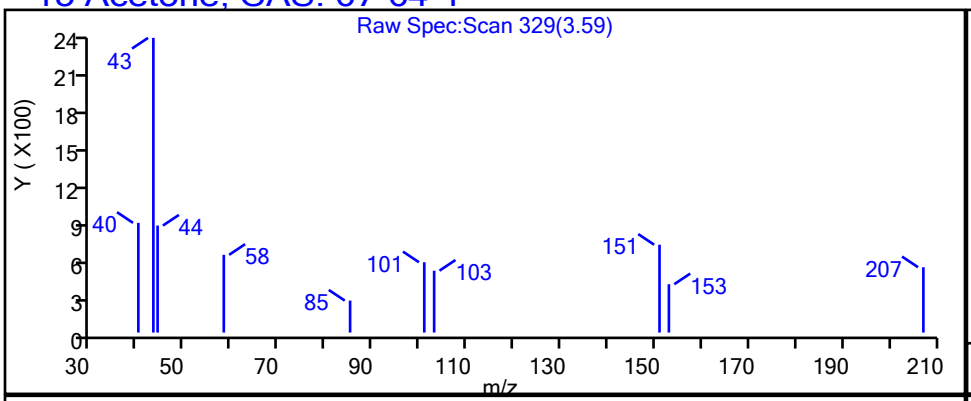
Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.3	102.70
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.20
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.58
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.29	92.90

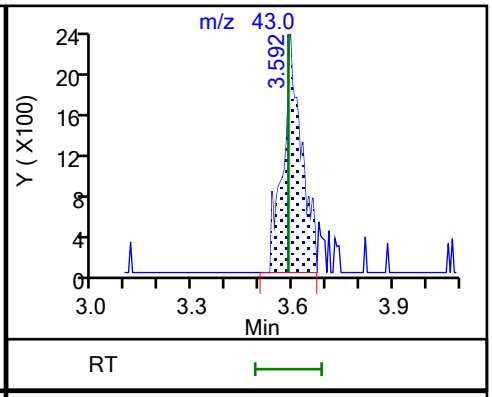
Report Date: 28-Dec-2021 17:58:33 Chrom Revision: 2.3 15-Nov-2021 20:34:30

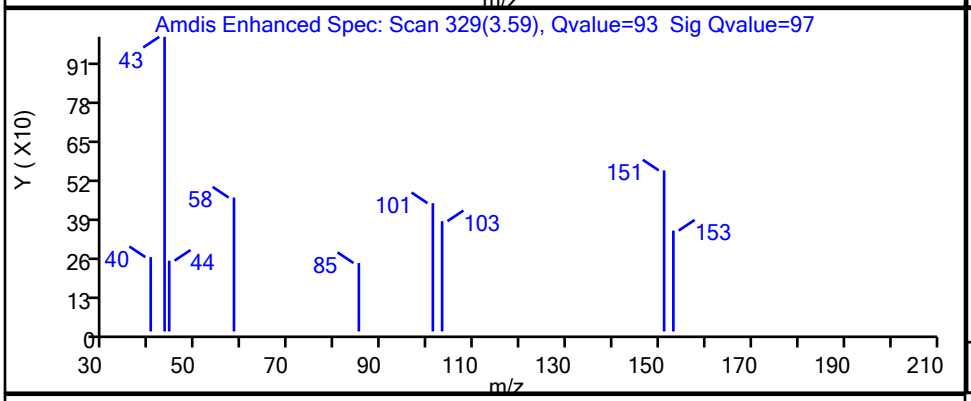
Eurofins Lancaster Laboratories Env, LLC

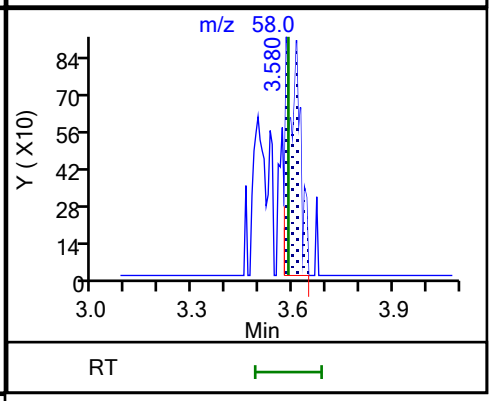
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X11.D				
Injection Date:	28-Dec-2021 13:49:30	Instrument ID:	19930		
Lims ID:	410-67460-A-1	Lab Sample ID:	410-67460-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

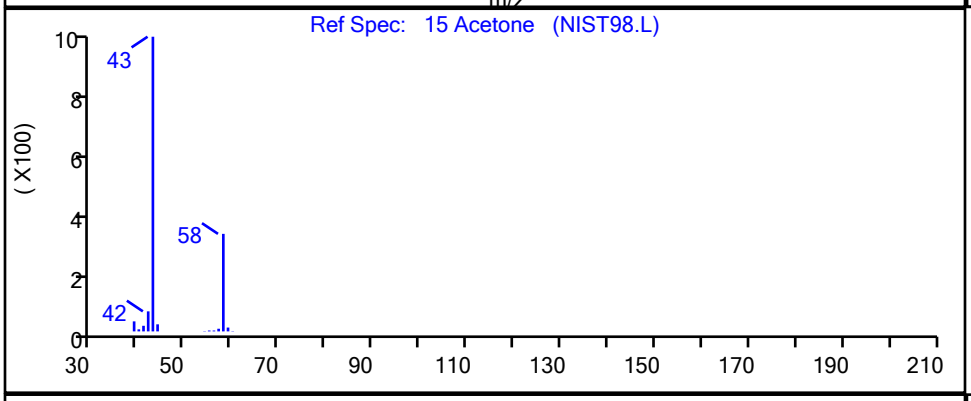
15 Acetone, CAS: 67-64-1

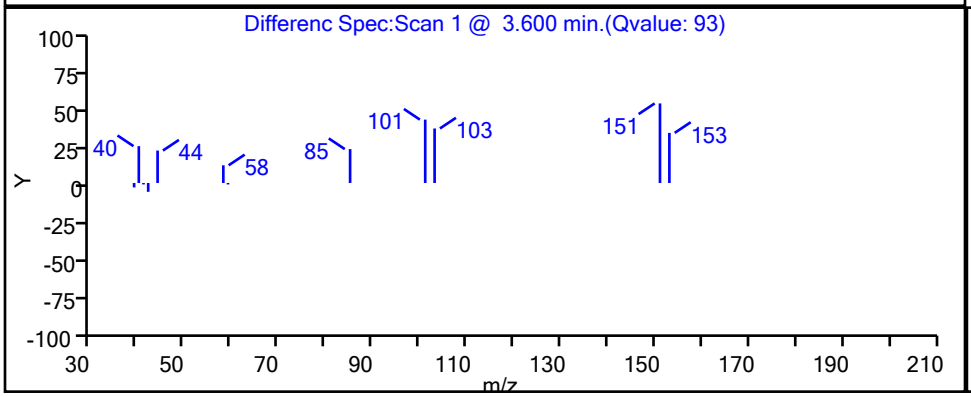


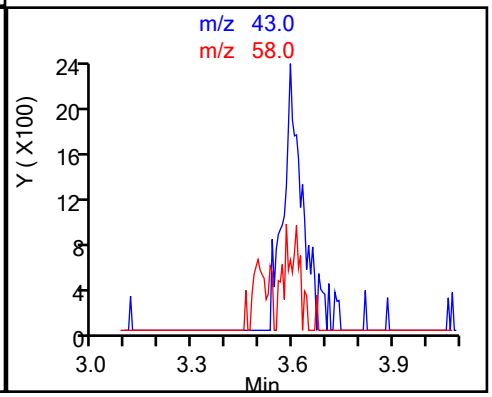








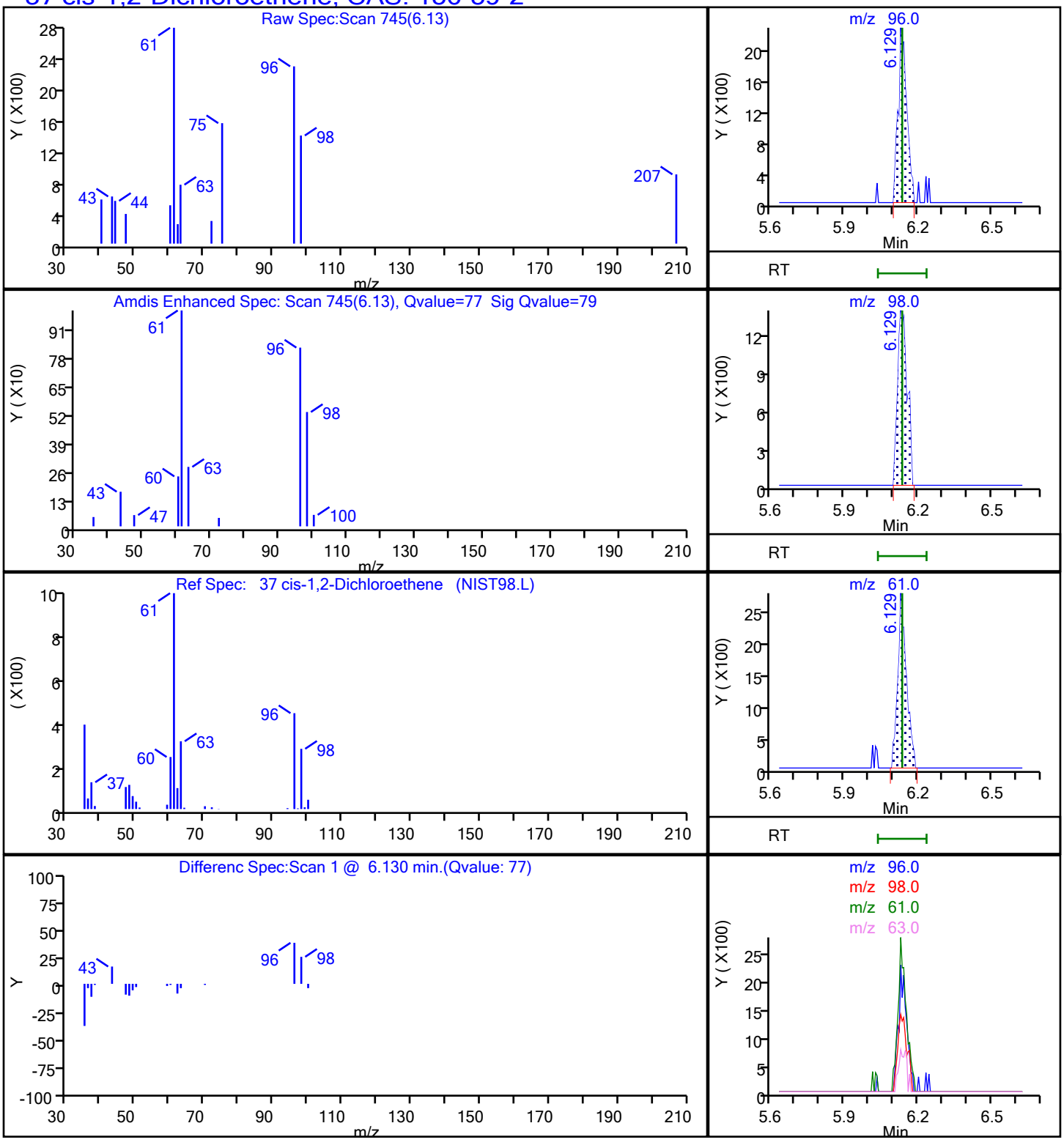




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X11.D				
Injection Date:	28-Dec-2021 13:49:30	Instrument ID:	19930		
Lims ID:	410-67460-A-1	Lab Sample ID:	410-67460-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

37 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 28-Dec-2021 17:58:34 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X11.D

Injection Date: 28-Dec-2021 13:49:30 Instrument ID: 19930

Lims ID: 410-67460-A-1 Lab Sample ID: 410-67460-1

Client ID: HD-COD-SW-6-0/1-0

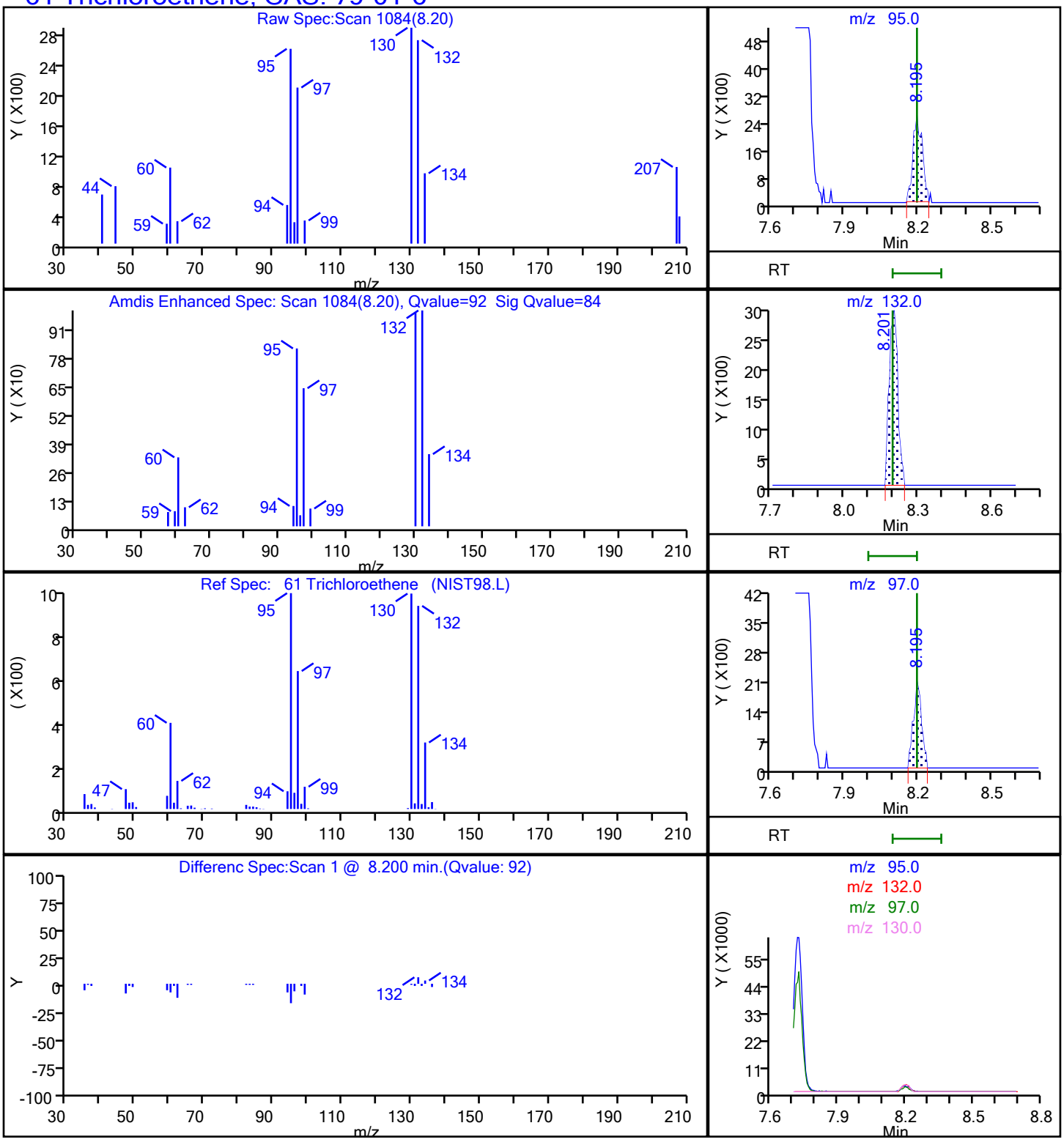
Operator ID: KNK41612 ALS Bottle#: 11 Worklist Smp#: 12

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

61 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

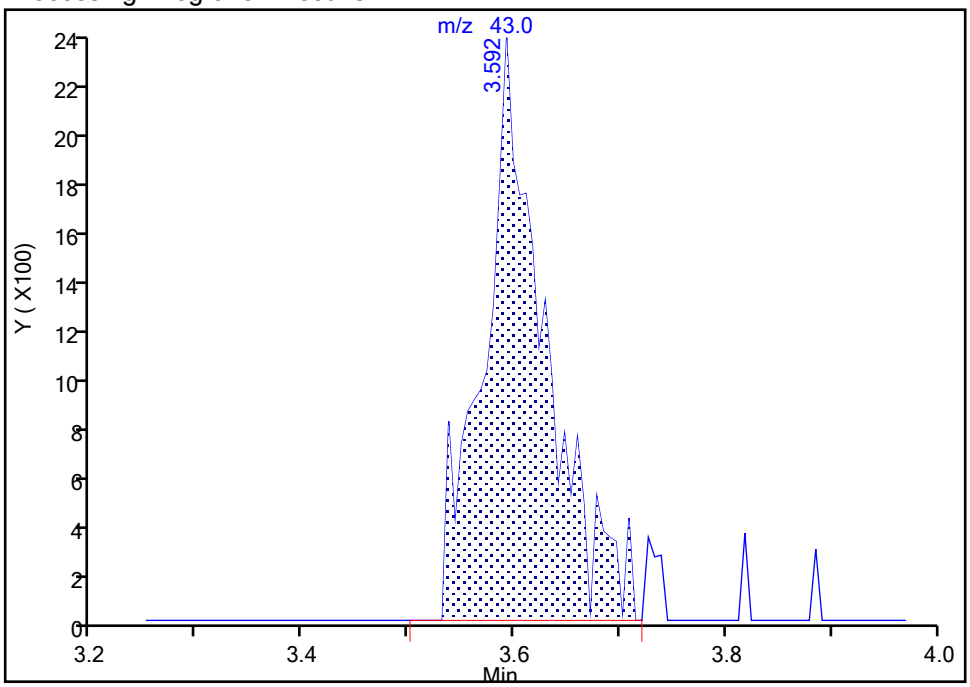
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X11.D				
Injection Date:	28-Dec-2021 13:49:30	Instrument ID:	19930		
Lims ID:	410-67460-A-1	Lab Sample ID:	410-67460-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1

Signal: 1

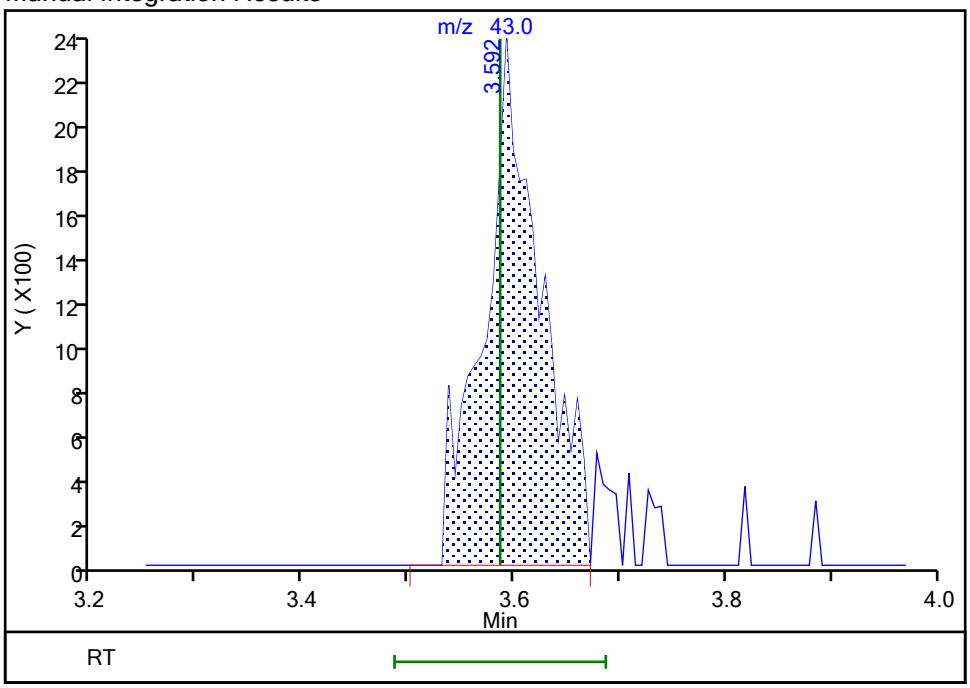
RT: 3.59
Area: 9341
Amount: 1.286385
Amount Units: ug/l

Processing Integration Results



RT: 3.59
Area: 8650
Amount: 1.191225
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Dec-2021 17:53:47
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC

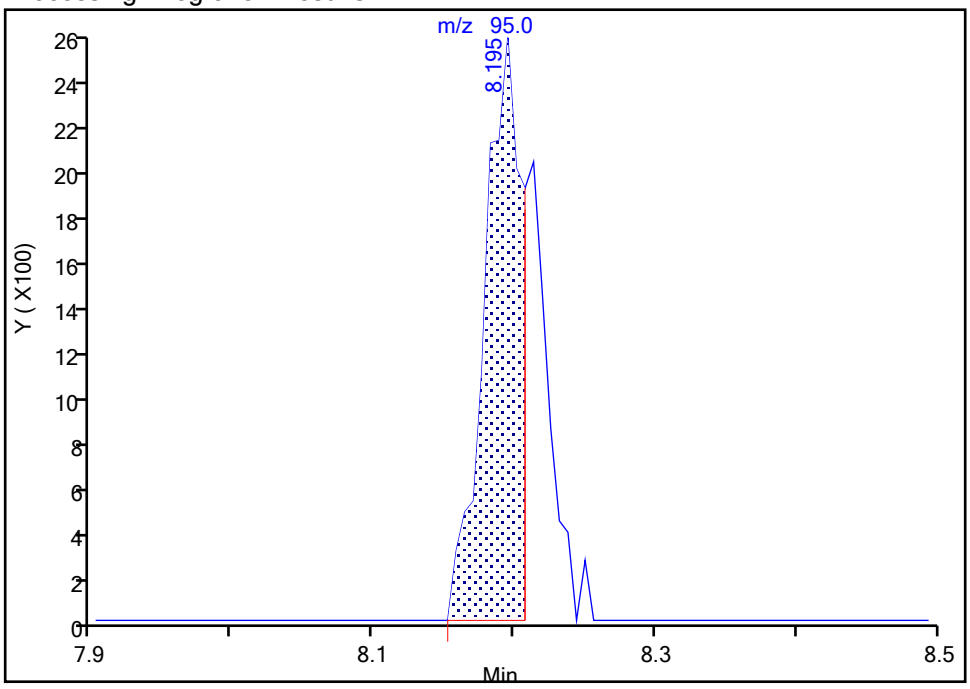
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X11.D				
Injection Date:	28-Dec-2021 13:49:30	Instrument ID:	19930		
Lims ID:	410-67460-A-1	Lab Sample ID:	410-67460-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6

Signal: 1

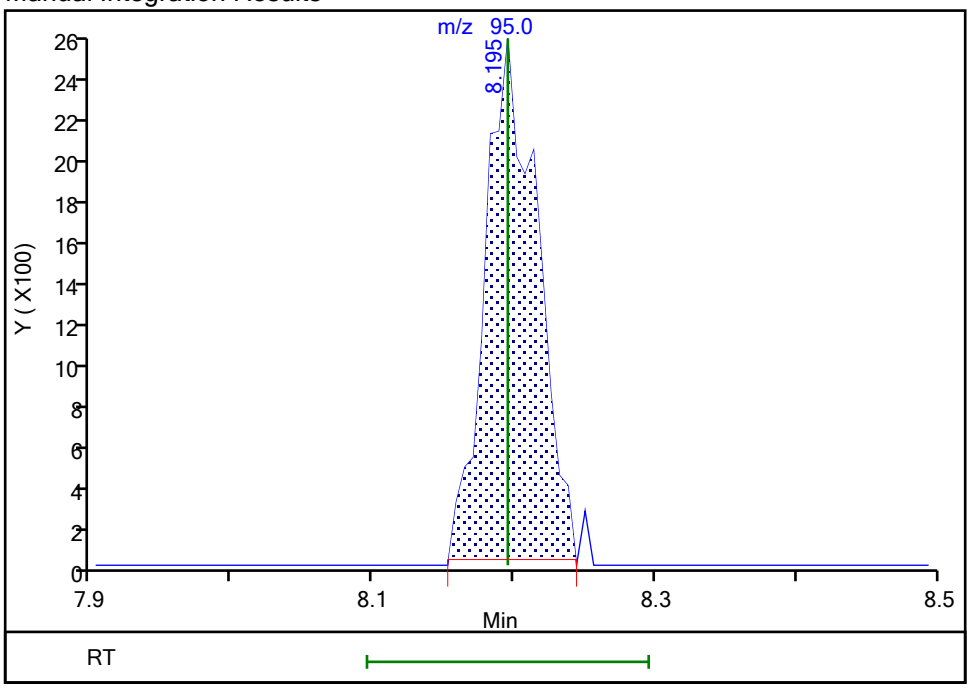
Processing Integration Results

RT: 8.20
Area: 4833
Amount: 0.082990
Amount Units: ug/l



Manual Integration Results

RT: 8.20
Area: 6565
Amount: 0.112731
Amount Units: ug/l



Reviewer: beckerk, 28-Dec-2021 17:54:03
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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-67460-2

Matrix: Water Lab File ID: ID28X12.D

Analysis Method: 8260D Date Collected: 12/17/2021 10:45

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 14:10

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.: 209587 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	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	2.4	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	cn	1.0	0.30
74-83-9	Bromomethane	ND	^c cn	0.50	0.070
75-15-0	Carbon disulfide	0.063	J 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	^c cn	0.50	0.070
67-66-3	Chloroform	0.091	J cn	0.50	0.090
74-87-3	Chloromethane	ND	^c 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	0.091	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
79-01-6	Trichloroethene	0.19	J cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-67460-2

Matrix: Water Lab File ID: ID28X12.D

Analysis Method: 8260D Date Collected: 12/17/2021 10:45

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 14:10

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	^c 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)	108	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	92	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	102	cn	80-120
2037-26-5	Toluene-d8 (Surr)	101	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D
Lims ID: 410-67460-A-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 14:10:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-013
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

First Level Reviewer: beckerk Date: 28-Dec-2021 17:54:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.166				ND	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	7
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.592	3.586	0.006	97	14917	2.40	M
19 Carbon disulfide	76	3.867	3.861	0.006	53	8015	0.0630	
23 Methylene Chloride	84		4.226				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	26	112031	50.0	
27 Methyl tert-butyl ether	73		4.635				ND	7
28 trans-1,2-Dichloroethene	96		4.647				ND	
31 1,1-Dichloroethane	63		5.306				ND	
36 2-Butanone (MEK)	43		6.098				ND	U
37 cis-1,2-Dichloroethene	96		6.135				ND	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.622	6.616	0.006	89	8573	0.0911	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	498253	10.2	
47 1,1,1-Trichloroethane	97		6.842				ND	
50 Carbon tetrachloride	117		7.055				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	67	105473	10.8	
54 Benzene	78		7.311				ND	7
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1931467	10.0	
61 Trichloroethene	95	8.195	8.195	0.000	95	10846	0.1858	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.866				ND	7
73 cis-1,3-Dichloropropene	75		9.408				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579				ND	7
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	2050681	10.1	
76 Toluene	92	9.805	9.792	0.013	98	5483	0.0365	
78 trans-1,3-Dichloropropene	75		10.048				ND	
80 1,1,2-Trichloroethane	97		10.250				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.341	10.341	0.000	94	6540	0.0914	
83 2-Hexanone	43		10.457				ND	
85 Chlorodibromomethane	129		10.628				ND	
86 Ethylene Dibromide	107		10.737				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1567096	10.0	
90 Chlorobenzene	112		11.189				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.274				ND	7
93 m-Xylene & p-Xylene	106		11.390				ND	7
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.731				ND	
96 Bromoform	173		11.890				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	715860	9.25	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	876748	10.0	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

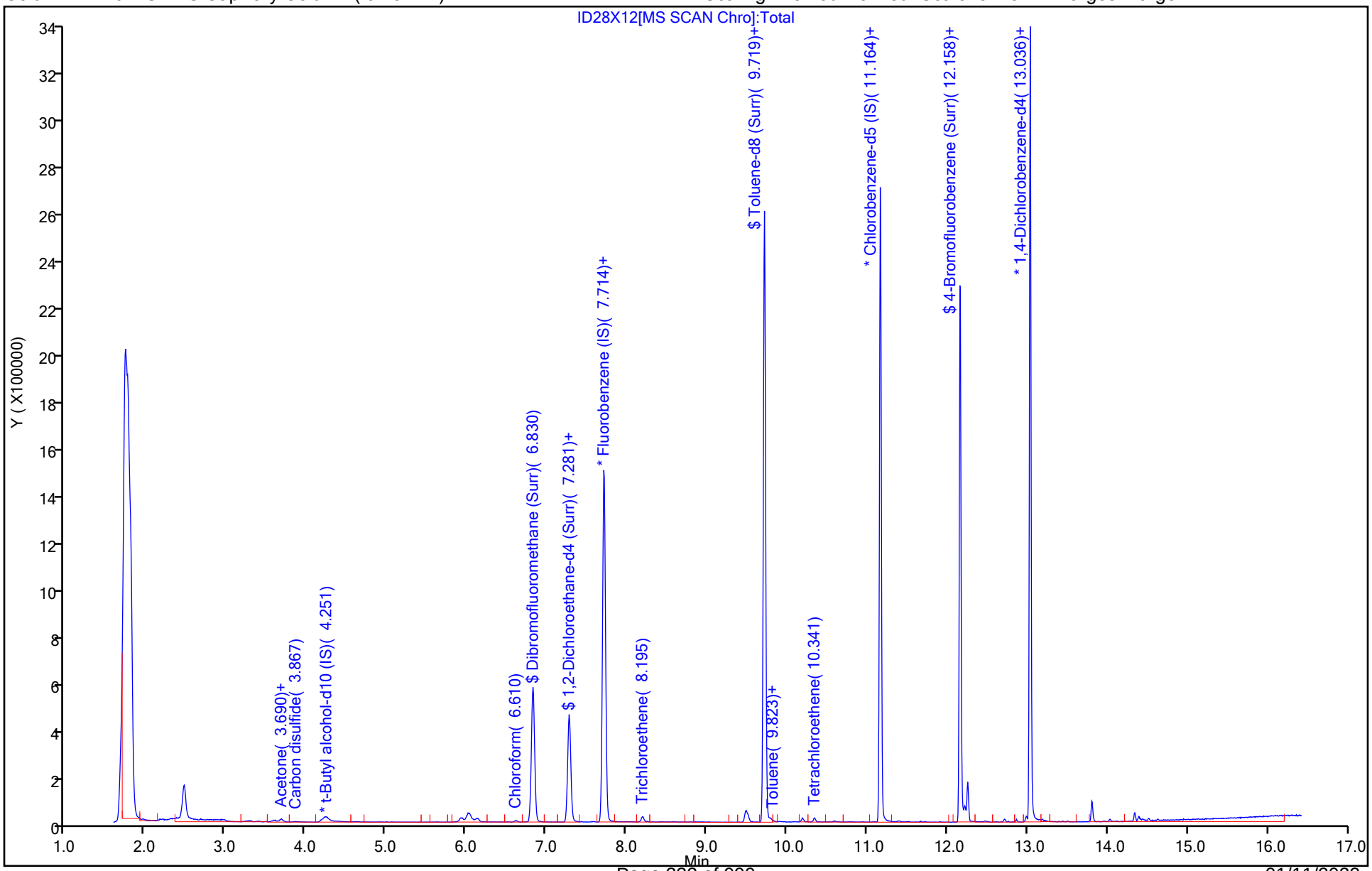
Report Date: 28-Dec-2021 17:58:35 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D

Injection Date:	28-Dec-2021 14:10:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-A-2	Lab Sample ID:	410-67460-2	Worklist Smp#:	13
Client ID:	HD-COD-SW-7-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D				
Lims ID:	410-67460-A-2				
Client ID:	HD-COD-SW-7-0/1-0				
Sample Type:	Client				
Inject. Date:	28-Dec-2021 14:10:30	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047269-013				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Dec-2021 17:57:17	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:	CTX1668				

First Level Reviewer: beckerk Date: 28-Dec-2021 17:54:34

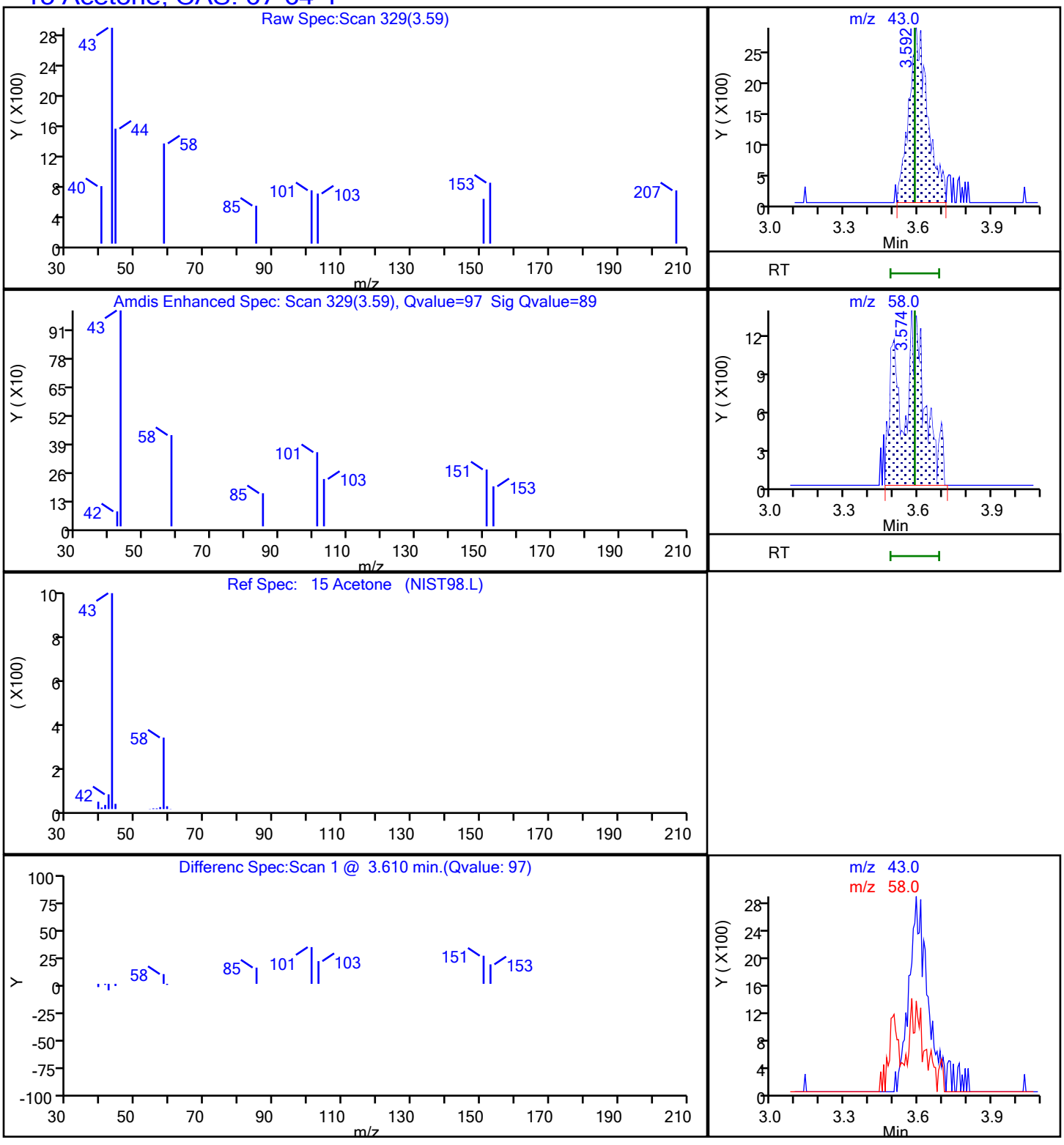
Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	102.40
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	108.36
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.26
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.25	92.49

Report Date: 28-Dec-2021 17:58:35 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D				
Injection Date:	28-Dec-2021 14:10:30	Instrument ID:	19930		
Lims ID:	410-67460-A-2	Lab Sample ID:	410-67460-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

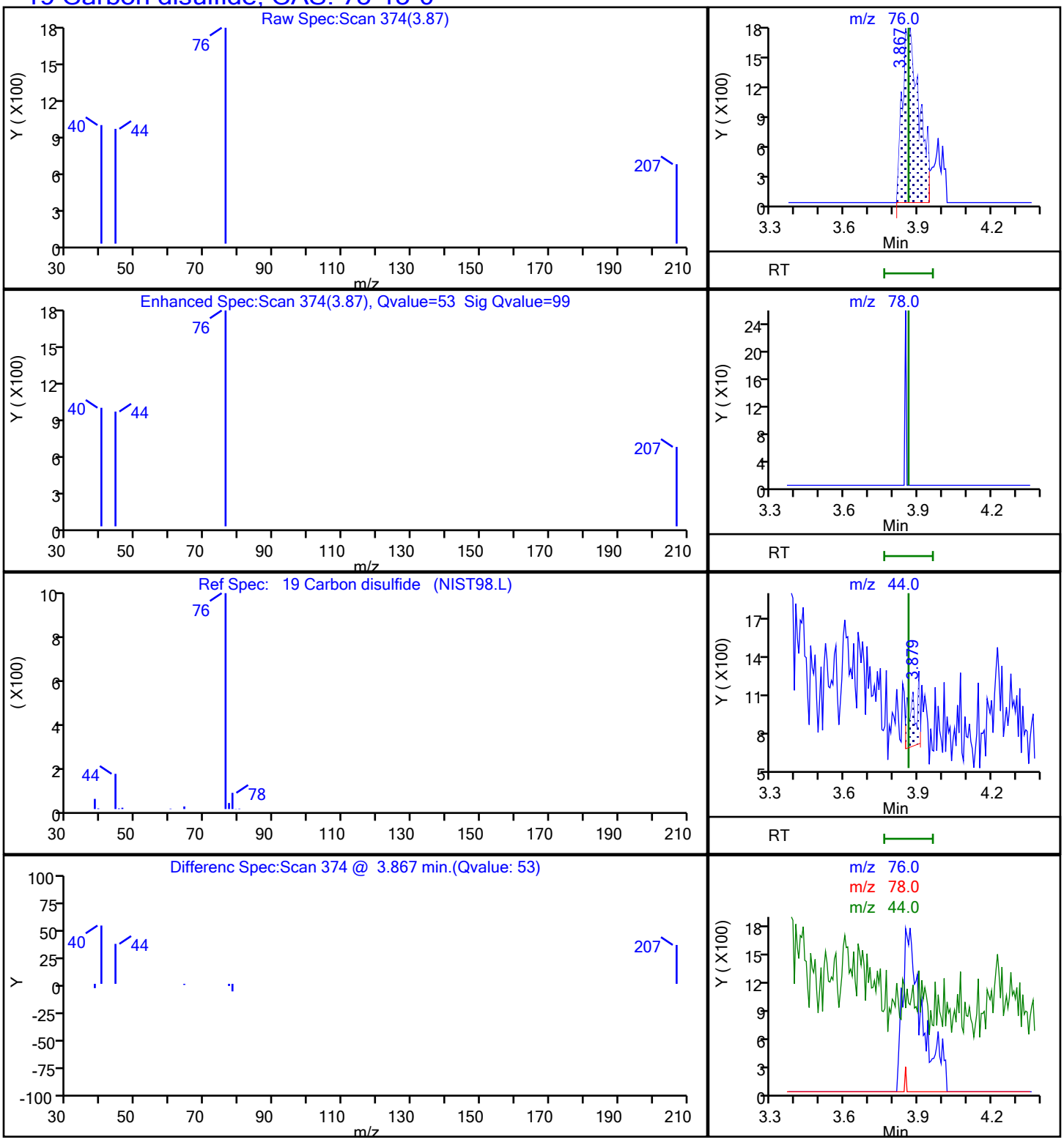
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D				
Injection Date:	28-Dec-2021 14:10:30	Instrument ID:	19930		
Lims ID:	410-67460-A-2	Lab Sample ID:	410-67460-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

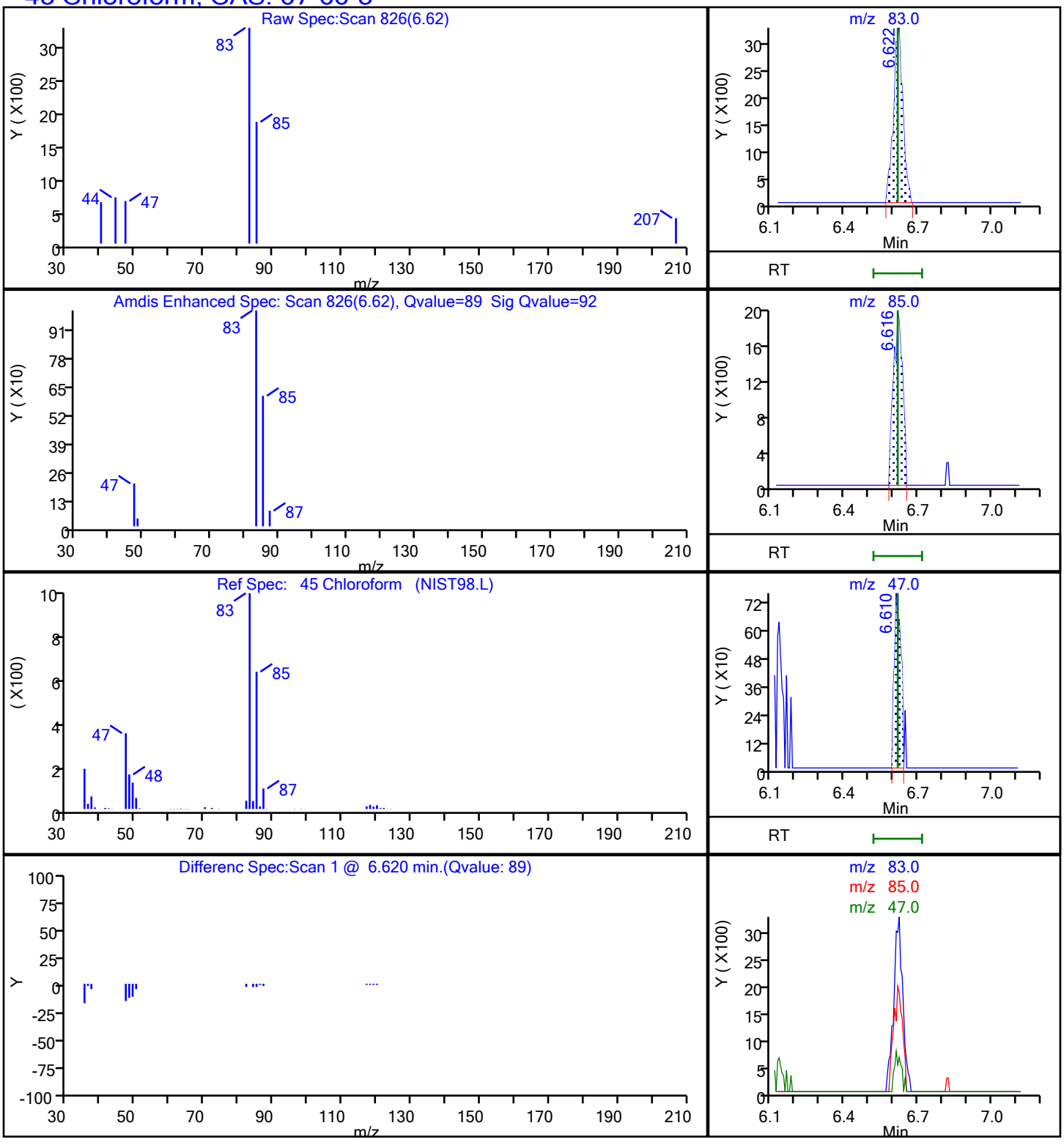
19 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D				
Injection Date:	28-Dec-2021 14:10:30	Instrument ID:	19930		
Lims ID:	410-67460-A-2	Lab Sample ID:	410-67460-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

45 Chloroform, CAS: 67-66-3



Report Date: 28-Dec-2021 17:58:35 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D

Injection Date: 28-Dec-2021 14:10:30 Instrument ID: 19930

Lims ID: 410-67460-A-2 Lab Sample ID: 410-67460-2

Client ID: HD-COD-SW-7-0/1-0

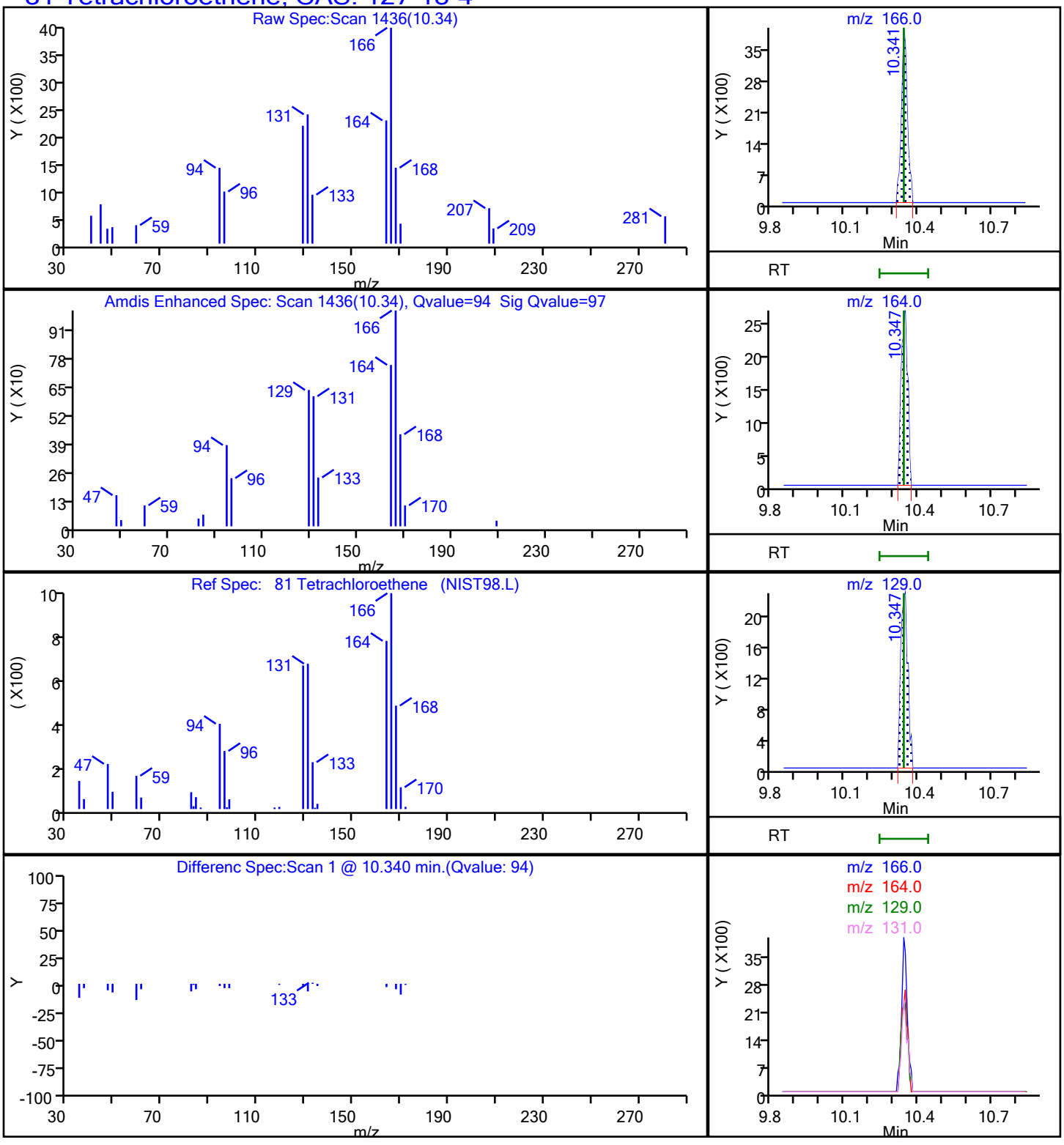
Operator ID: KNK41612 ALS Bottle#: 12 Worklist Smp#: 13

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Report Date: 28-Dec-2021 17:58:35 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D

Injection Date: 28-Dec-2021 14:10:30 Instrument ID: 19930

Lims ID: 410-67460-A-2 Lab Sample ID: 410-67460-2

Client ID: HD-COD-SW-7-0/1-0

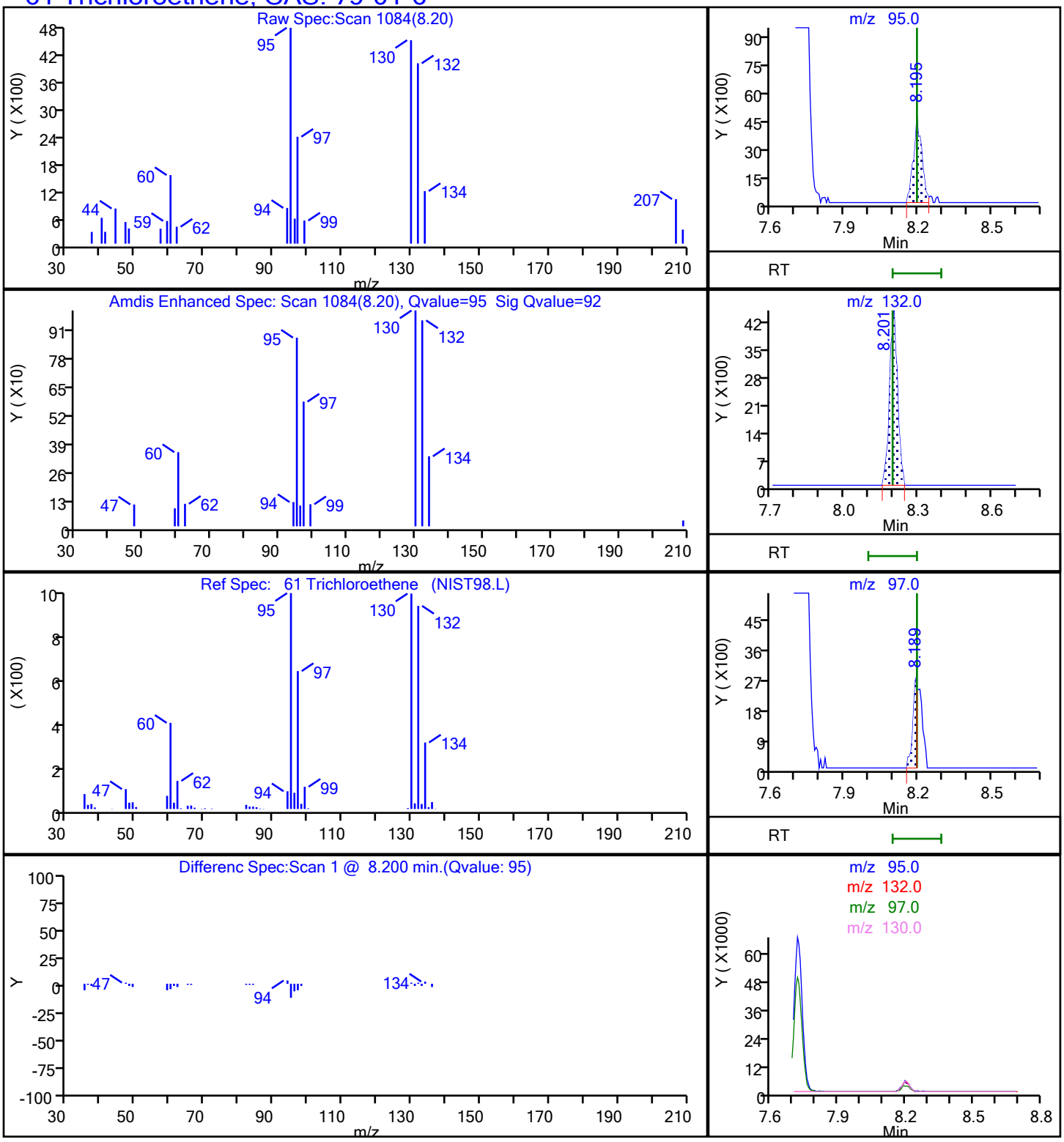
Operator ID: KNK41612 ALS Bottle#: 12 Worklist Smp#: 13

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

61 Trichloroethene, CAS: 79-01-6



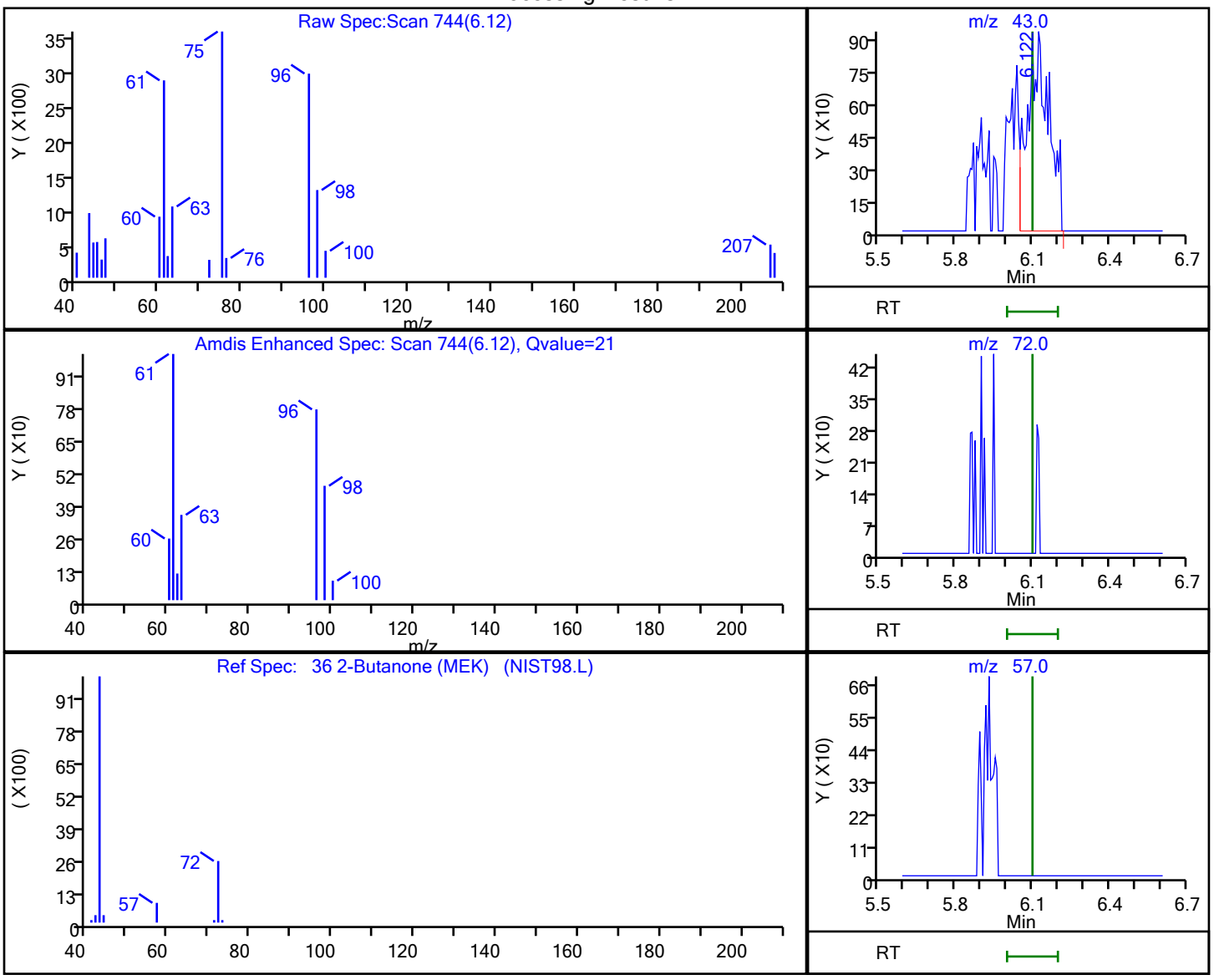
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D				
Injection Date:	28-Dec-2021 14:10:30	Instrument ID:	19930		
Lims ID:	410-67460-A-2	Lab Sample ID:	410-67460-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.12	43.00	5360	0.493234
6.10	72.00	0	
6.10	57.00	0	

Reviewer: beckerk, 28-Dec-2021 17:54:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

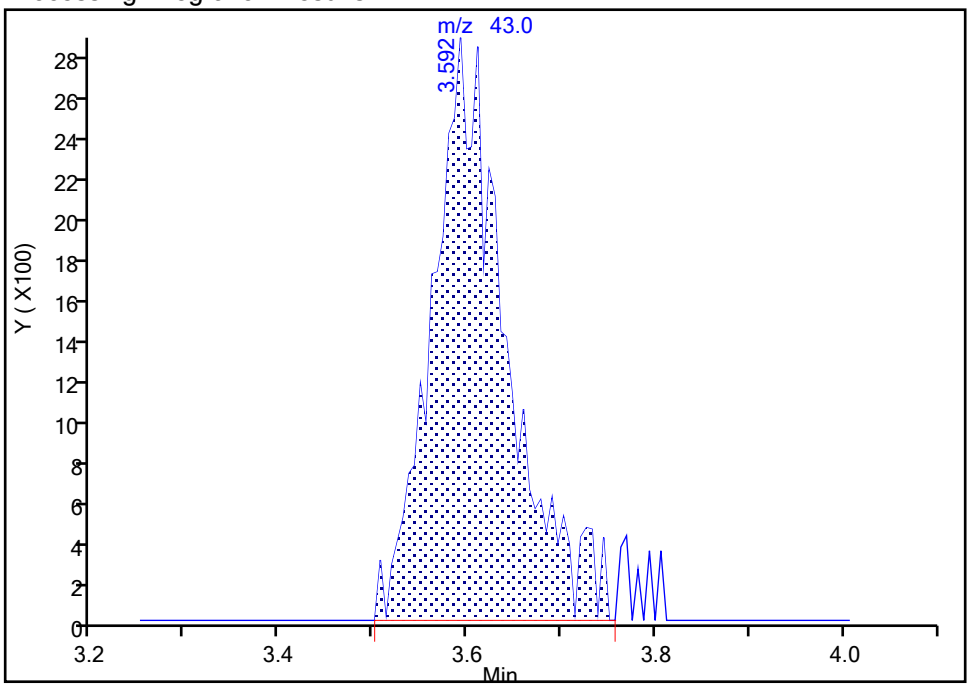
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X12.D				
Injection Date:	28-Dec-2021 14:10:30	Instrument ID:	19930		
Lims ID:	410-67460-A-2	Lab Sample ID:	410-67460-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1

Signal: 1

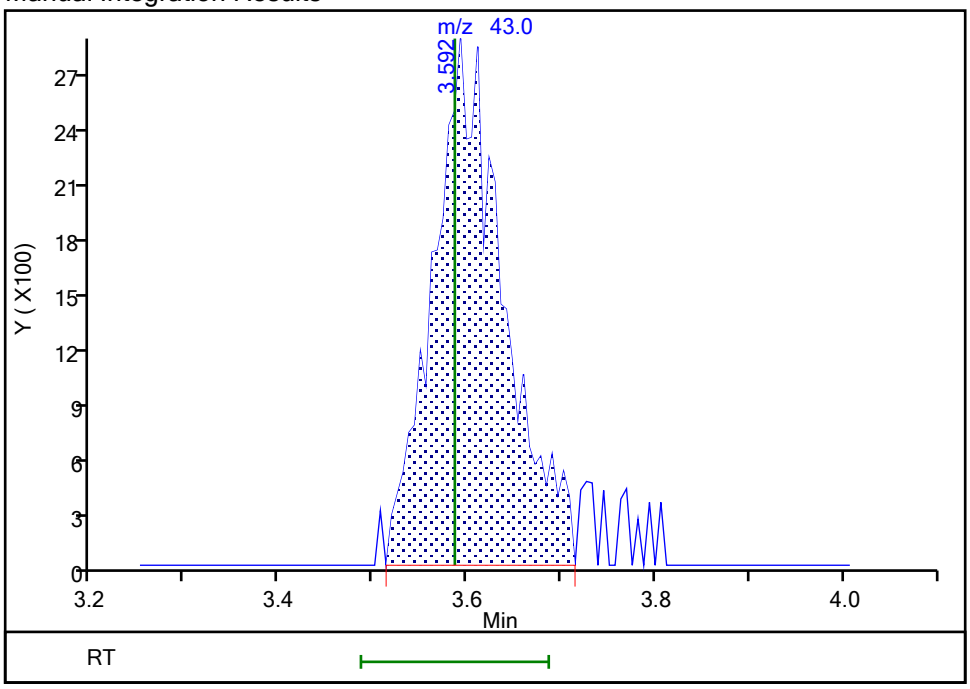
Processing Integration Results

RT: 3.59
Area: 15652
Amount: 2.514961
Amount Units: ug/l



Manual Integration Results

RT: 3.59
Area: 14917
Amount: 2.396861
Amount Units: ug/l



Reviewer: beckerk, 28-Dec-2021 17:54:22
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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-67460-3

Matrix: Water Lab File ID: ID28X13.D

Analysis Method: 8260D Date Collected: 12/17/2021 08:43

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 14:31

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.: 209587 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	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	cn	1.0	0.30
74-83-9	Bromomethane	ND	^c 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	^c cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	^c cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.16	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
79-01-6	Trichloroethene	0.19	J cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-67460-3

Matrix: Water Lab File ID: ID28X13.D

Analysis Method: 8260D Date Collected: 12/17/2021 08:43

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 14:31

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	^c 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)	107	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	92	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	102	cn	80-120
2037-26-5	Toluene-d8 (Surr)	101	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D
Lims ID: 410-67460-A-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 14:31:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-014
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

First Level Reviewer: beckerk Date: 28-Dec-2021 17:54:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.166	2.166	0.000	1	3856	0.0564	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.617				ND	U
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.599	3.586	0.013	97	10675	1.65	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.226				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	31	116514	50.0	
27 Methyl tert-butyl ether	73	4.641	4.635	0.006	15	5178	0.0396	
28 trans-1,2-Dichloroethene	96		4.647				ND	
31 1,1-Dichloroethane	63		5.306				ND	
36 2-Butanone (MEK)	43		6.098				ND	U
37 cis-1,2-Dichloroethene	96	6.141	6.135	0.006	76	9556	0.1648	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.628	6.616	0.012	90	4783	0.0511	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	493095	10.2	
47 1,1,1-Trichloroethane	97	6.848	6.842	0.006	35	2878	0.0331	
50 Carbon tetrachloride	117		7.055				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	67	103463	10.7	
54 Benzene	78		7.311				ND	7
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.720	7.714	0.006	99	1920280	10.0	
61 Trichloroethene	95	8.195	8.195	0.000	98	11093	0.1912	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.866				ND	7
73 cis-1,3-Dichloropropene	75		9.408				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579				ND	7
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	2030404	10.1	
76 Toluene	92	9.786	9.792	-0.006	96	5986	0.0403	
78 trans-1,3-Dichloropropene	75		10.048				ND	
80 1,1,2-Trichloroethane	97		10.250				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.341	10.341	0.000	97	35627	0.5028	
83 2-Hexanone	43		10.457				ND	
85 Chlorodibromomethane	129		10.628				ND	
86 Ethylene Dibromide	107		10.737				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1551445	10.0	
90 Chlorobenzene	112		11.189				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.274				ND	7
93 m-Xylene & p-Xylene	106		11.390				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.731				ND	
96 Bromoform	173		11.890				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	701780	9.16	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	837823	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

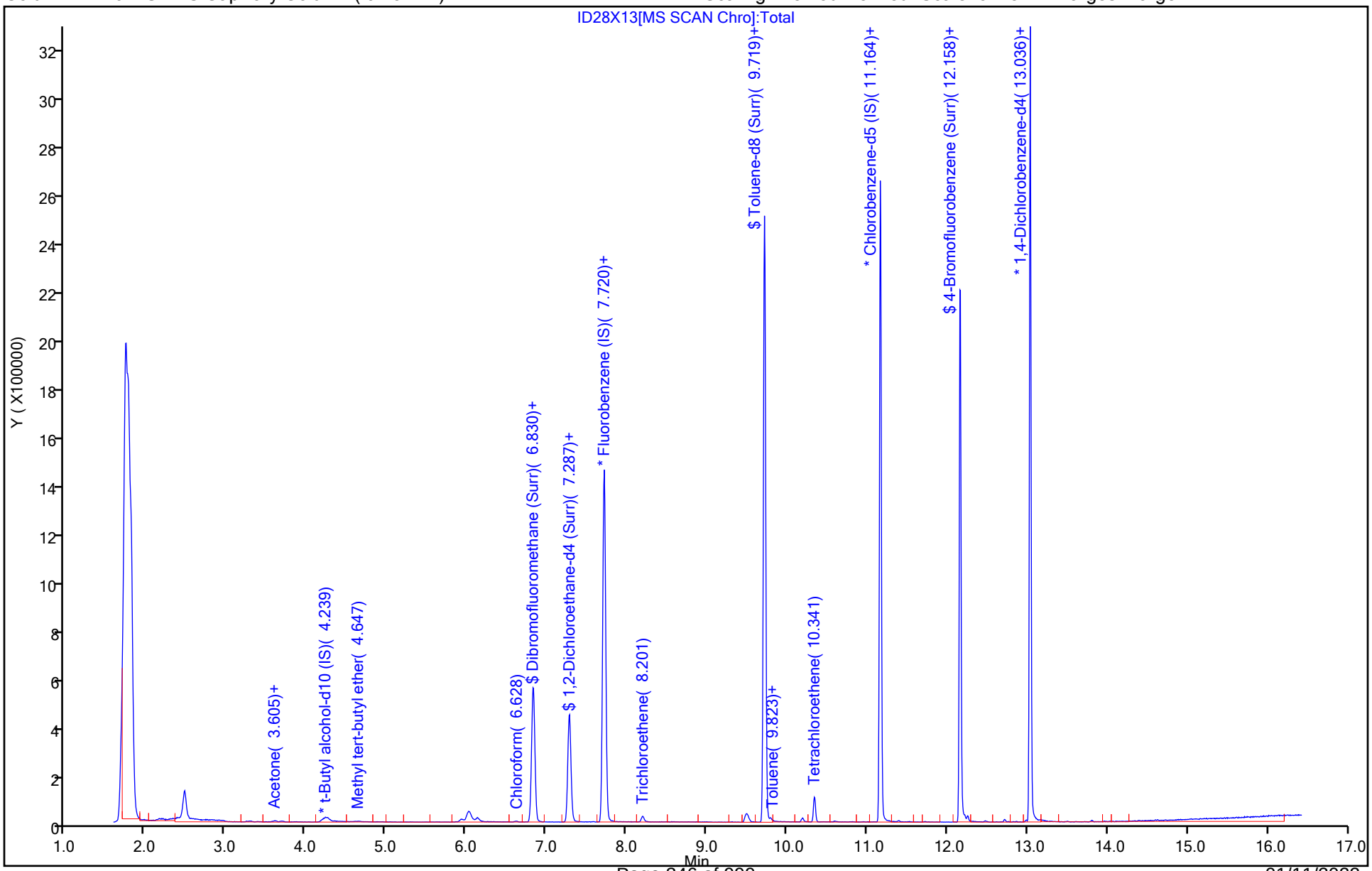
Report Date: 28-Dec-2021 17:58:36 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D

Injection Date:	28-Dec-2021 14:31:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-A-3	Lab Sample ID:	410-67460-3	Worklist Smp#:	14
Client ID:	HD-COD-SW-8-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D				
Lims ID:	410-67460-A-3				
Client ID:	HD-COD-SW-8-0/1-0				
Sample Type:	Client				
Inject. Date:	28-Dec-2021 14:31:30	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047269-014				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Dec-2021 17:57:17	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:	CTX1668				

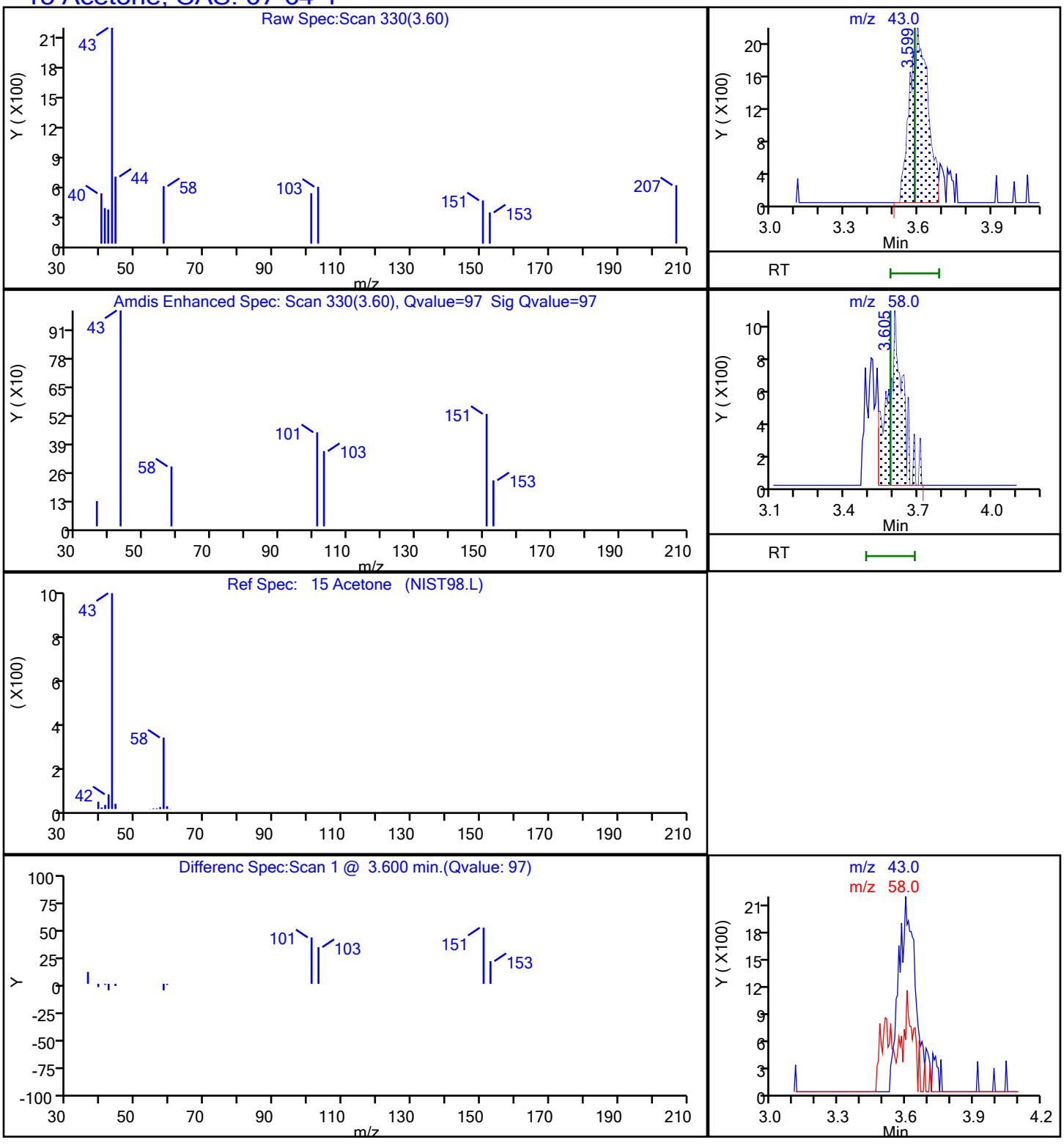
First Level Reviewer: beckerk Date: 28-Dec-2021 17:54:58

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	101.93
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.91
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.27
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.16	91.58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D				
Injection Date:	28-Dec-2021 14:31:30	Instrument ID:	19930		
Lims ID:	410-67460-A-3	Lab Sample ID:	410-67460-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

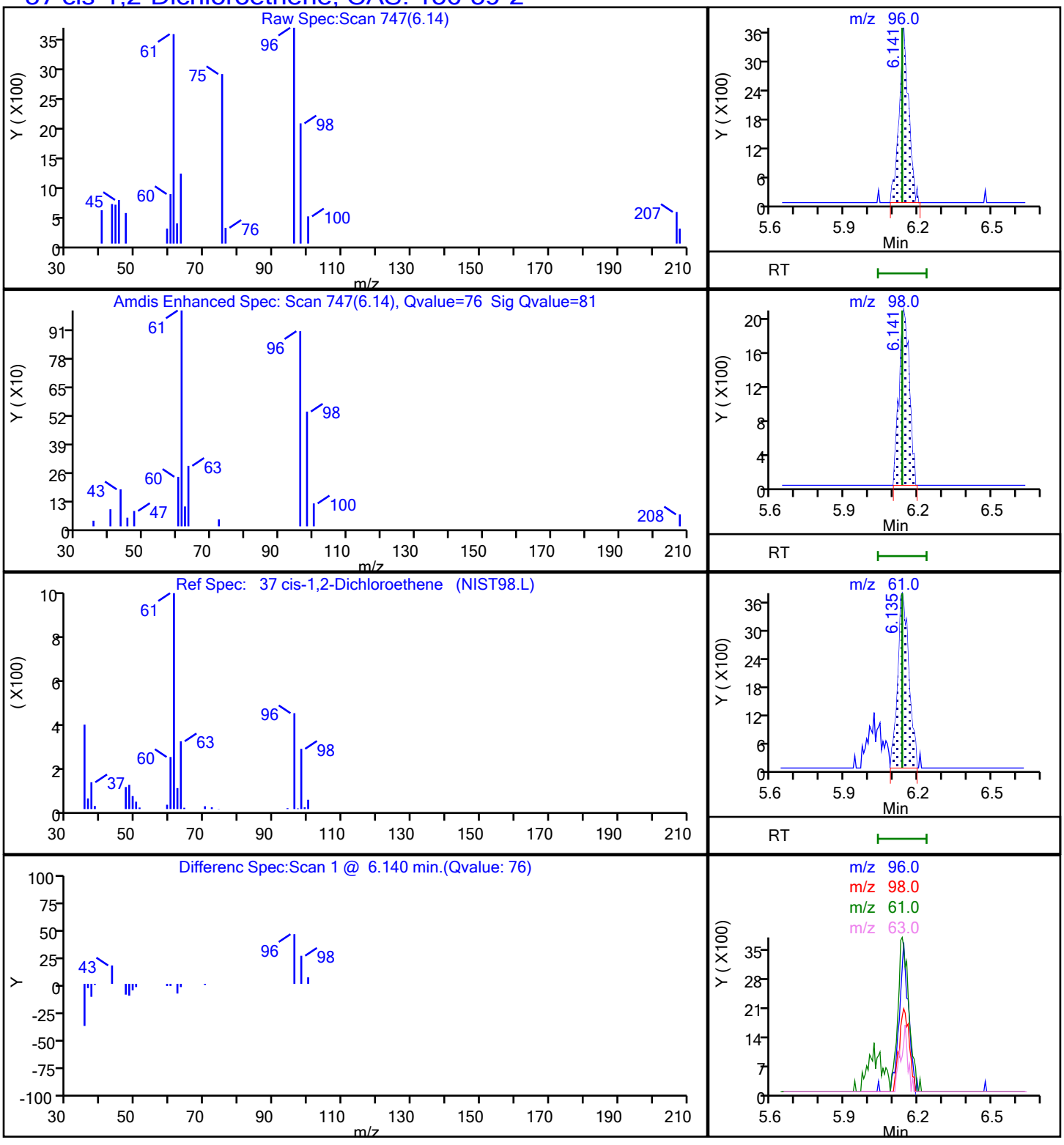
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D				
Injection Date:	28-Dec-2021 14:31:30	Instrument ID:	19930		
Lims ID:	410-67460-A-3	Lab Sample ID:	410-67460-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

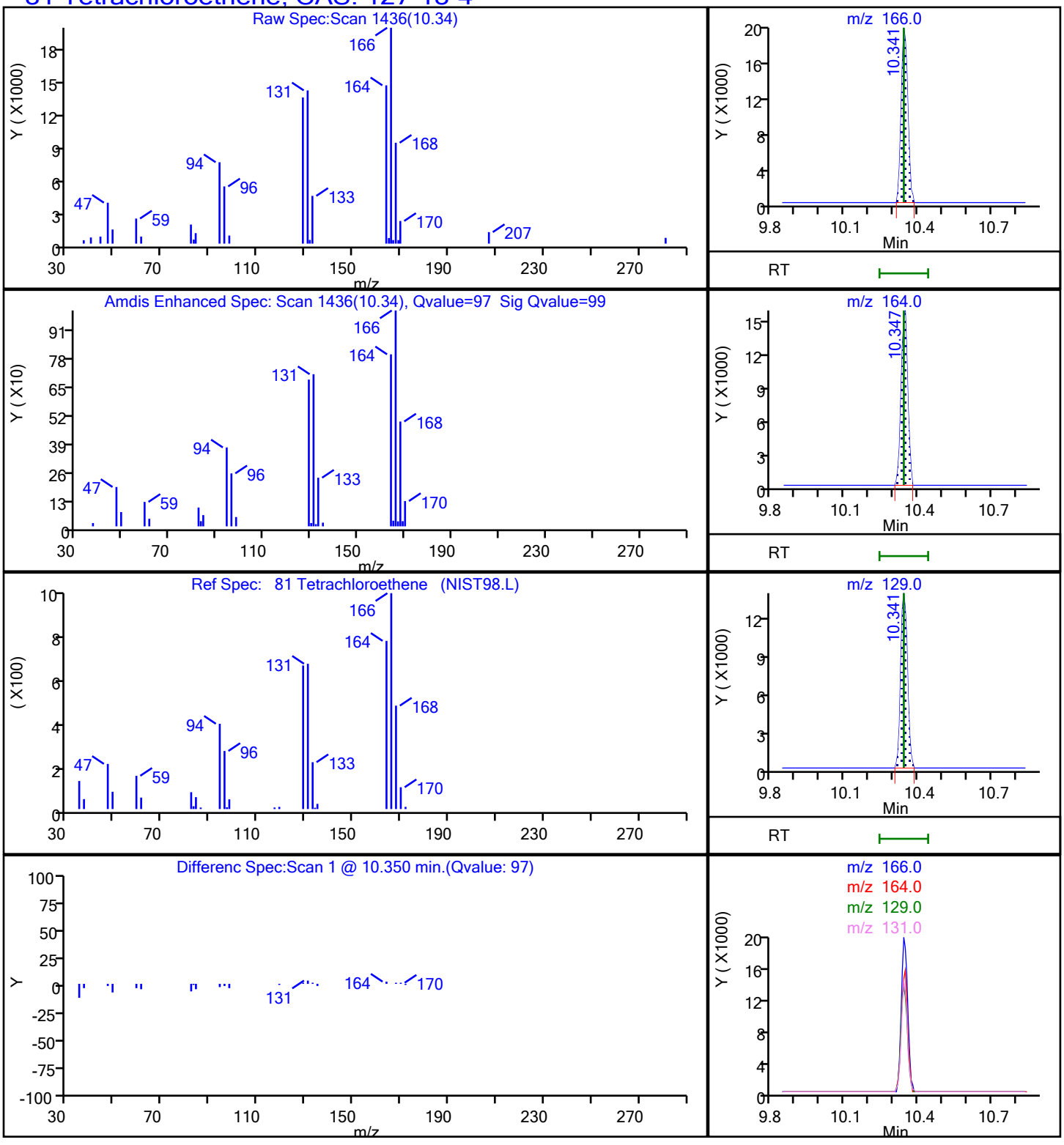
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D				
Injection Date:	28-Dec-2021 14:31:30	Instrument ID:	19930		
Lims ID:	410-67460-A-3	Lab Sample ID:	410-67460-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4

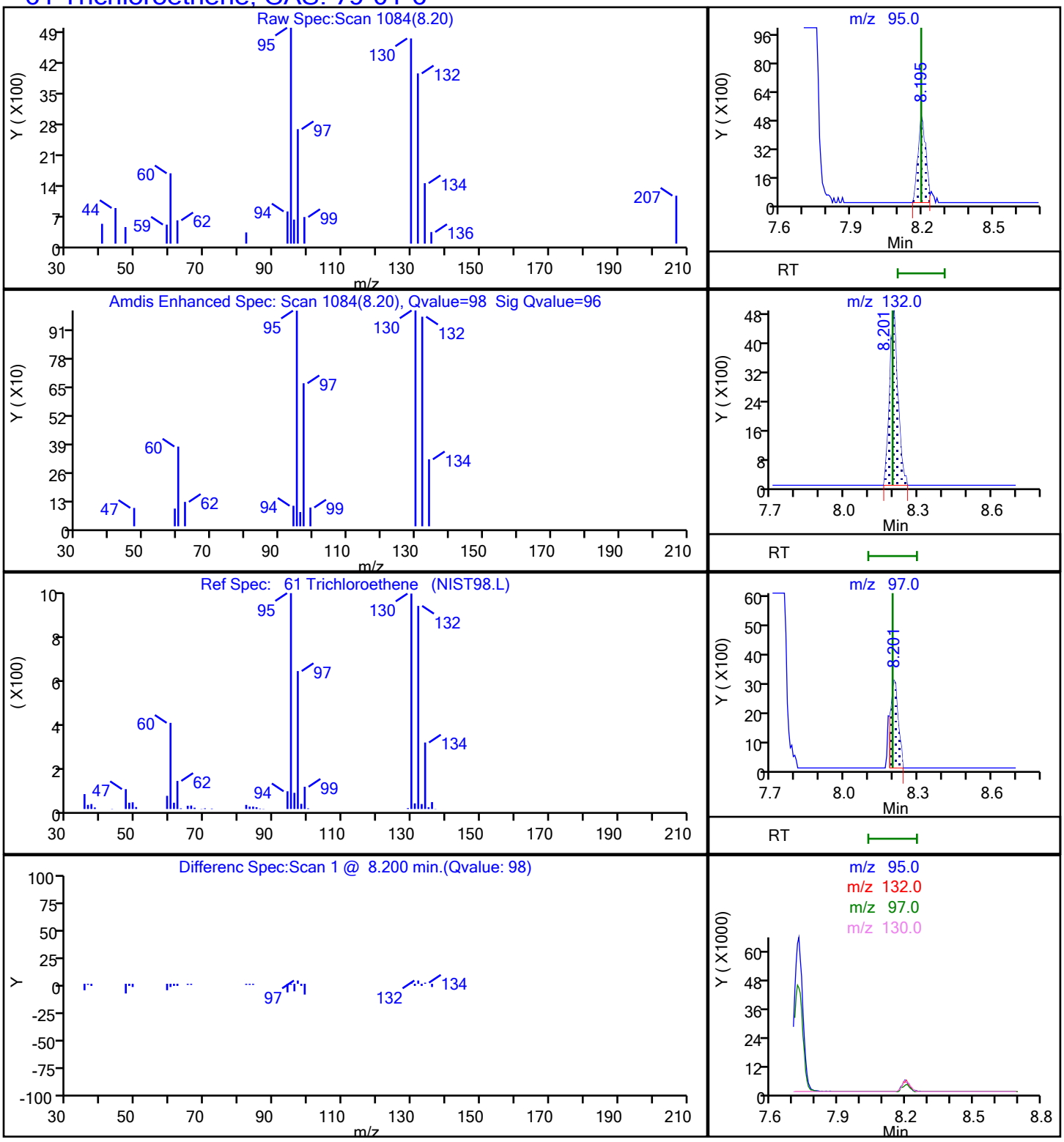


Report Date: 28-Dec-2021 17:58:36 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D				
Injection Date:	28-Dec-2021 14:31:30	Instrument ID:	19930		
Lims ID:	410-67460-A-3	Lab Sample ID:	410-67460-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



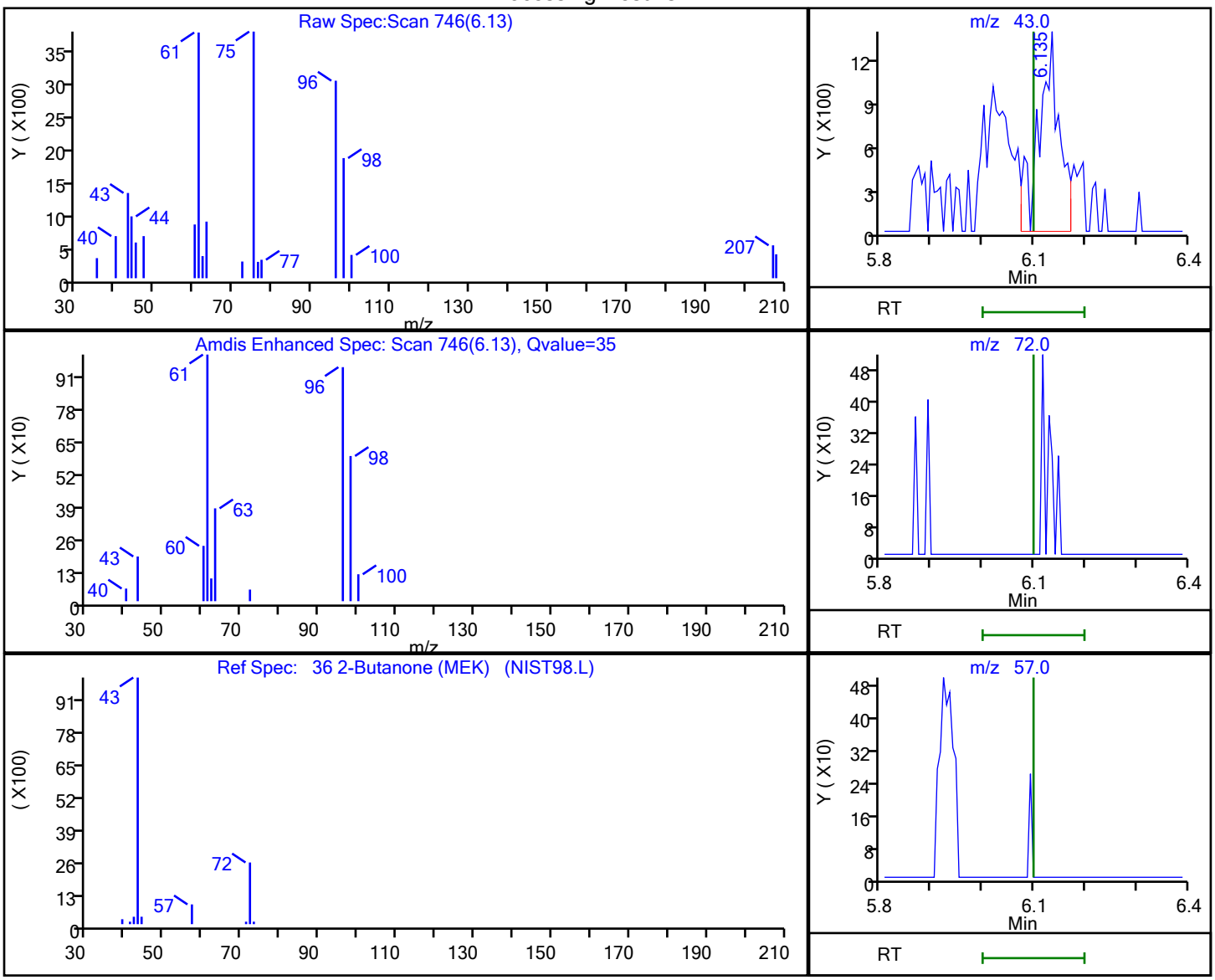
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D				
Injection Date:	28-Dec-2021 14:31:30	Instrument ID:	19930		
Lims ID:	410-67460-A-3	Lab Sample ID:	410-67460-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.13	43.00	3715	0.328706
6.10	72.00	0	
6.10	57.00	0	

Reviewer: beckerk, 28-Dec-2021 17:54:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

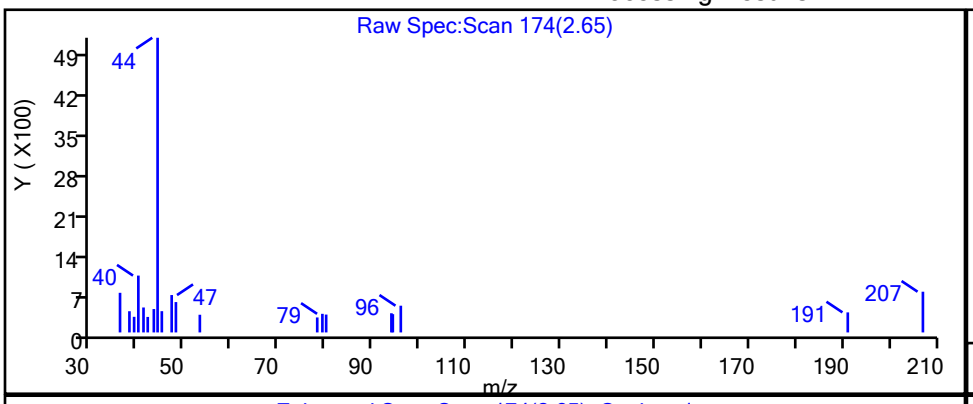
User Disabled Compound Report

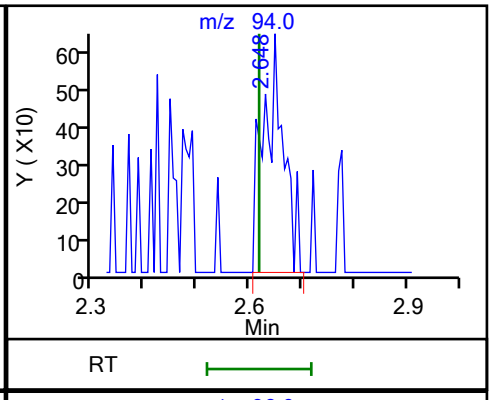
Eurofins Lancaster Laboratories Env, LLC

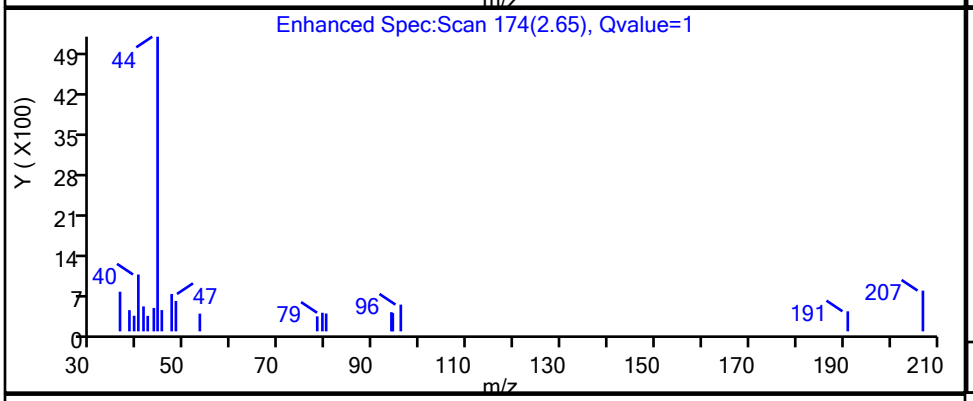
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X13.D				
Injection Date:	28-Dec-2021 14:31:30	Instrument ID:	19930		
Lims ID:	410-67460-A-3	Lab Sample ID:	410-67460-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

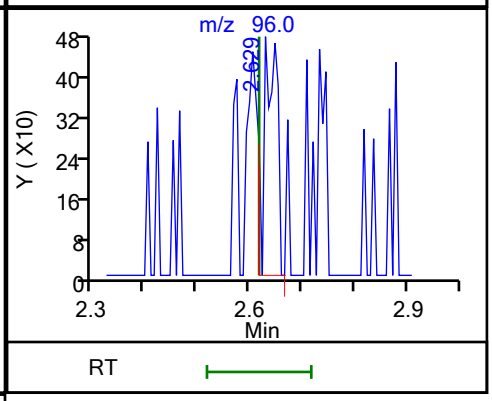
7 Bromomethane, CAS: 74-83-9

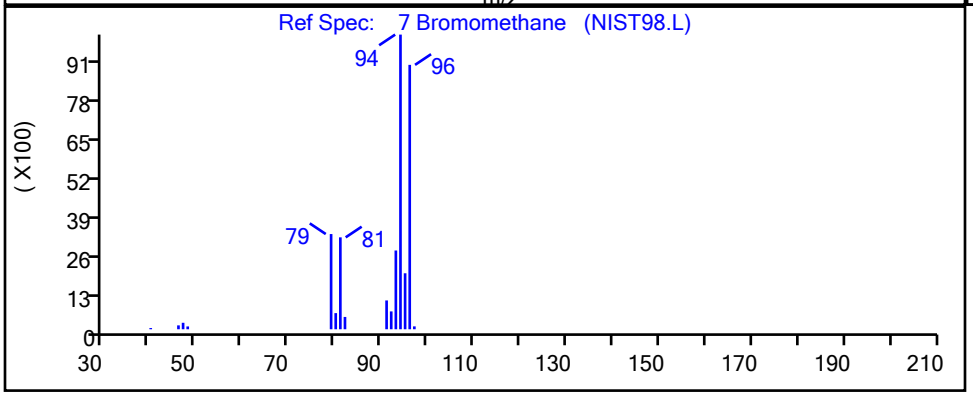
Processing Results











RT	Mass	Response	Amount
2.65	94.00	1759	0.035187
2.63	96.00	836	

Reviewer: beckerk, 28-Dec-2021 17:54:41

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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-67460-4

Matrix: Water Lab File ID: ID28X14.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:45

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 14:52

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.: 209587 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	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	2.6	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	cn	1.0	0.30
74-83-9	Bromomethane	ND	^c 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	^c cn	0.50	0.070
67-66-3	Chloroform	0.10	J cn	0.50	0.090
74-87-3	Chloromethane	ND	^c 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	0.23	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
79-01-6	Trichloroethene	0.13	J cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-67460-4

Matrix: Water Lab File ID: ID28X14.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:45

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 14:52

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	^c 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)	107	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	91	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	103	cn	80-120
2037-26-5	Toluene-d8 (Surr)	101	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D
Lims ID: 410-67460-A-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 14:52:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-015
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

First Level Reviewer: beckerk Date: 28-Dec-2021 17:55:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.172	2.166	0.006	1	2155	0.0319	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.586	3.586	0.000	98	16290	2.57	
19 Carbon disulfide	76	3.873	3.861	0.012	43	4788	0.0383	
23 Methylene Chloride	84		4.226				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	31	114041	50.0	
27 Methyl tert-butyl ether	73	4.653	4.635	0.018	22	5876	0.0455	
28 trans-1,2-Dichloroethene	96		4.647				ND	
31 1,1-Dichloroethane	63		5.306				ND	
36 2-Butanone (MEK)	43		6.098				ND	U
37 cis-1,2-Dichloroethene	96	6.147	6.135	0.012	78	6378	0.1114	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.610	6.616	-0.006	90	9225	0.0999	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	493485	10.3	
47 1,1,1-Trichloroethane	97		6.842				ND	
50 Carbon tetrachloride	117		7.055				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	67	102147	10.7	
54 Benzene	78		7.311				ND	7
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1895975	10.0	
61 Trichloroethene	95	8.201	8.195	0.006	95	7238	0.1263	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.866				ND	7
73 cis-1,3-Dichloropropene	75		9.408				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579				ND	7
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	2017313	10.1	
76 Toluene	92	9.793	9.792	0.001	92	10025	0.0677	
78 trans-1,3-Dichloropropene	75		10.048				ND	
80 1,1,2-Trichloroethane	97		10.250				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.341	10.341	0.000	96	16055	0.2277	
83 2-Hexanone	43		10.457				ND	
85 Chlorodibromomethane	129		10.628				ND	
86 Ethylene Dibromide	107		10.737				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1543740	10.0	
90 Chlorobenzene	112		11.189				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.274				ND	7
93 m-Xylene & p-Xylene	106		11.390				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.731				ND	
96 Bromoform	173		11.890				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	690678	9.06	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	851823	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

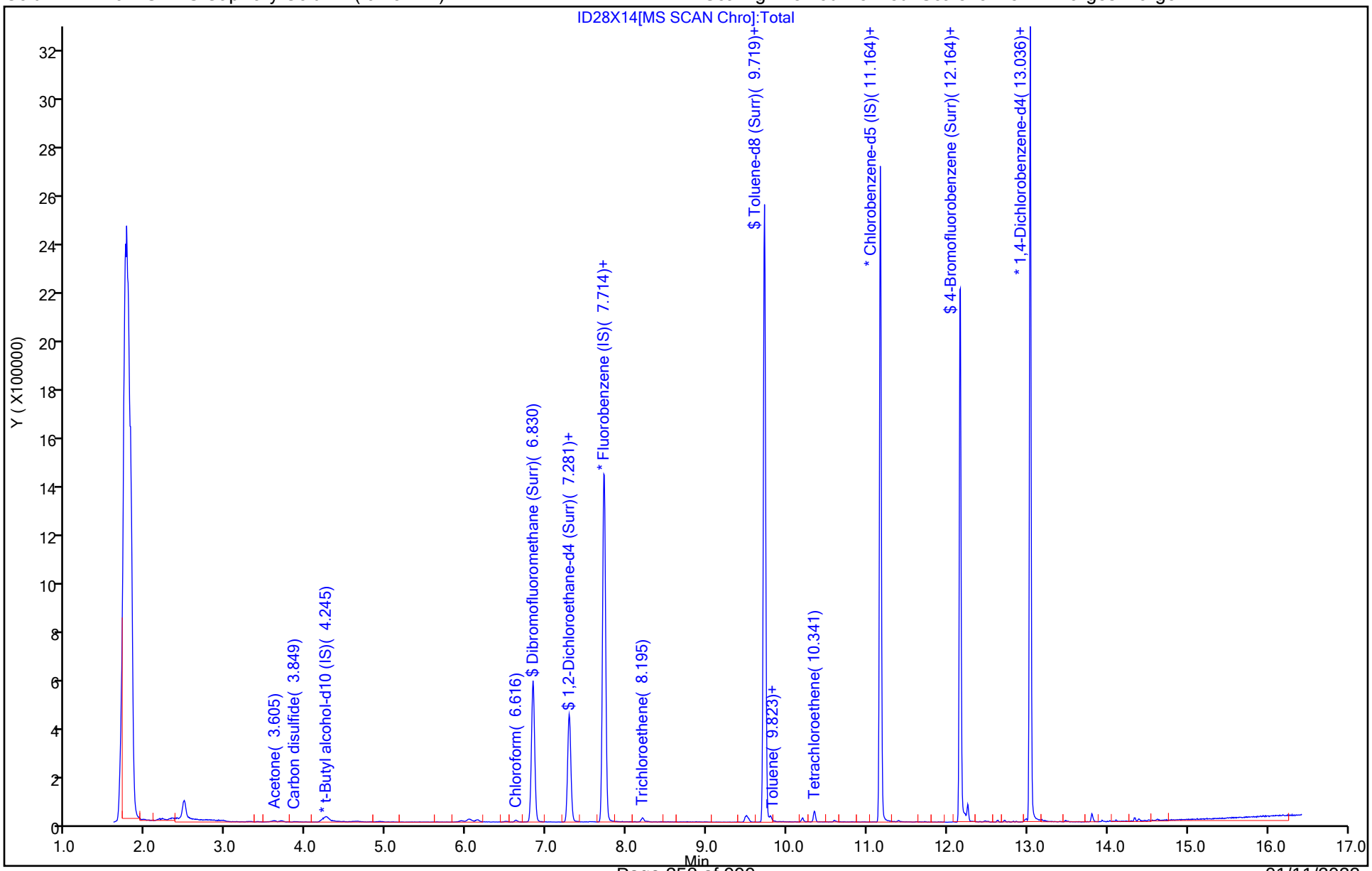
Report Date: 28-Dec-2021 17:58:37 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D

Injection Date:	28-Dec-2021 14:52:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-A-4	Lab Sample ID:	410-67460-4	Worklist Smp#:	15
Client ID:	HD-COD-SW-9-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D				
Lims ID:	410-67460-A-4				
Client ID:	HD-COD-SW-9-0/1-0				
Sample Type:	Client				
Inject. Date:	28-Dec-2021 14:52:30	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047269-015				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Dec-2021 17:57:17	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:	CTX1668				

First Level Reviewer: beckerk Date: 28-Dec-2021 17:55:17

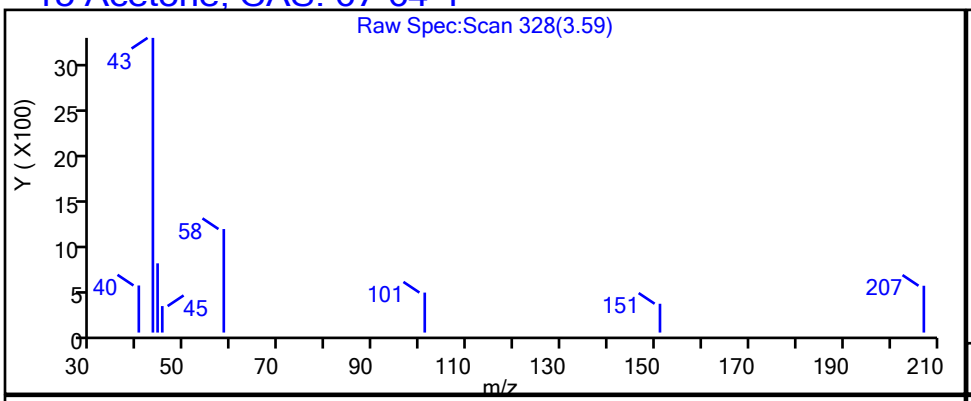
Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.3	103.32
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.91
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.12
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.06	90.59

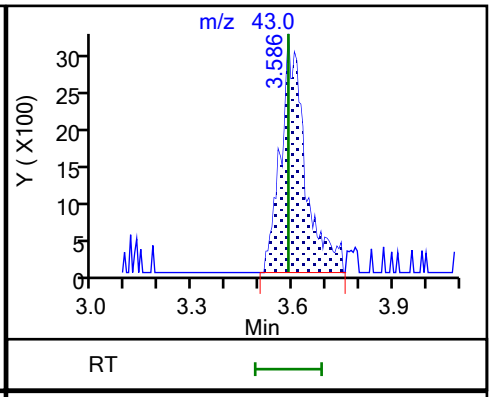
Report Date: 28-Dec-2021 17:58:37 Chrom Revision: 2.3 15-Nov-2021 20:34:30

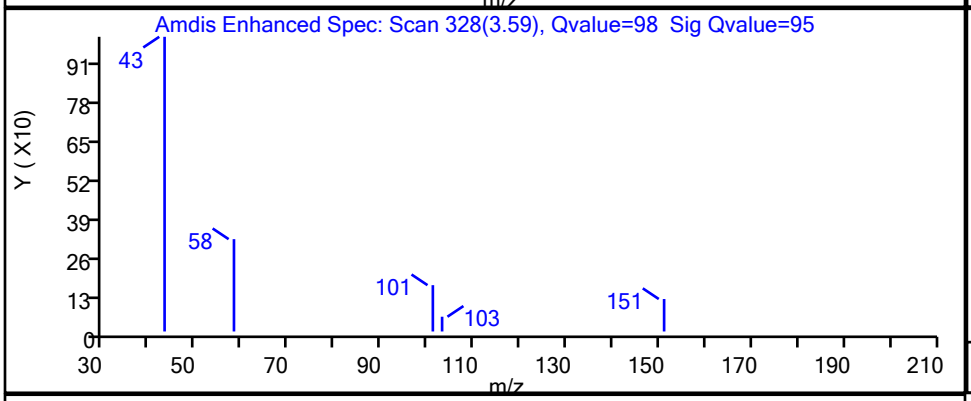
Eurofins Lancaster Laboratories Env, LLC

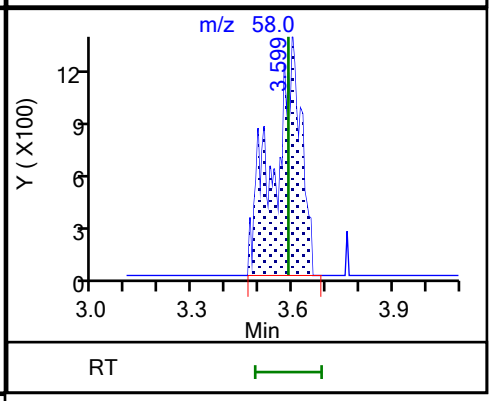
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D				
Injection Date:	28-Dec-2021 14:52:30	Instrument ID:	19930		
Lims ID:	410-67460-A-4	Lab Sample ID:	410-67460-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

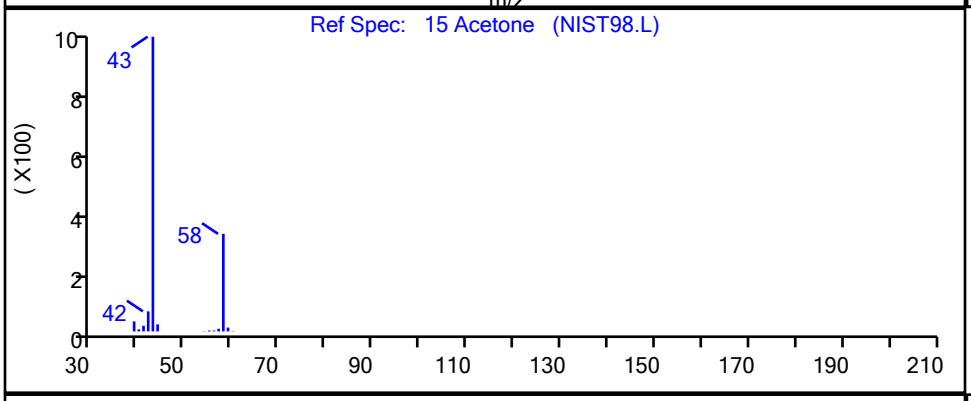
15 Acetone, CAS: 67-64-1

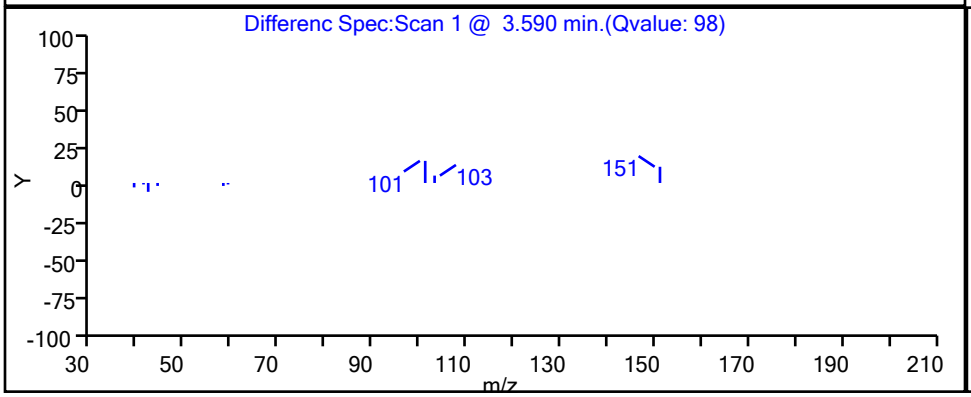


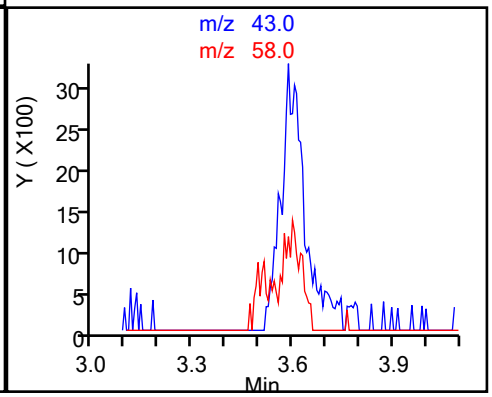












Report Date: 28-Dec-2021 17:58:38 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D

Injection Date: 28-Dec-2021 14:52:30 Instrument ID: 19930

Lims ID: 410-67460-A-4 Lab Sample ID: 410-67460-4

Client ID: HD-COD-SW-9-0/1-0

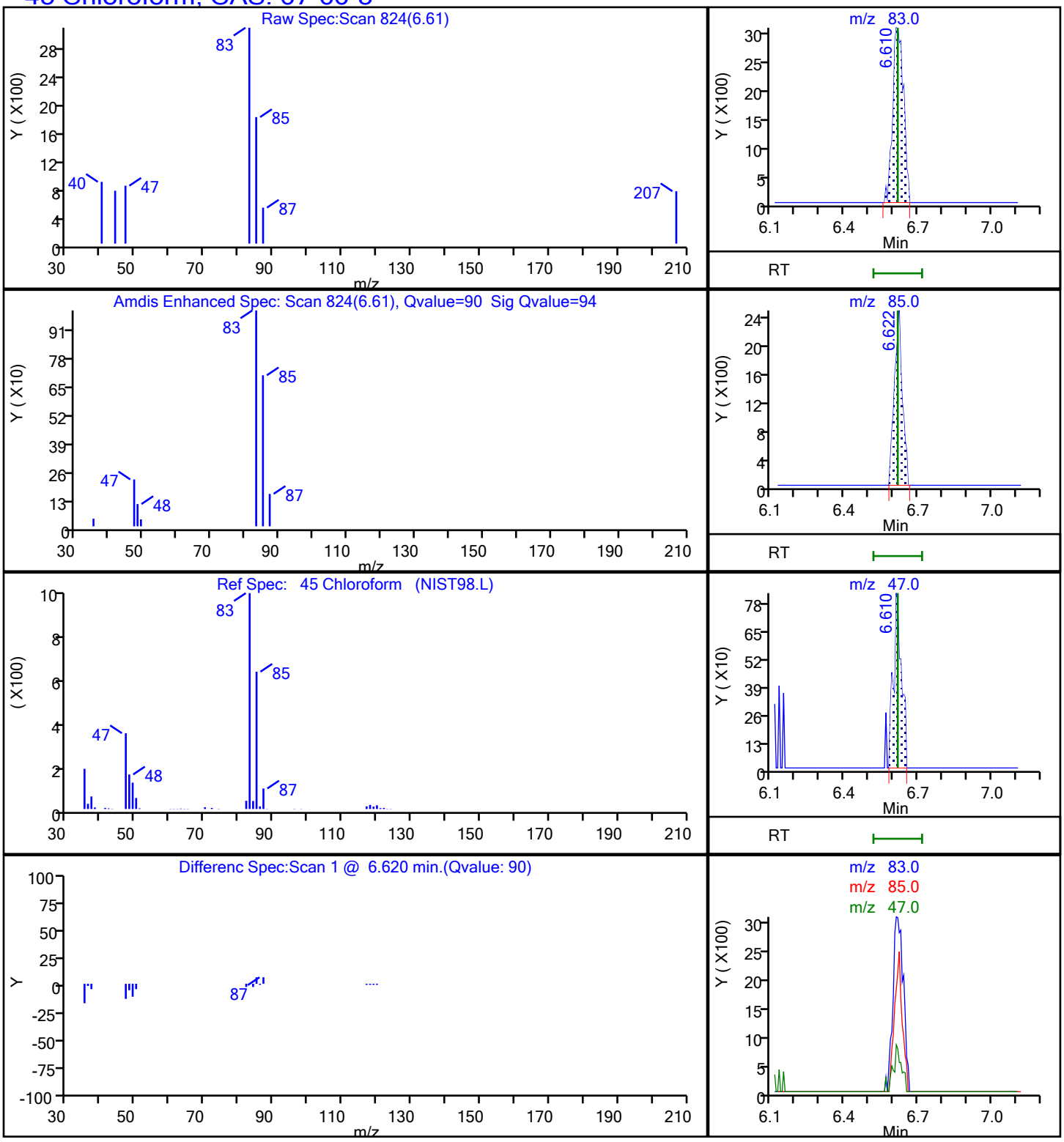
Operator ID: KNK41612 ALS Bottle#: 14 Worklist Smp#: 15

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

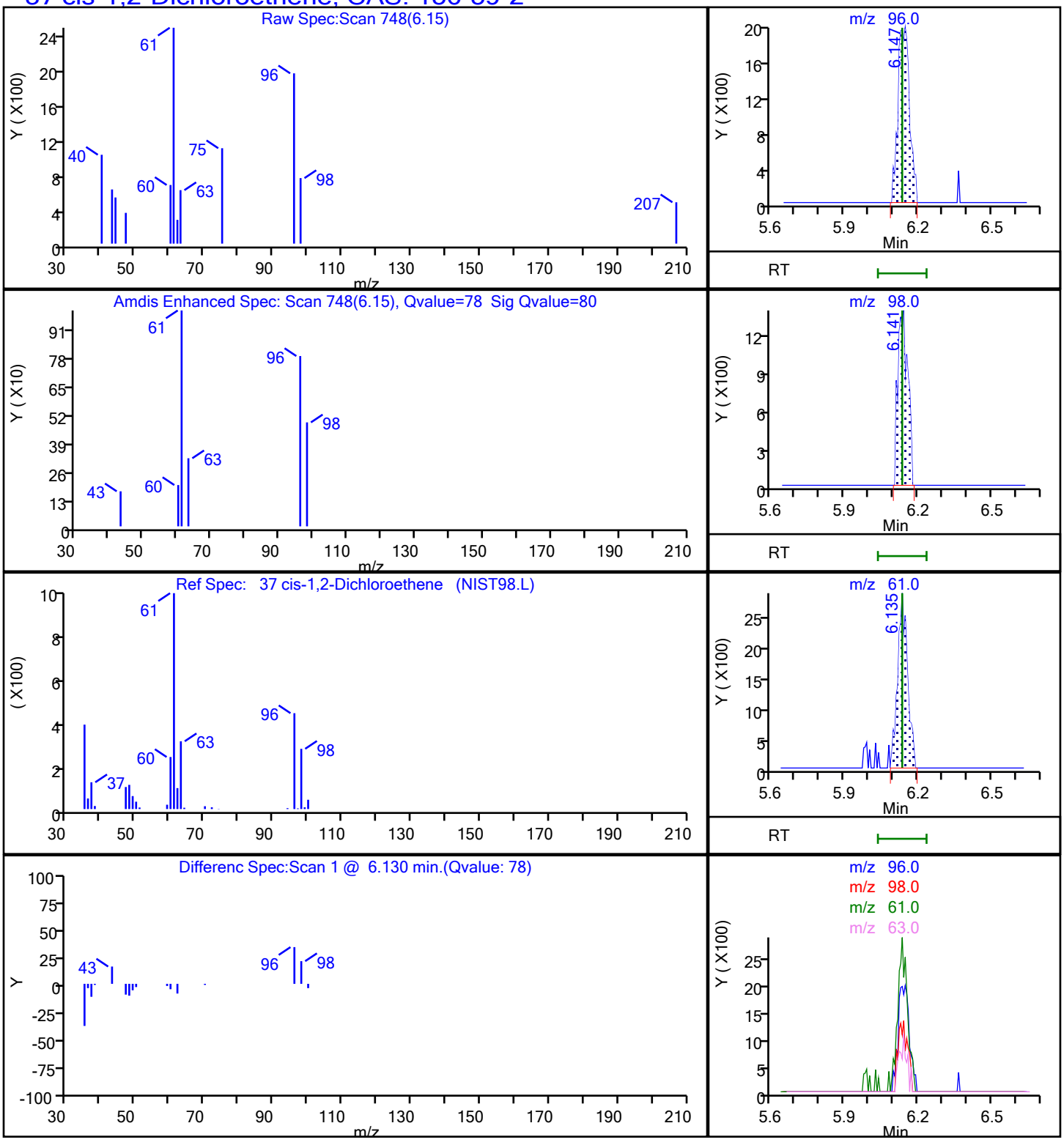
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D				
Injection Date:	28-Dec-2021 14:52:30	Instrument ID:	19930		
Lims ID:	410-67460-A-4	Lab Sample ID:	410-67460-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

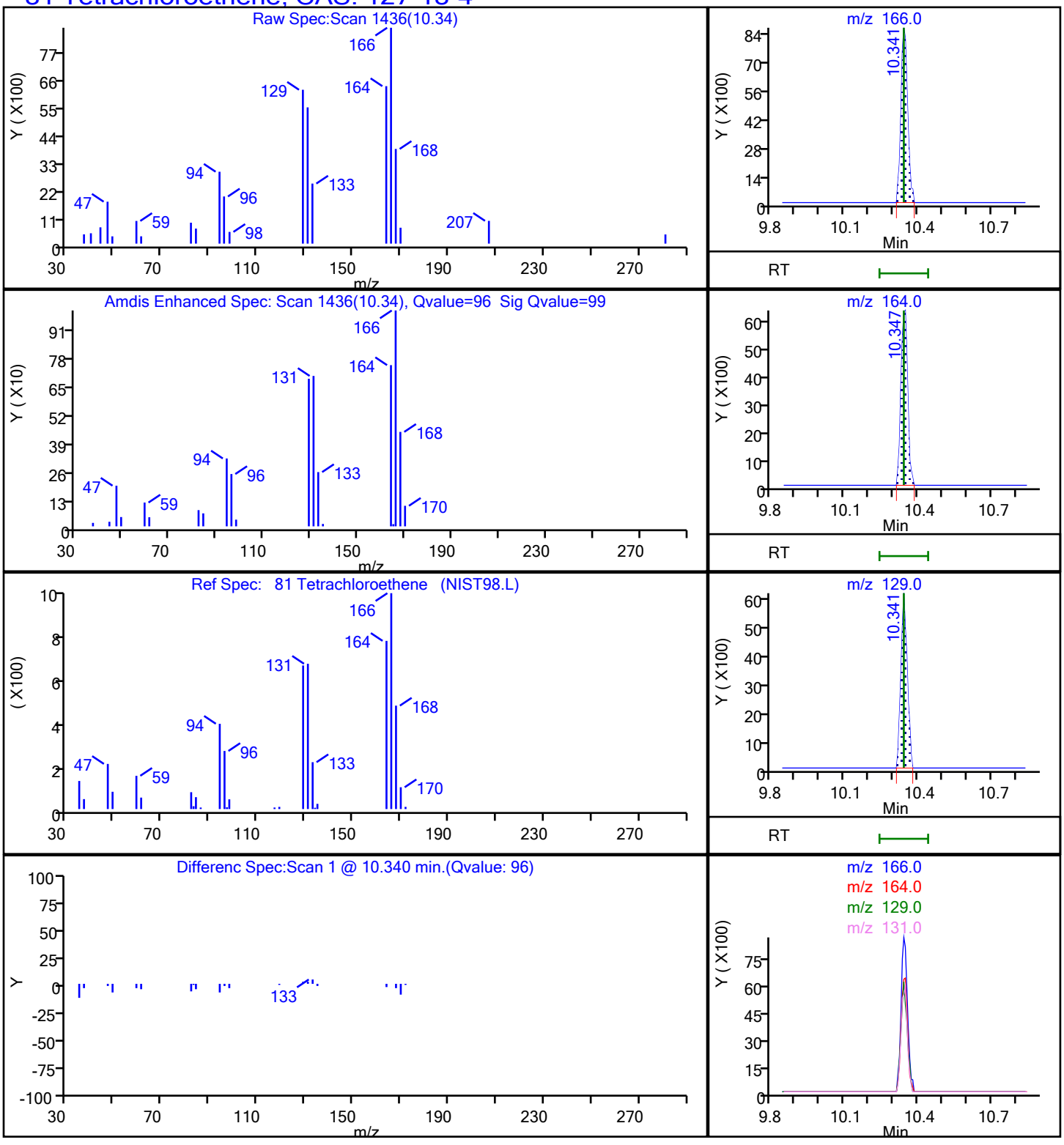
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D				
Injection Date:	28-Dec-2021 14:52:30	Instrument ID:	19930		
Lims ID:	410-67460-A-4	Lab Sample ID:	410-67460-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4



Report Date: 28-Dec-2021 17:58:38 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D

Injection Date: 28-Dec-2021 14:52:30 Instrument ID: 19930

Lims ID: 410-67460-A-4 Lab Sample ID: 410-67460-4

Client ID: HD-COD-SW-9-0/1-0

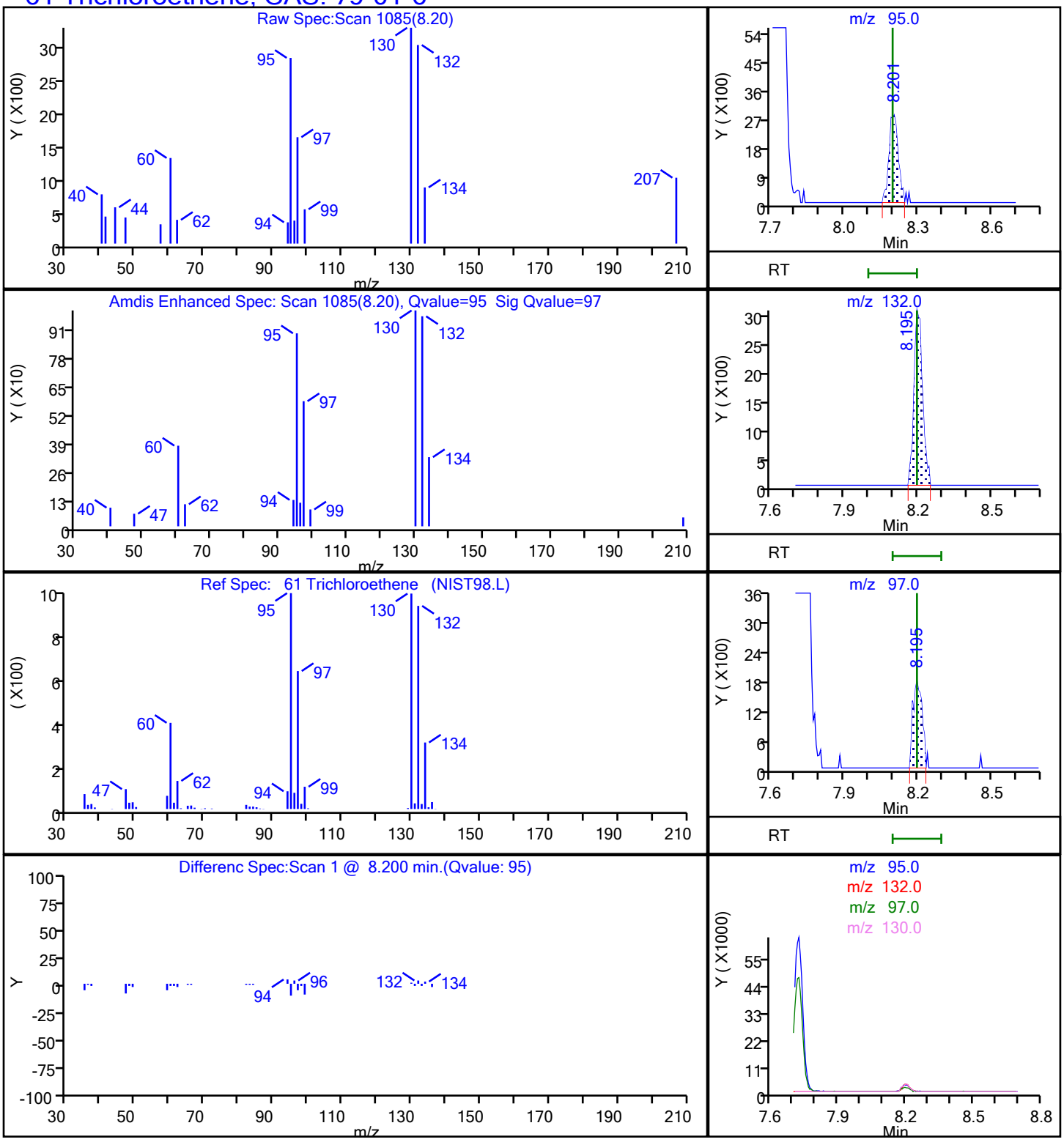
Operator ID: KNK41612 ALS Bottle#: 14 Worklist Smp#: 15

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

61 Trichloroethene, CAS: 79-01-6



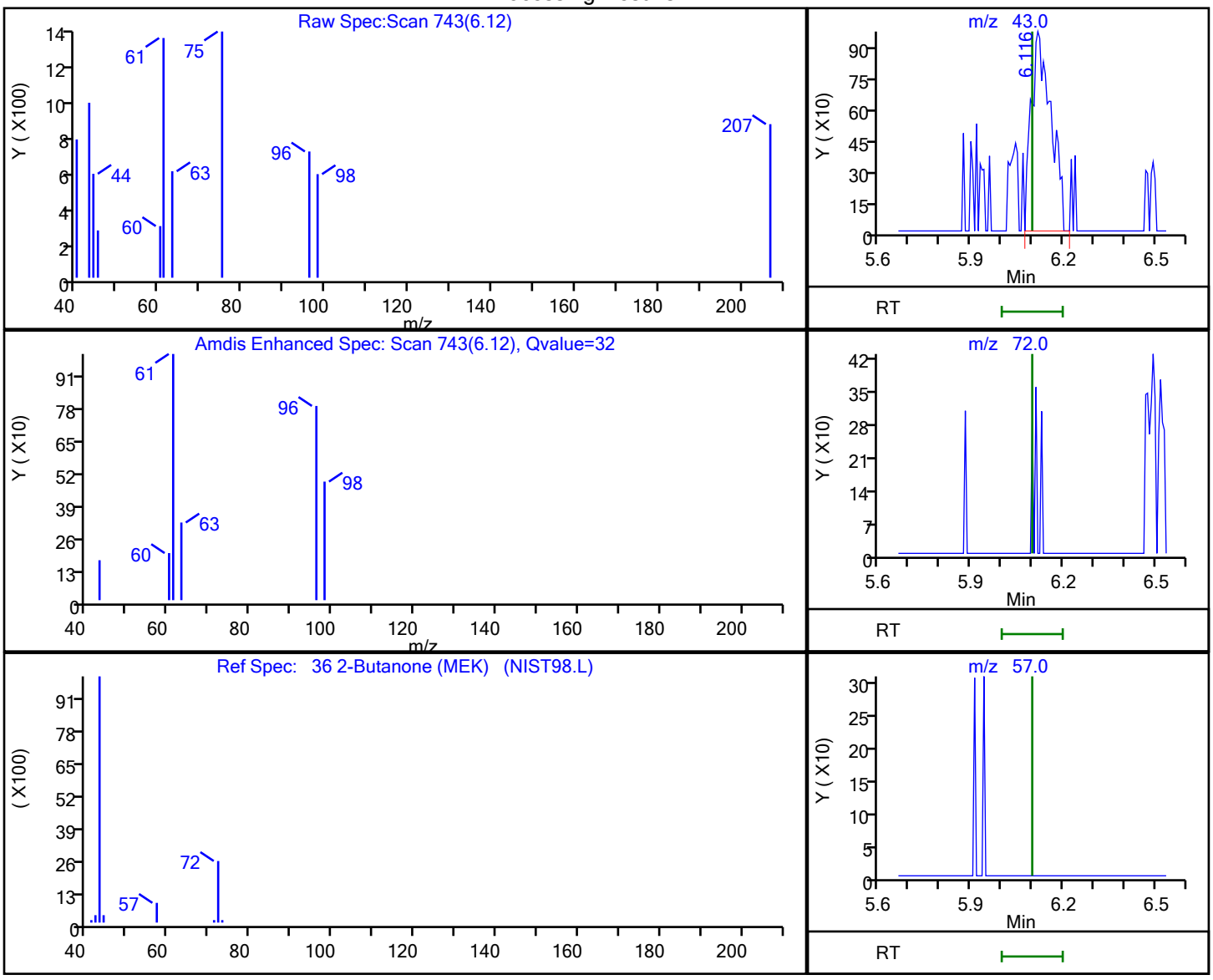
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X14.D				
Injection Date:	28-Dec-2021 14:52:30	Instrument ID:	19930		
Lims ID:	410-67460-A-4	Lab Sample ID:	410-67460-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.12	43.00	4353	0.393508
6.10	72.00	0	
6.10	57.00	0	

Reviewer: beckerk, 28-Dec-2021 17:55:10

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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-67460-5

Matrix: Water Lab File ID: ID28X15.D

Analysis Method: 8260D Date Collected: 12/17/2021 09:00

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 15:13

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.: 209587 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	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	1.5	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	cn	1.0	0.30
74-83-9	Bromomethane	ND	^c 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	^c cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	^c cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.17	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	0.65	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
79-01-6	Trichloroethene	0.19	J cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-67460-5

Matrix: Water Lab File ID: ID28X15.D

Analysis Method: 8260D Date Collected: 12/17/2021 09:00

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 15:13

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	^c 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)	108	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	91	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	104	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\20211228-47269.b\ID28X15.D
Lims ID: 410-67460-A-5
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 15:13:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-016
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

First Level Reviewer: beckerk Date: 28-Dec-2021 17:55:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.166				ND	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	7
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.599	3.586	0.013	95	10136	1.50	M
19 Carbon disulfide	76	3.861	3.861	0.000	42	5781	0.0462	
23 Methylene Chloride	84		4.226				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	35	121661	50.0	
27 Methyl tert-butyl ether	73	4.635	4.635	0.000	1	4421	0.0342	
28 trans-1,2-Dichloroethene	96		4.647				ND	
31 1,1-Dichloroethane	63		5.306				ND	
36 2-Butanone (MEK)	43		6.098				ND	U
37 cis-1,2-Dichloroethene	96	6.141	6.135	0.006	78	9681	0.1687	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.622	6.616	0.006	87	4933	0.0533	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	495994	10.4	
47 1,1,1-Trichloroethane	97		6.842				ND	U
50 Carbon tetrachloride	117		7.055				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.281	0.006	67	103052	10.8	
54 Benzene	78		7.311				ND	7
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.720	7.714	0.006	99	1900376	10.0	
61 Trichloroethene	95	8.201	8.195	0.006	99	11153	0.1942	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.866				ND	
73 cis-1,3-Dichloropropene	75		9.408				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579				ND	
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	2036721	10.2	
76 Toluene	92	9.799	9.792	0.007	97	5968	0.0402	
78 trans-1,3-Dichloropropene	75		10.048				ND	
80 1,1,2-Trichloroethane	97		10.250				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.347	10.341	0.006	97	46144	0.6523	
83 2-Hexanone	43		10.457				ND	
85 Chlorodibromomethane	129		10.628				ND	
86 Ethylene Dibromide	107		10.737				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1548897	10.0	
90 Chlorobenzene	112		11.189				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.274				ND	7
93 m-Xylene & p-Xylene	106		11.390				ND	7
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.731				ND	
96 Bromoform	173		11.890				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	699658	9.15	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	835120	10.0	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

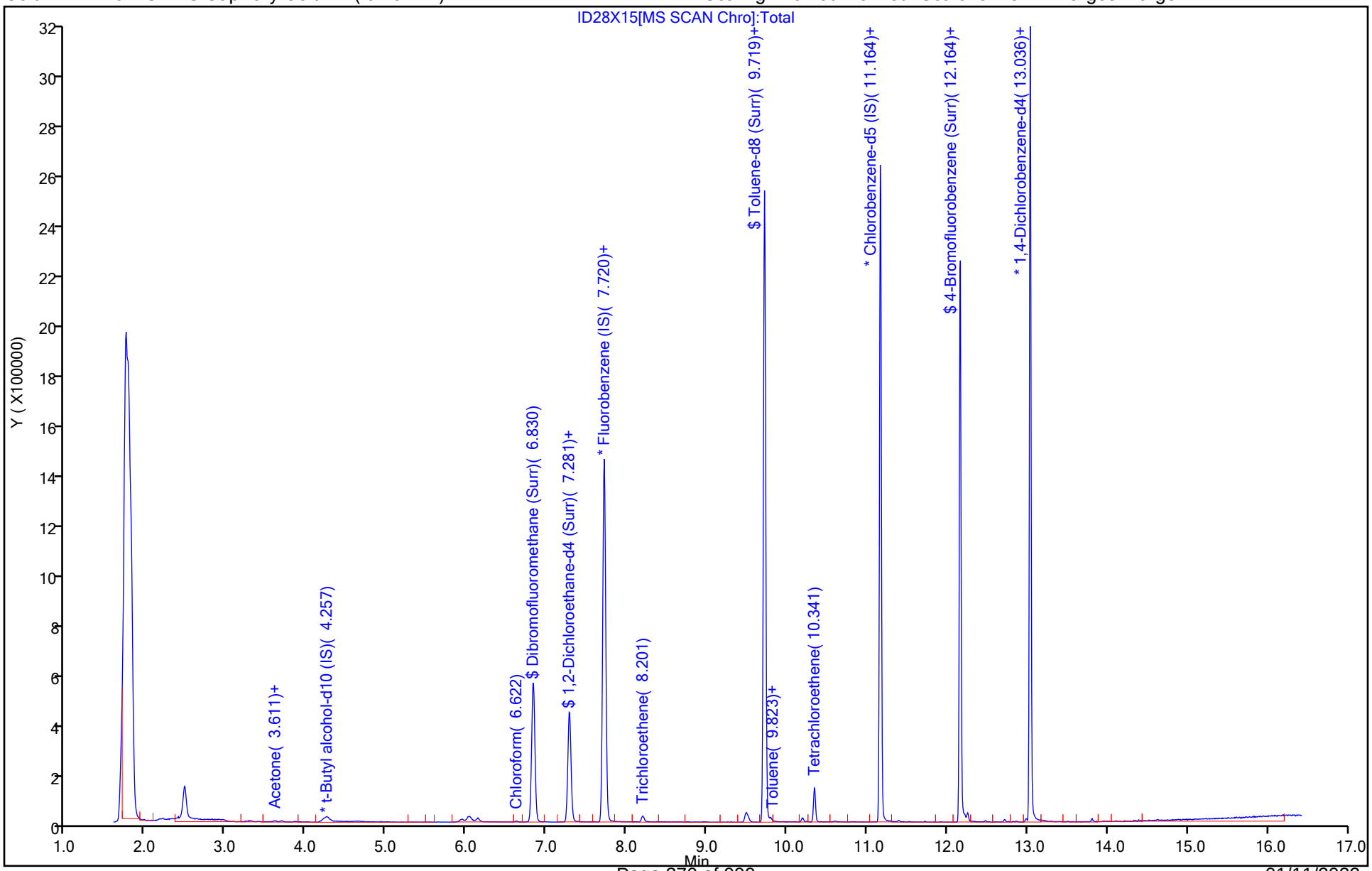
Report Date: 28-Dec-2021 17:58:39 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D

Injection Date:	28-Dec-2021 15:13:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-A-5	Lab Sample ID:	410-67460-5	Worklist Smp#:	16
Client ID:	HD-COD-SW-13-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D
Lims ID: 410-67460-A-5
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 15:13:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-016
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

First Level Reviewer: beckerk Date: 28-Dec-2021 17:55:51

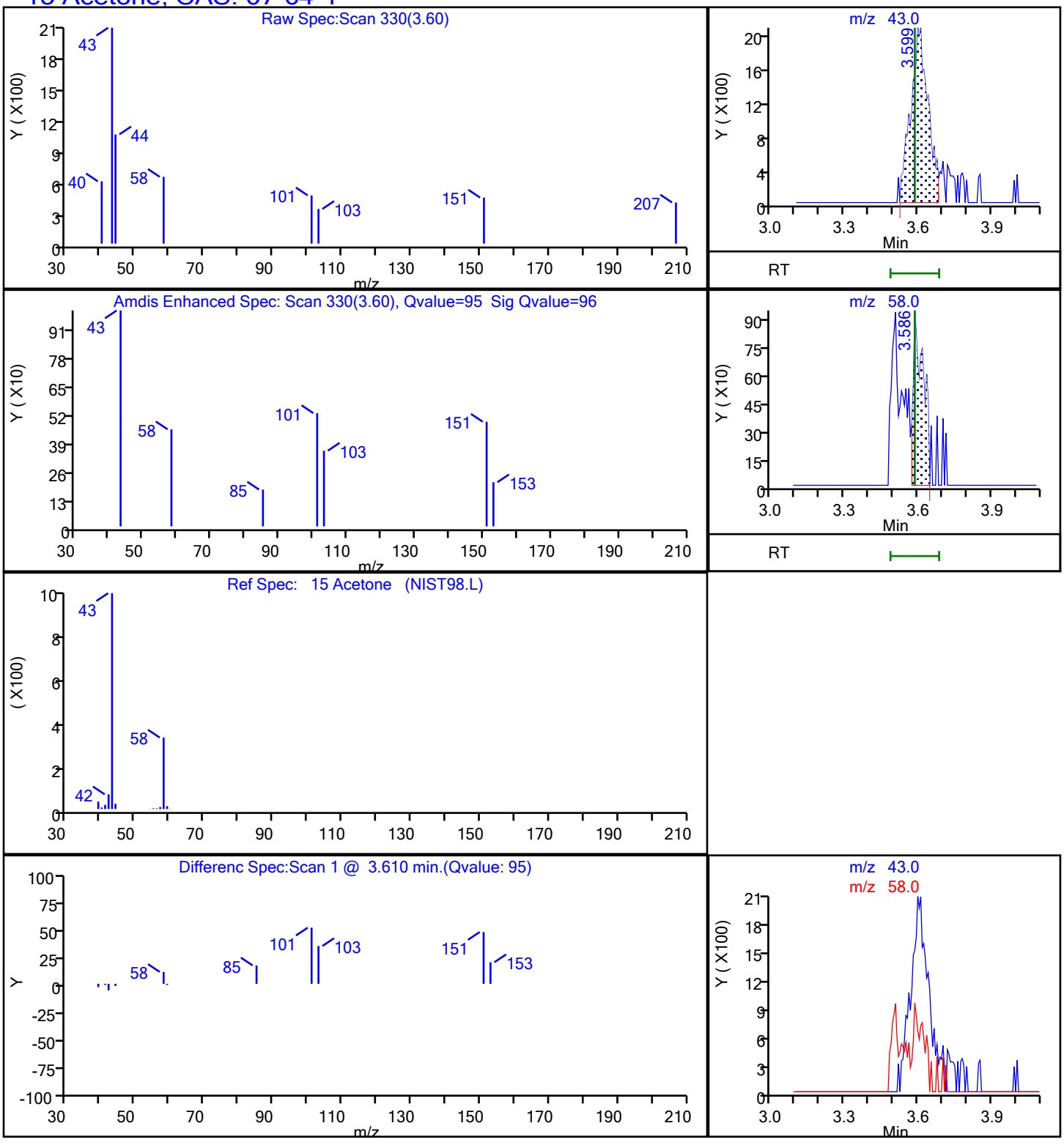
Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.4	103.61
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.61
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.75
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.15	91.46

Report Date: 28-Dec-2021 17:58:39 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D				
Injection Date:	28-Dec-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-67460-A-5	Lab Sample ID:	410-67460-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

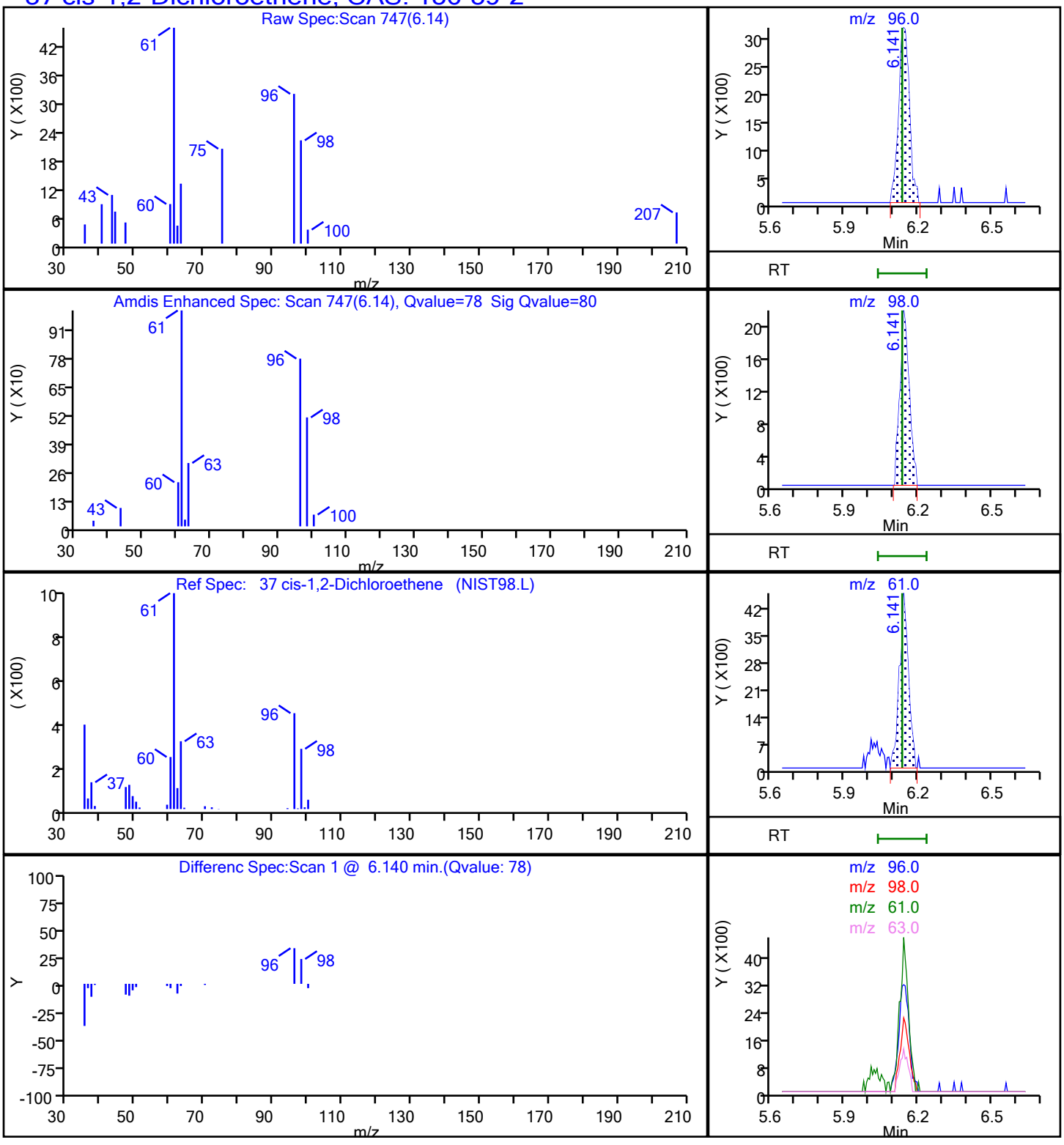
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D				
Injection Date:	28-Dec-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-67460-A-5	Lab Sample ID:	410-67460-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

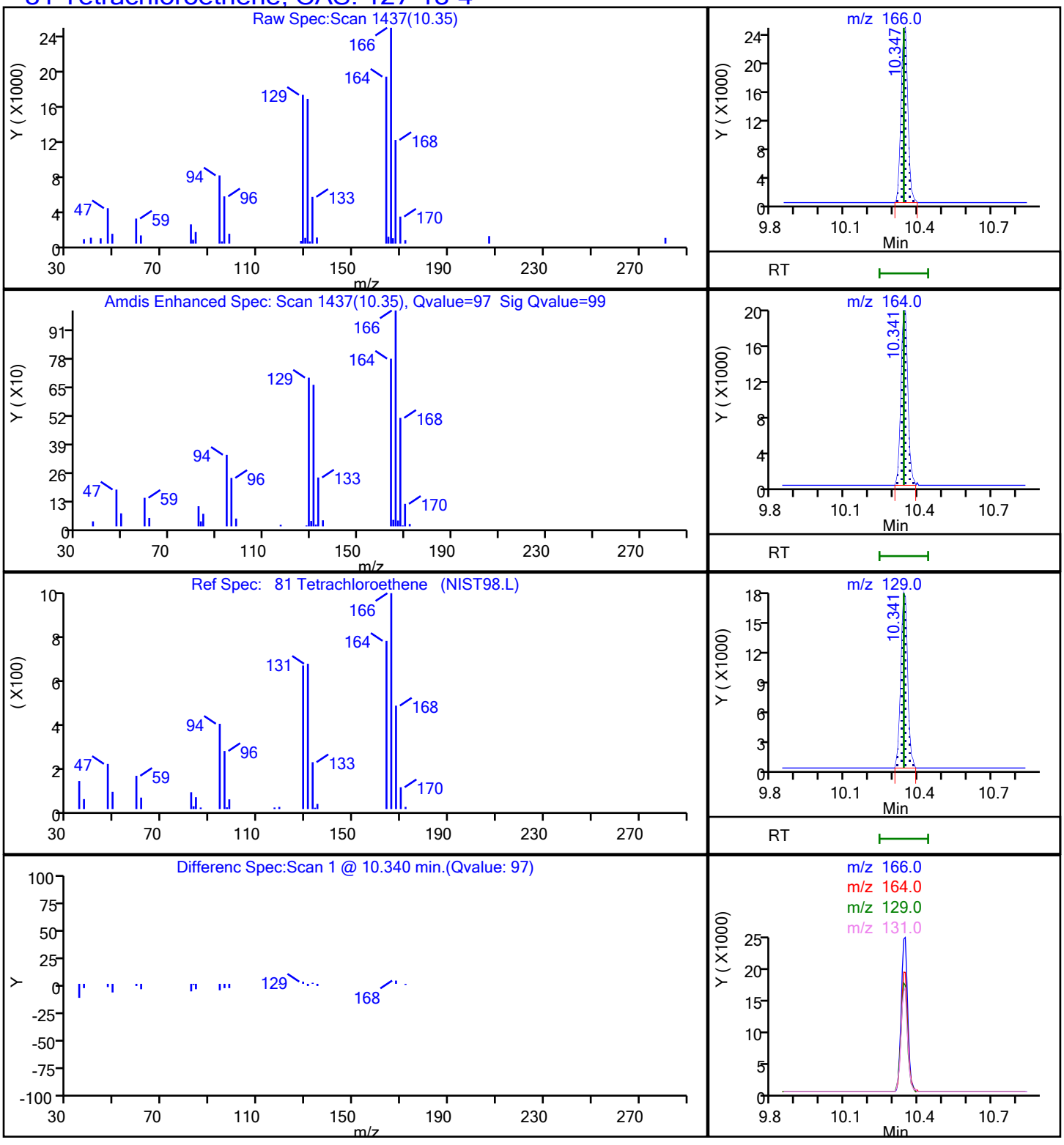
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D				
Injection Date:	28-Dec-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-67460-A-5	Lab Sample ID:	410-67460-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4

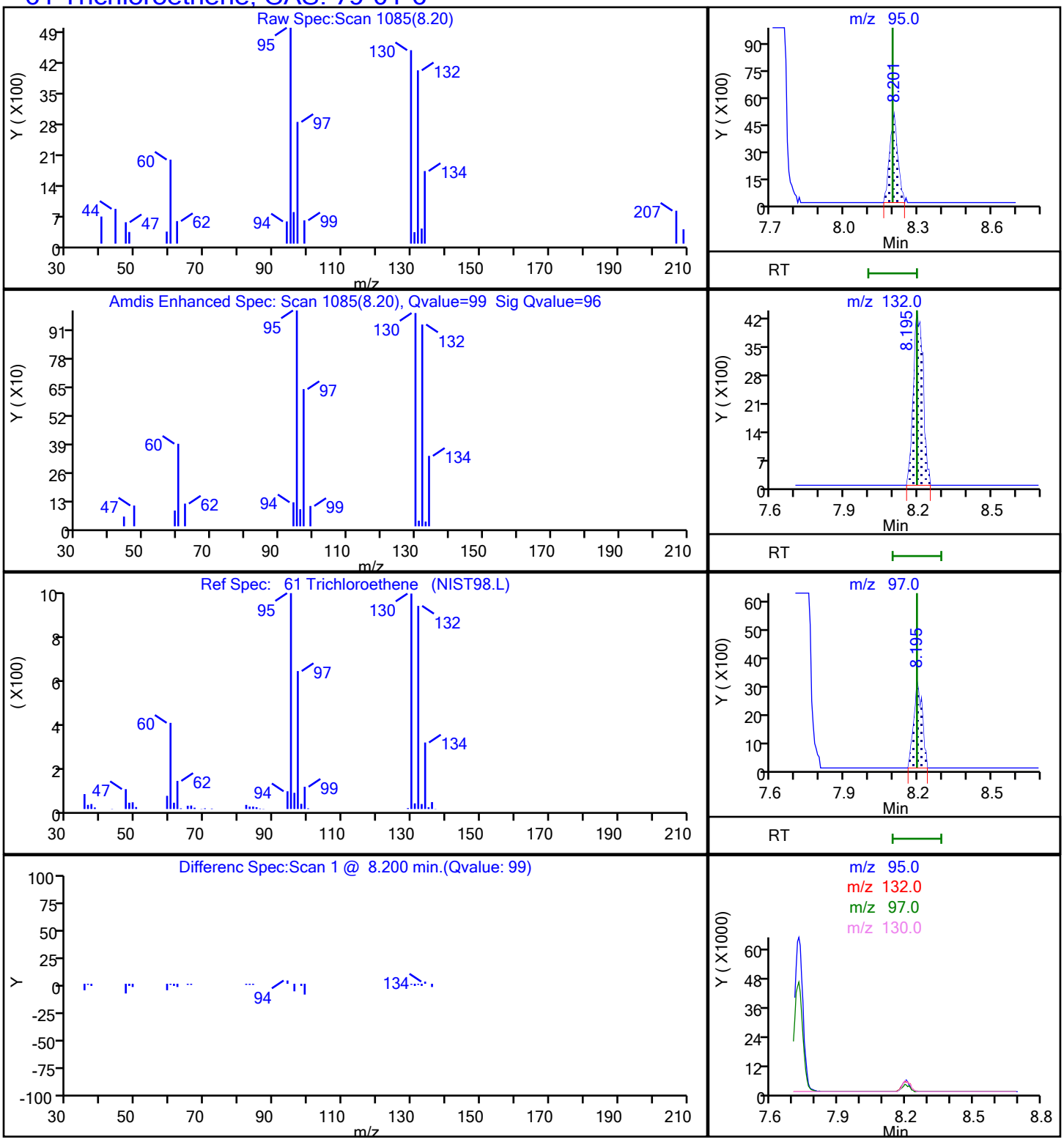


Report Date: 28-Dec-2021 17:58:39 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D				
Injection Date:	28-Dec-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-67460-A-5	Lab Sample ID:	410-67460-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



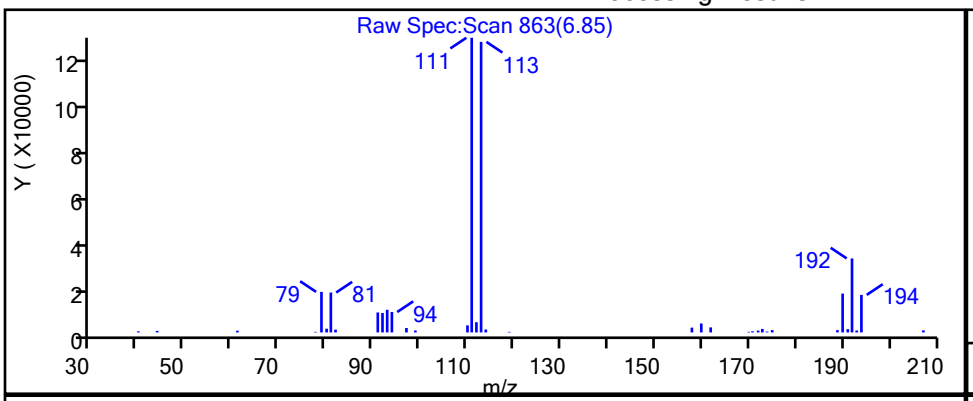
User Disabled Compound Report

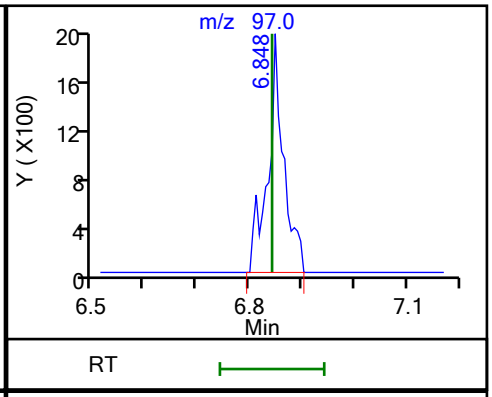
Eurofins Lancaster Laboratories Env, LLC

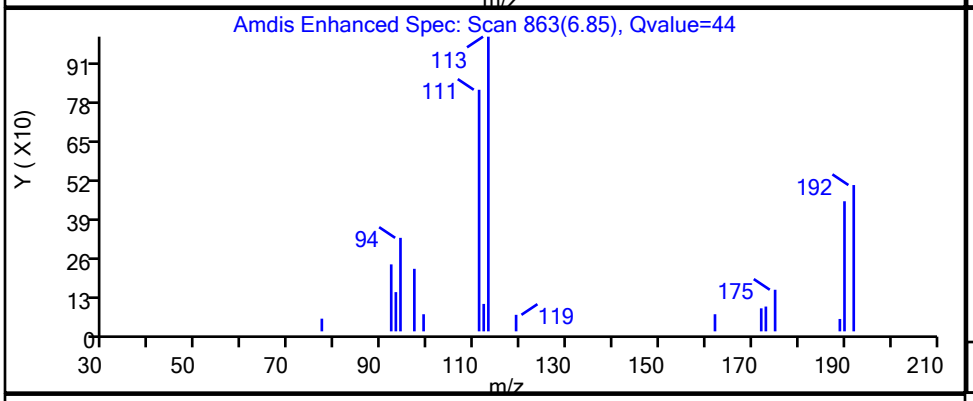
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D				
Injection Date:	28-Dec-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-67460-A-5	Lab Sample ID:	410-67460-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

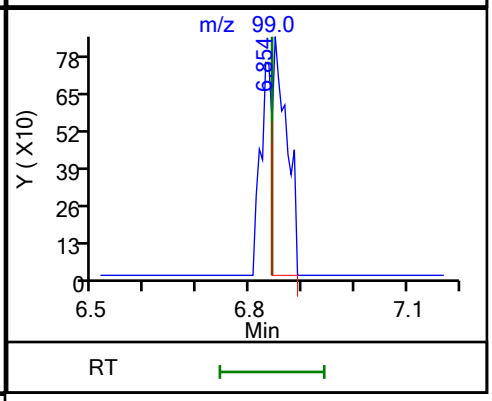
47 1,1,1-Trichloroethane, CAS: 71-55-6

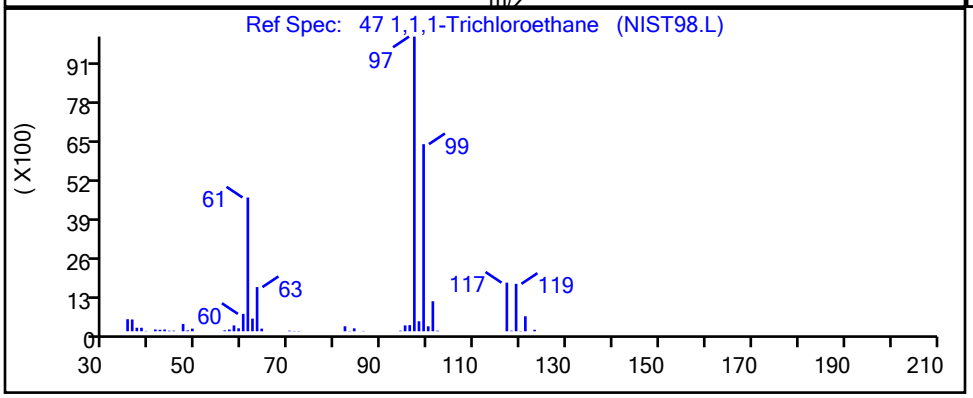
Processing Results











RT	Mass	Response	Amount
6.85	97.00	3998	0.046466
6.85	99.00	1642	

Reviewer: beckerk, 28-Dec-2021 17:55:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

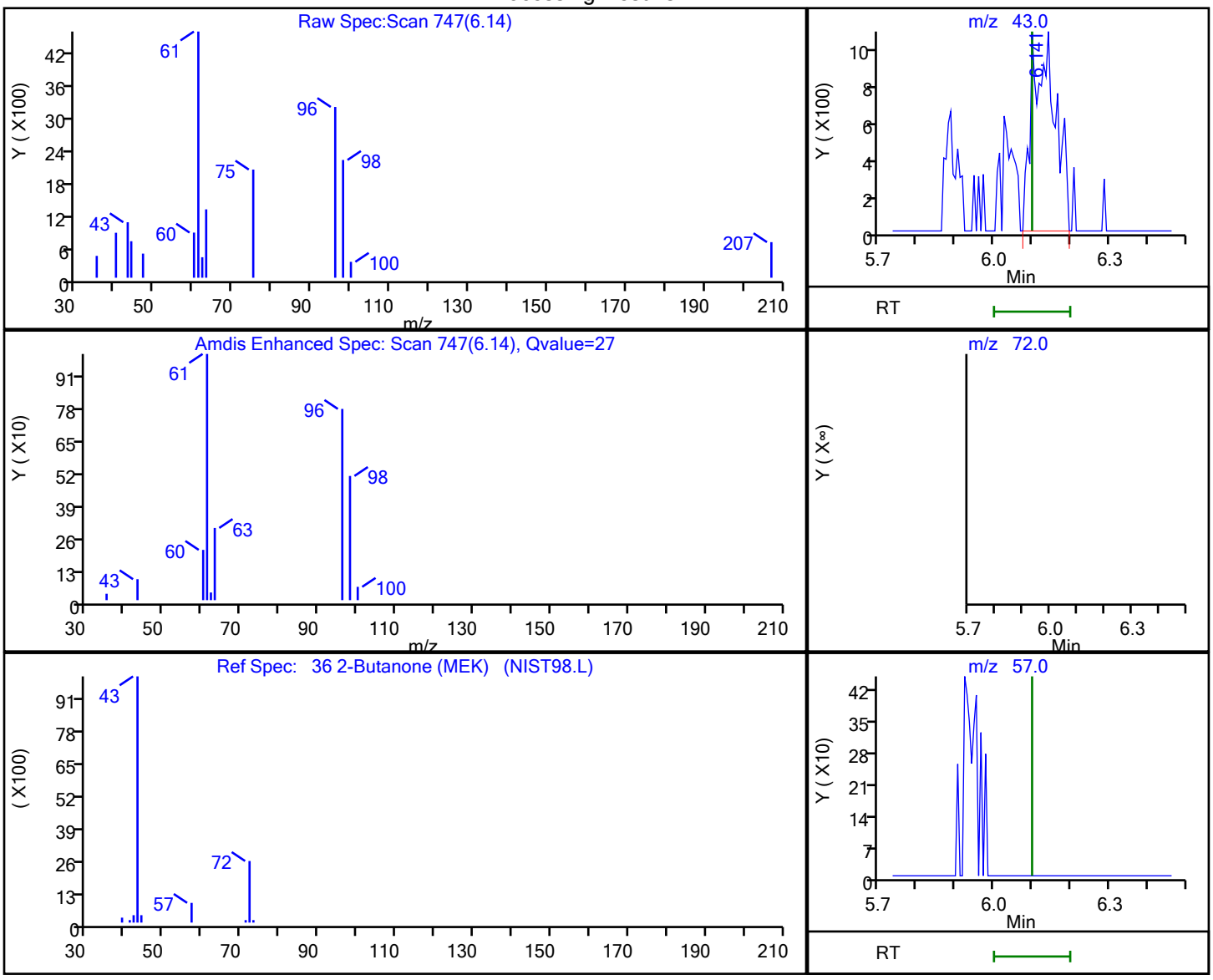
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D				
Injection Date:	28-Dec-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-67460-A-5	Lab Sample ID:	410-67460-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.14	43.00	4327	0.366659
6.10	72.00	0	
6.10	57.00	0	

Reviewer: beckerk, 28-Dec-2021 17:55:39

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

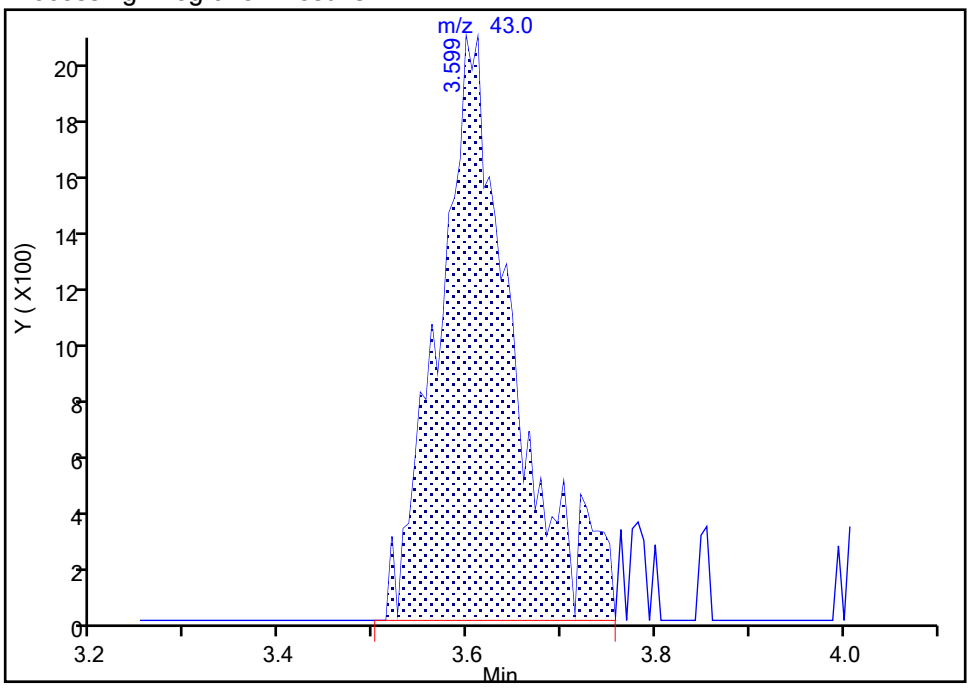
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X15.D				
Injection Date:	28-Dec-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-67460-A-5	Lab Sample ID:	410-67460-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1

Signal: 1

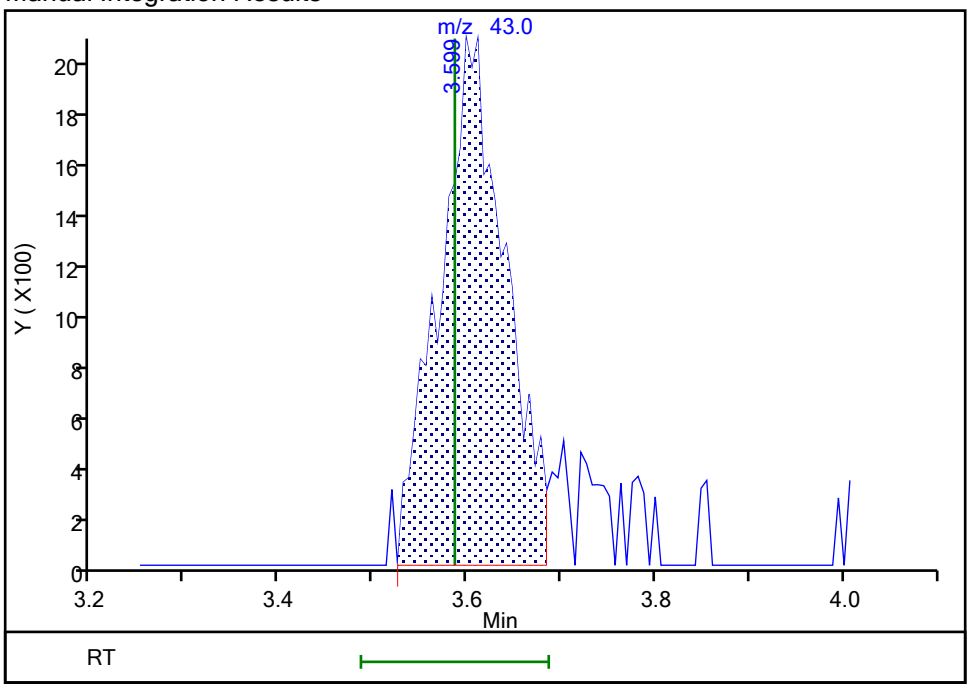
RT: 3.60
Area: 11532
Amount: 1.706290
Amount Units: ug/l

Processing Integration Results



RT: 3.60
Area: 10136
Amount: 1.499736
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 28-Dec-2021 17:55:33
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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-67460-6

Matrix: Water Lab File ID: ID28X16.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:15

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 15:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 209587 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	0.18	J cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	0.11	J cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.12	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	cn	1.0	0.30
74-83-9	Bromomethane	ND	^c 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	^c cn	0.50	0.070
67-66-3	Chloroform	0.31	J cn	0.50	0.090
74-87-3	Chloromethane	ND	^c FL cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.86	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	0.085	J 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	4.7	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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-67460-6

Matrix: Water Lab File ID: ID28X16.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:15

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 15:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	1.0	cn	0.50	0.060
75-01-4	Vinyl chloride	ND	^c 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)	107	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	92	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	103	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\20211228-47269.b\ID28X16.D
Lims ID: 410-67460-A-6
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 15:34:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-017
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

First Level Reviewer: beckerk Date: 28-Dec-2021 17:56:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.971				ND	
2 Chlorodifluoromethane	51		1.989				ND	
3 Dimethyl ether	45		2.050				ND	
4 Chloromethane	50		2.166				ND	7
6 Butadiene	39		2.282				ND	7
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	7
8 Chloroethane	64		2.696				ND	
9 Dichlorofluoromethane	67		2.934				ND	7
10 Trichlorofluoromethane	101		3.007				ND	
11 Ethyl ether	59		3.245				ND	
T 200 Ethanol TIC	45		3.288				ND	7
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.336				ND	7
13 Acrolein	56		3.422				ND	7
14 1,1-Dichloroethene	96	3.562	3.556	0.006	93	5373	0.1180	M
15 Acetone	43		3.586				ND	U
16 112TCTFE	101		3.599				ND	
17 Iodomethane	142		3.751				ND	
18 Ethyl bromide	108		3.800				ND	
19 Carbon disulfide	76		3.861				ND	
20 Acetonitrile	41		3.995				ND	
21 Methyl acetate	43		4.013				ND	
22 3-Chloro-1-propene	41		4.037				ND	
23 Methylene Chloride	84		4.226				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	30	124038	50.0	
25 2-Methyl-2-propanol	59		4.361				ND	
26 Acrylonitrile	53		4.574				ND	
27 Methyl tert-butyl ether	73	4.635	4.635	0.000	93	11068	0.0852	
28 trans-1,2-Dichloroethene	96		4.647				ND	
29 Hexane	57		5.074				ND	
31 1,1-Dichloroethane	63	5.306	5.306	0.000	93	9875	0.1052	
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		5.366				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		6.098				ND	7
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	77	49650	0.8619	
38 2,2-Dichloropropane	77		6.153				ND	7
S 35 1,2-Dichloroethene, Total	100				0		0.8619	
40 Propionitrile	54		6.183				ND	
39 Ethyl acetate	43		6.190				ND	7
41 Methyl acrylate	55		6.220				ND	
42 Methacrylonitrile	67		6.403				ND	
43 Chlorobromomethane	128		6.464				ND	
44 Tetrahydrofuran	71		6.482				ND	
45 Chloroform	83	6.616	6.616	0.000	92	29237	0.3146	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	494199	10.3	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	91	15410	0.1784	
48 Cyclohexane	56		6.945				ND	
49 1-Chlorobutane	56		7.019				ND	
51 1,1-Dichloropropene	75		7.049				ND	
50 Carbon tetrachloride	117	7.055	7.055	0.000	88	2764	0.0371	
52 Isobutyl alcohol	41		7.201				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	60	103052	10.7	
54 Benzene	78		7.311				ND	
56 1,2-Dichloroethane	62		7.384				ND	7
55 Isopropyl acetate	43		7.415				ND	
57 Tert-amyl methyl ether	73		7.506				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1907580	10.0	
59 n-Heptane	43		7.726				ND	
60 n-Butanol	56		8.079				ND	
61 Trichloroethene	95	8.201	8.195	0.006	97	59209	1.03	
62 Methylcyclohexane	83		8.500				ND	
63 1,2-Dichloropropane	63		8.518				ND	
64 Methyl methacrylate	69		8.604				ND	
65 1,4-Dioxane	88		8.616				ND	
66 Dibromomethane	93		8.634				ND	
67 n-Propyl acetate	43		8.707				ND	
68 Dichlorobromomethane	83		8.866				ND	
69 2-Nitropropane	41		9.128				ND	
70 Chloroacetonitrile	75		9.226				ND	
72 1-Bromo-2-chloroethane	63		9.256				ND	
71 2-Chloroethyl vinyl ether	63		9.256				ND	
73 cis-1,3-Dichloropropene	75		9.408				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579				ND	
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	2034097	10.2	
76 Toluene	92	9.792	9.792	0.000	97	3943	0.0266	
T 150 Epibromohydrin TIC	57	9.719	10.000	-0.281	12	1642	0.008608	
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	U
78 trans-1,3-Dichloropropene	75		10.048				ND	
S 77 1,3-Dichloropropene, Total	100		10.060				ND	7
79 Ethyl methacrylate	69		10.109				ND	
80 1,1,2-Trichloroethane	97		10.250				ND	
81 Tetrachloroethene	166	10.341	10.341	0.000	98	329384	4.67	
82 1,3-Dichloropropane	76		10.408				ND	
83 2-Hexanone	43		10.457				ND	
84 n-Butyl acetate	43		10.603				ND	
85 Chlorodibromomethane	129		10.628				ND	
86 Ethylene Dibromide	107		10.737				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1544143	10.0	
88 1-Chlorohexane	91		11.170				ND	7
90 Chlorobenzene	112		11.189				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.274				ND	
93 m-Xylene & p-Xylene	106		11.390				ND	7
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.731				ND	
96 Bromoform	173		11.890				ND	
97 Isopropylbenzene	105		12.012				ND	
98 cis-1,4-Dichloro-2-butene	88		12.079				ND	U
99 Cyclohexanone	55		12.121				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	705099	9.25	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
102 Bromobenzene	156		12.274				ND	
103 trans-1,4-Dichloro-2-butene	53		12.280				ND	
104 1,2,3-Trichloropropane	110		12.304				ND	
105 N-Propylbenzene	91		12.341				ND	
106 2-Chlorotoluene	126		12.420				ND	
107 1,3,5-Trimethylbenzene	105		12.475				ND	
108 4-Chlorotoluene	126		12.511				ND	
109 tert-Butylbenzene	134		12.713				ND	
110 Pentachloroethane	167		12.749				ND	
111 1,2,4-Trimethylbenzene	105		12.755				ND	7
112 sec-Butylbenzene	105		12.877				ND	
113 1,3-Dichlorobenzene	146		12.981				ND	7
114 4-Isopropyltoluene	119		12.987				ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	846336	10.0	
116 1,4-Dichlorobenzene	146		13.054				ND	7
117 1,2,3-Trimethylbenzene	120		13.060				ND	7
118 Benzyl chloride	126		13.127				ND	
119 n-Butylbenzene	92		13.273				ND	
120 1,2-Dichlorobenzene	146		13.310				ND	
121 Hexachloroethane	117		13.542				ND	U
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		13.975				ND	
124 1,2,4-Trichlorobenzene	180		14.395				ND	
125 Hexachlorobutadiene	225		14.474				ND	
126 Naphthalene	128		14.572				ND	7
127 1,2,3-Trichlorobenzene	180		14.712				ND	
128 Dodecane	57		0.000				ND	U
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	U
207 Acetonitrile TIC	1		0.000				ND	U
130 Chlorotrifluoroethene	1		0.000				ND	U
T 212 Octamethylcyclotetrasiloxane TIC	281		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	
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	355		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	
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	
140 Ethanol	45		3.269				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

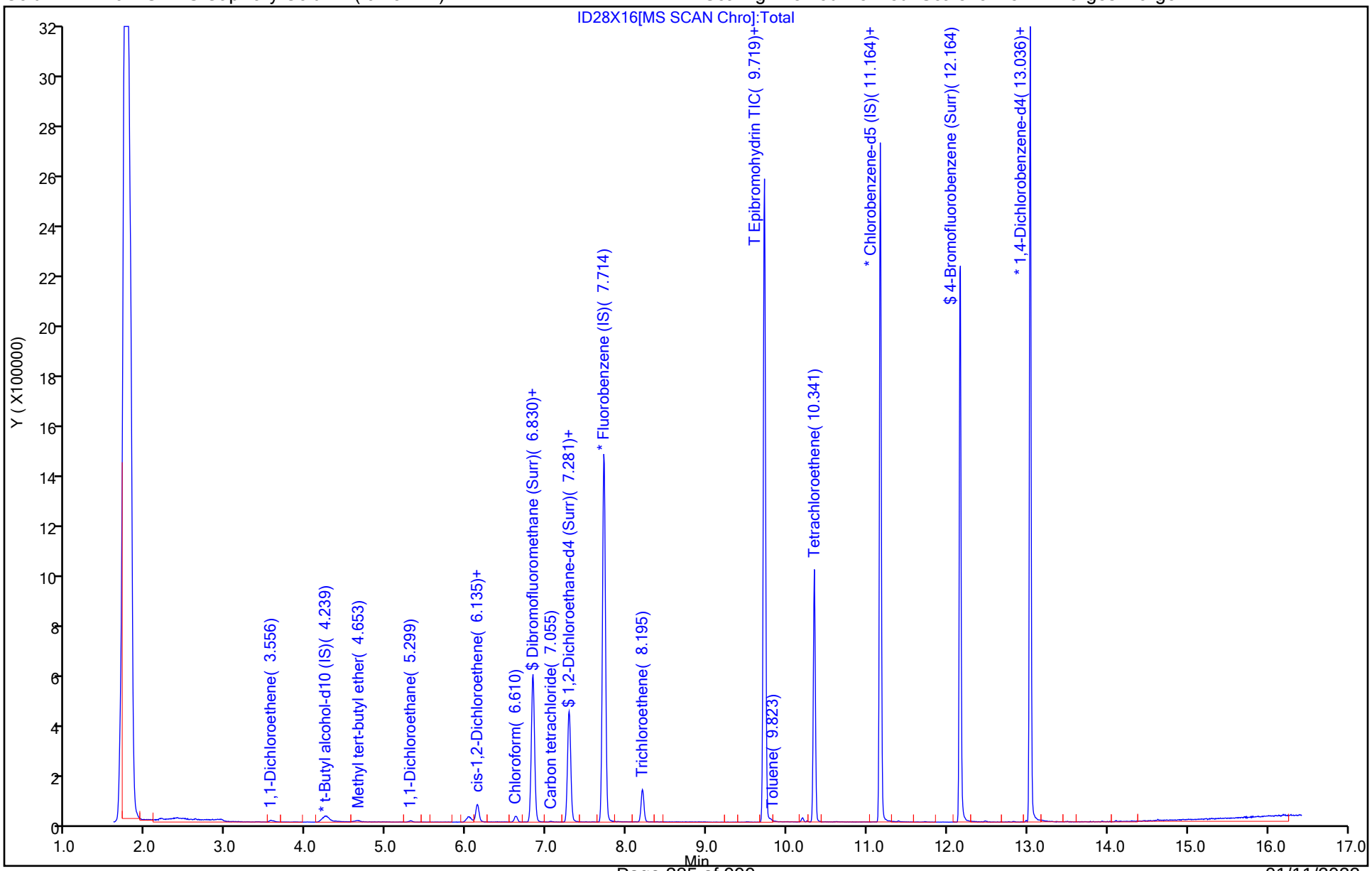
MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 28-Dec-2021 17:58:40 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D				
Injection Date:	28-Dec-2021 15:34:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-A-6	Lab Sample ID:	410-67460-6	Worklist Smp#:	17
Client ID:	HD-COD-SW-15-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D
Lims ID: 410-67460-A-6
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 15:34:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-017
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

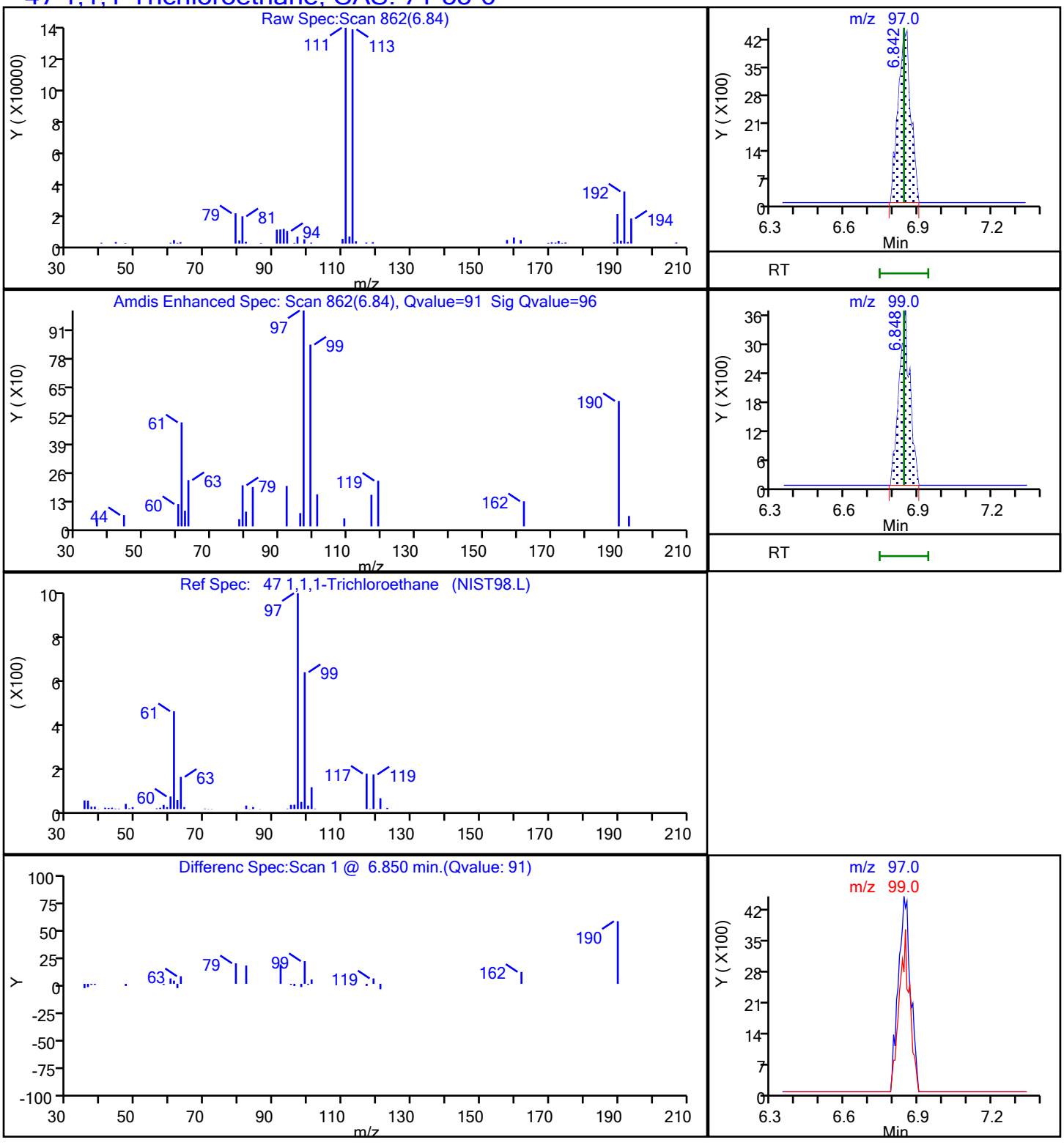
First Level Reviewer: beckerk Date: 28-Dec-2021 17:56:38

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.3	102.84
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.20
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.93
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.25	92.45

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D				
Injection Date:	28-Dec-2021 15:34:30	Instrument ID:	19930		
Lims ID:	410-67460-A-6	Lab Sample ID:	410-67460-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

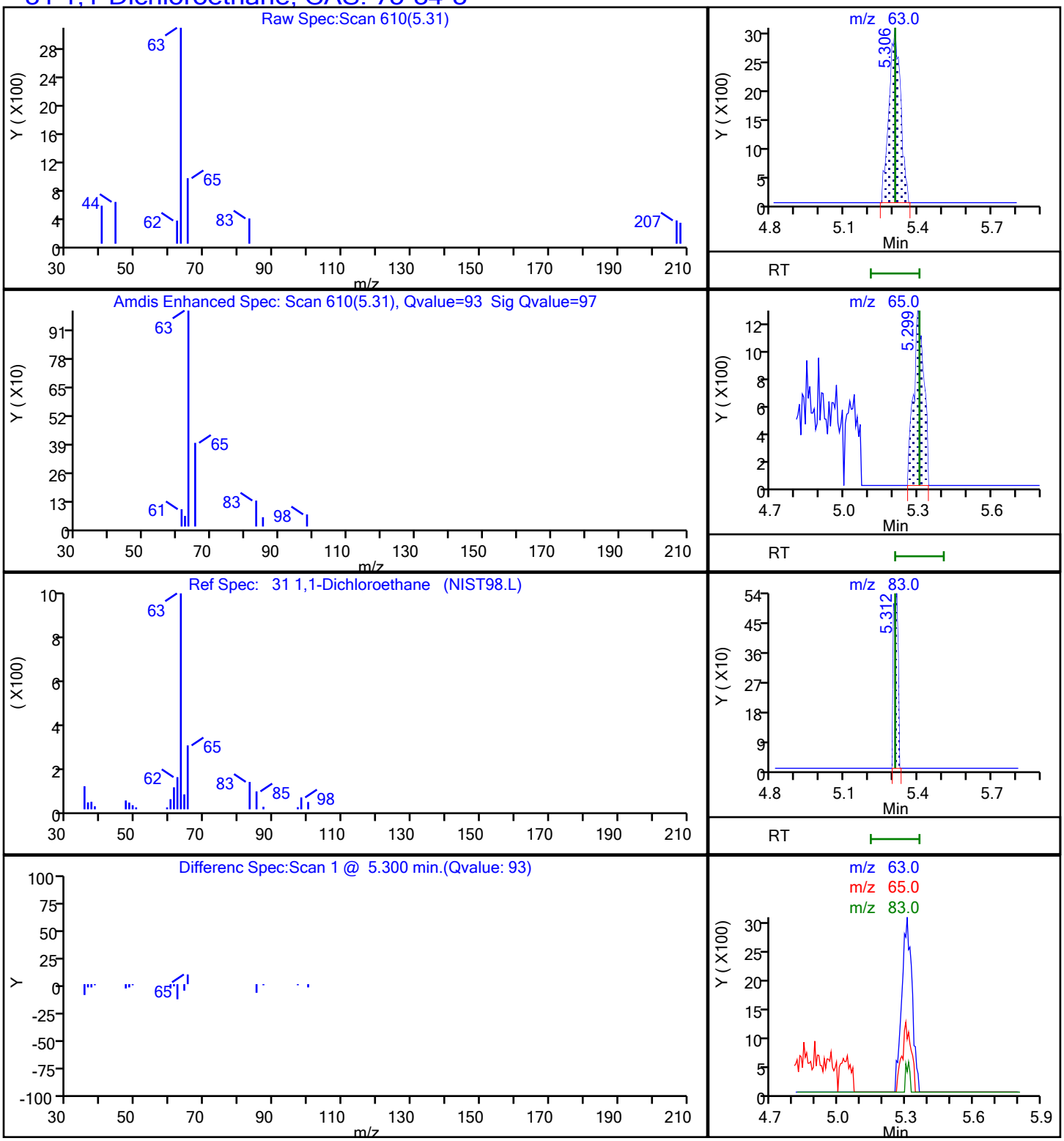
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D				
Injection Date:	28-Dec-2021 15:34:30	Instrument ID:	19930		
Lims ID:	410-67460-A-6	Lab Sample ID:	410-67460-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

31 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 28-Dec-2021 17:58:40 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D

Injection Date: 28-Dec-2021 15:34:30 Instrument ID: 19930

Lims ID: 410-67460-A-6 Lab Sample ID: 410-67460-6

Client ID: HD-COD-SW-15-0/1-0

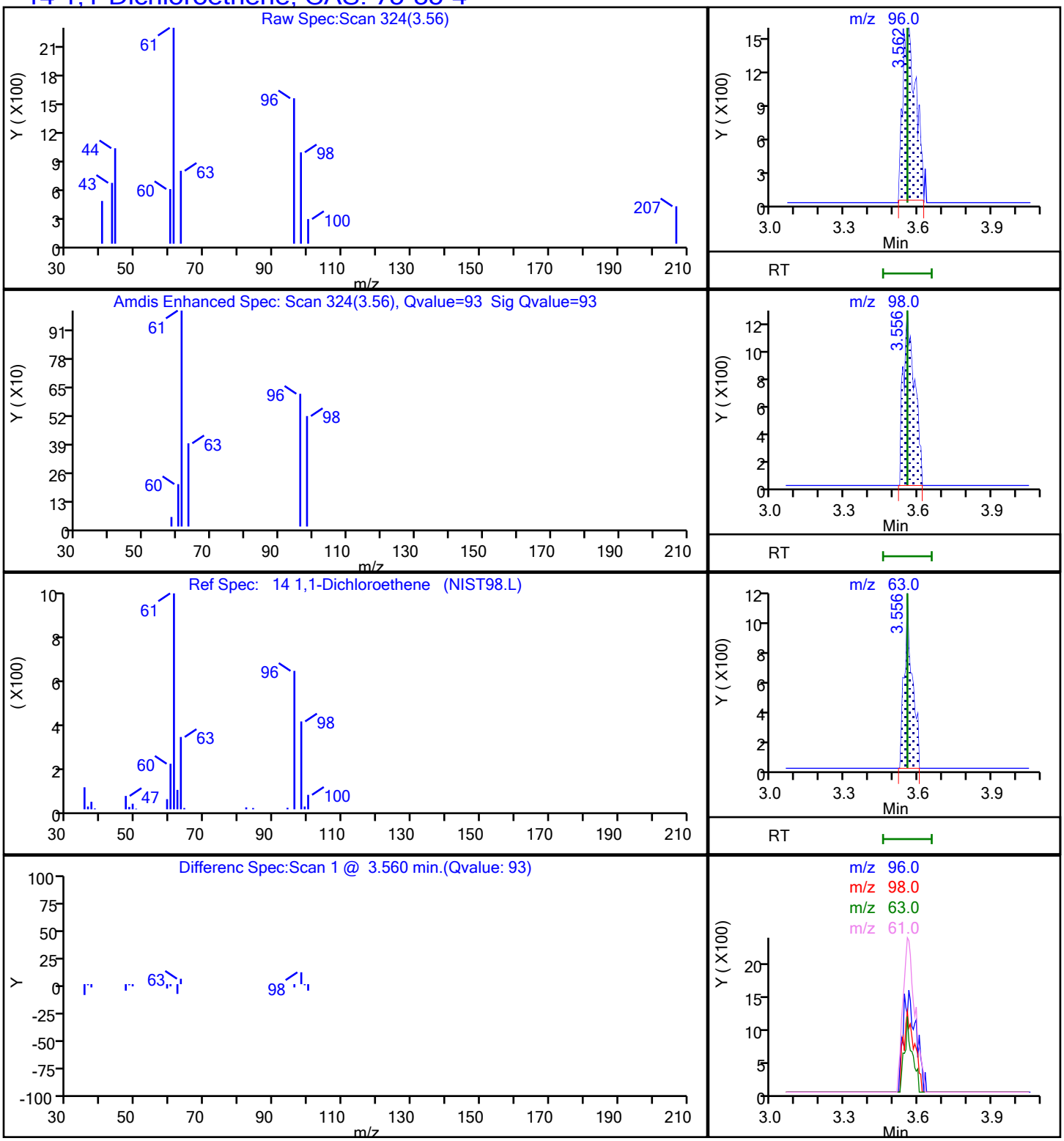
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 28-Dec-2021 17:58:40 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D

Injection Date: 28-Dec-2021 15:34:30 Instrument ID: 19930

Lims ID: 410-67460-A-6 Lab Sample ID: 410-67460-6

Client ID: HD-COD-SW-15-0/1-0

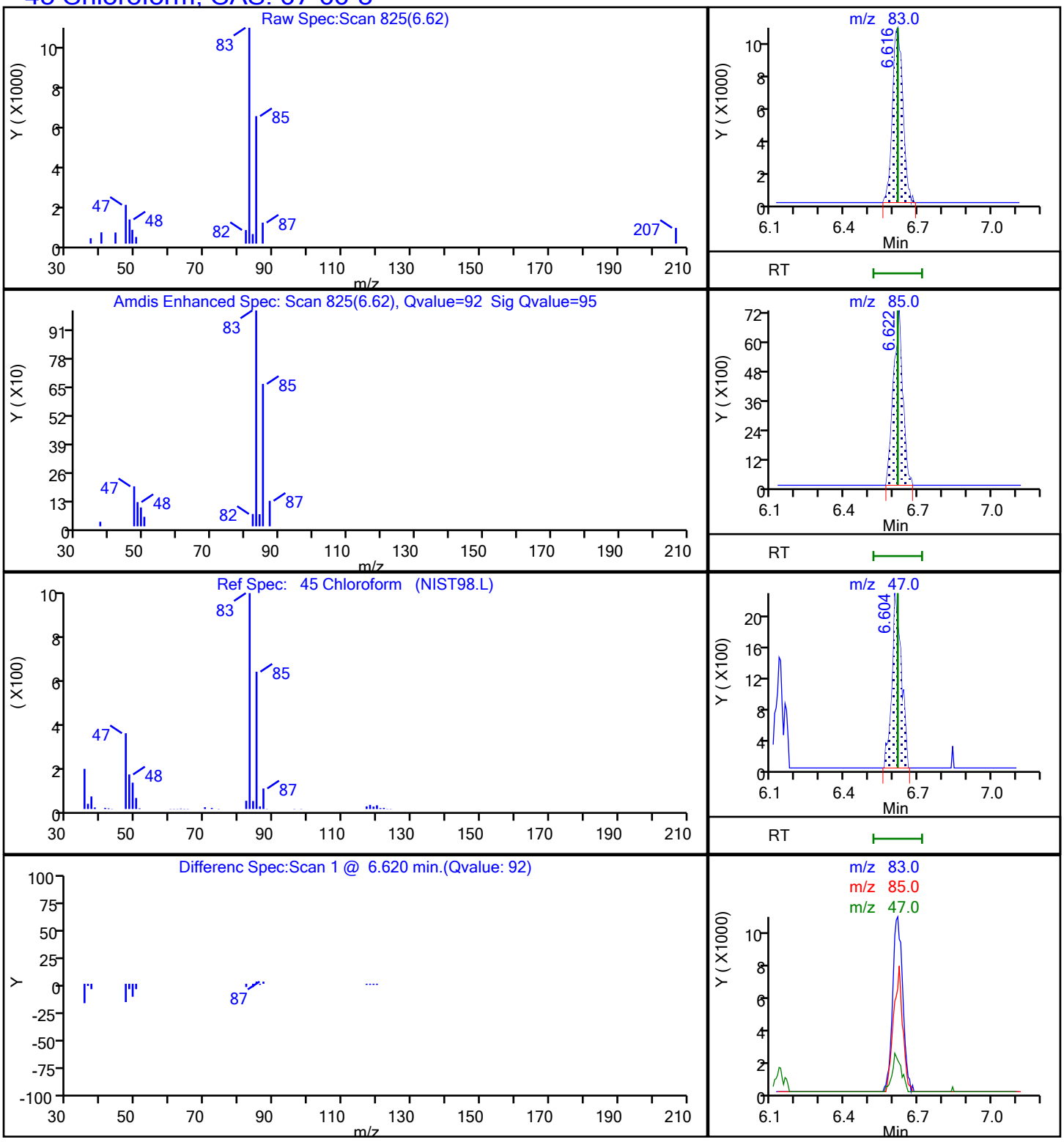
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

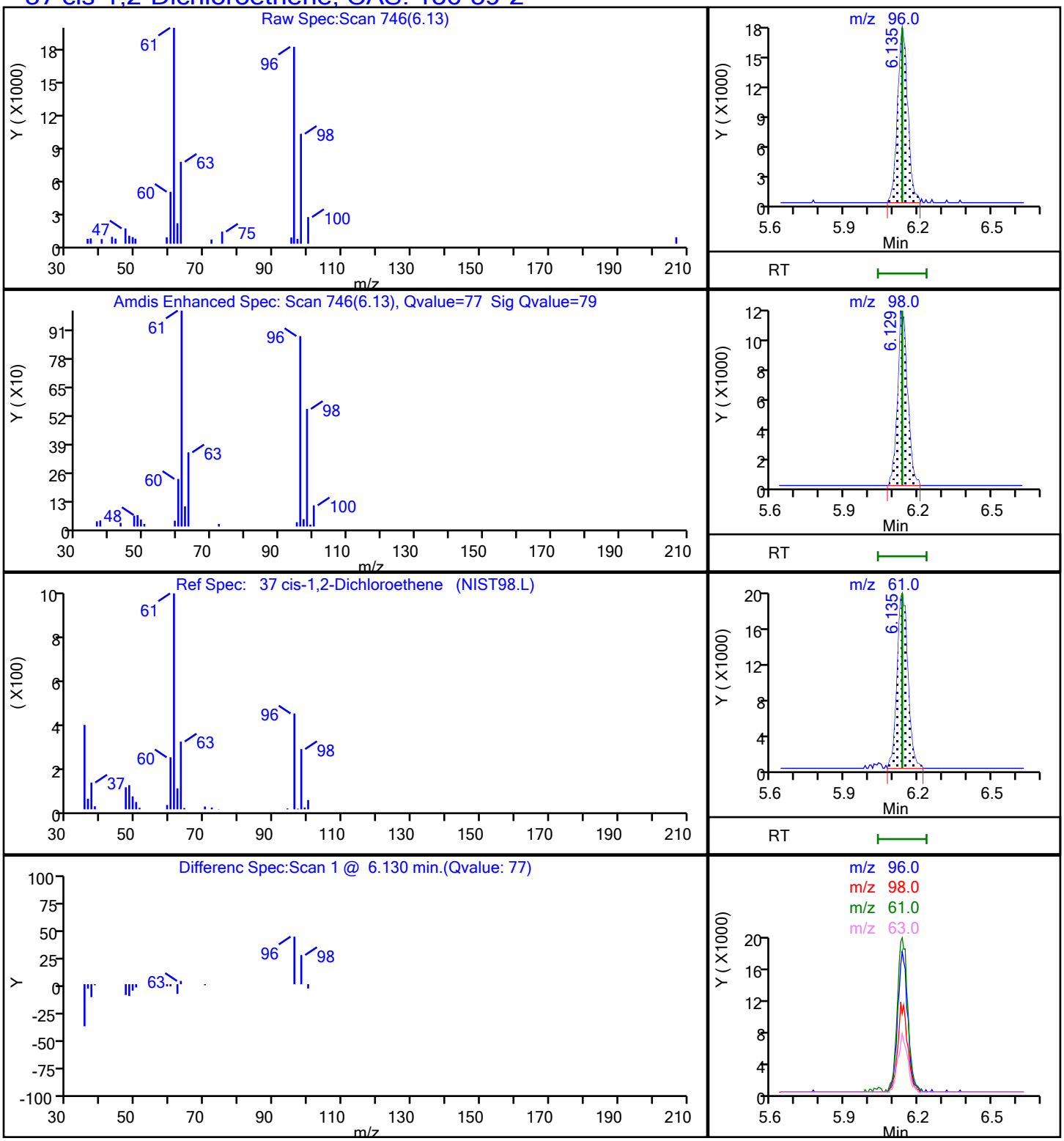
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D				
Injection Date:	28-Dec-2021 15:34:30	Instrument ID:	19930		
Lims ID:	410-67460-A-6	Lab Sample ID:	410-67460-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

37 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 28-Dec-2021 17:58:40 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D

Injection Date: 28-Dec-2021 15:34:30 Instrument ID: 19930

Lims ID: 410-67460-A-6 Lab Sample ID: 410-67460-6

Client ID: HD-COD-SW-15-0/1-0

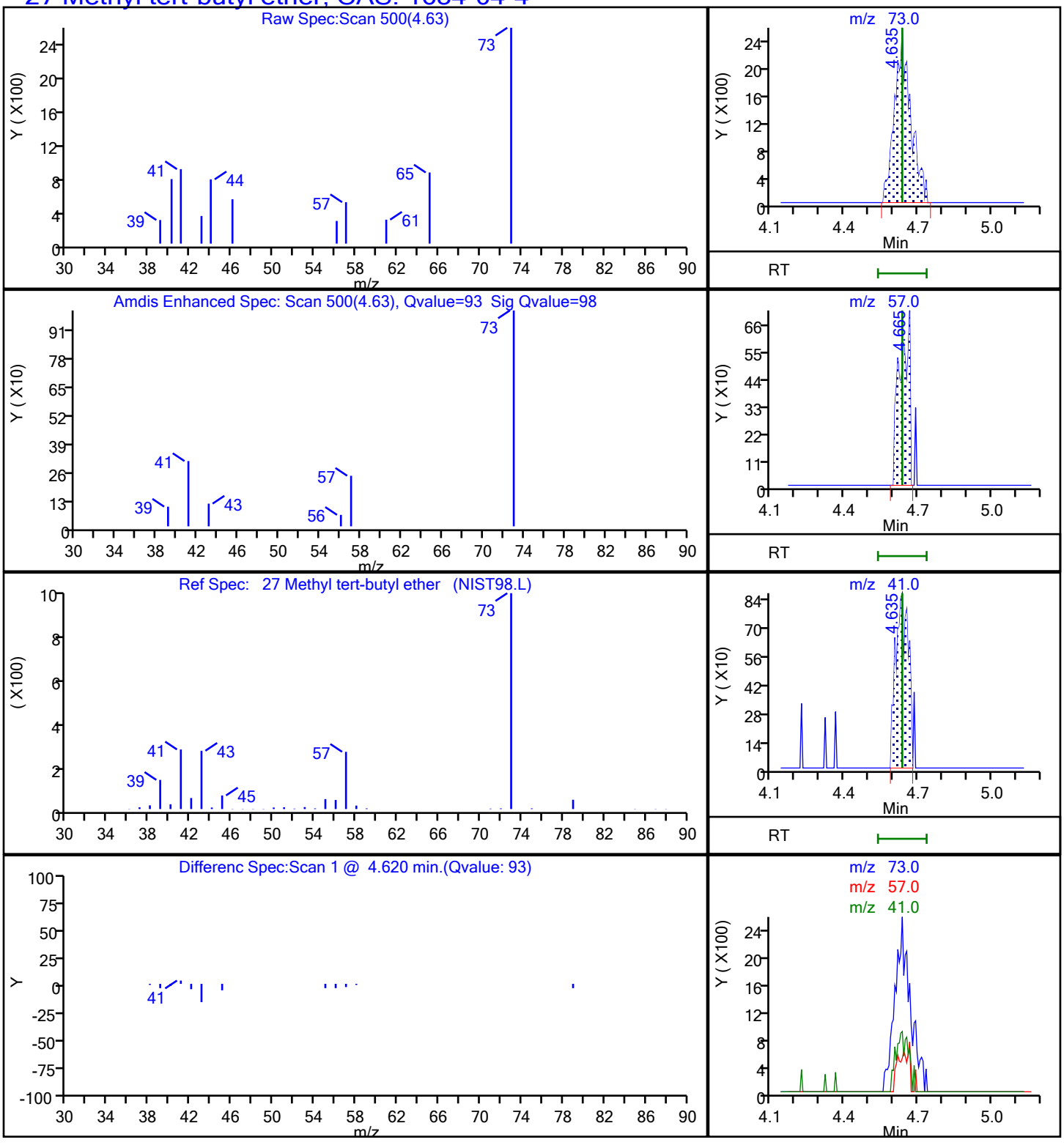
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

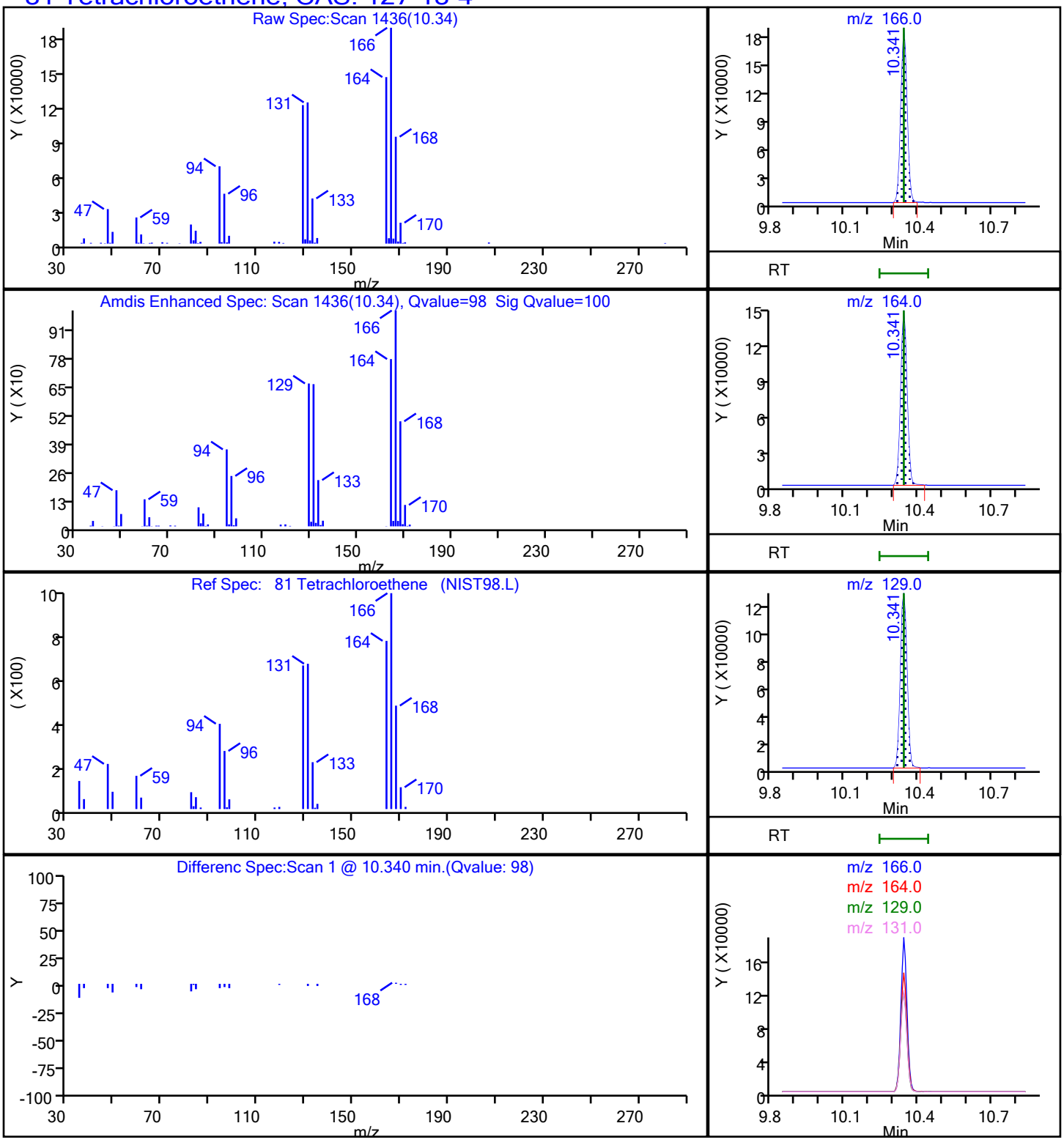
27 Methyl tert-butyl ether, CAS: 1634-04-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D				
Injection Date:	28-Dec-2021 15:34:30	Instrument ID:	19930		
Lims ID:	410-67460-A-6	Lab Sample ID:	410-67460-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

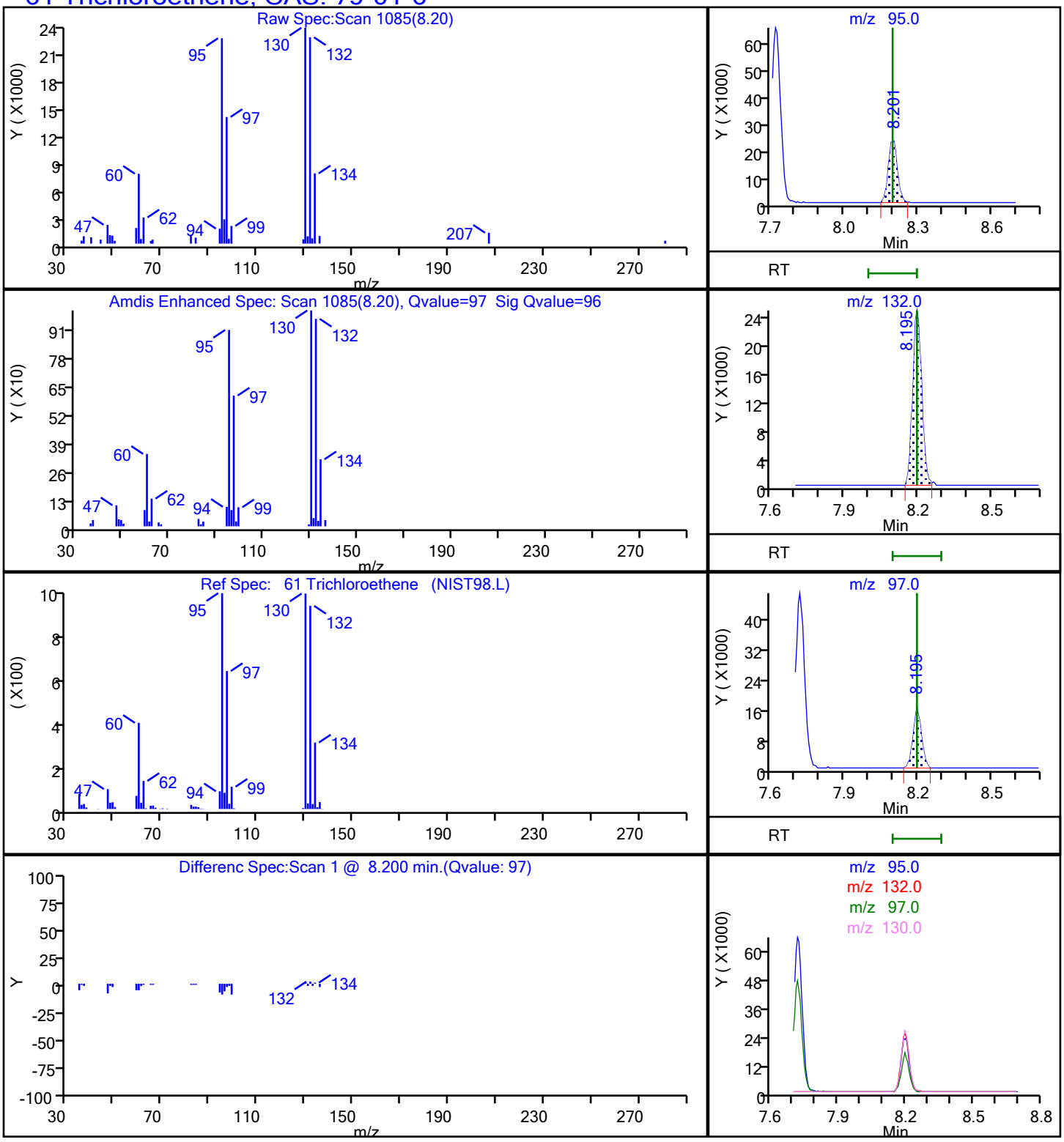
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D				
Injection Date:	28-Dec-2021 15:34:30	Instrument ID:	19930		
Lims ID:	410-67460-A-6	Lab Sample ID:	410-67460-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D				
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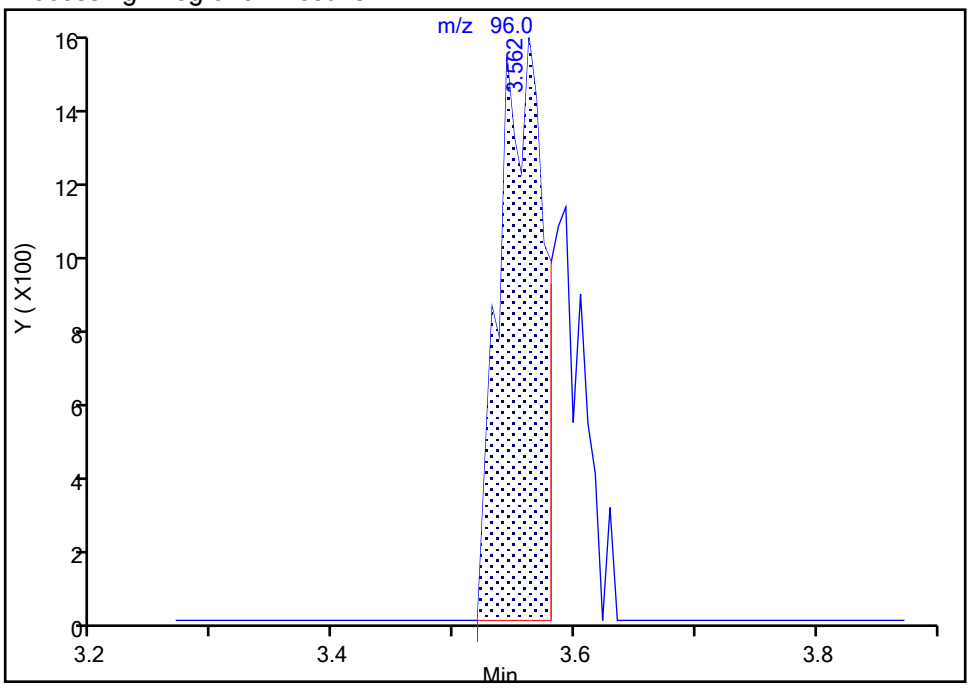
Lims ID:	410-67460-A-6	Lab Sample ID:	410-67460-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

14 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

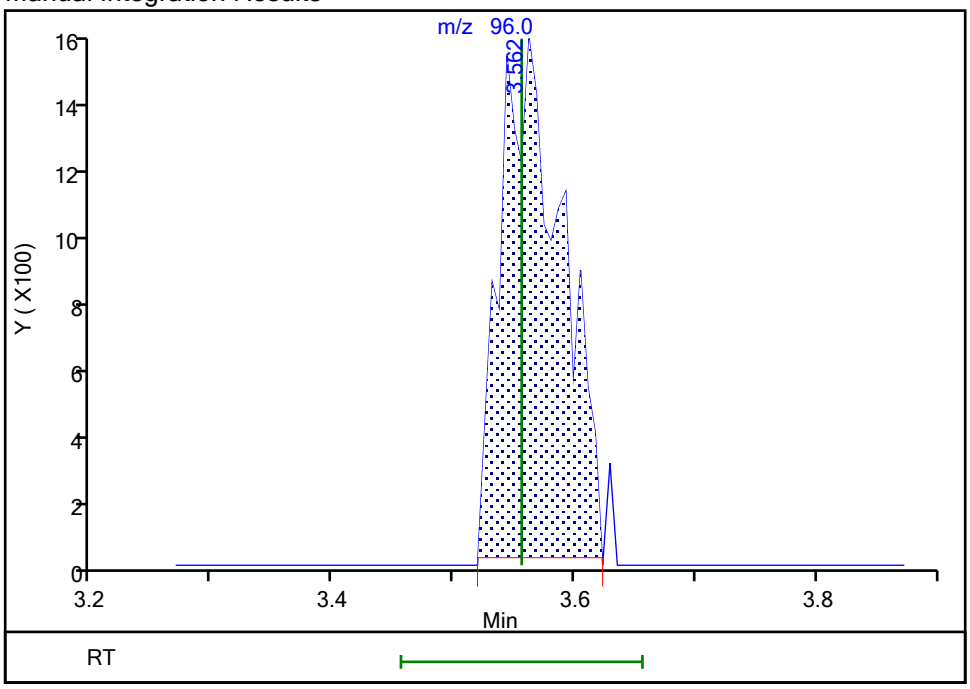
Processing Integration Results

RT: 3.56
Area: 3911
Amount: 0.085897
Amount Units: ug/l



Manual Integration Results

RT: 3.56
Area: 5373
Amount: 0.118007
Amount Units: ug/l



Reviewer: beckerk, 28-Dec-2021 17:56:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

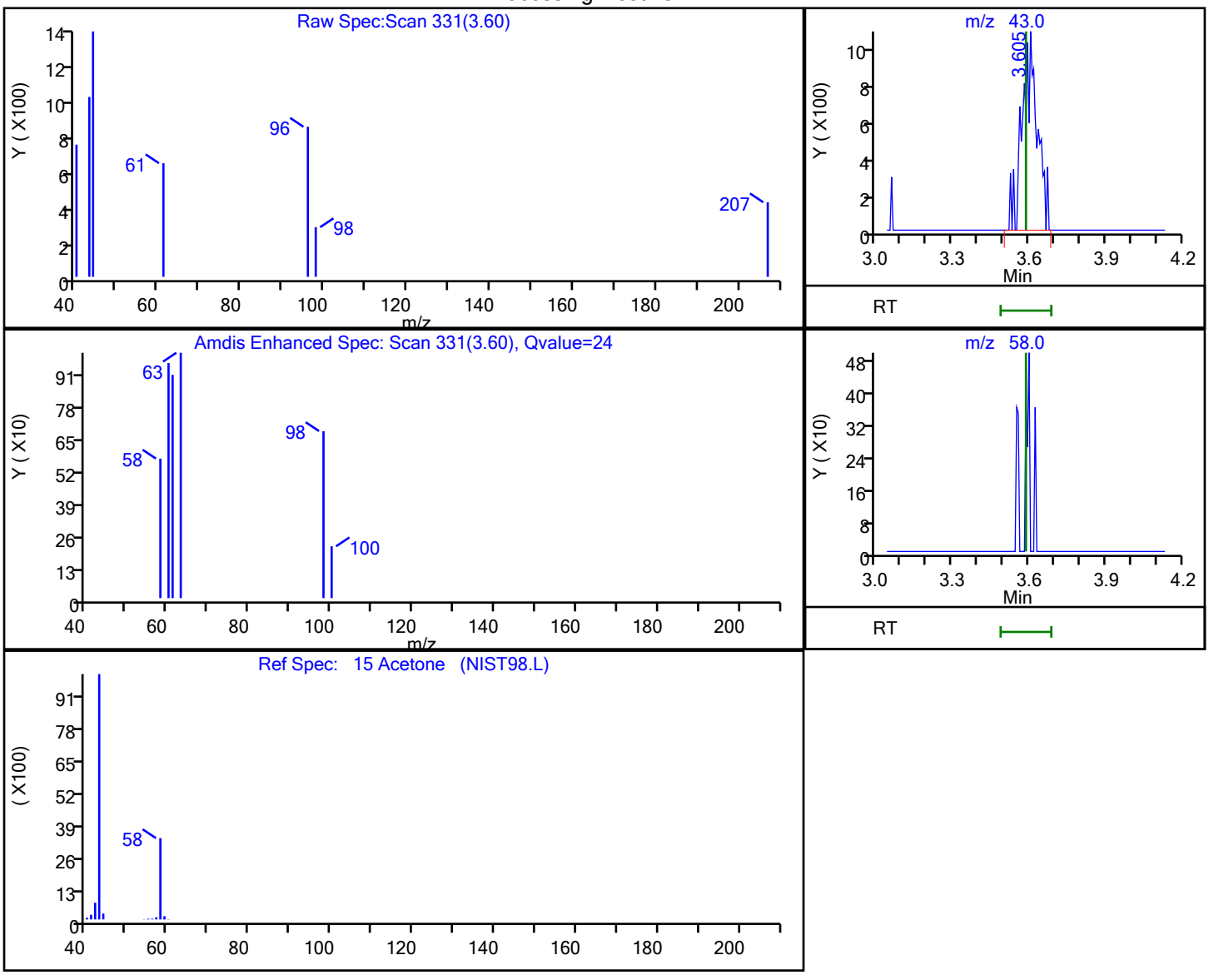
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X16.D				
Injection Date:	28-Dec-2021 15:34:30	Instrument ID:	19930		
Lims ID:	410-67460-A-6	Lab Sample ID:	410-67460-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1

Processing Results



RT	Mass	Response	Amount
3.60	43.00	4214	0.611560
3.59	58.00	0	

Reviewer: beckerk, 28-Dec-2021 17:56:10

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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-67460-7

Matrix: Water Lab File ID: ID28X20.D

Analysis Method: 8260D Date Collected: 12/17/2021 09:25

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 17:00

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.: 209587 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	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	2.3	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	cn	1.0	0.30
74-83-9	Bromomethane	ND	^c 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	^c cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	0.071	J ^c cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.15	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	0.71	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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-67460-7

Matrix: Water Lab File ID: ID28X20.D

Analysis Method: 8260D Date Collected: 12/17/2021 09:25

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 17:00

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.18	J cn	0.50	0.060
75-01-4	Vinyl chloride	ND	^c 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)	107	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	92	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	101	cn	80-120
2037-26-5	Toluene-d8 (Surr)	101	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D
Lims ID: 410-67460-A-7
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 28-Dec-2021 17:00:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-021
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

First Level Reviewer: beckerk Date: 28-Dec-2021 17:57:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.172	2.166	0.006	95	5050	0.0706	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.617				ND	7
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.611	3.586	0.025	87	15697	2.33	
19 Carbon disulfide	76	3.873	3.861	0.012	99	6238	0.0472	
23 Methylene Chloride	84		4.226				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	30	121415	50.0	
27 Methyl tert-butyl ether	73	4.653	4.635	0.018	83	5227	0.0382	
28 trans-1,2-Dichloroethene	96		4.647				ND	
31 1,1-Dichloroethane	63		5.306				ND	
36 2-Butanone (MEK)	43		6.098				ND	U
37 cis-1,2-Dichloroethene	96	6.141	6.135	0.006	78	9360	0.1543	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.629	6.616	0.013	88	4949	0.0506	
$ 46 Dibromofluoromethane (Surr)	113	6.836	6.830	0.006	94	513256	10.1	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	35	3857	0.0424	
50 Carbon tetrachloride	117		7.055				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.281	0.006	67	107845	10.7	
54 Benzene	78		7.311				ND	
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.720	7.714	0.006	99	2008084	10.0	
61 Trichloroethene	95	8.202	8.195	0.007	95	10846	0.1787	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.866				ND	
73 cis-1,3-Dichloropropene	75		9.408				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579				ND	7
$ 75 Toluene-d8 (Surr)	98	9.720	9.719	0.001	93	2117042	10.1	
76 Toluene	92	9.793	9.792	0.001	98	6978	0.0447	
78 trans-1,3-Dichloropropene	75		10.048				ND	
80 1,1,2-Trichloroethane	97		10.250				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.341	10.341	0.000	97	52894	0.7105	
83 2-Hexanone	43		10.457				ND	7
85 Chlorodibromomethane	129		10.628				ND	
86 Ethylene Dibromide	107		10.737				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1630027	10.0	
90 Chlorobenzene	112		11.189				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.274				ND	7
93 m-Xylene & p-Xylene	106		11.390				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.731				ND	
96 Bromoform	173		11.890				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	737655	9.16	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	896587	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

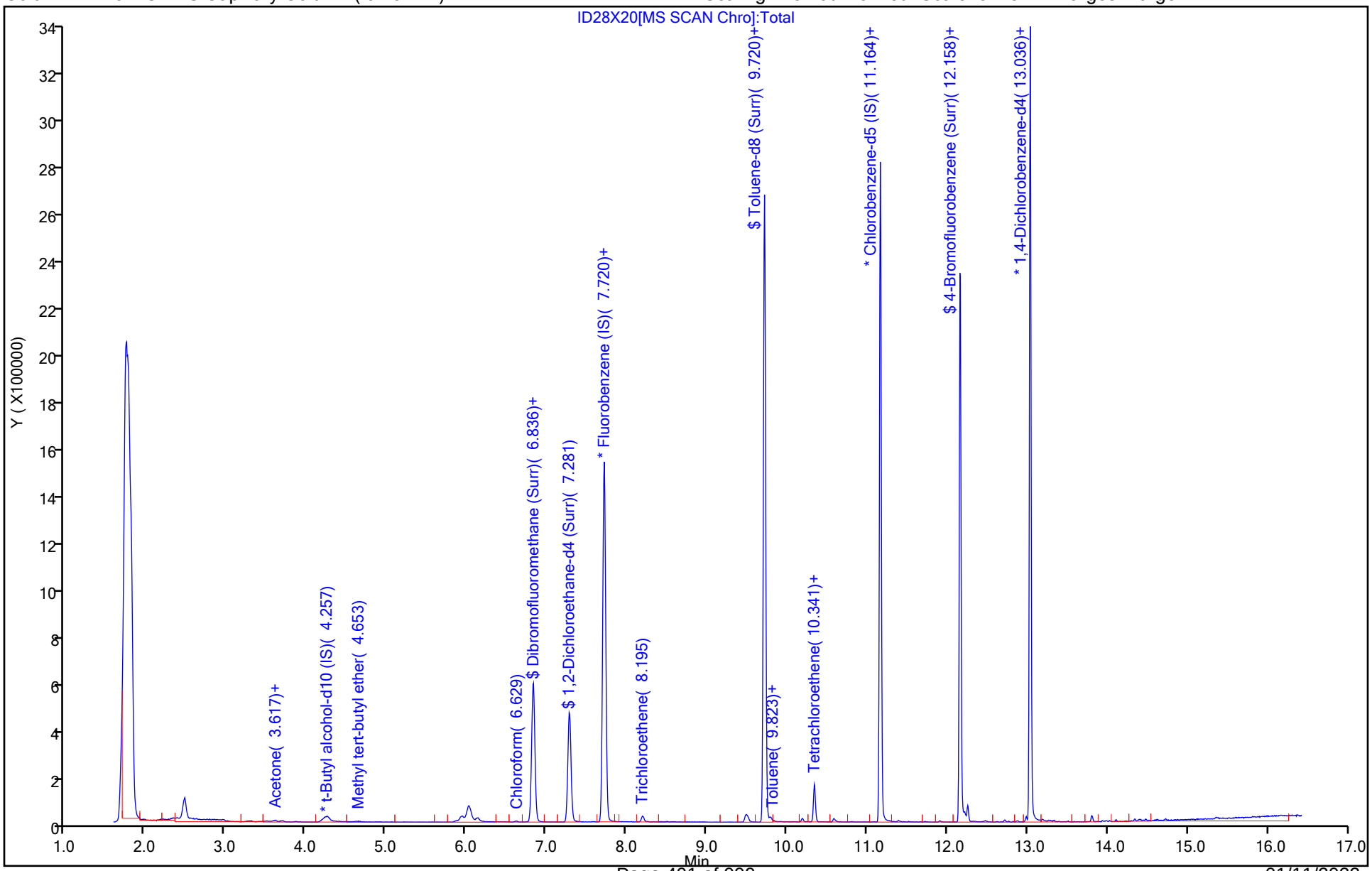
Report Date: 28-Dec-2021 17:58:26 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D

Injection Date:	28-Dec-2021 17:00:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-A-7	Lab Sample ID:	410-67460-7	Worklist Smp#:	21
Client ID:	HD-COD-SW-16-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D				
Lims ID:	410-67460-A-7				
Client ID:	HD-COD-SW-16-0/1-0				
Sample Type:	Client				
Inject. Date:	28-Dec-2021 17:00:30	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047269-021				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Dec-2021 17:57:17	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:	CTX1668				

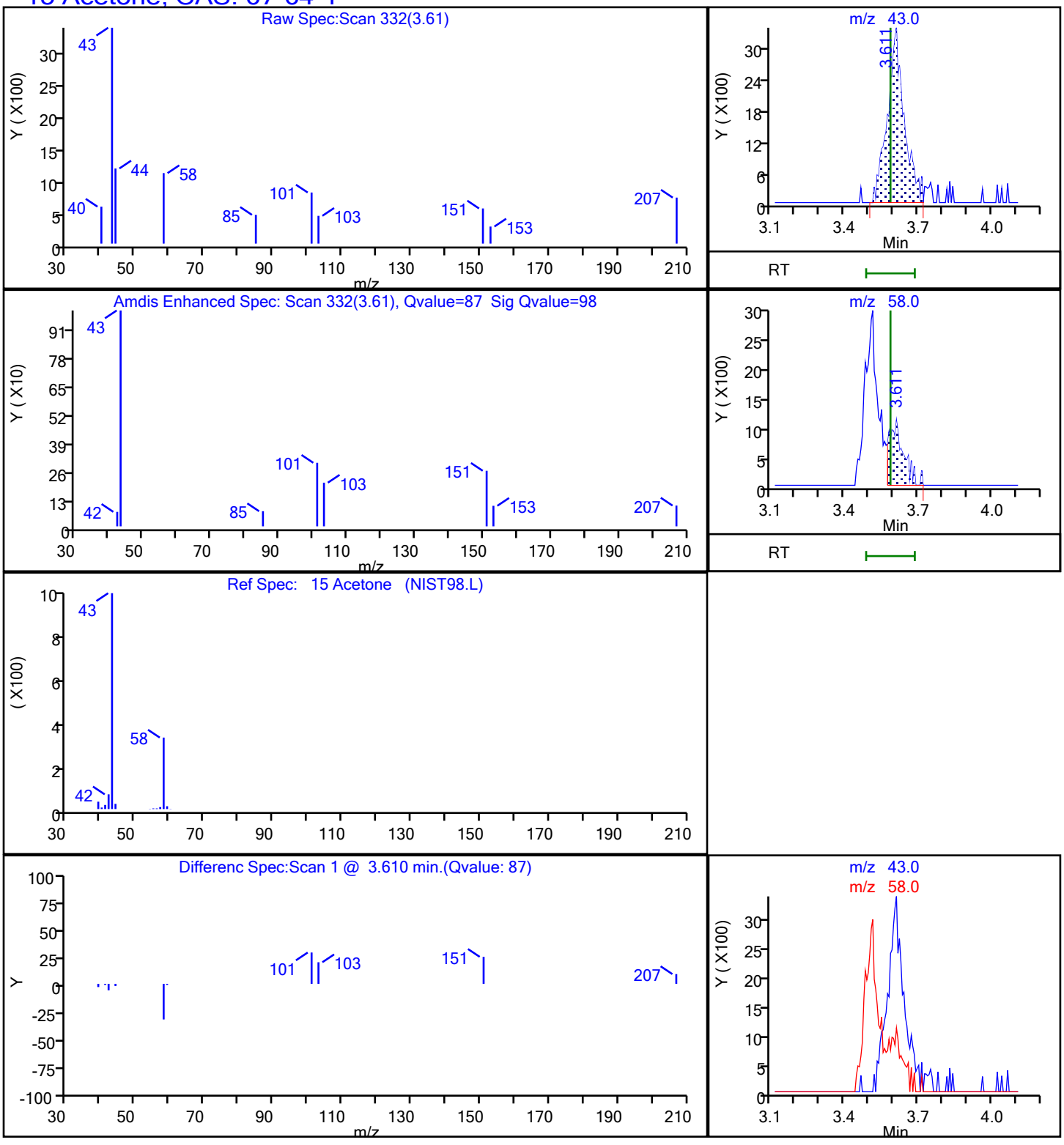
First Level Reviewer: beckerk Date: 28-Dec-2021 17:57:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.1	101.46
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.57
$ 75 Toluene-d8 (Surr)	10.0	10.1	100.50
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.16	91.63

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D				
Injection Date:	28-Dec-2021 17:00:30	Instrument ID:	19930		
Lims ID:	410-67460-A-7	Lab Sample ID:	410-67460-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1



Report Date: 28-Dec-2021 17:58:26 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D

Injection Date: 28-Dec-2021 17:00:30 Instrument ID: 19930

Lims ID: 410-67460-A-7 Lab Sample ID: 410-67460-7

Client ID: HD-COD-SW-16-0/1-0

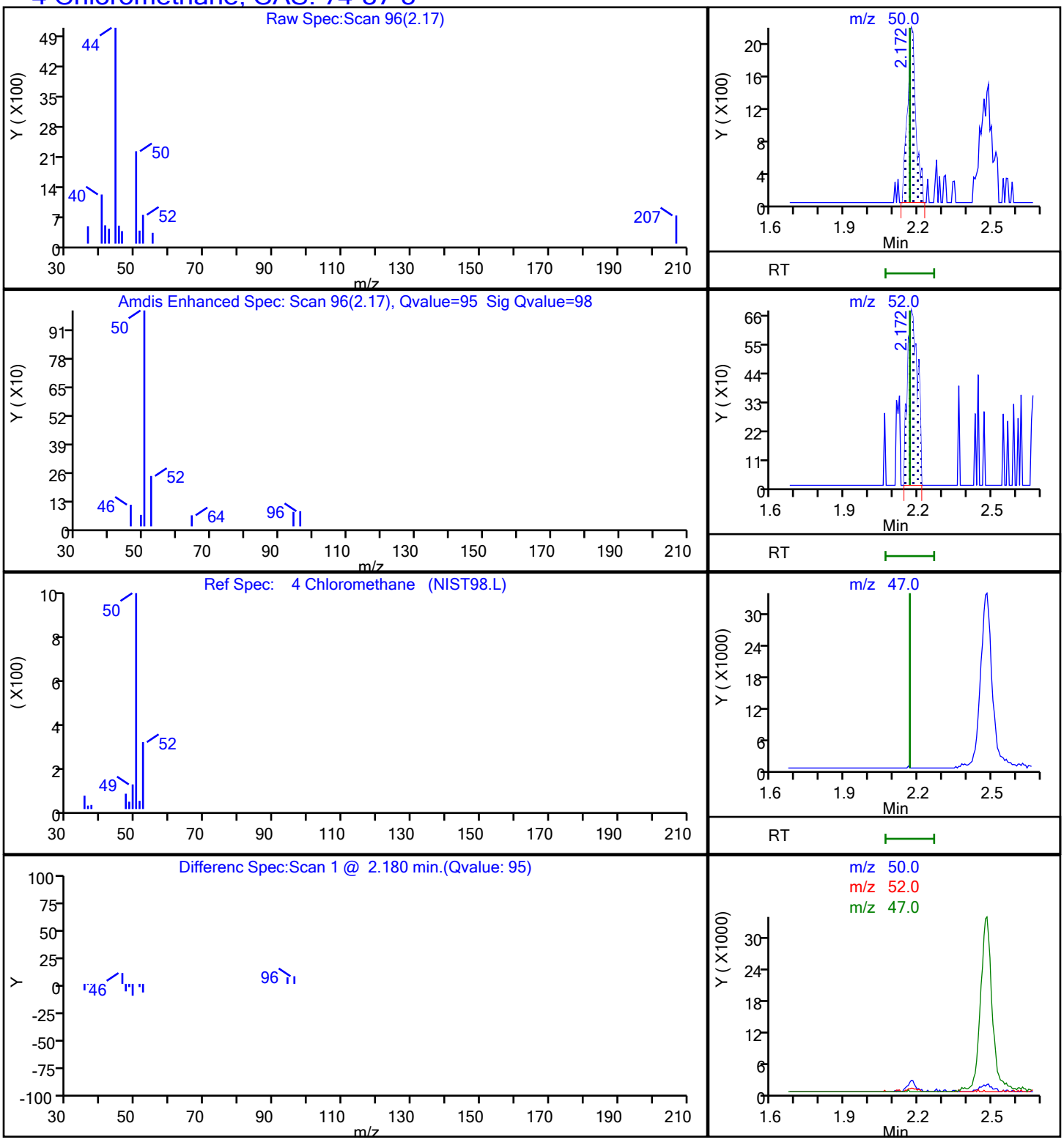
Operator ID: KNK41612 ALS Bottle#: 20 Worklist Smp#: 21

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

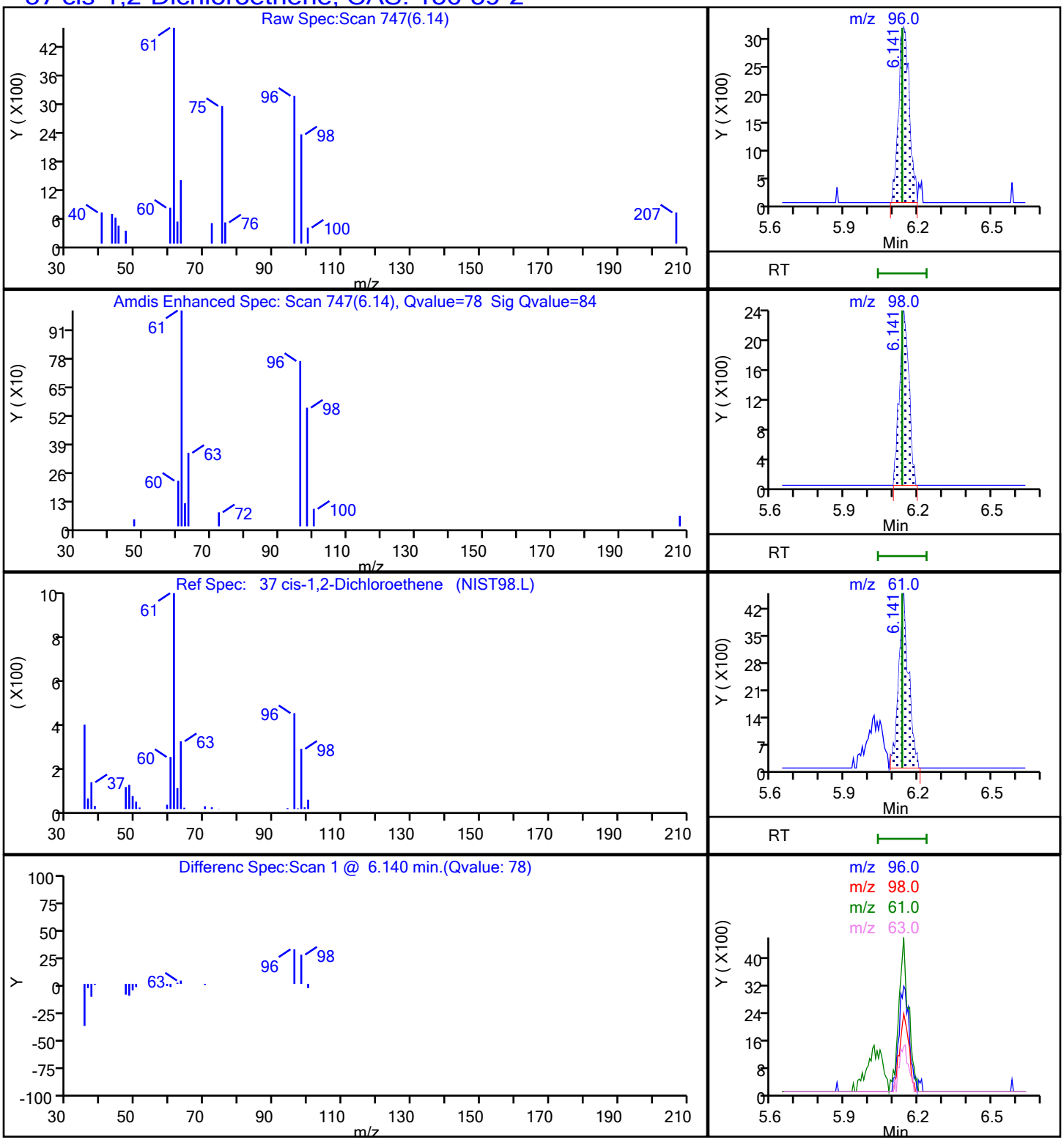
4 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D				
Injection Date:	28-Dec-2021 17:00:30	Instrument ID:	19930		
Lims ID:	410-67460-A-7	Lab Sample ID:	410-67460-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

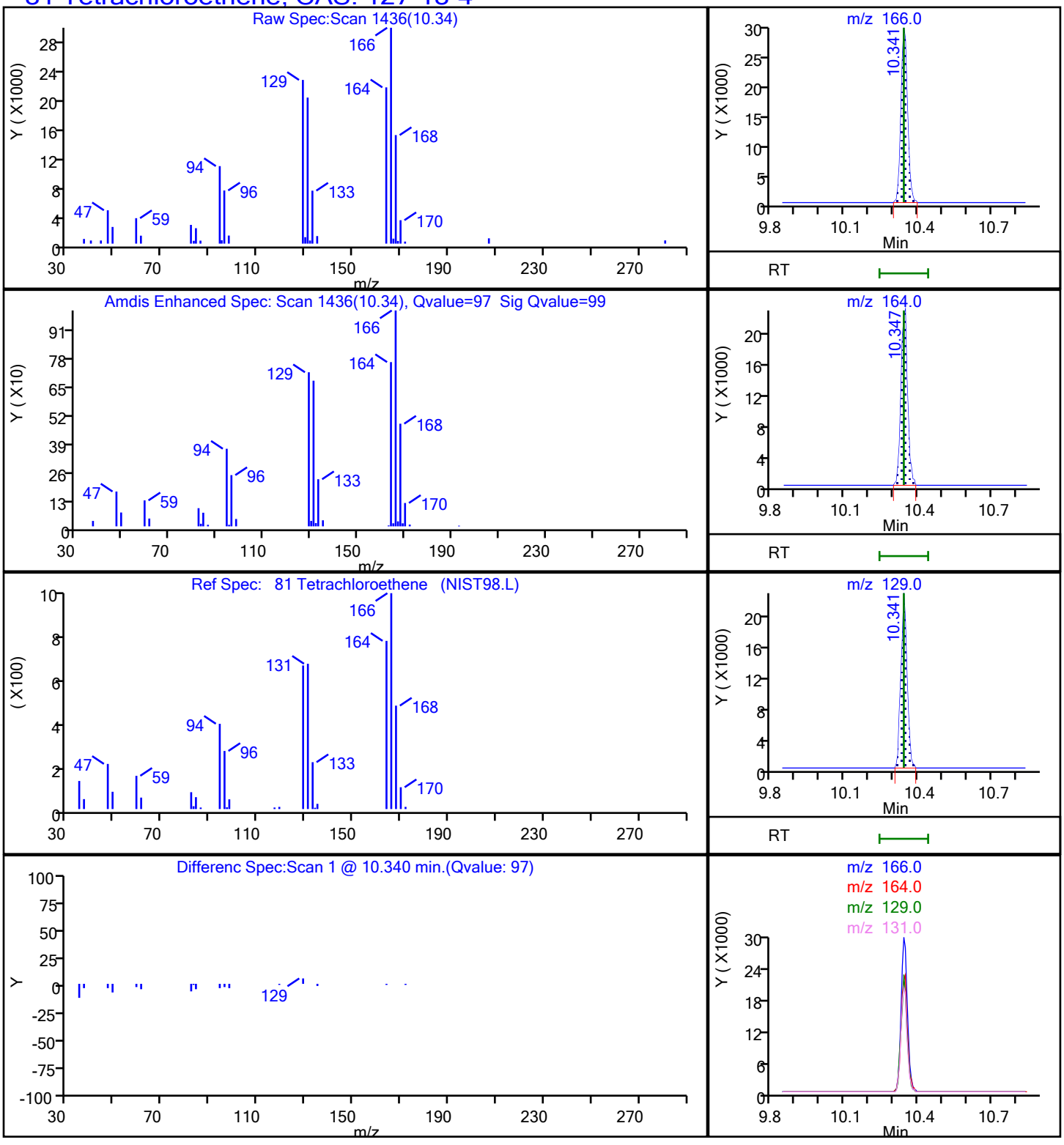
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D				
Injection Date:	28-Dec-2021 17:00:30	Instrument ID:	19930		
Lims ID:	410-67460-A-7	Lab Sample ID:	410-67460-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

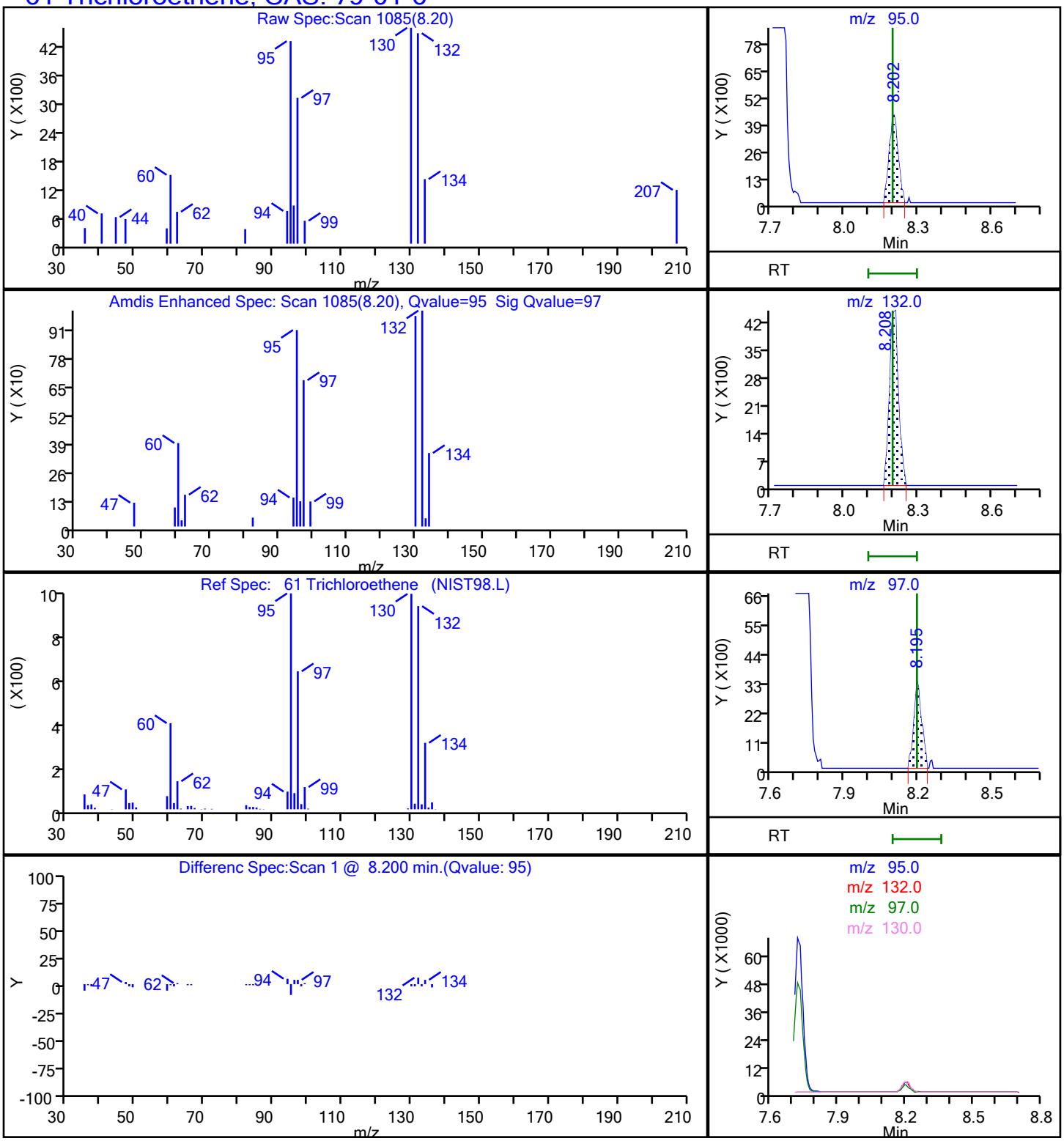
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D				
Injection Date:	28-Dec-2021 17:00:30	Instrument ID:	19930		
Lims ID:	410-67460-A-7	Lab Sample ID:	410-67460-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



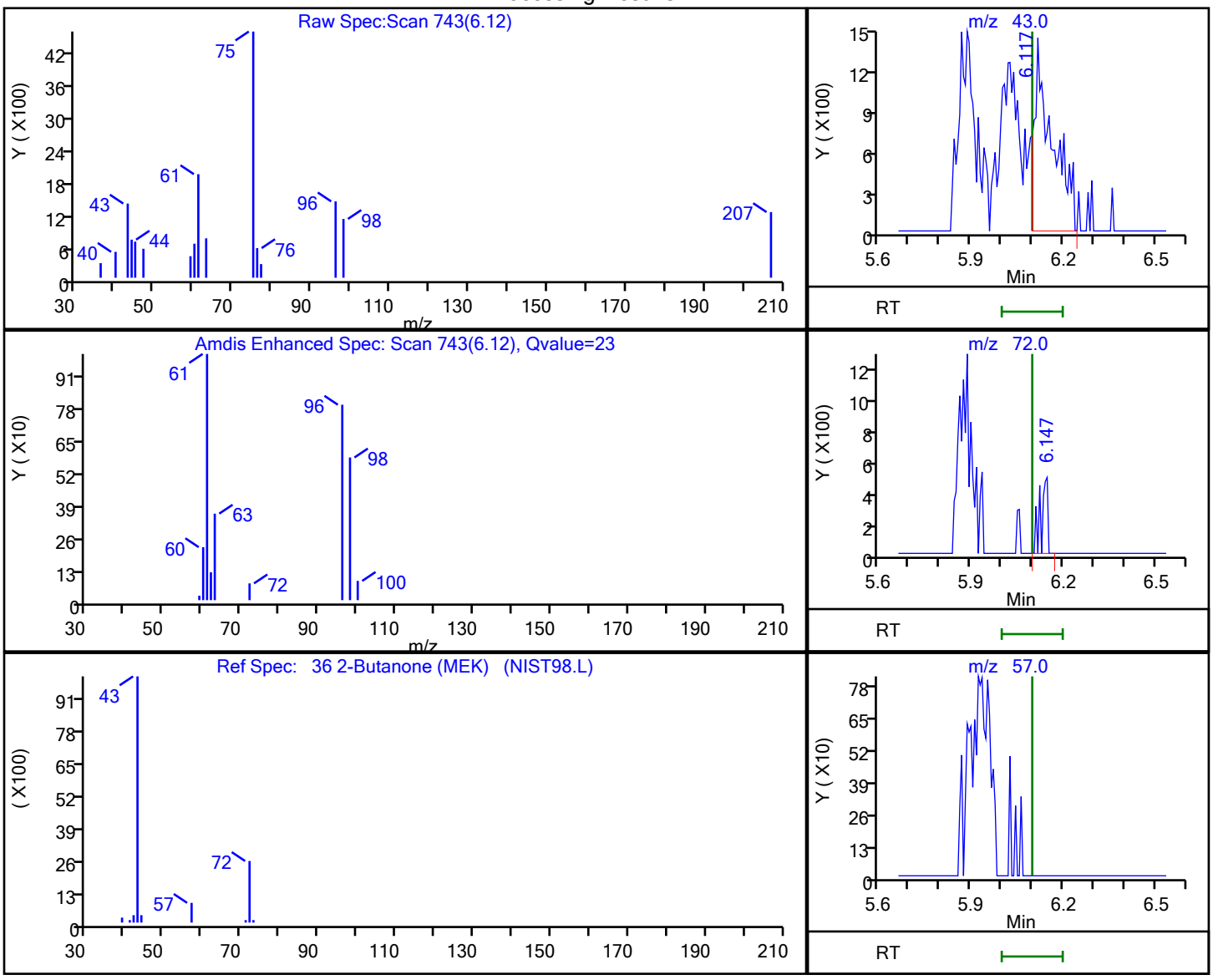
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X20.D				
Injection Date:	28-Dec-2021 17:00:30	Instrument ID:	19930		
Lims ID:	410-67460-A-7	Lab Sample ID:	410-67460-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.12	43.00	5475	0.464877
6.15	72.00	711	
6.10	57.00	0	

Reviewer: beckerk, 28-Dec-2021 17:57:04

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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-67460-8

Matrix: Water Lab File ID: IJ05X16.D

Analysis Method: 8260D Date Collected: 12/17/2021 09:35

Sample wt/vol: 25(mL) Date Analyzed: 01/05/2022 14:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 211830 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	H cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	2.8	H cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	*+ H cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	H *+ cn	0.50	0.060
75-34-3	1,1-Dichloroethane	0.56	H cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.32	J H cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	H cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	H cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	H ^c *+ cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	H ^c cn	5.0	0.60
591-78-6	2-Hexanone	ND	*+ H ^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	H ^c cn	5.0	0.70
67-64-1	Acetone	1.2	J H cn	5.0	0.90
71-43-2	Benzene	ND	H cn	0.50	0.050
74-97-5	Bromochloromethane	ND	H cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	H cn	0.50	0.050
75-25-2	Bromoform	ND	H ^c cn	1.0	0.30
74-83-9	Bromomethane	ND	H cn	0.50	0.070
75-15-0	Carbon disulfide	0.073	J H cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	H cn	0.50	0.070
108-90-7	Chlorobenzene	ND	H cn	0.50	0.060
75-00-3	Chloroethane	ND	H cn	0.50	0.070
67-66-3	Chloroform	0.30	J H cn	0.50	0.090
74-87-3	Chloromethane	ND	H cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	2.5	H cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	H cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	H cn	0.50	0.070
100-41-4	Ethylbenzene	ND	H cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	0.060	J H cn	0.50	0.050

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-67460-8

Matrix: Water Lab File ID: IJ05X16.D

Analysis Method: 8260D Date Collected: 12/17/2021 09:35

Sample wt/vol: 25(mL) Date Analyzed: 01/05/2022 14:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 211830 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-09-2	Methylene Chloride	ND	H cn	0.50	0.070
100-42-5	Styrene	ND	H cn	0.50	0.050
108-88-3	Toluene	ND	H cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	H cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	H cn	0.50	0.060
79-01-6	Trichloroethene	4.5	H cn	0.50	0.060
75-01-4	Vinyl chloride	ND	H cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	H 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)	94	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	100	cn	80-120
2037-26-5	Toluene-d8 (Surr)	102	cn	80-120

Eurofins Lancaster Laboratories Environment Testing LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D
Lims ID: 410-67460-C-8
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 05-Jan-2022 14:12:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047767-017
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 05-Jan-2022 12:35:07 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: CTX1610

First Level Reviewer: spositok Date: 05-Jan-2022 14:46:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.154	2.172	-0.018	1	2908	0.0388	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.708				ND	7
14 1,1-Dichloroethene	96	3.556	3.568	-0.012	98	16099	0.3211	
15 Acetone	43	3.611	3.592	0.019	70	9376	1.20	
19 Carbon disulfide	76	3.861	3.873	-0.012	99	10101	0.0730	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.257	-0.024	27	140066	50.0	
27 Methyl tert-butyl ether	73	4.629	4.647	-0.018	84	8616	0.0602	
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63	5.306	5.312	-0.006	96	57839	0.5597	
36 2-Butanone (MEK)	43		6.098				ND	7
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	79	156013	2.46	
43 Chlorobromomethane	128		6.464				ND	
45 Chloroform	83	6.610	6.616	-0.006	92	30550	0.2985	
$ 46 Dibromofluoromethane (Surr)	113	6.824	6.830	-0.006	94	526859	9.96	
47 1,1,1-Trichloroethane	97	6.836	6.842	-0.006	98	267655	2.81	
50 Carbon tetrachloride	117	7.037	7.055	-0.018	18	2923	0.0356	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.275	-0.006	68	111263	10.5	
54 Benzene	78		7.311				ND	
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.714	-0.006	99	2100633	10.0	
61 Trichloroethene	95	8.189	8.195	-0.006	97	283273	4.46	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.866				ND	
73 cis-1,3-Dichloropropene	75		9.408				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579				ND	
$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	2169090	10.2	
76 Toluene	92	9.786	9.792	-0.006	99	6083	0.0384	
78 trans-1,3-Dichloropropene	75		10.042				ND	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	54	1506	0.0356	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.341	-0.006	98	3308527	43.8	E
83 2-Hexanone	43		10.457				ND	
85 Chlorodibromomethane	129		10.622				ND	
86 Ethylene Dibromide	107		10.737				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	85	1653025	10.0	
90 Chlorobenzene	112		11.189				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.274				ND	
92 Ethylbenzene	91		11.274				ND	7
93 m-Xylene & p-Xylene	106		11.390				ND	7
94 o-Xylene	106		11.719				ND	7
95 Styrene	104		11.731				ND	
96 Bromoform	173		11.890				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	97	770383	9.44	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	868693	10.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Reagents:

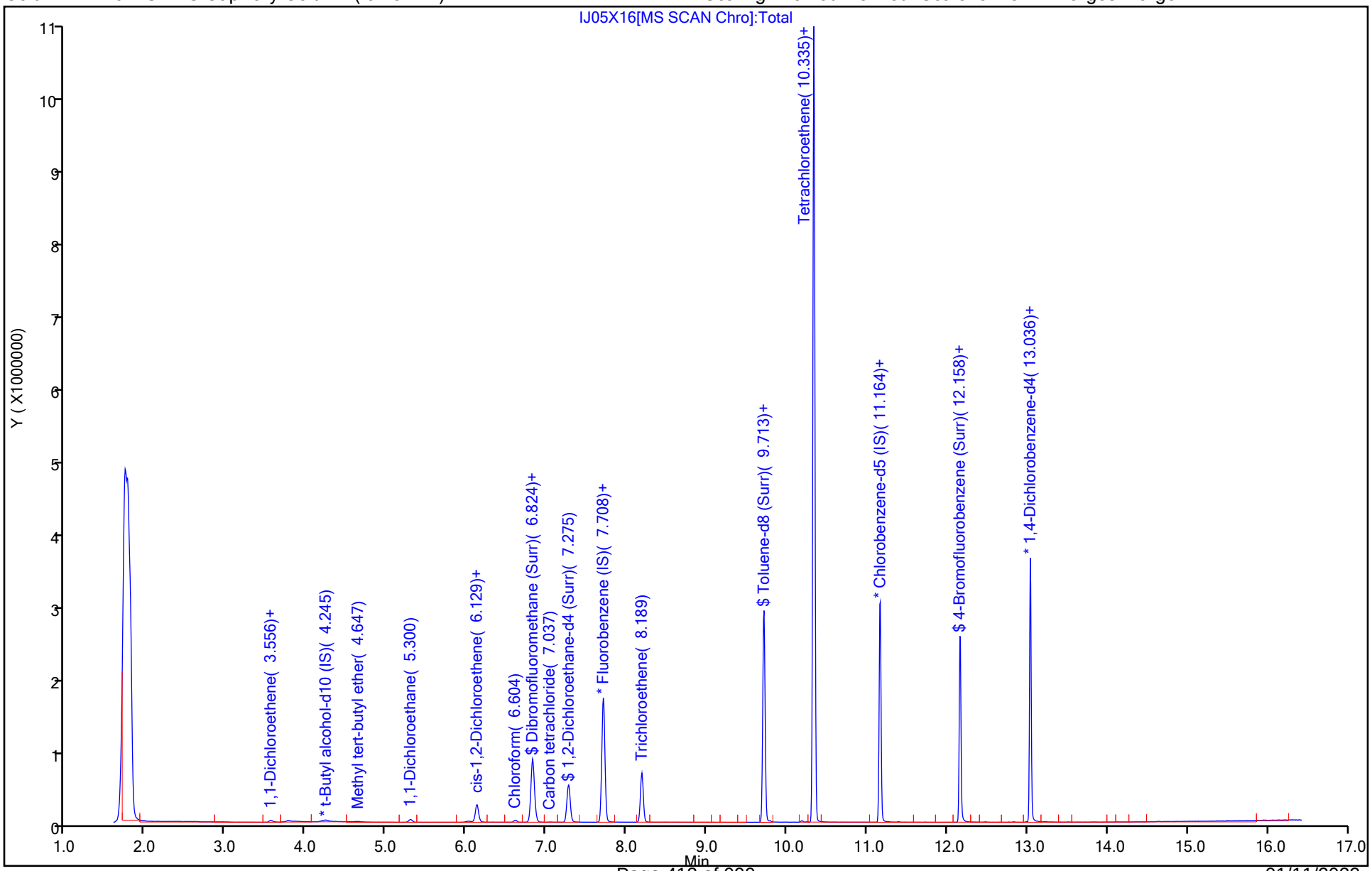
MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 05-Jan-2022 14:47:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D				
Injection Date:	05-Jan-2022 14:12:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-C-8	Lab Sample ID:	410-67460-8	Worklist Smp#:	17
Client ID:	HD-COD-SW-17-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D				
Lims ID:	410-67460-C-8				
Client ID:	HD-COD-SW-17-0/1-0				
Sample Type:	Client				
Inject. Date:	05-Jan-2022 14:12:30	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047767-017				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	05-Jan-2022 12:35:07	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:	CTX1610				

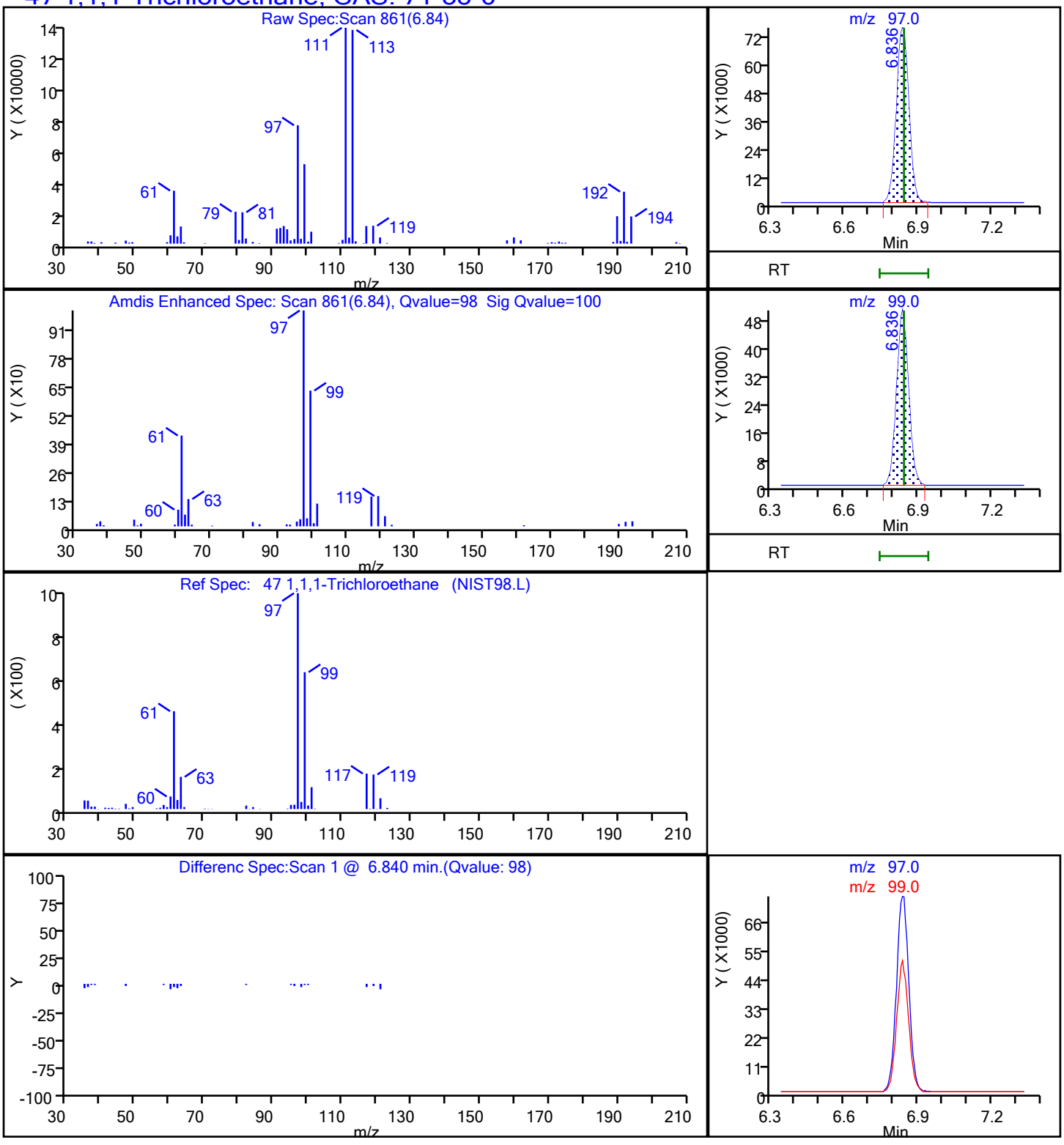
First Level Reviewer: spositok Date: 05-Jan-2022 14:46:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	9.96	99.56
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.10
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.54
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.44	94.36

Eurofins Lancaster Laboratories Environment Testing LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D				
Injection Date:	05-Jan-2022 14:12:30	Instrument ID:	19930		
Lims ID:	410-67460-C-8	Lab Sample ID:	410-67460-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

47 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 05-Jan-2022 14:47:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D

Injection Date: 05-Jan-2022 14:12:30 Instrument ID: 19930

Lims ID: 410-67460-C-8 Lab Sample ID: 410-67460-8

Client ID: HD-COD-SW-17-0/1-0

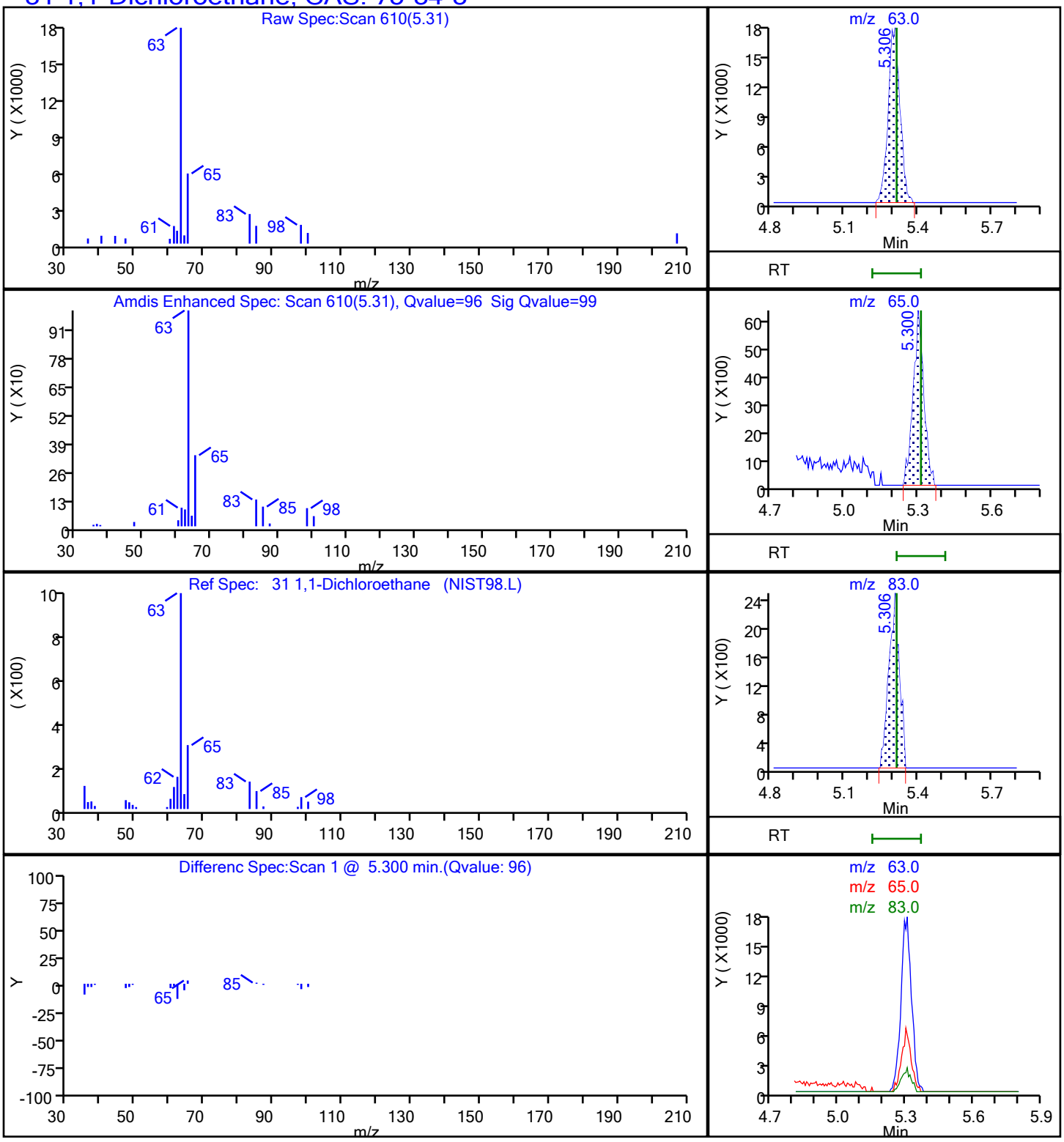
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

31 1,1-Dichloroethane, CAS: 75-34-3

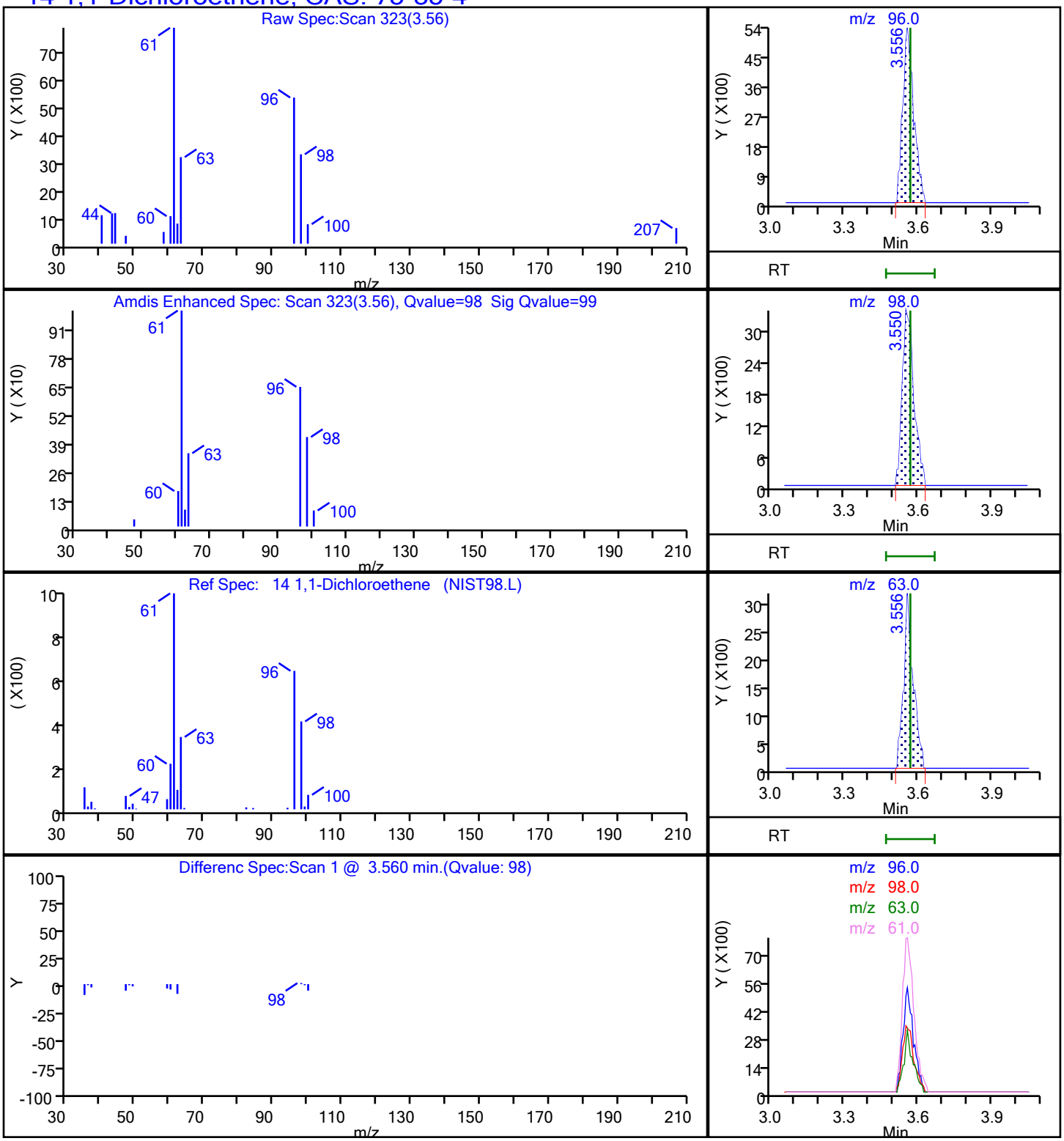


Report Date: 05-Jan-2022 14:47:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D				
Injection Date:	05-Jan-2022 14:12:30	Instrument ID:	19930		
Lims ID:	410-67460-C-8	Lab Sample ID:	410-67460-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

14 1,1-Dichloroethene, CAS: 75-35-4

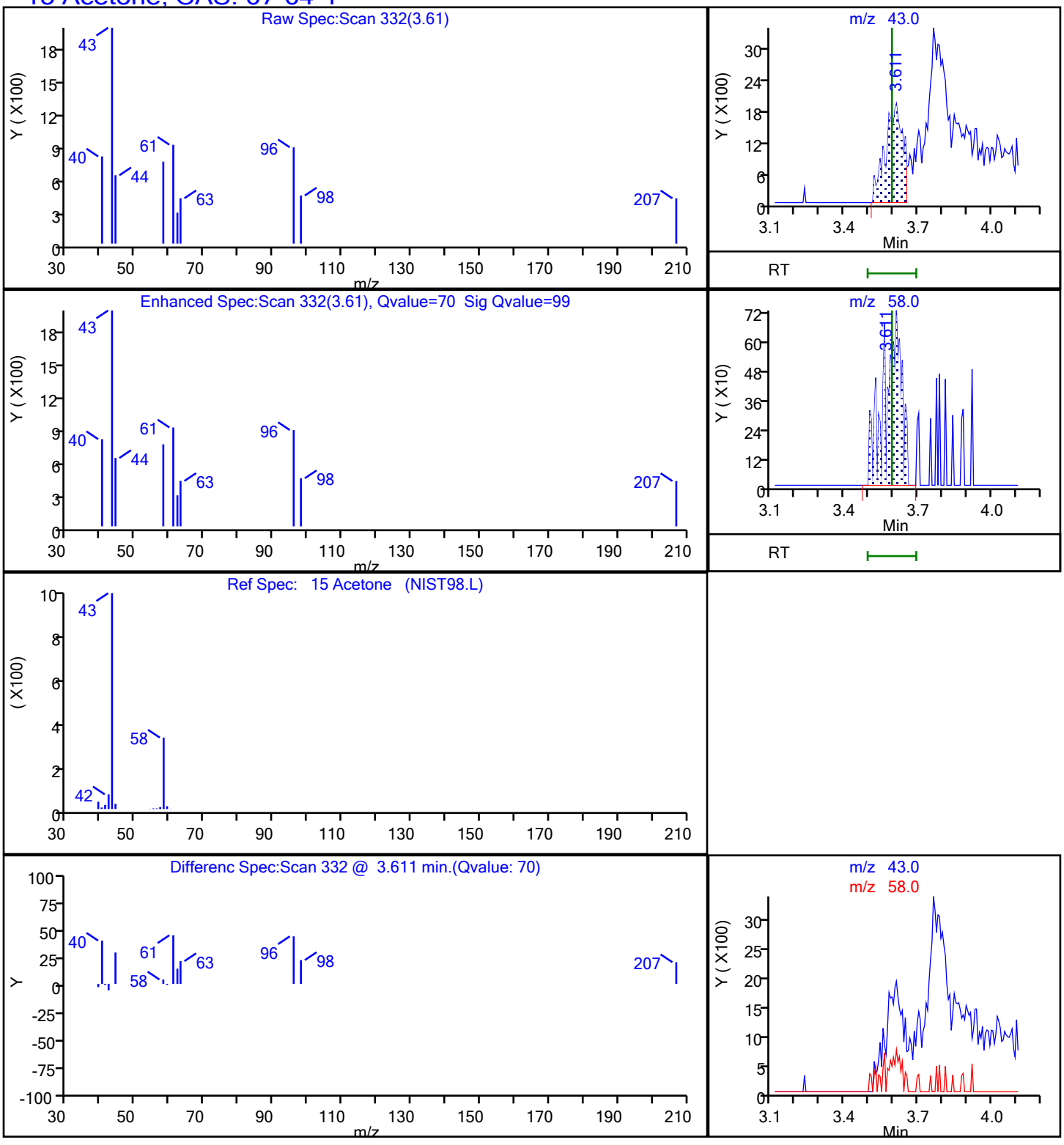


Report Date: 05-Jan-2022 14:47:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D				
Injection Date:	05-Jan-2022 14:12:30	Instrument ID:	19930		
Lims ID:	410-67460-C-8	Lab Sample ID:	410-67460-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1



Report Date: 05-Jan-2022 14:47:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D

Injection Date: 05-Jan-2022 14:12:30 Instrument ID: 19930

Lims ID: 410-67460-C-8 Lab Sample ID: 410-67460-8

Client ID: HD-COD-SW-17-0/1-0

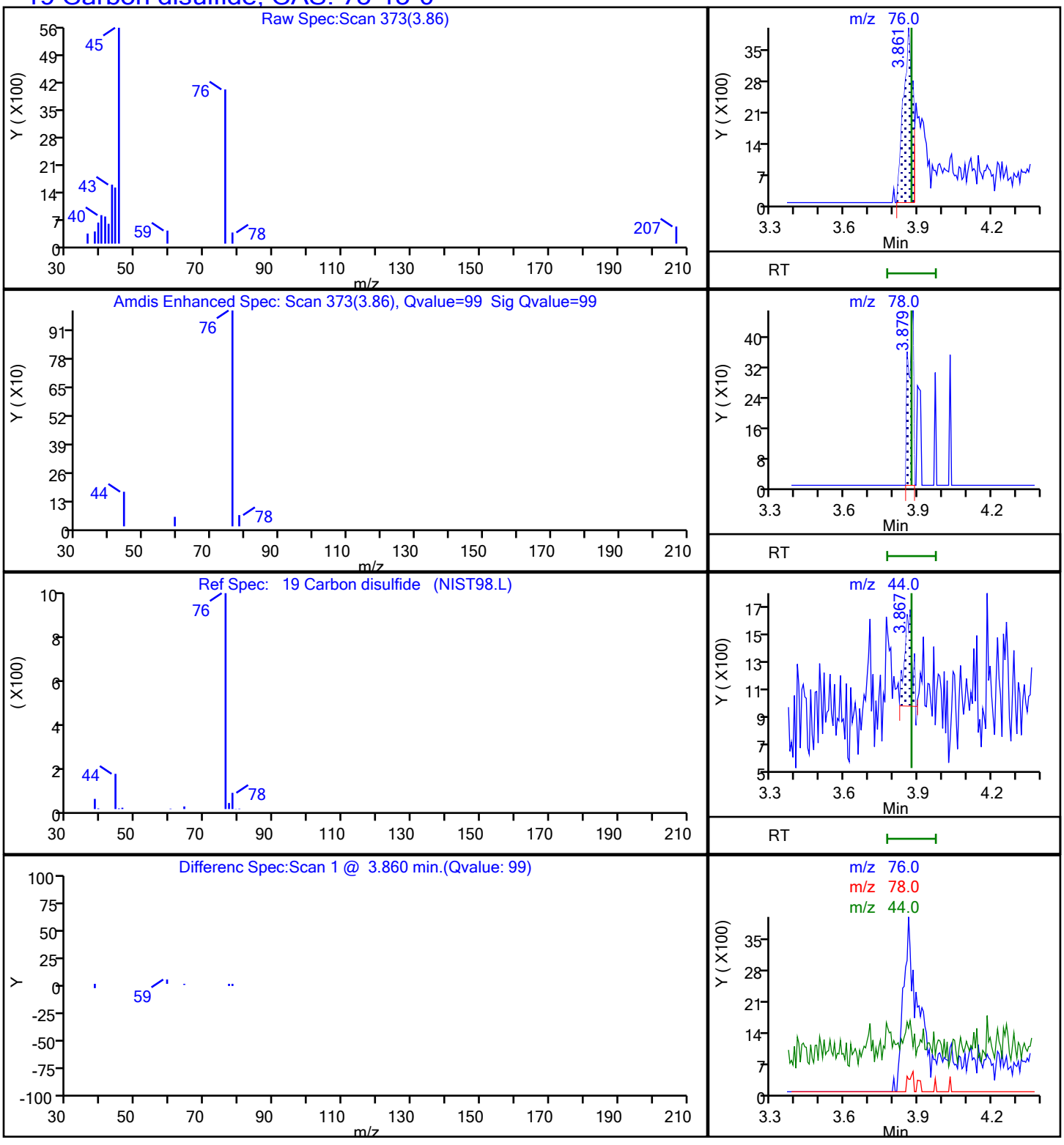
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

19 Carbon disulfide, CAS: 75-15-0



Report Date: 05-Jan-2022 14:47:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D

Injection Date: 05-Jan-2022 14:12:30 Instrument ID: 19930

Lims ID: 410-67460-C-8 Lab Sample ID: 410-67460-8

Client ID: HD-COD-SW-17-0/1-0

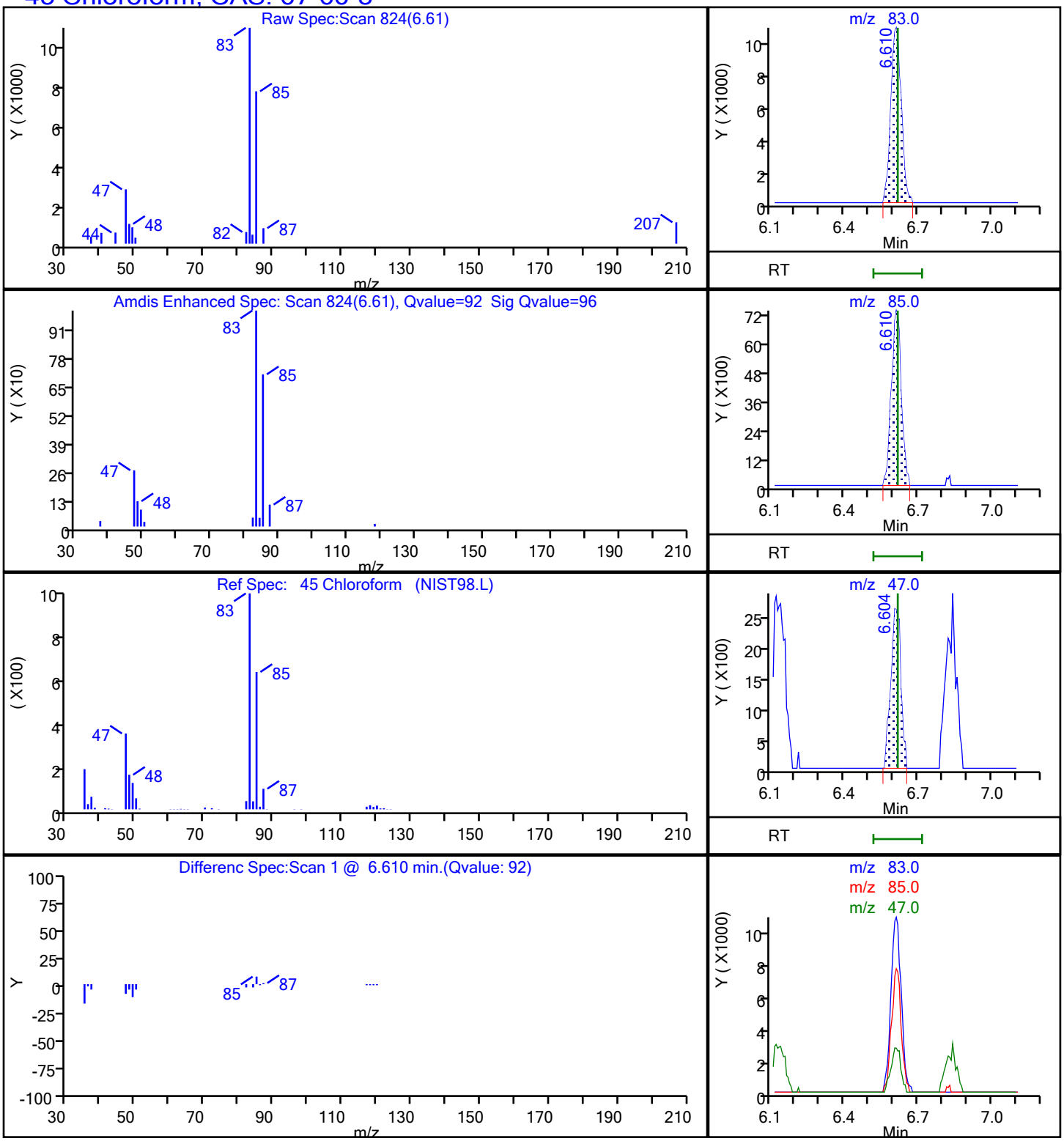
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

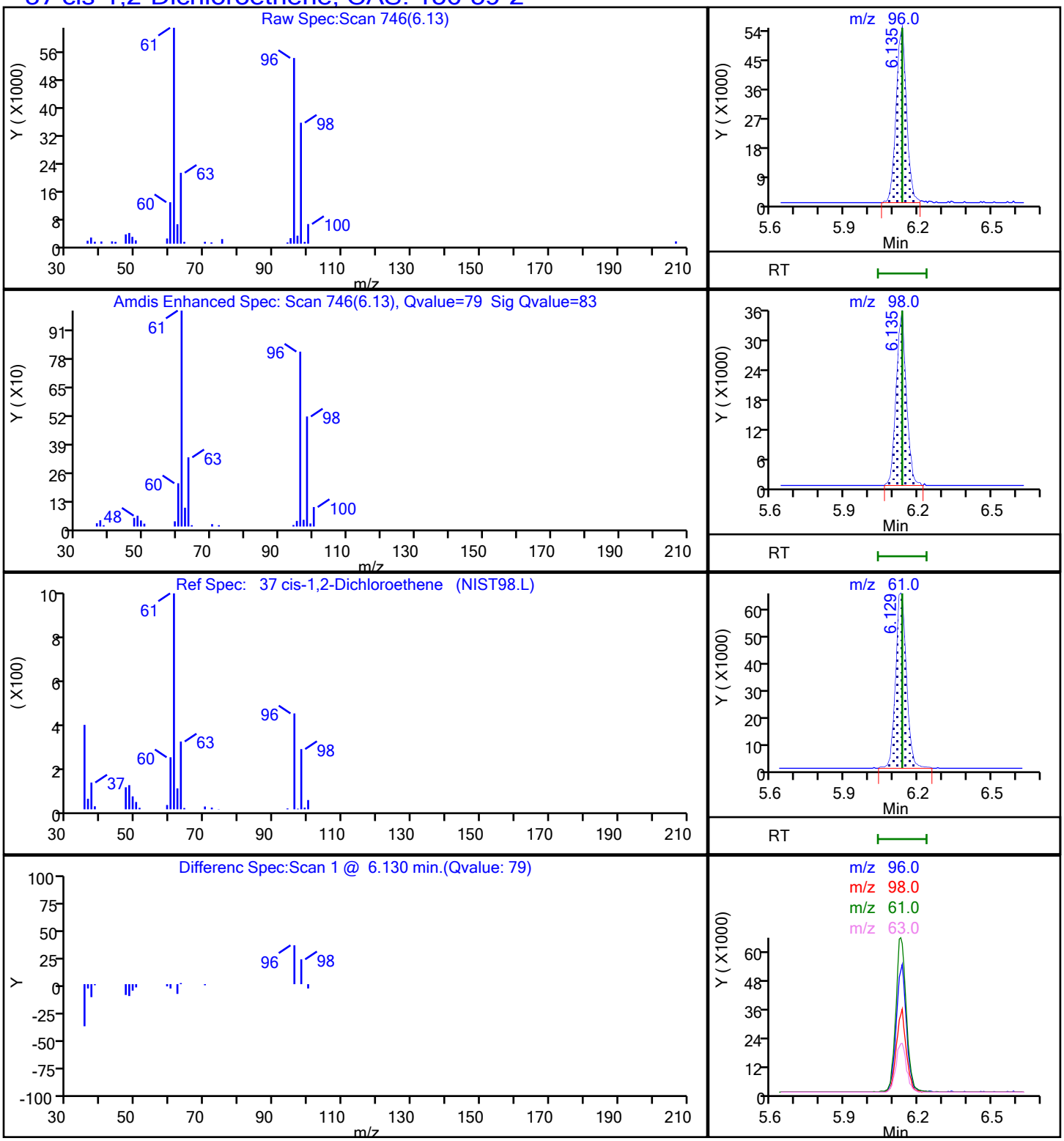
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Environment Testing LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D				
Injection Date:	05-Jan-2022 14:12:30	Instrument ID:	19930		
Lims ID:	410-67460-C-8	Lab Sample ID:	410-67460-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

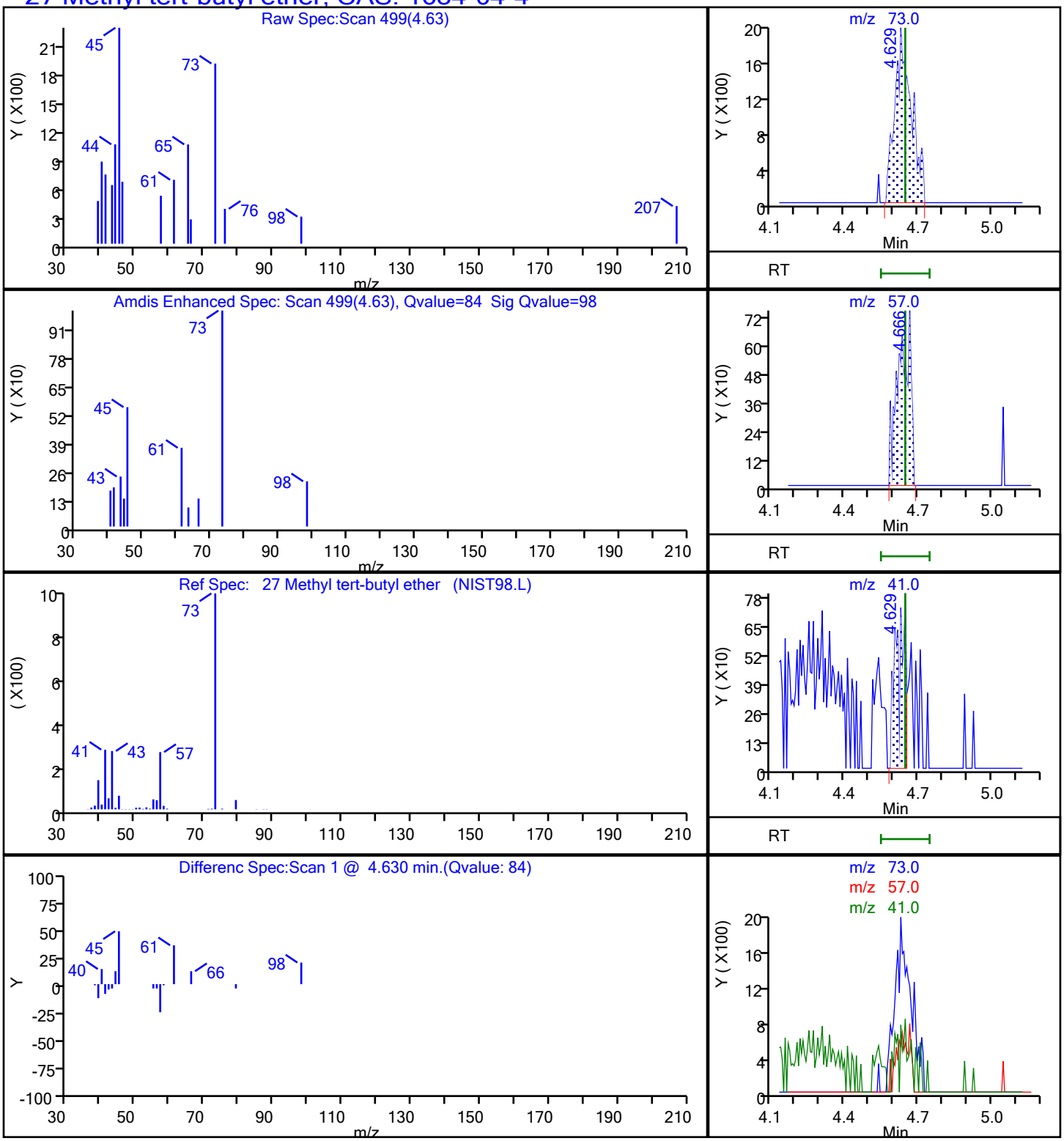
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D
Injection Date: 05-Jan-2022 14:12:30 Instrument ID: 19930
Lims ID: 410-67460-C-8 Lab Sample ID: 410-67460-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

27 Methyl tert-butyl ether, CAS: 1634-04-4



Report Date: 05-Jan-2022 14:47:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X16.D

Injection Date: 05-Jan-2022 14:12:30 Instrument ID: 19930

Lims ID: 410-67460-C-8 Lab Sample ID: 410-67460-8

Client ID: HD-COD-SW-17-0/1-0

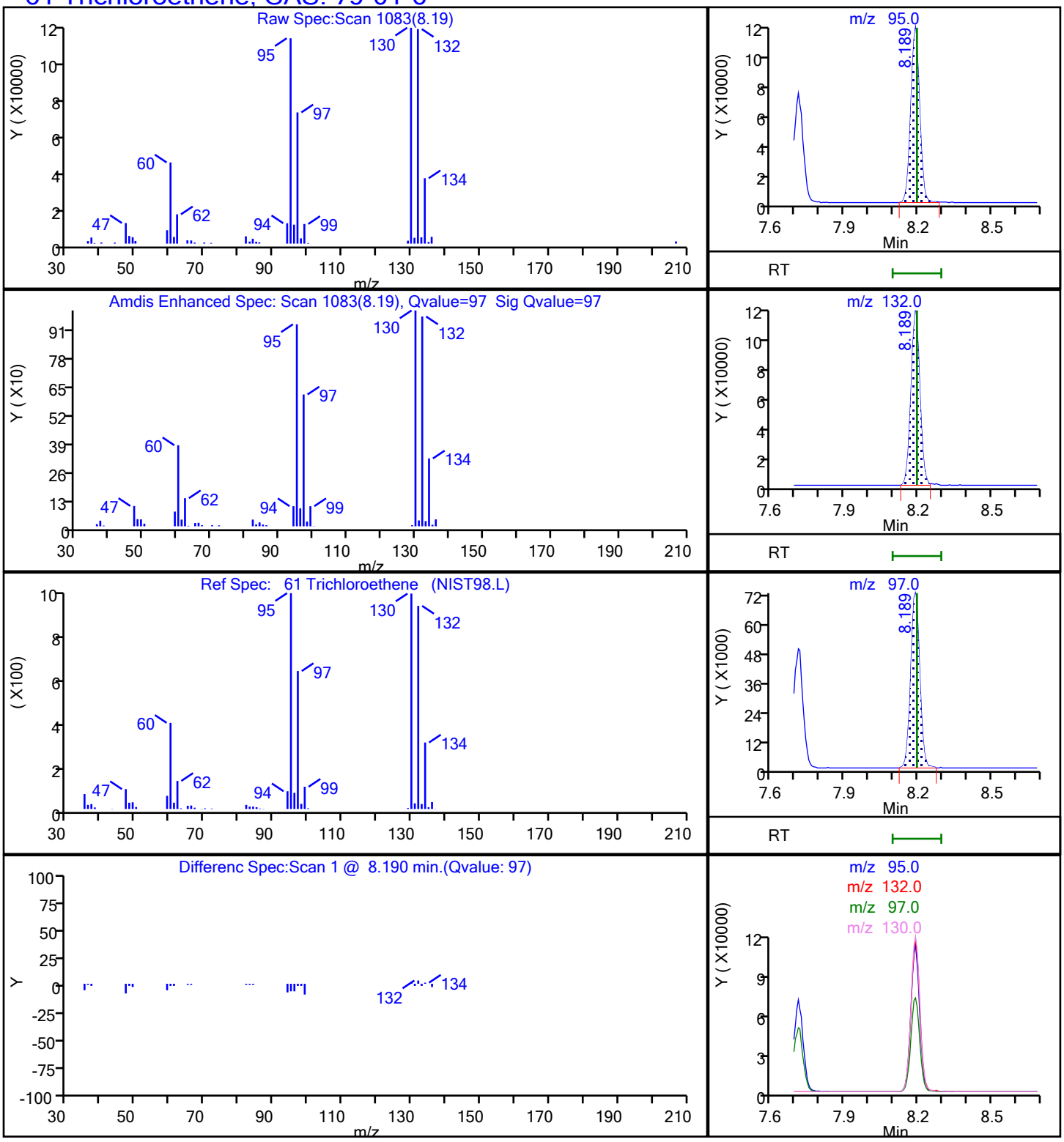
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 DL Lab Sample ID: 410-67460-8 DL

Matrix: Water Lab File ID: HD29X19.D

Analysis Method: 8260D Date Collected: 12/17/2021 09:35

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 16:57

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.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	31		10	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	107		80-120
2037-26-5	Toluene-d8 (Surr)	89		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X19.D
Lims ID: 410-67460-B-8
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 29-Dec-2021 16:57:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 20.0000
Sample Info: 410-0047368-020
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 21:00:50 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1656

First Level Reviewer: beckerk Date: 29-Dec-2021 20:57:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.142				ND	7
7 Vinyl chloride	62		2.258				ND	
9 Bromomethane	94		2.587				ND	
10 Chloroethane	64		2.672				ND	
18 1,1-Dichloroethene	96		3.532				ND	
19 Acetone	43		3.556				ND	
24 Carbon disulfide	76		3.836				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	90	109053	50.0	
29 Methylene Chloride	84		4.190				ND	
32 Methyl tert-butyl ether	73		4.592				ND	
33 trans-1,2-Dichloroethene	96		4.611				ND	
35 1,1-Dichloroethane	63		5.263				ND	7
41 2-Butanone (MEK)	43		6.043				ND	
42 cis-1,2-Dichloroethene	96	6.104	6.092	0.012	80	6780	0.1176	
48 Chlorobromomethane	128		6.421				ND	
50 Chloroform	83		6.568				ND	7
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	520811	10.7	
52 1,1,1-Trichloroethane	97	6.805	6.799	0.006	35	11240	0.1286	
56 Carbon tetrachloride	117		7.013				ND	7
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	47	93685	10.3	
59 Benzene	78		7.269				ND	
60 1,2-Dichloroethane	62		7.336				ND	
* 65 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	1841460	10.0	
67 Trichloroethene	95	8.159	8.147	0.012	97	12514	0.2142	
70 1,2-Dichloropropane	63		8.482				ND	
75 Dichlorobromomethane	83		8.823				ND	
80 cis-1,3-Dichloropropene	75		9.372				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.537				ND	
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2213188	8.93	
83 Toluene	92		9.756				ND	
85 trans-1,3-Dichloropropene	75		10.006				ND	
87 1,1,2-Trichloroethane	97		10.213				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.305	10.299	0.006	97	132972	1.57	
91 2-Hexanone	43		10.421				ND	
93 Chlorodibromomethane	129		10.591				ND	
94 Ethylene Dibromide	107		10.701				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	85	1908465	10.0	
98 Chlorobenzene	112		11.158				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.237				ND	
100 Ethylbenzene	91		11.244				ND	7
S 95 Xylenes, Total	106		11.245				ND	7
101 m-Xylene & p-Xylene	106		11.353				ND	7
102 o-Xylene	106		11.683				ND	
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	91	988682	10.3	
109 1,1,2,2-Tetrachloroethane	83		12.225				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1136300	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

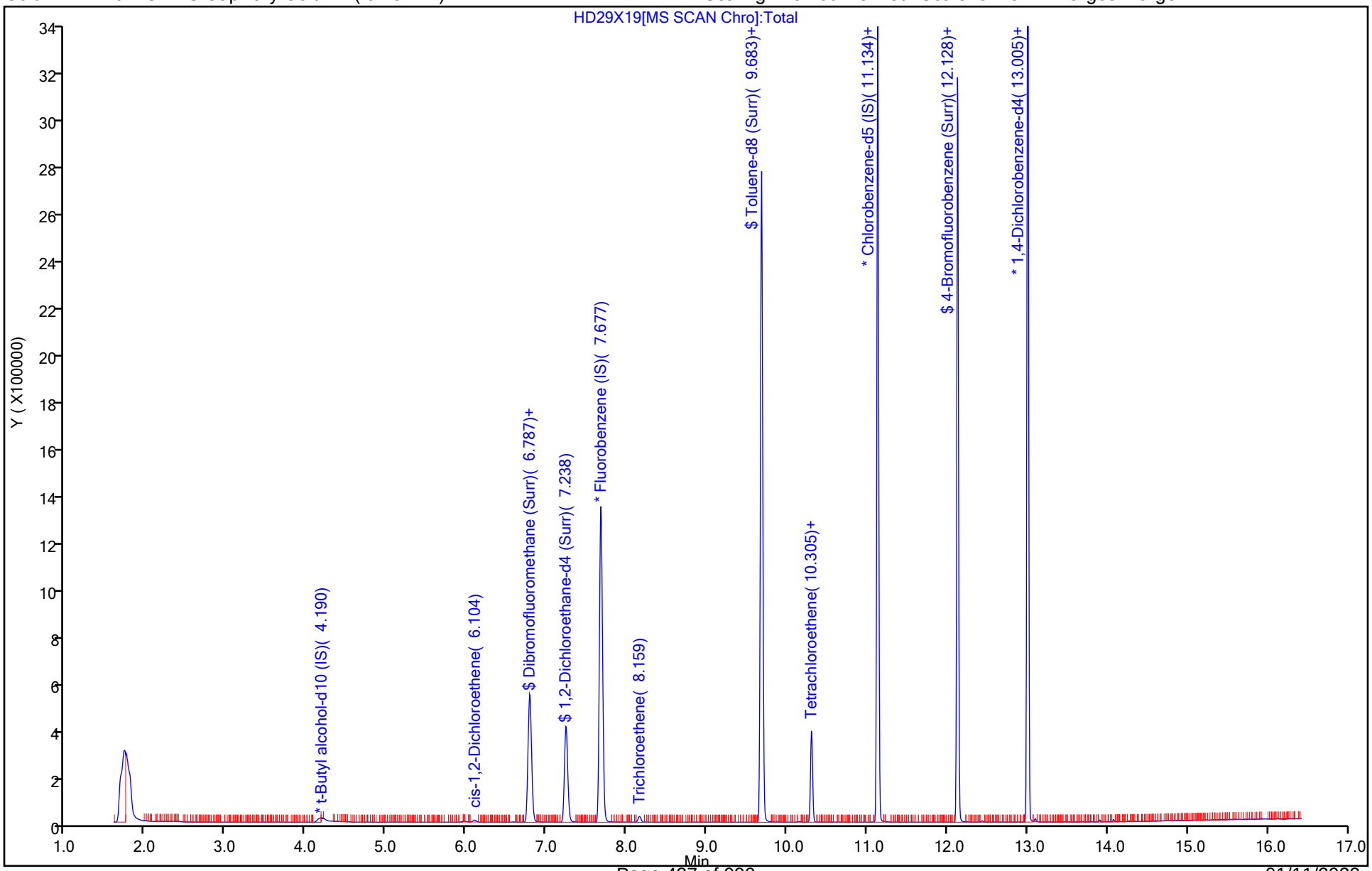
Report Date: 29-Dec-2021 21:01:01 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X19.D

Injection Date:	29-Dec-2021 16:57:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	410-67460-B-8	Lab Sample ID:	410-67460-8	Worklist Smp#:	20
Client ID:	HD-COD-SW-17-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	19
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X19.D				
Lims ID:	410-67460-B-8				
Client ID:	HD-COD-SW-17-0/1-0				
Sample Type:	Client				
Inject. Date:	29-Dec-2021 16:57:30	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	25.000 mL	Dil. Factor:	20.0000		
Sample Info:	410-0047368-020				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 21:00:50	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1656				

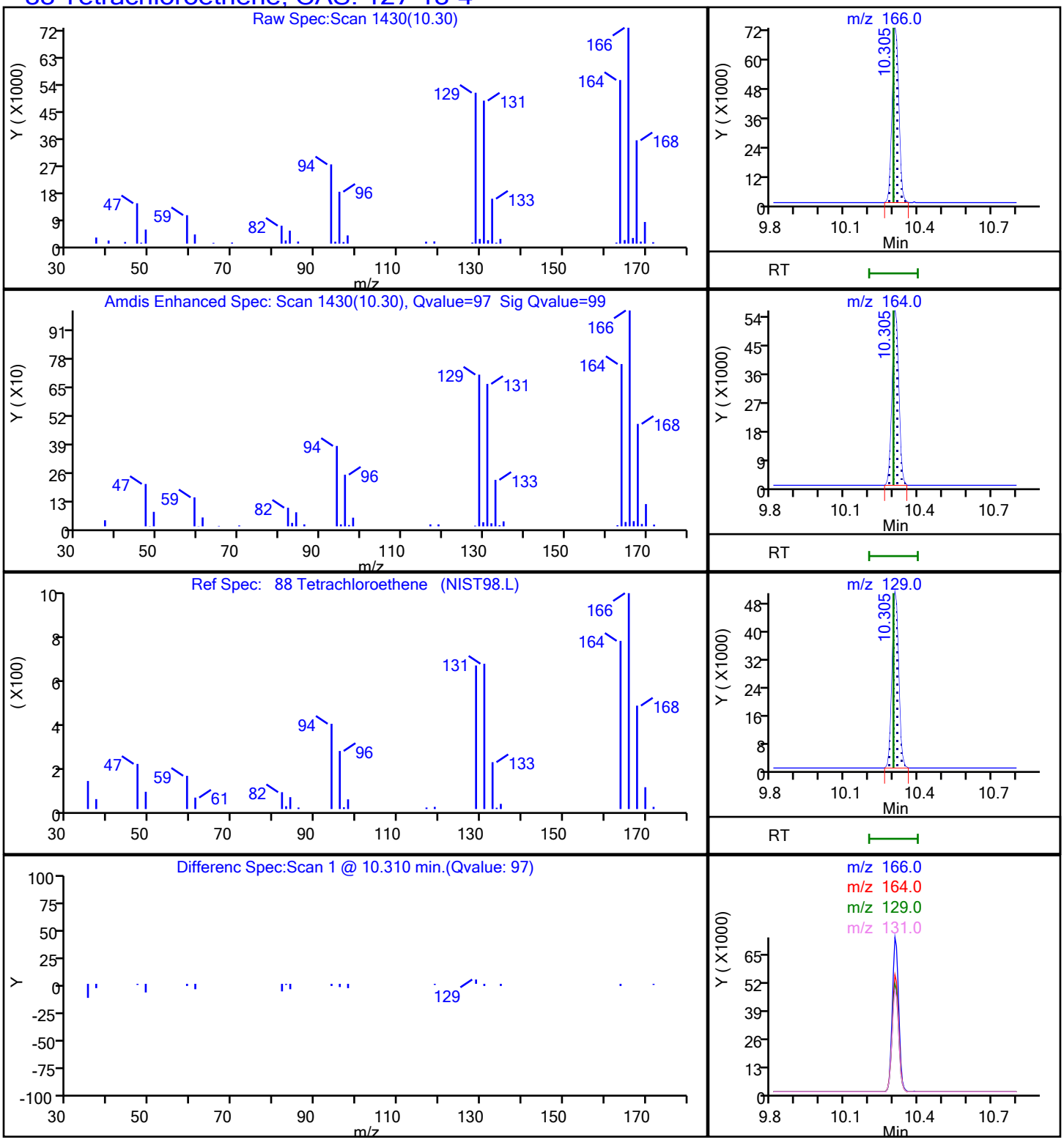
First Level Reviewer: beckerk Date: 29-Dec-2021 20:57:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.7	107.21
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	103.46
$ 82 Toluene-d8 (Surr)	10.0	8.93	89.28
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.3	103.06

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X19.D				
Injection Date:	29-Dec-2021 16:57:30	Instrument ID:	19094		
Lims ID:	410-67460-B-8	Lab Sample ID:	410-67460-8		
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:	20.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

88 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-67460-9

Matrix: Water Lab File ID: HD29X14.D

Analysis Method: 8260D Date Collected: 12/17/2021 10:35

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 15:14

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.: 210047 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	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	0.18	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	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	^c 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	0.053	J cn	0.50	0.050
75-25-2	Bromoform	ND	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	0.94	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.073	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	0.056	J 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	3.4	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
79-01-6	Trichloroethene	0.20	J cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-67460-9

Matrix: Water Lab File ID: HD29X14.D

Analysis Method: 8260D Date Collected: 12/17/2021 10:35

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 15:14

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.: 210047 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)	107	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	103	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	107	cn	80-120
2037-26-5	Toluene-d8 (Surr)	89	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D
Lims ID: 410-67460-A-9
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 29-Dec-2021 15:14:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-015
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 17:16:52 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1656

First Level Reviewer: beckerk Date: 29-Dec-2021 16:58:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.142				ND	7
7 Vinyl chloride	62		2.258				ND	
9 Bromomethane	94		2.587				ND	
10 Chloroethane	64		2.672				ND	
18 1,1-Dichloroethene	96	3.526	3.532	-0.006	96	9308	0.1831	
19 Acetone	43		3.556				ND	7
24 Carbon disulfide	76		3.836				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	90	119018	50.0	
29 Methylene Chloride	84		4.190				ND	
32 Methyl tert-butyl ether	73	4.598	4.592	0.006	94	6243	0.0564	
33 trans-1,2-Dichloroethene	96		4.611				ND	
35 1,1-Dichloroethane	63		5.263				ND	U
41 2-Butanone (MEK)	43		6.043				ND	7
42 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	75	4337	0.0729	
48 Chlorobromomethane	128		6.421				ND	
50 Chloroform	83	6.574	6.568	0.006	94	92201	0.9411	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	538536	10.7	
52 1,1,1-Trichloroethane	97	6.811	6.799	0.012	35	3810	0.0422	
56 Carbon tetrachloride	117		7.013				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	47	100067	10.7	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.336				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	1900146	10.0	
67 Trichloroethene	95	8.159	8.147	0.012	94	11773	0.1953	
70 1,2-Dichloropropane	63		8.482				ND	
75 Dichlorobromomethane	83	8.829	8.823	0.006	93	3396	0.0526	
80 cis-1,3-Dichloropropene	75		9.372				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.537				ND	
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2278472	8.93	
83 Toluene	92		9.756				ND	7
85 trans-1,3-Dichloropropene	75		10.006				ND	
87 1,1,2-Trichloroethane	97		10.213				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.305	10.299	0.006	98	301109	3.45	
91 2-Hexanone	43		10.421				ND	
93 Chlorodibromomethane	129		10.591				ND	
94 Ethylene Dibromide	107		10.701				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	85	1964521	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.237				ND	
100 Ethylbenzene	91		11.244				ND	7
S 95 Xylenes, Total	106		11.245				ND	7
101 m-Xylene & p-Xylene	106		11.353				ND	7
102 o-Xylene	106		11.683				ND	7
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	1016470	10.3	
109 1,1,2,2-Tetrachloroethane	83		12.225				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1172489	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

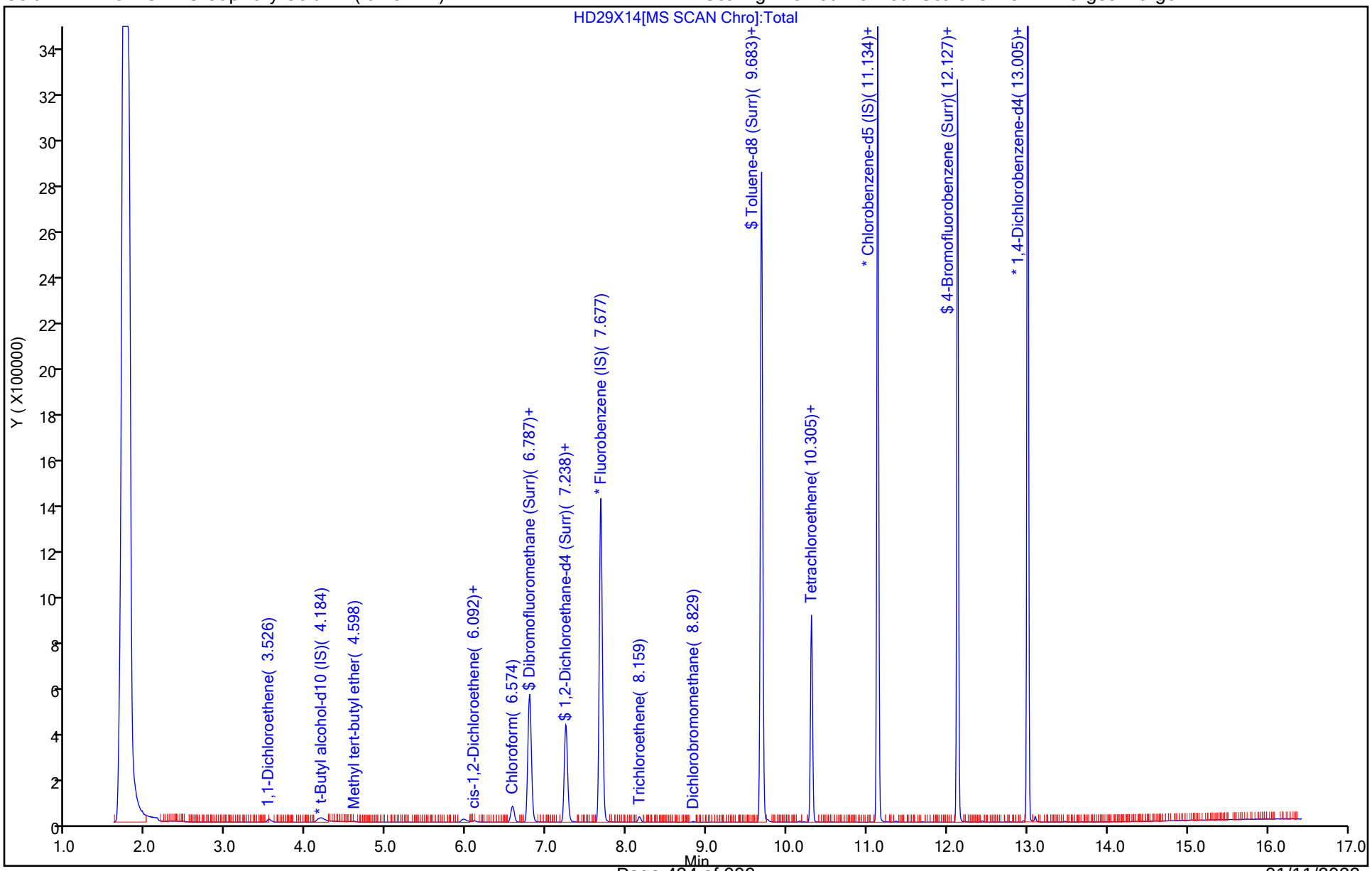
Report Date: 29-Dec-2021 17:17:15 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D

Injection Date:	29-Dec-2021 15:14:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	410-67460-A-9	Lab Sample ID:	410-67460-9	Worklist Smp#:	15
Client ID:	HD-COD-SW-26-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D				
Lims ID:	410-67460-A-9				
Client ID:	HD-COD-SW-26-0/1-0				
Sample Type:	Client				
Inject. Date:	29-Dec-2021 15:14:30	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-015				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 17:16:52	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1656				

First Level Reviewer: beckerk Date: 29-Dec-2021 16:58:08

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.7	107.44
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.09
$ 82 Toluene-d8 (Surr)	10.0	8.93	89.29
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.3	102.94

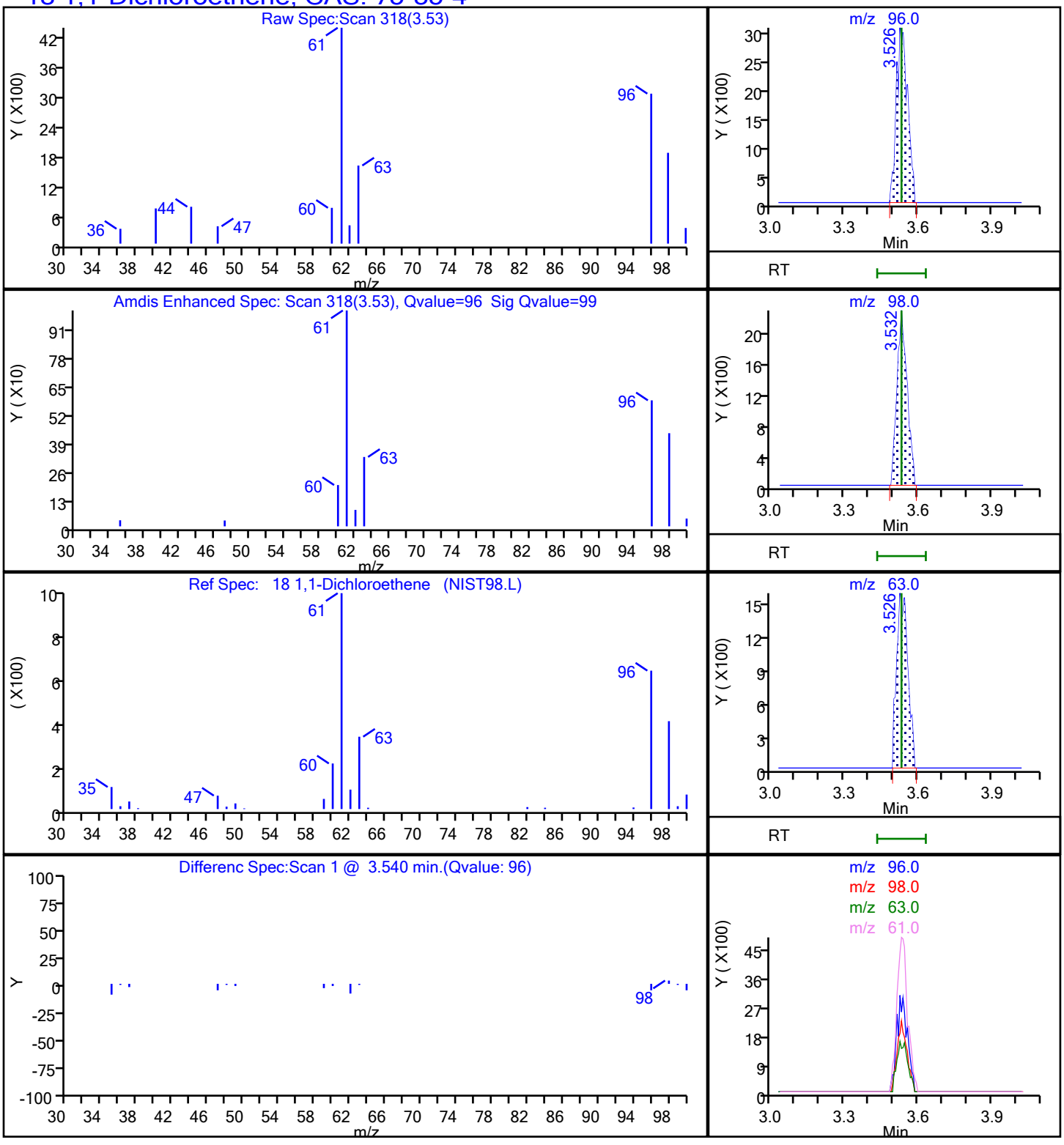
Report Date: 29-Dec-2021 17:17:15 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D

Injection Date:	29-Dec-2021 15:14:30	Instrument ID:	19094		
Lims ID:	410-67460-A-9	Lab Sample ID:	410-67460-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

18 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 29-Dec-2021 17:17:15 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D

Injection Date: 29-Dec-2021 15:14:30 Instrument ID: 19094

Lims ID: 410-67460-A-9 Lab Sample ID: 410-67460-9

Client ID: HD-COD-SW-26-0/1-0

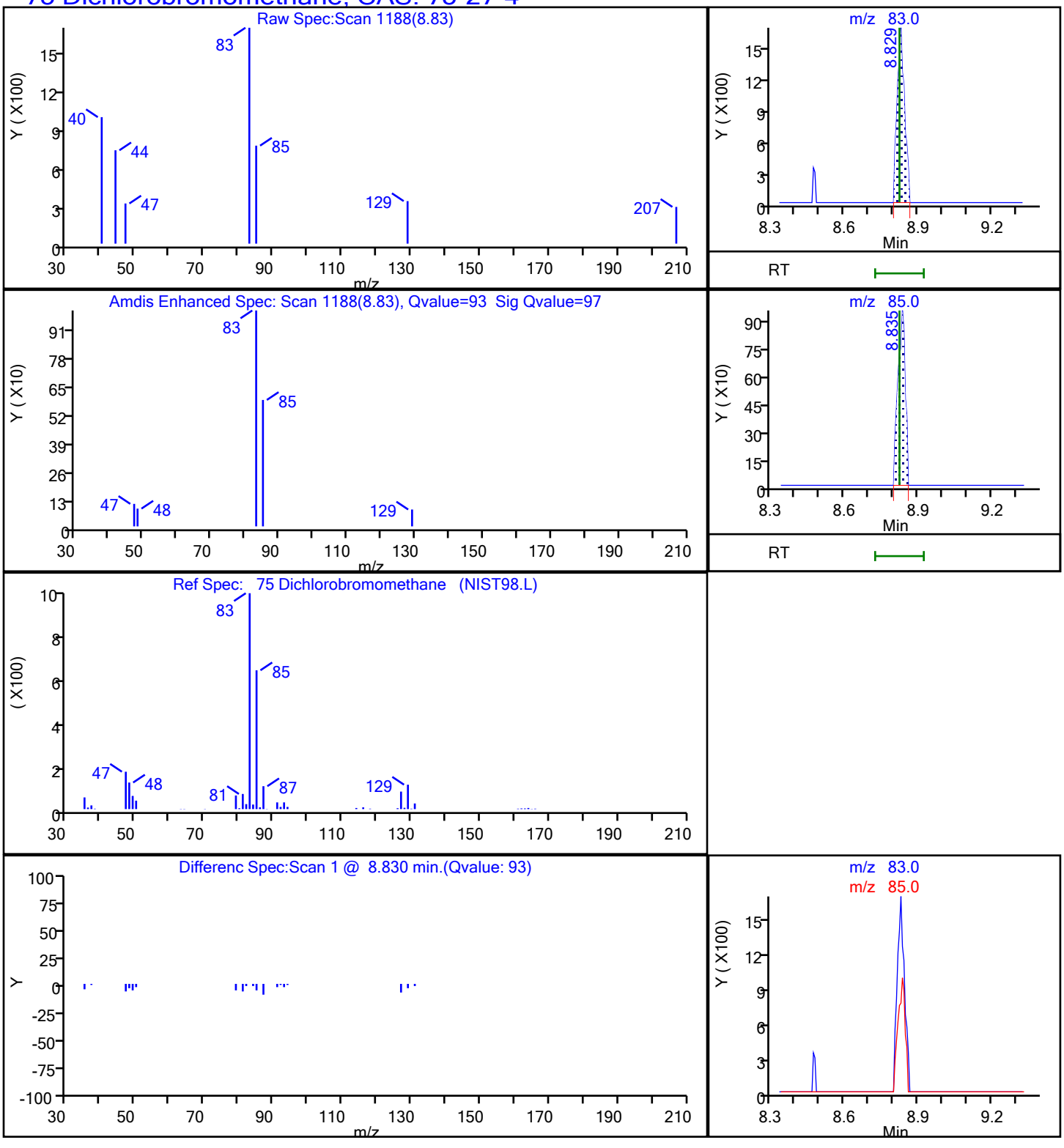
Operator ID: KNK41612 ALS Bottle#: 14 Worklist Smp#: 15

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

75 Dichlorobromomethane, CAS: 75-27-4

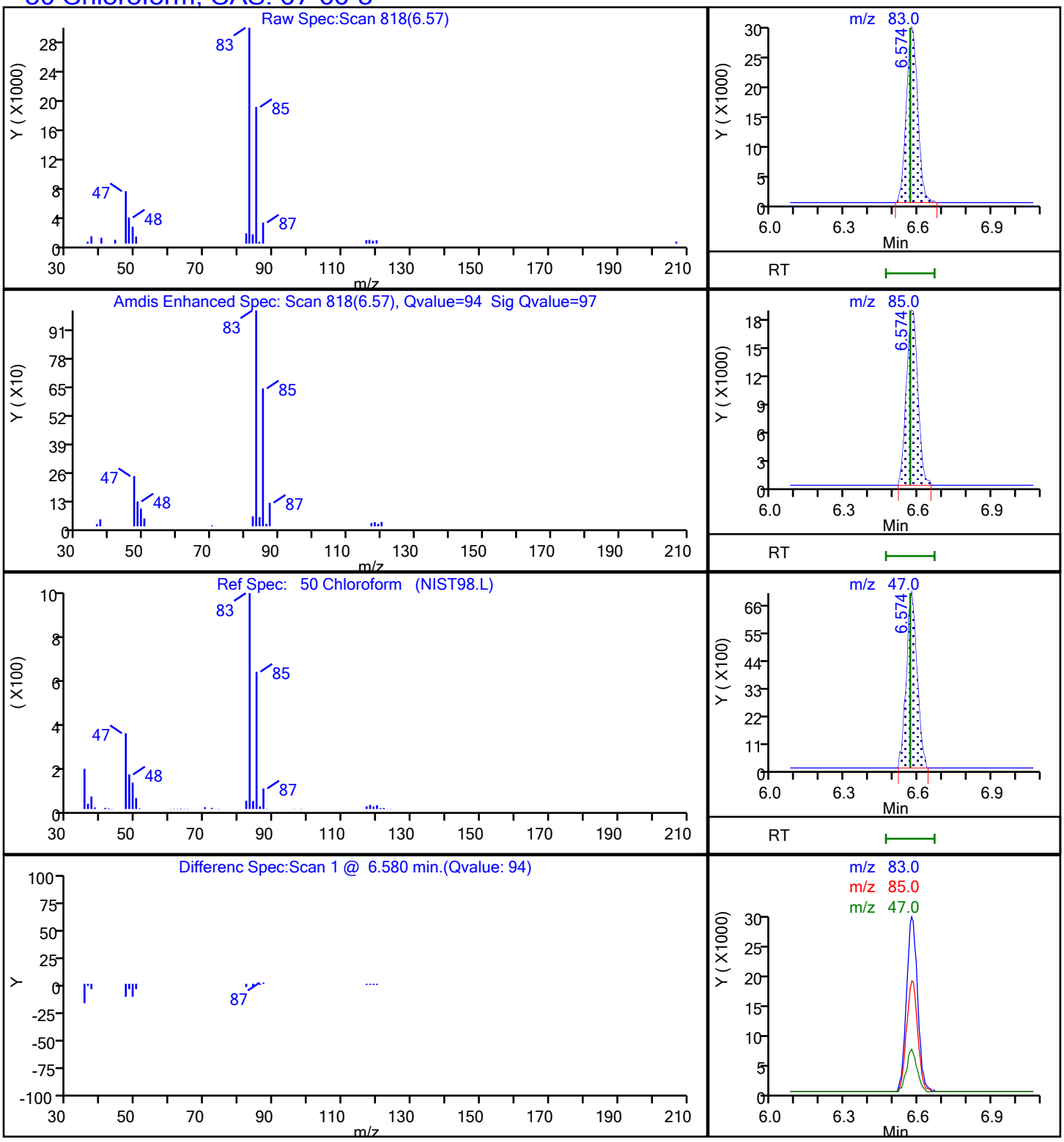


Report Date: 29-Dec-2021 17:17:15 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D				
Injection Date:	29-Dec-2021 15:14:30	Instrument ID:	19094		
Lims ID:	410-67460-A-9	Lab Sample ID:	410-67460-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

50 Chloroform, CAS: 67-66-3

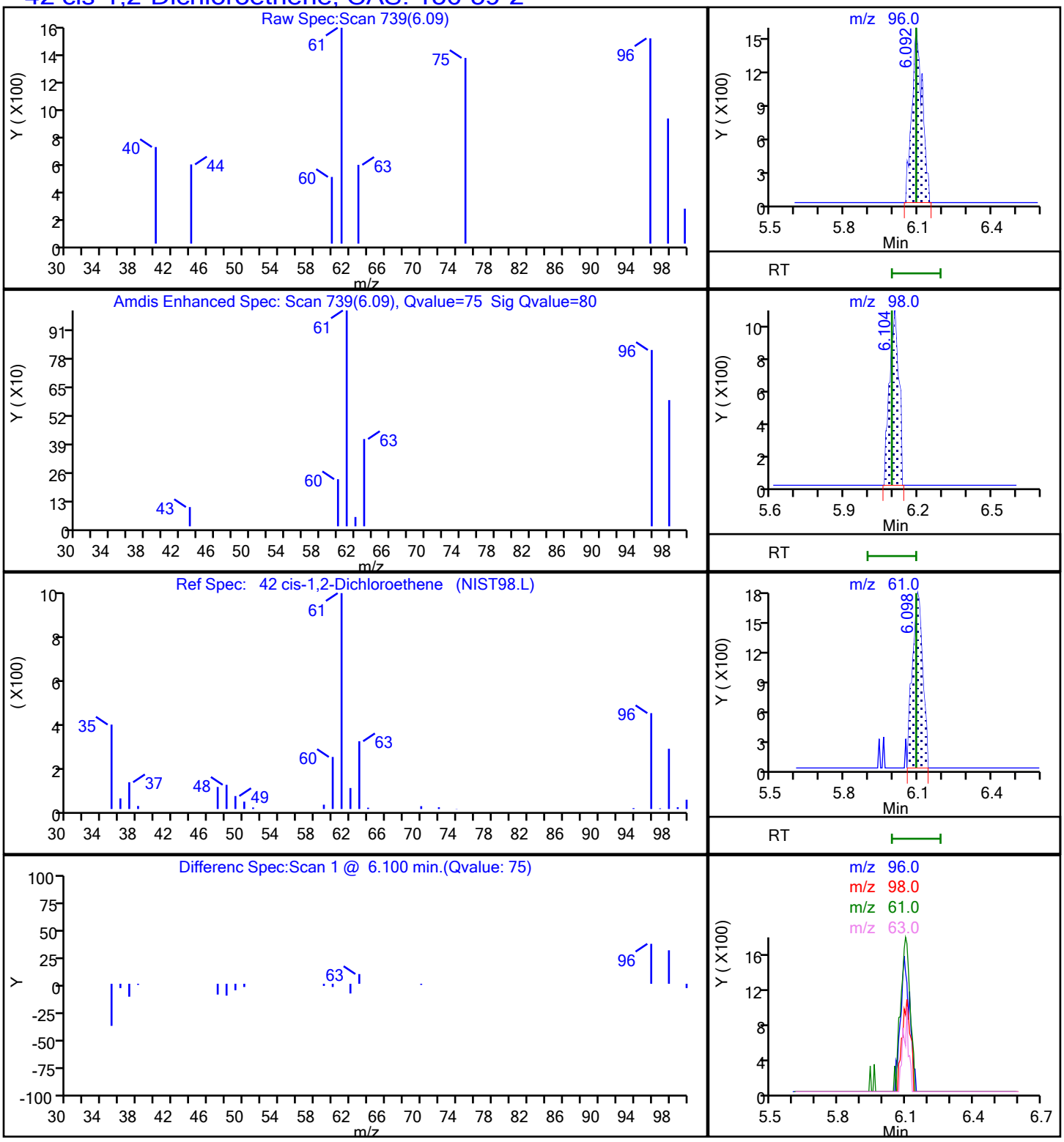


Report Date: 29-Dec-2021 17:17:15 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D				
Injection Date:	29-Dec-2021 15:14:30	Instrument ID:	19094		
Lims ID:	410-67460-A-9	Lab Sample ID:	410-67460-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

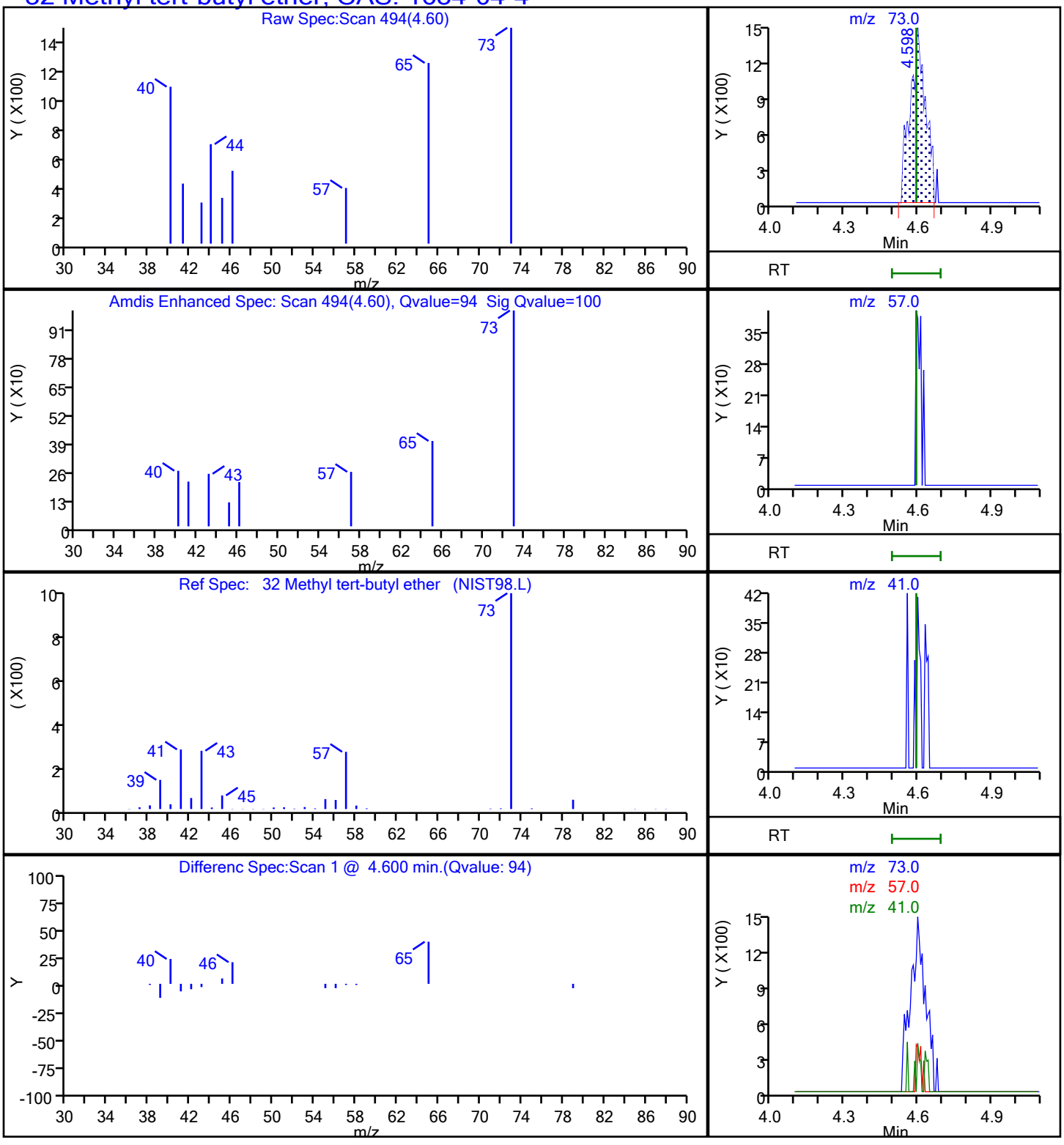
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D				
Injection Date:	29-Dec-2021 15:14:30	Instrument ID:	19094		
Lims ID:	410-67460-A-9	Lab Sample ID:	410-67460-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

32 Methyl tert-butyl ether, CAS: 1634-04-4

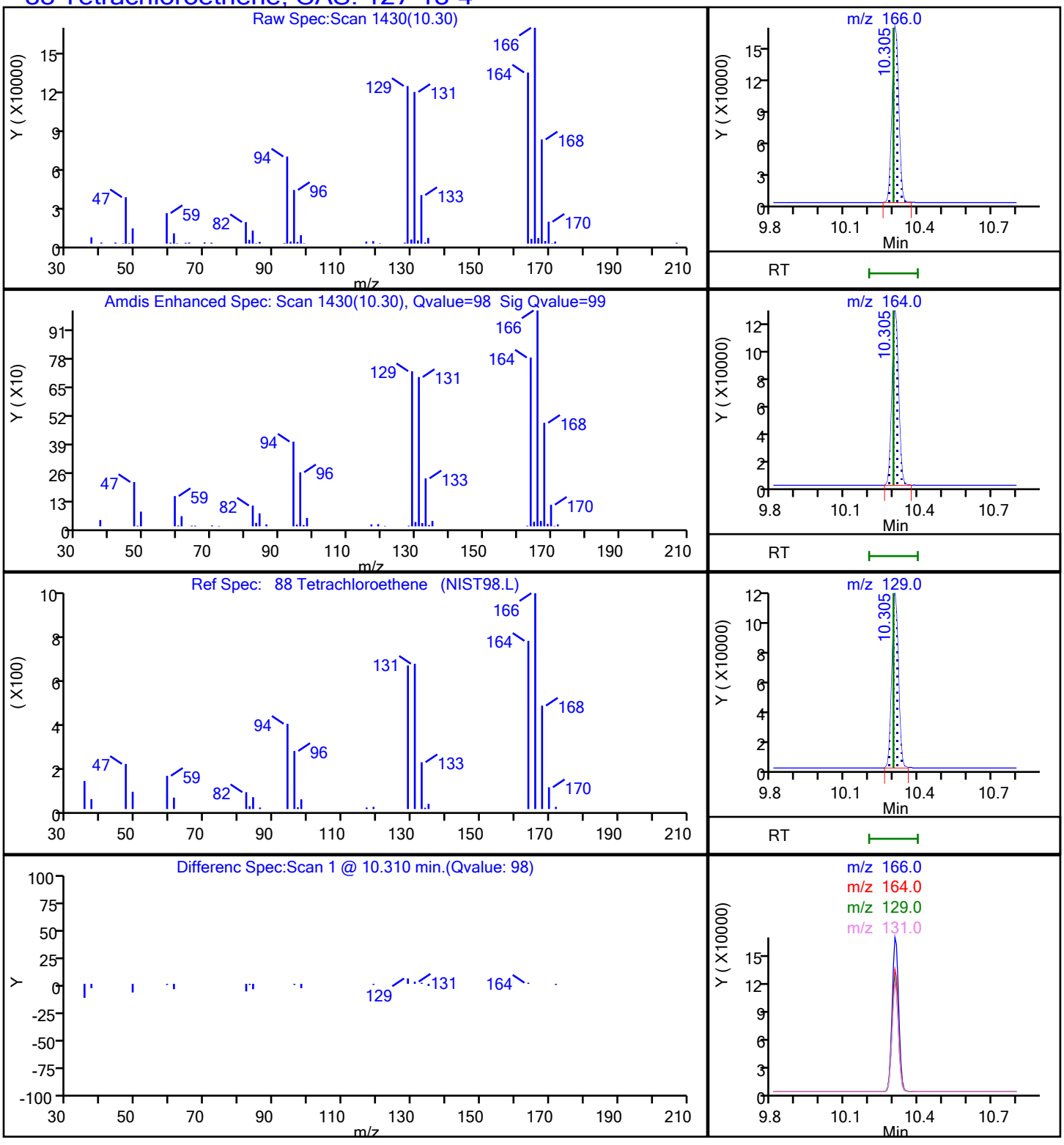


Report Date: 29-Dec-2021 17:17:16 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D				
Injection Date:	29-Dec-2021 15:14:30	Instrument ID:	19094		
Lims ID:	410-67460-A-9	Lab Sample ID:	410-67460-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

88 Tetrachloroethene, CAS: 127-18-4



Report Date: 29-Dec-2021 17:17:15 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D

Injection Date: 29-Dec-2021 15:14:30 Instrument ID: 19094

Lims ID: 410-67460-A-9 Lab Sample ID: 410-67460-9

Client ID: HD-COD-SW-26-0/1-0

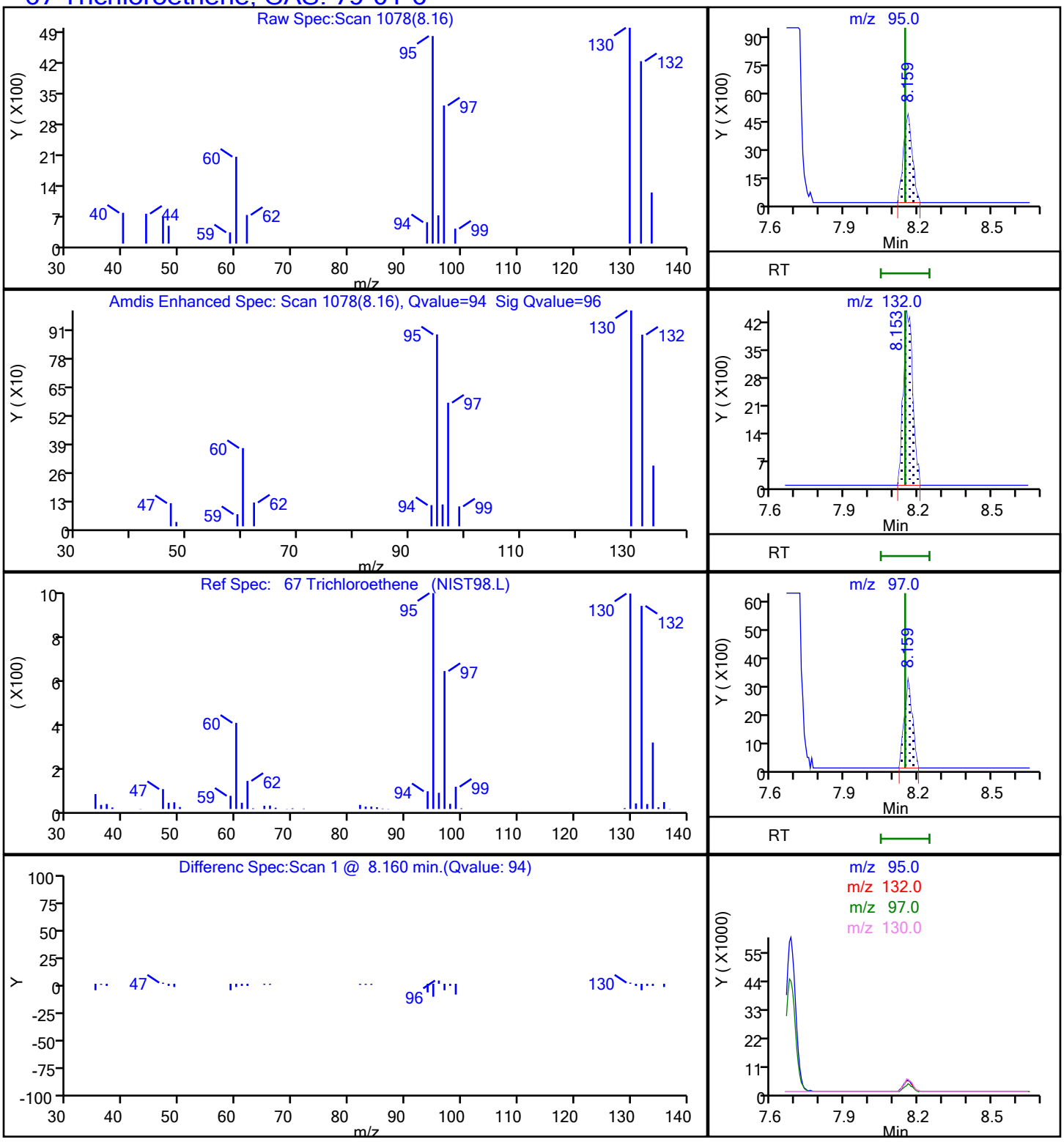
Operator ID: KNK41612 ALS Bottle#: 14 Worklist Smp#: 15

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

67 Trichloroethene, CAS: 79-01-6



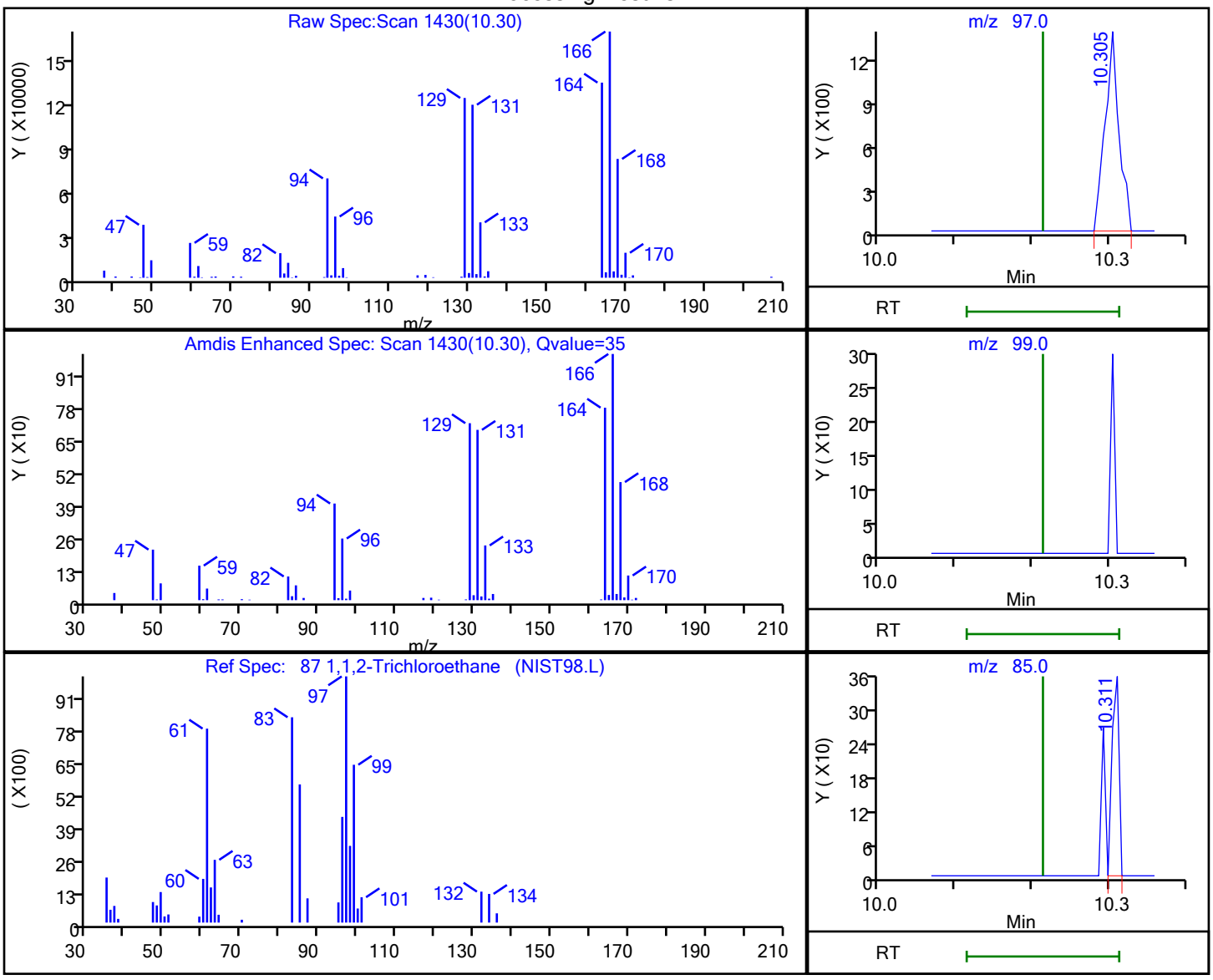
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D				
Injection Date:	29-Dec-2021 15:14:30	Instrument ID:	19094		
Lims ID:	410-67460-A-9	Lab Sample ID:	410-67460-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

87 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
10.30	97.00	1682	0.037120
10.21	99.00	0	
10.31	85.00	224	
10.30	83.00	4420	

Reviewer: beckerk, 29-Dec-2021 16:57:27

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

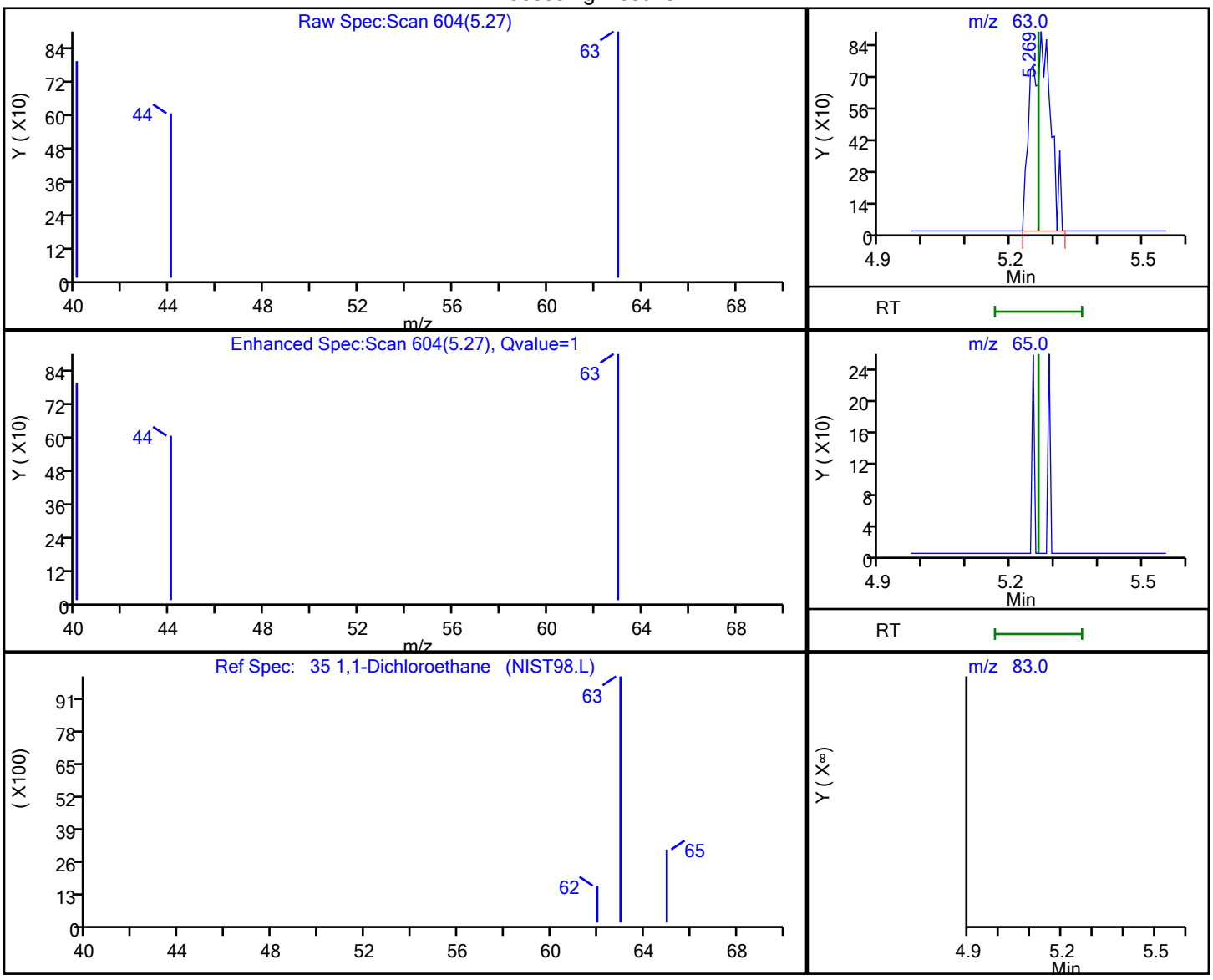
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X14.D				
Injection Date:	29-Dec-2021 15:14:30	Instrument ID:	19094		
Lims ID:	410-67460-A-9	Lab Sample ID:	410-67460-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3

Processing Results



RT	Mass	Response	Amount
5.27	63.00	2801	0.027852
5.26	65.00	0	
5.26	83.00	0	

Reviewer: beckerk, 29-Dec-2021 16:57:17

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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-67460-10

Matrix: Water Lab File ID: HD29X15.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:05

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 15:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 210047 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	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	0.94	J ^c 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	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	0.068	J cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.13	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	0.074	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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-67460-10

Matrix: Water Lab File ID: HD29X15.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:05

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 15:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.17	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)	102	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	107	cn	80-120
2037-26-5	Toluene-d8 (Surr)	90	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D
Lims ID: 410-67460-A-10
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 29-Dec-2021 15:34:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-016
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 17:16:52 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1656

First Level Reviewer: beckerk Date: 29-Dec-2021 17:15:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.135	2.142	-0.007	94	5117	0.0679	
7 Vinyl chloride	62		2.258				ND	
9 Bromomethane	94		2.587				ND	
10 Chloroethane	64		2.672				ND	
18 1,1-Dichloroethene	96		3.532				ND	
19 Acetone	43	3.562	3.556	0.006	96	10332	0.9427	M
24 Carbon disulfide	76		3.836				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	89	120953	50.0	
29 Methylene Chloride	84		4.190				ND	
32 Methyl tert-butyl ether	73	4.586	4.592	-0.006	8	4798	0.0435	
33 trans-1,2-Dichloroethene	96		4.611				ND	
35 1,1-Dichloroethane	63		5.263				ND	
41 2-Butanone (MEK)	43		6.043				ND	7
42 cis-1,2-Dichloroethene	96	6.098	6.092	0.006	78	7872	0.1328	
48 Chlorobromomethane	128		6.421				ND	
50 Chloroform	83	6.574	6.568	0.006	90	6530	0.0669	
$ 51 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	94	532330	10.7	
52 1,1,1-Trichloroethane	97		6.799				ND	
56 Carbon tetrachloride	117		7.013				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	71	98851	10.6	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.336				ND	7
* 65 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	1892287	10.0	
67 Trichloroethene	95	8.159	8.147	0.012	96	10058	0.1676	
70 1,2-Dichloropropane	63		8.482				ND	
75 Dichlorobromomethane	83		8.823				ND	
80 cis-1,3-Dichloropropene	75		9.372				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.537				ND	7
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2274405	8.98	
83 Toluene	92	9.756	9.756	0.000	96	5722	0.0314	
85 trans-1,3-Dichloropropene	75		10.006				ND	
87 1,1,2-Trichloroethane	97		10.213				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.299	0.012	91	6389	0.0736	
91 2-Hexanone	43		10.421				ND	
93 Chlorodibromomethane	129		10.591				ND	
94 Ethylene Dibromide	107		10.701				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	85	1950750	10.0	
98 Chlorobenzene	112		11.158				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.237				ND	
100 Ethylbenzene	91		11.244				ND	7
S 95 Xylenes, Total	106		11.245				ND	7
101 m-Xylene & p-Xylene	106		11.353				ND	7
102 o-Xylene	106		11.683				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	1001198	10.2	
109 1,1,2,2-Tetrachloroethane	83		12.225				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1170524	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

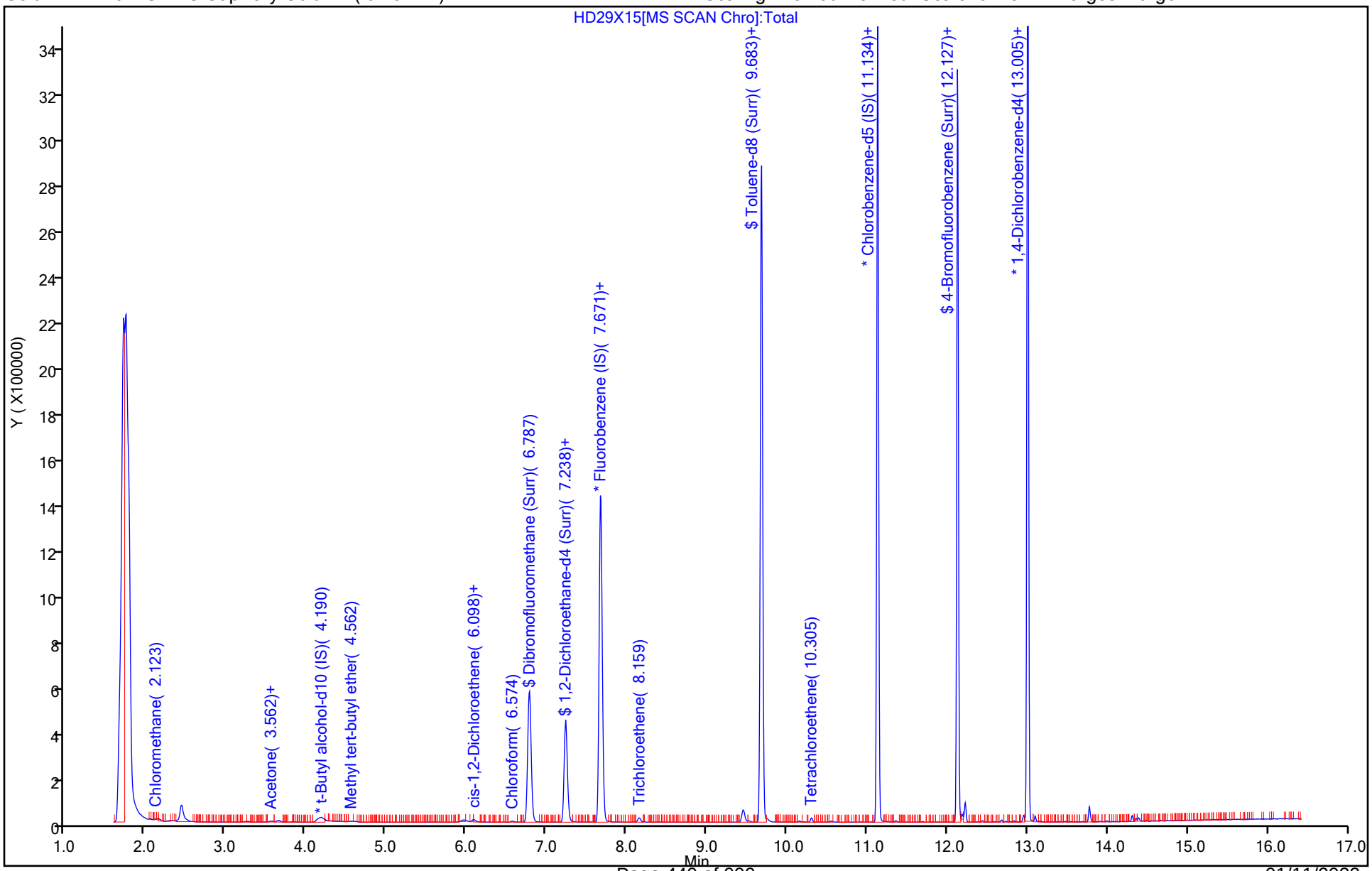
Report Date: 29-Dec-2021 17:17:17 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D

Injection Date:	29-Dec-2021 15:34:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	410-67460-A-10	Lab Sample ID:	410-67460-10	Worklist Smp#:	16
Client ID:	HD-COD-SW-27-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D				
Lims ID:	410-67460-A-10				
Client ID:	HD-COD-SW-27-0/1-0				
Sample Type:	Client				
Inject. Date:	29-Dec-2021 15:34:30	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-016				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 17:16:52	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1656				

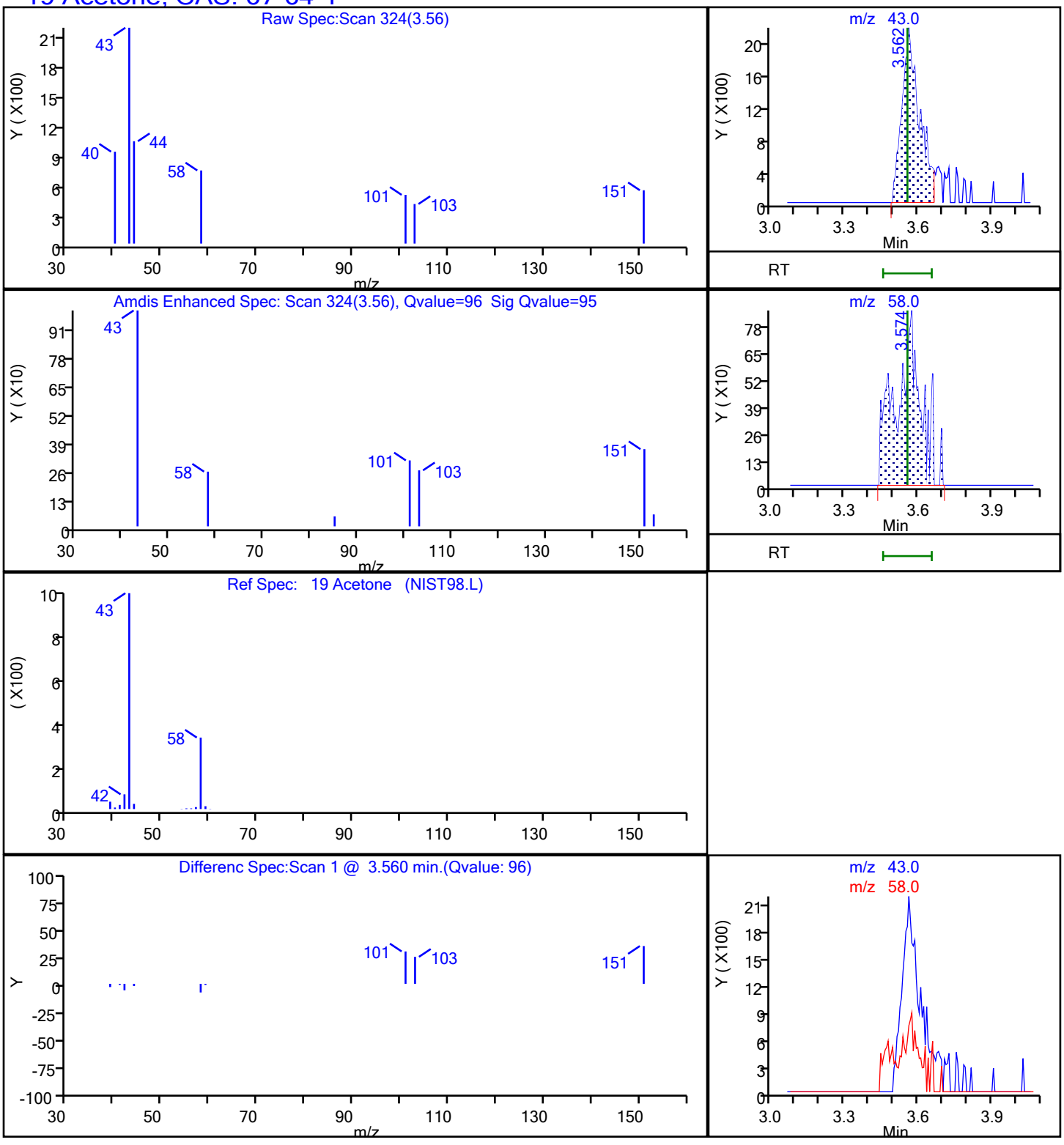
First Level Reviewer: beckerk Date: 29-Dec-2021 17:15:35

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.7	106.64
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.23
$ 82 Toluene-d8 (Surr)	10.0	8.98	89.76
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.2	102.11

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D				
Injection Date:	29-Dec-2021 15:34:30	Instrument ID:	19094		
Lims ID:	410-67460-A-10	Lab Sample ID:	410-67460-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

19 Acetone, CAS: 67-64-1



Report Date: 29-Dec-2021 17:17:17 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D

Injection Date: 29-Dec-2021 15:34:30 Instrument ID: 19094

Lims ID: 410-67460-A-10 Lab Sample ID: 410-67460-10

Client ID: HD-COD-SW-27-0/1-0

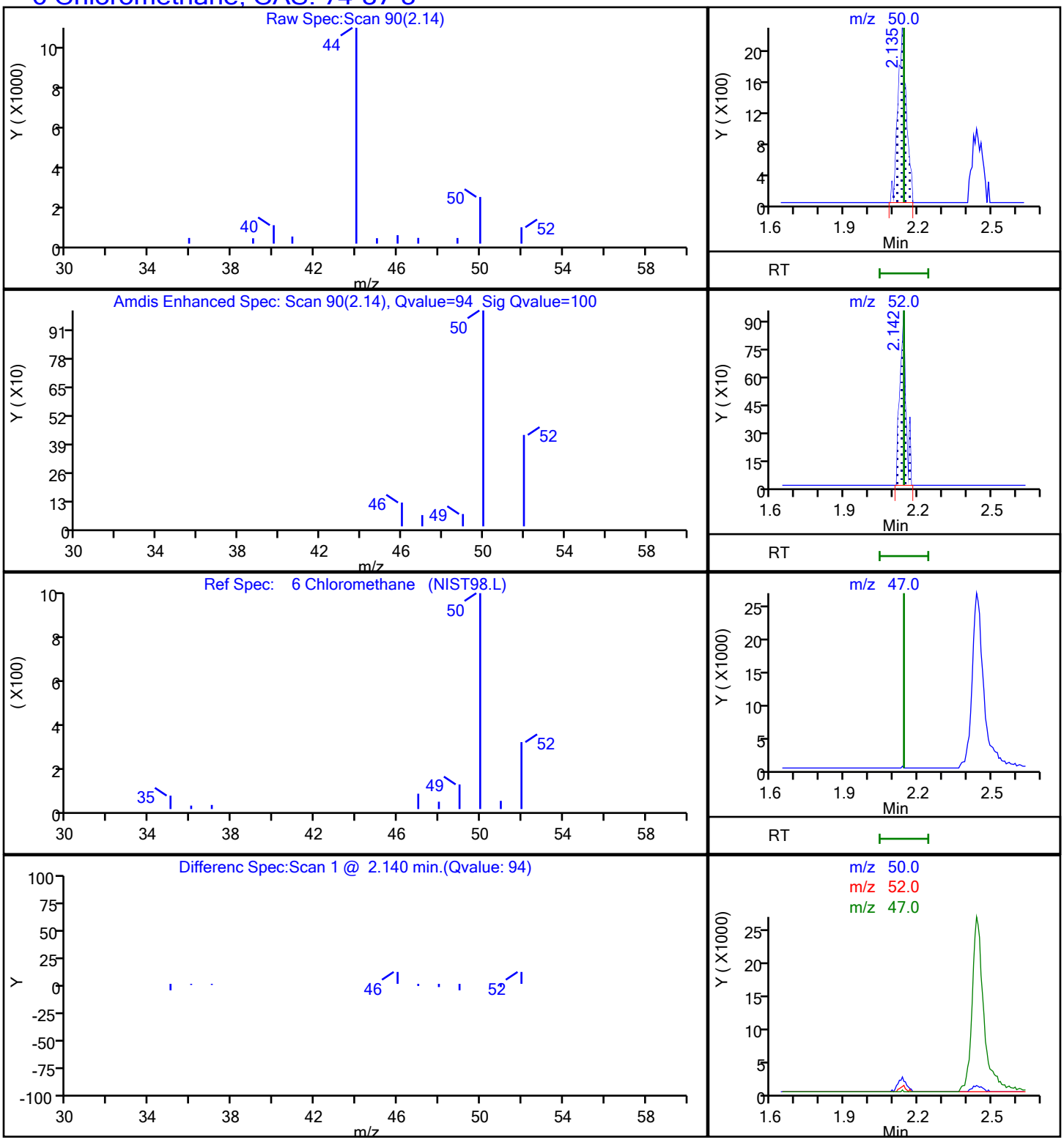
Operator ID: KNK41612 ALS Bottle#: 15 Worklist Smp#: 16

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

6 Chloromethane, CAS: 74-87-3



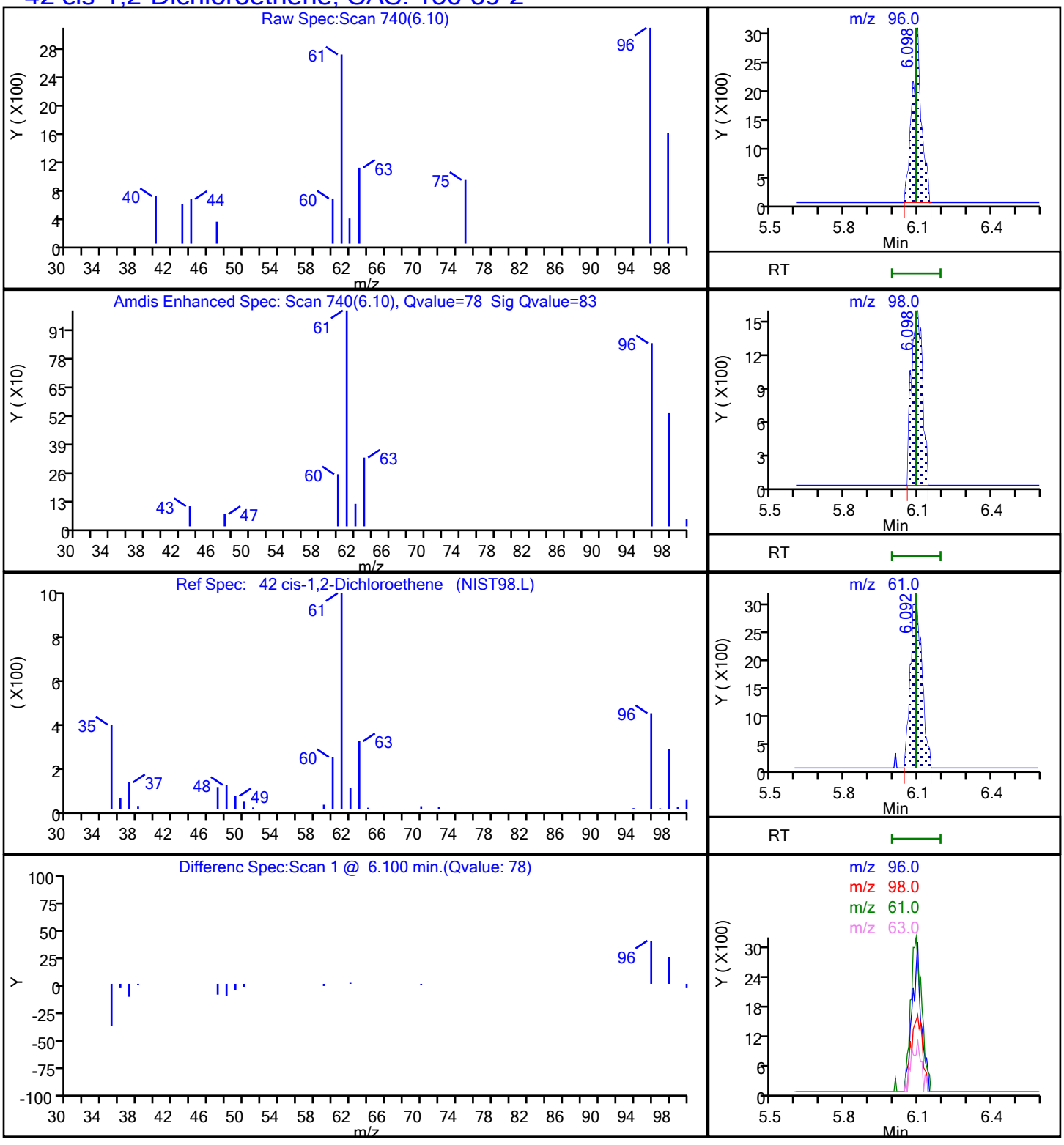
Report Date: 29-Dec-2021 17:17:17 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D

Injection Date:	29-Dec-2021 15:34:30	Instrument ID:	19094		
Lims ID:	410-67460-A-10	Lab Sample ID:	410-67460-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

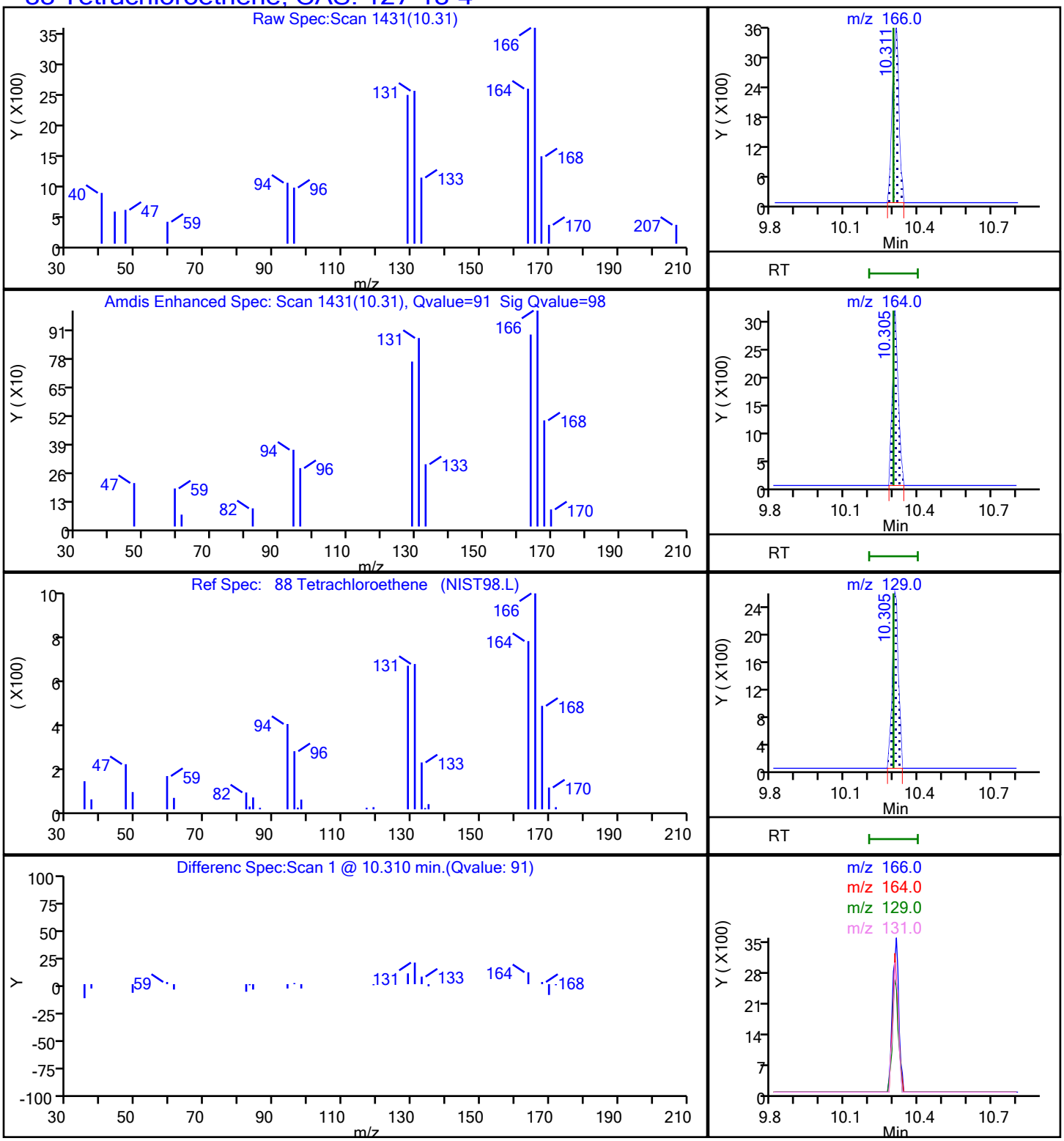
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D				
Injection Date:	29-Dec-2021 15:34:30	Instrument ID:	19094		
Lims ID:	410-67460-A-10	Lab Sample ID:	410-67460-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

88 Tetrachloroethene, CAS: 127-18-4



Report Date: 29-Dec-2021 17:17:17 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D

Injection Date: 29-Dec-2021 15:34:30 Instrument ID: 19094

Lims ID: 410-67460-A-10 Lab Sample ID: 410-67460-10

Client ID: HD-COD-SW-27-0/1-0

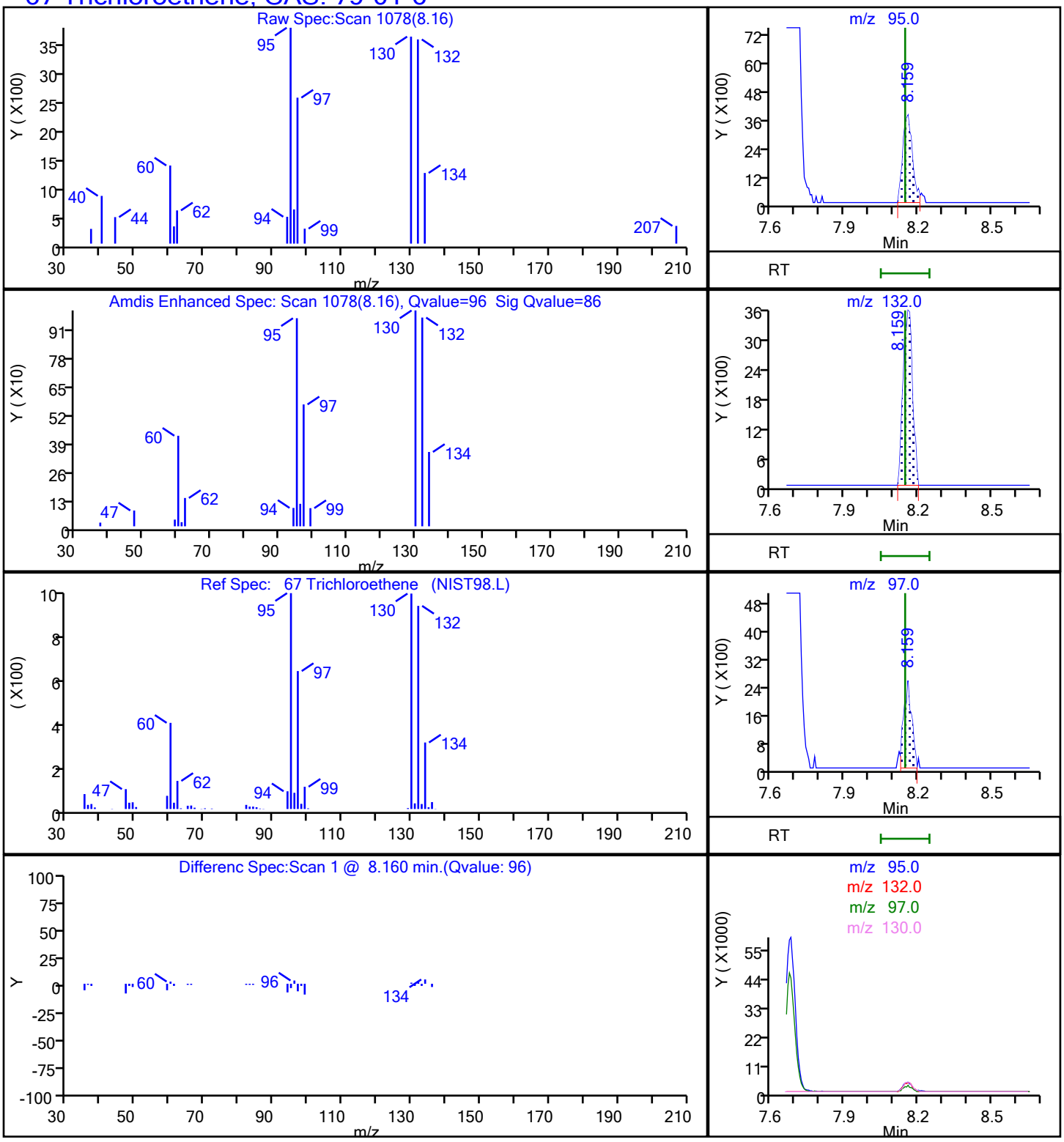
Operator ID: KNK41612 ALS Bottle#: 15 Worklist Smp#: 16

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

67 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

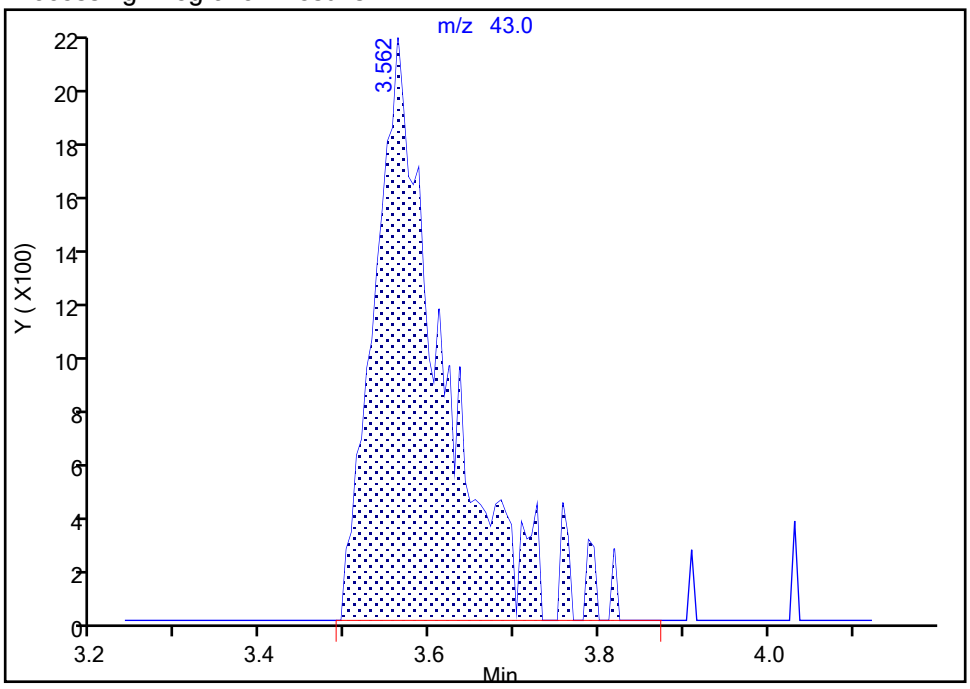
Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X15.D				
Injection Date:	29-Dec-2021 15:34:30	Instrument ID:	19094		
Lims ID:	410-67460-A-10	Lab Sample ID:	410-67460-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

19 Acetone, CAS: 67-64-1

Signal: 1

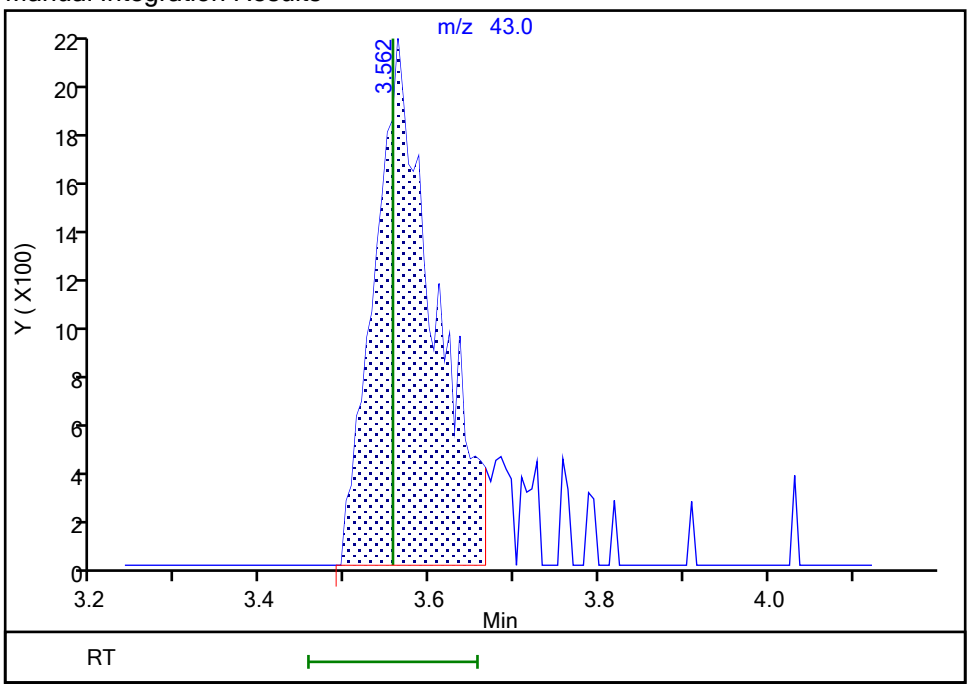
Processing Integration Results

RT: 3.56
Area: 12096
Amount: 1.103593
Amount Units: ug/l



Manual Integration Results

RT: 3.56
Area: 10332
Amount: 0.942652
Amount Units: ug/l



Reviewer: beckerk, 29-Dec-2021 17:15:26

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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-67460-11

Matrix: Water Lab File ID: HD29X16.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:55

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 15:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 210047 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	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	1.2	J ^c 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	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	0.16	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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-67460-11

Matrix: Water Lab File ID: HD29X16.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:55

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 15:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 210047 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)	107	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	102	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	108	cn	80-120
2037-26-5	Toluene-d8 (Surr)	89	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D
Lims ID: 410-67460-A-11
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 29-Dec-2021 15:55:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-017
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 17:16:52 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1656

First Level Reviewer: beckerk Date: 29-Dec-2021 17:16:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.148	2.142	0.006	91	4128	0.0547	
7 Vinyl chloride	62		2.258				ND	
9 Bromomethane	94		2.587				ND	
10 Chloroethane	64		2.672				ND	
18 1,1-Dichloroethene	96		3.532				ND	
19 Acetone	43	3.580	3.556	0.024	69	12609	1.17	M
24 Carbon disulfide	76		3.836				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	90	118898	50.0	
29 Methylene Chloride	84		4.190				ND	
32 Methyl tert-butyl ether	73	4.611	4.592	0.019	1	5062	0.0458	
33 trans-1,2-Dichloroethene	96		4.611				ND	
35 1,1-Dichloroethane	63		5.263				ND	
41 2-Butanone (MEK)	43		6.043				ND	7
42 cis-1,2-Dichloroethene	96	6.098	6.092	0.006	81	6747	0.1137	
48 Chlorobromomethane	128		6.421				ND	
50 Chloroform	83	6.574	6.568	0.006	90	8710	0.0892	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	540275	10.8	
52 1,1,1-Trichloroethane	97		6.799				ND	7
56 Carbon tetrachloride	117		7.013				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.250	7.238	0.012	47	99649	10.7	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.336				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	1894873	10.0	
67 Trichloroethene	95	8.165	8.147	0.018	96	8522	0.1418	M
70 1,2-Dichloropropane	63		8.482				ND	
75 Dichlorobromomethane	83		8.823				ND	7
80 cis-1,3-Dichloropropene	75		9.372				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.537				ND	7
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2275746	8.91	
83 Toluene	92	9.762	9.756	0.006	96	9613	0.0524	
85 trans-1,3-Dichloropropene	75		10.006				ND	
87 1,1,2-Trichloroethane	97		10.213				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.305	10.299	0.006	97	13591	0.1555	
91 2-Hexanone	43		10.421				ND	
93 Chlorodibromomethane	129		10.591				ND	
94 Ethylene Dibromide	107		10.701				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	85	1965254	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.237				ND	
100 Ethylbenzene	91		11.244				ND	7
S 95 Xylenes, Total	106		11.245				ND	7
101 m-Xylene & p-Xylene	106		11.353				ND	7
102 o-Xylene	106		11.683				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	1006982	10.2	
109 1,1,2,2-Tetrachloroethane	83		12.225				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1178206	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

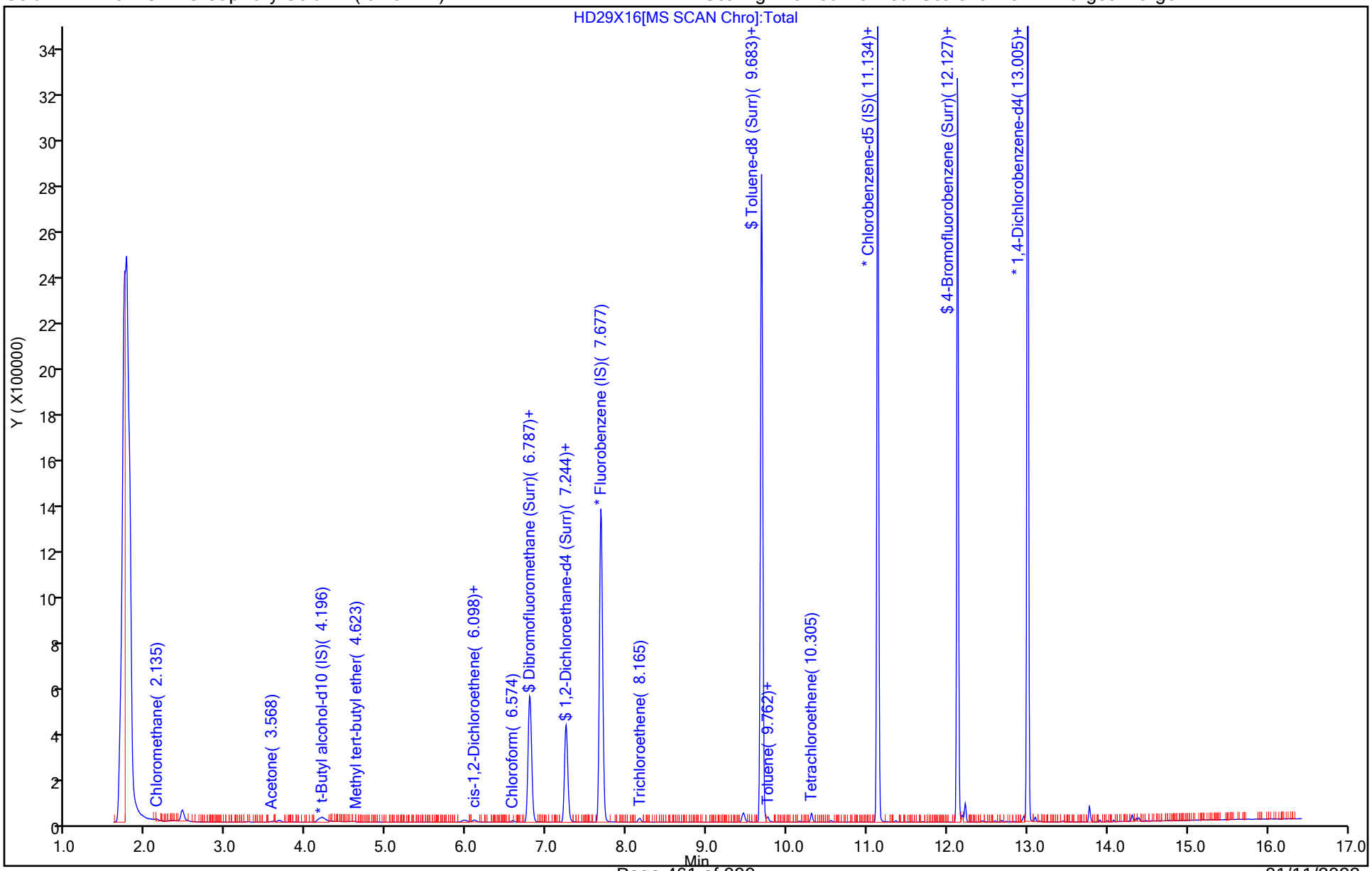
Report Date: 29-Dec-2021 17:17:18 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D

Injection Date:	29-Dec-2021 15:55:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	410-67460-A-11	Lab Sample ID:	410-67460-11	Worklist Smp#:	17
Client ID:	HD-COD-SW-28-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D				
Lims ID:	410-67460-A-11				
Client ID:	HD-COD-SW-28-0/1-0				
Sample Type:	Client				
Inject. Date:	29-Dec-2021 15:55:30	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-017				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 17:16:52	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1656				

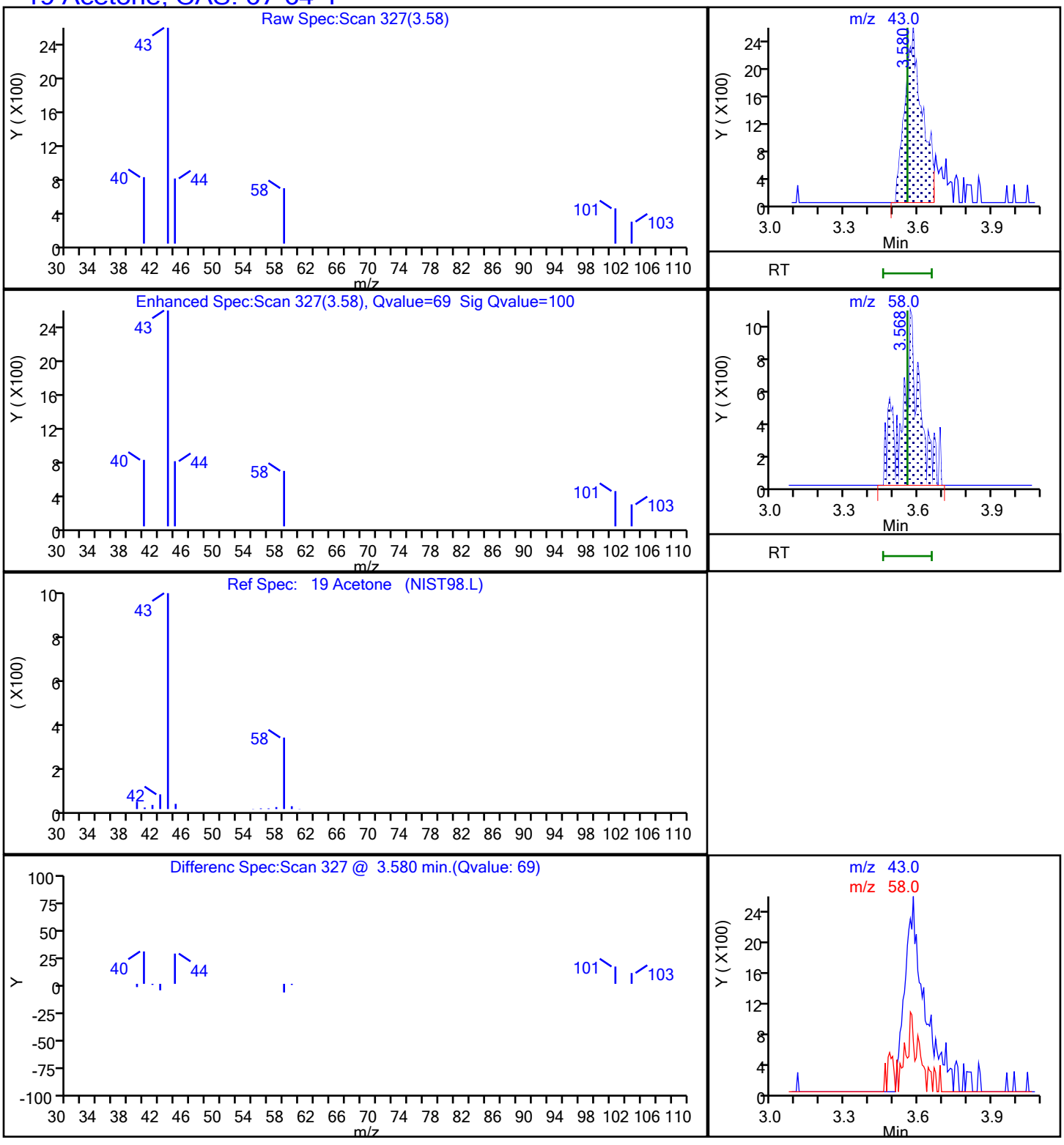
First Level Reviewer: beckerk Date: 29-Dec-2021 17:16:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.8	108.08
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.94
$ 82 Toluene-d8 (Surr)	10.0	8.91	89.15
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.2	101.94

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D				
Injection Date:	29-Dec-2021 15:55:30	Instrument ID:	19094		
Lims ID:	410-67460-A-11	Lab Sample ID:	410-67460-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 Acetone, CAS: 67-64-1



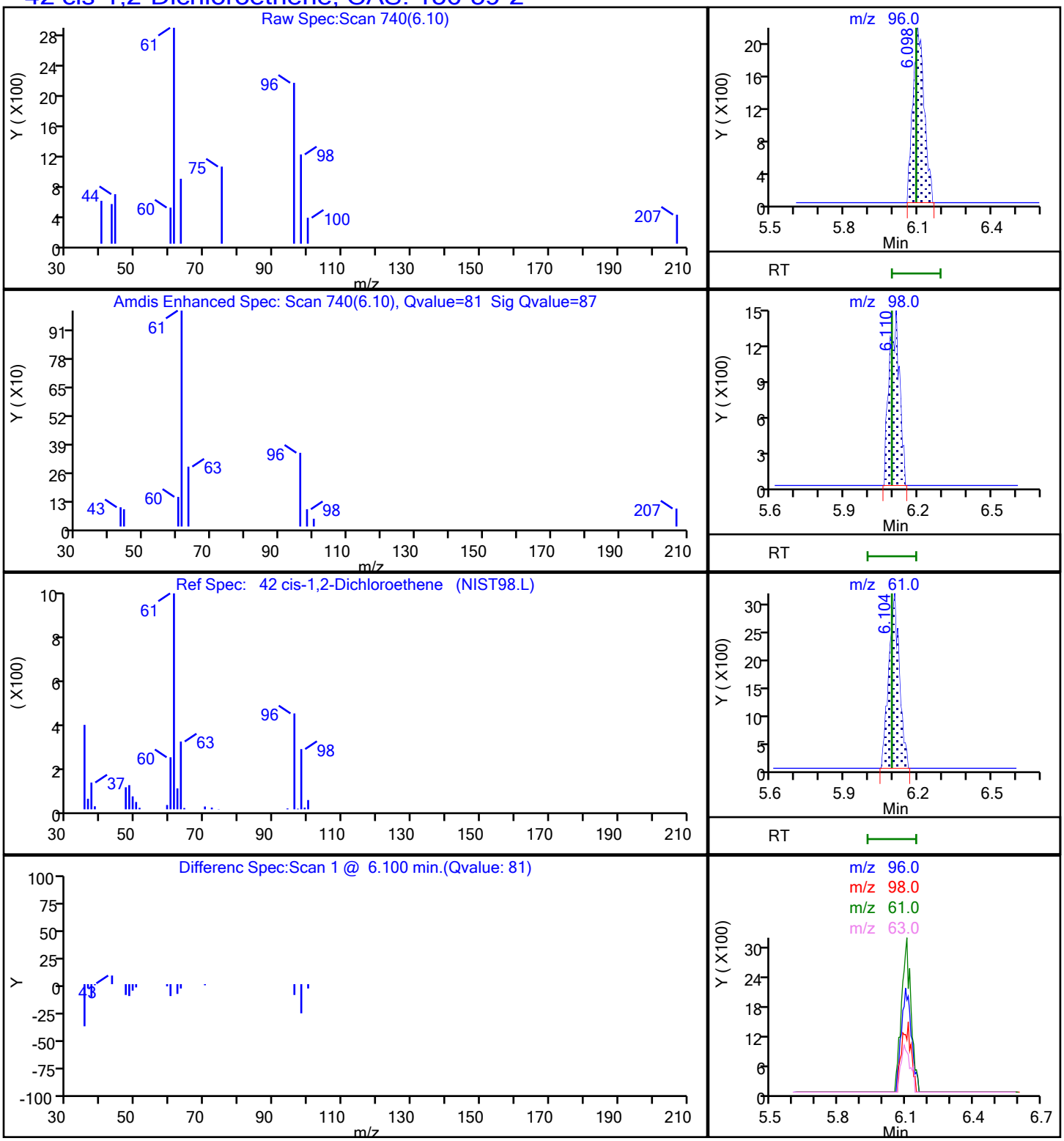
Report Date: 29-Dec-2021 17:17:19 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D

Injection Date:	29-Dec-2021 15:55:30	Instrument ID:	19094		
Lims ID:	410-67460-A-11	Lab Sample ID:	410-67460-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

42 cis-1,2-Dichloroethene, CAS: 156-59-2

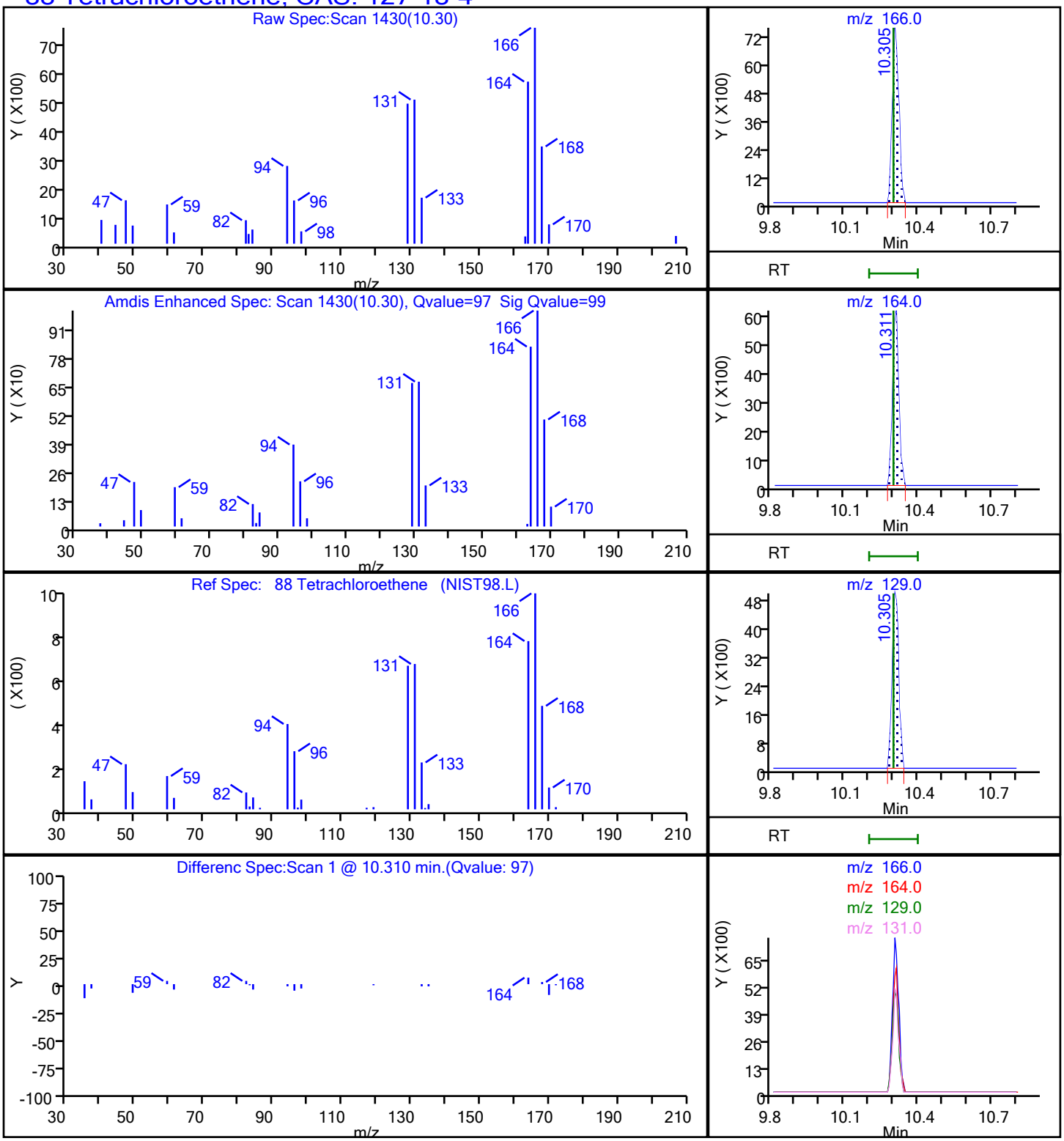


Report Date: 29-Dec-2021 17:17:19 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D				
Injection Date:	29-Dec-2021 15:55:30	Instrument ID:	19094		
Lims ID:	410-67460-A-11	Lab Sample ID:	410-67460-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

88 Tetrachloroethene, CAS: 127-18-4

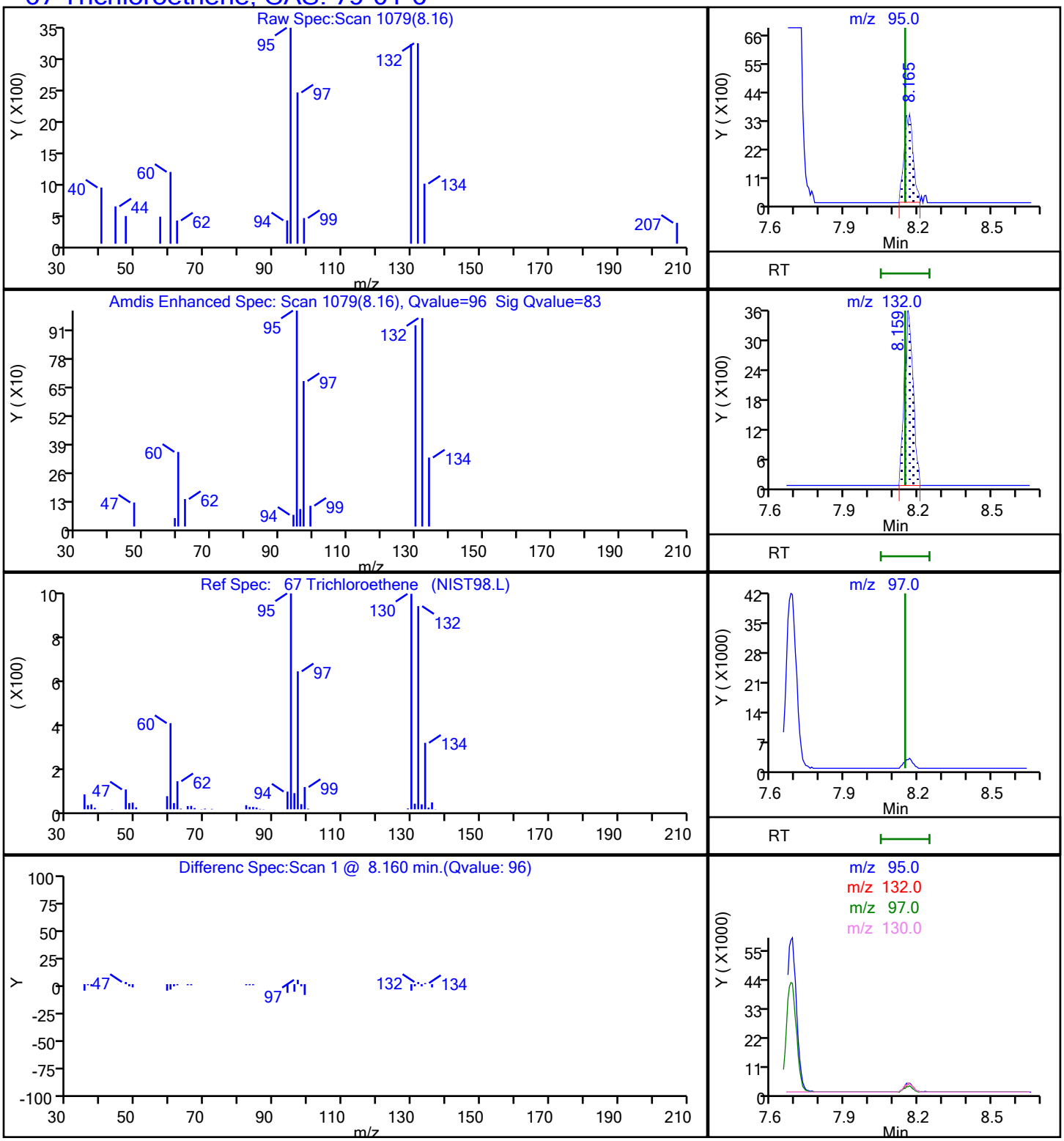


Report Date: 29-Dec-2021 17:17:19 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D				
Injection Date:	29-Dec-2021 15:55:30	Instrument ID:	19094		
Lims ID:	410-67460-A-11	Lab Sample ID:	410-67460-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

67 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

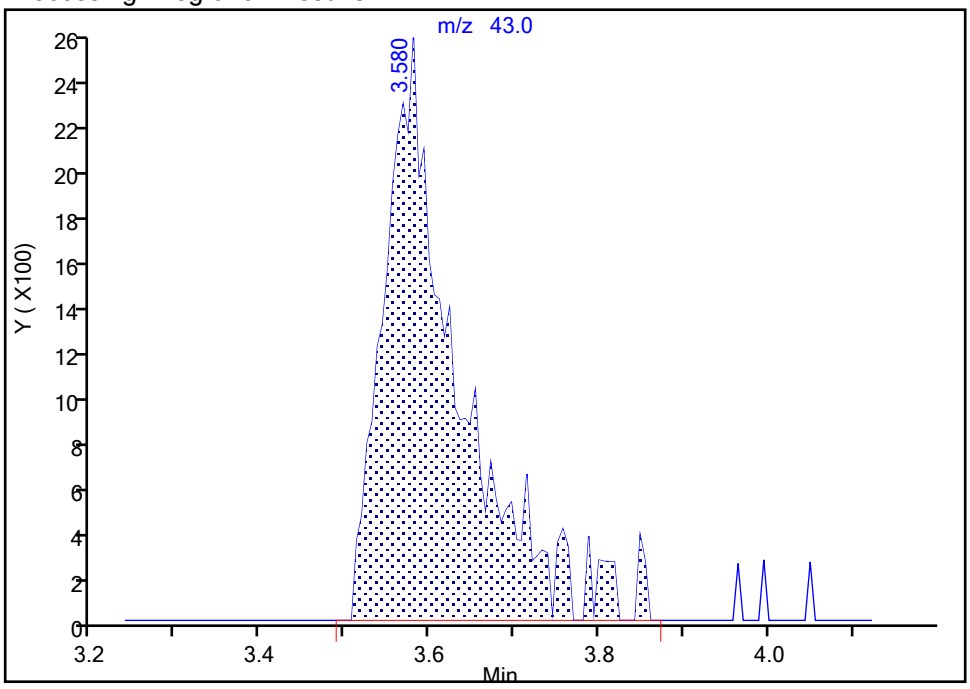
Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D				
Injection Date:	29-Dec-2021 15:55:30	Instrument ID:	19094		
Lims ID:	410-67460-A-11	Lab Sample ID:	410-67460-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

19 Acetone, CAS: 67-64-1

Signal: 1

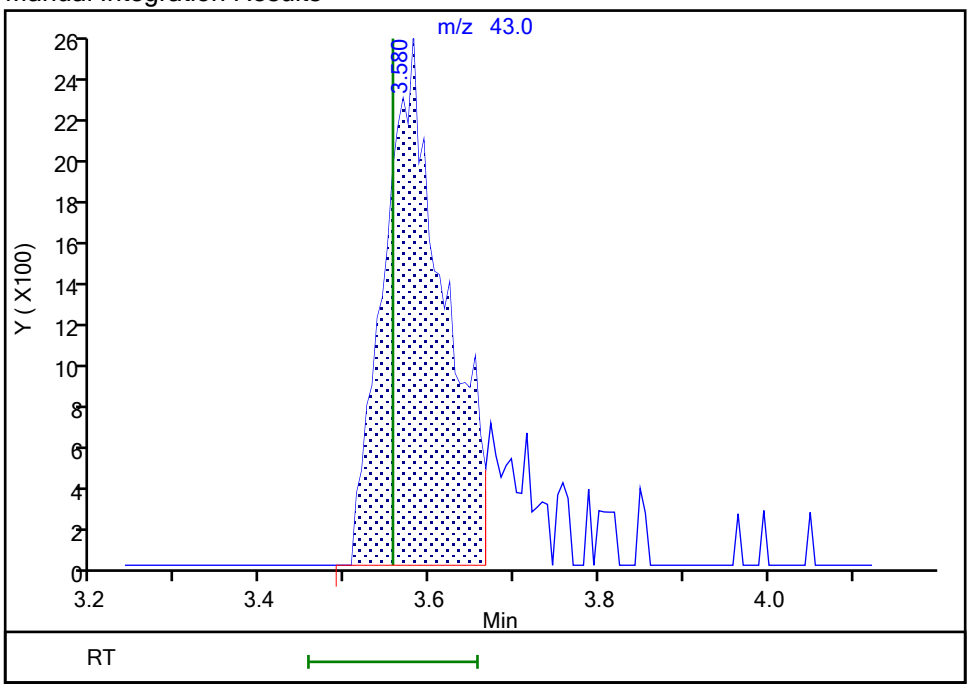
Processing Integration Results

RT: 3.58
Area: 15651
Amount: 1.452618
Amount Units: ug/l



Manual Integration Results

RT: 3.58
Area: 12609
Amount: 1.170280
Amount Units: ug/l



Reviewer: beckerk, 29-Dec-2021 17:15:49

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

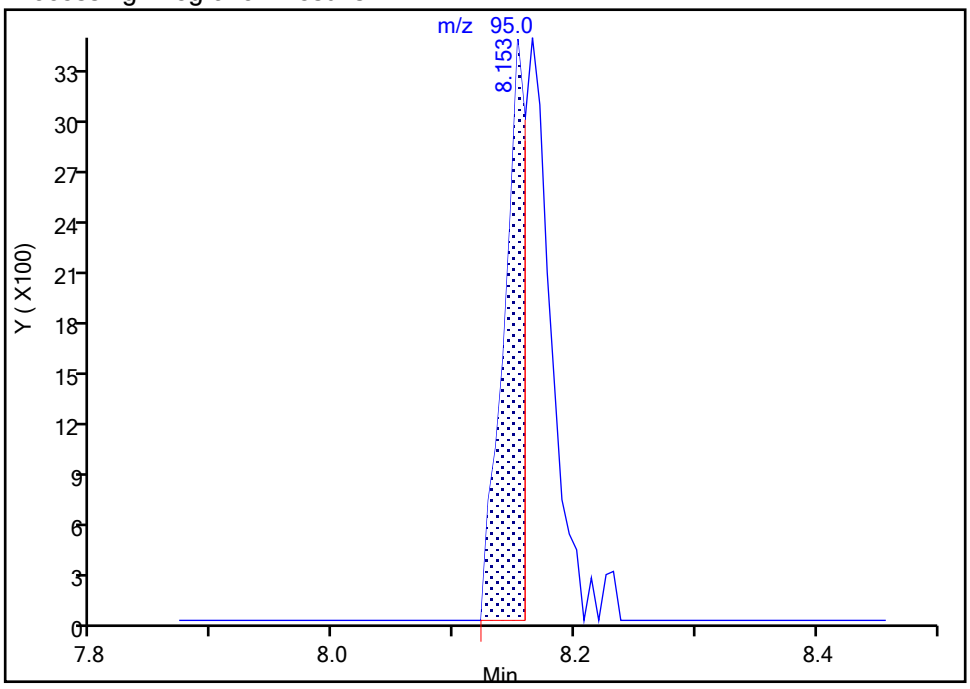
Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X16.D				
Injection Date:	29-Dec-2021 15:55:30	Instrument ID:	19094		
Lims ID:	410-67460-A-11	Lab Sample ID:	410-67460-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

67 Trichloroethene, CAS: 79-01-6

Signal: 1

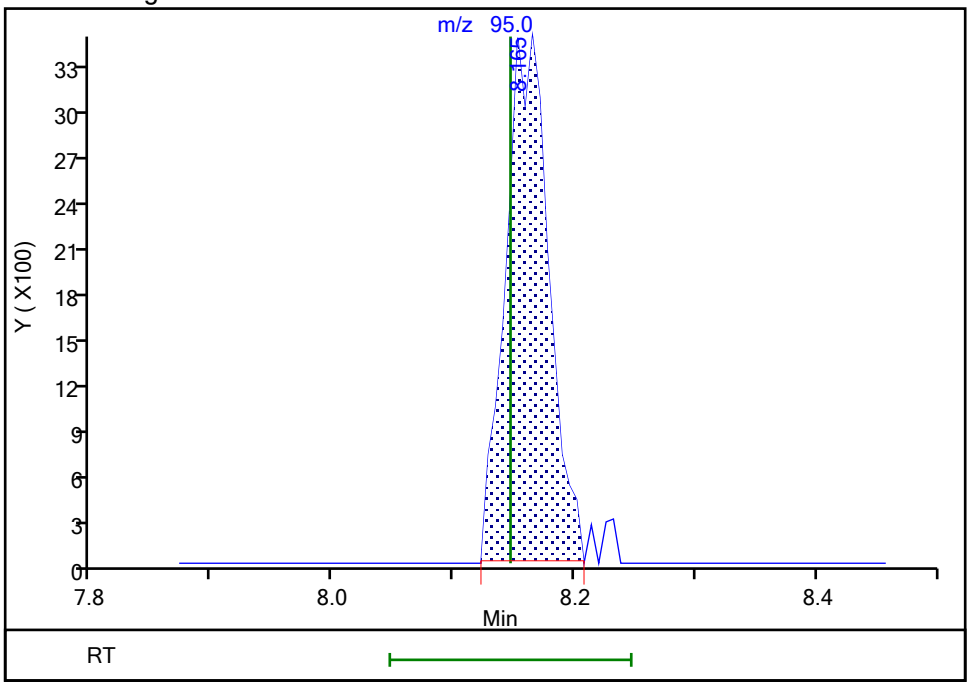
Processing Integration Results

RT: 8.15
Area: 4397
Amount: 0.073156
Amount Units: ug/l



Manual Integration Results

RT: 8.16
Area: 8522
Amount: 0.141786
Amount Units: ug/l



Reviewer: beckerk, 29-Dec-2021 17:16:05

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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-67460-12

Matrix: Water Lab File ID: HD29X17.D

Analysis Method: 8260D Date Collected: 12/17/2021 08:30

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 16:15

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.: 210047 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	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	1.0	J ^c 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	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	0.094	J cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.16	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	0.32	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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-67460-12

Matrix: Water Lab File ID: HD29X17.D

Analysis Method: 8260D Date Collected: 12/17/2021 08:30

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 16:15

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.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.20	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)	103	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	107	cn	80-120
2037-26-5	Toluene-d8 (Surr)	89	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D
Lims ID: 410-67460-A-12
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 29-Dec-2021 16:15:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-018
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 17:16:52 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1656

First Level Reviewer: beckerk Date: 29-Dec-2021 17:16:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.135	2.142	-0.007	93	6990	0.0936	
7 Vinyl chloride	62		2.258				ND	7
9 Bromomethane	94		2.587				ND	
10 Chloroethane	64		2.672				ND	
18 1,1-Dichloroethene	96		3.532				ND	
19 Acetone	43	3.586	3.556	0.030	94	11235	1.02	M
24 Carbon disulfide	76		3.836				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	91	121078	50.0	
29 Methylene Chloride	84		4.190				ND	
32 Methyl tert-butyl ether	73	4.611	4.592	0.019	0	3342	0.0306	
33 trans-1,2-Dichloroethene	96		4.611				ND	
35 1,1-Dichloroethane	63		5.263				ND	
41 2-Butanone (MEK)	43		6.043				ND	7
42 cis-1,2-Dichloroethene	96	6.080	6.092	-0.012	76	9632	0.1640	
48 Chlorobromomethane	128		6.421				ND	
50 Chloroform	83	6.574	6.568	0.006	88	5854	0.0605	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	530585	10.7	
52 1,1,1-Trichloroethane	97		6.799				ND	7
56 Carbon tetrachloride	117		7.013				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	47	96198	10.4	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.336				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	1875605	10.0	
67 Trichloroethene	95	8.159	8.147	0.012	97	11906	0.2001	
70 1,2-Dichloropropane	63		8.482				ND	
75 Dichlorobromomethane	83		8.823				ND	
80 cis-1,3-Dichloropropene	75		9.372				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.537				ND	7
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2249911	8.92	
83 Toluene	92	9.762	9.756	0.006	98	9093	0.0501	
85 trans-1,3-Dichloropropene	75		10.006				ND	
87 1,1,2-Trichloroethane	97		10.213				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.305	10.299	0.006	97	28027	0.3243	
91 2-Hexanone	43		10.421				ND	
93 Chlorodibromomethane	129		10.591				ND	
94 Ethylene Dibromide	107		10.701				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	85	1942592	10.0	
98 Chlorobenzene	112		11.158				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.237				ND	
100 Ethylbenzene	91		11.244				ND	7
S 95 Xylenes, Total	106		11.245				ND	7
101 m-Xylene & p-Xylene	106		11.353				ND	7
102 o-Xylene	106		11.683				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	1006052	10.3	
109 1,1,2,2-Tetrachloroethane	83		12.225				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1160772	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

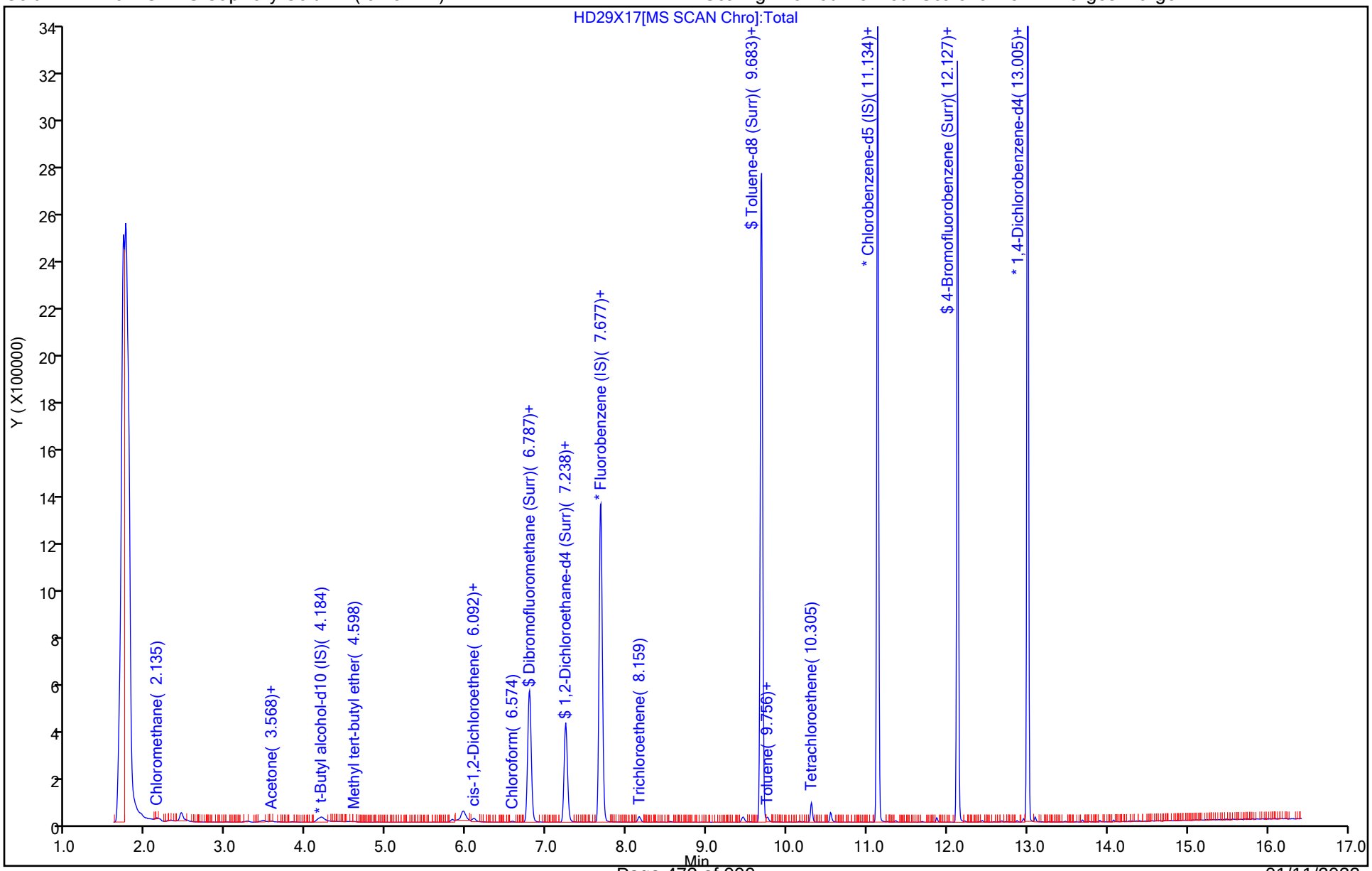
Report Date: 29-Dec-2021 17:17:20 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D

Injection Date:	29-Dec-2021 16:15:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	410-67460-A-12	Lab Sample ID:	410-67460-12	Worklist Smp#:	18
Client ID:	HD-COD-SW-29-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D				
Lims ID:	410-67460-A-12				
Client ID:	HD-COD-SW-29-0/1-0				
Sample Type:	Client				
Inject. Date:	29-Dec-2021 16:15:30	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-018				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 17:16:52	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1656				

First Level Reviewer: beckerk Date: 29-Dec-2021 17:16:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.7	107.23
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.30
$ 82 Toluene-d8 (Surr)	10.0	8.92	89.16
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.3	103.03

Report Date: 29-Dec-2021 17:17:20 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D

Injection Date: 29-Dec-2021 16:15:30 Instrument ID: 19094

Lims ID: 410-67460-A-12 Lab Sample ID: 410-67460-12

Client ID: HD-COD-SW-29-0/1-0

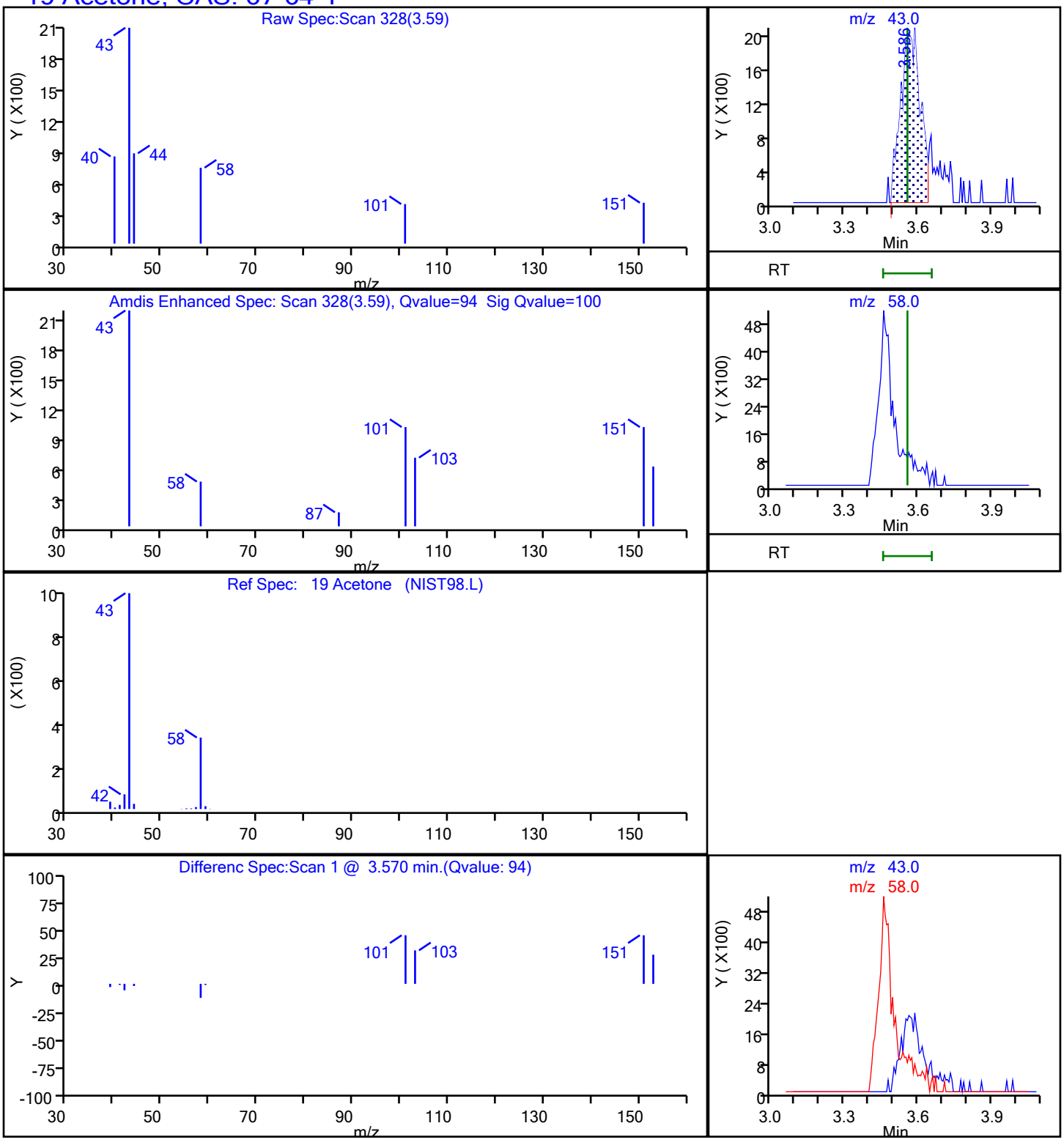
Operator ID: KNK41612 ALS Bottle#: 17 Worklist Smp#: 18

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

19 Acetone, CAS: 67-64-1



Report Date: 29-Dec-2021 17:17:20 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D

Injection Date: 29-Dec-2021 16:15:30 Instrument ID: 19094

Lims ID: 410-67460-A-12 Lab Sample ID: 410-67460-12

Client ID: HD-COD-SW-29-0/1-0

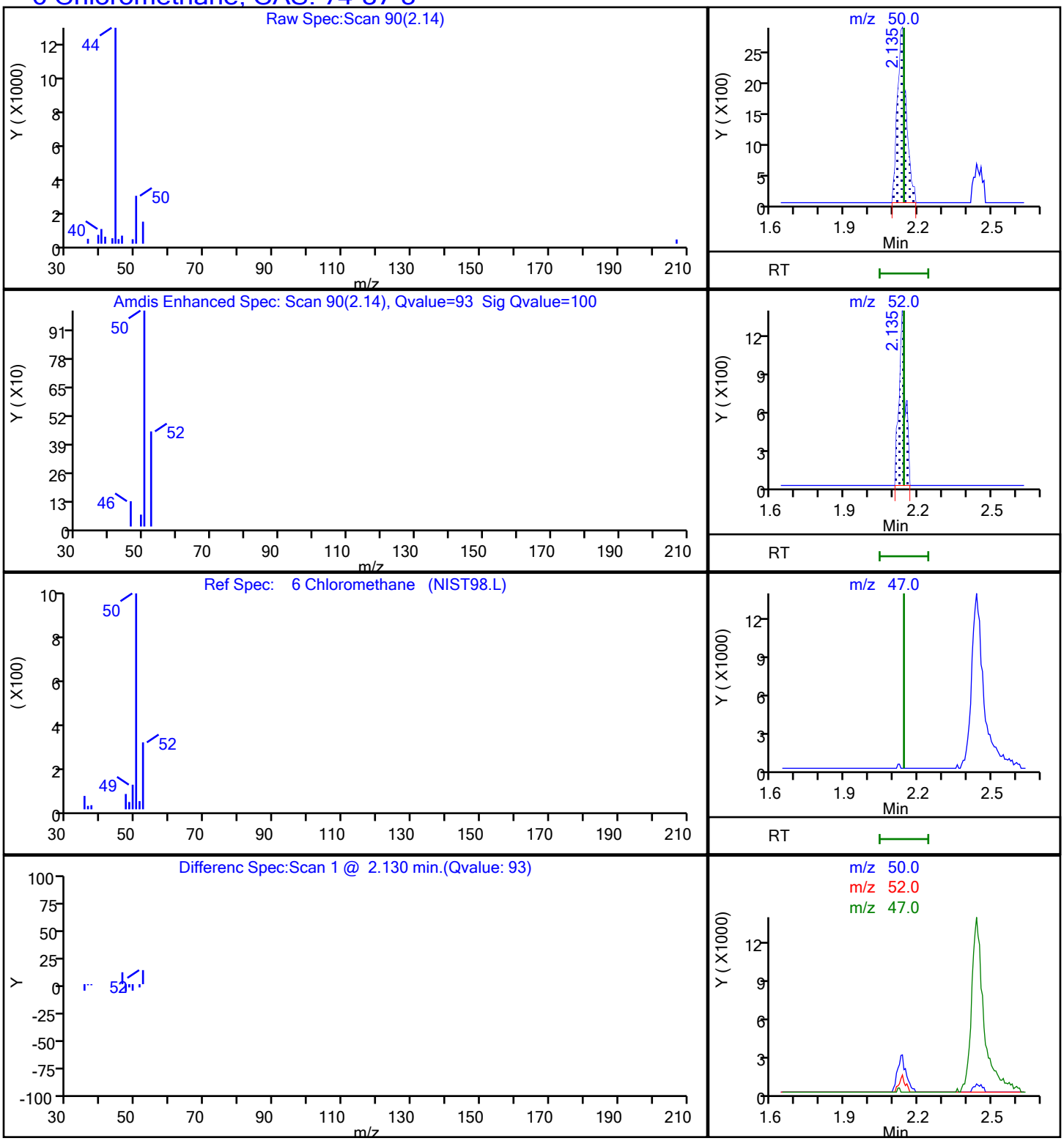
Operator ID: KNK41612 ALS Bottle#: 17 Worklist Smp#: 18

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

6 Chloromethane, CAS: 74-87-3



Report Date: 29-Dec-2021 17:17:20 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D

Injection Date: 29-Dec-2021 16:15:30 Instrument ID: 19094

Lims ID: 410-67460-A-12 Lab Sample ID: 410-67460-12

Client ID: HD-COD-SW-29-0/1-0

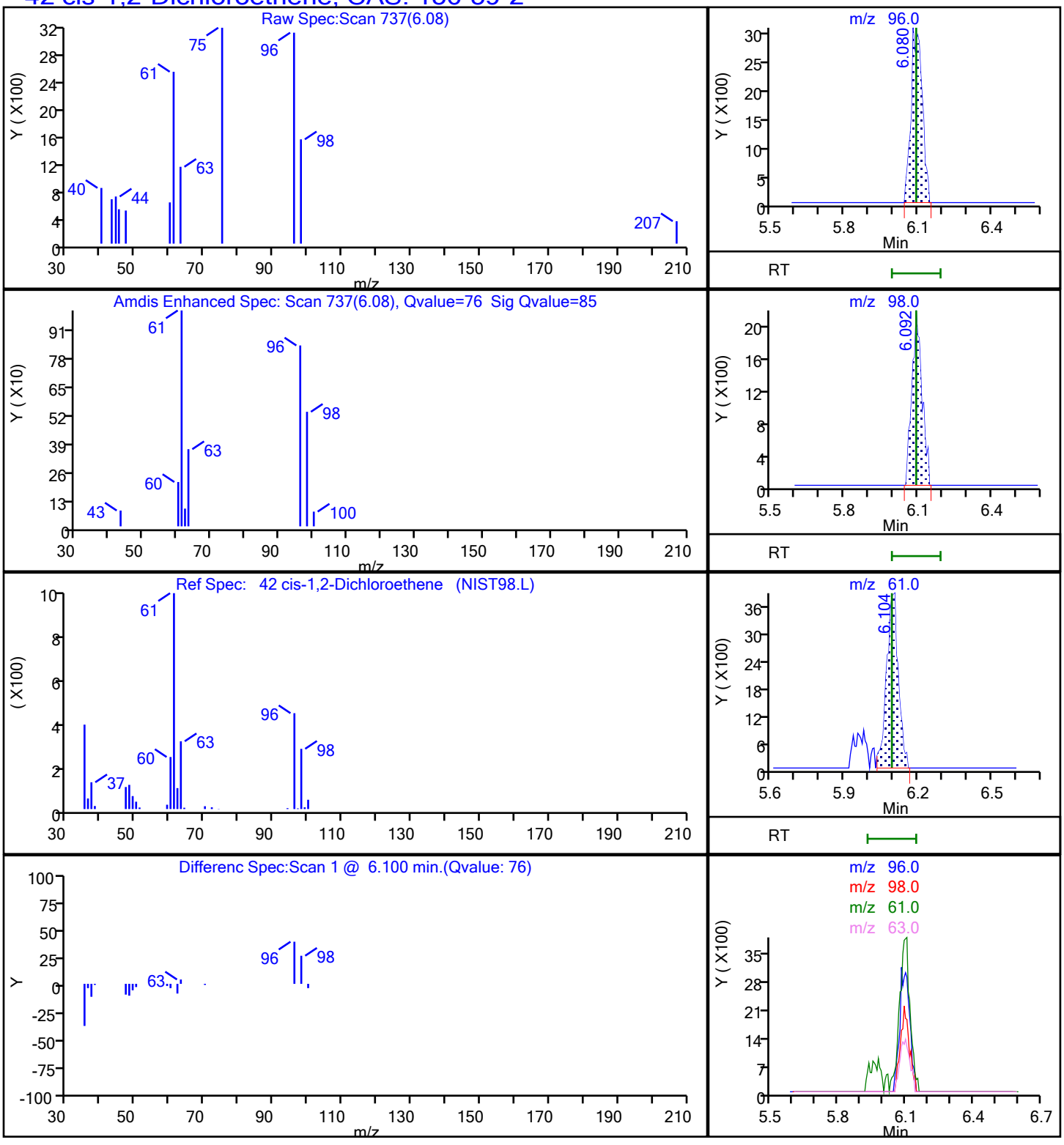
Operator ID: KNK41612 ALS Bottle#: 17 Worklist Smp#: 18

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

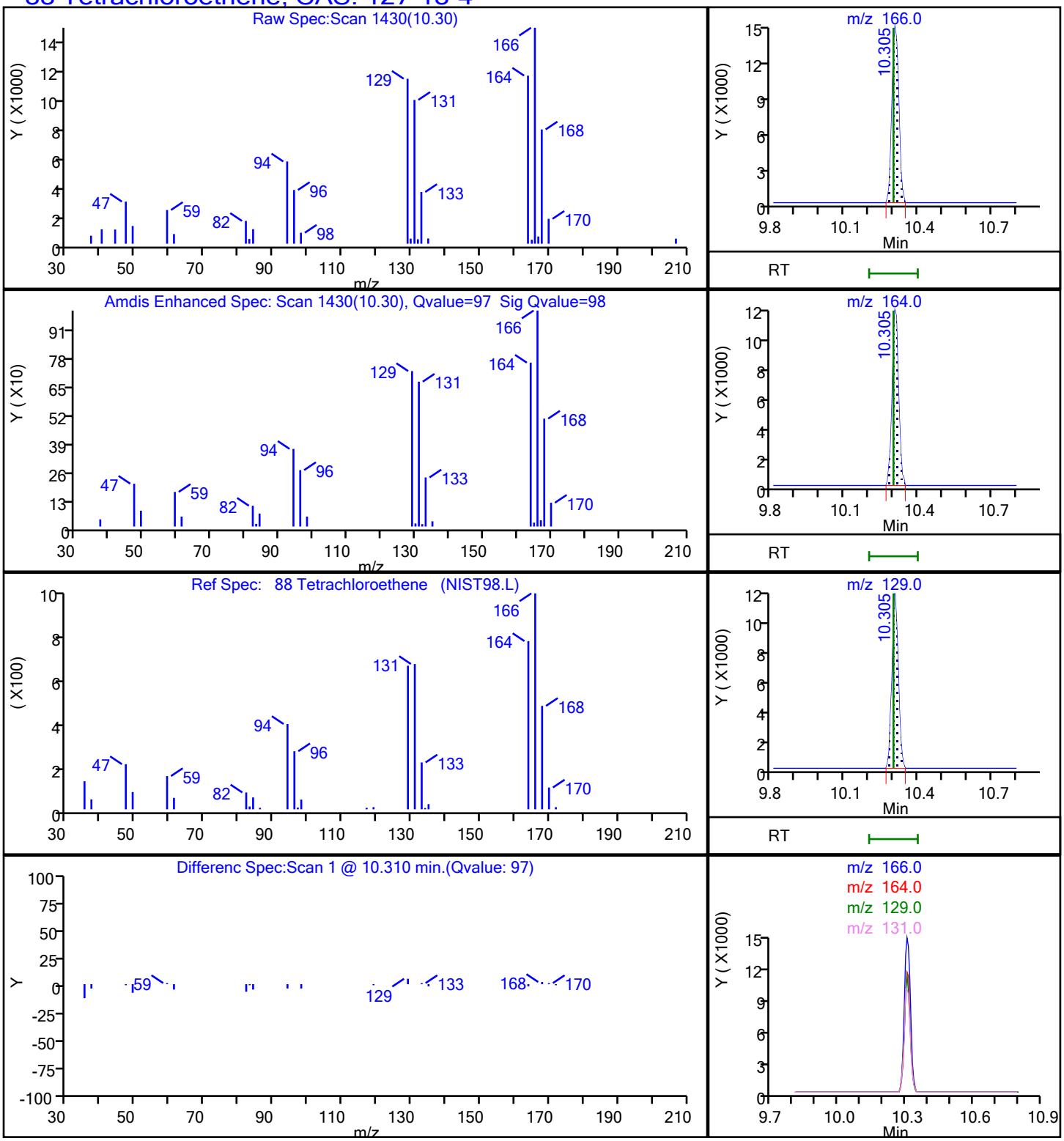
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D				
Injection Date:	29-Dec-2021 16:15:30	Instrument ID:	19094		
Lims ID:	410-67460-A-12	Lab Sample ID:	410-67460-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

88 Tetrachloroethene, CAS: 127-18-4

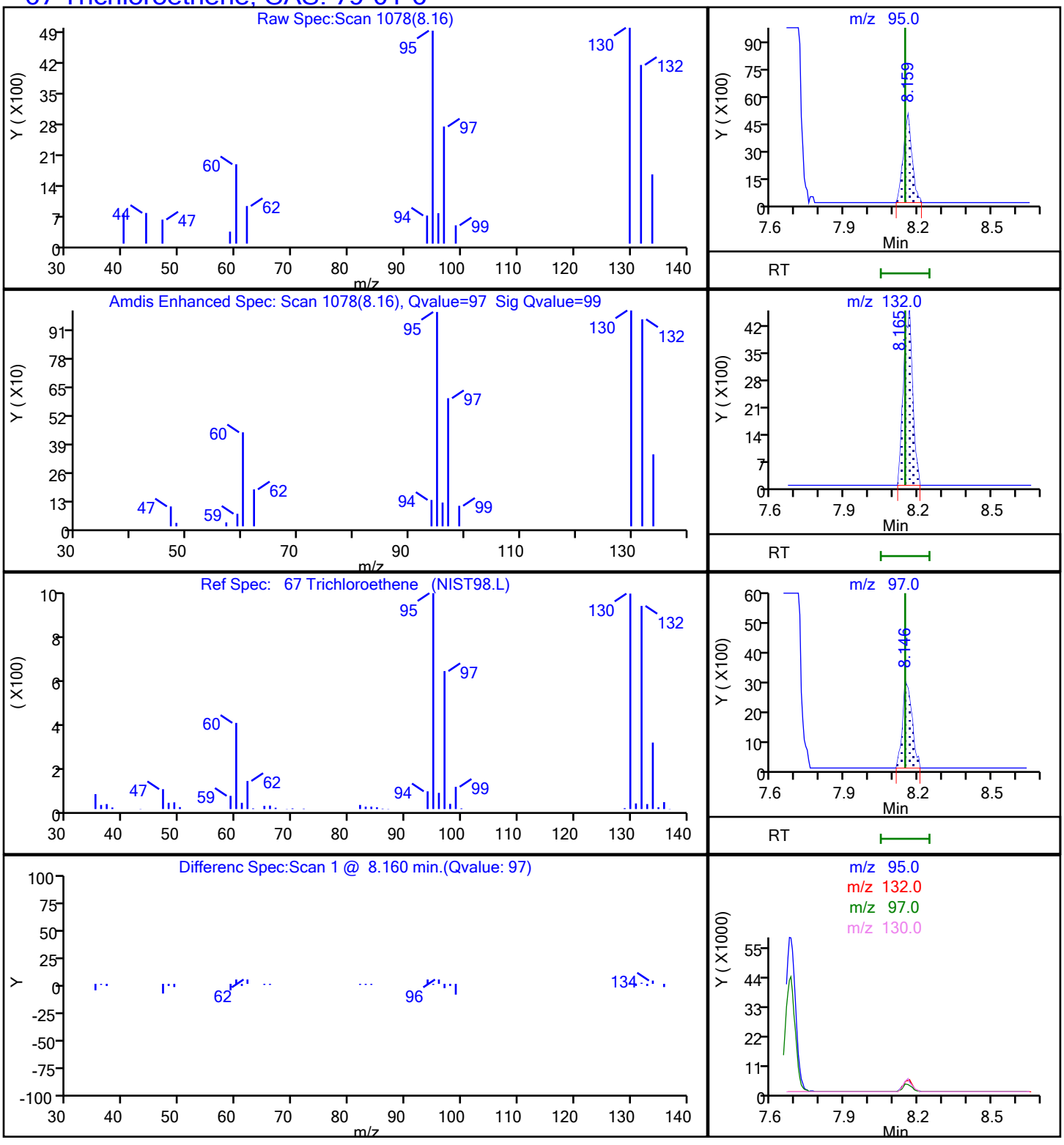


Report Date: 29-Dec-2021 17:17:20 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D				
Injection Date:	29-Dec-2021 16:15:30	Instrument ID:	19094		
Lims ID:	410-67460-A-12	Lab Sample ID:	410-67460-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

67 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

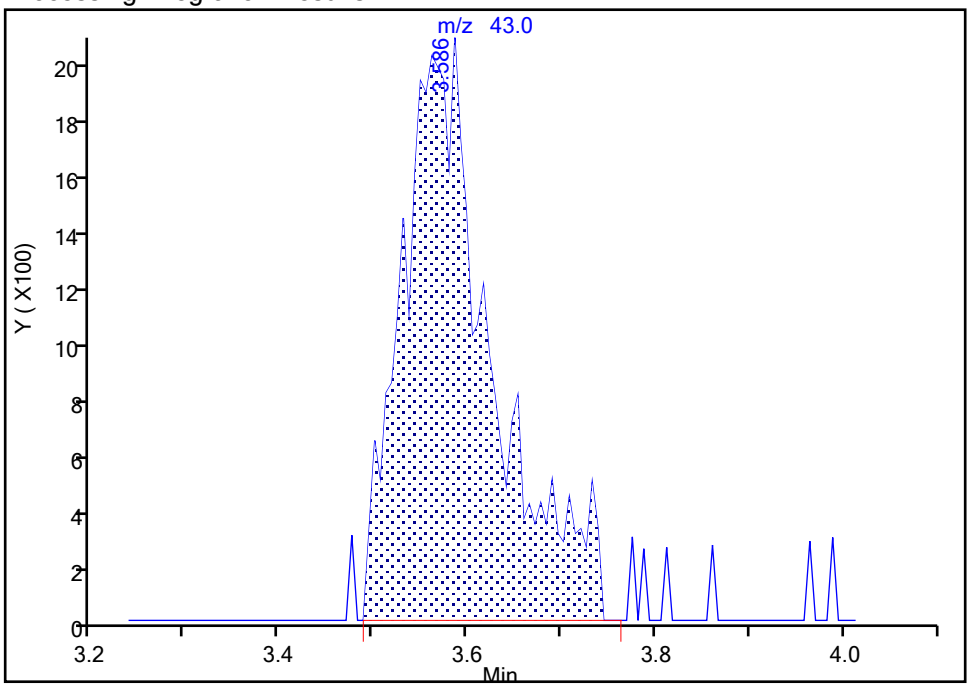
Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X17.D				
Injection Date:	29-Dec-2021 16:15:30	Instrument ID:	19094		
Lims ID:	410-67460-A-12	Lab Sample ID:	410-67460-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	KNK41612	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 Acetone, CAS: 67-64-1

Signal: 1

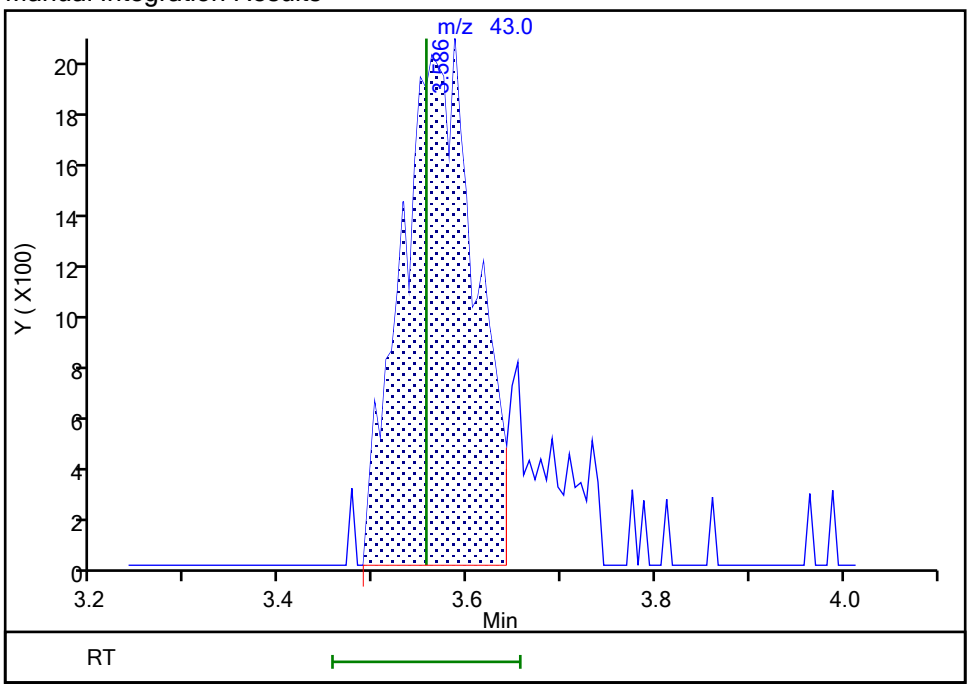
Processing Integration Results

RT: 3.59
Area: 13635
Amount: 1.242721
Amount Units: ug/l



Manual Integration Results

RT: 3.59
Area: 11235
Amount: 1.023980
Amount Units: ug/l



Reviewer: beckerk, 29-Dec-2021 17:16:25
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.: 410-67460-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-67460-13

Matrix: Water Lab File ID: HD29X18.D

Analysis Method: 8260D Date Collected: 12/17/2021 08:00

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 16:36

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.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	5.0	0.70
71-55-6	1,1,1-Trichloroethane	2.7	J cn	5.0	0.60
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	5.0	0.70
79-00-5	1,1,2-Trichloroethane	ND	cn	5.0	0.60
75-34-3	1,1-Dichloroethane	ND	cn	5.0	0.70
75-35-4	1,1-Dichloroethene	ND	cn	5.0	0.60
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	5.0	0.60
107-06-2	1,2-Dichloroethane	ND	cn	5.0	0.50
78-87-5	1,2-Dichloropropane	ND	cn	5.0	0.60
78-93-3	2-Butanone (MEK)	ND	^c cn	50	6.0
591-78-6	2-Hexanone	ND	^c cn	50	6.0
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	50	7.0
67-64-1	Acetone	ND	^c cn	50	9.0
71-43-2	Benzene	ND	cn	5.0	0.50
74-97-5	Bromochloromethane	ND	cn	5.0	0.50
75-27-4	Bromodichloromethane	ND	cn	5.0	0.50
75-25-2	Bromoform	ND	cn	10	3.0
74-83-9	Bromomethane	ND	cn	5.0	0.70
75-15-0	Carbon disulfide	ND	cn	10	0.60
56-23-5	Carbon tetrachloride	ND	cn	5.0	0.70
108-90-7	Chlorobenzene	ND	cn	5.0	0.60
75-00-3	Chloroethane	ND	cn	5.0	0.70
67-66-3	Chloroform	ND	cn	5.0	0.90
74-87-3	Chloromethane	ND	cn	5.0	0.60
156-59-2	cis-1,2-Dichloroethene	2.4	J cn	5.0	0.50
10061-01-5	cis-1,3-Dichloropropene	ND	cn	5.0	0.50
124-48-1	Dibromochloromethane	ND	cn	5.0	0.70
100-41-4	Ethylbenzene	ND	cn	5.0	0.60
1634-04-4	Methyl tert-butyl ether	ND	cn	5.0	0.50
75-09-2	Methylene Chloride	ND	cn	5.0	0.70
100-42-5	Styrene	ND	cn	5.0	0.50
127-18-4	Tetrachloroethene	31	cn	5.0	0.60
108-88-3	Toluene	ND	cn	5.0	0.70
156-60-5	trans-1,2-Dichloroethene	ND	cn	5.0	0.60
10061-02-6	trans-1,3-Dichloropropene	ND	cn	5.0	0.60
79-01-6	Trichloroethene	4.2	J cn	5.0	0.60

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-67460-13

Matrix: Water Lab File ID: HD29X18.D

Analysis Method: 8260D Date Collected: 12/17/2021 08:00

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 16:36

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.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	5.0	1.0
1330-20-7	Xylenes, Total	ND	cn	10	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	102	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	106	cn	80-120
2037-26-5	Toluene-d8 (Surr)	89	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X18.D
Lims ID: 410-67460-B-13
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 29-Dec-2021 16:36:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 10.0000
Sample Info: 410-0047368-019
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 17:16:52 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1656

First Level Reviewer: beckerk Date: 29-Dec-2021 17:16:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.142				ND	
7 Vinyl chloride	62		2.258				ND	
9 Bromomethane	94		2.587				ND	
10 Chloroethane	64		2.672				ND	
18 1,1-Dichloroethene	96		3.532				ND	7
19 Acetone	43		3.556				ND	
24 Carbon disulfide	76		3.836				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	90	116776	50.0	
29 Methylene Chloride	84		4.190				ND	
32 Methyl tert-butyl ether	73		4.592				ND	
33 trans-1,2-Dichloroethene	96		4.611				ND	
35 1,1-Dichloroethane	63	5.275	5.263	0.012	90	4802	0.0488	
41 2-Butanone (MEK)	43		6.043				ND	
42 cis-1,2-Dichloroethene	96	6.098	6.092	0.006	78	13987	0.2400	
48 Chlorobromomethane	128		6.421				ND	
50 Chloroform	83	6.561	6.568	-0.007	67	2438	0.0254	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	521147	10.6	
52 1,1,1-Trichloroethane	97	6.811	6.799	0.012	96	23967	0.2713	
56 Carbon tetrachloride	117		7.013				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.238	0.006	47	97469	10.7	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.336				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	1860922	10.0	
67 Trichloroethene	95	8.159	8.147	0.012	98	24859	0.4211	
70 1,2-Dichloropropane	63		8.482				ND	
75 Dichlorobromomethane	83		8.823				ND	
80 cis-1,3-Dichloropropene	75		9.372				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.537				ND	
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2241751	8.92	
83 Toluene	92		9.756				ND	7
85 trans-1,3-Dichloropropene	75		10.006				ND	
87 1,1,2-Trichloroethane	97		10.213				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.305	10.299	0.005	97	263782	3.06	
91 2-Hexanone	43		10.421				ND	
93 Chlorodibromomethane	129		10.591				ND	
94 Ethylene Dibromide	107		10.701				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	85	1935423	10.0	
98 Chlorobenzene	112		11.158				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.237				ND	
100 Ethylbenzene	91		11.244				ND	7
S 95 Xylenes, Total	106		11.245				ND	7
101 m-Xylene & p-Xylene	106		11.353				ND	7
102 o-Xylene	106		11.683				ND	
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	988960	10.2	
109 1,1,2,2-Tetrachloroethane	83		12.225				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1148273	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

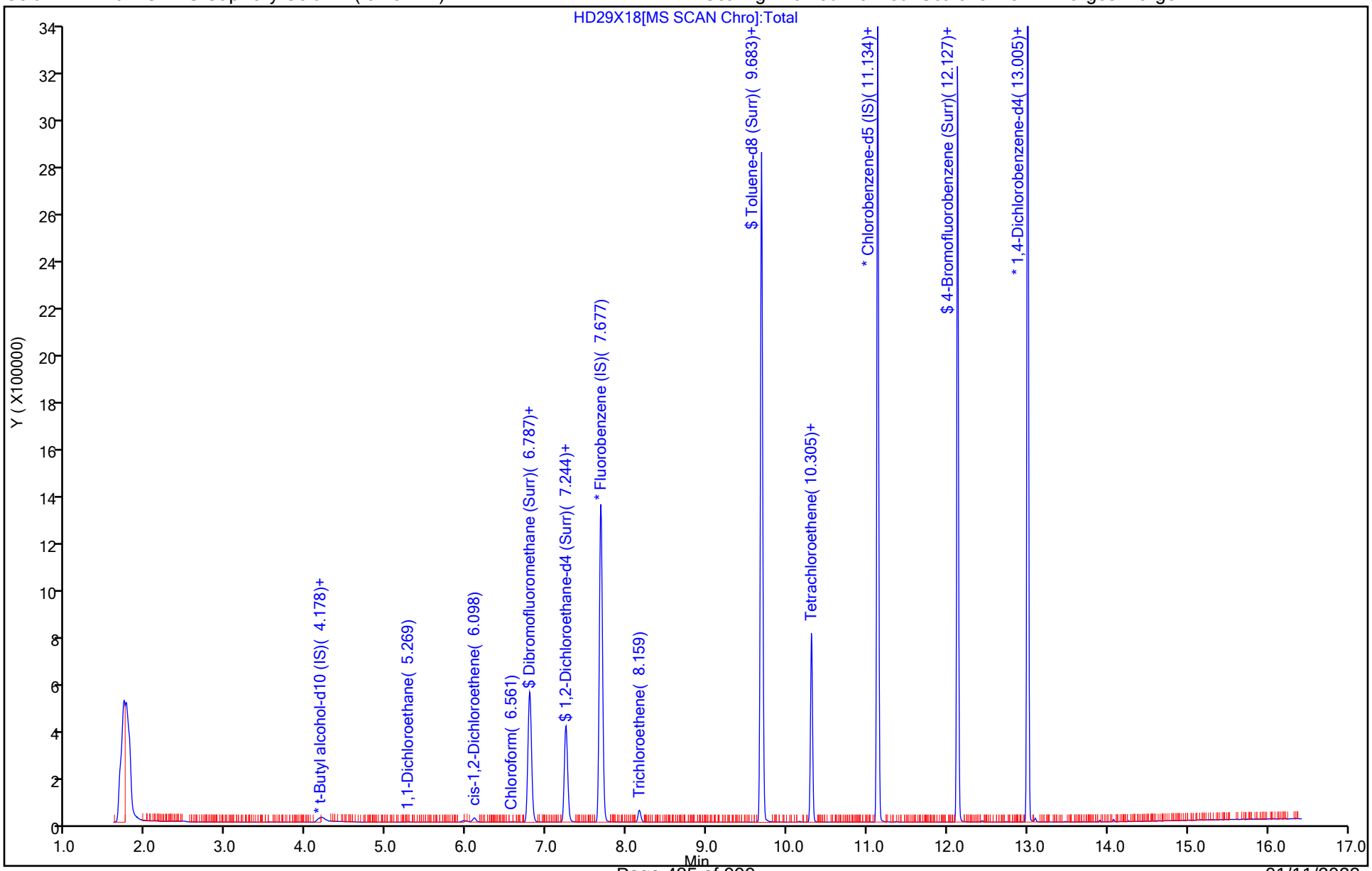
Report Date: 29-Dec-2021 17:17:22 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X18.D

Injection Date:	29-Dec-2021 16:36:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	410-67460-B-13	Lab Sample ID:	410-67460-13	Worklist Smp#:	19
Client ID:	HD-QC1-0/1-1				
Purge Vol:	25.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	18
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X18.D				
Lims ID:	410-67460-B-13				
Client ID:	HD-QC1-0/1-1				
Sample Type:	Client				
Inject. Date:	29-Dec-2021 16:36:30	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	10.0000		
Sample Info:	410-0047368-019				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 17:16:52	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1656				

First Level Reviewer: beckerk Date: 29-Dec-2021 17:16:52

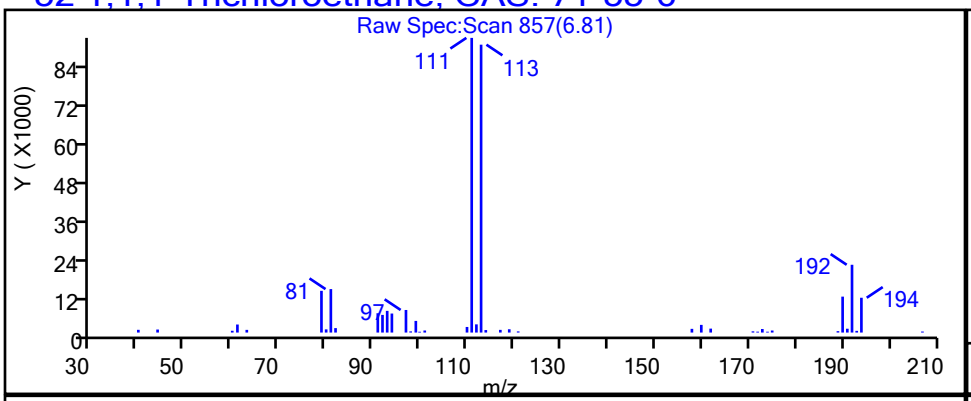
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.6	106.16
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.51
$ 82 Toluene-d8 (Surr)	10.0	8.92	89.17
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.2	101.66

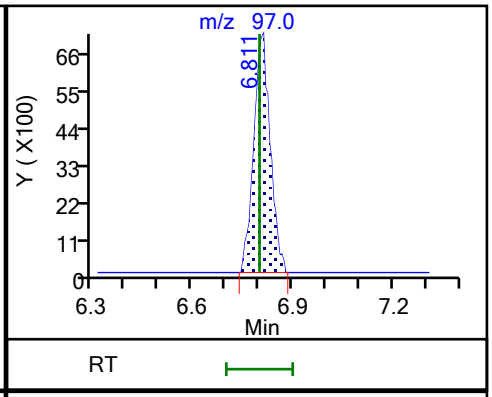
Report Date: 29-Dec-2021 17:17:22 Chrom Revision: 2.3 15-Nov-2021 20:34:30

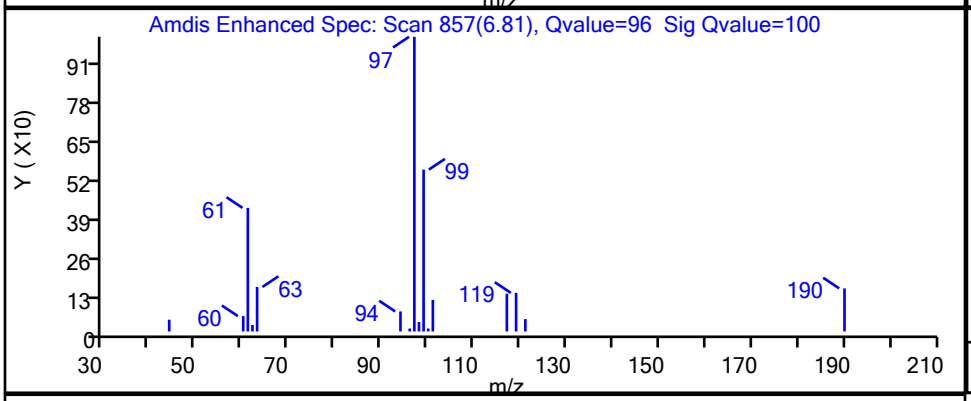
Eurofins Lancaster Laboratories Env, LLC

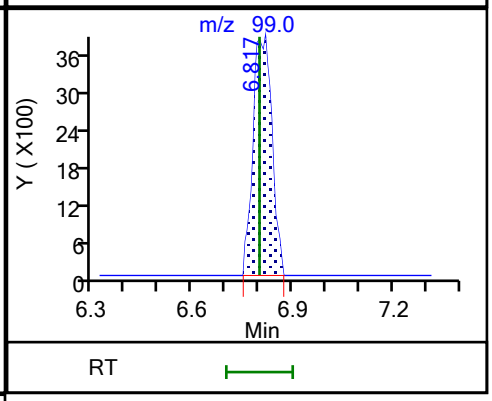
Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X18.D				
Injection Date:	29-Dec-2021 16:36:30	Instrument ID:	19094		
Lims ID:	410-67460-B-13	Lab Sample ID:	410-67460-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	KNK41612	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	10.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

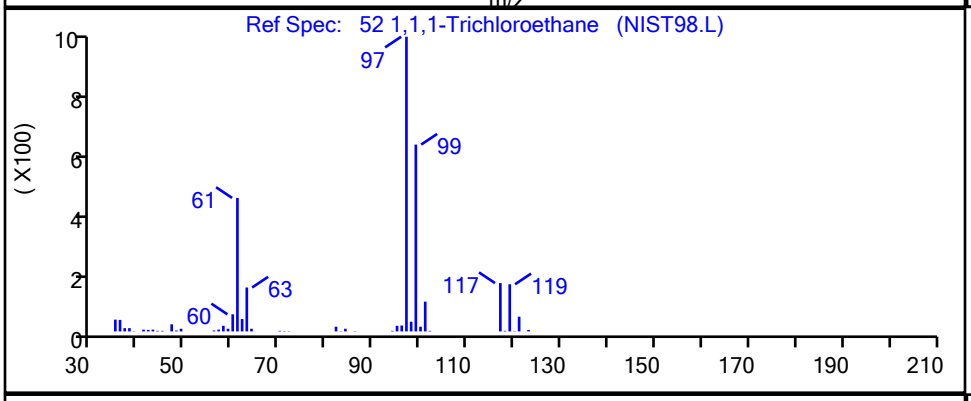
52 1,1,1-Trichloroethane, CAS: 71-55-6

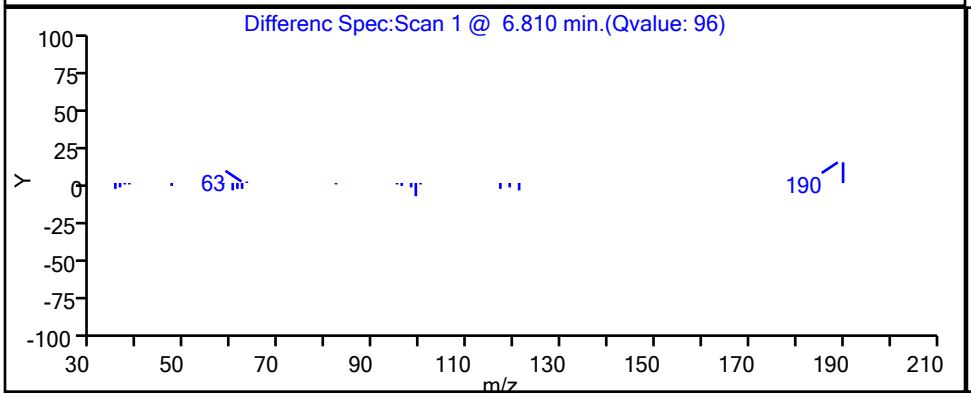


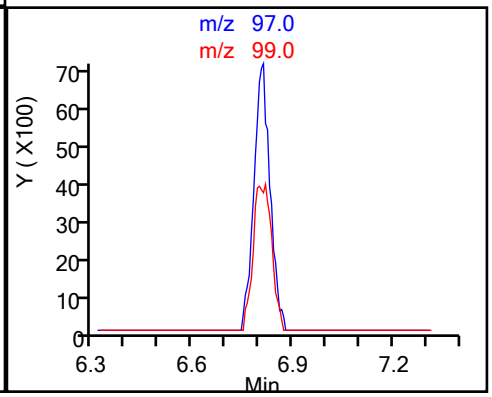








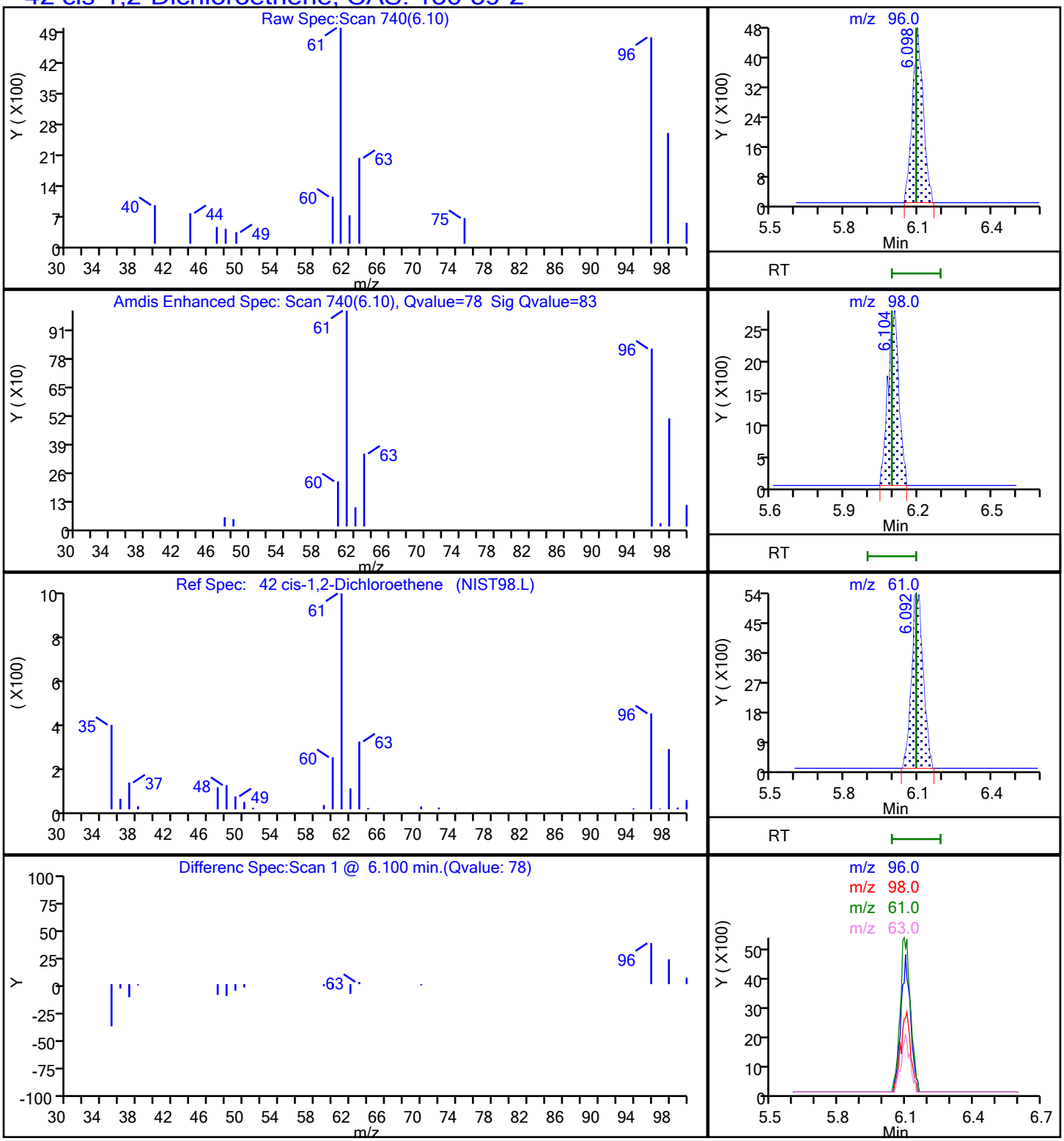




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X18.D				
Injection Date:	29-Dec-2021 16:36:30	Instrument ID:	19094		
Lims ID:	410-67460-B-13	Lab Sample ID:	410-67460-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	KNK41612	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	10.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

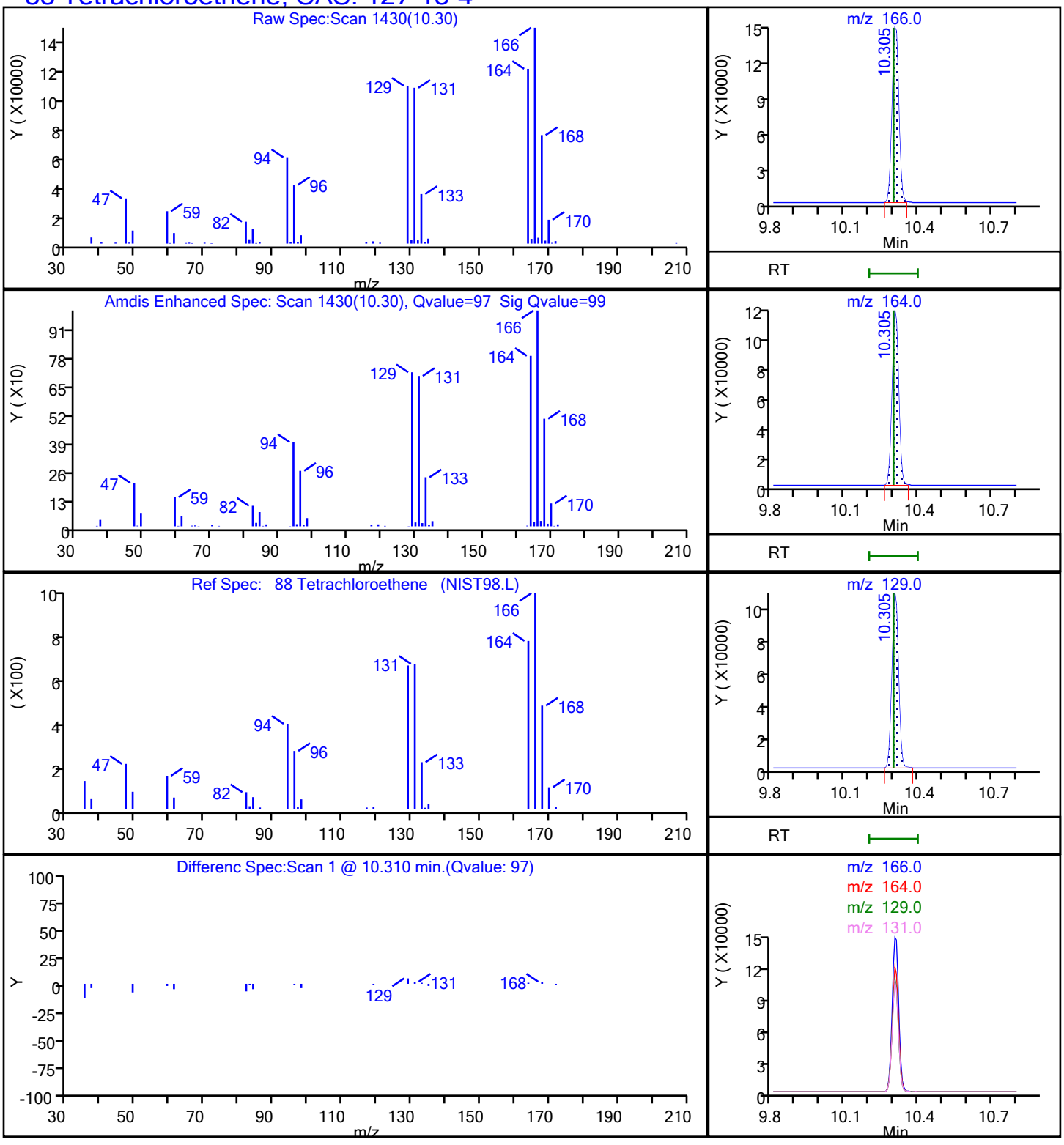
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X18.D				
Injection Date:	29-Dec-2021 16:36:30	Instrument ID:	19094		
Lims ID:	410-67460-B-13	Lab Sample ID:	410-67460-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	KNK41612	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	10.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

88 Tetrachloroethene, CAS: 127-18-4

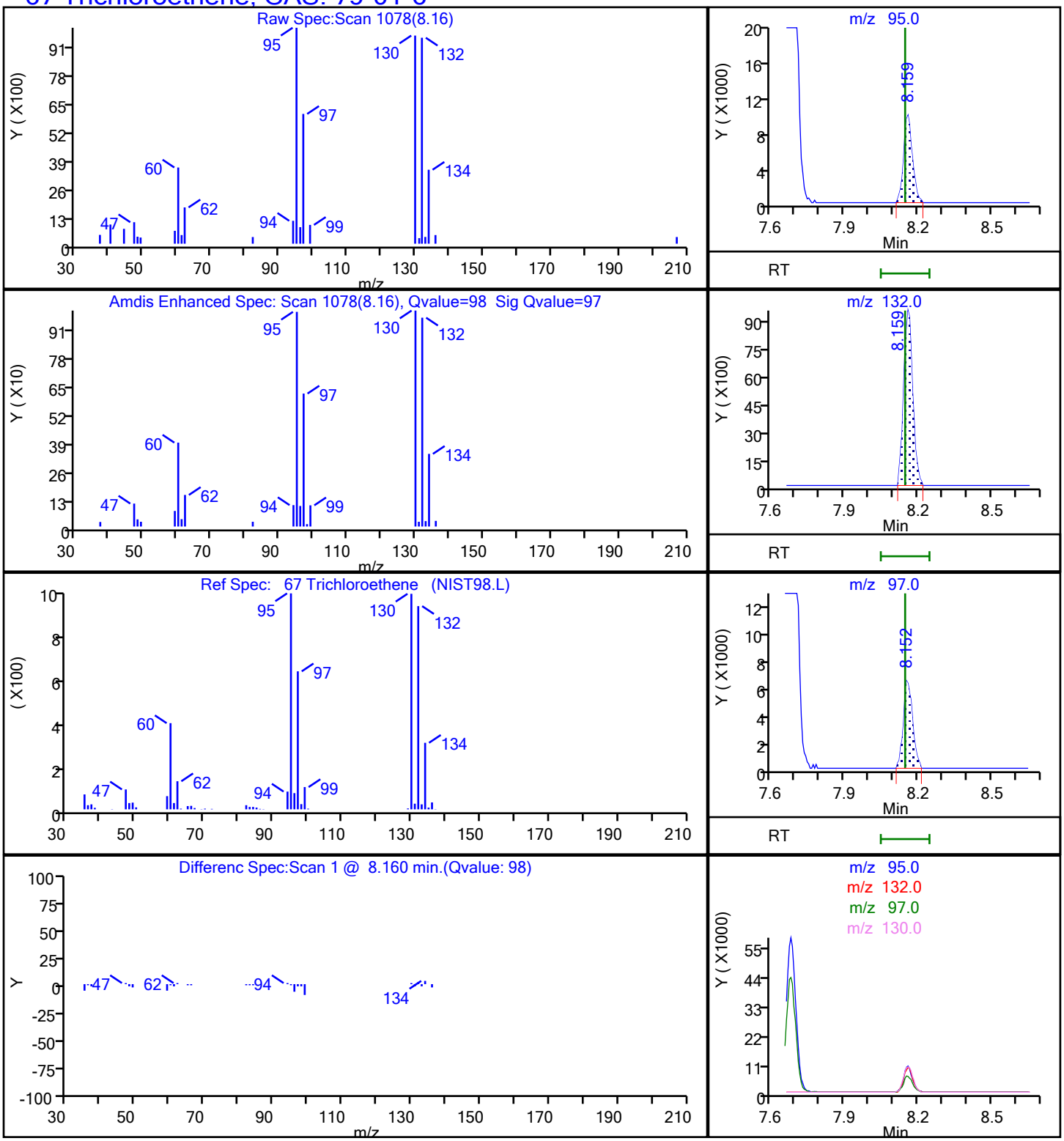


Report Date: 29-Dec-2021 17:17:22 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X18.D				
Injection Date:	29-Dec-2021 16:36:30	Instrument ID:	19094		
Lims ID:	410-67460-B-13	Lab Sample ID:	410-67460-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	KNK41612	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	10.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

67 Trichloroethene, CAS: 79-01-6



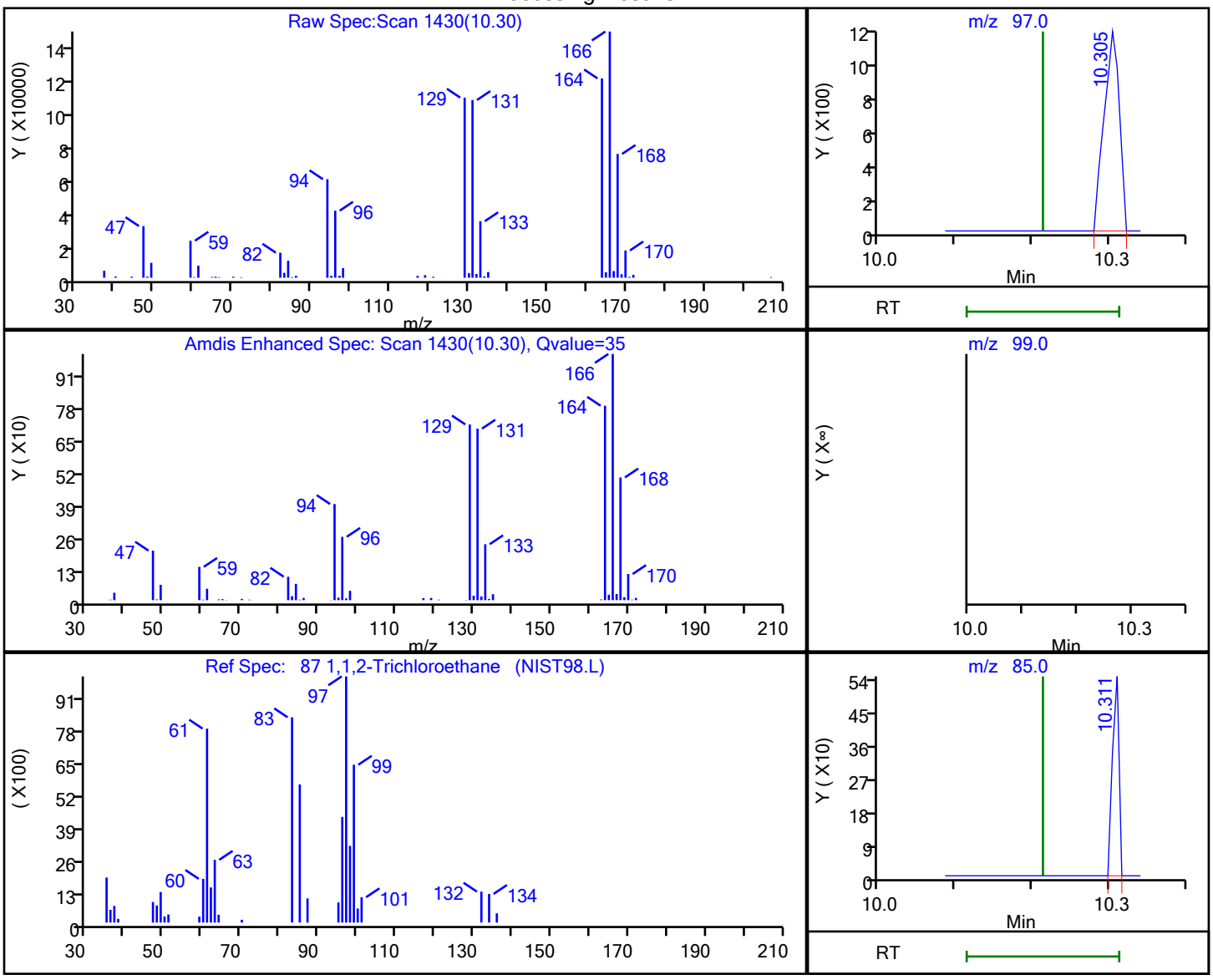
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X18.D				
Injection Date:	29-Dec-2021 16:36:30	Instrument ID:	19094		
Lims ID:	410-67460-B-13	Lab Sample ID:	410-67460-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	KNK41612	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	10.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

87 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
10.30	97.00	1612	0.036110
10.21	99.00	0	
10.31	85.00	325	
10.30	83.00	4308	

Reviewer: beckerk, 29-Dec-2021 17:16:48

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.: 410-67460-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-67460-14

Matrix: Water Lab File ID: HD29X08.D

Analysis Method: 8260D Date Collected: 12/17/2021 00:00

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 13:10

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.: 210047 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	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	^c 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	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
79-01-6	Trichloroethene	ND	cn	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-67460-14

Matrix: Water Lab File ID: HD29X08.D

Analysis Method: 8260D Date Collected: 12/17/2021 00:00

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 13:10

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.: 210047 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)	108	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	103	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	107	cn	80-120
2037-26-5	Toluene-d8 (Surr)	89	cn	80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X08.D
Lims ID: 410-67460-A-14
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 29-Dec-2021 13:10:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-009
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 17:16:52 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1656

First Level Reviewer: beckerk Date: 29-Dec-2021 16:50:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.142				ND	7
7 Vinyl chloride	62		2.258				ND	
9 Bromomethane	94		2.587				ND	
10 Chloroethane	64		2.672				ND	
18 1,1-Dichloroethene	96		3.532				ND	
19 Acetone	43		3.556				ND	7
24 Carbon disulfide	76		3.836				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	91	124959	50.0	
29 Methylene Chloride	84		4.190				ND	
32 Methyl tert-butyl ether	73		4.592				ND	
33 trans-1,2-Dichloroethene	96		4.611				ND	
35 1,1-Dichloroethane	63		5.263				ND	
41 2-Butanone (MEK)	43		6.043				ND	
42 cis-1,2-Dichloroethene	96		6.092				ND	
48 Chlorobromomethane	128		6.421				ND	
50 Chloroform	83		6.568				ND	
$ 51 Dibromofluoromethane (Surr)	113	6.775	6.781	-0.006	94	544226	10.7	
52 1,1,1-Trichloroethane	97		6.799				ND	
56 Carbon tetrachloride	117		7.013				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.232	7.238	-0.006	47	102662	10.8	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.336				ND	7
* 65 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	1928576	10.0	
67 Trichloroethene	95		8.147				ND	
70 1,2-Dichloropropane	63		8.482				ND	
75 Dichlorobromomethane	83		8.823				ND	
80 cis-1,3-Dichloropropene	75		9.372				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.537				ND	
$ 82 Toluene-d8 (Surr)	98	9.677	9.677	0.000	93	2309773	8.94	
83 Toluene	92		9.756				ND	
85 trans-1,3-Dichloropropene	75		10.006				ND	
87 1,1,2-Trichloroethane	97		10.213				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166		10.299				ND	
91 2-Hexanone	43		10.421				ND	
93 Chlorodibromomethane	129		10.591				ND	
94 Ethylene Dibromide	107		10.701				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.128	11.128	0.000	85	1989325	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.237				ND	
100 Ethylbenzene	91		11.244				ND	7
S 95 Xylenes, Total	106		11.245				ND	7
101 m-Xylene & p-Xylene	106		11.353				ND	
102 o-Xylene	106		11.683				ND	
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	1031358	10.3	
109 1,1,2,2-Tetrachloroethane	83		12.225				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1191048	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

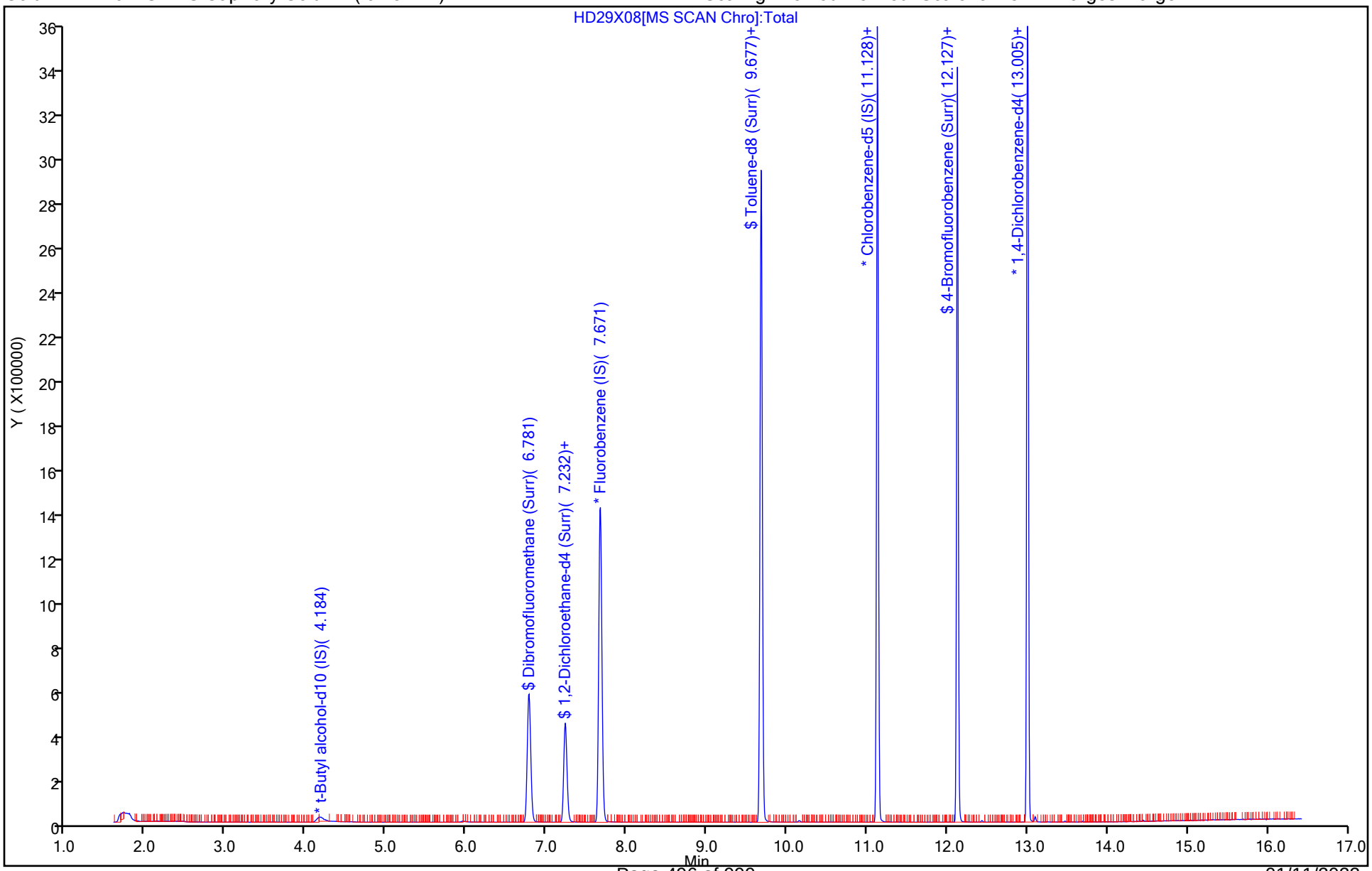
Report Date: 29-Dec-2021 17:17:07 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X08.D

Injection Date:	29-Dec-2021 13:10:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	410-67460-A-14	Lab Sample ID:	410-67460-14	Worklist Smp#:	9
Client ID:	HD-QC1-0/1-2				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X08.D				
Lims ID:	410-67460-A-14				
Client ID:	HD-QC1-0/1-2				
Sample Type:	Client				
Inject. Date:	29-Dec-2021 13:10:30	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-009				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 17:16:52	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1656				

First Level Reviewer: beckerk Date: 29-Dec-2021 16:50:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.7	106.97
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	108.25
$ 82 Toluene-d8 (Surr)	10.0	8.94	89.38
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.3	103.14

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-207981/20	HD21I17.D
Level 2	IC 410-207981/19	HD21I16.D
Level 3	IC 410-207981/18	HD21I15.D
Level 4	IC 410-207981/17	HD21I14.D
Level 5	IC 410-207981/16	HD21I13.D
Level 6	ICIS 410-207981/15	HD21I12.D
Level 7	IC 410-207981/14	HD21I11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3206 0.3299	0.3224 0.3240	0.3202	0.3369	0.3119	Ave		0.3237			0.1000	2.4		20.0			
Chloromethane	0.4449 0.3851	0.4236 0.3746	0.3911	0.3995	0.3690	Ave		0.3983			0.1000	6.8		20.0			
1,3-Butadiene	0.4477 0.3686	0.4410 0.3585	0.4224	0.4132	0.3743	Ave		0.4037				9.0		20.0			
Vinyl chloride	0.4117 0.3950	0.4031 0.3871	0.3962	0.4025	0.3822	Ave		0.3968			0.1000	2.5		20.0			
Bromomethane	0.2826 0.2645	0.2689 0.2595	0.2610	0.2691	0.2569	Ave		0.2661			0.1000	3.2		20.0			
Chloroethane	0.2381 0.2237	0.2344 0.2189	0.2203	0.2310	0.2169	Ave		0.2262			0.1000	3.7		20.0			
Dichlorofluoromethane	0.5486 0.5106	0.5350 0.5012	0.5216	0.5336	0.5050	Ave		0.5222			0.1000	3.4		20.0			
Trichlorofluoromethane	0.5288 0.4947	0.5020 0.4850	0.4896	0.5081	0.4766	Ave		0.4979			0.1000	3.5		20.0			
Ethyl ether	0.1729 0.1781	0.1724 0.1753	0.1775	0.1778	0.1759	Ave		0.1757				1.3		20.0			
Freon 123a	0.3780 0.3621	0.3689 0.3533	0.3629	0.3671	0.3516	Ave		0.3634				2.5		20.0			
Acrolein	3.8106 3.9102	4.2546 3.7987	4.4113	4.9458	4.1839	Ave		4.1879				9.7		20.0			
1,1-Dichloroethene	0.2836 0.2625	0.2708 0.2588	0.2646	0.2717	0.2607	Ave		0.2675			0.1000	3.2		20.0			
Acetone	4.7786 3.9117	5.3726 3.7503	4.7475	4.9369	4.2189	Ave		4.5309			0.1000	13.0		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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Freon 113	0.2681 0.2652	0.2702 0.2601	0.2741	0.2742	0.2594	Ave		0.2673			0.1000	2.3		20.0			
Methyl iodide	0.4913 0.4621	0.4680 0.4565	0.4643	0.4738	0.4616	Ave		0.4682				2.5		20.0			
Carbon disulfide	0.7009 0.6490	0.6608 0.6408	0.6398	0.6614	0.6376	Ave		0.6557			0.1000	3.4		20.0			
Methyl acetate	16.860 13.603	18.256 13.268	15.780	16.121	14.757	Ave		15.521			0.1000	11.5		20.0			
Allyl chloride	0.4379 0.4098	0.4214 0.4042	0.4076	0.4160	0.4027	Ave		0.4142				3.0		20.0			
Methylene Chloride	0.3168 0.2743	0.2905 0.2694	0.2886	0.2783	0.2733	Ave		0.2844			0.1000	5.7		20.0			
t-Butyl alcohol	0.8731 1.1255	1.0934 0.9834	1.0922	1.1820	1.0494	Ave		1.0570				9.6		20.0			
Acrylonitrile	3.7880 6.1597	6.2576 5.9173	6.7234	7.3996	6.5276	Ave		6.1105				18.5		20.0			
Methyl tert-butyl ether	0.5767 0.5845	0.5729 0.5712	0.5968	0.5973	0.5806	Ave		0.5828			0.1000	1.8		20.0			
trans-1,2-Dichloroethene	0.3041 0.2816	0.2887 0.2788	0.2853	0.2916	0.2825	Ave		0.2875			0.1000	3.0		20.0			
n-Hexane	0.3777 0.3896	0.3609 0.3817	0.3775	0.3904	0.3785	Ave		0.3795				2.6		20.0			
1,1-Dichloroethane	0.5331 0.5315	0.5248 0.5233	0.5274	0.5355	0.5291	Ave		0.5293			0.2000	0.8		20.0			
di-Isopropyl ether	0.8531 0.8751	0.8652 0.8660	0.8848	0.8847	0.8684	Ave		0.8710				1.3		20.0			
2-Chloro-1,3-butadiene	0.4381 0.4397	0.4295 0.4363	0.4222	0.4453	0.4364	Ave		0.4354				1.7		20.0			
Ethyl t-butyl ether	0.7481 0.7403	0.7415 0.7272	0.7504	0.7647	0.7319	Ave		0.7434				1.7		20.0			
2-Butanone (MEK)	7.1582 7.7929	8.5025 7.8306	8.8130	9.7319	8.2749	Ave		8.3006			0.1000	10.0		20.0			
cis-1,2-Dichloroethene	0.3247 0.3124	0.3043 0.3067	0.3148	0.3190	0.3103	Ave		0.3132			0.1000	2.3		20.0			
2,2-Dichloropropane	0.4410 0.4373	0.4405 0.4280	0.4226	0.4472	0.4277	Ave		0.4349				2.0		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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Propionitrile	1.7030 2.1485	2.2977 1.9826	2.0343	2.4792	2.2515	Ave		2.1281				11.8		20.0			
Methacrylonitrile	8.3089 8.7143	10.326 8.6243	9.6225	11.286	9.3358	Ave		9.4596				11.2		20.0			
Bromochloromethane	0.1339 0.1315	0.1290 0.1301	0.1331	0.1297	0.1316	Ave		0.1313				1.4		20.0			
Tetrahydrofuran	1.8185 2.1840	2.5061 2.1387	2.5009	2.7415	2.2710	Ave		2.3087				13.1		20.0			
Chloroform	0.5362 0.5090	0.5143 0.5042	0.5117	0.5243	0.5094	Ave		0.5156			0.2000	2.1		20.0			
1,1,1-Trichloroethane	0.4992 0.4710	0.4769 0.4624	0.4650	0.4836	0.4648	Ave		0.4747			0.1000	2.8		20.0			
Cyclohexane	0.5133 0.5086	0.5075 0.4984	0.5130	0.5292	0.4998	Ave		0.5100			0.1000	2.0		20.0			
1,1-Dichloropropene	0.4083 0.4217	0.4254 0.4171	0.4225	0.4293	0.4152	Ave		0.4199				1.7		20.0			
Carbon tetrachloride	0.4210 0.4145	0.4070 0.4132	0.4086	0.4229	0.4100	Ave		0.4139			0.1000	1.5		20.0			
Isobutyl alcohol	0.4737 0.4279	0.4461 0.3828	0.4722	0.4797	0.4322	Ave		0.4449				7.7		20.0			
Benzene	1.2677 1.1857	1.2077 1.1734	1.2027	1.2187	1.1824	Ave		1.2055			0.5000	2.6		20.0			
1,2-Dichloroethane	0.3226 0.2921	0.3042 0.2886	0.3008	0.3039	0.2921	Ave		0.3006			0.1000	3.8		20.0			
t-Amyl methyl ether	0.6129 0.6301	0.6079 0.6133	0.6312	0.6420	0.6231	Ave		0.6229				2.0		20.0			
n-Heptane	0.4054 0.4122	0.3816 0.4007	0.3937	0.4121	0.3966	Ave		0.4003				2.7		20.0			
n-Butanol	0.2283 0.3334	0.2563 0.2922	0.3085	0.3279	0.3298	Ave		0.2966				13.7		20.0			
Trichloroethene	0.3241 0.3157	0.3160 0.3139	0.3106	0.3267	0.3135	Ave		0.3172			0.2000	1.9		20.0			
Methylcyclohexane	0.5122 0.5521	0.5143 0.5385	0.5410	0.5692	0.5330	Ave		0.5372			0.1000	3.7		20.0			
1,2-Dichloropropane	0.3097 0.3032	0.2989 0.3015	0.3034	0.3057	0.3008	Ave		0.3033			0.1000	1.2		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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl methacrylate	13.427 16.685	17.221 16.639	17.748	21.022	17.633	Ave		17.196				13.0		20.0			
1,4-Dioxane	0.0123 0.0751	0.0660 0.0420	0.0831	0.0960	0.0842	Qua	-0.618	0.0990	-0.000045		0.0050				1.0000		0.9900
Dibromomethane	0.1379 0.1342	0.1322 0.1349	0.1355	0.1376	0.1339	Ave		0.1352				1.5		20.0			
Bromodichloromethane	0.3309 0.3506	0.3278 0.3529	0.3273	0.3426	0.3461	Ave		0.3397			0.2000	3.2		20.0			
2-Nitropropane	4.1083 4.4842	4.7889 4.4854	4.7809	5.4460	4.6440	Ave		4.6768				8.8		20.0			
cis-1,3-Dichloropropene	0.4092 0.4418	0.4176 0.4435	0.4242	0.4291	0.4392	Ave		0.4292			0.2000	3.0		20.0			
4-Methyl-2-pentanone (MIBK)	19.259 21.167	23.962 20.611	23.222	27.478	22.531	Ave		22.604			0.1000	11.9		20.0			
Toluene	0.9709 0.9244	0.9321 0.9178	0.9272	0.9451	0.9220	Ave		0.9342			0.4000	2.0		20.0			
trans-1,3-Dichloropropene	0.3593 0.4261	0.3708 0.4318	0.4037	0.4133	0.4154	Ave		0.4029			0.1000	6.8		20.0			
Ethyl methacrylate	0.2631 0.3252	0.2752 0.3268	0.3009	0.3115	0.3163	Ave		0.3027				8.2		20.0			
1,1,2-Trichloroethane	0.2247 0.2343	0.2240 0.2312	0.2338	0.2334	0.2333	Ave		0.2307			0.1000	1.9		20.0			
Tetrachloroethene	0.4460 0.4443	0.4467 0.4418	0.4413	0.4577	0.4361	Ave		0.4449			0.2000	1.5		20.0			
1,3-Dichloropropane	0.4033 0.4104	0.4016 0.4089	0.4111	0.4101	0.4066	Ave		0.4074				0.9		20.0			
2-Hexanone	13.187 14.367	15.615 14.259	15.635	18.612	15.398	Ave		15.296			0.1000	11.2		20.0			
Dibromochloromethane	0.2147 0.2930	0.2427 0.2980	0.2559	0.2695	0.2791	Ave		0.2647				11.1		20.0			
1,2-Dibromoethane (EDB)	0.2082 0.2276	0.2083 0.2272	0.2259	0.2255	0.2277	Ave		0.2215			0.1000	4.1		20.0			
1-Chlorohexane	0.5991 0.5486	0.5664 0.5440	0.5446	0.5514	0.5357	Ave		0.5557				3.8		20.0			
Chlorobenzene	1.0538 1.0262	1.0047 1.0185	1.0330	1.0386	1.0191	Ave		1.0277			0.5000	1.5		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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1,1,2-Tetrachloroethane	0.3274 0.3598	0.3318 0.3618	0.3410	0.3543	0.3545	Ave		0.3472				4.0		20.0			
Ethylbenzene	1.8001 1.8107	1.7818 1.7888	1.7830	1.8285	1.7871	Ave		1.7972			0.1000	1.0		20.0			
m&p-Xylene	0.7035 0.7017	0.6857 0.7023	0.6876	0.7118	0.6927	Ave		0.6979			0.1000	1.4		20.0			
o-Xylene	0.6656 0.6935	0.6639 0.6946	0.6819	0.6952	0.6896	Ave		0.6835			0.3000	2.0		20.0			
Styrene	0.9942 1.1261	1.0220 1.1354	1.0603	1.1065	1.1049	Ave		1.0785			0.3000	5.0		20.0			
Bromoform	+++++ 0.1640	0.1012 0.1668	0.1123	0.1333	0.1483	Ave		0.1377			0.1000	19.6		20.0			
Isopropylbenzene	1.7735 1.8321	1.7474 1.8148	1.7882	1.8304	1.8083	Ave		1.7992			0.1000	1.7		20.0			
1,1,2,2-Tetrachloroethane	0.4564 0.5016	0.4542 0.5027	0.4891	0.4933	0.4965	Ave		0.4848			0.3000	4.3		20.0			
Bromobenzene	0.6920 0.7324	0.7113 0.7308	0.7177	0.7434	0.7372	Ave		0.7235				2.5		20.0			
trans-1,4-Dichloro-2-butene	5.2765 7.2526	6.6630 7.4113	7.1723	8.6823	7.5245	Ave		7.1403				14.4		20.0			
1,2,3-Trichloropropane	0.1387 0.1313	0.1249 0.1288	0.1316	0.1303	0.1280	Ave		0.1305				3.3		20.0			
N-Propylbenzene	3.5882 3.7873	3.5326 3.7415	3.6052	3.7894	3.7547	Ave		3.6855				2.9		20.0			
2-Chlorotoluene	0.7348 0.7539	0.7156 0.7627	0.7409	0.7635	0.7474	Ave		0.7456				2.3		20.0			
1,3,5-Trimethylbenzene	2.4733 2.7364	2.4897 2.7418	2.5640	2.6926	2.6753	Ave		2.6247				4.3		20.0			
4-Chlorotoluene	0.7239 0.7619	0.7400 0.7742	0.7398	0.7716	0.7624	Ave		0.7534				2.5		20.0			
tert-Butylbenzene	0.5791 0.5964	0.5979 0.5965	0.5597	0.6002	0.5892	Ave		0.5884				2.5		20.0			
Pentachloroethane	0.4005 0.4712	0.4025 0.4861	0.4109	0.4487	0.4475	Ave		0.4382				7.8		20.0			
1,2,4-Trimethylbenzene	2.5882 2.8004	2.5593 2.8021	2.6455	2.7940	2.7896	Ave		2.7113				4.0		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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.0950 3.4922	3.1638 3.4641	3.2263	3.4294	3.4104	Ave		3.3259				4.8		20.0			
1,3-Dichlorobenzene	1.4121 1.4979	1.3994 1.5160	1.4510	1.4925	1.4739	Ave		1.4633			0.6000	3.0		20.0			
p-Isopropyltoluene	2.6214 3.0400	2.6993 3.0348	2.7739	2.9700	2.9799	Ave		2.8742				6.0		20.0			
1,4-Dichlorobenzene	1.4031 1.4695	1.4177 1.4929	1.4557	1.4849	1.4522	Ave		1.4537			0.5000	2.3		20.0			
1,2,3-Trimethylbenzene	1.1793 1.1984	1.1550 1.2083	1.1688	1.1936	1.1838	Ave		1.1839				1.5		20.0			
Benzyl chloride	0.1125 0.1763	0.1256 0.1822	0.1371	0.1549	0.1673	Ave		0.1508				17.6		20.0			
n-Butylbenzene	1.1980 1.4825	1.2477 1.4907	1.2677	1.3968	1.4233	Ave		1.3581				8.8		20.0			
1,2-Dichlorobenzene	1.2623 1.3427	1.3017 1.3485	1.3294	1.3708	1.3430	Ave		1.3283			0.4000	2.7		20.0			
1,2-Dibromo-3-Chloropropane	0.0507 0.0708	0.0564 0.0724	0.0627	0.0639	0.0697	Ave		0.0638			0.0500	12.6		20.0			
1,3,5-Trichlorobenzene	0.9868 1.1683	1.0024 1.1807	1.0505	1.0988	1.1223	Ave		1.0871				7.1		20.0			
1,2,4-Trichlorobenzene	0.8285 1.0029	0.8299 1.0181	0.8616	0.9475	0.9607	Ave		0.9213			0.2000	8.7		20.0			
Hexachlorobutadiene	0.4599 0.4481	0.4345 0.4681	0.3968	0.4253	0.4193	Ave		0.4360				5.7		20.0			
Naphthalene	1.4887 1.6701	1.4476 1.6327	1.5488	1.6136	1.6265	Ave		1.5754				5.2		20.0			
1,2,3-Trichlorobenzene	0.7421 0.8751	0.7773 0.8624	0.7890	0.8392	0.8396	Ave		0.8178				6.0		20.0			
Dibromofluoromethane (Surr)	0.2646 0.2665	0.2609 0.2647	0.2619	0.2628	0.2651	Ave		0.2638				0.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0498 0.0492	0.0491 0.0486	0.0487	0.0492	0.0496	Ave		0.0492				0.9		20.0			
Toluene-d8 (Surr)	1.2829 1.3142	1.2832 1.2998	1.3066	1.3006	1.3056	Ave		1.2990				0.9		20.0			
4-Bromofluorobenzene (Surr)	0.5030 0.5010	0.5026 0.4992	0.5065	0.5031	0.5033	Ave		0.5027				0.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-207981/20	HD21I17.D
Level 2	IC 410-207981/19	HD21I16.D
Level 3	IC 410-207981/18	HD21I15.D
Level 4	IC 410-207981/17	HD21I14.D
Level 5	IC 410-207981/16	HD21I13.D
Level 6	ICIS 410-207981/15	HD21I12.D
Level 7	IC 410-207981/14	HD21I11.D

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
Dichlorodifluoromethane	FB	Ave	14426 738871	35985 1858720	72426	152223	356334	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	20015 862586	47288 2148982	88475	180504	421626	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	20144 825527	49223 2056826	95547	186723	427716	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	18524 884597	44992 2221242	89615	181885	436750	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	12713 592335	30013 1489062	59047	121596	293513	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	10713 500957	26160 1256183	49836	104369	247855	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	24682 1143585	59718 2875555	117995	241089	577018	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	23794 1108083	56042 2782514	110754	229574	544632	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	7780 398961	19239 1005862	40150	80333	201045	0.200 10.00	0.500 25.0	1.000	2.00	5.00
Freon 123a	FB	Ave	17009 810884	41184 2027044	82081	165879	401769	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd 10	Ave	62242 3231090	141111 7973370	321738	622050	1633670	10.0 501	25.1 1253	50.1	100	251
1,1-Dichloroethene	FB	Ave	12762 587970	30227 1484809	59850	122768	297874	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd 10	Ave	15577	35562	69104	123919	328761	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			645083	1570952				100	250			
Freon 113	FB	Ave	12063 593861	30167 1492050	62012	123914	296358	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl iodide	FB	Ave	22105 1034920	52236 2618858	105023	214103	527406	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon disulfide	FB	Ave	31534 1453508	73764 3676447	144719	298849	728564	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd 10	Ave	5496 224327	12084 555803	22969	40464	114994	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	19704 917879	47038 2319056	92205	187981	460092	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	14252 614246	32429 1545421	65277	125736	312256	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd 10	Ave	5692 371208	14475 823875	31795	59338	163551	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd 10	Ave	3087 253952	10355 619672	24466	46434	127168	0.500 25.0	1.25 62.5	2.50	5.00	12.5
Methyl tert-butyl ether	FB	Ave	25946 1309035	63950 3277382	135002	269866	663391	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	13681 630749	32230 1599513	64537	131752	322742	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	16993 872637	40290 2190215	85388	176387	432542	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	23987 1190433	58587 3002190	119309	241965	604570	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	38382 1960042	96582 4968797	200145	399751	992215	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	19713 984754	47947 2503477	95508	201194	498616	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	33658 1658145	82768 4172105	169735	345532	836280	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd 10	Ave	23334	56279	128280	244279	644831	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			1285148	3280148				100	250			
cis-1,2-Dichloroethene	FB	Ave	14610 699783	33973 1759404	71206	144124	354605	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	19840 979434	49170 2455468	95604	202088	488737	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd 10	Ave	11103 708613	30418 1661006	59222	124460	350901	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd 10	Ave	27085 1437091	68349 3612633	140063	283280	727505	2.00 100	5.00 250	10.0	20.0	50.0
Bromochloromethane	FB	Ave	6023 294528	14397 746315	30111	58589	150419	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd 10	Ave	2964 180085	8294 447934	18201	34407	88485	1.00 50.0	2.50 125	5.00	10.0	25.0
Chloroform	FB	Ave	24126 1140033	57405 2892883	115752	236911	582024	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	22460 1054893	53238 2652742	105189	218494	531102	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	23093 1139086	56655 2859465	116034	239108	571047	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	18369 944395	47490 2393125	95576	193969	474404	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	18940 928355	45436 2370939	92423	191089	468482	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	TBAd 10	Ave	7721 352817	14765 801789	34366	60199	168398	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	57038 2655673	134812 6732234	272059	550688	1351104	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	14513 654180	33955 1655868	68033	137295	333752	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	27575 1411151	67857 3518484	142788	290093	711960	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	18238	42601	89045	186201	453158	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			923255	2299133				10.0	25.0			
n-Butanol	TBAd 10	Ave	6512 481038	14843 1071008	39291	72020	224898	17.5 875	43.8 2188	87.5	175	438
Trichloroethene	FB	Ave	14580 706963	35271 1800849	70266	147632	358162	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylcyclohexane	FB	Ave	23043 1236558	57408 3089587	122383	257188	608970	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloropropane	FB	Ave	13936 678994	33366 1729695	68623	138152	343692	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl methacrylate	TBAd 10	Ave	4377 275158	11399 696974	25833	52766	137404	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dioxane	TBAd 10	Qua	200 61919	2184 87923	6045	12049	32793	10.0 500	25.0 1250	50.0	100	250
Dibromomethane	FB	Ave	6206 300660	14753 773773	30643	62175	152957	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromodichloromethane	FB	Ave	14888 785264	36593 2024833	74034	154800	395479	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Nitropropane	TBAd 10	Ave	6696 369753	15849 939452	34795	68349	180945	1.00 50.0	2.50 125	5.00	10.0	25.0
cis-1,3-Dichloropropene	FB	Ave	18410 989578	46619 2544821	95945	193875	501818	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	62779 3490612	158604 8633587	338012	689710	1755738	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZd 5	Ave	36606 1687285	86613 4269788	171239	350909	861259	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,3-Dichloropropene	CBZd 5	Ave	13548 777801	34458 2008911	74559	153449	387986	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl methacrylate	CBZd 5	Ave	9920	25573	55567	115660	295430	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			593545	1520376				10.0	25.0			
1,1,2-Trichloroethane	CBZd 5	Ave	8471 427578	20817 1075431	43174	86655	217928	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrachloroethene	CBZd 5	Ave	16817 811016	41509 2055331	81506	169948	407386	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichloropropane	CBZd 5	Ave	15206 748993	37316 1902232	75932	152292	379838	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Hexanone	TBAd 10	Ave	42985 2369316	103357 5972833	227584	467175	1199898	2.00 100	5.00 250	10.0	20.0	50.0
Dibromochloromethane	CBZd 5	Ave	8095 534867	22550 1386568	47270	100062	260697	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7848 415330	19357 1057209	41722	83736	212679	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1-Chlorohexane	CBZd 5	Ave	22588 1001384	52628 2530908	100575	204745	500369	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chlorobenzene	CBZd 5	Ave	39732 1873047	93365 4738520	190794	385641	951909	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	12343 656784	30835 1683172	62974	131572	331123	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethylbenzene	CBZd 5	Ave	67869 3304919	165575 8322344	329312	678938	1669271	0.200 10.0	0.500 25.0	1.00	2.00	5.00
m&p-Xylene	CBZd 5	Ave	53048 2561513	127444 6535116	253972	528574	1293990	0.400 20.0	1.00 50.0	2.00	4.00	10.0
o-Xylene	CBZd 5	Ave	25094	61695	125947	258119	644165	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			1265812	3231659				10.0	25.0			
Styrene	CBZd 5	Ave	37483 2055330	94968 5282244	195825	410852	1032084	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromoform	CBZd 5	Ave	+++++ 299372	9408 776197	20741	49507	138500	+++++ 10.0	0.500 25.0	1.00	2.00	5.00
Isopropylbenzene	CBZd 5	Ave	66865 3344052	162375 8443028	330264	679640	1689076	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9871 518211	24100 1320478	51958	104143	261515	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromobenzene	DCBd 4	Ave	14965 756618	37741 1919678	76232	156953	388274	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	17200 1196041	44103 3104518	104399	217932	586353	2.00 100	5.00 250	10.0	20.0	50.0
1,2,3-Trichloropropane	DCBd 4	Ave	3000 135635	6626 338416	13975	27502	67434	0.200 10.0	0.500 25.0	1.00	2.00	5.00
N-Propylbenzene	DCBd 4	Ave	77601 3912771	187432 9828513	382952	800028	1977526	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chlorotoluene	DCBd 4	Ave	15892 778879	37970 2003642	78695	161192	393659	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trimethylbenzene	DCBd 4	Ave	53491 2827092	132101 7202423	272347	568474	1409010	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Chlorotoluene	DCBd 4	Ave	15656 787123	39263 2033631	78580	162913	401526	0.200 10.0	0.500 25.0	1.00	2.00	5.00
tert-Butylbenzene	DCBd 4	Ave	12525	31722	59453	126709	310310	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			616202	1566954				10.0	25.0			
Pentachloroethane	DCBd 4	Ave	8661 486850	21355 1276842	43643	94727	235687	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trimethylbenzene	DCBd 4	Ave	55976 2893170	135793 7360718	281010	589871	1469221	0.200 10.0	0.500 25.0	1.00	2.00	5.00
sec-Butylbenzene	DCBd 4	Ave	66936 3607923	167867 9099827	342703	724037	1796194	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichlorobenzene	DCBd 4	Ave	30539 1547566	74250 3982450	154126	315097	776252	0.200 10.0	0.500 25.0	1.00	2.00	5.00
p-Isopropyltoluene	DCBd 4	Ave	56692 3140739	143219 7972041	294643	627032	1569449	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dichlorobenzene	DCBd 4	Ave	30345 1518236	75222 3921799	154623	313492	764838	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trimethylbenzene	DCBd 4	Ave	25505 1238154	61284 3174178	124149	251990	623468	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Benzyl chloride	DCBd 4	Ave	2433 182114	6663 478668	14564	32711	88124	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butylbenzene	DCBd 4	Ave	25909 1531611	66203 3915883	134662	294908	749639	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichlorobenzene	DCBd 4	Ave	27300 1387166	69065 3542318	141208	289410	707336	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1096 73103	2991 190079	6659	13493	36722	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trichlorobenzene	DCBd 4	Ave	21341	53184	111587	231980	591090	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			1207037	3101672				10.0	25.0			
1,2,4-Trichlorobenzene	DCBd 4	Ave	17918 1036089	44032 2674514	91516	200032	505998	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Hexachlorobutadiene	DCBd 4	Ave	9946 462896	23052 1229688	42150	89789	220860	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Naphthalene	DCBd 4	Ave	32196 1725441	76805 4289012	164513	340674	856656	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trichlorobenzene	DCBd 4	Ave	16050 904137	41241 2265510	83806	177171	442199	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dibromofluoromethane (Surr)	FB	Ave	595211 596935	582526 607539	592504	593759	605859	10.0 10.0	10.0 10.0	10.0	10.0	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	112008 110289	109507 111516	110227	111158	113381	10.0 10.0	10.0 10.0	10.0	10.0	10.0
Toluene-d8 (Surr)	CBZd 5	Ave	2418337 2398760	2384807 2418799	2413194	2414686	2438984	10.0 10.0	10.0 10.0	10.0	10.0	10.0
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	948216 914366	934012 928950	935438	934039	940209	10.0 10.0	10.0 10.0	10.0	10.0	10.0

Curve Type Legend
Ave = Average ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-207981/20	HD21I17.D
Level 2	IC 410-207981/19	HD21I16.D
Level 3	IC 410-207981/18	HD21I15.D
Level 4	IC 410-207981/17	HD21I14.D
Level 5	IC 410-207981/16	HD21I13.D
Level 6	ICIS 410-207981/15	HD21I12.D
Level 7	IC 410-207981/14	HD21I11.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	-0.9 0.1	-0.4	-1.1	4.1	-3.7	1.9	50 30	30	30	30	30	30
Chloromethane	11.7 -6.0	6.4	-1.8	0.3	-7.3	-3.3	50 30	30	30	30	30	30
1,3-Butadiene	10.9 -11.2	9.2	4.6	2.4	-7.3	-8.7	50 30	30	30	30	30	30
Vinyl chloride	3.8 -2.4	1.6	-0.2	1.4	-3.7	-0.5	50 30	30	30	30	30	30
Bromomethane	6.2 -2.5	1.1	-1.9	1.1	-3.5	-0.6	50 30	30	30	30	30	30
Chloroethane	5.3 -3.2	3.6	-2.6	2.1	-4.1	-1.1	50 30	30	30	30	30	30
Dichlorofluoromethane	5.0 -4.0	2.4	-0.1	2.2	-3.3	-2.2	50 30	30	30	30	30	30
Trichlorofluoromethane	6.2 -2.6	0.8	-1.7	2.1	-4.3	-0.6	50 30	30	30	30	30	30
Ethyl ether	-1.6 -0.2	-1.9	1.0	1.2	0.1	1.4	50 30	30	30	30	30	30
Freon 123a	4.0 -2.8	1.5	-0.2	1.0	-3.2	-0.4	50 30	30	30	30	30	30
Acrolein	-9.0 -9.3	1.6	5.3	18.1	-0.1	-6.6	50 30	30	30	30	30	30
1,1-Dichloroethene	6.0 -3.3	1.2	-1.1	1.6	-2.6	-1.9	50 30	30	30	30	30	30
Acetone	5.5 -17.2	18.6	4.8	9.0	-6.9	-13.7	50 30	30	30	30	30	30
Freon 113	0.3 -2.7	1.1	2.5	2.6	-3.0	-0.8	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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	4.9 -2.5	-0.1	-0.8	1.2	-1.4	-1.3	50 30	30	30	30	30	30
Carbon disulfide	6.9 -2.3	0.8	-2.4	0.9	-2.8	-1.0	50 30	30	30	30	30	30
Methyl acetate	8.6 -14.5	17.6	1.7	3.9	-4.9	-12.4	50 30	30	30	30	30	30
Allyl chloride	5.7 -2.4	1.7	-1.6	0.4	-2.8	-1.1	50 30	30	30	30	30	30
Methylene Chloride	11.4 -5.3	2.1	1.5	-2.2	-3.9	-3.6	50 30	30	30	30	30	30
t-Butyl alcohol	-17.4 -7.0	3.4	3.3	11.8	-0.7	6.5	50 30	30	30	30	30	30
Acrylonitrile	-38.0 -3.2	2.4	10.0	21.1	6.8	0.8	50 30	30	30	30	30	30
Methyl tert-butyl ether	-1.1 -2.0	-1.7	2.4	2.5	-0.4	0.3	50 30	30	30	30	30	30
trans-1,2-Dichloroethene	5.8 -3.0	0.4	-0.8	1.4	-1.8	-2.0	50 30	30	30	30	30	30
n-Hexane	-0.5 0.6	-4.9	-0.5	2.9	-0.2	2.7	50 30	30	30	30	30	30
1,1-Dichloroethane	0.7 -1.1	-0.8	-0.3	1.2	0.0	0.4	50 30	30	30	30	30	30
di-Isopropyl ether	-2.1 -0.6	-0.7	1.6	1.6	-0.3	0.5	50 30	30	30	30	30	30
2-Chloro-1,3-butadiene	0.6 0.2	-1.3	-3.0	2.3	0.2	1.0	50 30	30	30	30	30	30
Ethyl t-butyl ether	0.6 -2.2	-0.3	0.9	2.9	-1.6	-0.4	50 30	30	30	30	30	30
2-Butanone (MEK)	-13.8 -5.7	2.4	6.2	17.2	-0.3	-6.1	50 30	30	30	30	30	30
cis-1,2-Dichloroethene	3.7 -2.1	-2.8	0.5	1.8	-0.9	-0.2	50 30	30	30	30	30	30
2,2-Dichloropropane	1.4 -1.6	1.3	-2.8	2.8	-1.7	0.6	50 30	30	30	30	30	30
Propionitrile	-20.0 -6.8	8.0	-4.4	16.5	5.8	1.0	50 30	30	30	30	30	30
Methacrylonitrile	-12.2 -8.8	9.2	1.7	19.3	-1.3	-7.9	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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	2.0 -0.9	-1.7	1.4	-1.2	0.3	0.2	50 30	30	30	30	30	30
Tetrahydrofuran	-21.2 -7.4	8.6	8.3	18.7	-1.6	-5.4	50 30	30	30	30	30	30
Chloroform	4.0 -2.2	-0.3	-0.8	1.7	-1.2	-1.3	50 30	30	30	30	30	30
1,1,1-Trichloroethane	5.2 -2.6	0.5	-2.0	1.9	-2.1	-0.8	50 30	30	30	30	30	30
Cyclohexane	0.6 -2.3	-0.5	0.6	3.8	-2.0	-0.3	50 30	30	30	30	30	30
1,1-Dichloropropene	-2.8 -0.7	1.3	0.6	2.2	-1.1	0.4	50 30	30	30	30	30	30
Carbon tetrachloride	1.7 -0.2	-1.7	-1.3	2.2	-0.9	0.1	50 30	30	30	30	30	30
Isobutyl alcohol	6.5 -14.0	0.3	6.1	7.8	-2.9	-3.8	50 30	30	30	30	30	30
Benzene	5.2 -2.7	0.2	-0.2	1.1	-1.9	-1.6	50 30	30	30	30	30	30
1,2-Dichloroethane	7.3 -4.0	1.2	0.1	1.1	-2.8	-2.8	50 30	30	30	30	30	30
t-Amyl methyl ether	-1.6 -1.6	-2.4	1.3	3.1	0.0	1.1	50 30	30	30	30	30	30
n-Heptane	1.3 0.1	-4.7	-1.7	2.9	-0.9	3.0	50 30	30	30	30	30	30
n-Butanol	-23.0 -1.5	-13.6	4.0	10.5	11.2	12.4	50 30	30	30	30	30	30
Trichloroethene	2.2 -1.0	-0.4	-2.1	3.0	-1.2	-0.5	50 30	30	30	30	30	30
Methylcyclohexane	-4.7 0.2	-4.3	0.7	6.0	-0.8	2.8	50 30	30	30	30	30	30
1,2-Dichloropropane	2.1 -0.6	-1.5	0.0	0.8	-0.8	0.0	50 30	30	30	30	30	30
Methyl methacrylate	-21.9 -3.2	0.1	3.2	22.2	2.5	-3.0	50 30	30	30	30	30	30
1,4-Dioxane	-24.9 -24.8	-7.4	-1.4	8.6	-1.4	-0.1	50 30	30	30	30	30	30
Dibromomethane	2.1 -0.2	-2.2	0.2	1.8	-1.0	-0.7	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.: 410-67460-1 Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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	-2.6 3.9	-3.5	-3.7	0.8	1.9	3.2	50 30	30	30	30	30	30
2-Nitropropane	-12.2 -4.1	2.4	2.2	16.4	-0.7	-4.1	50 30	30	30	30	30	30
cis-1,3-Dichloropropene	-4.7 3.3	-2.7	-1.2	0.0	2.3	2.9	50 30	30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	-14.8 -8.8	6.0	2.7	21.6	-0.3	-6.4	50 30	30	30	30	30	30
Toluene	3.9 -1.8	-0.2	-0.8	1.2	-1.3	-1.0	50 30	30	30	30	30	30
trans-1,3-Dichloropropene	-10.8 7.2	-8.0	0.2	2.6	3.1	5.8	50 30	30	30	30	30	30
Ethyl methacrylate	-13.1 8.0	-9.1	-0.6	2.9	4.5	7.4	50 30	30	30	30	30	30
1,1,2-Trichloroethane	-2.6 0.2	-2.9	1.3	1.2	1.2	1.6	50 30	30	30	30	30	30
Tetrachloroethene	0.3 -0.7	0.4	-0.8	2.9	-2.0	-0.1	50 30	30	30	30	30	30
1,3-Dichloropropane	-1.0 0.4	-1.4	0.9	0.7	-0.2	0.7	50 30	30	30	30	30	30
2-Hexanone	-13.8 -6.8	2.1	2.2	21.7	0.7	-6.1	50 30	30	30	30	30	30
Dibromochloromethane	-18.9 12.6	-8.3	-3.3	1.8	5.4	10.7	50 30	30	30	30	30	30
1,2-Dibromoethane (EDB)	-6.0 2.6	-5.9	2.0	1.8	2.8	2.7	50 30	30	30	30	30	30
1-Chlorohexane	7.8 -2.1	1.9	-2.0	-0.8	-3.6	-1.3	50 30	30	30	30	30	30
Chlorobenzene	2.5 -0.9	-2.2	0.5	1.1	-0.8	-0.1	50 30	30	30	30	30	30
1,1,1,2-Tetrachloroethane	-5.7 4.2	-4.4	-1.8	2.0	2.1	3.6	50 30	30	30	30	30	30
Ethylbenzene	0.2 -0.5	-0.9	-0.8	1.7	-0.6	0.8	50 30	30	30	30	30	30
m&p-Xylene	0.8 0.6	-1.7	-1.5	2.0	-0.8	0.5	50 30	30	30	30	30	30
o-Xylene	-2.6 1.6	-2.9	-0.2	1.7	0.9	1.5	50 30	30	30	30	30	30

FORM VI
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	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	-7.8 5.3	-5.2	-1.7	2.6	2.5	4.4	50 30	30	30	30	30	30
Bromoform	+++++ 21.2	-26.5	-18.4	-3.2	7.7	19.1	 30	50	30	30	30	30
Isopropylbenzene	-1.4 0.9	-2.9	-0.6	1.7	0.5	1.8	50 30	30	30	30	30	30
1,1,2,2-Tetrachloroethane	-5.9 3.7	-6.3	0.9	1.7	2.4	3.5	50 30	30	30	30	30	30
Bromobenzene	-4.4 1.0	-1.7	-0.8	2.7	1.9	1.2	50 30	30	30	30	30	30
trans-1,4-Dichloro-2-butene	-26.1 3.8	-6.7	0.4	21.6	5.4	1.6	50 30	30	30	30	30	30
1,2,3-Trichloropropane	6.3 -1.3	-4.3	0.8	-0.2	-1.9	0.6	50 30	30	30	30	30	30
N-Propylbenzene	-2.6 1.5	-4.2	-2.2	2.8	1.9	2.8	50 30	30	30	30	30	30
2-Chlorotoluene	-1.4 2.3	-4.0	-0.6	2.4	0.3	1.1	50 30	30	30	30	30	30
1,3,5-Trimethylbenzene	-5.8 4.5	-5.1	-2.3	2.6	1.9	4.3	50 30	30	30	30	30	30
4-Chlorotoluene	-3.9 2.8	-1.8	-1.8	2.4	1.2	1.1	50 30	30	30	30	30	30
tert-Butylbenzene	-1.6 1.4	1.6	-4.9	2.0	0.1	1.4	50 30	30	30	30	30	30
Pentachloroethane	-8.6 10.9	-8.1	-6.2	2.4	2.1	7.5	50 30	30	30	30	30	30
1,2,4-Trimethylbenzene	-4.5 3.3	-5.6	-2.4	3.0	2.9	3.3	50 30	30	30	30	30	30
sec-Butylbenzene	-6.9 4.2	-4.9	-3.0	3.1	2.5	5.0	50 30	30	30	30	30	30
1,3-Dichlorobenzene	-3.5 3.6	-4.4	-0.8	2.0	0.7	2.4	50 30	30	30	30	30	30
p-Isopropyltoluene	-8.8 5.6	-6.1	-3.5	3.3	3.7	5.8	50 30	30	30	30	30	30
1,4-Dichlorobenzene	-3.5 2.7	-2.5	0.1	2.1	-0.1	1.1	50 30	30	30	30	30	30
1,2,3-Trimethylbenzene	-0.4 2.1	-2.4	-1.3	0.8	0.0	1.2	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
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SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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	-25.4 20.8	-16.8	-9.1	2.7	10.9	16.9	50 30	30	30	30	30	30
n-Butylbenzene	-11.8 9.8	-8.1	-6.7	2.9	4.8	9.2	50 30	30	30	30	30	30
1,2-Dichlorobenzene	-5.0 1.5	-2.0	0.1	3.2	1.1	1.1	50 30	30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-20.5 13.4	-11.6	-1.7	0.2	9.3	10.9	50 30	30	30	30	30	30
1,3,5-Trichlorobenzene	-9.2 8.6	-7.8	-3.4	1.1	3.2	7.5	50 30	30	30	30	30	30
1,2,4-Trichlorobenzene	-10.1 10.5	-9.9	-6.5	2.8	4.3	8.9	50 30	30	30	30	30	30
Hexachlorobutadiene	5.5 7.4	-0.4	-9.0	-2.5	-3.8	2.8	50 30	30	30	30	30	30
Naphthalene	-5.5 3.6	-8.1	-1.7	2.4	3.2	6.0	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	-9.3 5.5	-5.0	-3.5	2.6	2.7	7.0	50 30	30	30	30	30	30
Dibromofluoromethane (Surr)	0.3 0.3	-1.1	-0.7	-0.4	0.5	1.0	50 30	30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	1.3 -1.2	-0.3	-0.9	0.1	0.9	0.1	50 30	30	30	30	30	30
Toluene-d8 (Surr)	-1.2 0.1	-1.2	0.6	0.1	0.5	1.2	50 30	30	30	30	30	30
4-Bromofluorobenzene (Surr)	0.1 -0.7	0.0	0.8	0.1	0.1	-0.3	50 30	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I11.D
Lims ID: IC std7 25
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 21-Dec-2021 18:35:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0046912-014
Misc. Info.: IC STD7 25
Operator ID: jml01693 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 27-Dec-2021 09:48:05 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 20:40:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.947	1.934	0.013	99	1858720	25.0	25.0	
6 Chloromethane	50	2.148	2.130	0.018	99	2148982	25.0	23.5	
8 Butadiene	39	2.264	2.251	0.013	91	2056826	25.0	22.2	
7 Vinyl chloride	62	2.264	2.251	0.013	94	2221242	25.0	24.4	
9 Bromomethane	94	2.587	2.575	0.012	90	1489062	25.0	24.4	
10 Chloroethane	64	2.678	2.660	0.018	100	1256183	25.0	24.2	
11 Dichlorofluoromethane	67	2.910	2.898	0.012	97	2875555	25.0	24.0	
13 Trichlorofluoromethane	101	2.983	2.971	0.012	98	2782514	25.0	24.4	
15 Ethyl ether	59	3.215	3.196	0.019	92	1005862	25.0	24.9	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.318	3.306	0.012	92	2027044	25.0	24.3	
17 Acrolein	56	3.397	3.385	0.012	100	7973370	1252.7	1136.3	
18 1,1-Dichloroethene	96	3.538	3.526	0.012	99	1484809	25.0	24.2	
19 Acetone	43	3.550	3.544	0.006	100	1570952	250.0	206.9	
20 112TCTFE	101	3.580	3.574	0.006	93	1492050	25.0	24.3	
21 Isopropyl alcohol	45	3.702	3.715	-0.013	96	441182	500.0	475.5	M
22 Iodomethane	142	3.733	3.727	0.006	99	2618858	25.0	24.4	
23 Ethyl bromide	108	3.763	3.751	0.012	98	1280161	25.0	24.5	
24 Carbon disulfide	76	3.843	3.830	0.013	99	3676447	25.0	24.4	
26 Methyl acetate	43	3.964	3.977	-0.013	97	555803	25.0	21.4	
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	2319056	25.0	24.4	
29 Methylene Chloride	84	4.202	4.196	0.006	92	1545421	25.0	23.7	
* 28 t-Butyl alcohol-d10 (IS)	65	4.233	4.208	0.025	87	83778	50.0	50.0	
30 2-Methyl-2-propanol	59	4.342	4.306	0.036	100	823875	500.0	465.2	
31 Acrylonitrile	53	4.531	4.525	0.006	99	619672	62.5	60.5	
32 Methyl tert-butyl ether	73	4.611	4.599	0.012	95	3277382	25.0	24.5	
33 trans-1,2-Dichloroethene	96	4.623	4.611	0.012	99	1599513	25.0	24.2	
34 Hexane	57	5.037	5.019	0.018	92	2190215	25.0	25.1	
35 1,1-Dichloroethane	63	5.275	5.263	0.012	96	3002190	25.0	24.7	
37 Isopropyl ether	45	5.336	5.318	0.018	95	4968797	25.0	24.9	
38 2-Chloro-1,3-butadiene	53	5.385	5.373	0.012	91	2503477	25.0	25.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.867	5.854	0.013	98	4172105	25.0	24.5	
41 2-Butanone (MEK)	43	6.056	6.056	0.000	100	3280148	250.0	235.8	
42 cis-1,2-Dichloroethene	96	6.104	6.086	0.018	82	1759404	25.0	24.5	
43 2,2-Dichloropropane	77	6.123	6.110	0.013	87	2455468	25.0	24.6	
45 Propionitrile	54	6.141	6.153	-0.012	99	1661006	500.0	465.8	
S 40 1,2-Dichloroethene, Total	100				0			48.7	
47 Methacrylonitrile	67	6.360	6.354	0.006	92	3612633	250.0	227.9	
48 Chlorobromomethane	128	6.433	6.421	0.012	93	746315	25.0	24.8	
49 Tetrahydrofuran	71	6.440	6.434	0.006	82	447934	125.0	115.8	
50 Chloroform	83	6.580	6.568	0.012	93	2892883	25.0	24.4	
$ 51 Dibromofluoromethane (Surr)	113	6.793	6.781	0.012	94	607539	10.0	10.0	
52 1,1,1-Trichloroethane	97	6.818	6.799	0.019	98	2652742	25.0	24.4	
53 Cyclohexane	56	6.915	6.903	0.012	90	2859465	25.0	24.4	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	98	2393125	25.0	24.8	
56 Carbon tetrachloride	117	7.025	7.025	0.000	97	2370939	25.0	25.0	
57 Isobutyl alcohol	41	7.153	7.159	-0.006	94	801789	1250.0	1075.5	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.238	0.006	97	111516	10.0	9.88	
59 Benzene	78	7.281	7.269	0.012	96	6732234	25.0	24.3	
60 1,2-Dichloroethane	62	7.354	7.342	0.012	97	1655868	25.0	24.0	
62 Tert-amyl methyl ether	73	7.470	7.464	0.006	98	3518484	25.0	24.6	
* 65 Fluorobenzene (IS)	96	7.683	7.677	0.006	98	2294975	10.0	10.0	
64 n-Heptane	43	7.695	7.689	0.006	91	2299133	25.0	25.0	
66 n-Butanol	56	8.031	8.043	-0.012	88	1071008	2187.5	2154.9	
67 Trichloroethene	95	8.159	8.153	0.006	98	1800849	25.0	24.7	
68 Methylcyclohexane	83	8.476	8.470	0.006	92	3089587	25.0	25.1	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	86	1729695	25.0	24.8	
69 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	93	1851645	25.0	24.7	
71 Methyl methacrylate	69	8.567	8.567	0.000	91	696974	25.0	24.2	
72 1,4-Dioxane	88	8.586	8.586	0.000	31	87923	1250.0	939.7	
73 Dibromomethane	93	8.598	8.592	0.006	95	773773	25.0	24.9	
75 Dichlorobromomethane	83	8.829	8.829	0.000	100	2024833	25.0	26.0	
76 2-Nitropropane	41	9.098	9.092	0.006	98	939452	125.0	119.9	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	1533354	25.0	25.0	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	2544821	25.0	25.8	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	96	8633587	250.0	228.0	
$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2418799	10.0	10.0	
83 Toluene	92	9.762	9.762	0.000	98	4269788	25.0	24.6	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	2008911	25.0	26.8	
S 84 1,3-Dichloropropene, Total	100				0			52.6	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	1520376	25.0	27.0	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	91	1075431	25.0	25.1	
88 Tetrachloroethene	166	10.311	10.305	0.006	98	2055331	25.0	24.8	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	1902232	25.0	25.1	
91 2-Hexanone	43	10.427	10.427	0.000	97	5972833	250.0	233.0	
93 Chlorodibromomethane	129	10.597	10.591	0.006	90	1386568	25.0	28.1	
94 Ethylene Dibromide	107	10.707	10.707	0.000	98	1057209	25.0	25.7	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1860951	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	2530908	25.0	24.5	
98 Chlorobenzene	112	11.158	11.158	0.000	95	4738520	25.0	24.8	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	96	1683172	25.0	26.0	
100 Ethylbenzene	91	11.244	11.244	0.000	98	8322344	25.0	24.9	
S 95 Xylenes, Total	106				0			75.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	6535116	50.0	50.3	
102 o-Xylene	106	11.689	11.689	0.000	96	3231659	25.0	25.4	
103 Styrene	104	11.701	11.701	0.000	94	5282244	25.0	26.3	
104 Bromoform	173	11.859	11.859	0.000	97	776197	25.0	30.3	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	8443028	25.0	25.2	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	91	928950	10.0	9.93	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	92	1320478	25.0	25.9	
111 Bromobenzene	156	12.243	12.243	0.000	96	1919678	25.0	25.3	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	92	3104518	250.0	259.5	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	338416	25.0	24.7	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	9828513	25.0	25.4	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	2003642	25.0	25.6	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	-0.001	94	7202423	25.0	26.1	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	2033631	25.0	25.7	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	1566954	25.0	25.3	
119 Pentachloroethane	167	12.719	12.719	0.000	95	1276842	25.0	27.7	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	7360718	25.0	25.8	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	9099827	25.0	26.0	a
122 1,3-Dichlorobenzene	146	12.951	12.951	-0.001	98	3982450	25.0	25.9	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	7972041	25.0	26.4	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1050754	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	94	3921799	25.0	25.7	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	3174178	25.0	25.5	
127 Benzyl chloride	126	13.097	13.097	0.000	98	478668	25.0	30.2	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	4708165	25.0	26.8	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	3915883	25.0	27.4	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	99	3542318	25.0	25.4	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	89	190079	25.0	28.4	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	3101672	25.0	27.2	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	2674514	25.0	27.6	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	1229688	25.0	26.8	
138 Naphthalene	128	14.548	14.548	0.000	97	4289012	25.0	25.9	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	2265510	25.0	26.4	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	2540057	25.0	27.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_LL_#1_826_00027	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00056	Amount Added: 25.00	Units: uL	
MSV_LL_#2_826_00031	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

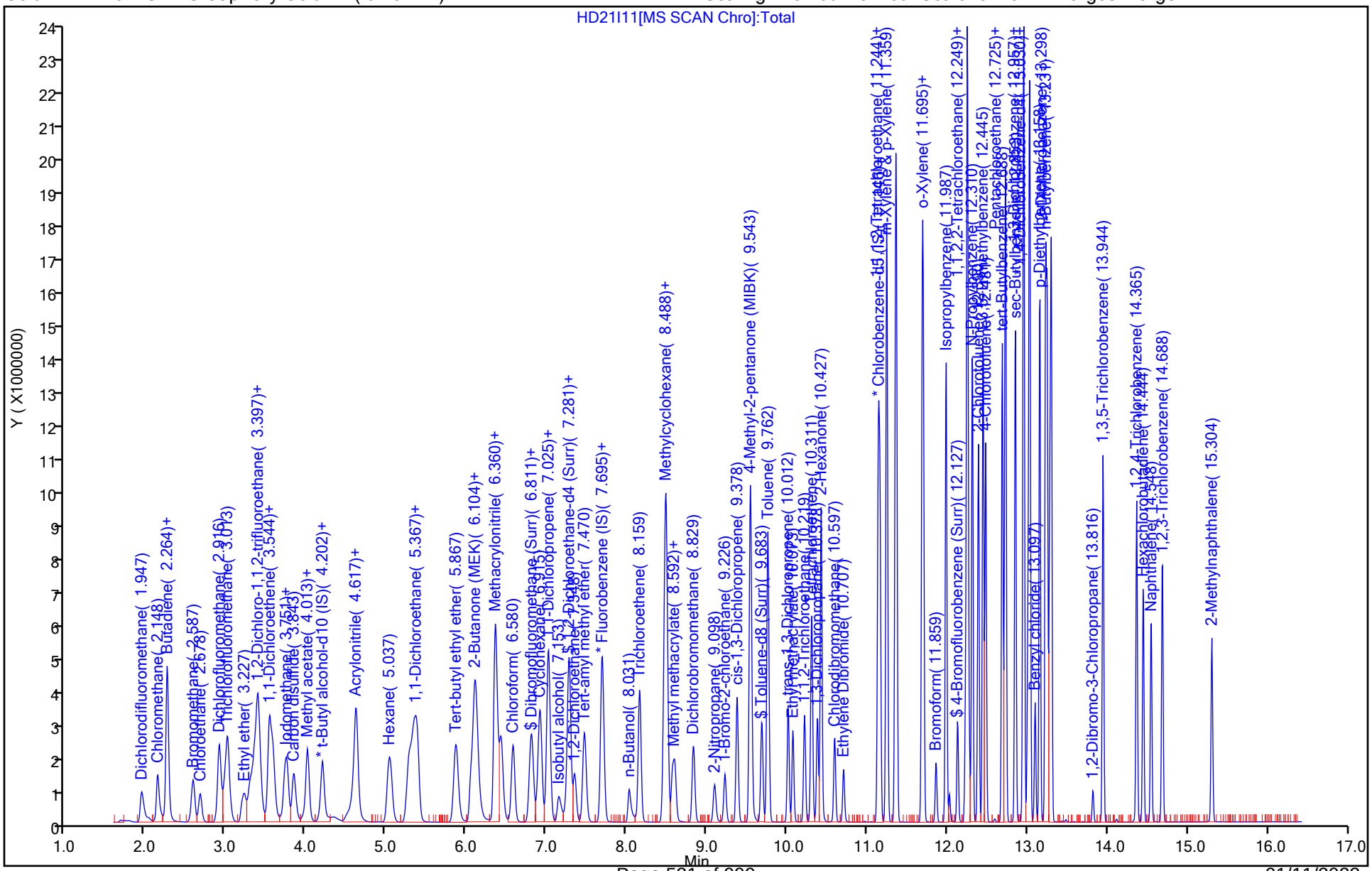
Report Date: 27-Dec-2021 09:48:06 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I11.D

Injection Date:	21-Dec-2021 18:35:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	IC std7 25			Worklist Smp#:	14
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

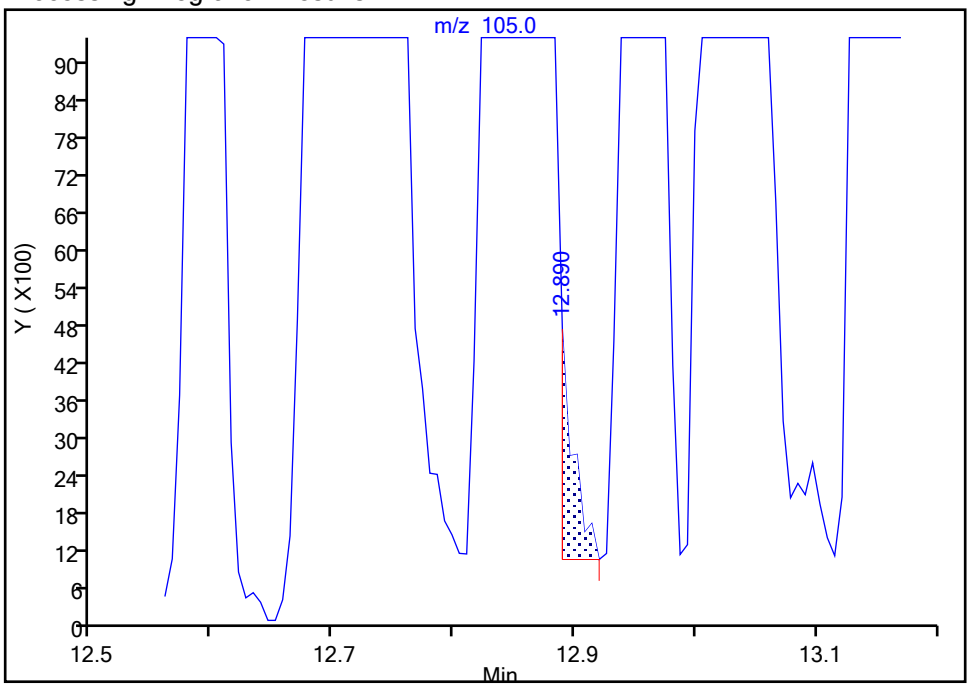
Data File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I11.D				
Injection Date:	21-Dec-2021 18:35:30	Instrument ID:	19094		
Lims ID:	IC std7 25				
Client ID:					
Operator ID:	jml01693	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

121 sec-Butylbenzene, CAS: 135-98-8

Signal: 1

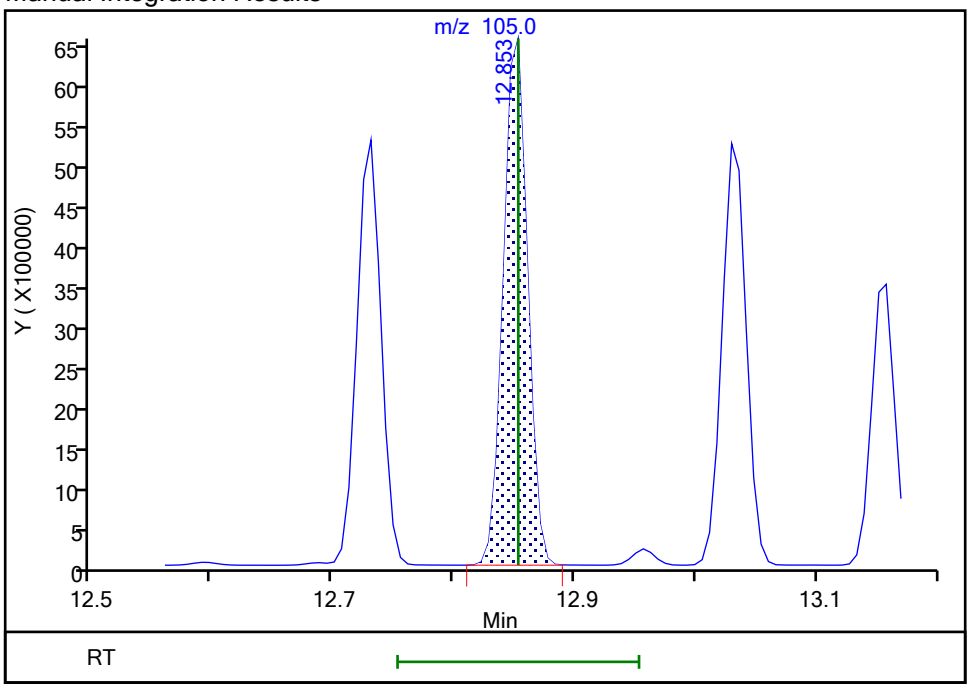
Processing Integration Results

RT: 12.89
Area: 2955
Amount: 0.010090
Amount Units: ug/l



Manual Integration Results

RT: 12.85
Area: 9099827
Amount: 26.038901
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 20:39:55
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I12.D
Lims ID: ICIS 10
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 21-Dec-2021 18:56:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0046912-015
Misc. Info.: ICIS 10
Operator ID: jml01693 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 27-Dec-2021 09:48:11 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 20:40:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.946	1.946	0.000	99	738871	10.0	10.2	
6 Chloromethane	50	2.148	2.148	0.000	99	862586	10.0	9.67	
8 Butadiene	39	2.263	2.263	0.000	91	825527	10.0	9.13	
7 Vinyl chloride	62	2.263	2.263	0.000	95	884597	10.0	9.95	
9 Bromomethane	94	2.587	2.587	0.000	90	592335	10.0	9.94	
10 Chloroethane	64	2.672	2.672	0.000	100	500957	10.0	9.89	
11 Dichlorofluoromethane	67	2.910	2.910	0.000	97	1143585	10.0	9.78	
13 Trichlorofluoromethane	101	2.989	2.989	0.000	98	1108083	10.0	9.94	
15 Ethyl ether	59	3.221	3.221	0.000	92	398961	10.0	10.1	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.318	3.318	0.000	94	810884	10.0	9.96	
17 Acrolein	56	3.397	3.397	0.000	98	3231090	501.1	467.8	
18 1,1-Dichloroethene	96	3.538	3.538	0.000	98	587970	10.0	9.81	
19 Acetone	43	3.562	3.562	0.000	99	645083	100.0	86.3	
20 112TCTFE	101	3.586	3.586	0.000	93	593861	10.0	9.92	
21 Isopropyl alcohol	45	3.733	3.733	0.000	63	223618	200.0	247.0	M
22 Iodomethane	142	3.733	3.733	0.000	99	1034920	10.0	9.87	
23 Ethyl bromide	108	3.763	3.763	0.000	99	500298	10.0	9.82	
24 Carbon disulfide	76	3.842	3.842	0.000	99	1453508	10.0	9.90	
26 Methyl acetate	43	3.970	3.970	0.000	96	224327	10.0	8.76	
27 3-Chloro-1-propene	41	4.013	4.013	0.000	92	917879	10.0	9.89	
29 Methylene Chloride	84	4.202	4.202	0.000	92	614246	10.0	9.64	
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.196	0.000	42	82456	50.0	50.0	
30 2-Methyl-2-propanol	59	4.312	4.312	0.000	100	371208	200.0	213.0	
31 Acrylonitrile	53	4.531	4.531	0.000	99	253952	25.0	25.2	
32 Methyl tert-butyl ether	73	4.604	4.604	0.000	95	1309035	10.0	10.0	
33 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	98	630749	10.0	9.80	
34 Hexane	57	5.031	5.031	0.000	92	872637	10.0	10.3	
35 1,1-Dichloroethane	63	5.275	5.275	0.000	96	1190433	10.0	10.0	
37 Isopropyl ether	45	5.336	5.336	0.000	96	1960042	10.0	10.0	
38 2-Chloro-1,3-butadiene	53	5.385	5.385	0.000	91	984754	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.866	5.866	0.000	98	1658145	10.0	9.96	
41 2-Butanone (MEK)	43	6.062	6.062	0.000	100	1285148	100.0	93.9	
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	83	699783	10.0	9.98	
43 2,2-Dichloropropane	77	6.122	6.122	0.000	87	979434	10.0	10.1	
45 Propionitrile	54	6.147	6.147	0.000	99	708613	200.0	201.9	
47 Methacrylonitrile	67	6.360	6.360	0.000	92	1437091	100.0	92.1	
48 Chlorobromomethane	128	6.433	6.433	0.000	94	294528	10.0	10.0	
49 Tetrahydrofuran	71	6.439	6.439	0.000	88	180085	50.0	47.3	
50 Chloroform	83	6.580	6.580	0.000	93	1140033	10.0	9.87	
$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	596935	10.0	10.1	
52 1,1,1-Trichloroethane	97	6.811	6.811	0.000	98	1054893	10.0	9.92	
53 Cyclohexane	56	6.915	6.915	0.000	90	1139086	10.0	9.97	
55 1,1-Dichloropropene	75	7.019	7.019	0.000	97	944395	10.0	10.0	
56 Carbon tetrachloride	117	7.025	7.025	0.000	95	928355	10.0	10.0	
57 Isobutyl alcohol	41	7.159	7.159	0.000	95	352817	500.0	480.8	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.250	7.250	0.000	96	110289	10.0	10.0	
59 Benzene	78	7.281	7.281	0.000	97	2655673	10.0	9.84	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	97	654180	10.0	9.72	
62 Tert-amyl methyl ether	73	7.470	7.470	0.000	99	1411151	10.0	10.1	
* 65 Fluorobenzene (IS)	96	7.683	7.683	0.000	99	2239692	10.0	10.0	
64 n-Heptane	43	7.695	7.695	0.000	91	923255	10.0	10.3	
66 n-Butanol	56	8.037	8.037	0.000	89	481038	875.0	983.4	
67 Trichloroethene	95	8.159	8.159	0.000	98	706963	10.0	9.95	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	1236558	10.0	10.3	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	86	678994	10.0	10.0	
69 2-ethoxy-2-methyl butane	87	8.500	8.500	0.000	91	745052	10.0	10.2	
71 Methyl methacrylate	69	8.573	8.573	0.000	90	275158	10.0	9.70	
72 1,4-Dioxane	88	8.585	8.585	0.000	76	61919	500.0	499.5	M
73 Dibromomethane	93	8.598	8.598	0.000	95	300660	10.0	9.93	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	785264	10.0	10.3	
76 2-Nitropropane	41	9.098	9.098	0.000	99	369753	50.0	47.9	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	98	597715	10.0	9.97	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	989578	10.0	10.3	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	3490612	100.0	93.6	
$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2398760	10.0	10.1	
83 Toluene	92	9.762	9.762	0.000	98	1687285	10.0	9.90	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	777801	10.0	10.6	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	593545	10.0	10.7	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	427578	10.0	10.2	
88 Tetrachloroethene	166	10.311	10.311	0.000	98	811016	10.0	9.99	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	748993	10.0	10.1	
91 2-Hexanone	43	10.427	10.427	0.000	97	2369316	100.0	93.9	
93 Chlorodibromomethane	129	10.597	10.597	0.000	90	534867	10.0	11.1	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	415330	10.0	10.3	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1825218	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	1001384	10.0	9.87	
98 Chlorobenzene	112	11.158	11.158	0.000	96	1873047	10.0	9.99	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.243	0.000	96	656784	10.0	10.4	
100 Ethylbenzene	91	11.243	11.243	0.000	98	3304919	10.0	10.1	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	2561513	20.0	20.1	
102 o-Xylene	106	11.688	11.688	0.000	96	1265812	10.0	10.1	
103 Styrene	104	11.701	11.701	0.000	94	2055330	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.859	11.859	0.000	97	299372	10.0	11.9	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	3344052	10.0	10.2	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.127	0.000	92	914366	10.0	9.97	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	518211	10.0	10.3	
111 Bromobenzene	156	12.243	12.243	0.000	95	756618	10.0	10.1	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	92	1196041	100.0	101.6	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	83	135635	10.0	10.1	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	3912771	10.0	10.3	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	778879	10.0	10.1	
115 1,3,5-Trimethylbenzene	105	12.444	12.444	0.000	94	2827092	10.0	10.4	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	787123	10.0	10.1	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	616202	10.0	10.1	
119 Pentachloroethane	167	12.719	12.719	0.000	94	486850	10.0	10.8	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	2893170	10.0	10.3	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	3607923	10.0	10.5	
122 1,3-Dichlorobenzene	146	12.950	12.950	0.000	98	1547566	10.0	10.2	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	3140739	10.0	10.6	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1033132	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	94	1518236	10.0	10.1	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	1238154	10.0	10.1	
127 Benzyl chloride	126	13.097	13.097	0.000	98	182114	10.0	11.7	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	1832402	10.0	10.6	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	1531611	10.0	10.9	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	99	1387166	10.0	10.1	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	94	73103	10.0	11.1	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	1207037	10.0	10.7	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	1036089	10.0	10.9	
137 Hexachlorobutadiene	225	14.444	14.444	0.000	96	462896	10.0	10.3	
138 Naphthalene	128	14.548	14.548	0.000	97	1725441	10.0	10.6	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	904137	10.0	10.7	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	1080729	10.0	11.7	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00027	Amount Added: 10.00	Units: uL	
MSV_LL_GAS826_00056	Amount Added: 10.00	Units: uL	
MSV_LL_#2_826_00031	Amount Added: 10.00	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

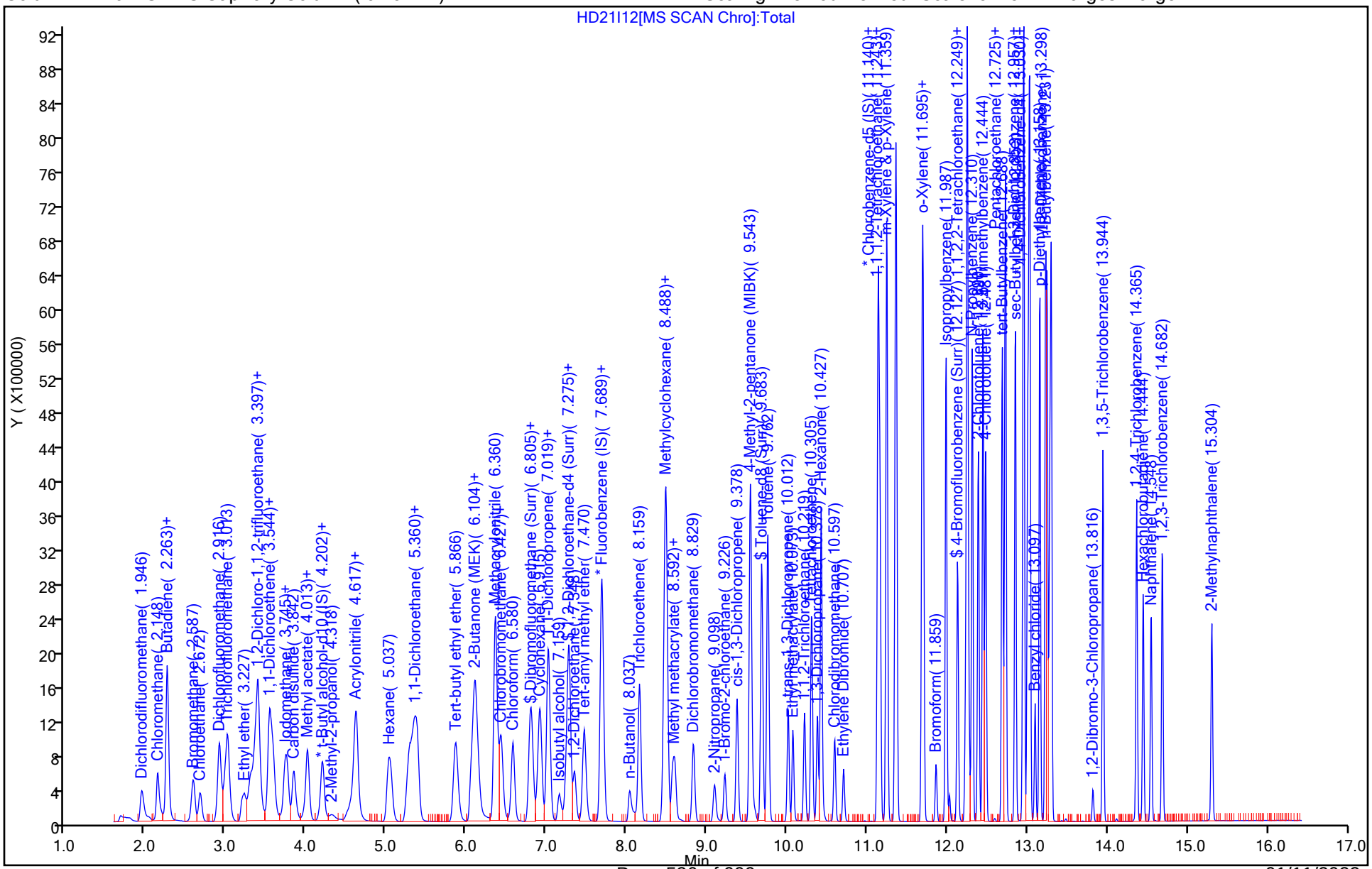
Report Date: 27-Dec-2021 09:48:12 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I12.D

Injection Date:	21-Dec-2021 18:56:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	ICIS 10			Worklist Smp#:	15
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

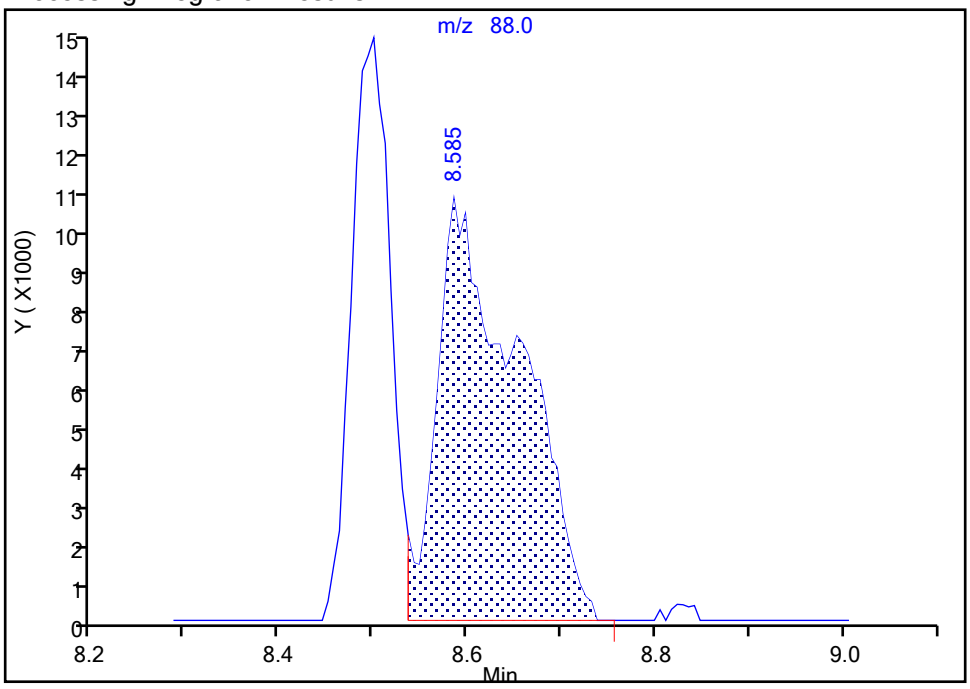
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I12.D
Injection Date: 21-Dec-2021 18:56:30 Instrument ID: 19094
Lims ID: ICIS 10
Client ID:
Operator ID: jml01693 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

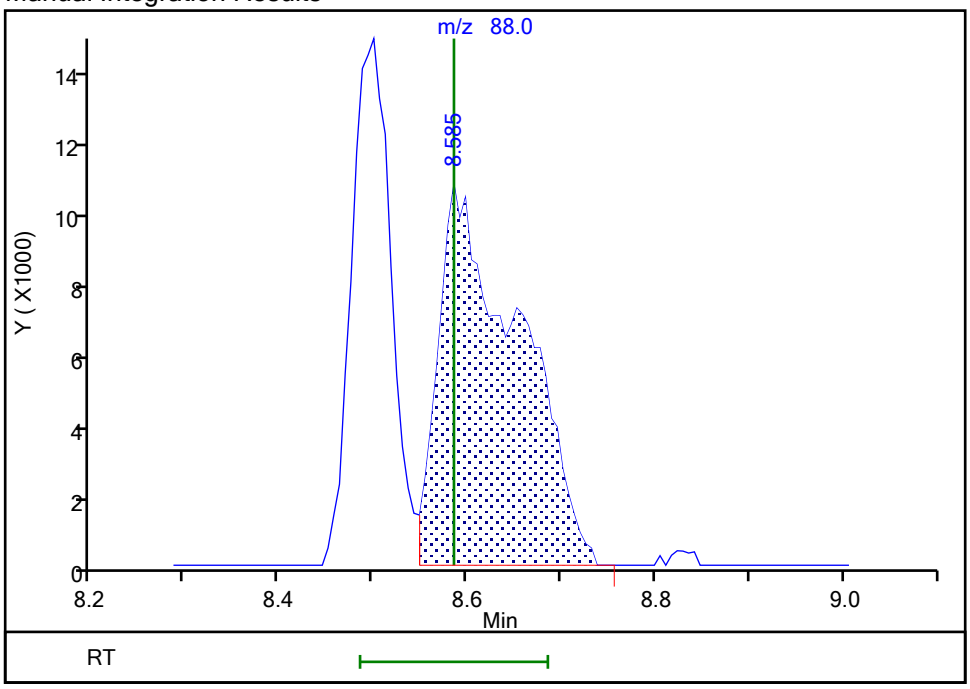
Processing Integration Results

RT: 8.59
Area: 63209
Amount: 504.0137
Amount Units: ug/l



Manual Integration Results

RT: 8.59
Area: 61919
Amount: 499.4909
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 20:40:37
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I13.D
Lims ID: IC std5 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 21-Dec-2021 19:16:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0046912-016
Misc. Info.: IC STD5 5
Operator ID: jml01693 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 27-Dec-2021 09:48:22 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 20:41:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.940	1.946	-0.006	99	356334	5.00	4.82	
6 Chloromethane	50	2.142	2.148	-0.006	99	421626	5.00	4.63	
8 Butadiene	39	2.258	2.263	-0.005	91	427716	5.00	4.64	
7 Vinyl chloride	62	2.258	2.263	-0.005	97	436750	5.00	4.82	
9 Bromomethane	94	2.587	2.587	0.000	91	293513	5.00	4.83	
10 Chloroethane	64	2.672	2.672	0.000	100	247855	5.00	4.80	
11 Dichlorofluoromethane	67	2.910	2.910	0.000	97	577018	5.00	4.84	
13 Trichlorofluoromethane	101	2.983	2.989	-0.006	97	544632	5.00	4.79	
15 Ethyl ether	59	3.202	3.221	-0.019	92	201045	5.00	5.01	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.312	3.318	-0.006	95	401769	5.00	4.84	
17 Acrolein	56	3.391	3.397	-0.006	98	1633670	250.5	250.3	
18 1,1-Dichloroethene	96	3.532	3.538	-0.006	99	297874	5.00	4.87	
19 Acetone	43	3.550	3.562	-0.012	99	328761	50.0	46.6	
20 112TCTFE	101	3.574	3.586	-0.012	92	296358	5.00	4.85	
21 Isopropyl alcohol	45	3.708	3.733	-0.025	97	105827	100.0	114.5	M
22 Iodomethane	142	3.727	3.733	-0.006	98	527406	5.00	4.93	
23 Ethyl bromide	108	3.757	3.763	-0.006	99	252124	5.00	4.85	
24 Carbon disulfide	76	3.843	3.842	0.001	99	728564	5.00	4.86	
26 Methyl acetate	43	3.964	3.970	-0.006	98	114994	5.00	4.75	M
27 3-Chloro-1-propene	41	4.007	4.013	-0.006	92	460092	5.00	4.86	
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.196	0.000	52	77926	50.0	50.0	
29 Methylene Chloride	84	4.196	4.202	-0.006	93	312256	5.00	4.80	
30 2-Methyl-2-propanol	59	4.300	4.312	-0.012	99	163551	100.0	99.3	
31 Acrylonitrile	53	4.525	4.531	-0.006	97	127168	12.5	13.4	
32 Methyl tert-butyl ether	73	4.605	4.604	0.001	95	663391	5.00	4.98	
33 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	99	322742	5.00	4.91	
34 Hexane	57	5.031	5.031	0.000	92	432542	5.00	4.99	
35 1,1-Dichloroethane	63	5.269	5.275	-0.006	96	604570	5.00	5.00	
37 Isopropyl ether	45	5.330	5.336	-0.006	95	992215	5.00	4.98	
38 2-Chloro-1,3-butadiene	53	5.379	5.385	-0.006	90	498616	5.00	5.01	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.860	5.866	-0.006	98	836280	5.00	4.92	
41 2-Butanone (MEK)	43	6.062	6.062	0.000	100	644831	50.0	49.8	
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	83	354605	5.00	4.95	
43 2,2-Dichloropropane	77	6.117	6.122	-0.006	88	488737	5.00	4.92	
45 Propionitrile	54	6.141	6.147	-0.006	99	350901	100.0	105.8	
S 40 1,2-Dichloroethene, Total	100				0			9.87	
47 Methacrylonitrile	67	6.360	6.360	0.000	93	727505	50.0	49.3	
48 Chlorobromomethane	128	6.421	6.433	-0.012	92	150419	5.00	5.01	
49 Tetrahydrofuran	71	6.434	6.439	-0.005	91	88485	25.0	24.6	
50 Chloroform	83	6.574	6.580	-0.006	93	582024	5.00	4.94	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	94	605859	10.0	10.0	
52 1,1,1-Trichloroethane	97	6.811	6.811	0.000	98	531102	5.00	4.90	
53 Cyclohexane	56	6.915	6.915	0.000	90	571047	5.00	4.90	
55 1,1-Dichloropropene	75	7.013	7.019	-0.006	97	474404	5.00	4.94	
56 Carbon tetrachloride	117	7.019	7.025	-0.006	97	468482	5.00	4.95	
57 Isobutyl alcohol	41	7.159	7.159	0.000	93	168398	250.0	242.8	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.250	-0.006	98	113381	10.0	10.1	
59 Benzene	78	7.275	7.281	-0.006	97	1351104	5.00	4.90	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	97	333752	5.00	4.86	
62 Tert-amyl methyl ether	73	7.464	7.470	-0.006	98	711960	5.00	5.00	
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	98	2285280	10.0	10.0	
64 n-Heptane	43	7.695	7.695	0.000	92	453158	5.00	4.95	
66 n-Butanol	56	8.037	8.037	0.000	88	224898	437.5	486.5	
67 Trichloroethene	95	8.159	8.159	0.000	98	358162	5.00	4.94	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	608970	5.00	4.96	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	86	343692	5.00	4.96	
69 2-ethoxy-2-methyl butane	87	8.494	8.500	-0.006	91	371365	5.00	4.98	
71 Methyl methacrylate	69	8.573	8.573	0.000	91	137404	5.00	5.13	
72 1,4-Dioxane	88	8.592	8.585	0.007	31	32793	250.0	246.6	
73 Dibromomethane	93	8.598	8.598	0.000	95	152957	5.00	4.95	
75 Dichlorobromomethane	83	8.829	8.829	0.000	100	395479	5.00	5.09	
76 2-Nitropropane	41	9.098	9.098	0.000	98	180945	25.0	24.8	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	301567	5.00	4.93	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	501818	5.00	5.12	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	1755738	50.0	49.8	
$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2438984	10.0	10.1	
83 Toluene	92	9.762	9.762	0.000	98	861259	5.00	4.93	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	387986	5.00	5.15	
S 84 1,3-Dichloropropene, Total	100				0			10.3	
86 Ethyl methacrylate	69	10.073	10.073	0.000	88	295430	5.00	5.22	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	217928	5.00	5.06	
88 Tetrachloroethene	166	10.305	10.311	-0.006	98	407386	5.00	4.90	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	379838	5.00	4.99	
91 2-Hexanone	43	10.427	10.427	0.001	97	1199898	50.0	50.3	
93 Chlorodibromomethane	129	10.597	10.597	0.000	90	260697	5.00	5.27	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	212679	5.00	5.14	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1868144	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	500369	5.00	4.82	
98 Chlorobenzene	112	11.158	11.158	0.000	94	951909	5.00	4.96	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.243	0.001	95	331123	5.00	5.10	
100 Ethylbenzene	91	11.244	11.243	0.001	98	1669271	5.00	4.97	
S 95 Xylenes, Total	106				0			15.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	1293990	10.0	9.92	
102 o-Xylene	106	11.689	11.688	0.001	96	644165	5.00	5.04	
103 Styrene	104	11.701	11.701	0.000	95	1032084	5.00	5.12	
104 Bromoform	173	11.859	11.859	0.000	98	138500	5.00	5.39	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	1689076	5.00	5.03	
$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.127	0.001	91	940209	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	92	261515	5.00	5.12	
111 Bromobenzene	156	12.243	12.243	0.000	96	388274	5.00	5.09	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	91	586353	50.0	52.7	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	67434	5.00	4.91	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	1977526	5.00	5.09	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	393659	5.00	5.01	
115 1,3,5-Trimethylbenzene	105	12.445	12.444	0.001	94	1409010	5.00	5.10	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	401526	5.00	5.06	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	310310	5.00	5.01	
119 Pentachloroethane	167	12.719	12.719	0.000	92	235687	5.00	5.11	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	1469221	5.00	5.14	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	1796194	5.00	5.13	
122 1,3-Dichlorobenzene	146	12.951	12.950	0.001	98	776252	5.00	5.04	
123 4-Isopropyltoluene	119	12.957	12.957	0.001	97	1569449	5.00	5.18	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1053366	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	95	764838	5.00	4.99	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	623468	5.00	5.00	
127 Benzyl chloride	126	13.097	13.097	0.000	98	88124	5.00	5.55	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	906198	5.00	5.14	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	749639	5.00	5.24	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	707336	5.00	5.06	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	89	36722	5.00	5.47	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	591090	5.00	5.16	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	505998	5.00	5.21	
137 Hexachlorobutadiene	225	14.444	14.444	0.000	96	220860	5.00	4.81	
138 Naphthalene	128	14.548	14.548	0.000	97	856656	5.00	5.16	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	95	442199	5.00	5.13	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	508576	5.00	5.42	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00027	Amount Added:	5.00	Units: uL	
MSV_LL_GAS826_00056	Amount Added:	5.00	Units: uL	
MSV_LL_#2_826_00031	Amount Added:	5.00	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

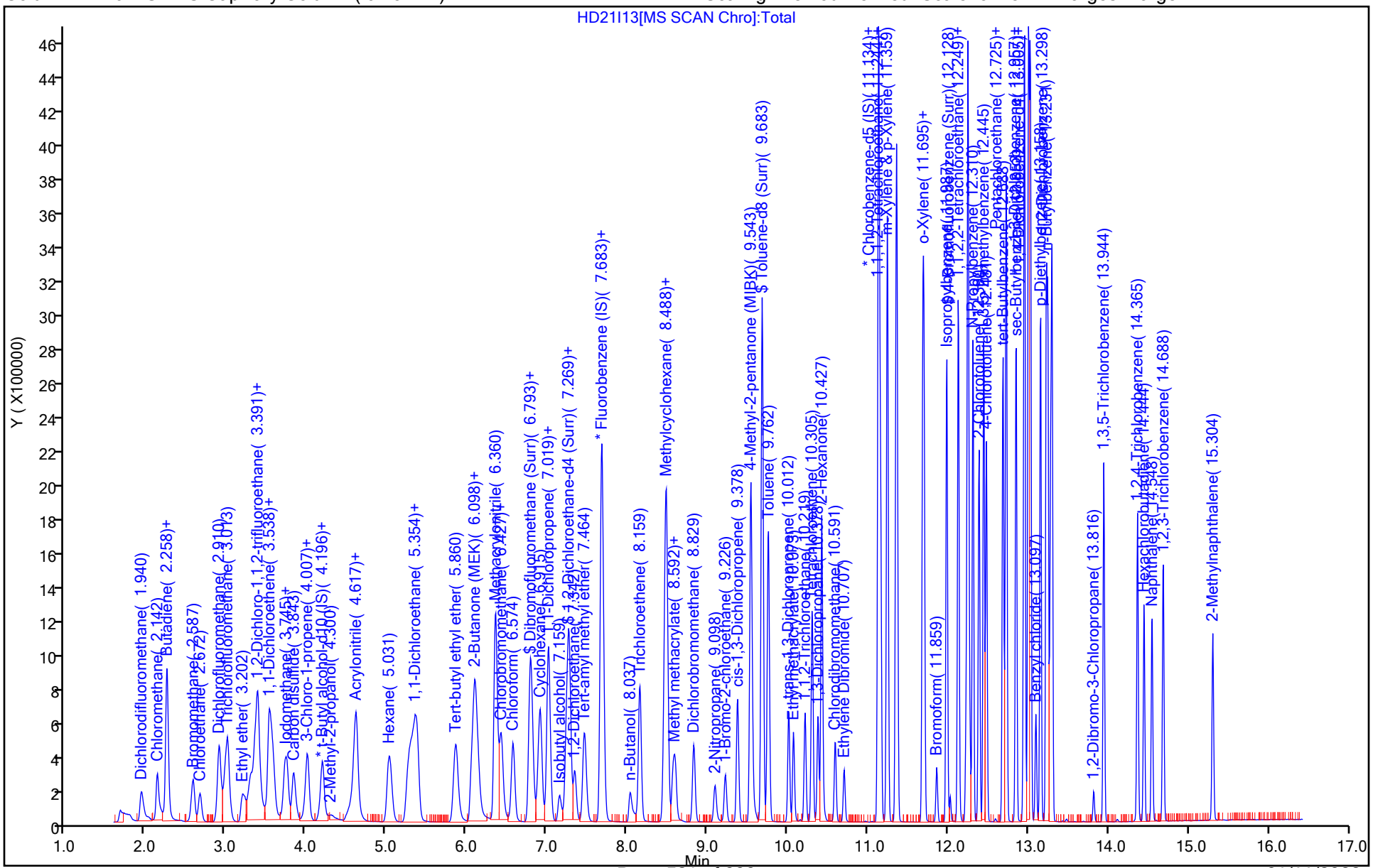
Report Date: 27-Dec-2021 09:48:22 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I13.D

Injection Date:	21-Dec-2021 19:16:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	IC std5 5			Worklist Smp#:	16
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

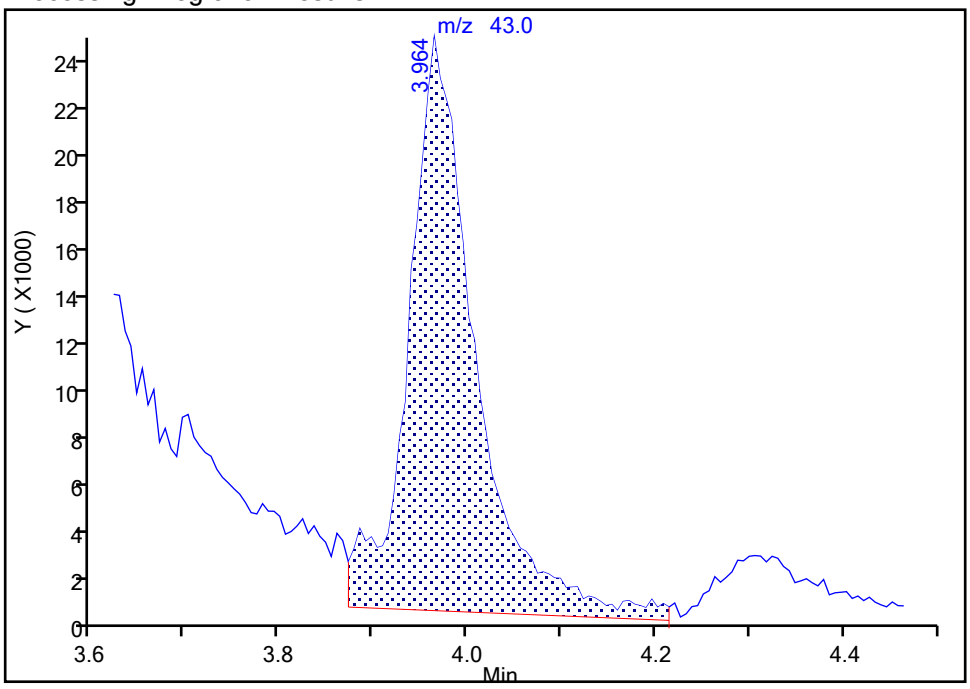
Data File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I13.D				
Injection Date:	21-Dec-2021 19:16:30	Instrument ID:	19094		
Lims ID:	IC std5 5				
Client ID:					
Operator ID:	jml01693	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

26 Methyl acetate, CAS: 79-20-9

Signal: 1

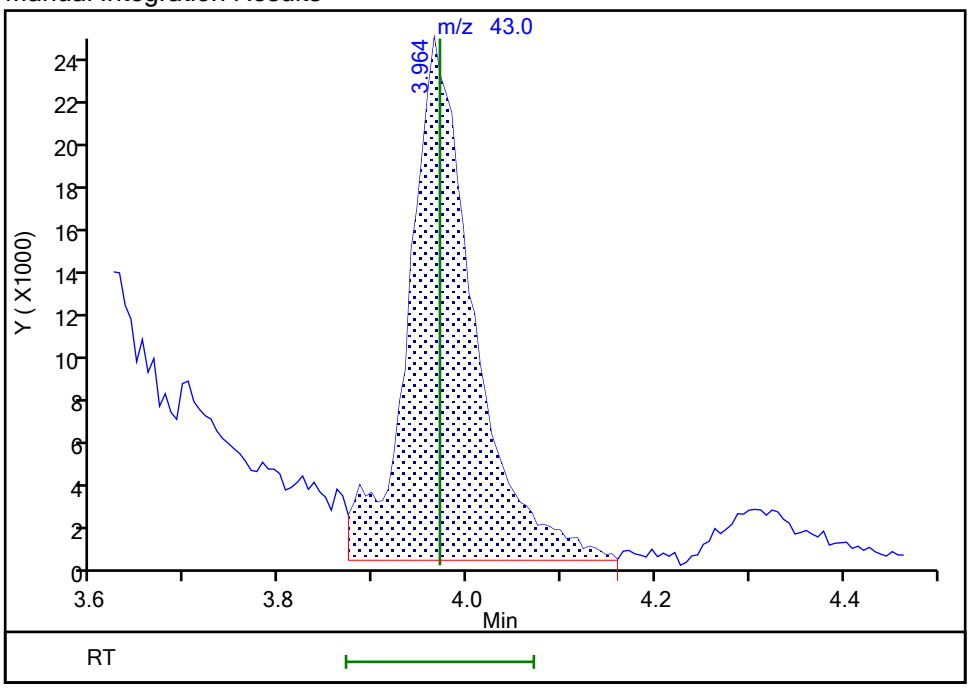
Processing Integration Results

RT: 3.96
Area: 117907
Amount: 5.066175
Amount Units: ug/l



Manual Integration Results

RT: 3.96
Area: 114994
Amount: 4.753908
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 20:41:18
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I14.D
Lims ID: IC std4 2
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 21-Dec-2021 19:37:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0046912-017
Misc. Info.: IC STD4 2
Operator ID: jml01693 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 27-Dec-2021 09:48:28 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 20:42:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.934	1.934	0.000	99	152223	2.00	2.08	
6 Chloromethane	50	2.130	2.130	0.000	99	180504	2.00	2.01	
8 Butadiene	39	2.251	2.251	0.000	91	186723	2.00	2.05	
7 Vinyl chloride	62	2.251	2.251	0.000	96	181885	2.00	2.03	
9 Bromomethane	94	2.575	2.575	0.000	91	121596	2.00	2.02	
10 Chloroethane	64	2.660	2.660	0.000	100	104369	2.00	2.04	
11 Dichlorofluoromethane	67	2.898	2.898	0.000	97	241089	2.00	2.04	
13 Trichlorofluoromethane	101	2.971	2.971	0.000	98	229574	2.00	2.04	
15 Ethyl ether	59	3.196	3.196	0.000	92	80333	2.00	2.02	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.306	3.306	0.000	92	165879	2.00	2.02	
17 Acrolein	56	3.385	3.385	0.000	97	622050	100.2	118.4	
18 1,1-Dichloroethene	96	3.526	3.526	0.000	98	122768	2.00	2.03	
19 Acetone	43	3.544	3.544	0.000	52	123919	20.0	21.8	
20 112TCTFE	101	3.574	3.574	0.000	91	123914	2.00	2.05	
21 Isopropyl alcohol	45	3.715	3.715	0.000	30	37111	40.0	40.6	M
22 Iodomethane	142	3.727	3.727	0.000	98	214103	2.00	2.02	
23 Ethyl bromide	108	3.751	3.751	0.000	99	103823	2.00	2.02	
24 Carbon disulfide	76	3.830	3.830	0.000	99	298849	2.00	2.02	
26 Methyl acetate	43	3.977	3.977	0.000	97	40464	2.00	2.08	
27 3-Chloro-1-propene	41	4.007	4.007	0.000	93	187981	2.00	2.01	
* 28 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	39	62752	50.0	50.0	
29 Methylene Chloride	84	4.196	4.196	0.000	92	125736	2.00	1.96	
30 2-Methyl-2-propanol	59	4.306	4.306	0.000	99	59338	40.0	44.7	
31 Acrylonitrile	53	4.525	4.525	0.000	92	46434	5.00	6.05	
32 Methyl tert-butyl ether	73	4.599	4.599	0.000	89	269866	2.00	2.05	
33 trans-1,2-Dichloroethene	96	4.611	4.611	0.000	98	131752	2.00	2.03	
34 Hexane	57	5.019	5.019	0.000	92	176387	2.00	2.06	
35 1,1-Dichloroethane	63	5.263	5.263	0.000	96	241965	2.00	2.02	
37 Isopropyl ether	45	5.318	5.318	0.000	94	399751	2.00	2.03	
38 2-Chloro-1,3-butadiene	53	5.373	5.373	0.000	91	201194	2.00	2.05	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.854	5.854	0.000	98	345532	2.00	2.06	
41 2-Butanone (MEK)	43	6.056	6.056	0.000	100	244279	20.0	23.4	
42 cis-1,2-Dichloroethene	96	6.086	6.086	0.000	82	144124	2.00	2.04	
43 2,2-Dichloropropane	77	6.110	6.110	0.000	87	202088	2.00	2.06	
45 Propionitrile	54	6.153	6.153	0.000	98	124460	40.0	46.6	
S 40 1,2-Dichloroethene, Total	100				0			4.07	
47 Methacrylonitrile	67	6.354	6.354	0.000	92	283280	20.0	23.9	
48 Chlorobromomethane	128	6.421	6.421	0.000	94	58589	2.00	1.98	
49 Tetrahydrofuran	71	6.434	6.434	0.000	92	34407	10.0	11.9	
50 Chloroform	83	6.568	6.568	0.000	93	236911	2.00	2.03	
$ 51 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	94	593759	10.0	9.96	
52 1,1,1-Trichloroethane	97	6.799	6.799	0.000	98	218494	2.00	2.04	
53 Cyclohexane	56	6.903	6.903	0.000	91	239108	2.00	2.08	
55 1,1-Dichloropropene	75	7.007	7.007	0.000	95	193969	2.00	2.04	
56 Carbon tetrachloride	117	7.025	7.025	0.000	96	191089	2.00	2.04	
57 Isobutyl alcohol	41	7.159	7.159	0.000	93	60199	100.0	107.8	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	80	111158	10.0	10.0	
59 Benzene	78	7.269	7.269	0.000	96	550688	2.00	2.02	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	97	137295	2.00	2.02	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	98	290093	2.00	2.06	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	2259237	10.0	10.0	
64 n-Heptane	43	7.689	7.689	0.000	93	186201	2.00	2.06	
66 n-Butanol	56	8.043	8.043	0.000	87	72020	175.0	193.5	M
67 Trichloroethene	95	8.153	8.153	0.000	98	147632	2.00	2.06	
68 Methylcyclohexane	83	8.470	8.470	0.000	92	257188	2.00	2.12	
70 1,2-Dichloropropane	63	8.482	8.482	0.000	95	138152	2.00	2.02	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	93	151028	2.00	2.05	
71 Methyl methacrylate	69	8.567	8.567	0.000	90	52766	2.00	2.44	
72 1,4-Dioxane	88	8.586	8.586	0.000	31	12049	100.0	108.6	M
73 Dibromomethane	93	8.592	8.592	0.000	95	62175	2.00	2.04	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	154800	2.00	2.02	
76 2-Nitropropane	41	9.092	9.092	0.000	99	68349	10.0	11.6	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	98	124129	2.00	2.05	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	193875	2.00	2.00	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	689710	20.0	24.3	
$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2414686	10.0	10.0	
83 Toluene	92	9.762	9.762	0.000	98	350909	2.00	2.02	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	153449	2.00	2.05	
S 84 1,3-Dichloropropene, Total	100				0			4.05	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	115660	2.00	2.06	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	86655	2.00	2.02	
88 Tetrachloroethene	166	10.305	10.305	0.000	98	169948	2.00	2.06	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	152292	2.00	2.01	
91 2-Hexanone	43	10.427	10.427	0.000	97	467175	20.0	24.3	
93 Chlorodibromomethane	129	10.591	10.591	0.000	91	100062	2.00	2.04	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	83736	2.00	2.04	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1856553	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	96	204745	2.00	1.98	
98 Chlorobenzene	112	11.158	11.158	0.000	96	385641	2.00	2.02	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	95	131572	2.00	2.04	
100 Ethylbenzene	91	11.244	11.244	0.000	98	678938	2.00	2.03	
S 95 Xylenes, Total	106				0			6.11	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	528574	4.00	4.08	
102 o-Xylene	106	11.689	11.689	0.000	96	258119	2.00	2.03	
103 Styrene	104	11.701	11.701	0.000	94	410852	2.00	2.05	
104 Bromoform	173	11.859	11.859	0.000	96	49507	2.00	1.94	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	679640	2.00	2.03	
$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	91	934039	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	94	104143	2.00	2.03	
111 Bromobenzene	156	12.243	12.243	0.000	95	156953	2.00	2.05	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	92	217932	20.0	24.3	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	27502	2.00	2.00	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	800028	2.00	2.06	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	161192	2.00	2.05	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	0.000	94	568474	2.00	2.05	
116 4-Chlorotoluene	126	12.481	12.481	0.000	98	162913	2.00	2.05	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	126709	2.00	2.04	
119 Pentachloroethane	167	12.719	12.719	0.000	92	94727	2.00	2.05	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	589871	2.00	2.06	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	724037	2.00	2.06	
122 1,3-Dichlorobenzene	146	12.951	12.951	0.000	98	315097	2.00	2.04	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	627032	2.00	2.07	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1055621	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	96	313492	2.00	2.04	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	251990	2.00	2.02	
127 Benzyl chloride	126	13.097	13.097	0.000	99	32711	2.00	2.05	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	365446	2.00	2.07	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	294908	2.00	2.06	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	289410	2.00	2.06	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	86	13493	2.00	2.00	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	231980	2.00	2.02	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	200032	2.00	2.06	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	89789	2.00	1.95	
138 Naphthalene	128	14.548	14.548	0.000	97	340674	2.00	2.05	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	177171	2.00	2.05	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	93	198024	2.00	2.11	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00027	Amount Added:	2.00	Units: uL	
MSV_LL_GAS826_00056	Amount Added:	2.00	Units: uL	
MSV_LL_#2_826_00031	Amount Added:	2.00	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

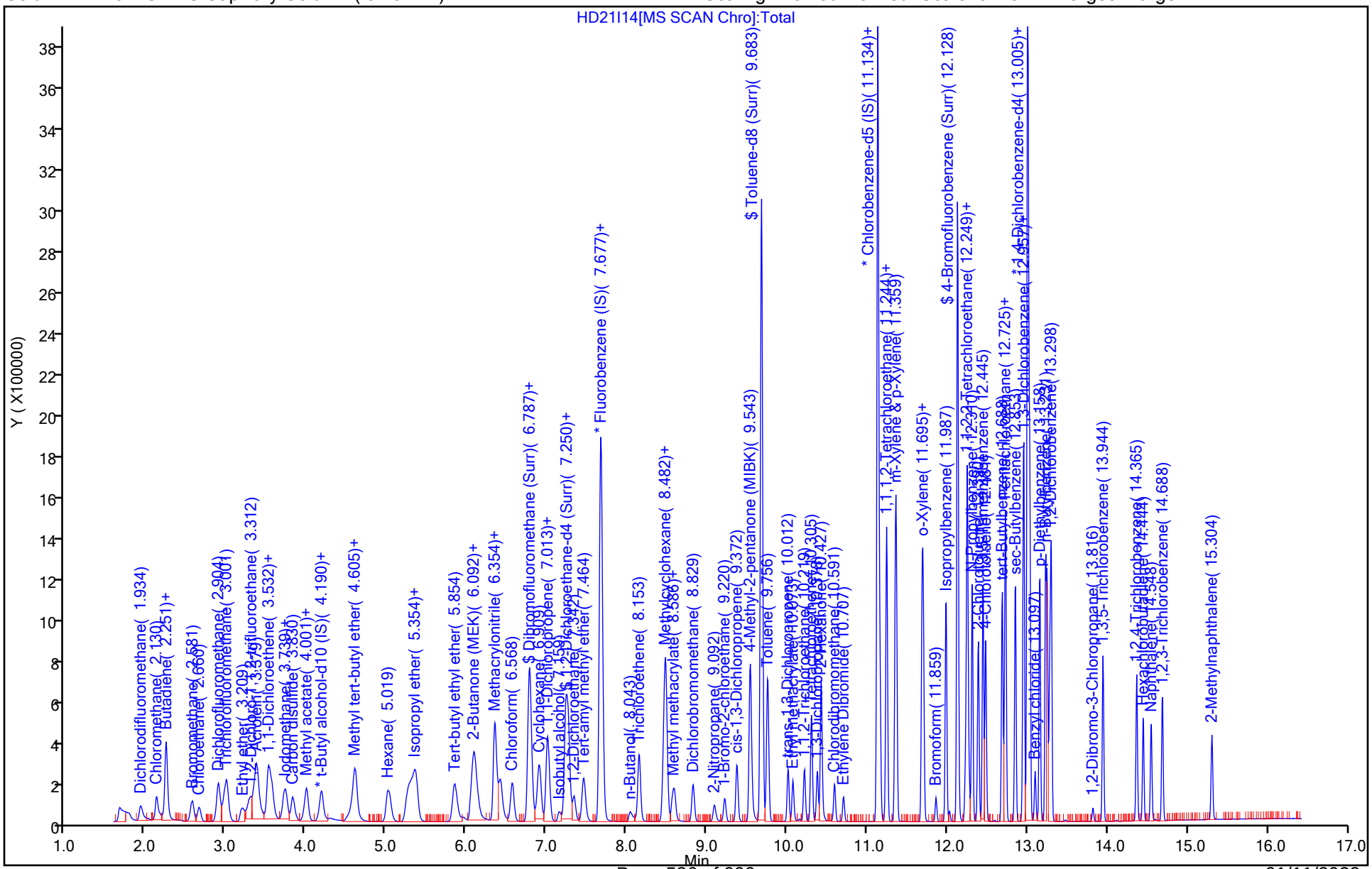
Report Date: 27-Dec-2021 09:48:29 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I14.D

Injection Date:	21-Dec-2021 19:37:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	IC std4 2			Worklist Smp#:	17
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

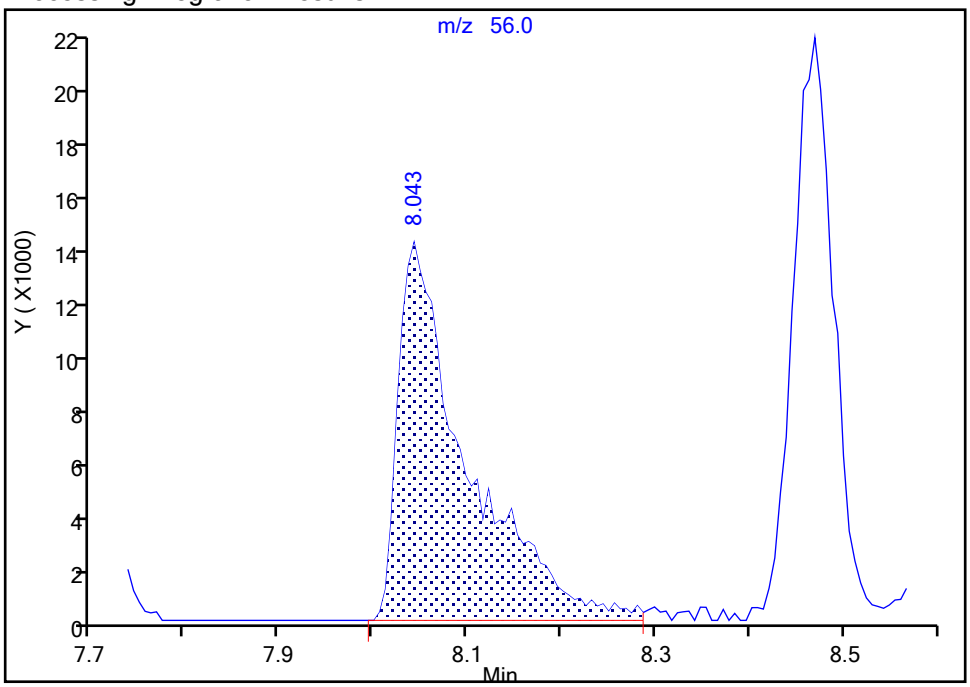
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I14.D
Injection Date: 21-Dec-2021 19:37:30 Instrument ID: 19094
Lims ID: IC std4 2
Client ID:
Operator ID: jml01693 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

66 n-Butanol, CAS: 71-36-3

Signal: 1

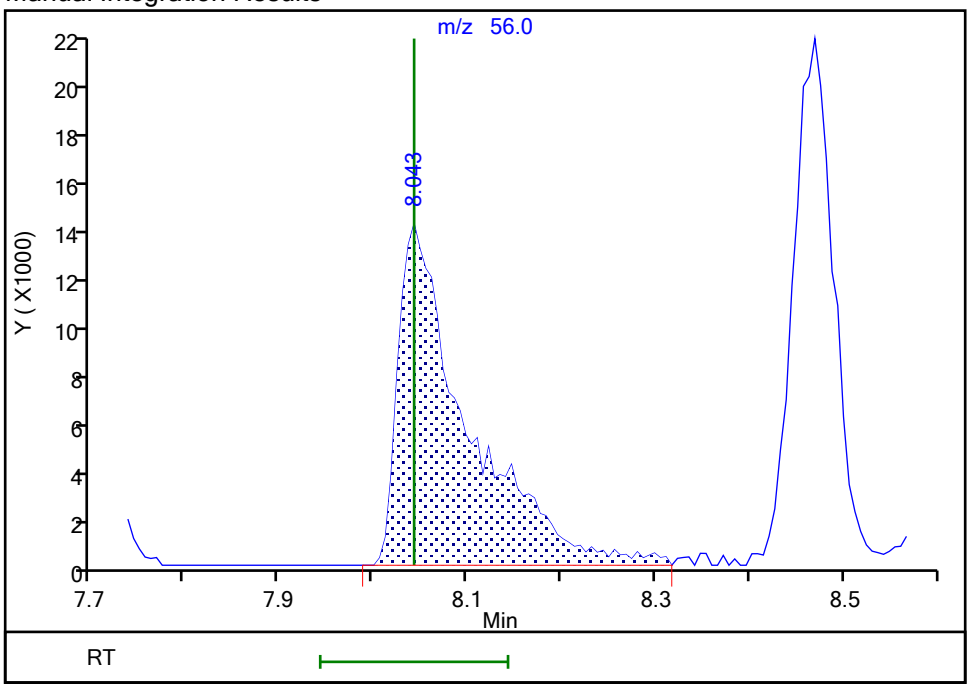
Processing Integration Results

RT: 8.04
Area: 71448
Amount: 203.1286
Amount Units: ug/l



Manual Integration Results

RT: 8.04
Area: 72020
Amount: 193.4565
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:07:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

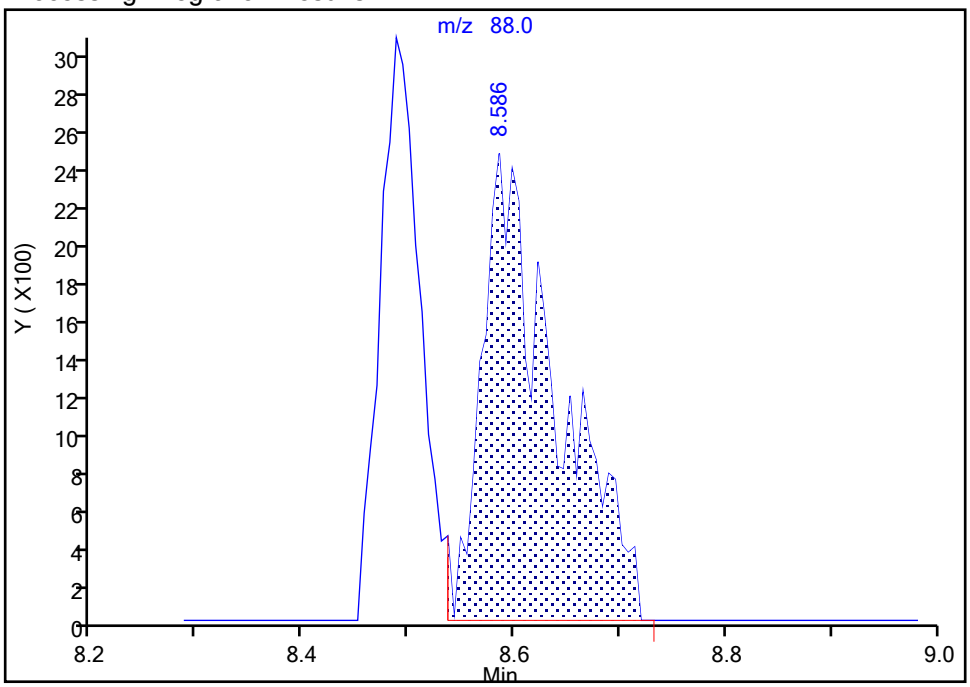
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I14.D
Injection Date: 21-Dec-2021 19:37:30 Instrument ID: 19094
Lims ID: IC std4 2
Client ID:
Operator ID: jml01693 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

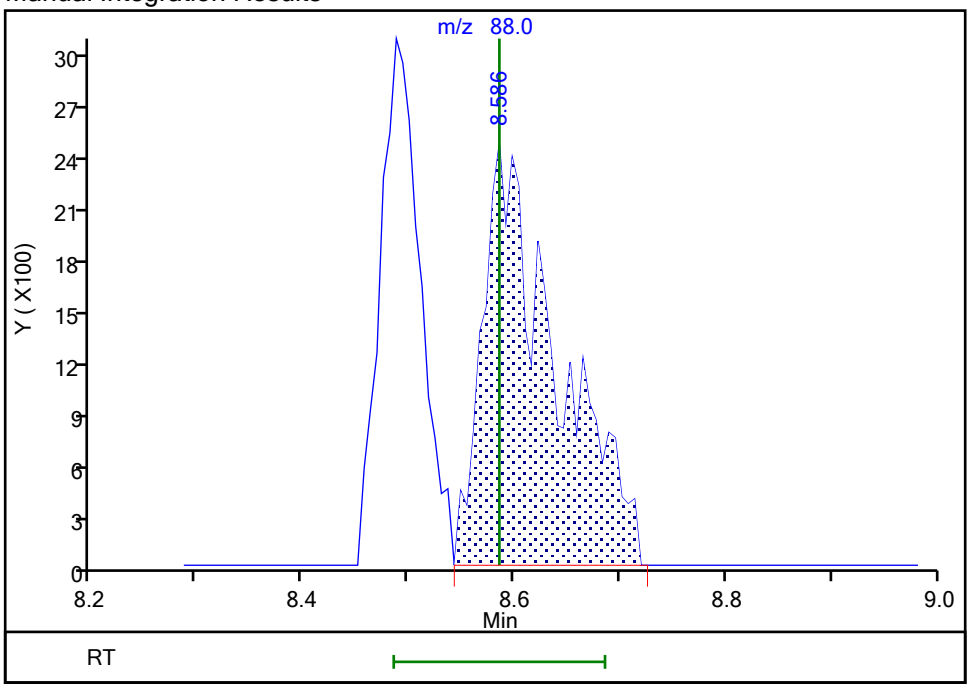
Processing Integration Results

RT: 8.59
Area: 12214
Amount: 108.9749
Amount Units: ug/l



Manual Integration Results

RT: 8.59
Area: 12049
Amount: 108.6073
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 20:42:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I15.D
Lims ID: IC std3 1
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Dec-2021 19:57:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0046912-018
Misc. Info.: IC STD3 1
Operator ID: jml01693 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 27-Dec-2021 09:48:36 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 20:43:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.947	1.934	0.013	99	72426	1.00	0.9892	
6 Chloromethane	50	2.142	2.130	0.012	99	88475	1.00	0.9821	
8 Butadiene	39	2.258	2.251	0.007	90	95547	1.00	1.05	M
7 Vinyl chloride	62	2.264	2.251	0.013	95	89615	1.00	1.00	M
9 Bromomethane	94	2.593	2.575	0.018	91	59047	1.00	0.9811	M
10 Chloroethane	64	2.678	2.660	0.018	99	49836	1.00	0.9741	
11 Dichlorofluoromethane	67	2.916	2.898	0.018	97	117995	1.00	1.00	
13 Trichlorofluoromethane	101	2.983	2.971	0.012	98	110754	1.00	0.9835	
15 Ethyl ether	59	3.202	3.196	0.006	91	40150	1.00	1.01	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.318	3.306	0.012	93	82081	1.00	1.00	
17 Acrolein	56	3.398	3.385	0.013	96	321738	50.1	52.8	
18 1,1-Dichloroethene	96	3.538	3.526	0.012	98	59850	1.00	0.9890	
19 Acetone	43	3.562	3.544	0.018	98	69104	10.0	10.5	
20 112TCTFE	101	3.574	3.574	0.000	94	62012	1.00	1.03	
21 Isopropyl alcohol	45	3.733	3.715	0.018	27	17568	20.0	19.2	M
22 Iodomethane	142	3.733	3.727	0.006	98	105023	1.00	0.99	
23 Ethyl bromide	108	3.763	3.751	0.012	99	50764	1.00	0.9868	
24 Carbon disulfide	76	3.849	3.830	0.019	99	144719	1.00	0.9756	
26 Methyl acetate	43	3.971	3.977	-0.006	97	22969	1.00	1.02	
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	92205	1.00	0.9840	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	52	72779	50.0	50.0	
29 Methylene Chloride	84	4.196	4.196	0.000	92	65277	1.00	1.01	
30 2-Methyl-2-propanol	59	4.312	4.306	0.006	98	31795	20.0	20.7	
31 Acrylonitrile	53	4.550	4.525	0.025	99	24466	2.50	2.75	
32 Methyl tert-butyl ether	73	4.605	4.599	0.006	95	135002	1.00	1.02	
33 trans-1,2-Dichloroethene	96	4.629	4.611	0.018	99	64537	1.00	0.99	
34 Hexane	57	5.031	5.019	0.012	91	85388	1.00	0.99	
35 1,1-Dichloroethane	63	5.275	5.263	0.012	84	119309	1.00	1.00	
37 Isopropyl ether	45	5.324	5.318	0.006	94	200145	1.00	1.02	
38 2-Chloro-1,3-butadiene	53	5.385	5.373	0.012	91	95508	1.00	0.9698	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.860	5.854	0.006	98	169735	1.00	1.01	
41 2-Butanone (MEK)	43	6.068	6.056	0.012	100	128280	10.0	10.6	
42 cis-1,2-Dichloroethene	96	6.092	6.086	0.006	82	71206	1.00	1.01	
43 2,2-Dichloropropane	77	6.117	6.110	0.007	87	95604	1.00	0.9718	
45 Propionitrile	54	6.153	6.153	0.000	98	59222	20.0	19.1	
S 40 1,2-Dichloroethene, Total	100				0			2.00	
47 Methacrylonitrile	67	6.360	6.354	0.006	92	140063	10.0	10.2	
48 Chlorobromomethane	128	6.421	6.421	0.000	94	30111	1.00	1.01	
49 Tetrahydrofuran	71	6.440	6.434	0.006	80	18201	5.00	5.42	
50 Chloroform	83	6.574	6.568	0.006	93	115752	1.00	0.99	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	592504	10.0	9.93	
52 1,1,1-Trichloroethane	97	6.818	6.799	0.019	98	105189	1.00	0.9796	
53 Cyclohexane	56	6.915	6.903	0.012	90	116034	1.00	1.01	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	96	95576	1.00	1.01	
56 Carbon tetrachloride	117	7.025	7.025	0.000	79	92423	1.00	0.9872	
57 Isobutyl alcohol	41	7.171	7.159	0.012	96	34366	50.0	53.1	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	80	110227	10.0	9.91	
59 Benzene	78	7.275	7.269	0.006	96	272059	1.00	1.00	
60 1,2-Dichloroethane	62	7.348	7.342	0.006	98	68033	1.00	1.00	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	98	142788	1.00	1.01	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	99	2262029	10.0	10.0	
64 n-Heptane	43	7.689	7.689	0.000	86	89045	1.00	0.9833	
66 n-Butanol	56	8.049	8.043	0.006	87	39291	87.5	91.0	
67 Trichloroethene	95	8.159	8.153	0.006	98	70266	1.00	0.9793	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	122383	1.00	1.01	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	81	68623	1.00	1.00	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	92	73635	1.00	1.00	
71 Methyl methacrylate	69	8.579	8.567	0.012	88	25833	1.00	1.03	
72 1,4-Dioxane	88	8.598	8.586	0.012	31	6045	50.0	49.3	
73 Dibromomethane	93	8.604	8.592	0.012	95	30643	1.00	1.00	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	74034	1.00	0.9633	
76 2-Nitropropane	41	9.098	9.092	0.006	98	34795	5.00	5.11	
79 1-Bromo-2-chloroethane	63	9.220	9.226	-0.006	99	60970	1.00	1.01	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	95	95945	1.00	0.9882	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	338012	10.0	10.3	
$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2413194	10.0	10.1	
83 Toluene	92	9.762	9.762	0.000	98	171239	1.00	0.99	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	74559	1.00	1.00	
S 84 1,3-Dichloropropene, Total	100				0			1.99	
86 Ethyl methacrylate	69	10.079	10.073	0.006	88	55567	1.00	0.99	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	43174	1.00	1.01	
88 Tetrachloroethene	166	10.305	10.305	0.000	98	81506	1.00	0.99	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	75932	1.00	1.01	
91 2-Hexanone	43	10.427	10.427	0.000	96	227584	10.0	10.2	
93 Chlorodibromomethane	129	10.597	10.591	0.006	89	47270	1.00	0.9669	
94 Ethylene Dibromide	107	10.707	10.707	0.000	97	41722	1.00	1.02	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1846913	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	95	100575	1.00	0.9800	
98 Chlorobenzene	112	11.158	11.158	0.000	96	190794	1.00	1.01	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	96	62974	1.00	0.9820	
100 Ethylbenzene	91	11.244	11.244	0.000	99	329312	1.00	0.99	
S 95 Xylenes, Total	106				0			2.97	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	253972	2.00	1.97	
102 o-Xylene	106	11.689	11.689	0.000	96	125947	1.00	1.00	
103 Styrene	104	11.701	11.701	0.000	94	195825	1.00	0.9831	
104 Bromoform	173	11.859	11.859	0.000	95	20741	1.00	0.8157	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	330264	1.00	0.99	
$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	92	935438	10.0	10.1	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	51958	1.00	1.01	
111 Bromobenzene	156	12.243	12.243	0.000	96	76232	1.00	0.99	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	91	104399	10.0	10.0	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	13975	1.00	1.01	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	382952	1.00	0.9782	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	78695	1.00	0.99	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	0.000	95	272347	1.00	0.9768	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	78580	1.00	0.9819	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	59453	1.00	0.9512	
119 Pentachloroethane	167	12.719	12.719	0.000	91	43643	1.00	0.9377	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	281010	1.00	0.9757	
121 sec-Butylbenzene	105	12.847	12.853	-0.006	94	342703	1.00	0.9701	
122 1,3-Dichlorobenzene	146	12.951	12.951	0.000	98	154126	1.00	0.99	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	294643	1.00	0.9651	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1062215	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	96	154623	1.00	1.00	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	124149	1.00	0.9872	
127 Benzyl chloride	126	13.097	13.097	0.000	99	14564	1.00	0.9089	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	171305	1.00	0.9631	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	134662	1.00	0.9335	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	141208	1.00	1.00	
134 1,2-Dibromo-3-Chloropropane	155	13.816	13.822	-0.006	82	6659	1.00	0.9828	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	97	111587	1.00	0.9663	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	91516	1.00	0.9352	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	42150	1.00	0.9101	
138 Naphthalene	128	14.548	14.548	0.000	97	164513	1.00	0.9831	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	95	83806	1.00	0.9647	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	93	87795	1.00	0.9283	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00027	Amount Added:	2.00	Units: uL	
MSV_LL_GAS826_00056	Amount Added:	2.00	Units: uL	
MSV_LL_#2_826_00031	Amount Added:	2.00	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

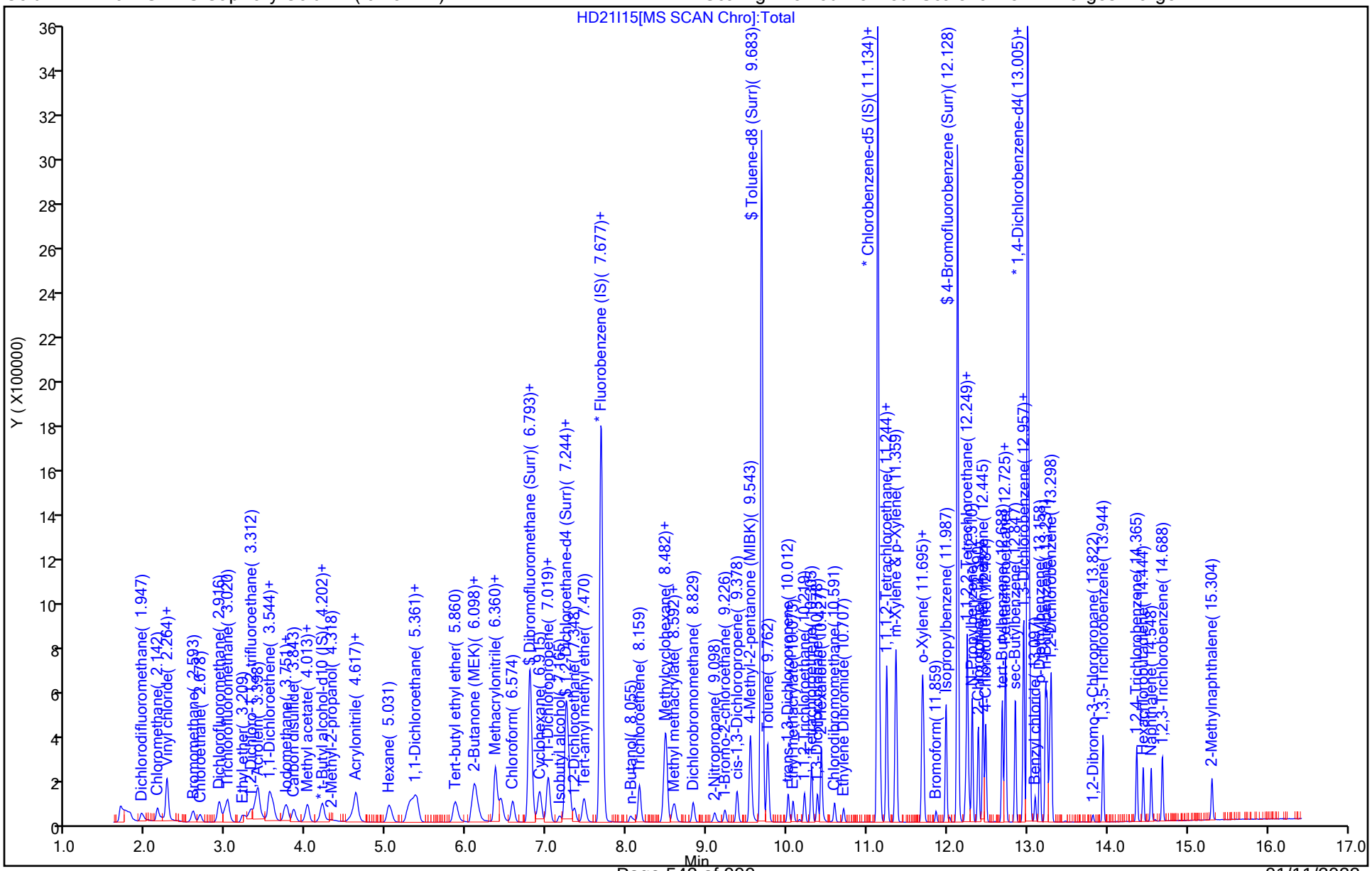
Report Date: 27-Dec-2021 09:48:37 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I15.D

Injection Date:	21-Dec-2021 19:57:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	IC std3 1			Worklist Smp#:	18
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

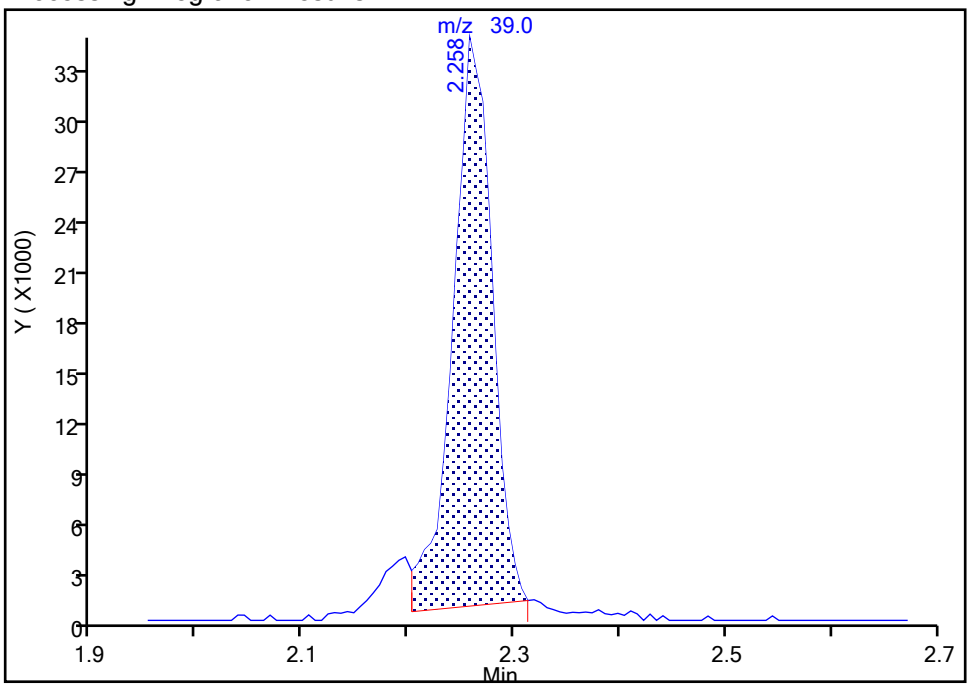
Data File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I15.D				
Injection Date:	21-Dec-2021 19:57:30	Instrument ID:	19094		
Lims ID:	IC std3 1				
Client ID:					
Operator ID:	jml01693	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

8 Butadiene, CAS: 106-99-0

Signal: 1

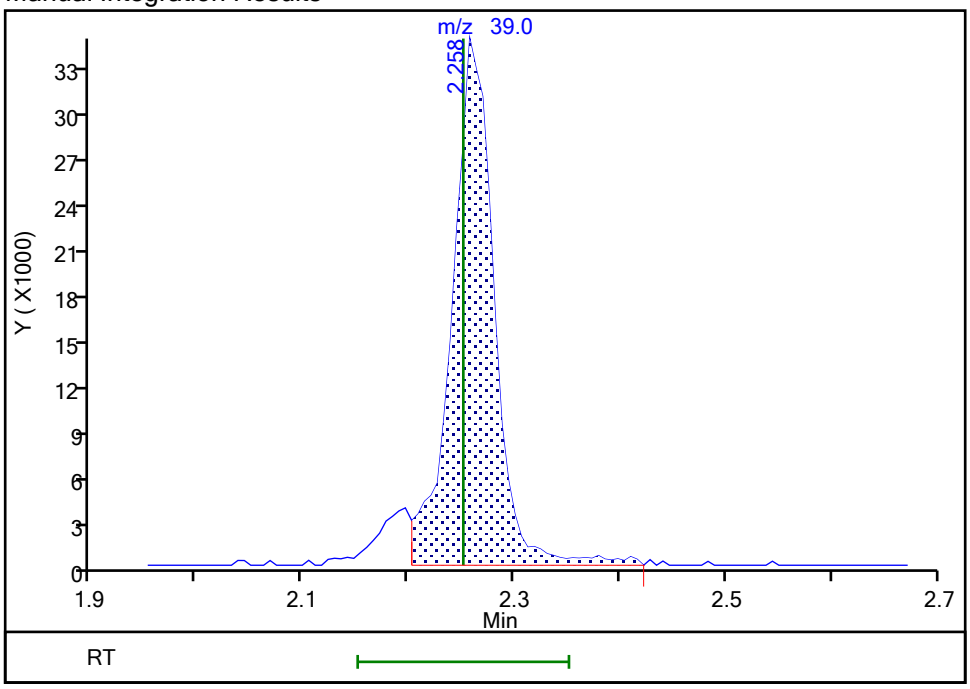
Processing Integration Results

RT: 2.26
Area: 86278
Amount: 0.968270
Amount Units: ug/l



Manual Integration Results

RT: 2.26
Area: 95547
Amount: 1.046374
Amount Units: ug/l



Reviewer: kellerk, 27-Dec-2021 09:08:32
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

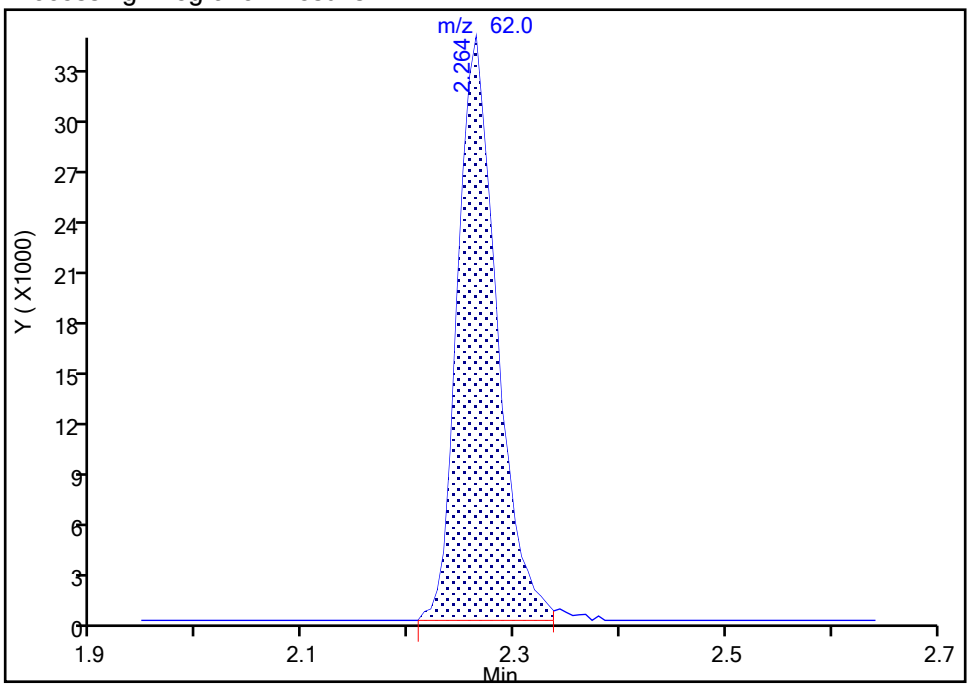
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I15.D
Injection Date: 21-Dec-2021 19:57:30 Instrument ID: 19094
Lims ID: IC std3 1
Client ID:
Operator ID: jml01693 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

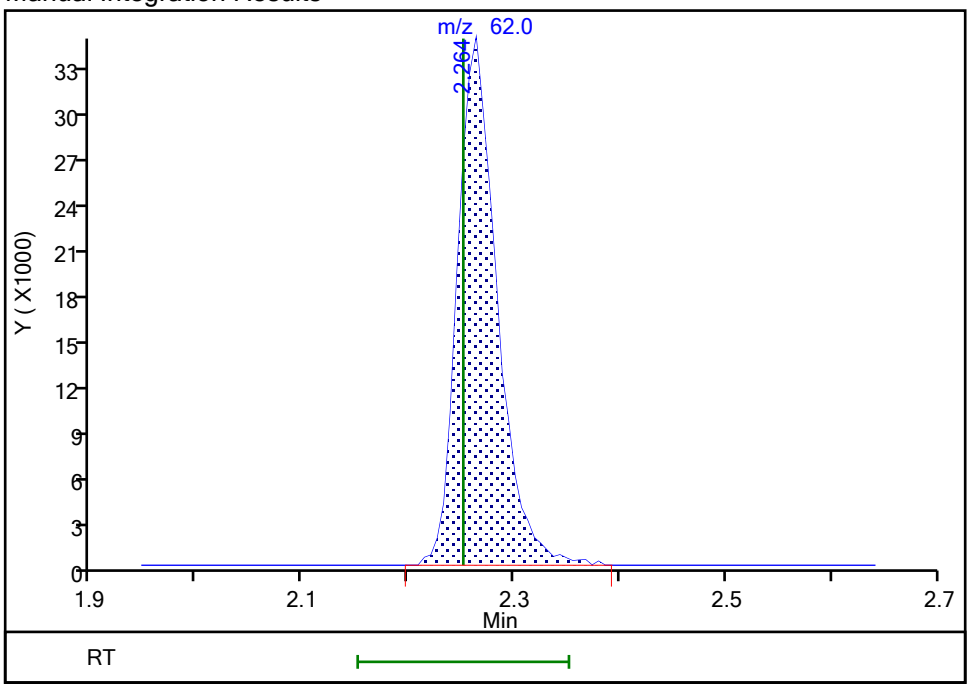
Processing Integration Results

RT: 2.26
Area: 88740
Amount: 0.996435
Amount Units: ug/l



Manual Integration Results

RT: 2.26
Area: 89615
Amount: 0.998335
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 20:42:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

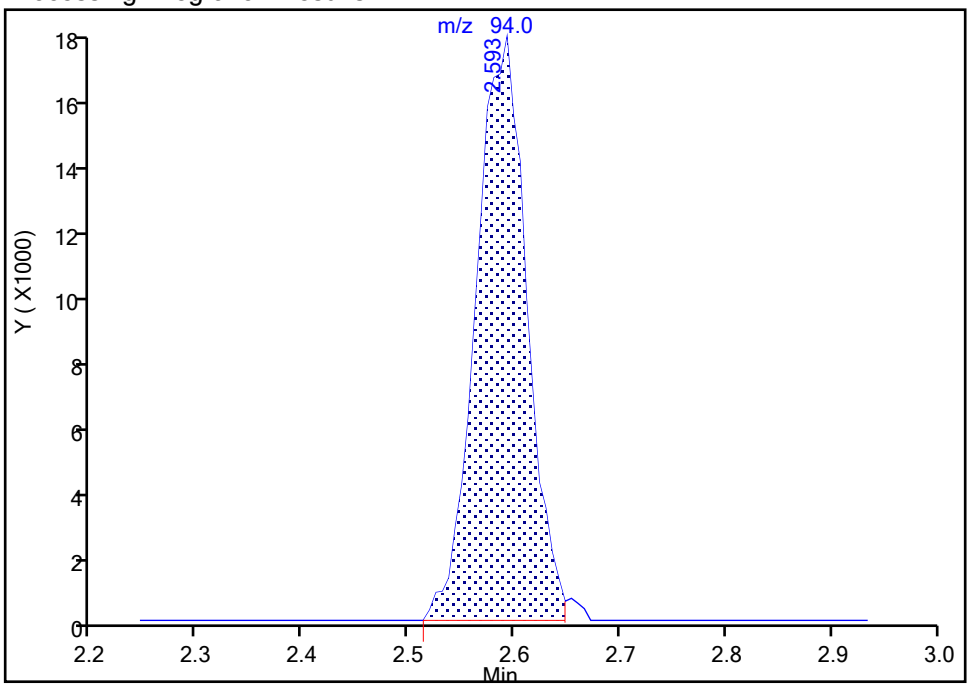
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I15.D
Injection Date: 21-Dec-2021 19:57:30 Instrument ID: 19094
Lims ID: IC std3 1
Client ID:
Operator ID: jml01693 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

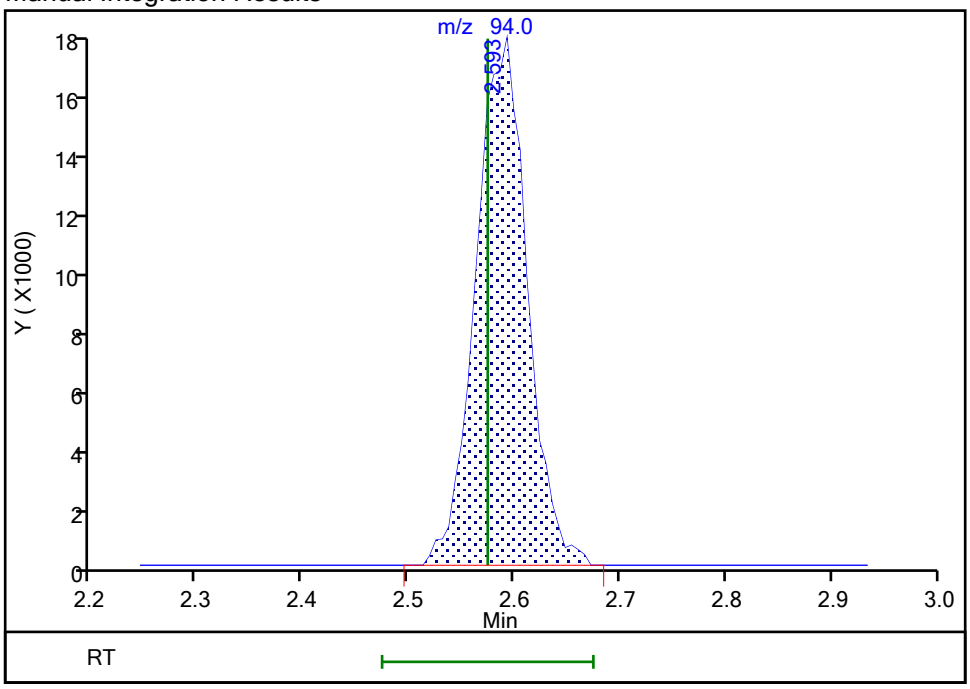
Processing Integration Results

RT: 2.59
Area: 58488
Amount: 0.983495
Amount Units: ug/l



Manual Integration Results

RT: 2.59
Area: 59047
Amount: 0.981099
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 20:43:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I16.D
Lims ID: IC std2 0.5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Dec-2021 20:18:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0046912-019
Misc. Info.: IC STD2 0.5
Operator ID: jml01693 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 27-Dec-2021 09:48:43 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 20:45:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.946	1.934	0.012	99	35985	0.5000	0.4980	
6 Chloromethane	50	2.135	2.130	0.005	98	47288	0.5000	0.5319	
8 Butadiene	39	2.257	2.251	0.006	92	49223	0.5000	0.5462	M
7 Vinyl chloride	62	2.263	2.251	0.012	97	44992	0.5000	0.5078	
9 Bromomethane	94	2.587	2.575	0.012	90	30013	0.5000	0.5053	
10 Chloroethane	64	2.678	2.660	0.018	99	26160	0.5000	0.5181	
11 Dichlorofluoromethane	67	2.910	2.898	0.012	97	59718	0.5000	0.5122	
13 Trichlorofluoromethane	101	2.977	2.971	0.006	96	56042	0.5000	0.5042	
15 Ethyl ether	59	3.208	3.196	0.012	93	19239	0.5000	0.4905	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.312	3.306	0.006	91	41184	0.5000	0.5076	
17 Acrolein	56	3.397	3.385	0.012	95	141111	25.1	25.5	
18 1,1-Dichloroethene	96	3.532	3.526	0.006	98	30227	0.5000	0.5061	
19 Acetone	43	3.574	3.544	0.030	65	35562	5.00	5.93	
20 112TCTFE	101	3.574	3.574	0.000	91	30167	0.5000	0.5055	
21 Isopropyl alcohol	45	3.781	3.715	0.066	26	6251	10.0	6.93	M
22 Iodomethane	142	3.727	3.727	0.000	99	52236	0.5000	0.4997	
23 Ethyl bromide	108	3.769	3.751	0.018	98	25600	0.4997	0.5042	
24 Carbon disulfide	76	3.836	3.830	0.006	99	73764	0.5000	0.5039	
26 Methyl acetate	43	4.001	3.977	0.024	24	12084	0.5000	0.5881	M
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	47038	0.5000	0.5086	
* 28 t-Butyl alcohol-d10 (IS)	65	4.202	4.184	0.018	39	66191	50.0	50.0	
29 Methylene Chloride	84	4.196	4.196	0.000	91	32429	0.5000	0.5107	
30 2-Methyl-2-propanol	59	4.336	4.306	0.030	38	14475	10.0	10.3	
31 Acrylonitrile	53	4.562	4.525	0.037	19	10355	1.25	1.28	
32 Methyl tert-butyl ether	73	4.598	4.599	-0.001	86	63950	0.5000	0.4915	
33 trans-1,2-Dichloroethene	96	4.629	4.611	0.018	99	32230	0.5000	0.5021	
34 Hexane	57	5.031	5.019	0.012	92	40290	0.5000	0.4756	
35 1,1-Dichloroethane	63	5.269	5.263	0.006	95	58587	0.5000	0.4958	
37 Isopropyl ether	45	5.336	5.318	0.018	96	96582	0.5000	0.4967	
38 2-Chloro-1,3-butadiene	53	5.379	5.373	0.006	91	47947	0.5000	0.4933	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.854	5.854	0.000	98	82768	0.5000	0.4987	
41 2-Butanone (MEK)	43	6.080	6.056	0.024	100	56279	5.00	5.12	
42 cis-1,2-Dichloroethene	96	6.098	6.086	0.012	82	33973	0.5000	0.4859	
43 2,2-Dichloropropane	77	6.116	6.110	0.006	85	49170	0.5000	0.5064	
45 Propionitrile	54	6.165	6.153	0.012	97	30418	10.0	10.8	
S 40 1,2-Dichloroethene, Total	100				0			0.9880	
47 Methacrylonitrile	67	6.360	6.354	0.006	92	68349	5.00	5.46	
48 Chlorobromomethane	128	6.421	6.421	0.000	92	14397	0.5000	0.4913	
49 Tetrahydrofuran	71	6.446	6.434	0.012	84	8294	2.50	2.71	
50 Chloroform	83	6.574	6.568	0.006	93	57405	0.5000	0.4987	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	582526	10.0	9.89	
52 1,1,1-Trichloroethane	97	6.805	6.799	0.006	98	53238	0.5000	0.5024	
53 Cyclohexane	56	6.909	6.903	0.006	91	56655	0.5000	0.4976	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	96	47490	0.5000	0.5066	
56 Carbon tetrachloride	117	7.019	7.025	-0.006	79	45436	0.5000	0.4917	
57 Isobutyl alcohol	41	7.189	7.159	0.030	93	14765	25.0	25.1	M
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.238	0.006	80	109507	10.0	9.97	
59 Benzene	78	7.275	7.269	0.006	95	134812	0.5000	0.5009	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	97	33955	0.5000	0.5060	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	98	67857	0.5000	0.4879	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	99	2232533	10.0	10.0	
64 n-Heptane	43	7.695	7.689	0.006	89	42601	0.5000	0.4767	
66 n-Butanol	56	8.079	8.043	0.036	86	14843	43.8	37.8	M
67 Trichloroethene	95	8.159	8.153	0.006	98	35271	0.5000	0.4981	
68 Methylcyclohexane	83	8.470	8.470	0.000	95	57408	0.5000	0.4787	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	86	33366	0.5000	0.4927	
69 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	91	35840	0.5000	0.4919	
71 Methyl methacrylate	69	8.579	8.567	0.012	87	11399	0.5000	0.5007	
72 1,4-Dioxane	88	8.598	8.586	0.012	28	2184	25.0	23.2	
73 Dibromomethane	93	8.598	8.592	0.006	95	14753	0.5000	0.4889	
75 Dichlorobromomethane	83	8.829	8.829	0.000	98	36593	0.5000	0.4824	
76 2-Nitropropane	41	9.104	9.092	0.012	98	15849	2.50	2.56	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	98	29210	0.5000	0.4889	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	46619	0.5000	0.4865	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	158604	5.00	5.30	
$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2384807	10.0	9.88	
83 Toluene	92	9.762	9.762	0.000	98	86613	0.5000	0.4989	
85 trans-1,3-Dichloropropene	75	10.018	10.012	0.006	93	34458	0.5000	0.4602	
S 84 1,3-Dichloropropene, Total	100				0			0.9467	
86 Ethyl methacrylate	69	10.079	10.073	0.006	88	25573	0.5000	0.4546	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	91	20817	0.5000	0.4856	
88 Tetrachloroethene	166	10.305	10.305	0.000	97	41509	0.5000	0.5021	
89 1,3-Dichloropropane	76	10.384	10.378	0.006	88	37316	0.5000	0.4928	
91 2-Hexanone	43	10.433	10.427	0.006	97	103357	5.00	5.10	
93 Chlorodibromomethane	129	10.597	10.591	0.006	88	22550	0.5000	0.4584	
94 Ethylene Dibromide	107	10.707	10.707	0.000	97	19357	0.5000	0.4703	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1858493	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	95	52628	0.5000	0.5096	
98 Chlorobenzene	112	11.158	11.158	0.000	95	93365	0.5000	0.4888	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.244	-0.001	94	30835	0.5000	0.4778	
100 Ethylbenzene	91	11.243	11.244	-0.001	98	165575	0.5000	0.4957	
S 95 Xylenes, Total	106				0			1.47	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	127444	1.00	0.9826	
102 o-Xylene	106	11.688	11.689	-0.001	97	61695	0.5000	0.4857	
103 Styrene	104	11.701	11.701	0.000	94	94968	0.5000	0.4738	
104 Bromoform	173	11.859	11.859	0.000	96	9408	0.5000	0.3677	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	162375	0.5000	0.4856	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	934012	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	94	24100	0.5000	0.4684	
111 Bromobenzene	156	12.243	12.243	0.000	96	37741	0.5000	0.4916	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	93	44103	5.00	4.67	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	76	6626	0.5000	0.4784	
113 N-Propylbenzene	91	12.310	12.310	0.000	98	187432	0.5000	0.4792	
114 2-Chlorotoluene	126	12.390	12.390	0.000	96	37970	0.5000	0.4799	
115 1,3,5-Trimethylbenzene	105	12.444	12.445	-0.001	95	132101	0.5000	0.4743	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	39263	0.5000	0.4911	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	31722	0.5000	0.5080	
119 Pentachloroethane	167	12.719	12.719	0.000	77	21355	0.5000	0.4593	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	135793	0.5000	0.4720	
121 sec-Butylbenzene	105	12.847	12.853	-0.006	94	167867	0.5000	0.4756	
122 1,3-Dichlorobenzene	146	12.950	12.951	-0.001	98	74250	0.5000	0.4782	
123 4-Isopropyltoluene	119	12.956	12.957	-0.001	97	143219	0.5000	0.4696	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1061163	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	96	75222	0.5000	0.4876	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	61284	0.5000	0.4878	
127 Benzyl chloride	126	13.097	13.097	0.000	98	6663	0.5000	0.4162	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	82556	0.5000	0.4646	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	66203	0.5000	0.4594	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	69065	0.5000	0.4900	
134 1,2-Dibromo-3-Chloropropane	155	13.816	13.822	-0.006	80	2991	0.5000	0.4419	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	97	53184	0.5000	0.4610	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	95	44032	0.5000	0.4504	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	94	23052	0.5000	0.4982	
138 Naphthalene	128	14.548	14.548	0.000	97	76805	0.5000	0.4594	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	41241	0.5000	0.4752	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	93	40127	0.5000	0.4247	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00027	Amount Added:	2.00	Units: uL	
MSV_LL_GAS826_00056	Amount Added:	2.00	Units: uL	
MSV_LL_#2_826_00031	Amount Added:	2.00	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

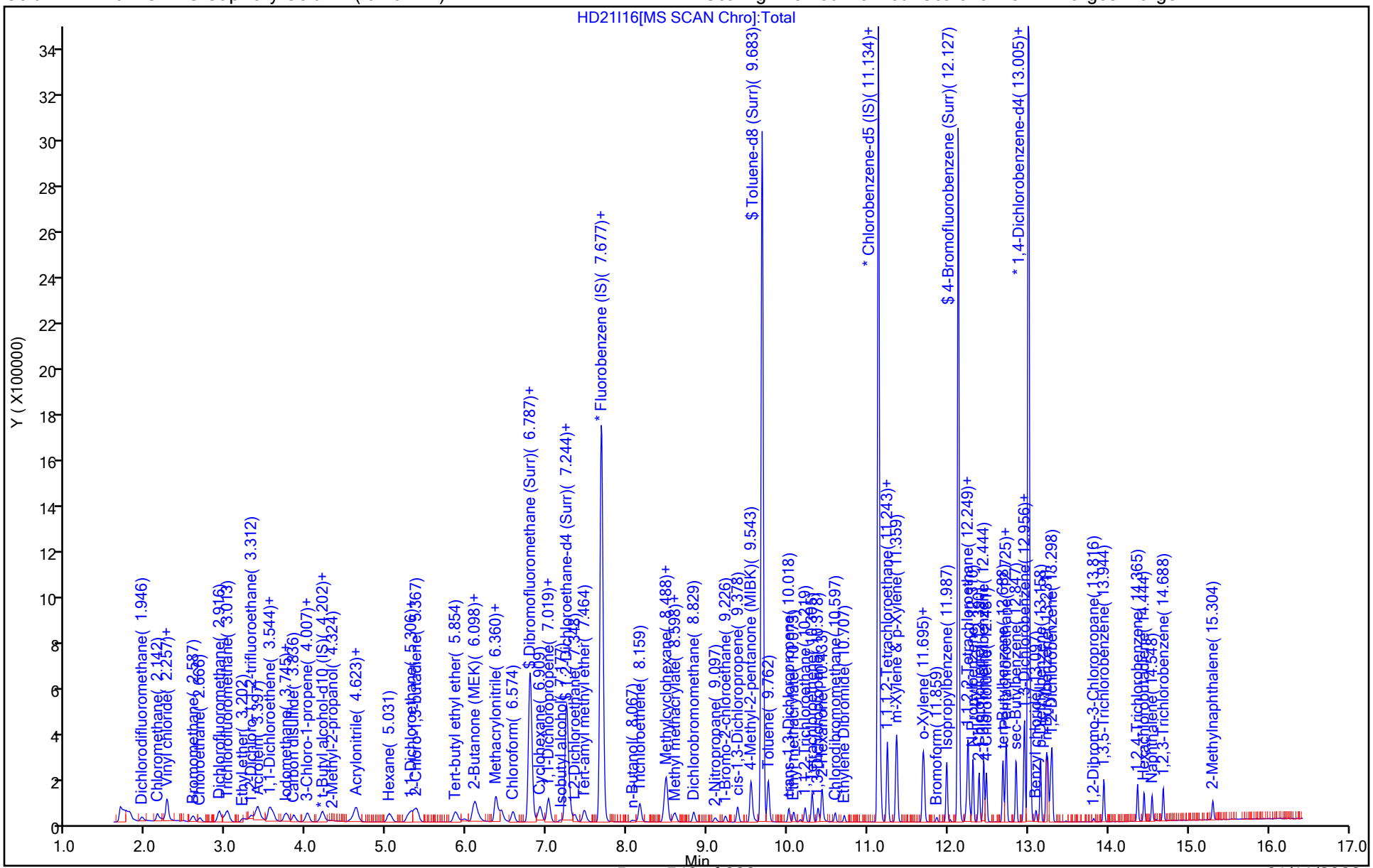
Report Date: 27-Dec-2021 09:48:44 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I16.D

Injection Date:	21-Dec-2021 20:18:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	IC std2 0.5			Worklist Smp#:	19
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

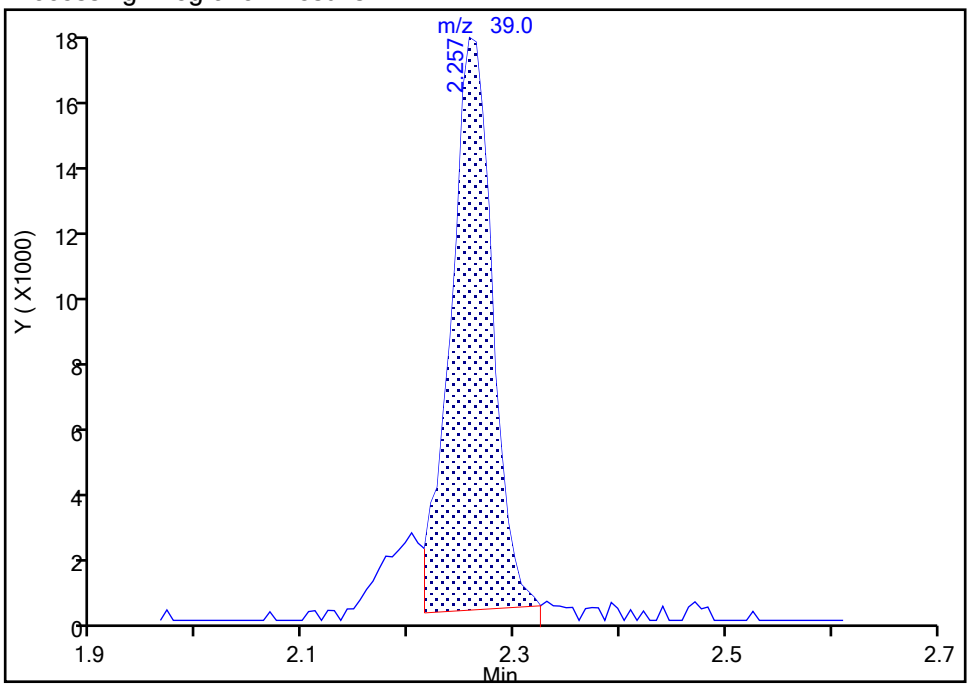
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I16.D
Injection Date: 21-Dec-2021 20:18:30 Instrument ID: 19094
Lims ID: IC std2 0.5
Client ID:
Operator ID: jml01693 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

8 Butadiene, CAS: 106-99-0

Signal: 1

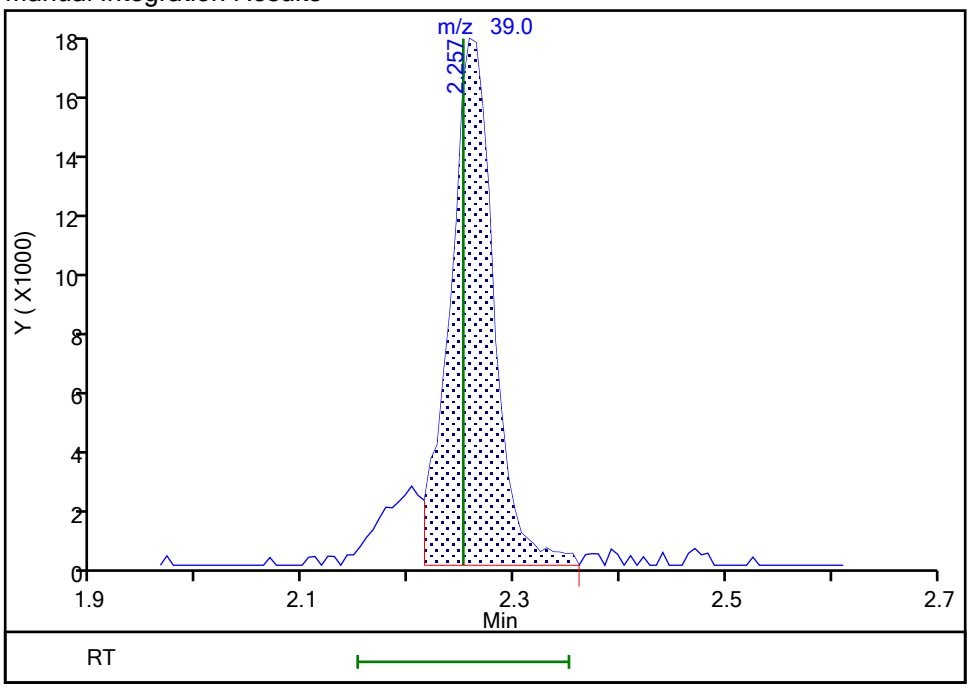
RT: 2.26
Area: 46173
Amount: 0.517343
Amount Units: ug/l

Processing Integration Results



Manual Integration Results

RT: 2.26
Area: 49223
Amount: 0.546183
Amount Units: ug/l



Reviewer: kellerk, 27-Dec-2021 09:09:01
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

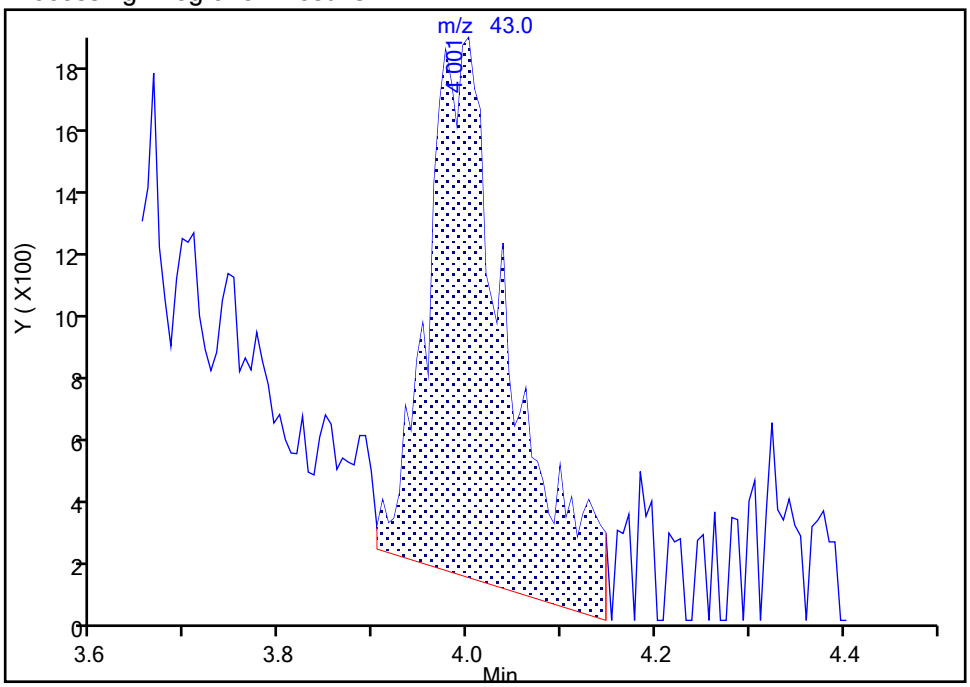
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I16.D
Injection Date: 21-Dec-2021 20:18:30 Instrument ID: 19094
Lims ID: IC std2 0.5
Client ID:
Operator ID: jml01693 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

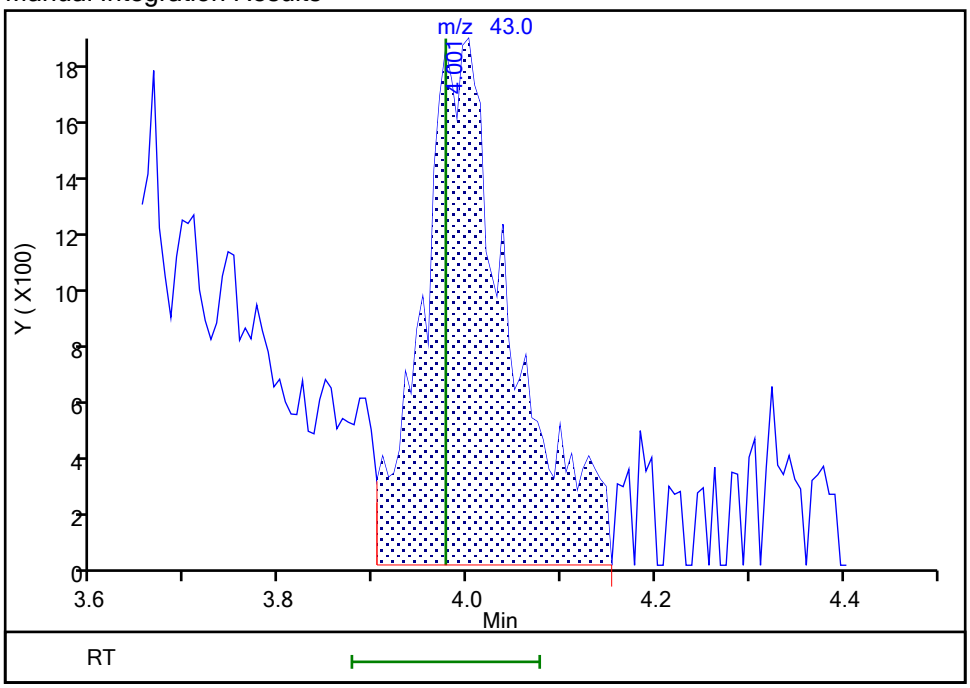
RT: 4.00
Area: 10389
Amount: 0.527732
Amount Units: ug/l

Processing Integration Results



RT: 4.00
Area: 12084
Amount: 0.588125
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:44:16
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

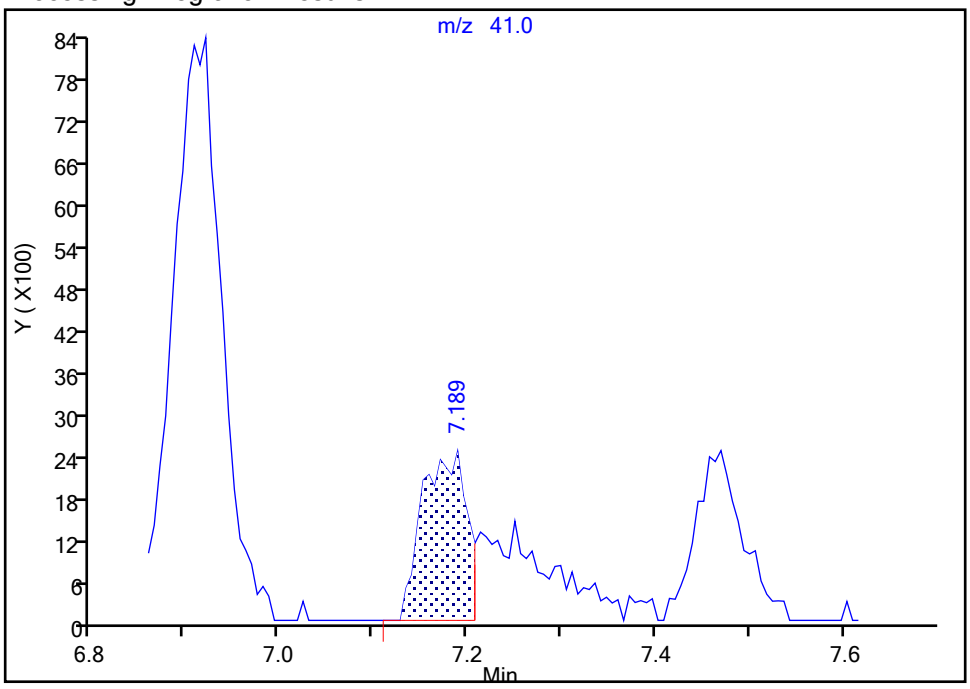
Data File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I16.D				
Injection Date:	21-Dec-2021 20:18:30	Instrument ID:	19094		
Lims ID:	IC std2 0.5				
Client ID:					
Operator ID:	jml01693	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

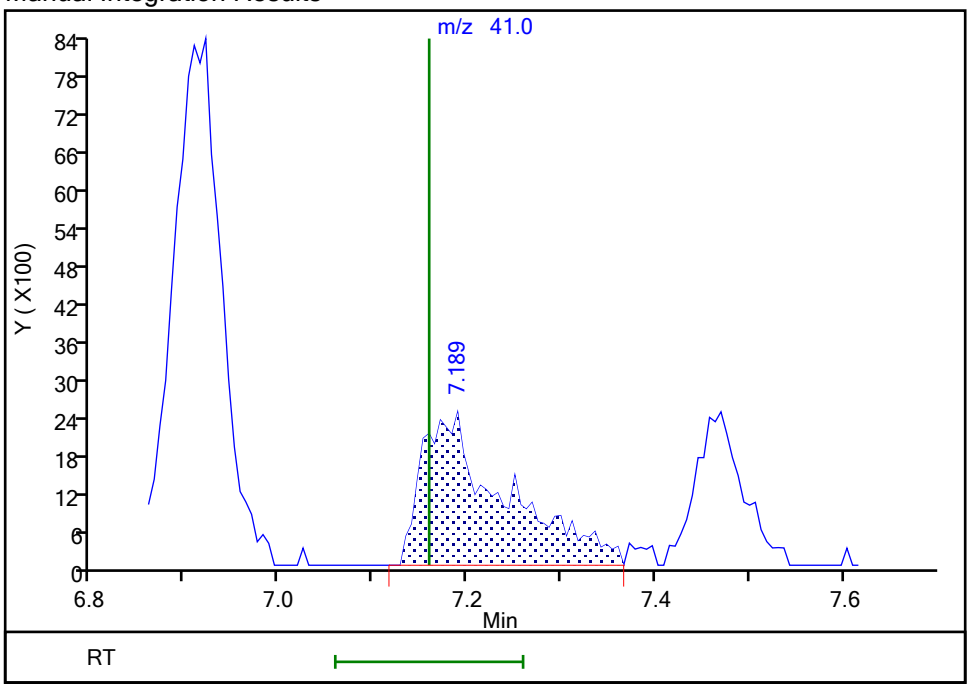
Processing Integration Results

RT: 7.19
Area: 8010
Amount: 14.420785
Amount Units: ug/l



Manual Integration Results

RT: 7.19
Area: 14765
Amount: 25.066842
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 20:44:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

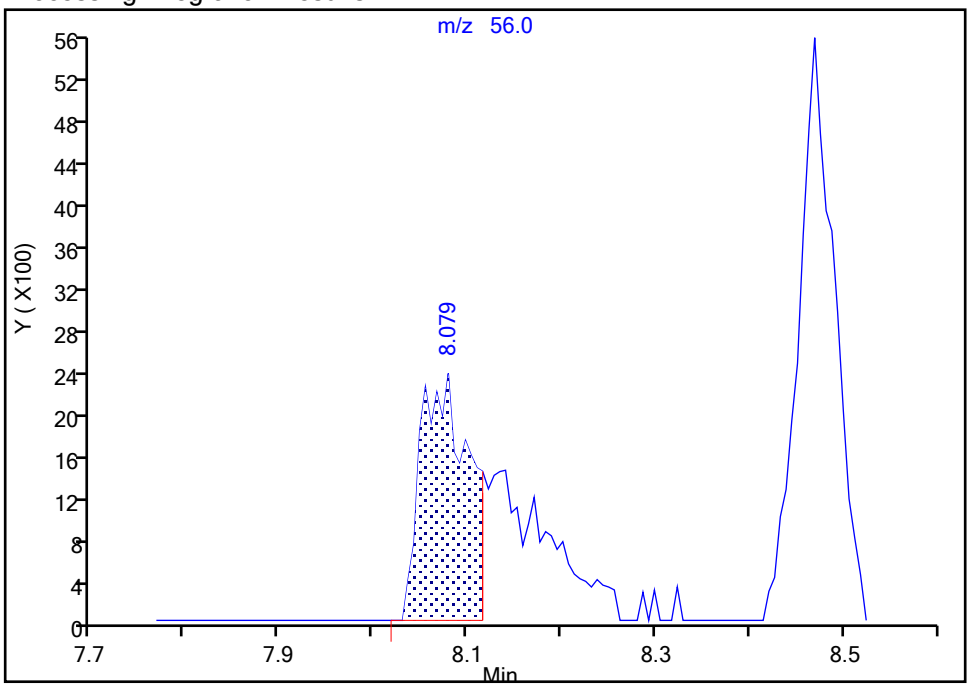
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I16.D
Injection Date: 21-Dec-2021 20:18:30 Instrument ID: 19094
Lims ID: IC std2 0.5
Client ID:
Operator ID: jml01693 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

66 n-Butanol, CAS: 71-36-3

Signal: 1

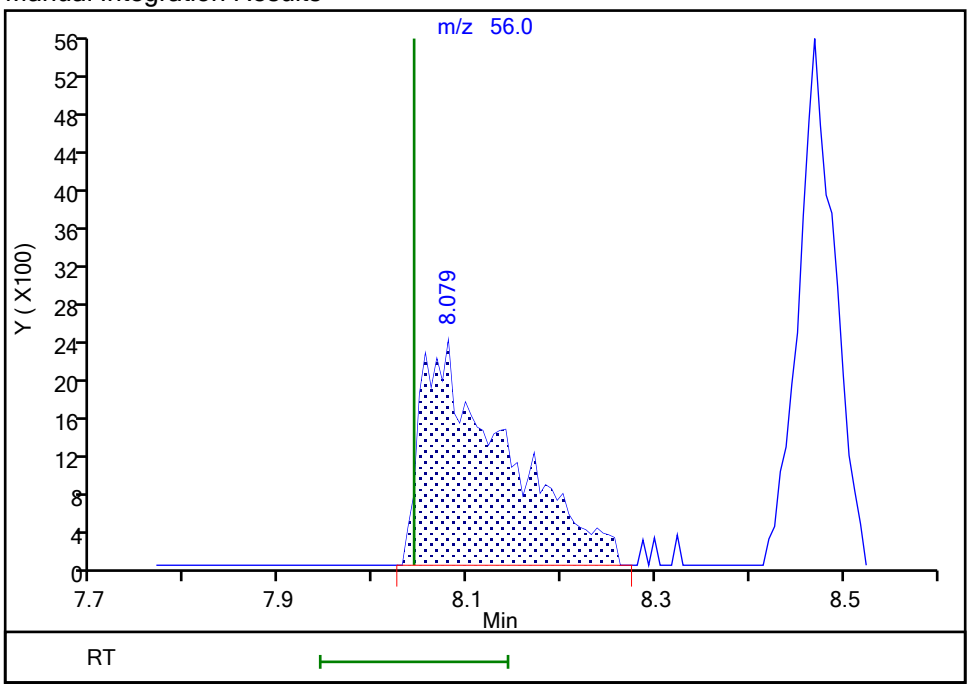
Processing Integration Results

RT: 8.08
Area: 8358
Amount: 22.497577
Amount Units: ug/l



Manual Integration Results

RT: 8.08
Area: 14843
Amount: 37.799015
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:08:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Lims ID: IC std1 0.2
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 21-Dec-2021 20:38:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0046912-020
Misc. Info.: IC STD1 0.2
Operator ID: jml01693 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 27-Dec-2021 09:48:50 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 21:04:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.934	1.934	0.000	98	14426	0.2000	0.1981	
6 Chloromethane	50	2.129	2.130	-0.001	99	20015	0.2000	0.2234	
8 Butadiene	39	2.251	2.251	0.000	89	20144	0.2000	0.2218	
7 Vinyl chloride	62	2.251	2.251	0.000	93	18524	0.2000	0.2075	
9 Bromomethane	94	2.580	2.575	0.005	89	12713	0.2000	0.2124	M
10 Chloroethane	64	2.666	2.660	0.006	98	10713	0.2000	0.2105	
11 Dichlorofluoromethane	67	2.904	2.898	0.006	97	24682	0.2000	0.2101	
13 Trichlorofluoromethane	101	2.983	2.971	0.012	93	23794	0.2000	0.2125	
15 Ethyl ether	59	3.221	3.196	0.025	65	7780	0.2000	0.1968	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.294	3.306	-0.012	90	17009	0.2000	0.2080	
17 Acrolein	56	3.391	3.385	0.006	98	62242	10.0	9.12	
18 1,1-Dichloroethene	96	3.525	3.526	-0.001	97	12762	0.2000	0.2120	
19 Acetone	43	3.562	3.544	0.018	84	15577	2.00	2.11	
20 112TCTFE	101	3.574	3.574	0.000	87	12063	0.2000	0.2006	
21 Isopropyl alcohol	45	3.727	3.715	0.012	27	1638	4.00	1.80	M
22 Iodomethane	142	3.714	3.727	-0.013	99	22105	0.2000	0.2099	
23 Ethyl bromide	108	3.763	3.751	0.012	94	10812	0.1999	0.2113	
24 Carbon disulfide	76	3.830	3.830	0.000	99	31534	0.2000	0.2138	
26 Methyl acetate	43	3.983	3.977	0.006	30	5496	0.2000	0.2173	
27 3-Chloro-1-propene	41	4.001	4.007	-0.006	92	19704	0.2000	0.2114	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	94	81494	50.0	50.0	
29 Methylene Chloride	84	4.190	4.196	-0.006	89	14252	0.2000	0.2227	
30 2-Methyl-2-propanol	59	4.294	4.306	-0.012	11	5692	4.00	3.30	M
31 Acrylonitrile	53	4.550	4.525	0.025	21	3087	0.5000	0.3100	M
32 Methyl tert-butyl ether	73	4.598	4.599	-0.001	94	25946	0.2000	0.1979	
33 trans-1,2-Dichloroethene	96	4.617	4.611	0.006	99	13681	0.2000	0.2115	
34 Hexane	57	5.019	5.019	0.000	92	16993	0.2000	0.1991	
35 1,1-Dichloroethane	63	5.269	5.263	0.006	95	23987	0.2000	0.2015	
37 Isopropyl ether	45	5.318	5.318	0.000	94	38382	0.2000	0.1959	
38 2-Chloro-1,3-butadiene	53	5.367	5.373	-0.006	92	19713	0.2000	0.2013	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.854	5.854	0.000	97	33658	0.2000	0.2013	
41 2-Butanone (MEK)	43	6.080	6.056	0.024	98	23334	2.00	1.72	
42 cis-1,2-Dichloroethene	96	6.098	6.086	0.012	82	14610	0.2000	0.2074	
43 2,2-Dichloropropane	77	6.116	6.110	0.006	87	19840	0.2000	0.2028	
45 Propionitrile	54	6.165	6.153	0.012	96	11103	4.00	3.20	
S 40 1,2-Dichloroethene, Total	100				0			0.4189	
47 Methacrylonitrile	67	6.366	6.354	0.012	91	27085	2.00	1.76	M
48 Chlorobromomethane	128	6.421	6.421	0.000	84	6023	0.2000	0.2040	
49 Tetrahydrofuran	71	6.439	6.434	0.005	79	2964	1.00	0.7877	
50 Chloroform	83	6.574	6.568	0.006	93	24126	0.2000	0.2080	
$ 51 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	94	595211	10.0	10.0	
52 1,1,1-Trichloroethane	97	6.811	6.799	0.012	40	22460	0.2000	0.2103	
53 Cyclohexane	56	6.903	6.903	0.000	89	23093	0.2000	0.2013	
55 1,1-Dichloropropene	75	7.013	7.007	0.006	92	18369	0.2000	0.1944	
56 Carbon tetrachloride	117	7.025	7.025	0.000	91	18940	0.2000	0.2034	
57 Isobutyl alcohol	41	7.159	7.159	0.000	95	7721	10.0	10.6	M
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	78	112008	10.0	10.1	
59 Benzene	78	7.269	7.269	0.000	95	57038	0.2000	0.2103	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	96	14513	0.2000	0.2146	
62 Tert-amyl methyl ether	73	7.458	7.464	-0.006	98	27575	0.2000	0.1968	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	99	2249617	10.0	10.0	
64 n-Heptane	43	7.683	7.689	-0.006	37	18238	0.2000	0.2025	
66 n-Butanol	56	8.073	8.043	0.030	89	6512	17.5	13.5	M
67 Trichloroethene	95	8.153	8.153	0.000	96	14580	0.2000	0.2043	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	23043	0.2000	0.1907	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	80	13936	0.2000	0.2042	
69 2-ethoxy-2-methyl butane	87	8.488	8.494	-0.006	90	14549	0.2000	0.1982	
71 Methyl methacrylate	69	8.585	8.567	0.018	71	4377	0.2000	0.1562	
72 1,4-Dioxane	88	8.604	8.586	0.018	0	200	10.0	7.51	M
73 Dibromomethane	93	8.592	8.592	0.000	93	6206	0.2000	0.2041	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	14888	0.2000	0.1948	
76 2-Nitropropane	41	9.091	9.092	-0.001	98	6696	1.00	0.8784	M
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	96	12115	0.2000	0.2012	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	18410	0.2000	0.1907	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	62779	2.00	1.70	
$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2418337	10.0	9.88	
83 Toluene	92	9.756	9.762	-0.006	98	36606	0.2000	0.2079	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	13548	0.2000	0.1784	
S 84 1,3-Dichloropropene, Total	100				0			0.3690	
86 Ethyl methacrylate	69	10.079	10.073	0.006	92	9920	0.2000	0.1738	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	8471	0.2000	0.1948	
88 Tetrachloroethene	166	10.305	10.305	0.000	97	16817	0.2000	0.2005	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	15206	0.2000	0.1980	
91 2-Hexanone	43	10.433	10.427	0.006	97	42985	2.00	1.72	
93 Chlorodibromomethane	129	10.591	10.591	0.000	90	8095	0.2000	0.1622	
94 Ethylene Dibromide	107	10.707	10.707	0.000	98	7848	0.2000	0.1880	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1885106	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	72	22588	0.2000	0.2156	
98 Chlorobenzene	112	11.158	11.158	0.000	96	39732	0.2000	0.2051	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.244	-0.001	95	12343	0.2000	0.1886	
100 Ethylbenzene	91	11.243	11.244	-0.001	98	67869	0.2000	0.2003	
S 95 Xylenes, Total	106				0			0.5980	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	53048	0.4000	0.4032	
102 o-Xylene	106	11.688	11.689	-0.001	97	25094	0.2000	0.1948	
103 Styrene	104	11.707	11.701	0.006	94	37483	0.2000	0.1844	
104 Bromoform	173	11.859	11.859	0.000	93	2784	0.2000	0.1073	
105 Isopropylbenzene	105	11.981	11.987	-0.006	96	66865	0.2000	0.1971	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	948216	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	9871	0.2000	0.1883	Ma
111 Bromobenzene	156	12.249	12.243	0.006	97	14965	0.2000	0.1913	
110 trans-1,4-Dichloro-2-butene	53	12.255	12.249	0.006	91	17200	2.00	1.48	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	78	3000	0.2000	0.2126	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	77601	0.2000	0.1947	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	15892	0.2000	0.1971	
115 1,3,5-Trimethylbenzene	105	12.444	12.445	-0.001	93	53491	0.2000	0.1885	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	15656	0.2000	0.1922	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	12525	0.2000	0.1968	
119 Pentachloroethane	167	12.719	12.719	0.000	81	8661	0.2000	0.1828	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	55976	0.2000	0.1909	
121 sec-Butylbenzene	105	12.847	12.853	-0.006	94	66936	0.2000	0.1861	
122 1,3-Dichlorobenzene	146	12.950	12.951	-0.001	97	30539	0.2000	0.1930	
123 4-Isopropyltoluene	119	12.957	12.957	-0.001	97	56692	0.2000	0.1824	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1081350	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	93	30345	0.2000	0.1930	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	93	25505	0.2000	0.1992	
127 Benzyl chloride	126	13.097	13.097	0.000	98	2433	0.2000	0.1492	
129 p-Diethylbenzene	119	13.158	13.158	0.000	93	33212	0.2000	0.1834	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	25909	0.2000	0.1764	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	97	27300	0.2000	0.1901	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	82	1096	0.2000	0.1589	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	97	21341	0.2000	0.1815	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	93	17918	0.2000	0.1799	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	93	9946	0.2000	0.2110	
138 Naphthalene	128	14.548	14.548	0.000	97	32196	0.2000	0.1890	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	16050	0.2000	0.1815	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	89	15853	0.2000	0.1647	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

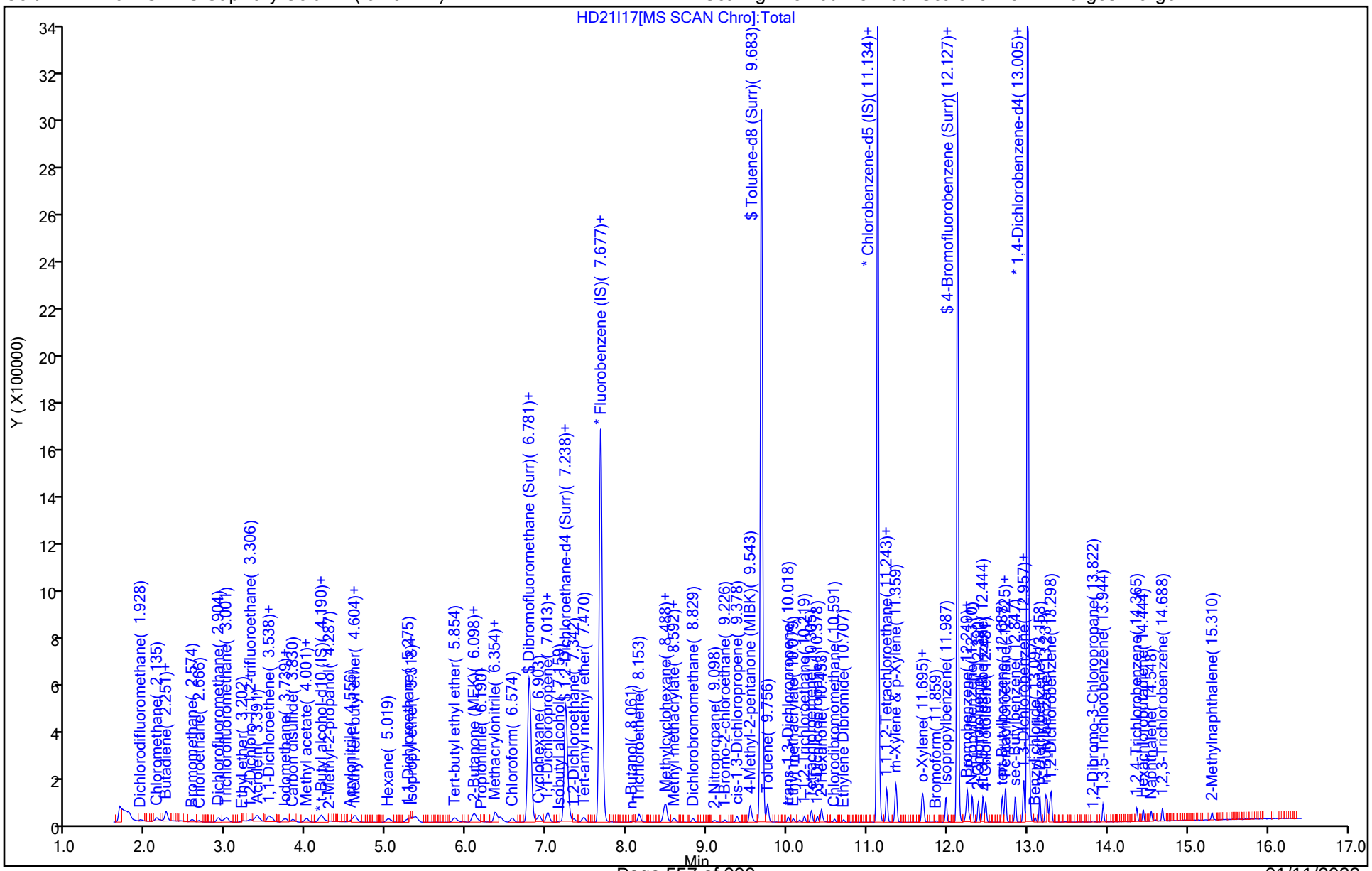
MSV_LL_#1_826_00027	Amount Added:	2.00	Units: uL	
MSV_LL_GAS826_00056	Amount Added:	2.00	Units: uL	
MSV_LL_#2_826_00031	Amount Added:	2.00	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 27-Dec-2021 09:48:51 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Injection Date:	21-Dec-2021 20:38:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	IC std1 0.2			Worklist Smp#:	20
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

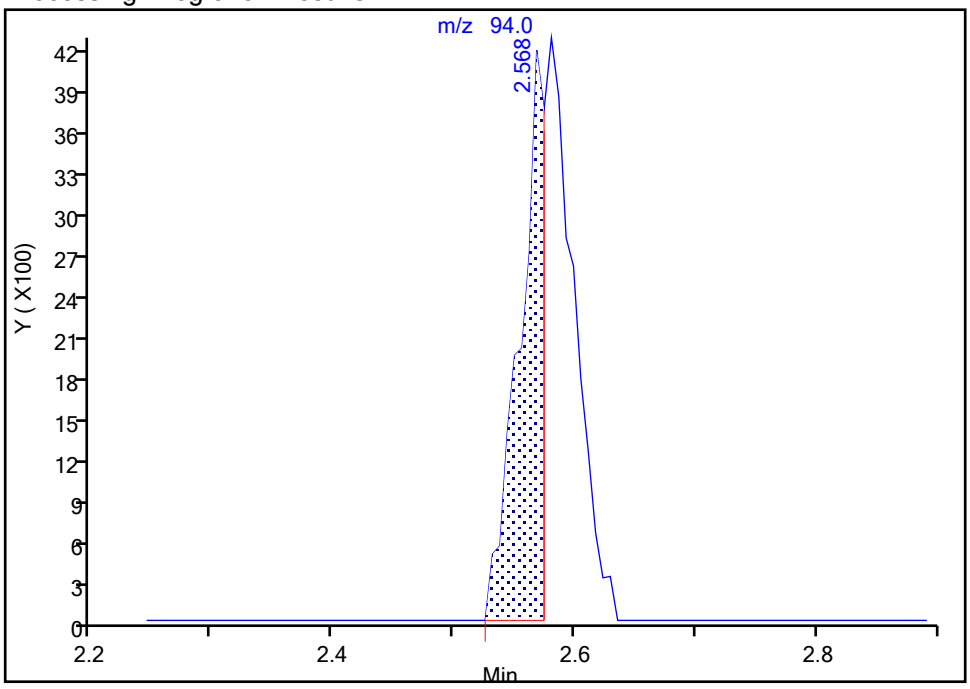
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

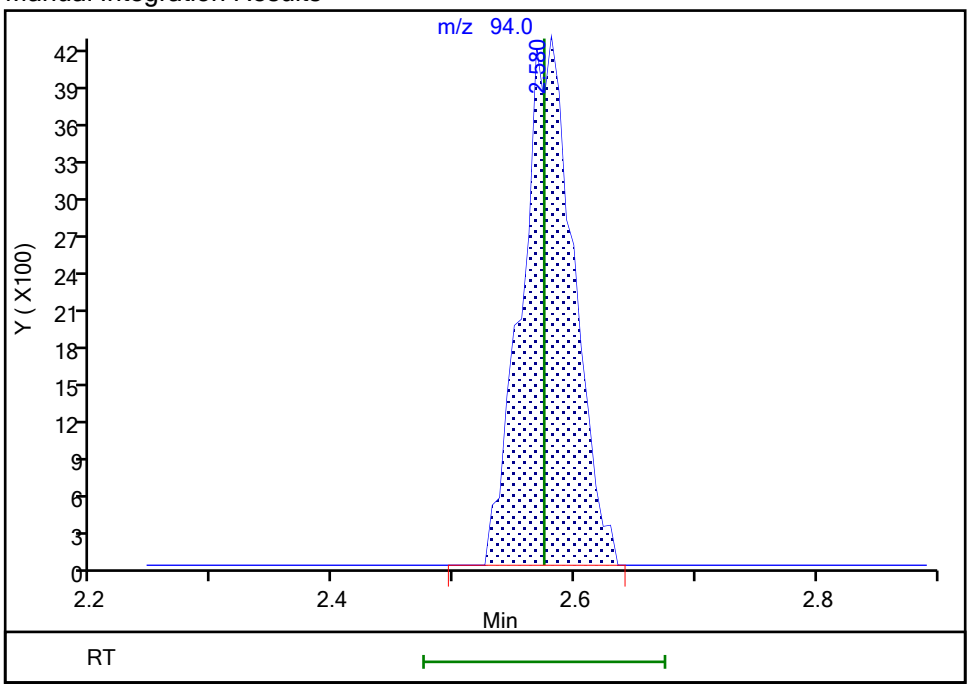
Processing Integration Results

RT: 2.57
Area: 6202
Amount: 0.112348
Amount Units: ug/l



Manual Integration Results

RT: 2.58
Area: 12713
Amount: 0.212399
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:02:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

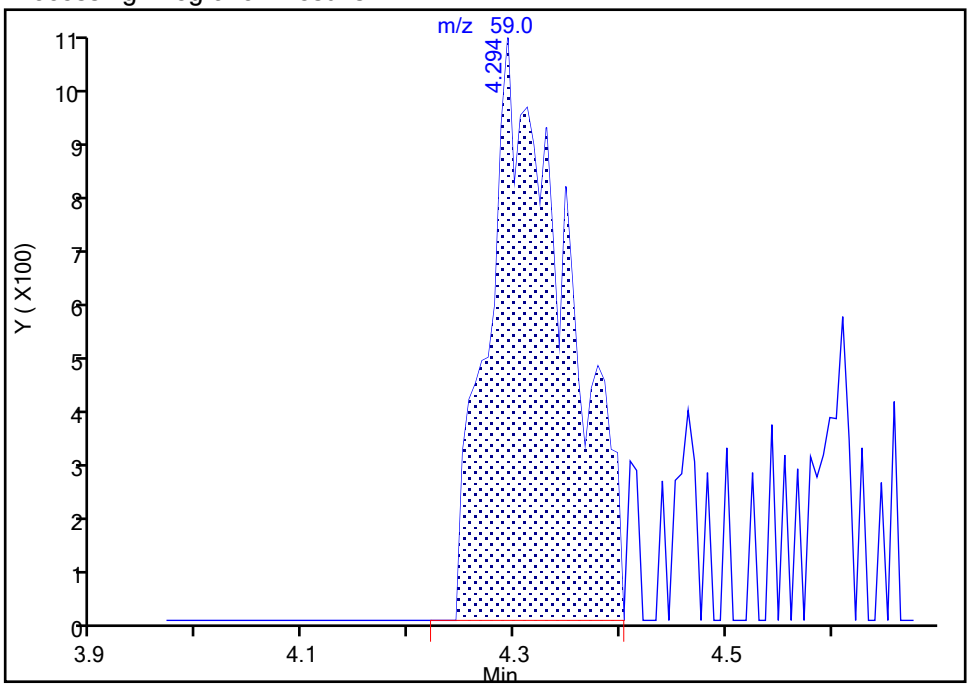
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

30 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

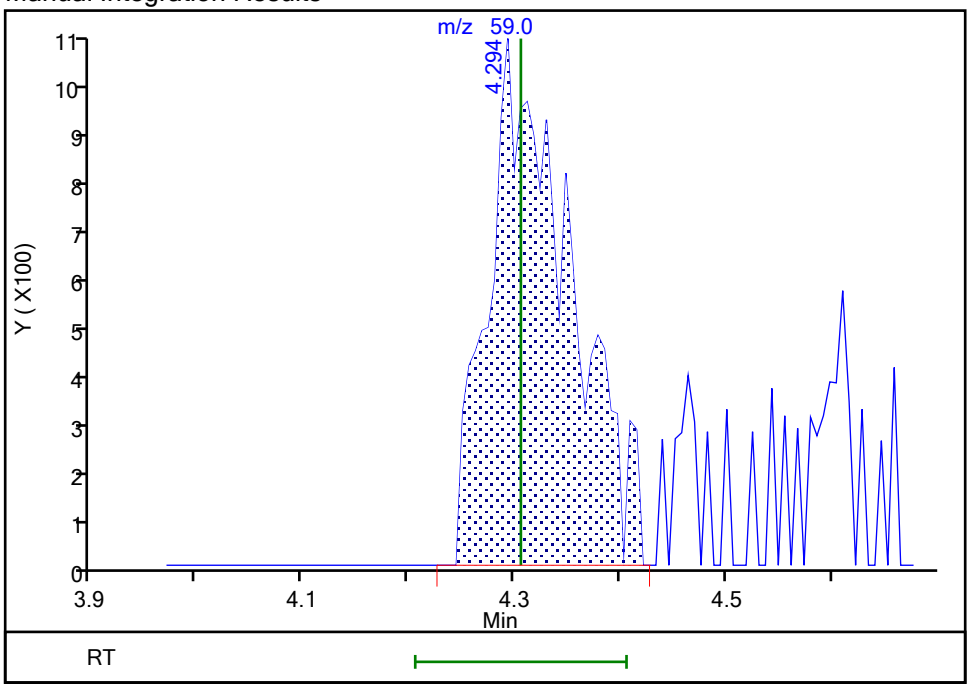
Processing Integration Results

RT: 4.29
Area: 5487
Amount: 3.198581
Amount Units: ug/l



Manual Integration Results

RT: 4.29
Area: 5692
Amount: 3.303982
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:03:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

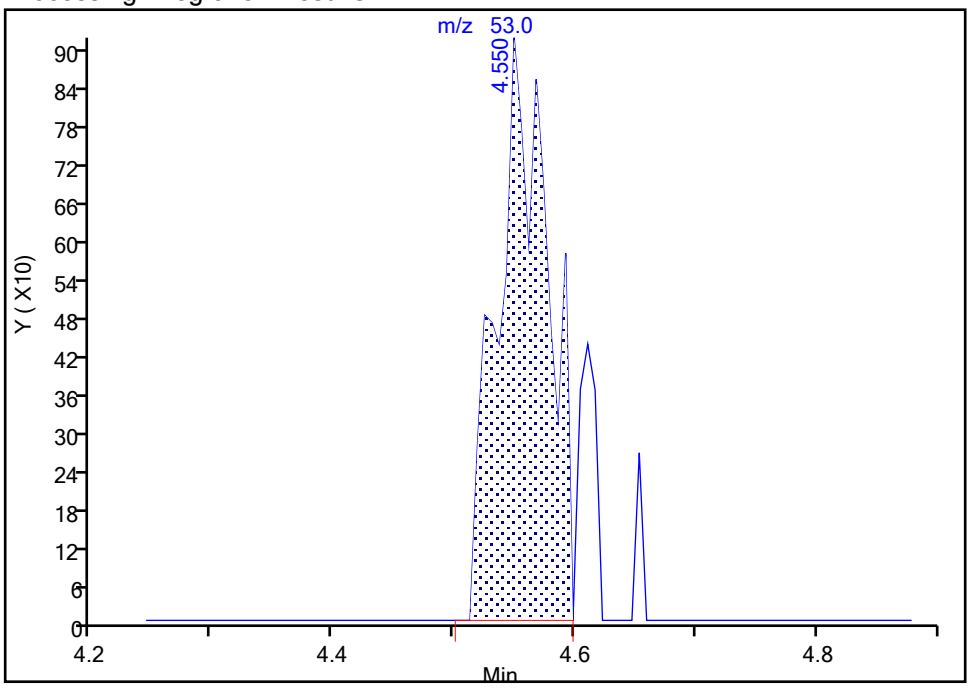
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

31 Acrylonitrile, CAS: 107-13-1

Signal: 1

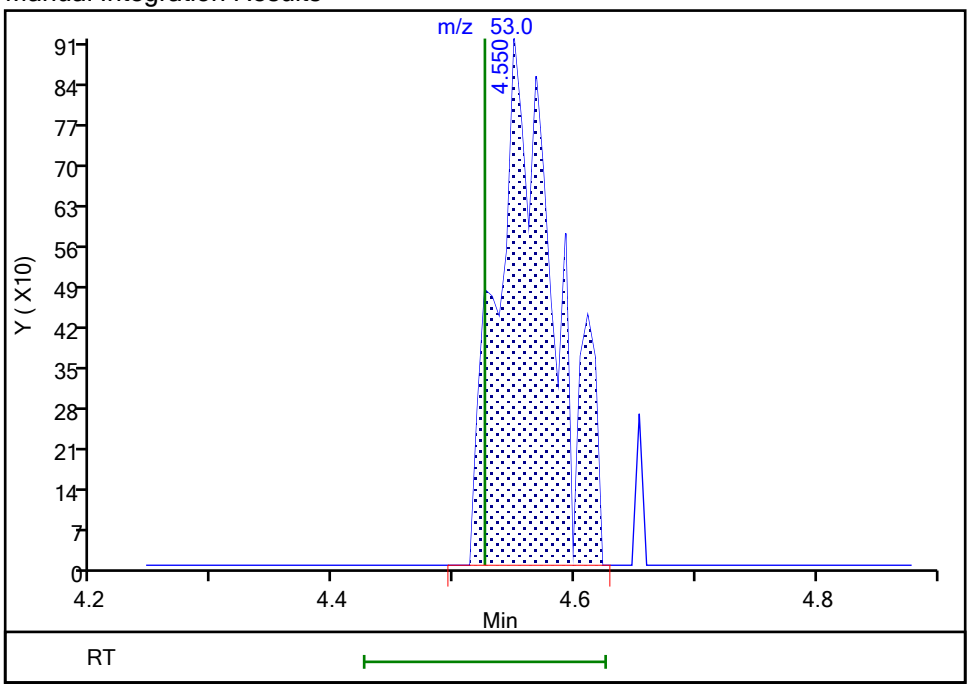
Processing Integration Results

RT: 4.55
Area: 2665
Amount: 0.297725
Amount Units: ug/l



Manual Integration Results

RT: 4.55
Area: 3087
Amount: 0.309961
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:03:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

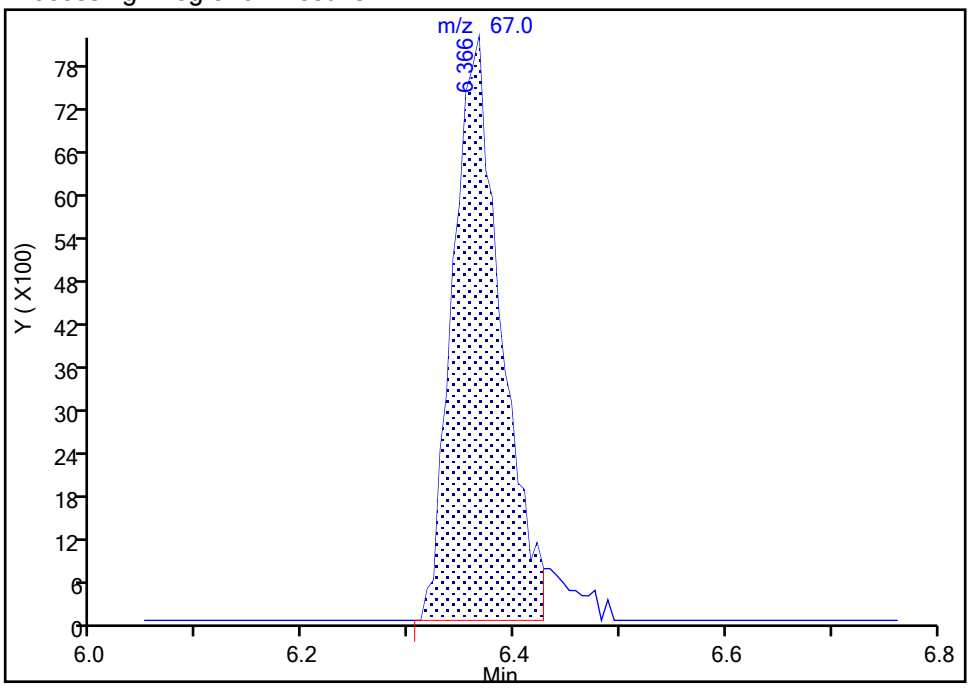
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

47 Methacrylonitrile, CAS: 126-98-7

Signal: 1

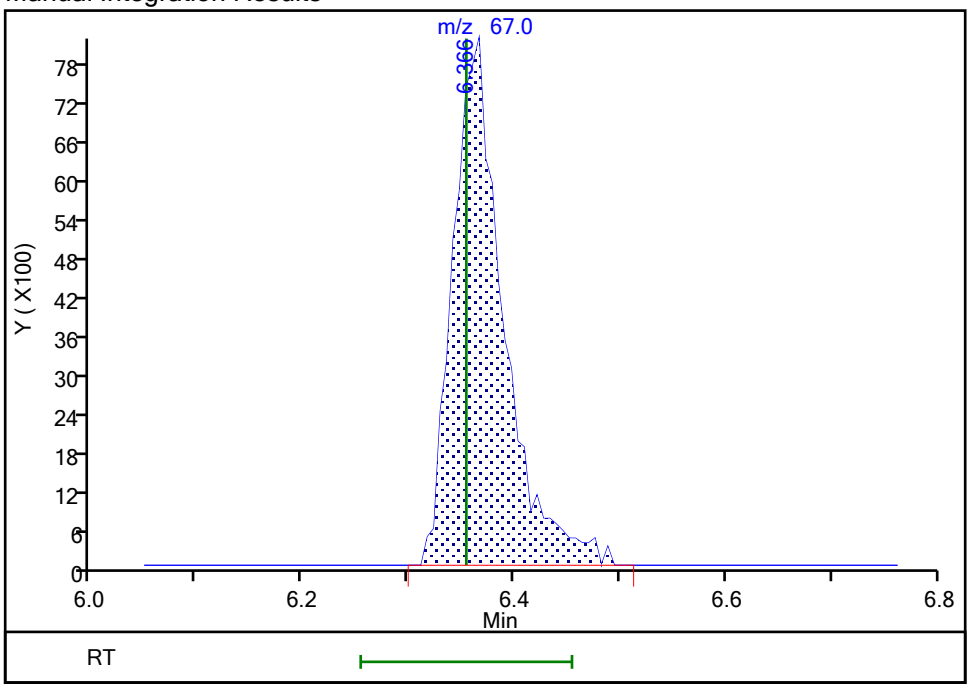
Processing Integration Results

RT: 6.37
Area: 25579
Amount: 1.670681
Amount Units: ug/l



Manual Integration Results

RT: 6.37
Area: 27085
Amount: 1.756703
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:03:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

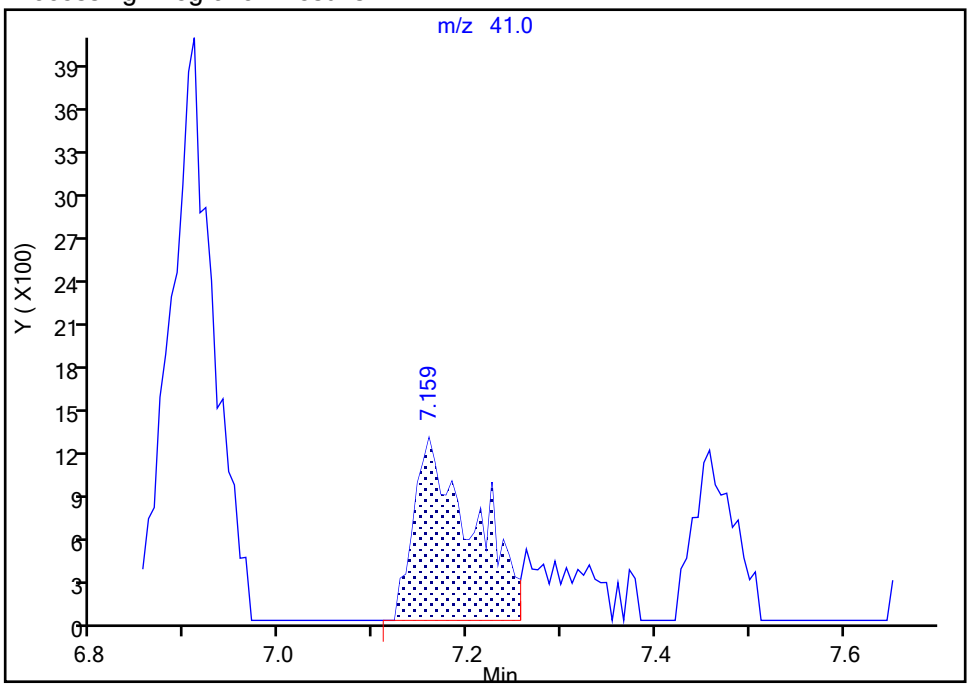
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

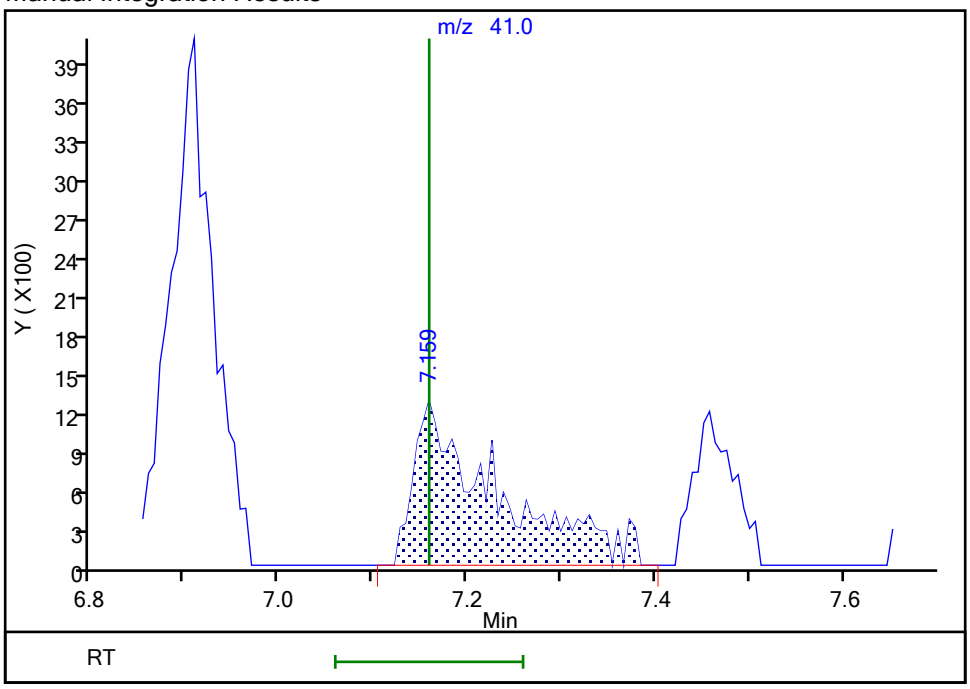
Processing Integration Results

RT: 7.16
Area: 5547
Amount: 7.991098
Amount Units: ug/l



Manual Integration Results

RT: 7.16
Area: 7721
Amount: 10.646651
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:03:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

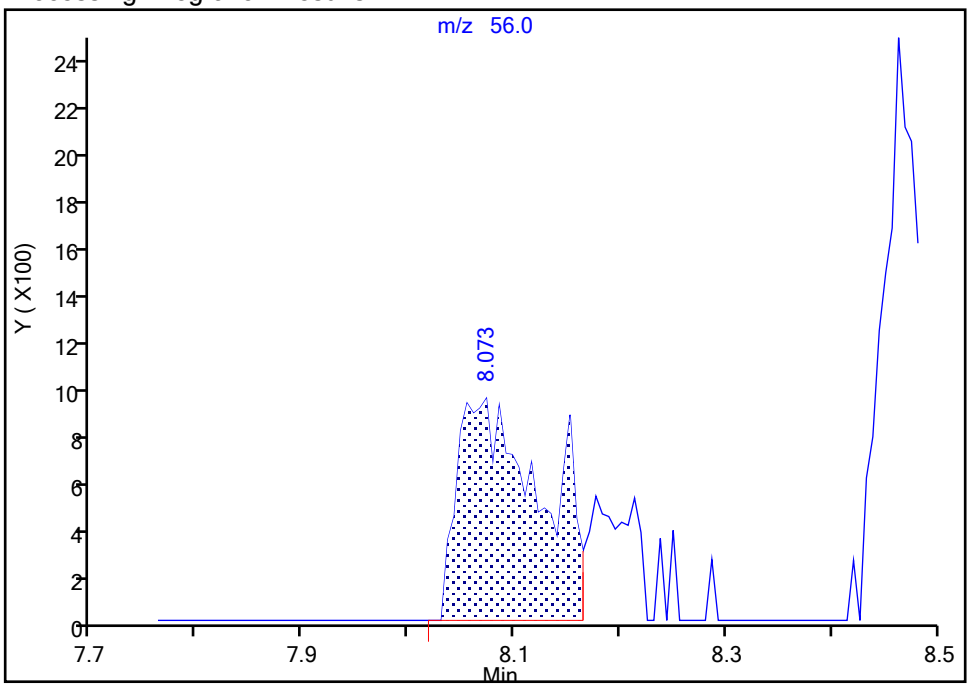
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

66 n-Butanol, CAS: 71-36-3

Signal: 1

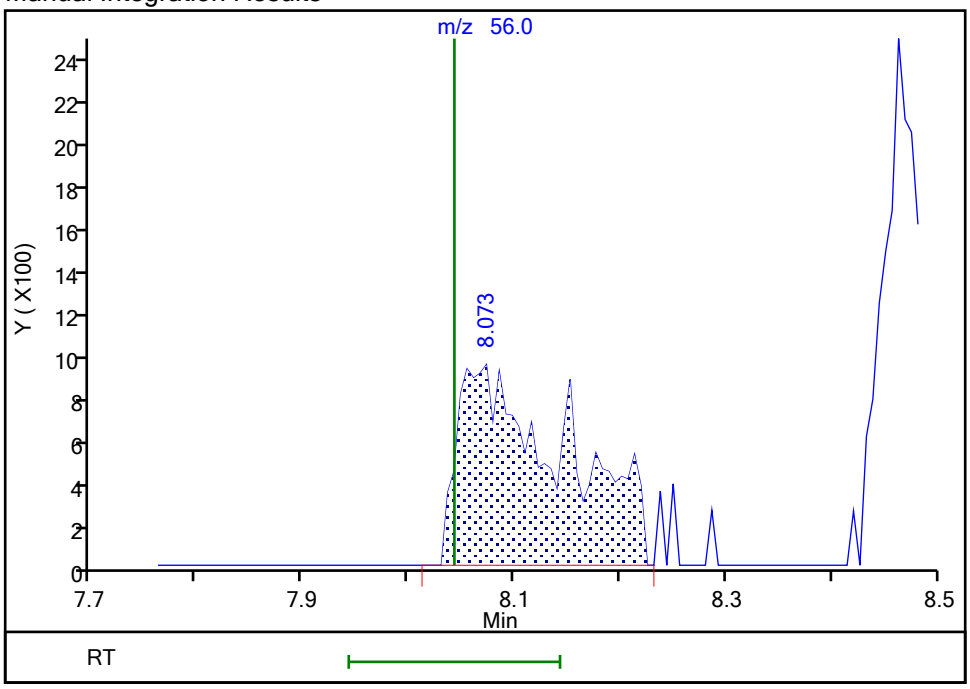
Processing Integration Results

RT: 8.07
Area: 5096
Amount: 26.006124
Amount Units: ug/l



Manual Integration Results

RT: 8.07
Area: 6512
Amount: 13.469346
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:04:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

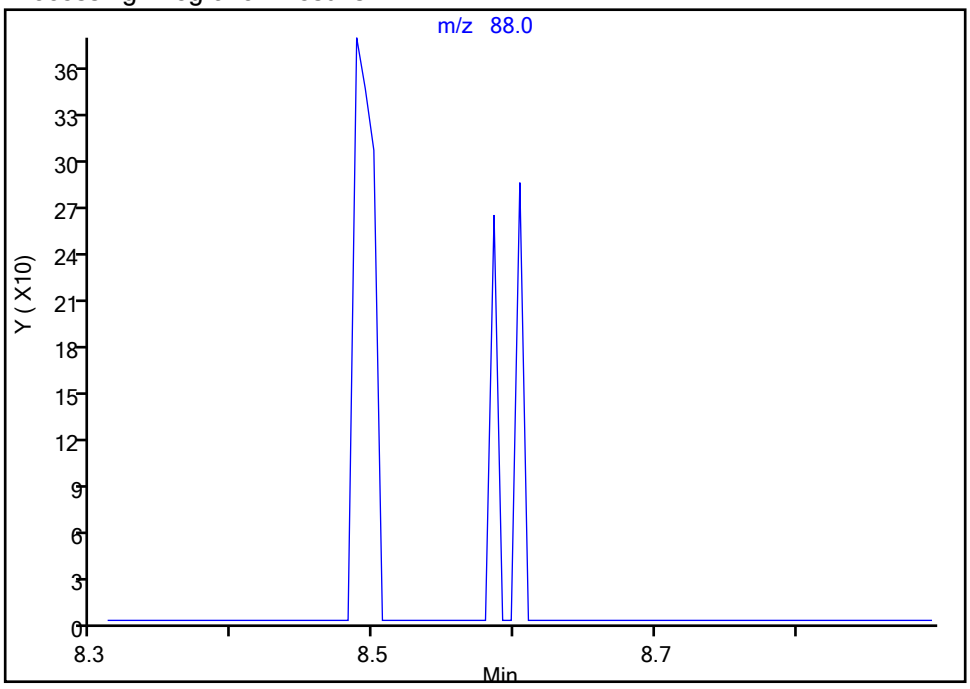
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

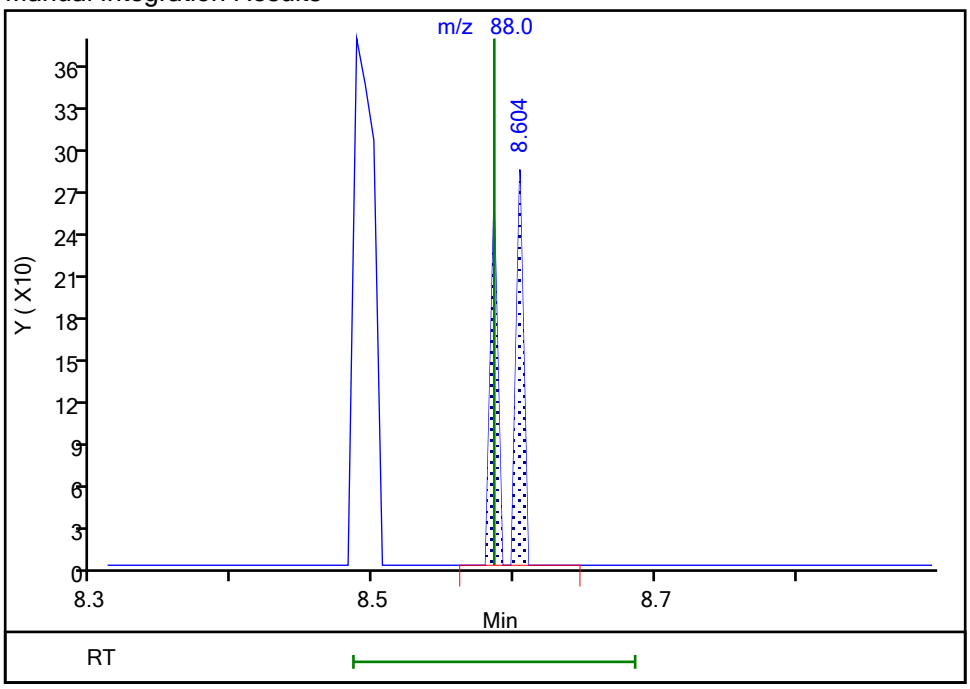
Not Detected
Expected RT: 8.59

Processing Integration Results



Manual Integration Results

RT: 8.60
Area: 200
Amount: 7.505445
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:04:09
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

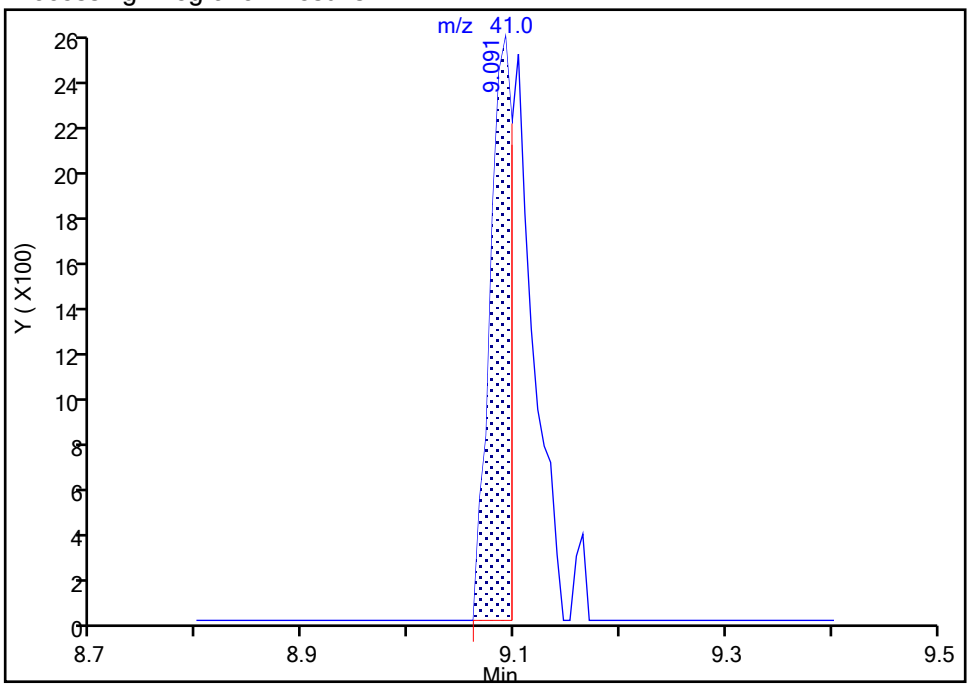
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

76 2-Nitropropane, CAS: 79-46-9

Signal: 1

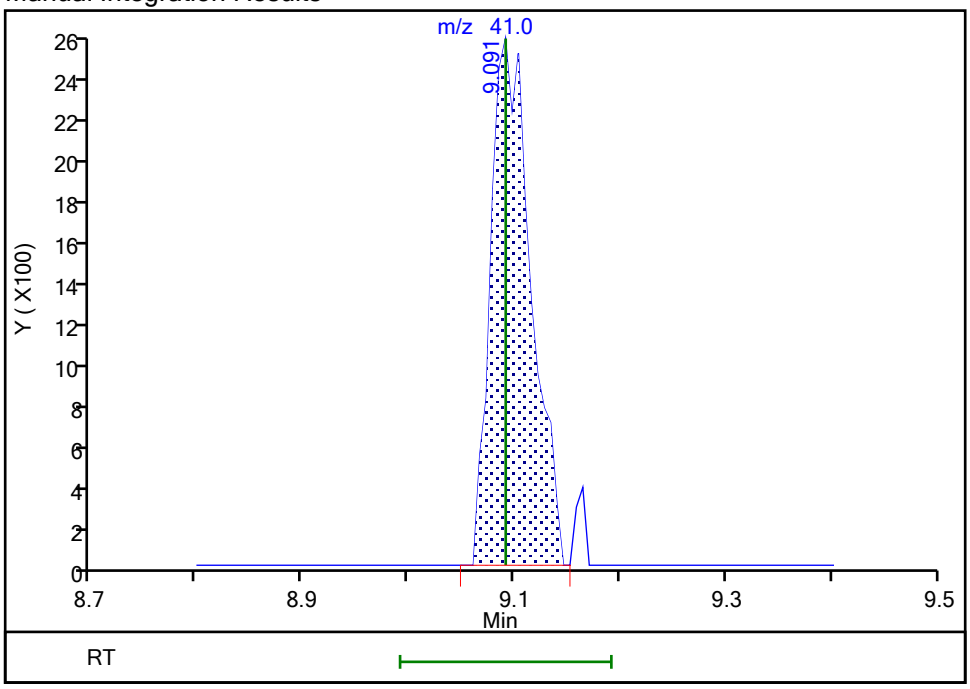
Processing Integration Results

RT: 9.09
Area: 3724
Amount: 0.630534
Amount Units: ug/l



Manual Integration Results

RT: 9.09
Area: 6696
Amount: 0.878434
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:04:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

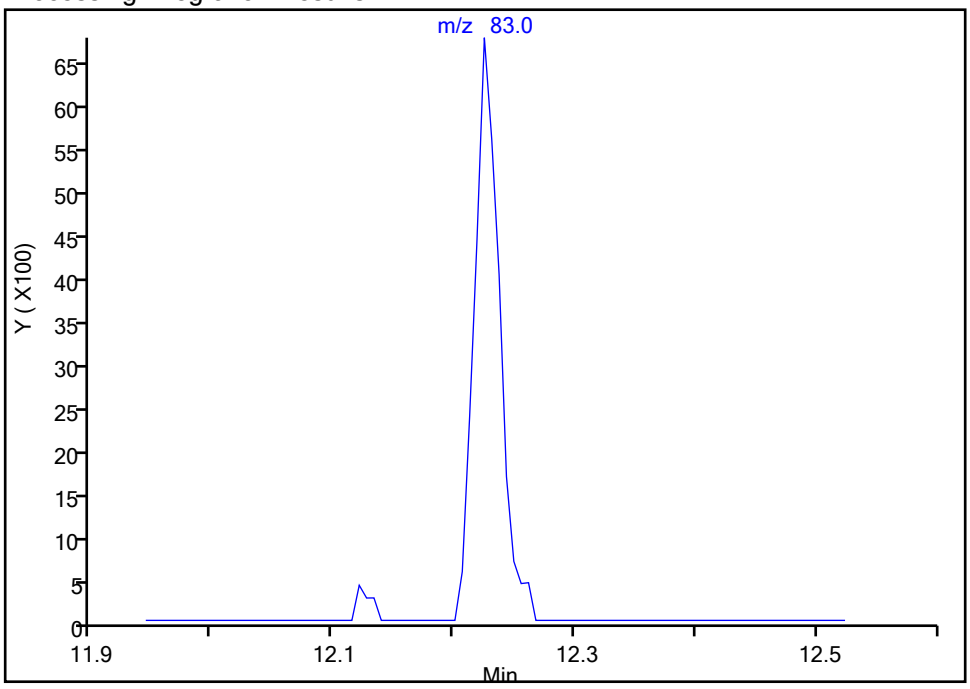
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

109 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Signal: 1

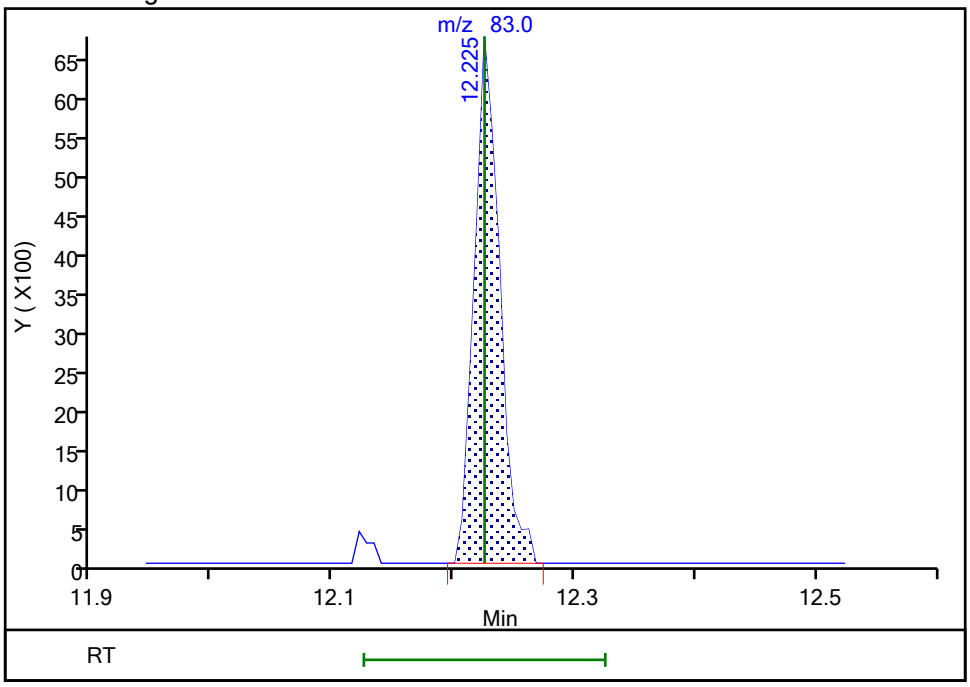
Not Detected
Expected RT: 12.23

Processing Integration Results



Manual Integration Results

RT: 12.22
Area: 9871
Amount: 0.188277
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:04:37
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Calibration / Dichlorodifluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

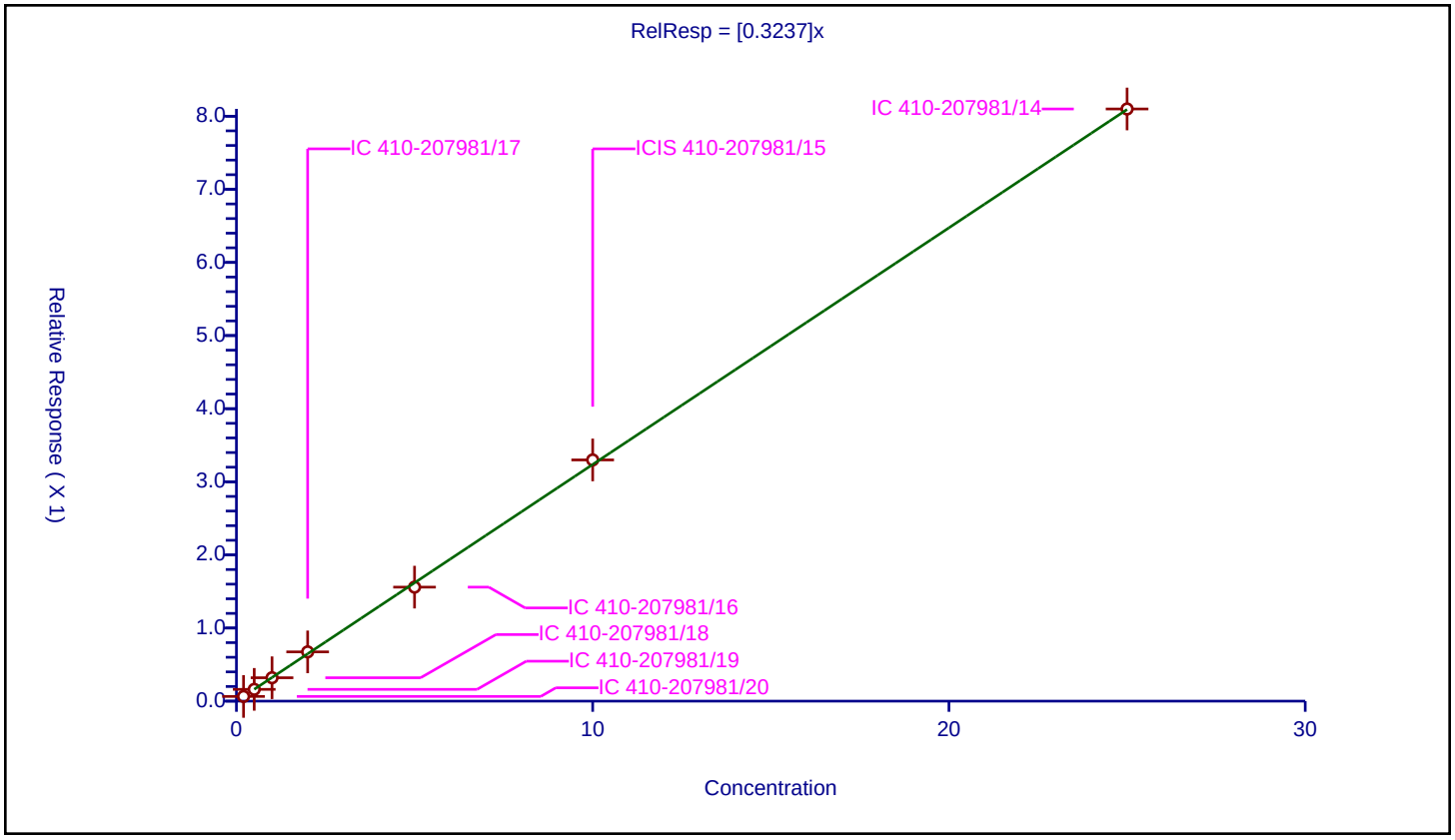
Curve Coefficients

Intercept:	0
Slope:	0.3237

Error Coefficients

Standard Error:	832000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.064126	10.0	2249617.0	0.320632	Y
2	IC 410-207981/19	0.5	0.161185	10.0	2232533.0	0.322369	Y
3	IC 410-207981/18	1.0	0.320182	10.0	2262029.0	0.320182	Y
4	IC 410-207981/17	2.0	0.673781	10.0	2259237.0	0.33689	Y
5	IC 410-207981/16	5.0	1.559258	10.0	2285280.0	0.311852	Y
6	ICIS 410-207981/15	10.0	3.298985	10.0	2239692.0	0.329898	Y
7	IC 410-207981/14	25.0	8.099086	10.0	2294975.0	0.323963	Y



Calibration / Chloromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

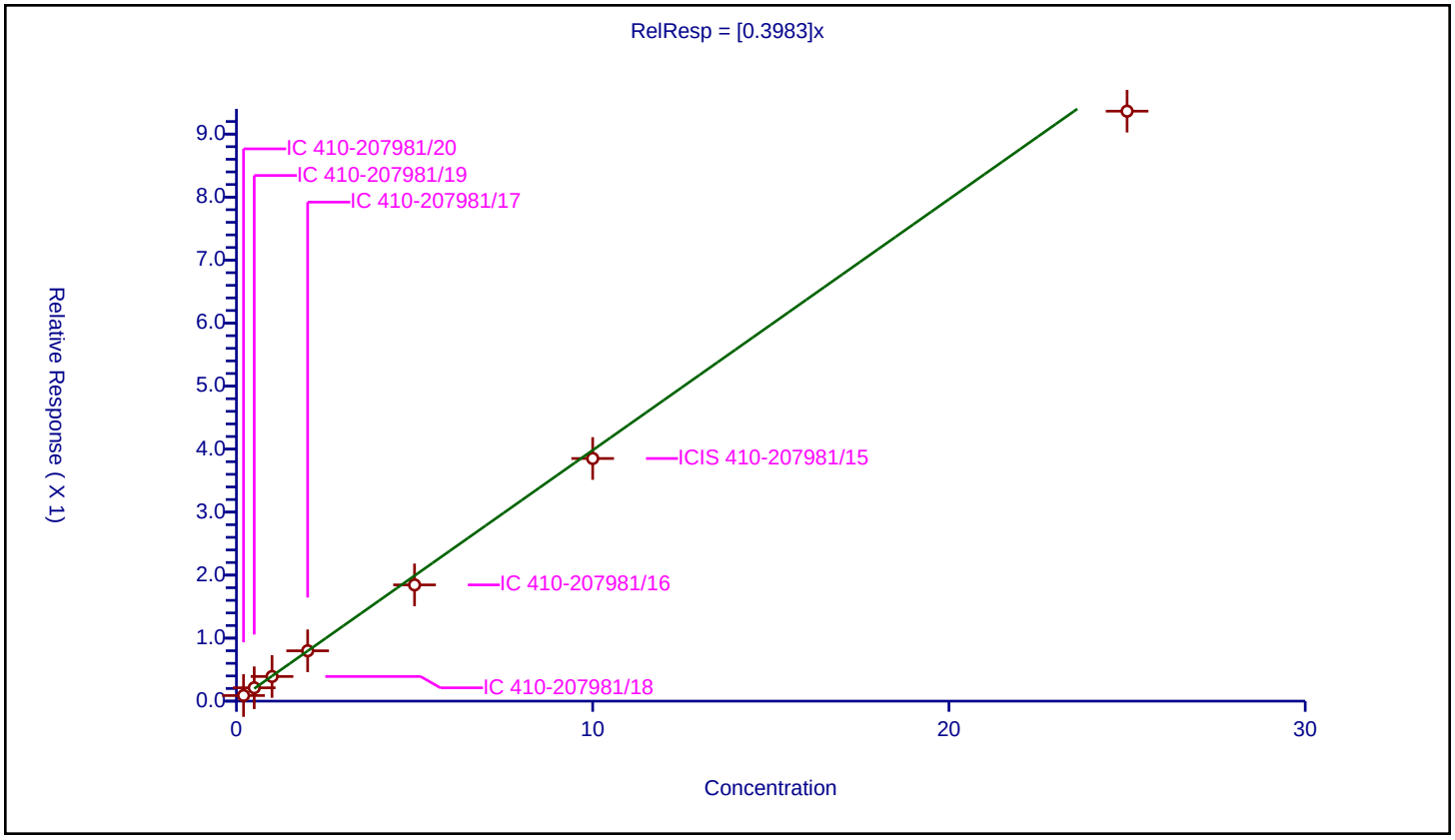
Curve Coefficients

Intercept:	0
Slope:	0.3983

Error Coefficients

Standard Error:	965000
Relative Standard Error:	6.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.088971	10.0	2249617.0	0.444854	Y
2	IC 410-207981/19	0.5	0.211813	10.0	2232533.0	0.423626	Y
3	IC 410-207981/18	1.0	0.391131	10.0	2262029.0	0.391131	Y
4	IC 410-207981/17	2.0	0.79896	10.0	2259237.0	0.39948	Y
5	IC 410-207981/16	5.0	1.844964	10.0	2285280.0	0.368993	Y
6	ICIS 410-207981/15	10.0	3.85136	10.0	2239692.0	0.385136	Y
7	IC 410-207981/14	25.0	9.363858	10.0	2294975.0	0.374554	Y



Calibration / Butadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

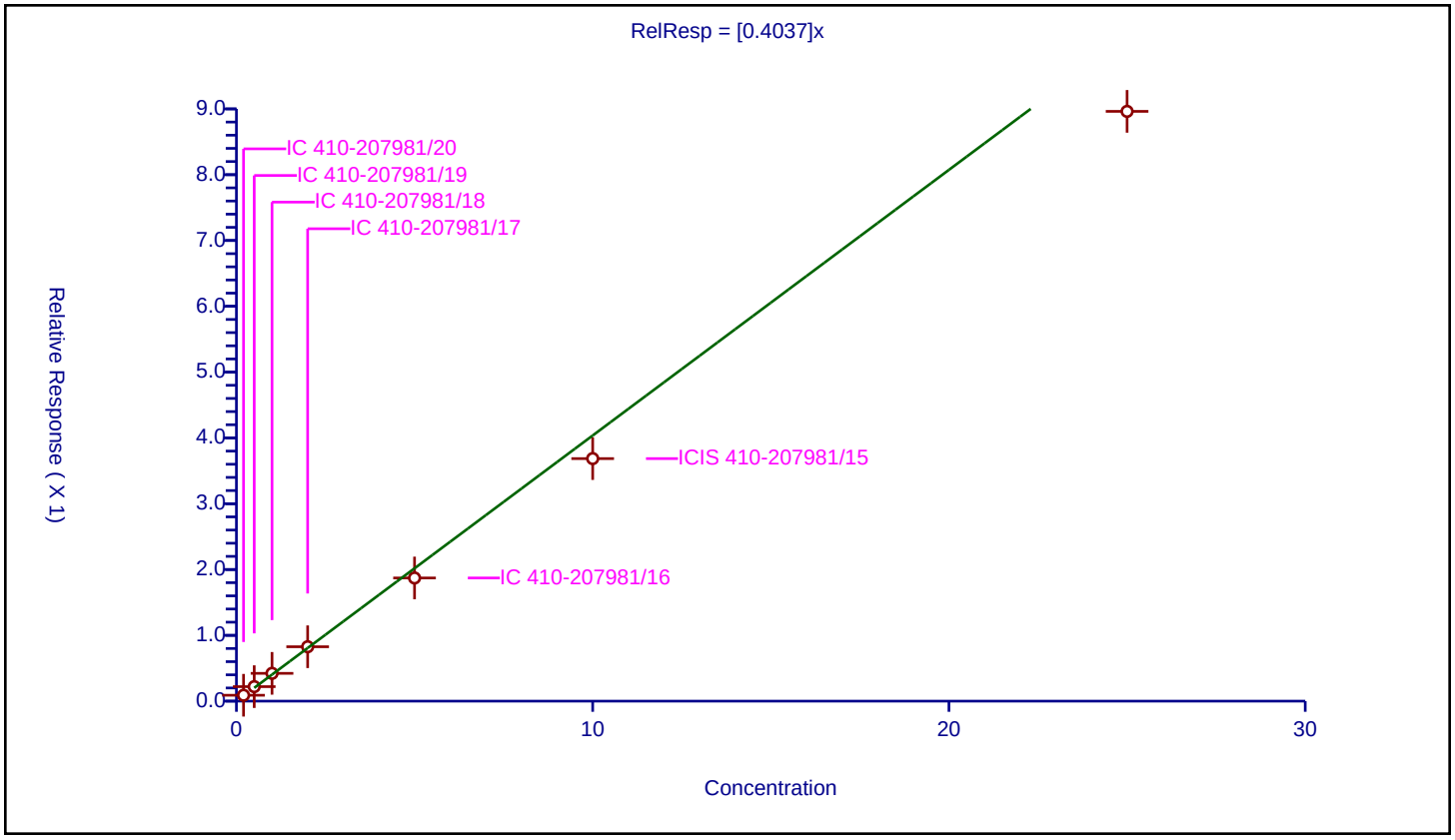
Curve Coefficients

Intercept:	0
Slope:	0.4037

Error Coefficients

Standard Error:	926000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.089544	10.0	2249617.0	0.447721	Y
2	IC 410-207981/19	0.5	0.220481	10.0	2232533.0	0.440961	Y
3	IC 410-207981/18	1.0	0.422395	10.0	2262029.0	0.422395	Y
4	IC 410-207981/17	2.0	0.826487	10.0	2259237.0	0.413243	Y
5	IC 410-207981/16	5.0	1.871613	10.0	2285280.0	0.374323	Y
6	ICIS 410-207981/15	10.0	3.685895	10.0	2239692.0	0.36859	Y
7	IC 410-207981/14	25.0	8.962302	10.0	2294975.0	0.358492	Y



Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

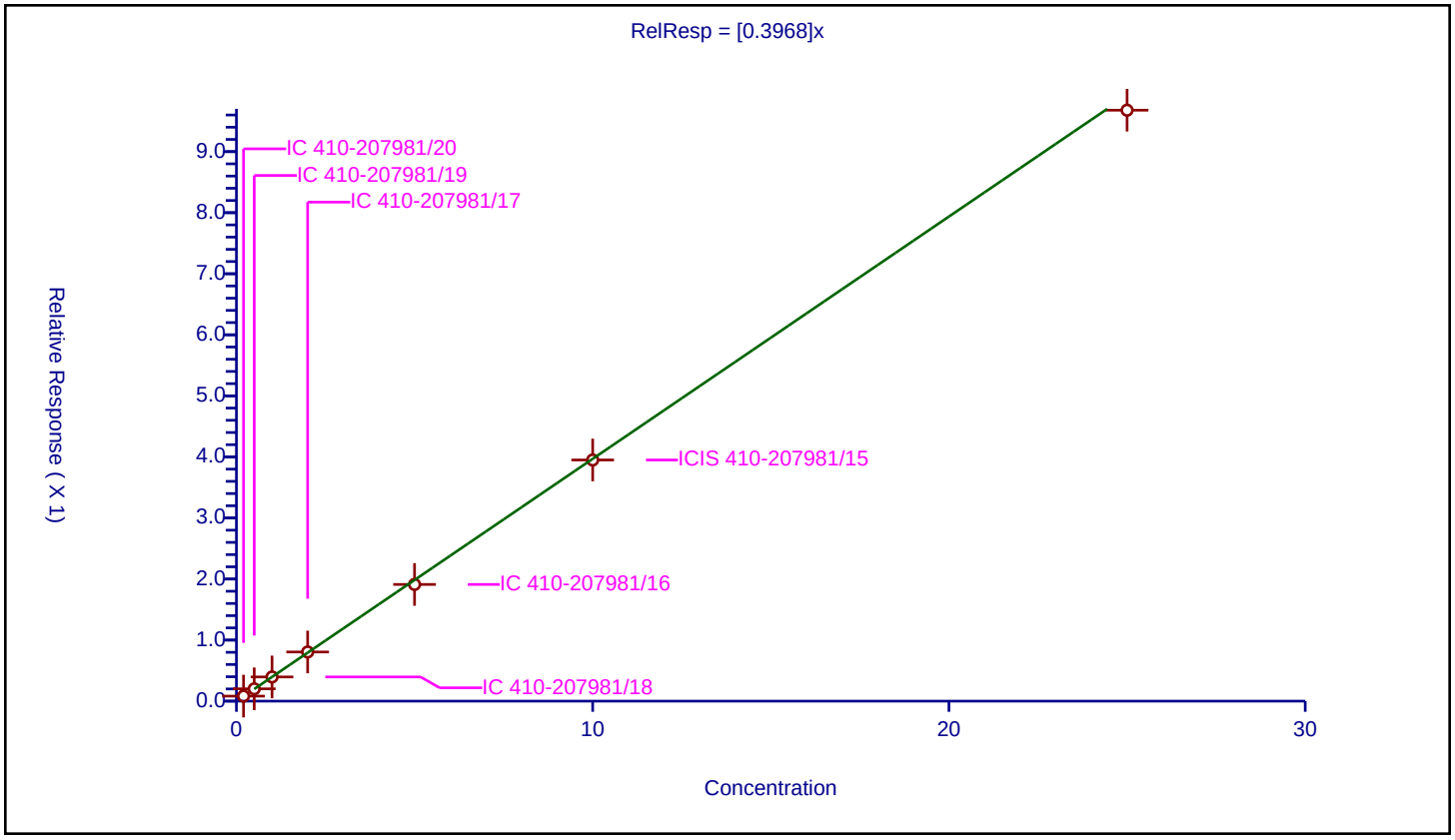
Curve Coefficients

Intercept:	0
Slope:	0.3968

Error Coefficients

Standard Error:	996000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.082343	10.0	2249617.0	0.411715	Y
2	IC 410-207981/19	0.5	0.201529	10.0	2232533.0	0.403058	Y
3	IC 410-207981/18	1.0	0.396171	10.0	2262029.0	0.396171	Y
4	IC 410-207981/17	2.0	0.805073	10.0	2259237.0	0.402536	Y
5	IC 410-207981/16	5.0	1.911144	10.0	2285280.0	0.382229	Y
6	ICIS 410-207981/15	10.0	3.949637	10.0	2239692.0	0.394964	Y
7	IC 410-207981/14	25.0	9.67872	10.0	2294975.0	0.387149	Y



Calibration / Bromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

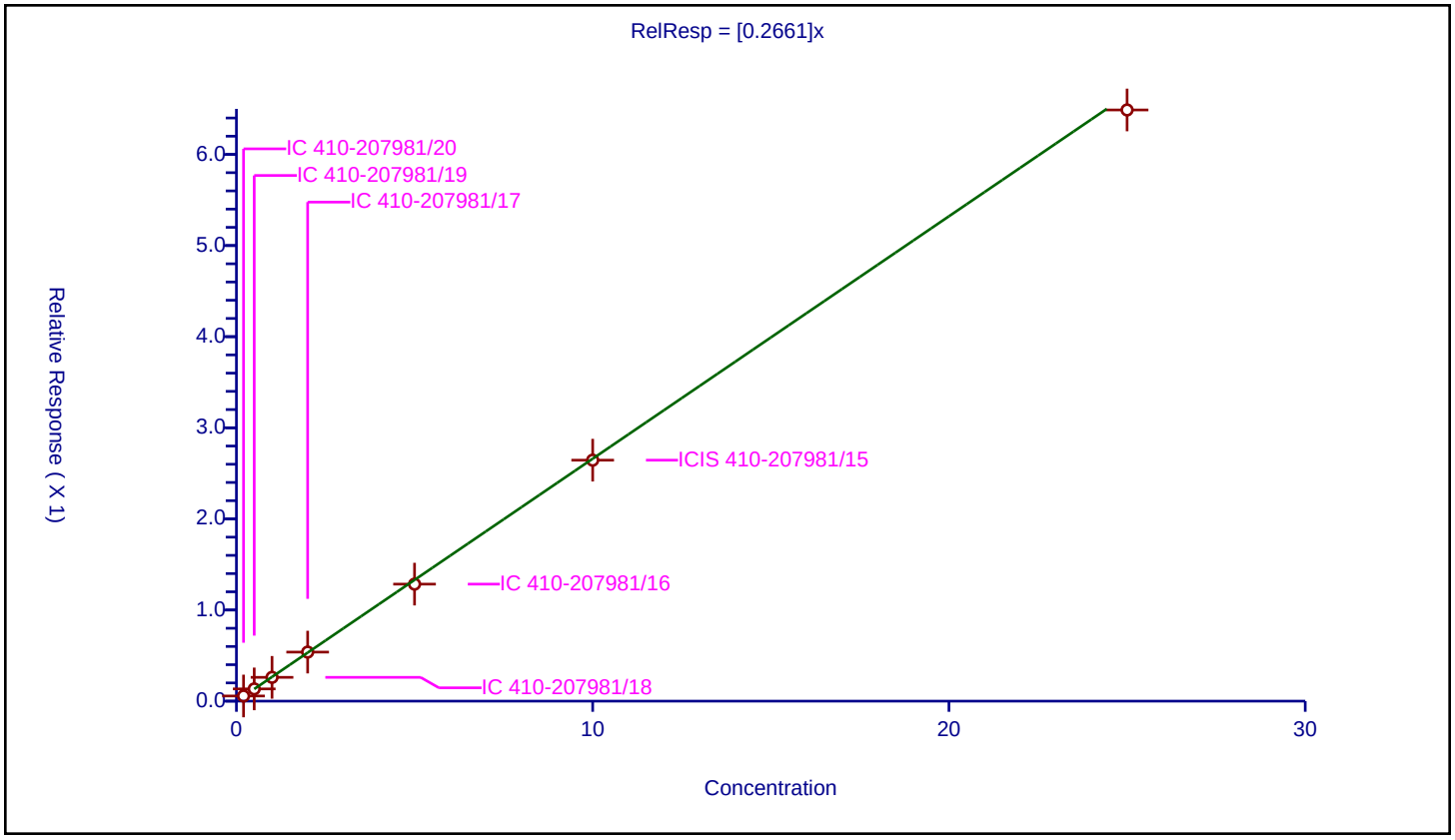
Curve Coefficients

Intercept:	0
Slope:	0.2661

Error Coefficients

Standard Error:	668000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.056512	10.0	2249617.0	0.282559	Y
2	IC 410-207981/19	0.5	0.134435	10.0	2232533.0	0.268869	Y
3	IC 410-207981/18	1.0	0.261036	10.0	2262029.0	0.261036	Y
4	IC 410-207981/17	2.0	0.538217	10.0	2259237.0	0.269109	Y
5	IC 410-207981/16	5.0	1.284363	10.0	2285280.0	0.256873	Y
6	ICIS 410-207981/15	10.0	2.644716	10.0	2239692.0	0.264472	Y
7	IC 410-207981/14	25.0	6.488358	10.0	2294975.0	0.259534	Y



Calibration / Chloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

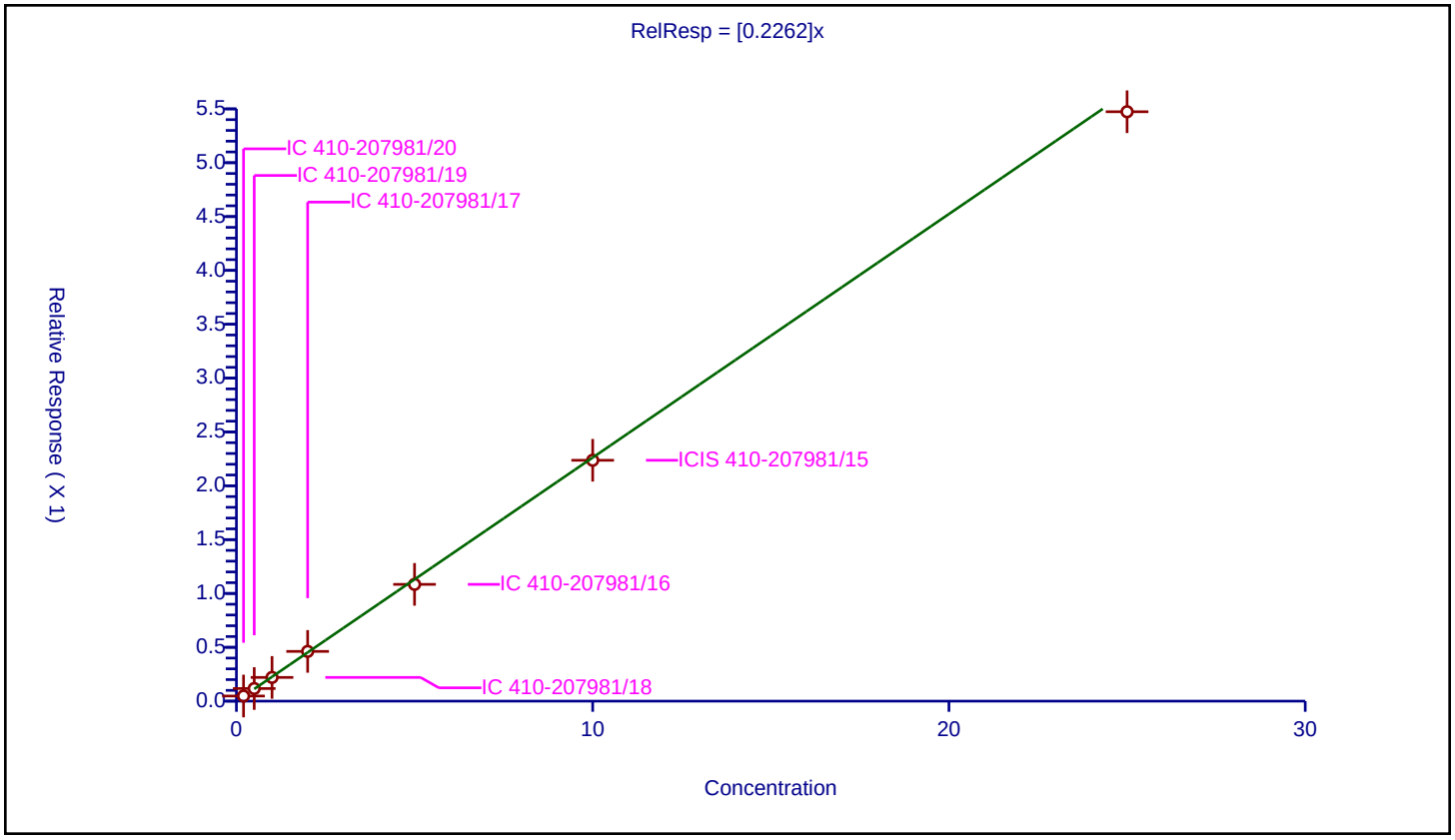
Curve Coefficients

Intercept:	0
Slope:	0.2262

Error Coefficients

Standard Error:	563000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.047621	10.0	2249617.0	0.238107	Y
2	IC 410-207981/19	0.5	0.117176	10.0	2232533.0	0.234353	Y
3	IC 410-207981/18	1.0	0.220315	10.0	2262029.0	0.220315	Y
4	IC 410-207981/17	2.0	0.461966	10.0	2259237.0	0.230983	Y
5	IC 410-207981/16	5.0	1.084572	10.0	2285280.0	0.216914	Y
6	ICIS 410-207981/15	10.0	2.236723	10.0	2239692.0	0.223672	Y
7	IC 410-207981/14	25.0	5.473624	10.0	2294975.0	0.218945	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

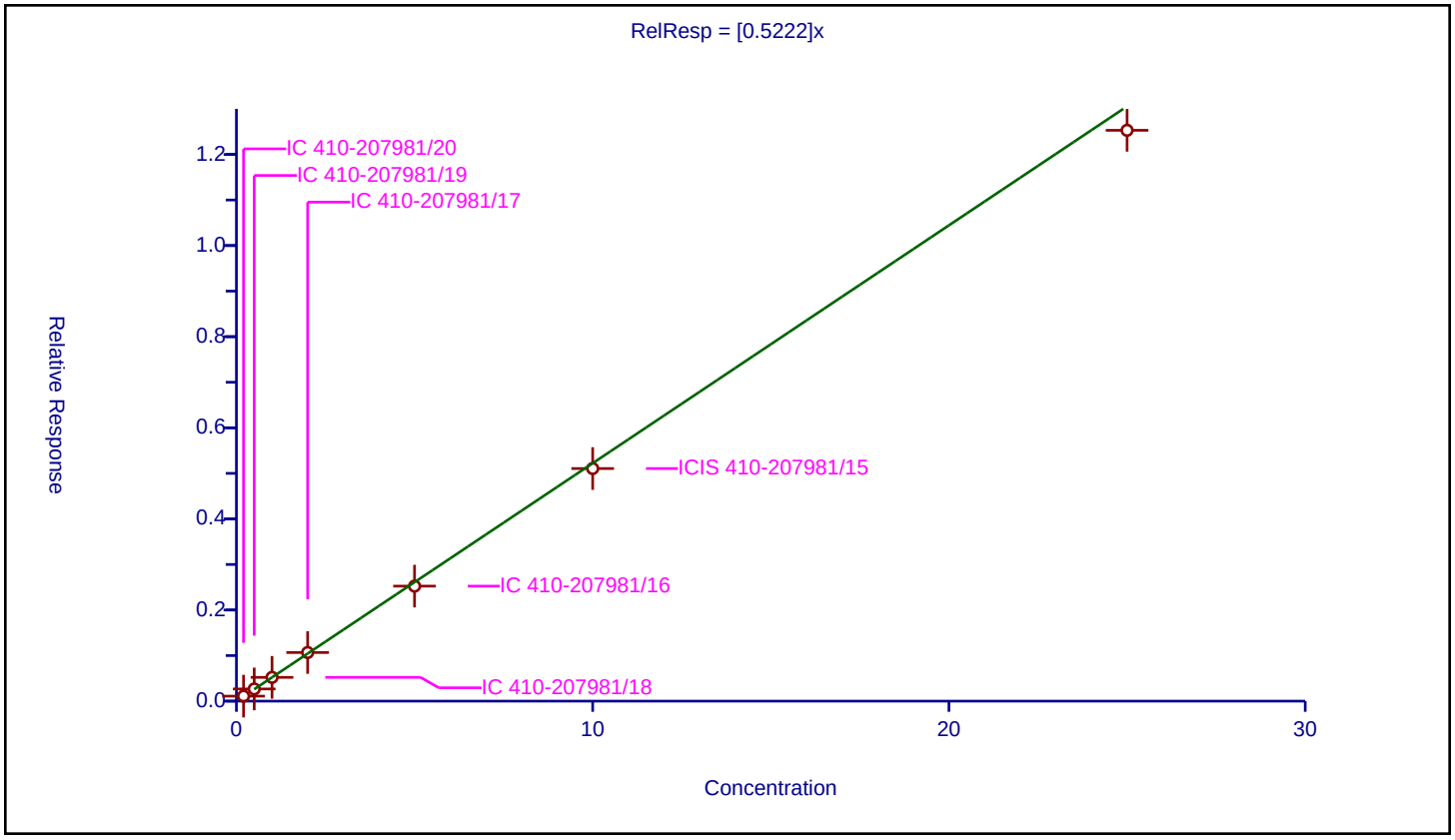
Curve Coefficients

Intercept:	0
Slope:	0.5222

Error Coefficients

Standard Error:	1290000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.109716	10.0	2249617.0	0.548582	Y
2	IC 410-207981/19	0.5	0.26749	10.0	2232533.0	0.53498	Y
3	IC 410-207981/18	1.0	0.521633	10.0	2262029.0	0.521633	Y
4	IC 410-207981/17	2.0	1.067126	10.0	2259237.0	0.533563	Y
5	IC 410-207981/16	5.0	2.524933	10.0	2285280.0	0.504987	Y
6	ICIS 410-207981/15	10.0	5.105992	10.0	2239692.0	0.510599	Y
7	IC 410-207981/14	25.0	12.529788	10.0	2294975.0	0.501192	Y



Calibration / Trichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

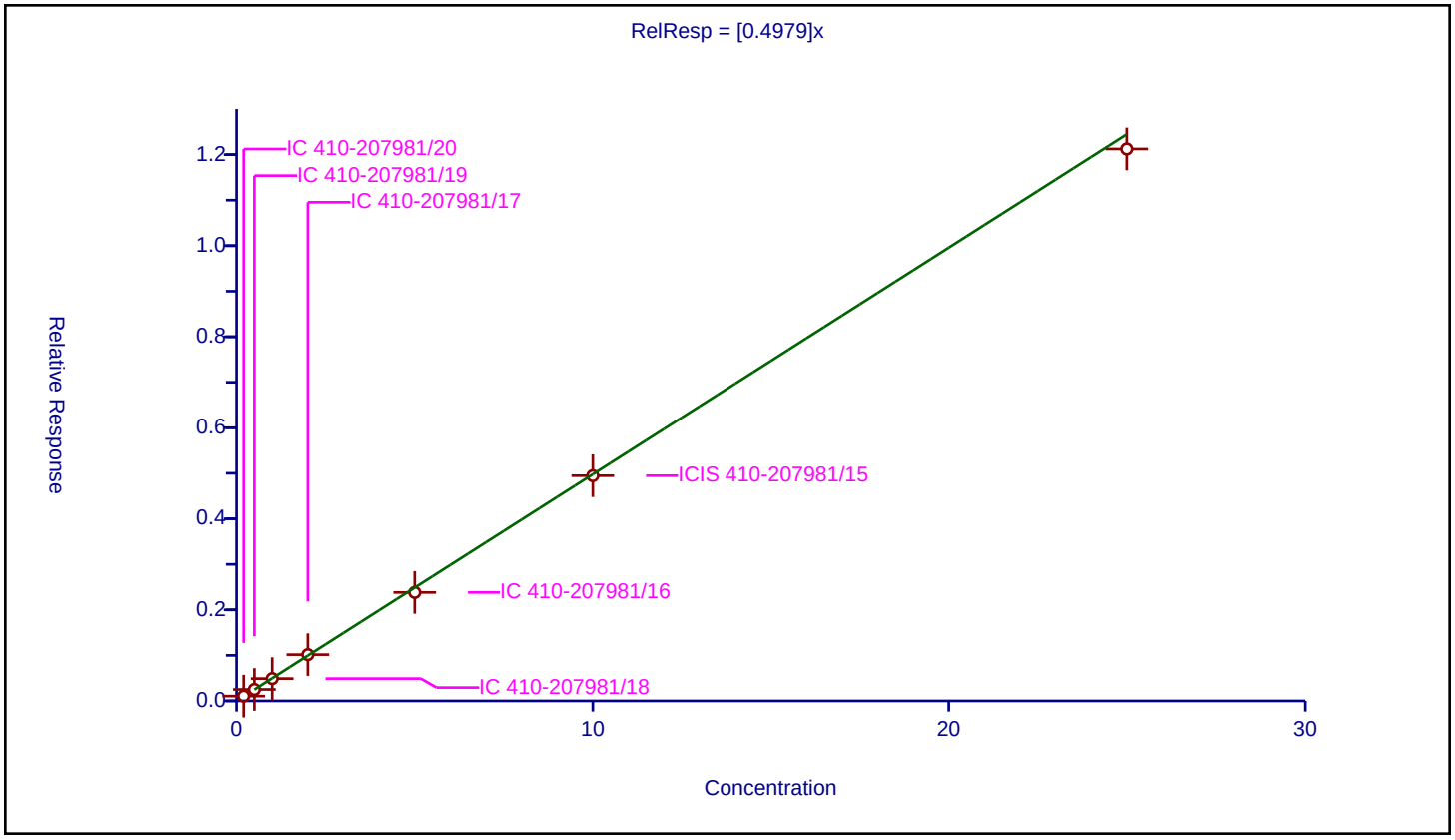
Curve Coefficients

Intercept:	0
Slope:	0.4979

Error Coefficients

Standard Error:	1250000
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.105769	10.0	2249617.0	0.528846	Y
2	IC 410-207981/19	0.5	0.251024	10.0	2232533.0	0.502049	Y
3	IC 410-207981/18	1.0	0.489622	10.0	2262029.0	0.489622	Y
4	IC 410-207981/17	2.0	1.016157	10.0	2259237.0	0.508079	Y
5	IC 410-207981/16	5.0	2.383218	10.0	2285280.0	0.476644	Y
6	ICIS 410-207981/15	10.0	4.947479	10.0	2239692.0	0.494748	Y
7	IC 410-207981/14	25.0	12.124376	10.0	2294975.0	0.484975	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

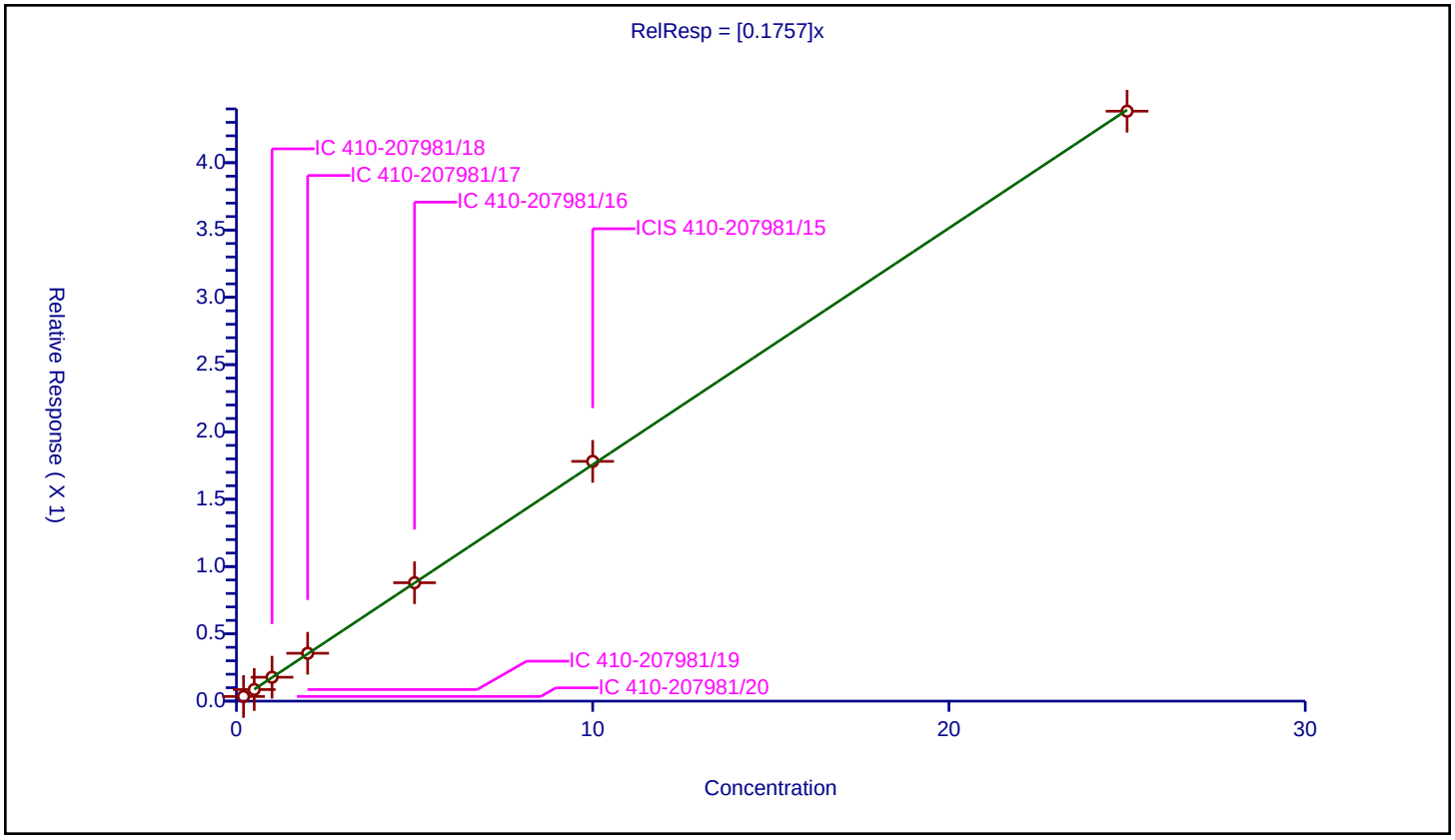
Curve Coefficients

Intercept:	0
Slope:	0.1757

Error Coefficients

Standard Error:	451000
Relative Standard Error:	1.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.034584	10.0	2249617.0	0.172918	Y
2	IC 410-207981/19	0.5	0.086176	10.0	2232533.0	0.172351	Y
3	IC 410-207981/18	0.999999	0.177496	10.0	2262029.0	0.177496	Y
4	IC 410-207981/17	1.999998	0.355576	10.0	2259237.0	0.177788	Y
5	IC 410-207981/16	4.999995	0.879739	10.0	2285280.0	0.175948	Y
6	ICIS 410-207981/15	9.99999	1.781321	10.0	2239692.0	0.178132	Y
7	IC 410-207981/14	24.999975	4.382889	10.0	2294975.0	0.175316	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

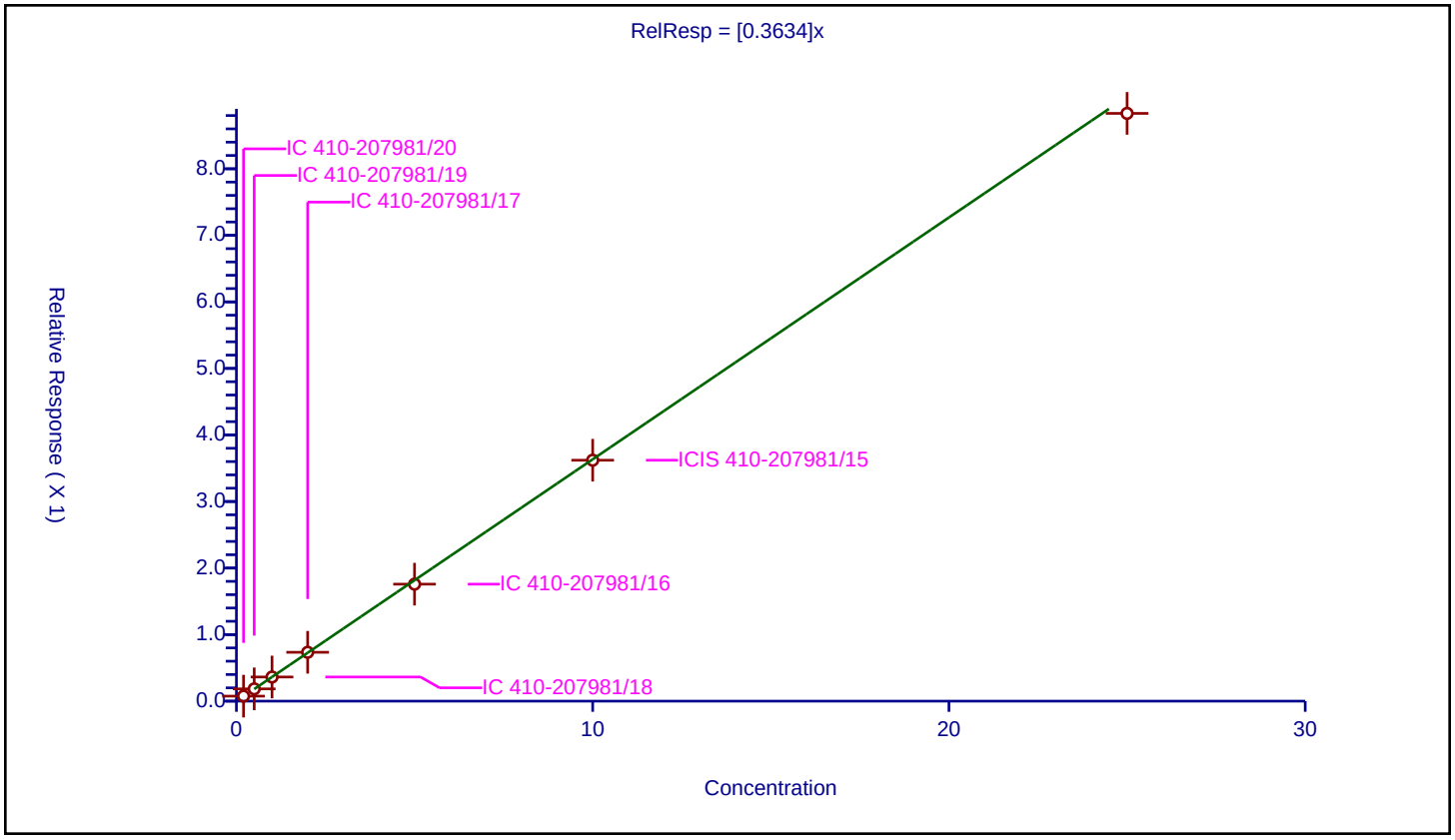
Curve Coefficients

Intercept:	0
Slope:	0.3634

Error Coefficients

Standard Error:	910000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.075608	10.0	2249617.0	0.378042	Y
2	IC 410-207981/19	0.5	0.184472	10.0	2232533.0	0.368944	Y
3	IC 410-207981/18	1.0	0.362864	10.0	2262029.0	0.362864	Y
4	IC 410-207981/17	2.0	0.734226	10.0	2259237.0	0.367113	Y
5	IC 410-207981/16	5.0	1.758073	10.0	2285280.0	0.351615	Y
6	ICIS 410-207981/15	10.0	3.620516	10.0	2239692.0	0.362052	Y
7	IC 410-207981/14	25.0	8.832532	10.0	2294975.0	0.353301	Y



Calibration / Acrolein

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

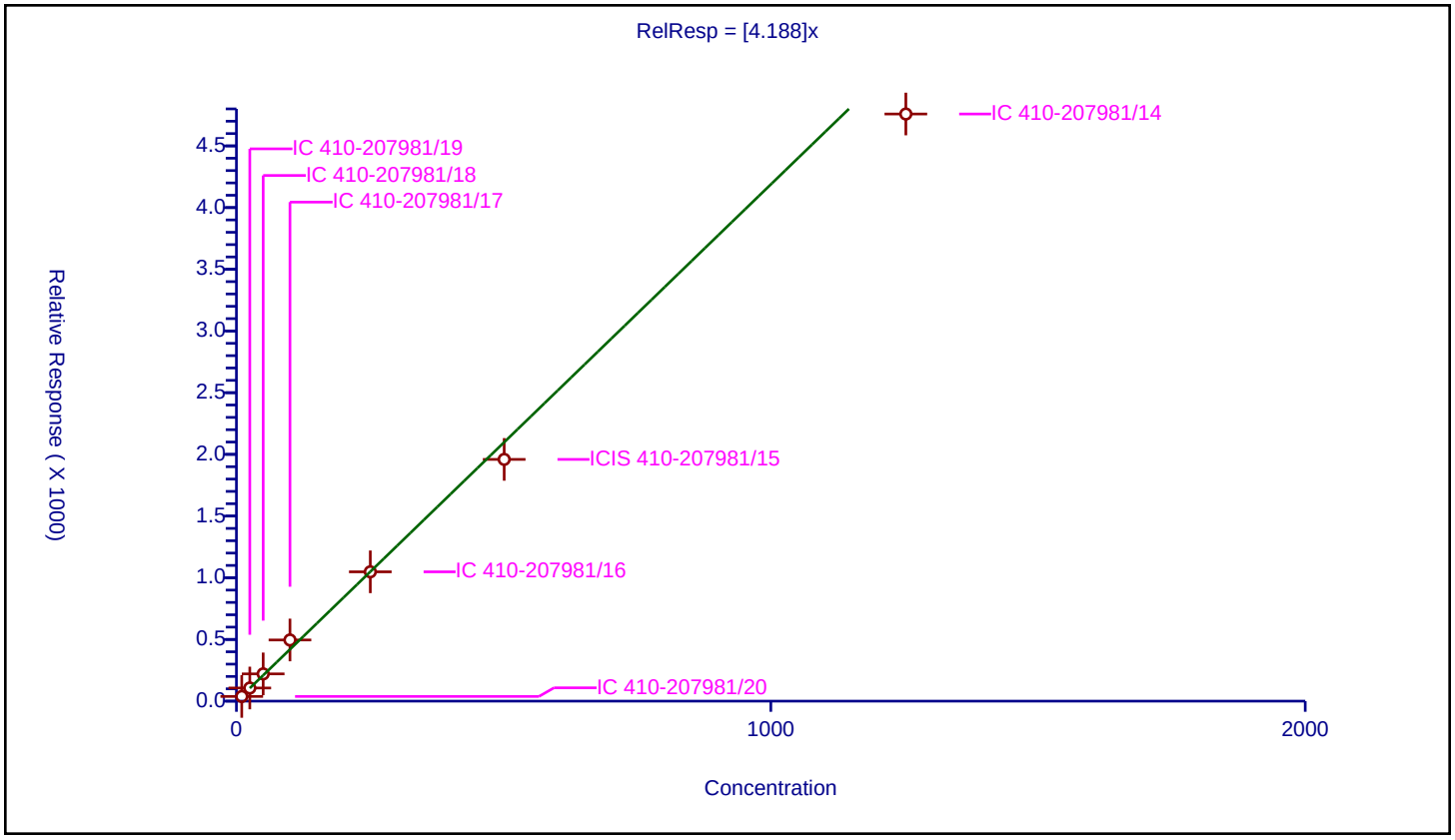
Curve Coefficients

Intercept:	0
Slope:	4.188

Error Coefficients

Standard Error:	3580000
Relative Standard Error:	9.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	10.021507	38.188087	50.0	81494.0	3.810613	Y
2	IC 410-207981/19	25.053768	106.593797	50.0	66191.0	4.254601	Y
3	IC 410-207981/18	50.107537	221.037662	50.0	72779.0	4.411266	Y
4	IC 410-207981/17	100.215073	495.641573	50.0	62752.0	4.945779	Y
5	IC 410-207981/16	250.537684	1048.218823	50.0	77926.0	4.183877	Y
6	ICIS 410-207981/15	501.075367	1959.281314	50.0	82456.0	3.910153	Y
7	IC 410-207981/14	1252.688418	4758.629951	50.0	83778.0	3.798734	Y



Calibration / 1,1-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

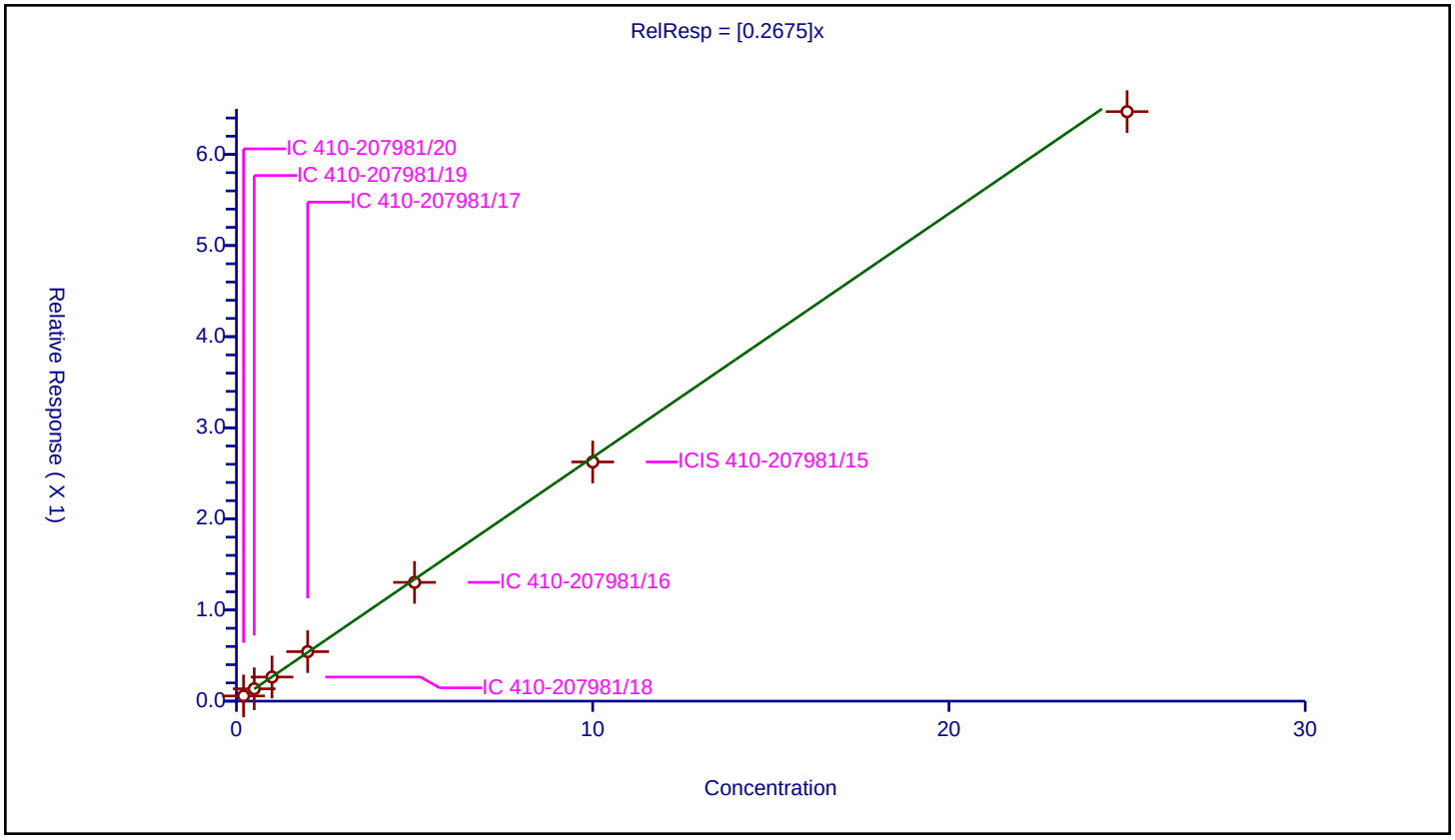
Curve Coefficients

Intercept:	0
Slope:	0.2675

Error Coefficients

Standard Error:	666000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.05673	10.0	2249617.0	0.283648	Y
2	IC 410-207981/19	0.5	0.135393	10.0	2232533.0	0.270787	Y
3	IC 410-207981/18	1.0	0.264585	10.0	2262029.0	0.264585	Y
4	IC 410-207981/17	2.0	0.543405	10.0	2259237.0	0.271702	Y
5	IC 410-207981/16	5.0	1.303446	10.0	2285280.0	0.260689	Y
6	ICIS 410-207981/15	10.0	2.625227	10.0	2239692.0	0.262523	Y
7	IC 410-207981/14	25.0	6.469826	10.0	2294975.0	0.258793	Y



Calibration / Acetone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

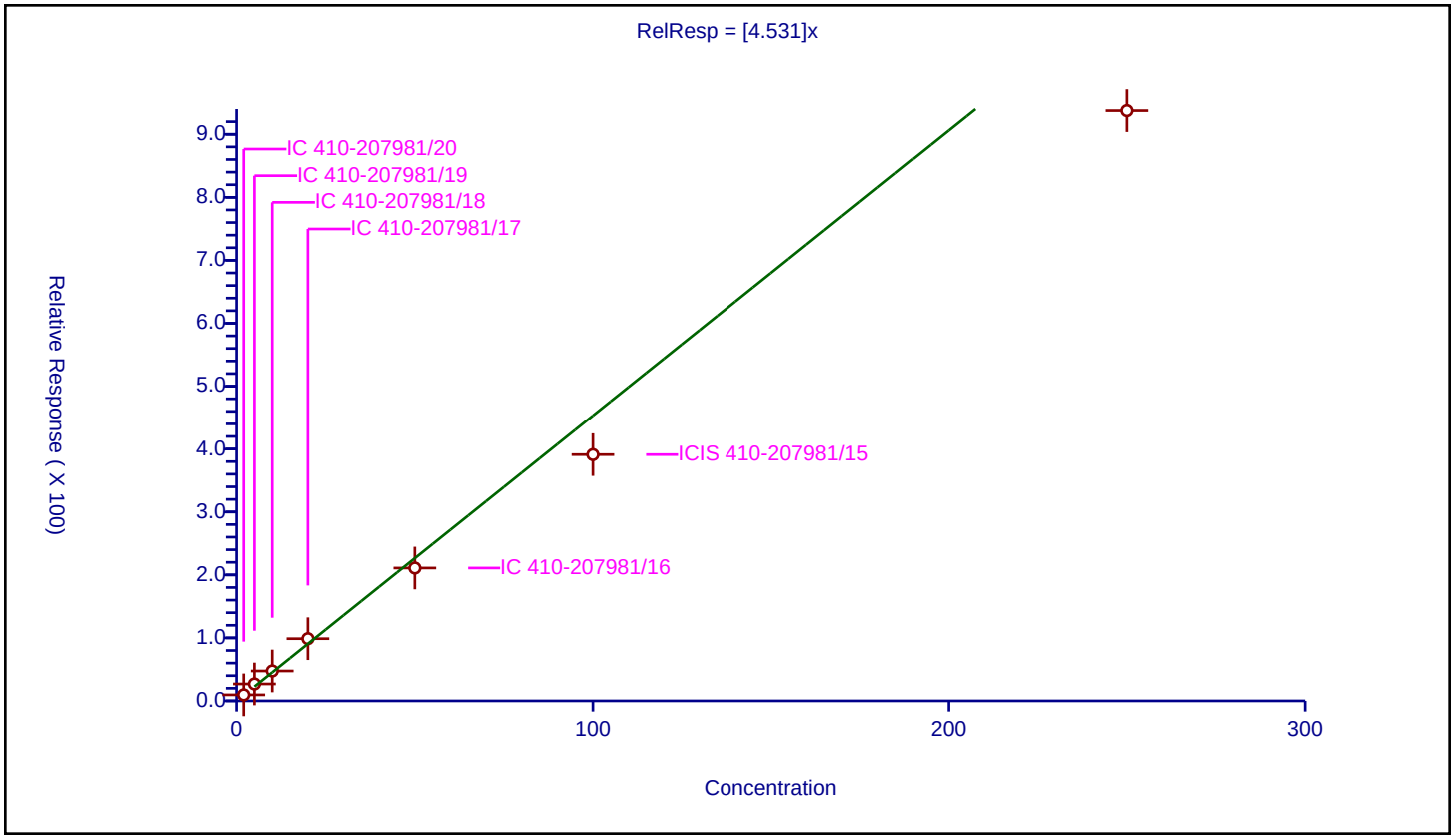
Curve Coefficients

Intercept:	0
Slope:	4.531

Error Coefficients

Standard Error:	708000
Relative Standard Error:	13.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	9.557145	50.0	81494.0	4.778573	Y
2	IC 410-207981/19	5.0	26.863169	50.0	66191.0	5.372634	Y
3	IC 410-207981/18	10.0	47.475233	50.0	72779.0	4.747523	Y
4	IC 410-207981/17	20.0	98.737092	50.0	62752.0	4.936855	Y
5	IC 410-207981/16	50.0	210.944357	50.0	77926.0	4.218887	Y
6	ICIS 410-207981/15	100.0	391.168017	50.0	82456.0	3.91168	Y
7	IC 410-207981/14	250.0	937.568335	50.0	83778.0	3.750273	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

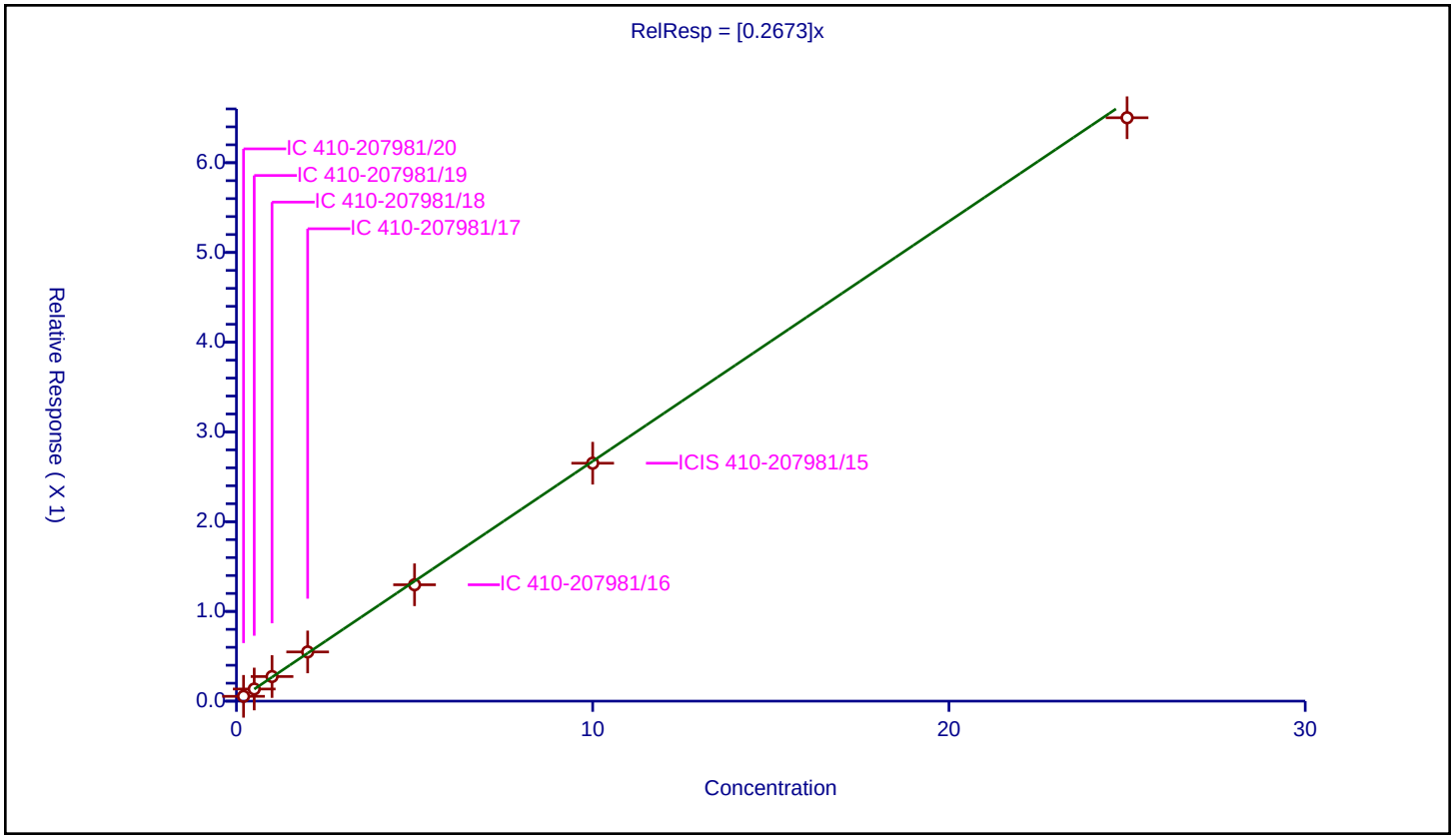
Curve Coefficients

Intercept:	0
Slope:	0.2673

Error Coefficients

Standard Error:	669000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.053622	10.0	2249617.0	0.268112	Y
2	IC 410-207981/19	0.5	0.135125	10.0	2232533.0	0.270249	Y
3	IC 410-207981/18	1.0	0.274143	10.0	2262029.0	0.274143	Y
4	IC 410-207981/17	2.0	0.548477	10.0	2259237.0	0.274239	Y
5	IC 410-207981/16	5.0	1.296813	10.0	2285280.0	0.259363	Y
6	ICIS 410-207981/15	10.0	2.65153	10.0	2239692.0	0.265153	Y
7	IC 410-207981/14	25.0	6.501378	10.0	2294975.0	0.260055	Y



Calibration / Iodomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

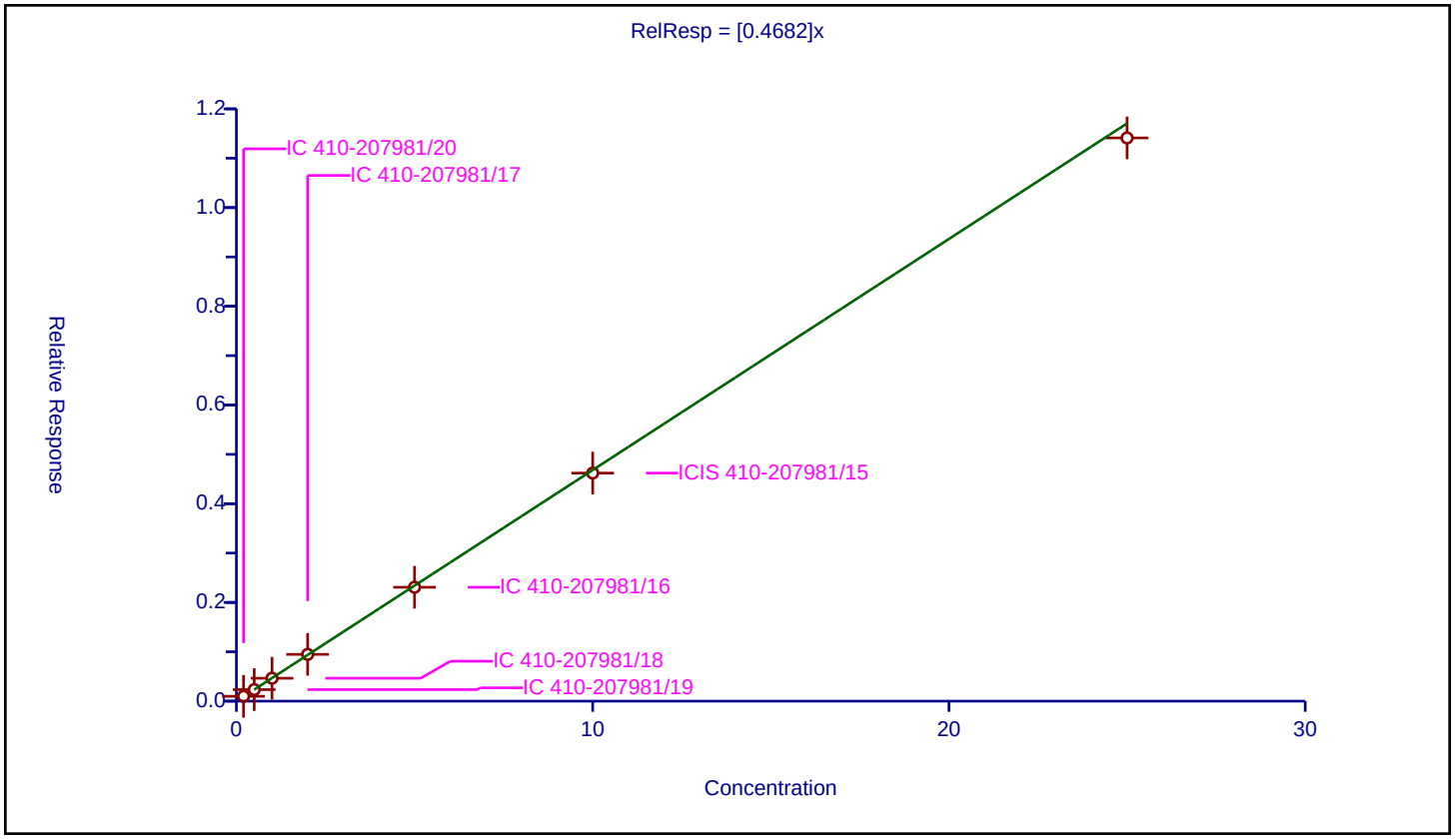
Curve Coefficients

Intercept:	0
Slope:	0.4682

Error Coefficients

Standard Error:	1170000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.098261	10.0	2249617.0	0.491306	Y
2	IC 410-207981/19	0.5	0.233976	10.0	2232533.0	0.467953	Y
3	IC 410-207981/18	1.0	0.464287	10.0	2262029.0	0.464287	Y
4	IC 410-207981/17	2.0	0.947678	10.0	2259237.0	0.473839	Y
5	IC 410-207981/16	5.0	2.30784	10.0	2285280.0	0.461568	Y
6	ICIS 410-207981/15	10.0	4.620814	10.0	2239692.0	0.462081	Y
7	IC 410-207981/14	25.0	11.41127	10.0	2294975.0	0.456451	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

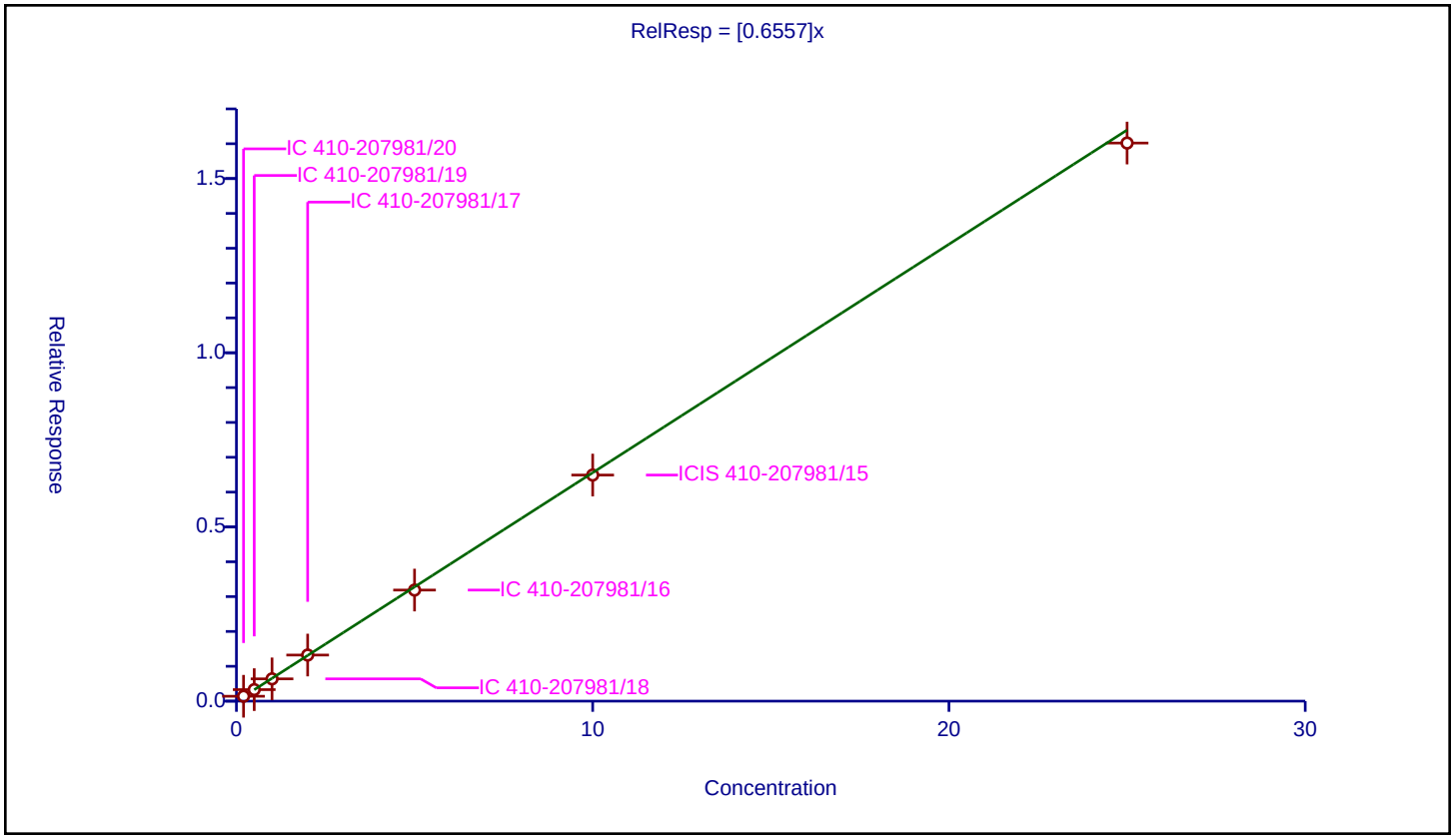
Curve Coefficients

Intercept:	0
Slope:	0.6557

Error Coefficients

Standard Error:	1650000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.140175	10.0	2249617.0	0.700875	Y
2	IC 410-207981/19	0.5	0.330405	10.0	2232533.0	0.66081	Y
3	IC 410-207981/18	1.0	0.639775	10.0	2262029.0	0.639775	Y
4	IC 410-207981/17	2.0	1.322787	10.0	2259237.0	0.661394	Y
5	IC 410-207981/16	5.0	3.188073	10.0	2285280.0	0.637615	Y
6	ICIS 410-207981/15	10.0	6.489767	10.0	2239692.0	0.648977	Y
7	IC 410-207981/14	25.0	16.019551	10.0	2294975.0	0.640782	Y



Calibration / Methyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

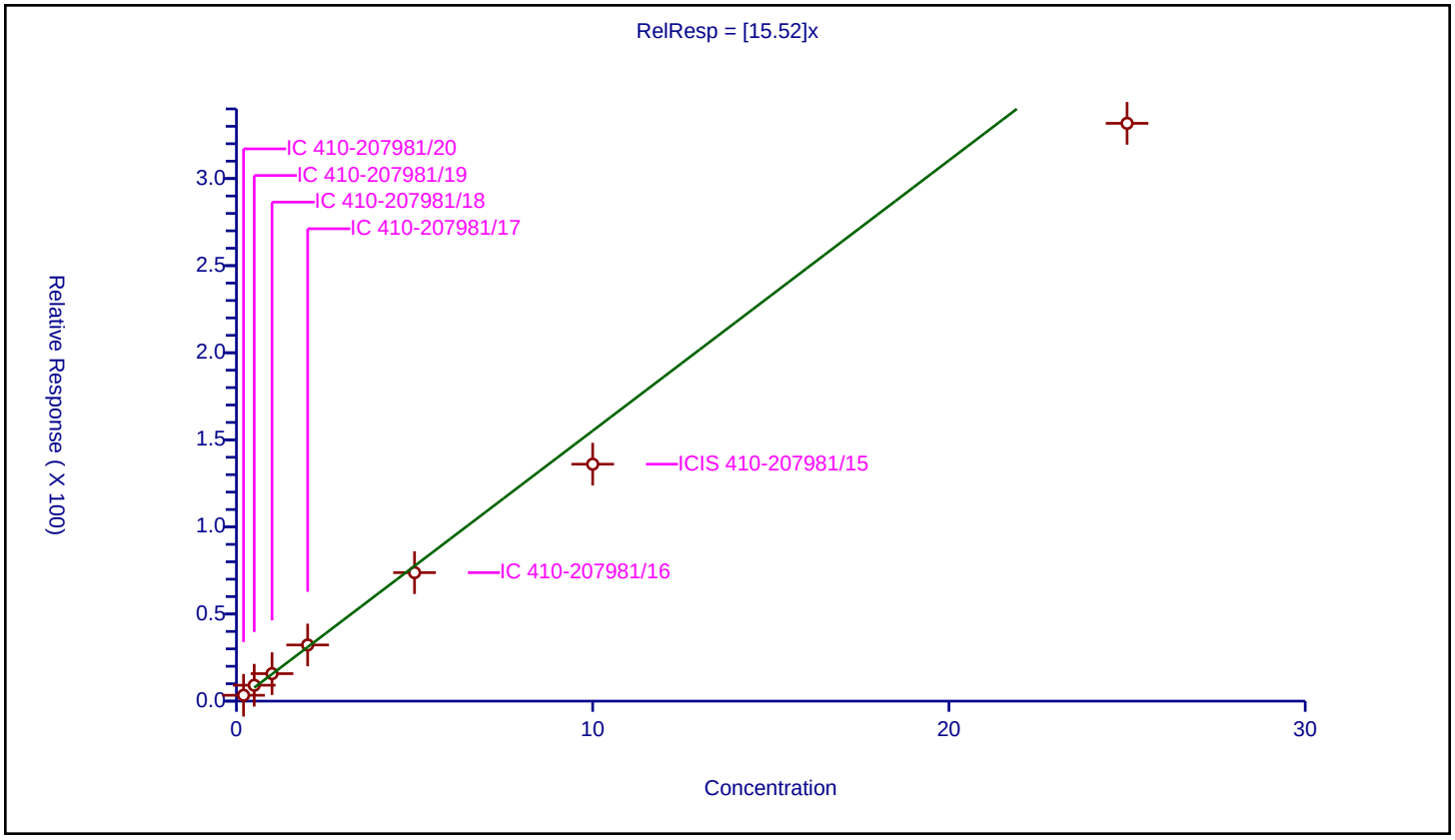
Curve Coefficients

Intercept:	0
Slope:	15.52

Error Coefficients

Standard Error:	250000
Relative Standard Error:	11.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	3.372027	50.0	81494.0	16.860137	Y
2	IC 410-207981/19	0.5	9.128129	50.0	66191.0	18.256258	Y
3	IC 410-207981/18	1.0	15.779964	50.0	72779.0	15.779964	Y
4	IC 410-207981/17	2.0	32.241203	50.0	62752.0	16.120602	Y
5	IC 410-207981/16	5.0	73.784103	50.0	77926.0	14.756821	Y
6	ICIS 410-207981/15	10.0	136.028306	50.0	82456.0	13.602831	Y
7	IC 410-207981/14	25.0	331.711786	50.0	83778.0	13.268471	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

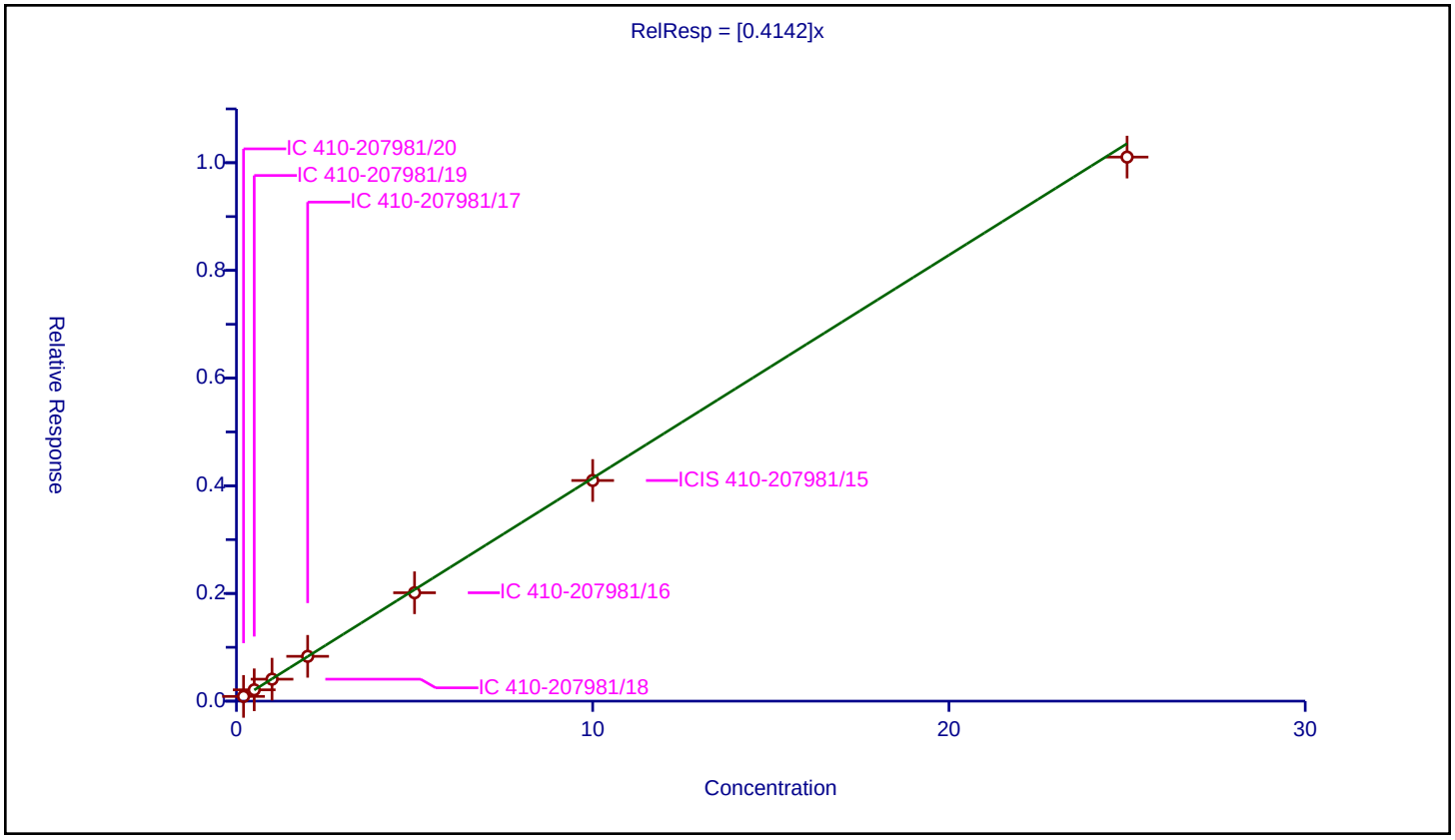
Curve Coefficients

Intercept:	0
Slope:	0.4142

Error Coefficients

Standard Error:	1040000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.087588	10.0	2249617.0	0.437941	Y
2	IC 410-207981/19	0.5	0.210693	10.0	2232533.0	0.421387	Y
3	IC 410-207981/18	1.0	0.407621	10.0	2262029.0	0.407621	Y
4	IC 410-207981/17	2.0	0.832055	10.0	2259237.0	0.416028	Y
5	IC 410-207981/16	5.0	2.013285	10.0	2285280.0	0.402657	Y
6	ICIS 410-207981/15	10.0	4.098238	10.0	2239692.0	0.409824	Y
7	IC 410-207981/14	25.0	10.104929	10.0	2294975.0	0.404197	Y



Calibration / Methylene Chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

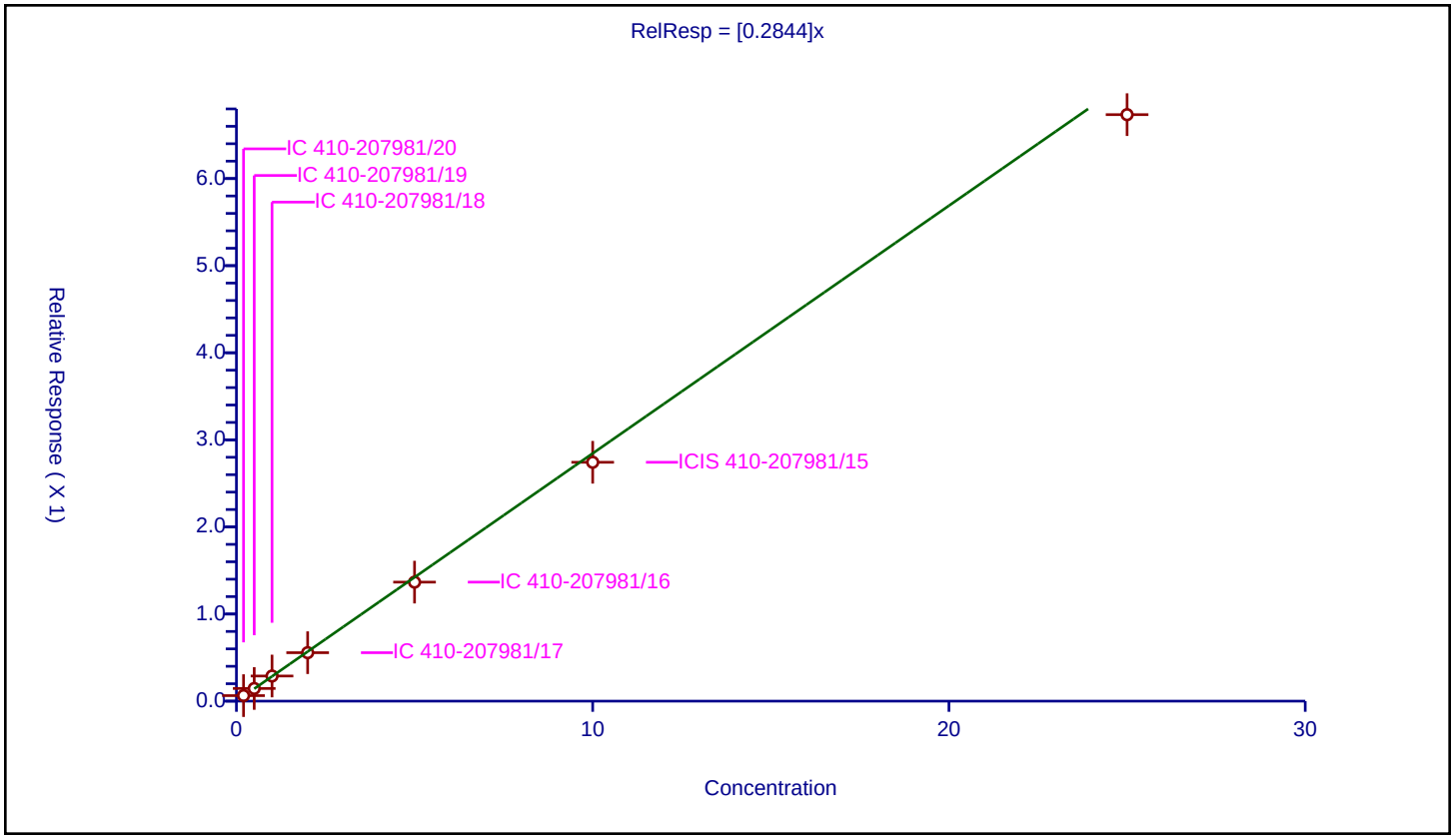
Curve Coefficients

Intercept:	0
Slope:	0.2844

Error Coefficients

Standard Error:	693000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.063353	10.0	2249617.0	0.316765	Y
2	IC 410-207981/19	0.5	0.145257	10.0	2232533.0	0.290513	Y
3	IC 410-207981/18	1.0	0.288577	10.0	2262029.0	0.288577	Y
4	IC 410-207981/17	2.0	0.556542	10.0	2259237.0	0.278271	Y
5	IC 410-207981/16	5.0	1.36638	10.0	2285280.0	0.273276	Y
6	ICIS 410-207981/15	10.0	2.742547	10.0	2239692.0	0.274255	Y
7	IC 410-207981/14	25.0	6.733934	10.0	2294975.0	0.269357	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

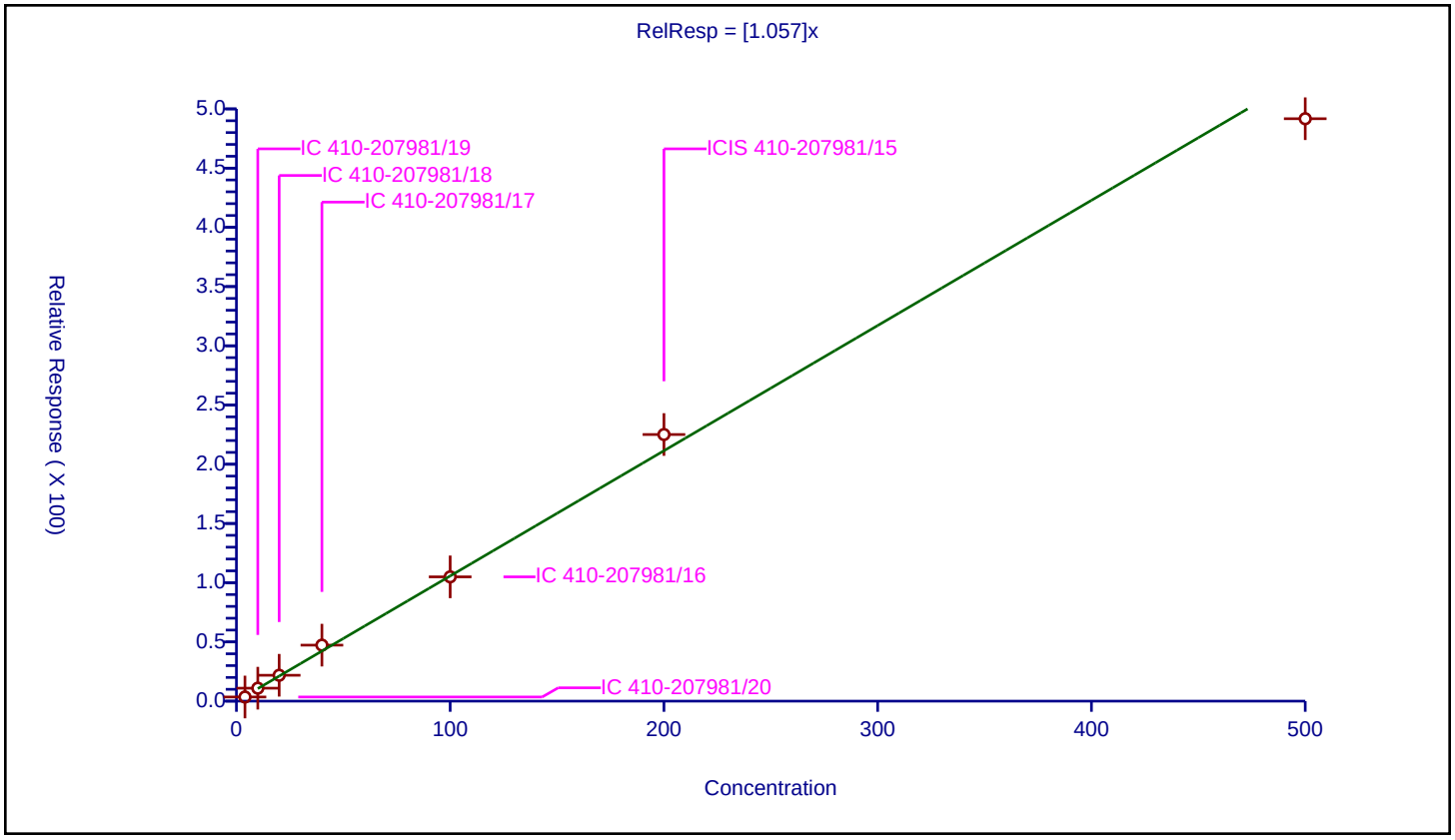
Curve Coefficients

Intercept:	0
Slope:	1.057

Error Coefficients

Standard Error:	376000
Relative Standard Error:	9.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	4.0	3.492282	50.0	81494.0	0.87307	Y
2	IC 410-207981/19	10.0	10.934266	50.0	66191.0	1.093427	Y
3	IC 410-207981/18	20.0	21.843526	50.0	72779.0	1.092176	Y
4	IC 410-207981/17	40.0	47.279768	50.0	62752.0	1.181994	Y
5	IC 410-207981/16	100.0	104.939943	50.0	77926.0	1.049399	Y
6	ICIS 410-207981/15	200.0	225.094596	50.0	82456.0	1.125473	Y
7	IC 410-207981/14	500.0	491.701282	50.0	83778.0	0.983403	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

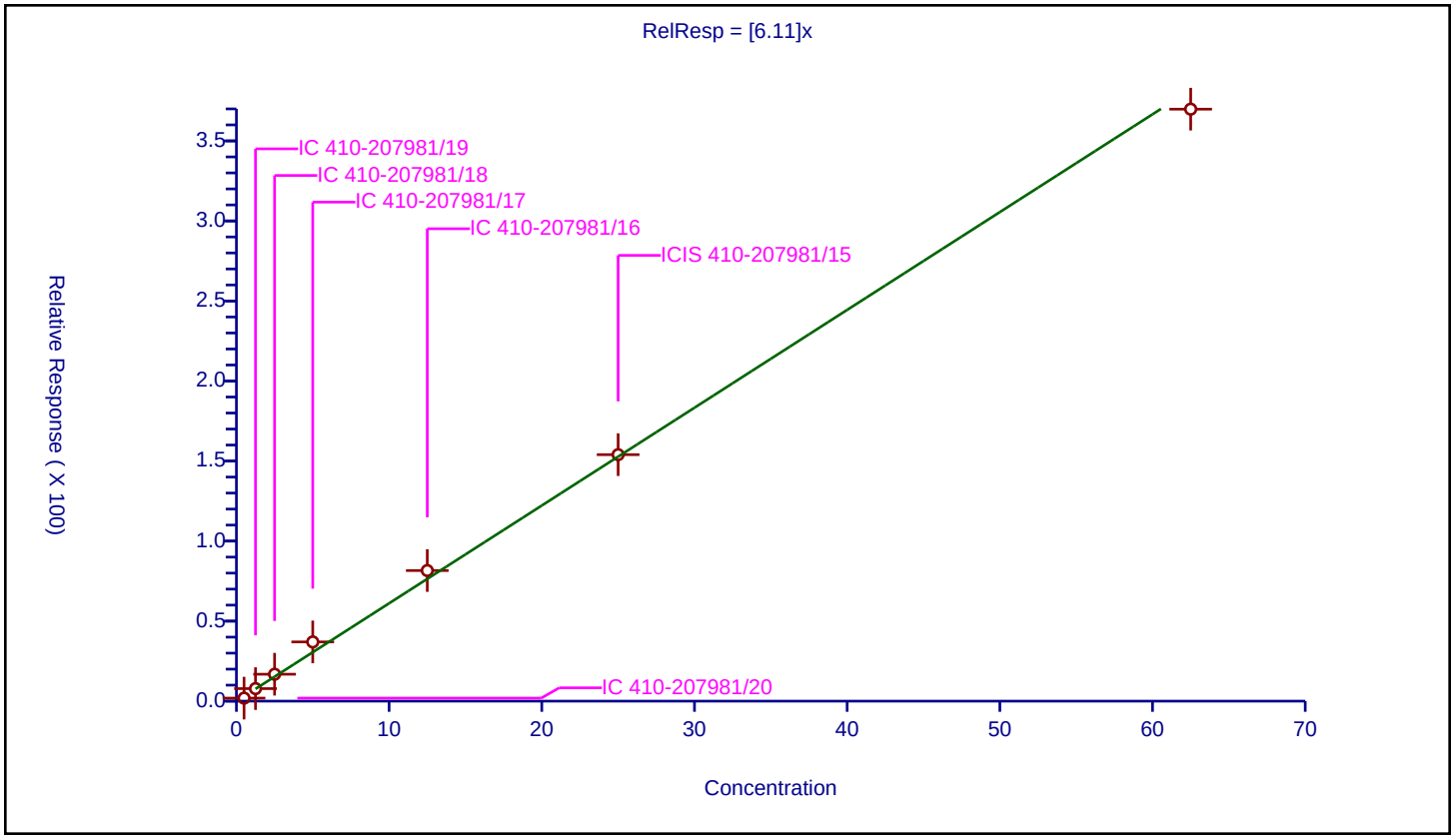
Curve Coefficients

Intercept:	0
Slope:	6.11

Error Coefficients

Standard Error:	279000
Relative Standard Error:	18.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.963

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.5	1.894004	50.0	81494.0	3.788009	Y
2	IC 410-207981/19	1.25	7.82206	50.0	66191.0	6.257648	Y
3	IC 410-207981/18	2.5	16.80842	50.0	72779.0	6.723368	Y
4	IC 410-207981/17	5.0	36.998024	50.0	62752.0	7.399605	Y
5	IC 410-207981/16	12.5	81.59536	50.0	77926.0	6.527629	Y
6	ICIS 410-207981/15	25.0	153.992432	50.0	82456.0	6.159697	Y
7	IC 410-207981/14	62.5	369.829788	50.0	83778.0	5.917277	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

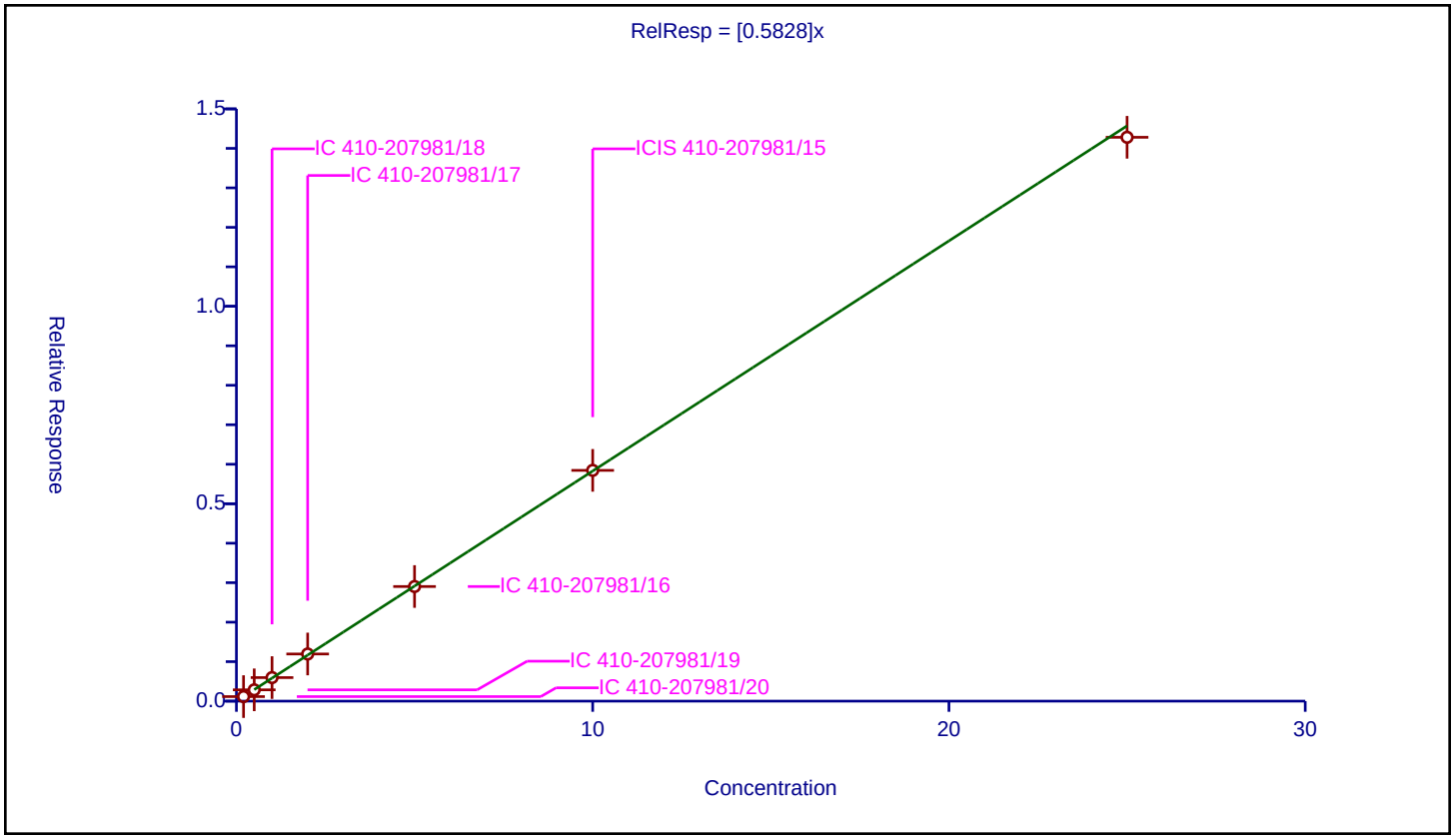
Curve Coefficients

Intercept:	0
Slope:	0.5828

Error Coefficients

Standard Error:	1470000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.115335	10.0	2249617.0	0.576676	Y
2	IC 410-207981/19	0.5	0.286446	10.0	2232533.0	0.572892	Y
3	IC 410-207981/18	1.0	0.596818	10.0	2262029.0	0.596818	Y
4	IC 410-207981/17	2.0	1.194501	10.0	2259237.0	0.59725	Y
5	IC 410-207981/16	5.0	2.902887	10.0	2285280.0	0.580577	Y
6	ICIS 410-207981/15	10.0	5.84471	10.0	2239692.0	0.584471	Y
7	IC 410-207981/14	25.0	14.280687	10.0	2294975.0	0.571227	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

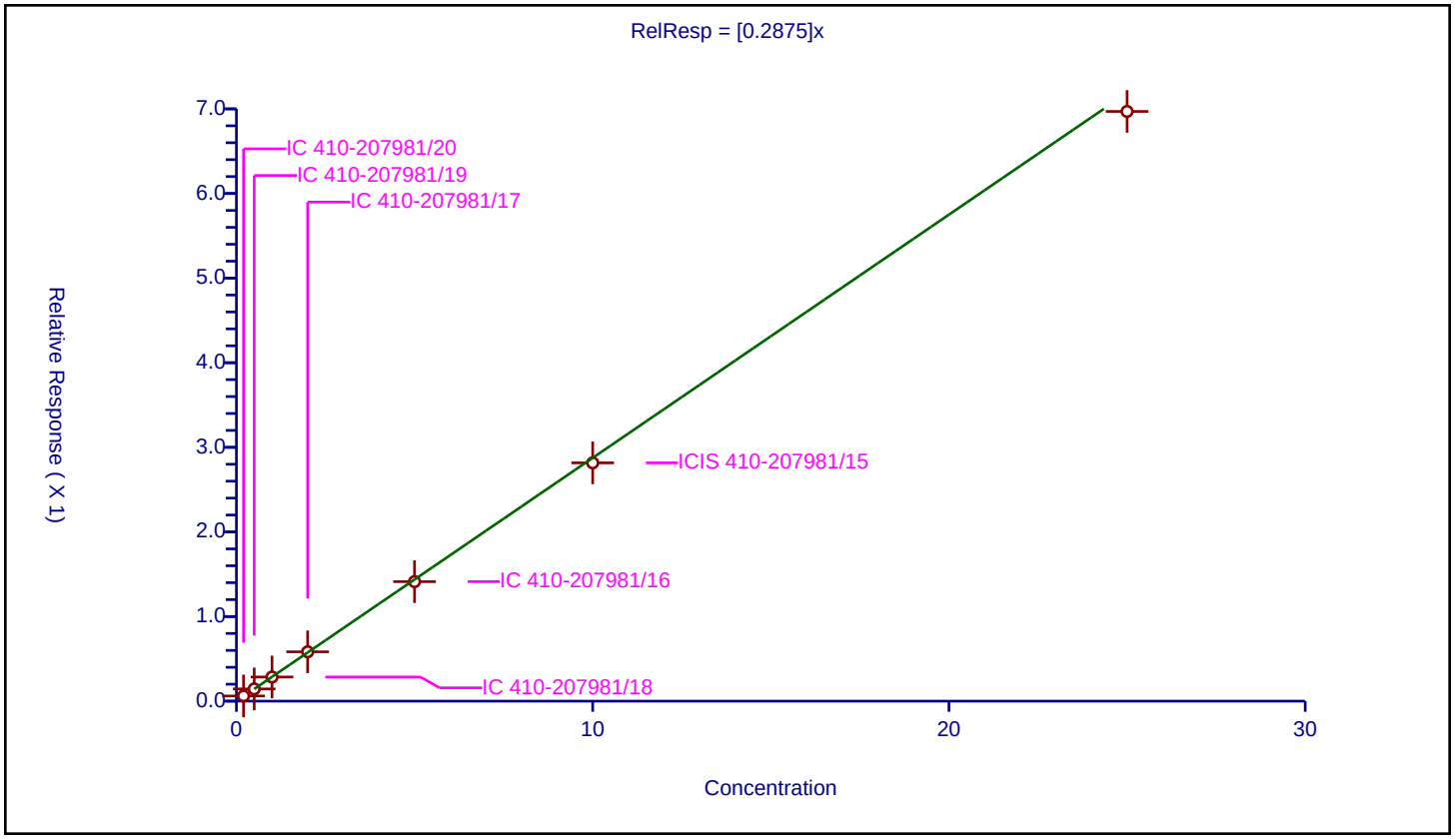
Curve Coefficients

Intercept:	0
Slope:	0.2875

Error Coefficients

Standard Error:	717000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.060815	10.0	2249617.0	0.304074	Y
2	IC 410-207981/19	0.5	0.144365	10.0	2232533.0	0.28873	Y
3	IC 410-207981/18	1.0	0.285306	10.0	2262029.0	0.285306	Y
4	IC 410-207981/17	2.0	0.58317	10.0	2259237.0	0.291585	Y
5	IC 410-207981/16	5.0	1.412265	10.0	2285280.0	0.282453	Y
6	ICIS 410-207981/15	10.0	2.816231	10.0	2239692.0	0.281623	Y
7	IC 410-207981/14	25.0	6.969631	10.0	2294975.0	0.278785	Y



Calibration / Hexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

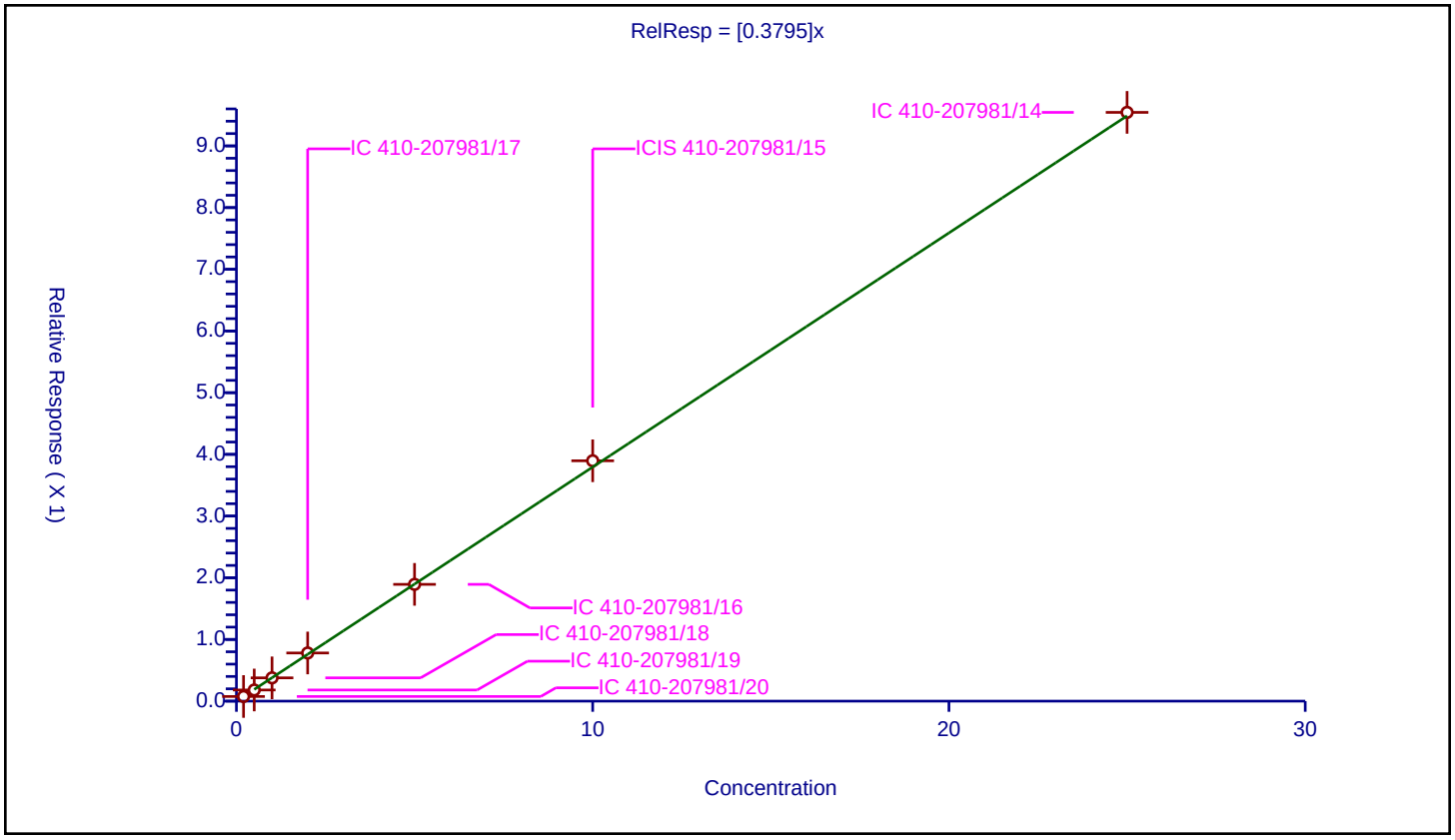
Curve Coefficients

Intercept:	0
Slope:	0.3795

Error Coefficients

Standard Error:	982000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.075537	10.0	2249617.0	0.377687	Y
2	IC 410-207981/19	0.5	0.180468	10.0	2232533.0	0.360935	Y
3	IC 410-207981/18	1.0	0.377484	10.0	2262029.0	0.377484	Y
4	IC 410-207981/17	2.0	0.780737	10.0	2259237.0	0.390369	Y
5	IC 410-207981/16	5.0	1.892731	10.0	2285280.0	0.378546	Y
6	ICIS 410-207981/15	10.0	3.896237	10.0	2239692.0	0.389624	Y
7	IC 410-207981/14	25.0	9.543524	10.0	2294975.0	0.381741	Y



Calibration / 1,1-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

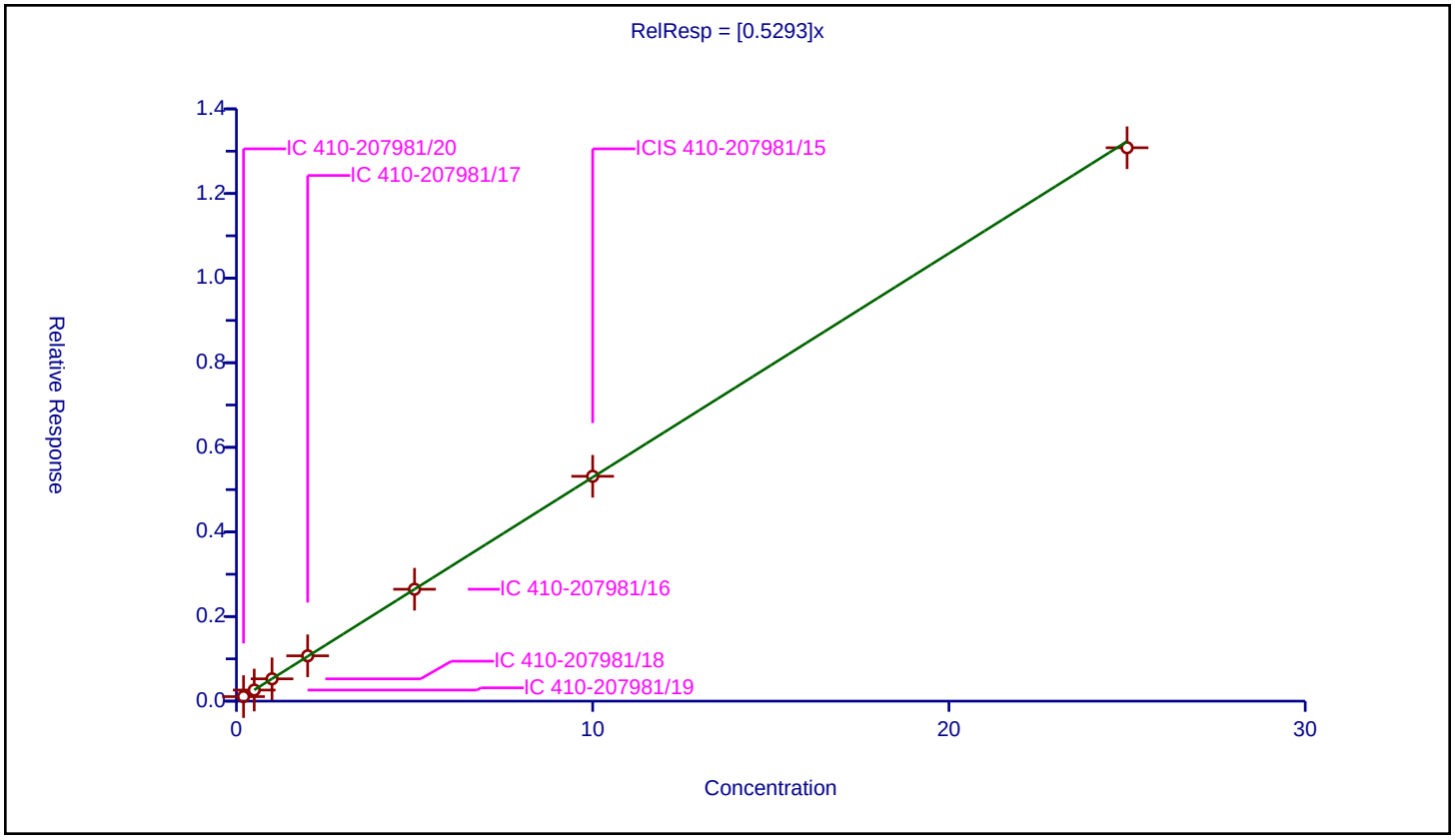
Curve Coefficients

Intercept:	0
Slope:	0.5293

Error Coefficients

Standard Error:	1350000
Relative Standard Error:	0.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.106627	10.0	2249617.0	0.533135	Y
2	IC 410-207981/19	0.5	0.262424	10.0	2232533.0	0.524848	Y
3	IC 410-207981/18	1.0	0.527442	10.0	2262029.0	0.527442	Y
4	IC 410-207981/17	2.0	1.071003	10.0	2259237.0	0.535502	Y
5	IC 410-207981/16	5.0	2.645496	10.0	2285280.0	0.529099	Y
6	ICIS 410-207981/15	10.0	5.315164	10.0	2239692.0	0.531516	Y
7	IC 410-207981/14	25.0	13.08158	10.0	2294975.0	0.523263	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

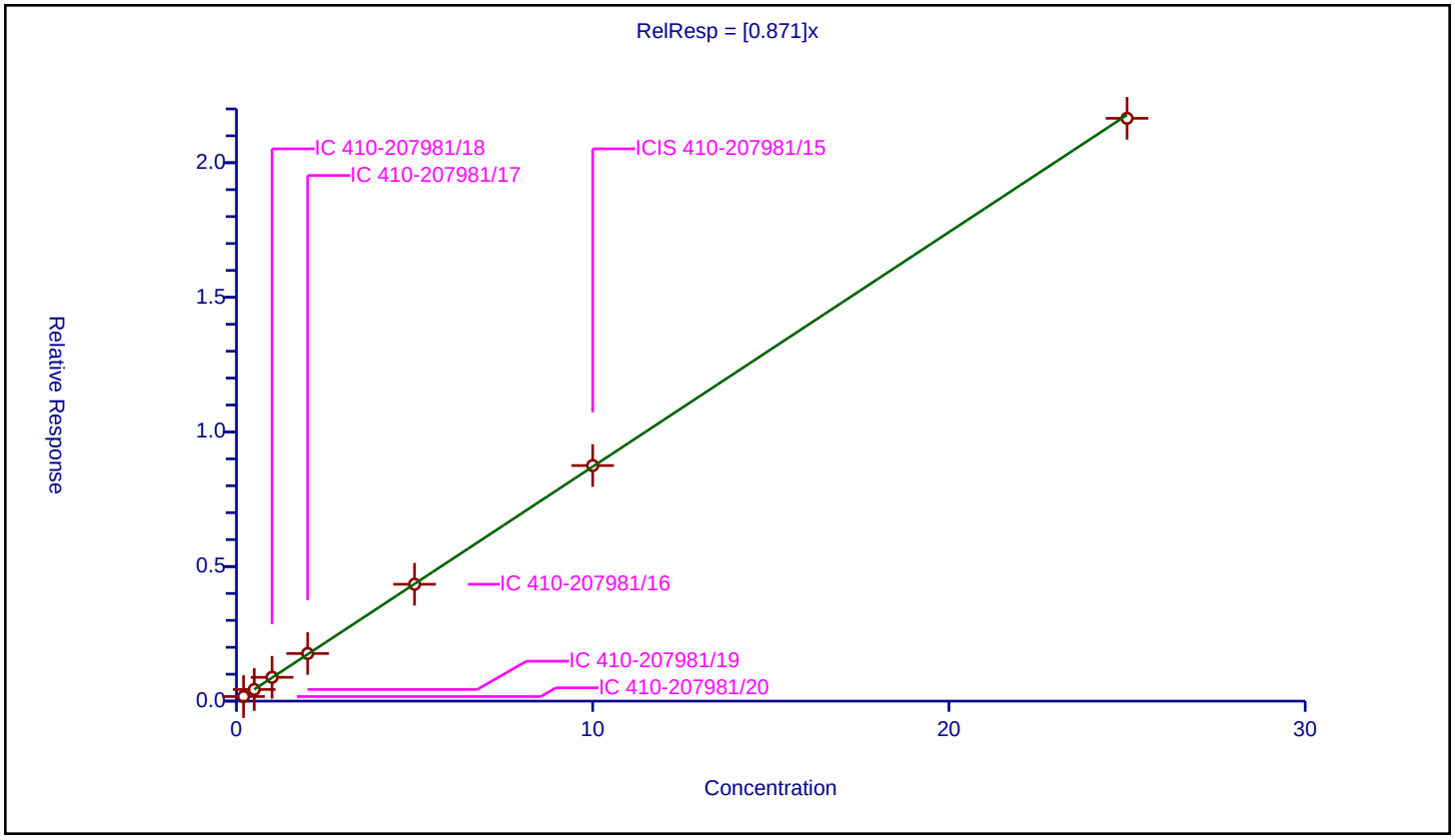
Curve Coefficients

Intercept:	0
Slope:	0.871

Error Coefficients

Standard Error:	2230000
Relative Standard Error:	1.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.170616	10.0	2249617.0	0.853079	Y
2	IC 410-207981/19	0.5	0.432612	10.0	2232533.0	0.865223	Y
3	IC 410-207981/18	1.0	0.884803	10.0	2262029.0	0.884803	Y
4	IC 410-207981/17	2.0	1.769407	10.0	2259237.0	0.884704	Y
5	IC 410-207981/16	5.0	4.341766	10.0	2285280.0	0.868353	Y
6	ICIS 410-207981/15	10.0	8.751391	10.0	2239692.0	0.875139	Y
7	IC 410-207981/14	25.0	21.650767	10.0	2294975.0	0.866031	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

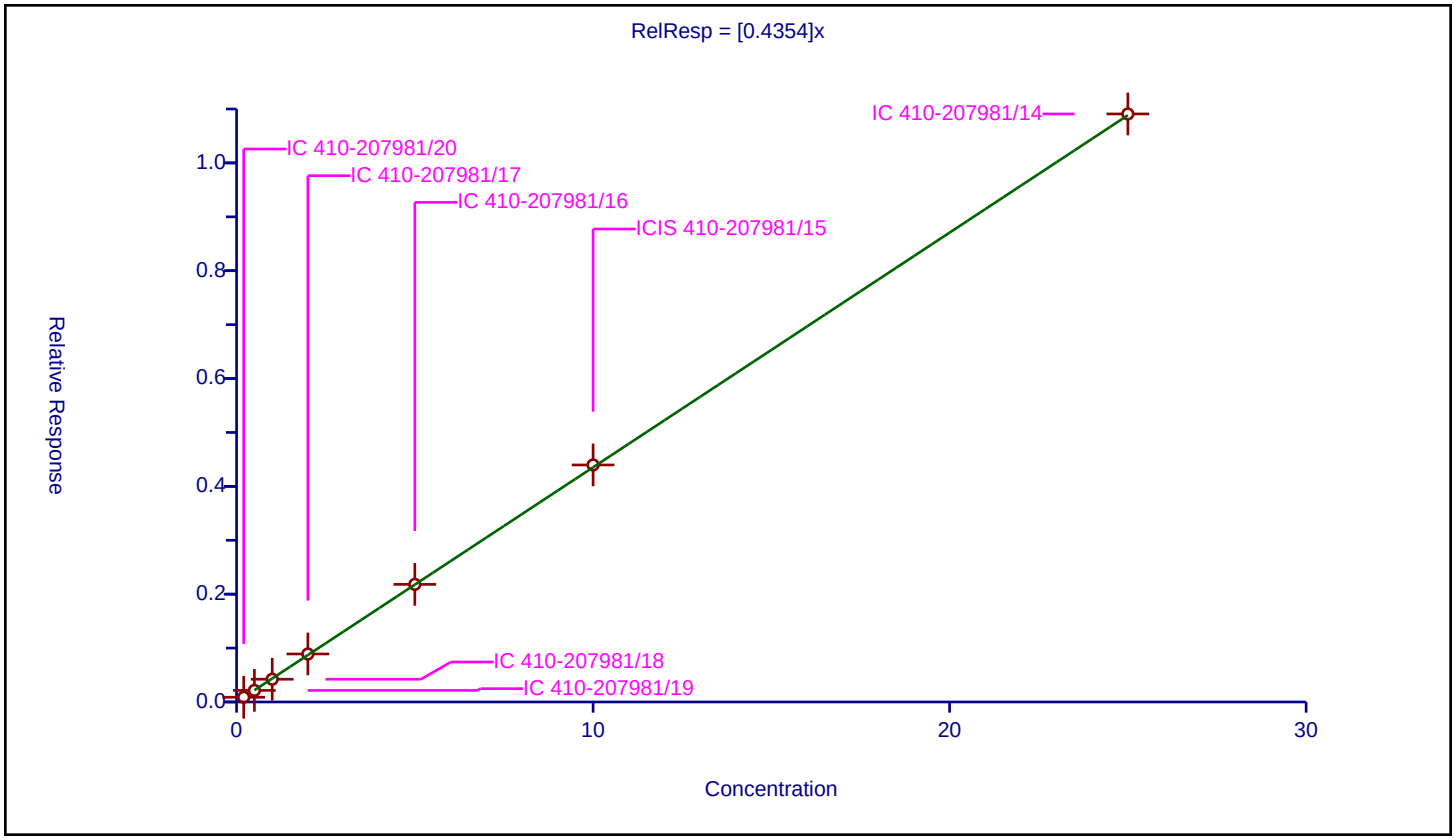
Curve Coefficients

Intercept:	0
Slope:	0.4354

Error Coefficients

Standard Error:	1120000
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.087628	10.0	2249617.0	0.438141	Y
2	IC 410-207981/19	0.5	0.214765	10.0	2232533.0	0.42953	Y
3	IC 410-207981/18	1.0	0.422223	10.0	2262029.0	0.422223	Y
4	IC 410-207981/17	2.0	0.89054	10.0	2259237.0	0.44527	Y
5	IC 410-207981/16	5.0	2.18186	10.0	2285280.0	0.436372	Y
6	ICIS 410-207981/15	10.0	4.396828	10.0	2239692.0	0.439683	Y
7	IC 410-207981/14	25.0	10.908515	10.0	2294975.0	0.436341	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

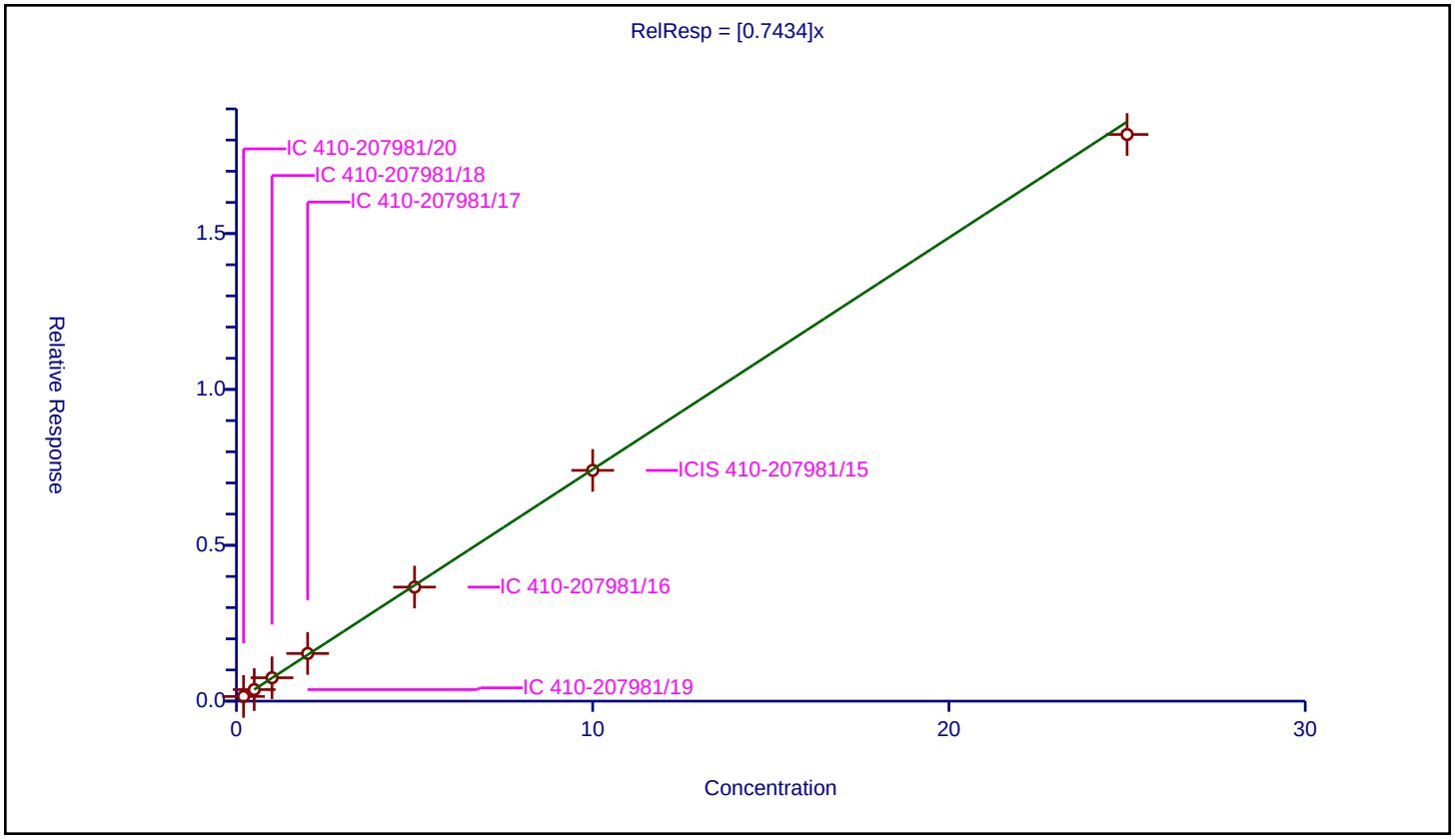
Curve Coefficients

Intercept:	0
Slope:	0.7434

Error Coefficients

Standard Error:	1870000
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.149617	10.0	2249617.0	0.748083	Y
2	IC 410-207981/19	0.5	0.370736	10.0	2232533.0	0.741472	Y
3	IC 410-207981/18	1.0	0.750366	10.0	2262029.0	0.750366	Y
4	IC 410-207981/17	2.0	1.529419	10.0	2259237.0	0.76471	Y
5	IC 410-207981/16	5.0	3.65942	10.0	2285280.0	0.731884	Y
6	ICIS 410-207981/15	10.0	7.403451	10.0	2239692.0	0.740345	Y
7	IC 410-207981/14	25.0	18.179305	10.0	2294975.0	0.727172	Y



Calibration / 2-Butanone (MEK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

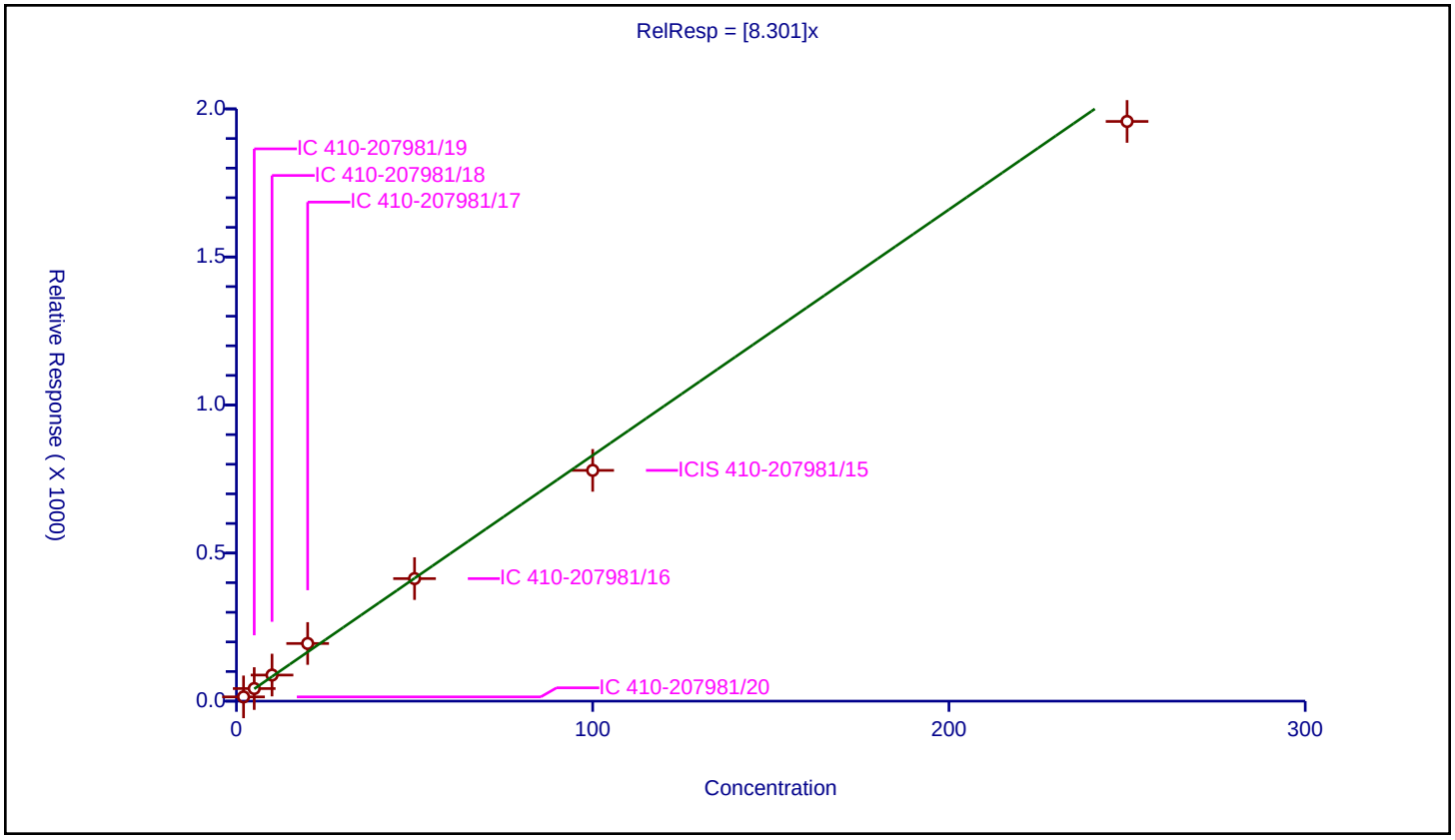
Curve Coefficients

Intercept:	0
Slope:	8.301

Error Coefficients

Standard Error:	1470000
Relative Standard Error:	10.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	14.316391	50.0	81494.0	7.158196	Y
2	IC 410-207981/19	5.0	42.512577	50.0	66191.0	8.502515	Y
3	IC 410-207981/18	10.0	88.129818	50.0	72779.0	8.812982	Y
4	IC 410-207981/17	20.0	194.638418	50.0	62752.0	9.731921	Y
5	IC 410-207981/16	50.0	413.745733	50.0	77926.0	8.274915	Y
6	ICIS 410-207981/15	100.0	779.293199	50.0	82456.0	7.792932	Y
7	IC 410-207981/14	250.0	1957.642818	50.0	83778.0	7.830571	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

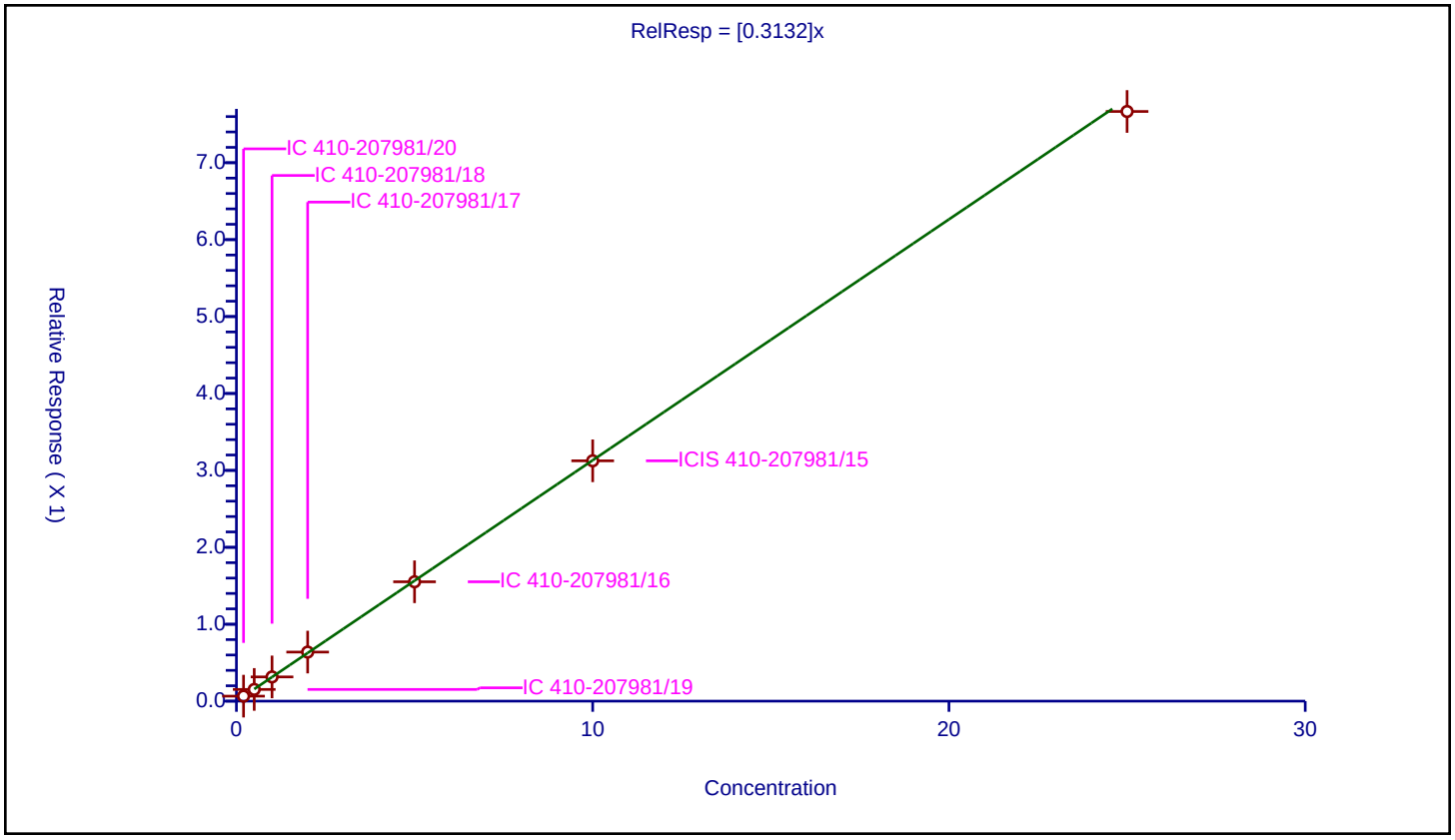
Curve Coefficients

Intercept:	0
Slope:	0.3132

Error Coefficients

Standard Error:	789000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.064944	10.0	2249617.0	0.324722	Y
2	IC 410-207981/19	0.5	0.152172	10.0	2232533.0	0.304345	Y
3	IC 410-207981/18	1.0	0.314788	10.0	2262029.0	0.314788	Y
4	IC 410-207981/17	2.0	0.637932	10.0	2259237.0	0.318966	Y
5	IC 410-207981/16	5.0	1.551692	10.0	2285280.0	0.310338	Y
6	ICIS 410-207981/15	10.0	3.124461	10.0	2239692.0	0.312446	Y
7	IC 410-207981/14	25.0	7.666332	10.0	2294975.0	0.306653	Y



Calibration / 2,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

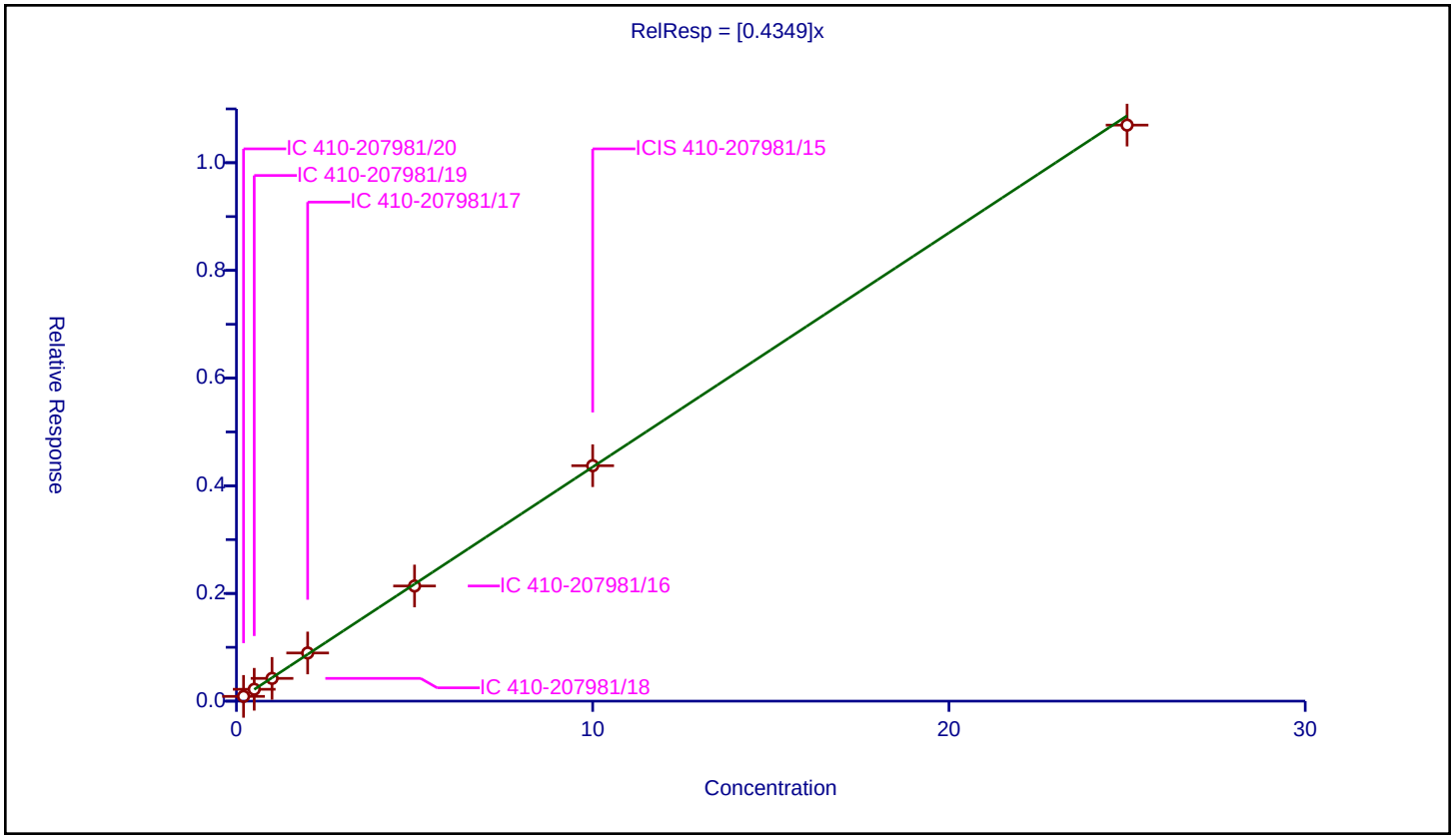
Curve Coefficients

Intercept:	0
Slope:	0.4349

Error Coefficients

Standard Error:	1100000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.088193	10.0	2249617.0	0.440964	Y
2	IC 410-207981/19	0.5	0.220243	10.0	2232533.0	0.440486	Y
3	IC 410-207981/18	1.0	0.422647	10.0	2262029.0	0.422647	Y
4	IC 410-207981/17	2.0	0.894497	10.0	2259237.0	0.447248	Y
5	IC 410-207981/16	5.0	2.138631	10.0	2285280.0	0.427726	Y
6	ICIS 410-207981/15	10.0	4.373075	10.0	2239692.0	0.437307	Y
7	IC 410-207981/14	25.0	10.699324	10.0	2294975.0	0.427973	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

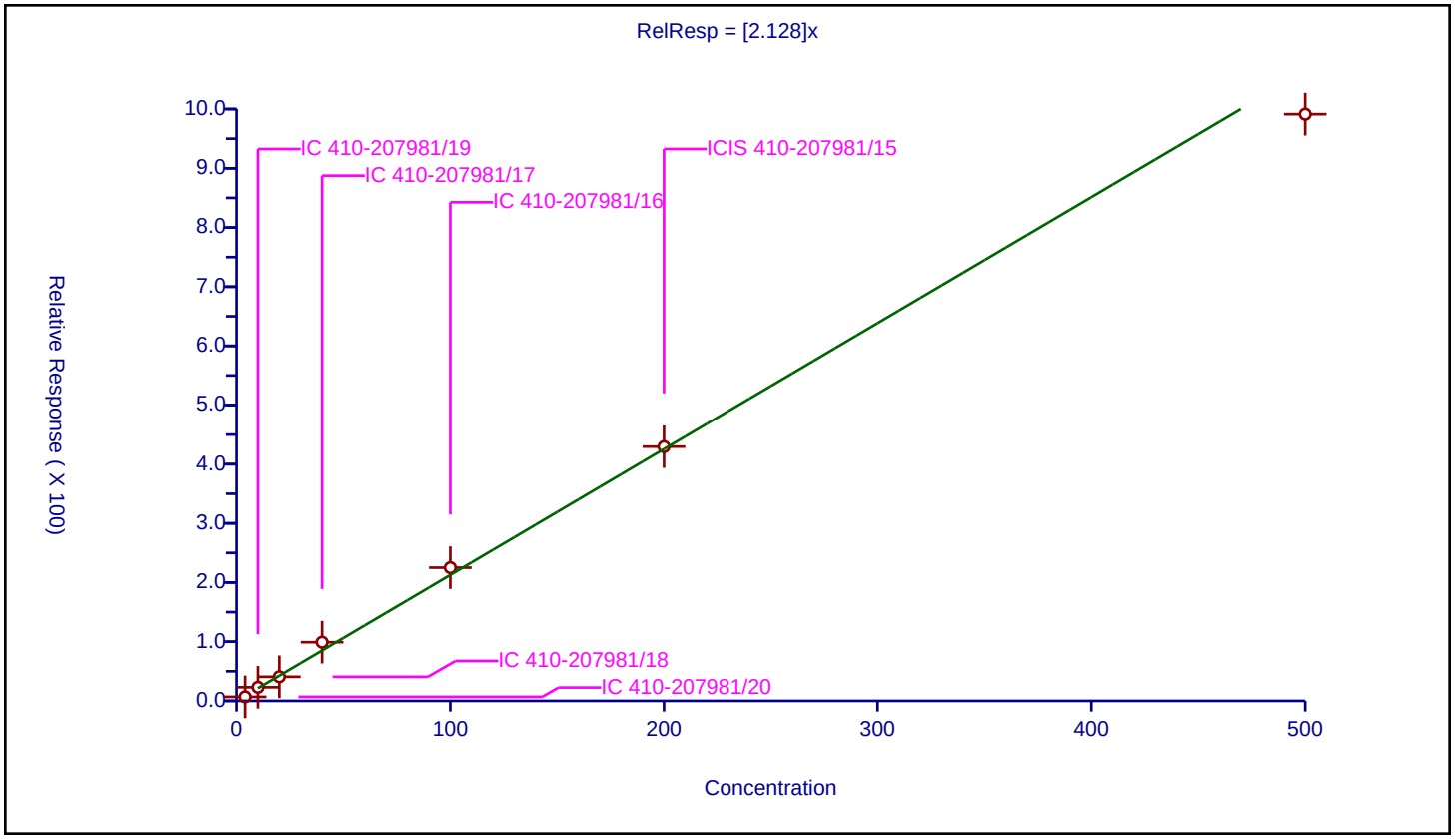
Curve Coefficients

Intercept:	0
Slope:	2.128

Error Coefficients

Standard Error:	753000
Relative Standard Error:	11.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	4.0	6.812158	50.0	81494.0	1.703039	Y
2	IC 410-207981/19	10.0	22.977444	50.0	66191.0	2.297744	Y
3	IC 410-207981/18	20.0	40.686187	50.0	72779.0	2.034309	Y
4	IC 410-207981/17	40.0	99.168154	50.0	62752.0	2.479204	Y
5	IC 410-207981/16	100.0	225.150142	50.0	77926.0	2.251501	Y
6	ICIS 410-207981/15	200.0	429.691593	50.0	82456.0	2.148458	Y
7	IC 410-207981/14	500.0	991.313949	50.0	83778.0	1.982628	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

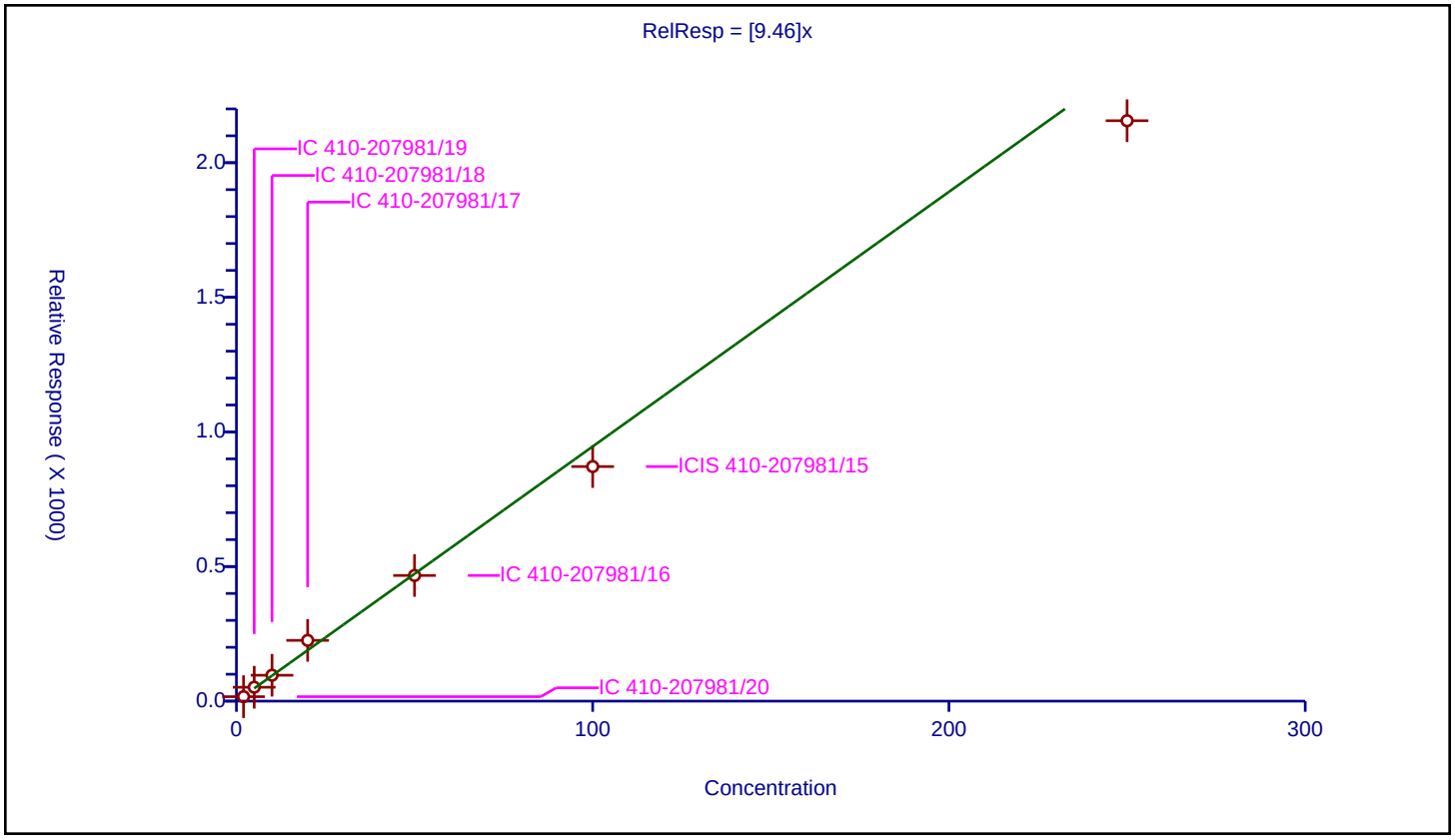
Curve Coefficients

Intercept:	0
Slope:	9.46

Error Coefficients

Standard Error:	1620000
Relative Standard Error:	11.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	16.617788	50.0	81494.0	8.308894	Y
2	IC 410-207981/19	5.0	51.630131	50.0	66191.0	10.326026	Y
3	IC 410-207981/18	10.0	96.224873	50.0	72779.0	9.622487	Y
4	IC 410-207981/17	20.0	225.713921	50.0	62752.0	11.285696	Y
5	IC 410-207981/16	50.0	466.792213	50.0	77926.0	9.335844	Y
6	ICIS 410-207981/15	100.0	871.429005	50.0	82456.0	8.71429	Y
7	IC 410-207981/14	250.0	2156.074984	50.0	83778.0	8.6243	Y



Calibration / Chlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

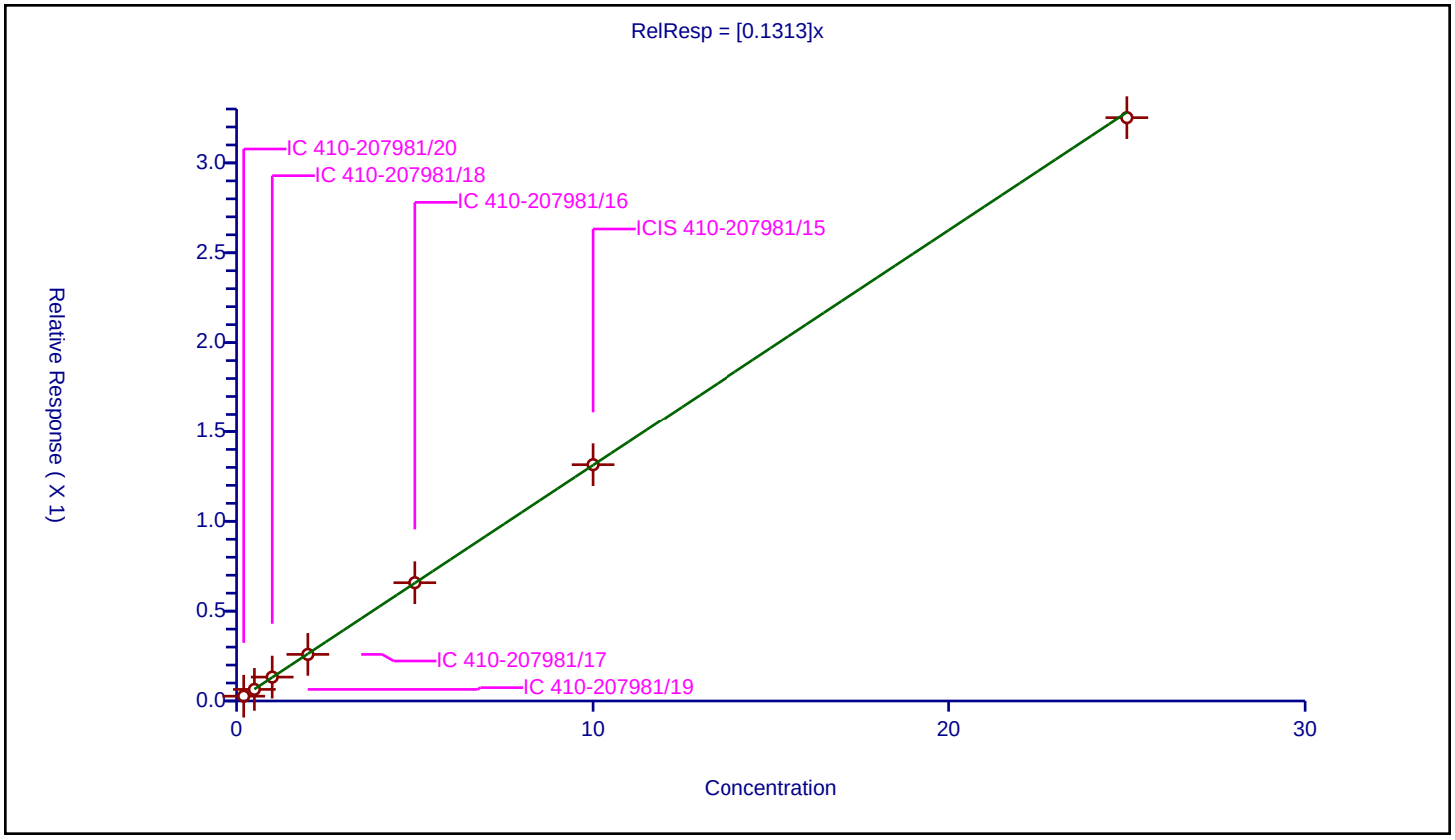
Curve Coefficients

Intercept:	0
Slope:	0.1313

Error Coefficients

Standard Error:	334000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.026773	10.0	2249617.0	0.133867	Y
2	IC 410-207981/19	0.5	0.064487	10.0	2232533.0	0.128975	Y
3	IC 410-207981/18	1.0	0.133115	10.0	2262029.0	0.133115	Y
4	IC 410-207981/17	2.0	0.259331	10.0	2259237.0	0.129665	Y
5	IC 410-207981/16	5.0	0.658208	10.0	2285280.0	0.131642	Y
6	ICIS 410-207981/15	10.0	1.315038	10.0	2239692.0	0.131504	Y
7	IC 410-207981/14	25.0	3.251953	10.0	2294975.0	0.130078	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

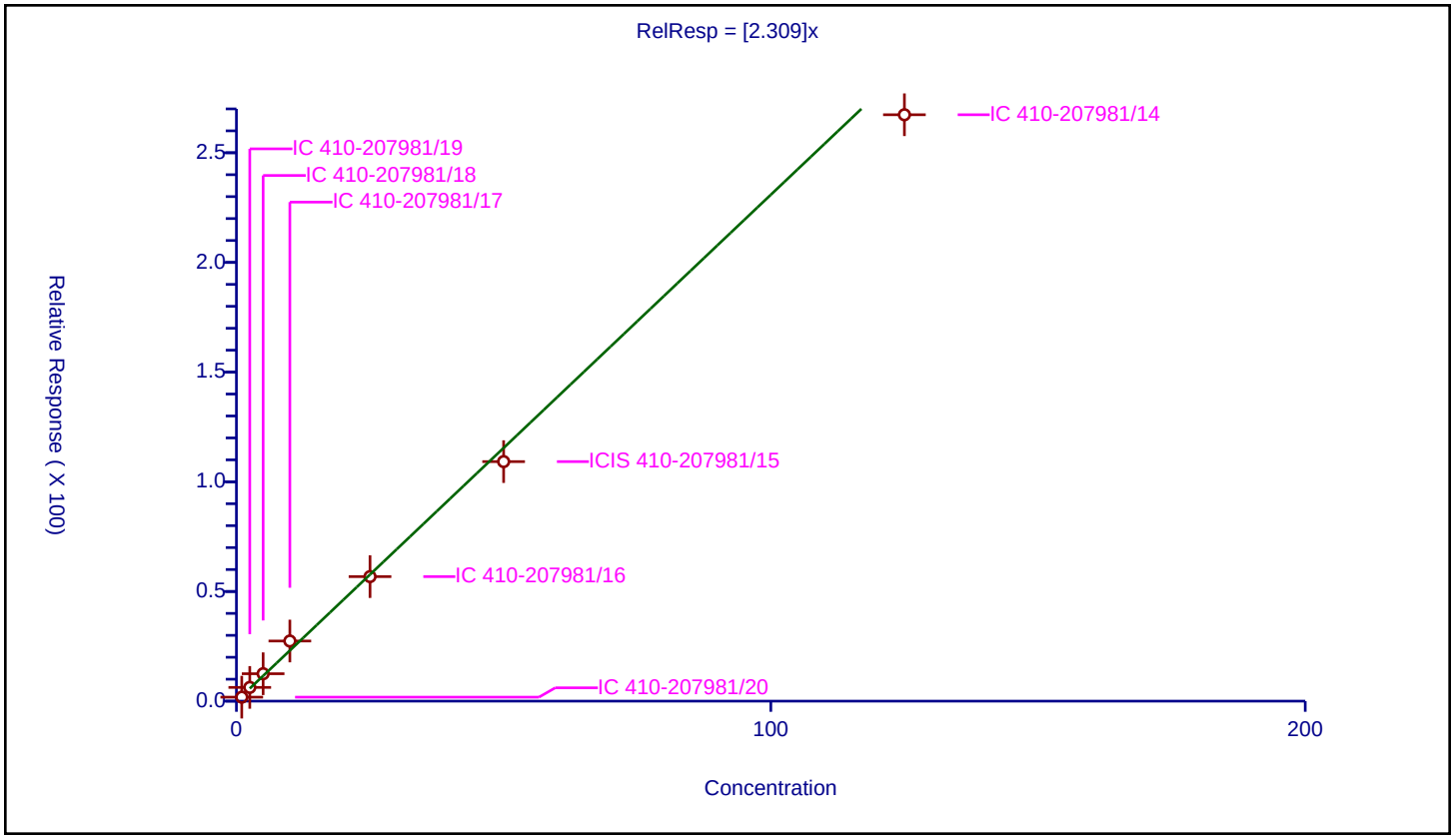
Curve Coefficients

Intercept:	0
Slope:	2.309

Error Coefficients

Standard Error:	201000
Relative Standard Error:	13.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	1.0	1.818539	50.0	81494.0	1.818539	Y
2	IC 410-207981/19	2.5	6.265202	50.0	66191.0	2.506081	Y
3	IC 410-207981/18	5.0	12.504294	50.0	72779.0	2.500859	Y
4	IC 410-207981/17	10.0	27.415062	50.0	62752.0	2.741506	Y
5	IC 410-207981/16	25.0	56.775017	50.0	77926.0	2.271001	Y
6	ICIS 410-207981/15	50.0	109.200665	50.0	82456.0	2.184013	Y
7	IC 410-207981/14	125.0	267.333906	50.0	83778.0	2.138671	Y



Calibration / Chloroform

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

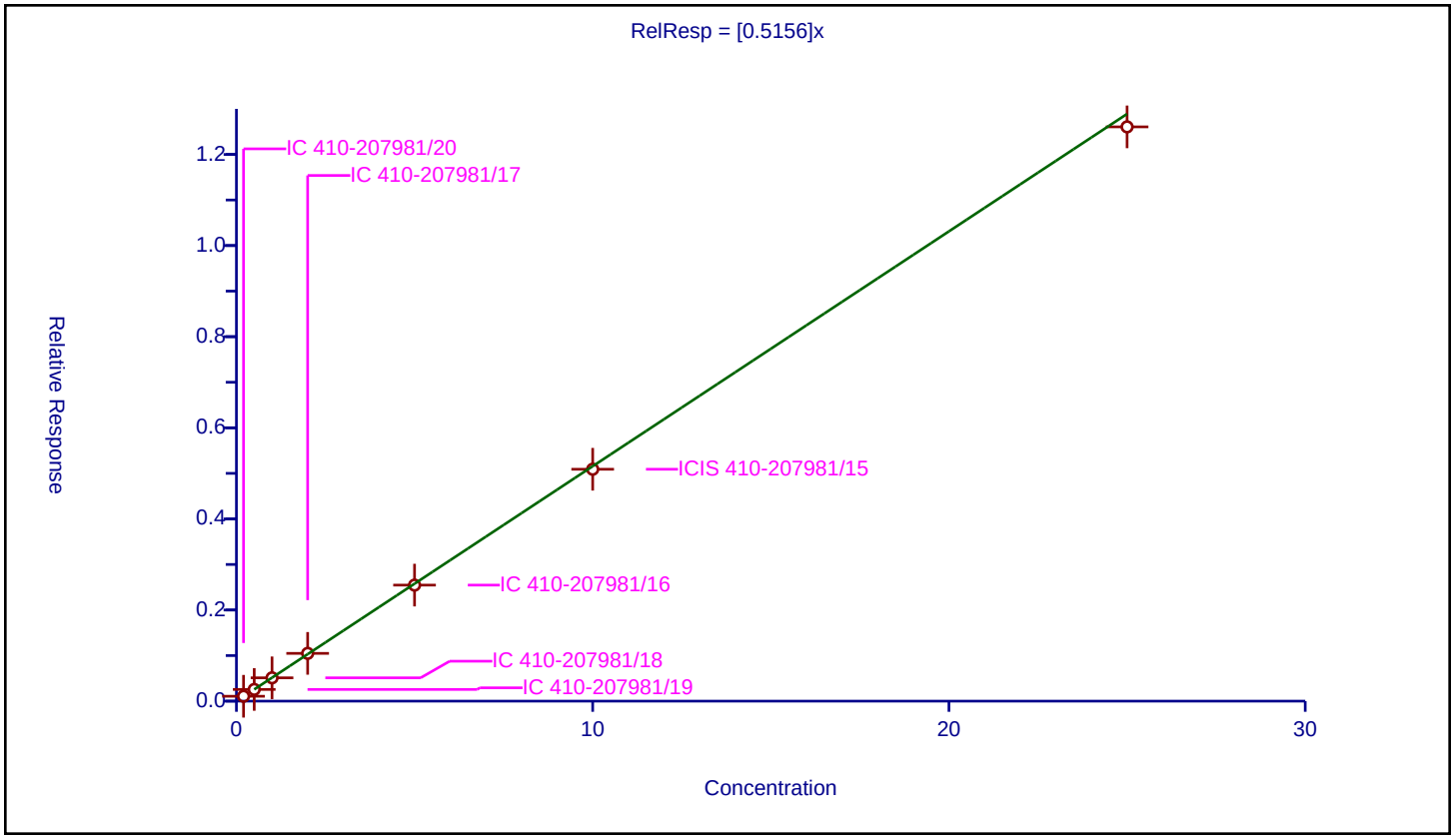
Curve Coefficients

Intercept:	0
Slope:	0.5156

Error Coefficients

Standard Error:	1300000
Relative Standard Error:	2.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.107245	10.0	2249617.0	0.536225	Y
2	IC 410-207981/19	0.5	0.257129	10.0	2232533.0	0.514259	Y
3	IC 410-207981/18	1.0	0.511718	10.0	2262029.0	0.511718	Y
4	IC 410-207981/17	2.0	1.048633	10.0	2259237.0	0.524316	Y
5	IC 410-207981/16	5.0	2.546839	10.0	2285280.0	0.509368	Y
6	ICIS 410-207981/15	10.0	5.090133	10.0	2239692.0	0.509013	Y
7	IC 410-207981/14	25.0	12.605292	10.0	2294975.0	0.504212	Y



Calibration / Dibromofluoromethane (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

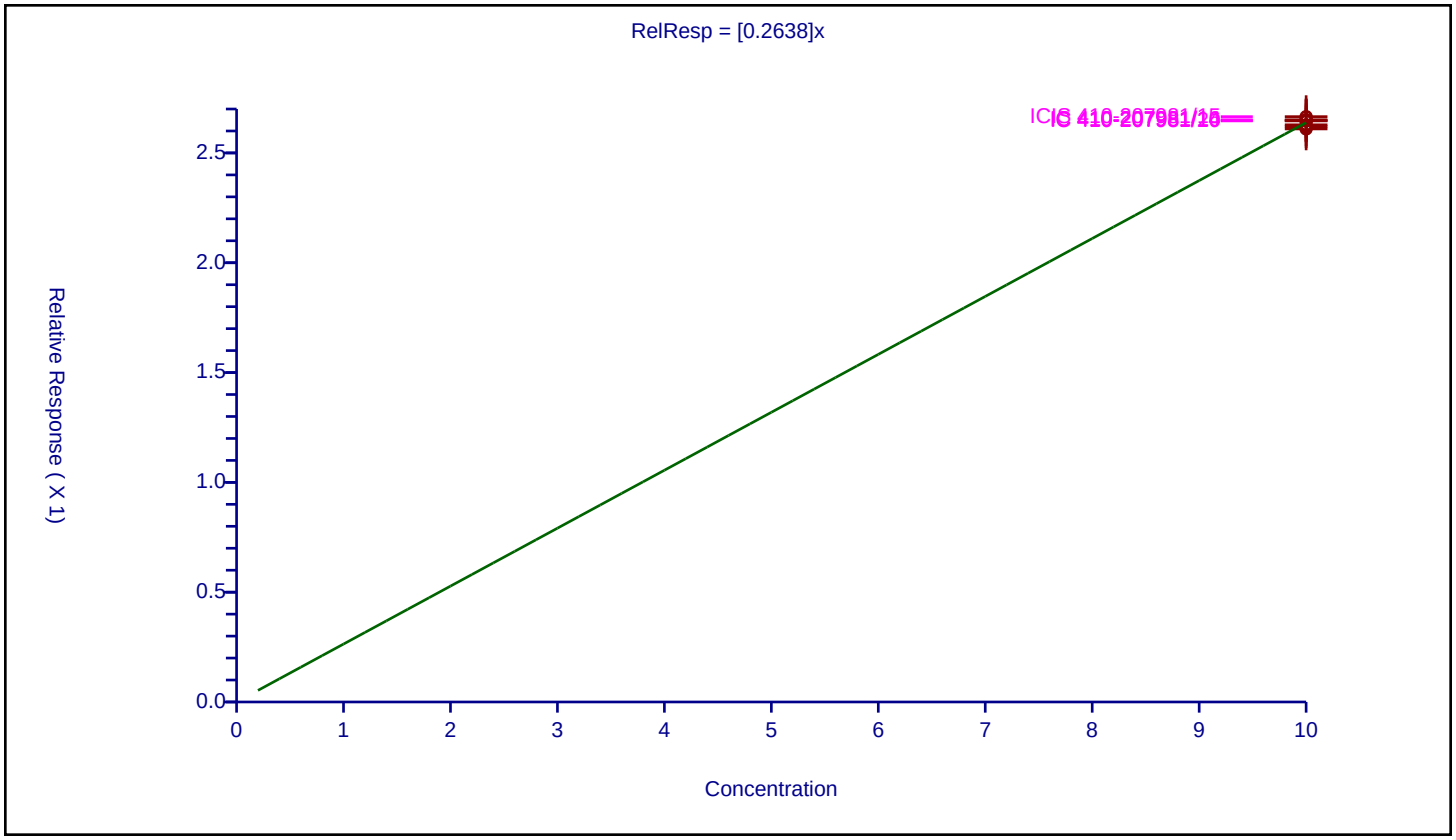
Curve Coefficients

Intercept:	0
Slope:	0.2638

Error Coefficients

Standard Error:	644000
Relative Standard Error:	0.7
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/14	10.0	2.647258	10.0	2294975.0	0.264726	Y
2	ICIS 410-207981/15	10.0	2.665255	10.0	2239692.0	0.266525	Y
3	IC 410-207981/16	10.0	2.651137	10.0	2285280.0	0.265114	Y
4	IC 410-207981/17	10.0	2.62814	10.0	2259237.0	0.262814	Y
5	IC 410-207981/18	10.0	2.619347	10.0	2262029.0	0.261935	Y
6	IC 410-207981/19	10.0	2.60926	10.0	2232533.0	0.260926	Y
7	IC 410-207981/20	10.0	2.645833	10.0	2249617.0	0.264583	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

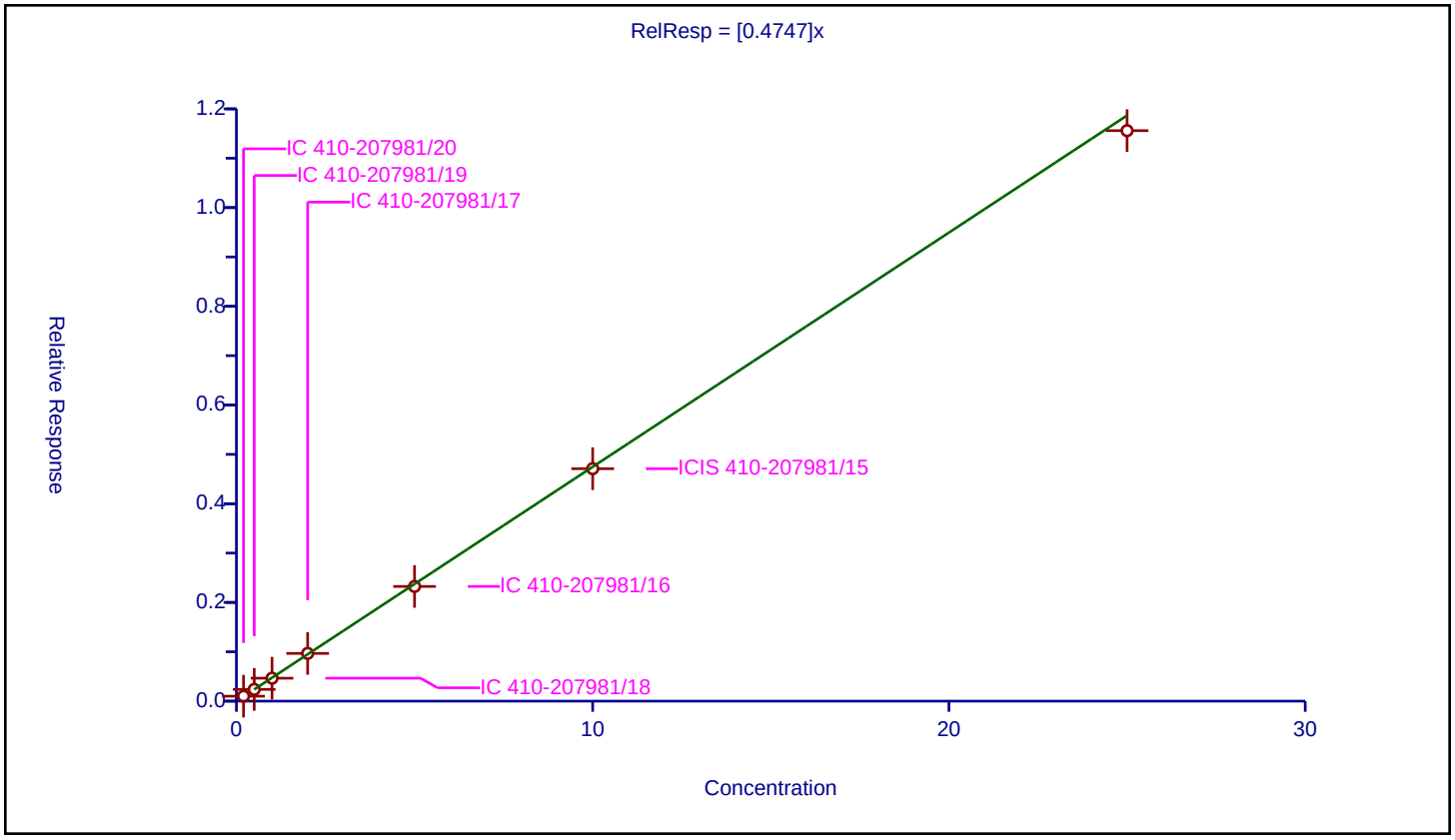
Curve Coefficients

Intercept:	0
Slope:	0.4747

Error Coefficients

Standard Error:	1190000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.099839	10.0	2249617.0	0.499196	Y
2	IC 410-207981/19	0.5	0.238465	10.0	2232533.0	0.476929	Y
3	IC 410-207981/18	1.0	0.465021	10.0	2262029.0	0.465021	Y
4	IC 410-207981/17	2.0	0.967114	10.0	2259237.0	0.483557	Y
5	IC 410-207981/16	5.0	2.324013	10.0	2285280.0	0.464803	Y
6	ICIS 410-207981/15	10.0	4.709991	10.0	2239692.0	0.470999	Y
7	IC 410-207981/14	25.0	11.558915	10.0	2294975.0	0.462357	Y



Calibration / Cyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

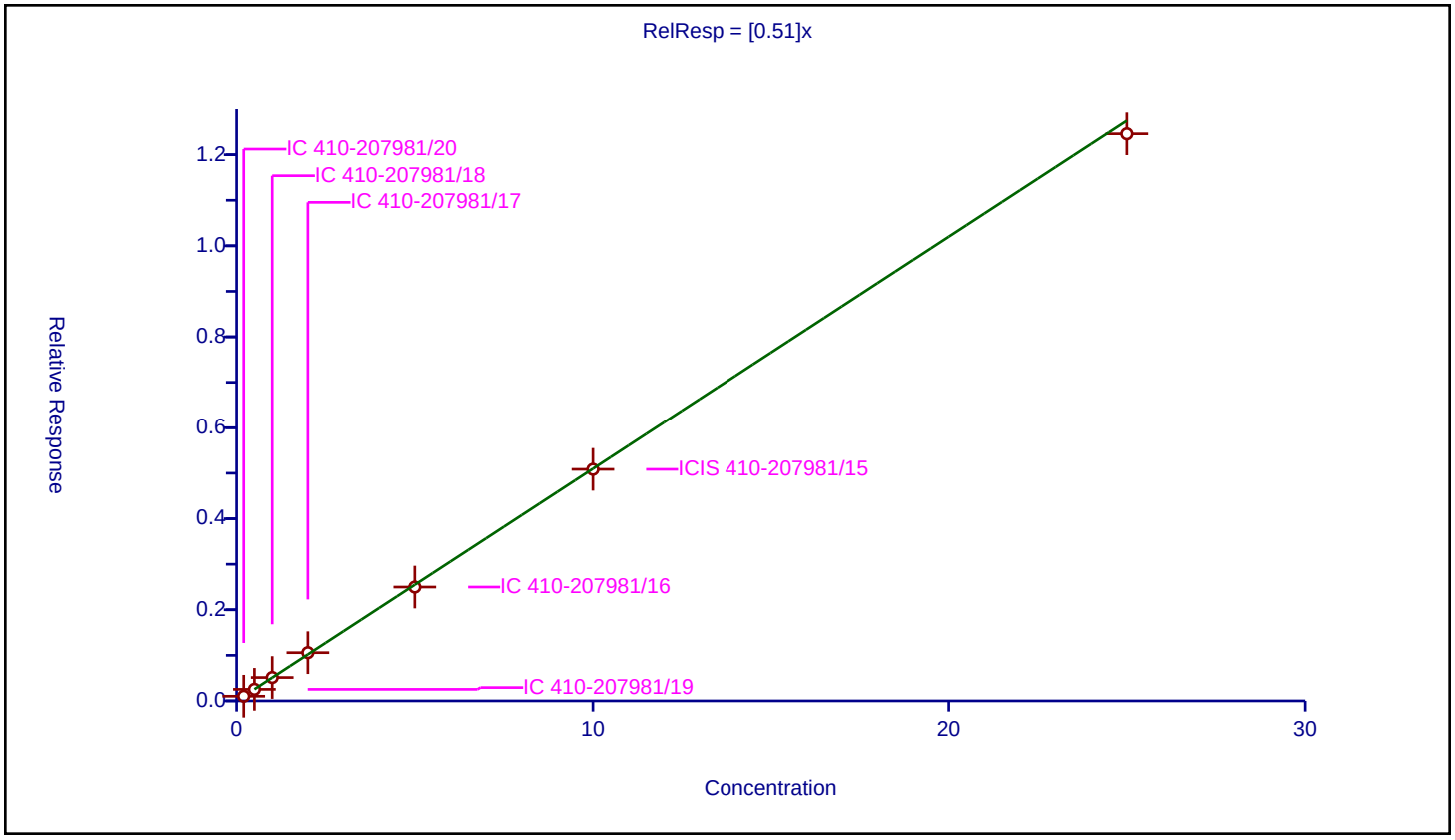
Curve Coefficients

Intercept:	0
Slope:	0.51

Error Coefficients

Standard Error:	1280000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.102653	10.0	2249617.0	0.513265	Y
2	IC 410-207981/19	0.5	0.25377	10.0	2232533.0	0.50754	Y
3	IC 410-207981/18	1.0	0.512964	10.0	2262029.0	0.512964	Y
4	IC 410-207981/17	2.0	1.058357	10.0	2259237.0	0.529179	Y
5	IC 410-207981/16	5.0	2.498805	10.0	2285280.0	0.499761	Y
6	ICIS 410-207981/15	10.0	5.085905	10.0	2239692.0	0.50859	Y
7	IC 410-207981/14	25.0	12.459678	10.0	2294975.0	0.498387	Y



Calibration / 1,1-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

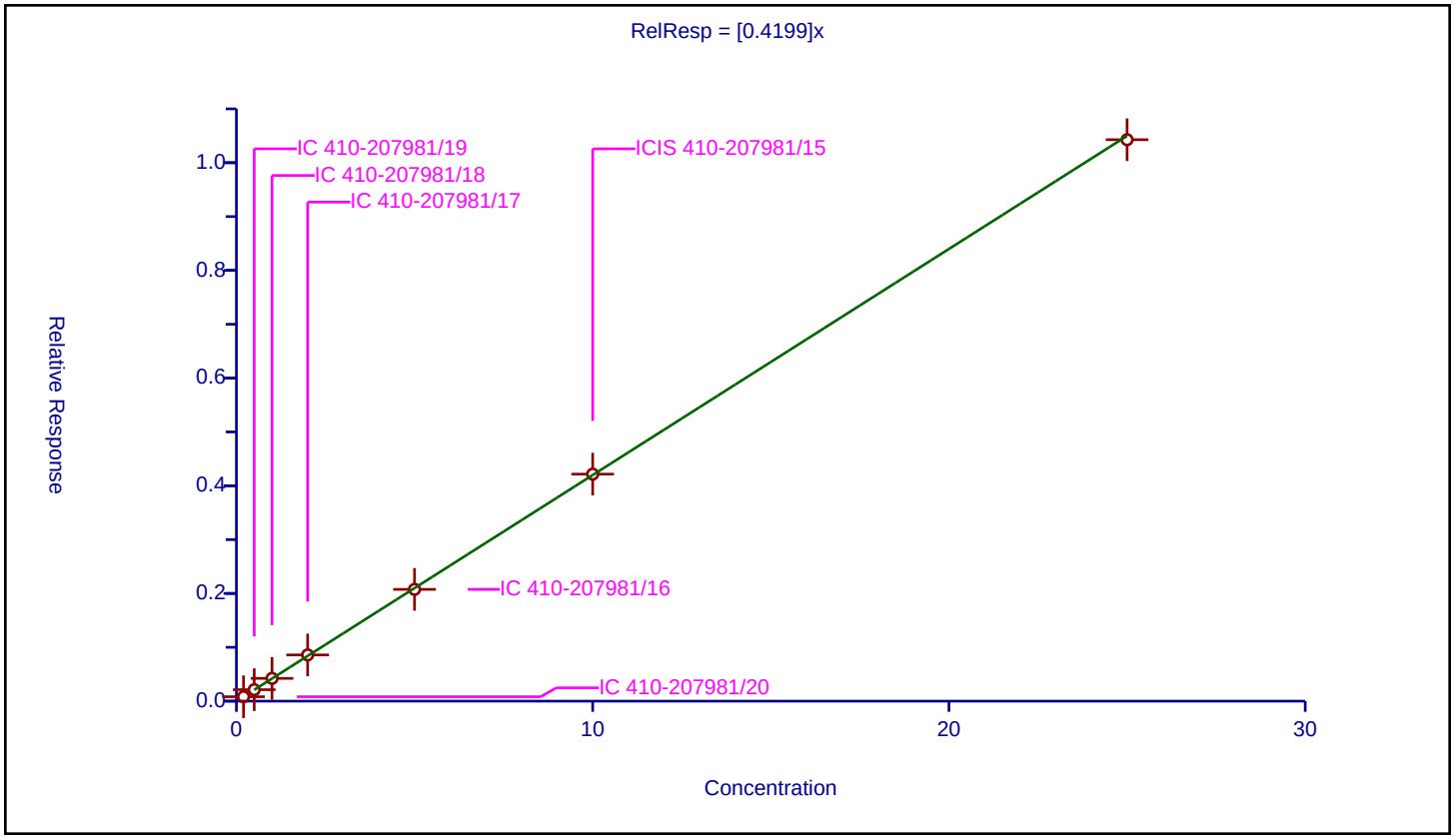
Curve Coefficients

Intercept:	0
Slope:	0.4199

Error Coefficients

Standard Error:	1070000
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.081654	10.0	2249617.0	0.408269	Y
2	IC 410-207981/19	0.5	0.212718	10.0	2232533.0	0.425436	Y
3	IC 410-207981/18	1.0	0.422523	10.0	2262029.0	0.422523	Y
4	IC 410-207981/17	2.0	0.85856	10.0	2259237.0	0.42928	Y
5	IC 410-207981/16	5.0	2.075912	10.0	2285280.0	0.415182	Y
6	ICIS 410-207981/15	10.0	4.216629	10.0	2239692.0	0.421663	Y
7	IC 410-207981/14	25.0	10.427674	10.0	2294975.0	0.417107	Y



Calibration / Carbon tetrachloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

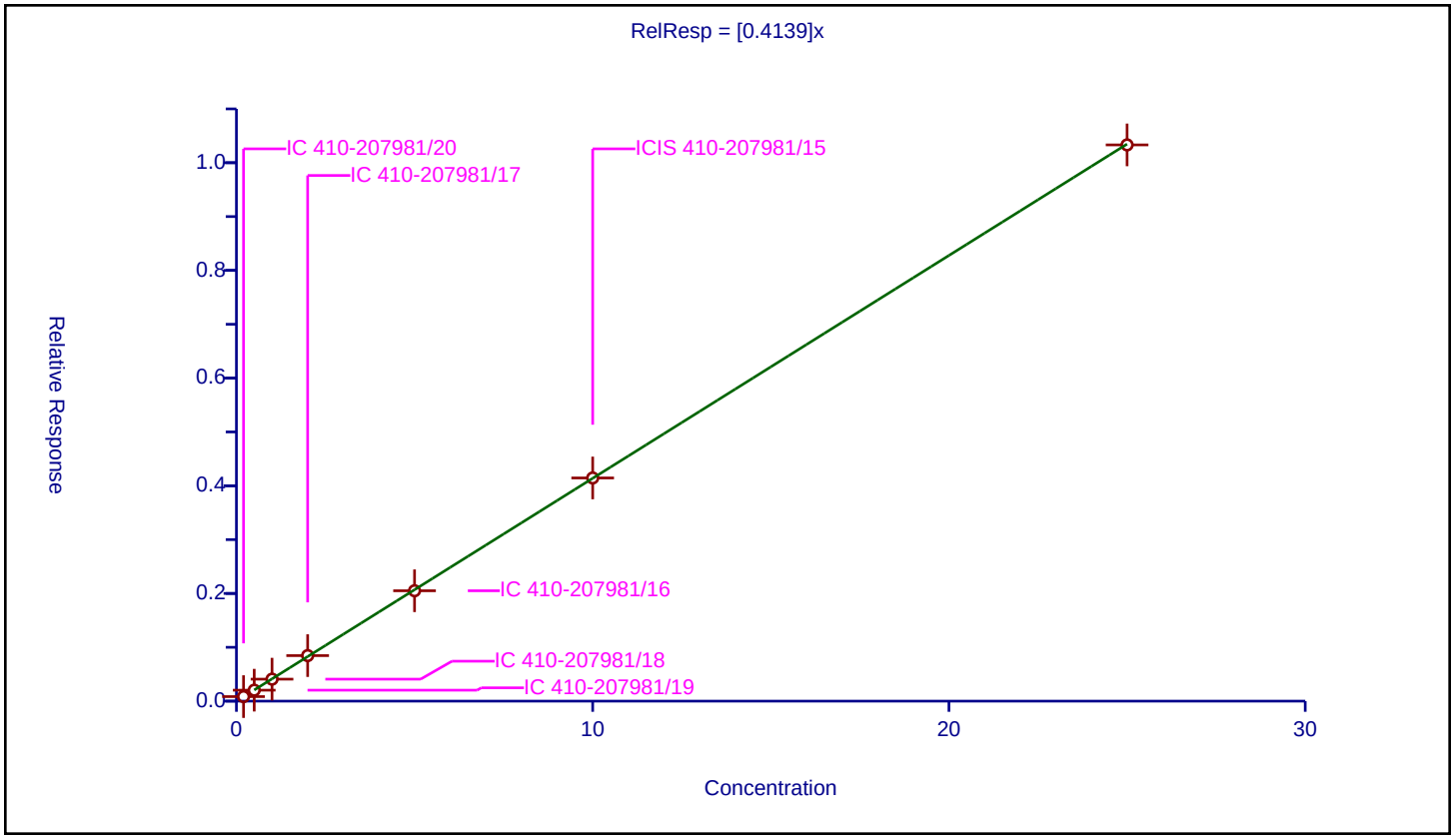
Curve Coefficients

Intercept:	0
Slope:	0.4139

Error Coefficients

Standard Error:	1060000
Relative Standard Error:	1.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.084192	10.0	2249617.0	0.420961	Y
2	IC 410-207981/19	0.5	0.203518	10.0	2232533.0	0.407035	Y
3	IC 410-207981/18	1.0	0.408585	10.0	2262029.0	0.408585	Y
4	IC 410-207981/17	2.0	0.845812	10.0	2259237.0	0.422906	Y
5	IC 410-207981/16	5.0	2.049998	10.0	2285280.0	0.41	Y
6	ICIS 410-207981/15	10.0	4.145012	10.0	2239692.0	0.414501	Y
7	IC 410-207981/14	25.0	10.331001	10.0	2294975.0	0.41324	Y



Calibration / Isobutyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

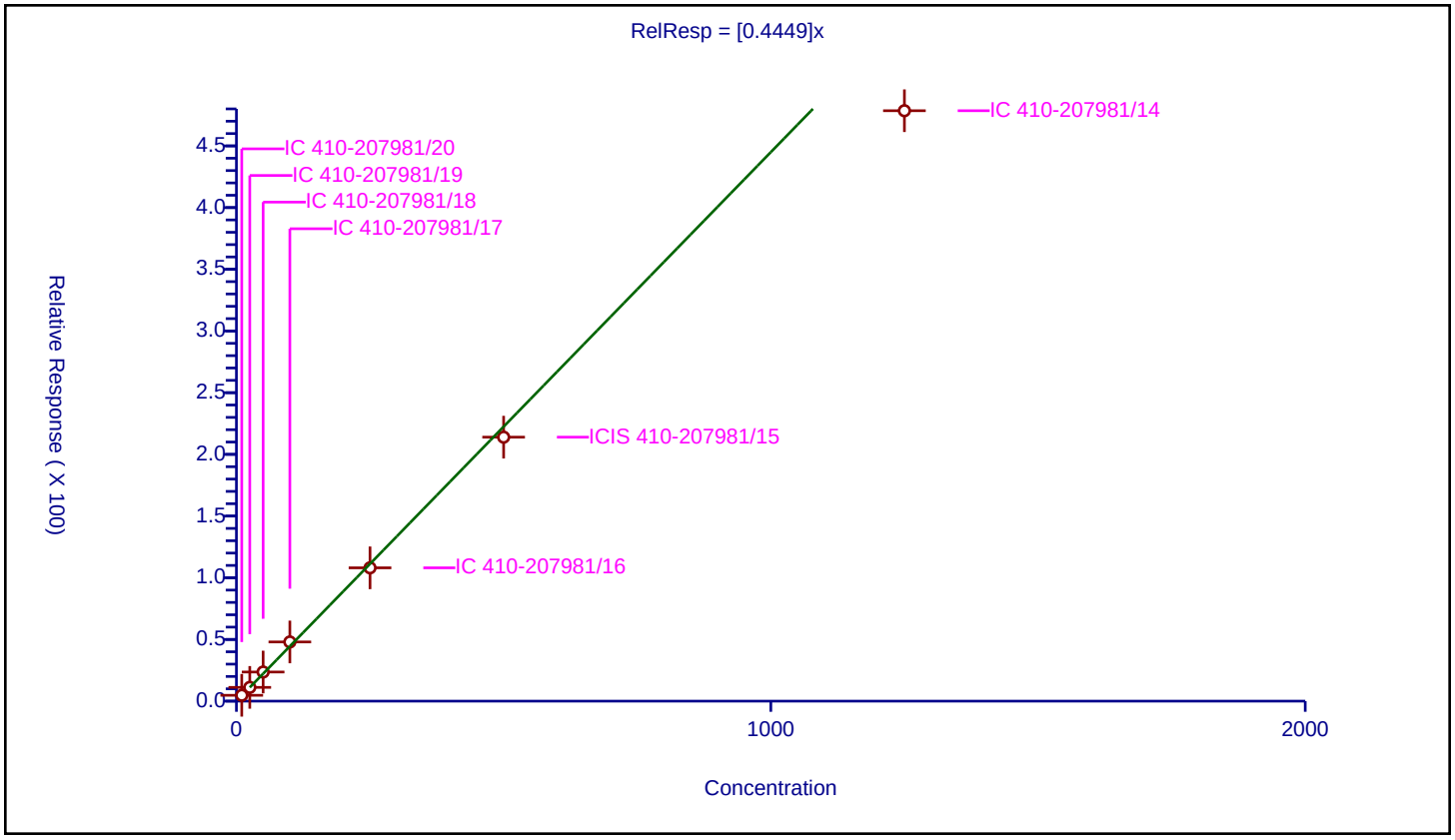
Curve Coefficients

Intercept:	0
Slope:	0.4449

Error Coefficients

Standard Error:	365000
Relative Standard Error:	7.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	10.0	4.737159	50.0	81494.0	0.473716	Y
2	IC 410-207981/19	25.0	11.153329	50.0	66191.0	0.446133	Y
3	IC 410-207981/18	50.0	23.609833	50.0	72779.0	0.472197	Y
4	IC 410-207981/17	100.0	47.965802	50.0	62752.0	0.479658	Y
5	IC 410-207981/16	250.0	108.049945	50.0	77926.0	0.4322	Y
6	ICIS 410-207981/15	500.0	213.942588	50.0	82456.0	0.427885	Y
7	IC 410-207981/14	1250.0	478.520017	50.0	83778.0	0.382816	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

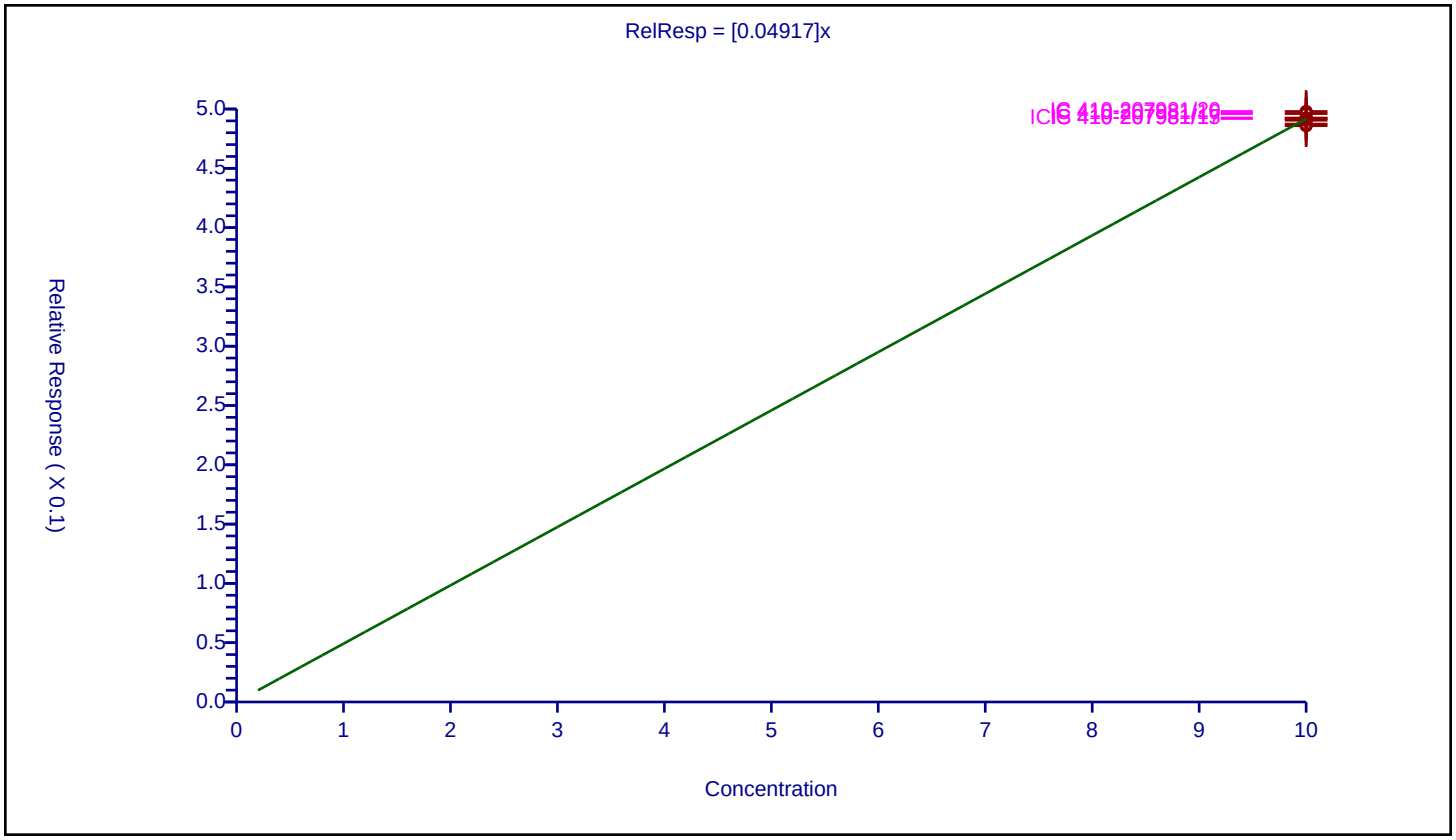
Curve Coefficients

Intercept:	0
Slope:	0.04917

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 410-207981/14	10.0	0.485914	10.0	2294975.0	0.048591	Y
2	ICIS 410-207981/15	10.0	0.492429	10.0	2239692.0	0.049243	Y
3	IC 410-207981/16	10.0	0.496136	10.0	2285280.0	0.049614	Y
4	IC 410-207981/17	10.0	0.492016	10.0	2259237.0	0.049202	Y
5	IC 410-207981/18	10.0	0.487293	10.0	2262029.0	0.048729	Y
6	IC 410-207981/19	10.0	0.490506	10.0	2232533.0	0.049051	Y
7	IC 410-207981/20	10.0	0.497898	10.0	2249617.0	0.04979	Y



Calibration / Benzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

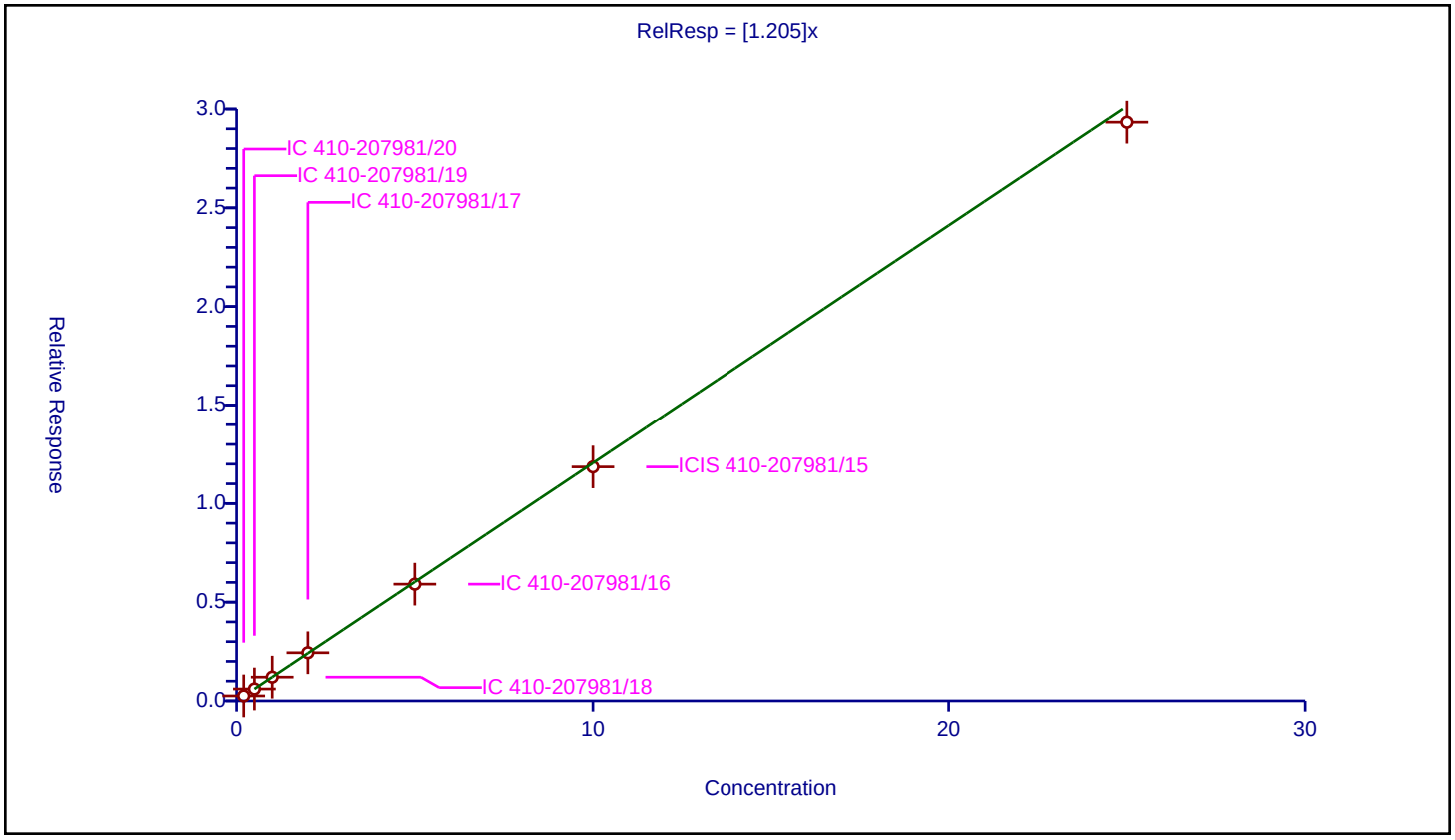
Curve Coefficients

Intercept:	0
Slope:	1.205

Error Coefficients

Standard Error:	3020000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.253545	10.0	2249617.0	1.267727	Y
2	IC 410-207981/19	0.5	0.603852	10.0	2232533.0	1.207704	Y
3	IC 410-207981/18	1.0	1.202721	10.0	2262029.0	1.202721	Y
4	IC 410-207981/17	2.0	2.437495	10.0	2259237.0	1.218748	Y
5	IC 410-207981/16	5.0	5.912203	10.0	2285280.0	1.182441	Y
6	ICIS 410-207981/15	10.0	11.857313	10.0	2239692.0	1.185731	Y
7	IC 410-207981/14	25.0	29.334672	10.0	2294975.0	1.173387	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

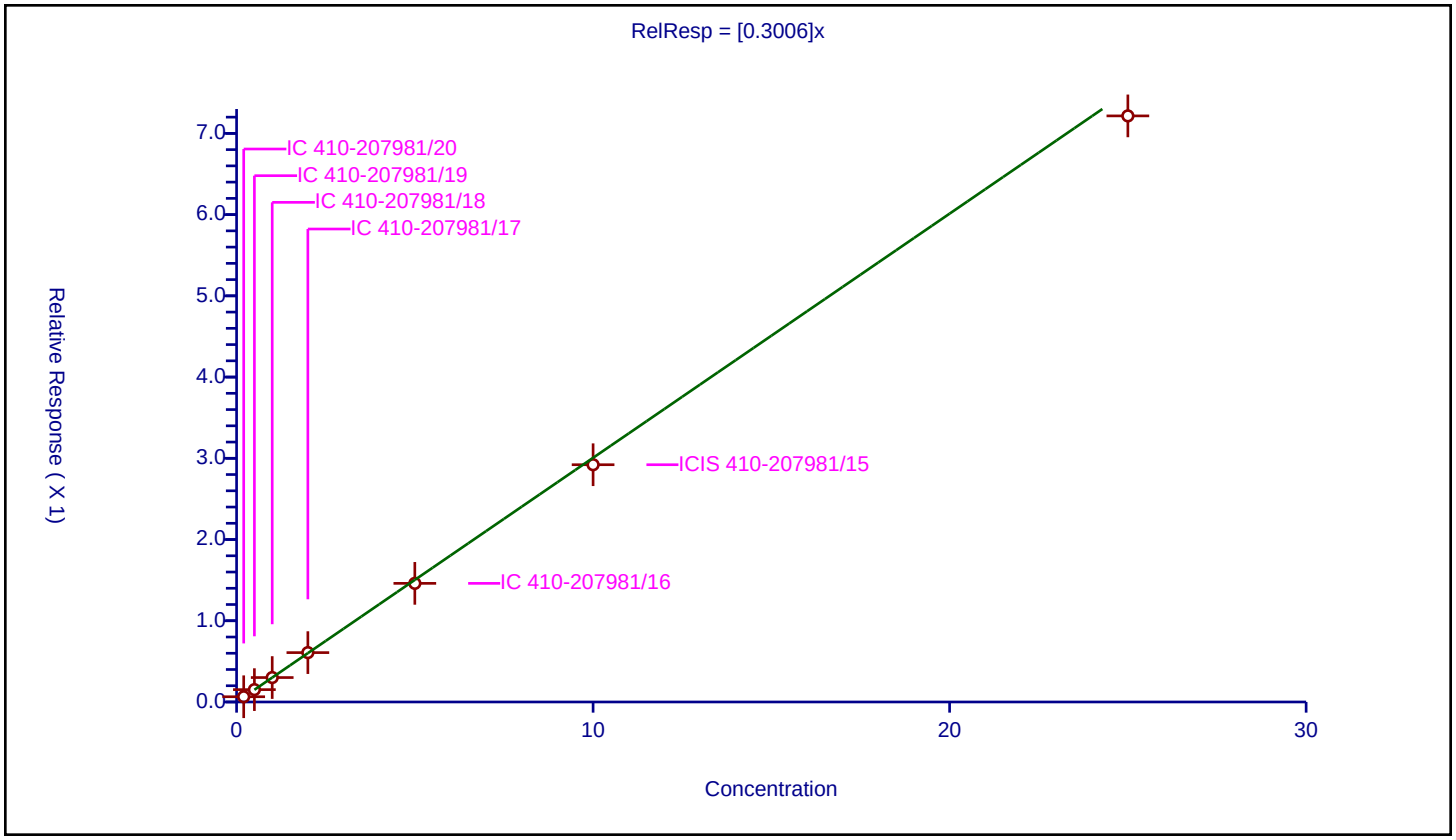
Curve Coefficients

Intercept:	0
Slope:	0.3006

Error Coefficients

Standard Error:	742000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.064513	10.0	2249617.0	0.322566	Y
2	IC 410-207981/19	0.5	0.152092	10.0	2232533.0	0.304184	Y
3	IC 410-207981/18	1.0	0.300761	10.0	2262029.0	0.300761	Y
4	IC 410-207981/17	2.0	0.607705	10.0	2259237.0	0.303853	Y
5	IC 410-207981/16	5.0	1.460442	10.0	2285280.0	0.292088	Y
6	ICIS 410-207981/15	10.0	2.920848	10.0	2239692.0	0.292085	Y
7	IC 410-207981/14	25.0	7.21519	10.0	2294975.0	0.288608	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

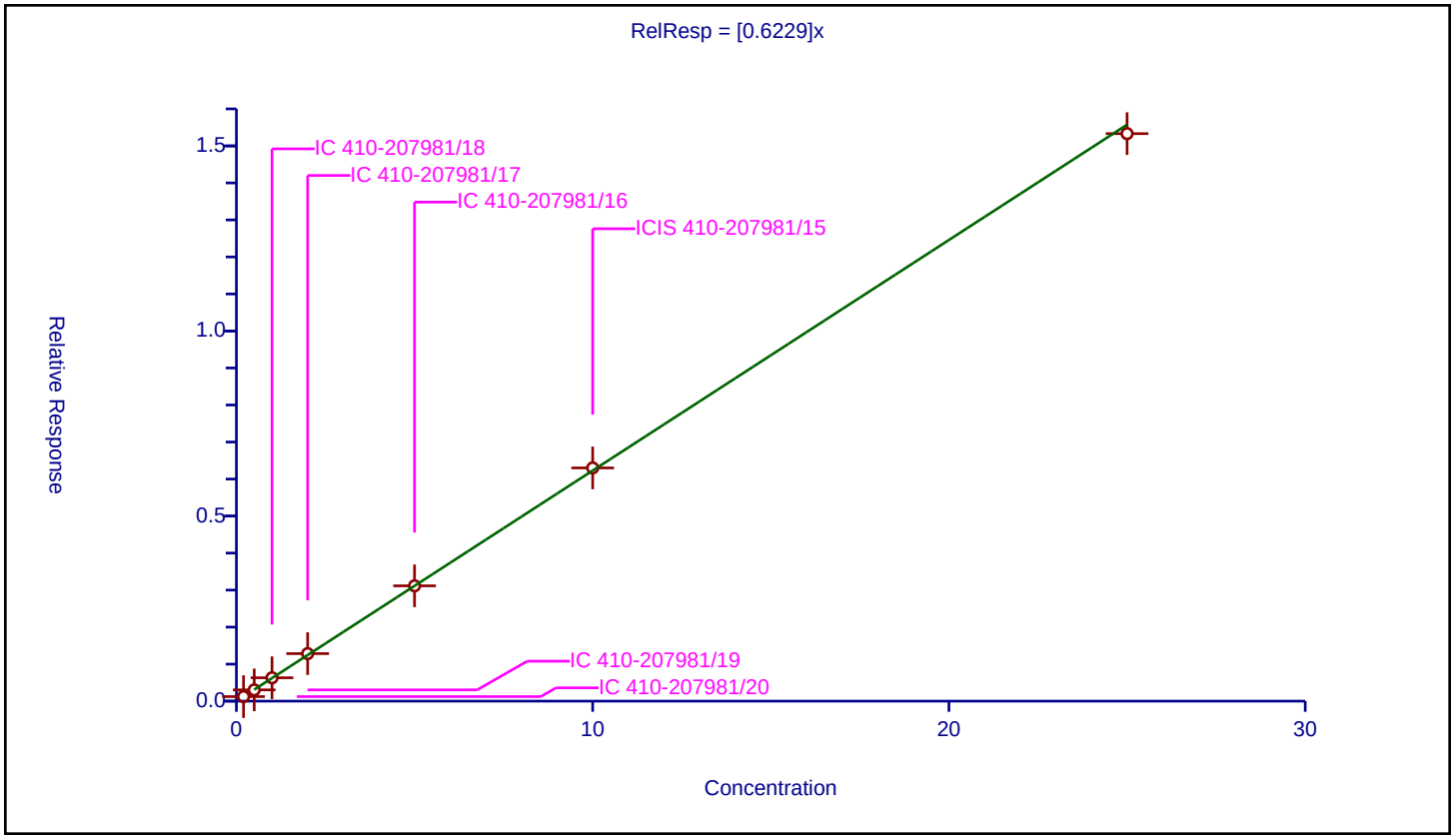
Curve Coefficients

Intercept:	0
Slope:	0.6229

Error Coefficients

Standard Error:	1580000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.122576	10.0	2249617.0	0.612882	Y
2	IC 410-207981/19	0.5	0.303946	10.0	2232533.0	0.607892	Y
3	IC 410-207981/18	1.0	0.631239	10.0	2262029.0	0.631239	Y
4	IC 410-207981/17	2.0	1.284031	10.0	2259237.0	0.642015	Y
5	IC 410-207981/16	5.0	3.115417	10.0	2285280.0	0.623083	Y
6	ICIS 410-207981/15	10.0	6.300648	10.0	2239692.0	0.630065	Y
7	IC 410-207981/14	25.0	15.331252	10.0	2294975.0	0.61325	Y



Calibration / n-Heptane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

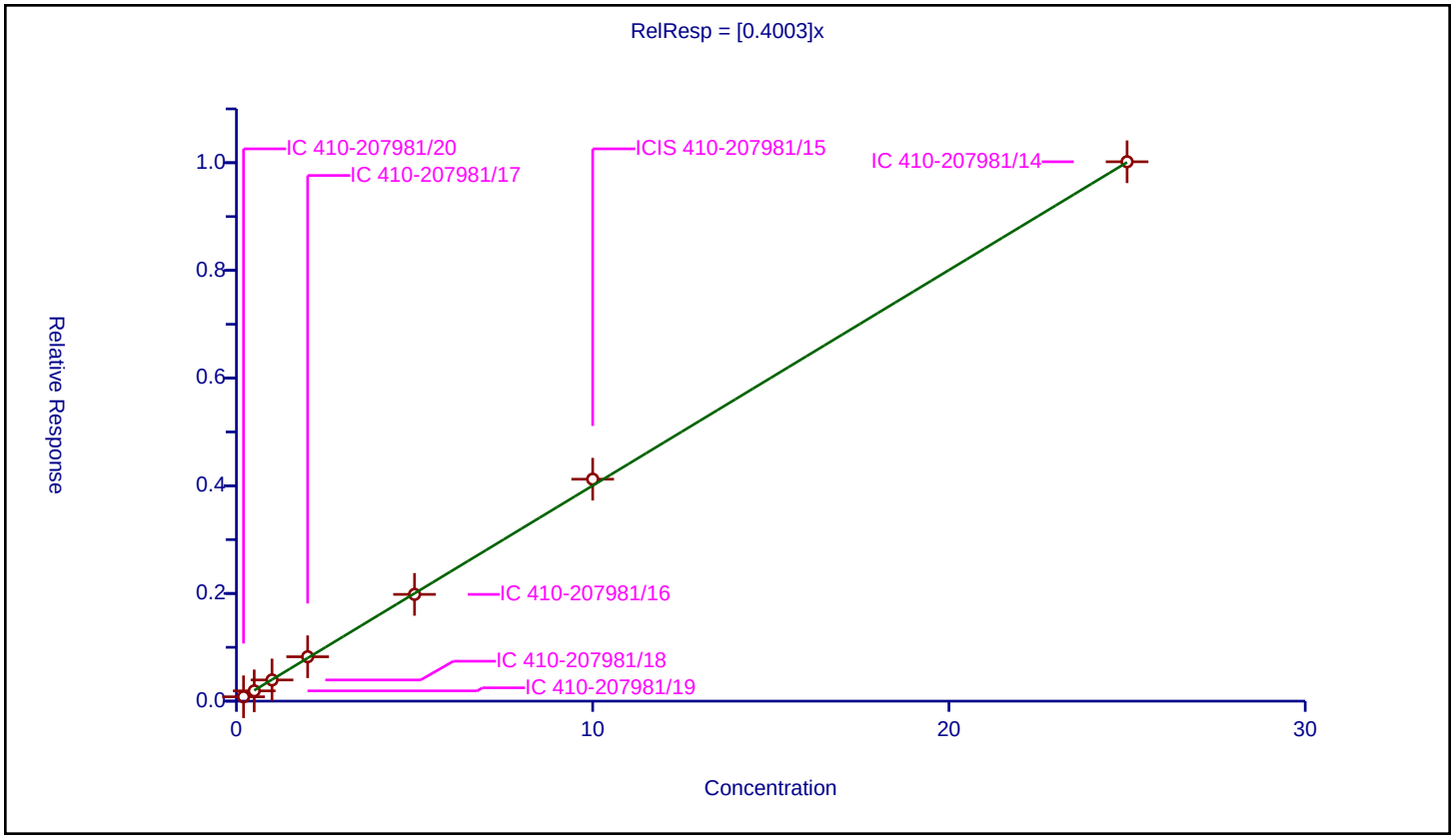
Curve Coefficients

Intercept:	0
Slope:	0.4003

Error Coefficients

Standard Error:	1030000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.081072	10.0	2249617.0	0.405358	Y
2	IC 410-207981/19	0.5	0.190819	10.0	2232533.0	0.381638	Y
3	IC 410-207981/18	1.0	0.393651	10.0	2262029.0	0.393651	Y
4	IC 410-207981/17	2.0	0.824176	10.0	2259237.0	0.412088	Y
5	IC 410-207981/16	5.0	1.982943	10.0	2285280.0	0.396589	Y
6	ICIS 410-207981/15	10.0	4.122241	10.0	2239692.0	0.412224	Y
7	IC 410-207981/14	25.0	10.018118	10.0	2294975.0	0.400725	Y



Calibration / n-Butanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

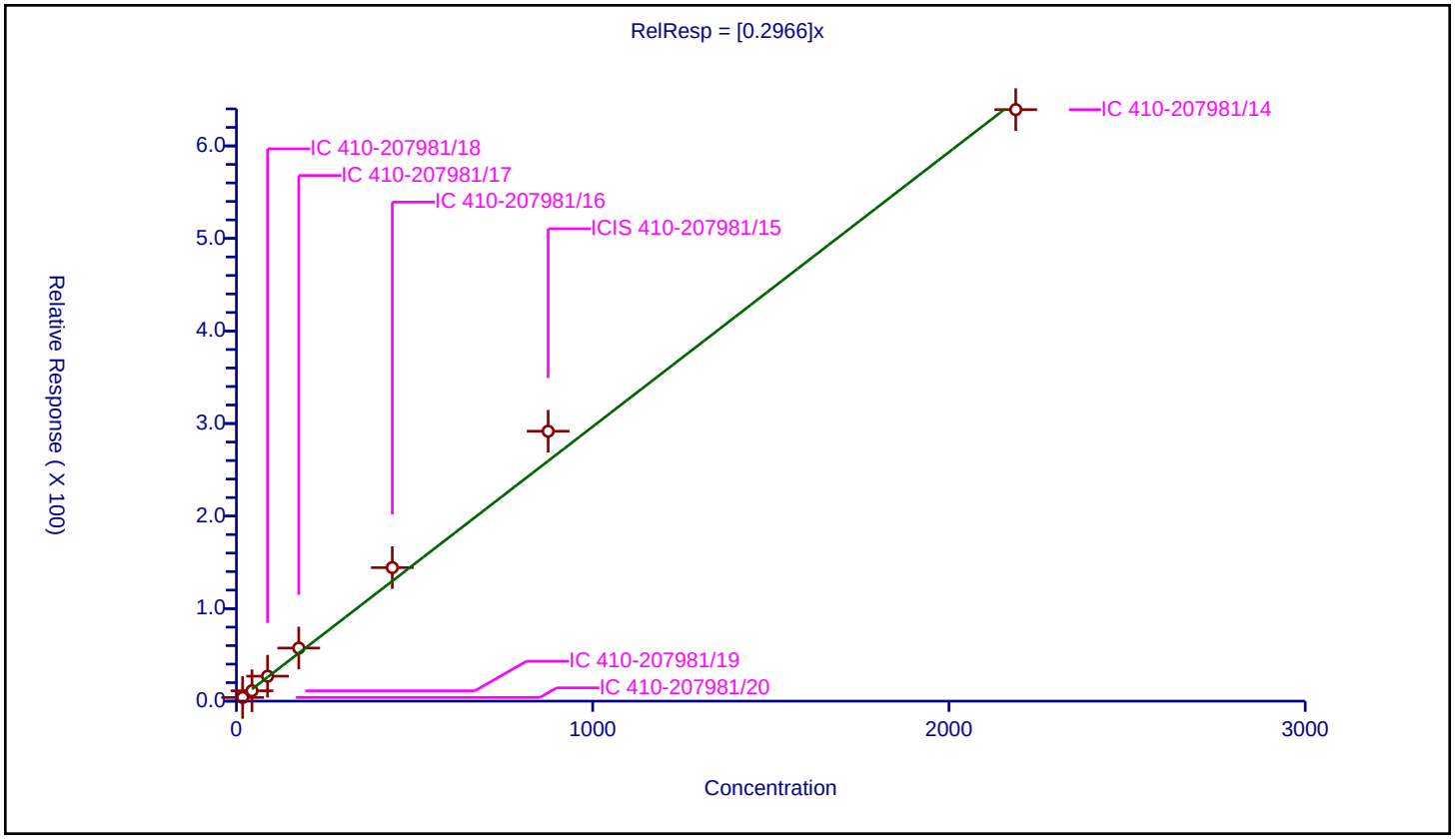
Curve Coefficients

Intercept:	0
Slope:	0.2966

Error Coefficients

Standard Error:	489000
Relative Standard Error:	13.7
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	17.5	3.995386	50.0	81494.0	0.228308	Y
2	IC 410-207981/19	43.75	11.212249	50.0	66191.0	0.25628	Y
3	IC 410-207981/18	87.5	26.993363	50.0	72779.0	0.308496	Y
4	IC 410-207981/17	175.0	57.384625	50.0	62752.0	0.327912	Y
5	IC 410-207981/16	437.5	144.302287	50.0	77926.0	0.329834	Y
6	ICIS 410-207981/15	875.0	291.693752	50.0	82456.0	0.333364	Y
7	IC 410-207981/14	2187.5	639.19406	50.0	83778.0	0.292203	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

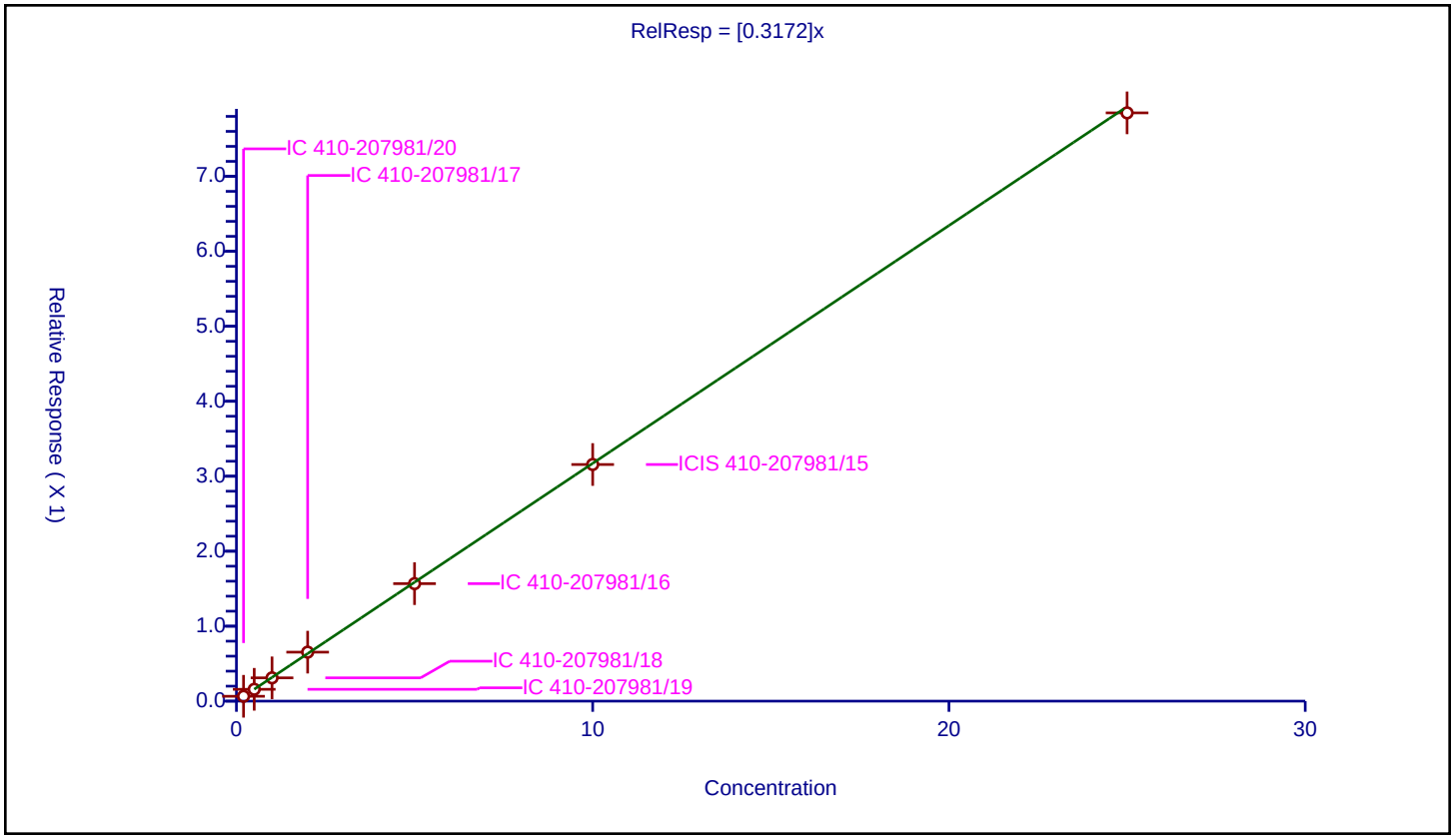
Curve Coefficients

Intercept:	0
Slope:	0.3172

Error Coefficients

Standard Error:	806000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.064811	10.0	2249617.0	0.324055	Y
2	IC 410-207981/19	0.5	0.157986	10.0	2232533.0	0.315973	Y
3	IC 410-207981/18	1.0	0.310633	10.0	2262029.0	0.310633	Y
4	IC 410-207981/17	2.0	0.65346	10.0	2259237.0	0.32673	Y
5	IC 410-207981/16	5.0	1.567257	10.0	2285280.0	0.313451	Y
6	ICIS 410-207981/15	10.0	3.156519	10.0	2239692.0	0.315652	Y
7	IC 410-207981/14	25.0	7.846922	10.0	2294975.0	0.313877	Y



Calibration / Methylcyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

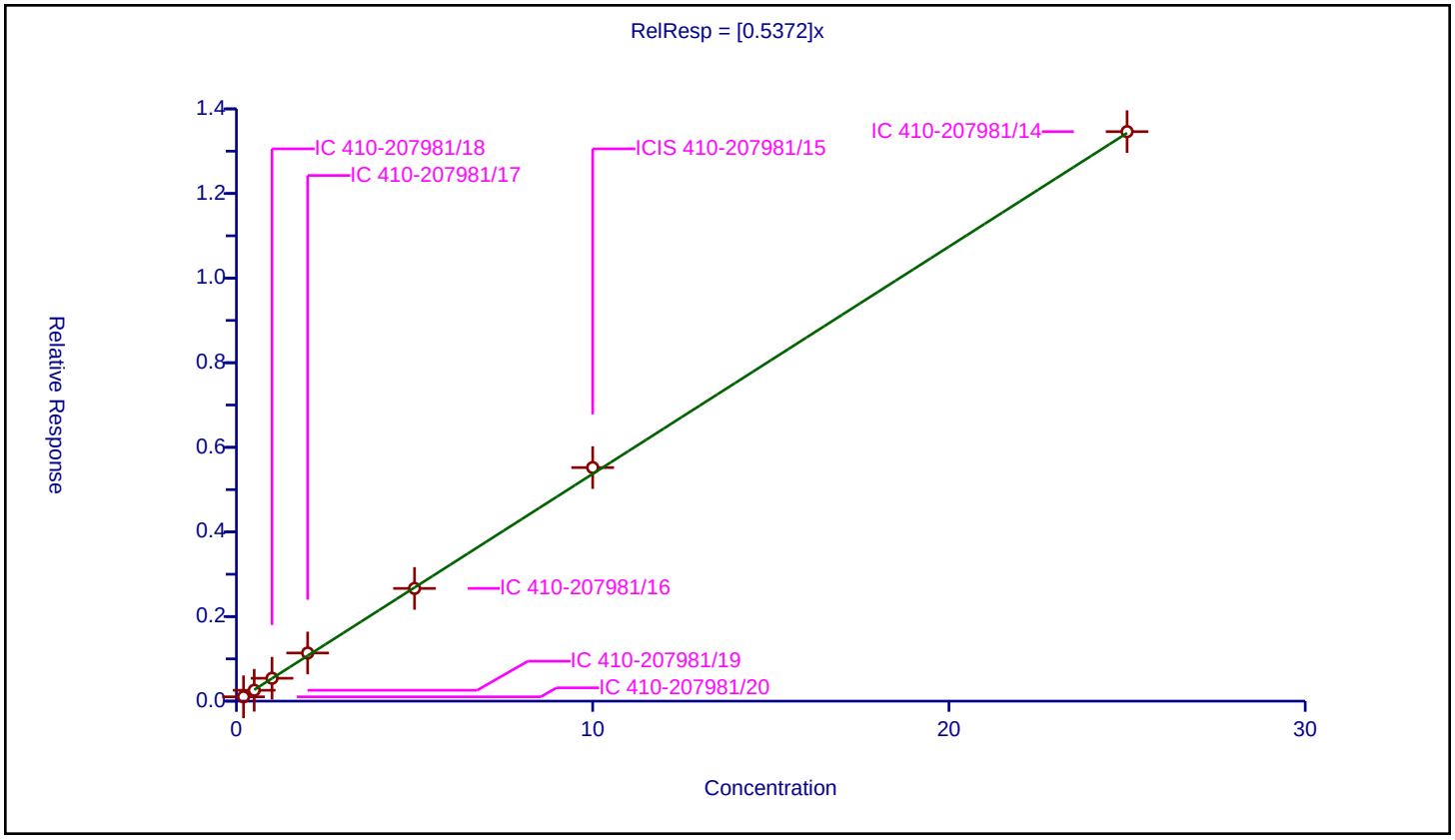
Curve Coefficients

Intercept:	0
Slope:	0.5372

Error Coefficients

Standard Error:	1390000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.102431	10.0	2249617.0	0.512154	Y
2	IC 410-207981/19	0.5	0.257143	10.0	2232533.0	0.514286	Y
3	IC 410-207981/18	1.0	0.541032	10.0	2262029.0	0.541032	Y
4	IC 410-207981/17	2.0	1.138384	10.0	2259237.0	0.569192	Y
5	IC 410-207981/16	5.0	2.66475	10.0	2285280.0	0.53295	Y
6	ICIS 410-207981/15	10.0	5.521107	10.0	2239692.0	0.552111	Y
7	IC 410-207981/14	25.0	13.462399	10.0	2294975.0	0.538496	Y



Calibration / 1,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

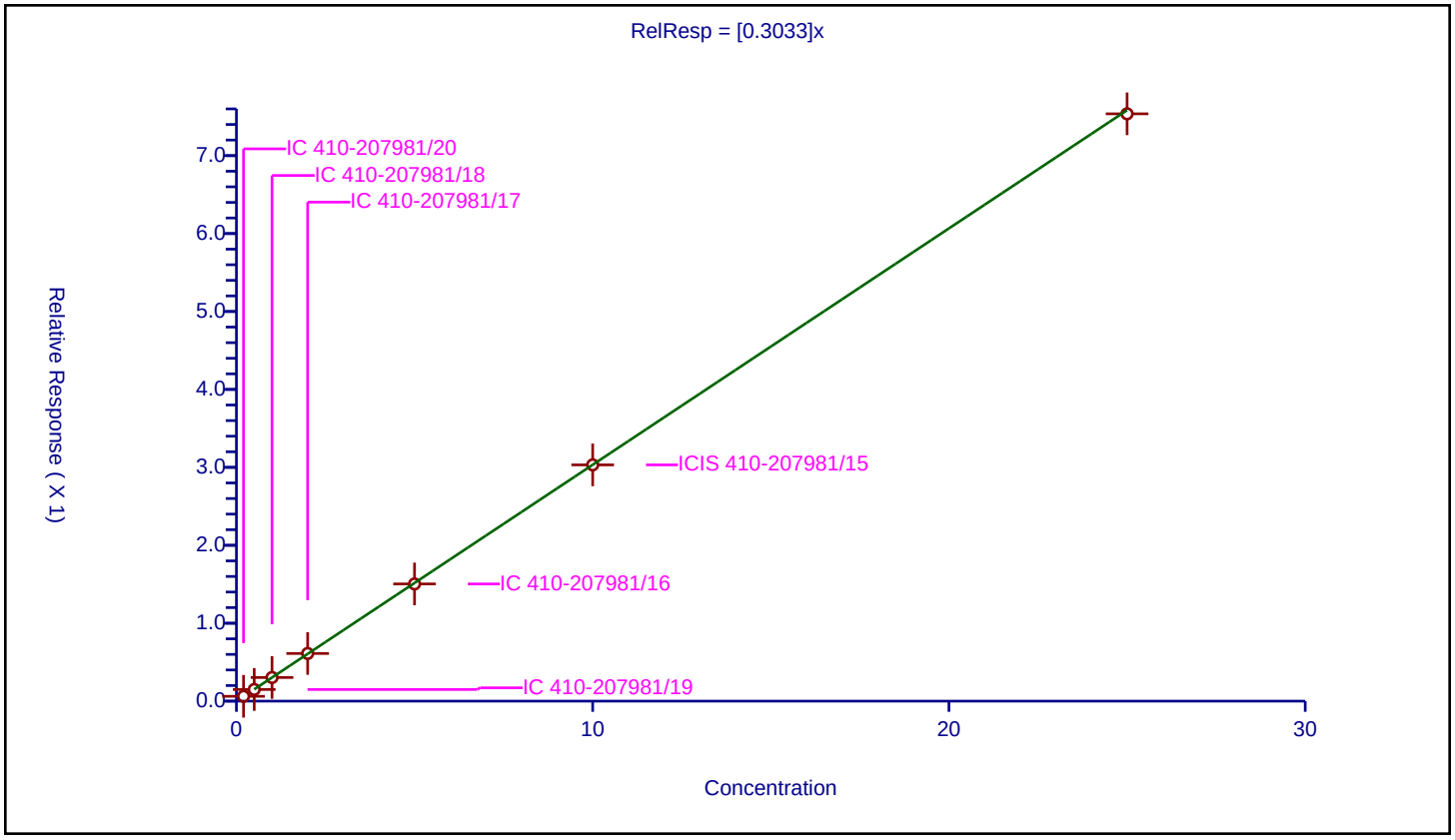
Curve Coefficients

Intercept:	0
Slope:	0.3033

Error Coefficients

Standard Error:	774000
Relative Standard Error:	1.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.061948	10.0	2249617.0	0.309742	Y
2	IC 410-207981/19	0.5	0.149454	10.0	2232533.0	0.298907	Y
3	IC 410-207981/18	1.0	0.303369	10.0	2262029.0	0.303369	Y
4	IC 410-207981/17	2.0	0.611498	10.0	2259237.0	0.305749	Y
5	IC 410-207981/16	5.0	1.503938	10.0	2285280.0	0.300788	Y
6	ICIS 410-207981/15	10.0	3.03164	10.0	2239692.0	0.303164	Y
7	IC 410-207981/14	25.0	7.536879	10.0	2294975.0	0.301475	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

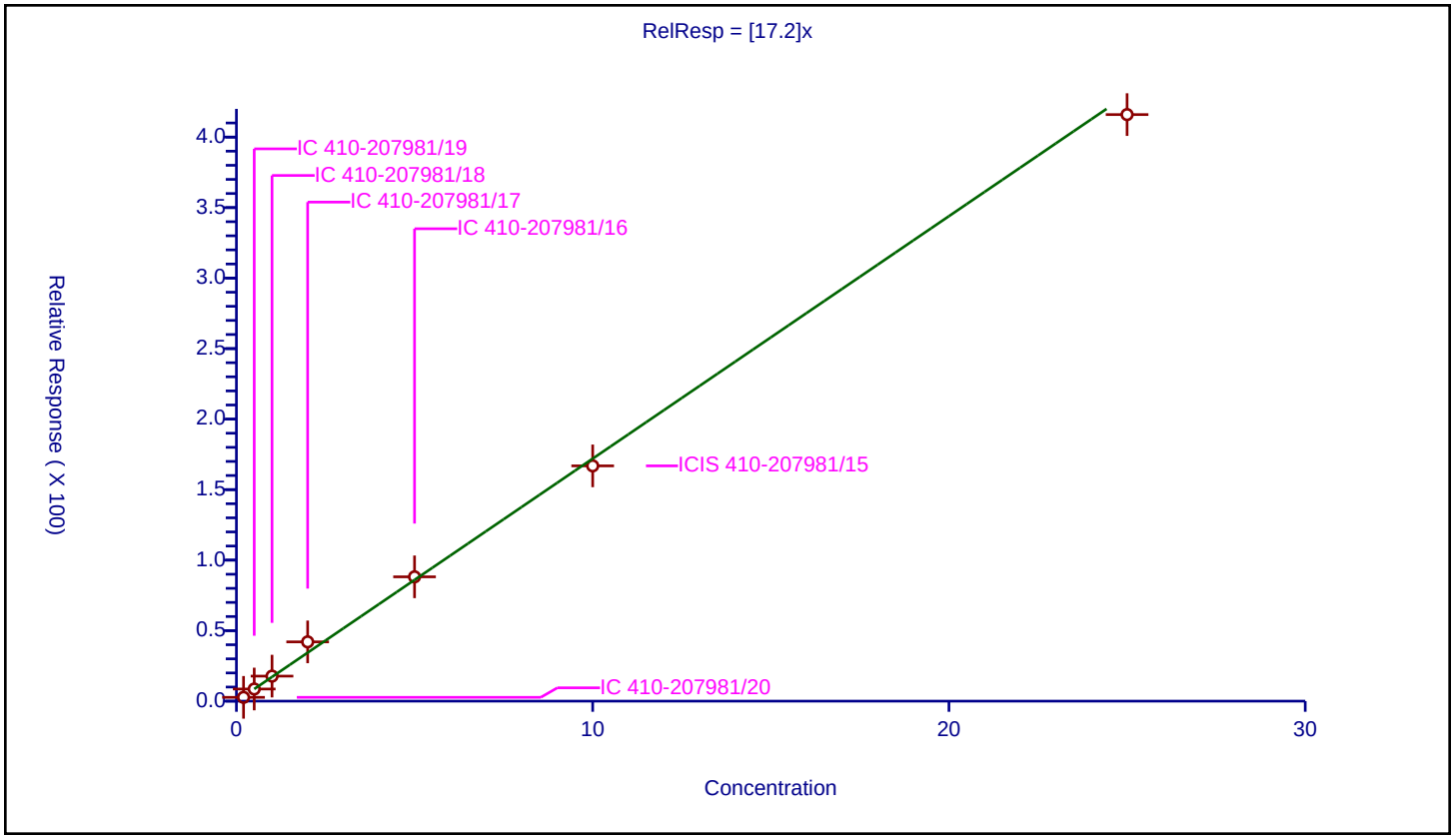
Curve Coefficients

Intercept:	0
Slope:	17.2

Error Coefficients

Standard Error:	312000
Relative Standard Error:	13.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	2.685474	50.0	81494.0	13.427369	Y
2	IC 410-207981/19	0.5	8.610687	50.0	66191.0	17.221375	Y
3	IC 410-207981/18	1.0	17.747565	50.0	72779.0	17.747565	Y
4	IC 410-207981/17	2.0	42.043281	50.0	62752.0	21.021641	Y
5	IC 410-207981/16	5.0	88.163129	50.0	77926.0	17.632626	Y
6	ICIS 410-207981/15	10.0	166.851412	50.0	82456.0	16.685141	Y
7	IC 410-207981/14	25.0	415.964812	50.0	83778.0	16.638592	Y



Calibration / 1,4-Dioxane

Curve Type:	Quadratic
Weighting:	None
Origin:	None
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

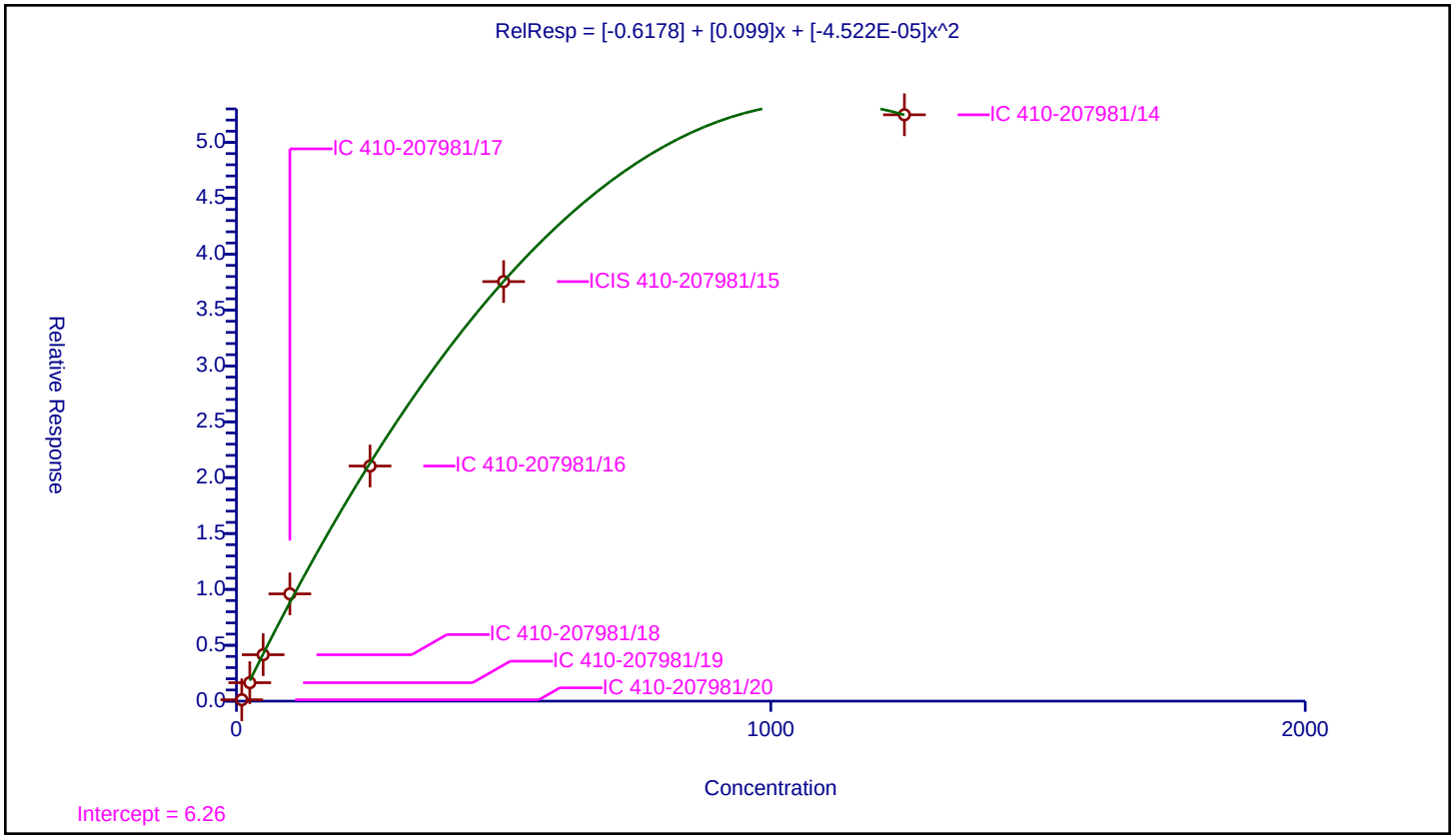
Curve Coefficients

Intercept:	-0.6178
Slope:	0.099
Second Order:	-4.522E-05

Error Coefficients

Standard Error:	56600
Relative Standard Error:	18.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	10.0	0.122708	50.0	81494.0	0.012271	Y
2	IC 410-207981/19	25.0	1.649771	50.0	66191.0	0.065991	Y
3	IC 410-207981/18	50.0	4.152984	50.0	72779.0	0.08306	Y
4	IC 410-207981/17	100.0	9.600491	50.0	62752.0	0.096005	Y
5	IC 410-207981/16	250.0	21.041116	50.0	77926.0	0.084164	Y
6	ICIS 410-207981/15	500.0	37.546692	50.0	82456.0	0.075093	Y
7	IC 410-207981/14	1250.0	52.4738	50.0	83778.0	0.041979	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

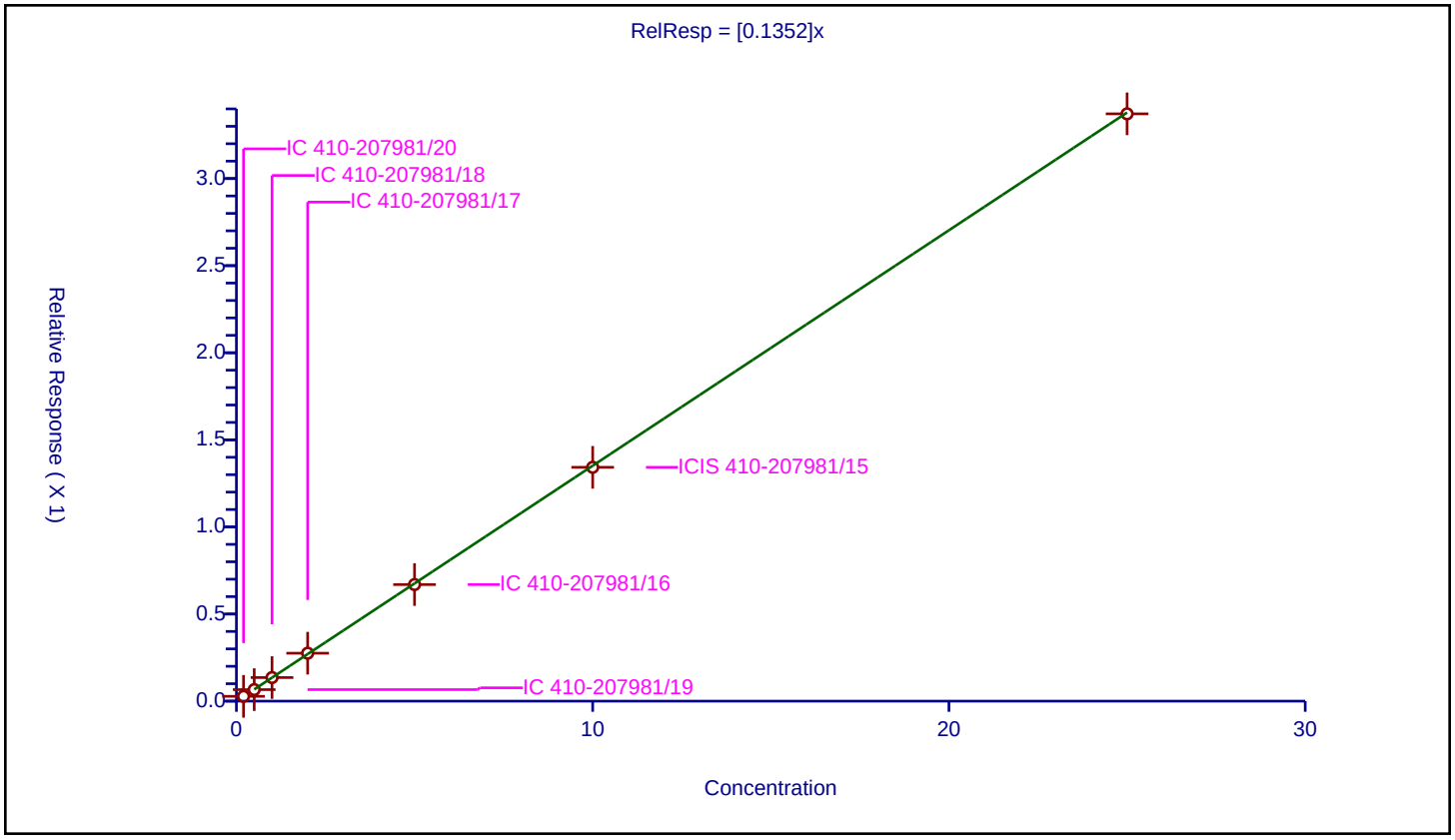
Curve Coefficients

Intercept:	0
Slope:	0.1352

Error Coefficients

Standard Error:	346000
Relative Standard Error:	1.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.027587	10.0	2249617.0	0.137935	Y
2	IC 410-207981/19	0.5	0.066082	10.0	2232533.0	0.132164	Y
3	IC 410-207981/18	1.0	0.135467	10.0	2262029.0	0.135467	Y
4	IC 410-207981/17	2.0	0.275204	10.0	2259237.0	0.137602	Y
5	IC 410-207981/16	5.0	0.669314	10.0	2285280.0	0.133863	Y
6	ICIS 410-207981/15	10.0	1.342417	10.0	2239692.0	0.134242	Y
7	IC 410-207981/14	25.0	3.371597	10.0	2294975.0	0.134864	Y



Calibration / Dichlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

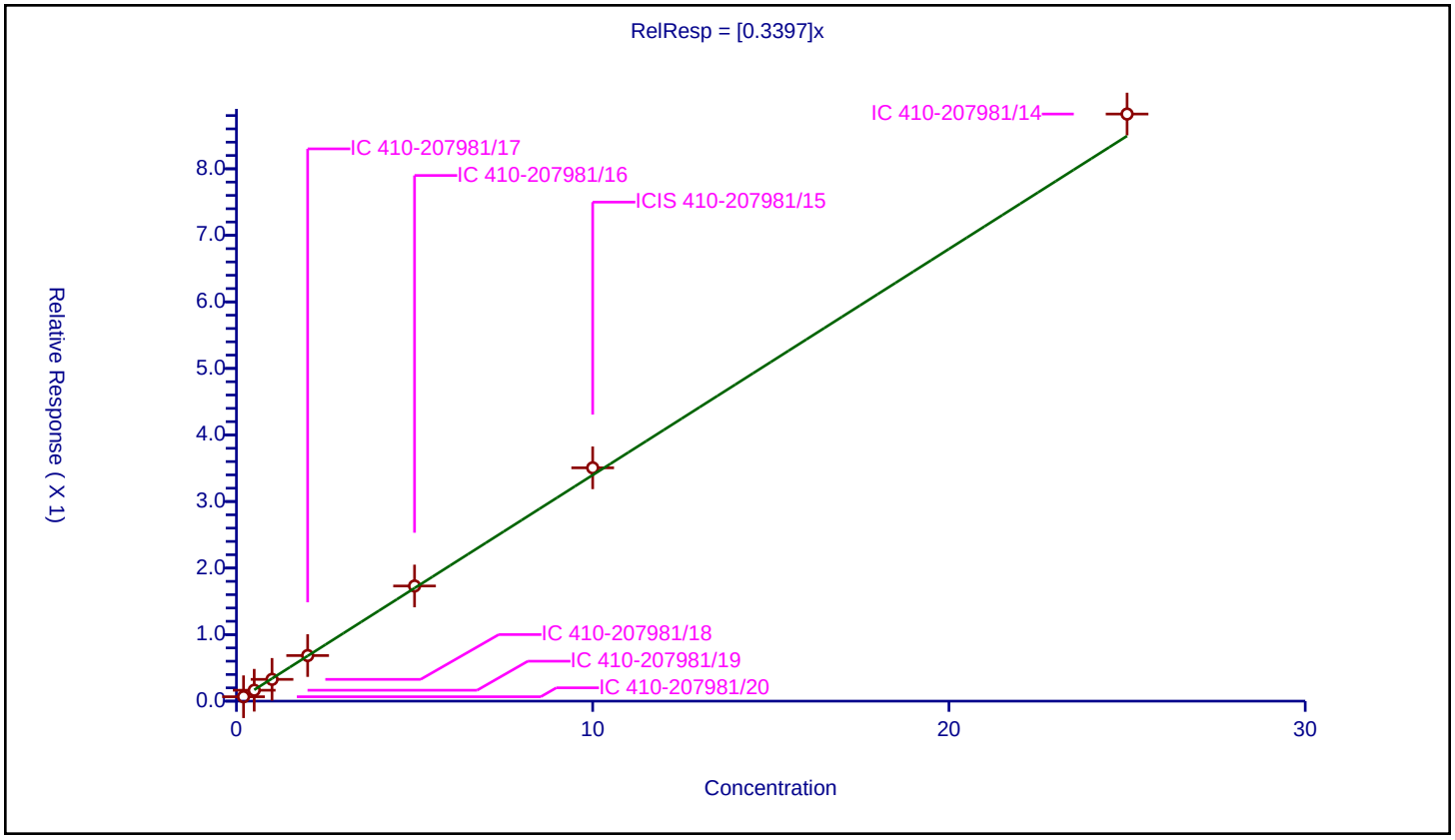
Curve Coefficients

Intercept:	0
Slope:	0.3397

Error Coefficients

Standard Error:	904000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.06618	10.0	2249617.0	0.330901	Y
2	IC 410-207981/19	0.5	0.163908	10.0	2232533.0	0.327816	Y
3	IC 410-207981/18	1.0	0.32729	10.0	2262029.0	0.32729	Y
4	IC 410-207981/17	2.0	0.685187	10.0	2259237.0	0.342594	Y
5	IC 410-207981/16	5.0	1.730549	10.0	2285280.0	0.34611	Y
6	ICIS 410-207981/15	10.0	3.506125	10.0	2239692.0	0.350612	Y
7	IC 410-207981/14	25.0	8.822898	10.0	2294975.0	0.352916	Y



Calibration / 2-Nitropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

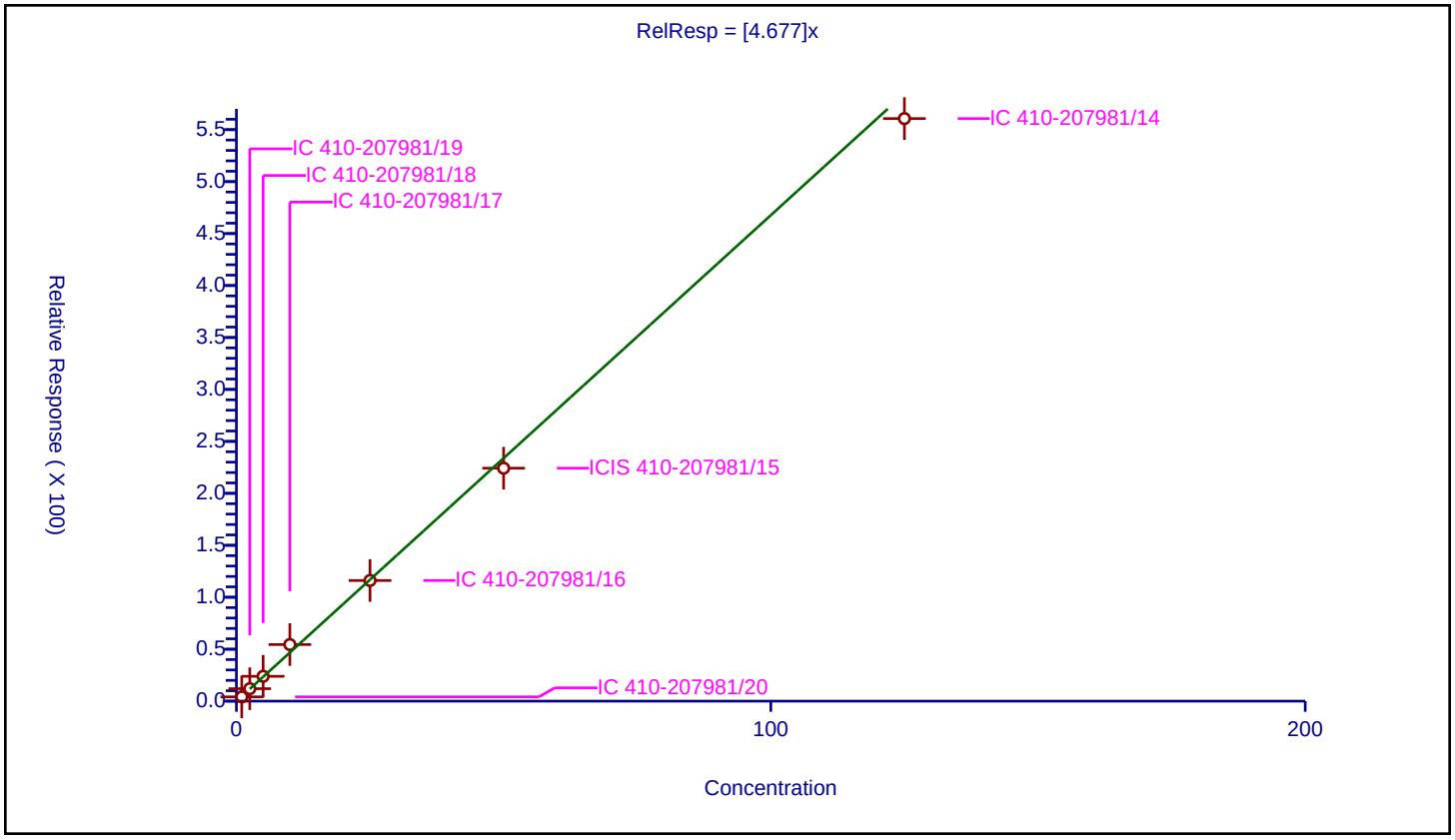
Curve Coefficients

Intercept:	0
Slope:	4.677

Error Coefficients

Standard Error:	420000
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 410-207981/20	1.0	4.108278	50.0	81494.0	4.108278	Y
2	IC 410-207981/19	2.5	11.972171	50.0	66191.0	4.788869	Y
3	IC 410-207981/18	5.0	23.90456	50.0	72779.0	4.780912	Y
4	IC 410-207981/17	10.0	54.459619	50.0	62752.0	5.445962	Y
5	IC 410-207981/16	25.0	116.100531	50.0	77926.0	4.644021	Y
6	ICIS 410-207981/15	50.0	224.212307	50.0	82456.0	4.484246	Y
7	IC 410-207981/14	125.0	560.679415	50.0	83778.0	4.485435	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

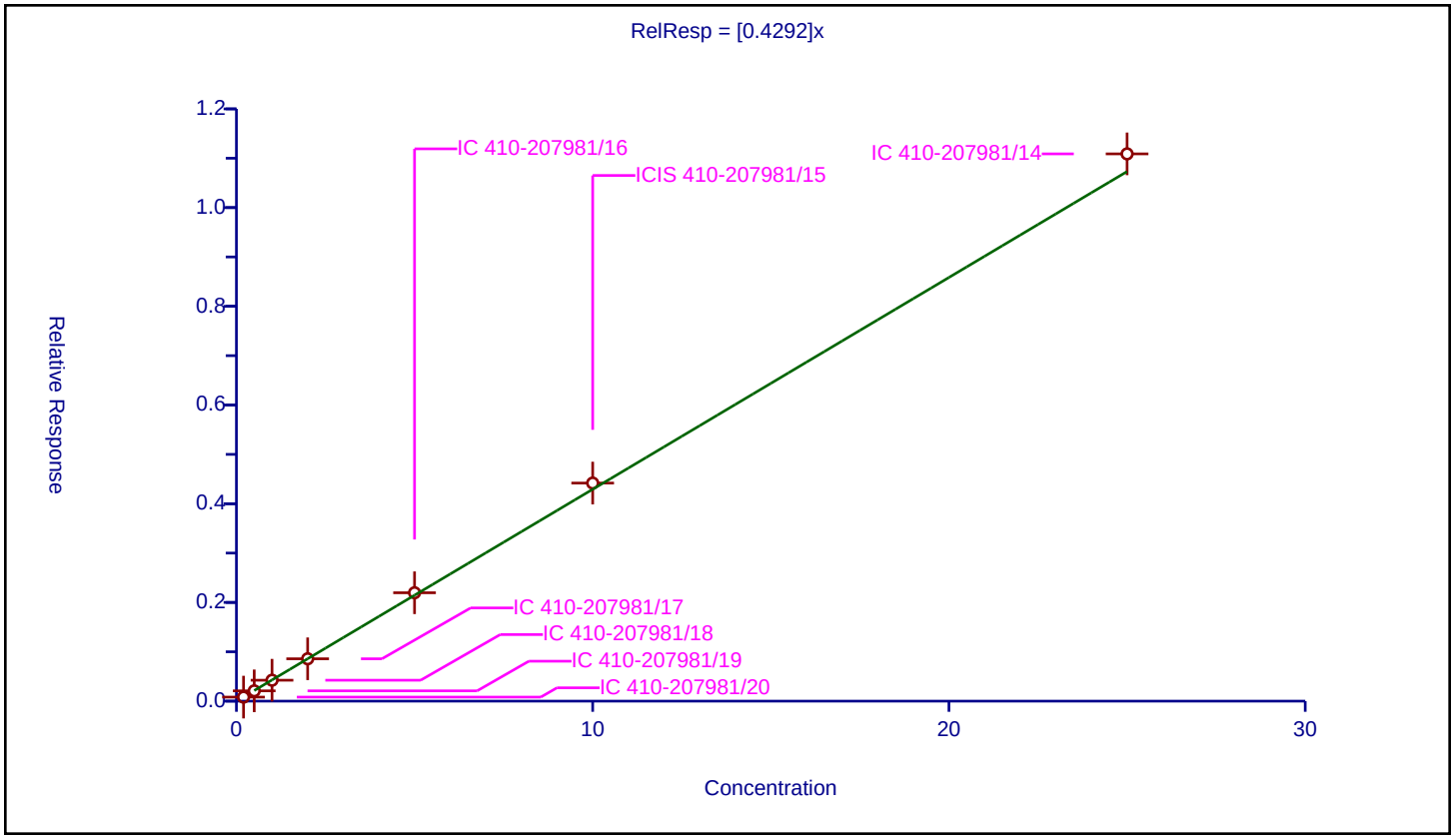
Curve Coefficients

Intercept:	0
Slope:	0.4292

Error Coefficients

Standard Error:	1140000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.081836	10.0	2249617.0	0.409181	Y
2	IC 410-207981/19	0.5	0.208817	10.0	2232533.0	0.417633	Y
3	IC 410-207981/18	1.0	0.424155	10.0	2262029.0	0.424155	Y
4	IC 410-207981/17	2.0	0.858144	10.0	2259237.0	0.429072	Y
5	IC 410-207981/16	5.0	2.195871	10.0	2285280.0	0.439174	Y
6	ICIS 410-207981/15	10.0	4.418366	10.0	2239692.0	0.441837	Y
7	IC 410-207981/14	25.0	11.088665	10.0	2294975.0	0.443547	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

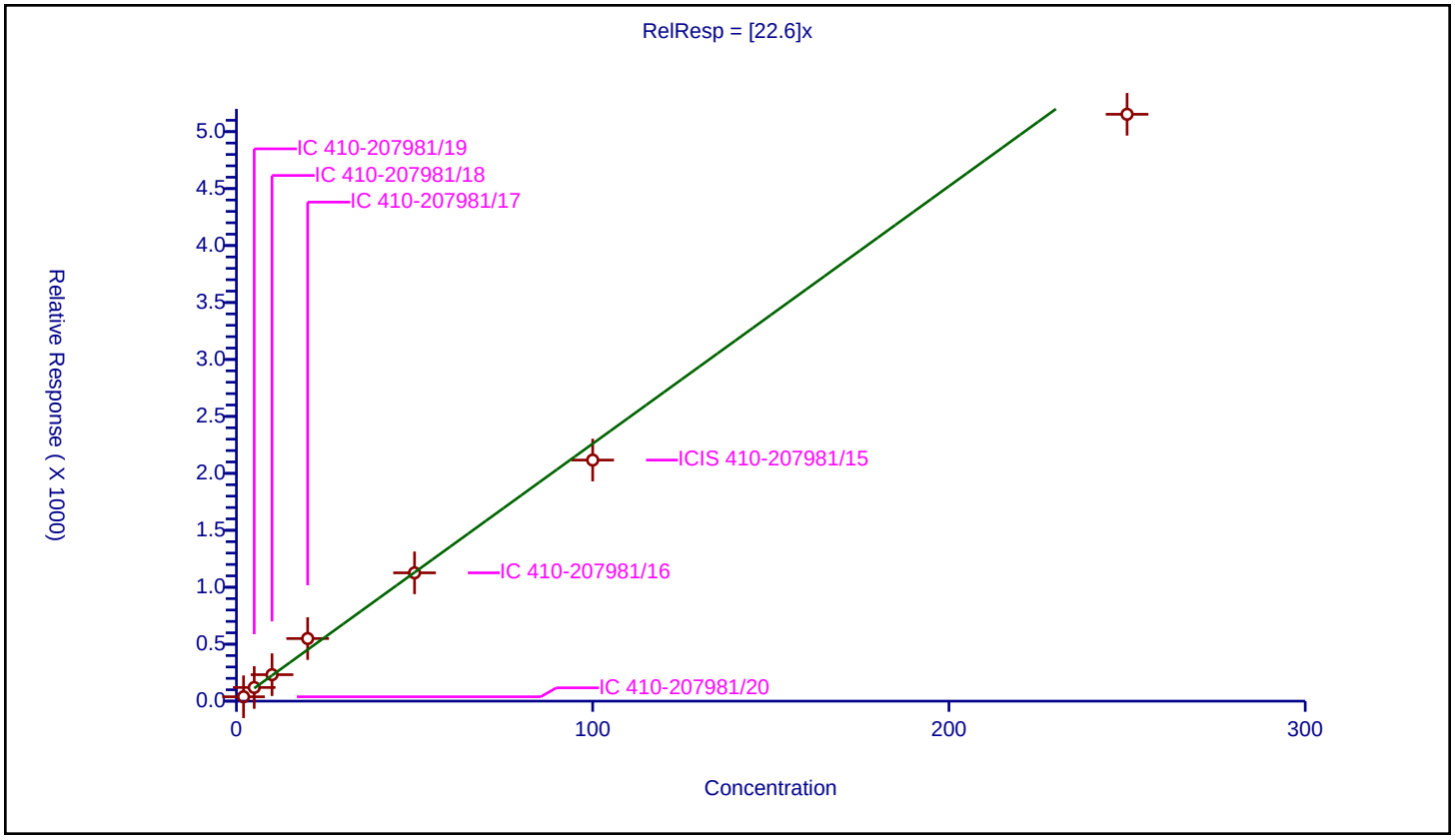
Curve Coefficients

Intercept:	0
Slope:	22.6

Error Coefficients

Standard Error:	3880000
Relative Standard Error:	11.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	38.51756	50.0	81494.0	19.25878	Y
2	IC 410-207981/19	5.0	119.807829	50.0	66191.0	23.961566	Y
3	IC 410-207981/18	10.0	232.218085	50.0	72779.0	23.221808	Y
4	IC 410-207981/17	20.0	549.552206	50.0	62752.0	27.47761	Y
5	IC 410-207981/16	50.0	1126.541847	50.0	77926.0	22.530837	Y
6	ICIS 410-207981/15	100.0	2116.651305	50.0	82456.0	21.166513	Y
7	IC 410-207981/14	250.0	5152.657619	50.0	83778.0	20.61063	Y



Calibration / Toluene-d8 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

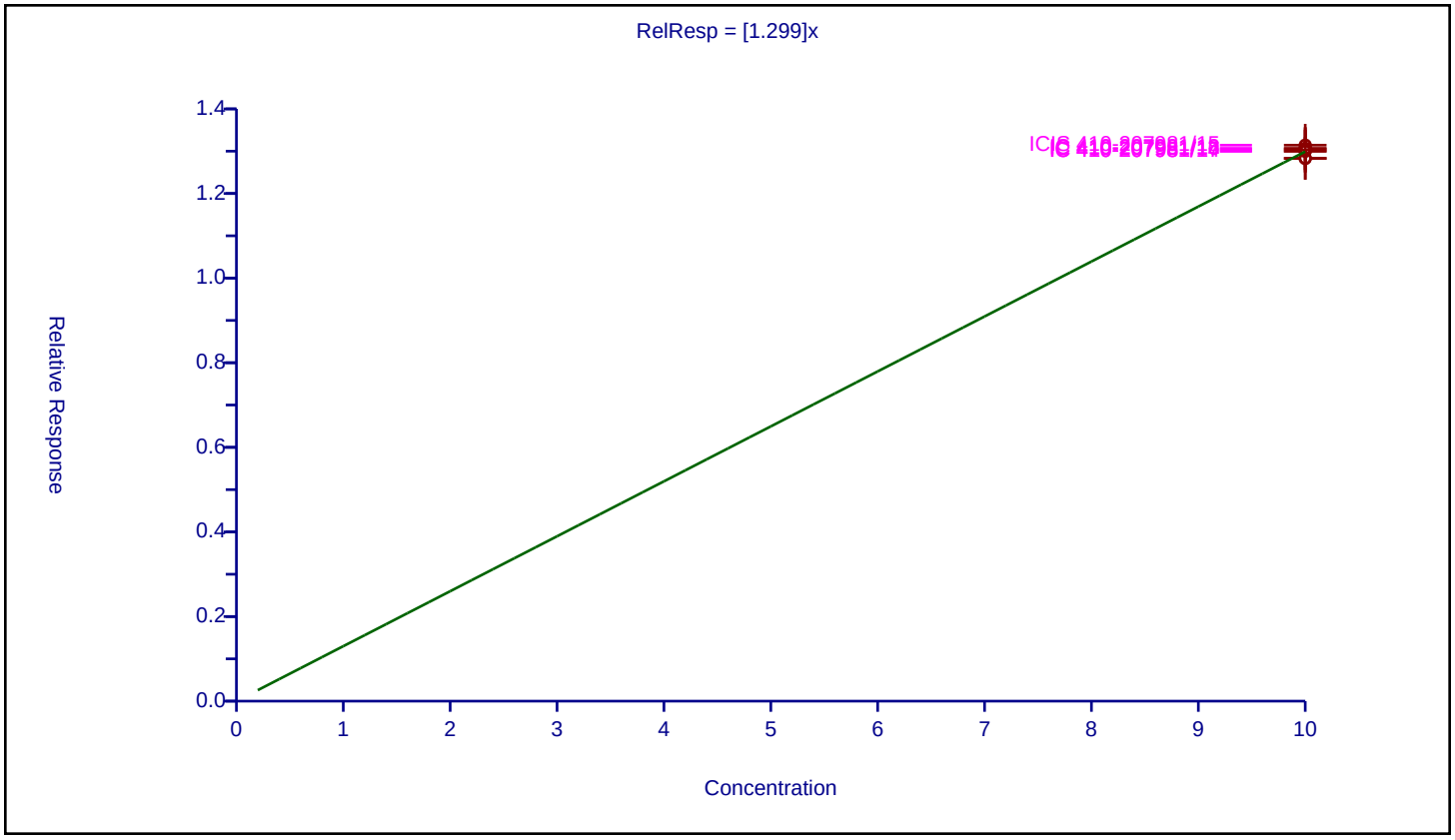
Curve Coefficients

Intercept:	0
Slope:	1.299

Error Coefficients

Standard Error:	2610000
Relative Standard Error:	0.9
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/14	10.0	12.99765	10.0	1860951.0	1.299765	Y
2	ICIS 410-207981/15	10.0	13.142321	10.0	1825218.0	1.314232	Y
3	IC 410-207981/16	10.0	13.055653	10.0	1868144.0	1.305565	Y
4	IC 410-207981/17	10.0	13.006286	10.0	1856553.0	1.300629	Y
5	IC 410-207981/18	10.0	13.066095	10.0	1846913.0	1.306609	Y
6	IC 410-207981/19	10.0	12.83194	10.0	1858493.0	1.283194	Y
7	IC 410-207981/20	10.0	12.828653	10.0	1885106.0	1.282865	Y



Calibration / Toluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

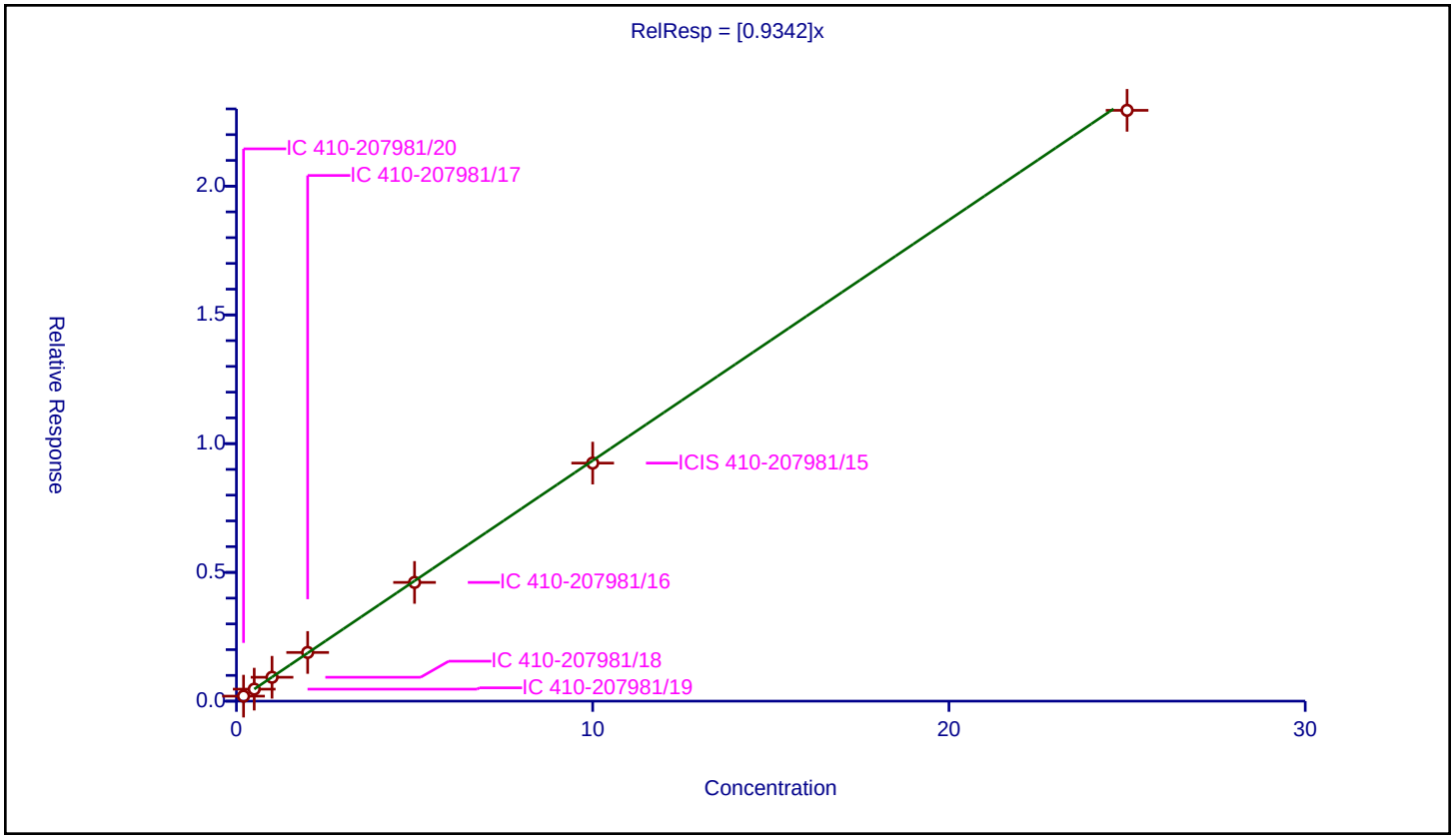
Curve Coefficients

Intercept:	0
Slope:	0.9342

Error Coefficients

Standard Error:	1910000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.194185	10.0	1885106.0	0.970927	Y
2	IC 410-207981/19	0.5	0.466039	10.0	1858493.0	0.932078	Y
3	IC 410-207981/18	1.0	0.927163	10.0	1846913.0	0.927163	Y
4	IC 410-207981/17	2.0	1.89011	10.0	1856553.0	0.945055	Y
5	IC 410-207981/16	5.0	4.610239	10.0	1868144.0	0.922048	Y
6	ICIS 410-207981/15	10.0	9.244293	10.0	1825218.0	0.924429	Y
7	IC 410-207981/14	25.0	22.944118	10.0	1860951.0	0.917765	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

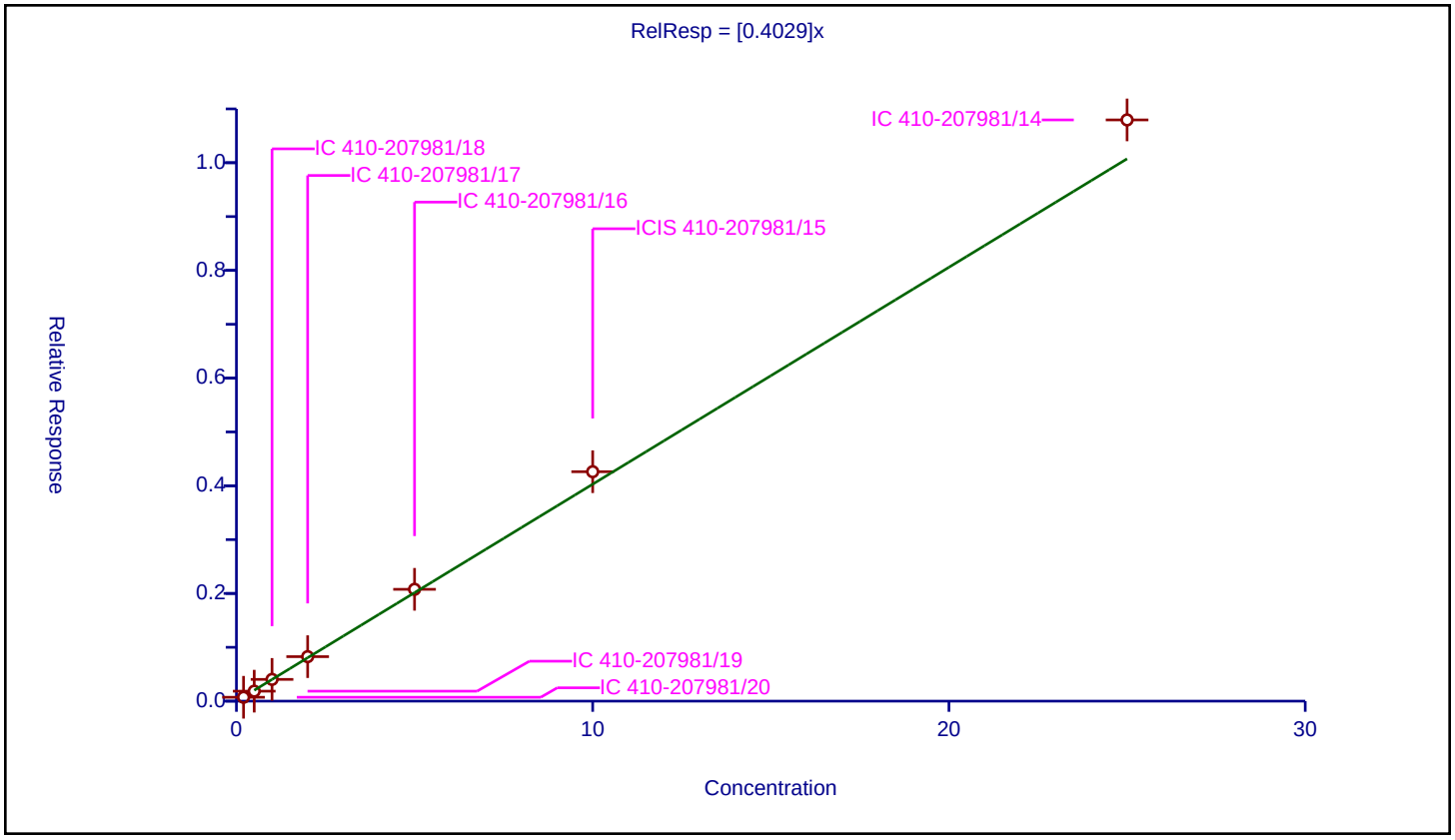
Curve Coefficients

Intercept:	0
Slope:	0.4029

Error Coefficients

Standard Error:	896000
Relative Standard Error:	6.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.071869	10.0	1885106.0	0.359343	Y
2	IC 410-207981/19	0.5	0.185408	10.0	1858493.0	0.370817	Y
3	IC 410-207981/18	1.0	0.403695	10.0	1846913.0	0.403695	Y
4	IC 410-207981/17	2.0	0.826526	10.0	1856553.0	0.413263	Y
5	IC 410-207981/16	5.0	2.076853	10.0	1868144.0	0.415371	Y
6	ICIS 410-207981/15	10.0	4.261414	10.0	1825218.0	0.426141	Y
7	IC 410-207981/14	25.0	10.795077	10.0	1860951.0	0.431803	Y



Calibration / Ethyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

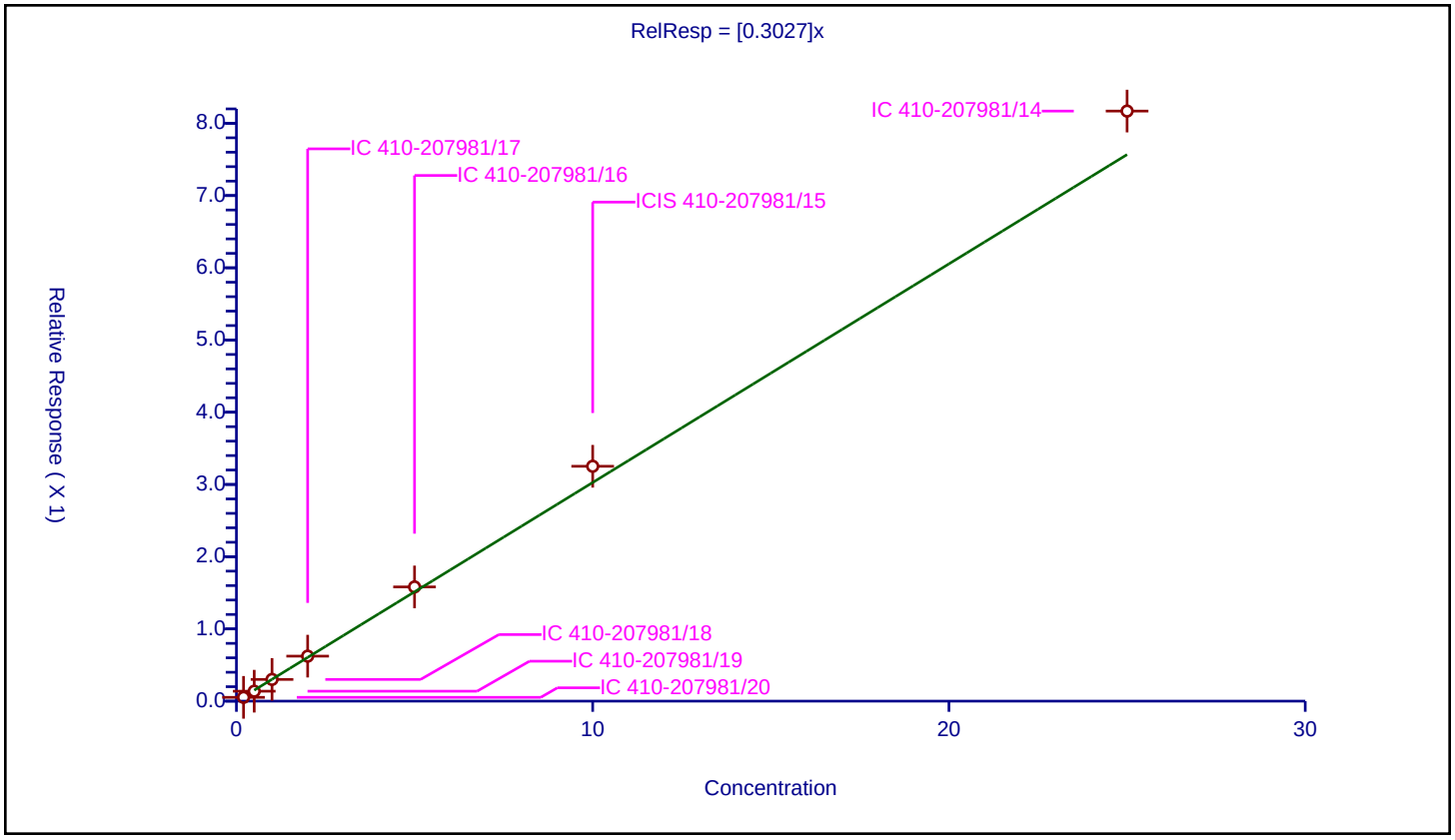
Curve Coefficients

Intercept:	0
Slope:	0.3027

Error Coefficients

Standard Error:	679000
Relative Standard Error:	8.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.052623	10.0	1885106.0	0.263115	Y
2	IC 410-207981/19	0.5	0.137601	10.0	1858493.0	0.275201	Y
3	IC 410-207981/18	1.0	0.300864	10.0	1846913.0	0.300864	Y
4	IC 410-207981/17	2.0	0.622982	10.0	1856553.0	0.311491	Y
5	IC 410-207981/16	5.0	1.581409	10.0	1868144.0	0.316282	Y
6	ICIS 410-207981/15	10.0	3.251913	10.0	1825218.0	0.325191	Y
7	IC 410-207981/14	25.0	8.169887	10.0	1860951.0	0.326795	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

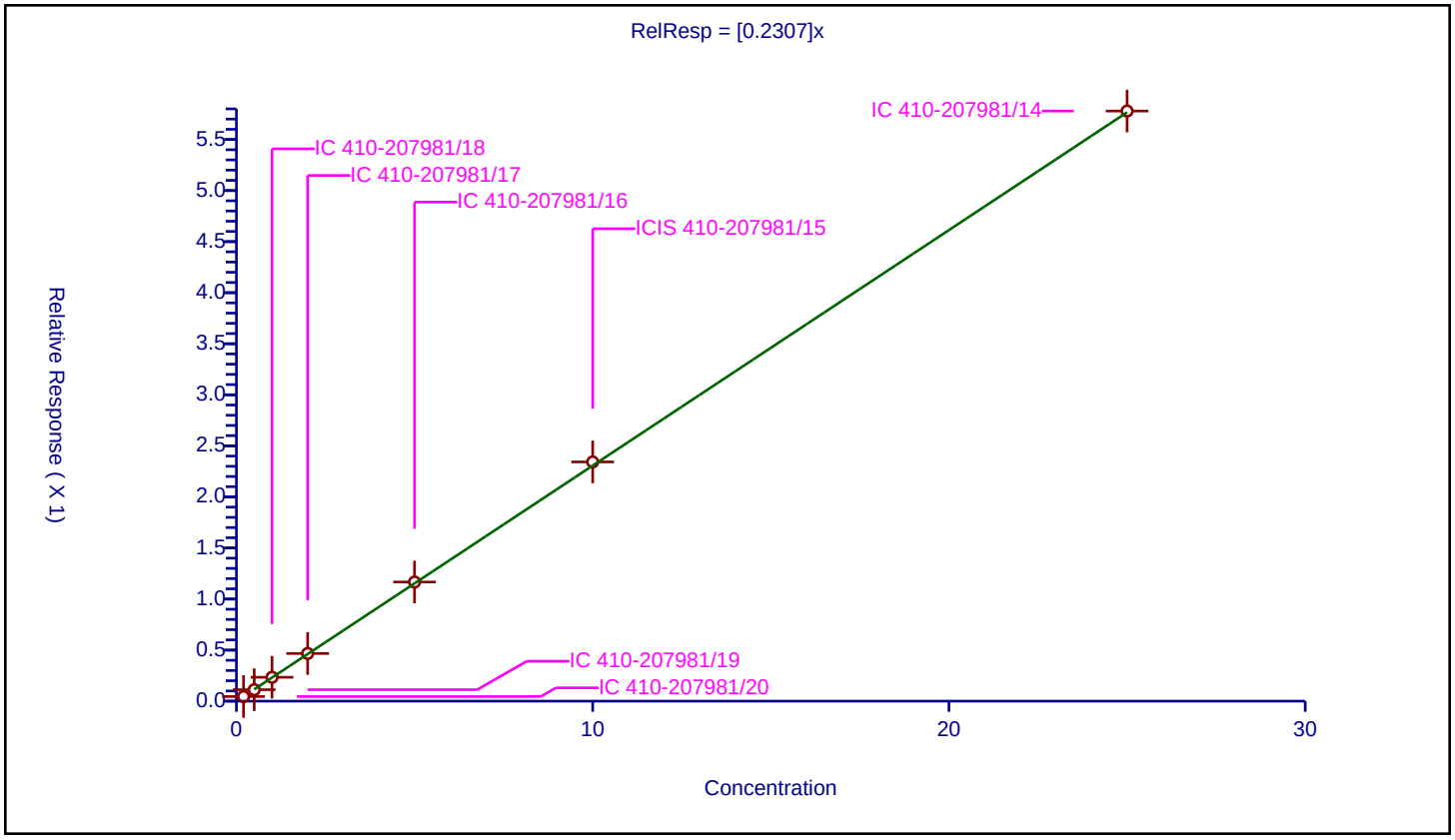
Curve Coefficients

Intercept:	0
Slope:	0.2307

Error Coefficients

Standard Error:	482000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.044936	10.0	1885106.0	0.224682	Y
2	IC 410-207981/19	0.5	0.11201	10.0	1858493.0	0.22402	Y
3	IC 410-207981/18	1.0	0.233763	10.0	1846913.0	0.233763	Y
4	IC 410-207981/17	2.0	0.466752	10.0	1856553.0	0.233376	Y
5	IC 410-207981/16	5.0	1.166548	10.0	1868144.0	0.23331	Y
6	ICIS 410-207981/15	10.0	2.342613	10.0	1825218.0	0.234261	Y
7	IC 410-207981/14	25.0	5.778932	10.0	1860951.0	0.231157	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

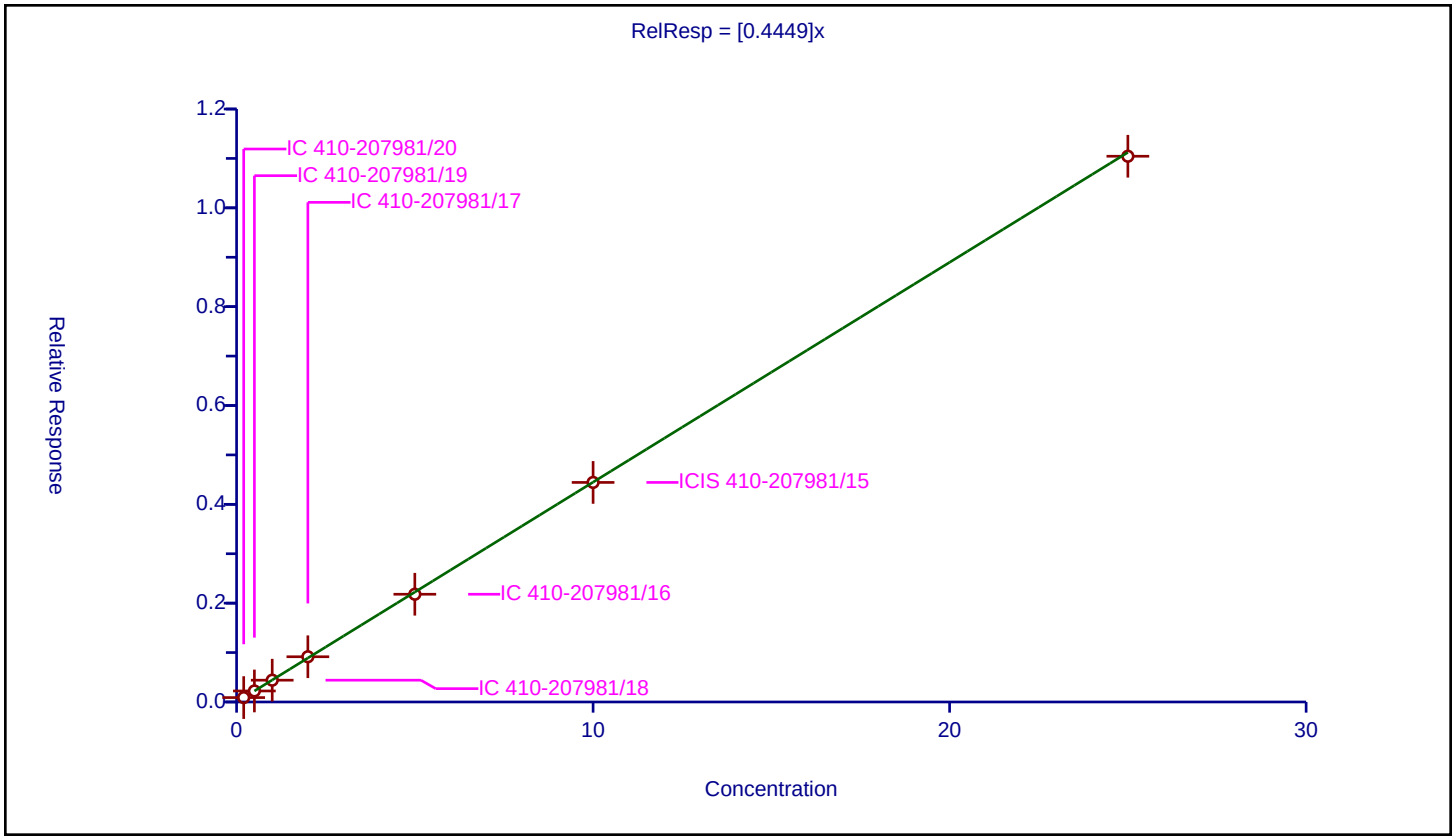
Curve Coefficients

Intercept:	0
Slope:	0.4449

Error Coefficients

Standard Error:	921000
Relative Standard Error:	1.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.08921	10.0	1885106.0	0.446049	Y
2	IC 410-207981/19	0.5	0.223348	10.0	1858493.0	0.446695	Y
3	IC 410-207981/18	1.0	0.441309	10.0	1846913.0	0.441309	Y
4	IC 410-207981/17	2.0	0.915395	10.0	1856553.0	0.457698	Y
5	IC 410-207981/16	5.0	2.180699	10.0	1868144.0	0.43614	Y
6	ICIS 410-207981/15	10.0	4.443393	10.0	1825218.0	0.444339	Y
7	IC 410-207981/14	25.0	11.04452	10.0	1860951.0	0.441781	Y



Calibration / 1,3-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

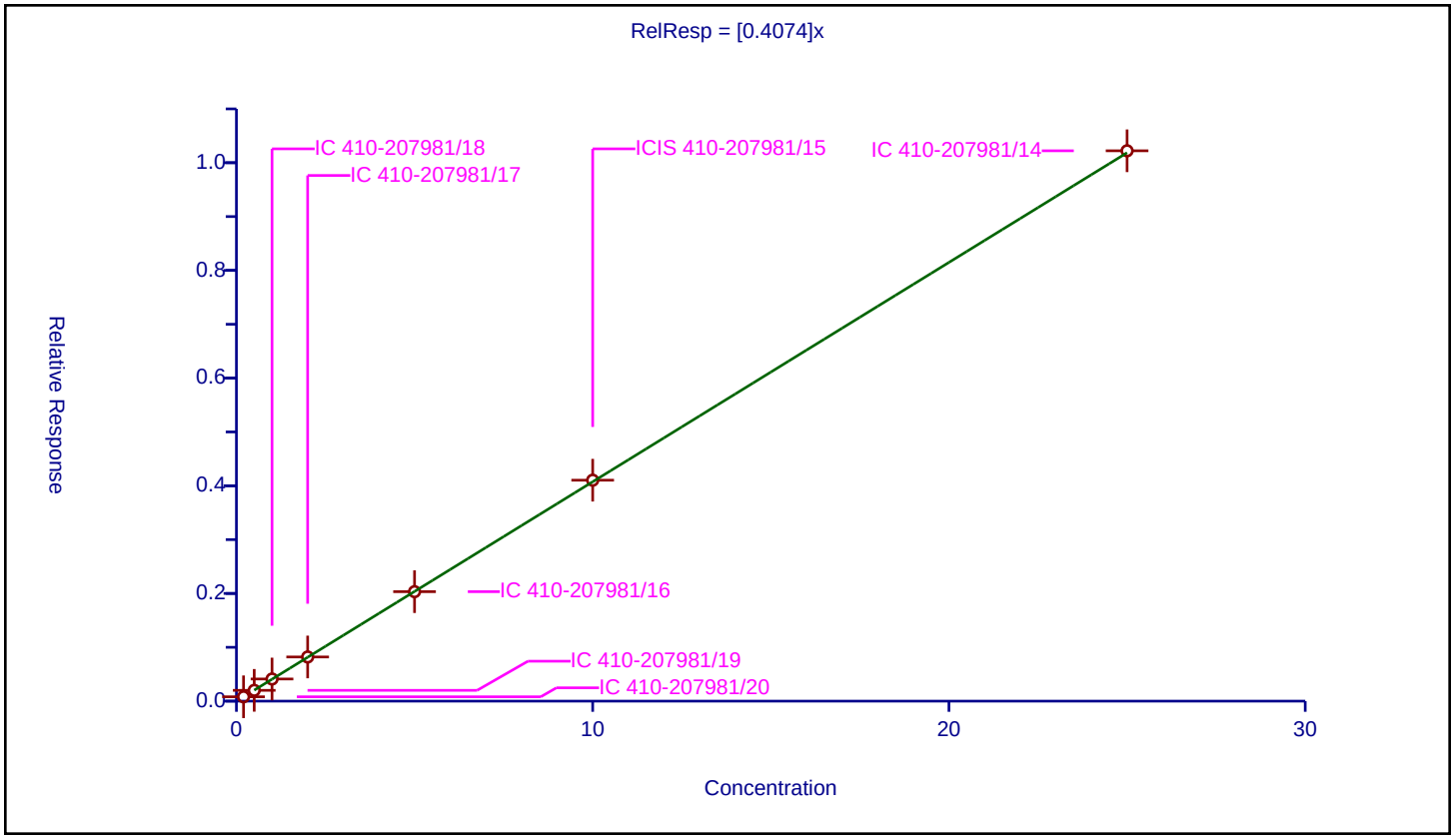
Curve Coefficients

Intercept:	0
Slope:	0.4074

Error Coefficients

Standard Error:	852000
Relative Standard Error:	0.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.080664	10.0	1885106.0	0.403319	Y
2	IC 410-207981/19	0.5	0.200786	10.0	1858493.0	0.401573	Y
3	IC 410-207981/18	1.0	0.411129	10.0	1846913.0	0.411129	Y
4	IC 410-207981/17	2.0	0.820294	10.0	1856553.0	0.410147	Y
5	IC 410-207981/16	5.0	2.033237	10.0	1868144.0	0.406647	Y
6	ICIS 410-207981/15	10.0	4.103581	10.0	1825218.0	0.410358	Y
7	IC 410-207981/14	25.0	10.221827	10.0	1860951.0	0.408873	Y



Calibration / 2-Hexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

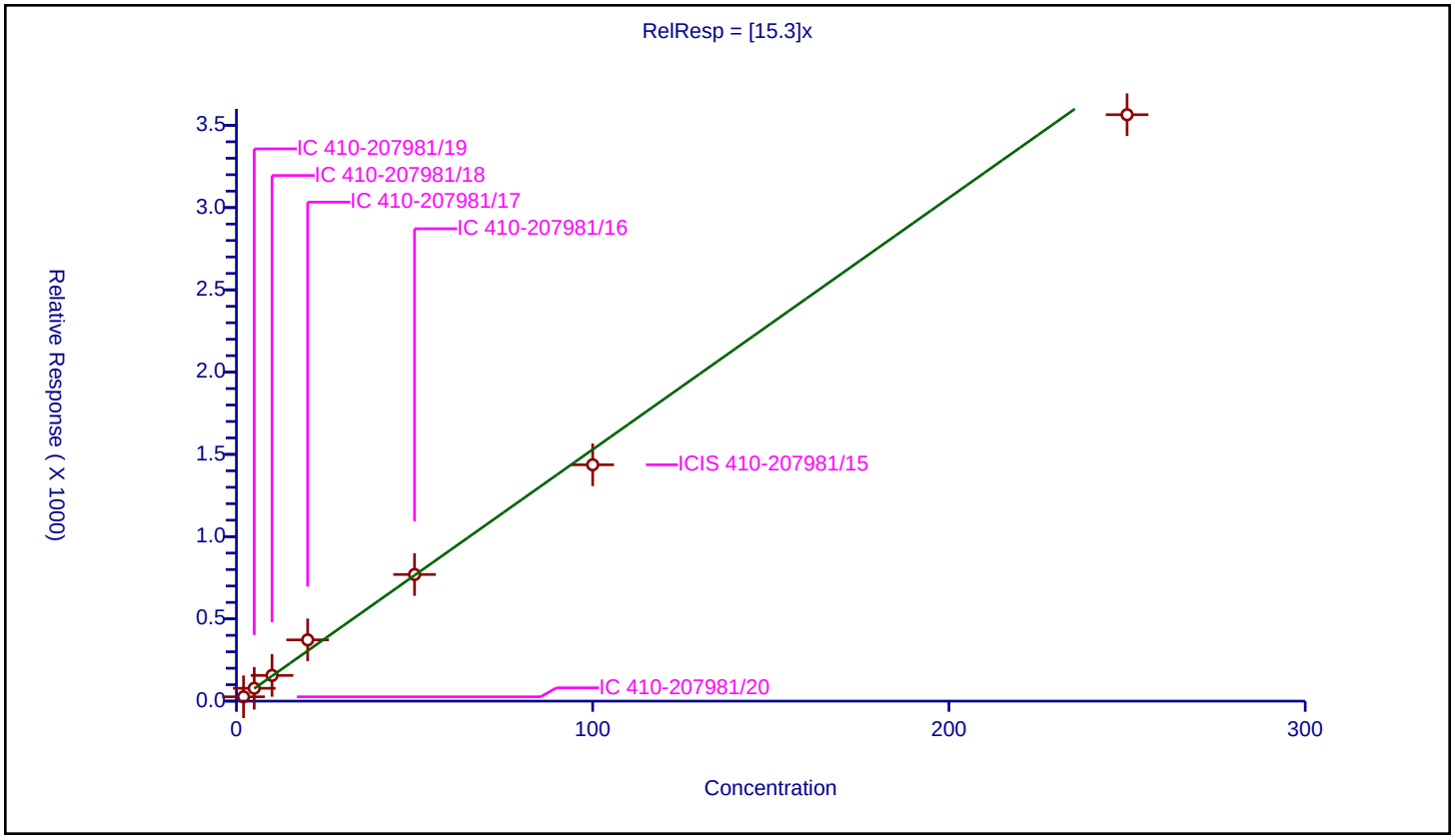
Curve Coefficients

Intercept:	0
Slope:	15.3

Error Coefficients

Standard Error:	2680000
Relative Standard Error:	11.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	26.373107	50.0	81494.0	13.186554	Y
2	IC 410-207981/19	5.0	78.074814	50.0	66191.0	15.614963	Y
3	IC 410-207981/18	10.0	156.352794	50.0	72779.0	15.635279	Y
4	IC 410-207981/17	20.0	372.239132	50.0	62752.0	18.611957	Y
5	IC 410-207981/16	50.0	769.895799	50.0	77926.0	15.397916	Y
6	ICIS 410-207981/15	100.0	1436.715339	50.0	82456.0	14.367153	Y
7	IC 410-207981/14	250.0	3564.678675	50.0	83778.0	14.258715	Y



Calibration / Chlorodibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

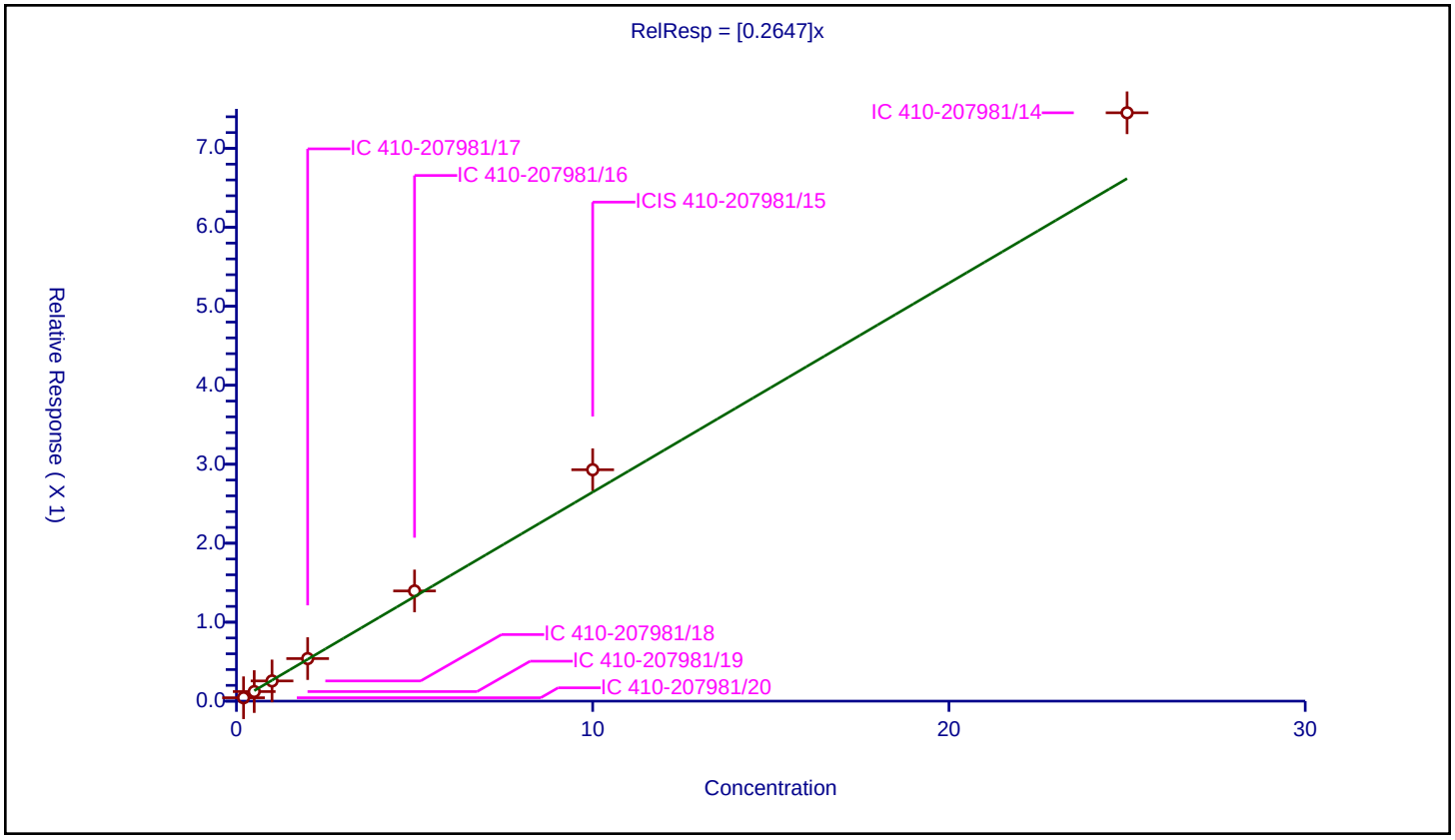
Curve Coefficients

Intercept:	0
Slope:	0.2647

Error Coefficients

Standard Error:	618000
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 410-207981/20	0.2	0.042942	10.0	1885106.0	0.214709	Y
2	IC 410-207981/19	0.5	0.121335	10.0	1858493.0	0.24267	Y
3	IC 410-207981/18	1.0	0.255941	10.0	1846913.0	0.255941	Y
4	IC 410-207981/17	2.0	0.538967	10.0	1856553.0	0.269483	Y
5	IC 410-207981/16	5.0	1.395487	10.0	1868144.0	0.279097	Y
6	ICIS 410-207981/15	10.0	2.930428	10.0	1825218.0	0.293043	Y
7	IC 410-207981/14	25.0	7.450857	10.0	1860951.0	0.298034	Y



Calibration / Ethylene Dibromide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

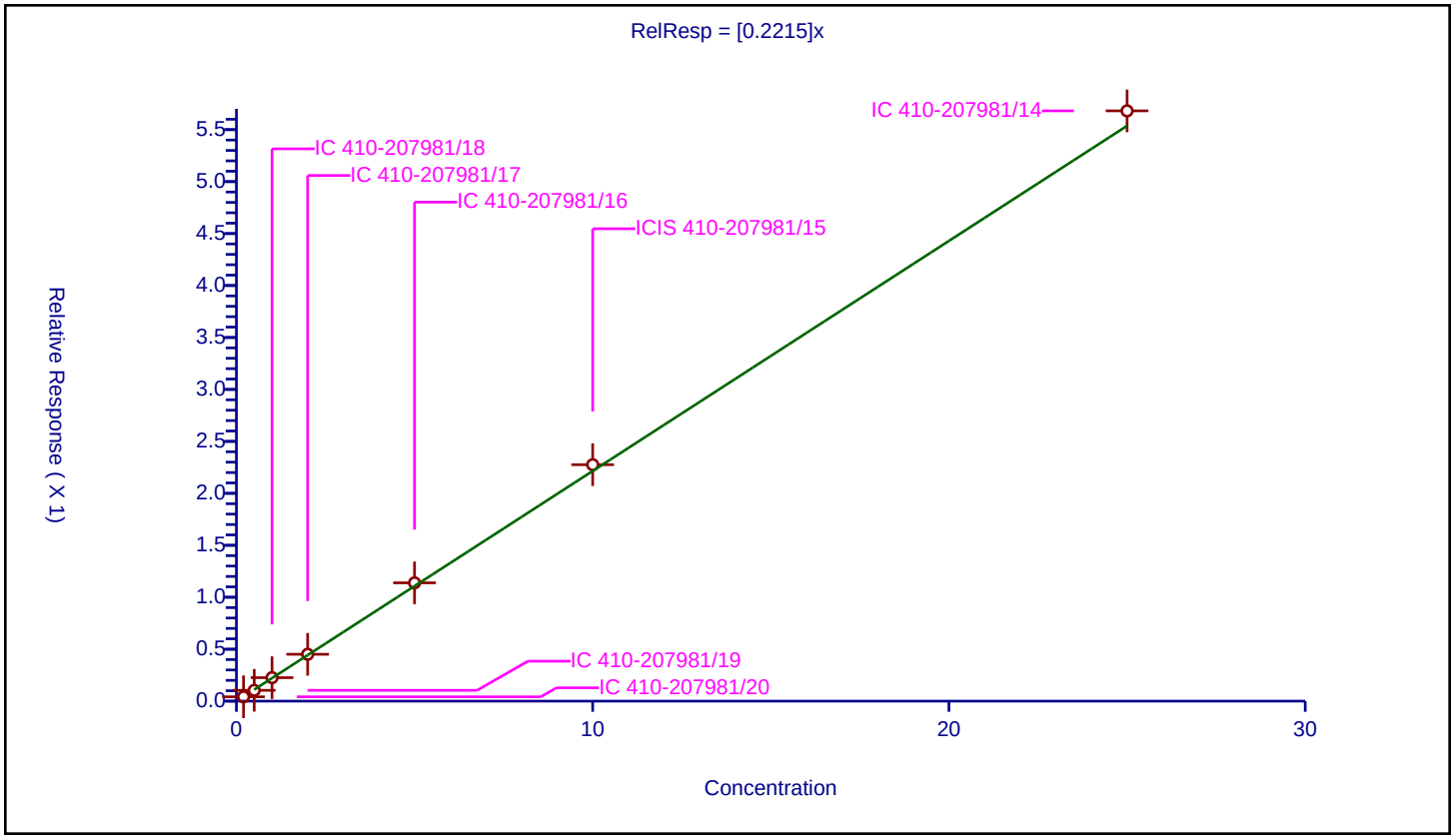
Curve Coefficients

Intercept:	0
Slope:	0.2215

Error Coefficients

Standard Error:	473000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.041632	10.0	1885106.0	0.208158	Y
2	IC 410-207981/19	0.5	0.104154	10.0	1858493.0	0.208309	Y
3	IC 410-207981/18	1.0	0.225901	10.0	1846913.0	0.225901	Y
4	IC 410-207981/17	2.0	0.451029	10.0	1856553.0	0.225515	Y
5	IC 410-207981/16	5.0	1.138451	10.0	1868144.0	0.22769	Y
6	ICIS 410-207981/15	10.0	2.275509	10.0	1825218.0	0.227551	Y
7	IC 410-207981/14	25.0	5.681015	10.0	1860951.0	0.227241	Y



Calibration / 1-Chlorohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

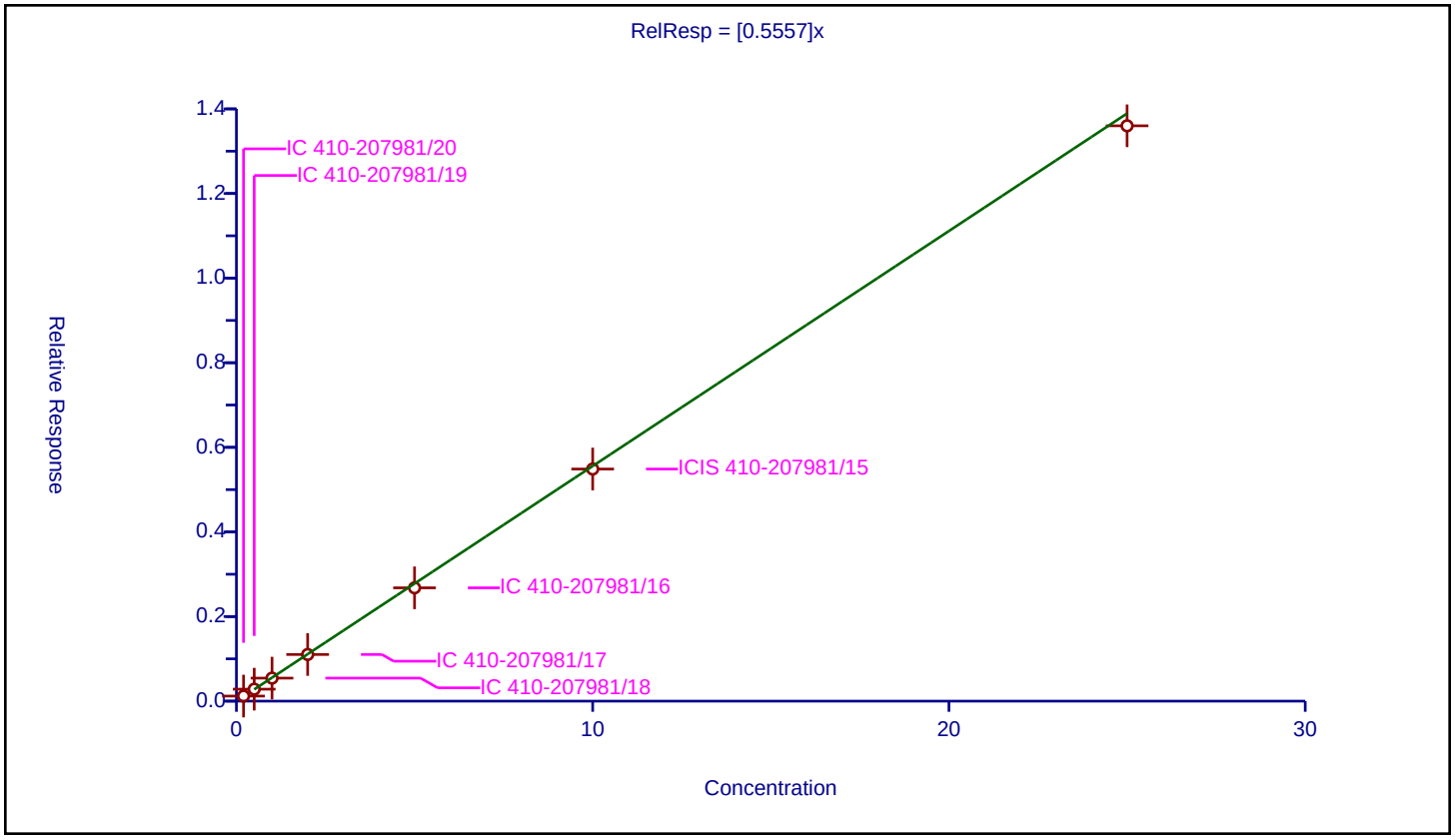
Curve Coefficients

Intercept:	0
Slope:	0.5557

Error Coefficients

Standard Error:	1130000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.119824	10.0	1885106.0	0.599118	Y
2	IC 410-207981/19	0.5	0.283176	10.0	1858493.0	0.566351	Y
3	IC 410-207981/18	1.0	0.544557	10.0	1846913.0	0.544557	Y
4	IC 410-207981/17	2.0	1.102823	10.0	1856553.0	0.551412	Y
5	IC 410-207981/16	5.0	2.678428	10.0	1868144.0	0.535686	Y
6	ICIS 410-207981/15	10.0	5.48638	10.0	1825218.0	0.548638	Y
7	IC 410-207981/14	25.0	13.600079	10.0	1860951.0	0.544003	Y



Calibration / Chlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

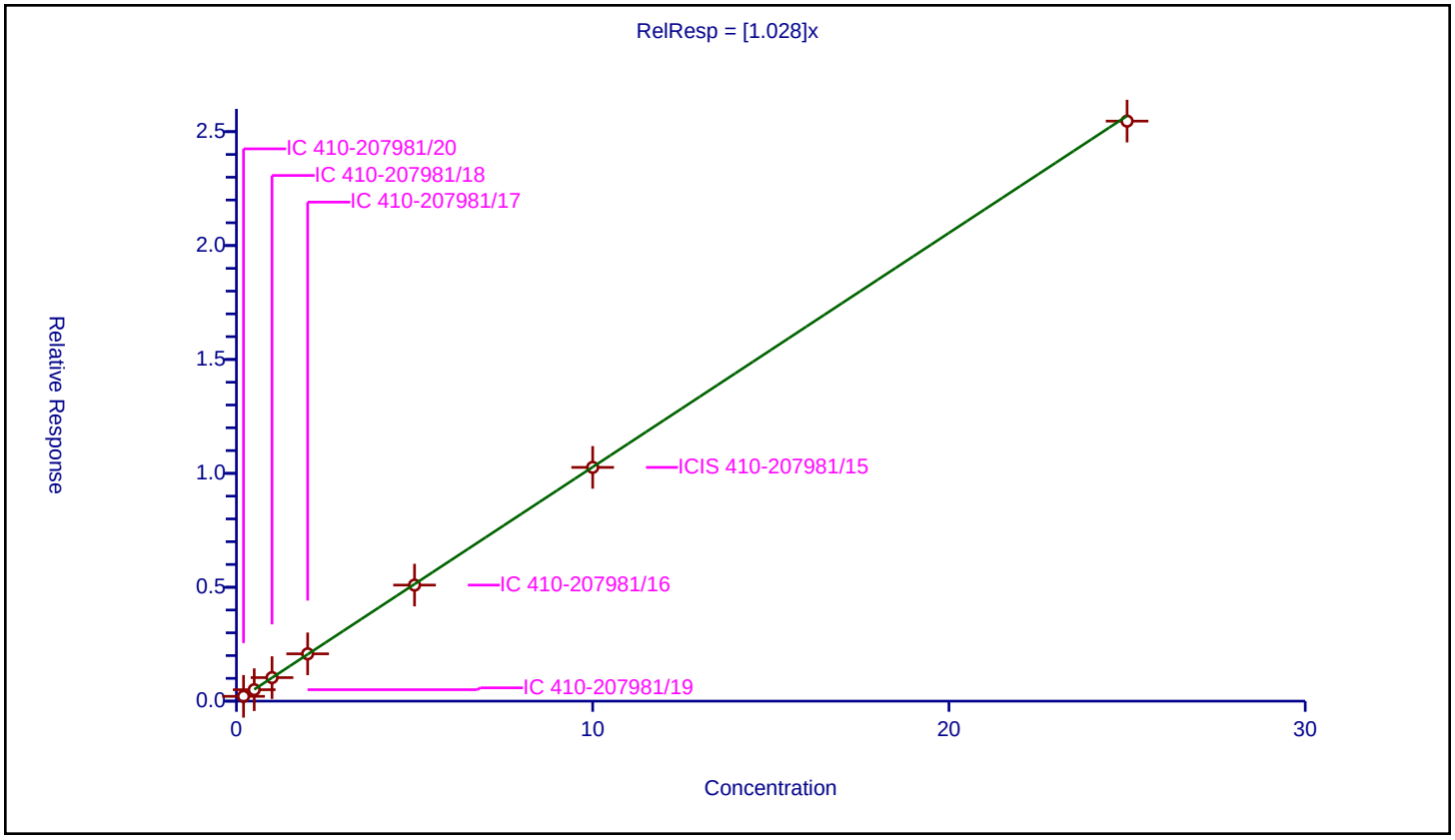
Curve Coefficients

Intercept:	0
Slope:	1.028

Error Coefficients

Standard Error:	2120000
Relative Standard Error:	1.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.210768	10.0	1885106.0	1.05384	Y
2	IC 410-207981/19	0.5	0.502369	10.0	1858493.0	1.004739	Y
3	IC 410-207981/18	1.0	1.033043	10.0	1846913.0	1.033043	Y
4	IC 410-207981/17	2.0	2.077188	10.0	1856553.0	1.038594	Y
5	IC 410-207981/16	5.0	5.09548	10.0	1868144.0	1.019096	Y
6	ICIS 410-207981/15	10.0	10.262045	10.0	1825218.0	1.026205	Y
7	IC 410-207981/14	25.0	25.462895	10.0	1860951.0	1.018516	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

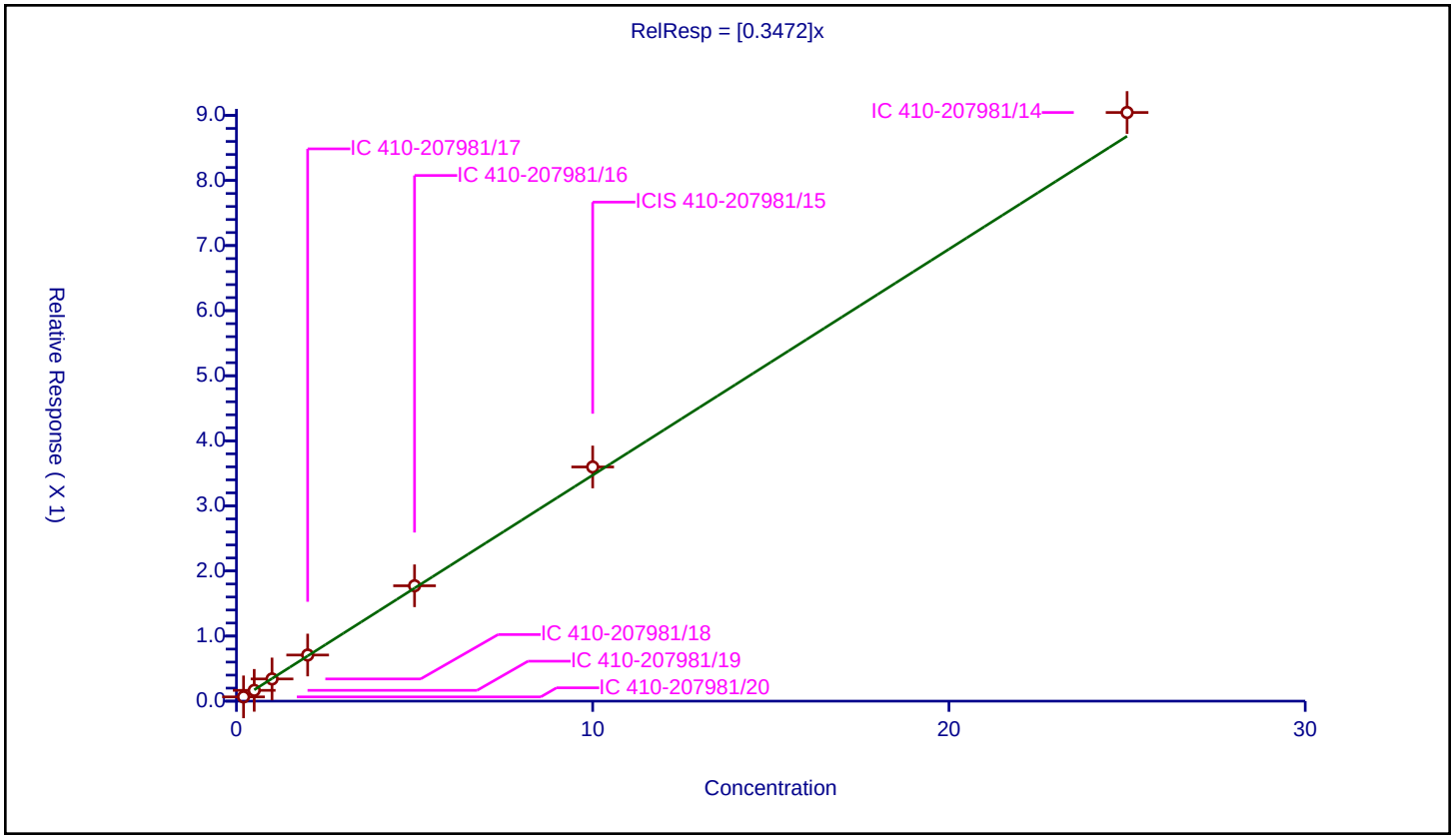
Curve Coefficients

Intercept:	0
Slope:	0.3472

Error Coefficients

Standard Error:	752000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.065476	10.0	1885106.0	0.327382	Y
2	IC 410-207981/19	0.5	0.165914	10.0	1858493.0	0.331828	Y
3	IC 410-207981/18	1.0	0.340969	10.0	1846913.0	0.340969	Y
4	IC 410-207981/17	2.0	0.70869	10.0	1856553.0	0.354345	Y
5	IC 410-207981/16	5.0	1.77247	10.0	1868144.0	0.354494	Y
6	ICIS 410-207981/15	10.0	3.598387	10.0	1825218.0	0.359839	Y
7	IC 410-207981/14	25.0	9.044687	10.0	1860951.0	0.361787	Y



Calibration / Ethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

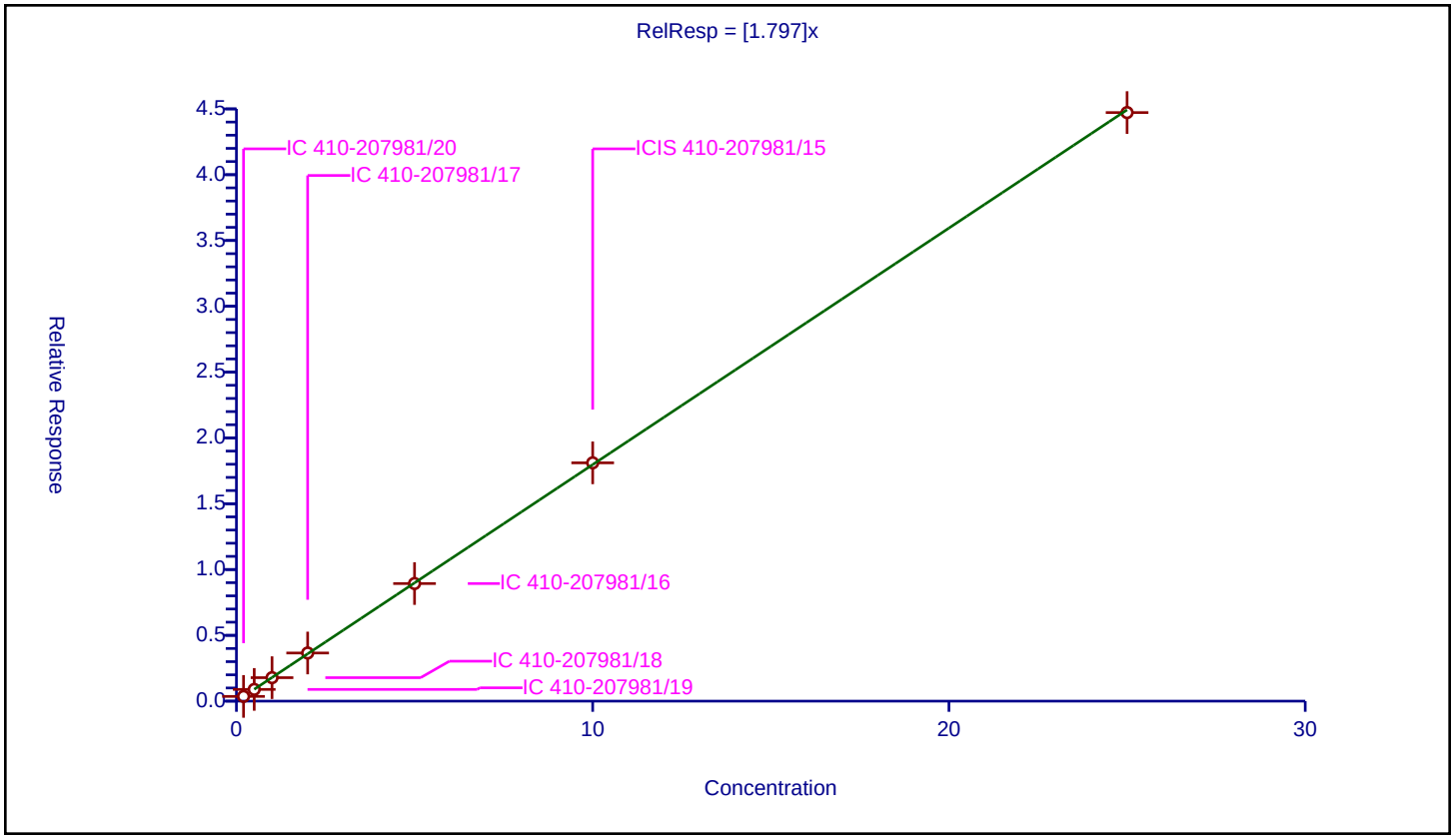
Curve Coefficients

Intercept:	0
Slope:	1.797

Error Coefficients

Standard Error:	3730000
Relative Standard Error:	1.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.360027	10.0	1885106.0	1.800137	Y
2	IC 410-207981/19	0.5	0.89091	10.0	1858493.0	1.78182	Y
3	IC 410-207981/18	1.0	1.78304	10.0	1846913.0	1.78304	Y
4	IC 410-207981/17	2.0	3.656982	10.0	1856553.0	1.828491	Y
5	IC 410-207981/16	5.0	8.935451	10.0	1868144.0	1.78709	Y
6	ICIS 410-207981/15	10.0	18.106982	10.0	1825218.0	1.810698	Y
7	IC 410-207981/14	25.0	44.72092	10.0	1860951.0	1.788837	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

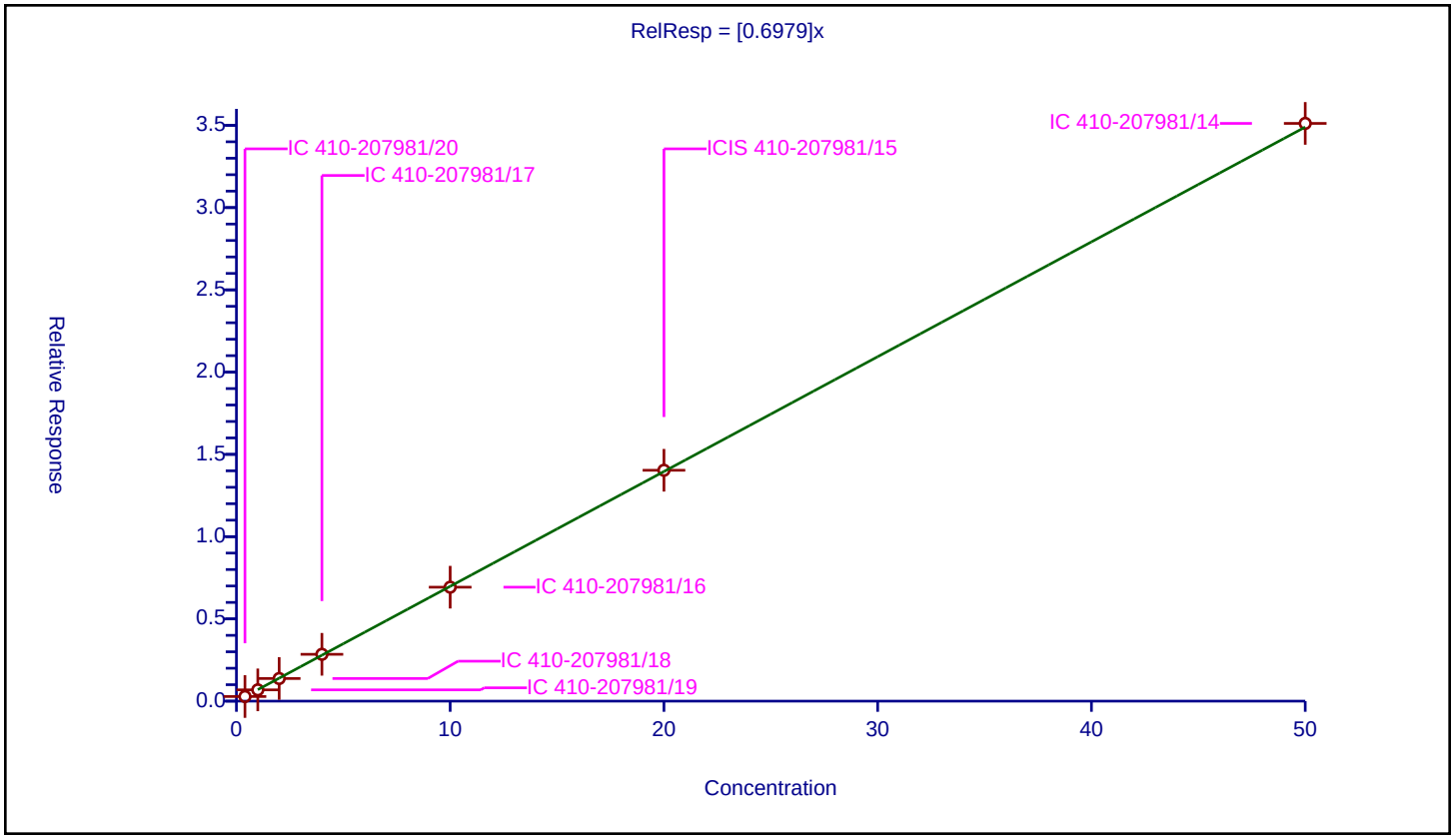
Curve Coefficients

Intercept:	0
Slope:	0.6979

Error Coefficients

Standard Error:	2920000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.4	0.281406	10.0	1885106.0	0.703515	Y
2	IC 410-207981/19	1.0	0.685738	10.0	1858493.0	0.685738	Y
3	IC 410-207981/18	2.0	1.375116	10.0	1846913.0	0.687558	Y
4	IC 410-207981/17	4.0	2.847072	10.0	1856553.0	0.711768	Y
5	IC 410-207981/16	10.0	6.926607	10.0	1868144.0	0.692661	Y
6	ICIS 410-207981/15	20.0	14.034011	10.0	1825218.0	0.701701	Y
7	IC 410-207981/14	50.0	35.117077	10.0	1860951.0	0.702342	Y



Calibration / o-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

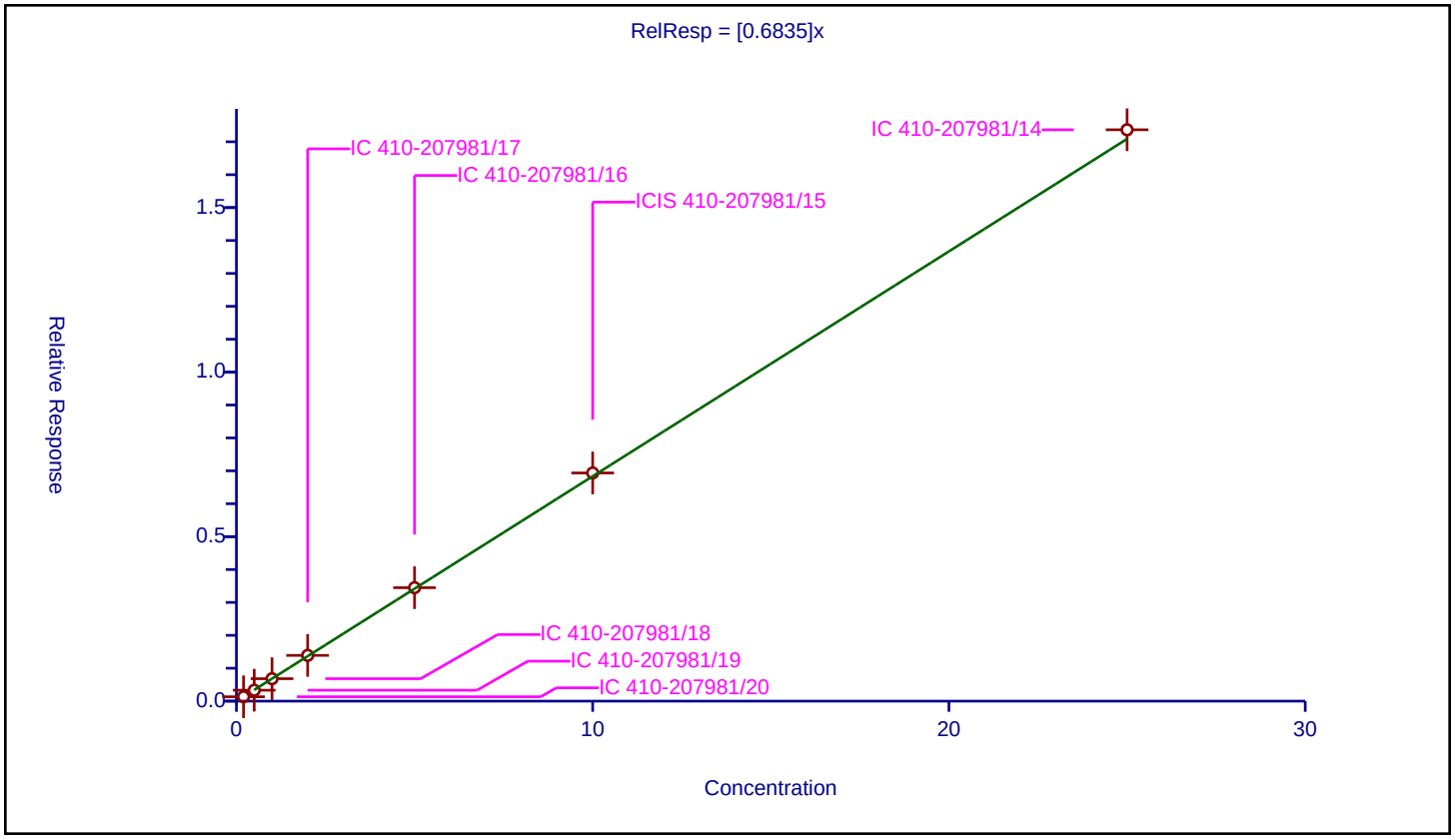
Curve Coefficients

Intercept:	0
Slope:	0.6835

Error Coefficients

Standard Error:	1450000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.133117	10.0	1885106.0	0.665586	Y
2	IC 410-207981/19	0.5	0.331963	10.0	1858493.0	0.663925	Y
3	IC 410-207981/18	1.0	0.681933	10.0	1846913.0	0.681933	Y
4	IC 410-207981/17	2.0	1.390313	10.0	1856553.0	0.695157	Y
5	IC 410-207981/16	5.0	3.448155	10.0	1868144.0	0.689631	Y
6	ICIS 410-207981/15	10.0	6.935128	10.0	1825218.0	0.693513	Y
7	IC 410-207981/14	25.0	17.365632	10.0	1860951.0	0.694625	Y



Calibration / Styrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

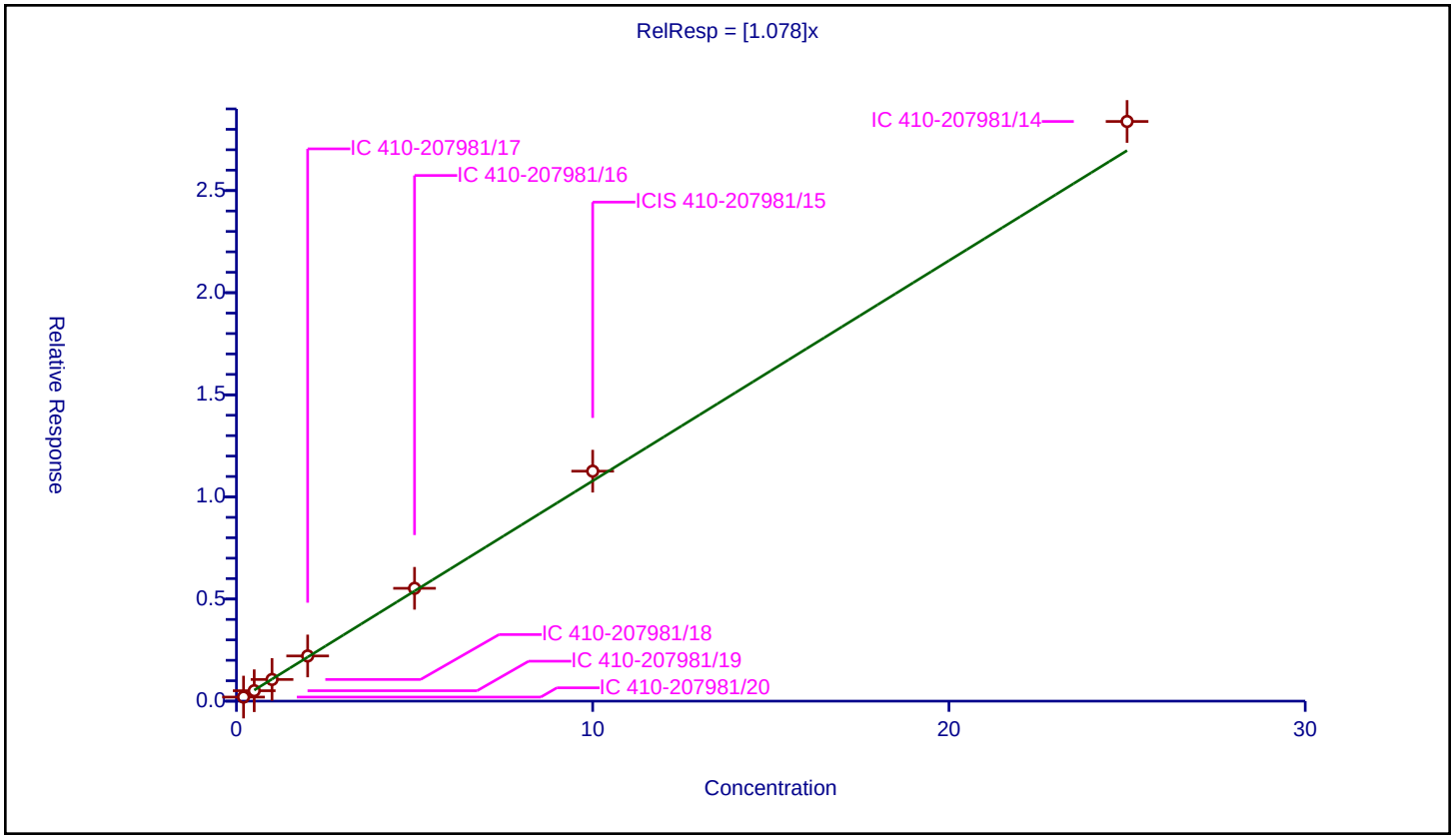
Curve Coefficients

Intercept:	0
Slope:	1.078

Error Coefficients

Standard Error:	2360000
Relative Standard Error:	5.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.198838	10.0	1885106.0	0.994188	Y
2	IC 410-207981/19	0.5	0.510995	10.0	1858493.0	1.021989	Y
3	IC 410-207981/18	1.0	1.060283	10.0	1846913.0	1.060283	Y
4	IC 410-207981/17	2.0	2.212983	10.0	1856553.0	1.106491	Y
5	IC 410-207981/16	5.0	5.524649	10.0	1868144.0	1.10493	Y
6	ICIS 410-207981/15	10.0	11.260737	10.0	1825218.0	1.126074	Y
7	IC 410-207981/14	25.0	28.384648	10.0	1860951.0	1.135386	Y



Calibration / Bromoform

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

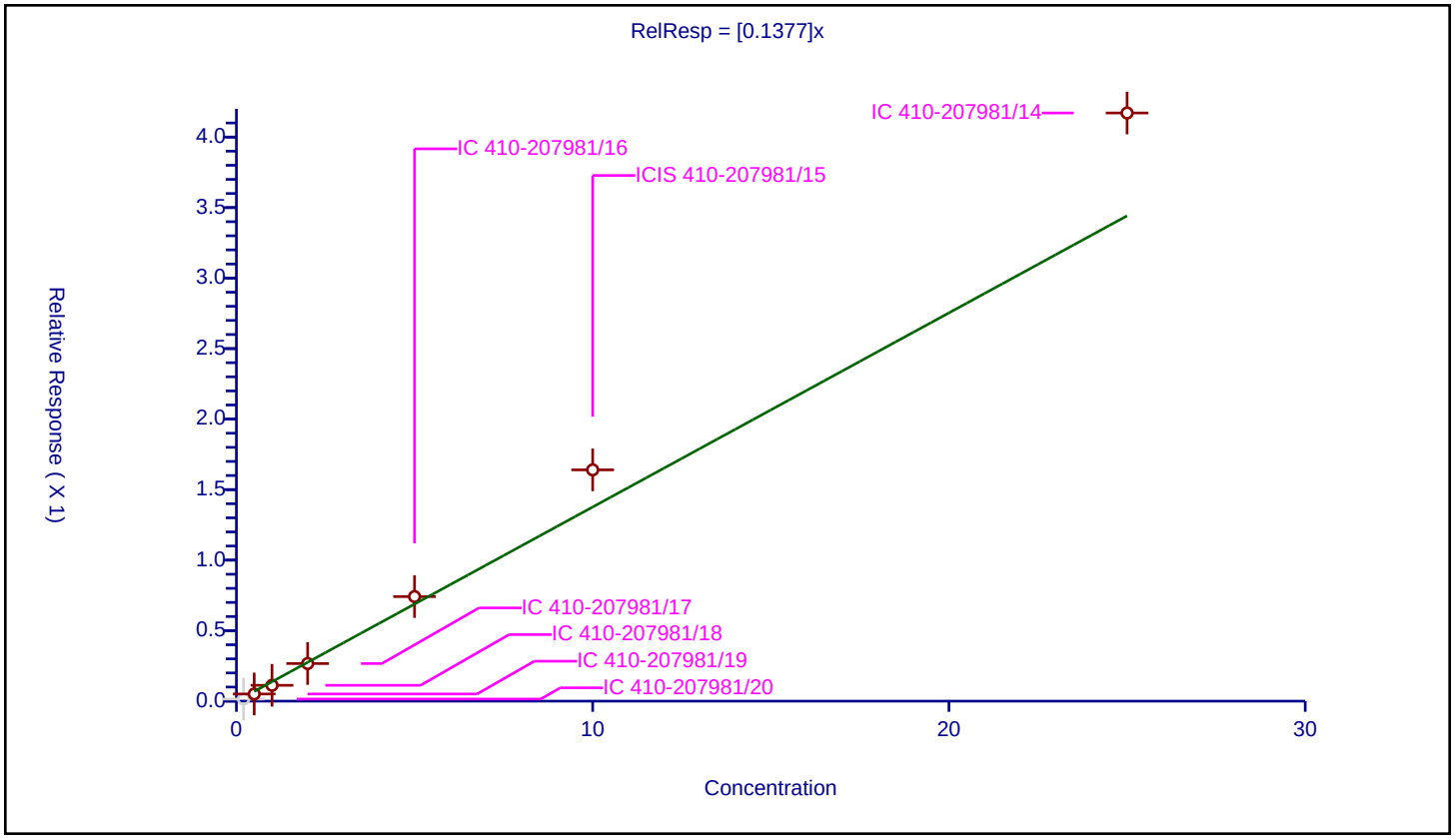
Curve Coefficients

Intercept:	0
Slope:	0.1377

Error Coefficients

Standard Error:	378000
Relative Standard Error:	19.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.955

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.014768	10.0	1885106.0	0.073842	N
2	IC 410-207981/19	0.5	0.050622	10.0	1858493.0	0.101243	Y
3	IC 410-207981/18	1.0	0.112301	10.0	1846913.0	0.112301	Y
4	IC 410-207981/17	2.0	0.266661	10.0	1856553.0	0.13333	Y
5	IC 410-207981/16	5.0	0.741378	10.0	1868144.0	0.148276	Y
6	ICIS 410-207981/15	10.0	1.640199	10.0	1825218.0	0.16402	Y
7	IC 410-207981/14	25.0	4.17097	10.0	1860951.0	0.166839	Y



Calibration / Isopropylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

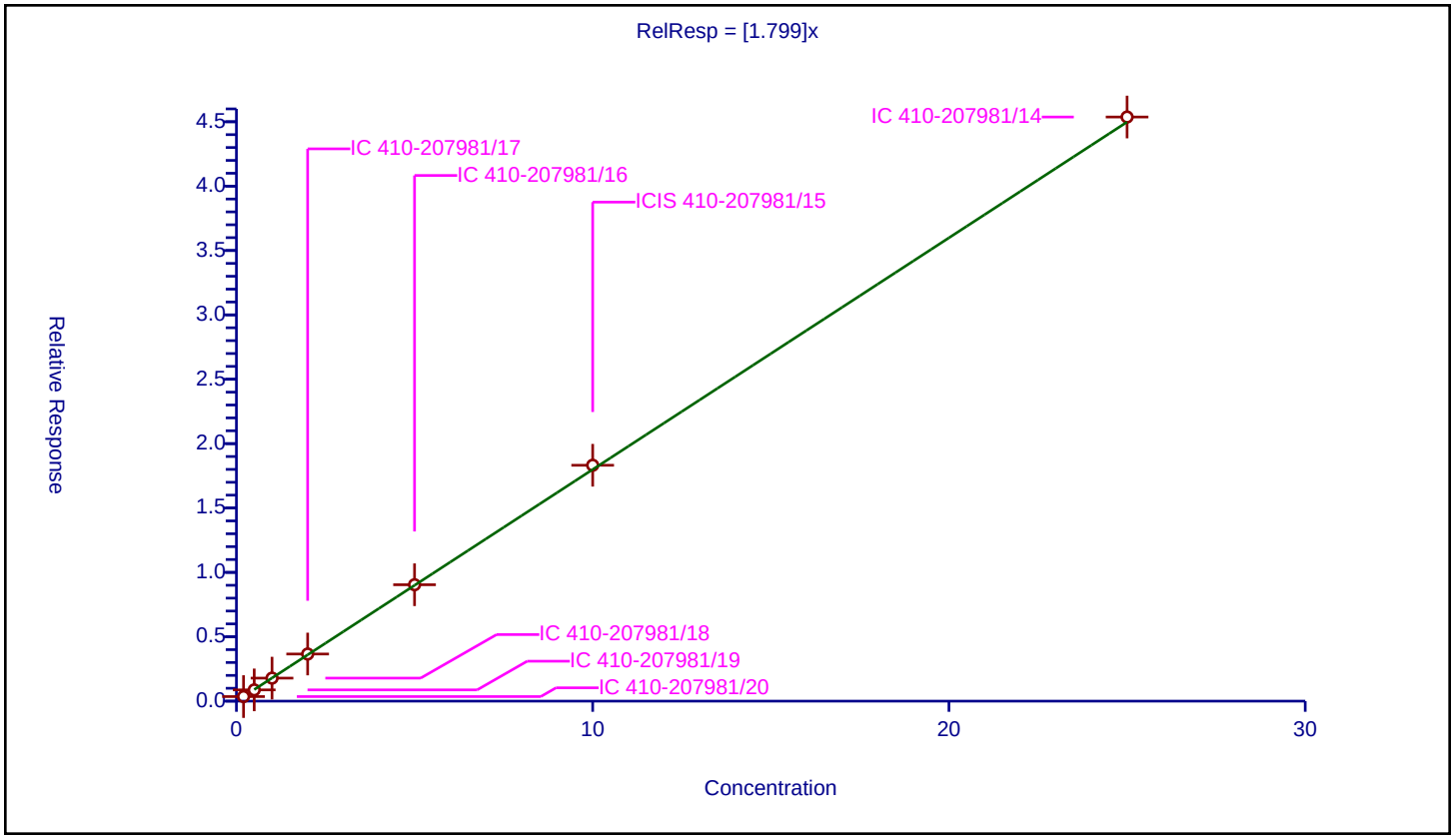
Curve Coefficients

Intercept:	0
Slope:	1.799

Error Coefficients

Standard Error:	3780000
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.354702	10.0	1885106.0	1.773508	Y
2	IC 410-207981/19	0.5	0.873692	10.0	1858493.0	1.747383	Y
3	IC 410-207981/18	1.0	1.788195	10.0	1846913.0	1.788195	Y
4	IC 410-207981/17	2.0	3.660763	10.0	1856553.0	1.830381	Y
5	IC 410-207981/16	5.0	9.041466	10.0	1868144.0	1.808293	Y
6	ICIS 410-207981/15	10.0	18.321384	10.0	1825218.0	1.832138	Y
7	IC 410-207981/14	25.0	45.369427	10.0	1860951.0	1.814777	Y



Calibration / 4-Bromofluorobenzene (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

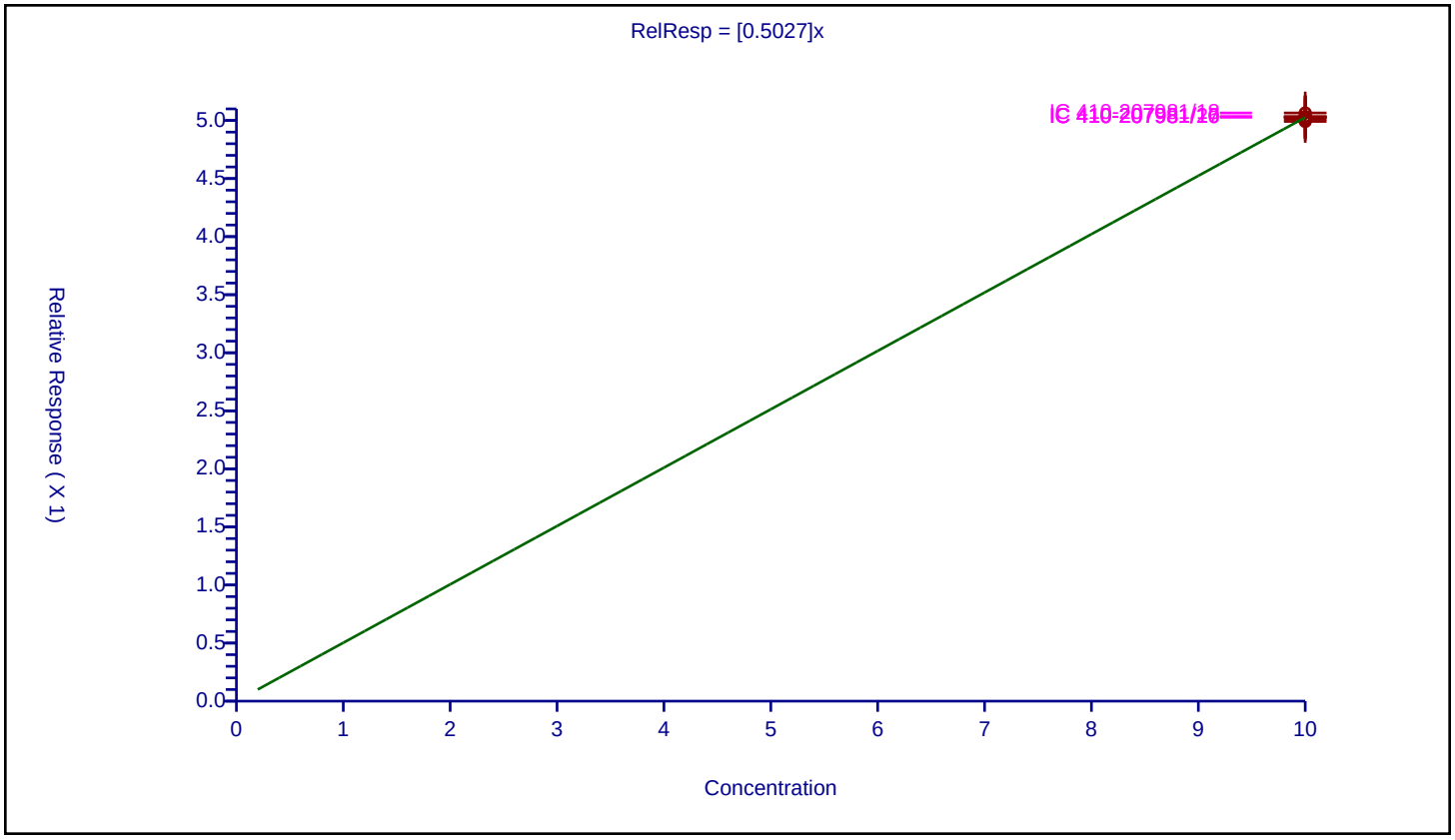
Curve Coefficients

Intercept:	0
Slope:	0.5027

Error Coefficients

Standard Error:	1010000
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 410-207981/14	10.0	4.991803	10.0	1860951.0	0.49918	Y
2	ICIS 410-207981/15	10.0	5.009626	10.0	1825218.0	0.500963	Y
3	IC 410-207981/16	10.0	5.032851	10.0	1868144.0	0.503285	Y
4	IC 410-207981/17	10.0	5.031039	10.0	1856553.0	0.503104	Y
5	IC 410-207981/18	10.0	5.064873	10.0	1846913.0	0.506487	Y
6	IC 410-207981/19	10.0	5.025642	10.0	1858493.0	0.502564	Y
7	IC 410-207981/20	10.0	5.030041	10.0	1885106.0	0.503004	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

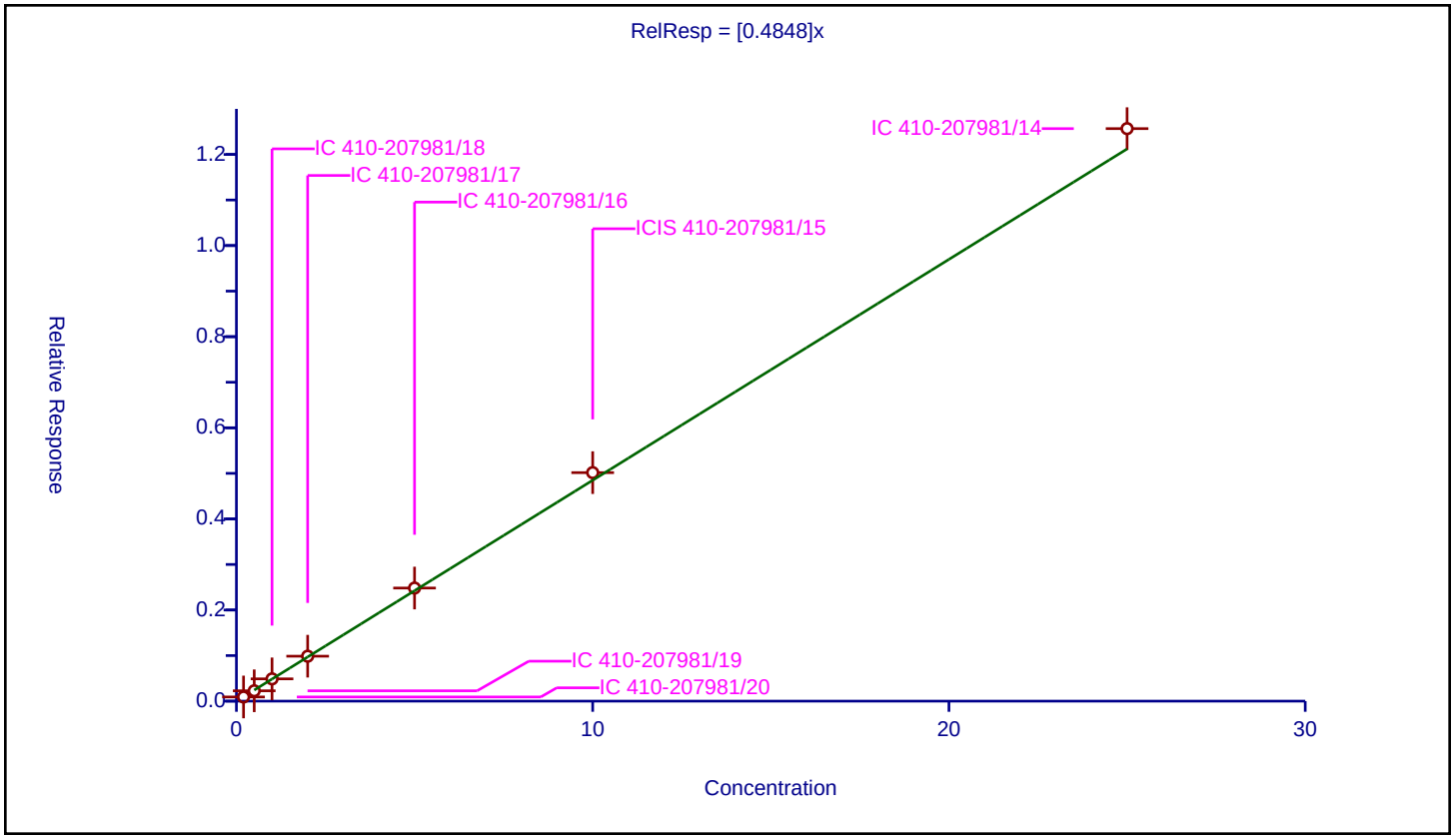
Curve Coefficients

Intercept:	0
Slope:	0.4848

Error Coefficients

Standard Error:	591000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.091284	10.0	1081350.0	0.45642	Y
2	IC 410-207981/19	0.5	0.227109	10.0	1061163.0	0.454219	Y
3	IC 410-207981/18	1.0	0.489148	10.0	1062215.0	0.489148	Y
4	IC 410-207981/17	2.0	0.986557	10.0	1055621.0	0.493278	Y
5	IC 410-207981/16	5.0	2.48266	10.0	1053366.0	0.496532	Y
6	ICIS 410-207981/15	10.0	5.015922	10.0	1033132.0	0.501592	Y
7	IC 410-207981/14	25.0	12.566957	10.0	1050754.0	0.502678	Y



Calibration / Bromobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

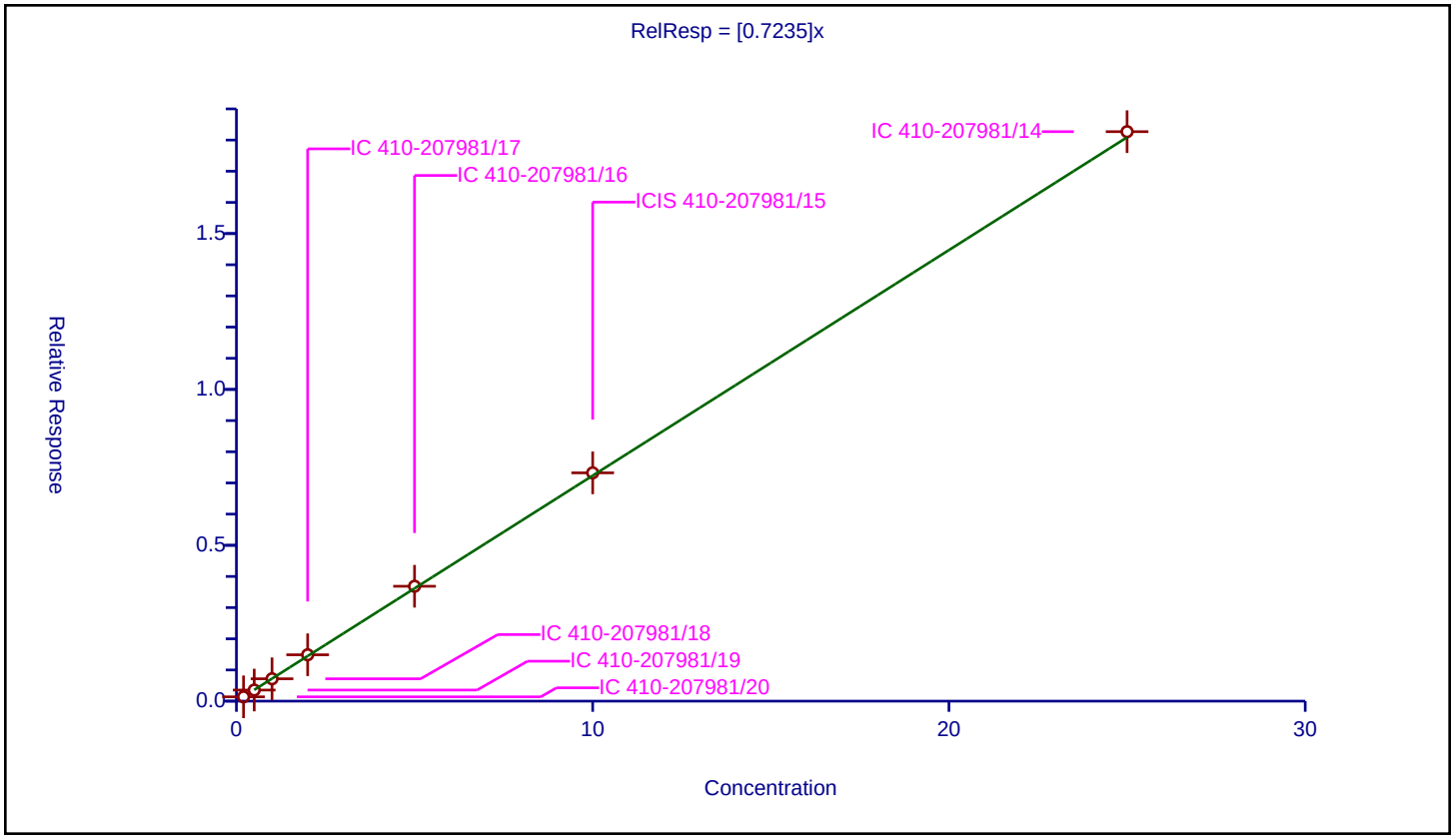
Curve Coefficients

Intercept:	0
Slope:	0.7235

Error Coefficients

Standard Error:	860000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.138392	10.0	1081350.0	0.691959	Y
2	IC 410-207981/19	0.5	0.355657	10.0	1061163.0	0.711314	Y
3	IC 410-207981/18	1.0	0.71767	10.0	1062215.0	0.71767	Y
4	IC 410-207981/17	2.0	1.486831	10.0	1055621.0	0.743415	Y
5	IC 410-207981/16	5.0	3.686031	10.0	1053366.0	0.737206	Y
6	ICIS 410-207981/15	10.0	7.323537	10.0	1033132.0	0.732354	Y
7	IC 410-207981/14	25.0	18.269528	10.0	1050754.0	0.730781	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

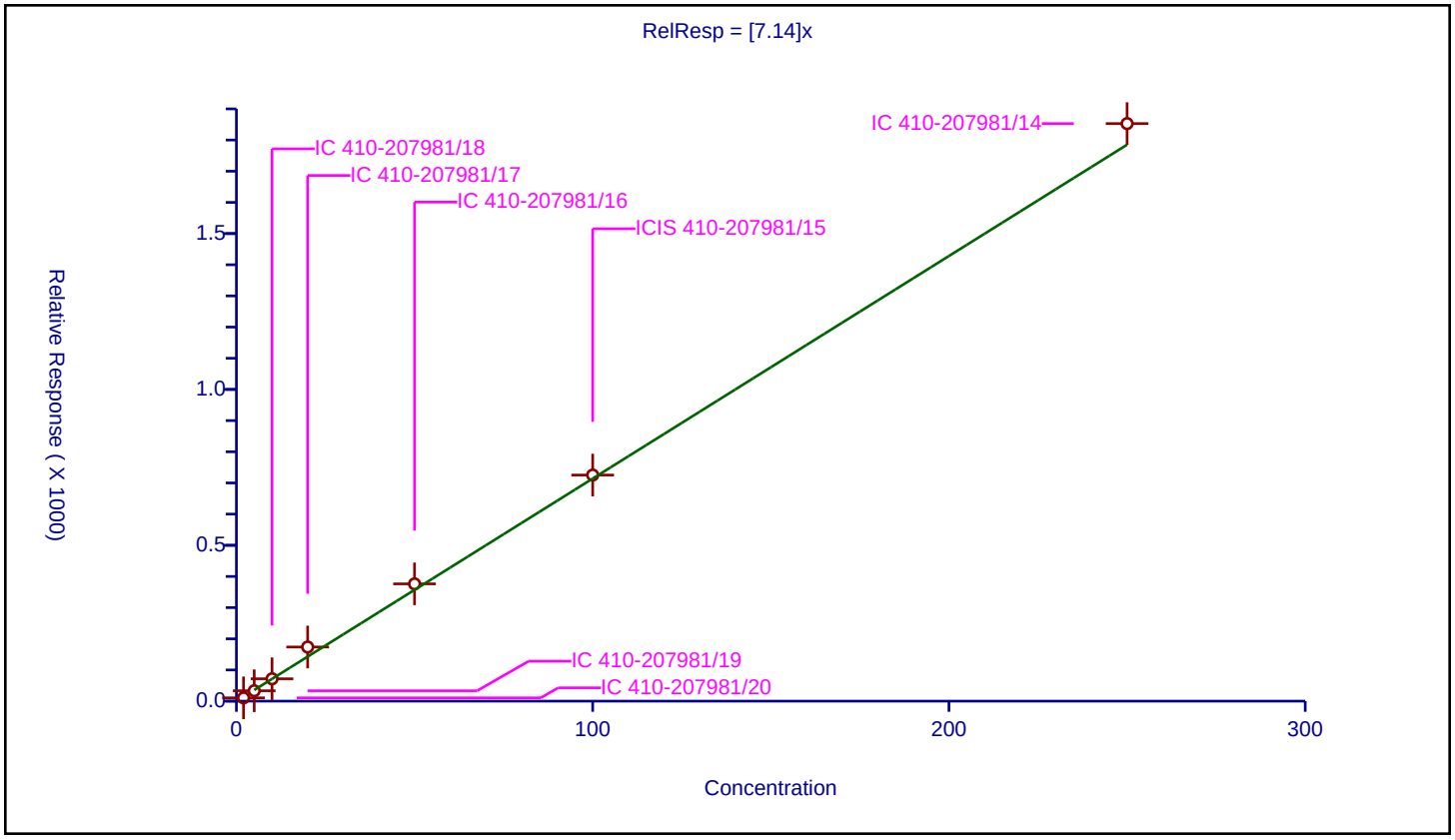
Curve Coefficients

Intercept:	0
Slope:	7.14

Error Coefficients

Standard Error:	1380000
Relative Standard Error:	14.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	10.552924	50.0	81494.0	5.276462	Y
2	IC 410-207981/19	5.0	33.314952	50.0	66191.0	6.66299	Y
3	IC 410-207981/18	10.0	71.723299	50.0	72779.0	7.17233	Y
4	IC 410-207981/17	20.0	173.645461	50.0	62752.0	8.682273	Y
5	IC 410-207981/16	50.0	376.224238	50.0	77926.0	7.524485	Y
6	ICIS 410-207981/15	100.0	725.260139	50.0	82456.0	7.252601	Y
7	IC 410-207981/14	250.0	1852.82413	50.0	83778.0	7.411297	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

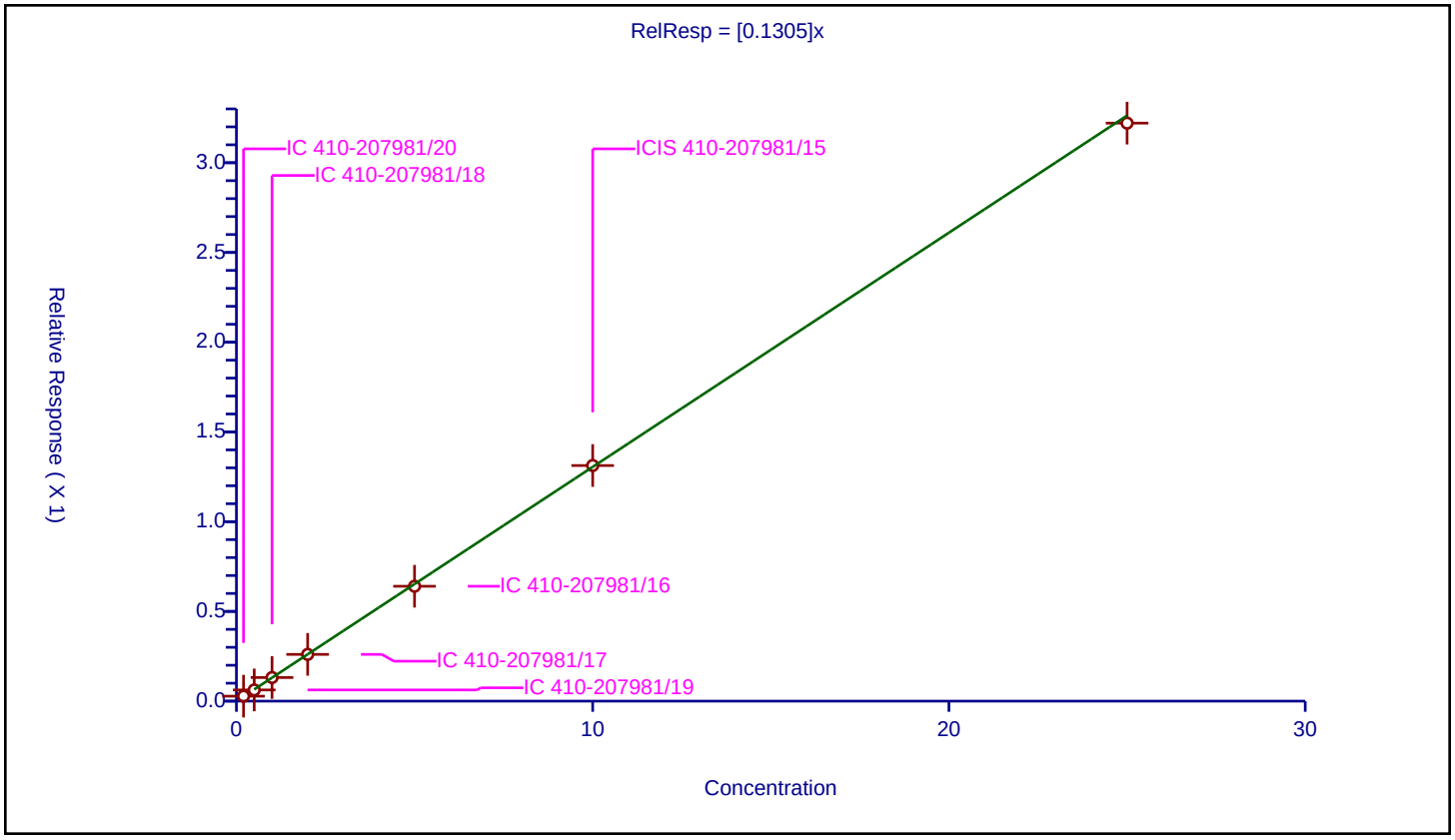
Curve Coefficients

Intercept:	0
Slope:	0.1305

Error Coefficients

Standard Error:	152000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.027743	10.0	1081350.0	0.138715	Y
2	IC 410-207981/19	0.5	0.062441	10.0	1061163.0	0.124882	Y
3	IC 410-207981/18	1.0	0.131565	10.0	1062215.0	0.131565	Y
4	IC 410-207981/17	2.0	0.260529	10.0	1055621.0	0.130265	Y
5	IC 410-207981/16	5.0	0.640176	10.0	1053366.0	0.128035	Y
6	ICIS 410-207981/15	10.0	1.312853	10.0	1033132.0	0.131285	Y
7	IC 410-207981/14	25.0	3.220697	10.0	1050754.0	0.128828	Y



Calibration / N-Propylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

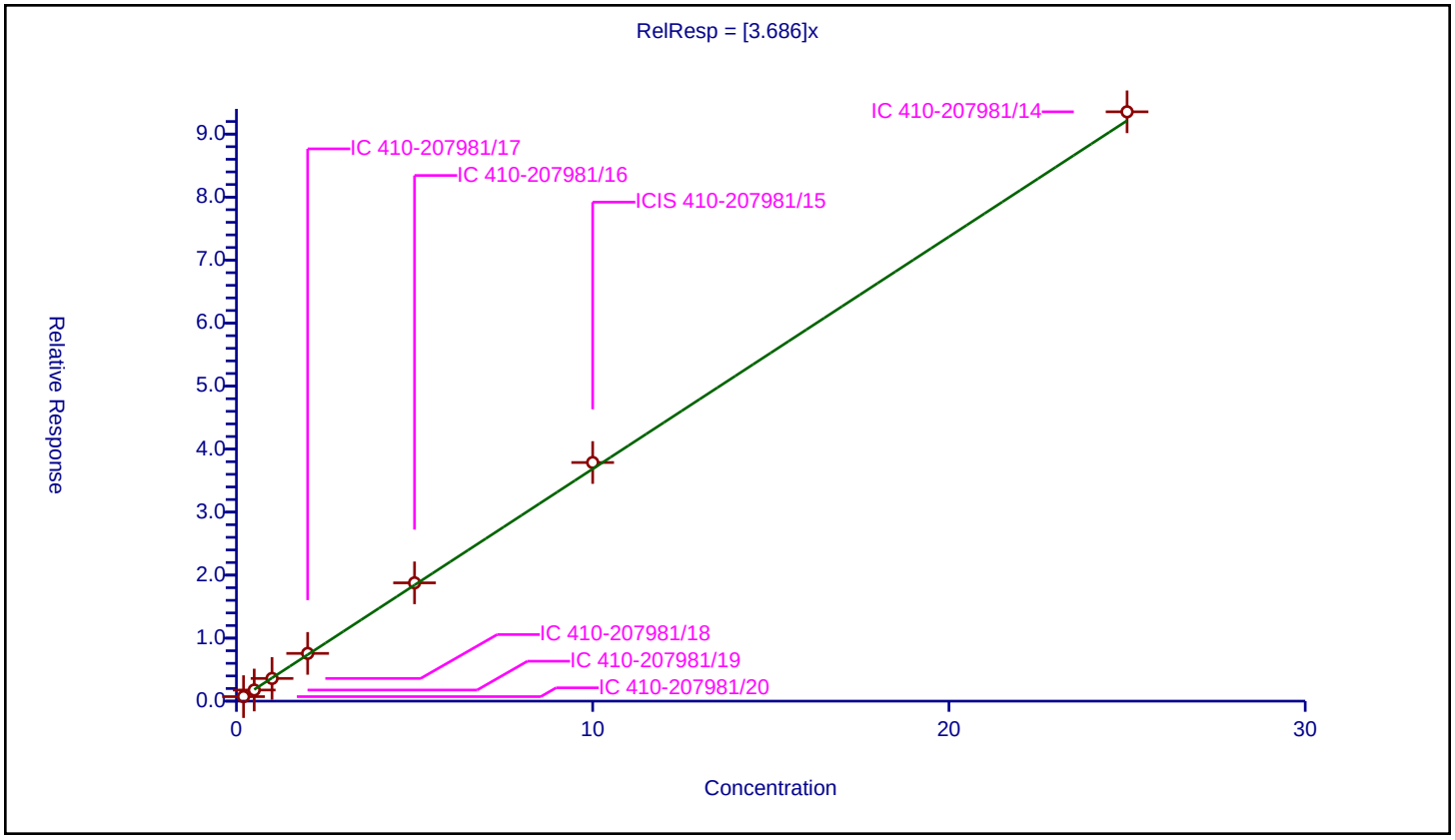
Curve Coefficients

Intercept:	0
Slope:	3.686

Error Coefficients

Standard Error:	4410000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.717631	10.0	1081350.0	3.588154	Y
2	IC 410-207981/19	0.5	1.766288	10.0	1061163.0	3.532577	Y
3	IC 410-207981/18	1.0	3.605221	10.0	1062215.0	3.605221	Y
4	IC 410-207981/17	2.0	7.578743	10.0	1055621.0	3.789371	Y
5	IC 410-207981/16	5.0	18.773399	10.0	1053366.0	3.75468	Y
6	ICIS 410-207981/15	10.0	37.872905	10.0	1033132.0	3.78729	Y
7	IC 410-207981/14	25.0	93.537717	10.0	1050754.0	3.741509	Y



Calibration / 2-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

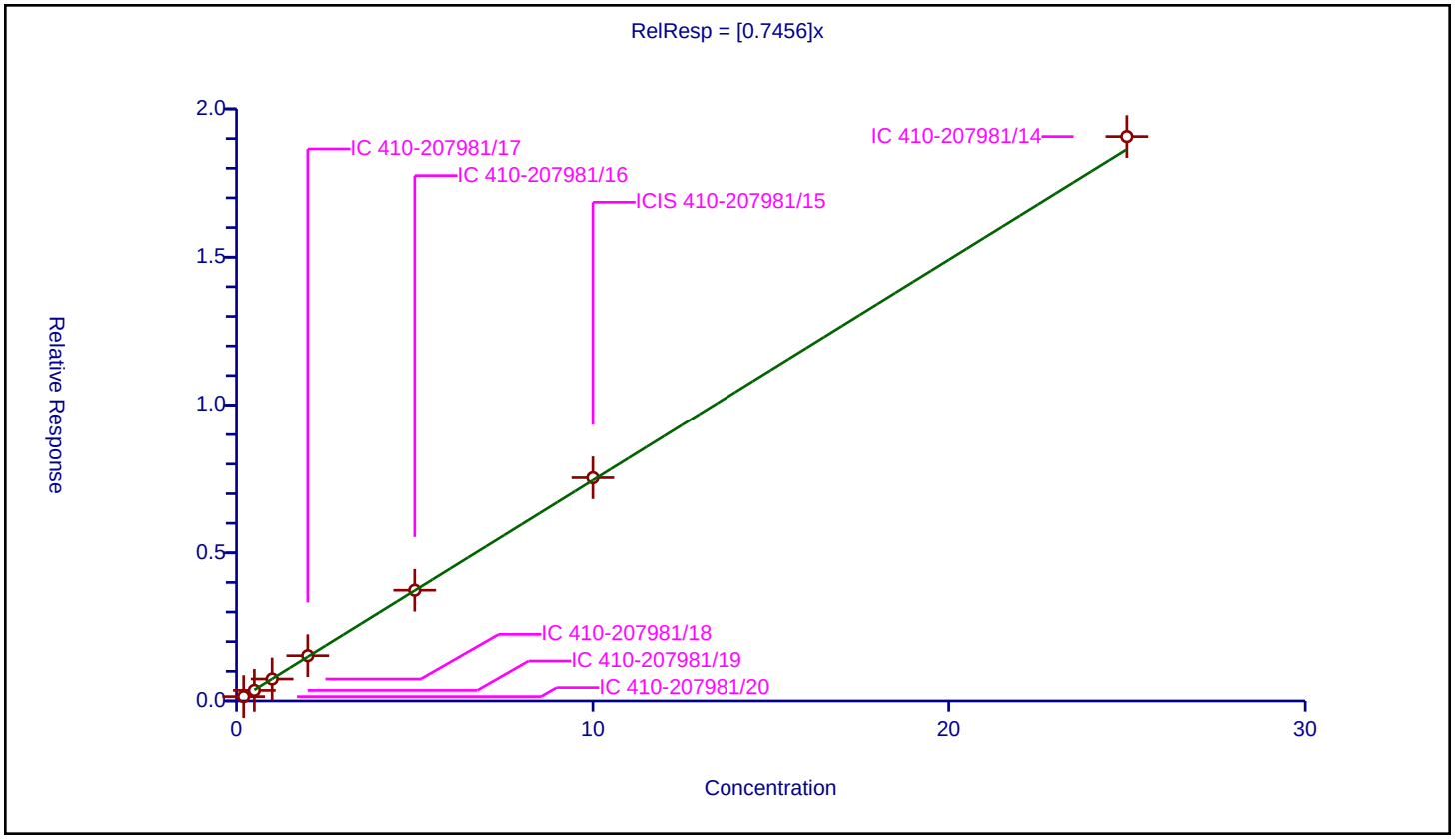
Curve Coefficients

Intercept:	0
Slope:	0.7456

Error Coefficients

Standard Error:	895000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.146964	10.0	1081350.0	0.734822	Y
2	IC 410-207981/19	0.5	0.357815	10.0	1061163.0	0.71563	Y
3	IC 410-207981/18	1.0	0.740858	10.0	1062215.0	0.740858	Y
4	IC 410-207981/17	2.0	1.526987	10.0	1055621.0	0.763494	Y
5	IC 410-207981/16	5.0	3.737153	10.0	1053366.0	0.747431	Y
6	ICIS 410-207981/15	10.0	7.539008	10.0	1033132.0	0.753901	Y
7	IC 410-207981/14	25.0	19.068612	10.0	1050754.0	0.762744	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

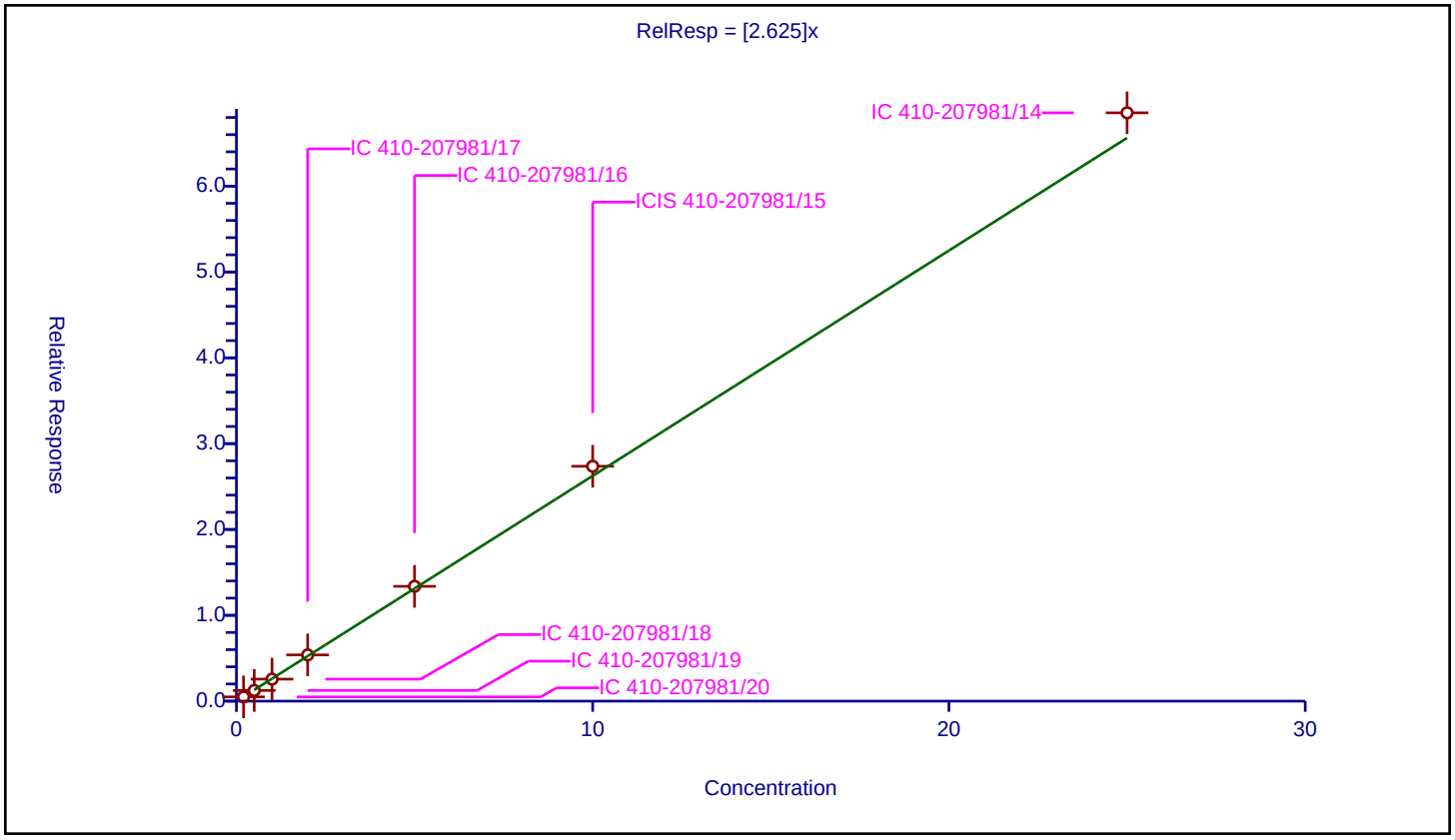
Curve Coefficients

Intercept:	0
Slope:	2.625

Error Coefficients

Standard Error:	3220000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.494669	10.0	1081350.0	2.473344	Y
2	IC 410-207981/19	0.5	1.24487	10.0	1061163.0	2.48974	Y
3	IC 410-207981/18	1.0	2.563954	10.0	1062215.0	2.563954	Y
4	IC 410-207981/17	2.0	5.385209	10.0	1055621.0	2.692605	Y
5	IC 410-207981/16	5.0	13.376262	10.0	1053366.0	2.675252	Y
6	ICIS 410-207981/15	10.0	27.364286	10.0	1033132.0	2.736429	Y
7	IC 410-207981/14	25.0	68.545283	10.0	1050754.0	2.741811	Y



Calibration / 4-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

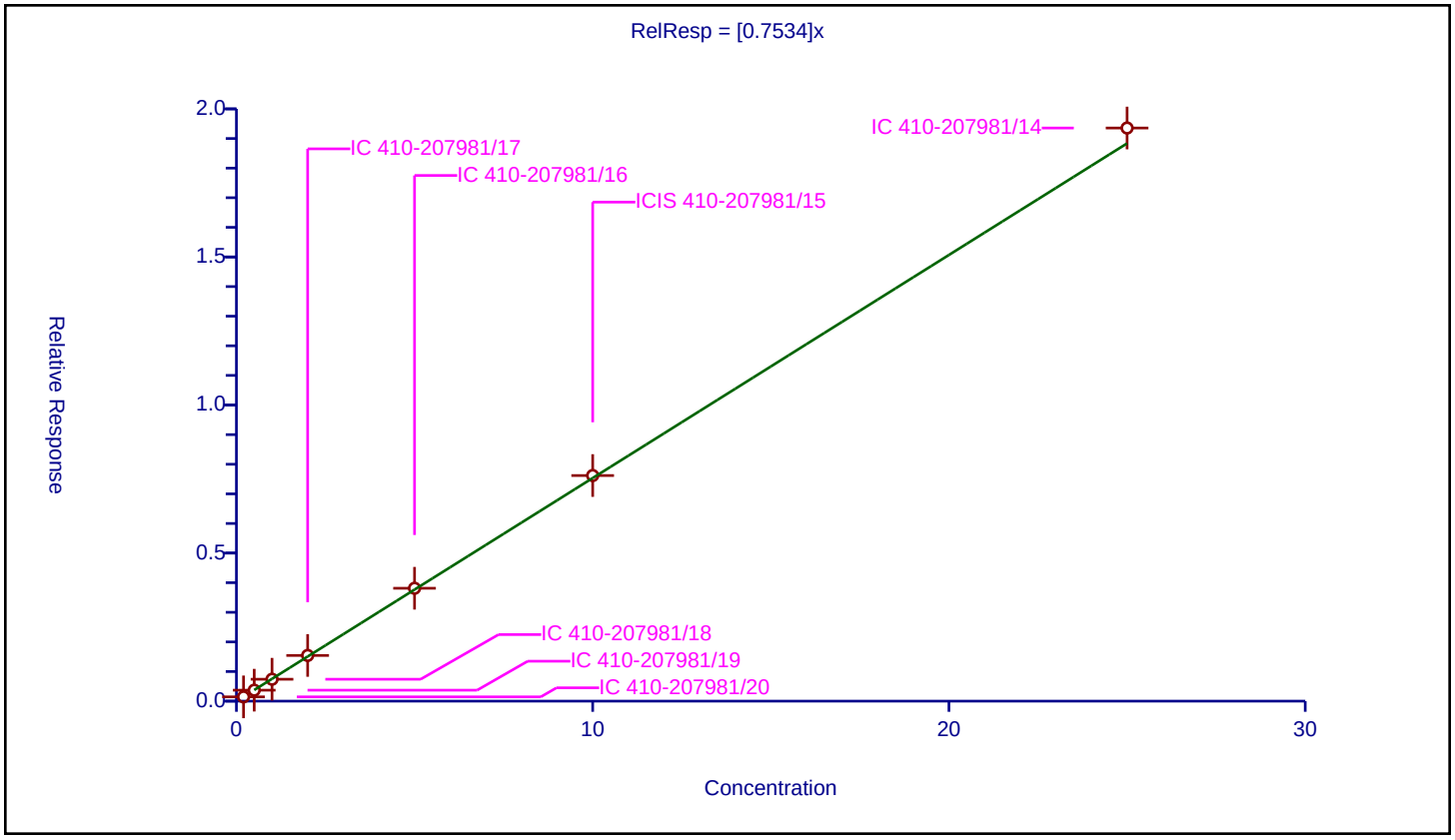
Curve Coefficients

Intercept:	0
Slope:	0.7534

Error Coefficients

Standard Error:	908000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.144782	10.0	1081350.0	0.72391	Y
2	IC 410-207981/19	0.5	0.37	10.0	1061163.0	0.739999	Y
3	IC 410-207981/18	1.0	0.739775	10.0	1062215.0	0.739775	Y
4	IC 410-207981/17	2.0	1.543291	10.0	1055621.0	0.771645	Y
5	IC 410-207981/16	5.0	3.811837	10.0	1053366.0	0.762367	Y
6	ICIS 410-207981/15	10.0	7.618804	10.0	1033132.0	0.76188	Y
7	IC 410-207981/14	25.0	19.354016	10.0	1050754.0	0.774161	Y



Calibration / tert-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

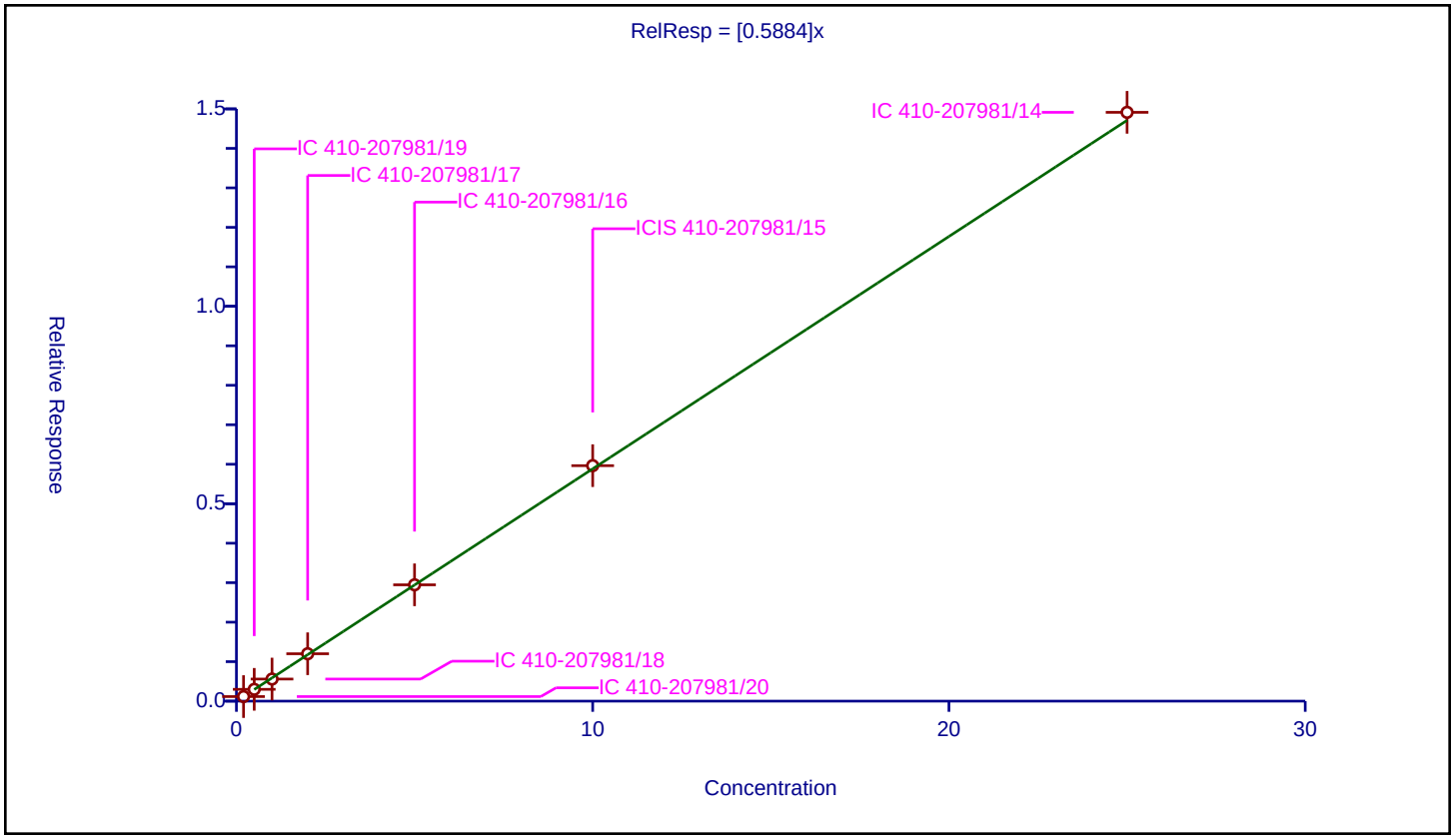
Curve Coefficients

Intercept:	0
Slope:	0.5884

Error Coefficients

Standard Error:	701000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.115827	10.0	1081350.0	0.579137	Y
2	IC 410-207981/19	0.5	0.298936	10.0	1061163.0	0.597872	Y
3	IC 410-207981/18	1.0	0.559708	10.0	1062215.0	0.559708	Y
4	IC 410-207981/17	2.0	1.200327	10.0	1055621.0	0.600163	Y
5	IC 410-207981/16	5.0	2.94589	10.0	1053366.0	0.589178	Y
6	ICIS 410-207981/15	10.0	5.964407	10.0	1033132.0	0.596441	Y
7	IC 410-207981/14	25.0	14.912663	10.0	1050754.0	0.596507	Y



Calibration / Pentachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

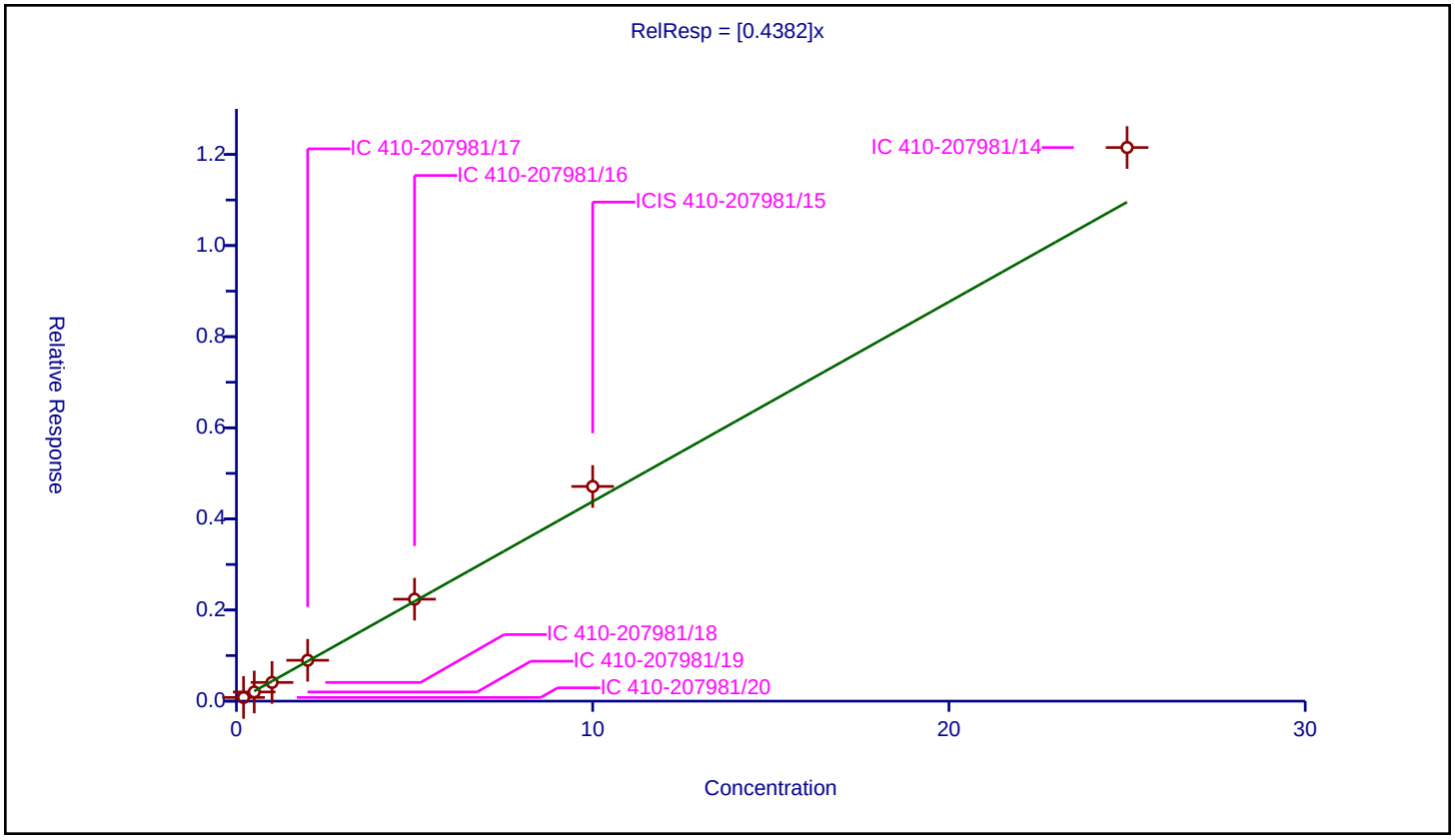
Curve Coefficients

Intercept:	0
Slope:	0.4382

Error Coefficients

Standard Error:	568000
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 410-207981/20	0.2	0.080094	10.0	1081350.0	0.400472	Y
2	IC 410-207981/19	0.5	0.201241	10.0	1061163.0	0.402483	Y
3	IC 410-207981/18	1.0	0.410868	10.0	1062215.0	0.410868	Y
4	IC 410-207981/17	2.0	0.897358	10.0	1055621.0	0.448679	Y
5	IC 410-207981/16	5.0	2.237465	10.0	1053366.0	0.447493	Y
6	ICIS 410-207981/15	10.0	4.71237	10.0	1033132.0	0.471237	Y
7	IC 410-207981/14	25.0	12.151674	10.0	1050754.0	0.486067	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

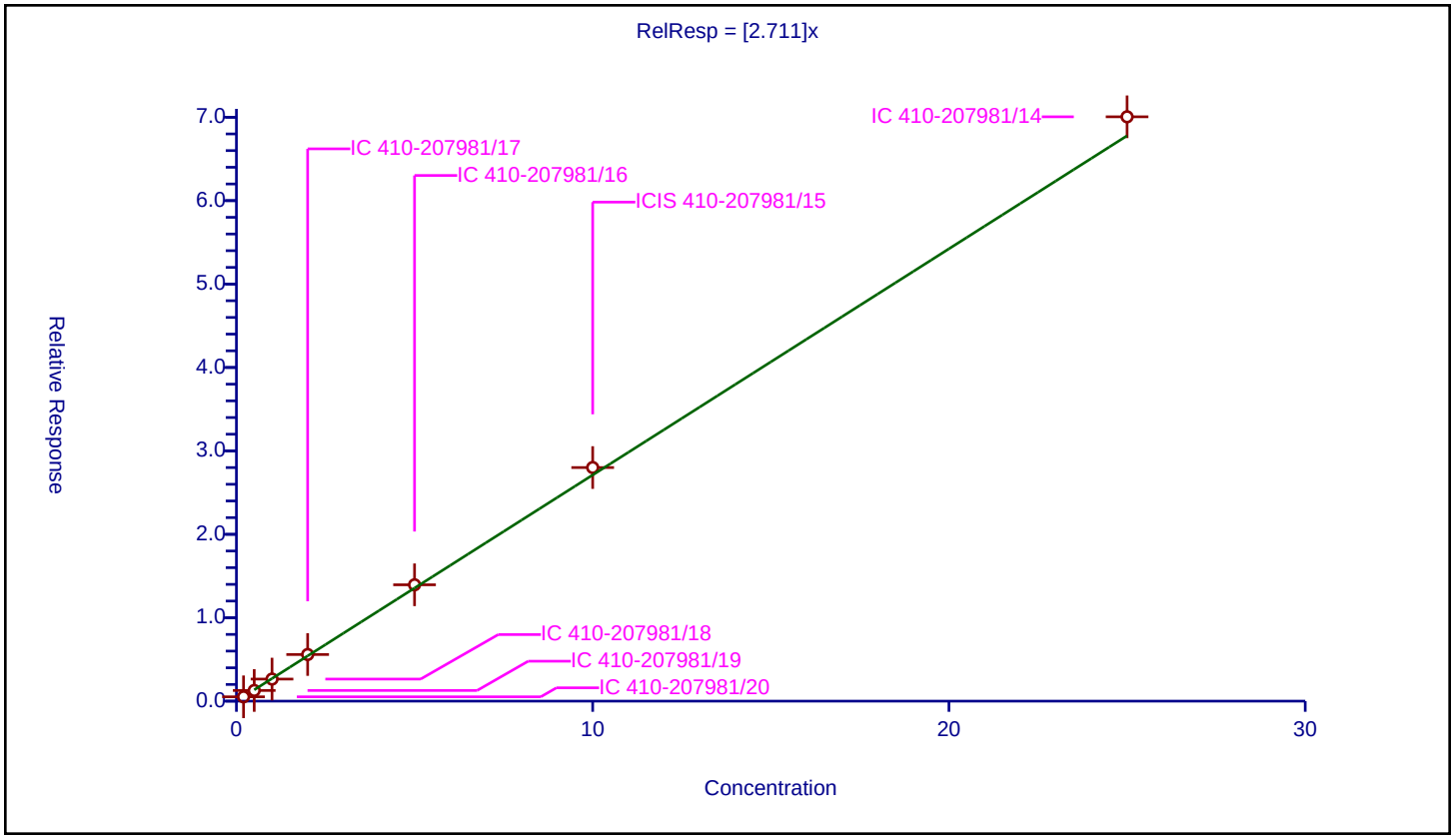
Curve Coefficients

Intercept:	0
Slope:	2.711

Error Coefficients

Standard Error:	3300000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.517649	10.0	1081350.0	2.588246	Y
2	IC 410-207981/19	0.5	1.279662	10.0	1061163.0	2.559324	Y
3	IC 410-207981/18	1.0	2.64551	10.0	1062215.0	2.64551	Y
4	IC 410-207981/17	2.0	5.587905	10.0	1055621.0	2.793953	Y
5	IC 410-207981/16	5.0	13.947868	10.0	1053366.0	2.789574	Y
6	ICIS 410-207981/15	10.0	28.003876	10.0	1033132.0	2.800388	Y
7	IC 410-207981/14	25.0	70.051772	10.0	1050754.0	2.802071	Y



Calibration / sec-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

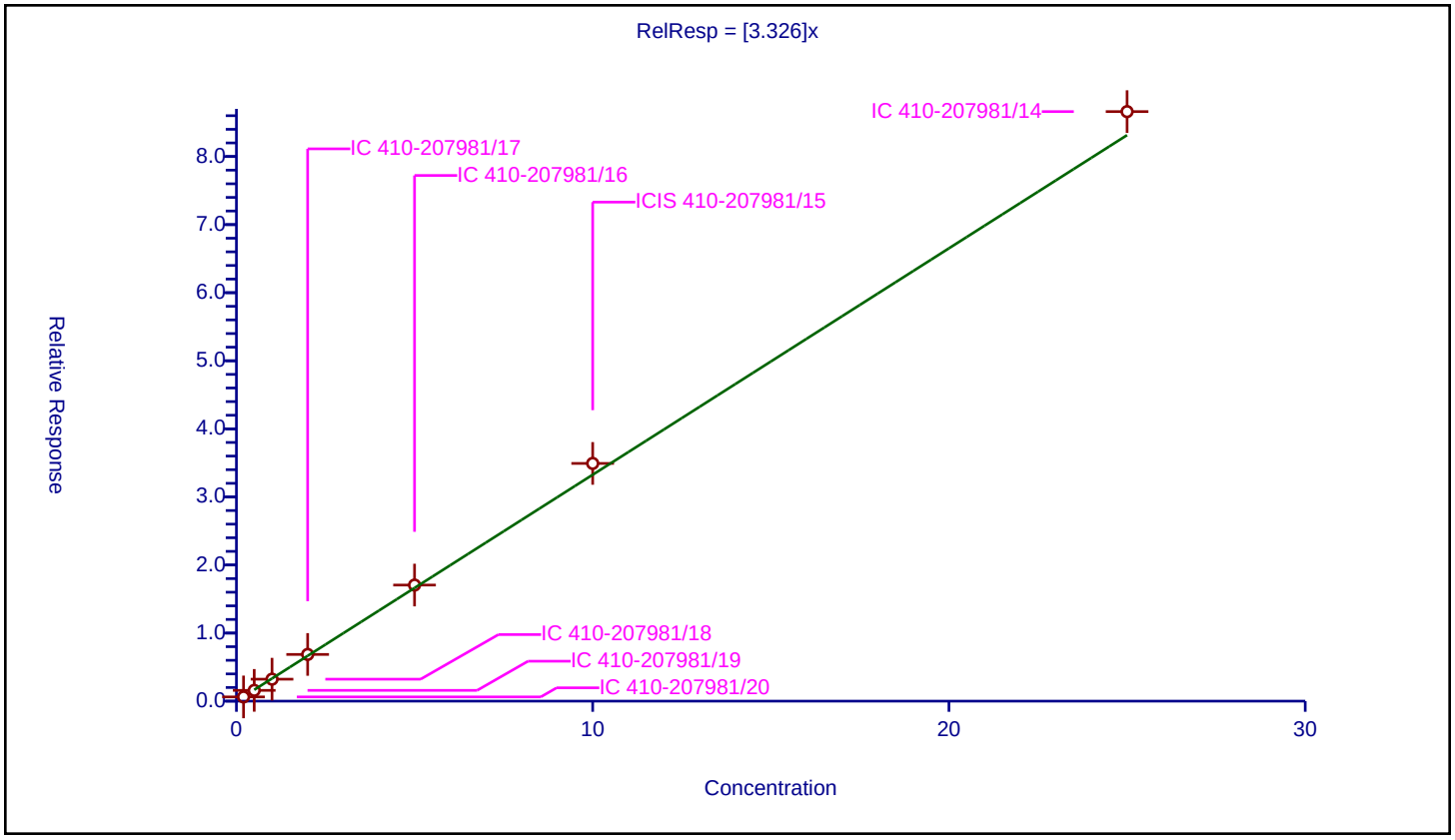
Curve Coefficients

Intercept:	0
Slope:	3.326

Error Coefficients

Standard Error:	4080000
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.619004	10.0	1081350.0	3.09502	Y
2	IC 410-207981/19	0.5	1.581915	10.0	1061163.0	3.163831	Y
3	IC 410-207981/18	1.0	3.226305	10.0	1062215.0	3.226305	Y
4	IC 410-207981/17	2.0	6.858873	10.0	1055621.0	3.429436	Y
5	IC 410-207981/16	5.0	17.051946	10.0	1053366.0	3.410389	Y
6	ICIS 410-207981/15	10.0	34.922188	10.0	1033132.0	3.492219	Y
7	IC 410-207981/14	25.0	86.60283	10.0	1050754.0	3.464113	Y



Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

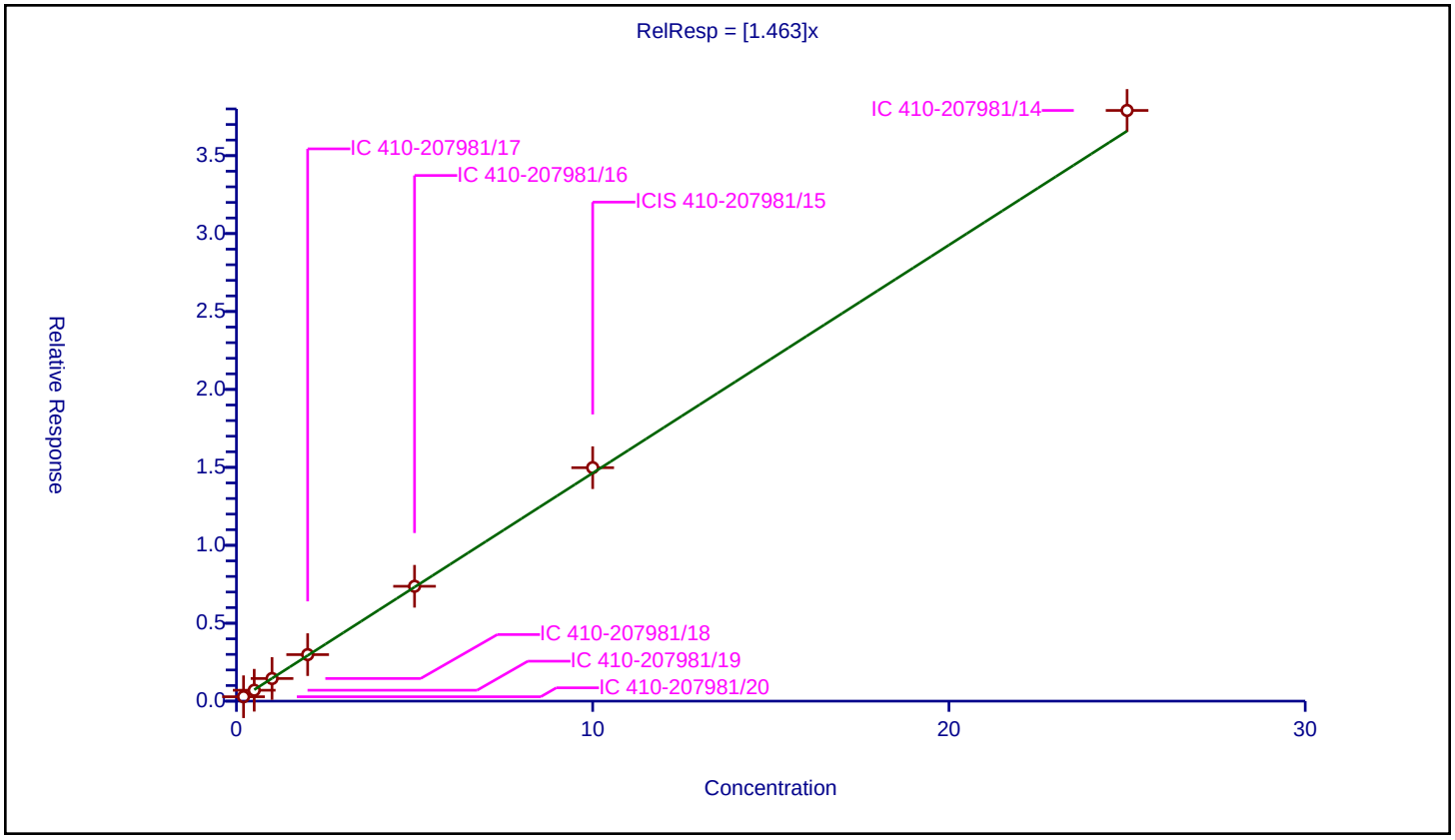
Curve Coefficients

Intercept:	0
Slope:	1.463

Error Coefficients

Standard Error:	1780000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.282415	10.0	1081350.0	1.412077	Y
2	IC 410-207981/19	0.5	0.699704	10.0	1061163.0	1.399408	Y
3	IC 410-207981/18	1.0	1.450987	10.0	1062215.0	1.450987	Y
4	IC 410-207981/17	2.0	2.984944	10.0	1055621.0	1.492472	Y
5	IC 410-207981/16	5.0	7.369252	10.0	1053366.0	1.47385	Y
6	ICIS 410-207981/15	10.0	14.979364	10.0	1033132.0	1.497936	Y
7	IC 410-207981/14	25.0	37.900879	10.0	1050754.0	1.516035	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

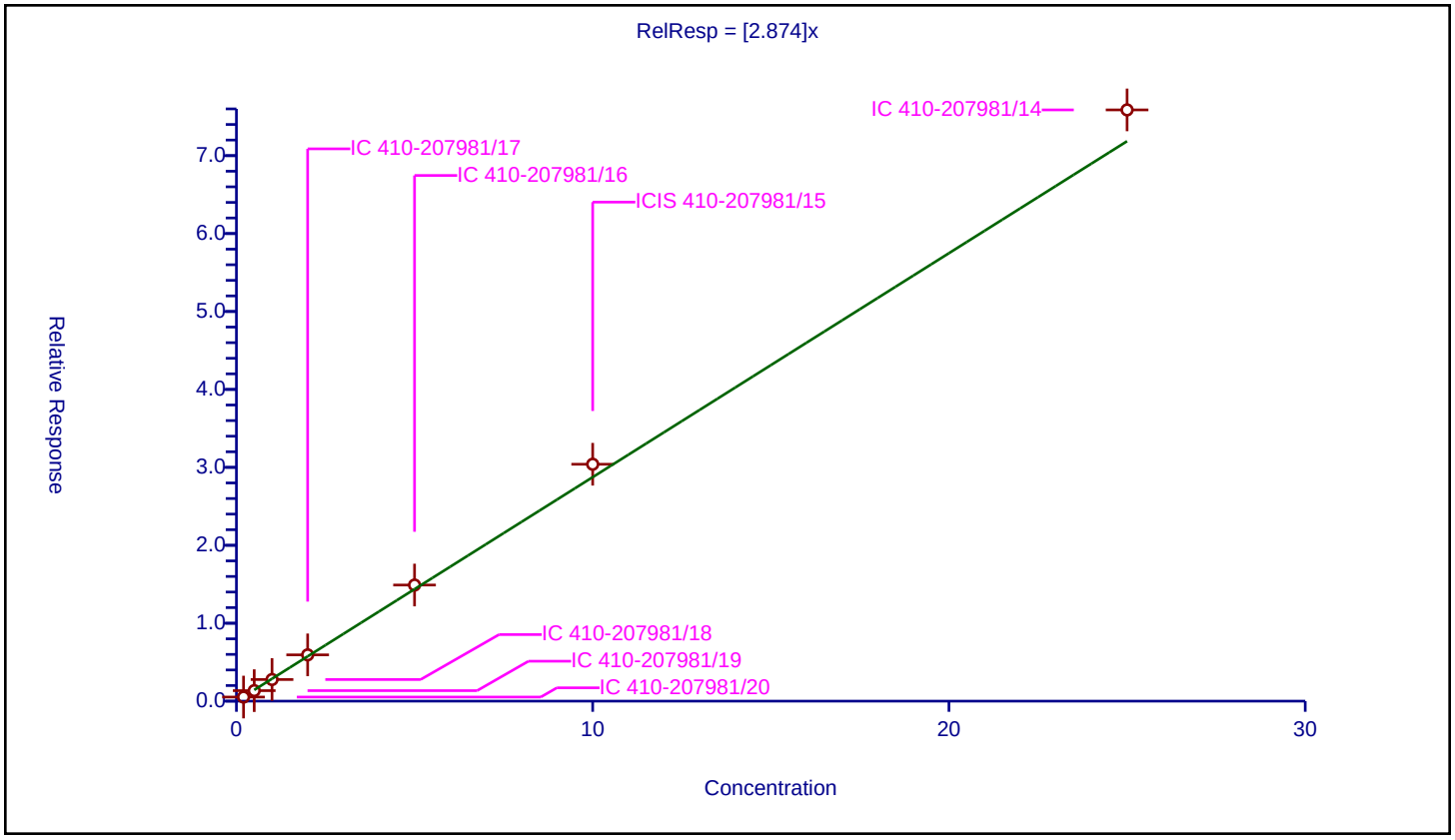
Curve Coefficients

Intercept:	0
Slope:	2.874

Error Coefficients

Standard Error:	3570000
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 410-207981/20	0.2	0.524271	10.0	1081350.0	2.621353	Y
2	IC 410-207981/19	0.5	1.349642	10.0	1061163.0	2.699284	Y
3	IC 410-207981/18	1.0	2.773855	10.0	1062215.0	2.773855	Y
4	IC 410-207981/17	2.0	5.939935	10.0	1055621.0	2.969967	Y
5	IC 410-207981/16	5.0	14.89937	10.0	1053366.0	2.979874	Y
6	ICIS 410-207981/15	10.0	30.400172	10.0	1033132.0	3.040017	Y
7	IC 410-207981/14	25.0	75.869718	10.0	1050754.0	3.034789	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

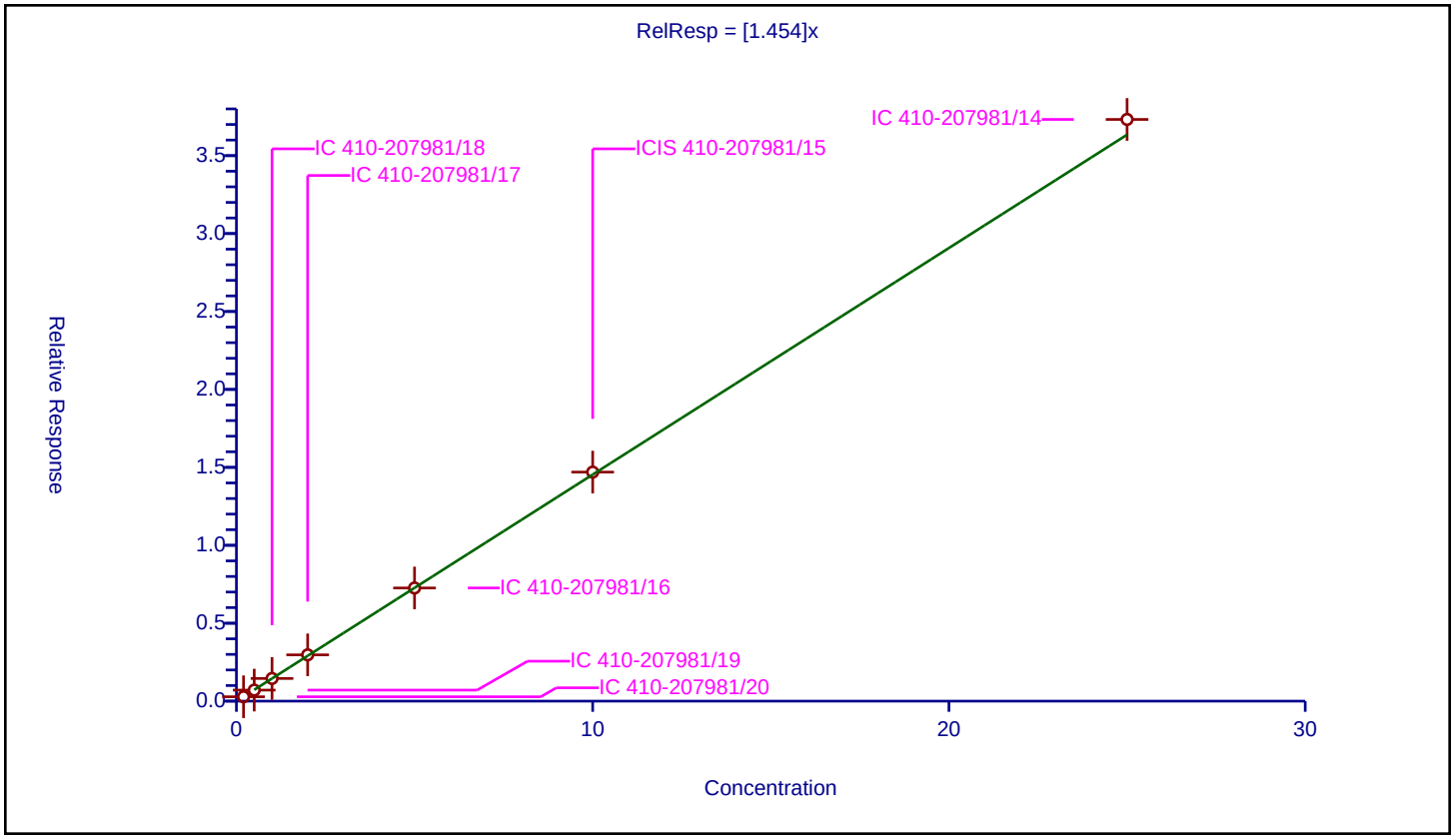
Curve Coefficients

Intercept:	0
Slope:	1.454

Error Coefficients

Standard Error:	1750000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.280621	10.0	1081350.0	1.403107	Y
2	IC 410-207981/19	0.5	0.708864	10.0	1061163.0	1.417728	Y
3	IC 410-207981/18	1.0	1.455666	10.0	1062215.0	1.455666	Y
4	IC 410-207981/17	2.0	2.96974	10.0	1055621.0	1.48487	Y
5	IC 410-207981/16	5.0	7.260895	10.0	1053366.0	1.452179	Y
6	ICIS 410-207981/15	10.0	14.69547	10.0	1033132.0	1.469547	Y
7	IC 410-207981/14	25.0	37.323665	10.0	1050754.0	1.492947	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

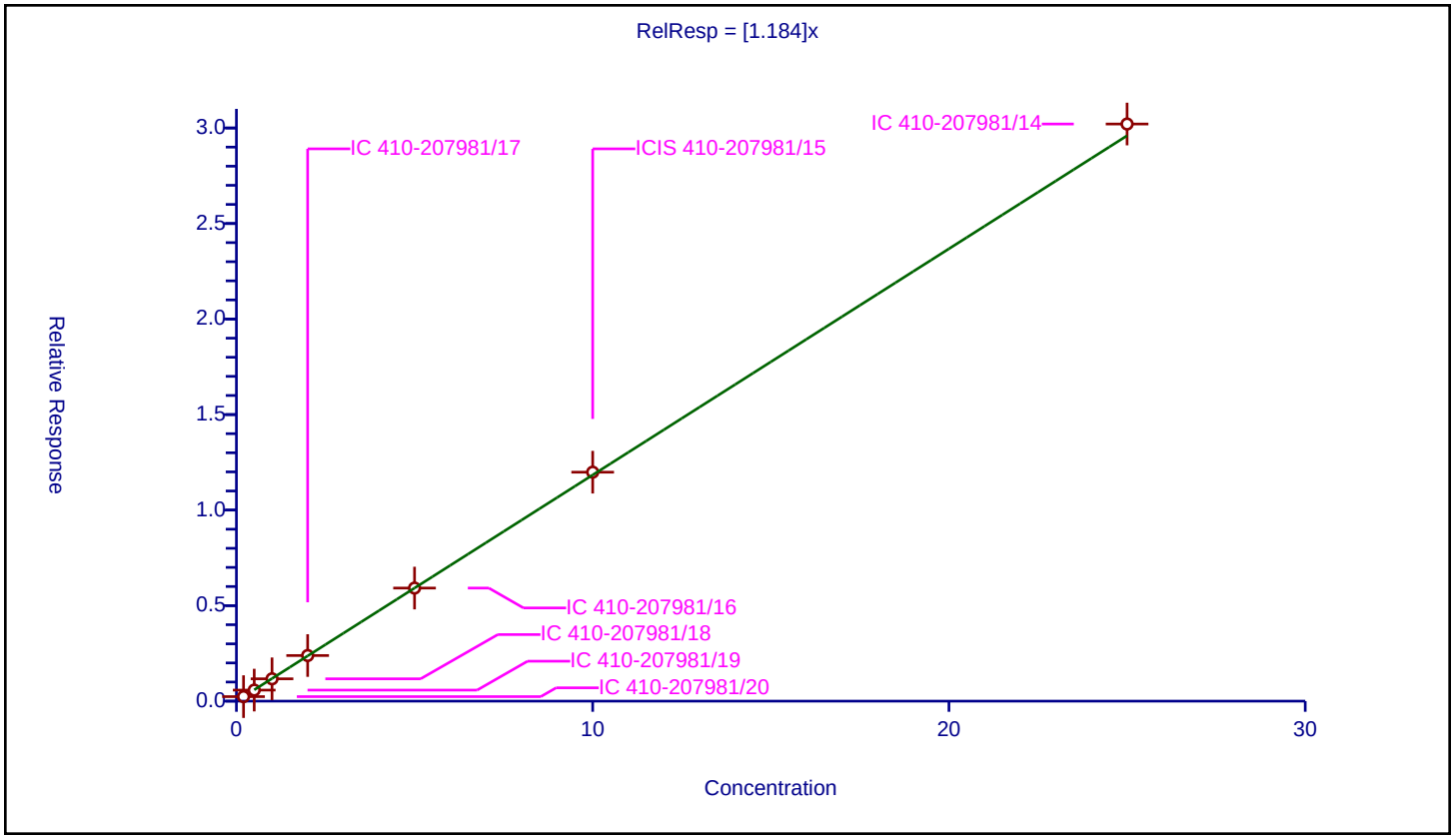
Curve Coefficients

Intercept:	0
Slope:	1.184

Error Coefficients

Standard Error:	1420000
Relative Standard Error:	1.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.235863	10.0	1081350.0	1.179313	Y
2	IC 410-207981/19	0.5	0.577517	10.0	1061163.0	1.155035	Y
3	IC 410-207981/18	1.0	1.168775	10.0	1062215.0	1.168775	Y
4	IC 410-207981/17	2.0	2.387126	10.0	1055621.0	1.193563	Y
5	IC 410-207981/16	5.0	5.918816	10.0	1053366.0	1.183763	Y
6	ICIS 410-207981/15	10.0	11.984471	10.0	1033132.0	1.198447	Y
7	IC 410-207981/14	25.0	30.208574	10.0	1050754.0	1.208343	Y



Calibration / Benzyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

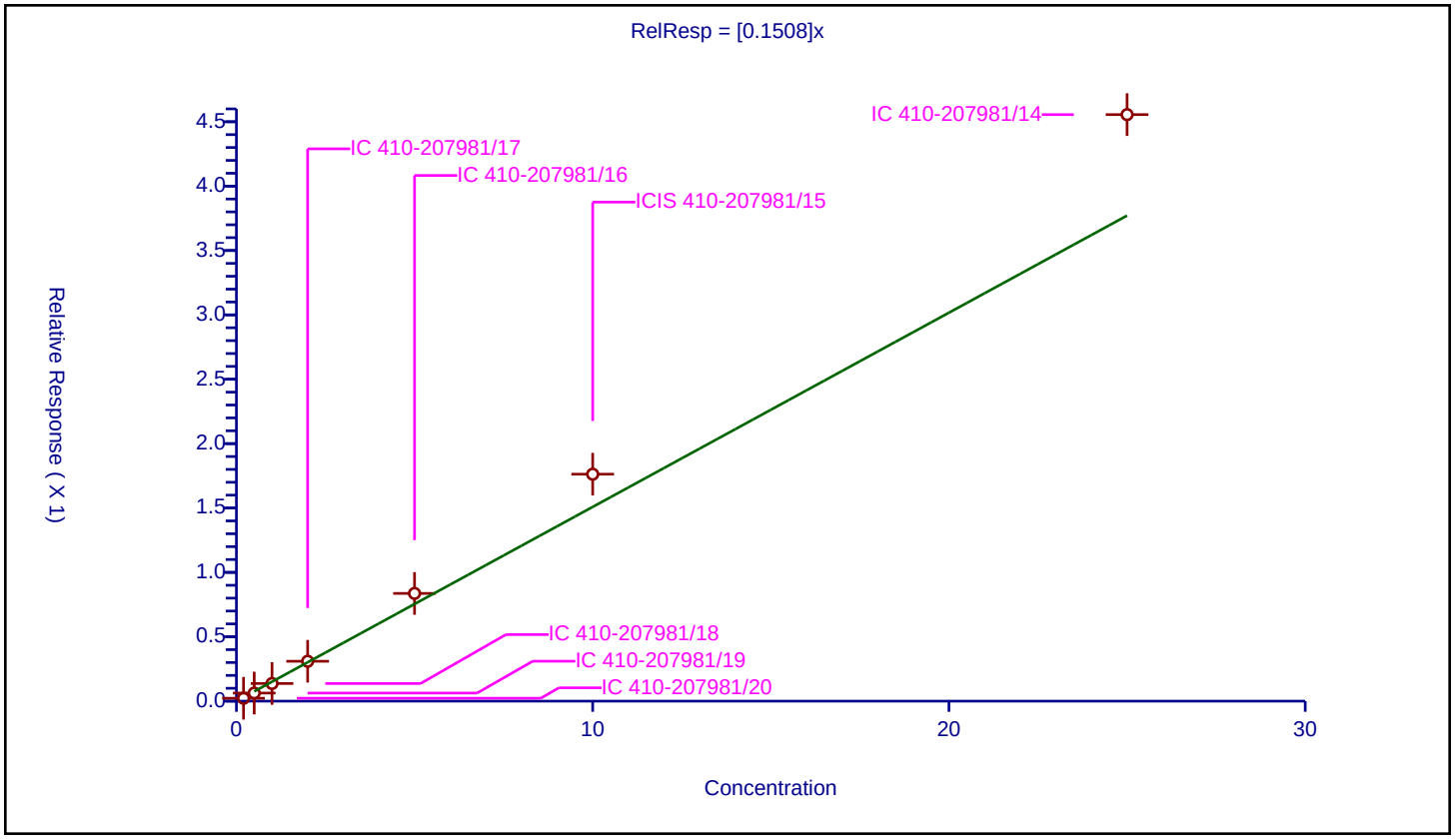
Curve Coefficients

Intercept:	0
Slope:	0.1508

Error Coefficients

Standard Error:	213000
Relative Standard Error:	17.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.966

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.0225	10.0	1081350.0	0.112498	Y
2	IC 410-207981/19	0.5	0.06279	10.0	1061163.0	0.125579	Y
3	IC 410-207981/18	1.0	0.13711	10.0	1062215.0	0.13711	Y
4	IC 410-207981/17	2.0	0.309874	10.0	1055621.0	0.154937	Y
5	IC 410-207981/16	5.0	0.836594	10.0	1053366.0	0.167319	Y
6	ICIS 410-207981/15	10.0	1.762737	10.0	1033132.0	0.176274	Y
7	IC 410-207981/14	25.0	4.555472	10.0	1050754.0	0.182219	Y



Calibration / n-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

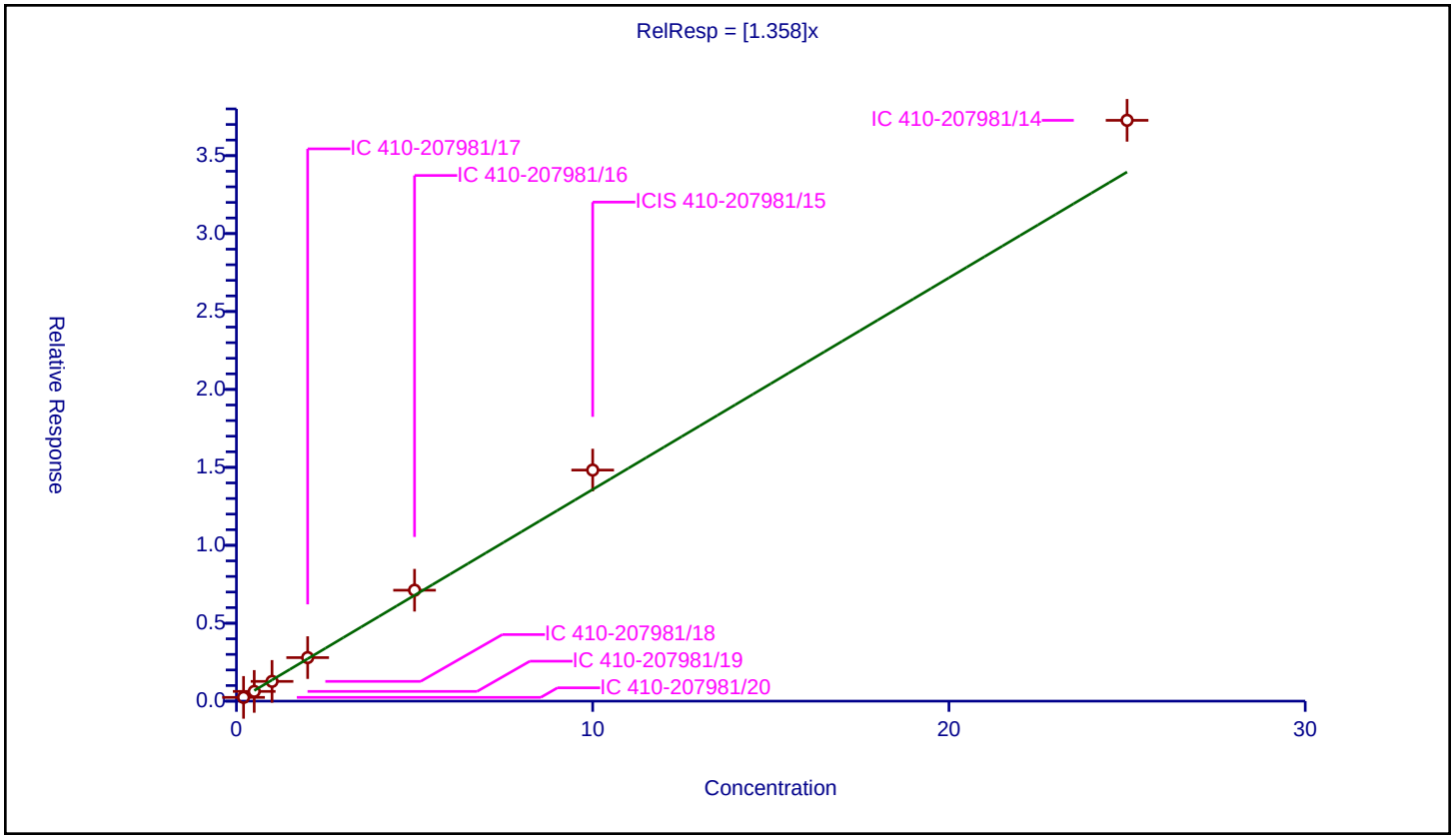
Curve Coefficients

Intercept:	0
Slope:	1.358

Error Coefficients

Standard Error:	1750000
Relative Standard Error:	8.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.239599	10.0	1081350.0	1.197993	Y
2	IC 410-207981/19	0.5	0.623872	10.0	1061163.0	1.247744	Y
3	IC 410-207981/18	1.0	1.267747	10.0	1062215.0	1.267747	Y
4	IC 410-207981/17	2.0	2.793692	10.0	1055621.0	1.396846	Y
5	IC 410-207981/16	5.0	7.116605	10.0	1053366.0	1.423321	Y
6	ICIS 410-207981/15	10.0	14.82493	10.0	1033132.0	1.482493	Y
7	IC 410-207981/14	25.0	37.267362	10.0	1050754.0	1.490694	Y



Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

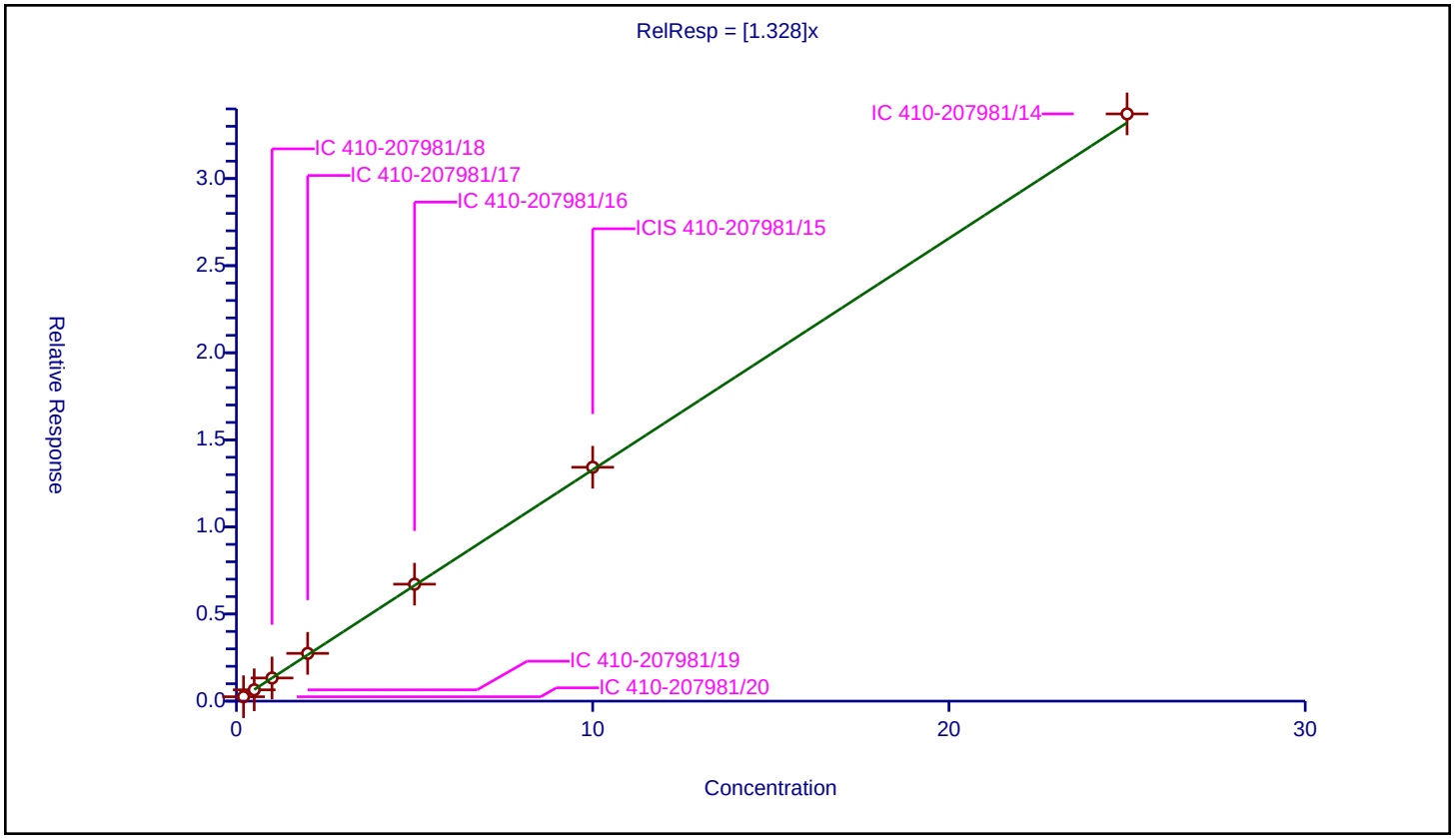
Curve Coefficients

Intercept:	0
Slope:	1.328

Error Coefficients

Standard Error:	1590000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.252462	10.0	1081350.0	1.262311	Y
2	IC 410-207981/19	0.5	0.650843	10.0	1061163.0	1.301685	Y
3	IC 410-207981/18	1.0	1.329373	10.0	1062215.0	1.329373	Y
4	IC 410-207981/17	2.0	2.741609	10.0	1055621.0	1.370804	Y
5	IC 410-207981/16	5.0	6.715007	10.0	1053366.0	1.343001	Y
6	ICIS 410-207981/15	10.0	13.426803	10.0	1033132.0	1.34268	Y
7	IC 410-207981/14	25.0	33.712153	10.0	1050754.0	1.348486	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

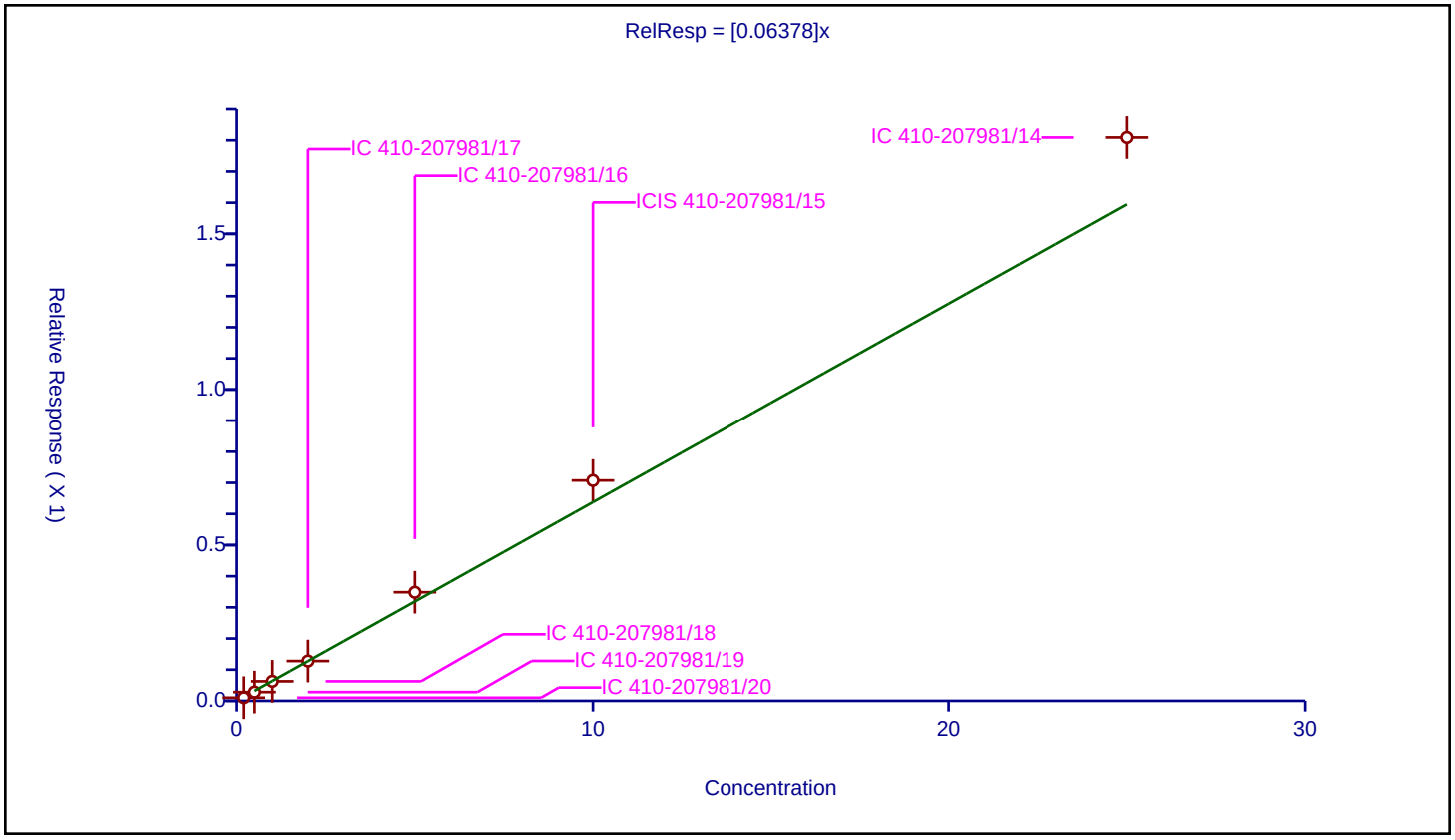
Curve Coefficients

Intercept:	0
Slope:	0.06378

Error Coefficients

Standard Error:	84700
Relative Standard Error:	12.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.010135	10.0	1081350.0	0.050677	Y
2	IC 410-207981/19	0.5	0.028186	10.0	1061163.0	0.056372	Y
3	IC 410-207981/18	1.0	0.06269	10.0	1062215.0	0.06269	Y
4	IC 410-207981/17	2.0	0.12782	10.0	1055621.0	0.06391	Y
5	IC 410-207981/16	5.0	0.348616	10.0	1053366.0	0.069723	Y
6	ICIS 410-207981/15	10.0	0.707586	10.0	1033132.0	0.070759	Y
7	IC 410-207981/14	25.0	1.808977	10.0	1050754.0	0.072359	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

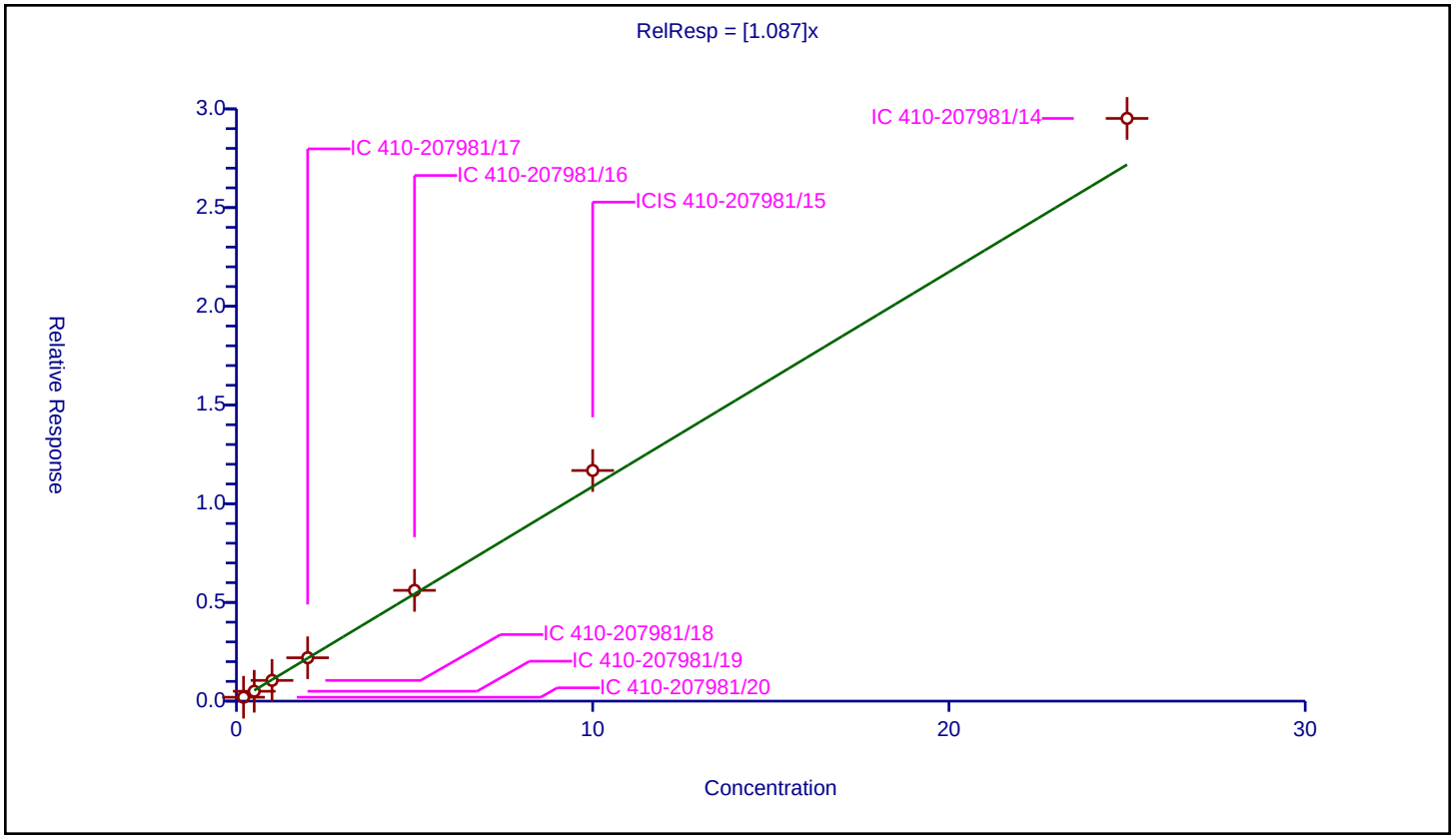
Curve Coefficients

Intercept:	0
Slope:	1.087

Error Coefficients

Standard Error:	1380000
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 410-207981/20	0.2	0.197355	10.0	1081350.0	0.986776	Y
2	IC 410-207981/19	0.5	0.501186	10.0	1061163.0	1.002372	Y
3	IC 410-207981/18	1.0	1.050512	10.0	1062215.0	1.050512	Y
4	IC 410-207981/17	2.0	2.197569	10.0	1055621.0	1.098785	Y
5	IC 410-207981/16	5.0	5.61144	10.0	1053366.0	1.122288	Y
6	ICIS 410-207981/15	10.0	11.68328	10.0	1033132.0	1.168328	Y
7	IC 410-207981/14	25.0	29.518536	10.0	1050754.0	1.180741	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

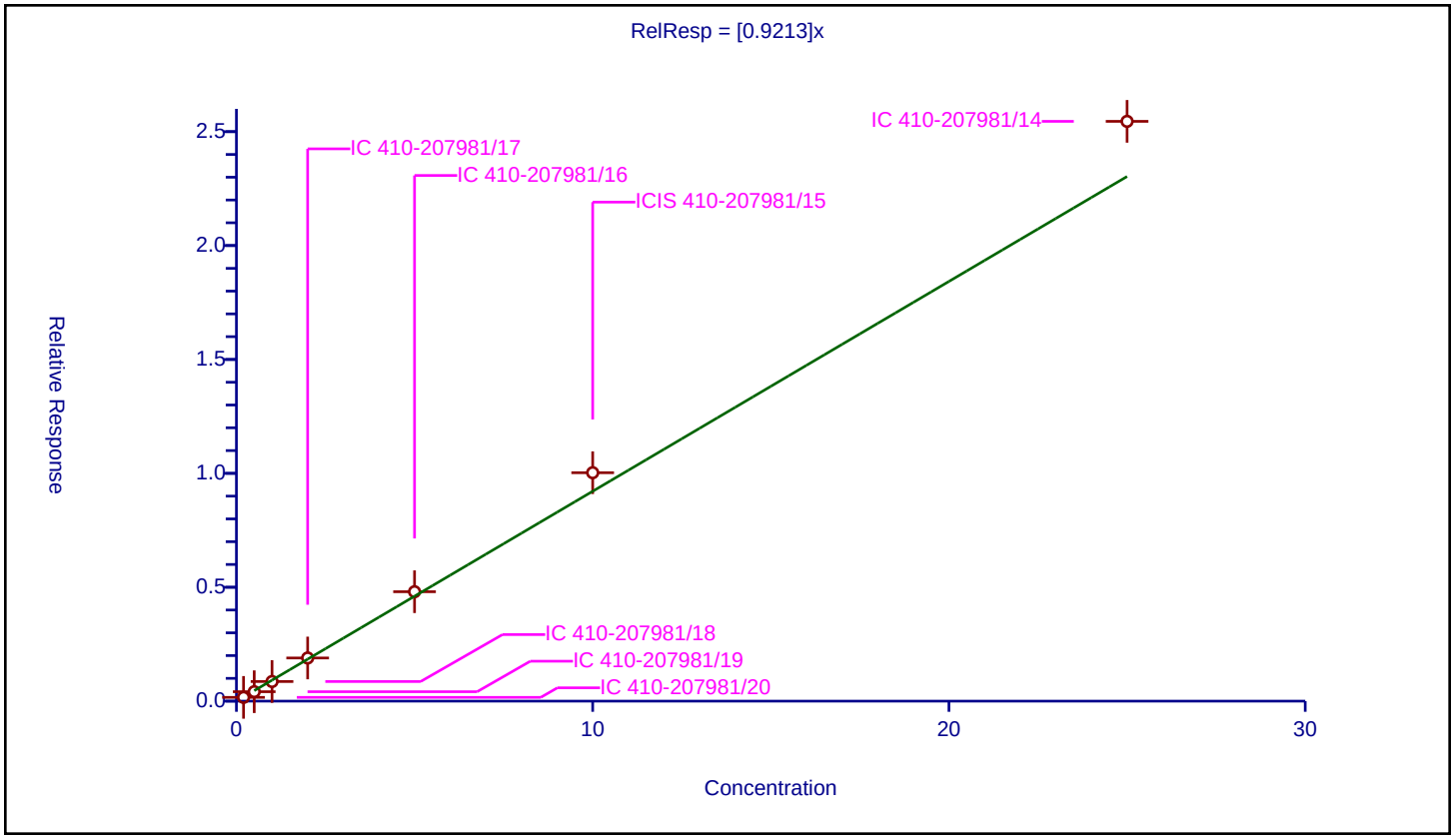
Curve Coefficients

Intercept:	0
Slope:	0.9213

Error Coefficients

Standard Error:	1190000
Relative Standard Error:	8.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.1657	10.0	1081350.0	0.828501	Y
2	IC 410-207981/19	0.5	0.414941	10.0	1061163.0	0.829882	Y
3	IC 410-207981/18	1.0	0.861558	10.0	1062215.0	0.861558	Y
4	IC 410-207981/17	2.0	1.894923	10.0	1055621.0	0.947461	Y
5	IC 410-207981/16	5.0	4.80363	10.0	1053366.0	0.960726	Y
6	ICIS 410-207981/15	10.0	10.028622	10.0	1033132.0	1.002862	Y
7	IC 410-207981/14	25.0	25.453284	10.0	1050754.0	1.018131	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

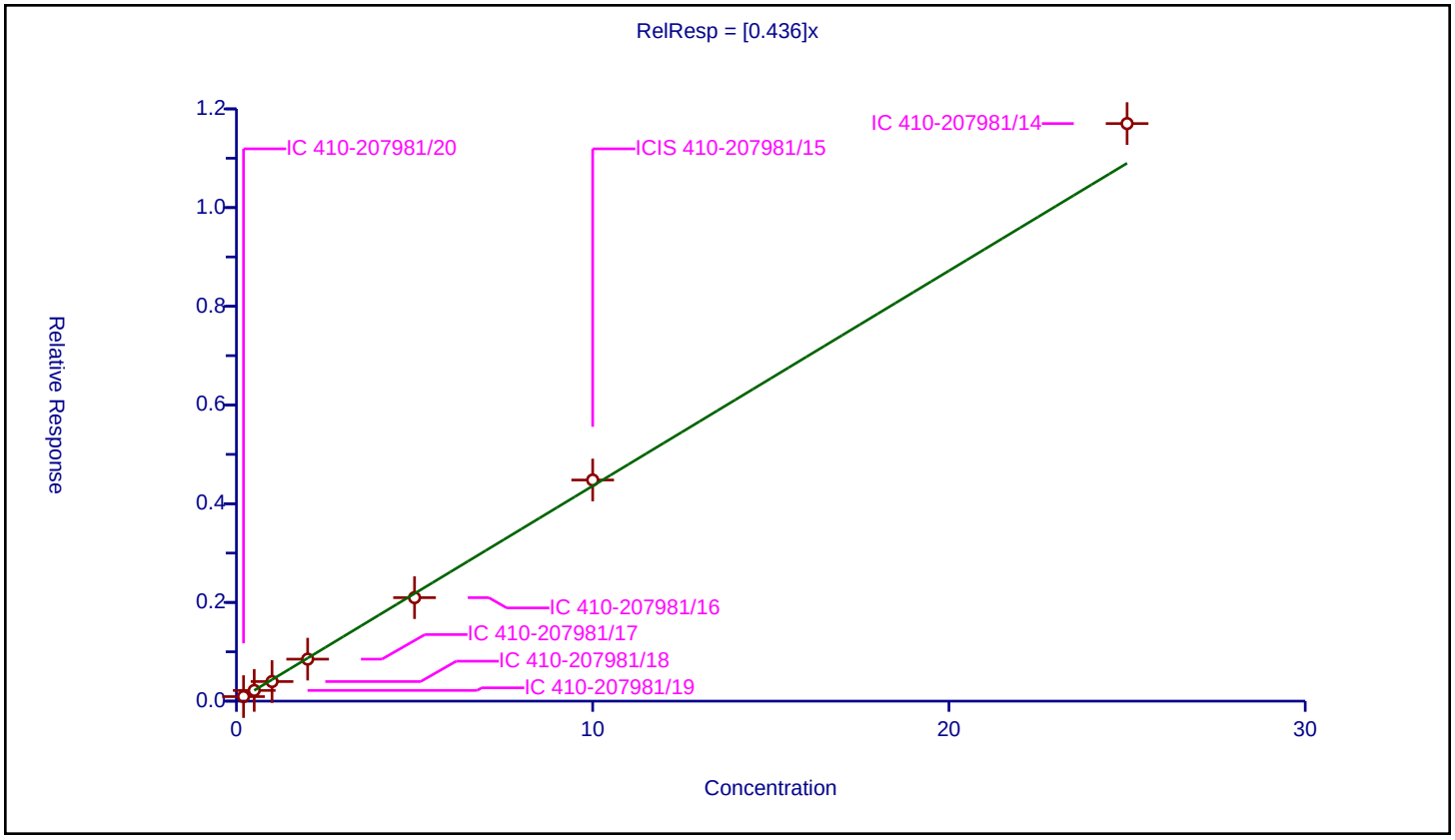
Curve Coefficients

Intercept:	0
Slope:	0.436

Error Coefficients

Standard Error:	546000
Relative Standard Error:	5.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.091978	10.0	1081350.0	0.459888	Y
2	IC 410-207981/19	0.5	0.217233	10.0	1061163.0	0.434467	Y
3	IC 410-207981/18	1.0	0.396812	10.0	1062215.0	0.396812	Y
4	IC 410-207981/17	2.0	0.85058	10.0	1055621.0	0.42529	Y
5	IC 410-207981/16	5.0	2.096707	10.0	1053366.0	0.419341	Y
6	ICIS 410-207981/15	10.0	4.480512	10.0	1033132.0	0.448051	Y
7	IC 410-207981/14	25.0	11.70291	10.0	1050754.0	0.468116	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

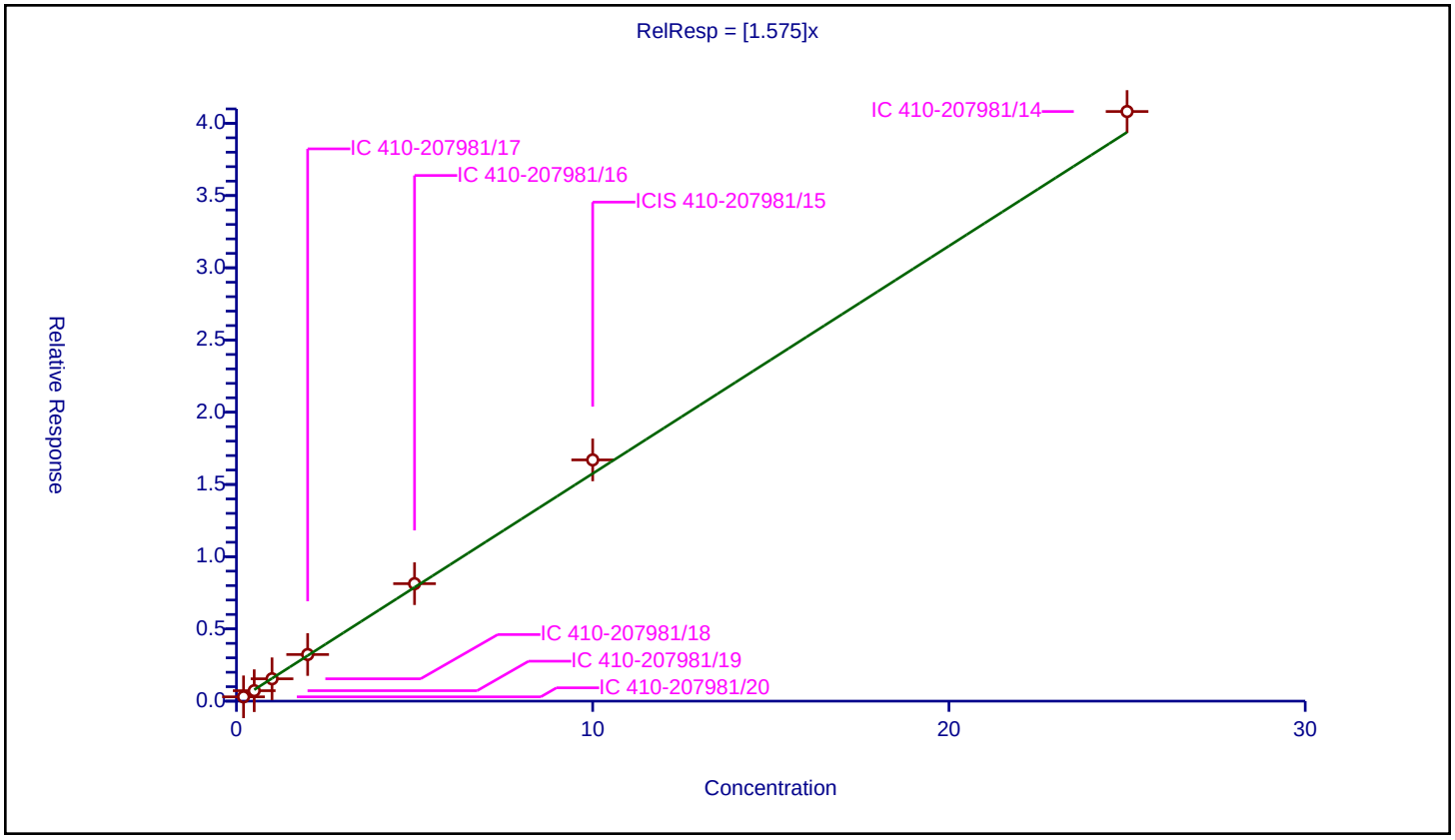
Curve Coefficients

Intercept:	0
Slope:	1.575

Error Coefficients

Standard Error:	1930000
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 410-207981/20	0.2	0.297739	10.0	1081350.0	1.488695	Y
2	IC 410-207981/19	0.5	0.723781	10.0	1061163.0	1.447563	Y
3	IC 410-207981/18	1.0	1.548773	10.0	1062215.0	1.548773	Y
4	IC 410-207981/17	2.0	3.227238	10.0	1055621.0	1.613619	Y
5	IC 410-207981/16	5.0	8.132558	10.0	1053366.0	1.626512	Y
6	ICIS 410-207981/15	10.0	16.70107	10.0	1033132.0	1.670107	Y
7	IC 410-207981/14	25.0	40.818422	10.0	1050754.0	1.632737	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

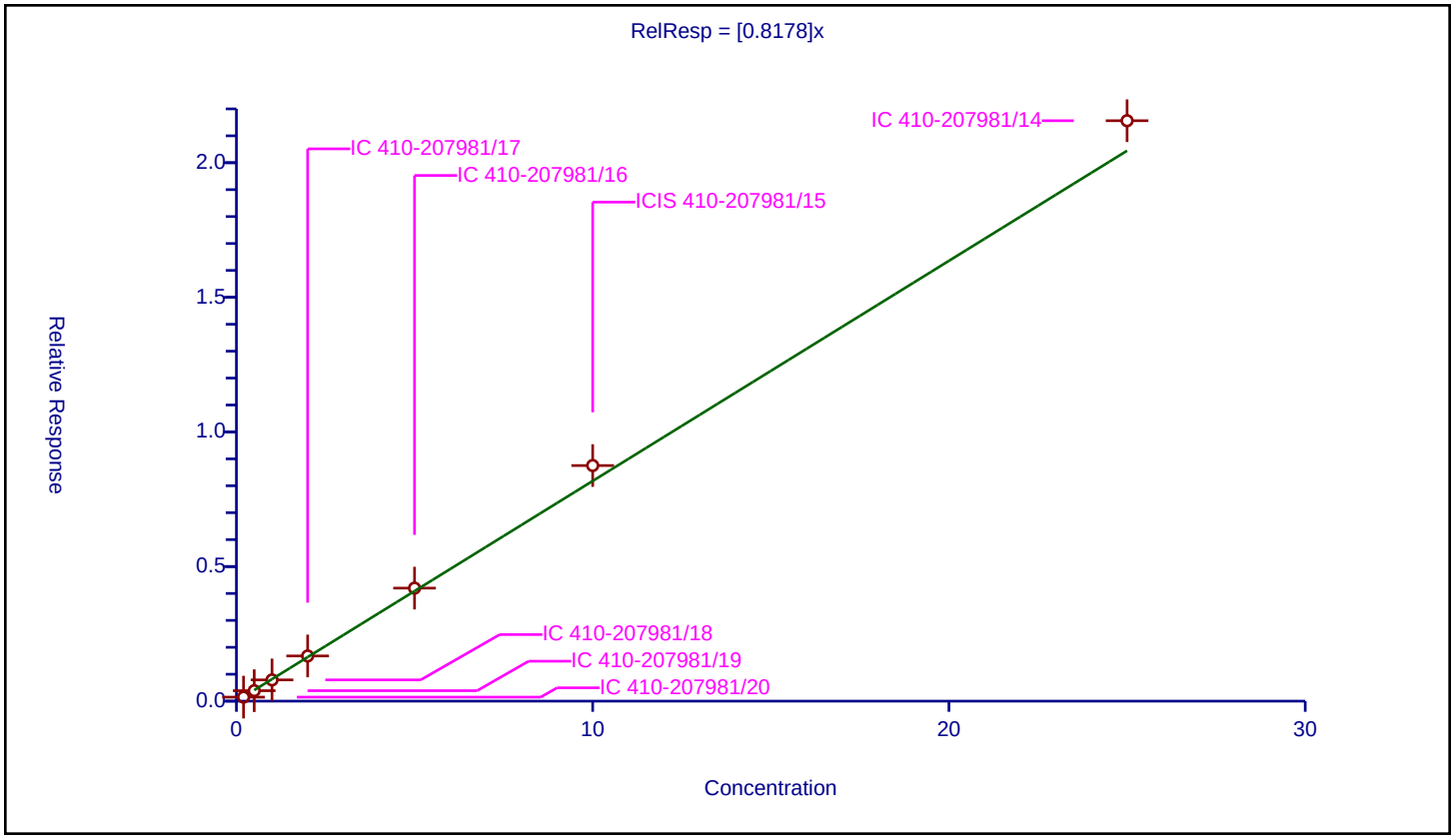
Curve Coefficients

Intercept:	0
Slope:	0.8178

Error Coefficients

Standard Error:	1020000
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 410-207981/20	0.2	0.148426	10.0	1081350.0	0.742128	Y
2	IC 410-207981/19	0.5	0.38864	10.0	1061163.0	0.777279	Y
3	IC 410-207981/18	1.0	0.788974	10.0	1062215.0	0.788974	Y
4	IC 410-207981/17	2.0	1.678358	10.0	1055621.0	0.839179	Y
5	IC 410-207981/16	5.0	4.197962	10.0	1053366.0	0.839592	Y
6	ICIS 410-207981/15	10.0	8.751418	10.0	1033132.0	0.875142	Y
7	IC 410-207981/14	25.0	21.560803	10.0	1050754.0	0.862432	Y



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.3627	0.1956 0.3416	0.3040	0.3114	0.3614	Ave		0.3128			0.1000	20.0		20.0			
Chloromethane	0.3737 0.3692	0.3520 0.3545	0.3277	0.3398	0.3774	Ave		0.3563			0.1000	5.2		20.0			
1,3-Butadiene	0.3583 0.3381	0.2781 0.3239	0.3216	0.3194	0.3521	Ave		0.3273				8.1		20.0			
Vinyl chloride	0.3684 0.3847	0.3183 0.3656	0.3364	0.3472	0.3941	Ave		0.3592			0.1000	7.5		20.0			
Bromomethane	0.2807 0.2701	0.2528 0.2477	0.2440	0.2517	0.2754	Ave		0.2603			0.1000	5.6		20.0			
Chloroethane	0.2262 0.2246	0.2056 0.2112	0.2036	0.2037	0.2325	Ave		0.2153			0.1000	5.6		20.0			
Dichlorofluoromethane	0.5615 0.5385	0.4859 0.5023	0.4850	0.4979	0.5538	Ave		0.5179			0.1000	6.3		20.0			
Trichlorofluoromethane	0.4066 0.5339	0.3297 0.4864	0.4638	0.4671	0.5530	Ave		0.4629			0.1000	16.4		20.0			
Ethyl ether	0.1835 0.2078	0.1655 0.1915	0.1744	0.1885	0.2053	Ave		0.1881				8.2		20.0			
Freon 123a	0.3286 0.3668	0.2778 0.3340	0.3179	0.3278	0.3686	Ave		0.3316				9.3		20.0			
Acrolein	2.0754 2.1510	2.0273 2.2464	2.2746	1.9732	2.5490	Ave		2.1853				8.9		20.0			
1,1-Dichloroethene	0.2236 0.2614	0.2129 0.2407	0.2396	0.2214	0.2711	Ave		0.2387			0.1000	9.0		20.0			
Acetone	3.3948 2.6081	2.6279 2.6013	2.5719	2.6885	2.9507	Ave		2.7776			0.1000	10.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Freon 113	0.1793 0.2949	0.1939 0.2778	0.2561	0.2365	0.3061	Ave		0.2492			0.1000	19.6		20.0			
Methyl iodide	0.4365 0.5164	0.4581 0.4791	0.4744	0.4472	0.5281	Ave		0.4771				7.2		20.0			
Carbon disulfide	0.6241 0.7230	0.6085 0.6809	0.6272	0.6081	0.7397	Ave		0.6588			0.1000	8.4		20.0			
Methyl acetate	10.223 7.9164	6.6486 7.6664	7.2485	8.2644	9.2657	Ave		8.1762			0.1000	14.9		20.0			
Allyl chloride	0.4039 0.4122	0.3756 0.3872	0.3811	0.3562	0.4244	Ave		0.3915				6.0		20.0			
Methylene Chloride	0.2524 0.2798	0.2487 0.2570	0.2549	0.2470	0.2837	Ave		0.2605			0.1000	5.7		20.0			
t-Butyl alcohol	1.0156 1.1288	0.9511 0.9655	1.0279	1.1110	1.1697	Ave		1.0528				8.0		20.0			
Acrylonitrile	3.3547 3.7261	3.2482 3.8697	3.8210	3.4385	4.4580	Ave		3.7023				11.1		20.0			
Methyl tert-butyl ether	0.6479 0.7420	0.6277 0.6762	0.6717	0.6482	0.7521	Ave		0.6808			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		0.2711			0.1000	6.4		20.0			
n-Hexane	0.2986 0.4503	0.2876 0.4202	0.3712	0.3567	0.4652	Ave		0.3785				18.5		20.0			
1,1-Dichloroethane	0.4529 0.5299	0.4771 0.4952	0.4797	0.4692	0.5393	Ave		0.4919			0.2000	6.5		20.0			
di-Isopropyl ether	0.7902 0.8812	0.7740 0.8214	0.8046	0.7810	0.8994	Ave		0.8217				6.0		20.0			
2-Chloro-1,3-butadiene	0.3795 0.4481	0.3757 0.4209	0.4011	0.3850	0.4606	Ave		0.4101				8.3		20.0			
Ethyl t-butyl ether	0.7755 0.8660	0.7525 0.7962	0.7910	0.7665	0.8768	Ave		0.8035				6.1		20.0			
2-Butanone (MEK)	4.4727 4.7324	4.7875 4.9530	5.0137	4.4128	5.5781	Ave		4.8500			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		0.3020			0.1000	6.0		20.0			
2,2-Dichloropropane	0.3889 0.4654	0.4050 0.4361	0.4203	0.4002	0.4780	Ave		0.4277				7.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Propionitrile	1.0665 1.3670	1.1664 1.3682	1.3168	1.2026	1.5295	Ave		1.2882				12.0		20.0			
Methacrylonitrile	4.4612 4.7621	4.5433 5.1194	5.0070	4.3591	5.8587	Ave		4.8730				10.6		20.0			
Bromochloromethane	0.1221 0.1403	0.1231 0.1291	0.1294	0.1262	0.1421	Ave		0.1303				6.1		20.0			
Tetrahydrofuran	1.3973 1.4262	1.2691 1.4530	1.4982	1.3139	1.7126	Ave		1.4386				10.0		20.0			
Chloroform	0.4692 0.5205	0.4652 0.4830	0.4841	0.4582	0.5306	Ave		0.4873			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		0.4528			0.1000	8.5		20.0			
Cyclohexane	0.3570 0.5244	0.3518 0.4941	0.4506	0.4210	0.5435	Ave		0.4489			0.1000	17.1		20.0			
1,1-Dichloropropene	0.3433 0.4231	0.3424 0.3973	0.3762	0.3598	0.4316	Ave		0.3820				9.5		20.0			
Carbon tetrachloride	0.3364 0.4445	0.3351 0.4154	0.3838	0.3693	0.4512	Ave		0.3908			0.1000	12.2		20.0			
Isobutyl alcohol	0.3505 0.3456	0.3053 0.3093	0.3476	0.3308	0.3625	Ave		0.3359				6.5		20.0			
Benzene	1.0786 1.2043	1.0806 1.1169	1.1054	1.0522	1.2324	Ave		1.1243			0.5000	6.0		20.0			
1,2-Dichloroethane	0.3196 0.3205	0.2889 0.2988	0.3010	0.2768	0.3267	Ave		0.3046			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		0.7459				6.2		20.0			
n-Heptane	0.3735 0.4318	0.3278 0.4065	0.3870	0.3498	0.4481	Ave		0.3892				11.1		20.0			
n-Butanol	0.2672 0.3373	0.2899 0.2908	0.3219	0.3041	0.3716	Ave		0.3118				11.2		20.0			
Trichloroethene	0.2830 0.3275	0.2877 0.3071	0.2935	0.2799	0.3365	Ave		0.3022			0.2000	7.4		20.0			
Methylcyclohexane	0.4104 0.5911	0.3880 0.5530	0.4960	0.4766	0.6030	Ave		0.5026			0.1000	16.8		20.0			
1,2-Dichloropropane	0.2449 0.3041	0.2530 0.2850	0.2751	0.2653	0.3056	Ave		0.2761			0.1000	8.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl methacrylate	8.2957 9.7081	7.9901 10.530	10.080	8.6383	11.802	Ave		9.5777				14.2		20.0			
1,4-Dioxane	+++++ 0.0928	0.0580 0.0531	0.0734	0.0840	0.0900	Qua	-2.625	0.1219	-0.000053		0.0050				0.9980		0.9900
Dibromomethane	0.1367 0.1448	0.1222 0.1357	0.1296	0.1288	0.1470	Ave		0.1350				6.6		20.0			
Bromodichloromethane	0.3016 0.3705	0.3121 0.3529	0.3183	0.3156	0.3722	Ave		0.3347			0.2000	8.8		20.0			
2-Nitropropane	2.4224 2.6776	2.5126 2.9919	2.8529	2.4822	3.2402	Ave		2.7400				11.0		20.0			
cis-1,3-Dichloropropene	0.3774 0.4708	0.3700 0.4485	0.4057	0.4003	0.4712	Ave		0.4206			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		12.213			0.1000	10.2		20.0			
Toluene	0.9391 1.0243	0.9229 0.9386	0.9435	0.8884	1.0533	Ave		0.9586			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		0.4420			0.1000	10.7		20.0			
Ethyl methacrylate	0.3292 0.4153	0.3108 0.3888	0.3532	0.3657	0.4193	Ave		0.3689				11.2		20.0			
1,1,2-Trichloroethane	0.2499 0.2775	0.2390 0.2510	0.2485	0.2458	0.2782	Ave		0.2557			0.1000	6.1		20.0			
Tetrachloroethene	0.4216 0.5030	0.4243 0.4609	0.4444	0.4314	0.5113	Ave		0.4567			0.2000	8.1		20.0			
1,3-Dichloropropane	0.4271 0.4684	0.3991 0.4306	0.4298	0.4146	0.4743	Ave		0.4348				6.3		20.0			
2-Hexanone	7.1827 8.6184	7.7352 9.2473	8.7474	7.7260	10.621	Ave		8.5540			0.1000	13.5		20.0			
Dibromochloromethane	0.2708 0.3553	0.2672 0.3375	0.3010	0.2956	0.3536	Ave		0.3116				12.0		20.0			
1,2-Dibromoethane (EDB)	0.2369 0.2698	0.2170 0.2484	0.2455	0.2352	0.2740	Ave		0.2467			0.1000	8.1		20.0			
1-Chlorohexane	0.5866 0.6070	0.5028 0.5563	0.5366	0.5151	0.6198	Ave		0.5606				8.1		20.0			
Chlorobenzene	1.0341 1.1413	0.9999 1.0474	1.0475	1.0015	1.1613	Ave		1.0619			0.5000	6.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1,1,2-Tetrachloroethane	0.3534 0.4134	0.3288 0.3804	0.3561	0.3538	0.4095	Ave		0.3708				8.5		20.0			
Ethylbenzene	1.7775 1.9981	1.7418 1.8269	1.8103	1.7297	2.0370	Ave		1.8459			0.1000	6.6		20.0			
m&p-Xylene	0.6807 0.7933	0.6907 0.7223	0.7223	0.6883	0.8070	Ave		0.7292			0.1000	7.0		20.0			
o-Xylene	0.6801 0.7828	0.6824 0.7198	0.6941	0.6804	0.7980	Ave		0.7197			0.3000	7.0		20.0			
Styrene	1.0572 1.2839	1.0757 1.1766	1.1444	1.1001	1.2948	Ave		1.1618			0.3000	8.3		20.0			
Bromoform	0.1542 0.2215	0.1570 0.2127	0.1737	0.1730	0.2145	Ave		0.1867			0.1000	15.4		20.0			
Isopropylbenzene	1.7707 2.0794	1.7890 1.8647	1.8702	1.8099	2.1154	Ave		1.8999			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		0.5528			0.3000	7.5		20.0			
Bromobenzene	0.7239 0.8313	0.7007 0.7595	0.7325	0.7127	0.8423	Ave		0.7576				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		4.4178				15.3		20.0			
1,2,3-Trichloropropane	0.1459 0.1691	0.1352 0.1485	0.1493	0.1459	0.1700	Ave		0.1520				8.5		20.0			
N-Propylbenzene	3.4241 4.1059	3.4158 3.5771	3.6026	3.4783	4.1391	Ave		3.6775				8.5		20.0			
2-Chlorotoluene	0.6886 0.8261	0.6965 0.7589	0.7527	0.7210	0.8383	Ave		0.7546				7.8		20.0			
1,3,5-Trimethylbenzene	2.4877 3.0046	2.4892 2.6889	2.6091	2.5128	3.0071	Ave		2.6856				8.6		20.0			
4-Chlorotoluene	0.7206 0.8363	0.7144 0.7728	0.7625	0.7264	0.8610	Ave		0.7706				7.5		20.0			
tert-Butylbenzene	0.5220 0.6578	0.5491 0.5957	0.5757	0.5601	0.6625	Ave		0.5890				9.1		20.0			
Pentachloroethane	0.4318 0.5591	0.3812 0.5124	0.4425	0.4642	0.5385	Ave		0.4757				13.4		20.0			
1,2,4-Trimethylbenzene	2.5034 3.0669	2.5332 2.7532	2.7222	2.5837	3.1073	Ave		2.7528				9.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.0988 3.7882	3.1067 3.3969	3.3230	3.2189	3.8259	Ave		3.3941				8.9		20.0			
1,3-Dichlorobenzene	1.4232 1.7010	1.3877 1.5496	1.5218	1.4220	1.6882	Ave		1.5277			0.6000	8.4		20.0			
p-Isopropyltoluene	2.7768 3.3546	2.7485 2.9902	2.9177	2.8376	3.3892	Ave		3.0021				8.9		20.0			
1,4-Dichlorobenzene	1.5011 1.7091	1.4485 1.5576	1.5299	1.4598	1.7250	Ave		1.5616			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		1.2180				6.4		20.0			
Benzyl chloride	0.1628 0.2764	0.1957 0.2557	0.2131	0.2136	0.2660	Ave		0.2262				18.3		20.0			
n-Butylbenzene	1.2960 1.5824	1.2462 1.4394	1.3589	1.3122	1.5855	Ave		1.4029				9.8		20.0			
1,2-Dichlorobenzene	1.3272 1.5336	1.2611 1.3757	1.3800	1.3430	1.5513	Ave		1.3960			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		0.0813			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		1.1179				10.6		20.0			
1,2,4-Trichlorobenzene	0.8399 1.0952	0.8063 0.9601	0.9241	0.9014	1.0764	Ave		0.9433			0.2000	11.7		20.0			
Hexachlorobutadiene	0.4823 0.4373	0.3756 0.3936	0.3835	0.3656	0.4307	Ave		0.4098				10.2		20.0			
Naphthalene	1.7619 2.0429	1.5776 1.6639	1.7607	1.7878	1.9900	Ave		1.7978				9.3		20.0			
1,2,3-Trichlorobenzene	0.8050 0.9264	0.7050 0.7725	0.7921	0.7919	0.9136	Ave		0.8152				9.7		20.0			
Dibromofluoromethane (Surr)	0.2500 0.2511	0.2526 0.2515	0.2525	0.2532	0.2524	Ave		0.2519				0.4		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0506 0.0506	0.0495 0.0507	0.0502	0.0508	0.0504	Ave		0.0504				0.9		20.0			
Toluene-d8 (Surr)	1.3069 1.2913	1.2928 1.2642	1.3038	1.3008	1.2863	Ave		1.2923				1.1		20.0			
4-Bromofluorobenzene (Surr)	0.4980 0.4916	0.4938 0.4919	0.4982	0.4929	0.4908	Ave		0.4939				0.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 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
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.: 410-67460-1 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.: 410-67460-1 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.: 410-67460-1 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 975208	41262 1950741	80599	173400	436929	17.5 875	43.8 2188	87.5	175	438
Trichloroethene	FB	Ave	12472 695086	34329 1777081	63618	119880	356004	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylcyclohexane	FB	Ave	18086 1254685	46295 3199658	107529	204137	637877	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloropropane	FB	Ave	10792 645492	30184 1648952	59643	113623	323309	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl methacrylate	TBAd 10	Ave	5380 320765	12996 807321	28845	56288	158597	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dioxane	TBAd 10	Qua	+++++ 153335	4720 203588	10496	27358	60485	+++++ 500	25.0 1250	50.0	100	250
Dibromomethane	FB	Ave	6024 307242	14579 785220	28100	55146	155460	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromodichloromethane	FB	Ave	13292 786321	37237 2042180	68991	135182	393721	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Nitropropane	TBAd 10	Ave	7855 442348	20434 1146903	40821	80872	217711	1.00 50.0	2.50 125	5.00	10.0	25.0
cis-1,3-Dichloropropene	FB	Ave	16632 999345	44155 2594937	87948	171443	498450	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	72451 3982955	180620 9850003	362286	725808	1950081	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZd 5	Ave	31541 1680421	85173 4295450	156583	294006	865208	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,3-Dichloropropene	CBZd 5	Ave	13216 822825	35995 2144165	70216	138743	409218	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl methacrylate	CBZd 5	Ave	11059	28685	58617	121040	344439	0.200	0.500	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 455229	22055 1148961	41236	81343	228498	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrachloroethene	CBZd 5	Ave	14161 825293	39159 2109166	73750	142779	419950	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichloropropane	CBZd 5	Ave	14346 768446	36830 1970914	71333	137217	389560	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Hexanone	TBAd 10	Ave	46582 2847614	125813 7089653	250322	503437	1427211	2.00 100	5.00 250	10.0	20.0	50.0
Dibromochloromethane	CBZd 5	Ave	9097 582989	24663 1544832	49956	97832	290417	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7956 442687	20030 1136711	40746	77838	225049	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1-Chlorohexane	CBZd 5	Ave	19704 995910	46401 2545795	89057	170447	509095	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chlorobenzene	CBZd 5	Ave	34732 1872527	92274 4793510	173851	331442	953872	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	11871 678162	30345 1740796	59106	117075	336401	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethylbenzene	CBZd 5	Ave	59702 3278221	160740 8361092	300446	572417	1673213	0.200 10.0	0.500 25.0	1.00	2.00	5.00
m&p-Xylene	CBZd 5	Ave	45724 2602971	127477 6611583	239751	455535	1325681	0.400 20.0	1.00 50.0	2.00	4.00	10.0
o-Xylene	CBZd 5	Ave	22844	62976	115204	225160	655445	0.200	0.500	1.00	2.00	5.00

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 2106471	99275 5384777	189931	364056	1063582	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromoform	CBZd 5	Ave	5180 363441	14486 973418	28833	57249	176181	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isopropylbenzene	CBZd 5	Ave	59476 3411517	165096 8533967	310386	598946	1737611	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10699 586534	27777 1493325	54325	102513	293036	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromobenzene	DCBd 4	Ave	14657 800922	38617 2065190	72358	140306	405579	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	23386 1486472	63065 3858821	127777	256704	739718	2.00 100	5.00 250	10.0	20.0	50.0
1,2,3-Trichloropropane	DCBd 4	Ave	2954 162926	7449 403698	14746	28724	81857	0.200 10.0	0.500 25.0	1.00	2.00	5.00
N-Propylbenzene	DCBd 4	Ave	69326 3955616	188239 9726346	355852	684747	1993107	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chlorotoluene	DCBd 4	Ave	13941 795839	38383 2063363	74353	141927	403661	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trimethylbenzene	DCBd 4	Ave	50366 2894636	137180 7311288	257721	494667	1448018	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Chlorotoluene	DCBd 4	Ave	14590 805714	39370 2101375	75316	142990	414612	0.200 10.0	0.500 25.0	1.00	2.00	5.00
tert-Butylbenzene	DCBd 4	Ave	10568	30260	56868	110262	319038	0.200	0.500	1.00	2.00	5.00

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 538681	21010 1393099	43712	91381	259289	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trimethylbenzene	DCBd 4	Ave	50685 2954664	139600 7486072	268890	508634	1496260	0.200 10.0	0.500 25.0	1.00	2.00	5.00
sec-Butylbenzene	DCBd 4	Ave	62740 3649559	171209 9236299	328234	633668	1842298	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichlorobenzene	DCBd 4	Ave	28815 1638792	76475 4213523	150321	279932	812939	0.200 10.0	0.500 25.0	1.00	2.00	5.00
p-Isopropyltoluene	DCBd 4	Ave	56219 3231863	151465 8130505	288208	558603	1632038	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dichlorobenzene	DCBd 4	Ave	30392 1646605	79823 4235116	151116	287369	830653	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trimethylbenzene	DCBd 4	Ave	23351 1287655	63083 3282745	119238	228500	633734	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Benzyl chloride	DCBd 4	Ave	3297 266255	10785 695344	21047	42047	128109	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butylbenzene	DCBd 4	Ave	26239 1524448	68676 3913754	134228	258320	763485	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichlorobenzene	DCBd 4	Ave	26871 1477507	69498 3740715	136312	264385	746995	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1200 99189	3634 240431	7659	16104	44921	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trichlorobenzene	DCBd 4	Ave	20269	55476	105716	206620	610685	0.200	0.500	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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 1055085	44434 2610571	91280	177445	518320	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Hexachlorobutadiene	DCBd 4	Ave	9764 421345	20700 1070139	37885	71973	207395	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Naphthalene	DCBd 4	Ave	35671 1968173	86939 4524102	173919	351951	958252	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trichlorobenzene	DCBd 4	Ave	16298 892480	38854 2100548	78245	155892	439919	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dibromofluoromethane (Surr)	FB	Ave	550850 533065	602854 582034	547419	542329	533947	10.0 10.0	10.0 10.0	10.0	10.0	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	111473 107464	118060 117327	108914	108754	106534	10.0 10.0	10.0 10.0	10.0	10.0	10.0
Toluene-d8 (Surr)	CBZd 5	Ave	2194797 2118631	2386226 2314329	2163909	2152292	2113101	10.0 10.0	10.0 10.0	10.0	10.0	10.0
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	836413 806596	911479 900526	826851	815520	806331	10.0 10.0	10.0 10.0	10.0	10.0	10.0

Curve Type Legend
Ave = Average ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-67460-1 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.: 410-67460-1 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.: 410-67460-1 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.: 410-67460-1 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.: 410-67460-1 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.: 410-67460-1 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\IG23I01.D
Lims ID: IC std7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Aug-2021 00:45:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-012
Misc. Info.: IC STD7
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:02 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:00:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	1976750	25.0	27.3	
4 Chloromethane	50	2.172	2.172	0.000	99	2051431	25.0	24.9	
6 Butadiene	39	2.294	2.288	0.006	90	1874306	25.0	24.7	
5 Vinyl chloride	62	2.294	2.294	0.000	96	2115370	25.0	25.4	
7 Bromomethane	94	2.623	2.623	0.000	91	1433103	25.0	23.8	
8 Chloroethane	64	2.709	2.709	0.000	100	1221840	25.0	24.5	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	2906691	25.0	24.3	
10 Trichlorofluoromethane	101	3.013	3.020	-0.007	97	2814367	25.0	26.3	
11 Ethyl ether	59	3.263	3.257	0.006	90	1108291	25.0	25.5	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.355	3.343	0.012	91	1932434	25.0	25.2	
13 Acrolein	56	3.434	3.428	0.006	99	8611114	1250.0	1284.9	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	1392957	25.0	25.2	
15 Acetone	43	3.605	3.599	0.006	100	1994344	250.0	234.1	
16 112TCTFE	101	3.617	3.611	0.006	91	1607495	25.0	27.9	
17 Iodomethane	142	3.776	3.769	0.007	99	2772320	25.0	25.1	
18 Ethyl bromide	108	3.806	3.794	0.012	99	1256154	25.0	25.0	
19 Carbon disulfide	76	3.885	3.879	0.006	99	3939815	25.0	25.8	
21 Methyl acetate	43	4.032	4.038	-0.006	97	587766	25.0	23.4	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	91	2240583	25.0	24.7	
23 Methylene Chloride	84	4.245	4.239	0.006	91	1487176	25.0	24.7	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	95	153335	50.0	50.0	
25 2-Methyl-2-propanol	59	4.391	4.397	-0.006	100	1480411	500.0	458.5	
26 Acrylonitrile	53	4.586	4.592	-0.006	100	741706	62.5	65.3	
27 Methyl tert-butyl ether	73	4.653	4.659	-0.006	95	3912928	25.0	24.8	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	1566059	25.0	25.0	
29 Hexane	57	5.092	5.086	0.006	91	2431187	25.0	27.7	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	2865291	25.0	25.2	
32 Isopropyl ether	45	5.385	5.385	0.000	94	4752763	25.0	25.0	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	91	2435652	25.0	25.7	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	4606991	25.0	24.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.129	6.116	0.013	99	3797344	250.0	255.3	
S 35 1,2-Dichloroethene, Total	100				0			49.7	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	1726698	25.0	24.7	
38 2,2-Dichloropropane	77	6.177	6.171	0.006	86	2523281	25.0	25.5	
40 Propionitrile	54	6.208	6.208	0.000	99	2097921	500.0	531.1	
42 Methacrylonitrile	67	6.427	6.415	0.012	91	3924933	250.0	262.6	
43 Chlorobromomethane	128	6.488	6.482	0.006	89	746910	25.0	24.8	
44 Tetrahydrofuran	71	6.501	6.494	0.007	79	557004	125.0	126.3	
45 Chloroform	83	6.641	6.635	0.006	93	2794705	25.0	24.8	
$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	582034	10.0	9.98	
47 1,1,1-Trichloroethane	97	6.866	6.860	0.006	98	2684937	25.0	25.6	
48 Cyclohexane	56	6.964	6.964	0.000	89	2858999	25.0	27.5	
50 Carbon tetrachloride	117	7.080	7.067	0.013	87	2403582	25.0	26.6	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	96	2298795	25.0	26.0	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	1185567	1250.0	1150.8	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	84	117327	10.0	10.1	
54 Benzene	78	7.336	7.336	0.000	96	6462549	25.0	24.8	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	1729238	25.0	24.5	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	98	4293680	25.0	24.9	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2314551	10.0	10.0	
59 n-Heptane	43	7.750	7.744	0.006	90	2352079	25.0	26.1	
60 n-Butanol	56	8.092	8.098	-0.006	87	1950741	2187.5	2039.9	
61 Trichloroethene	95	8.220	8.214	0.006	97	1777081	25.0	25.4	
62 Methylcyclohexane	83	8.525	8.525	0.000	93	3199658	25.0	27.5	
63 1,2-Dichloropropane	63	8.549	8.543	0.006	93	1648952	25.0	25.8	
64 Methyl methacrylate	69	8.622	8.628	-0.006	89	807321	25.0	27.5	
65 1,4-Dioxane	88	8.634	8.640	-0.006	32	203588	1250.0	1026.9	M
66 Dibromomethane	93	8.659	8.653	0.006	93	785220	25.0	25.1	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	2042180	25.0	26.4	
69 2-Nitropropane	41	9.153	9.152	0.000	97	1146903	125.0	136.5	
72 1-Bromo-2-chloroethane	63	9.281	9.280	0.001	98	1613213	25.0	25.7	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	98	2594937	25.0	26.7	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	95	9850003	250.0	263.0	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2314329	10.0	9.78	
76 Toluene	92	9.817	9.811	0.006	98	4295450	25.0	24.5	
S 77 1,3-Dichloropropene, Total	100				0			53.2	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	2144165	25.0	26.5	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	1779294	25.0	26.3	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	1148961	25.0	24.5	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	2109166	25.0	25.2	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	1970914	25.0	24.8	
83 2-Hexanone	43	10.482	10.481	0.001	96	7089653	250.0	270.3	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	1544832	25.0	27.1	
86 Ethylene Dibromide	107	10.762	10.756	0.006	99	1136711	25.0	25.2	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	86	1830649	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	96	2545795	25.0	24.8	
90 Chlorobenzene	112	11.213	11.213	0.000	95	4793510	25.0	24.7	
S 89 Xylenes, Total	106				0			74.5	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	97	1740796	25.0	25.6	
92 Ethylbenzene	91	11.298	11.298	0.000	98	8361092	25.0	24.7	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	6611583	50.0	49.5	
94 o-Xylene	106	11.737	11.737	0.000	96	3294215	25.0	25.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	5384777	25.0	25.3	
96 Bromoform	173	11.914	11.914	0.000	98	973418	25.0	28.5	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	8533967	25.0	24.5	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	900526	10.0	9.96	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	1493325	25.0	24.8	
102 Bromobenzene	156	12.298	12.298	0.000	95	2065190	25.0	25.1	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	3858821	250.0	284.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	403698	25.0	24.4	
105 N-Propylbenzene	91	12.365	12.365	0.000	98	9726346	25.0	24.3	
106 2-Chlorotoluene	126	12.445	12.444	0.001	97	2063363	25.0	25.1	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	7311288	25.0	25.0	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	2101375	25.0	25.1	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	1619763	25.0	25.3	
110 Pentachloroethane	167	12.774	12.774	0.000	94	1393099	25.0	26.9	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	7486072	25.0	25.0	
112 sec-Butylbenzene	105	12.908	12.902	0.006	96	9236299	25.0	25.0	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	4213523	25.0	25.4	
114 4-Isopropyltoluene	119	13.012	13.011	0.001	96	8130505	25.0	24.9	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	93	1087615	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	94	4235116	25.0	24.9	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	98	3282745	25.0	24.8	
118 Benzyl chloride	126	13.152	13.158	-0.006	98	695344	25.0	28.3	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	3913754	25.0	25.6	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	3740715	25.0	24.6	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	90	240431	25.0	27.2	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	3113277	25.0	25.6	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	2610571	25.0	25.4	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	1070139	25.0	24.0	
126 Naphthalene	128	14.609	14.609	0.000	97	4524102	25.0	23.1	
127 1,2,3-Trichlorobenzene	180	14.749	14.755	-0.006	96	2100548	25.0	23.7	
134 Isopropyl alcohol	45		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added: 25.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent

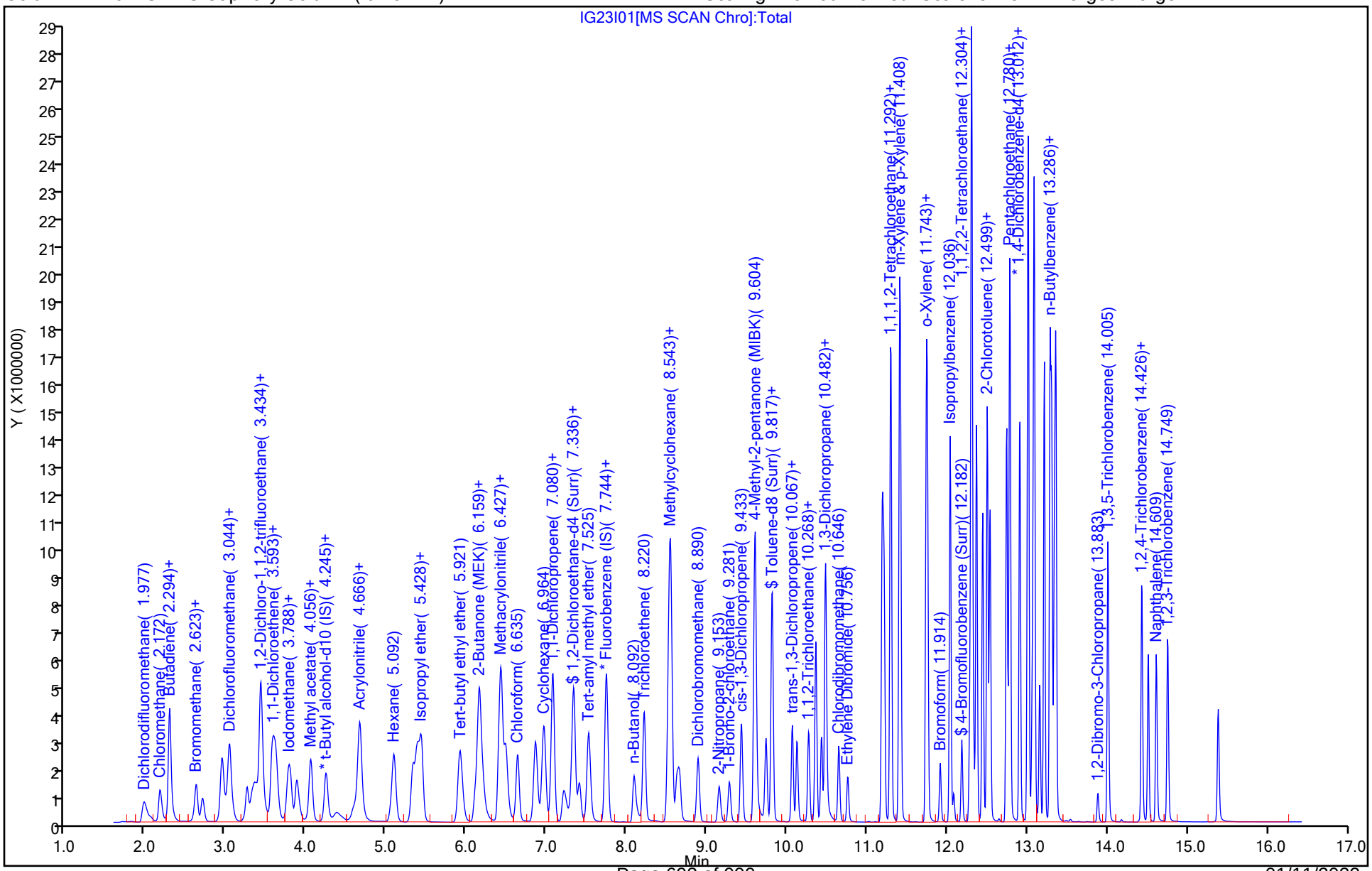
Report Date: 24-Aug-2021 15:55:02 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I01.D

Injection Date:	24-Aug-2021 00:45:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	IC std7			Worklist Smp#:	12
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

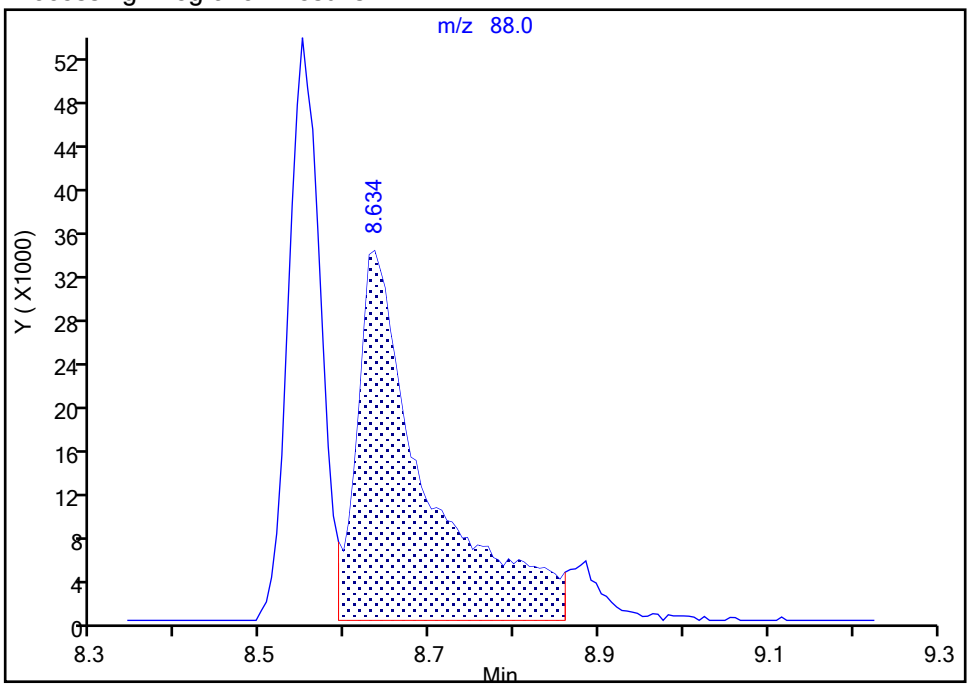
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I01.D
Injection Date: 24-Aug-2021 00:45:30 Instrument ID: 19930
Lims ID: IC std7
Client ID:
Operator ID: mec29284 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

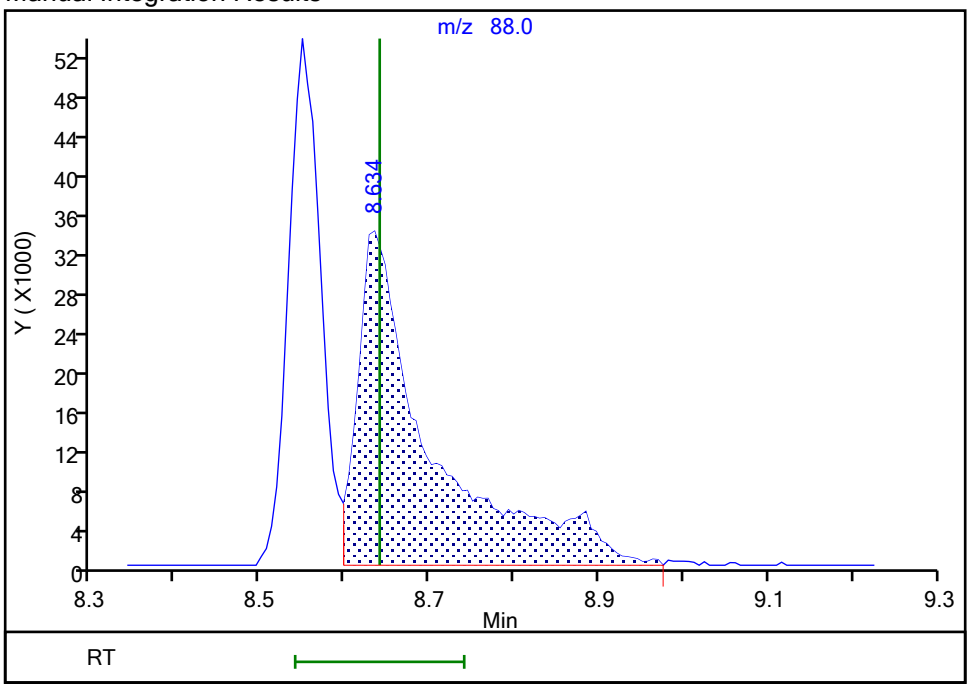
Processing Integration Results

RT: 8.63
Area: 191805
Amount: 912.6603
Amount Units: ug/l



Manual Integration Results

RT: 8.63
Area: 203588
Amount: 1026.9040
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:03:46
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I02.D
Lims ID: ICIS - LG
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 24-Aug-2021 01:06:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-013
Misc. Info.: ICIS - LG
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:07 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: spositok Date: 24-Aug-2021 14:22:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.983	0.000	99	769929	10.0	11.6	
4 Chloromethane	50	2.184	2.184	0.000	99	783649	10.0	10.4	
6 Butadiene	39	2.300	2.300	0.000	90	717606	10.0	10.3	
5 Vinyl chloride	62	2.300	2.300	0.000	97	816639	10.0	10.7	
7 Bromomethane	94	2.635	2.635	0.000	90	573256	10.0	10.4	
8 Chloroethane	64	2.715	2.715	0.000	100	476638	10.0	10.4	
9 Dichlorofluoromethane	67	2.952	2.952	0.000	97	1143054	10.0	10.4	
10 Trichlorofluoromethane	101	3.026	3.026	0.000	97	1133164	10.0	11.5	
11 Ethyl ether	59	3.269	3.269	0.000	90	440991	10.0	11.0	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.355	3.355	0.000	91	778462	10.0	11.1	
13 Acrolein	56	3.440	3.440	0.000	99	3553431	500.0	492.1	
14 1,1-Dichloroethene	96	3.580	3.580	0.000	98	554846	10.0	11.0	
15 Acetone	43	3.611	3.611	0.000	100	861750	100.0	93.9	
16 112TCTFE	101	3.623	3.623	0.000	91	625953	10.0	11.8	
17 Iodomethane	142	3.781	3.781	0.000	99	1095984	10.0	10.8	
18 Ethyl bromide	108	3.812	3.812	0.000	99	498873	10.0	10.8	
19 Carbon disulfide	76	3.891	3.891	0.000	99	1534600	10.0	11.0	
21 Methyl acetate	43	4.031	4.031	0.000	97	261567	10.0	9.68	
22 3-Chloro-1-propene	41	4.068	4.068	0.000	91	874837	10.0	10.5	
23 Methylene Chloride	84	4.257	4.257	0.000	91	593991	10.0	10.7	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.269	0.000	96	165205	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.385	0.000	100	745936	200.0	214.4	
26 Acrylonitrile	53	4.592	4.592	0.000	100	307786	25.0	25.2	
27 Methyl tert-butyl ether	73	4.665	4.665	0.000	94	1574902	10.0	10.9	
28 trans-1,2-Dichloroethene	96	4.678	4.678	0.000	100	619693	10.0	10.8	
29 Hexane	57	5.104	5.104	0.000	91	955763	10.0	11.9	
31 1,1-Dichloroethane	63	5.336	5.336	0.000	96	1124834	10.0	10.8	
32 Isopropyl ether	45	5.391	5.391	0.000	94	1870451	10.0	10.7	
33 2-Chloro-1,3-butadiene	53	5.446	5.446	0.000	90	951023	10.0	10.9	
34 Tert-butyl ethyl ether	59	5.921	5.921	0.000	97	1838180	10.0	10.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.122	6.122	0.000	99	1563634	100.0	97.6	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	679972	10.0	10.6	
38 2,2-Dichloropropane	77	6.177	6.177	0.000	86	987902	10.0	10.9	
40 Propionitrile	54	6.208	6.208	0.000	99	903317	200.0	212.2	
42 Methacrylonitrile	67	6.427	6.427	0.000	90	1573429	100.0	97.7	
43 Chlorobromomethane	128	6.488	6.488	0.000	91	297719	10.0	10.8	
44 Tetrahydrofuran	71	6.500	6.500	0.000	77	235618	50.0	49.6	
45 Chloroform	83	6.641	6.641	0.000	93	1104772	10.0	10.7	
$ 46 Dibromofluoromethane (Surr)	113	6.854	6.854	0.000	94	533065	10.0	9.97	
47 1,1,1-Trichloroethane	97	6.866	6.866	0.000	98	1048975	10.0	10.9	
48 Cyclohexane	56	6.970	6.970	0.000	89	1113121	10.0	11.7	
50 Carbon tetrachloride	117	7.080	7.080	0.000	89	943497	10.0	11.4	
51 1,1-Dichloropropene	75	7.080	7.080	0.000	96	898023	10.0	11.1	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	570979	500.0	514.4	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.305	0.000	83	107464	10.0	10.0	
54 Benzene	78	7.342	7.342	0.000	96	2556166	10.0	10.7	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	680372	10.0	10.5	
57 Tert-amyl methyl ether	73	7.525	7.525	0.000	99	1715769	10.0	10.8	
* 58 Fluorobenzene (IS)	96	7.744	7.744	0.000	99	2122537	10.0	10.0	
59 n-Heptane	43	7.750	7.750	0.000	92	916472	10.0	11.1	
60 n-Butanol	56	8.098	8.098	0.000	87	975208	875.0	946.5	
61 Trichloroethene	95	8.220	8.220	0.000	97	695086	10.0	10.8	
62 Methylcyclohexane	83	8.524	8.524	0.000	93	1254685	10.0	11.8	
63 1,2-Dichloropropane	63	8.549	8.549	0.000	77	645492	10.0	11.0	
64 Methyl methacrylate	69	8.628	8.628	0.000	89	320765	10.0	10.1	
65 1,4-Dioxane	88	8.640	8.640	0.000	42	153335	500.0	520.7	
66 Dibromomethane	93	8.659	8.659	0.000	93	307242	10.0	10.7	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	786321	10.0	11.1	
69 2-Nitropropane	41	9.152	9.152	0.000	98	442348	50.0	48.9	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	642543	10.0	11.2	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	97	999345	10.0	11.2	
74 4-Methyl-2-pentanone (MIBK)	43	9.603	9.603	0.000	96	3982955	100.0	98.7	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2118631	10.0	10.0	
76 Toluene	92	9.817	9.817	0.000	98	1680421	10.0	10.7	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	822825	10.0	11.3	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	681452	10.0	11.3	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	90	455229	10.0	10.9	
81 Tetrachloroethene	166	10.359	10.359	0.000	98	825293	10.0	11.0	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	768446	10.0	10.8	
83 2-Hexanone	43	10.481	10.481	0.000	96	2847614	100.0	100.8	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	582989	10.0	11.4	
86 Ethylene Dibromide	107	10.762	10.762	0.000	98	442687	10.0	10.9	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1640634	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	995910	10.0	10.8	
90 Chlorobenzene	112	11.213	11.213	0.000	95	1872527	10.0	10.7	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	96	678162	10.0	11.1	
92 Ethylbenzene	91	11.298	11.298	0.000	98	3278221	10.0	10.8	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	2602971	20.0	21.8	
94 o-Xylene	106	11.737	11.737	0.000	96	1284350	10.0	10.9	
95 Styrene	104	11.756	11.756	0.000	95	2106471	10.0	11.1	
96 Bromoform	173	11.914	11.914	0.000	98	363441	10.0	11.9	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	3411517	10.0	10.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	806596	10.0	9.95	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	586534	10.0	11.0	
102 Bromobenzene	156	12.298	12.298	0.000	94	800922	10.0	11.0	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	1486472	100.0	101.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	83	162926	10.0	11.1	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	3955616	10.0	11.2	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	795839	10.0	10.9	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	2894636	10.0	11.2	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	805714	10.0	10.9	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	633713	10.0	11.2	
110 Pentachloroethane	167	12.774	12.774	0.000	92	538681	10.0	11.8	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	2954664	10.0	11.1	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	3649559	10.0	11.2	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	1638792	10.0	11.1	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	3231863	10.0	11.2	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	963407	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	95	1646605	10.0	10.9	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	1287655	10.0	11.0	
118 Benzyl chloride	126	13.158	13.158	0.000	98	266255	10.0	12.2	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	1524448	10.0	11.3	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	1477507	10.0	11.0	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	99189	10.0	12.7	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	1237730	10.0	11.5	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	1055085	10.0	11.6	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	421345	10.0	10.7	
126 Naphthalene	128	14.609	14.609	0.000	97	1968173	10.0	11.4	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	892480	10.0	11.4	
134 Isopropyl alcohol	45		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MSV_LL_#1_826_00015	Amount Added: 10.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 10.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 10.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 24-Aug-2021 15:55:07 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I02.D

Injection Date: 24-Aug-2021 01:06:30 Instrument ID: 19930 Operator ID: mec29284

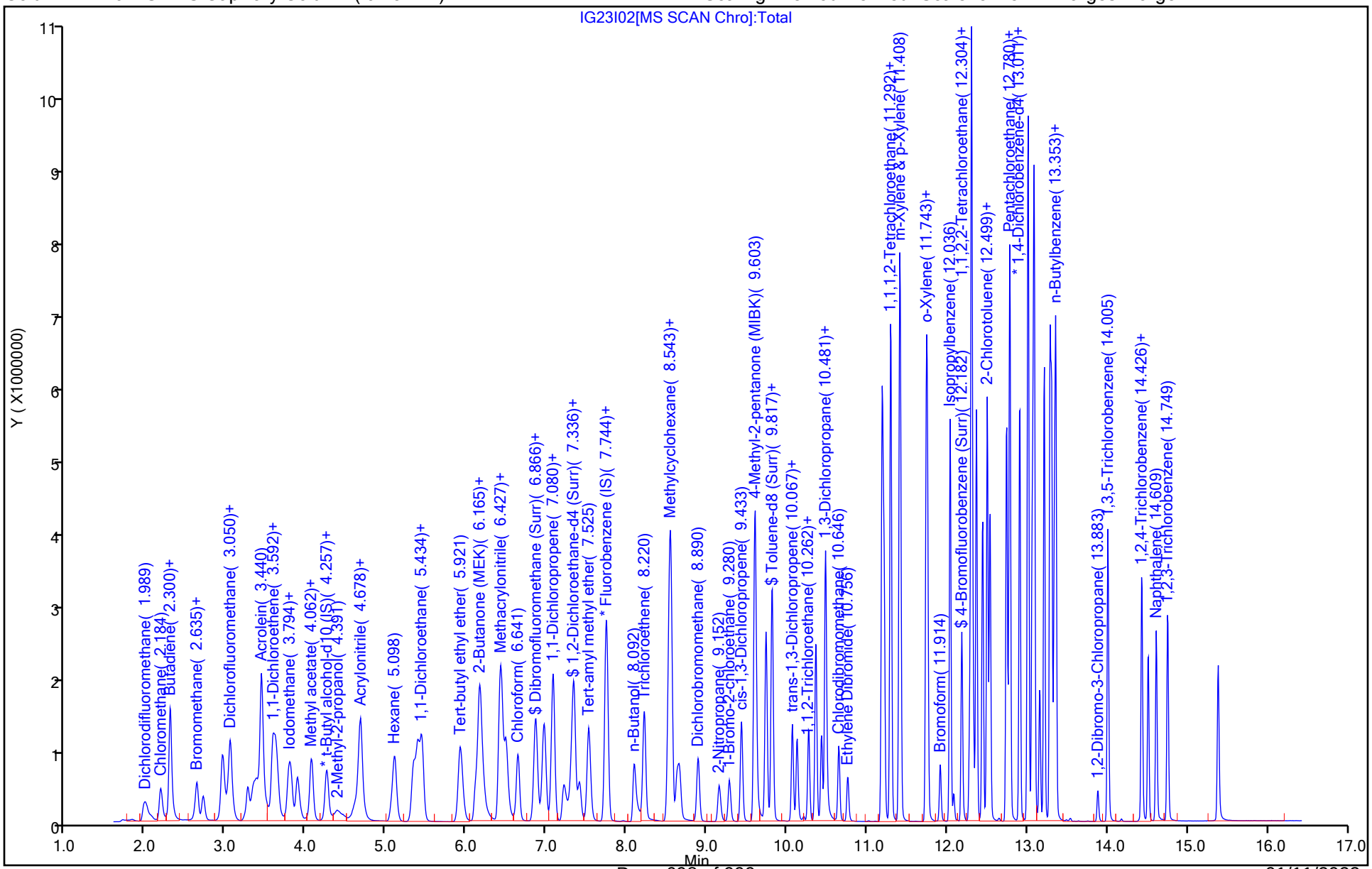
Lims ID: ICIS - LG Worklist Smp#: 13

Client ID:

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 12

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.D
Lims ID: IC std5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Aug-2021 01:27:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-014
Misc. Info.: IC STD5
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:11 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:02:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.983	-0.006	99	382263	5.00	5.78	
4 Chloromethane	50	2.178	2.184	-0.006	99	399273	5.00	5.30	
6 Butadiene	39	2.294	2.300	-0.006	89	372442	5.00	5.38	
5 Vinyl chloride	62	2.294	2.300	-0.006	98	416864	5.00	5.48	
7 Bromomethane	94	2.623	2.635	-0.012	92	291289	5.00	5.29	
8 Chloroethane	64	2.709	2.715	-0.006	100	245993	5.00	5.40	
9 Dichlorofluoromethane	67	2.946	2.952	-0.006	97	585859	5.00	5.35	
10 Trichlorofluoromethane	101	3.019	3.026	-0.007	97	585022	5.00	5.97	
11 Ethyl ether	59	3.257	3.269	-0.012	91	217146	5.00	5.46	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.355	-0.006	92	389865	5.00	5.56	
13 Acrolein	56	3.434	3.440	-0.006	99	1712613	250.0	291.6	
14 1,1-Dichloroethene	96	3.574	3.580	-0.006	98	286821	5.00	5.68	
15 Acetone	43	3.605	3.611	-0.006	100	396518	50.0	53.1	
16 112TCTFE	101	3.617	3.623	-0.006	90	323788	5.00	6.14	
17 Iodomethane	142	3.775	3.781	-0.006	99	558589	5.00	5.53	
18 Ethyl bromide	108	3.800	3.812	-0.012	98	254448	5.00	5.53	
19 Carbon disulfide	76	3.885	3.891	-0.006	99	782475	5.00	5.61	
21 Methyl acetate	43	4.031	4.031	0.000	97	124512	5.00	5.67	
22 3-Chloro-1-propene	41	4.056	4.068	-0.012	91	448975	5.00	5.42	
23 Methylene Chloride	84	4.245	4.257	-0.012	91	300072	5.00	5.44	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.269	-0.018	95	134380	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.385	0.000	100	314368	100.0	111.1	
26 Acrylonitrile	53	4.592	4.592	0.000	99	149768	12.5	15.1	
27 Methyl tert-butyl ether	73	4.653	4.665	-0.012	94	795636	5.00	5.52	
28 trans-1,2-Dichloroethene	96	4.672	4.678	-0.006	99	313872	5.00	5.47	
29 Hexane	57	5.098	5.104	-0.006	91	492058	5.00	6.14	
31 1,1-Dichloroethane	63	5.330	5.336	-0.006	96	570521	5.00	5.48	
32 Isopropyl ether	45	5.385	5.391	-0.006	94	951429	5.00	5.47	
33 2-Chloro-1,3-butadiene	53	5.440	5.446	-0.006	90	487276	5.00	5.62	
34 Tert-butyl ethyl ether	59	5.915	5.921	-0.006	97	927469	5.00	5.46	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.116	6.122	-0.006	99	749581	50.0	57.5	
S 35 1,2-Dichloroethene, Total	100				0			10.9	
37 cis-1,2-Dichloroethene	96	6.153	6.159	-0.006	82	347207	5.00	5.43	
38 2,2-Dichloropropane	77	6.171	6.177	-0.006	90	505614	5.00	5.59	
40 Propionitrile	54	6.208	6.208	0.000	99	411078	100.0	118.7	
42 Methacrylonitrile	67	6.421	6.427	-0.006	90	787287	50.0	60.1	
43 Chlorobromomethane	128	6.488	6.488	0.000	91	150285	5.00	5.45	
44 Tetrahydrofuran	71	6.500	6.500	0.000	77	115070	25.0	29.8	
45 Chloroform	83	6.635	6.641	-0.006	93	561287	5.00	5.44	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.854	-0.006	94	533947	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.860	6.866	-0.006	98	537958	5.00	5.62	
48 Cyclohexane	56	6.964	6.970	-0.006	89	574963	5.00	6.05	
50 Carbon tetrachloride	117	7.080	7.080	0.000	91	477332	5.00	5.77	
51 1,1-Dichloropropene	75	7.074	7.080	-0.006	95	456566	5.00	5.65	
52 Isobutyl alcohol	41	7.214	7.214	0.000	94	243578	250.0	269.8	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.305	-0.006	98	106534	10.0	10.0	
54 Benzene	78	7.336	7.342	-0.006	97	1303704	5.00	5.48	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	345575	5.00	5.36	
57 Tert-amyl methyl ether	73	7.519	7.525	-0.006	98	854837	5.00	5.42	
* 58 Fluorobenzene (IS)	96	7.738	7.744	-0.006	99	2115642	10.0	10.0	
59 n-Heptane	43	7.750	7.750	0.000	90	473994	5.00	5.76	
60 n-Butanol	56	8.092	8.098	-0.006	87	436929	437.5	521.3	
61 Trichloroethene	95	8.214	8.220	-0.006	98	356004	5.00	5.57	
62 Methylcyclohexane	83	8.524	8.524	0.000	93	637877	5.00	6.00	
63 1,2-Dichloropropane	63	8.543	8.549	-0.006	85	323309	5.00	5.53	
64 Methyl methacrylate	69	8.622	8.628	-0.006	89	158597	5.00	6.16	
65 1,4-Dioxane	88	8.628	8.640	-0.012	61	60485	250.0	229.1	M
66 Dibromomethane	93	8.653	8.659	-0.006	93	155460	5.00	5.44	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	393721	5.00	5.56	
69 2-Nitropropane	41	9.152	9.152	0.000	98	217711	25.0	29.6	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	98	317759	5.00	5.54	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	97	498450	5.00	5.60	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.603	-0.006	96	1950081	50.0	59.4	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2113101	10.0	9.95	
76 Toluene	92	9.811	9.817	-0.006	98	865208	5.00	5.49	
S 77 1,3-Dichloropropene, Total	100				0			11.2	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	409218	5.00	5.64	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	344439	5.00	5.68	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	228498	5.00	5.44	
81 Tetrachloroethene	166	10.360	10.359	0.001	98	419950	5.00	5.60	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	389560	5.00	5.45	
83 2-Hexanone	43	10.481	10.481	0.000	96	1427211	50.0	62.1	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	290417	5.00	5.67	
86 Ethylene Dibromide	107	10.762	10.762	0.000	98	225049	5.00	5.55	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.000	86	1642811	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	509095	5.00	5.53	
90 Chlorobenzene	112	11.213	11.213	0.000	96	953872	5.00	5.47	
S 89 Xylenes, Total	106				0			16.6	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	336401	5.00	5.52	
92 Ethylbenzene	91	11.298	11.298	0.000	98	1673213	5.00	5.52	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	1325681	10.0	11.1	
94 o-Xylene	106	11.737	11.737	0.000	96	655445	5.00	5.54	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	1063582	5.00	5.57	
96 Bromoform	173	11.914	11.914	0.000	98	176181	5.00	5.75	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	1737611	5.00	5.57	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	806331	10.0	9.94	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	293036	5.00	5.50	
102 Bromobenzene	156	12.298	12.298	0.000	95	405579	5.00	5.56	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	739718	50.0	62.3	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	81857	5.00	5.59	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1993107	5.00	5.63	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	403661	5.00	5.55	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1448018	5.00	5.60	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	414612	5.00	5.59	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	319038	5.00	5.62	
110 Pentachloroethane	167	12.774	12.774	0.000	92	259289	5.00	5.66	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1496260	5.00	5.64	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1842298	5.00	5.64	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	812939	5.00	5.53	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1632038	5.00	5.64	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	97	963071	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	96	830653	5.00	5.52	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	633734	5.00	5.40	
118 Benzyl chloride	126	13.158	13.158	0.000	98	128109	5.00	5.88	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	763485	5.00	5.65	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	746995	5.00	5.56	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	44921	5.00	5.74	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	610685	5.00	5.67	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	518320	5.00	5.71	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	207395	5.00	5.25	
126 Naphthalene	128	14.609	14.609	0.000	97	958252	5.00	5.53	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	439919	5.00	5.60	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added:	5.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added:	5.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added:	5.00	Units: uL	
MSV_LLcentISS_00001	Amount Added:	5.00	Units: uL	Run Reagent

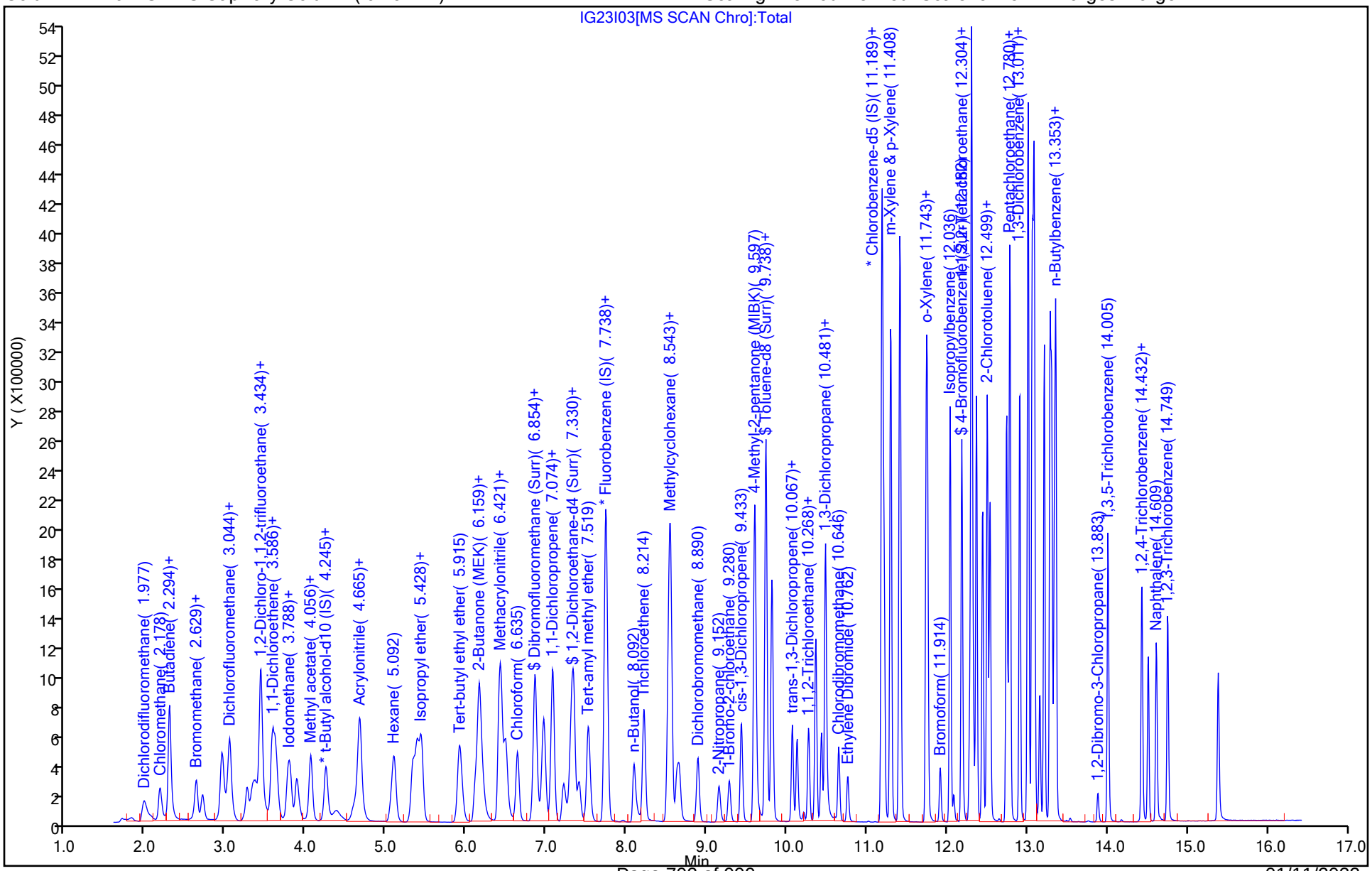
Report Date: 24-Aug-2021 15:55:12 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.D

Injection Date:	24-Aug-2021 01:27:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	IC std5			Worklist Smp#:	14
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

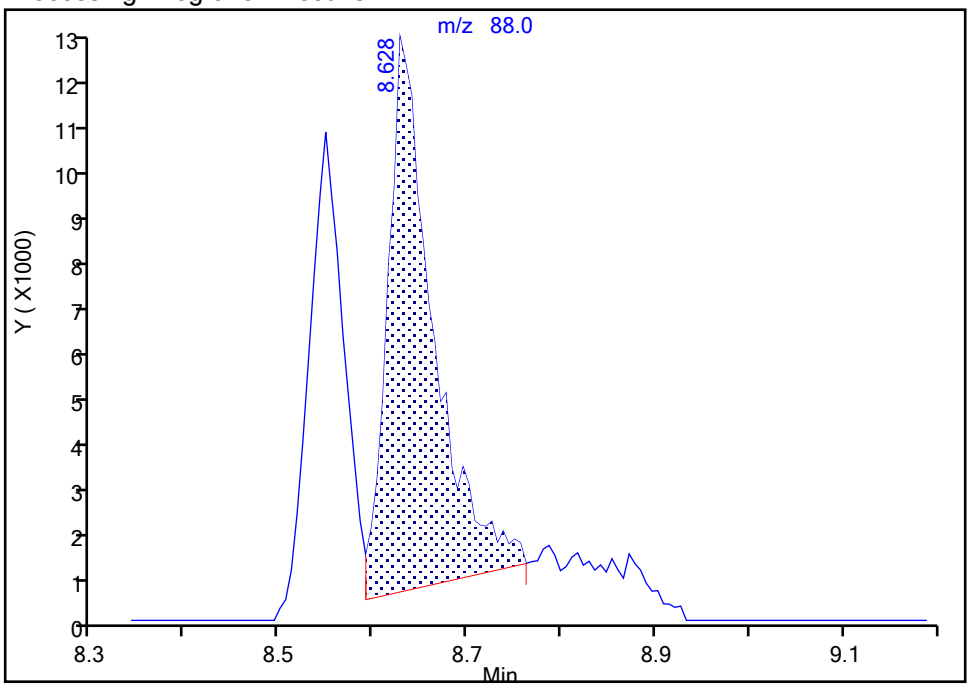
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.D				
Injection Date:	24-Aug-2021 01:27:30	Instrument ID:	19930		
Lims ID:	IC std5				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

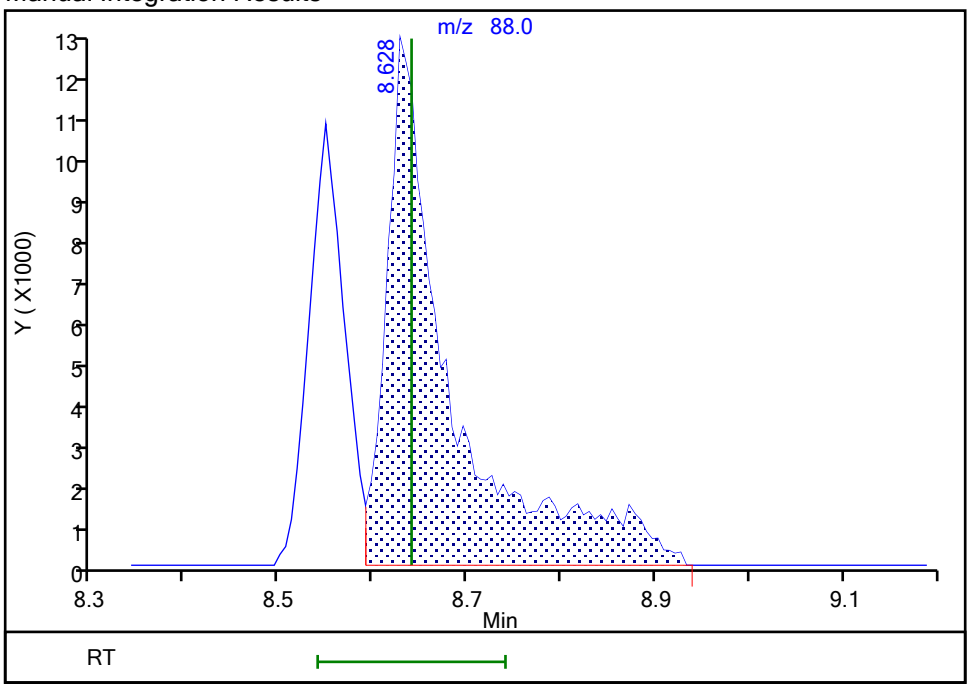
Processing Integration Results

RT: 8.63
Area: 40941
Amount: 236.6358
Amount Units: ug/l



Manual Integration Results

RT: 8.63
Area: 60485
Amount: 229.0877
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:02:20
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D
Lims ID: IC std4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Aug-2021 01:48:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-015
Misc. Info.: IC STD4
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:16 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:04:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.965	1.965	0.000	99	133370	2.00	1.99	
4 Chloromethane	50	2.172	2.172	0.000	99	145518	2.00	1.91	
6 Butadiene	39	2.288	2.288	0.000	89	136810	2.00	1.95	
5 Vinyl chloride	62	2.294	2.294	0.000	75	148690	2.00	1.93	
7 Bromomethane	94	2.623	2.623	0.000	92	107796	2.00	1.93	
8 Chloroethane	64	2.709	2.709	0.000	99	87256	2.00	1.89	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	213271	2.00	1.92	
10 Trichlorofluoromethane	101	3.020	3.020	0.000	96	200068	2.00	2.02	
11 Ethyl ether	59	3.257	3.257	0.000	90	80725	2.00	2.00	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.343	3.343	0.000	91	140380	2.00	1.98	
13 Acrolein	56	3.428	3.428	0.000	99	642849	100.0	90.3	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	99	94828	2.00	1.86	
15 Acetone	43	3.599	3.599	0.000	100	175187	20.0	19.4	
16 112TCTFE	101	3.611	3.611	0.000	90	101316	2.00	1.90	
17 Iodomethane	142	3.769	3.769	0.000	99	191541	2.00	1.87	
18 Ethyl bromide	108	3.794	3.794	0.000	98	90853	2.00	1.95	
19 Carbon disulfide	76	3.879	3.879	0.000	99	260459	2.00	1.85	
21 Methyl acetate	43	4.038	4.038	0.000	96	53852	2.00	2.02	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	92	152579	2.00	1.82	
23 Methylene Chloride	84	4.239	4.239	0.000	91	105792	2.00	1.90	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	94	162903	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.397	4.397	0.000	99	144787	40.0	42.2	
26 Acrylonitrile	53	4.592	4.592	0.000	97	56014	5.00	4.64	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	88	277645	2.00	1.90	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	107403	2.00	1.85	
29 Hexane	57	5.086	5.086	0.000	91	152797	2.00	1.88	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	200971	2.00	1.91	
32 Isopropyl ether	45	5.385	5.385	0.000	94	334487	2.00	1.90	
33 2-Chloro-1,3-butadiene	53	5.434	5.434	0.000	91	164913	2.00	1.88	
34 Tert-butyl ethyl ether	59	5.915	5.915	0.000	96	328284	2.00	1.91	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.116	6.116	0.000	99	287542	20.0	18.2	
S 35 1,2-Dichloroethene, Total	100				0			3.72	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	83	121250	2.00	1.87	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	77	171411	2.00	1.87	
40 Propionitrile	54	6.208	6.208	0.000	99	156726	40.0	37.3	
42 Methacrylonitrile	67	6.415	6.415	0.000	91	284046	20.0	17.9	
43 Chlorobromomethane	128	6.482	6.482	0.000	91	54068	2.00	1.94	
44 Tetrahydrofuran	71	6.494	6.494	0.000	77	42808	10.0	9.13	
45 Chloroform	83	6.635	6.635	0.000	93	196244	2.00	1.88	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	542329	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	97	183060	2.00	1.89	
48 Cyclohexane	56	6.964	6.964	0.000	88	180314	2.00	1.88	
50 Carbon tetrachloride	117	7.067	7.067	0.000	90	158160	2.00	1.89	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	95	154095	2.00	1.88	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	107772	100.0	98.5	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	91	108754	10.0	10.1	
54 Benzene	78	7.336	7.336	0.000	96	450649	2.00	1.87	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	118544	2.00	1.82	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	99	305576	2.00	1.91	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	98	2141536	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	74	149822	2.00	1.80	
60 n-Butanol	56	8.098	8.098	0.000	87	173400	175.0	170.7	
61 Trichloroethene	95	8.214	8.214	0.000	97	119880	2.00	1.85	
62 Methylcyclohexane	83	8.525	8.525	0.000	91	204137	2.00	1.90	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	83	113623	2.00	1.92	
64 Methyl methacrylate	69	8.628	8.628	0.000	86	56288	2.00	1.80	
65 1,4-Dioxane	88	8.640	8.640	0.000	38	27358	100.0	94.3	M
66 Dibromomethane	93	8.653	8.653	0.000	93	55146	2.00	1.91	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	135182	2.00	1.89	
69 2-Nitropropane	41	9.152	9.152	0.000	99	80872	10.0	9.06	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	116897	2.00	2.01	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	171443	2.00	1.90	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	725808	20.0	18.2	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2152292	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	98	294006	2.00	1.85	
S 77 1,3-Dichloropropene, Total	100				0			3.80	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	138743	2.00	1.90	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	121040	2.00	1.98	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	81343	2.00	1.92	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	142779	2.00	1.89	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	89	137217	2.00	1.91	
83 2-Hexanone	43	10.481	10.481	0.000	96	503437	20.0	18.1	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	97832	2.00	1.90	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	77838	2.00	1.91	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	86	1654646	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	170447	2.00	1.84	
90 Chlorobenzene	112	11.213	11.213	0.000	97	331442	2.00	1.89	
S 89 Xylenes, Total	106				0			5.67	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	94	117075	2.00	1.91	
92 Ethylbenzene	91	11.298	11.298	0.000	98	572417	2.00	1.87	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	455535	4.00	3.78	
94 o-Xylene	106	11.737	11.737	0.000	96	225160	2.00	1.89	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	364056	2.00	1.89	
96 Bromoform	173	11.914	11.914	0.000	97	57249	2.00	1.85	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	598946	2.00	1.91	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	815520	10.0	9.98	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	102513	2.00	1.88	
102 Bromobenzene	156	12.298	12.298	0.000	95	140306	2.00	1.88	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	256704	20.0	17.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	28724	2.00	1.92	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	684747	2.00	1.89	
106 2-Chlorotoluene	126	12.444	12.444	0.000	98	141927	2.00	1.91	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	93	494667	2.00	1.87	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	142990	2.00	1.89	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	110262	2.00	1.90	
110 Pentachloroethane	167	12.774	12.774	0.000	90	91381	2.00	1.95	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	508634	2.00	1.88	
112 sec-Butylbenzene	105	12.902	12.902	0.000	94	633668	2.00	1.90	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	279932	2.00	1.86	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	558603	2.00	1.89	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	984300	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	96	287369	2.00	1.87	
117 1,2,3-Trimethylbenzene	120	13.085	13.085	0.000	98	228500	2.00	1.91	
118 Benzyl chloride	126	13.158	13.158	0.000	98	42047	2.00	1.89	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	258320	2.00	1.87	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	264385	2.00	1.92	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	87	16104	2.00	2.01	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	97	206620	2.00	1.88	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	177445	2.00	1.91	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	71973	2.00	1.78	
126 Naphthalene	128	14.609	14.609	0.000	97	351951	2.00	1.99	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	155892	2.00	1.94	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added:	2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added:	2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added:	2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added:	5.00	Units: uL	Run Reagent

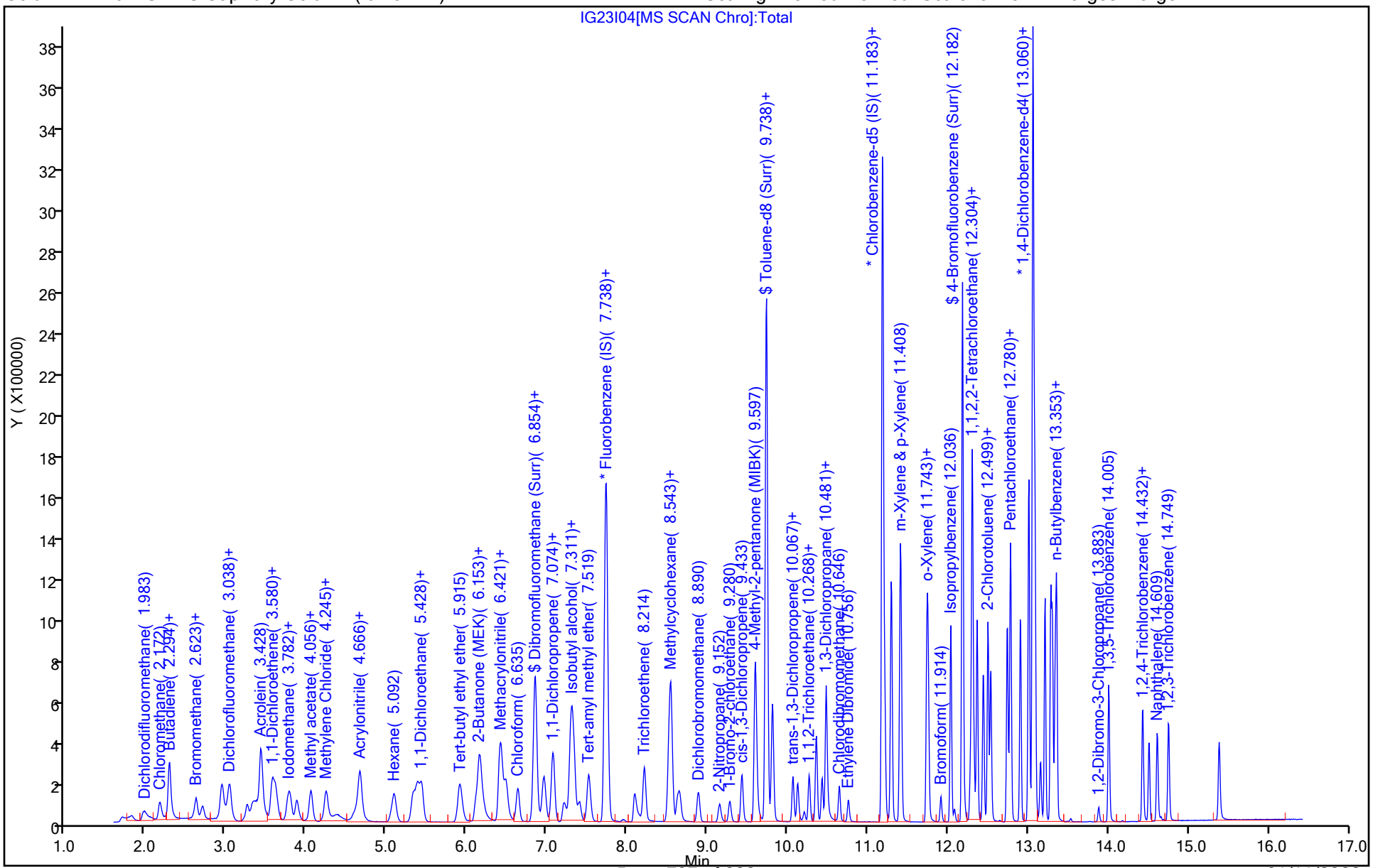
Report Date: 24-Aug-2021 15:55:17 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D

Injection Date:	24-Aug-2021 01:48:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	IC std4			Worklist Smp#:	15
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

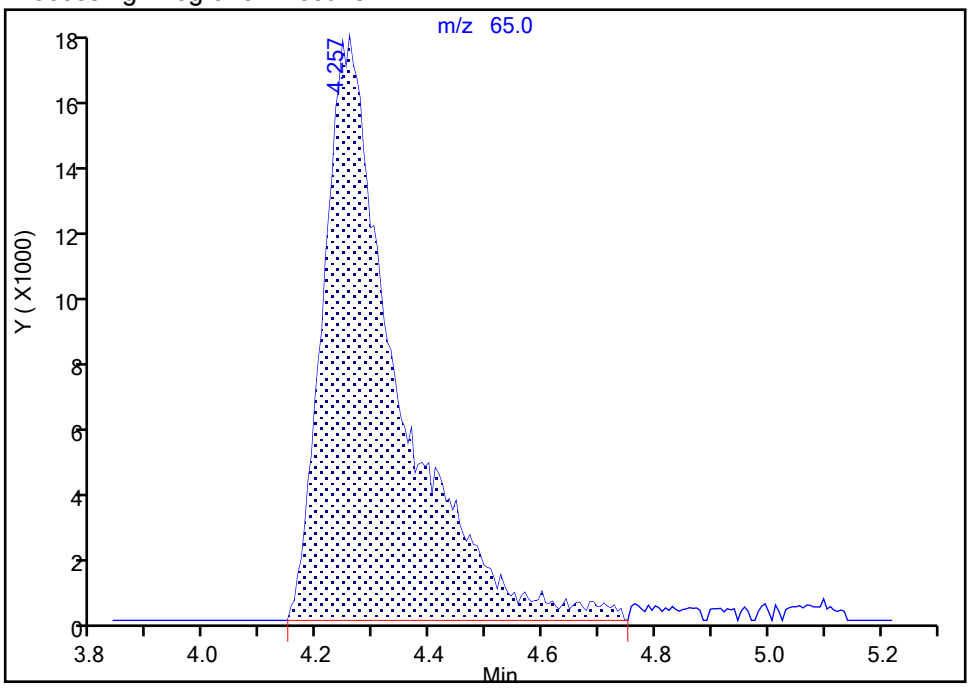
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D
Injection Date: 24-Aug-2021 01:48:30 Instrument ID: 19930
Lims ID: IC std4
Client ID:
Operator ID: mec29284 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

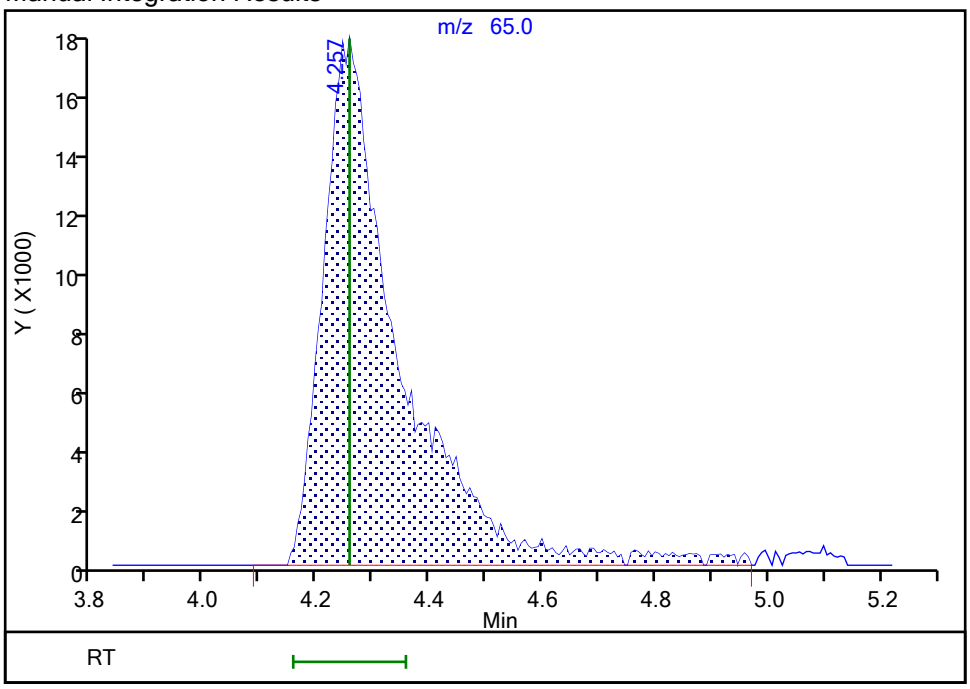
Processing Integration Results

RT: 4.26
Area: 158849
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.26
Area: 162903
Amount: 50.000000
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:16:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

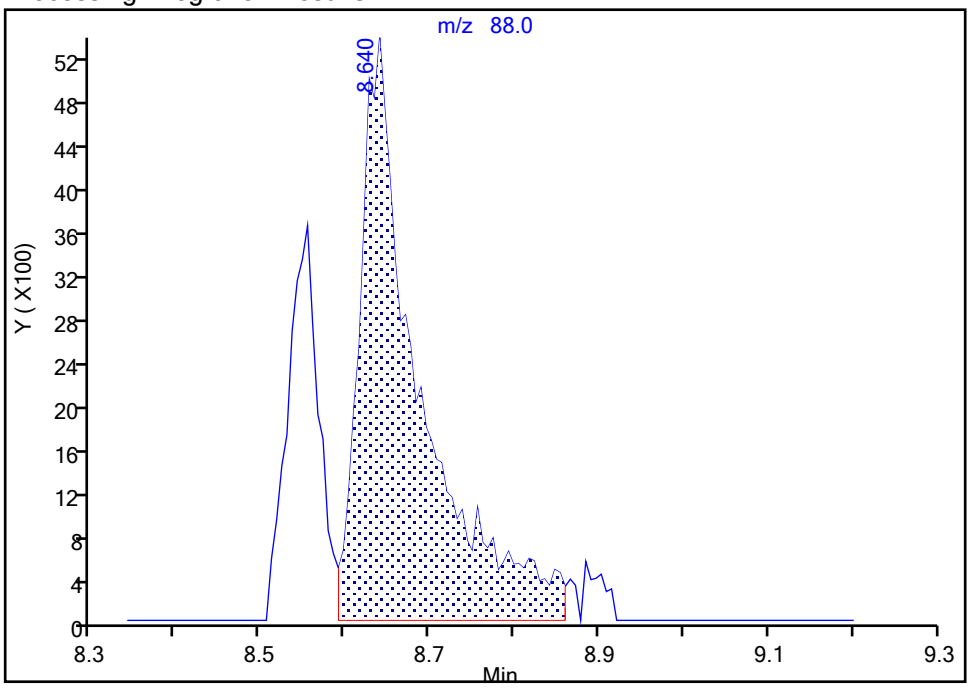
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D				
Injection Date:	24-Aug-2021 01:48:30	Instrument ID:	19930		
Lims ID:	IC std4				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

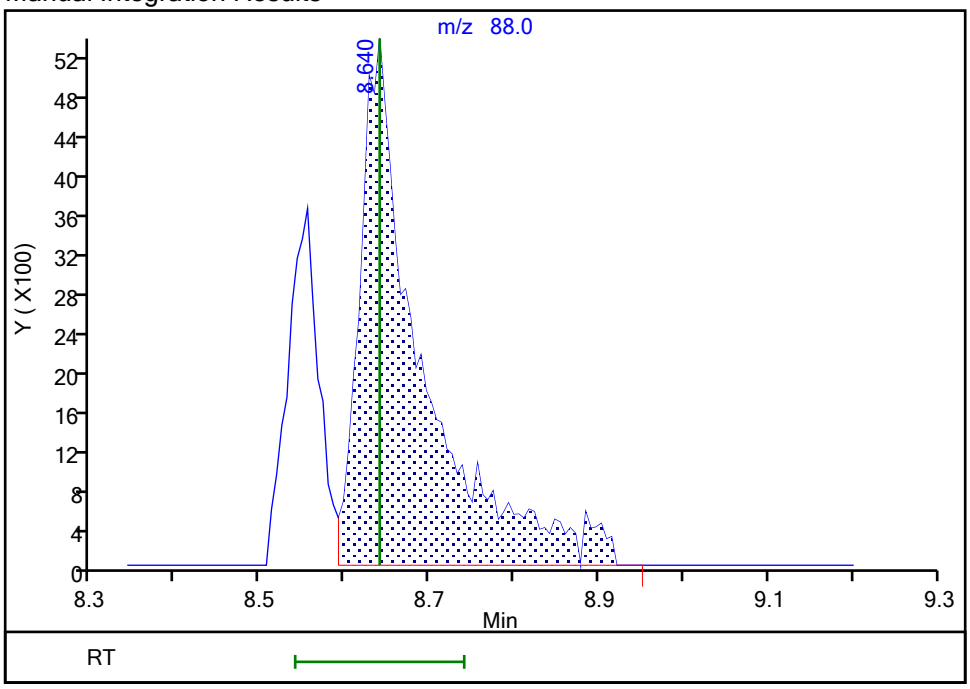
Processing Integration Results

RT: 8.64
Area: 26261
Amount: 119.8515
Amount Units: ug/l



Manual Integration Results

RT: 8.64
Area: 27358
Amount: 94.303495
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:15:48
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D
Lims ID: IC std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Aug-2021 02:09:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-016
Misc. Info.: IC STD3
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:22 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:07:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	65891	1.00	0.9718	
4 Chloromethane	50	2.178	2.172	0.006	99	71033	1.00	0.9196	
6 Butadiene	39	2.294	2.288	0.006	91	69705	1.00	0.9823	
5 Vinyl chloride	62	2.294	2.294	0.000	72	72933	1.00	0.9365	
7 Bromomethane	94	2.629	2.623	0.006	91	52904	1.00	0.9375	
8 Chloroethane	64	2.709	2.709	0.000	99	44138	1.00	0.9455	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	105130	1.00	0.9365	
10 Trichlorofluoromethane	101	3.019	3.020	-0.001	97	100534	1.00	1.00	
11 Ethyl ether	59	3.263	3.257	0.006	90	37819	1.00	0.9277	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.361	3.343	0.018	91	68921	1.00	0.9587	
13 Acrolein	56	3.434	3.428	0.006	99	325453	50.0	52.0	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	51944	1.00	1.00	
15 Acetone	43	3.617	3.599	0.018	97	73600	10.0	9.26	M
16 112TCTFE	101	3.623	3.611	0.012	90	55518	1.00	1.03	
17 Iodomethane	142	3.775	3.769	0.006	99	102843	1.00	0.99	
18 Ethyl bromide	108	3.800	3.794	0.006	99	43980	1.00	0.9328	
19 Carbon disulfide	76	3.885	3.879	0.006	99	135959	1.00	0.9520	
21 Methyl acetate	43	4.044	4.038	0.006	40	20743	1.00	0.8865	
22 3-Chloro-1-propene	41	4.062	4.056	0.006	90	82613	1.00	0.9734	
23 Methylene Chloride	84	4.245	4.239	0.006	91	55257	1.00	0.9785	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.257	0.006	92	143084	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.397	-0.012	99	58831	20.0	19.5	
26 Acrylonitrile	53	4.611	4.592	0.019	98	27336	2.50	2.58	
27 Methyl tert-butyl ether	73	4.647	4.659	-0.012	94	145601	1.00	0.9865	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	57886	1.00	0.9851	
29 Hexane	57	5.104	5.086	0.018	91	80465	1.00	0.9806	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	103998	1.00	0.9753	
32 Isopropyl ether	45	5.385	5.385	0.000	94	174418	1.00	0.9792	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	90	86951	1.00	0.9780	
34 Tert-butyl ethyl ether	59	5.909	5.915	-0.006	97	171468	1.00	0.9844	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.116	6.116	0.000	100	143475	10.0	10.3	
S 35 1,2-Dichloroethene, Total	100				0			1.97	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	64220	1.00	0.9810	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	88	91101	1.00	0.9826	
40 Propionitrile	54	6.214	6.208	0.006	98	75368	20.0	20.4	
42 Methacrylonitrile	67	6.421	6.415	0.006	92	143284	10.0	10.3	
43 Chlorobromomethane	128	6.488	6.482	0.006	86	28049	1.00	0.99	
44 Tetrahydrofuran	71	6.494	6.494	0.000	69	21437	5.00	5.21	
45 Chloroform	83	6.641	6.635	0.006	93	104933	1.00	0.99	
$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	547419	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	97	97208	1.00	0.99	
48 Cyclohexane	56	6.964	6.964	0.000	89	97677	1.00	1.00	
50 Carbon tetrachloride	117	7.080	7.067	0.013	92	83203	1.00	0.9821	
51 1,1-Dichloropropene	75	7.080	7.074	0.006	95	81553	1.00	0.9849	
52 Isobutyl alcohol	41	7.214	7.214	0.000	92	49738	50.0	51.7	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	85	108914	10.0	9.97	
54 Benzene	78	7.336	7.336	0.000	94	239616	1.00	0.9831	
56 1,2-Dichloroethane	62	7.403	7.409	-0.006	98	65256	1.00	0.9882	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	98	157576	1.00	0.9745	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2167768	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	82	83896	1.00	0.99	
60 n-Butanol	56	8.098	8.098	0.000	88	80599	87.5	90.3	
61 Trichloroethene	95	8.220	8.214	0.006	97	63618	1.00	0.9712	
62 Methylcyclohexane	83	8.525	8.525	-0.001	93	107529	1.00	0.9870	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	72	59643	1.00	1.00	
64 Methyl methacrylate	69	8.628	8.628	0.000	87	28845	1.00	1.05	
65 1,4-Dioxane	88	8.646	8.640	0.006	37	10496	50.0	52.8	M
66 Dibromomethane	93	8.659	8.653	0.006	93	28100	1.00	0.9605	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	68991	1.00	0.9508	
69 2-Nitropropane	41	9.152	9.152	0.000	99	40821	5.00	5.21	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	98	54880	1.00	0.9343	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	87948	1.00	0.9647	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	362286	10.0	10.4	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2163909	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	98	156583	1.00	0.9842	
S 77 1,3-Dichloropropene, Total	100				0			1.92	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	70216	1.00	0.9572	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	58617	1.00	0.9574	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	41236	1.00	0.9717	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	73750	1.00	0.9730	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	91	71333	1.00	0.9884	
83 2-Hexanone	43	10.481	10.481	0.000	95	250322	10.0	10.2	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	49956	1.00	0.9660	
86 Ethylene Dibromide	107	10.762	10.756	0.006	98	40746	1.00	1.00	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	87	1659651	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	96	89057	1.00	0.9572	
90 Chlorobenzene	112	11.213	11.213	0.000	95	173851	1.00	0.9865	
S 89 Xylenes, Total	106				0			2.95	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	59106	1.00	0.9605	
92 Ethylbenzene	91	11.298	11.298	0.000	98	300446	1.00	0.9807	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	239751	2.00	1.98	
94 o-Xylene	106	11.737	11.737	0.000	96	115204	1.00	0.9645	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	189931	1.00	0.9850	
96 Bromoform	173	11.914	11.914	0.000	97	28833	1.00	0.9307	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	310386	1.00	0.9844	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	826851	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	92	54325	1.00	0.99	
102 Bromobenzene	156	12.298	12.298	0.000	95	72358	1.00	0.9669	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	127777	10.0	10.1	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	80	14746	1.00	0.9823	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	355852	1.00	0.9796	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	74353	1.00	1.00	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	95	257721	1.00	0.9715	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	75316	1.00	0.9895	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	56868	1.00	0.9775	
110 Pentachloroethane	167	12.774	12.774	0.000	78	43712	1.00	0.9303	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	268890	1.00	0.9889	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	328234	1.00	0.9791	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	150321	1.00	1.00	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	288208	1.00	0.9719	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	987778	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	95	151116	1.00	0.9797	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	97	119238	1.00	0.99	
118 Benzyl chloride	126	13.158	13.158	0.000	98	21047	1.00	0.9420	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	134228	1.00	0.9686	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	98	136312	1.00	0.9885	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	85	7659	1.00	0.9535	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	105716	1.00	0.9573	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	91280	1.00	0.9796	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	37885	1.00	0.9359	
126 Naphthalene	128	14.609	14.609	0.000	97	173919	1.00	0.9794	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	78245	1.00	0.9717	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added:	2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added:	2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added:	2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 24-Aug-2021 15:55:22 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D

Injection Date: 24-Aug-2021 02:09:30 Instrument ID: 19930 Operator ID: mec29284

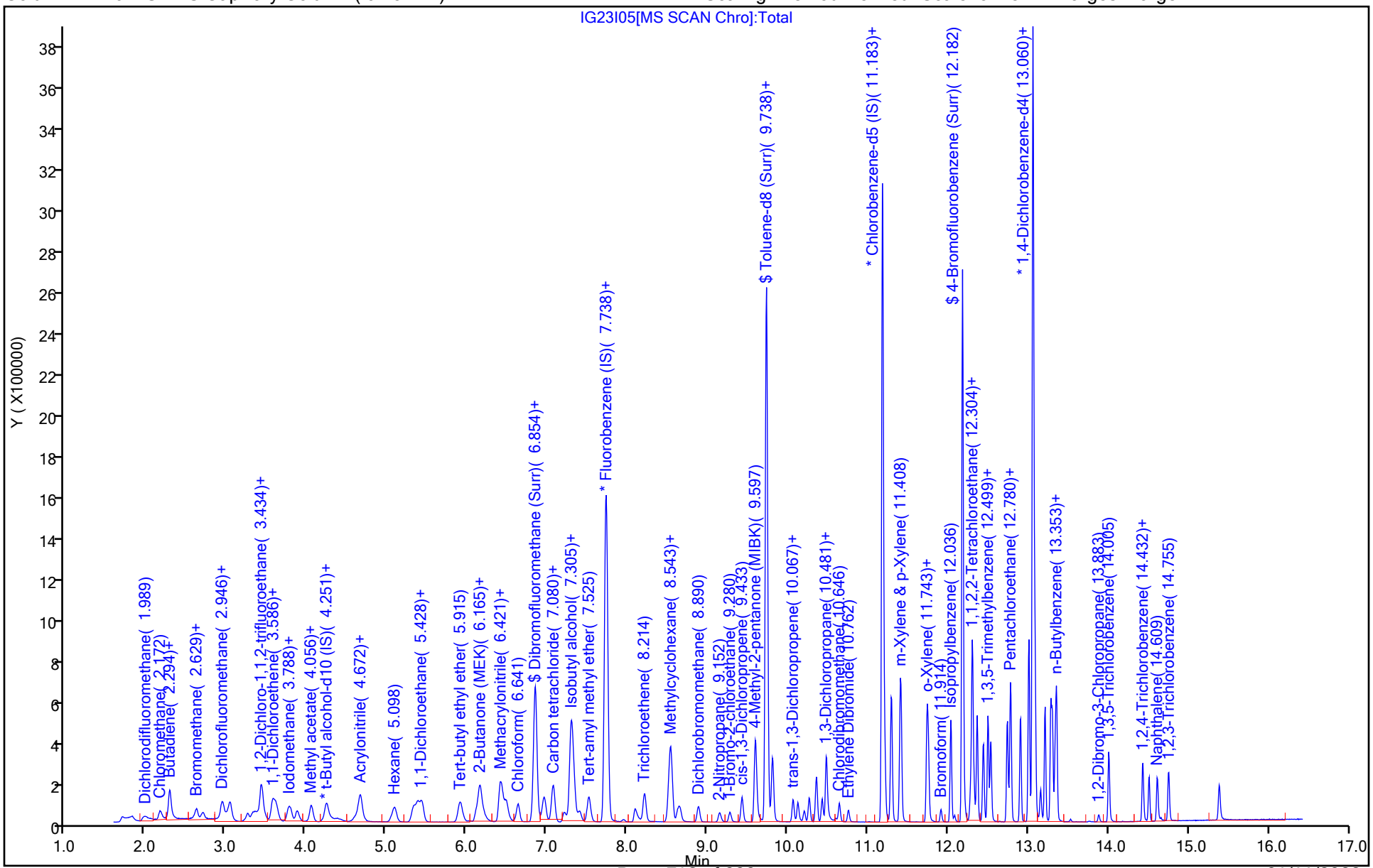
Lims ID: IC std3 Worklist Smp#: 16

Client ID:

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 15

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

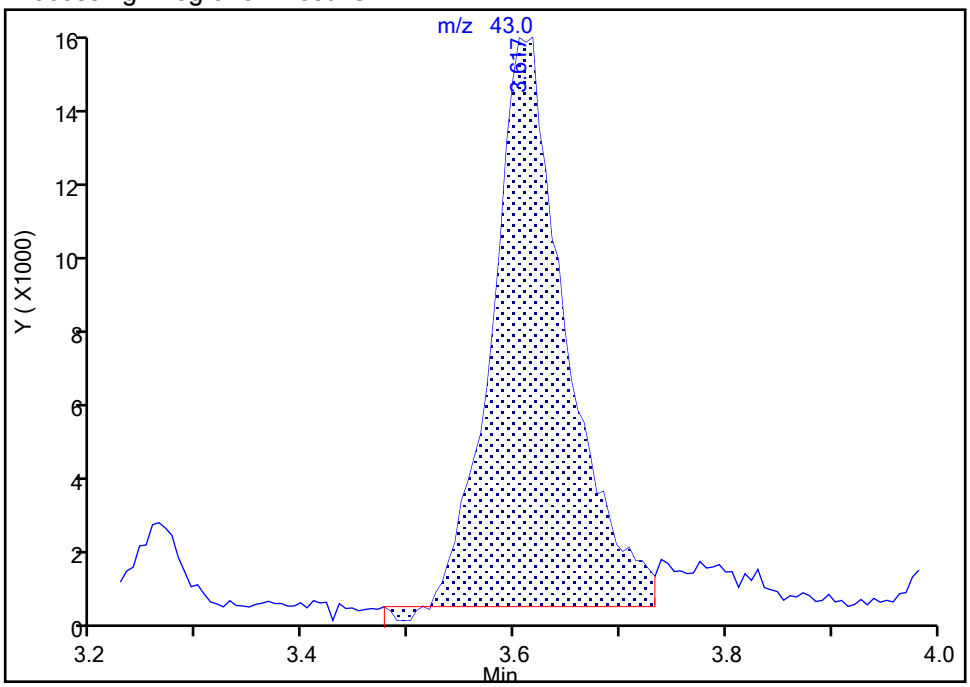
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D
Injection Date: 24-Aug-2021 02:09:30 Instrument ID: 19930
Lims ID: IC std3
Client ID:
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

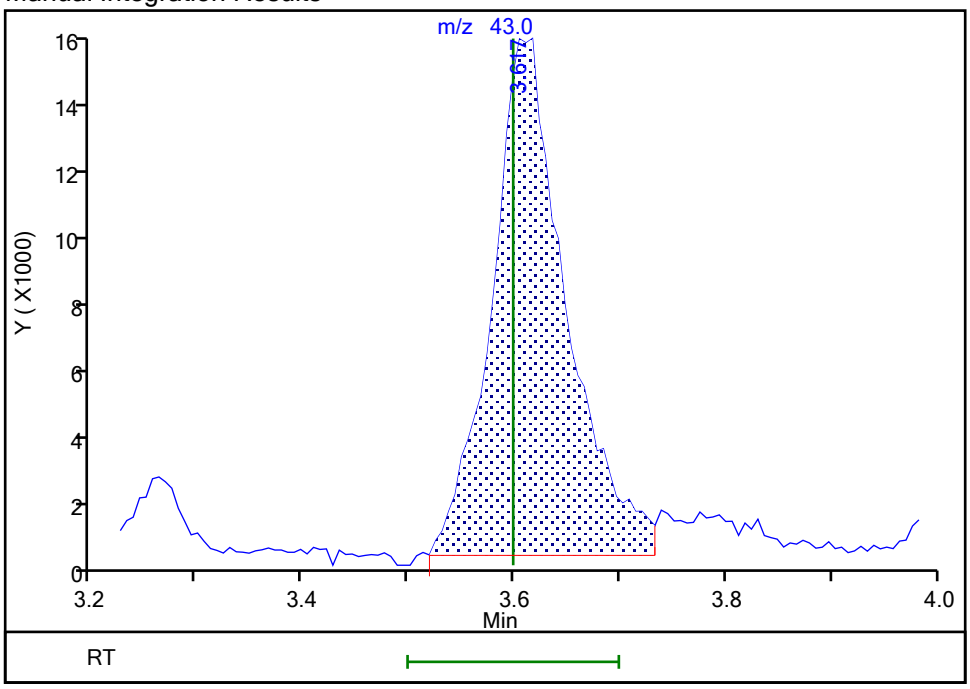
Processing Integration Results

RT: 3.62
Area: 72163
Amount: 9.070107
Amount Units: ug/l



Manual Integration Results

RT: 3.62
Area: 73600
Amount: 9.259476
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:05:40
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

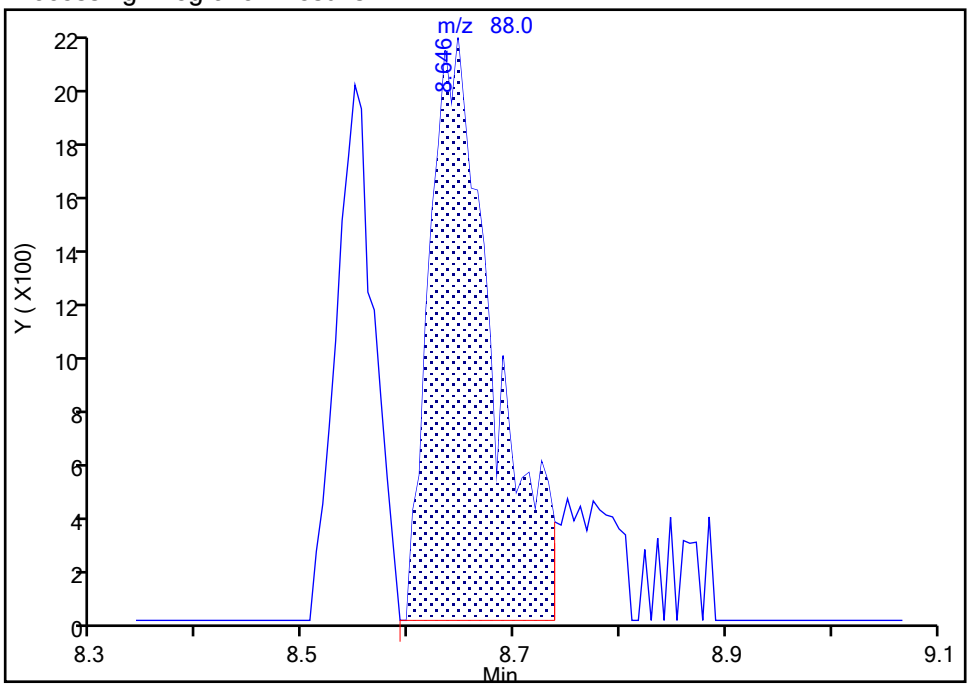
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D				
Injection Date:	24-Aug-2021 02:09:30	Instrument ID:	19930		
Lims ID:	IC std3				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

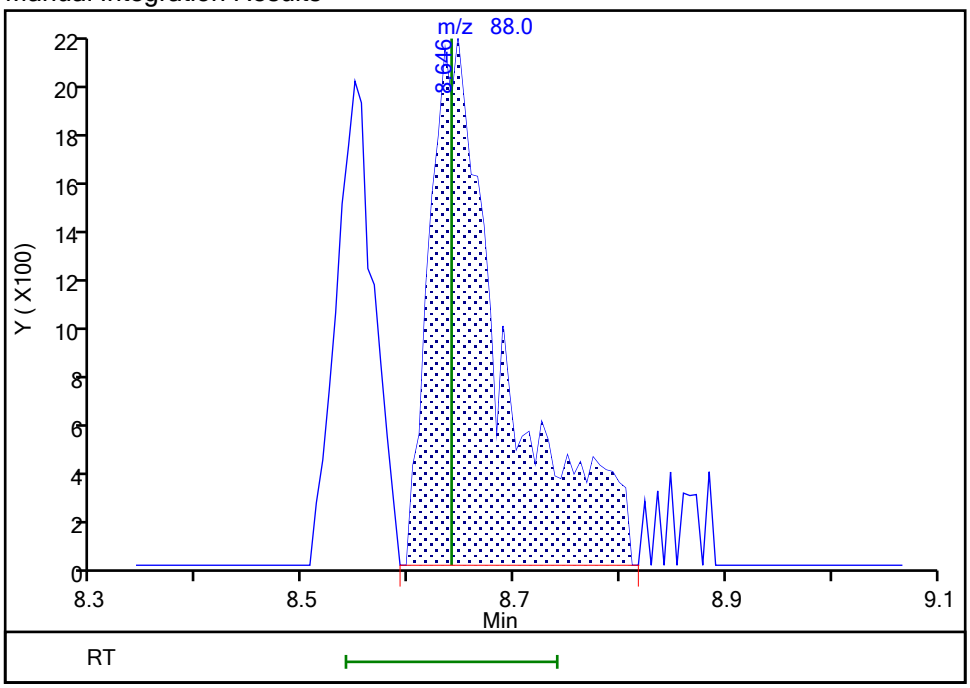
Processing Integration Results

RT: 8.65
Area: 8965
Amount: 45.300089
Amount Units: ug/l



Manual Integration Results

RT: 8.65
Area: 10496
Amount: 52.840483
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:17:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D
Lims ID: IC std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Aug-2021 02:30:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-017
Misc. Info.: IC STD2
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:27 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:08:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.965	0.018	98	23341	0.5000	0.3127	
4 Chloromethane	50	2.178	2.172	0.006	99	42004	0.5000	0.4939	
6 Butadiene	39	2.300	2.288	0.012	93	33180	0.5000	0.4247	
5 Vinyl chloride	62	2.294	2.294	0.000	81	37981	0.5000	0.4430	
7 Bromomethane	94	2.629	2.623	0.006	91	30163	0.5000	0.4855	
8 Chloroethane	64	2.715	2.709	0.006	99	24539	0.5000	0.4775	
9 Dichlorofluoromethane	67	2.952	2.946	0.006	97	57981	0.5000	0.4691	
10 Trichlorofluoromethane	101	3.026	3.020	0.006	96	39345	0.5000	0.3561	
11 Ethyl ether	59	3.269	3.257	0.012	90	19745	0.5000	0.4400	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	33147	0.5000	0.4188	
13 Acrolein	56	3.446	3.428	0.018	98	164868	25.0	23.2	
14 1,1-Dichloroethene	96	3.580	3.568	0.012	98	25406	0.5000	0.4460	
15 Acetone	43	3.617	3.599	0.018	99	42743	5.00	4.73	
16 112TCTFE	101	3.629	3.611	0.018	87	23135	0.5000	0.3890	
17 Iodomethane	142	3.775	3.769	0.006	99	54663	0.5000	0.4801	
18 Ethyl bromide	108	3.812	3.794	0.018	97	23524	0.4997	0.4532	
19 Carbon disulfide	76	3.891	3.879	0.012	99	72614	0.5000	0.4619	
21 Methyl acetate	43	4.050	4.038	0.012	90	10814	0.5000	0.4066	M
22 3-Chloro-1-propene	41	4.068	4.056	0.012	91	44817	0.5000	0.4797	
23 Methylene Chloride	84	4.251	4.239	0.012	90	29677	0.5000	0.4774	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.257	0.006	99	162651	50.0	50.0	
25 2-Methyl-2-propanol	59	4.410	4.397	0.013	100	30939	10.0	9.03	
26 Acrylonitrile	53	4.623	4.592	0.031	81	13208	1.25	1.10	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	87	74896	0.5000	0.4610	
28 trans-1,2-Dichloroethene	96	4.678	4.672	0.006	99	30641	0.5000	0.4737	
29 Hexane	57	5.105	5.086	0.018	91	34316	0.5000	0.3799	
31 1,1-Dichloroethane	63	5.336	5.330	0.006	96	56931	0.5000	0.4849	
32 Isopropyl ether	45	5.391	5.385	0.006	97	92363	0.5000	0.4710	
33 2-Chloro-1,3-butadiene	53	5.452	5.434	0.018	91	44829	0.5000	0.4580	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	89795	0.5000	0.4683	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.129	6.116	0.013	99	77869	5.00	4.94	
S 35 1,2-Dichloroethene, Total	100				0			0.9359	
37 cis-1,2-Dichloroethene	96	6.165	6.159	0.006	82	33313	0.5000	0.4622	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	69	48330	0.5000	0.4735	
40 Propionitrile	54	6.226	6.208	0.018	91	37944	10.0	9.06	
42 Methacrylonitrile	67	6.427	6.415	0.012	90	73898	5.00	4.66	
43 Chlorobromomethane	128	6.494	6.482	0.012	89	14686	0.5000	0.4722	
44 Tetrahydrofuran	71	6.494	6.494	0.000	76	10321	2.50	2.21	
45 Chloroform	83	6.641	6.635	0.006	93	55513	0.5000	0.4774	
$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	602854	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.872	6.860	0.012	97	50051	0.5000	0.4632	
48 Cyclohexane	56	6.964	6.964	0.000	89	41983	0.5000	0.3919	
50 Carbon tetrachloride	117	7.080	7.067	0.013	88	39984	0.5000	0.4287	
51 1,1-Dichloropropene	75	7.080	7.074	0.006	95	40862	0.5000	0.4483	
52 Isobutyl alcohol	41	7.232	7.214	0.018	95	24830	25.0	22.7	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	118060	10.0	9.82	
54 Benzene	78	7.336	7.336	0.000	95	128948	0.5000	0.4806	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	96	34473	0.5000	0.4742	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	99	81778	0.5000	0.4594	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2386508	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	48	39115	0.5000	0.4211	
60 n-Butanol	56	8.104	8.098	0.006	87	41262	43.8	40.7	
61 Trichloroethene	95	8.220	8.214	0.006	98	34329	0.5000	0.4760	
62 Methylcyclohexane	83	8.531	8.525	0.006	92	46295	0.5000	0.3860	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	73	30184	0.5000	0.4580	
64 Methyl methacrylate	69	8.634	8.628	0.006	90	12996	0.5000	0.4171	
65 1,4-Dioxane	88	8.640	8.640	0.000	38	4720	25.0	33.9	M
66 Dibromomethane	93	8.653	8.653	0.000	92	14579	0.5000	0.4527	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	37237	0.5000	0.4661	
69 2-Nitropropane	41	9.152	9.152	0.000	98	20434	2.50	2.29	
72 1-Bromo-2-chloroethane	63	9.281	9.280	0.001	98	27429	0.5000	0.4241	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	44155	0.5000	0.4399	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	96	180620	5.00	4.55	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2386226	10.0	10.0	
76 Toluene	92	9.817	9.811	0.006	98	85173	0.5000	0.4814	
S 77 1,3-Dichloropropene, Total	100				0			0.8811	
78 trans-1,3-Dichloropropene	75	10.073	10.067	0.006	92	35995	0.5000	0.4412	
79 Ethyl methacrylate	69	10.134	10.128	0.006	89	28685	0.5000	0.4213	
80 1,1,2-Trichloroethane	97	10.274	10.268	0.006	90	22055	0.5000	0.4673	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	39159	0.5000	0.4646	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	36830	0.5000	0.4589	
83 2-Hexanone	43	10.482	10.481	0.001	96	125813	5.00	4.52	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	24663	0.5000	0.4288	
86 Ethylene Dibromide	107	10.756	10.756	0.000	99	20030	0.5000	0.4399	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	85	1845718	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	94	46401	0.5000	0.4484	
90 Chlorobenzene	112	11.213	11.213	0.000	96	92274	0.5000	0.4708	
S 89 Xylenes, Total	106				0			1.42	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	30345	0.5000	0.4434	
92 Ethylbenzene	91	11.298	11.298	0.000	98	160740	0.5000	0.4718	
93 m-Xylene & p-Xylene	106	11.414	11.408	0.006	99	127477	1.00	0.9471	
94 o-Xylene	106	11.737	11.737	0.000	96	62976	0.5000	0.4741	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	99275	0.5000	0.4630	
96 Bromoform	173	11.914	11.914	0.000	96	14486	0.5000	0.4205	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	165096	0.5000	0.4708	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	911479	10.0	10.0	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	27777	0.5000	0.4559	
102 Bromobenzene	156	12.298	12.298	0.000	96	38617	0.5000	0.4625	
103 trans-1,4-Dichloro-2-butene	53	12.310	12.304	0.006	94	63065	5.00	4.39	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	80	7449	0.5000	0.4447	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	188239	0.5000	0.4644	
106 2-Chlorotoluene	126	12.445	12.444	0.001	97	38383	0.5000	0.4615	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	137180	0.5000	0.4634	
108 4-Chlorotoluene	126	12.536	12.536	0.000	98	39370	0.5000	0.4635	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	30260	0.5000	0.4661	
110 Pentachloroethane	167	12.774	12.774	0.000	89	21010	0.5000	0.4007	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	139600	0.5000	0.4601	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	171209	0.5000	0.4577	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	76475	0.5000	0.4542	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	151465	0.5000	0.4578	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	1102182	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	95	79823	0.5000	0.4638	
117 1,2,3-Trimethylbenzene	120	13.085	13.085	0.000	95	63083	0.5000	0.4699	
118 Benzyl chloride	126	13.158	13.158	0.000	98	10785	0.5000	0.4326	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	68676	0.5000	0.4441	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	98	69498	0.5000	0.4517	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	88	3634	0.5000	0.4055	
123 1,3,5-Trichlorobenzene	180	14.011	14.005	0.006	95	55476	0.5000	0.4502	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	95	44434	0.5000	0.4274	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	20700	0.5000	0.4583	
126 Naphthalene	128	14.615	14.609	0.006	97	86939	0.5000	0.4387	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	94	38854	0.5000	0.4324	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added:	2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added:	2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added:	2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added:	5.00	Units: uL	Run Reagent

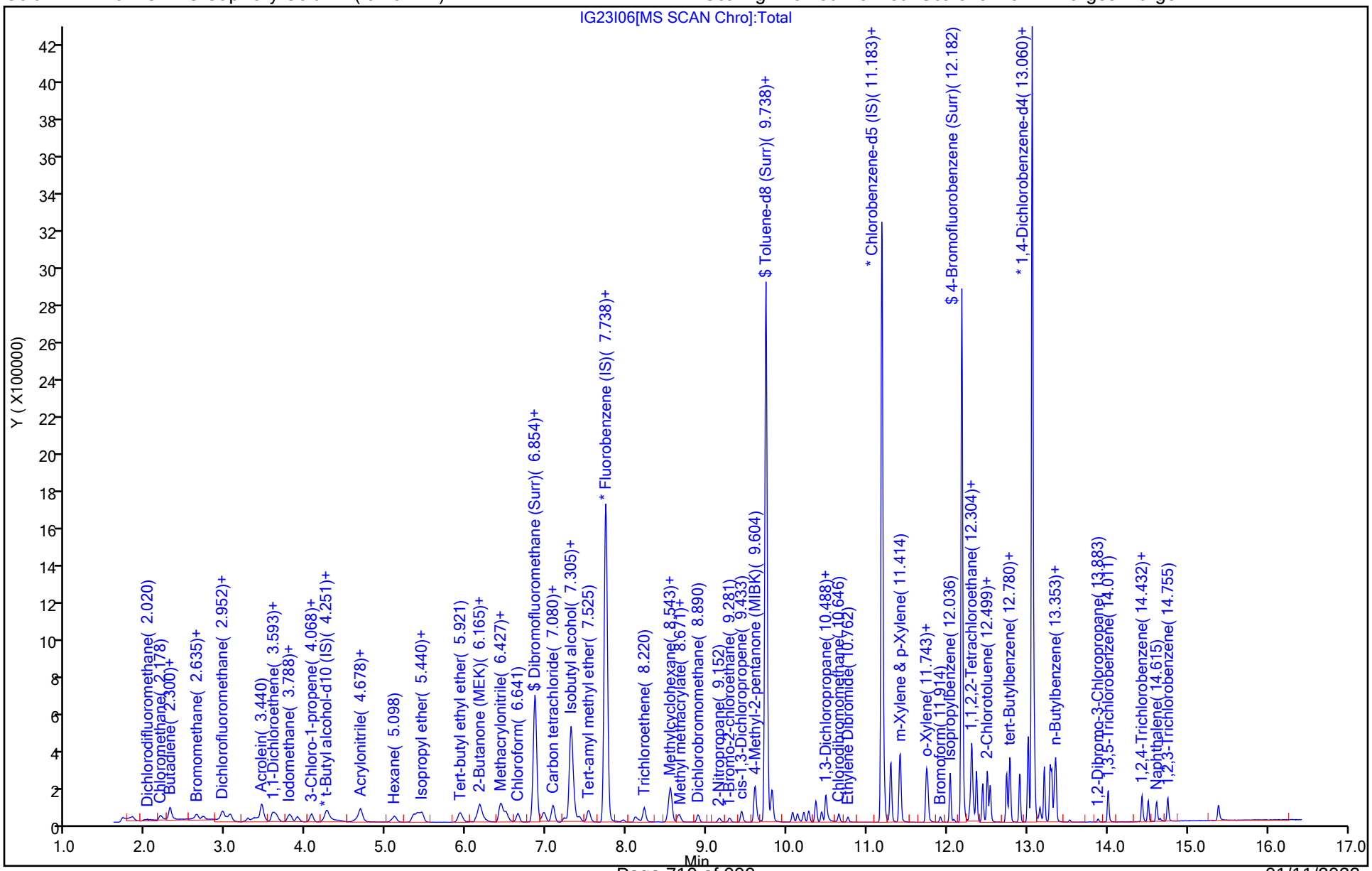
Report Date: 24-Aug-2021 15:55:28 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D

Injection Date:	24-Aug-2021 02:30:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	IC std2			Worklist Smp#:	17
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

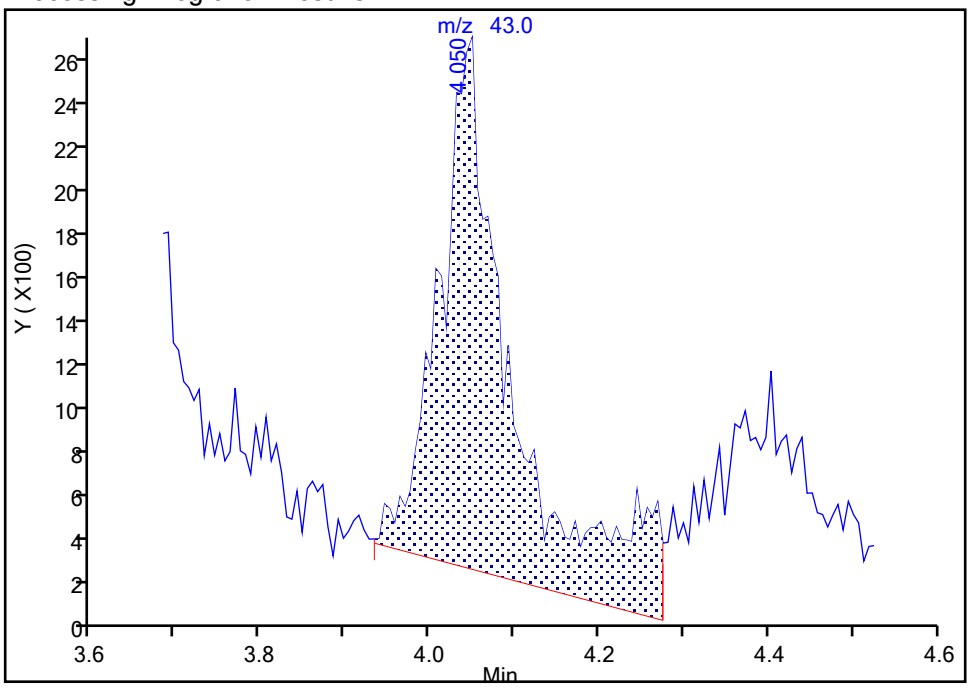
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D
Injection Date: 24-Aug-2021 02:30:30 Instrument ID: 19930
Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

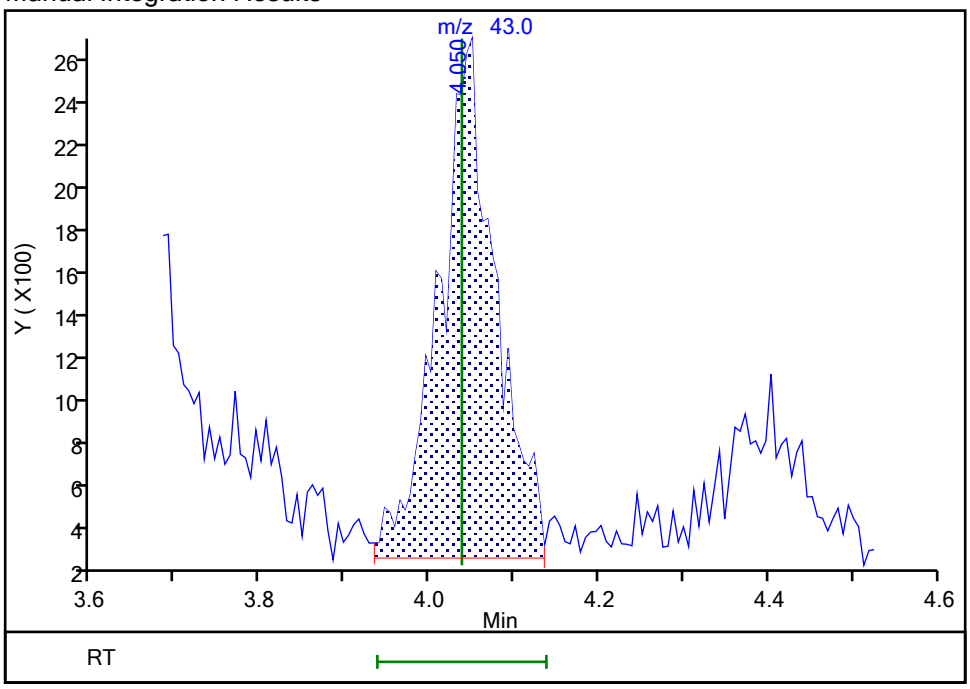
Processing Integration Results

RT: 4.05
Area: 14429
Amount: 0.507597
Amount Units: ug/l



Manual Integration Results

RT: 4.05
Area: 10814
Amount: 0.406583
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:07:57
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

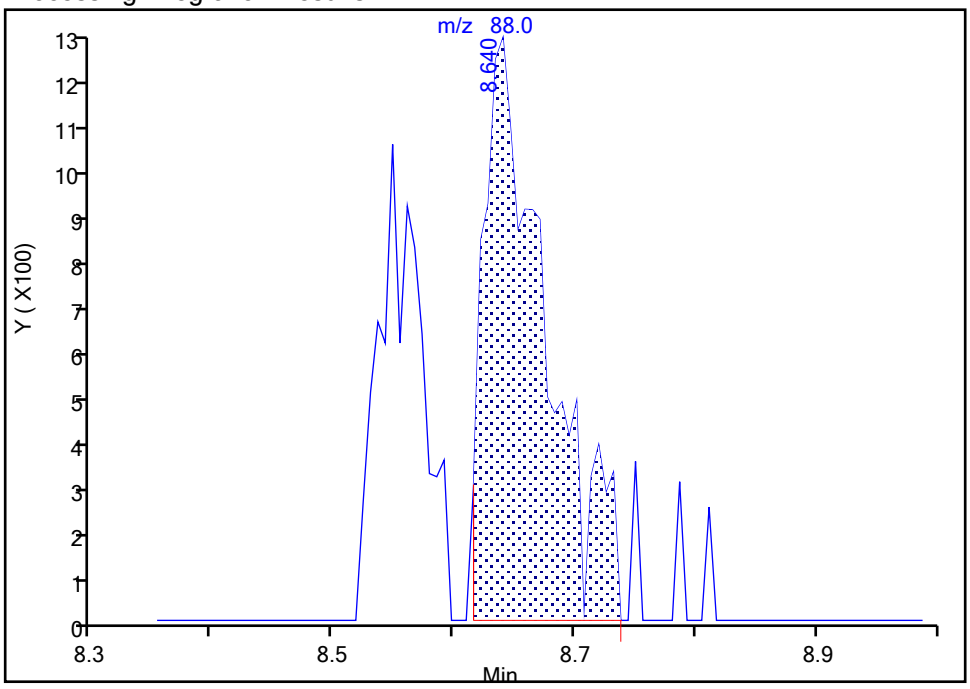
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D
Injection Date: 24-Aug-2021 02:30:30 Instrument ID: 19930
Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

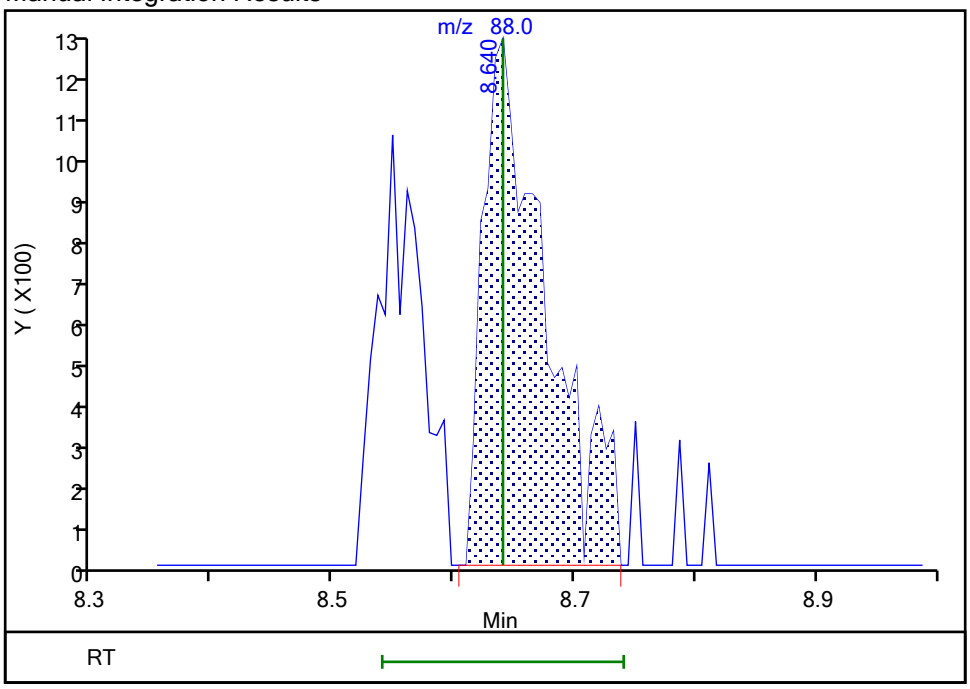
Processing Integration Results

RT: 8.64
Area: 4720
Amount: 19.712558
Amount Units: ug/l



Manual Integration Results

RT: 8.64
Area: 4720
Amount: 33.937684
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:07:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D
Lims ID: IC std1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Aug-2021 02:52:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-018
Misc. Info.: IC STD1
Operator ID: mec29284 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:55:32 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:55:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.965	0.018	98	10622	0.2000	0.1541	
4 Chloromethane	50	2.172	2.172	0.000	98	16469	0.2000	0.2098	
6 Butadiene	39	2.294	2.288	0.006	89	15788	0.2000	0.2189	
5 Vinyl chloride	62	2.294	2.294	0.000	79	16237	0.2000	0.2051	
7 Bromomethane	94	2.617	2.623	-0.006	93	12369	0.2000	0.2156	
8 Chloroethane	64	2.702	2.709	-0.007	98	9968	0.2000	0.2101	
9 Dichlorofluoromethane	67	2.952	2.946	0.006	96	24746	0.2000	0.2169	
10 Trichlorofluoromethane	101	3.019	3.020	-0.001	94	17920	0.2000	0.1757	
11 Ethyl ether	59	3.263	3.257	0.006	89	8085	0.2000	0.1951	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	14481	0.2000	0.1982	
13 Acrolein	56	3.434	3.428	0.006	99	67296	10.0	9.50	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	97	9853	0.2000	0.1873	
15 Acetone	43	3.623	3.599	0.024	91	22016	2.00	2.44	
16 112TCTFE	101	3.623	3.611	0.012	67	7902	0.2000	0.1439	
17 Iodomethane	142	3.769	3.769	0.000	99	19236	0.2000	0.1830	
18 Ethyl bromide	108	3.800	3.794	0.006	97	9559	0.1999	0.1995	
19 Carbon disulfide	76	3.885	3.879	0.006	98	27501	0.2000	0.1895	
21 Methyl acetate	43	4.025	4.038	-0.013	24	6630	0.2000	0.2501	M
22 3-Chloro-1-propene	41	4.062	4.056	0.006	91	17799	0.2000	0.2063	
23 Methylene Chloride	84	4.251	4.239	0.012	92	11123	0.2000	0.1938	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	87	162132	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.397	-0.012	96	13173	4.00	3.86	
26 Acrylonitrile	53	4.598	4.592	0.006	93	5439	0.5000	0.4531	
27 Methyl tert-butyl ether	73	4.672	4.659	0.013	94	28552	0.2000	0.1903	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	98	11615	0.2000	0.1945	
29 Hexane	57	5.092	5.086	0.006	89	13158	0.2000	0.1578	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	94	19958	0.2000	0.1841	
32 Isopropyl ether	45	5.379	5.385	-0.006	92	34823	0.2000	0.1923	
33 2-Chloro-1,3-butadiene	53	5.434	5.434	0.000	90	16724	0.2000	0.1851	
34 Tert-butyl ethyl ether	59	5.915	5.915	0.000	95	34174	0.2000	0.1930	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.135	6.116	0.019	99	29007	2.00	1.84	
S 35 1,2-Dichloroethene, Total	100				0			0.3987	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	80	13593	0.2000	0.2043	
38 2,2-Dichloropropane	77	6.165	6.171	-0.006	75	17139	0.2000	0.1819	
40 Propionitrile	54	6.226	6.208	0.018	96	13833	4.00	3.31	
42 Methacrylonitrile	67	6.433	6.415	0.018	91	28932	2.00	1.83	
43 Chlorobromomethane	128	6.494	6.482	0.012	89	5382	0.2000	0.1874	
44 Tetrahydrofuran	71	6.500	6.494	0.006	73	4531	1.00	0.9713	
45 Chloroform	83	6.641	6.635	0.006	93	20677	0.2000	0.1926	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	550850	10.0	9.92	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	37	17947	0.2000	0.1799	
48 Cyclohexane	56	6.964	6.964	0.000	88	15734	0.2000	0.1591	
50 Carbon tetrachloride	117	7.080	7.067	0.013	89	14826	0.2000	0.1722	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	92	15129	0.2000	0.1798	
52 Isobutyl alcohol	41	7.238	7.214	0.024	98	11365	10.0	10.4	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	83	111473	10.0	10.0	
54 Benzene	78	7.342	7.336	0.006	92	47533	0.2000	0.1919	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	96	14085	0.2000	0.2098	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	98	32493	0.2000	0.1977	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	2203428	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	37	16461	0.2000	0.1919	
60 n-Butanol	56	8.110	8.098	0.012	88	15162	17.5	15.0	
61 Trichloroethene	95	8.214	8.214	0.000	97	12472	0.2000	0.1873	
62 Methylcyclohexane	83	8.518	8.525	-0.007	90	18086	0.2000	0.1633	
63 1,2-Dichloropropane	63	8.549	8.543	0.006	72	10792	0.2000	0.1774	
64 Methyl methacrylate	69	8.634	8.628	0.006	69	5380	0.2000	0.1732	
65 1,4-Dioxane	88	8.659	8.640	0.019	36	1410	10.0	25.4	
66 Dibromomethane	93	8.665	8.653	0.012	96	6024	0.2000	0.2026	
68 Dichlorobromomethane	83	8.884	8.890	-0.006	98	13292	0.2000	0.1802	
69 2-Nitropropane	41	9.152	9.152	0.000	98	7855	1.00	0.8841	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	95	11412	0.2000	0.1911	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	16632	0.2000	0.1795	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	95	72451	2.00	1.83	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2194797	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	97	31541	0.2000	0.1959	
S 77 1,3-Dichloropropene, Total	100				0			0.3575	
78 trans-1,3-Dichloropropene	75	10.073	10.067	0.006	93	13216	0.2000	0.1780	
79 Ethyl methacrylate	69	10.140	10.128	0.012	86	11059	0.2000	0.1785	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	88	8395	0.2000	0.1955	
81 Tetrachloroethene	166	10.366	10.360	0.006	97	14161	0.2000	0.1846	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	86	14346	0.2000	0.1964	
83 2-Hexanone	43	10.487	10.481	0.006	96	46582	2.00	1.68	
85 Chlorodibromomethane	129	10.646	10.646	0.000	91	9097	0.2000	0.1738	
86 Ethylene Dibromide	107	10.762	10.756	0.006	96	7956	0.2000	0.1920	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	86	1679409	10.0	10.0	
88 1-Chlorohexane	91	11.195	11.189	0.006	74	19704	0.2000	0.2093	
90 Chlorobenzene	112	11.213	11.213	0.000	96	34732	0.2000	0.1948	
S 89 Xylenes, Total	106				0			0.5624	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	92	11871	0.2000	0.1906	
92 Ethylbenzene	91	11.298	11.298	0.000	98	59702	0.2000	0.1926	
93 m-Xylene & p-Xylene	106	11.414	11.408	0.006	100	45724	0.4000	0.3734	
94 o-Xylene	106	11.737	11.737	0.000	96	22844	0.2000	0.1890	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	35508	0.2000	0.1820	
96 Bromoform	173	11.920	11.914	0.006	96	5180	0.2000	0.1652	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	59476	0.2000	0.1864	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	836413	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	91	10699	0.2000	0.1912	
102 Bromobenzene	156	12.298	12.298	0.000	94	14657	0.2000	0.1911	
103 trans-1,4-Dichloro-2-butene	53	12.310	12.304	0.006	94	23386	2.00	1.63	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	79	2954	0.2000	0.1920	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	69326	0.2000	0.1862	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	13941	0.2000	0.1825	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	95	50366	0.2000	0.1853	
108 4-Chlorotoluene	126	12.536	12.536	0.000	96	14590	0.2000	0.1870	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	10568	0.2000	0.1772	
110 Pentachloroethane	167	12.774	12.774	0.000	81	8742	0.2000	0.1815	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	50685	0.2000	0.1819	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	62740	0.2000	0.1826	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	97	28815	0.2000	0.1863	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	56219	0.2000	0.1850	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	1012314	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	94	30392	0.2000	0.1923	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	96	23351	0.2000	0.1894	
118 Benzyl chloride	126	13.164	13.158	0.006	98	3297	0.2000	0.1440	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	26239	0.2000	0.1848	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	97	26871	0.2000	0.1901	
122 1,2-Dibromo-3-Chloropropane	155	13.889	13.883	0.006	79	1200	0.2000	0.1458	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	97	20269	0.2000	0.1791	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	17004	0.2000	0.1781	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	94	9764	0.2000	0.2354	
126 Naphthalene	128	14.615	14.609	0.006	97	35671	0.2000	0.1960	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	16298	0.2000	0.1975	
134 Isopropyl alcohol	45		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00015	Amount Added:	2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added:	2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added:	2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added:	5.00	Units: uL	Run Reagent

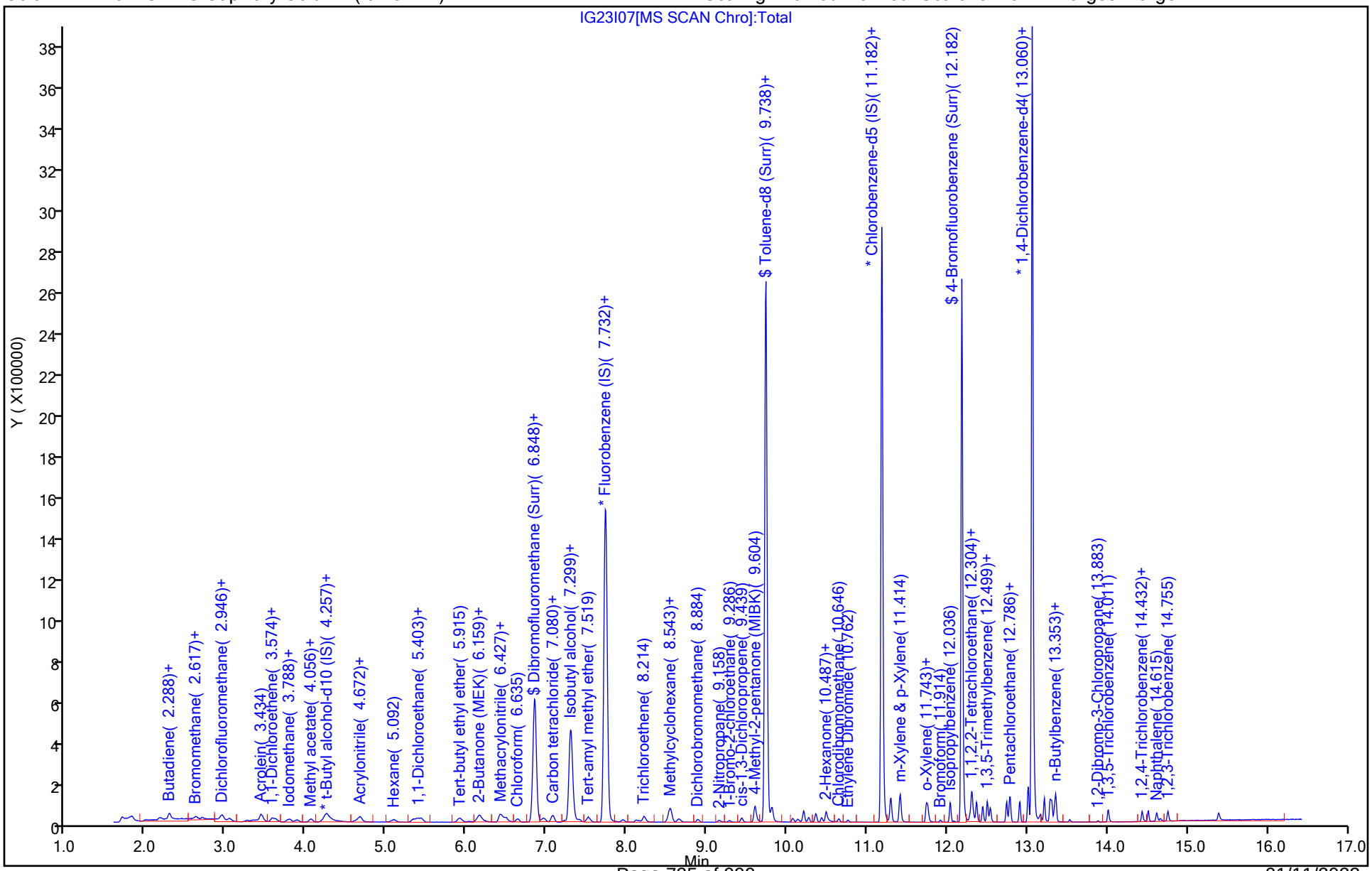
Report Date: 24-Aug-2021 15:55:32 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Injection Date:	24-Aug-2021 02:52:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	IC std1			Worklist Smp#:	18
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

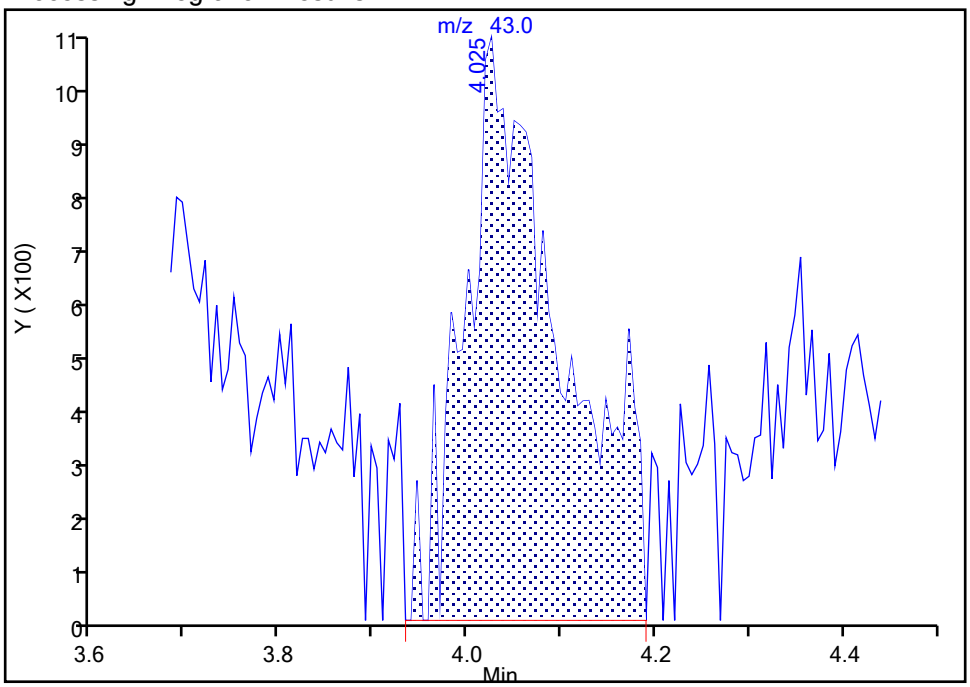
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D				
Injection Date:	24-Aug-2021 02:52:30	Instrument ID:	19930		
Lims ID:	IC std1				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

21 Methyl acetate, CAS: 79-20-9

Signal: 1

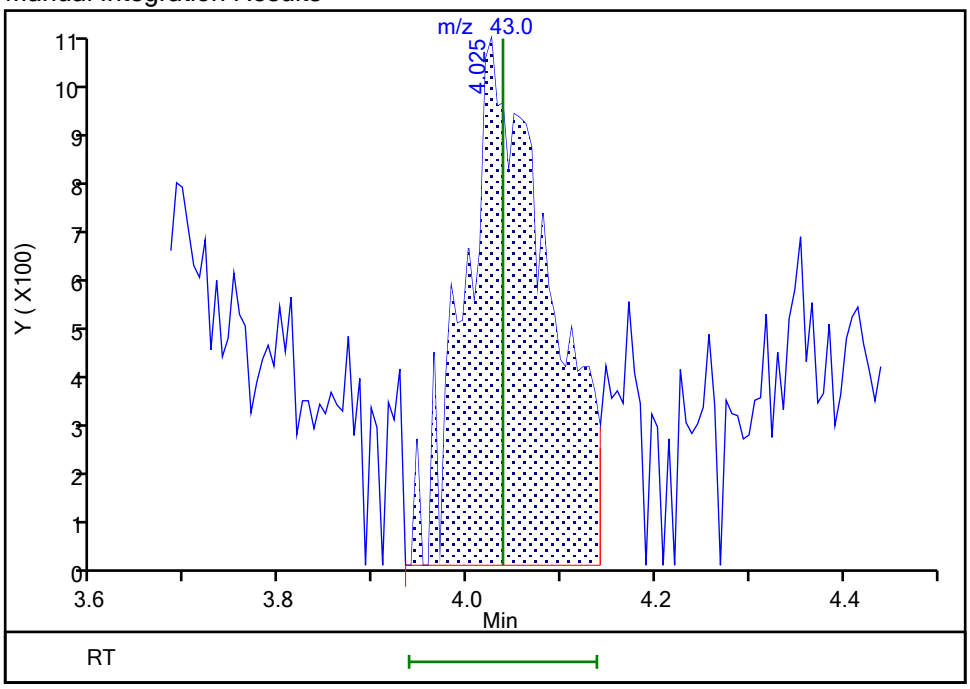
Processing Integration Results

RT: 4.03
Area: 7604
Amount: 0.278475
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 6630
Amount: 0.250072
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:08:28
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Calibration / Dichlorodifluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

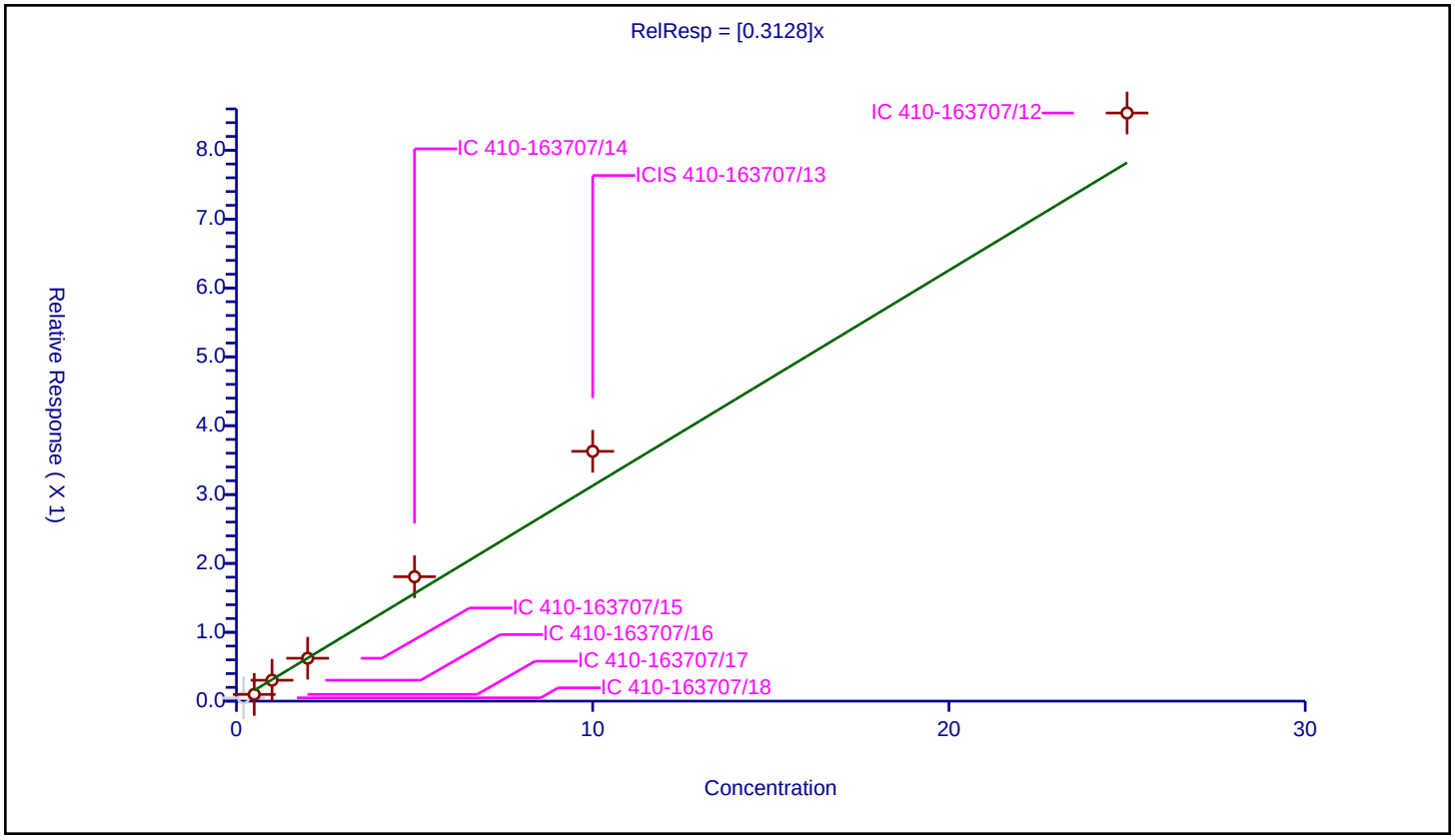
Curve Coefficients

Intercept:	0
Slope:	0.3128

Error Coefficients

Standard Error:	966000
Relative Standard Error:	20.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.954

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.048207	10.0	2203428.0	0.241034	N
2	IC 410-163707/17	0.5	0.097804	10.0	2386508.0	0.195608	Y
3	IC 410-163707/16	1.0	0.303958	10.0	2167768.0	0.303958	Y
4	IC 410-163707/15	2.0	0.622777	10.0	2141536.0	0.311389	Y
5	IC 410-163707/14	5.0	1.806842	10.0	2115642.0	0.361368	Y
6	ICIS 410-163707/13	10.0	3.6274	10.0	2122537.0	0.36274	Y
7	IC 410-163707/12	25.0	8.540533	10.0	2314551.0	0.341621	Y



Calibration / Chloromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

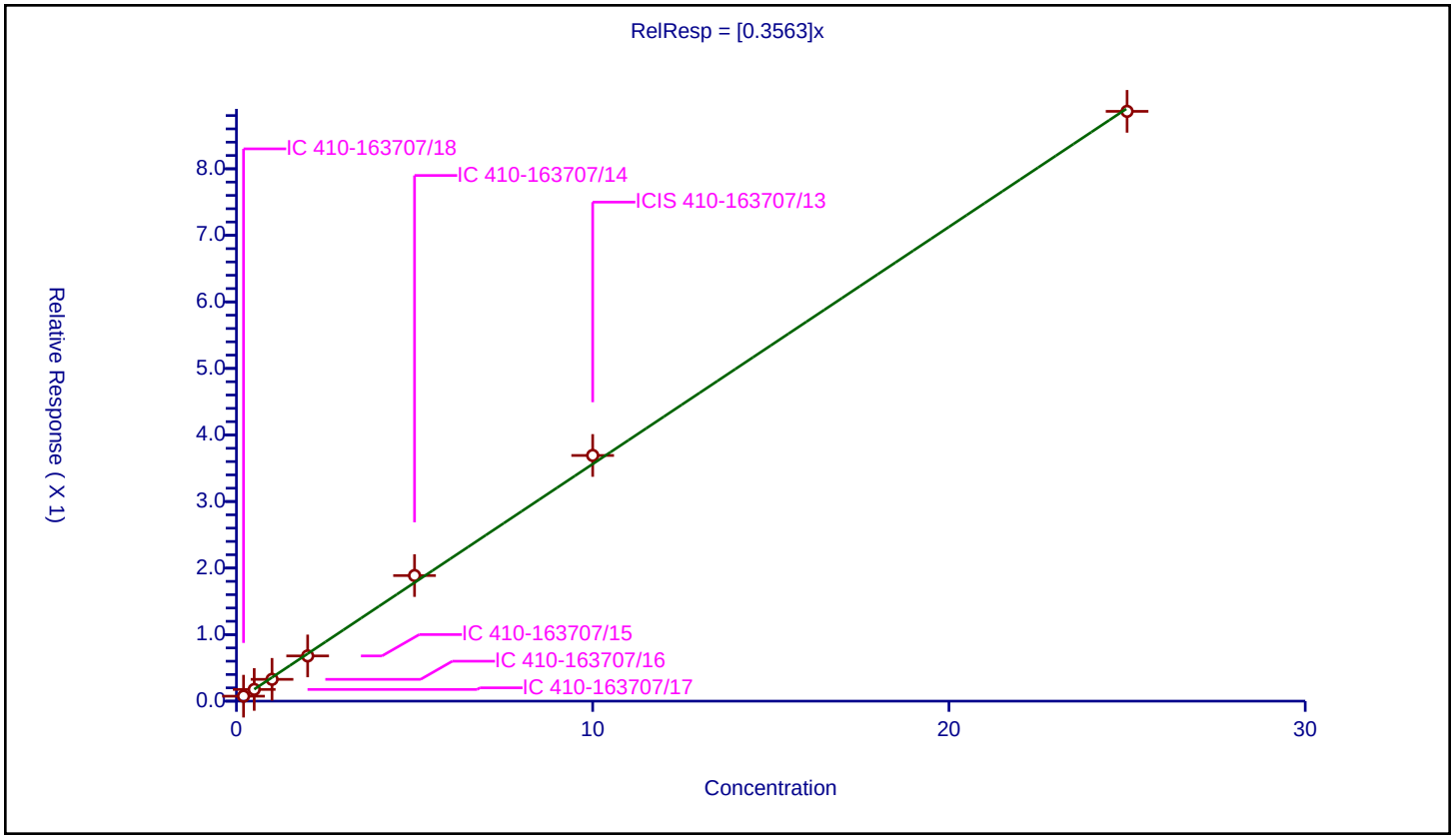
Curve Coefficients

Intercept:	0
Slope:	0.3563

Error Coefficients

Standard Error:	914000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.074743	10.0	2203428.0	0.373713	Y
2	IC 410-163707/17	0.5	0.176006	10.0	2386508.0	0.352012	Y
3	IC 410-163707/16	1.0	0.327678	10.0	2167768.0	0.327678	Y
4	IC 410-163707/15	2.0	0.679503	10.0	2141536.0	0.339751	Y
5	IC 410-163707/14	5.0	1.887243	10.0	2115642.0	0.377449	Y
6	ICIS 410-163707/13	10.0	3.692039	10.0	2122537.0	0.369204	Y
7	IC 410-163707/12	25.0	8.863192	10.0	2314551.0	0.354528	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

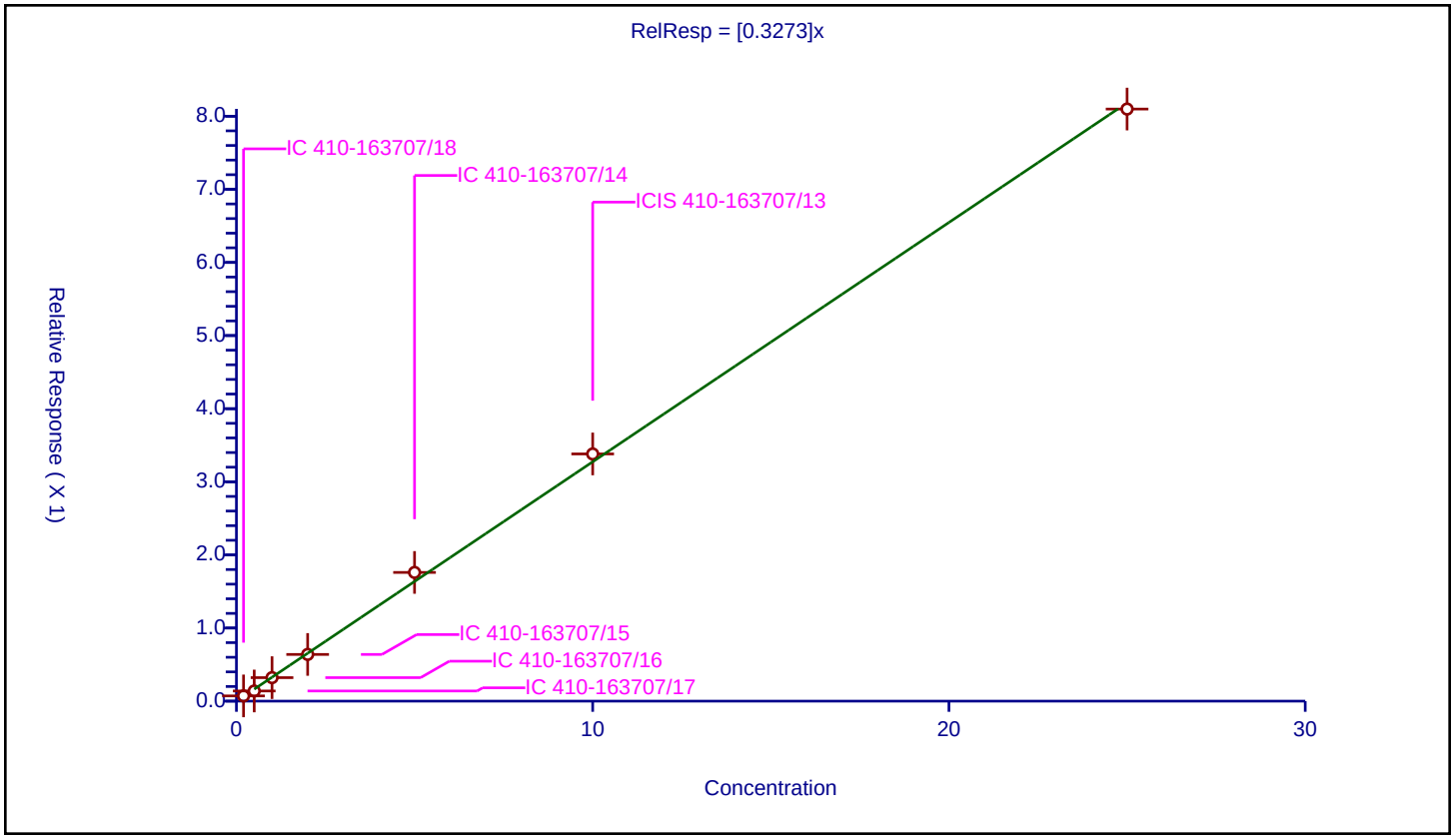
Curve Coefficients

Intercept:	0
Slope:	0.3273

Error Coefficients

Standard Error:	836000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.071652	10.0	2203428.0	0.35826	Y
2	IC 410-163707/17	0.5	0.139032	10.0	2386508.0	0.278063	Y
3	IC 410-163707/16	1.0	0.321552	10.0	2167768.0	0.321552	Y
4	IC 410-163707/15	2.0	0.638841	10.0	2141536.0	0.31942	Y
5	IC 410-163707/14	5.0	1.760421	10.0	2115642.0	0.352084	Y
6	ICIS 410-163707/13	10.0	3.380888	10.0	2122537.0	0.338089	Y
7	IC 410-163707/12	25.0	8.097925	10.0	2314551.0	0.323917	Y



Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

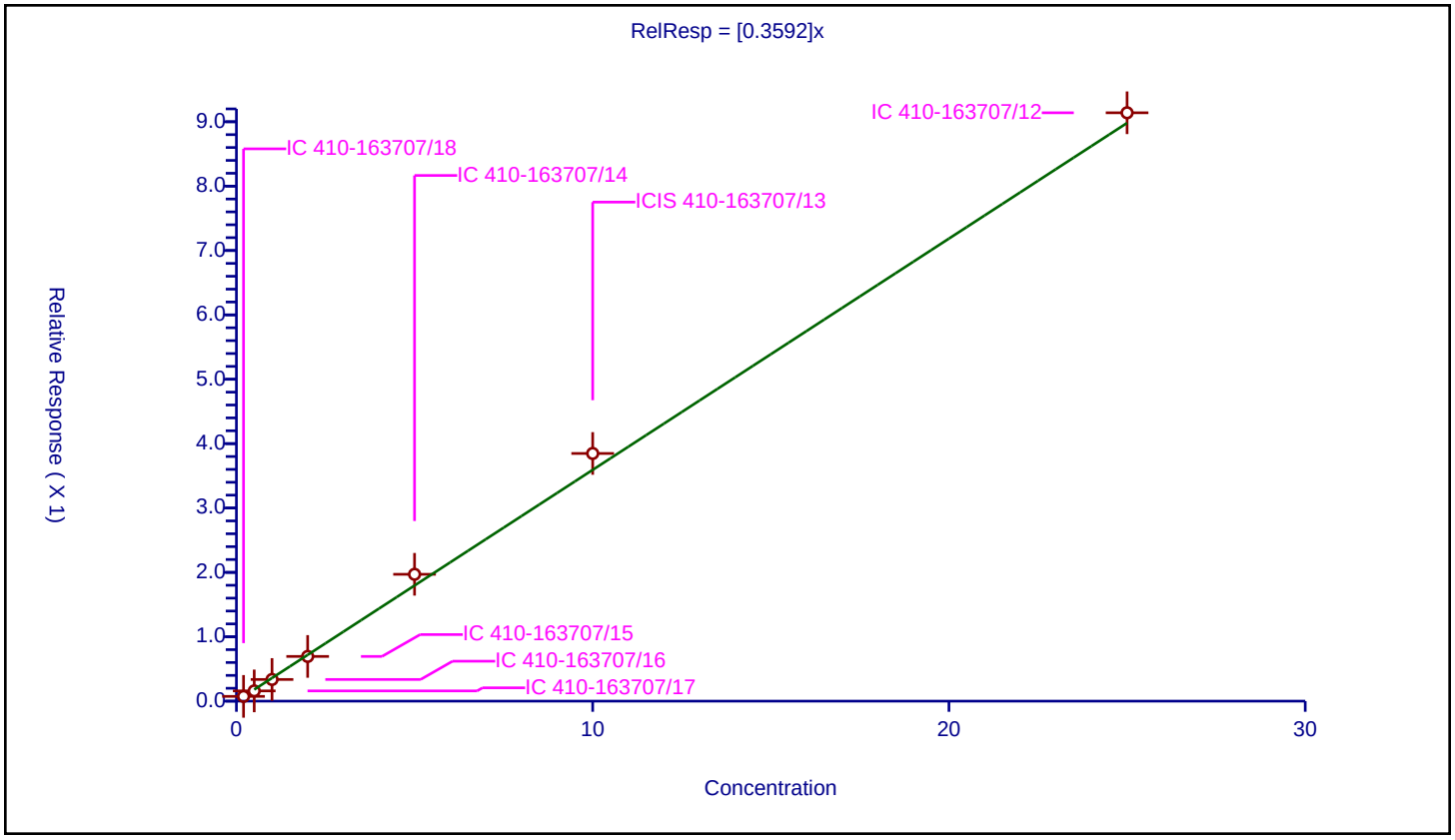
Curve Coefficients

Intercept:	0
Slope:	0.3592

Error Coefficients

Standard Error:	944000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.07369	10.0	2203428.0	0.368449	Y
2	IC 410-163707/17	0.5	0.159149	10.0	2386508.0	0.318298	Y
3	IC 410-163707/16	1.0	0.336443	10.0	2167768.0	0.336443	Y
4	IC 410-163707/15	2.0	0.694315	10.0	2141536.0	0.347157	Y
5	IC 410-163707/14	5.0	1.97039	10.0	2115642.0	0.394078	Y
6	ICIS 410-163707/13	10.0	3.847466	10.0	2122537.0	0.384747	Y
7	IC 410-163707/12	25.0	9.13944	10.0	2314551.0	0.365578	Y



Calibration / Bromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

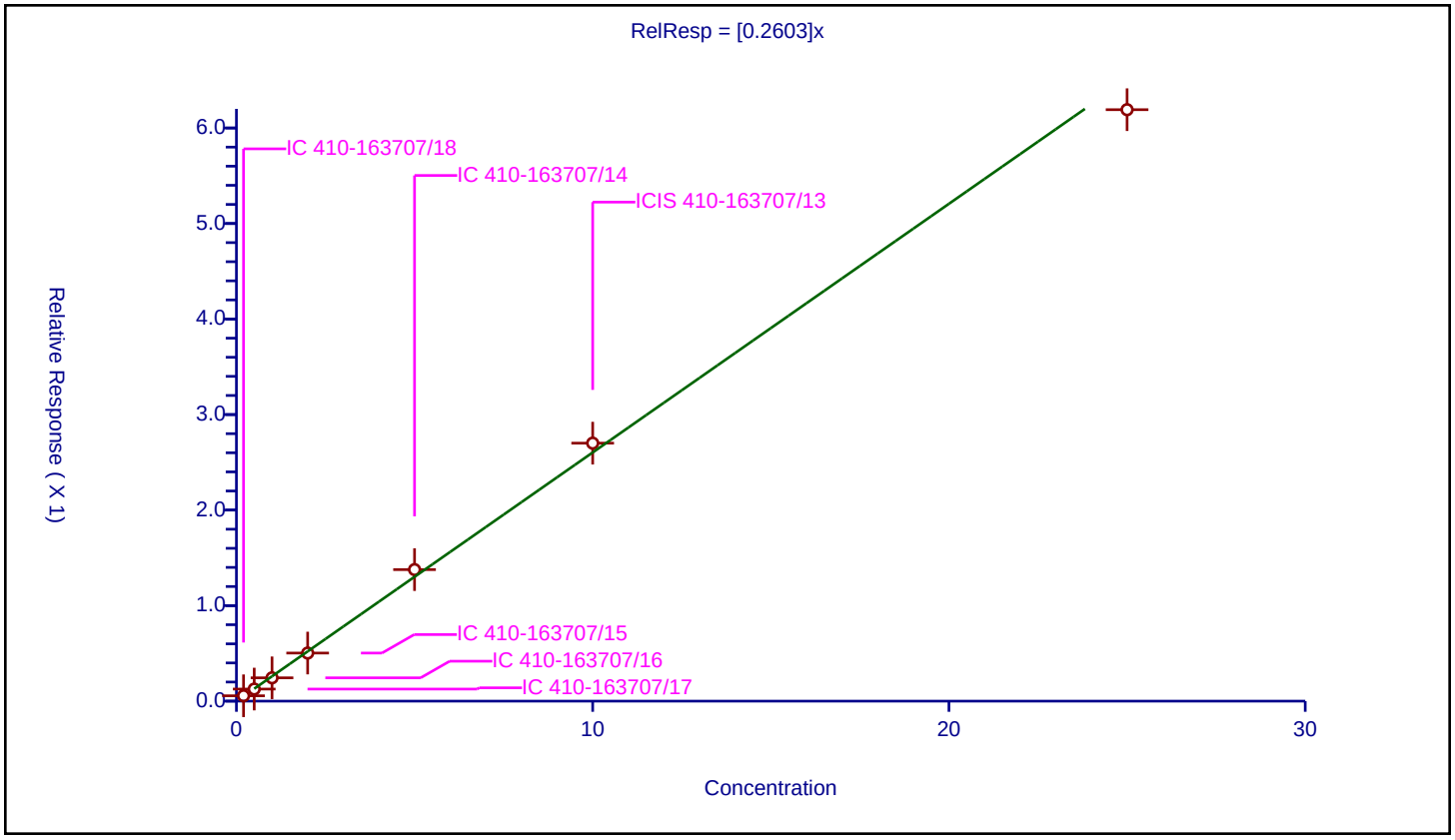
Curve Coefficients

Intercept:	0
Slope:	0.2603

Error Coefficients

Standard Error:	643000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.056135	10.0	2203428.0	0.280676	Y
2	IC 410-163707/17	0.5	0.12639	10.0	2386508.0	0.252779	Y
3	IC 410-163707/16	1.0	0.244048	10.0	2167768.0	0.244048	Y
4	IC 410-163707/15	2.0	0.503358	10.0	2141536.0	0.251679	Y
5	IC 410-163707/14	5.0	1.376835	10.0	2115642.0	0.275367	Y
6	ICIS 410-163707/13	10.0	2.700806	10.0	2122537.0	0.270081	Y
7	IC 410-163707/12	25.0	6.191711	10.0	2314551.0	0.247668	Y



Calibration / Chloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

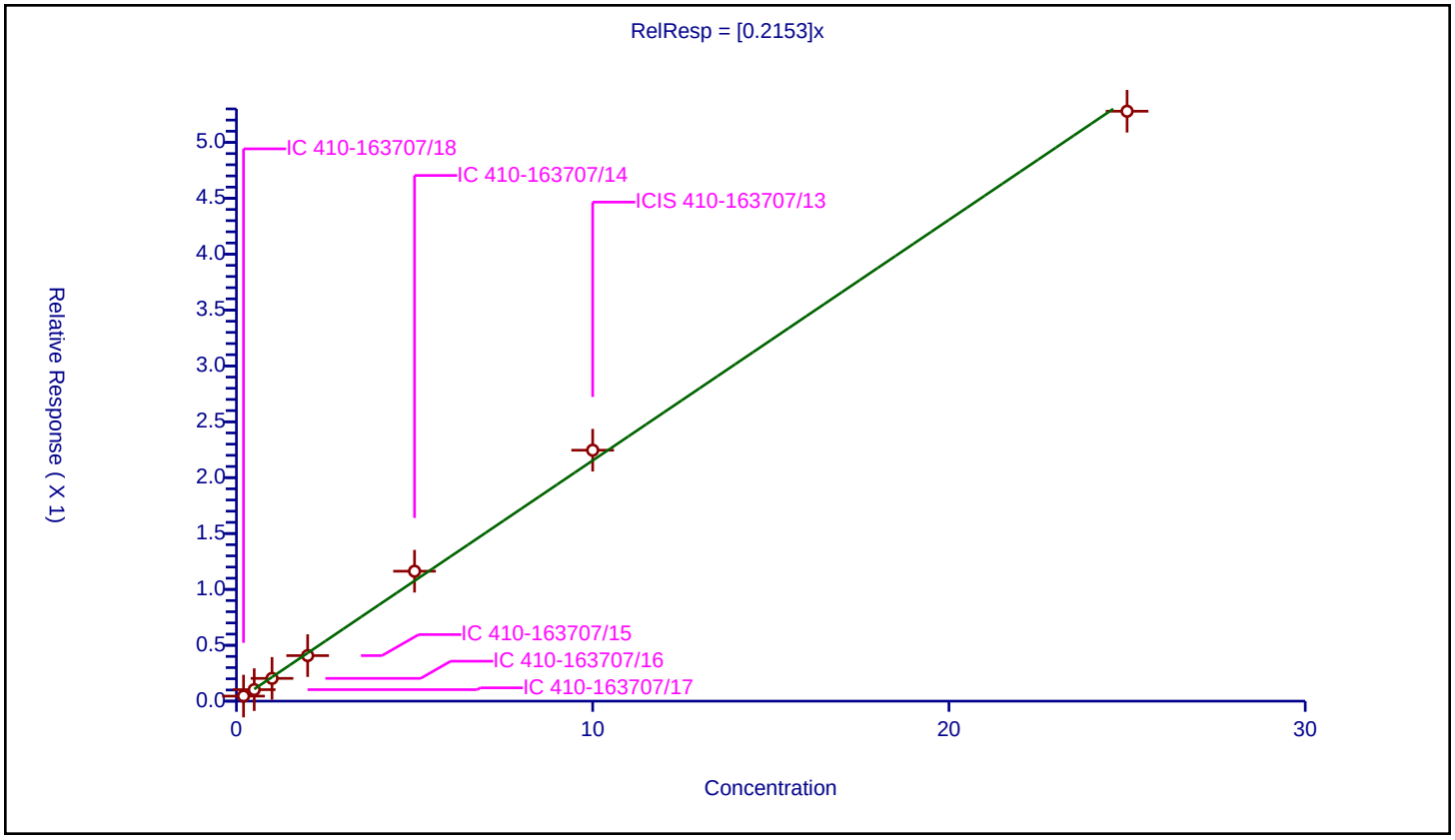
Curve Coefficients

Intercept:	0
Slope:	0.2153

Error Coefficients

Standard Error:	546000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.045239	10.0	2203428.0	0.226193	Y
2	IC 410-163707/17	0.5	0.102824	10.0	2386508.0	0.205648	Y
3	IC 410-163707/16	1.0	0.20361	10.0	2167768.0	0.20361	Y
4	IC 410-163707/15	2.0	0.407446	10.0	2141536.0	0.203723	Y
5	IC 410-163707/14	5.0	1.162735	10.0	2115642.0	0.232547	Y
6	ICIS 410-163707/13	10.0	2.245605	10.0	2122537.0	0.224561	Y
7	IC 410-163707/12	25.0	5.27895	10.0	2314551.0	0.211158	Y



Calibration / Dichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

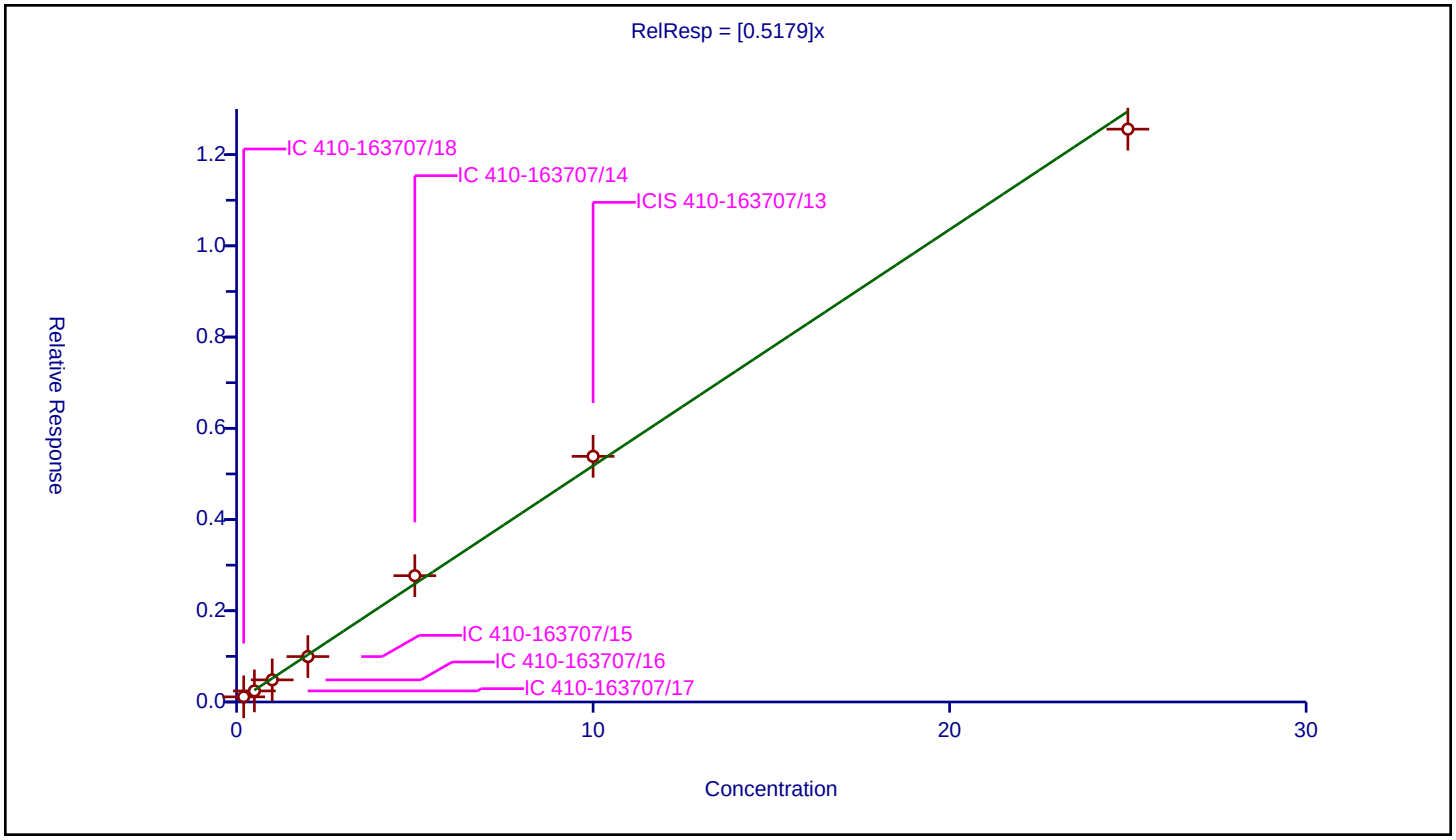
Curve Coefficients

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

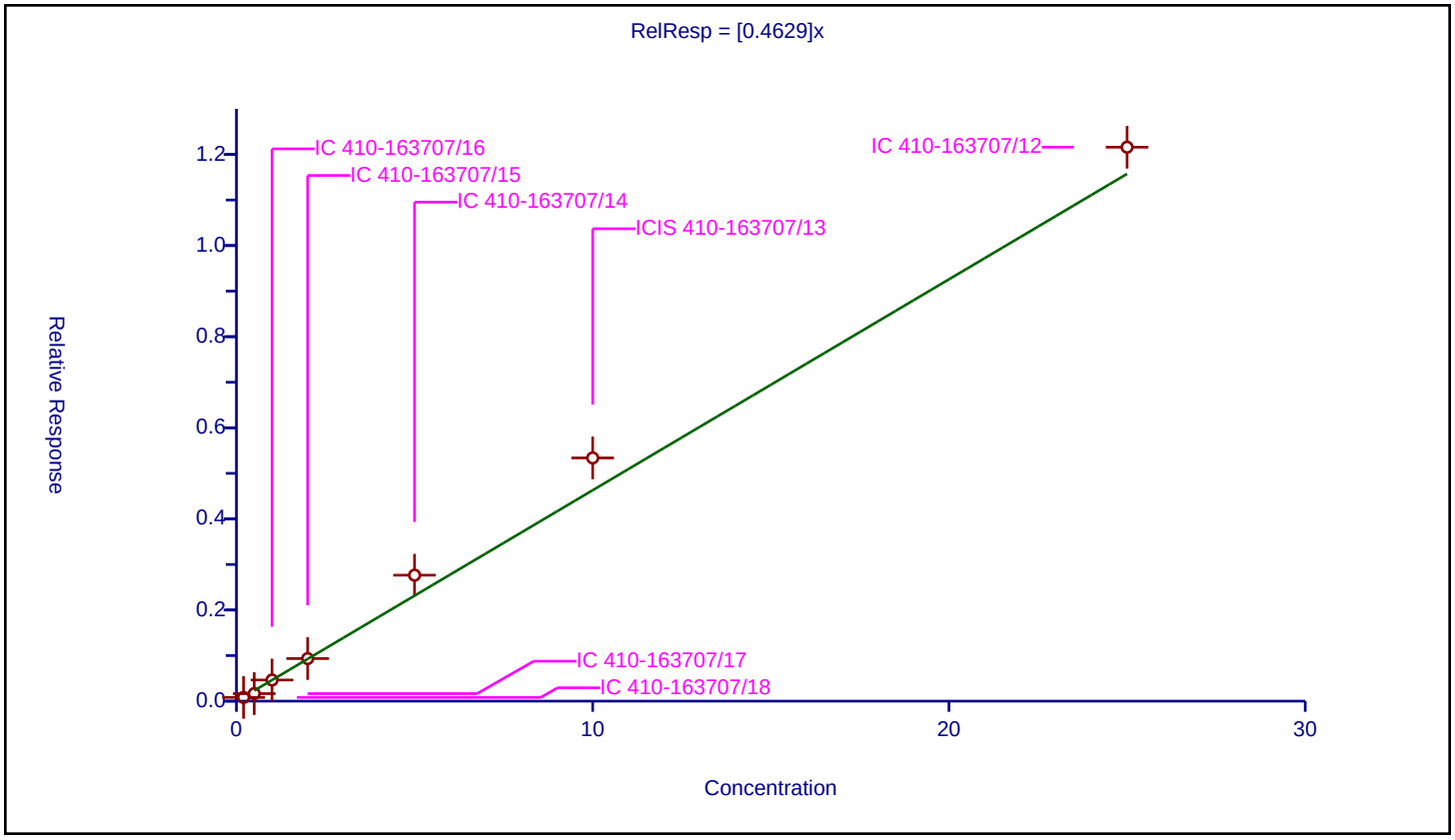
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

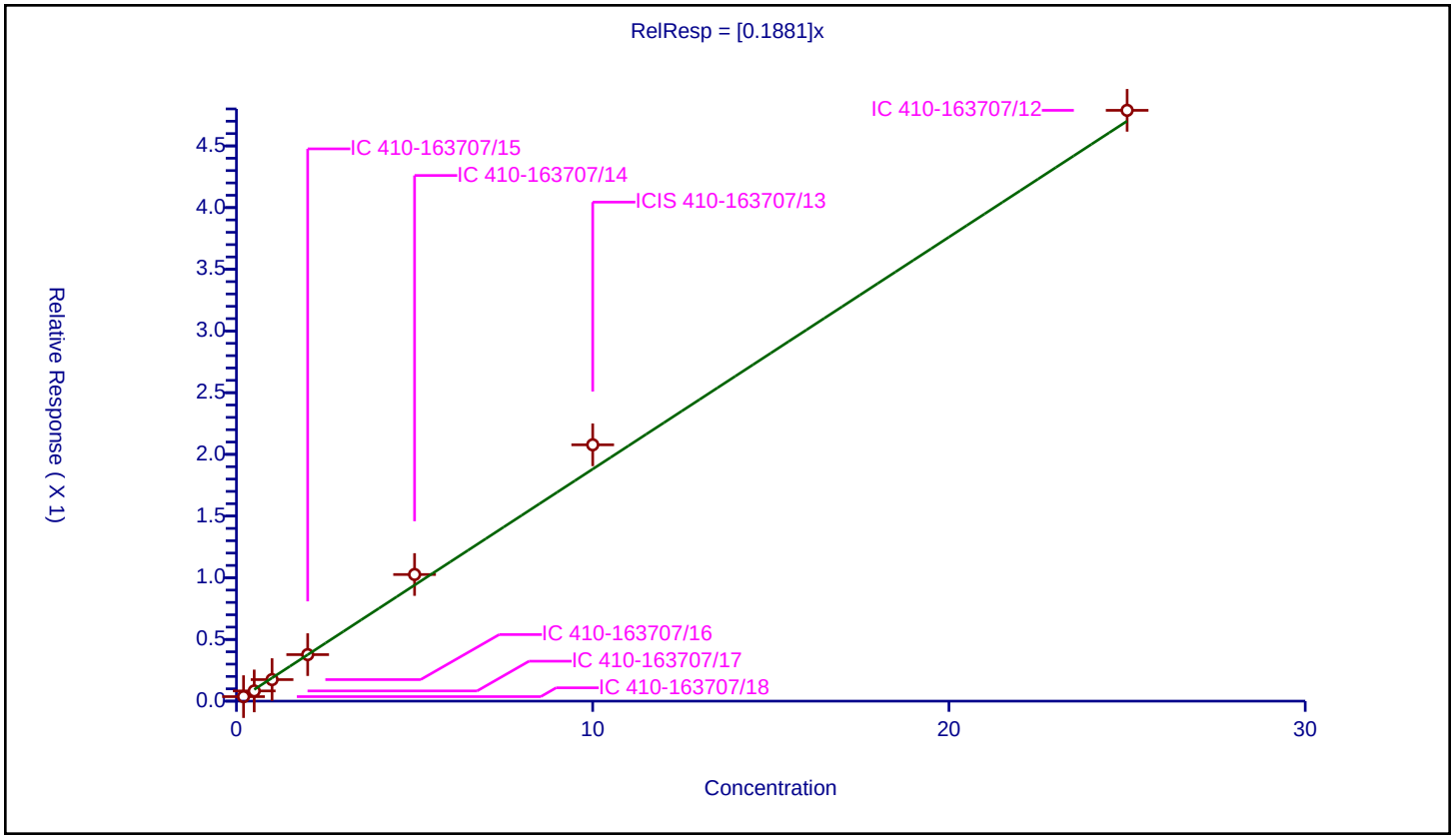
Curve Coefficients

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

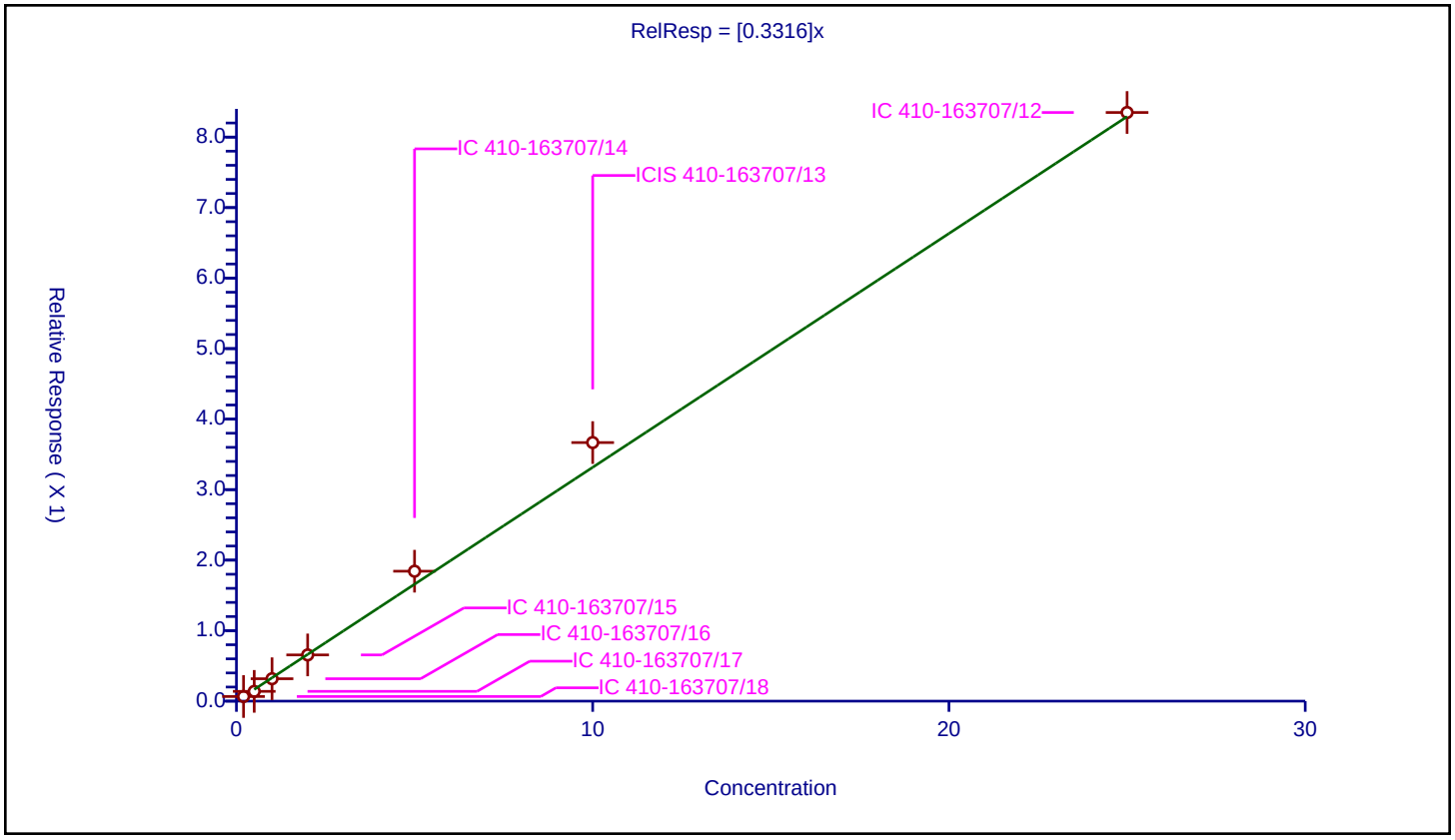
Curve Coefficients

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

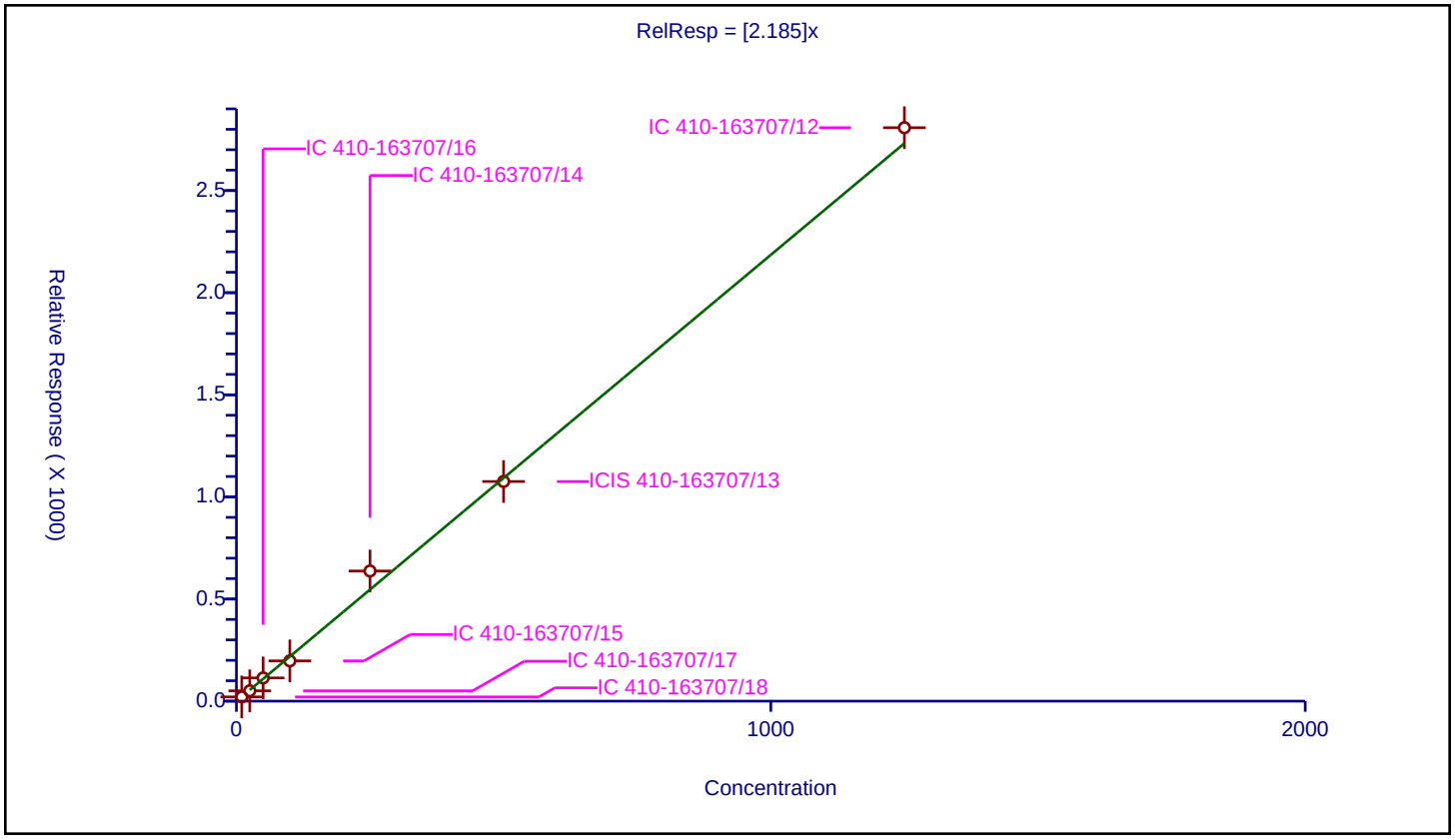
Curve Coefficients

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

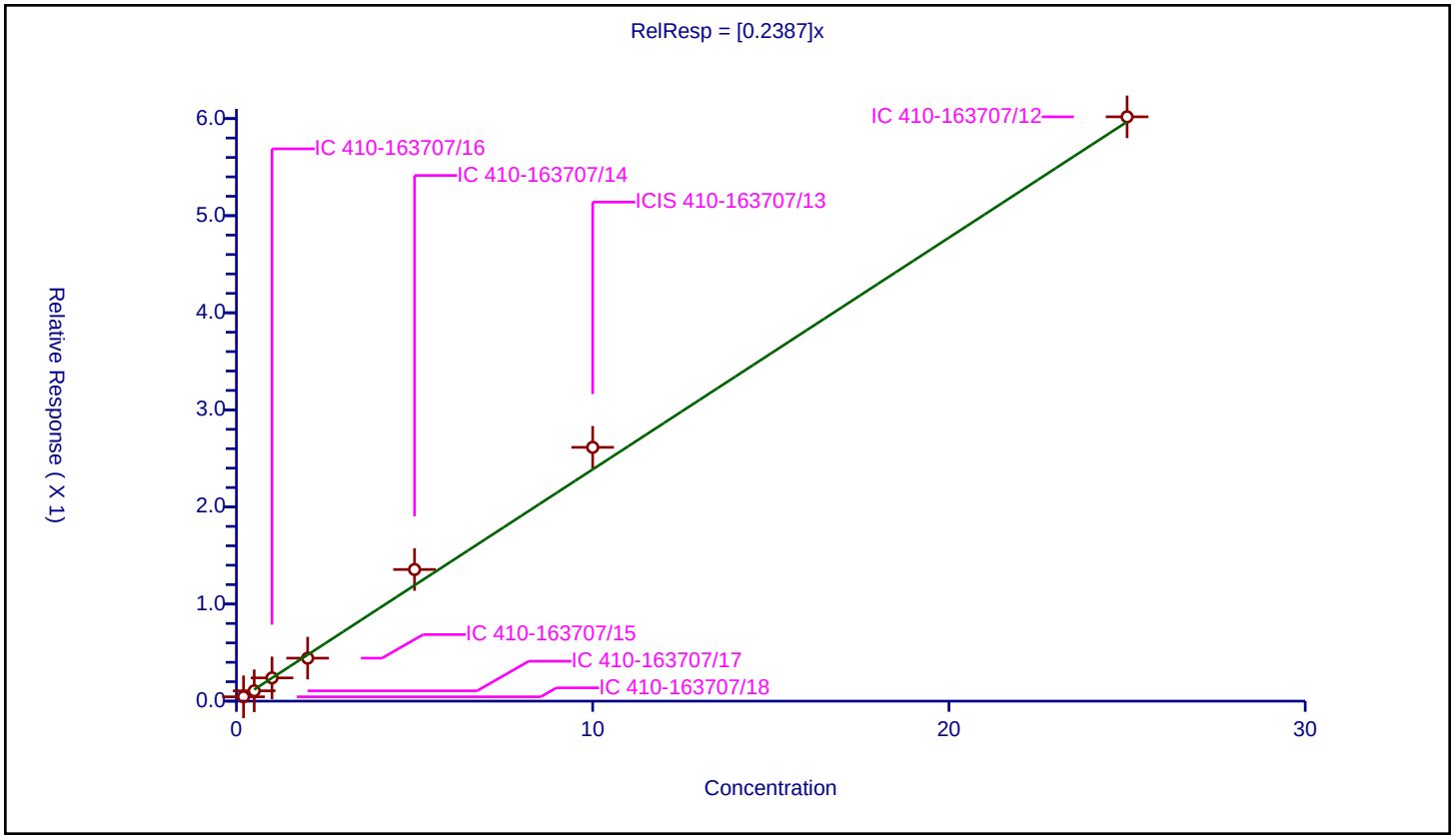
Curve Coefficients

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

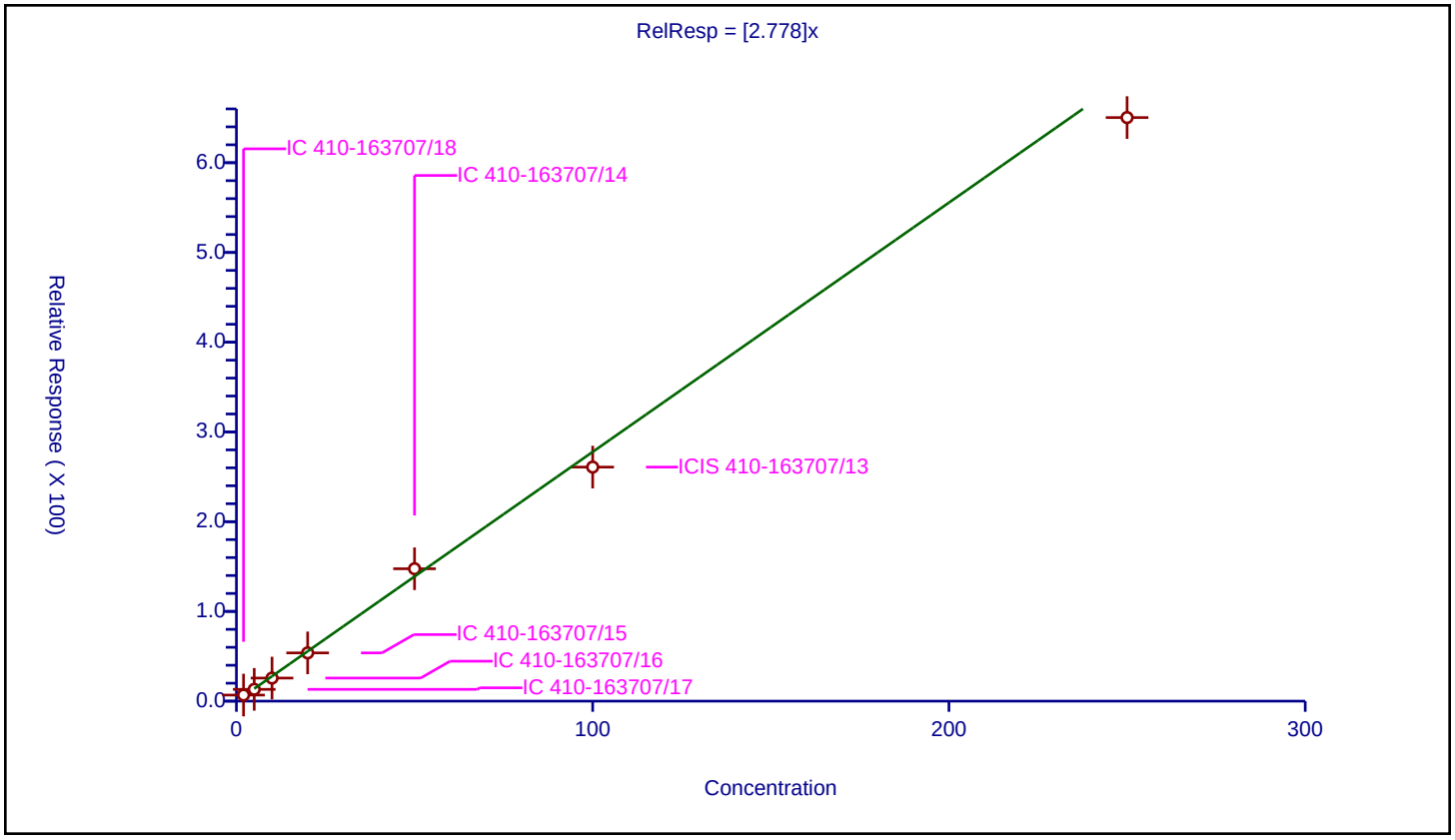
Curve Coefficients

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

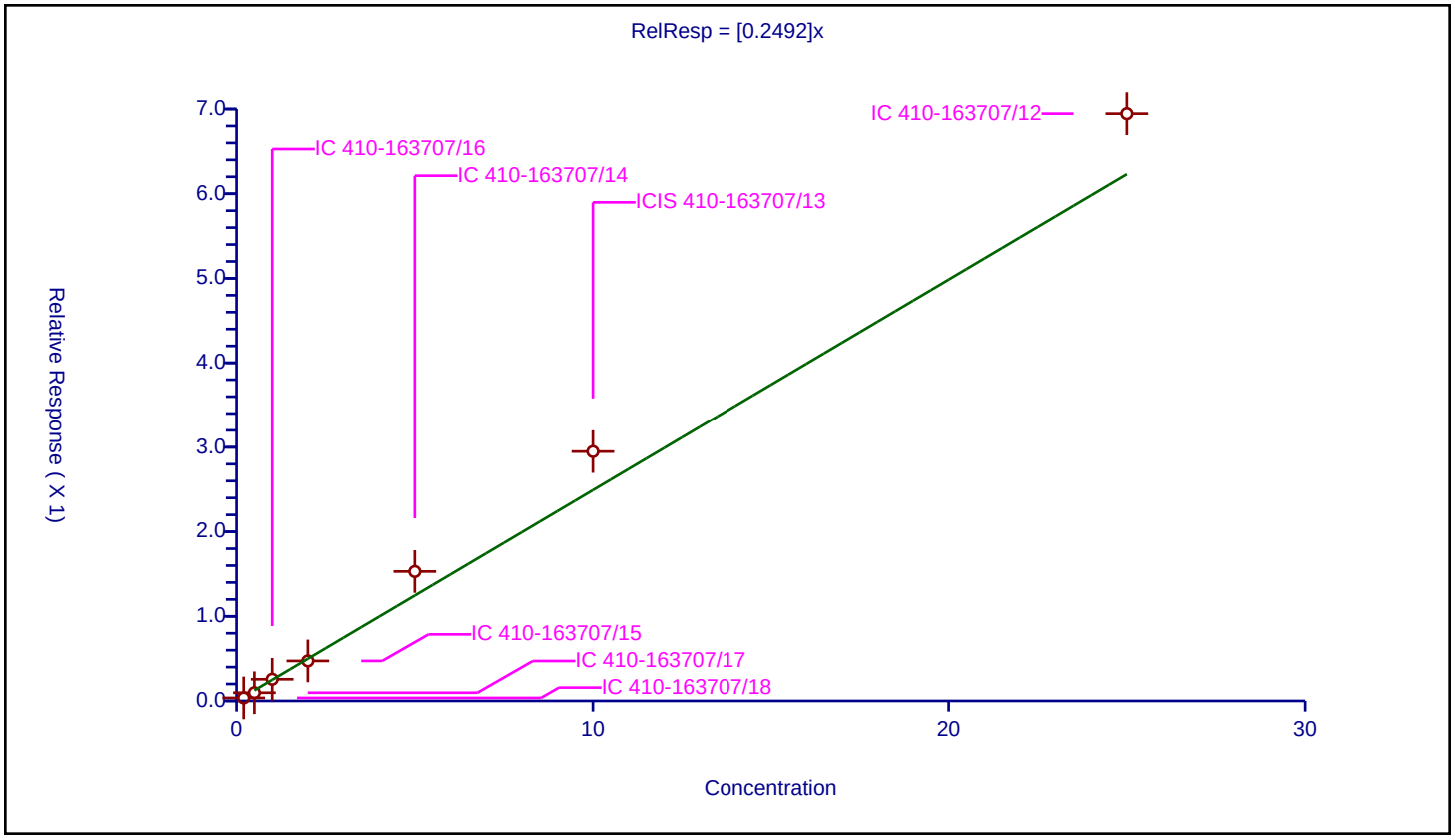
Curve Coefficients

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

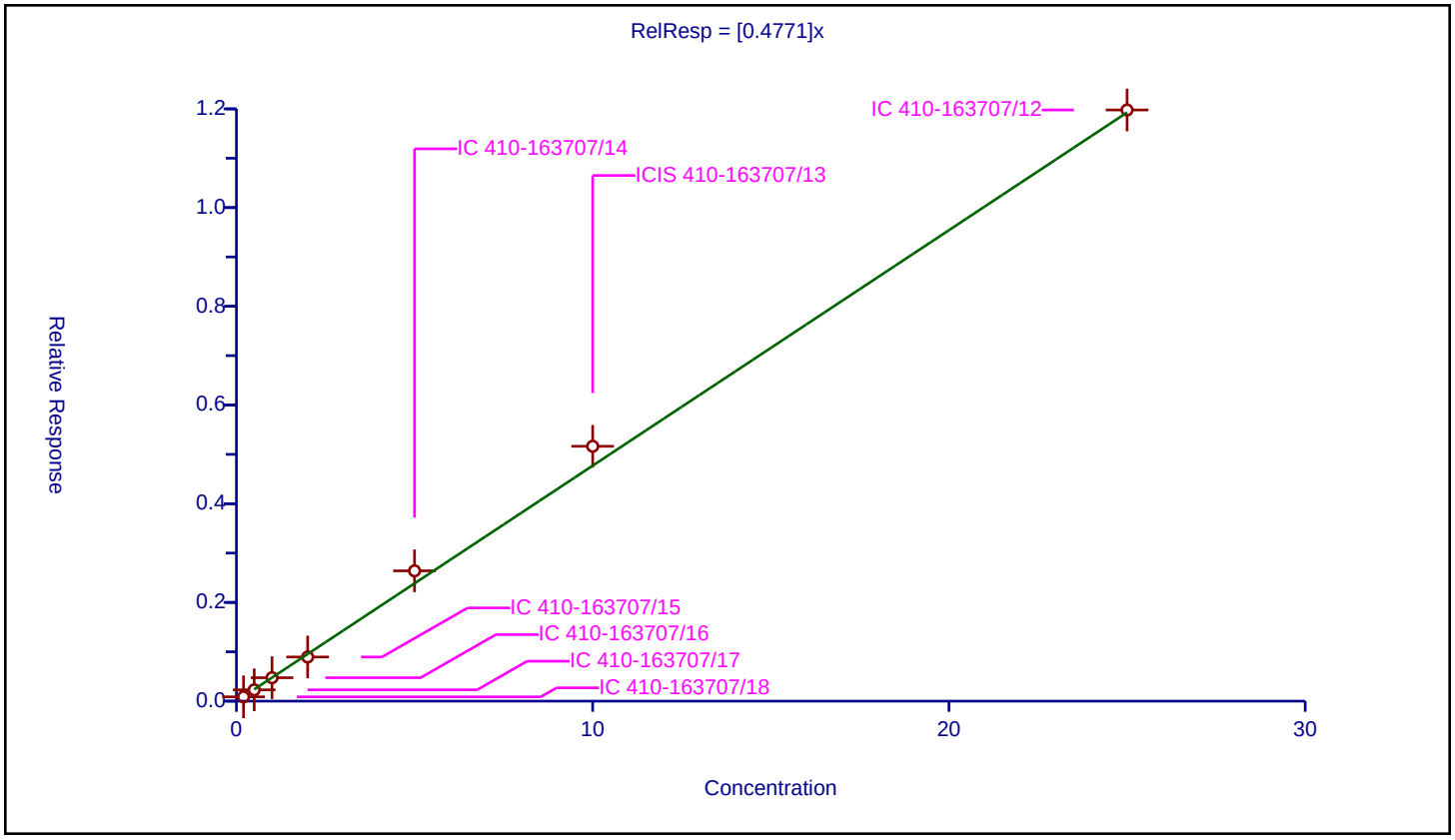
Curve Coefficients

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

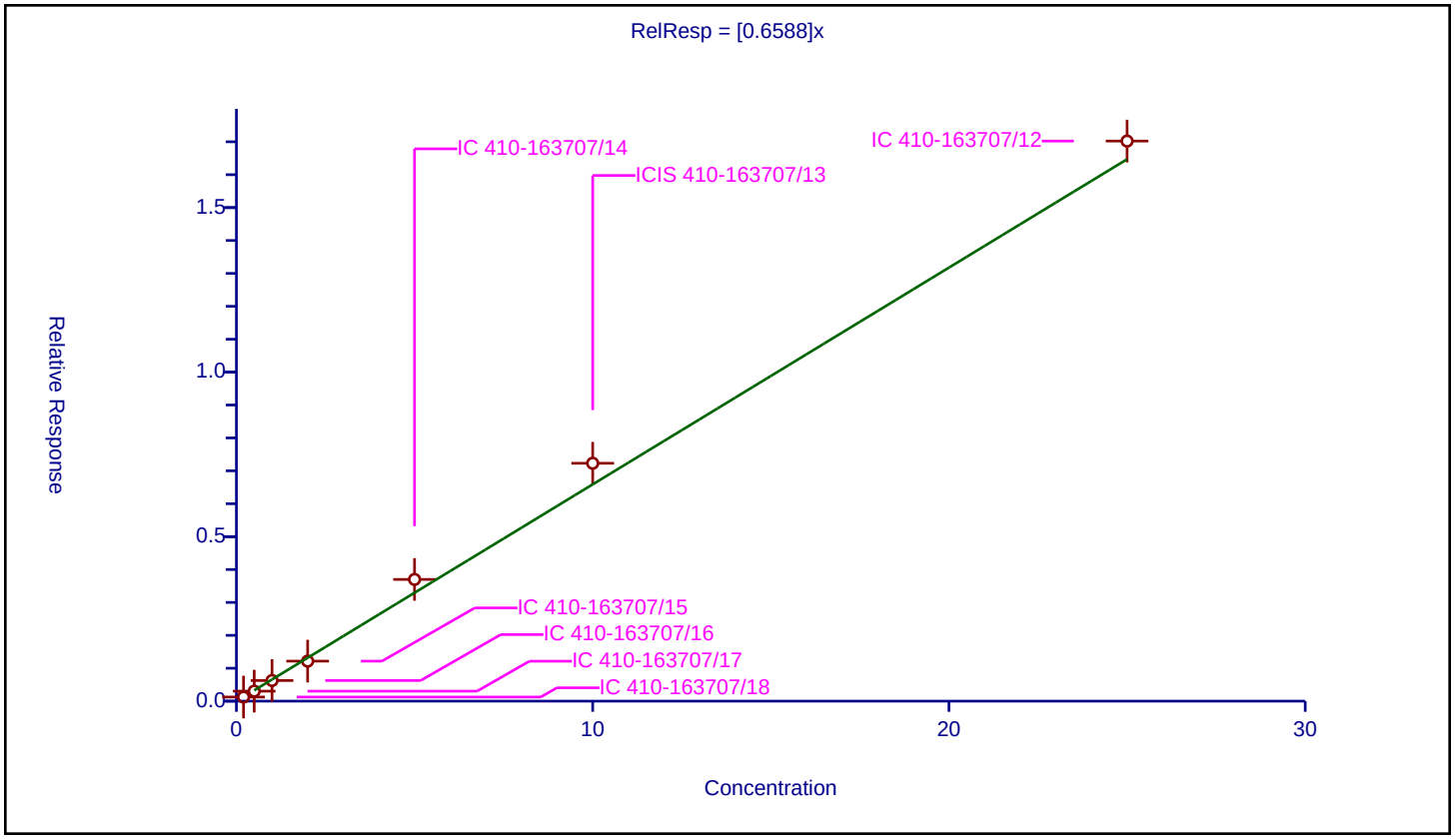
Curve Coefficients

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

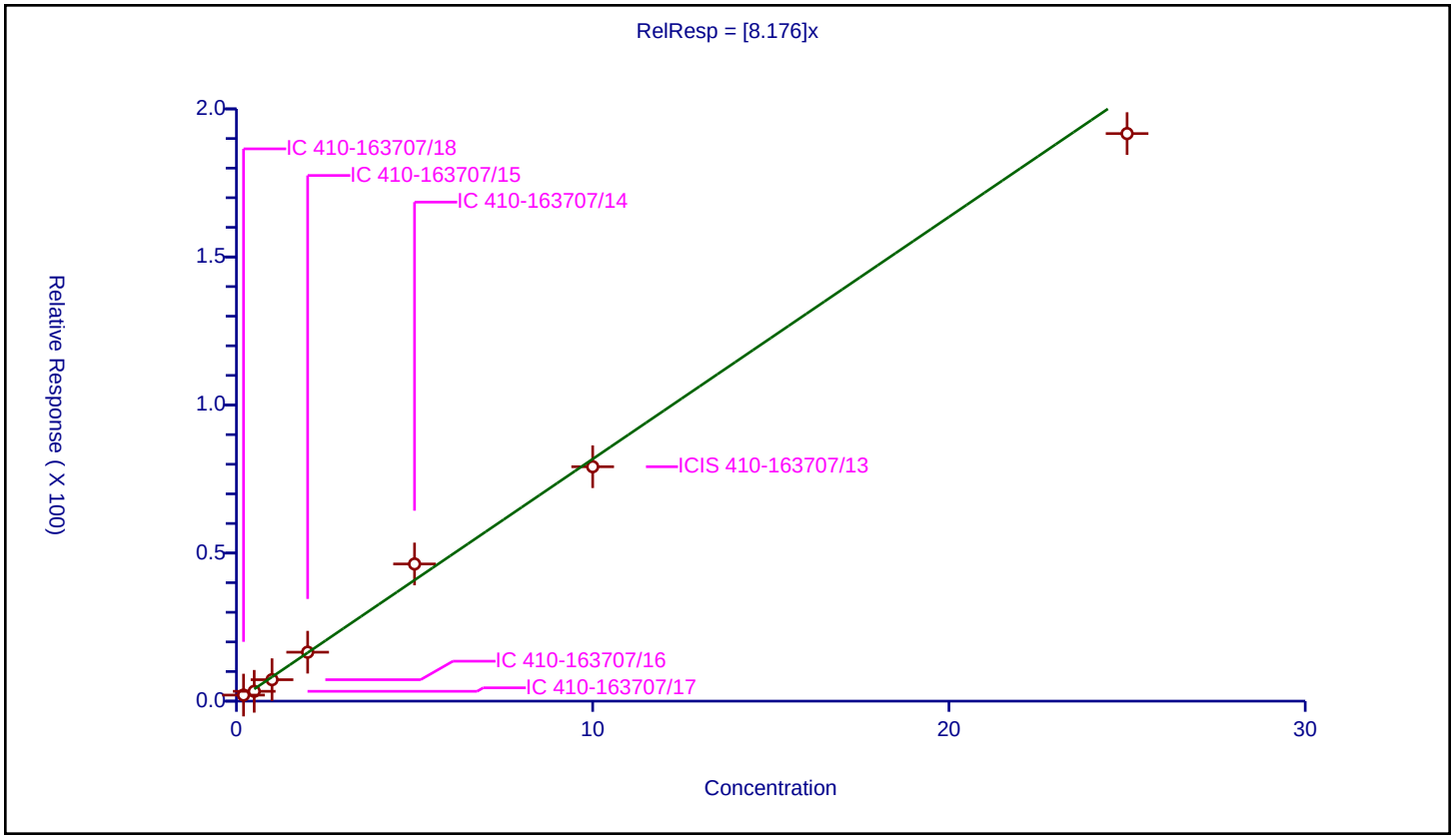
Curve Coefficients

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

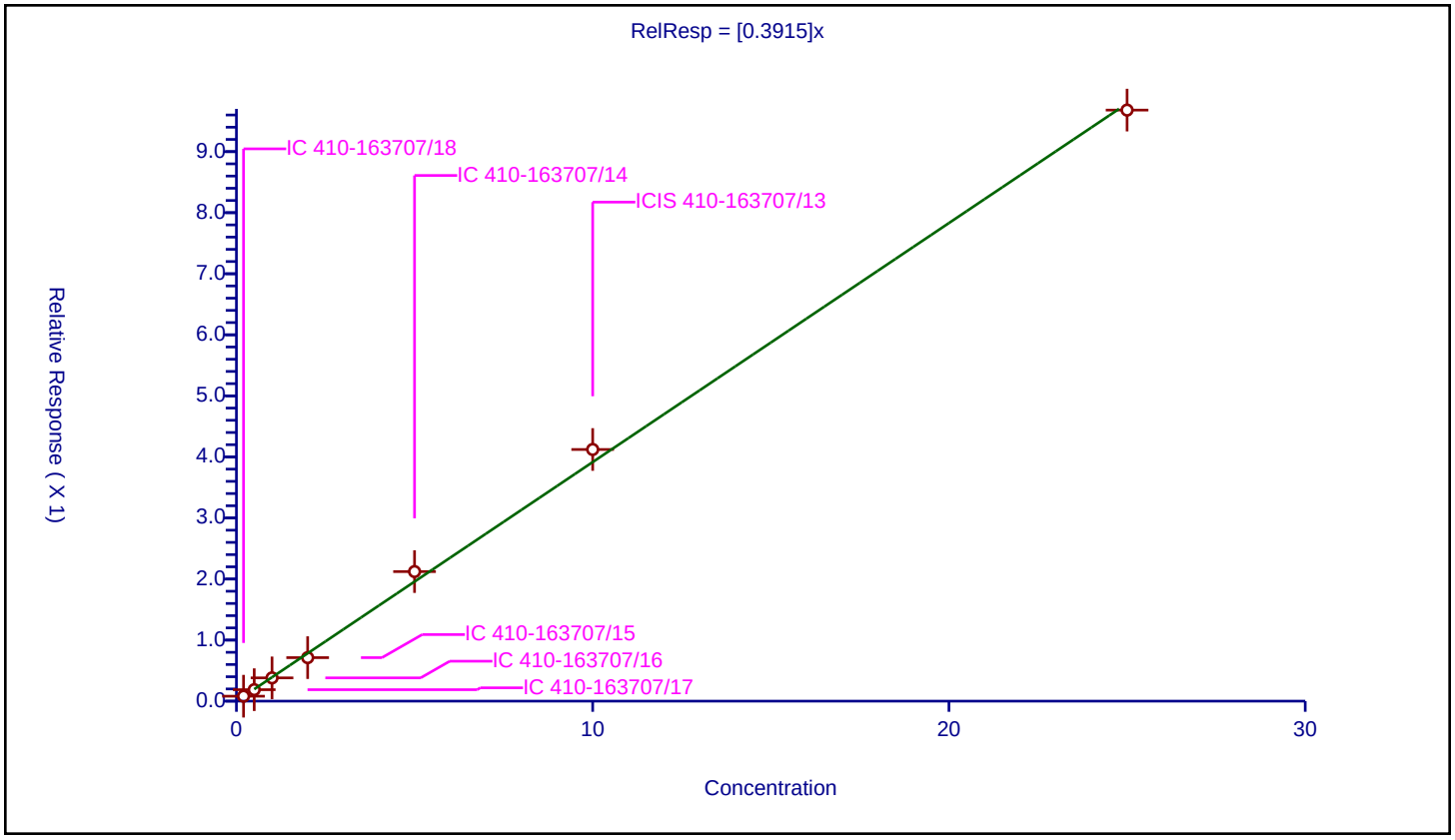
Curve Coefficients

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

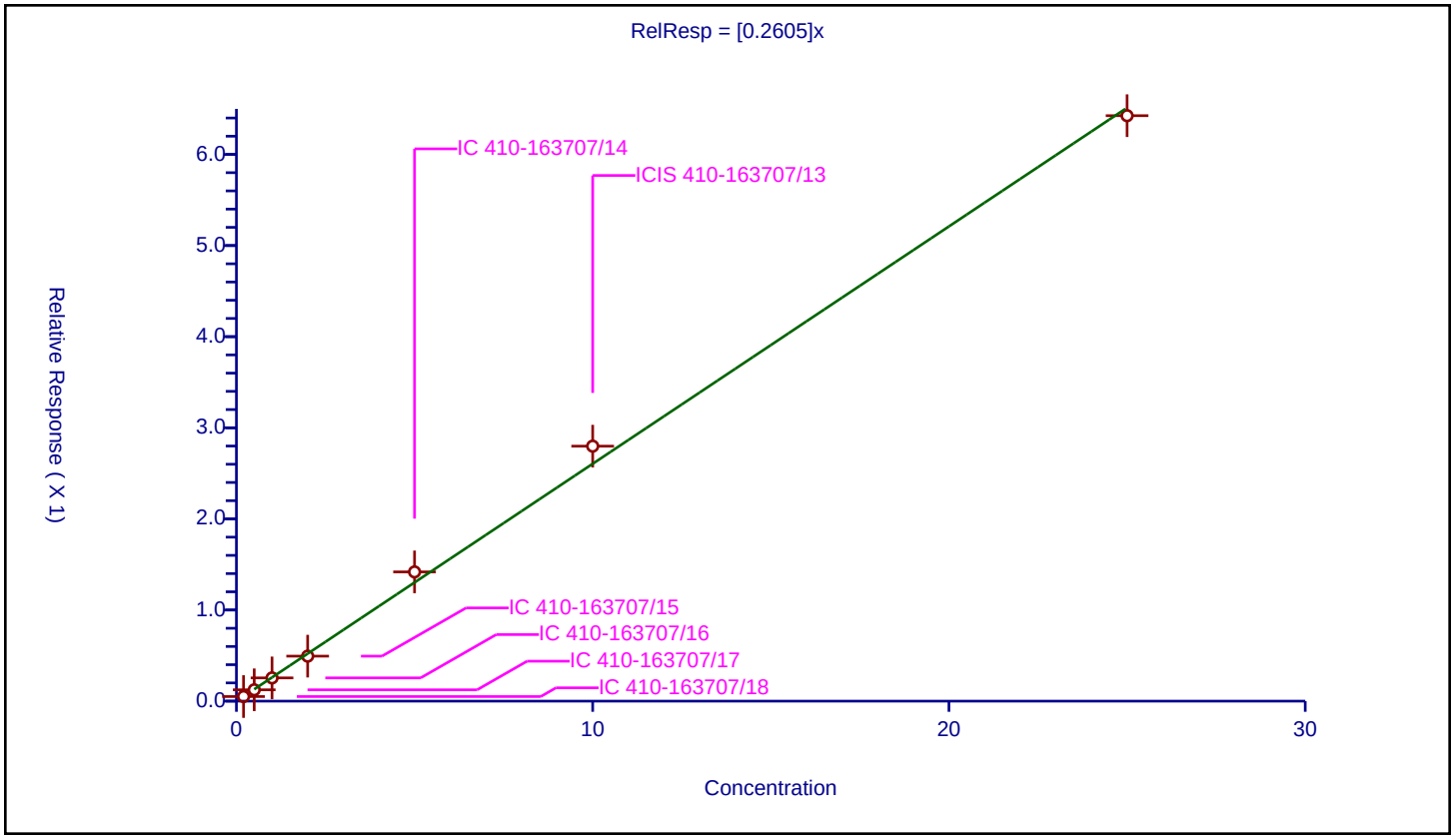
Curve Coefficients

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

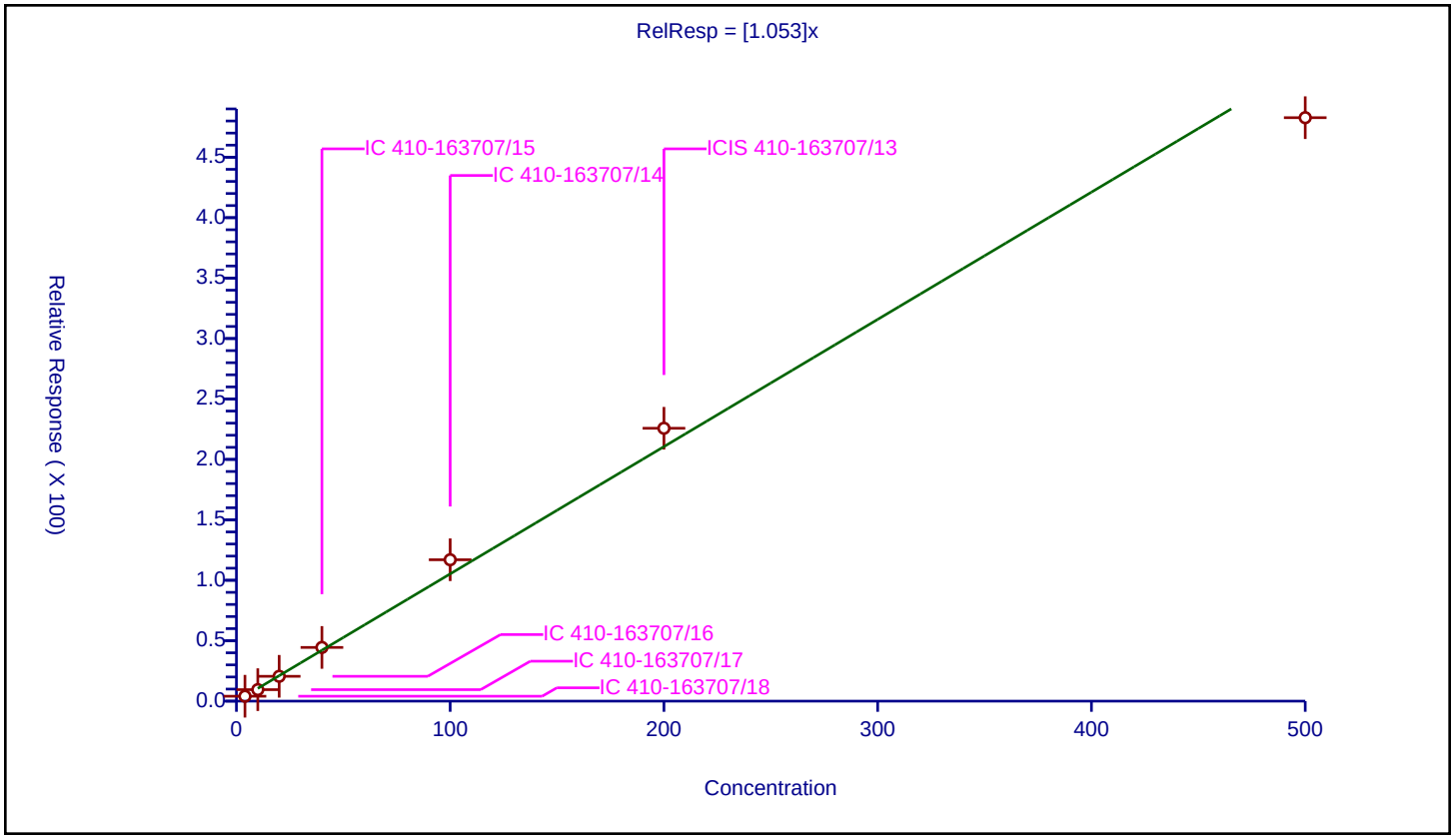
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

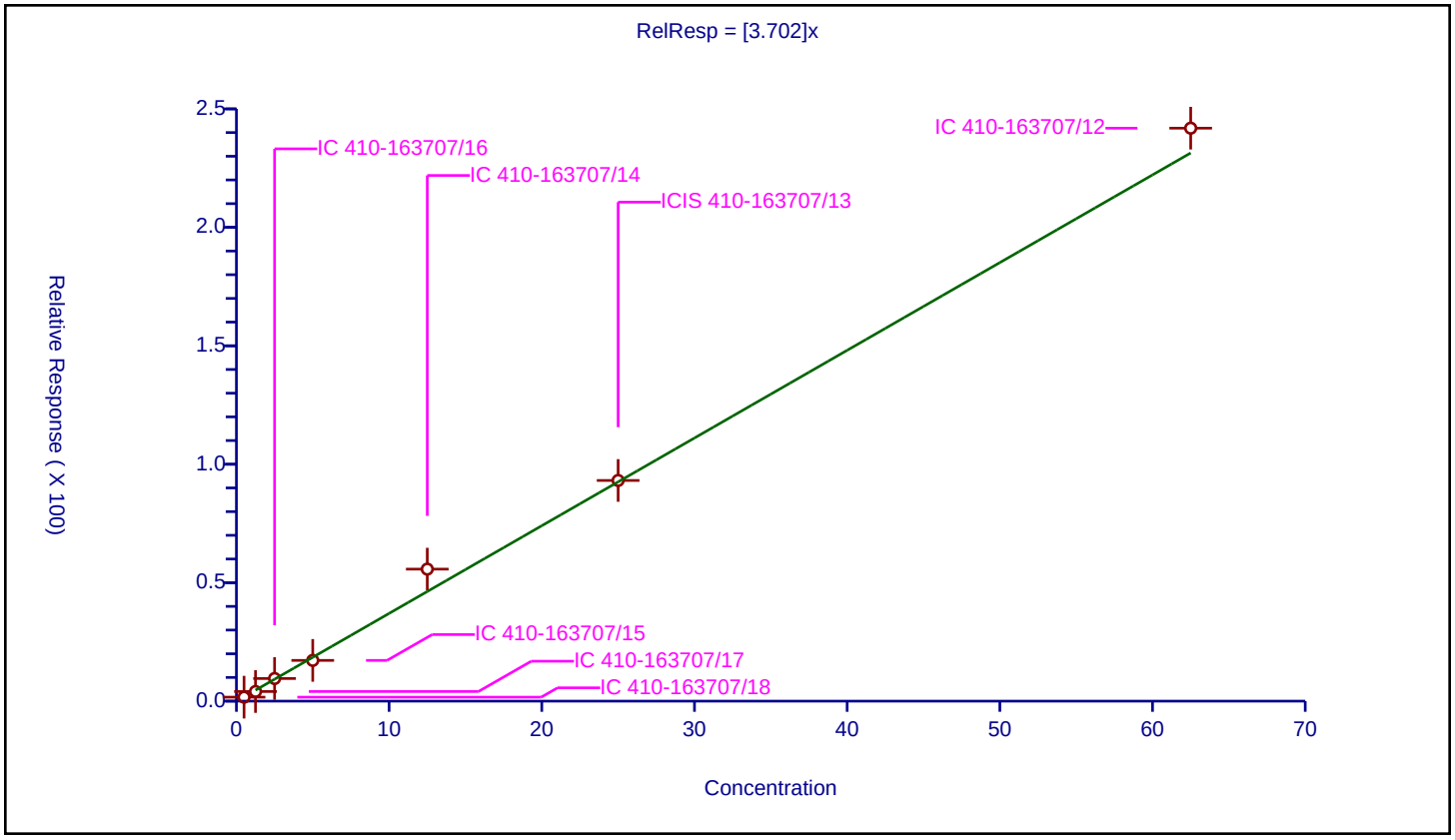
Curve Coefficients

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

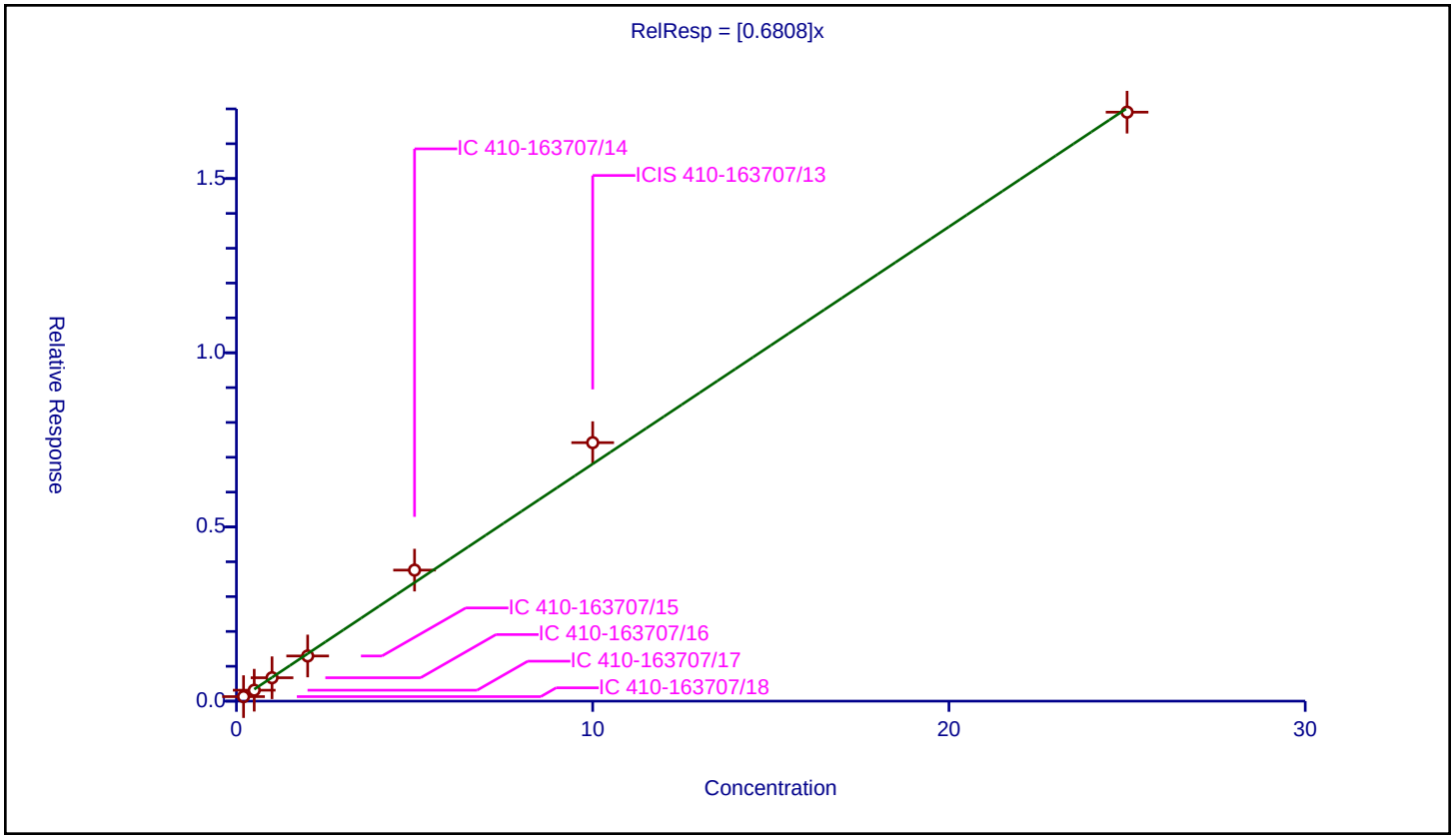
Curve Coefficients

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

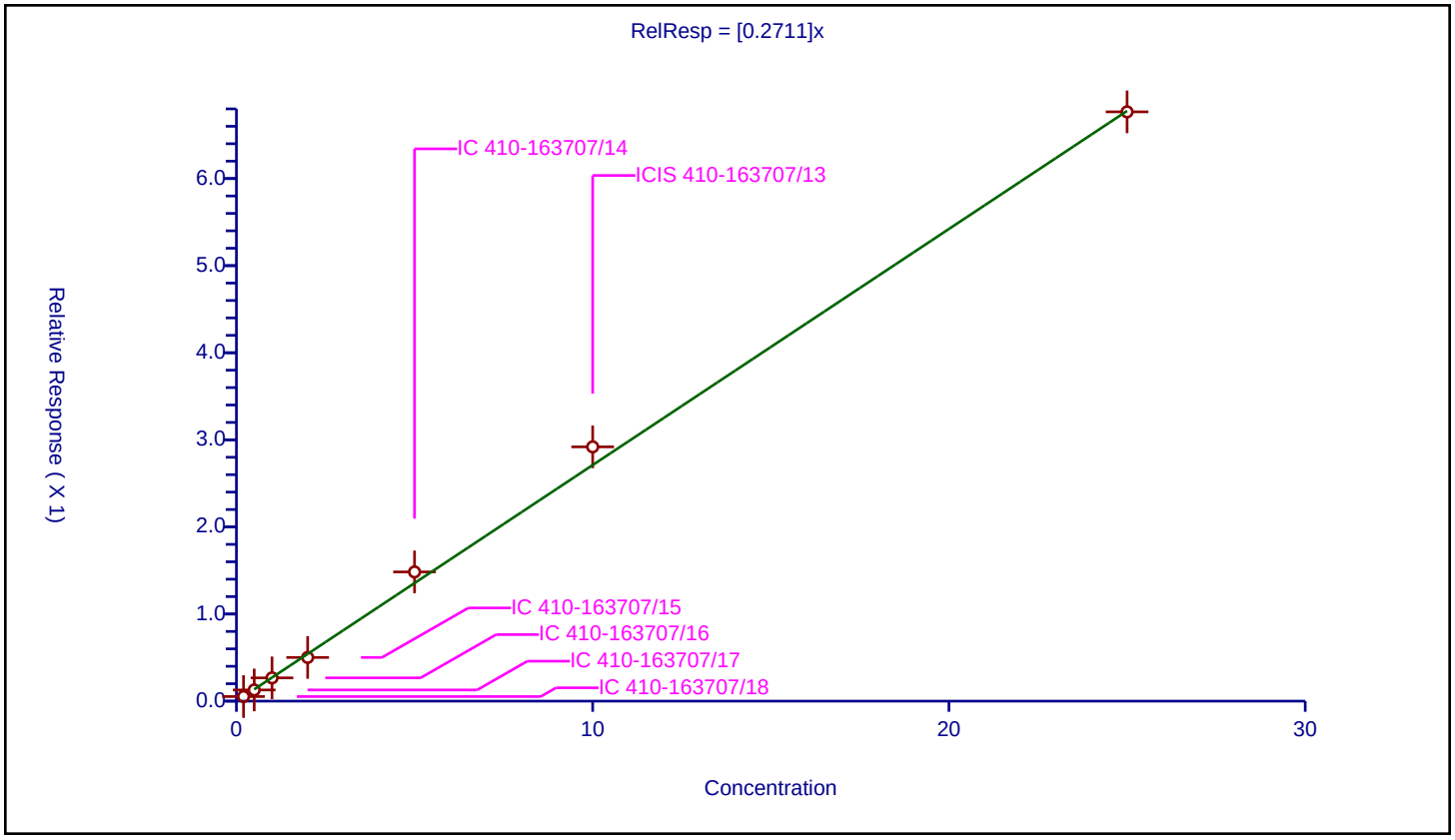
Curve Coefficients

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

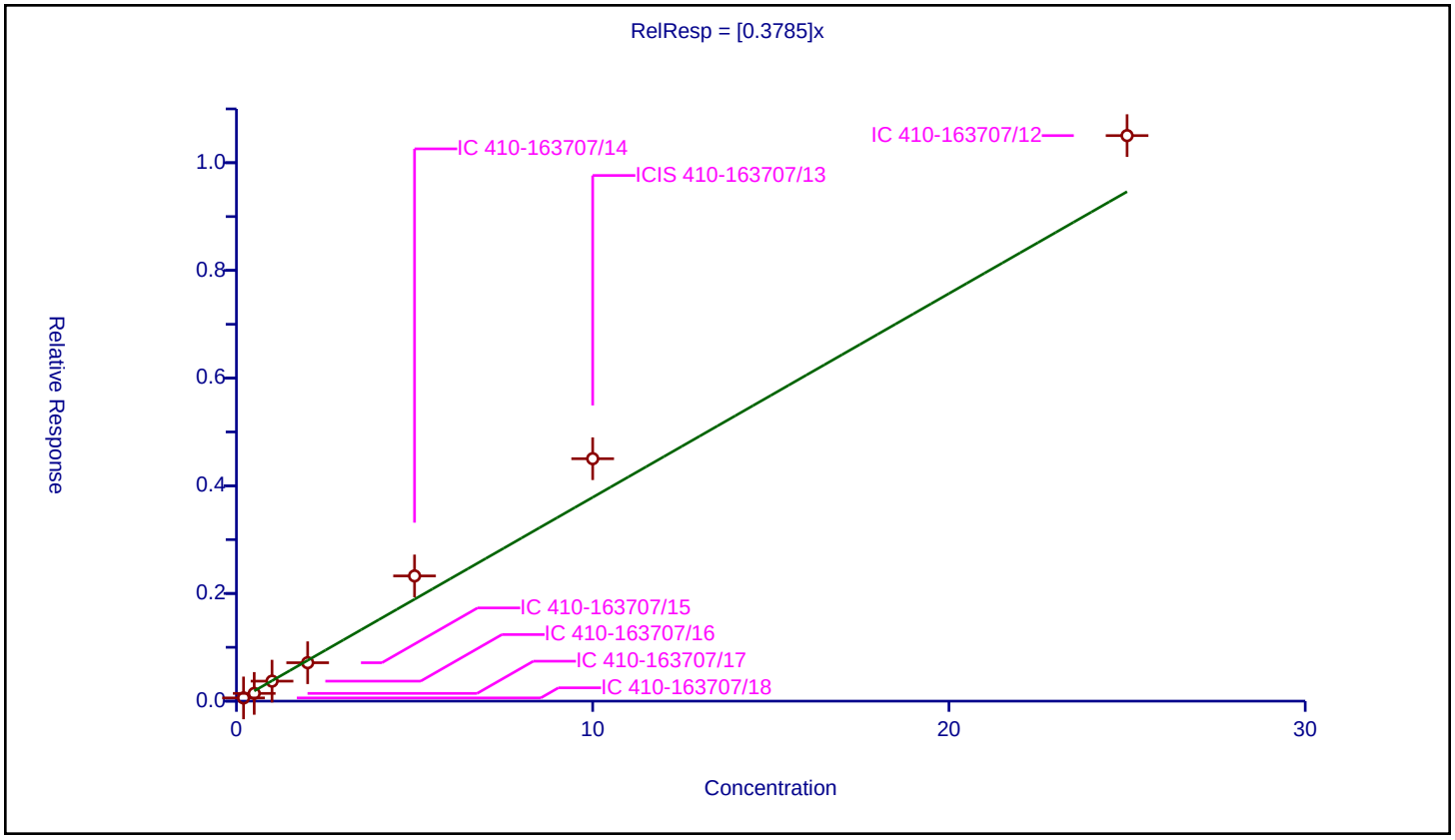
Curve Coefficients

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

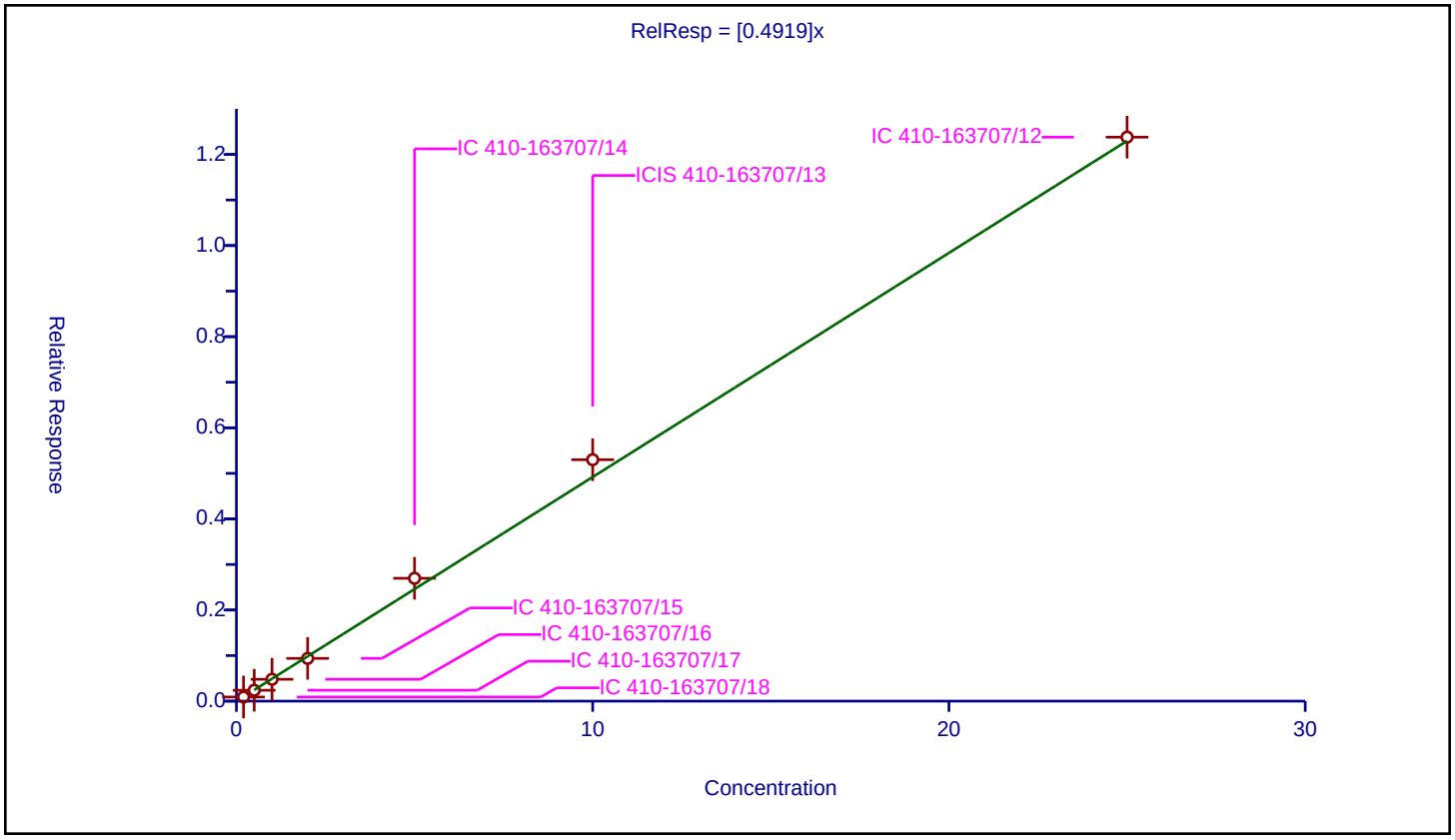
Curve Coefficients

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

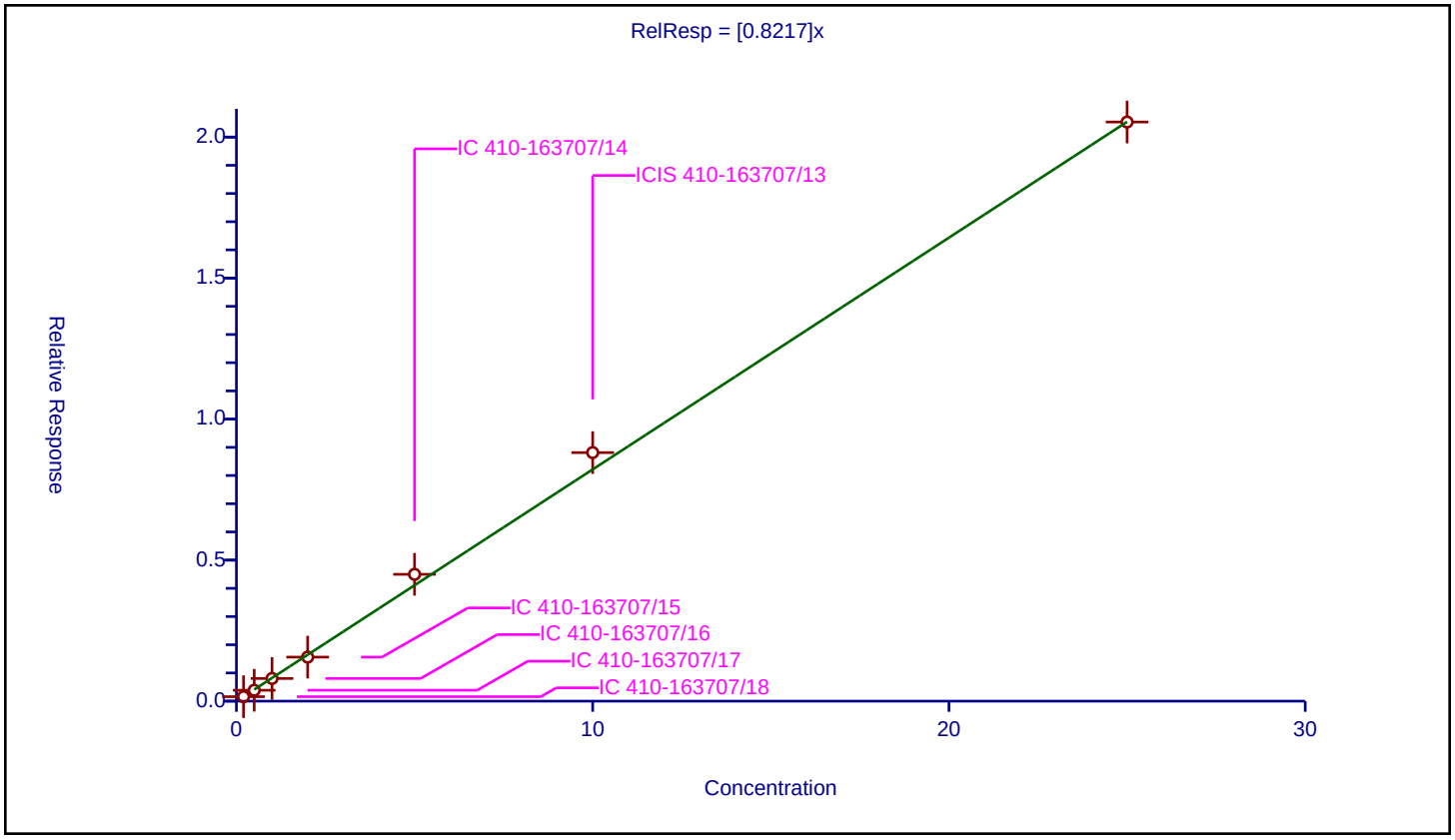
Curve Coefficients

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

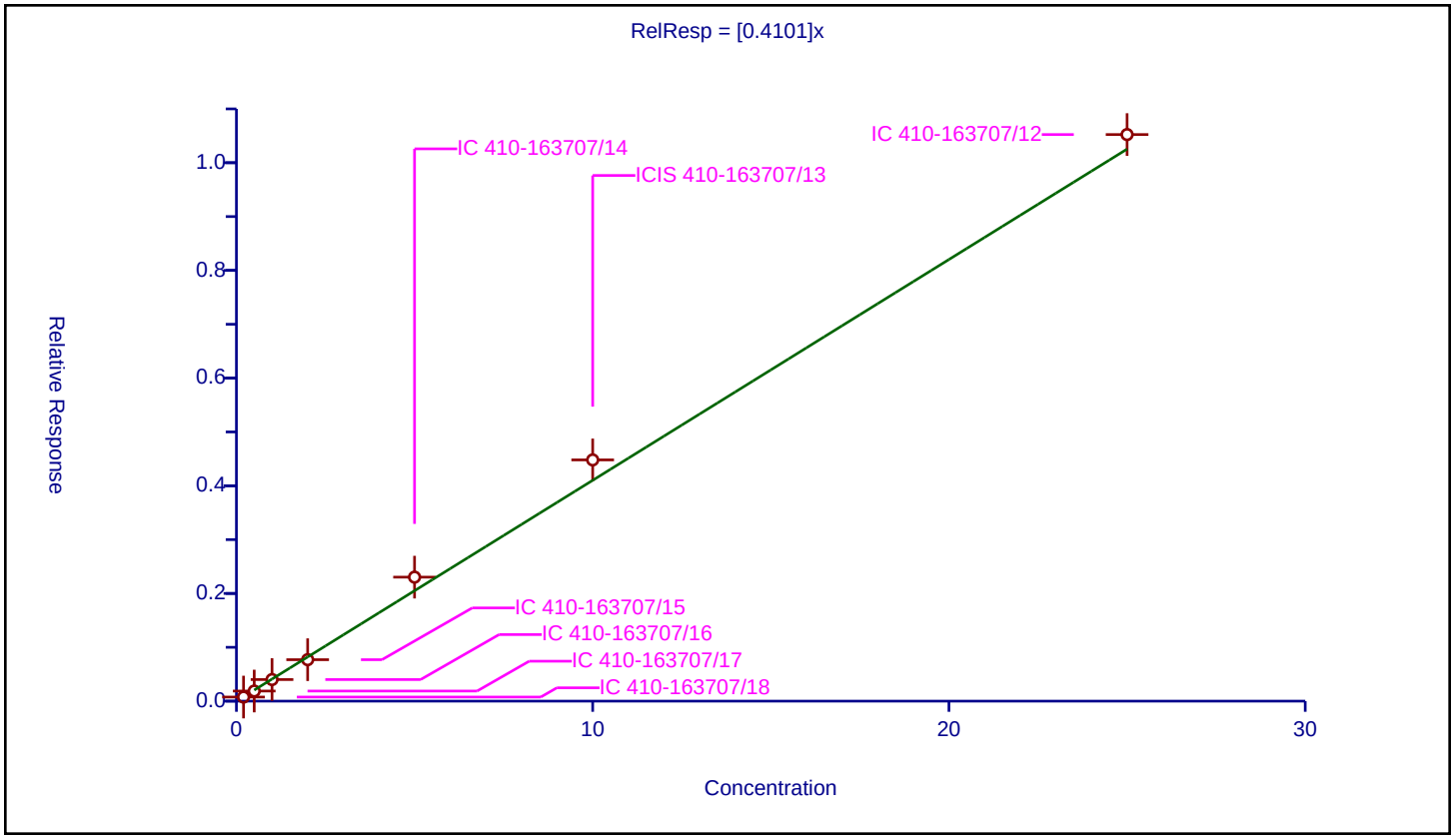
Curve Coefficients

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

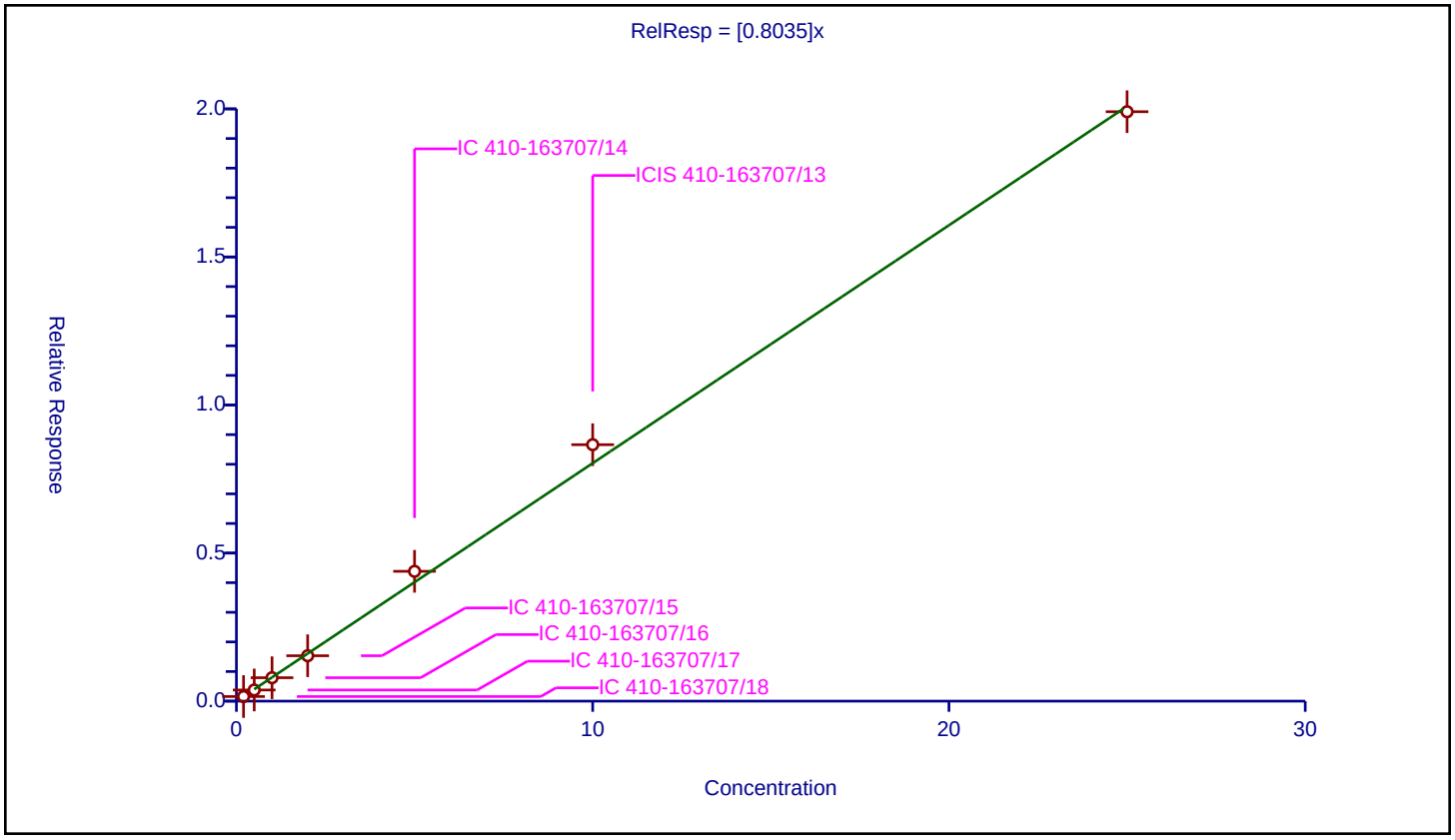
Curve Coefficients

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

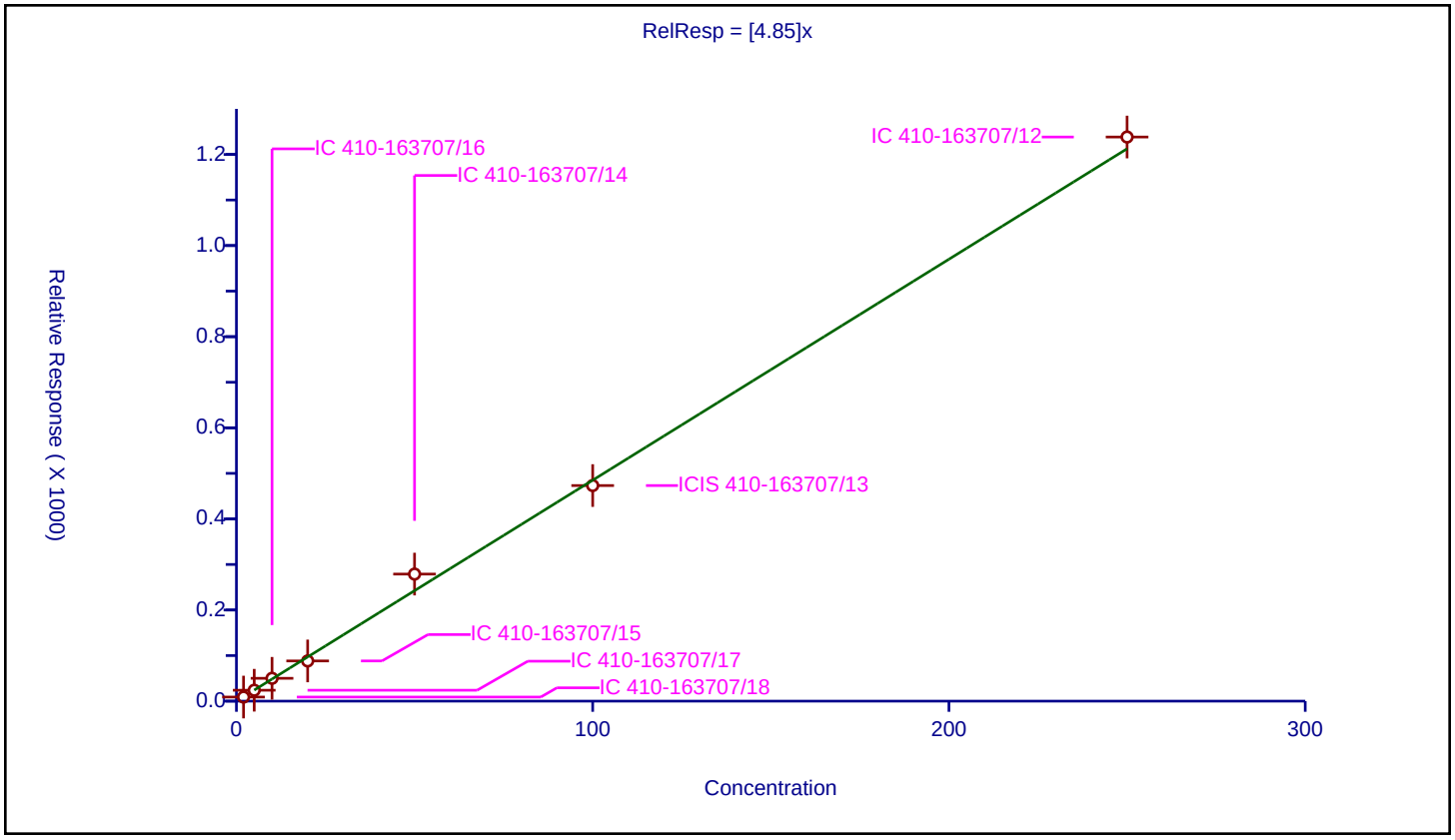
Curve Coefficients

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

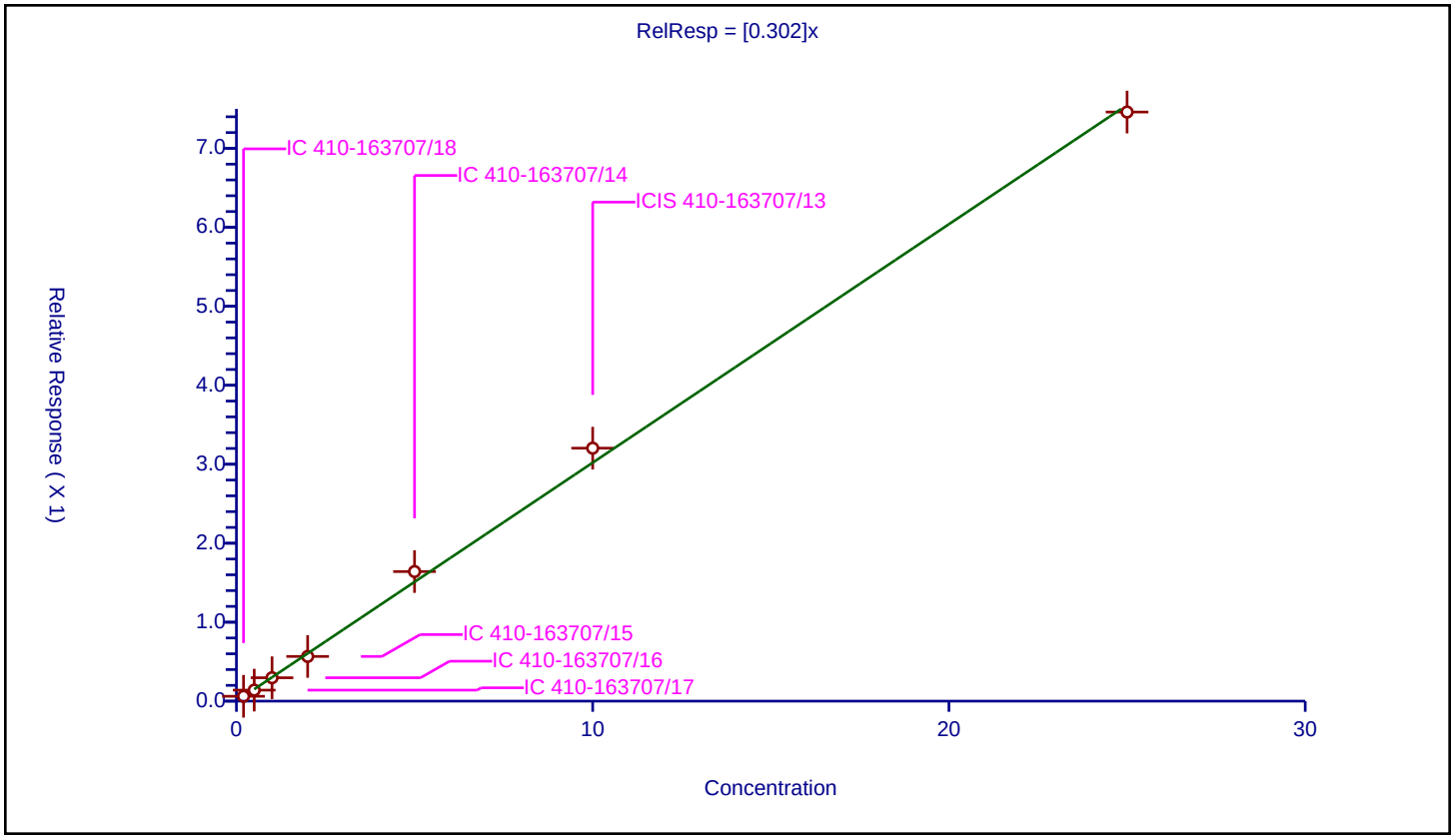
Curve Coefficients

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

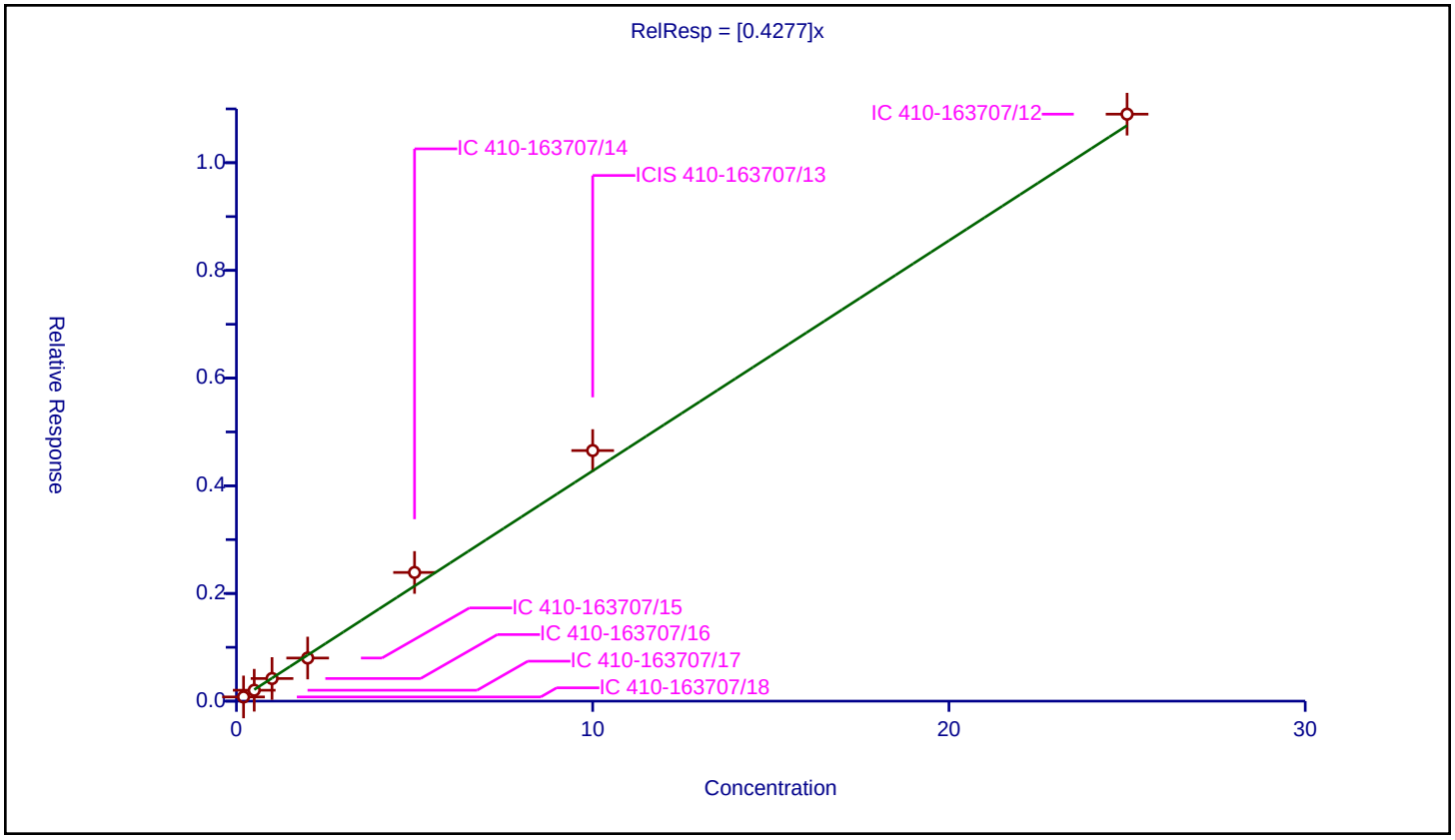
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

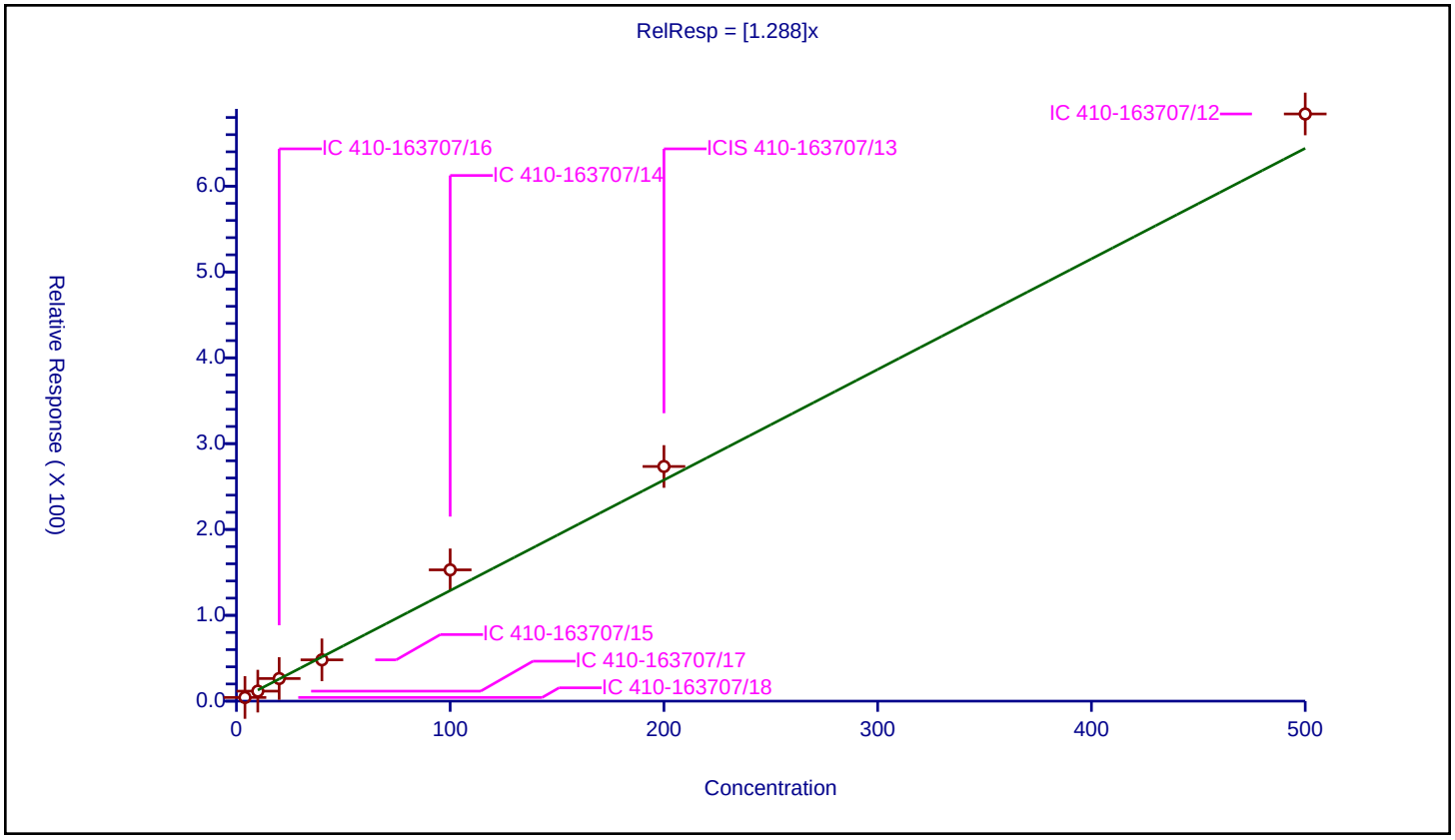
Curve Coefficients

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

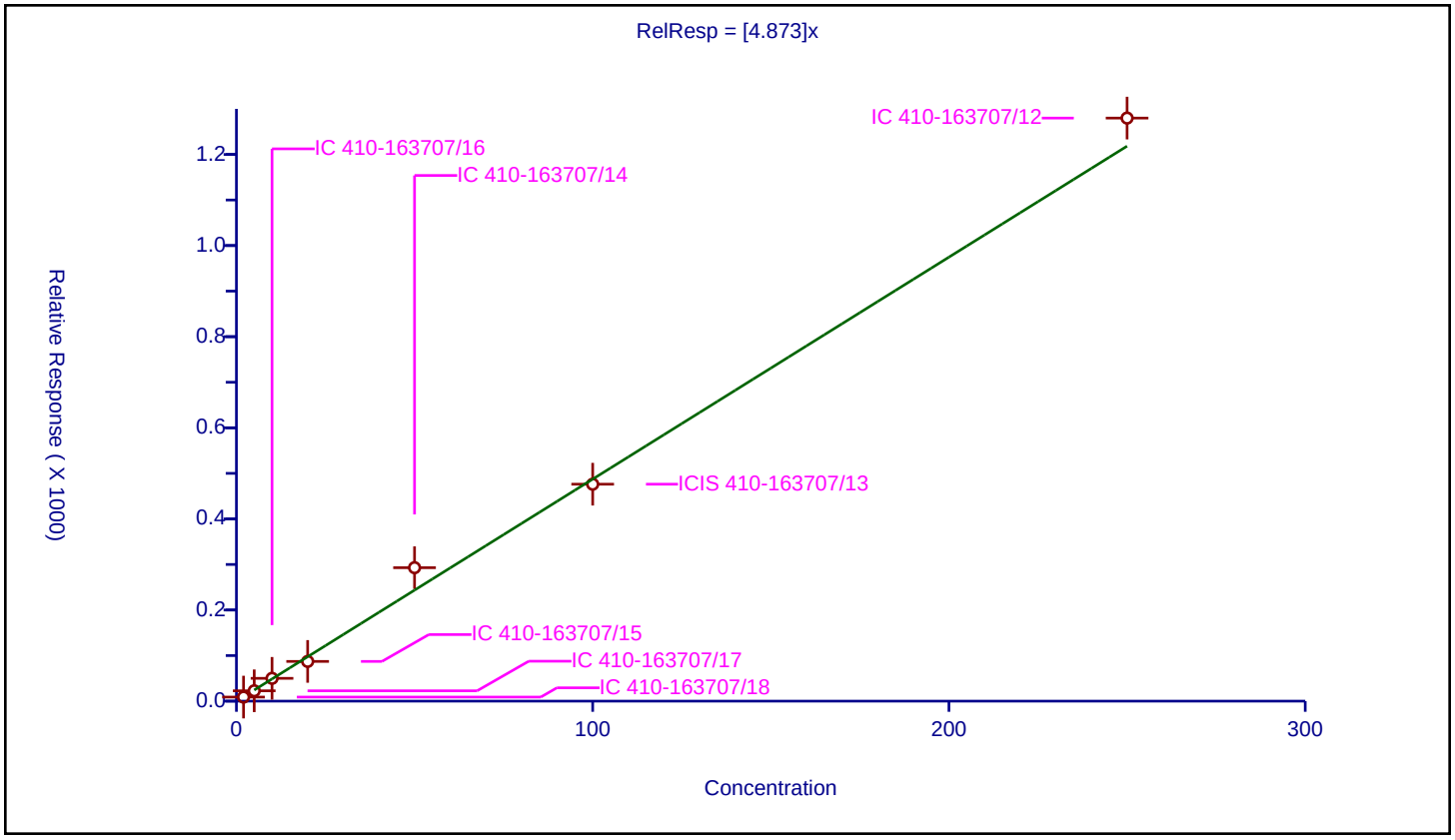
Curve Coefficients

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

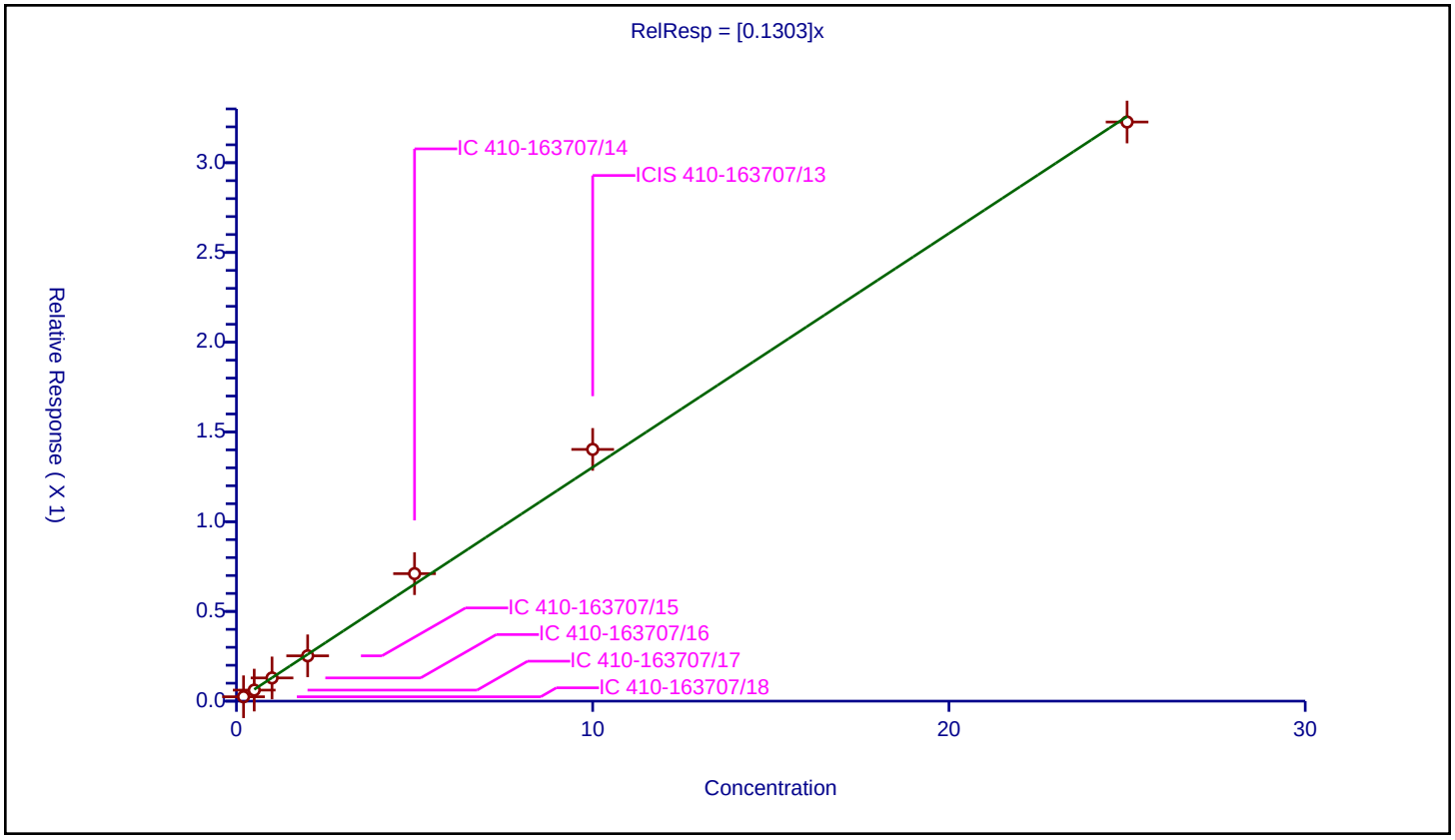
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

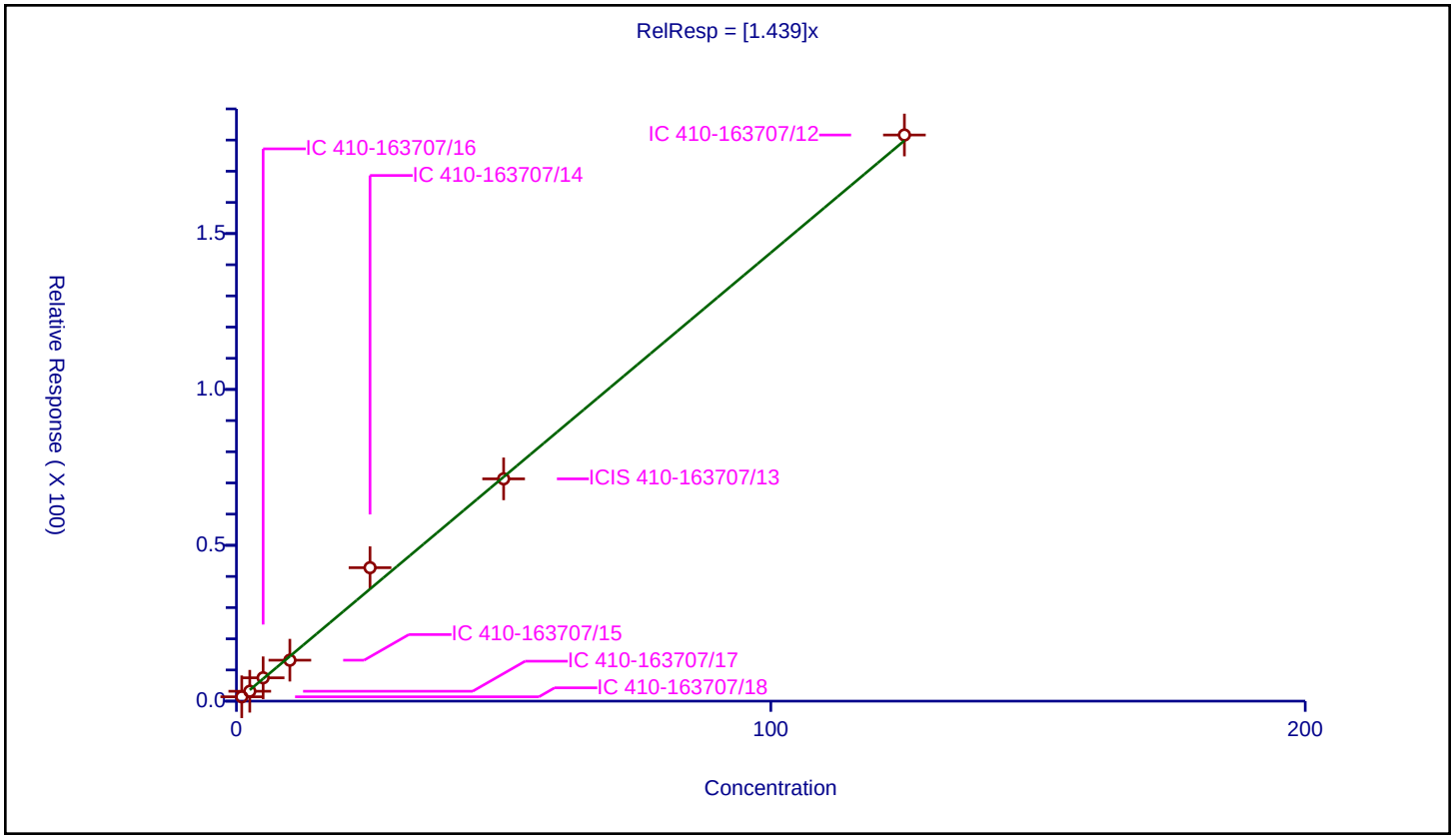
Curve Coefficients

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

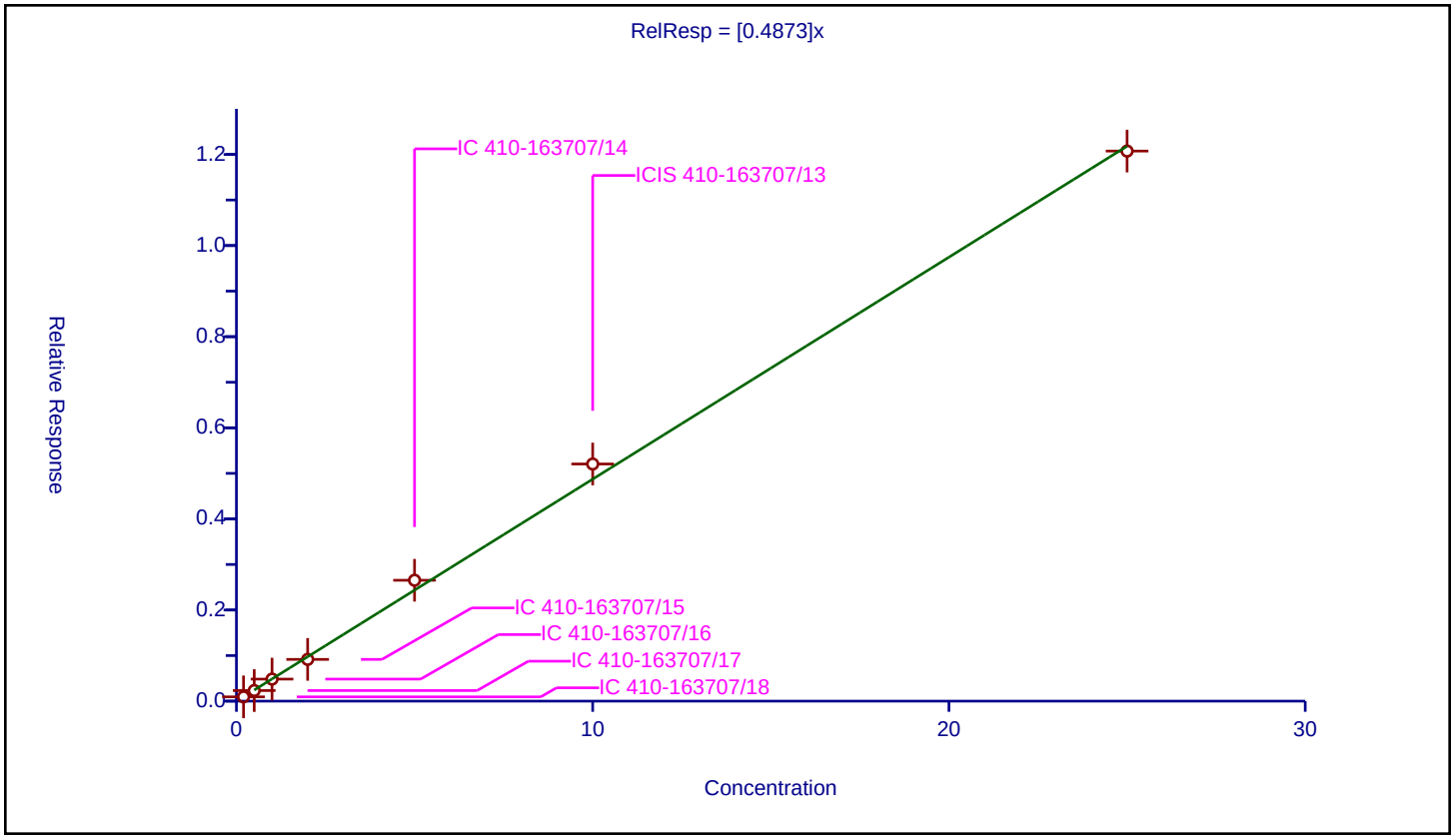
Curve Coefficients

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

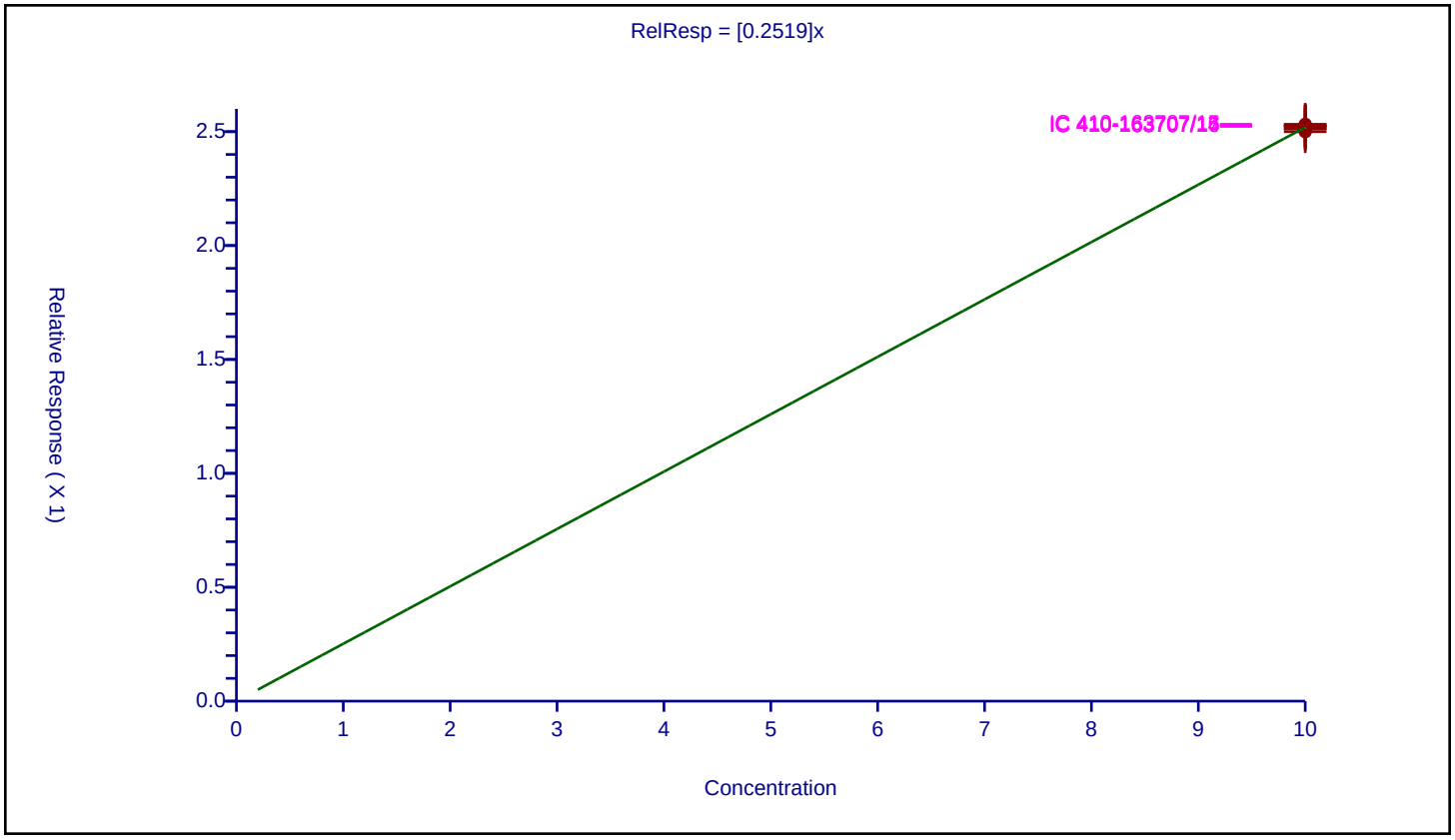
Curve Coefficients

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

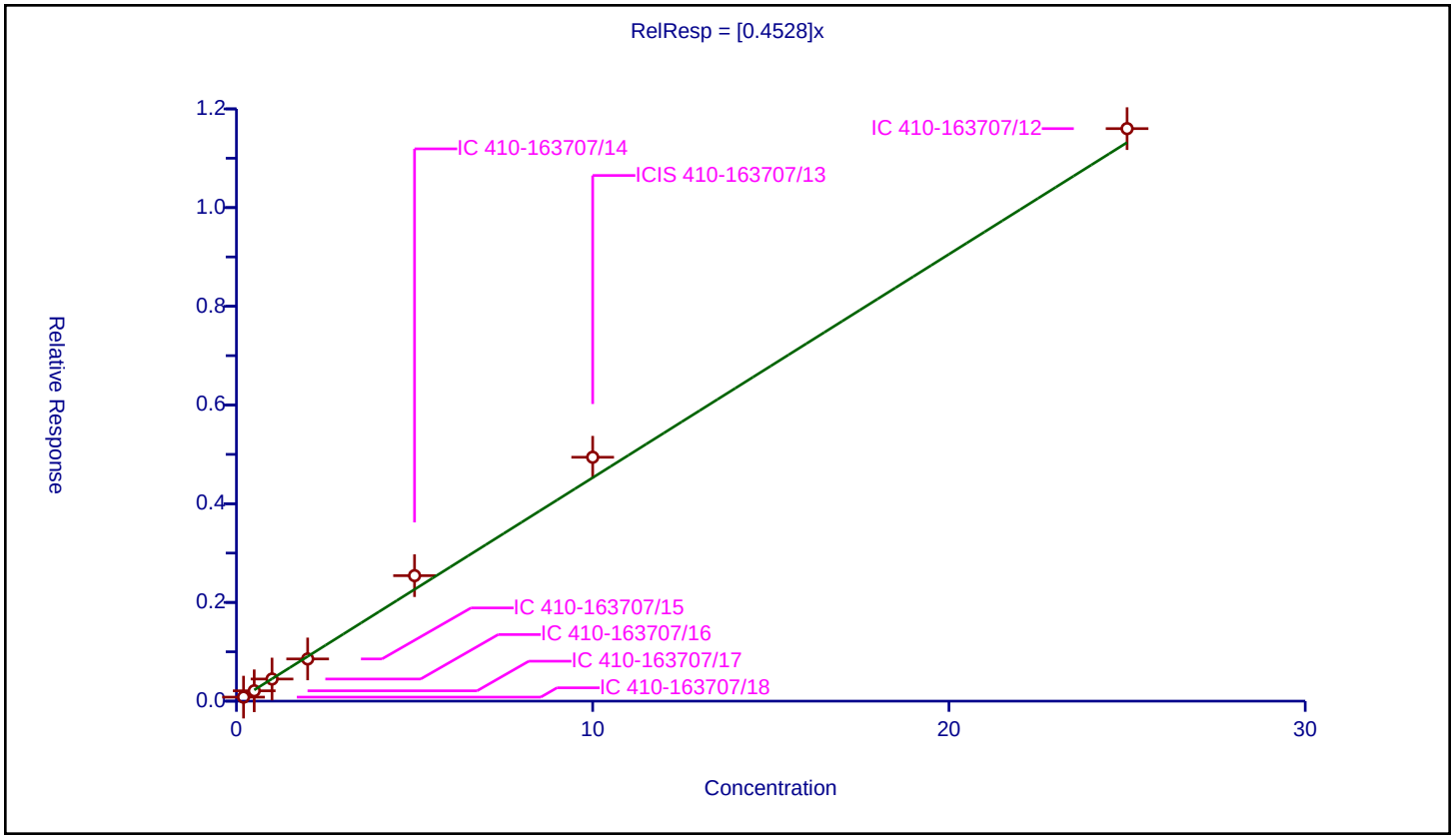
Curve Coefficients

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

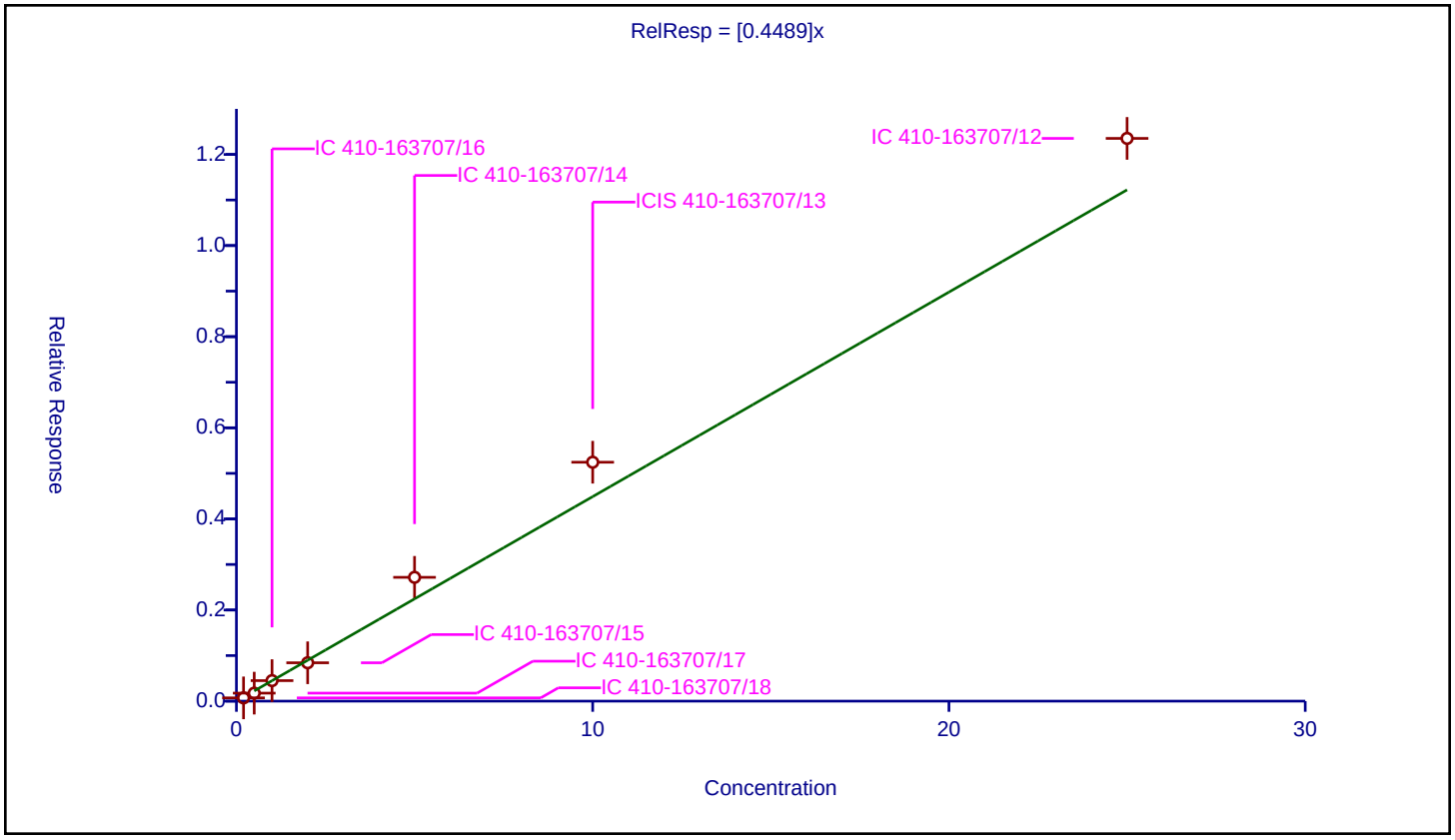
Curve Coefficients

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

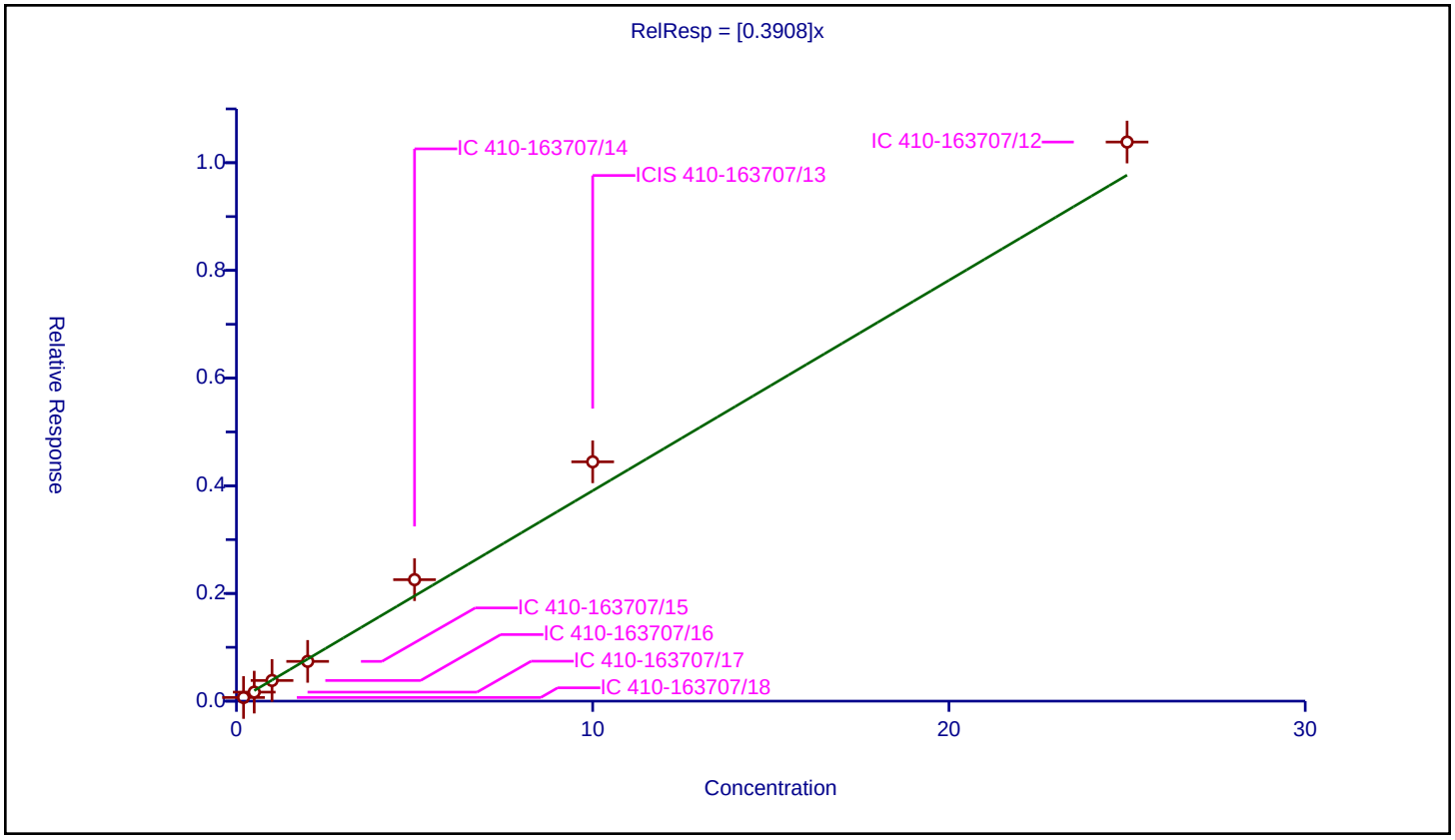
Curve Coefficients

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

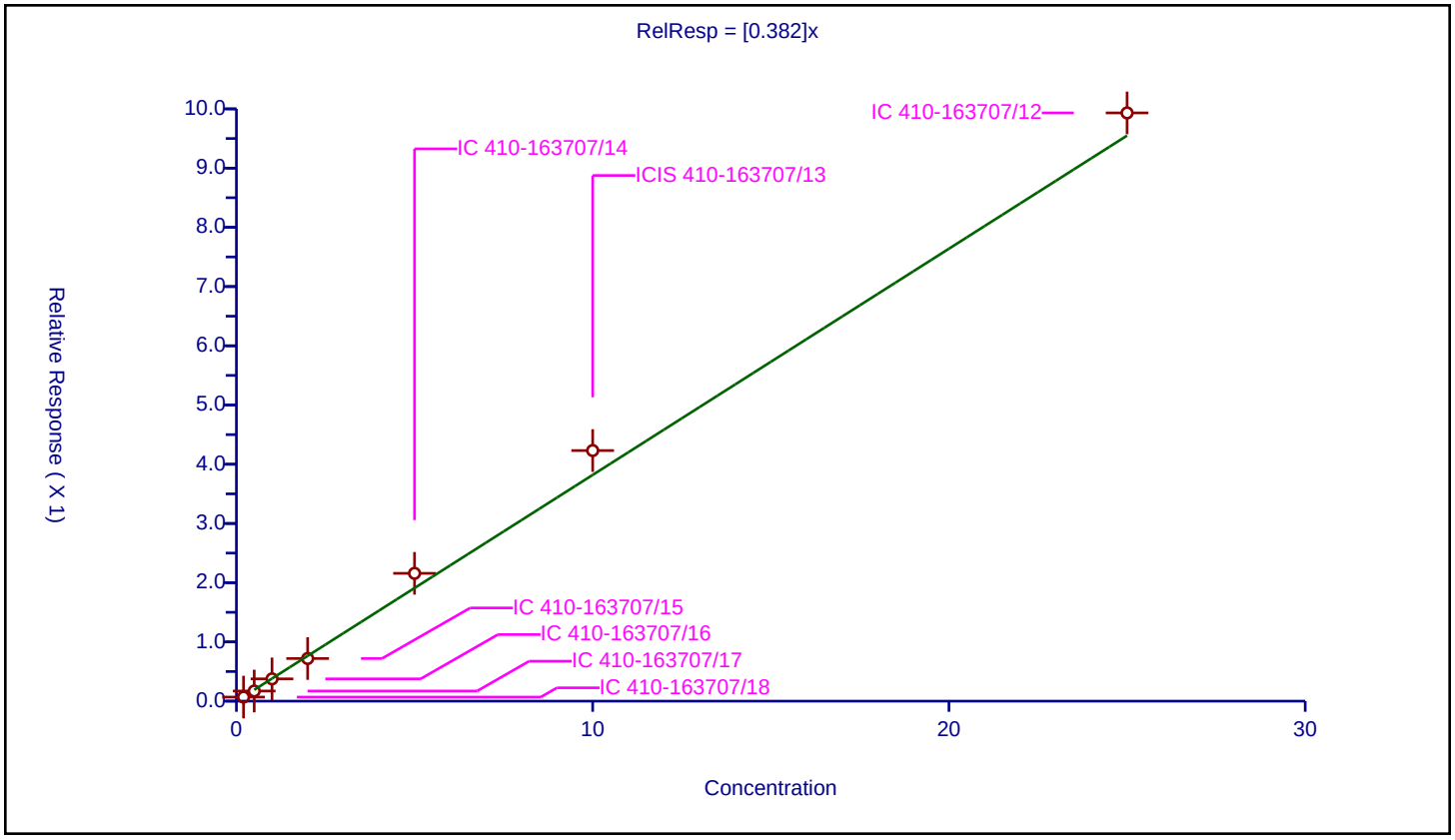
Curve Coefficients

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

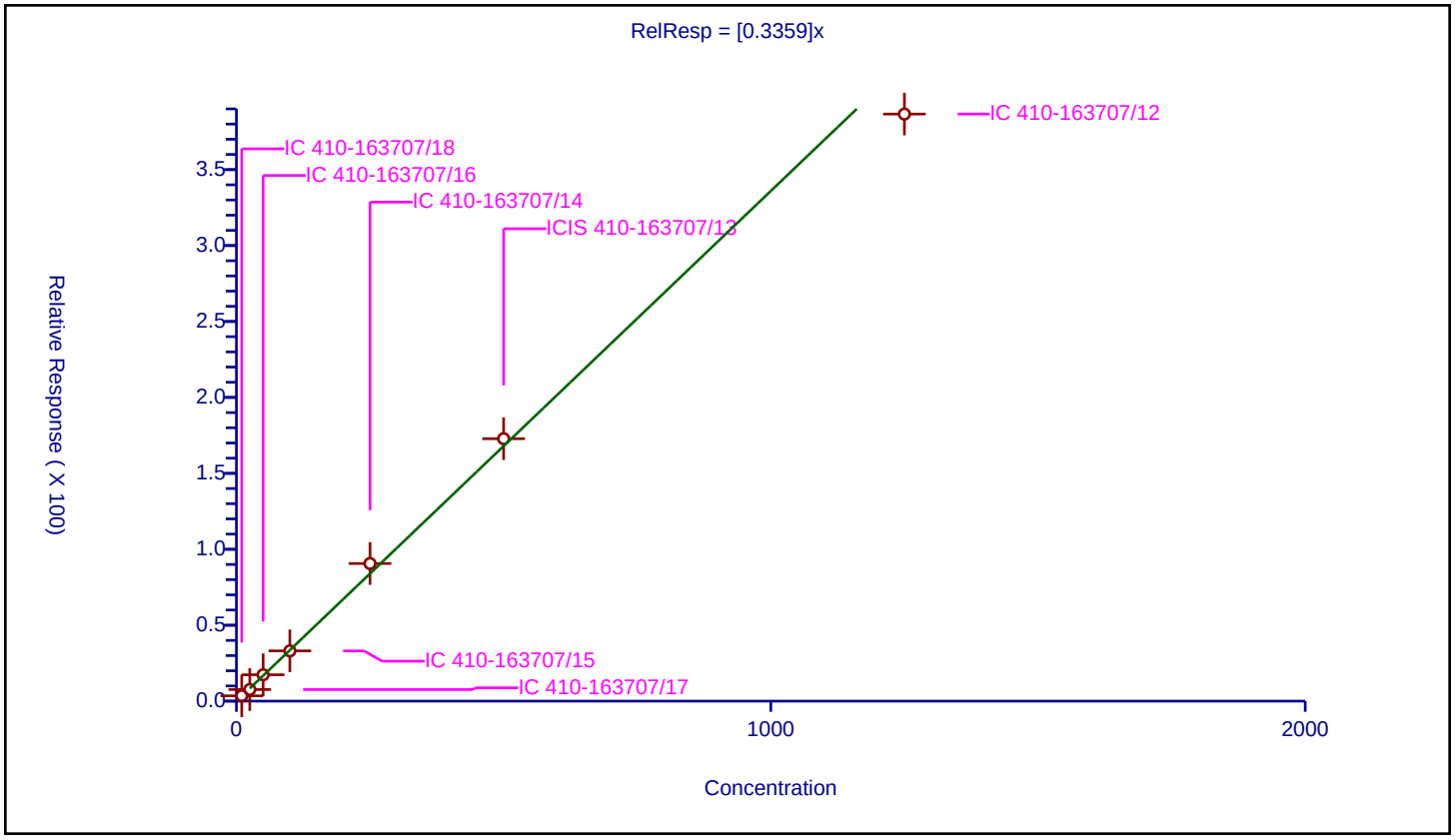
Curve Coefficients

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

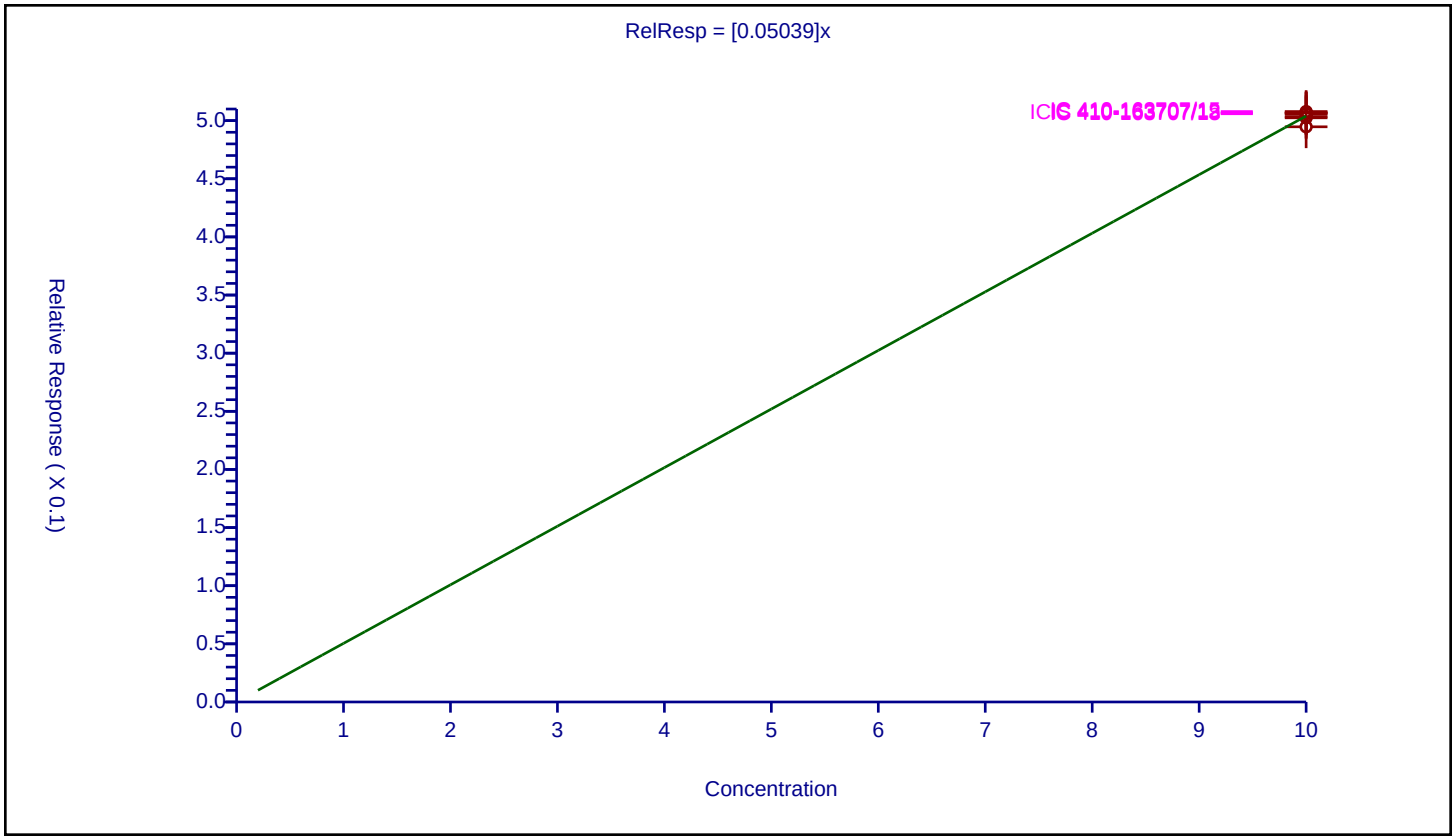
Curve Coefficients

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

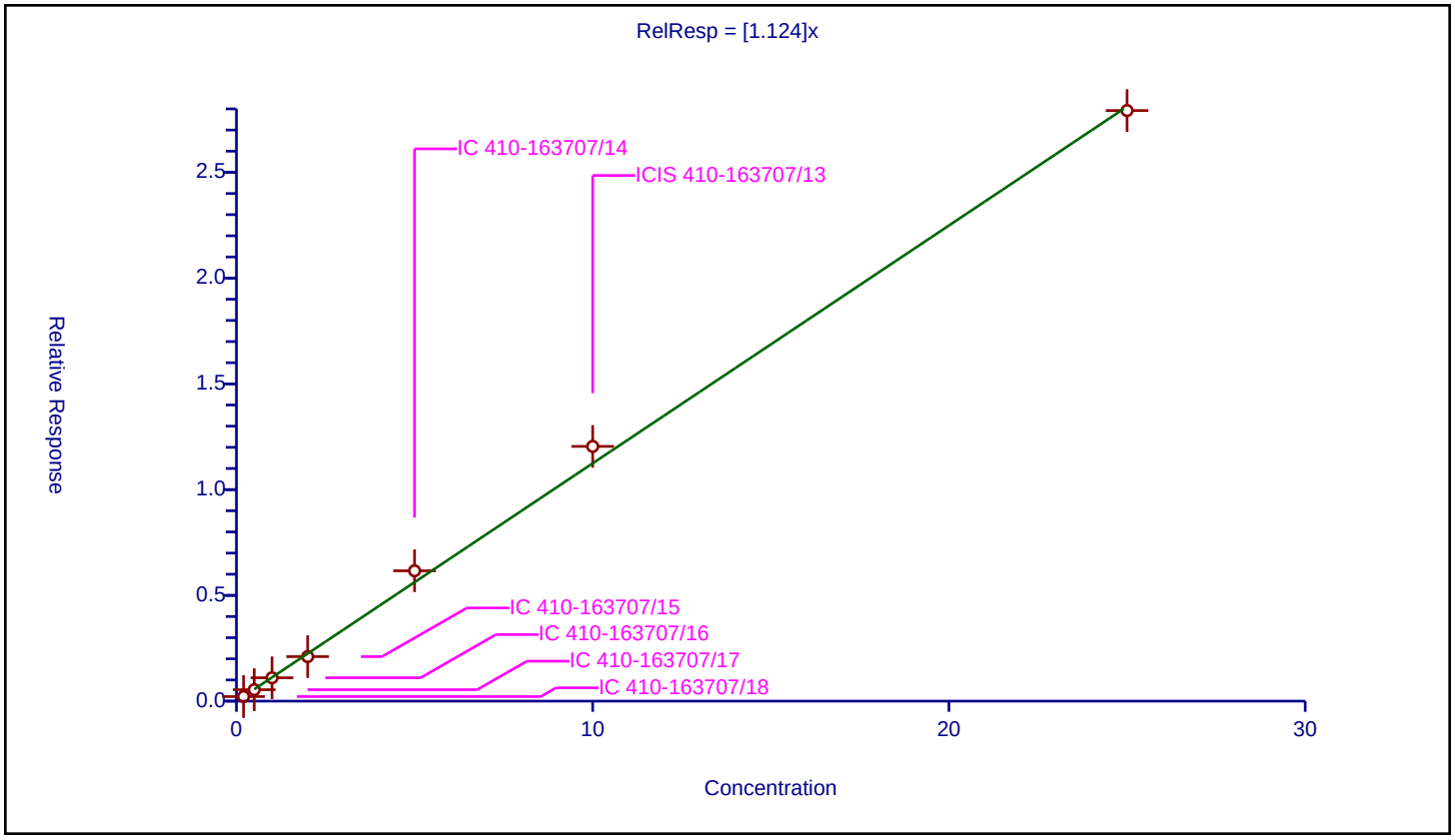
Curve Coefficients

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

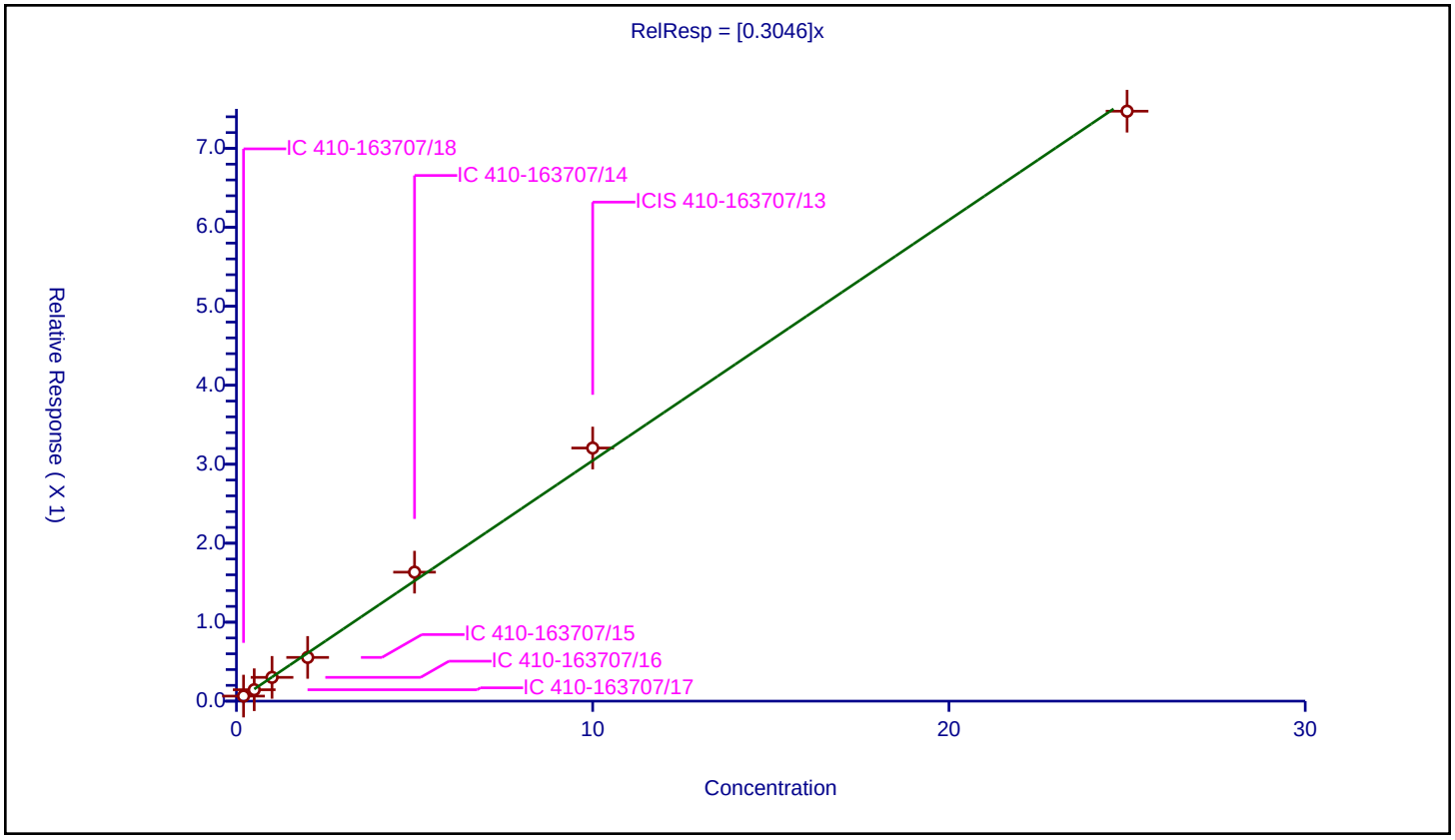
Curve Coefficients

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

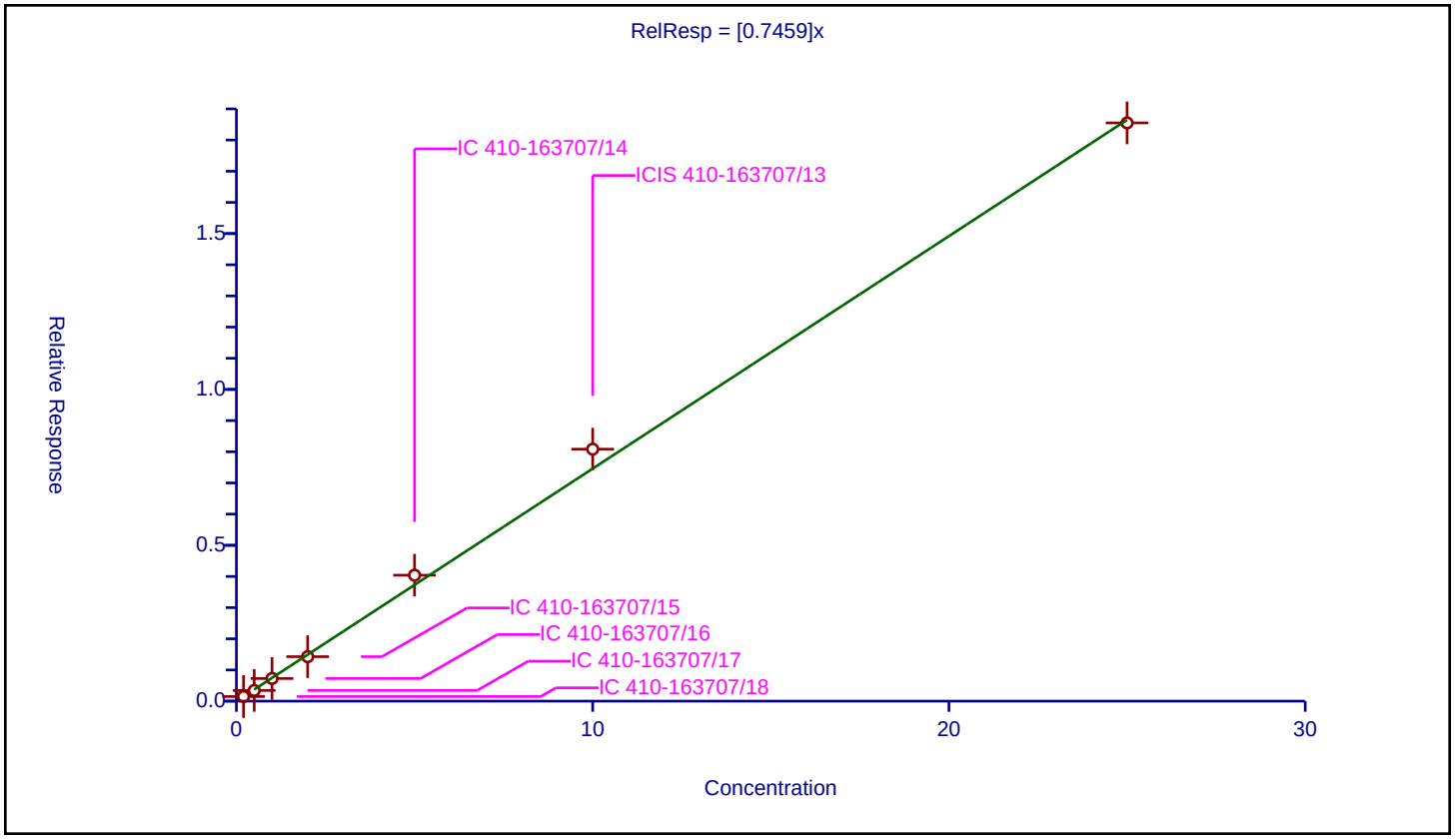
Curve Coefficients

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

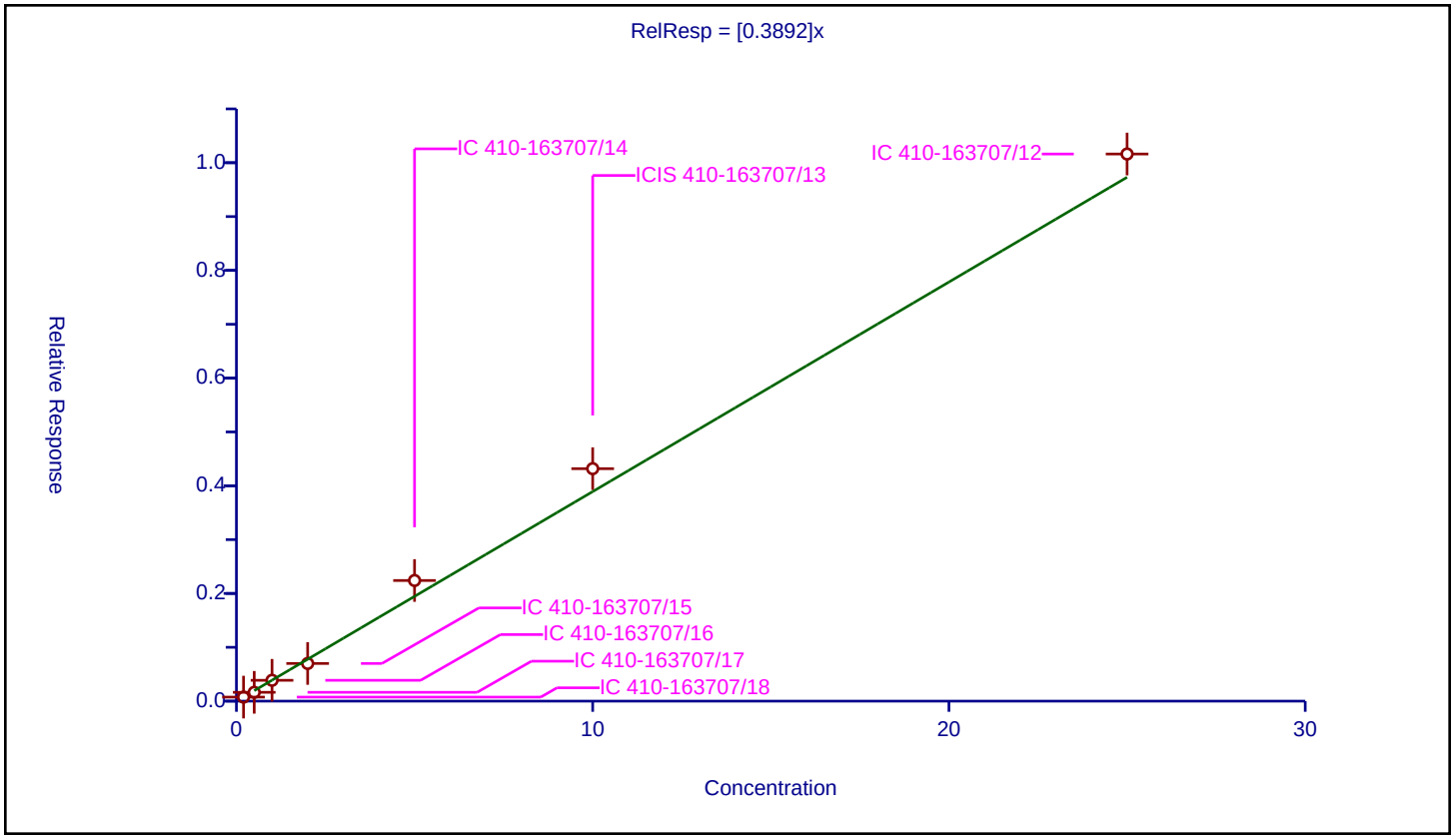
Curve Coefficients

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

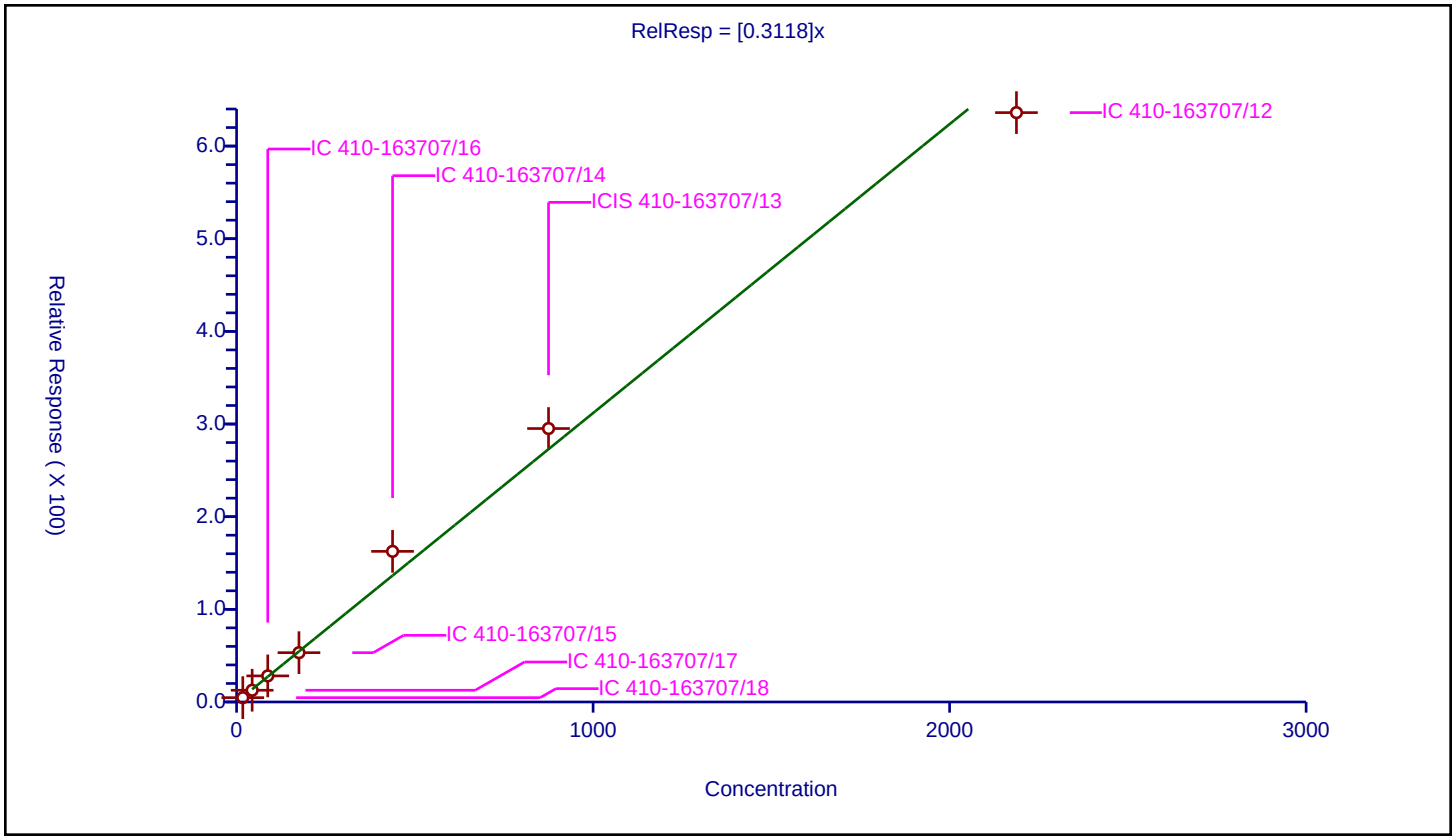
Curve Coefficients

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

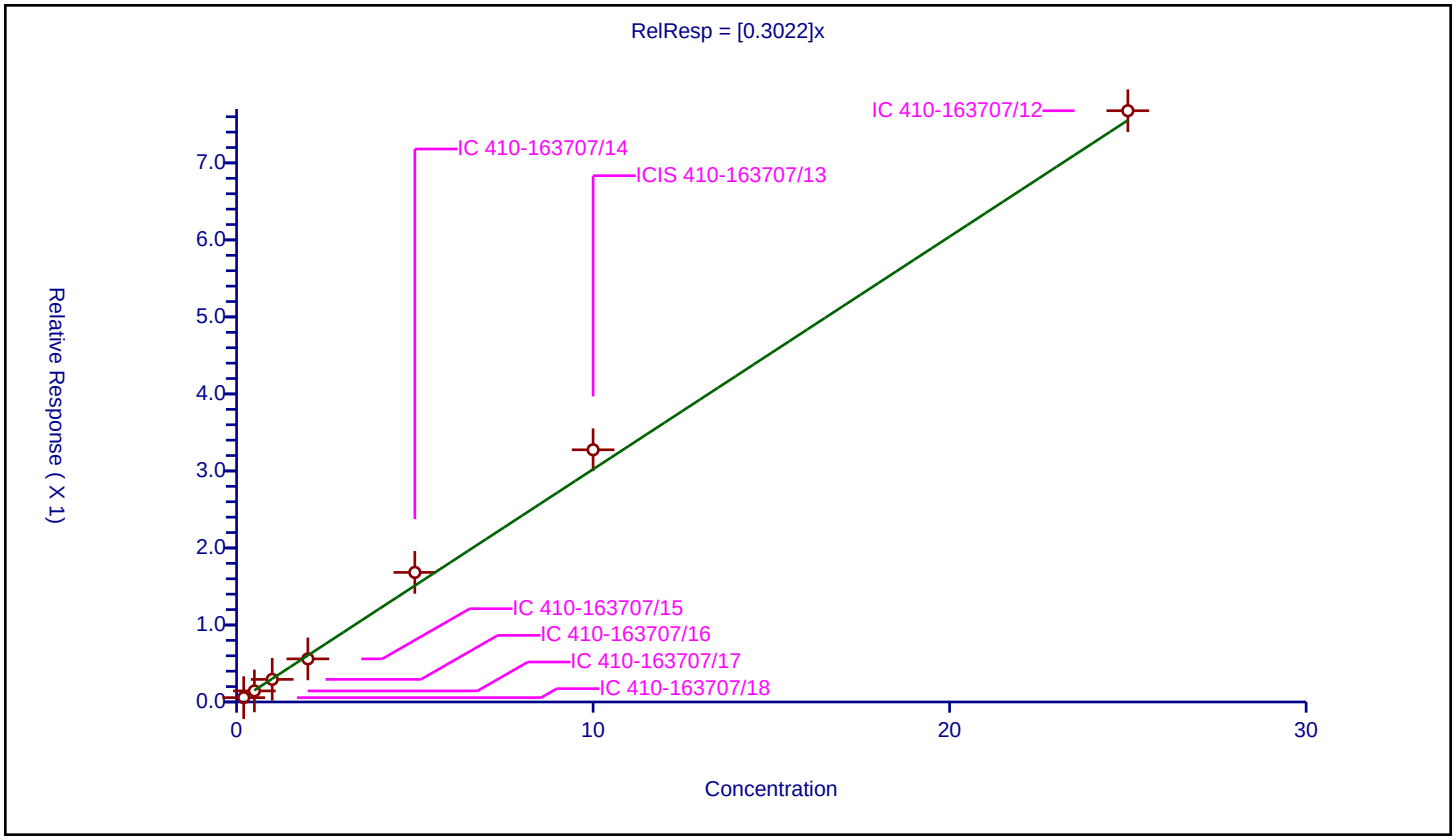
Curve Coefficients

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

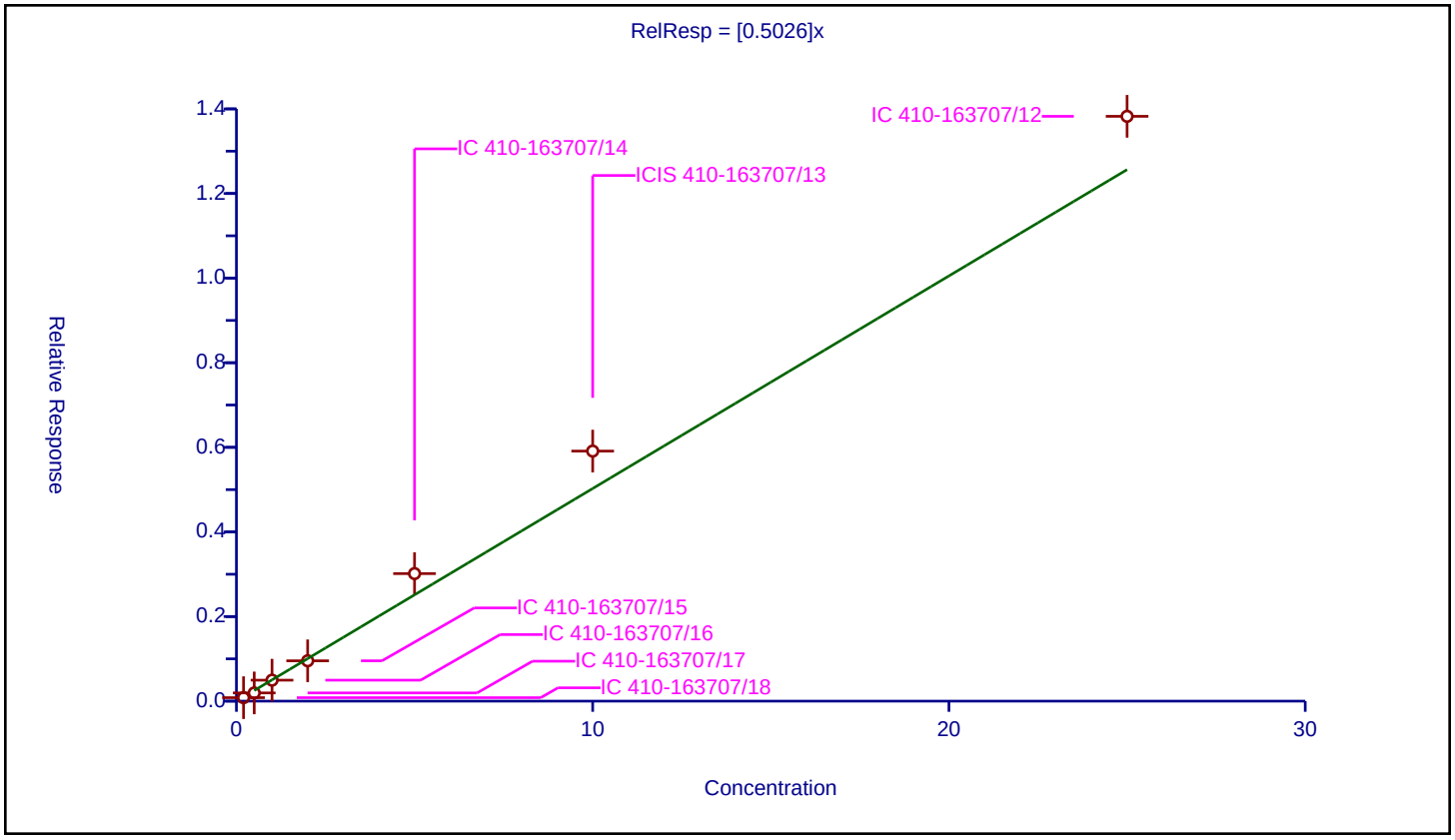
Curve Coefficients

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

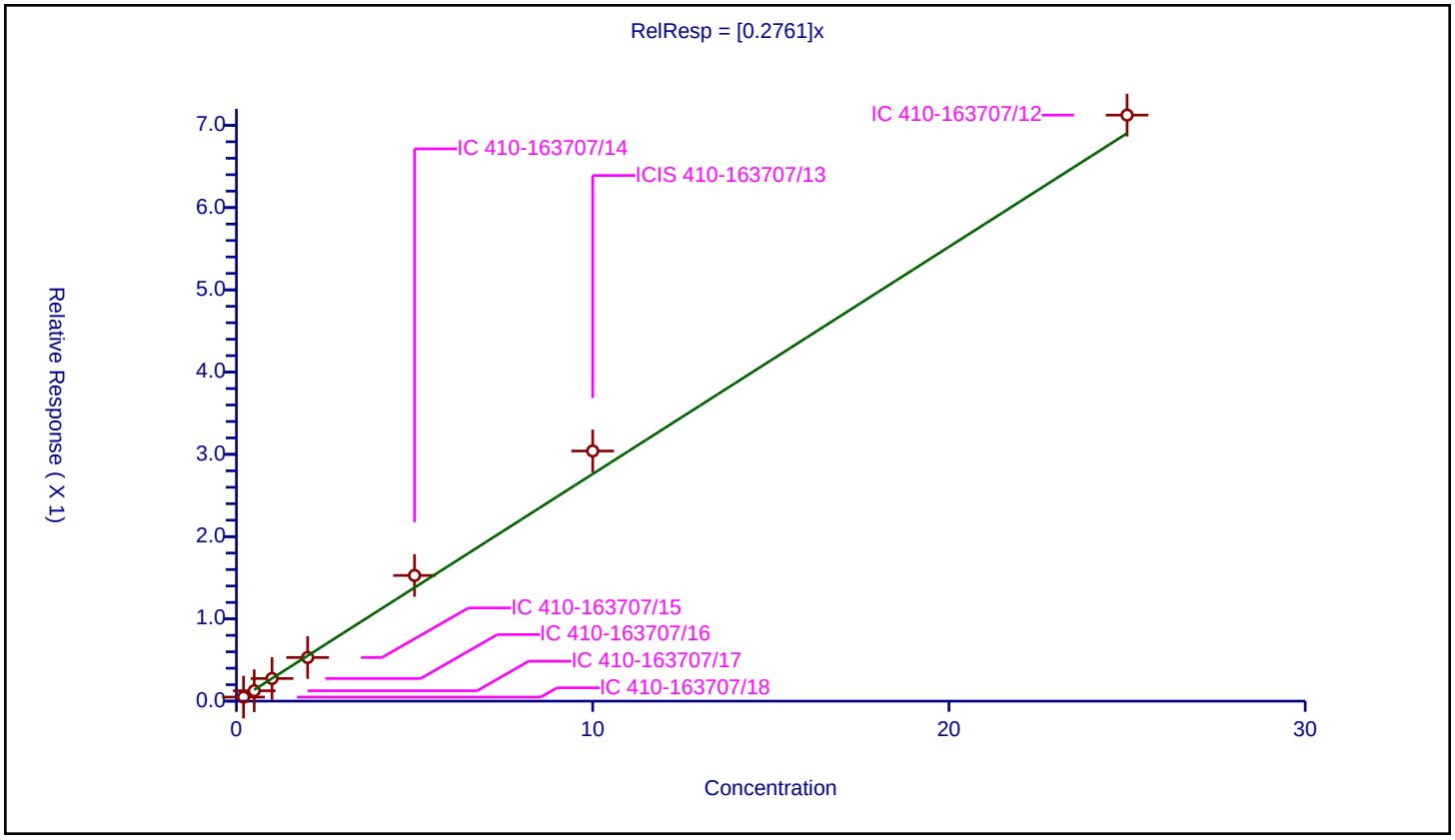
Curve Coefficients

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

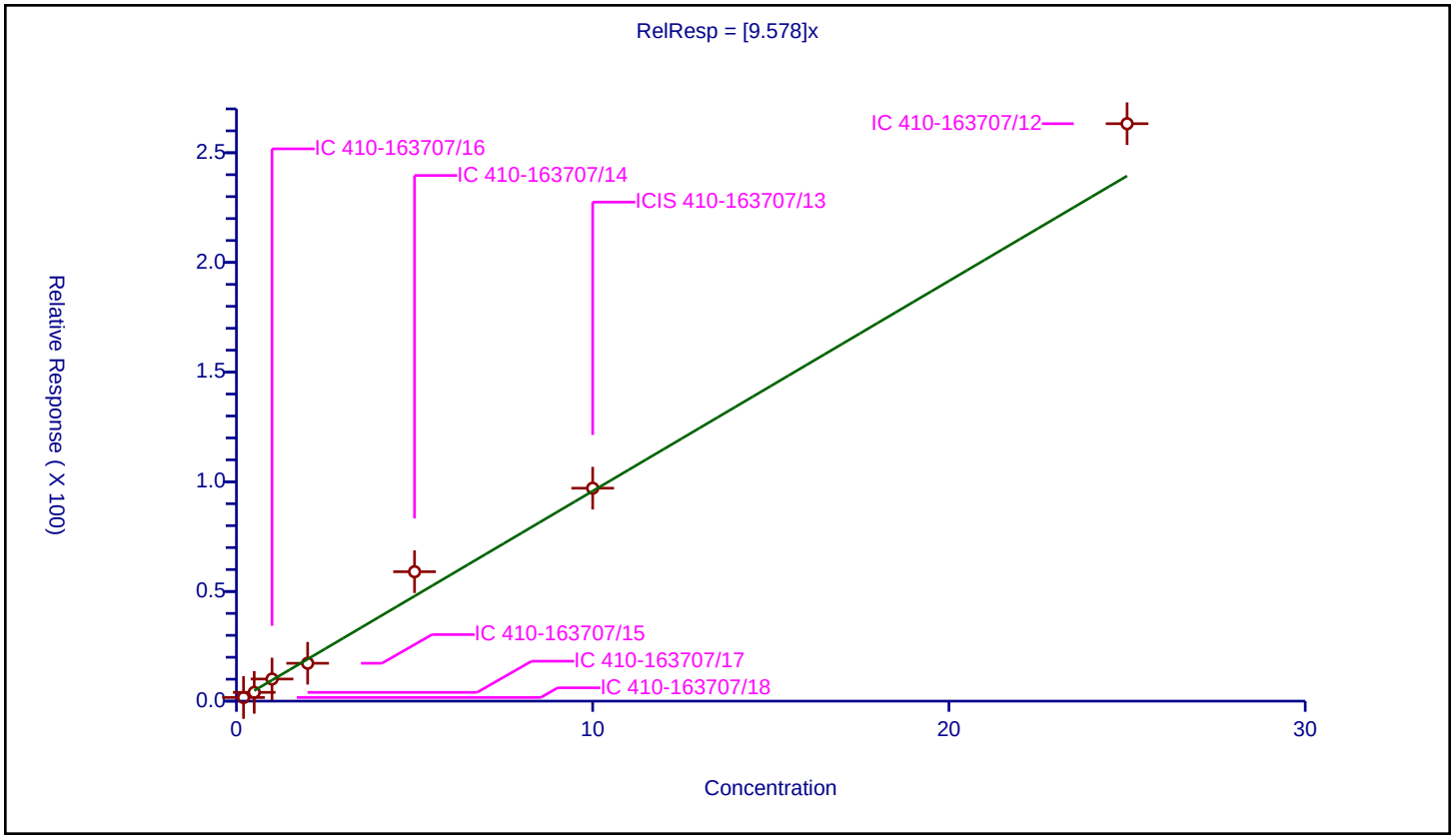
Curve Coefficients

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

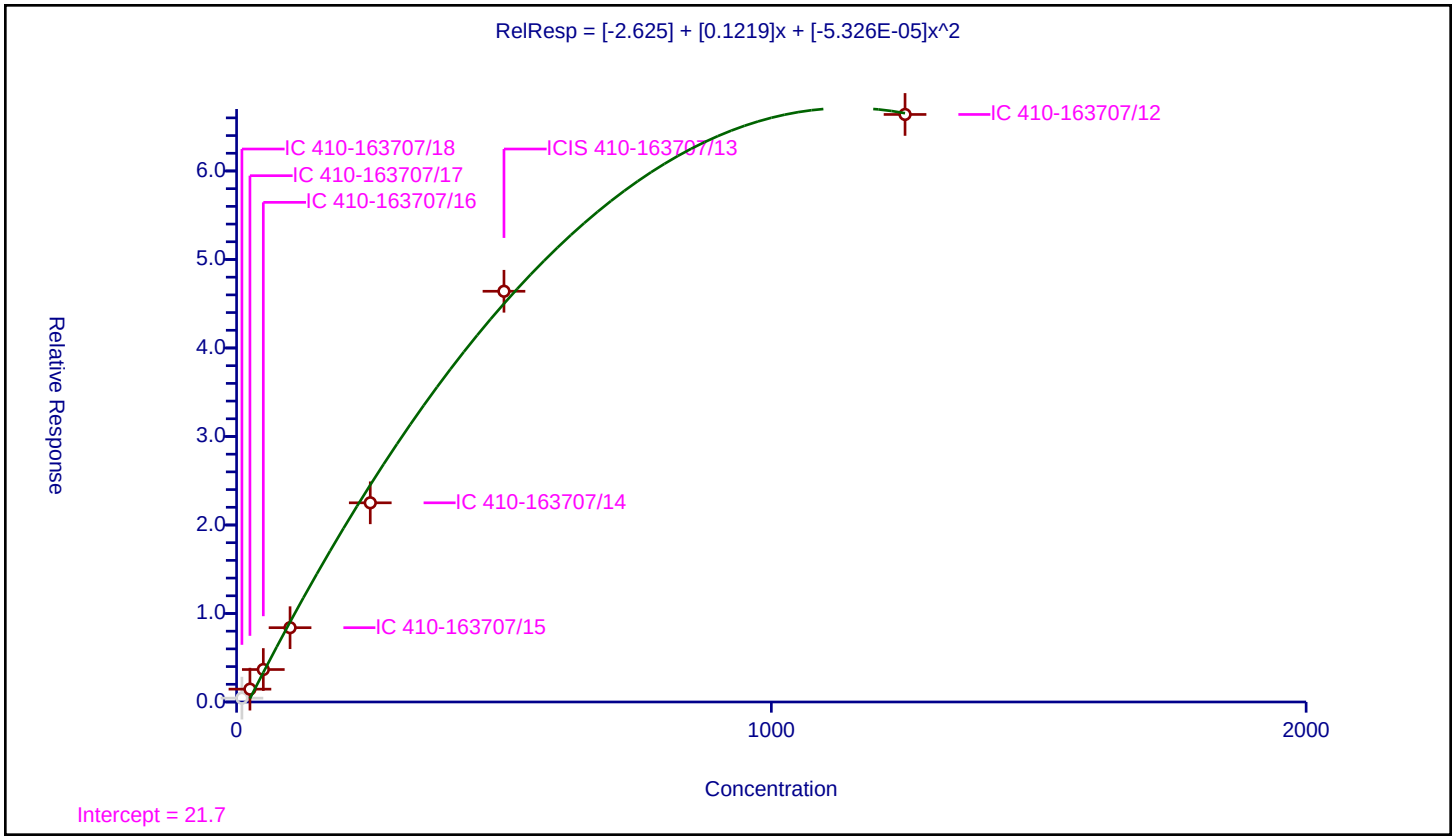
Curve Coefficients

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

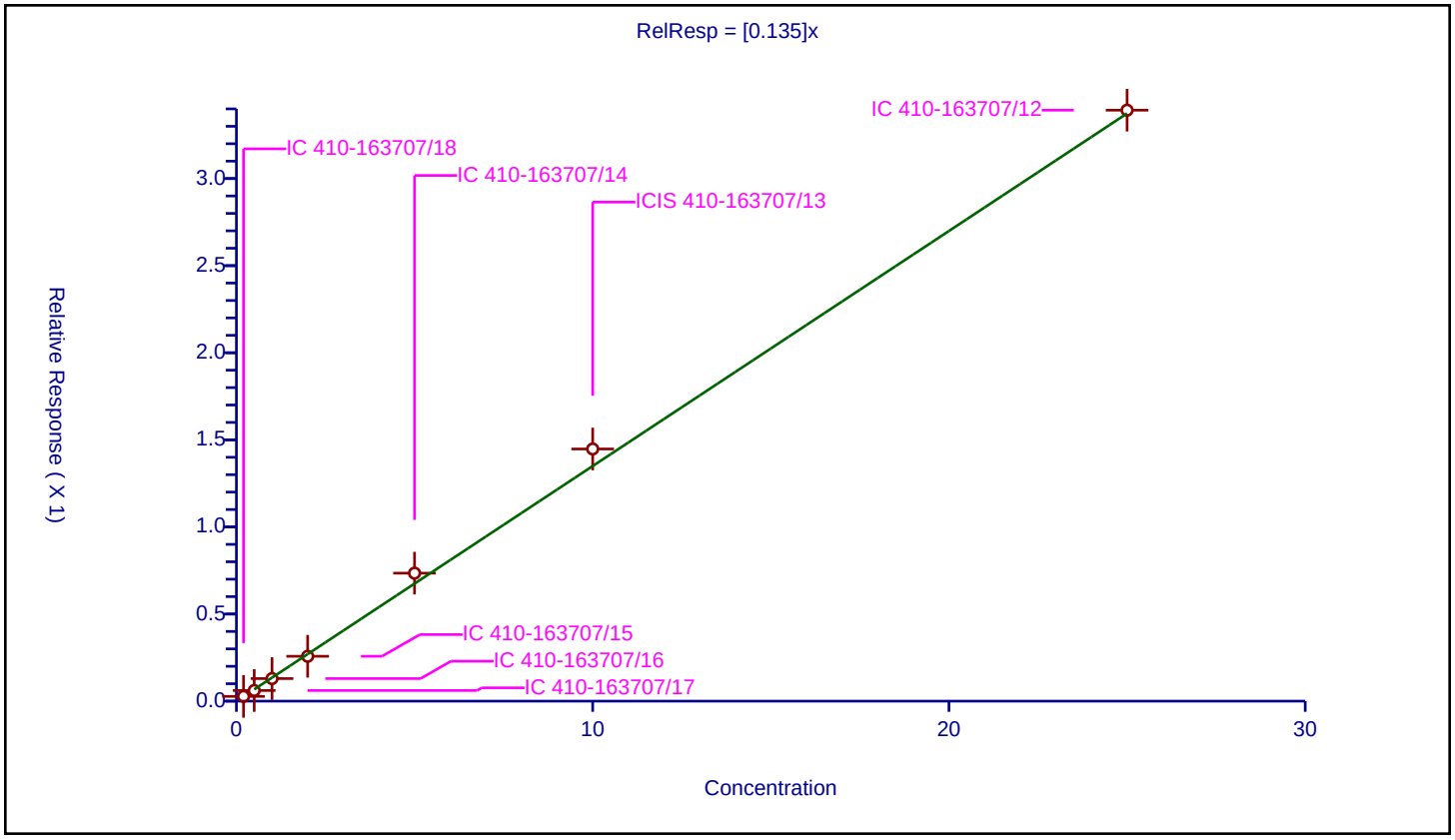
Curve Coefficients

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

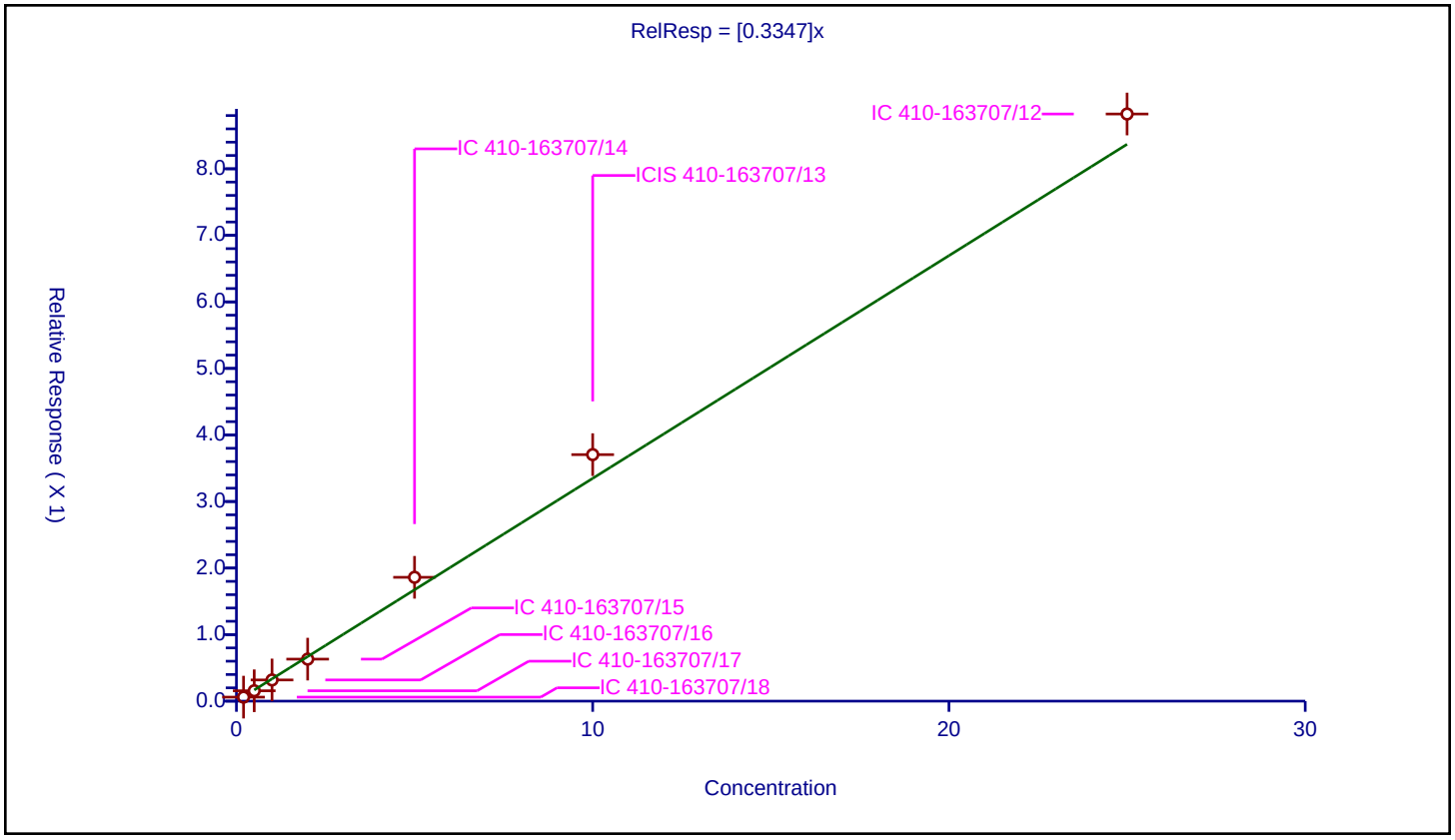
Curve Coefficients

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

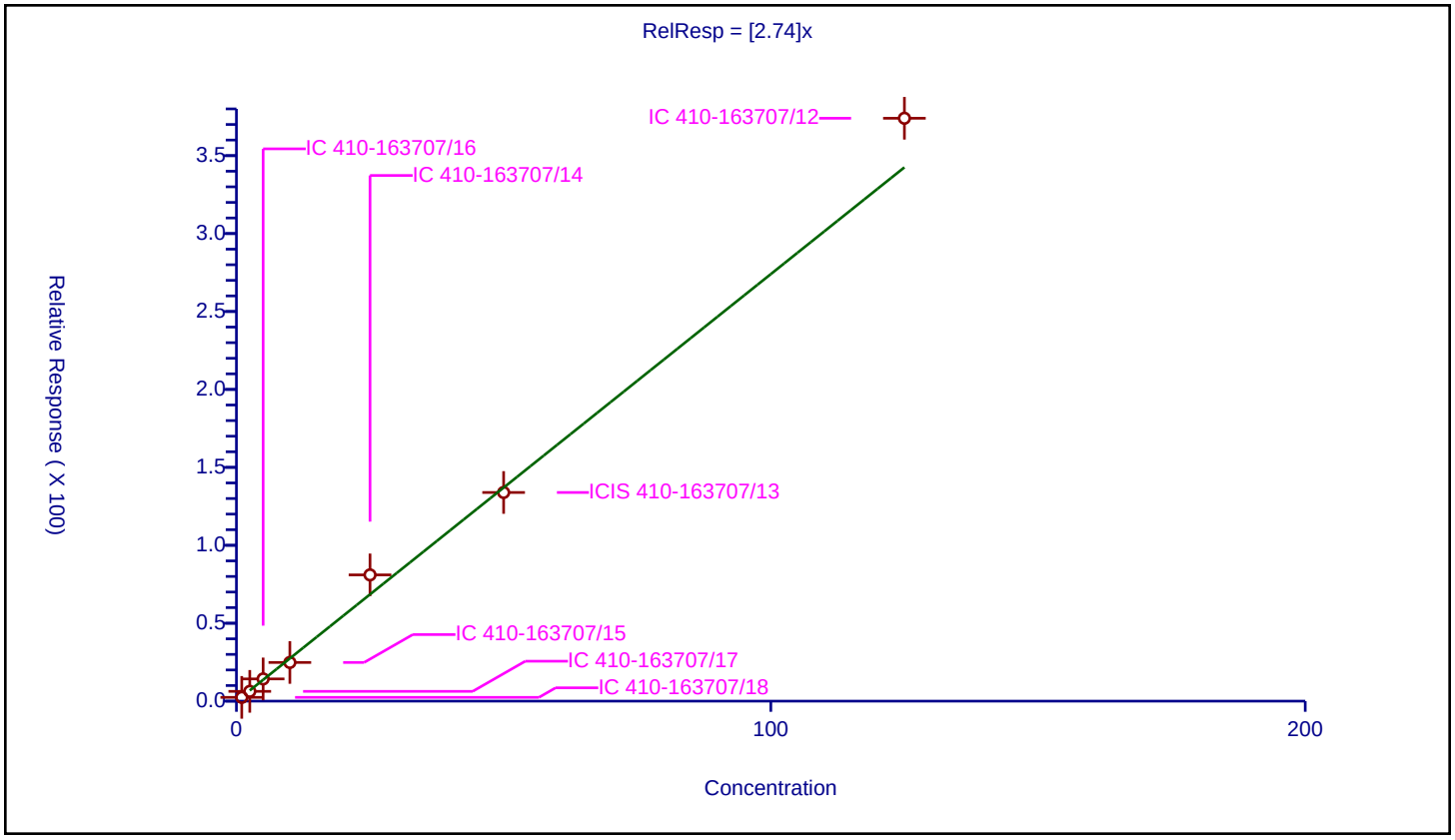
Curve Coefficients

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

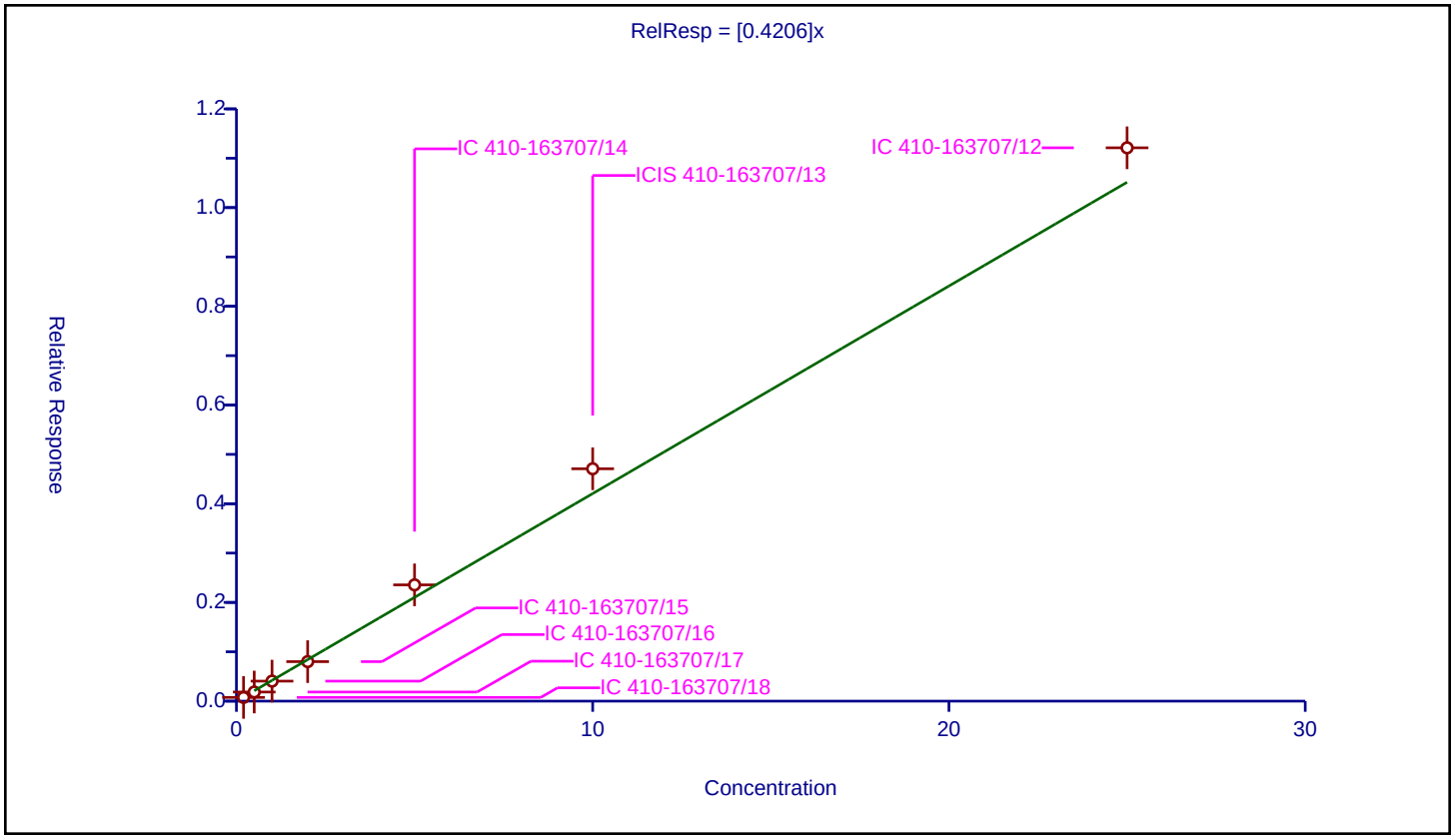
Curve Coefficients

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

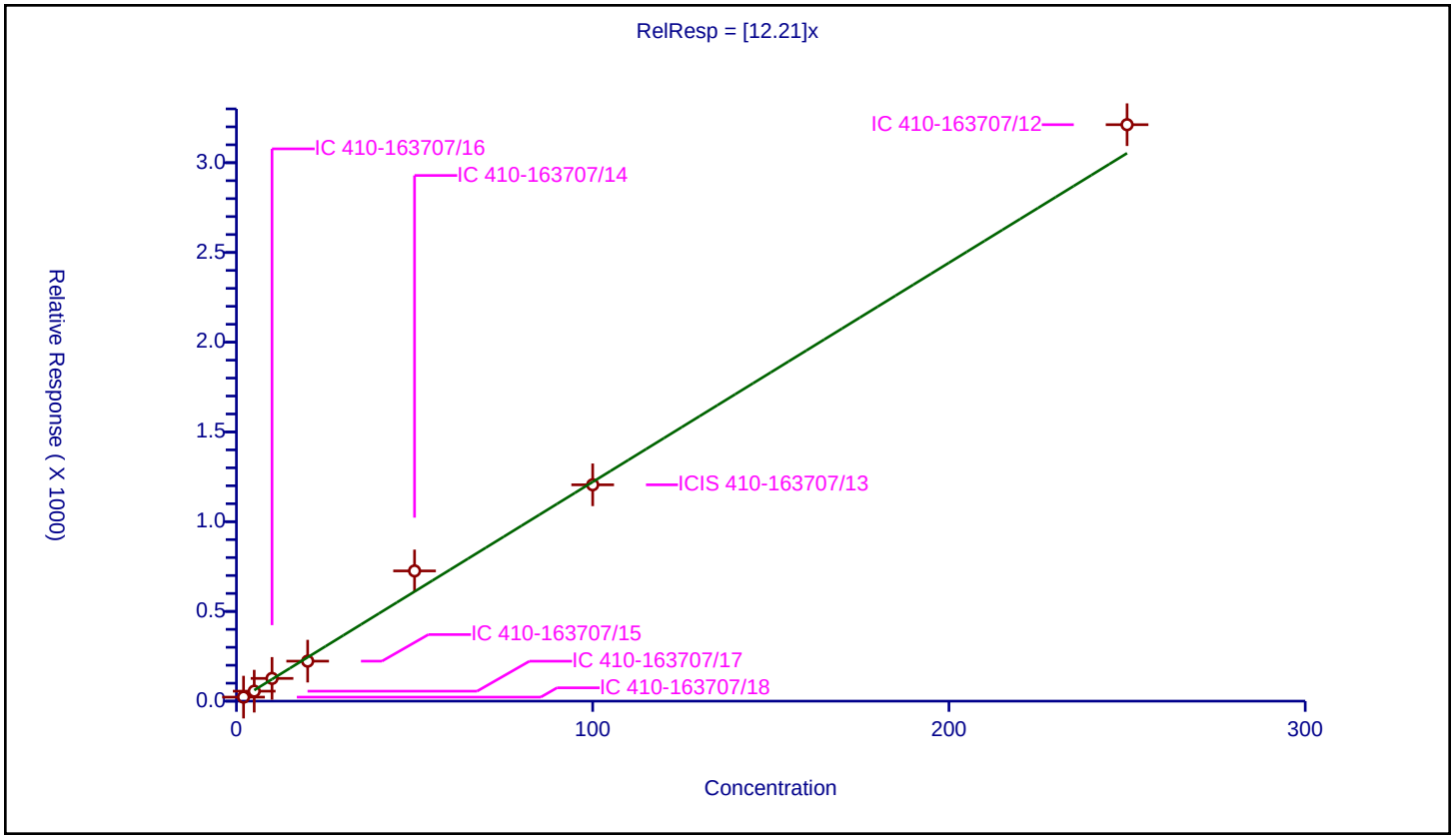
Curve Coefficients

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

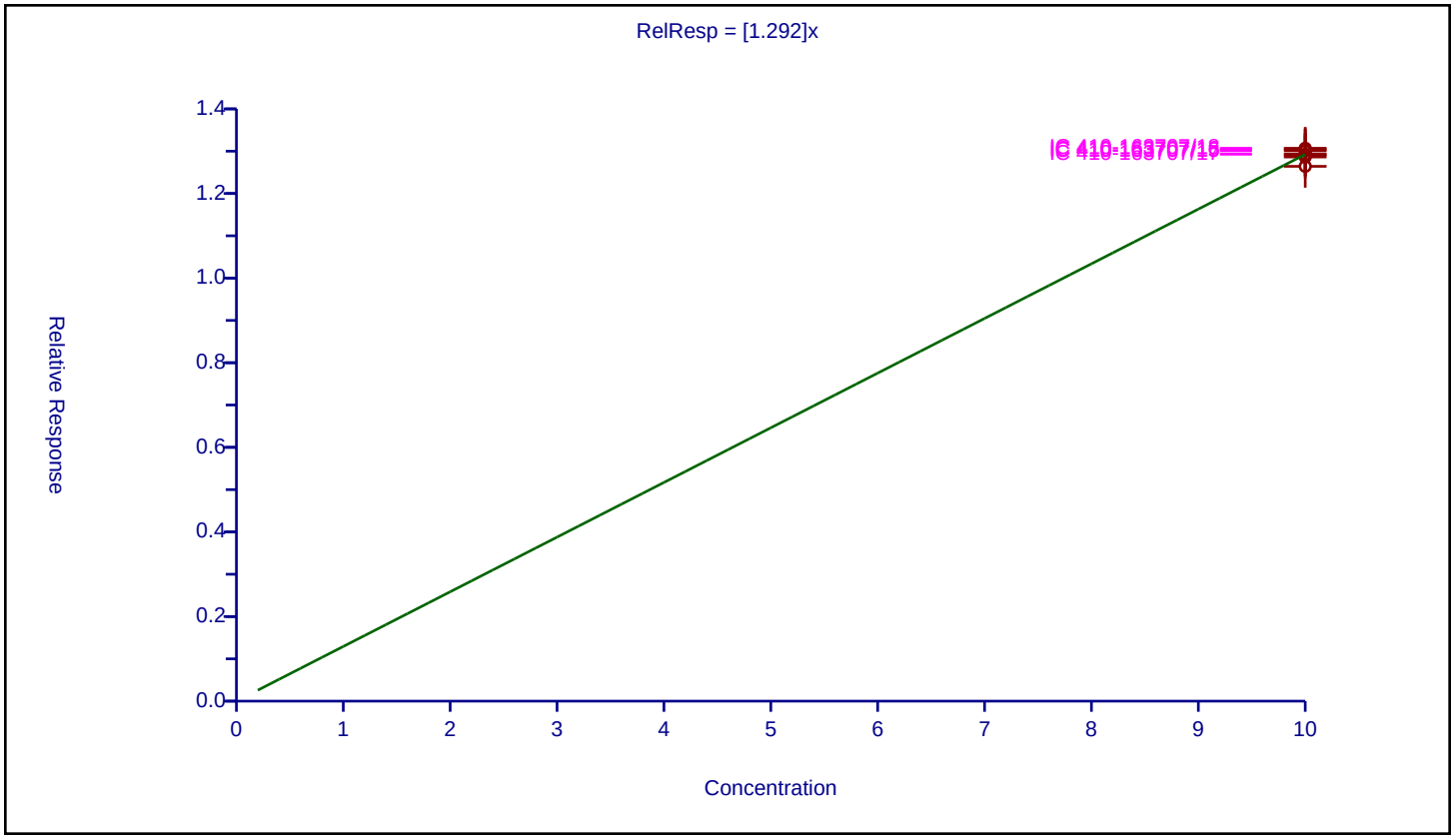
Curve Coefficients

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

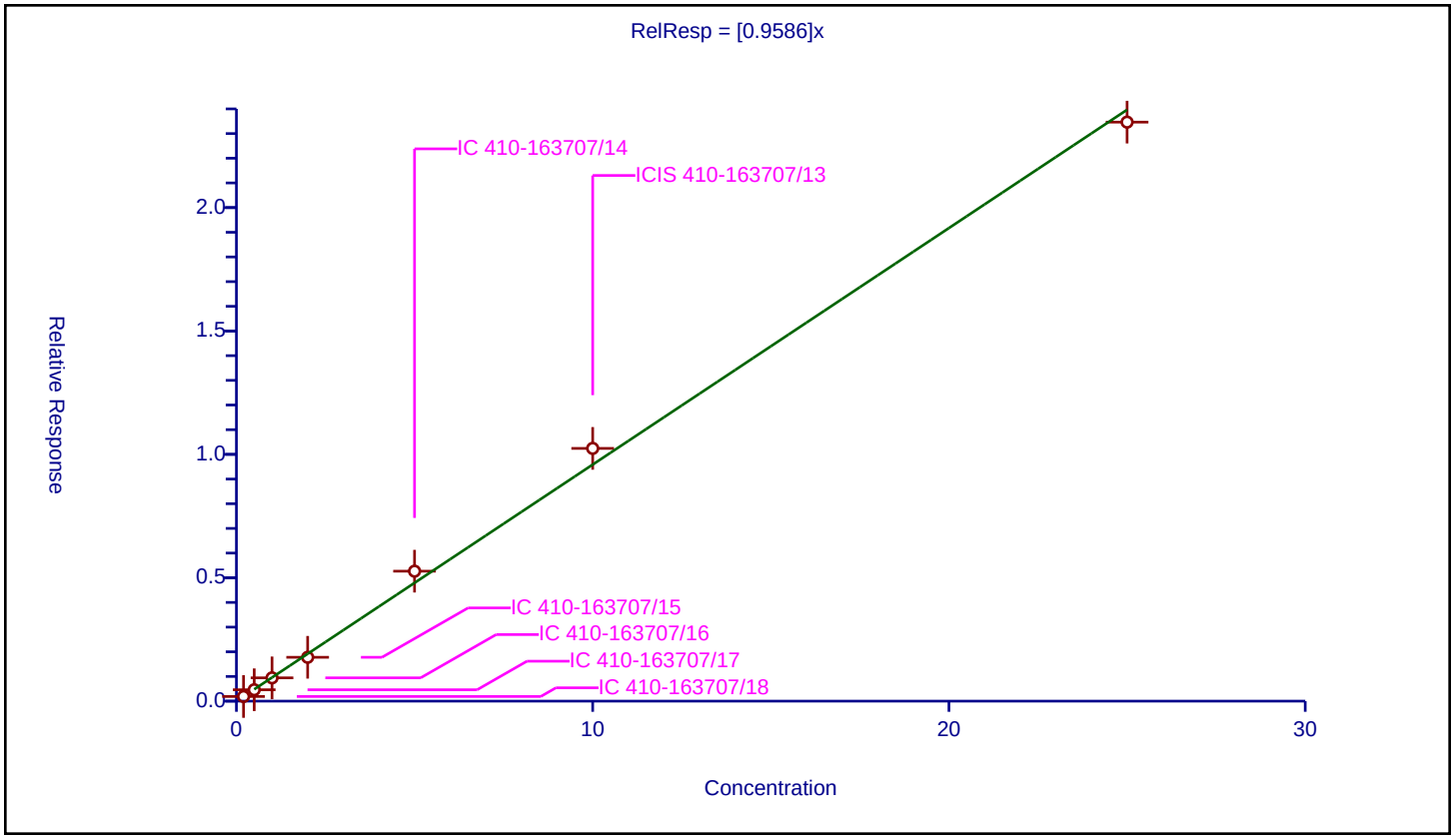
Curve Coefficients

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

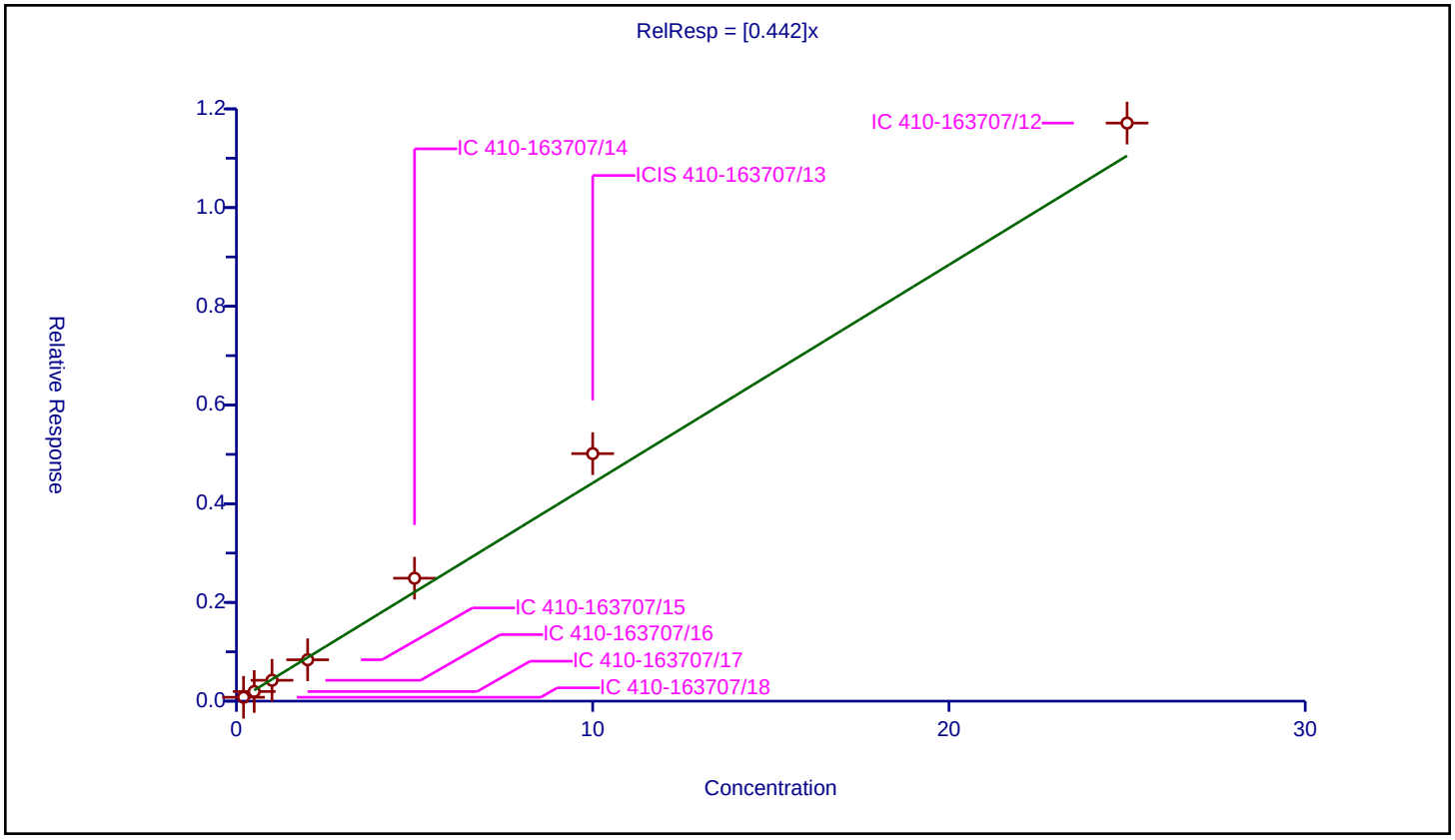
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

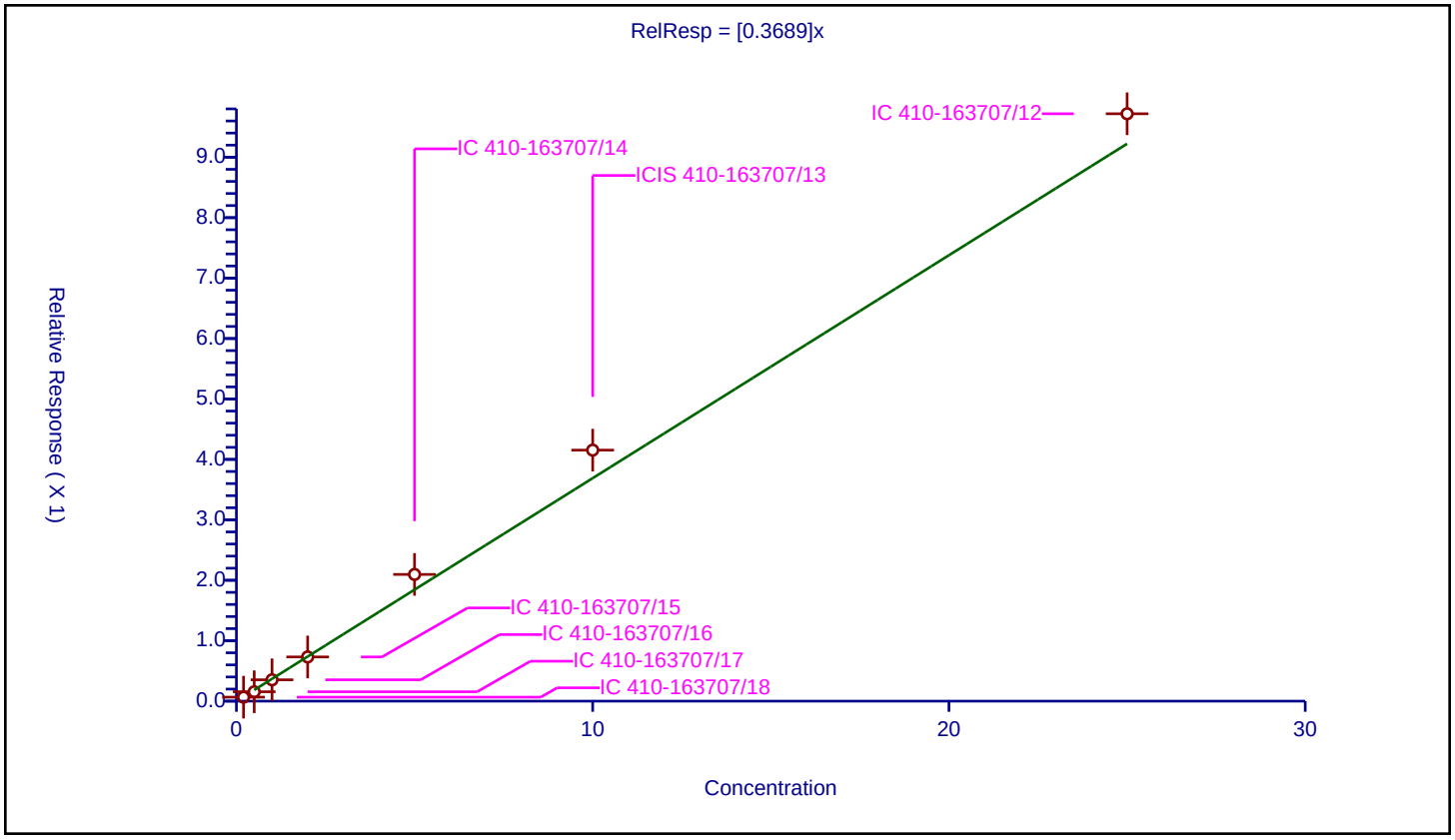
Curve Coefficients

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

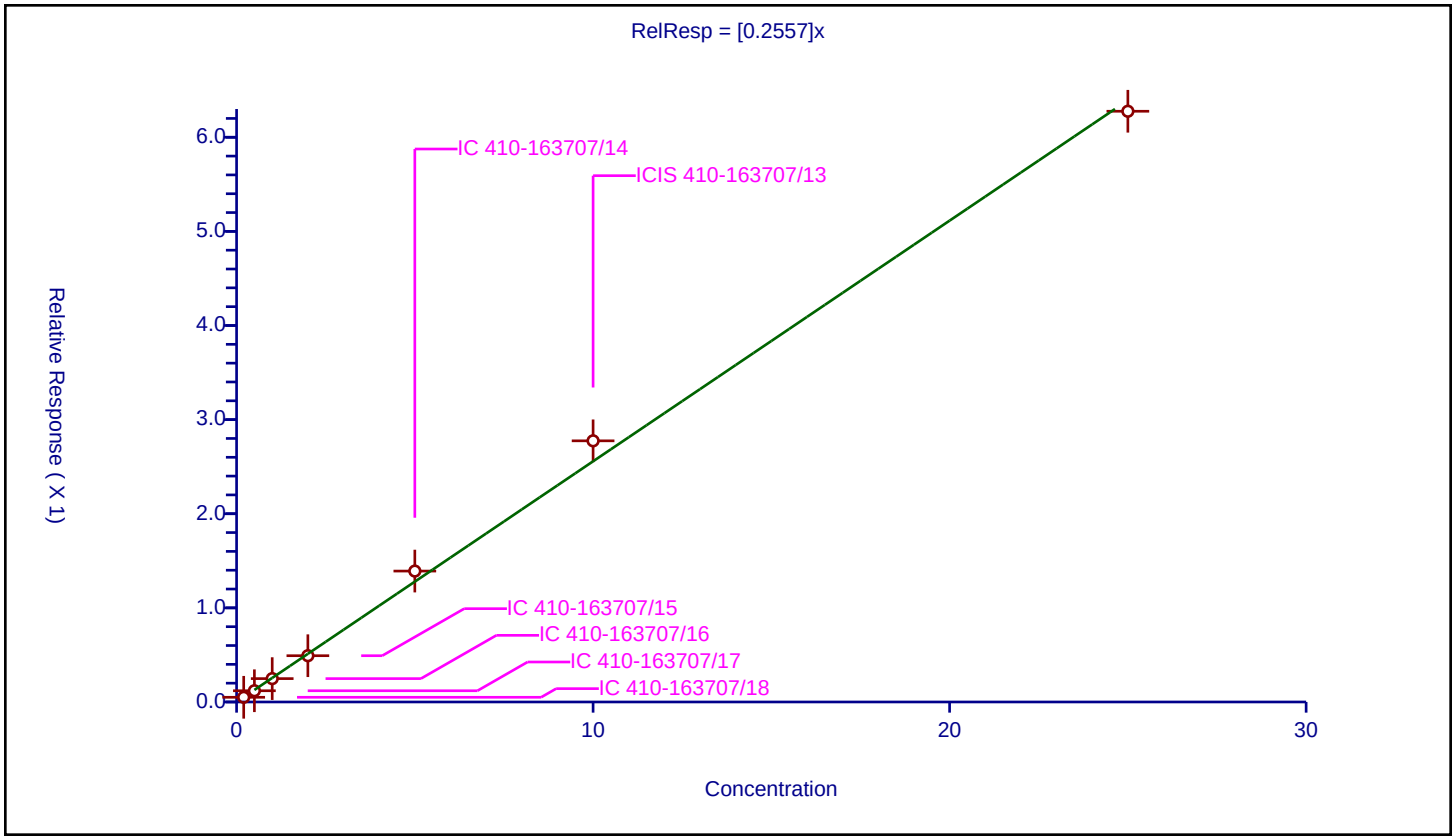
Curve Coefficients

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

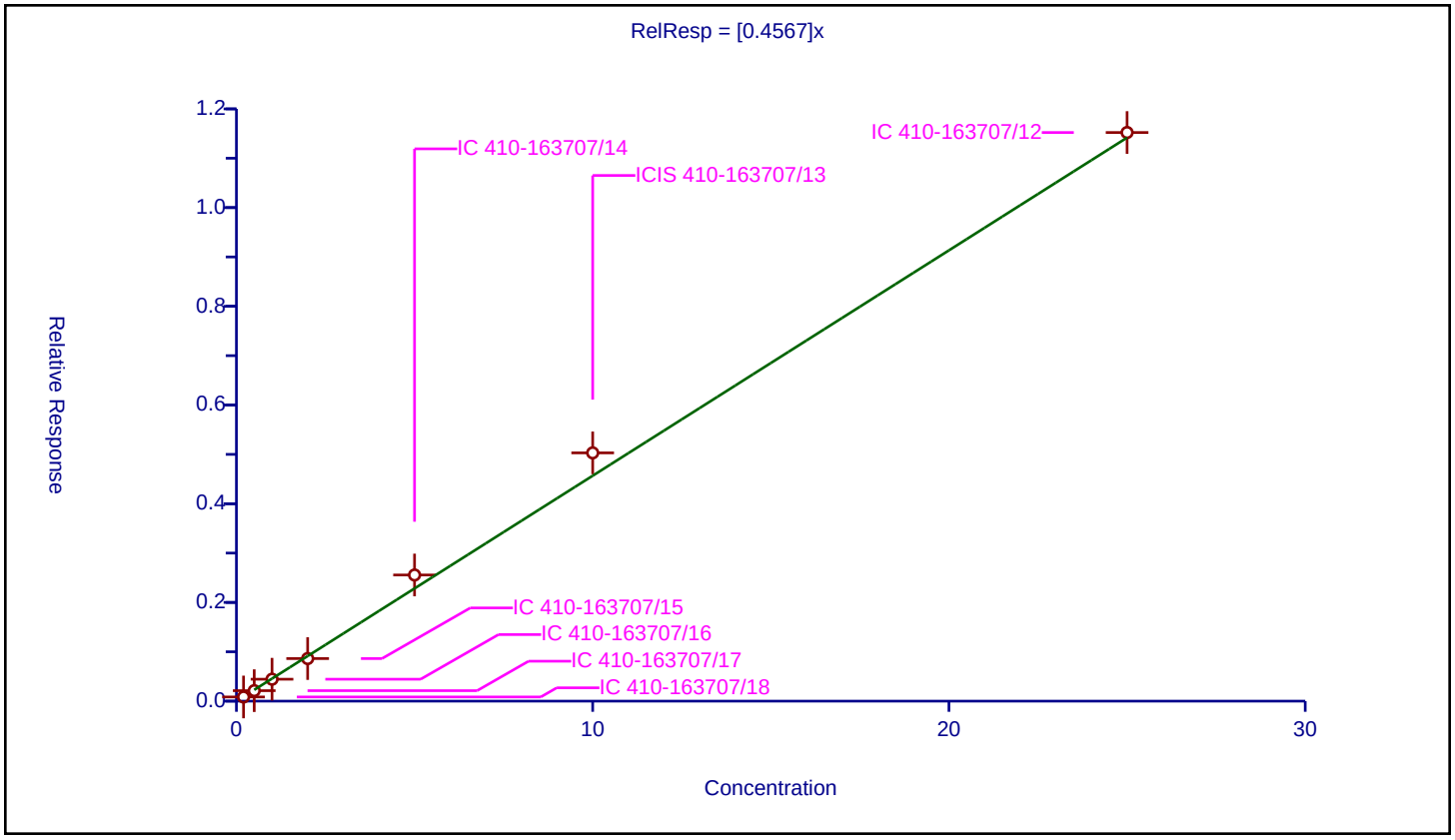
Curve Coefficients

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

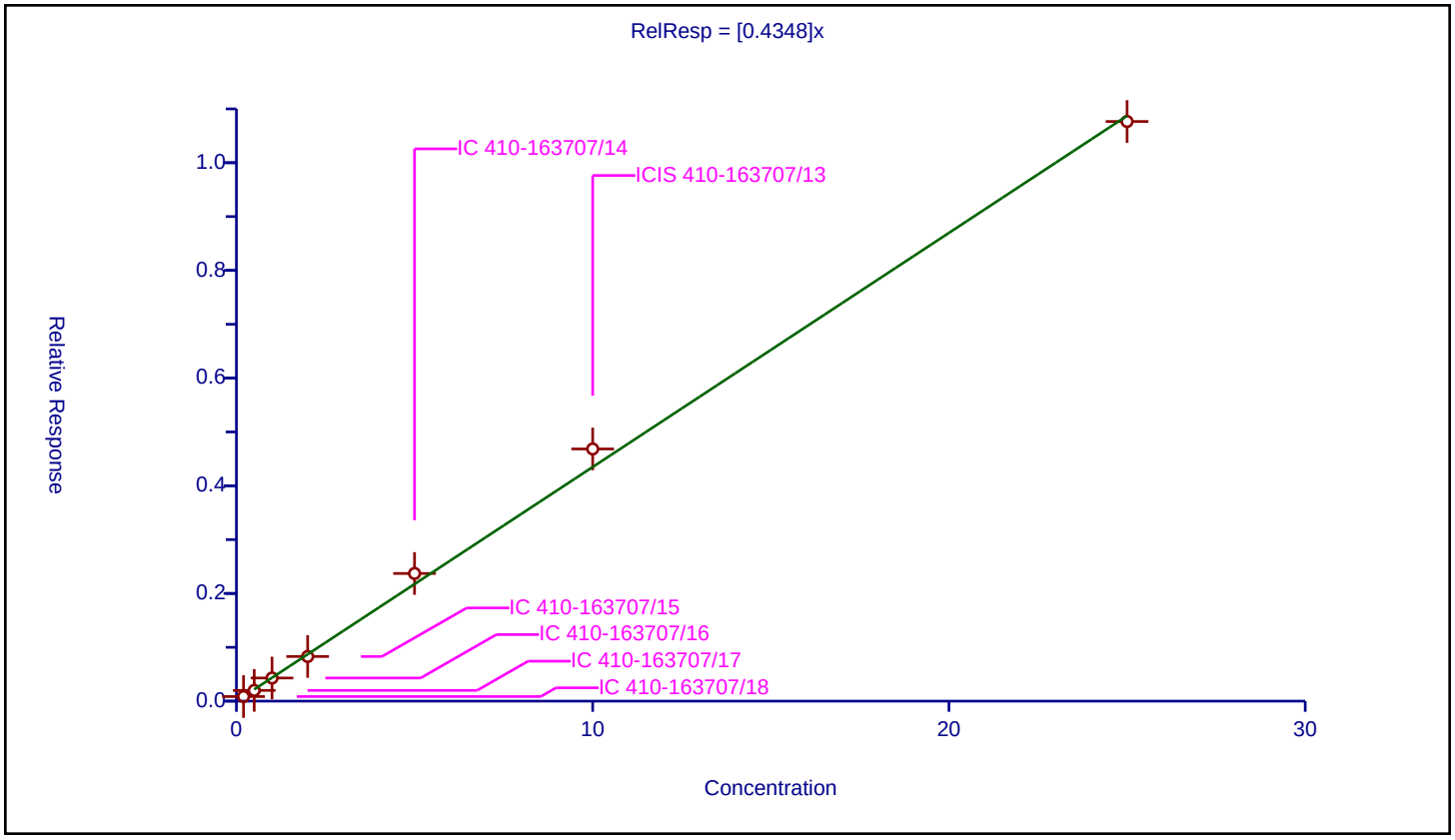
Curve Coefficients

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

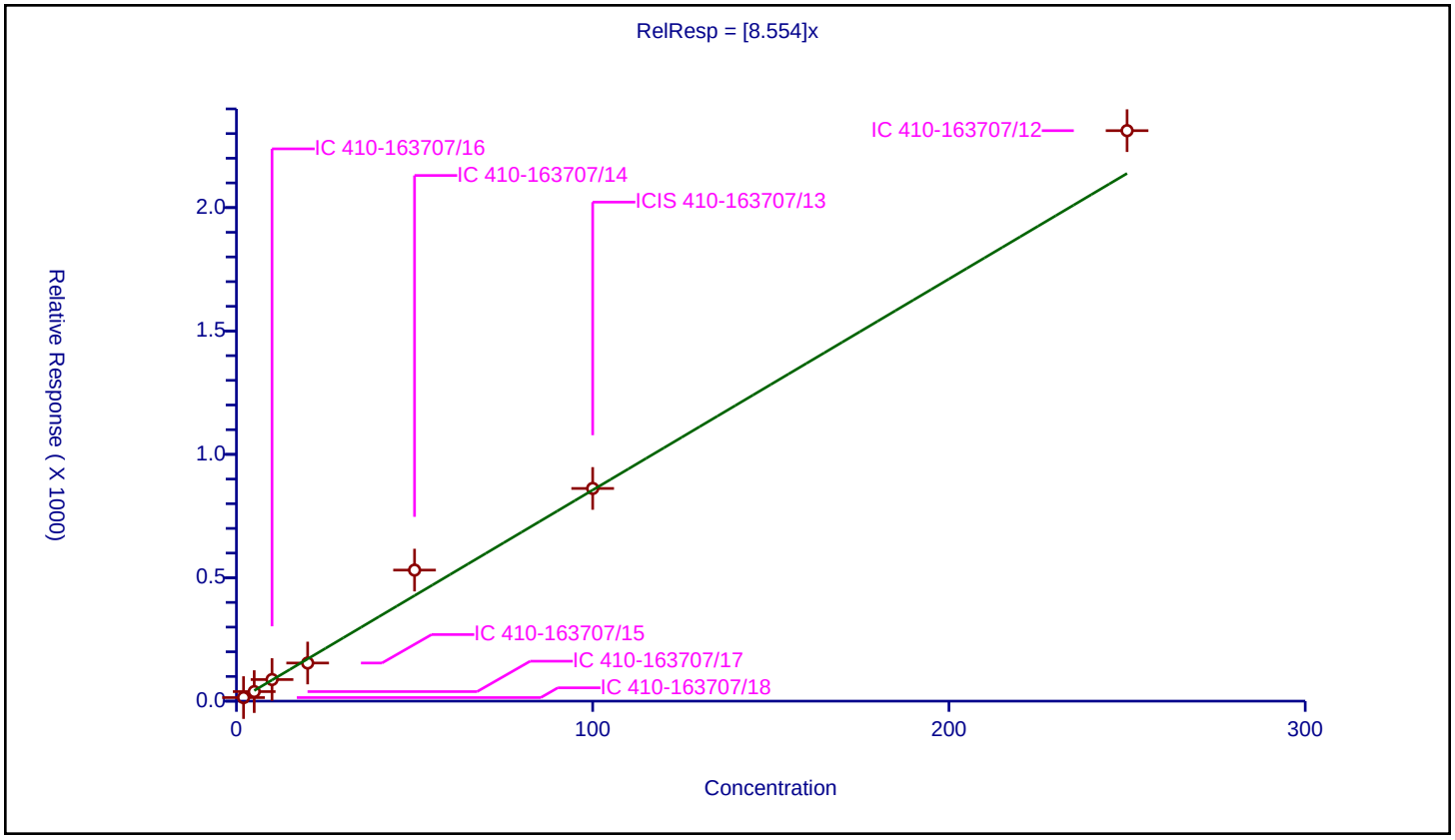
Curve Coefficients

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

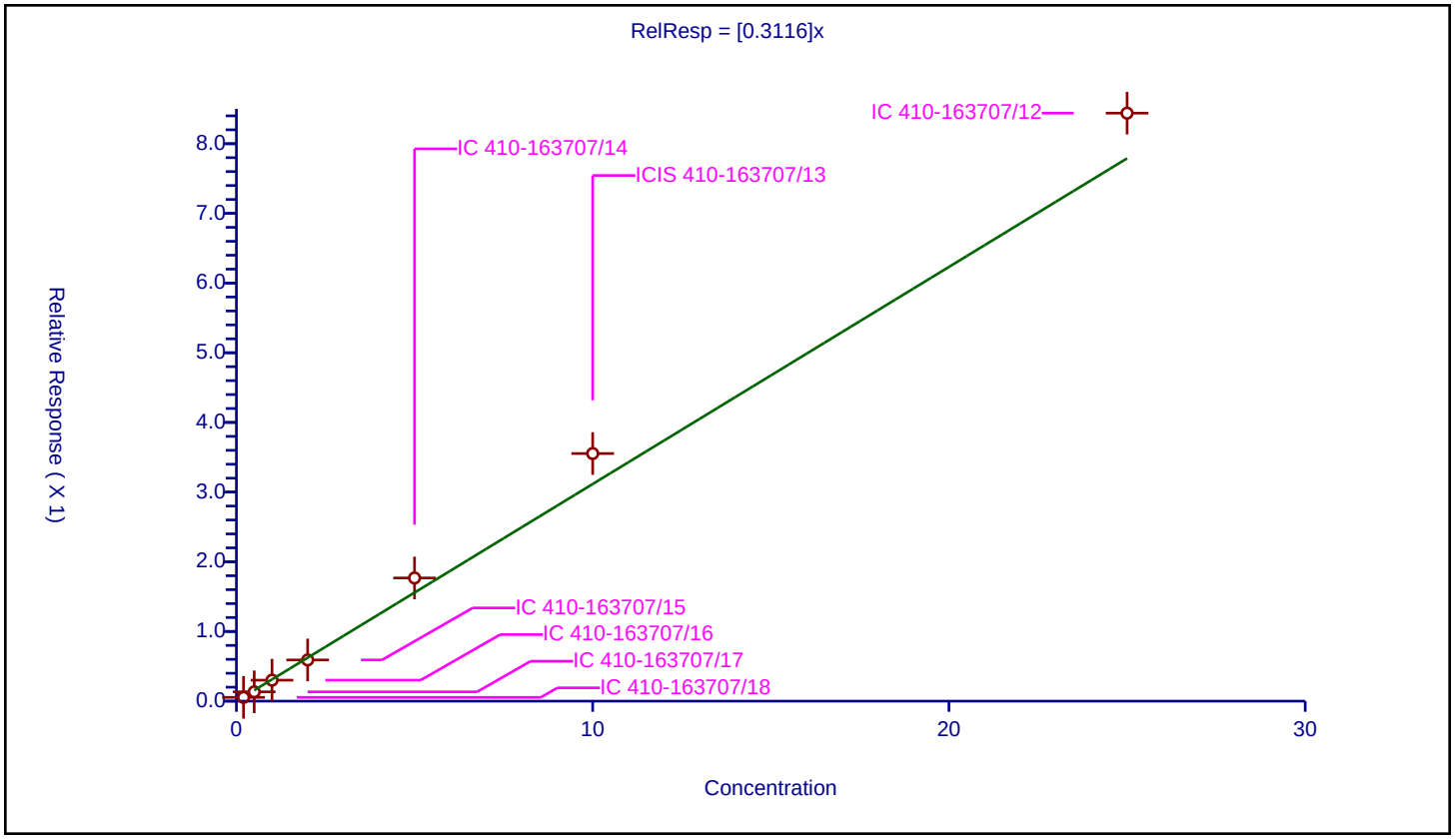
Curve Coefficients

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

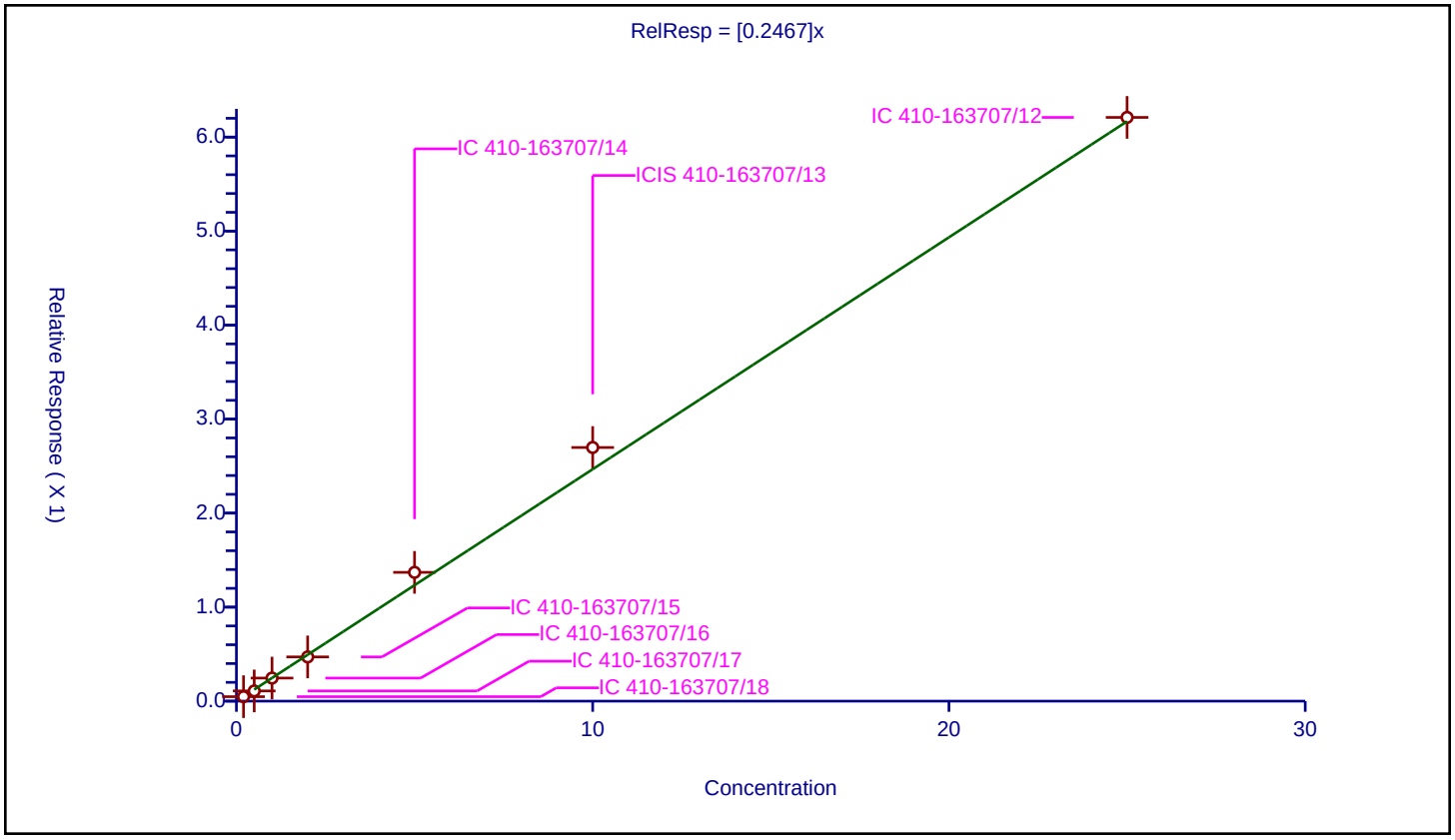
Curve Coefficients

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

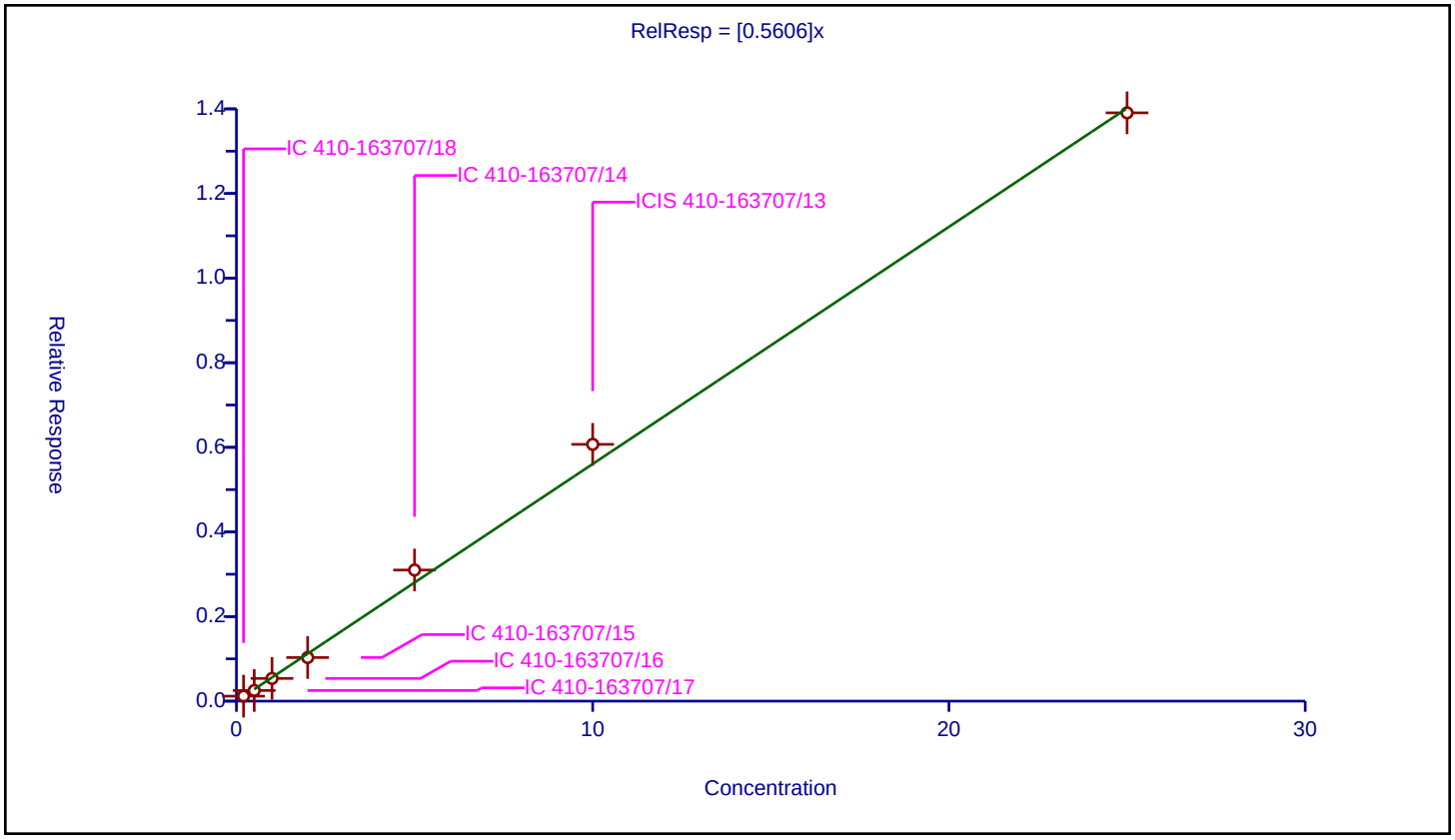
Curve Coefficients

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

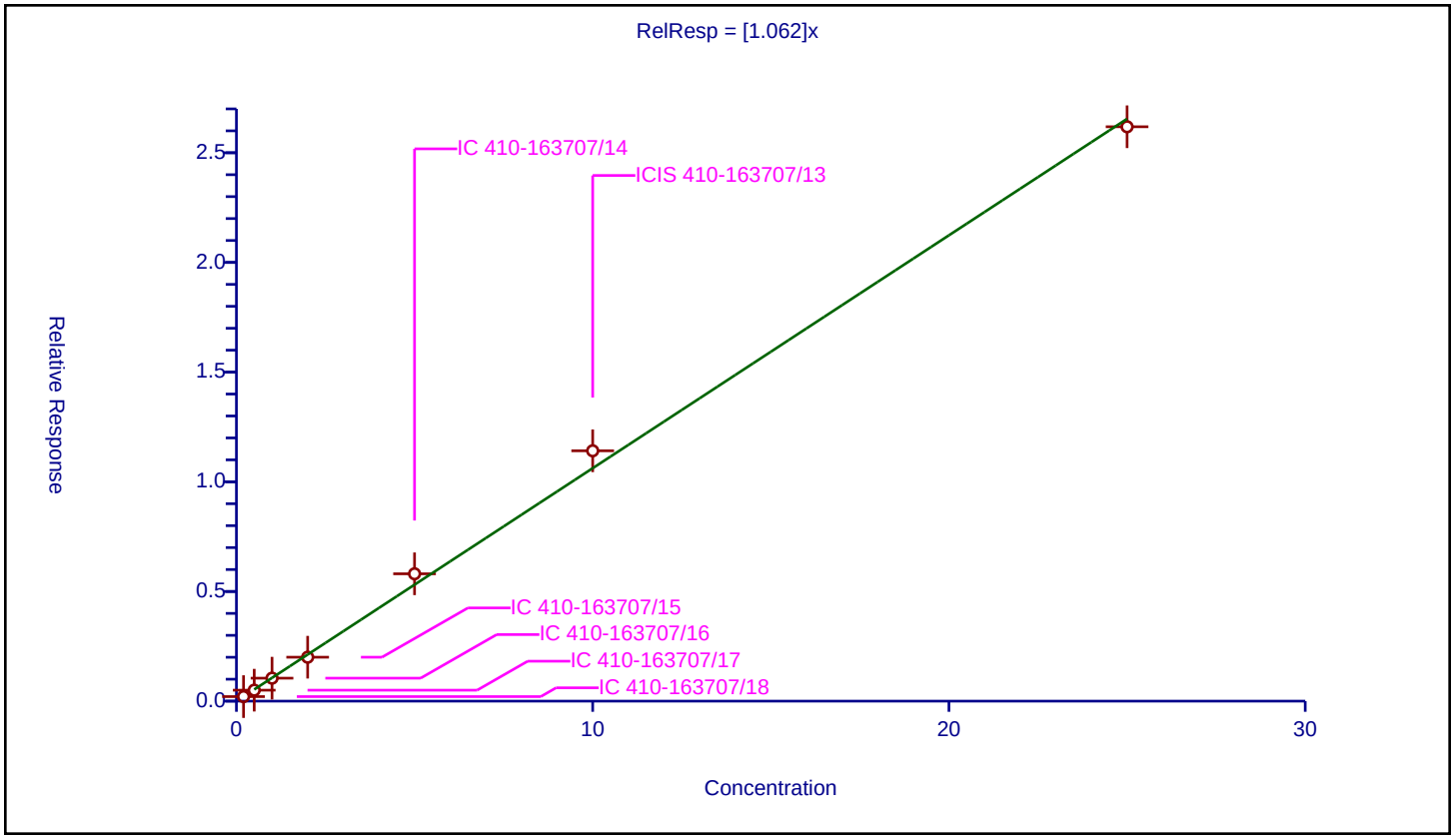
Curve Coefficients

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

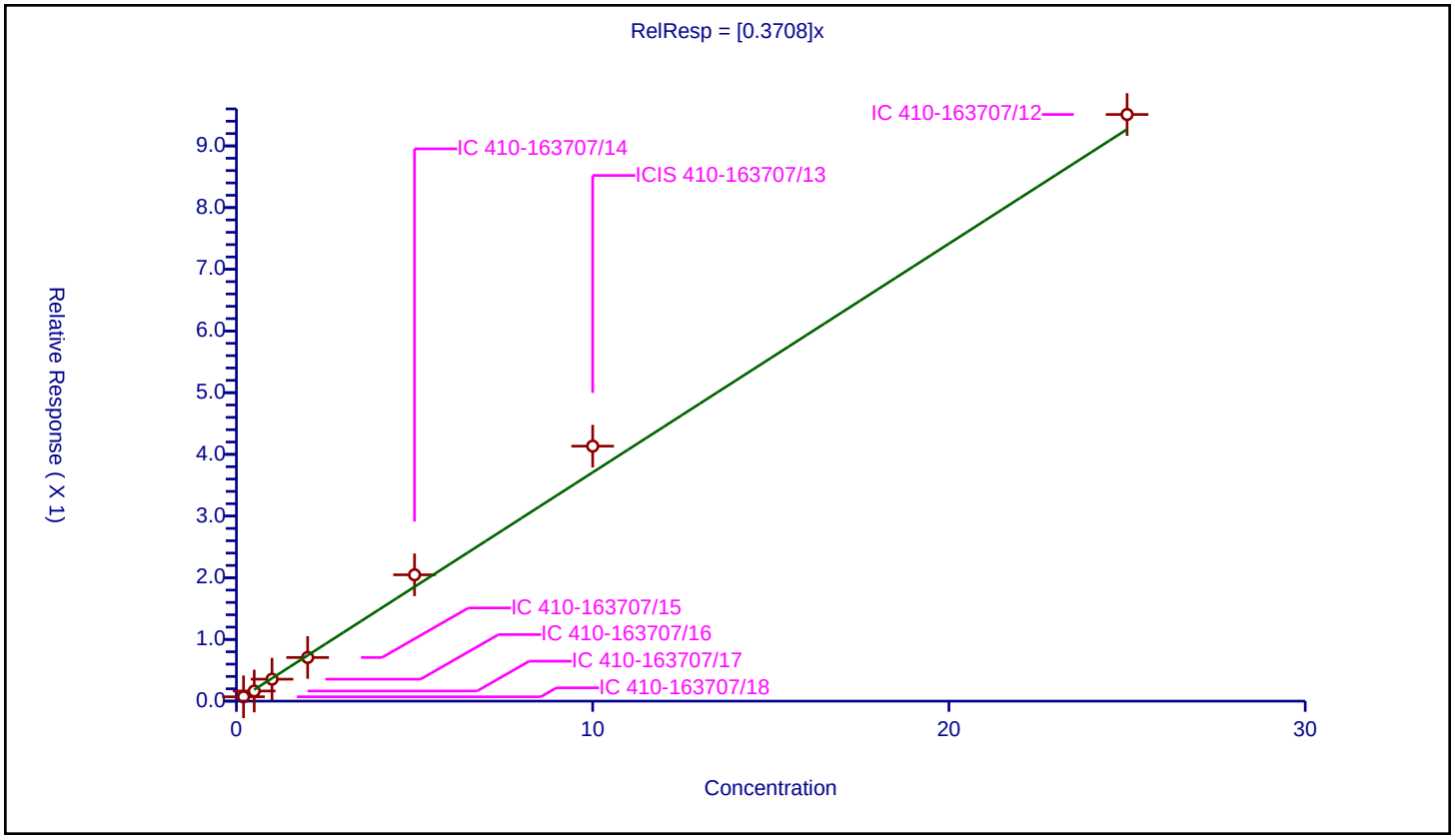
Curve Coefficients

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

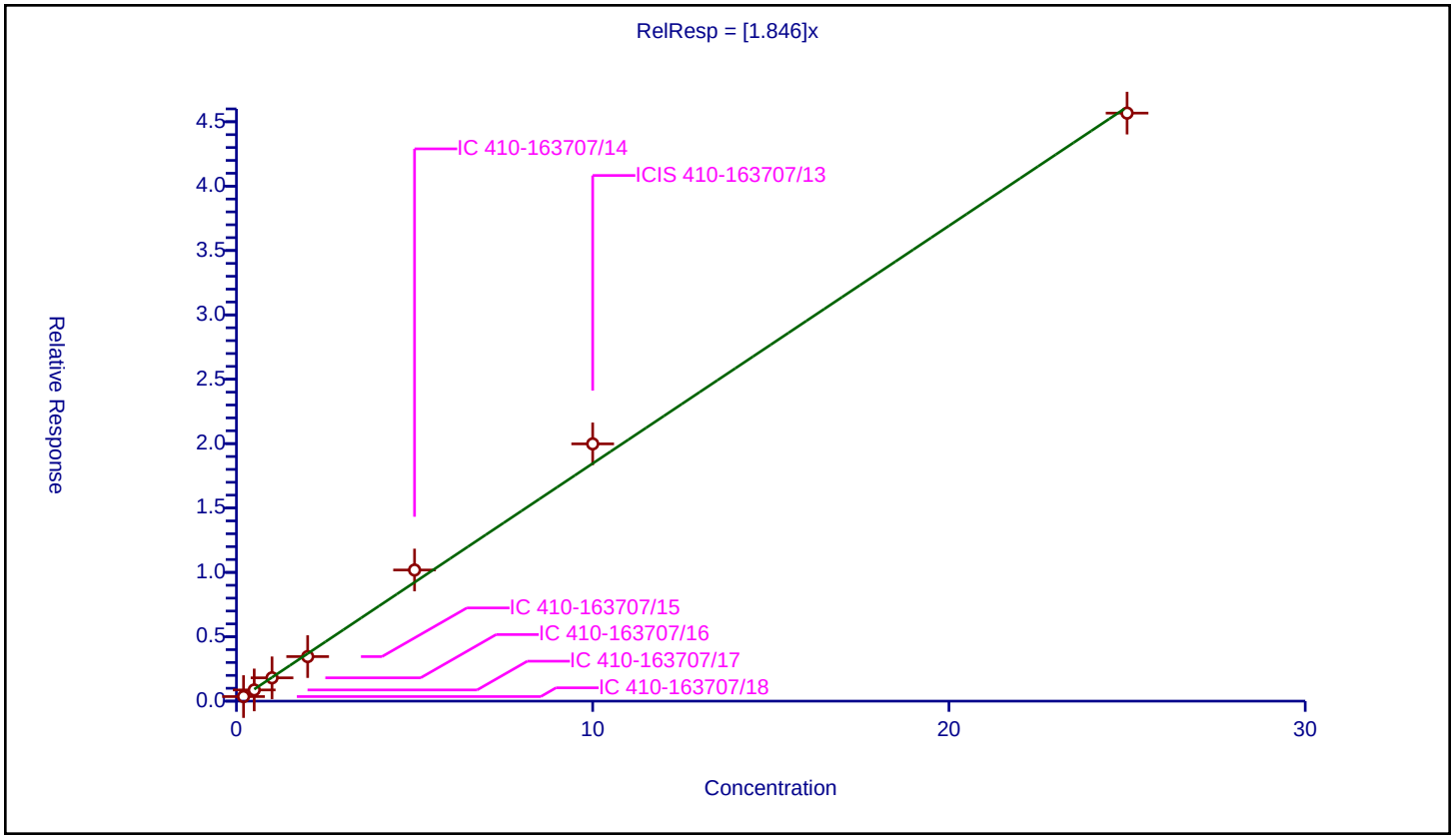
Curve Coefficients

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

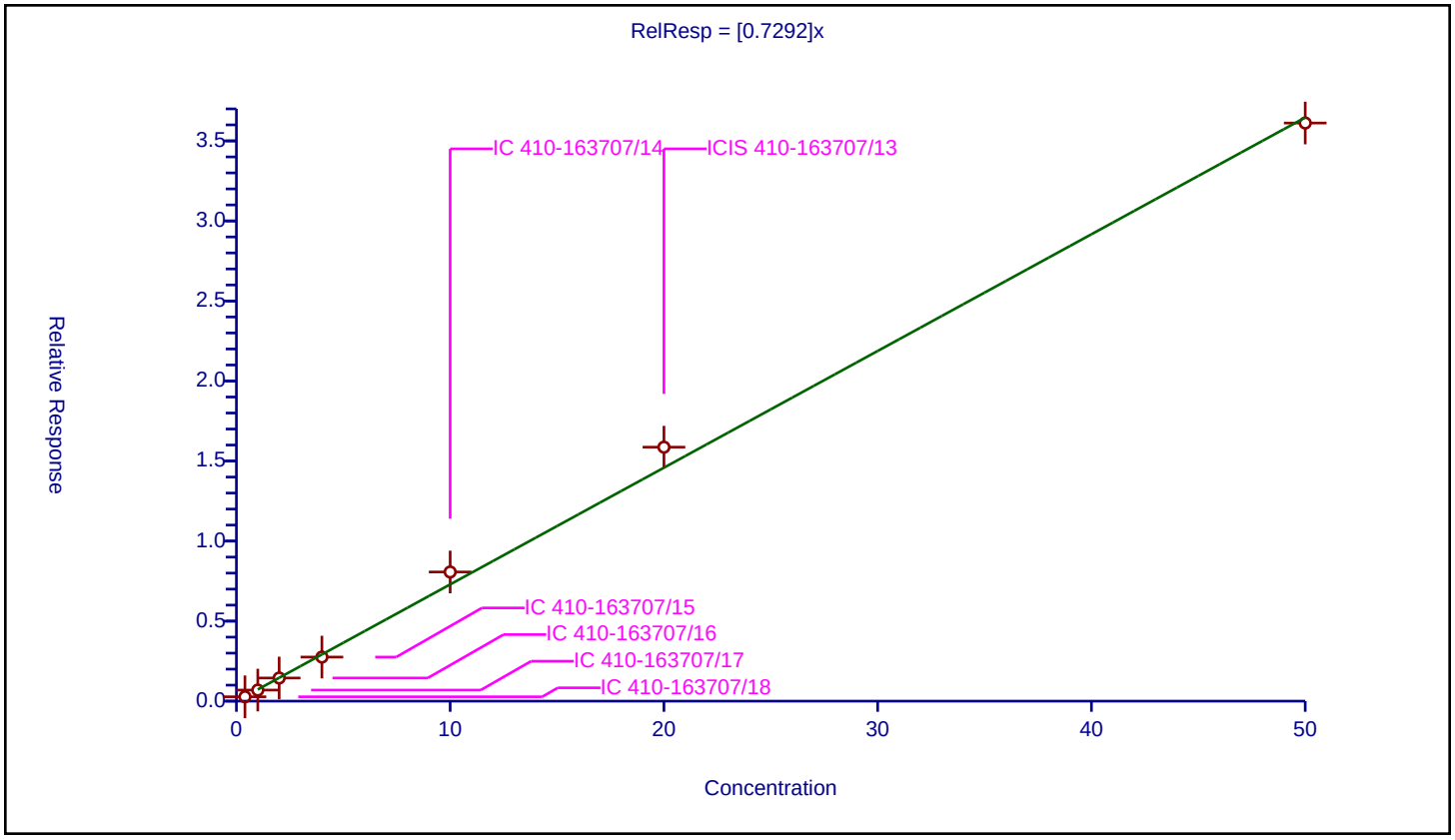
Curve Coefficients

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

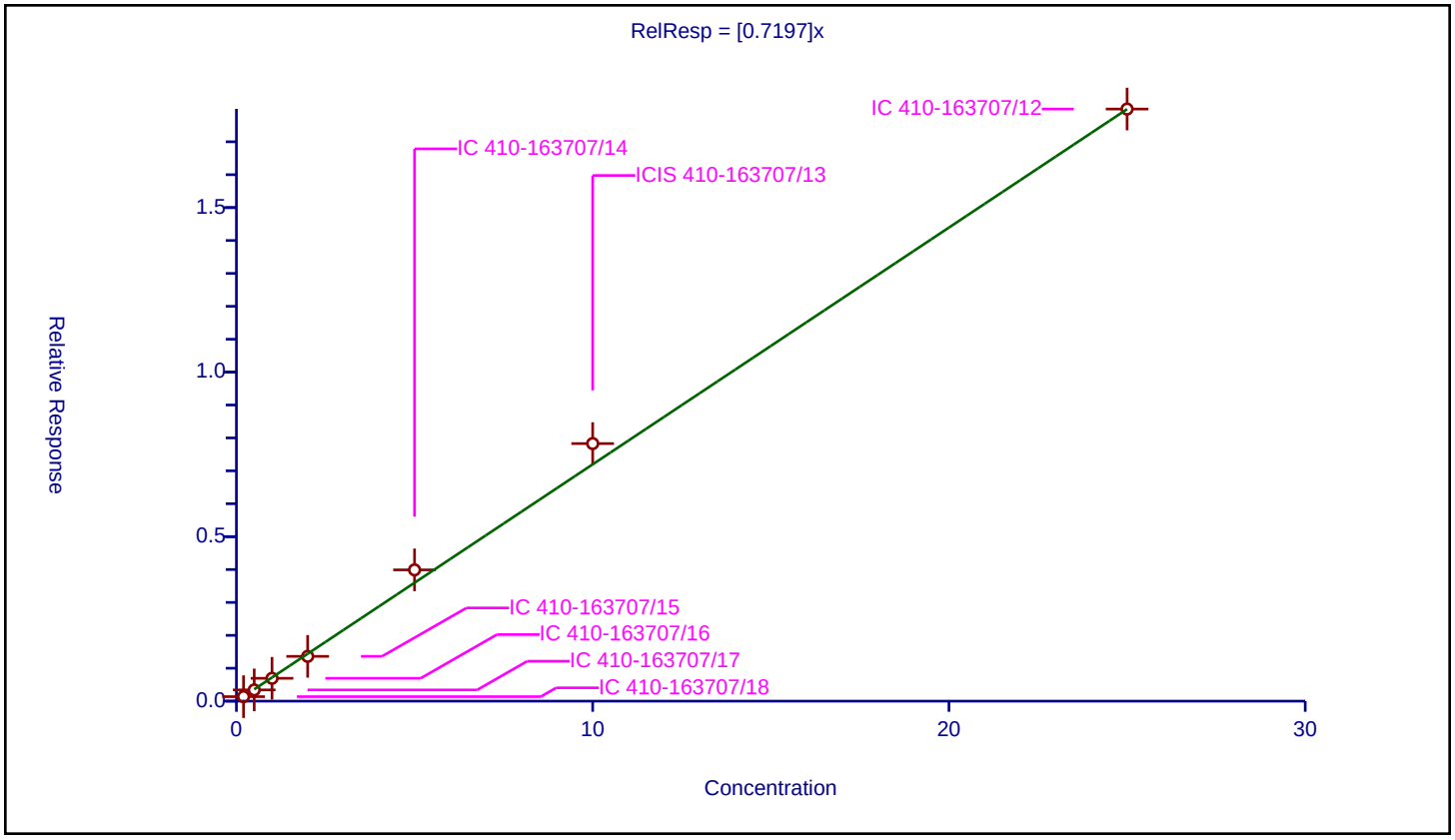
Curve Coefficients

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

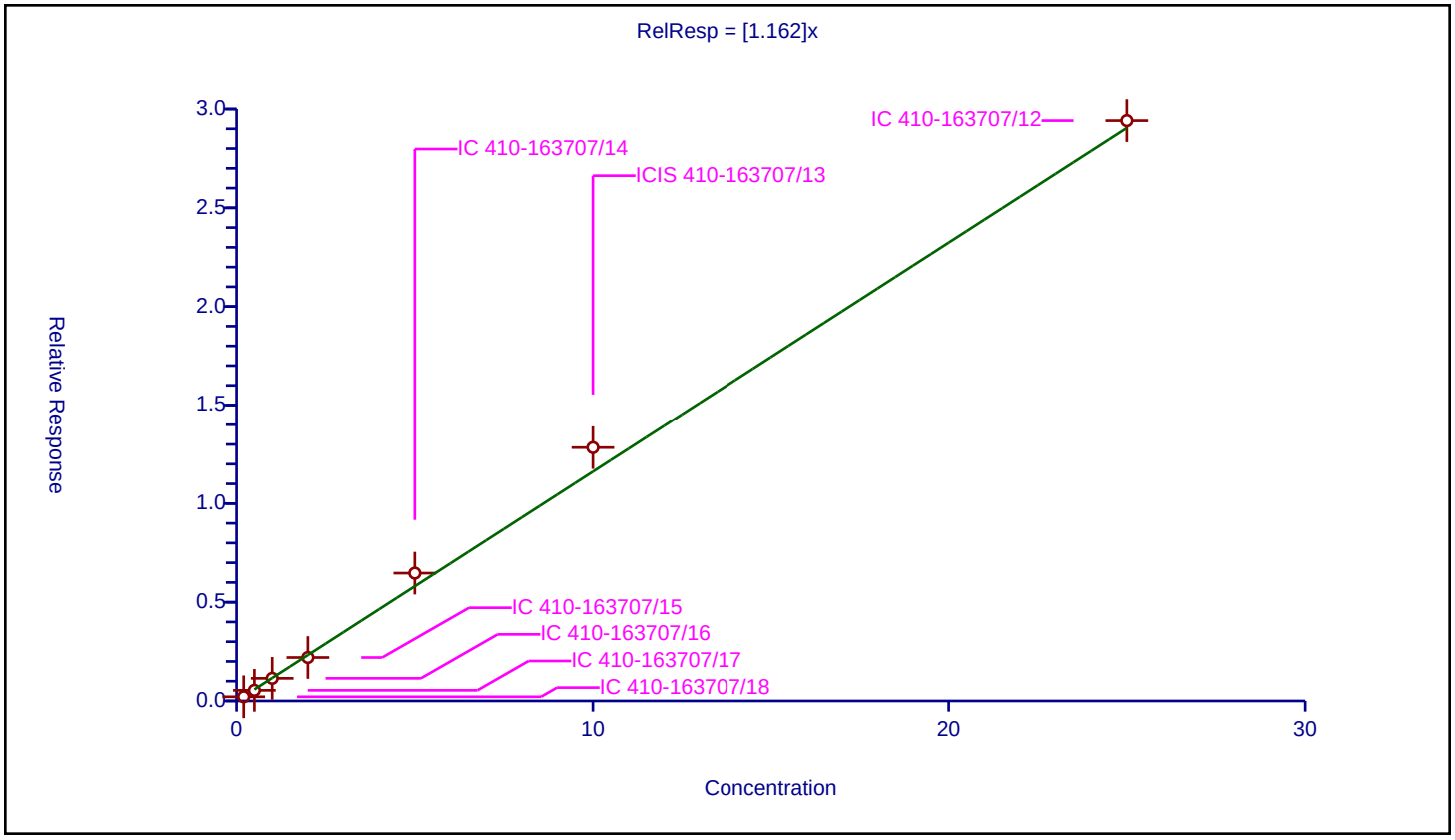
Curve Coefficients

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

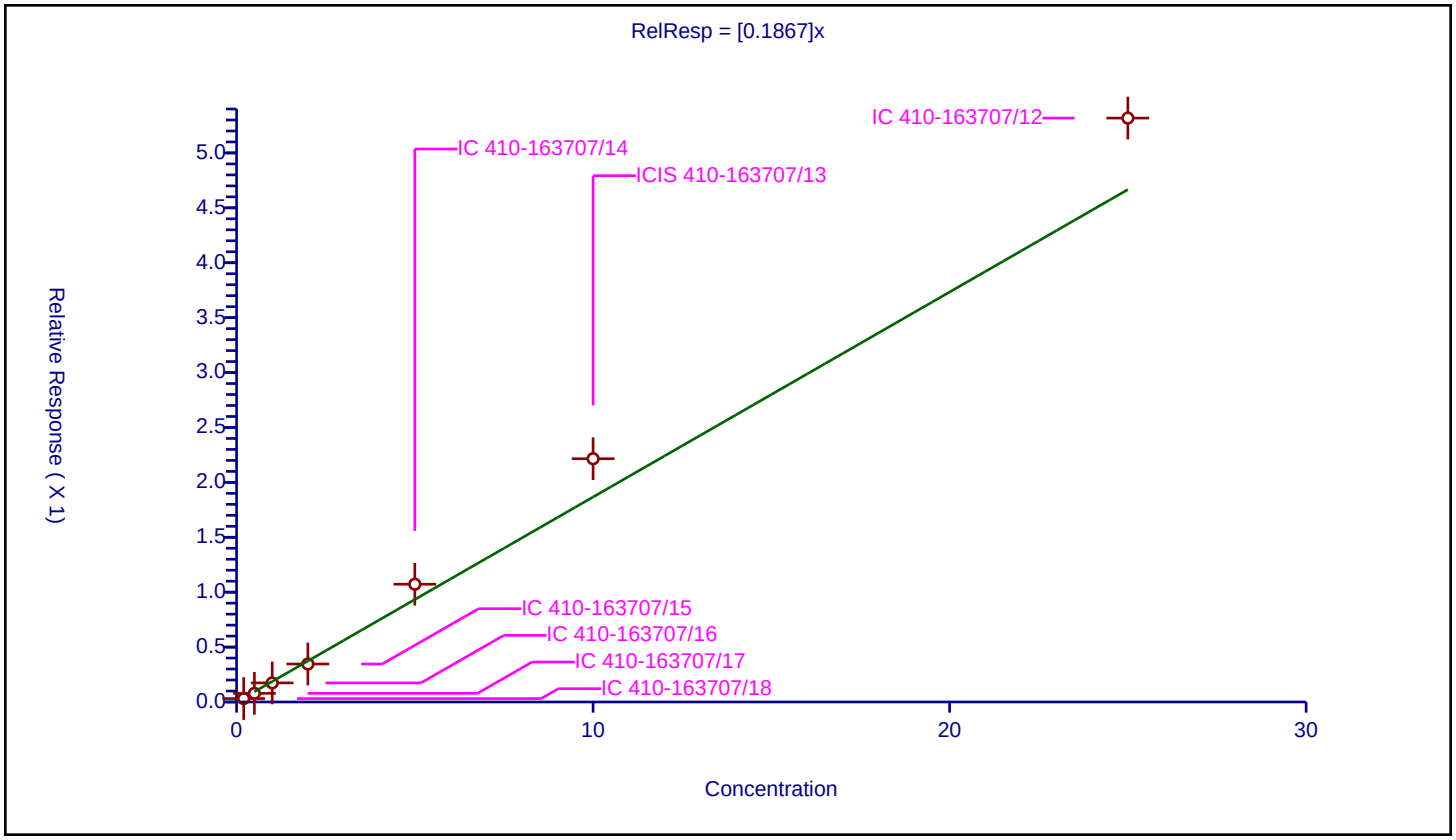
Curve Coefficients

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

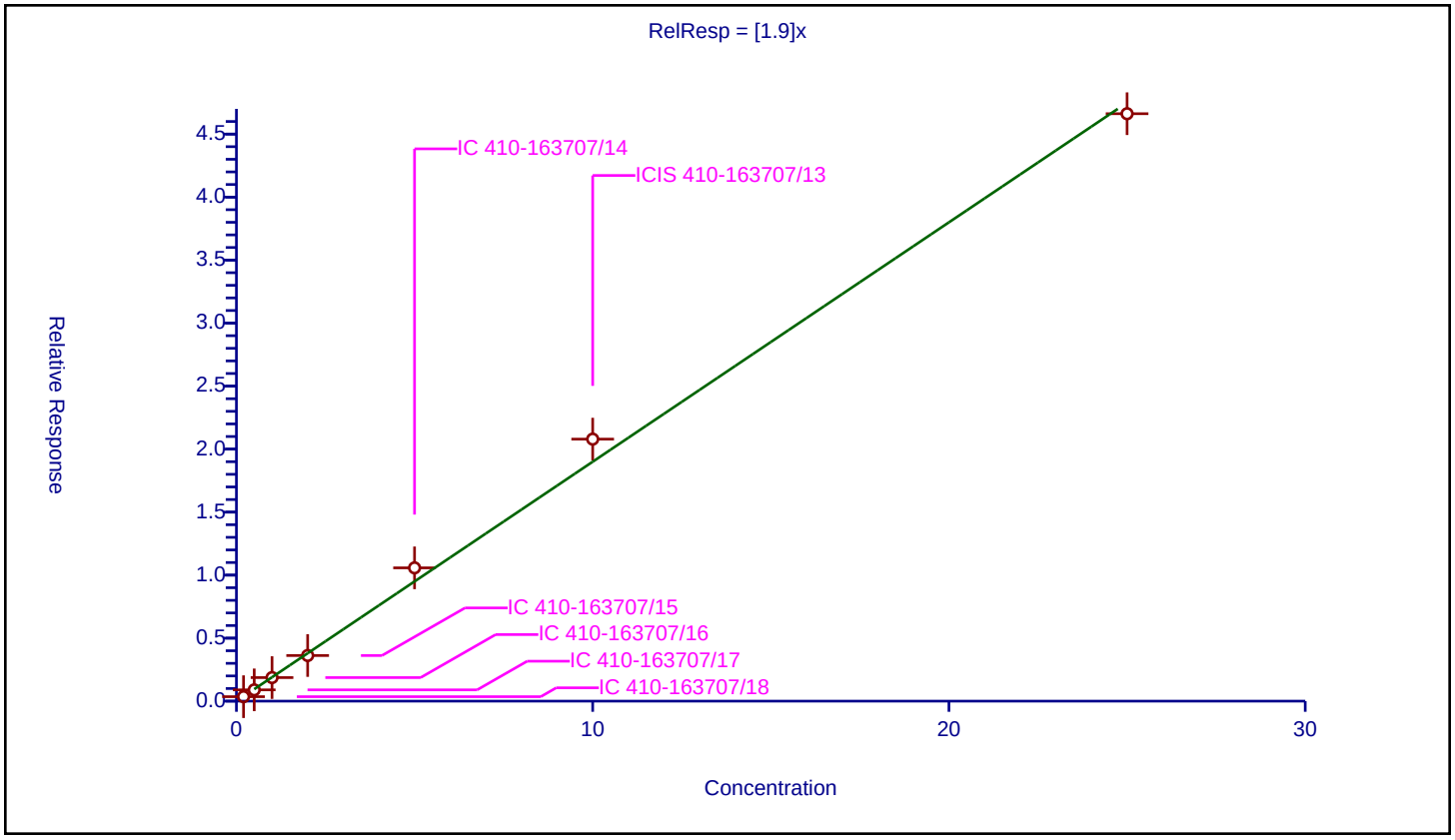
Curve Coefficients

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

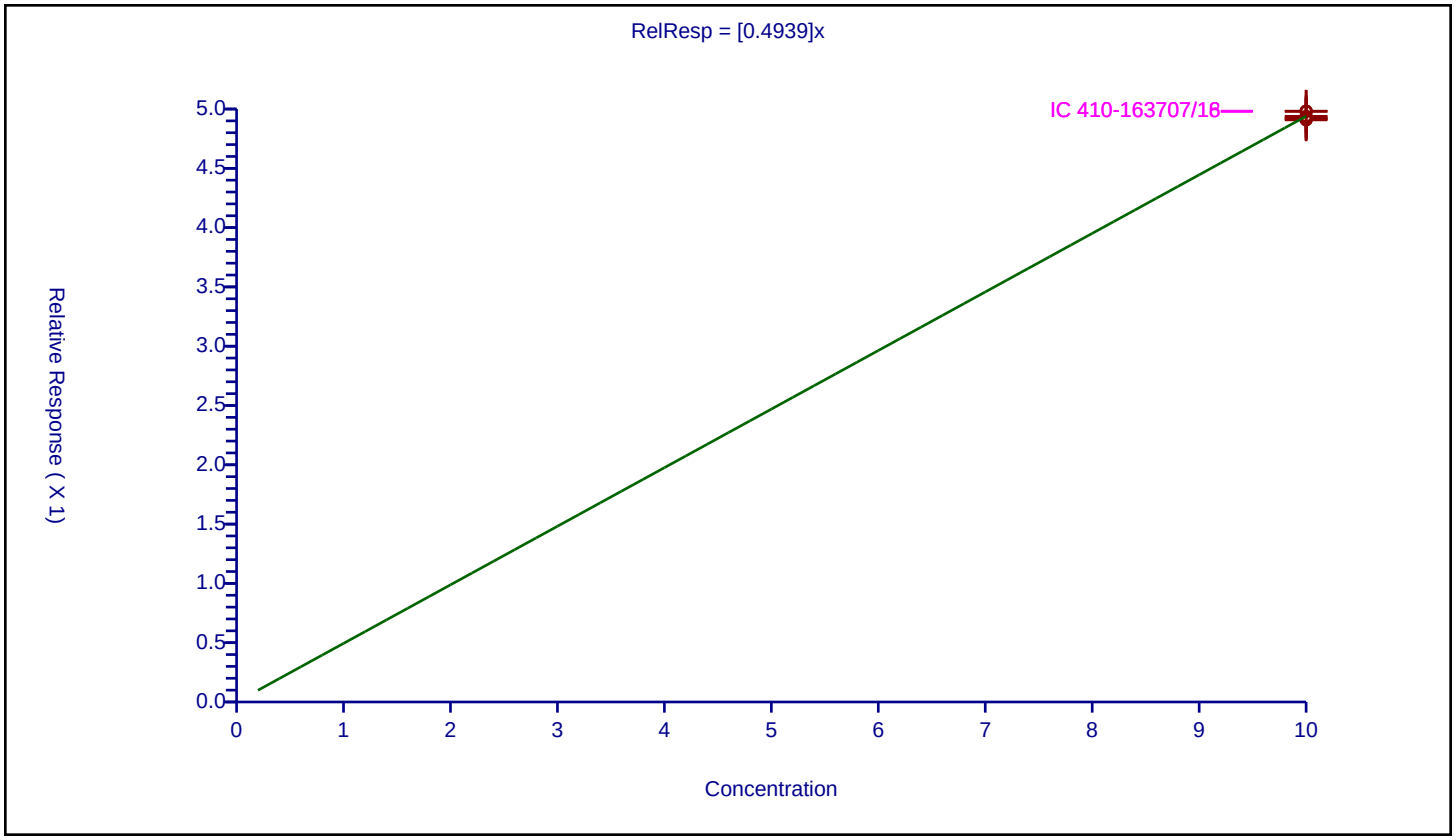
Curve Coefficients

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

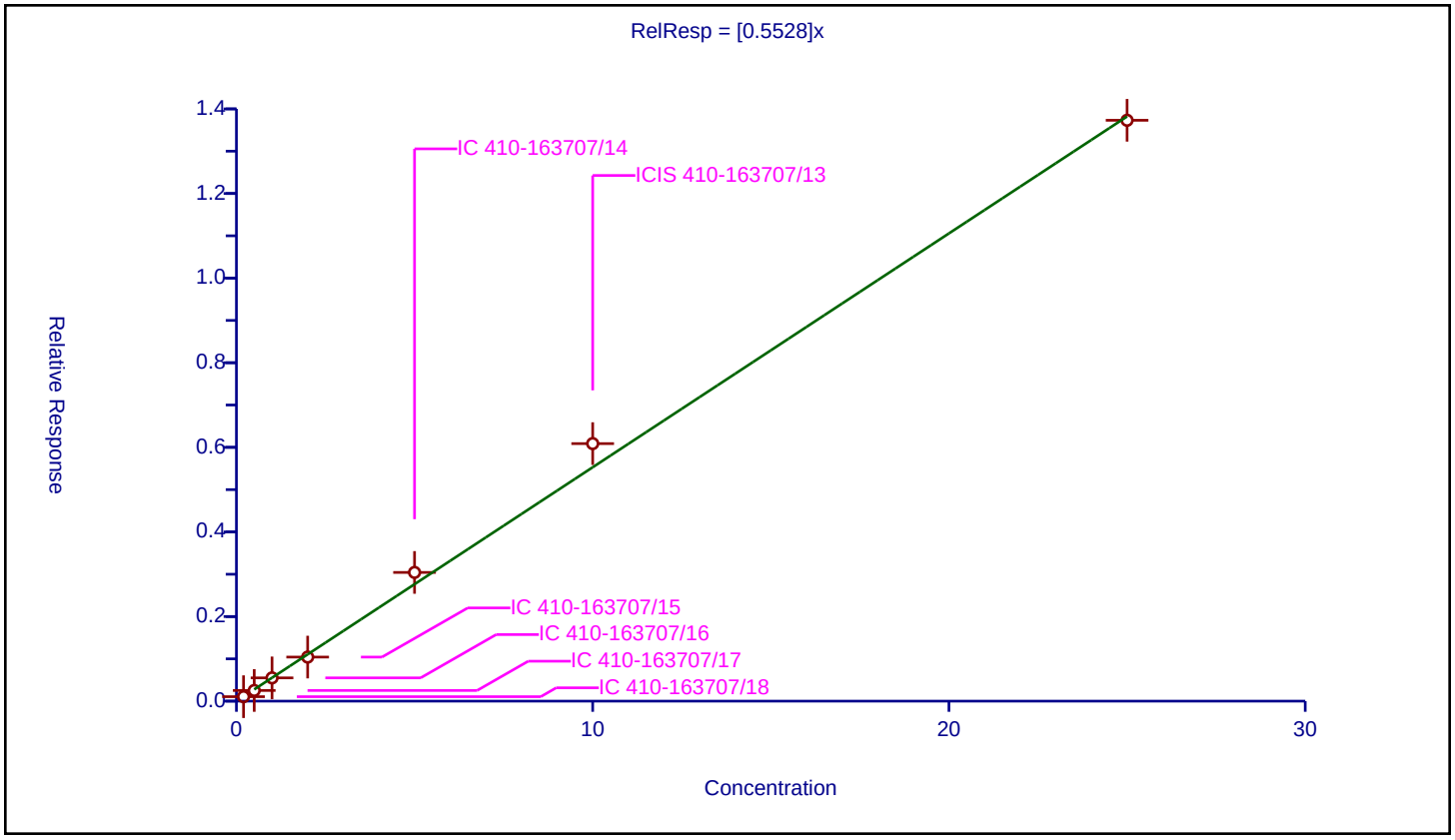
Curve Coefficients

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

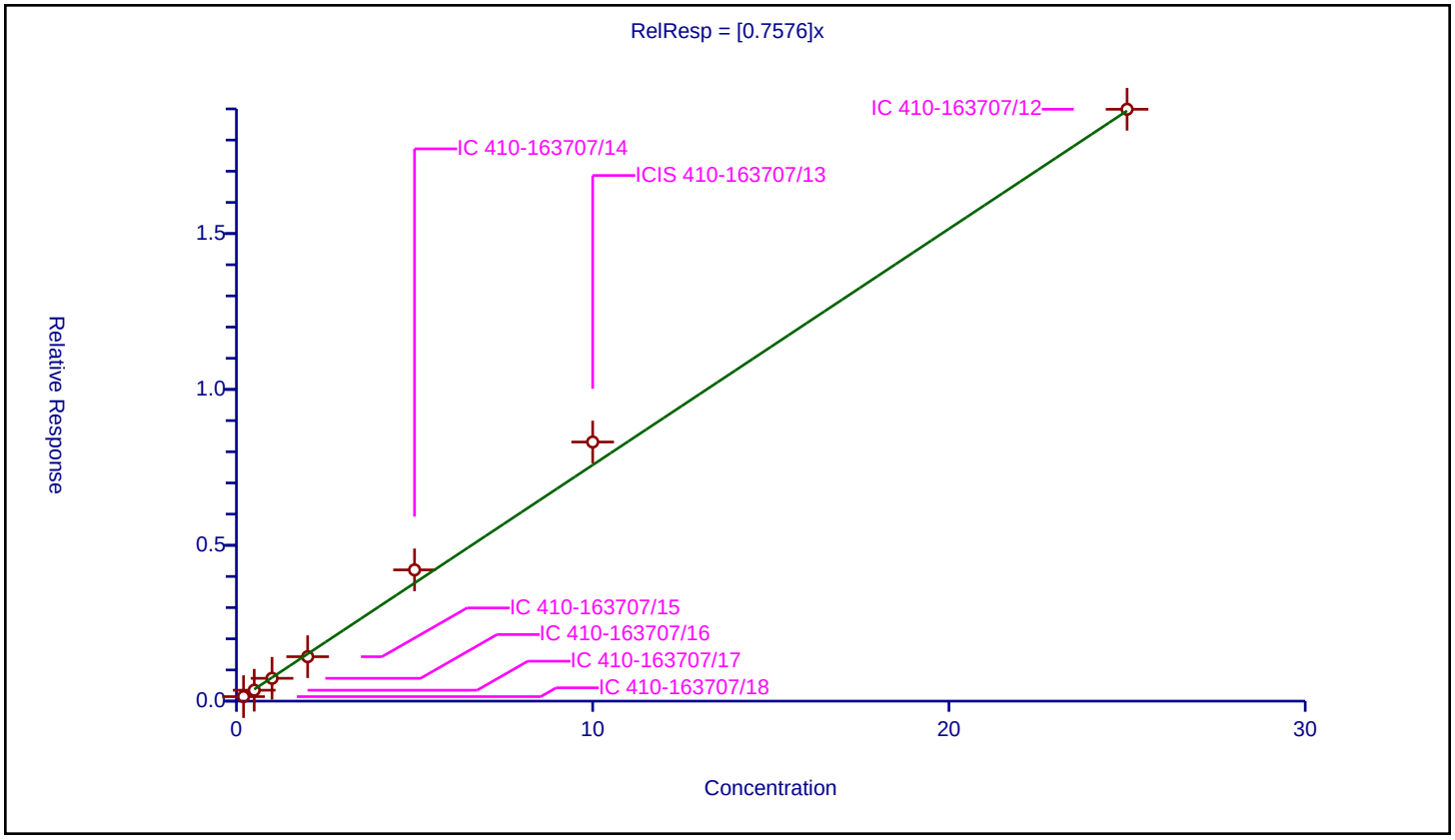
Curve Coefficients

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

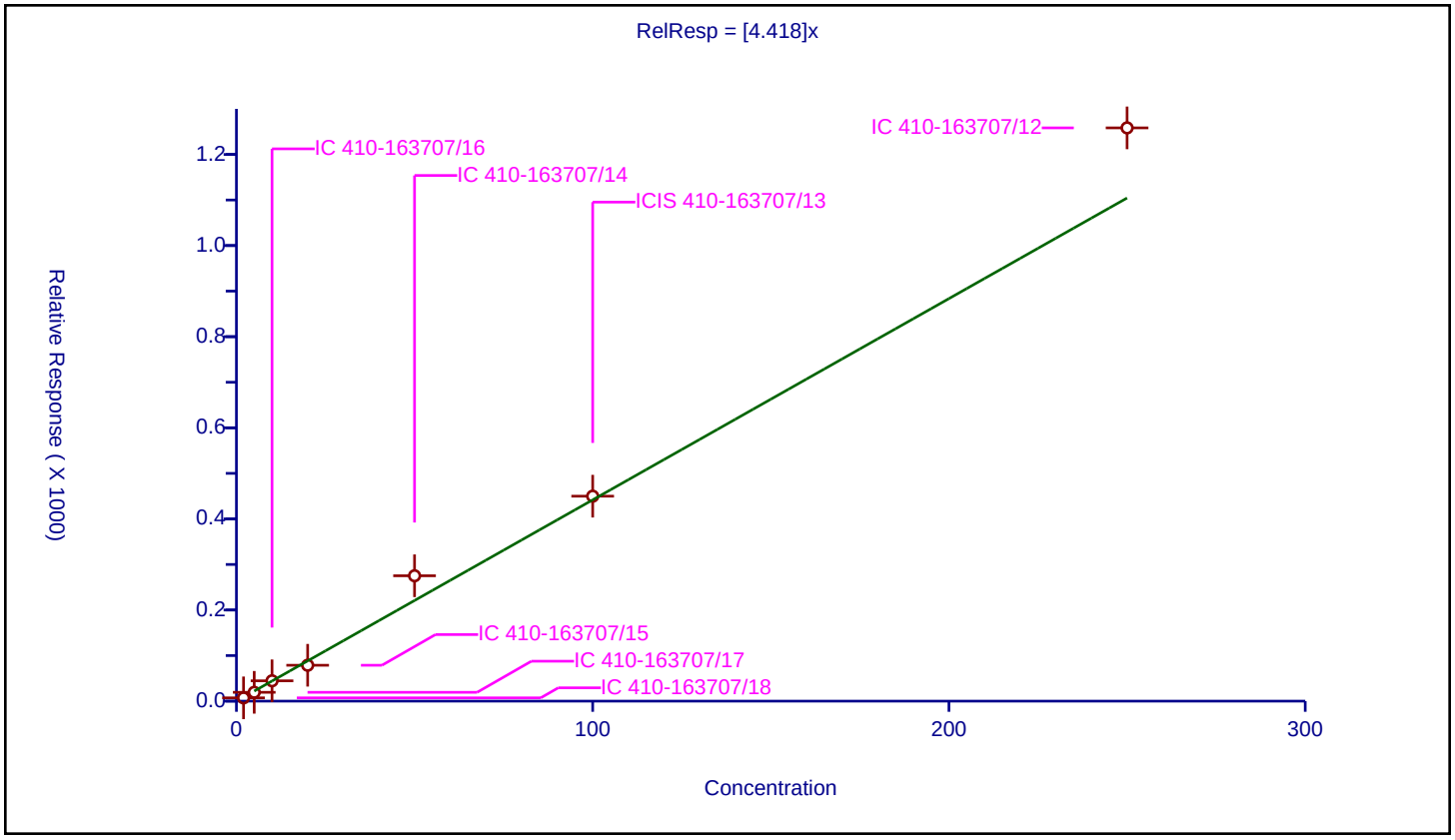
Curve Coefficients

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

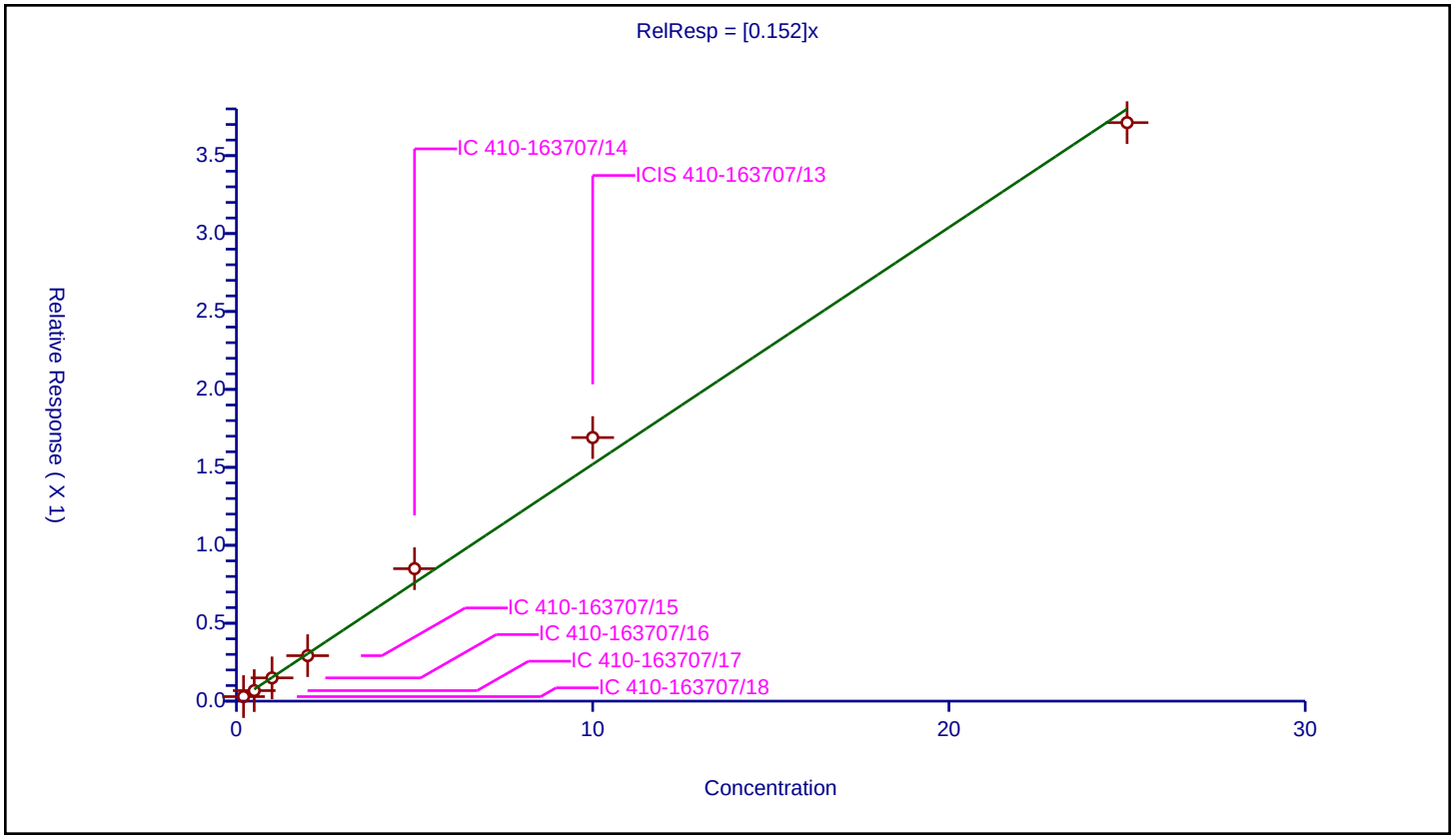
Curve Coefficients

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

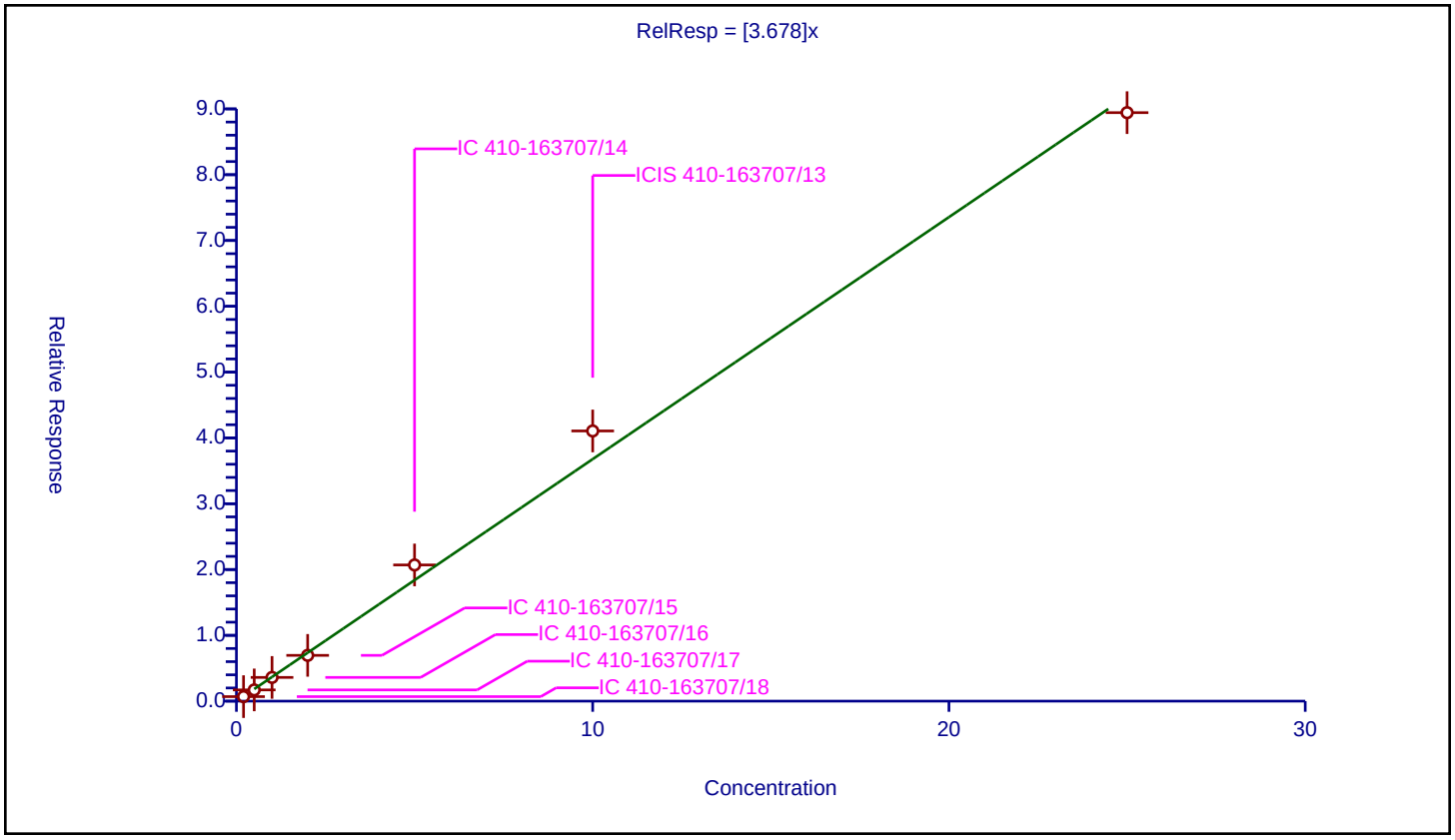
Curve Coefficients

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

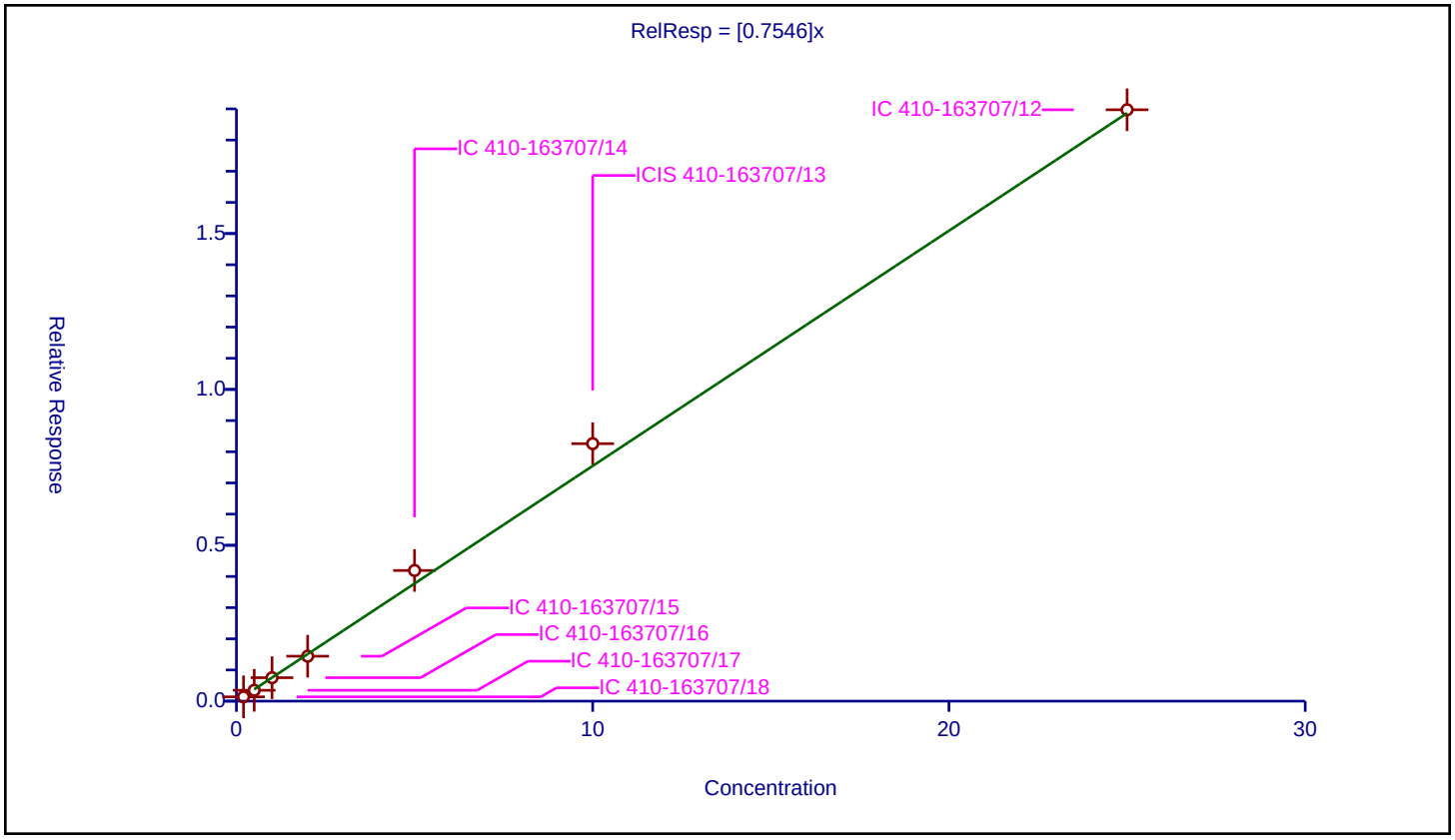
Curve Coefficients

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

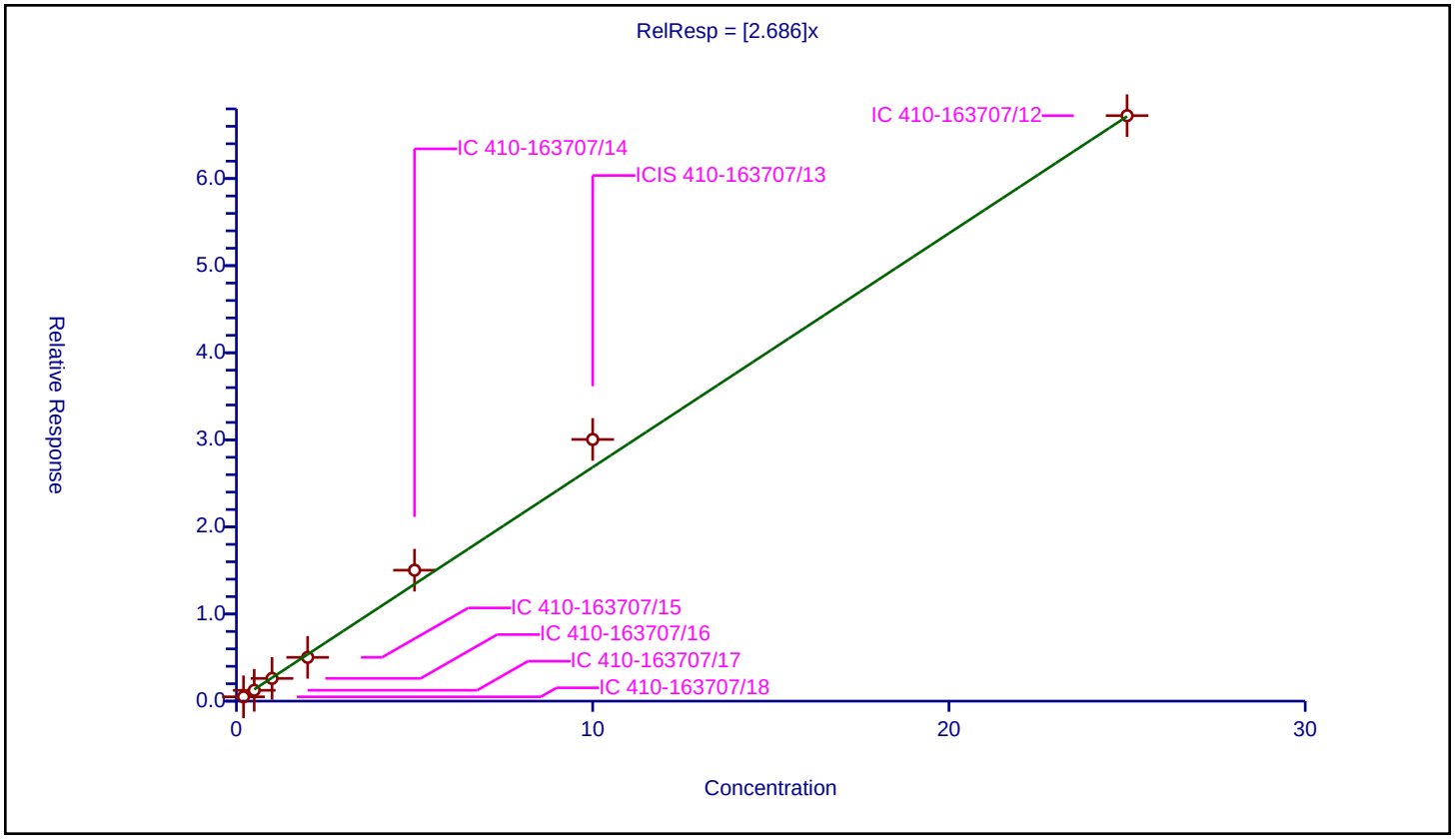
Curve Coefficients

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

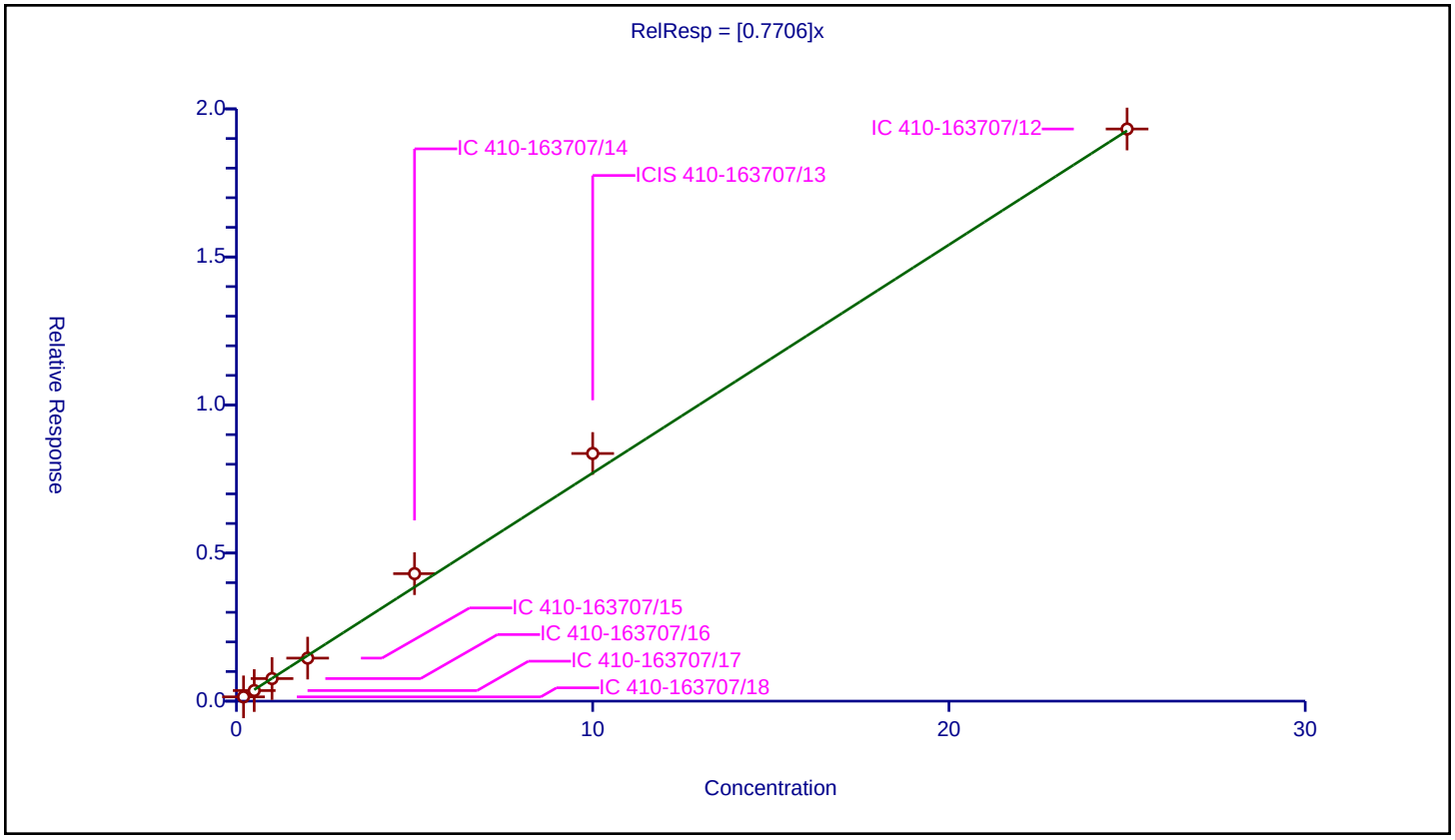
Curve Coefficients

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

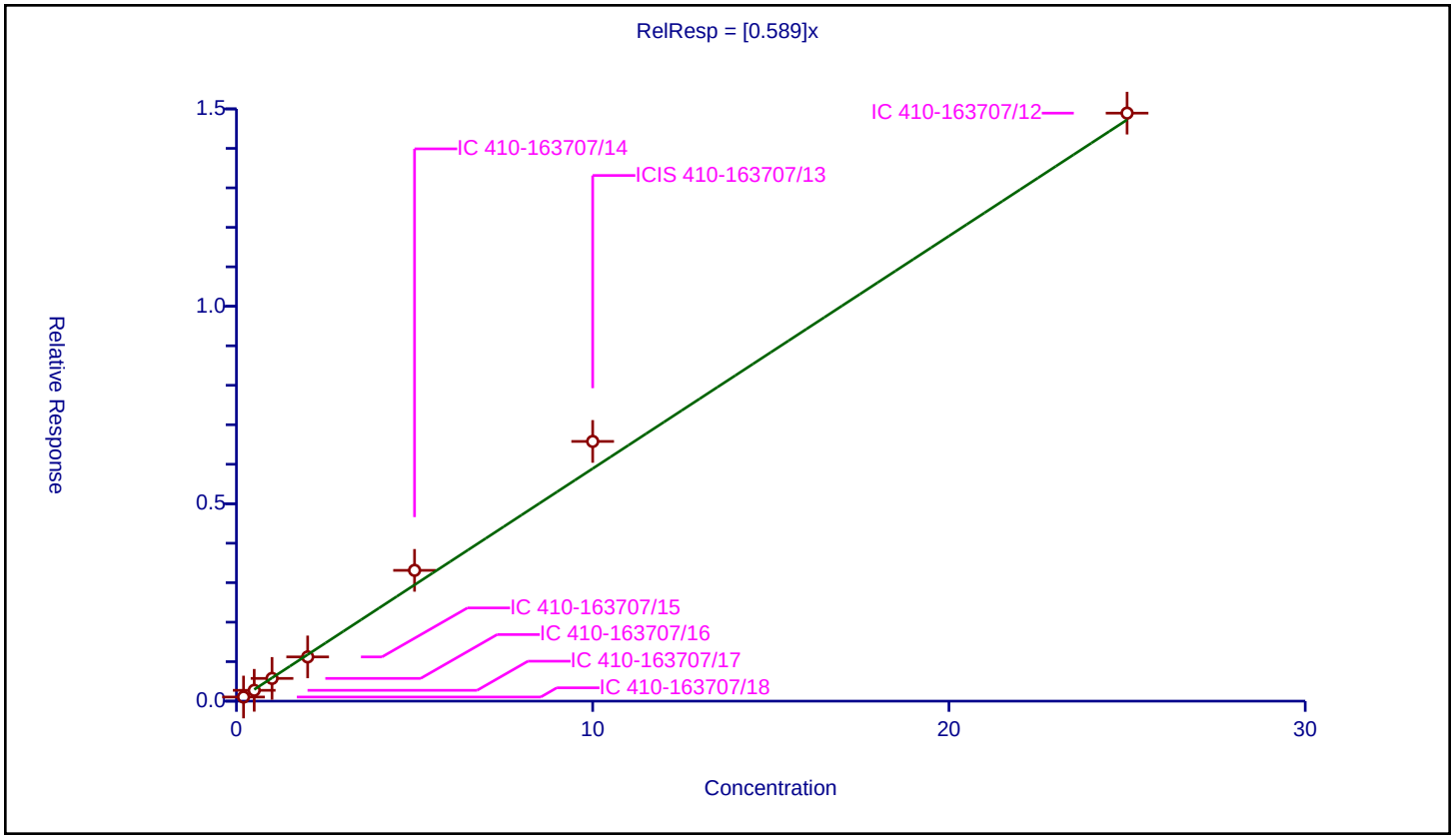
Curve Coefficients

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

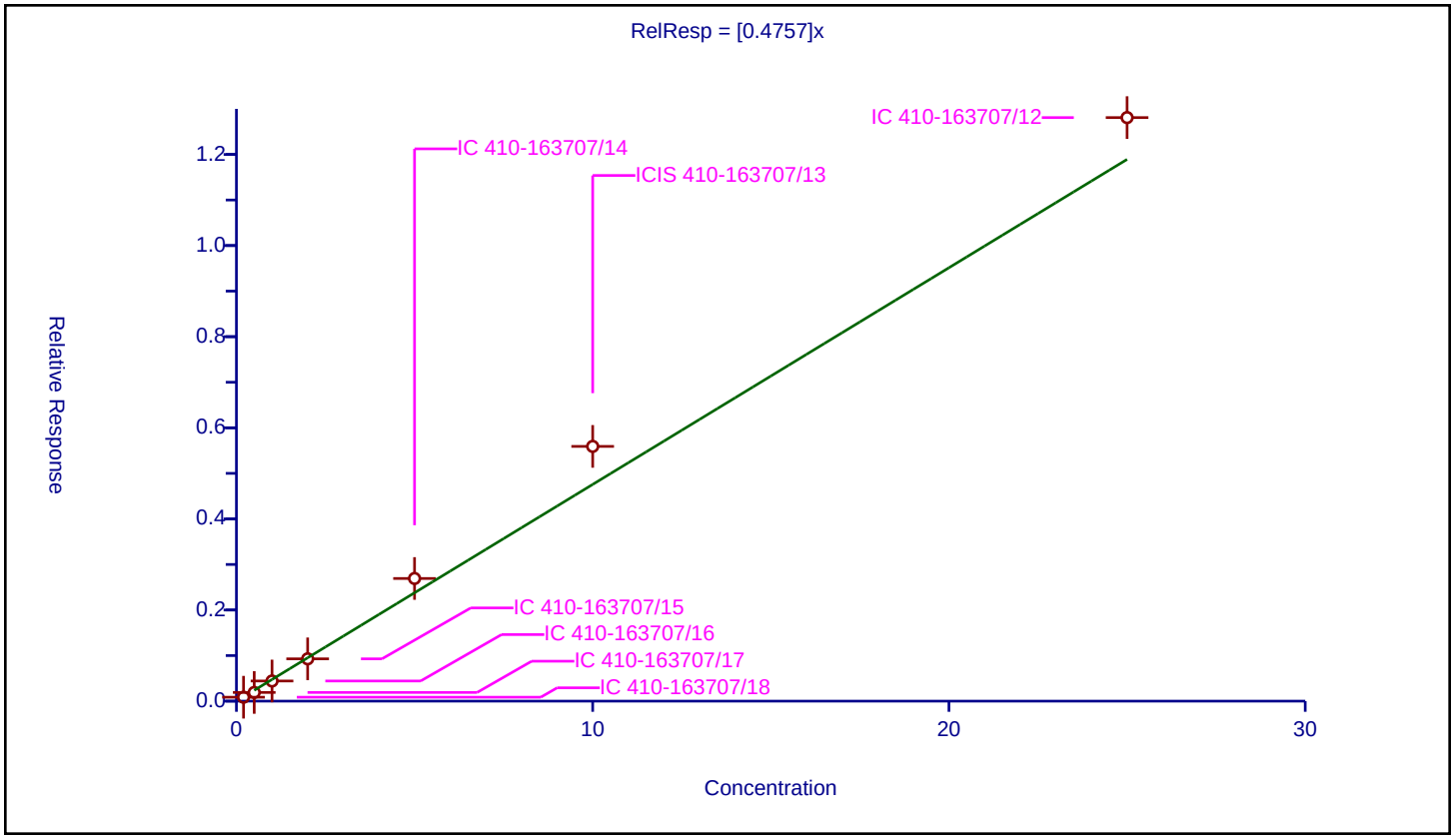
Curve Coefficients

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

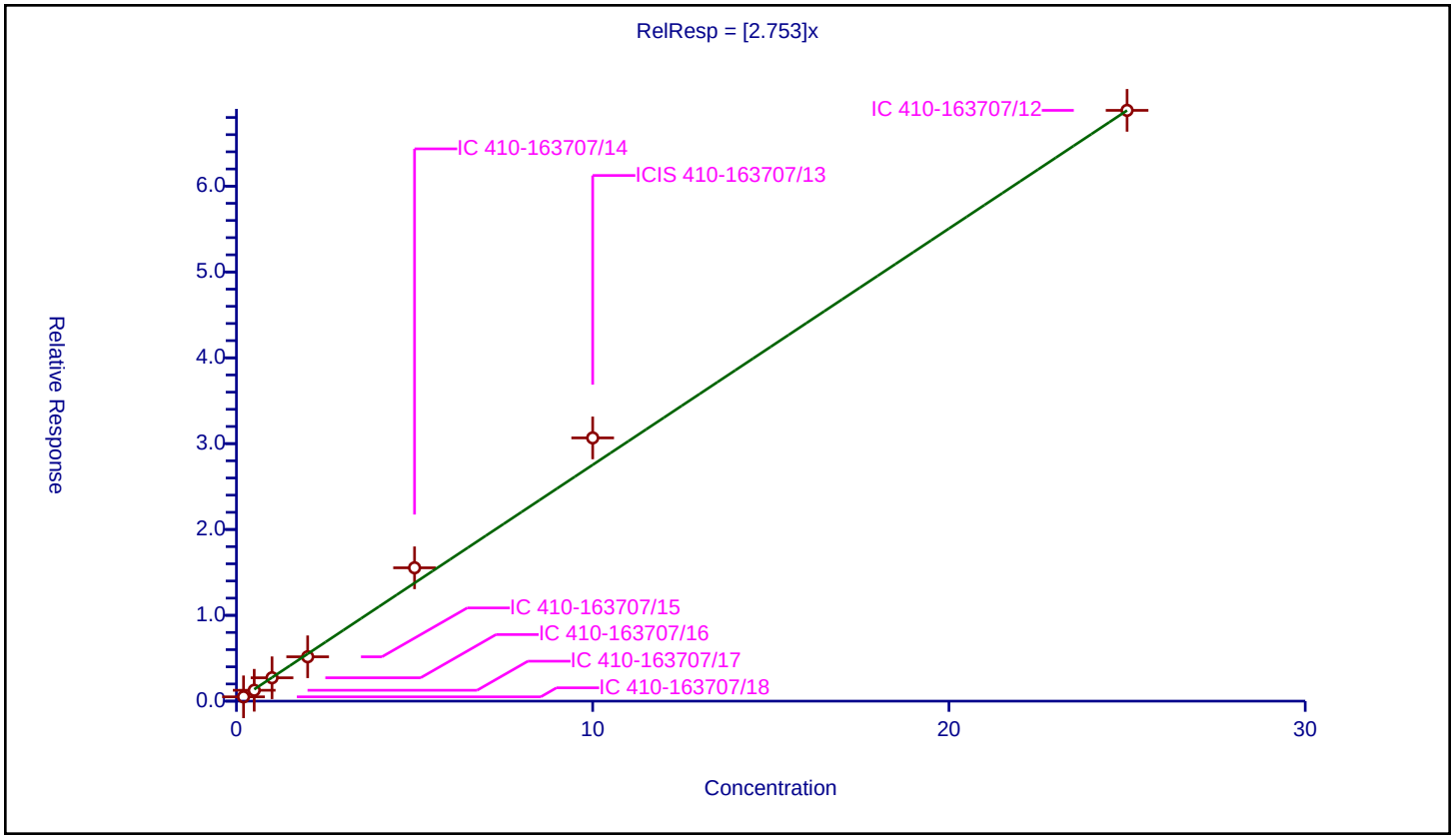
Curve Coefficients

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

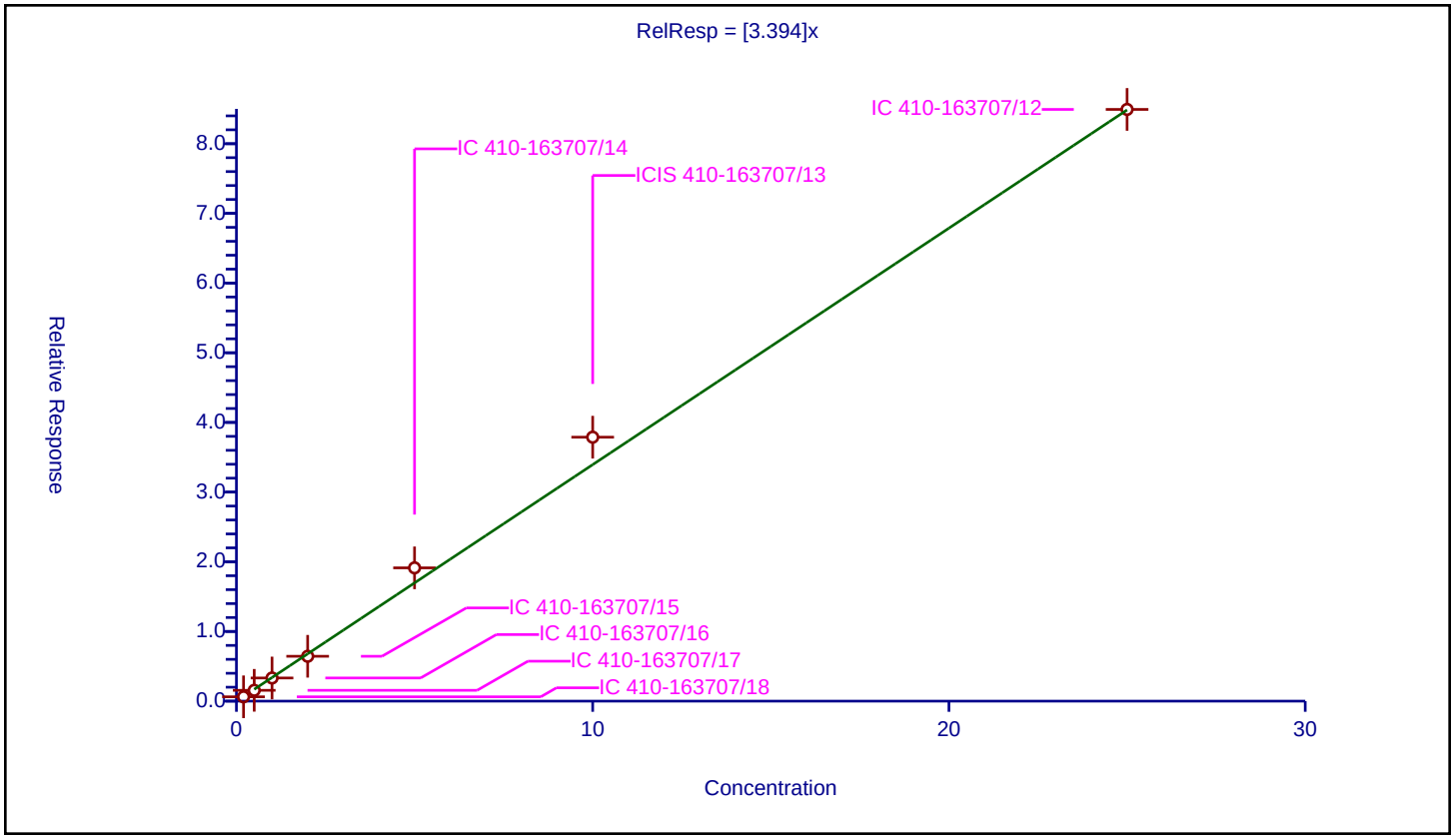
Curve Coefficients

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

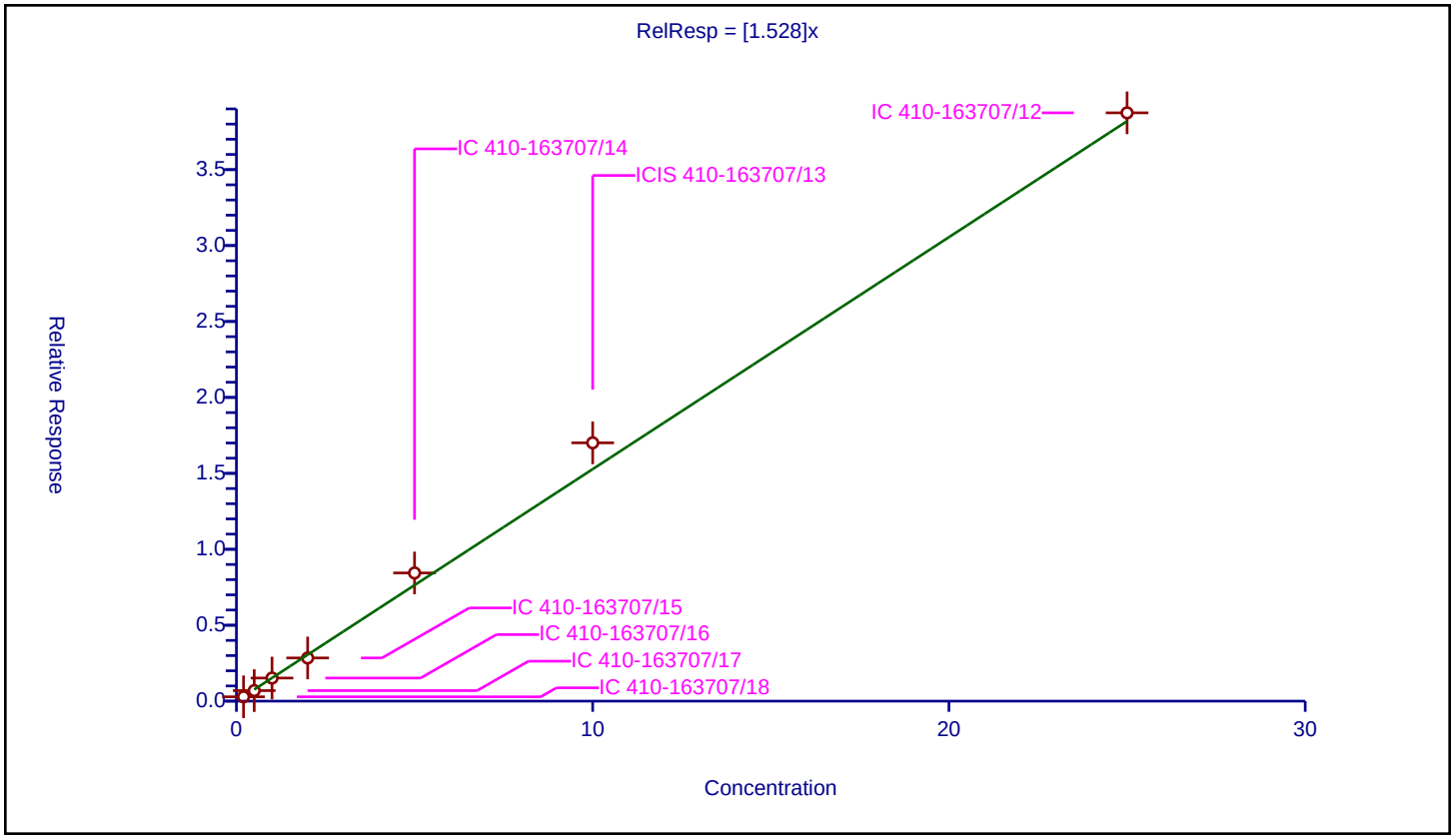
Curve Coefficients

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

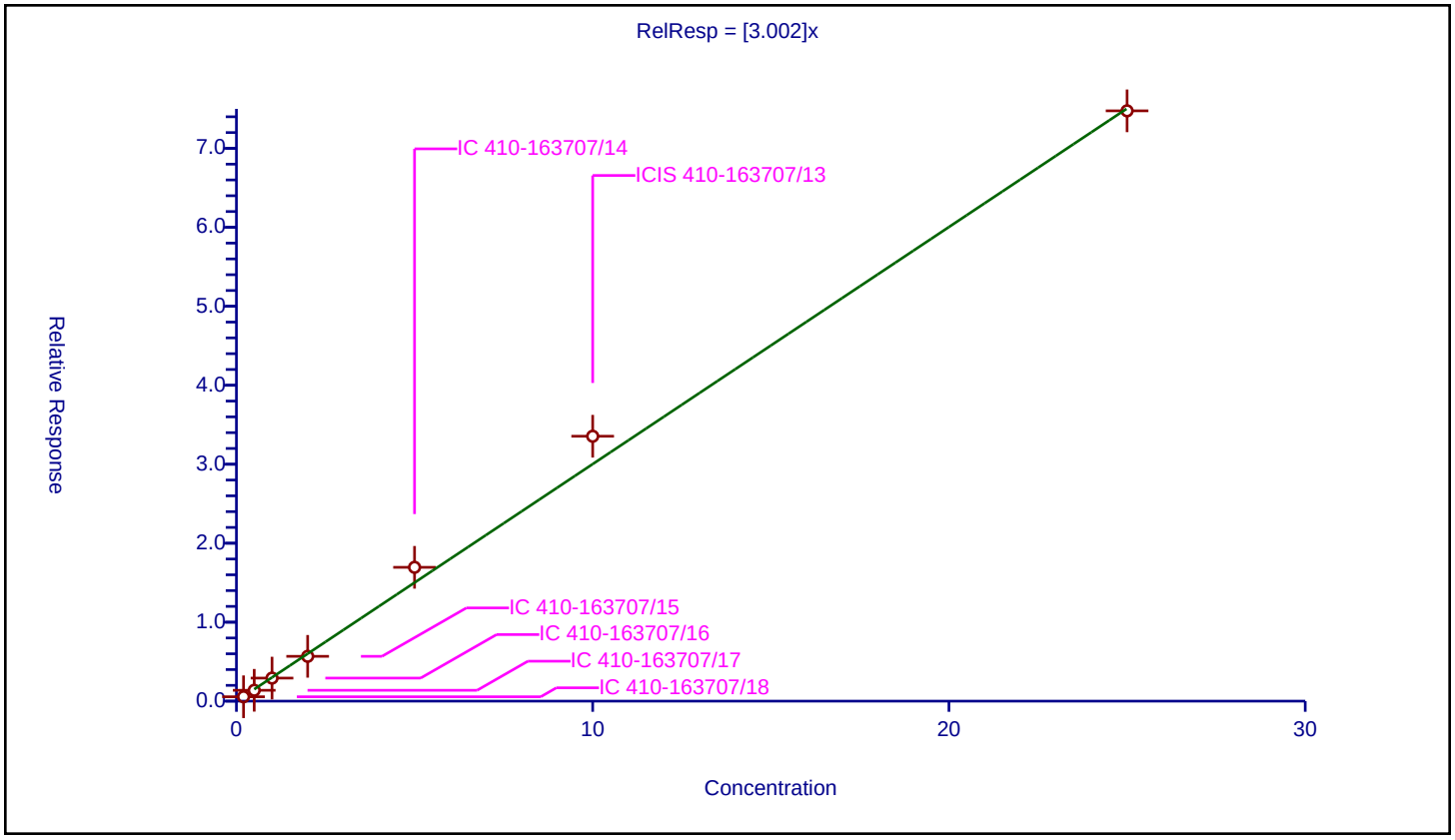
Curve Coefficients

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

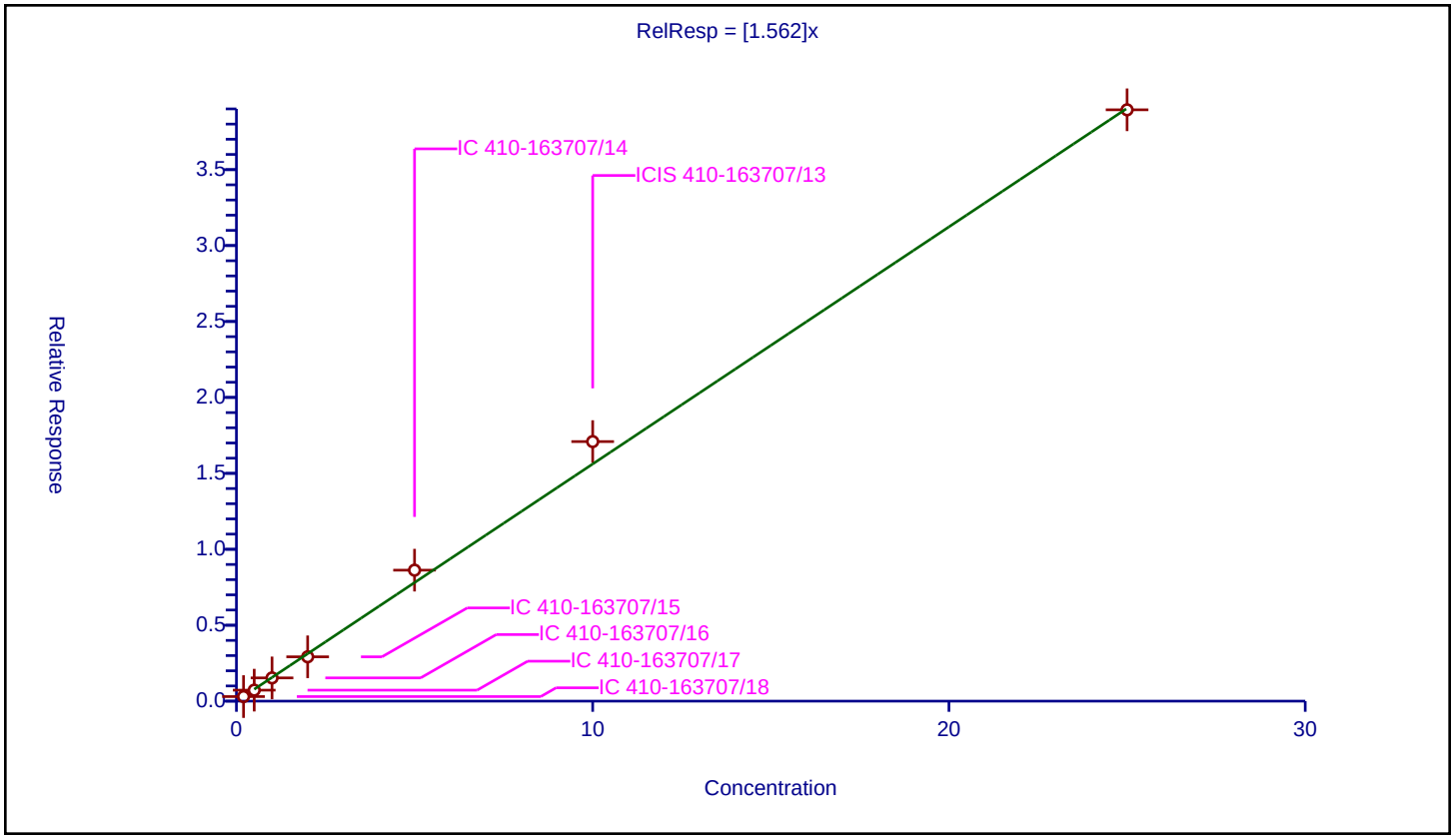
Curve Coefficients

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

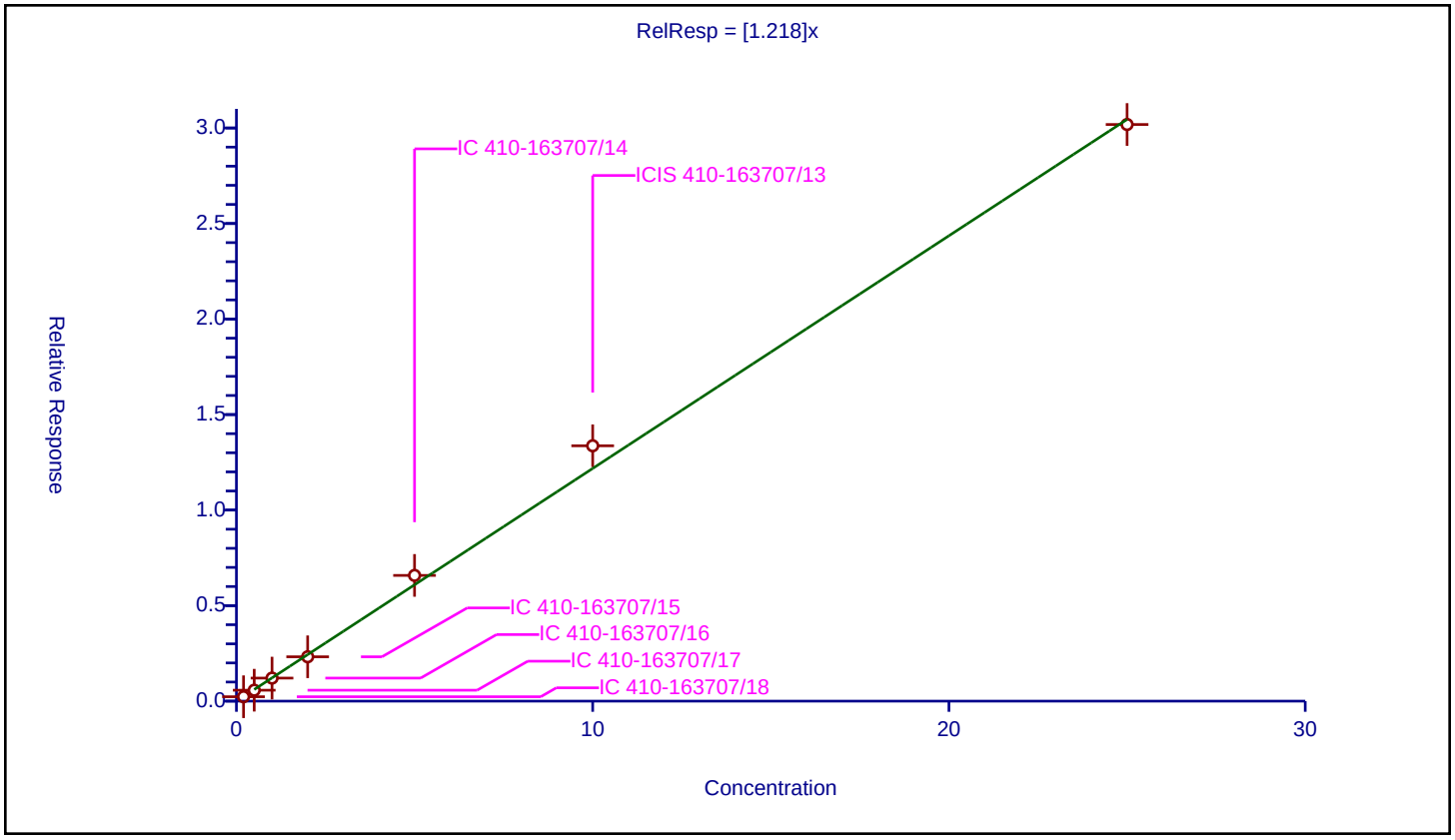
Curve Coefficients

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

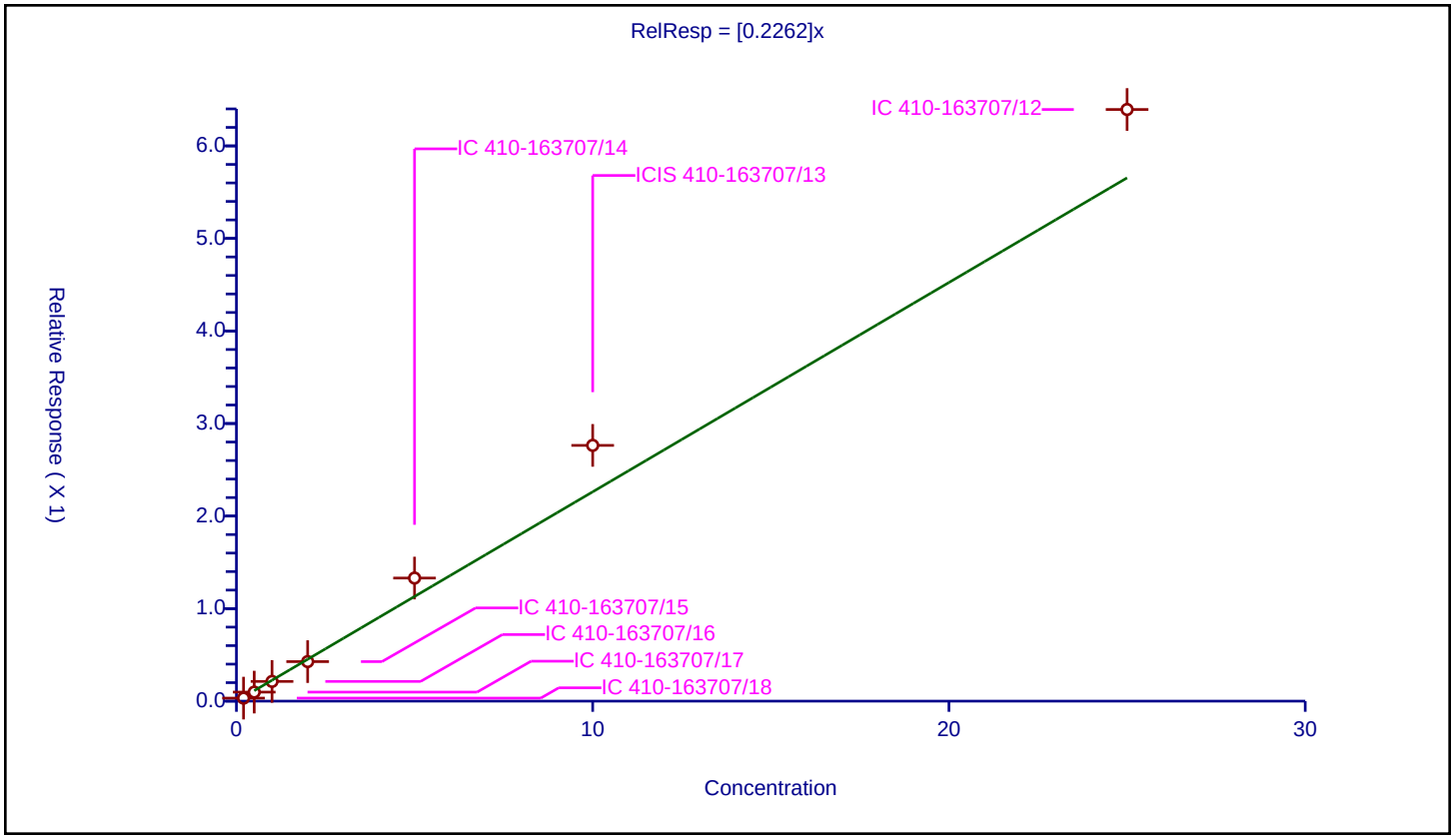
Curve Coefficients

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

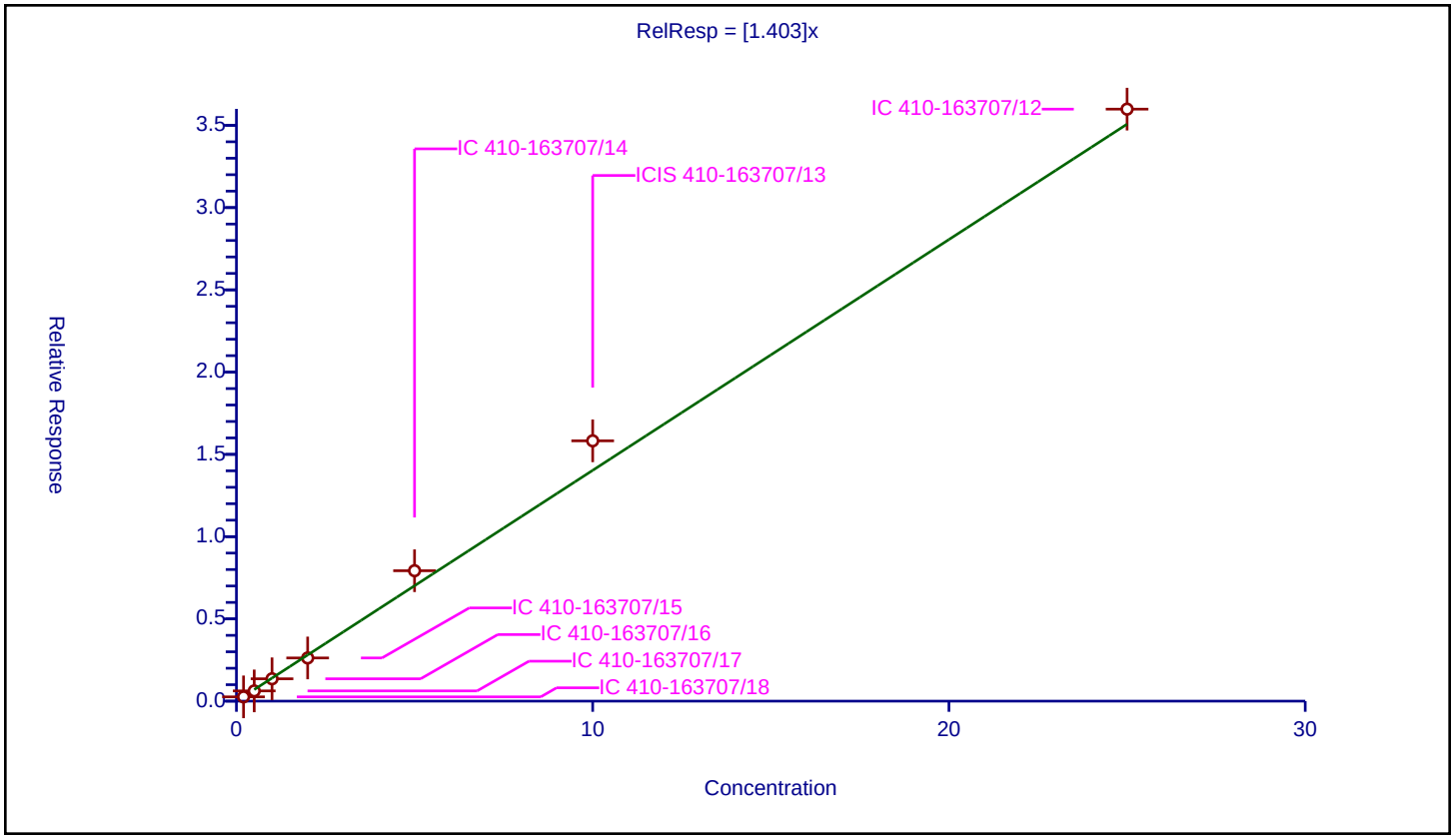
Curve Coefficients

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

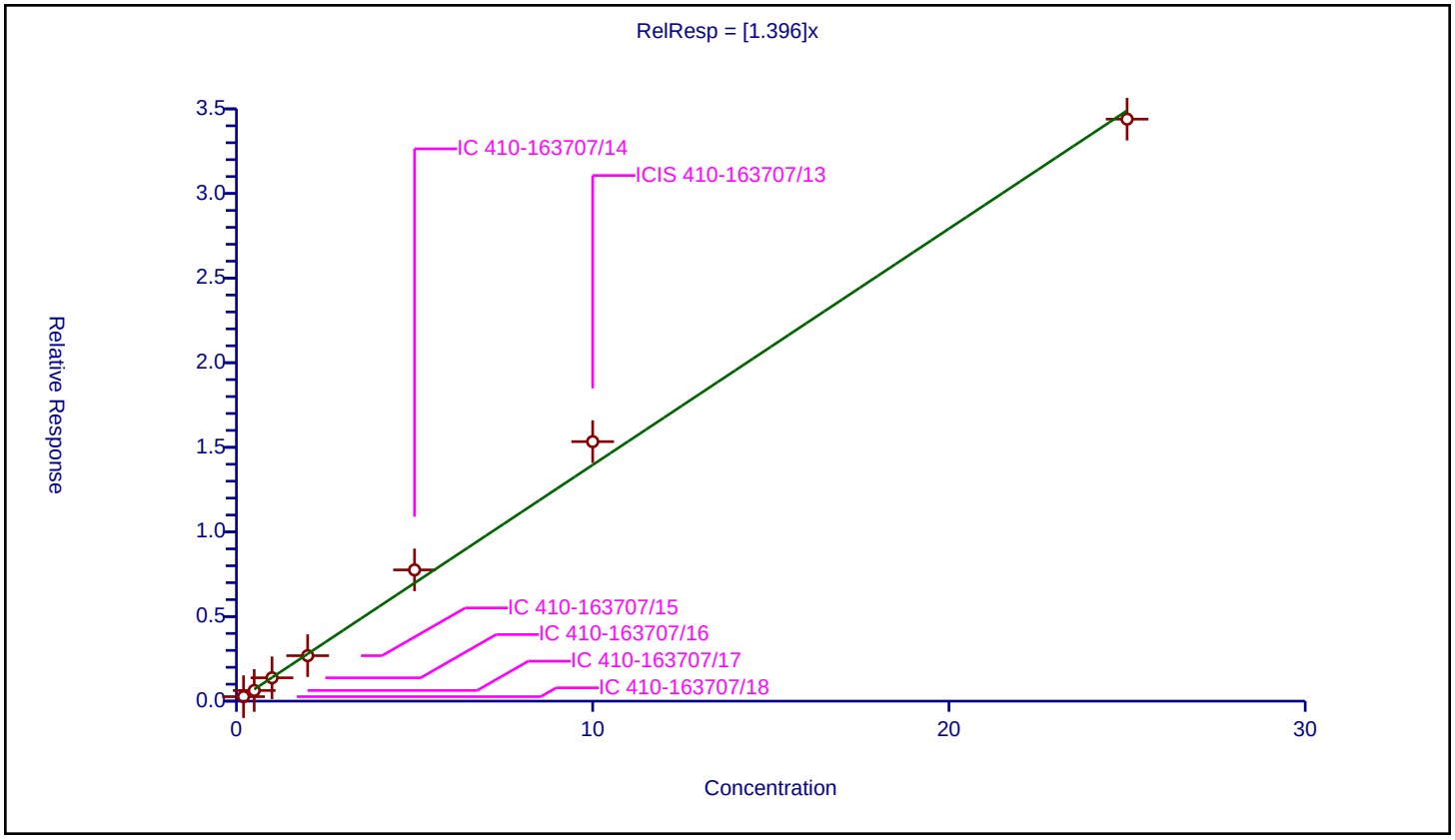
Curve Coefficients

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

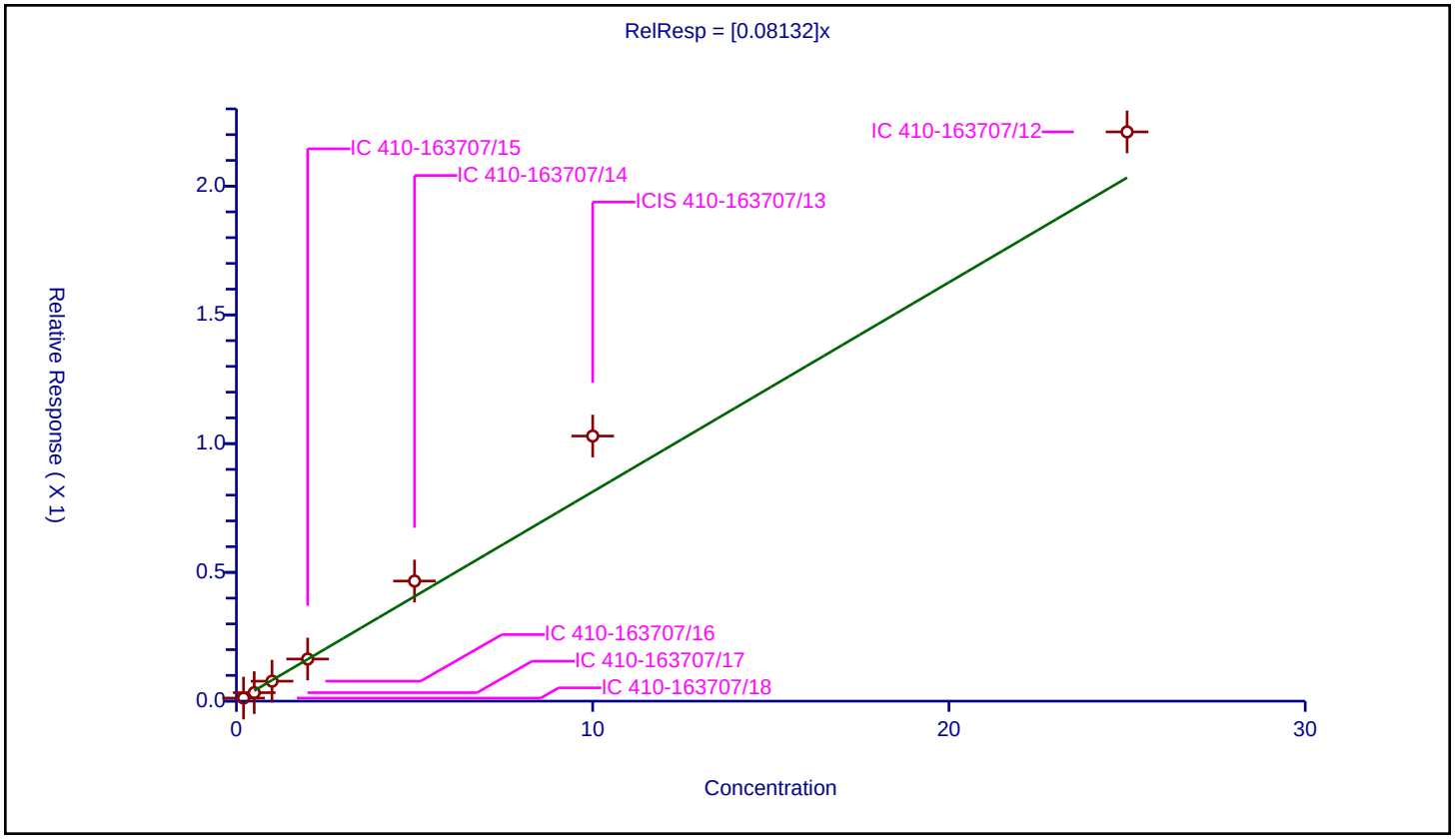
Curve Coefficients

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

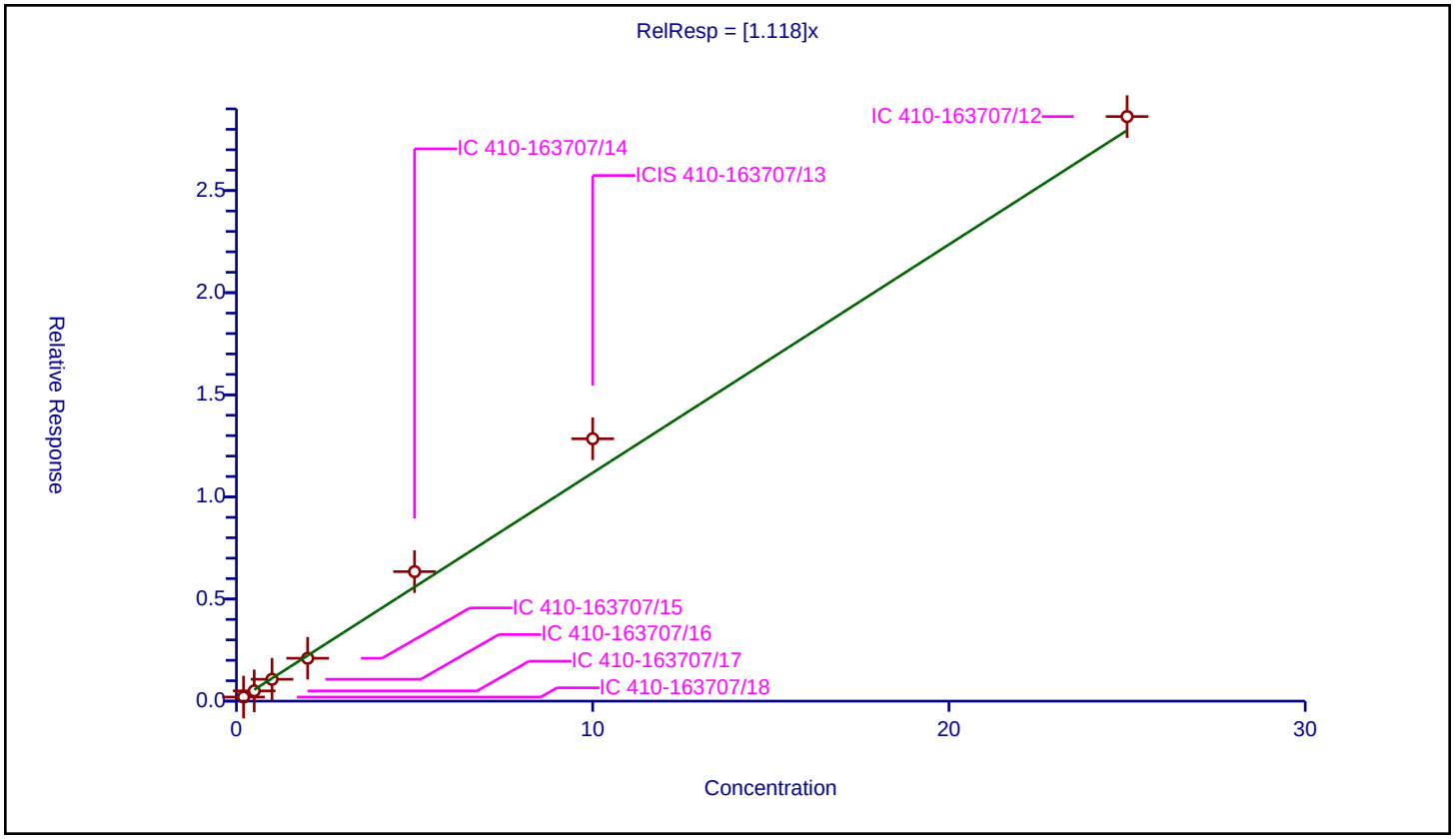
Curve Coefficients

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

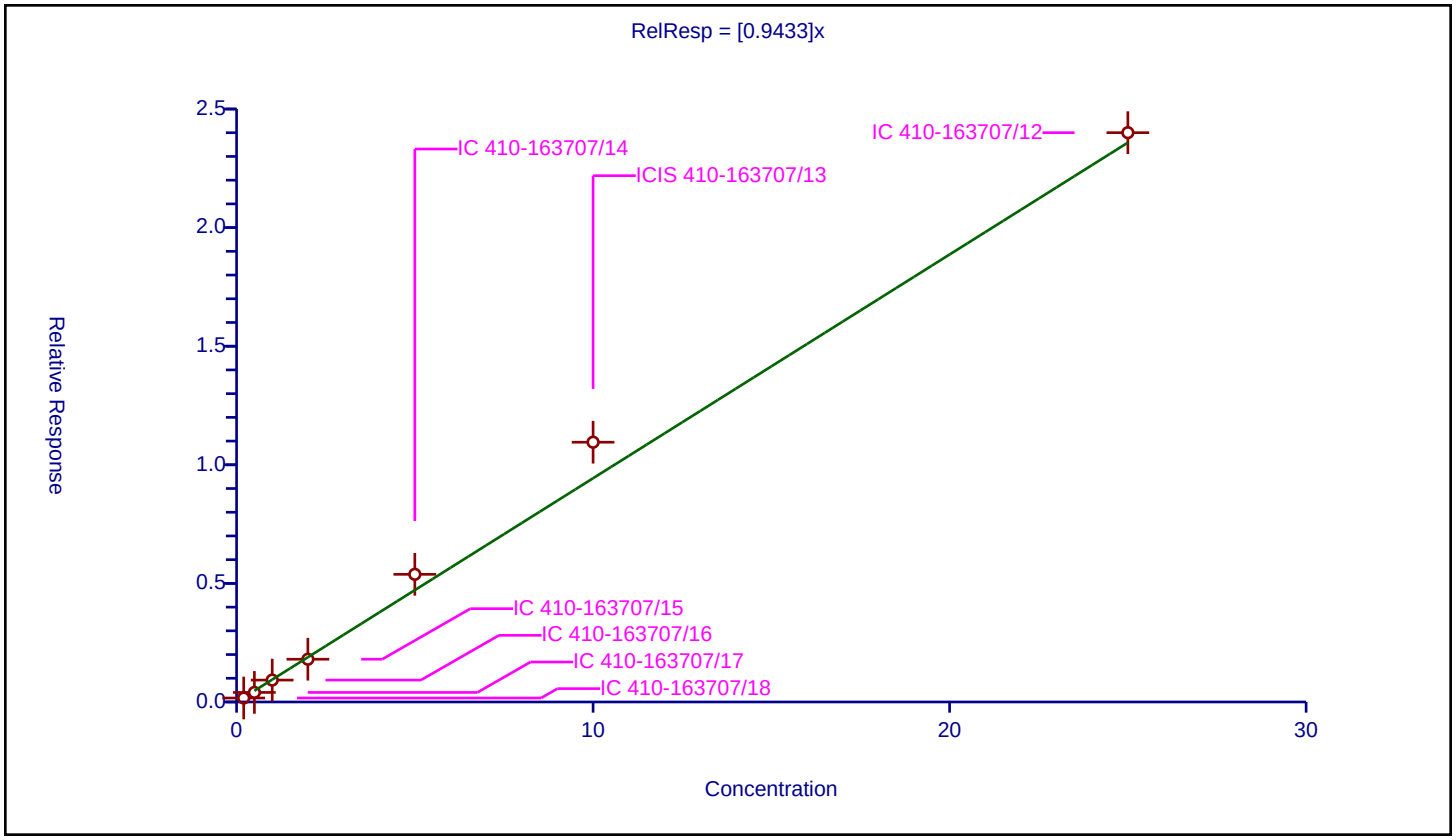
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

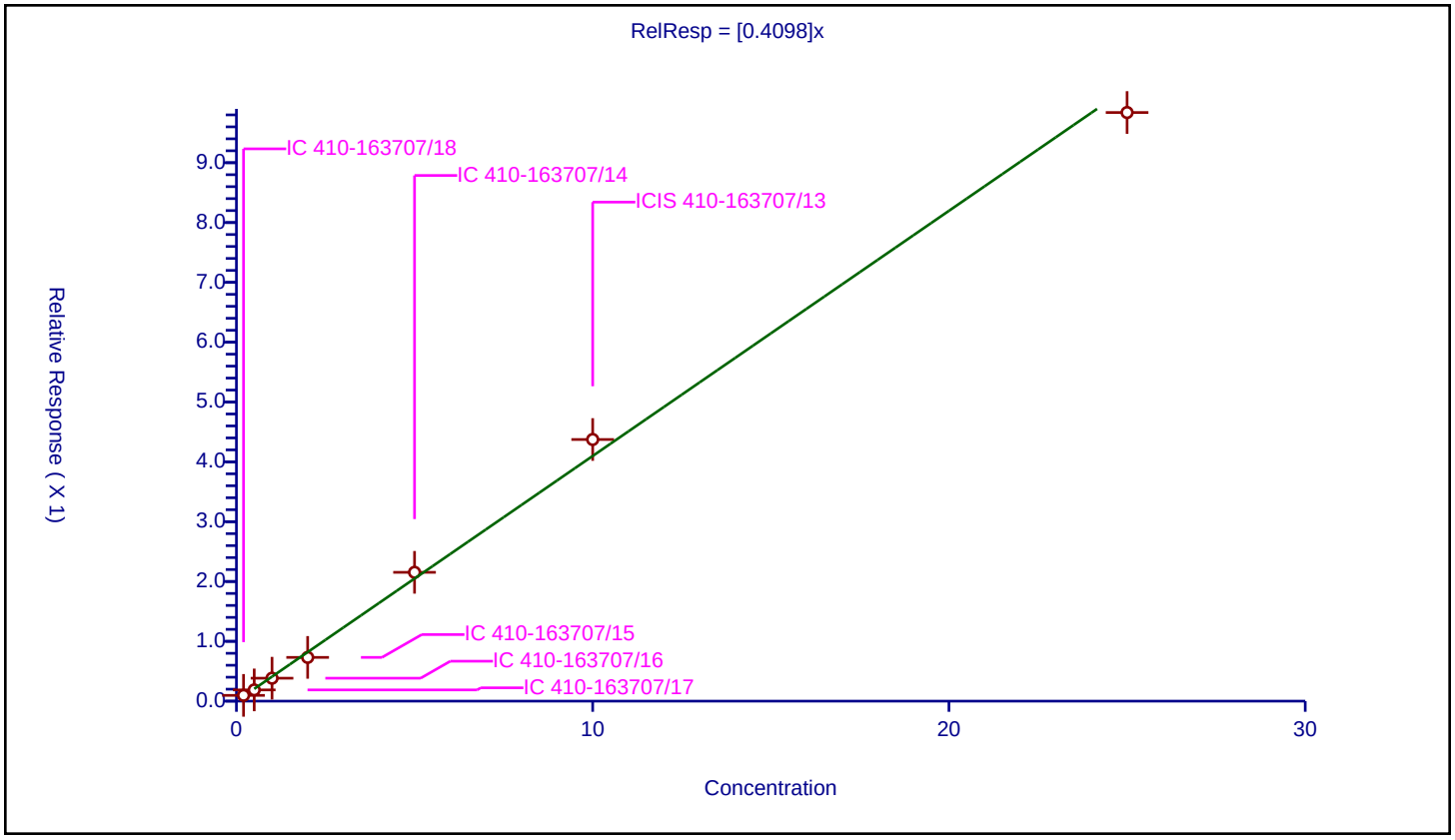
Curve Coefficients

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

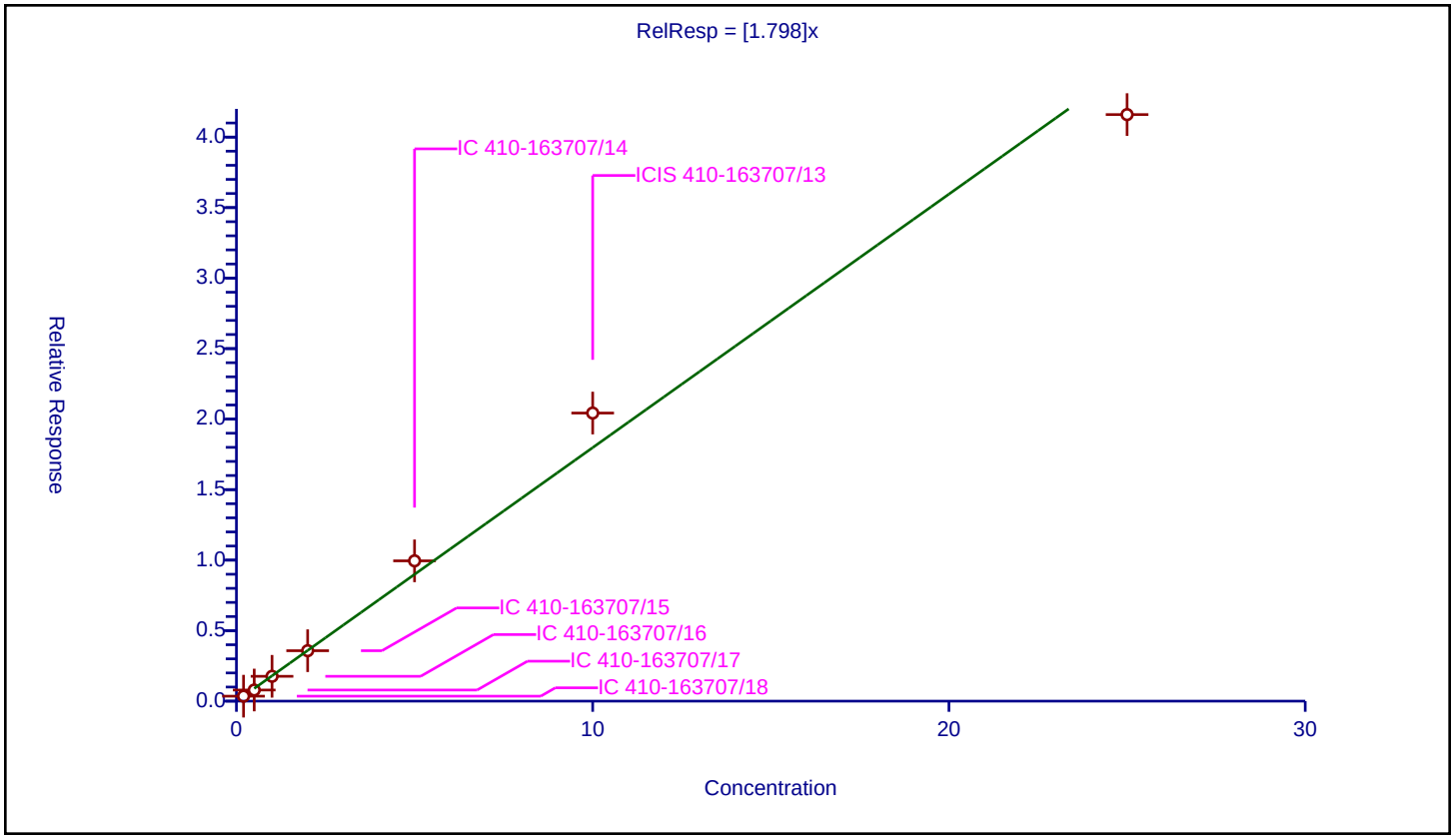
Curve Coefficients

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

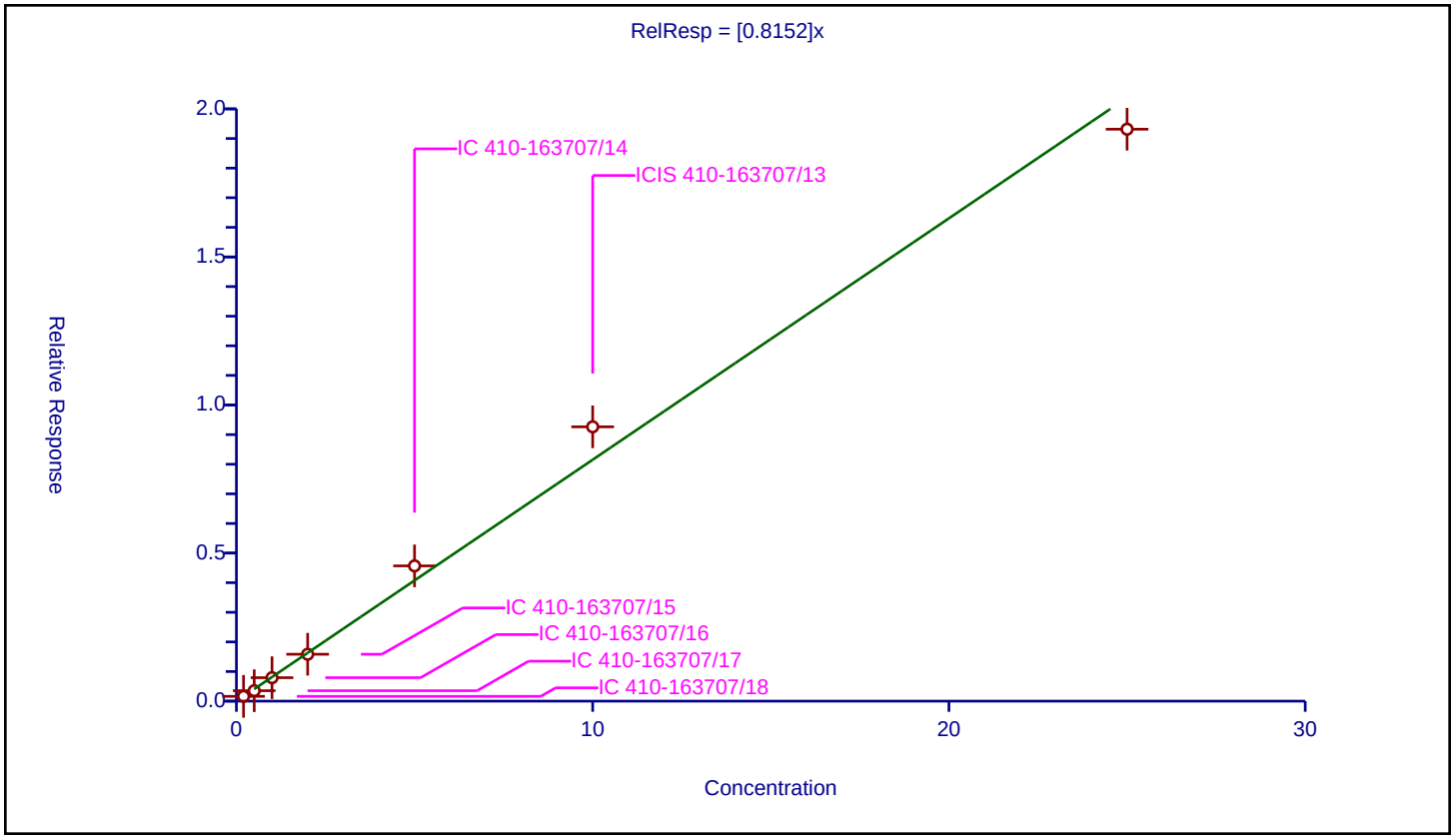
Curve Coefficients

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.: 410-67460-1

SDG No.:

Lab Sample ID: ICV 410-207981/21 Calibration Date: 12/21/2021 21:20

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HD21V11.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	0.3237	0.3215	0.1000	4.97	5.00	-0.7	30.0
Chloromethane	Ave	0.3983	0.3875	0.1000	4.87	5.00	-2.7	30.0
1,3-Butadiene	Ave	0.4037	0.3448		4.27	5.00	-14.6	30.0
Vinyl chloride	Ave	0.3968	0.3856	0.1000	4.86	5.00	-2.8	30.0
Bromomethane	Ave	0.2661	0.2582	0.1000	4.85	5.00	-2.9	30.0
Chloroethane	Ave	0.2262	0.2191	0.1000	4.84	5.00	-3.1	30.0
Dichlorofluoromethane	Ave	0.5222	0.5345		5.12	5.00	2.3	30.0
Trichlorofluoromethane	Ave	0.4979	0.4822	0.1000	4.84	5.00	-3.1	30.0
Ethyl ether	Ave	0.1757	0.1950		5.52	4.97	11.0	30.0
Freon 123a	Ave	0.3634	0.3529		4.86	5.00	-2.9	30.0
Acrolein	Ave	4.188	3.150		28.2	37.5	-24.8	30.0
1,1-Dichloroethene	Ave	0.2675	0.2787	0.1000	5.21	5.00	4.2	30.0
Acetone	Ave	4.531	3.422	0.1000	47.2	62.5	-24.5	30.0
Freon 113	Ave	0.2673	0.2932	0.1000	5.48	5.00	9.7	30.0
Methyl iodide	Ave	0.4682	0.5144		5.49	5.00	9.9	30.0
Ethyl bromide	Ave	0.2274	0.2205		4.91	5.07	-3.0	30.0
Carbon disulfide	Ave	0.6557	0.7369	0.1000	5.62	5.00	12.4	30.0
Methyl acetate	Ave	15.52	12.59	0.1000	4.06	5.00	-18.9	30.0
Allyl chloride	Ave	0.4142	0.4396		5.31	5.00	6.1	30.0
Methylene Chloride	Ave	0.2844	0.2784	0.1000	4.89	5.00	-2.1	30.0
t-Butyl alcohol	Ave	1.057	0.9324		44.1	50.0	-11.8	30.0
Acrylonitrile	Ave	6.110	5.278		21.6	25.0	-13.6	30.0
Methyl tert-butyl ether	Ave	0.5828	0.6097	0.1000	5.23	5.00	4.6	30.0
trans-1,2-Dichloroethene	Ave	0.2875	0.2882	0.1000	5.01	5.00	0.2	30.0
n-Hexane	Ave	0.3795	0.3891		5.13	5.00	2.5	30.0
1,1-Dichloroethane	Ave	0.5293	0.5249	0.2000	4.96	5.00	-0.8	30.0
di-Isopropyl ether	Ave	0.8710	0.8921		5.12	5.00	2.4	30.0
2-Chloro-1,3-butadiene	Ave	0.4354	0.4688		5.38	5.00	7.7	30.0
Ethyl t-butyl ether	Ave	0.7434	0.7736		5.20	5.00	4.1	30.0
2-Butanone (MEK)	Ave	8.301	6.769	0.1000	51.0	62.5	-18.4	30.0
cis-1,2-Dichloroethene	Ave	0.3132	0.3210	0.1000	5.13	5.00	2.5	30.0
2,2-Dichloropropane	Ave	0.4349	0.4393		5.05	5.00	1.0	30.0
Propionitrile	Ave	2.128	1.744		30.7	37.5	-18.0	30.0
Methacrylonitrile	Ave	9.460	7.142		28.3	37.5	-24.5	30.0
Bromochloromethane	Ave	0.1313	0.1370		5.22	5.00	4.4	30.0
Tetrahydrofuran	Ave	2.309	1.865		20.2	25.0	-19.2	30.0
Chloroform	Ave	0.5156	0.5081	0.2000	4.93	5.00	-1.5	30.0
1,1,1-Trichloroethane	Ave	0.4747	0.4677	0.1000	4.93	5.00	-1.5	30.0
Cyclohexane	Ave	0.5100	0.5196	0.1000	5.09	5.00	1.9	30.0
1,1-Dichloropropene	Ave	0.4199	0.4241		5.05	5.00	1.0	30.0
Carbon tetrachloride	Ave	0.4139	0.4092	0.1000	4.94	5.00	-1.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: ICV 410-207981/21 Calibration Date: 12/21/2021 21:20

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HD21V11.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	0.4449	0.3611		101	125	-18.8	30.0
Benzene	Ave	1.205	1.193	0.5000	4.95	5.00	-1.0	30.0
1,2-Dichloroethane	Ave	0.3006	0.3058	0.1000	5.09	5.00	1.7	30.0
t-Amyl methyl ether	Ave	0.6229	0.6386		5.13	5.00	2.5	30.0
n-Heptane	Ave	0.4003	0.3954		4.94	5.00	-1.2	30.0
n-Butanol	Ave	0.2966	0.2761		233	250	-6.9	30.0
Trichloroethene	Ave	0.3172	0.3142	0.2000	4.95	5.00	-1.0	30.0
Methylcyclohexane	Ave	0.5372	0.5445	0.1000	5.07	5.00	1.4	30.0
1,2-Dichloropropane	Ave	0.3033	0.3022	0.1000	4.98	5.00	-0.4	30.0
Methyl methacrylate	Ave	17.20	13.63		3.96	5.00	-20.8	30.0
1,4-Dioxane	Qua		0.0468	0.0050	67.4	125	-46.1*	30.0
Dibromomethane	Ave	0.1352	0.1373		5.08	5.00	1.5	30.0
Bromodichloromethane	Ave	0.3397	0.3456	0.2000	5.09	5.00	1.7	30.0
2-Nitropropane	Ave	4.677	3.578		3.82	5.00	-23.5	30.0
1-Bromo-2-chloroethane	Ave	0.2676	0.2689		5.03	5.00	0.5	30.0
cis-1,3-Dichloropropene	Ave	0.4292	0.4244	0.2000	4.94	5.00	-1.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	22.60	17.77	0.1000	49.1	62.5	-21.4	30.0
Toluene	Ave	0.9342	0.8770	0.4000	4.69	5.00	-6.1	30.0
trans-1,3-Dichloropropene	Ave	0.4029	0.4028	0.1000	5.00	5.00	-0.0	30.0
Ethyl methacrylate	Ave	0.3027	0.3105		5.13	5.00	2.6	30.0
1,1,2-Trichloroethane	Ave	0.2307	0.2278	0.1000	4.94	5.00	-1.2	30.0
Tetrachloroethene	Ave	0.4449	0.4197	0.2000	4.72	5.00	-5.7	30.0
1,3-Dichloropropane	Ave	0.4074	0.3943		4.84	5.00	-3.2	30.0
2-Hexanone	Ave	15.30	12.48	0.1000	51.0	62.5	-18.4	30.0
Dibromochloromethane	Ave	0.2647	0.2627		4.96	5.00	-0.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.2215	0.2139	0.1000	4.83	5.00	-3.4	30.0
1-Chlorohexane	Ave	0.5557	0.5142		4.63	5.00	-7.5	30.0
Chlorobenzene	Ave	1.028	0.9716	0.5000	4.73	5.00	-5.5	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3472	0.3415		4.92	5.00	-1.6	30.0
Ethylbenzene	Ave	1.797	1.725	0.1000	4.80	5.00	-4.0	30.0
m&p-Xylene	Ave	0.6979	0.6738	0.1000	9.65	10.0	-3.5	30.0
o-Xylene	Ave	0.6835	0.6532	0.3000	4.78	5.00	-4.4	30.0
Styrene	Ave	1.078	1.058	0.3000	4.91	5.00	-1.9	30.0
Bromoform	Ave	0.1377	0.1389	0.1000	5.04	5.00	0.9	30.0
Isopropylbenzene	Ave	1.799	1.758	0.1000	4.88	5.00	-2.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.4848	0.4967	0.3000	5.12	5.00	2.4	30.0
Bromobenzene	Ave	0.7235	0.7146		4.94	5.00	-1.2	30.0
trans-1,4-Dichloro-2-butene	Ave	7.140	5.376		18.8	25.0	-24.7	30.0
1,2,3-Trichloropropane	Ave	0.1305	0.1278		4.90	5.00	-2.1	30.0
N-Propylbenzene	Ave	3.686	3.568		4.84	5.00	-3.2	30.0
2-Chlorotoluene	Ave	0.7456	0.7127		4.78	5.00	-4.4	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: ICV 410-207981/21 Calibration Date: 12/21/2021 21:20

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HD21V11.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	2.625	2.531		4.82	5.00	-3.6	30.0
4-Chlorotoluene	Ave	0.7534	0.7274		4.83	5.00	-3.4	30.0
tert-Butylbenzene	Ave	0.5884	0.5594		4.75	5.00	-4.9	30.0
Pentachloroethane	Ave	0.4382	0.4322		4.93	5.00	-1.4	30.0
1,2,4-Trimethylbenzene	Ave	2.711	2.623		4.84	5.00	-3.3	30.0
sec-Butylbenzene	Ave	3.326	3.303		4.97	5.00	-0.7	30.0
1,3-Dichlorobenzene	Ave	1.463	1.395	0.6000	4.77	5.00	-4.6	30.0
p-Isopropyltoluene	Ave	2.874	2.812		4.89	5.00	-2.2	30.0
1,4-Dichlorobenzene	Ave	1.454	1.396	0.5000	4.80	5.00	-4.0	30.0
1,2,3-Trimethylbenzene	Ave	1.184	1.145		4.84	5.00	-3.3	30.0
Benzyl chloride	Ave	0.1508	0.1498		4.97	5.00	-0.7	30.0
n-Butylbenzene	Ave	1.358	1.301		4.79	5.00	-4.2	30.0
1,2-Dichlorobenzene	Ave	1.328	1.279	0.4000	4.82	5.00	-3.7	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0638	0.0636	0.0500	4.98	5.00	-0.4	30.0
1,3,5-Trichlorobenzene	Ave	1.087	1.073		4.94	5.00	-1.3	30.0
1,2,4-Trichlorobenzene	Ave	0.9213	0.9009	0.2000	4.89	5.00	-2.2	30.0
Hexachlorobutadiene	Ave	0.4360	0.3904		4.48	5.00	-10.5	30.0
Naphthalene	Ave	1.575	1.547		4.91	5.00	-1.8	30.0
1,2,3-Trichlorobenzene	Ave	0.8178	0.7935		4.85	5.00	-3.0	30.0
Dibromofluoromethane (Surr)	Ave	0.2638	0.2664		10.1	10.0	1.0	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0492	0.0494		10.0	10.0	0.5	30.0
Toluene-d8 (Surr)	Ave	1.299	1.278		9.84	10.0	-1.6	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5027	0.5051		10.0	10.0	0.5	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21V11.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 21-Dec-2021 21:20:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0046912-021
Misc. Info.: ICV LG
Operator ID: jml01693 Instrument ID: 19094
Sublist:

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 27-Dec-2021 09:48:50 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 22:26:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.947	1.934	0.013	99	354204	5.00	4.97	
6 Chloromethane	50	2.142	2.130	0.012	99	426912	5.00	4.87	
8 Butadiene	39	2.257	2.251	0.006	91	379894	5.00	4.27	
7 Vinyl chloride	62	2.264	2.251	0.013	97	424816	5.00	4.86	
9 Bromomethane	94	2.581	2.575	0.006	91	284499	5.00	4.85	
10 Chloroethane	64	2.672	2.660	0.012	100	241418	5.00	4.84	
11 Dichlorofluoromethane	67	2.904	2.898	0.006	97	588836	5.00	5.12	
13 Trichlorofluoromethane	101	2.983	2.971	0.012	98	531269	5.00	4.84	
15 Ethyl ether	59	3.215	3.196	0.019	91	213634	4.97	5.52	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.306	3.306	0.000	93	388809	5.00	4.86	
17 Acrolein	56	3.398	3.385	0.013	87	236839	37.5	28.2	
18 1,1-Dichloroethene	96	3.538	3.526	0.012	97	307006	5.00	5.21	
19 Acetone	43	3.550	3.544	0.006	99	428715	62.5	47.2	
20 112TCTFE	101	3.574	3.574	0.000	92	322994	5.00	5.48	
21 Isopropyl alcohol	45	3.702	3.715	-0.013	96	38272	37.5	43.0	M
22 Iodomethane	142	3.733	3.727	0.006	99	566691	5.00	5.49	
23 Ethyl bromide	108	3.763	3.751	0.012	98	246207	5.07	4.91	
24 Carbon disulfide	76	3.843	3.830	0.013	99	811881	5.00	5.62	
26 Methyl acetate	43	3.971	3.977	-0.006	97	126226	5.00	4.06	
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	484335	5.00	5.31	
* 28 t-Butyl alcohol-d10 (IS)	65	4.208	4.184	0.024	89	100224	50.0	50.0	
29 Methylene Chloride	84	4.202	4.196	0.006	92	306686	5.00	4.89	
30 2-Methyl-2-propanol	59	4.318	4.306	0.012	98	93453	50.0	44.1	
31 Acrylonitrile	53	4.531	4.525	0.006	99	264514	25.0	21.6	
32 Methyl tert-butyl ether	73	4.605	4.599	0.006	95	671710	5.00	5.23	
33 trans-1,2-Dichloroethene	96	4.623	4.611	0.012	99	317510	5.00	5.01	
34 Hexane	57	5.037	5.019	0.018	93	428642	5.00	5.13	
35 1,1-Dichloroethane	63	5.269	5.263	0.006	96	578236	5.00	4.96	
37 Isopropyl ether	45	5.330	5.318	0.012	95	982837	5.00	5.12	
38 2-Chloro-1,3-butadiene	53	5.379	5.373	0.006	91	516455	5.00	5.38	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.860	5.854	0.006	98	852235	5.00	5.20	
41 2-Butanone (MEK)	43	6.049	6.056	-0.007	100	848074	62.5	51.0	
42 cis-1,2-Dichloroethene	96	6.098	6.086	0.012	83	353670	5.00	5.13	
43 2,2-Dichloropropane	77	6.123	6.110	0.013	86	484011	5.00	5.05	
45 Propionitrile	54	6.141	6.153	-0.012	97	131126	37.5	30.7	
47 Methacrylonitrile	67	6.354	6.354	0.000	92	536866	37.5	28.3	
48 Chlorobromomethane	128	6.421	6.421	0.000	94	150905	5.00	5.22	
49 Tetrahydrofuran	71	6.434	6.434	0.000	81	93449	25.0	20.2	
50 Chloroform	83	6.574	6.568	0.006	93	559732	5.00	4.93	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	586887	10.0	10.1	
52 1,1,1-Trichloroethane	97	6.811	6.799	0.012	99	515261	5.00	4.93	
53 Cyclohexane	56	6.915	6.903	0.012	90	572470	5.00	5.09	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	97	467179	5.00	5.05	
56 Carbon tetrachloride	117	7.025	7.025	0.000	97	450808	5.00	4.94	
57 Isobutyl alcohol	41	7.147	7.159	-0.012	94	90481	125.0	101.4	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	97	108885	10.0	10.0	
59 Benzene	78	7.275	7.269	0.006	97	1314640	5.00	4.95	
60 1,2-Dichloroethane	62	7.348	7.342	0.006	97	336872	5.00	5.09	
62 Tert-amyl methyl ether	73	7.470	7.464	0.006	99	703583	5.00	5.13	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	2203408	10.0	10.0	
64 n-Heptane	43	7.695	7.689	0.006	89	435647	5.00	4.94	
66 n-Butanol	56	8.037	8.043	-0.006	88	138369	250.0	232.7	
67 Trichloroethene	95	8.159	8.153	0.006	98	346113	5.00	4.95	
68 Methylcyclohexane	83	8.476	8.470	0.006	92	599928	5.00	5.07	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	85	332969	5.00	4.98	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	91	366001	5.00	5.09	
71 Methyl methacrylate	69	8.567	8.567	0.000	91	136580	5.00	3.96	
72 1,4-Dioxane	88	8.579	8.586	-0.007	30	11723	125.0	67.4	M
73 Dibromomethane	93	8.598	8.592	0.006	96	151209	5.00	5.08	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	380777	5.00	5.09	
76 2-Nitropropane	41	9.092	9.092	0.000	98	35856	5.00	3.82	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	296300	5.00	5.03	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	467572	5.00	4.94	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	2226730	62.5	49.1	
$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2400788	10.0	9.84	
83 Toluene	92	9.762	9.762	0.000	98	823441	5.00	4.69	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	378149	5.00	5.00	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	291497	5.00	5.13	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	91	213921	5.00	4.94	
88 Tetrachloroethene	166	10.305	10.305	0.000	98	394034	5.00	4.72	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	370175	5.00	4.84	
91 2-Hexanone	43	10.427	10.427	0.000	97	1563282	62.5	51.0	
93 Chlorodibromomethane	129	10.597	10.591	0.006	90	246621	5.00	4.96	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	200880	5.00	4.83	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	85	1877825	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	98	482795	5.00	4.63	
98 Chlorobenzene	112	11.158	11.158	0.000	95	912241	5.00	4.73	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	97	320656	5.00	4.92	
100 Ethylbenzene	91	11.244	11.244	0.000	98	1619670	5.00	4.80	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	1265251	10.0	9.65	
102 o-Xylene	106	11.689	11.689	0.000	96	613266	5.00	4.78	
103 Styrene	104	11.701	11.701	0.000	94	993371	5.00	4.91	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.859	11.859	0.000	97	130391	5.00	5.04	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	1650456	5.00	4.88	
$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	91	948403	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	265743	5.00	5.12	
111 Bromobenzene	156	12.243	12.243	0.000	96	382320	5.00	4.94	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	93	269422	25.0	18.8	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	84	68376	5.00	4.90	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	1908772	5.00	4.84	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	381319	5.00	4.78	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	0.000	94	1354107	5.00	4.82	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	389196	5.00	4.83	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	299322	5.00	4.75	
119 Pentachloroethane	167	12.719	12.719	0.000	91	231258	5.00	4.93	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	1403314	5.00	4.84	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	1767369	5.00	4.97	
122 1,3-Dichlorobenzene	146	12.951	12.951	0.000	98	746548	5.00	4.77	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	1504417	5.00	4.89	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1070076	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	95	746932	5.00	4.80	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	612687	5.00	4.84	
127 Benzyl chloride	126	13.097	13.097	0.000	98	80147	5.00	4.97	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	891332	5.00	4.97	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	696161	5.00	4.79	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	684441	5.00	4.82	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	86	34003	5.00	4.98	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	574321	5.00	4.94	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	482023	5.00	4.89	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	208870	5.00	4.48	
138 Naphthalene	128	14.548	14.548	0.000	97	827774	5.00	4.91	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	95	424531	5.00	4.85	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	464363	5.00	4.87	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

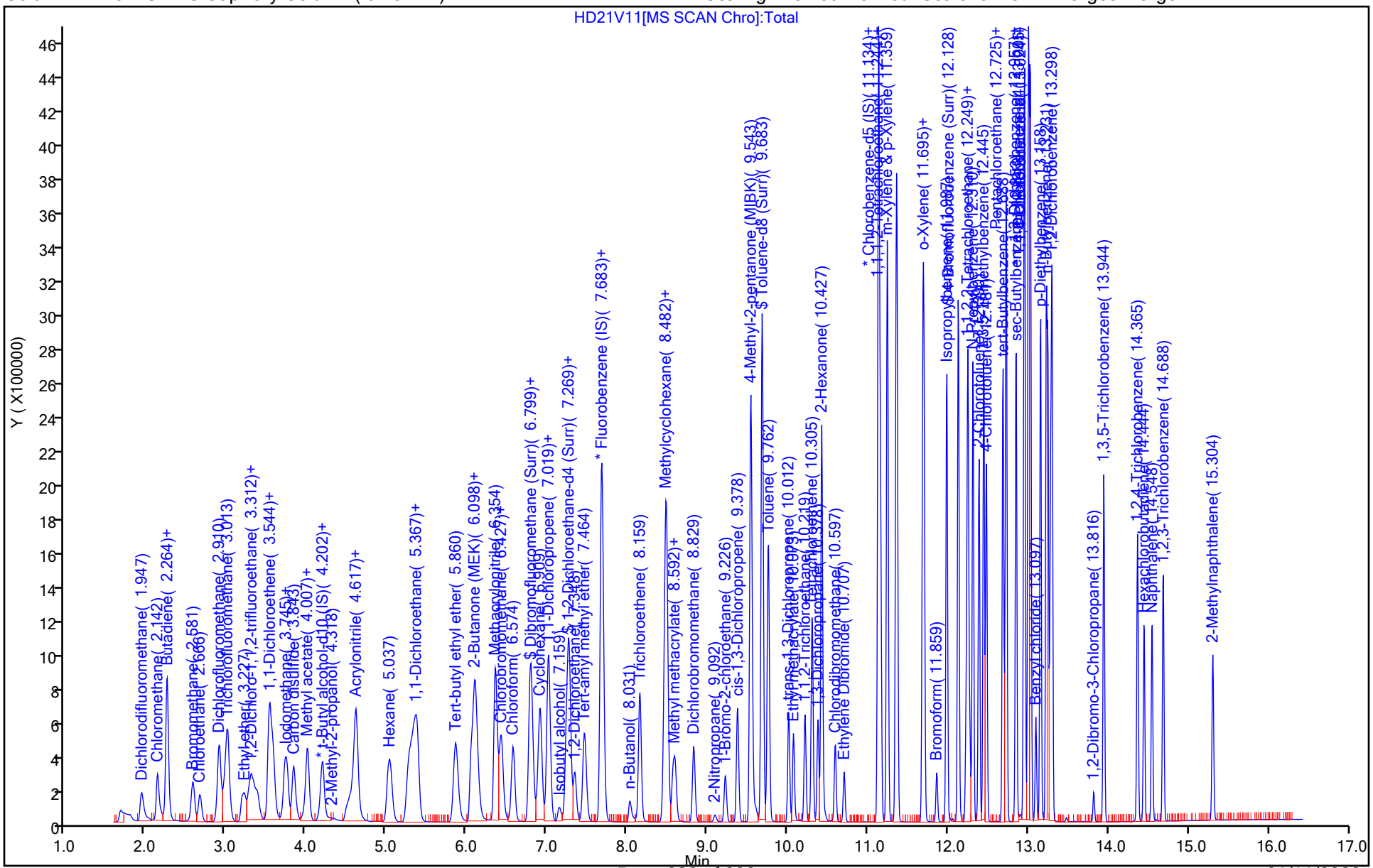
MSV_LCS_VOC#1_00032	Amount Added:	12.50	Units: uL	
MSV_LCS_Penta_00010	Amount Added:	12.50	Units: uL	
MSV_QC_Gas826_00056	Amount Added:	12.50	Units: uL	
MSV_LCS_EE_00001	Amount Added:	12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added:	12.50	Units: uL	
MSV_LCS_ACROL_00035	Amount Added:	12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 27-Dec-2021 09:57:43 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21V11.D				
Injection Date:	21-Dec-2021 21:20:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	ICV			Worklist Smp#:	21
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

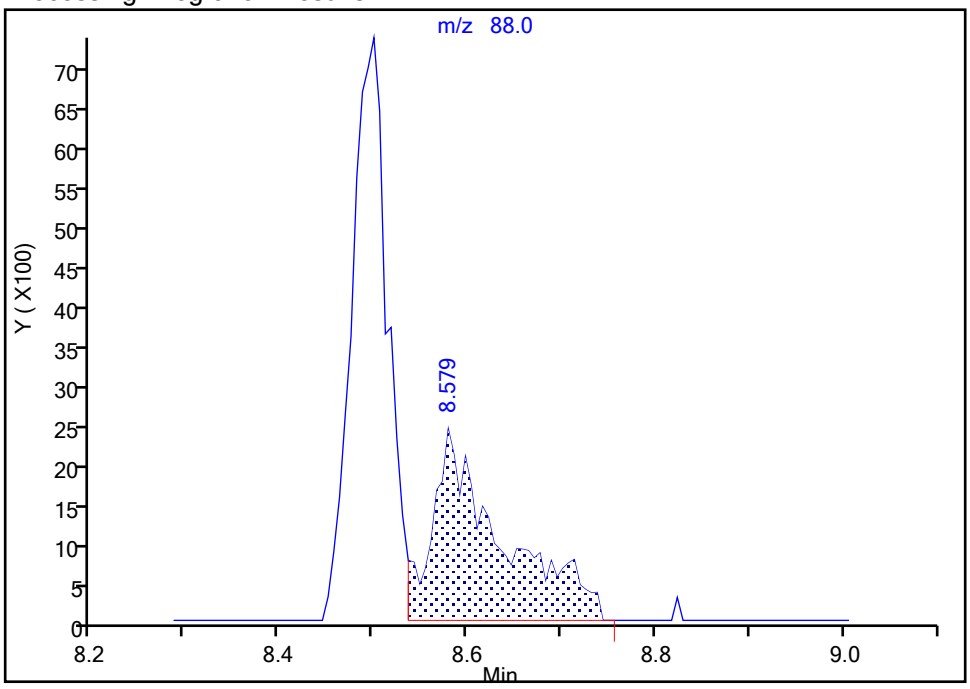
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21V11.D
Injection Date: 21-Dec-2021 21:20:30 Instrument ID: 19094
Lims ID: ICV
Client ID:
Operator ID: jml01693 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

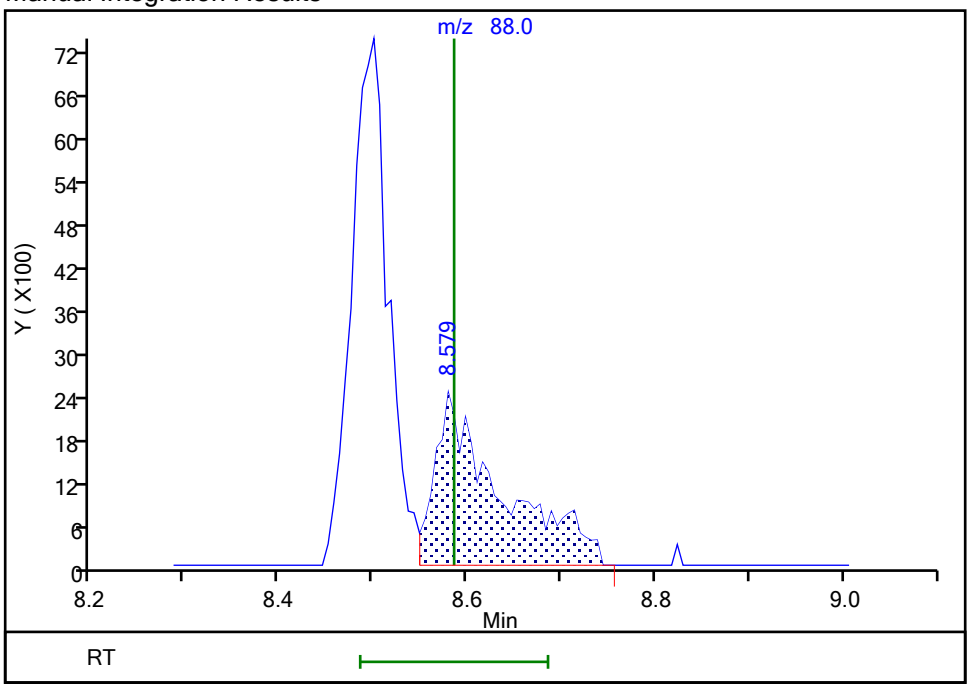
Processing Integration Results

RT: 8.58
Area: 12264
Amount: 70.301417
Amount Units: ug/l



Manual Integration Results

RT: 8.58
Area: 11723
Amount: 67.392086
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 22:23:41
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.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-210047/3 Calibration Date: 12/29/2021 10:59

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HD29X02.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	0.3237	0.2737	0.1000	8.45	10.0	-15.5	20.0
Chloromethane	Ave	0.3983	0.4159	0.1000	10.4	10.0	4.4	20.0
1,3-Butadiene	Ave	0.4037	0.3714		9.20	10.0	-8.0	20.0
Vinyl chloride	Ave	0.3968	0.4190	0.1000	10.6	10.0	5.6	20.0
Bromomethane	Ave	0.2661	0.2879	0.1000	10.8	10.0	8.2	20.0
Chloroethane	Ave	0.2262	0.2467	0.1000	10.9	10.0	9.1	20.0
Dichlorofluoromethane	Ave	0.5222	0.5687		10.9	10.0	8.9	20.0
Trichlorofluoromethane	Ave	0.4979	0.4855	0.1000	9.75	10.0	-2.5	20.0
Ethyl ether	Ave	0.1757	0.1980		11.3	10.0	12.7	20.0
Freon 123a	Ave	0.3634	0.3828		10.5	10.0	5.3	20.0
Acrolein	Ave	4.188	2.674		319	500	-36.1*	20.0
1,1-Dichloroethene	Ave	0.2675	0.2783	0.1000	10.4	10.0	4.0	20.0
Acetone	Ave	4.531	3.134	0.1000	69.2	100	-30.8*	20.0
Freon 113	Ave	0.2673	0.2262	0.1000	8.46	10.0	-15.4	20.0
Methyl iodide	Ave	0.4682	0.5055		10.8	10.0	8.0	20.0
Ethyl bromide	Ave	0.2274	0.2640		11.6	10.0	16.1	20.0
Carbon disulfide	Ave	0.6557	0.7057	0.1000	10.8	10.0	7.6	20.0
Methyl acetate	Ave	15.52	9.831	0.1000	6.33	10.0	-36.7*	20.0
Allyl chloride	Ave	0.4142	0.4422		10.7	10.0	6.7	20.0
Methylene Chloride	Ave	0.2844	0.2981	0.1000	10.5	10.0	4.8	20.0
t-Butyl alcohol	Ave	1.057	0.9396		178	200	-11.1	20.0
Acrylonitrile	Ave	6.110	4.486		18.4	25.0	-26.6*	20.0
Methyl tert-butyl ether	Ave	0.5828	0.6451	0.1000	11.1	10.0	10.7	20.0
trans-1,2-Dichloroethene	Ave	0.2875	0.3157	0.1000	11.0	10.0	9.8	20.0
n-Hexane	Ave	0.3795	0.3099		8.17	10.0	-18.3	20.0
1,1-Dichloroethane	Ave	0.5293	0.5772	0.2000	10.9	10.0	9.1	20.0
di-Isopropyl ether	Ave	0.8710	0.9513		10.9	10.0	9.2	20.0
2-Chloro-1,3-butadiene	Ave	0.4354	0.4792		11.0	10.0	10.1	20.0
Ethyl t-butyl ether	Ave	0.7434	0.8279		11.1	10.0	11.4	20.0
2-Butanone (MEK)	Ave	8.301	5.858	0.1000	70.6	100	-29.4*	20.0
cis-1,2-Dichloroethene	Ave	0.3132	0.3438	0.1000	11.0	10.0	9.8	20.0
2,2-Dichloropropane	Ave	0.4349	0.4664		10.7	10.0	7.2	20.0
Propionitrile	Ave	2.128	1.556		146	200	-26.9*	20.0
Methacrylonitrile	Ave	9.460	6.119		64.7	100	-35.3*	20.0
Bromochloromethane	Ave	0.1313	0.1458		11.1	10.0	11.1	20.0
Tetrahydrofuran	Ave	2.309	1.576		34.1	50.0	-31.7*	20.0
Chloroform	Ave	0.5156	0.5659	0.2000	11.0	10.0	9.8	20.0
1,1,1-Trichloroethane	Ave	0.4747	0.5108	0.1000	10.8	10.0	7.6	20.0
Cyclohexane	Ave	0.5100	0.4619	0.1000	9.06	10.0	-9.4	20.0
1,1-Dichloropropene	Ave	0.4199	0.4601		11.0	10.0	9.6	20.0
Carbon tetrachloride	Ave	0.4139	0.4465	0.1000	10.8	10.0	7.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-210047/3 Calibration Date: 12/29/2021 10:59

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HD29X02.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	0.4449	0.3544		398	500	-20.4*	20.0
Benzene	Ave	1.205	1.323	0.5000	11.0	10.0	9.8	20.0
1,2-Dichloroethane	Ave	0.3006	0.3212	0.1000	10.7	10.0	6.8	20.0
t-Amyl methyl ether	Ave	0.6229	0.7208		11.6	10.0	15.7	20.0
n-Heptane	Ave	0.4003	0.3299		8.24	10.0	-17.6	20.0
n-Butanol	Ave	0.2966	0.3202		944	875	7.9	20.0
Trichloroethene	Ave	0.3172	0.3569	0.2000	11.3	10.0	12.5	20.0
Methylcyclohexane	Ave	0.5372	0.4796	0.1000	8.93	10.0	-10.7	20.0
1,2-Dichloropropane	Ave	0.3033	0.3376	0.1000	11.1	10.0	11.3	20.0
Methyl methacrylate	Ave	17.20	11.65		6.77	10.0	-32.3*	20.0
1,4-Dioxane	Qua		0.0637	0.0050	402	500	-19.7	20.0
Dibromomethane	Ave	0.1352	0.1538		11.4	10.0	13.8	20.0
Bromodichloromethane	Ave	0.3397	0.3949	0.2000	11.6	10.0	16.2	20.0
2-Nitropropane	Ave	4.677	3.187		34.1	50.0	-31.9*	20.0
1-Bromo-2-chloroethane	Ave	0.2676	0.3323		12.4	10.0	24.2*	20.0
cis-1,3-Dichloropropene	Ave	0.4292	0.4964	0.2000	11.6	10.0	15.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	22.60	14.89	0.1000	65.9	100	-34.1*	20.0
Toluene	Ave	0.9342	0.8295	0.4000	8.88	10.0	-11.2	20.0
trans-1,3-Dichloropropene	Ave	0.4029	0.3782	0.1000	9.39	10.0	-6.1	20.0
Ethyl methacrylate	Ave	0.3027	0.2874		9.50	10.0	-5.0	20.0
1,1,2-Trichloroethane	Ave	0.2307	0.2114	0.1000	9.16	10.0	-8.4	20.0
Tetrachloroethene	Ave	0.4449	0.3985	0.2000	8.96	10.0	-10.4	20.0
1,3-Dichloropropane	Ave	0.4074	0.3717		9.12	10.0	-8.8	20.0
2-Hexanone	Ave	15.30	10.36	0.1000	67.7	100	-32.3*	20.0
Dibromochloromethane	Ave	0.2647	0.2740		10.3	10.0	3.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.2215	0.2065	0.1000	9.33	10.0	-6.7	20.0
1-Chlorohexane	Ave	0.5557	0.4820		8.67	10.0	-13.3	20.0
Chlorobenzene	Ave	1.028	0.9157	0.5000	8.91	10.0	-10.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3472	0.3153		9.08	10.0	-9.2	20.0
Ethylbenzene	Ave	1.797	1.619	0.1000	9.01	10.0	-9.9	20.0
m&p-Xylene	Ave	0.6979	0.6310	0.1000	18.1	20.0	-9.6	20.0
o-Xylene	Ave	0.6835	0.6080	0.3000	8.90	10.0	-11.0	20.0
Styrene	Ave	1.078	0.996	0.3000	9.23	10.0	-7.7	20.0
Bromoform	Ave	0.1377	0.1583	0.1000	11.5	10.0	15.0	20.0
Isopropylbenzene	Ave	1.799	1.635	0.1000	9.09	10.0	-9.1	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4848	0.4352	0.3000	8.98	10.0	-10.2	20.0
Bromobenzene	Ave	0.7235	0.6188		8.55	10.0	-14.5	20.0
trans-1,4-Dichloro-2-butene	Ave	7.140	4.996		70.0	100	-30.0*	20.0
1,2,3-Trichloropropane	Ave	0.1305	0.1149		8.80	10.0	-12.0	20.0
N-Propylbenzene	Ave	3.686	3.227		8.76	10.0	-12.4	20.0
2-Chlorotoluene	Ave	0.7456	0.6443		8.64	10.0	-13.6	20.0

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Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-210047/3 Calibration Date: 12/29/2021 10:59

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HD29X02.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	2.625	2.277		8.67	10.0	-13.3	20.0
4-Chlorotoluene	Ave	0.7534	0.6495		8.62	10.0	-13.8	20.0
tert-Butylbenzene	Ave	0.5884	0.5039		8.56	10.0	-14.4	20.0
Pentachloroethane	Ave	0.4382	0.4027		9.19	10.0	-8.1	20.0
1,2,4-Trimethylbenzene	Ave	2.711	2.331		8.60	10.0	-14.0	20.0
sec-Butylbenzene	Ave	3.326	2.911		8.75	10.0	-12.5	20.0
1,3-Dichlorobenzene	Ave	1.463	1.265	0.6000	8.64	10.0	-13.6	20.0
p-Isopropyltoluene	Ave	2.874	2.531		8.81	10.0	-11.9	20.0
1,4-Dichlorobenzene	Ave	1.454	1.256	0.5000	8.64	10.0	-13.6	20.0
1,2,3-Trimethylbenzene	Ave	1.184	0.9859		8.33	10.0	-16.7	20.0
Benzyl chloride	Ave	0.1508	0.1637		10.9	10.0	8.5	20.0
n-Butylbenzene	Ave	1.358	1.233		9.08	10.0	-9.2	20.0
1,2-Dichlorobenzene	Ave	1.328	1.131	0.4000	8.51	10.0	-14.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0638	0.0644	0.0500	10.1	10.0	1.0	20.0
1,3,5-Trichlorobenzene	Ave	1.087	0.9759		8.98	10.0	-10.2	20.0
1,2,4-Trichlorobenzene	Ave	0.9213	0.8310	0.2000	9.02	10.0	-9.8	20.0
Hexachlorobutadiene	Ave	0.4360	0.3801		8.72	10.0	-12.8	20.0
Naphthalene	Ave	1.575	1.414		8.98	10.0	-10.2	20.0
1,2,3-Trichlorobenzene	Ave	0.8178	0.7113		8.70	10.0	-13.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2638	0.2822		10.7	10.0	7.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0492	0.0525		10.7	10.0	6.8	20.0
Toluene-d8 (Surr)	Ave	1.299	1.174		9.04	10.0	-9.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5027	0.5217		10.4	10.0	3.8	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X02.D
Lims ID: CCVIS VSTD10
Client ID:
Sample Type: CCVIS
Inject. Date: 29-Dec-2021 10:59:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-003
Misc. Info.: CCVIS
Operator ID: KNK41612 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 11:37:20 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1676

First Level Reviewer: kephartk Date: 29-Dec-2021 11:27:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.947	1.947	0.000	99	533149	10.0	8.45	
6 Chloromethane	50	2.142	2.142	0.000	99	810242	10.0	10.4	
8 Butadiene	39	2.258	2.258	0.000	91	723545	10.0	9.20	
7 Vinyl chloride	62	2.258	2.258	0.000	97	816331	10.0	10.6	
9 Bromomethane	94	2.587	2.587	0.000	91	560973	10.0	10.8	
10 Chloroethane	64	2.672	2.672	0.000	100	480700	10.0	10.9	
11 Dichlorofluoromethane	67	2.910	2.910	0.000	97	1108028	10.0	10.9	
13 Trichlorofluoromethane	101	2.977	2.977	0.000	97	945858	10.0	9.75	
15 Ethyl ether	59	3.221	3.221	0.000	90	385670	10.0	11.3	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.306	3.306	0.000	95	745737	10.0	10.5	
17 Acrolein	56	3.385	3.385	0.000	98	3176294	500.0	319.3	
18 1,1-Dichloroethene	96	3.532	3.532	0.000	98	542259	10.0	10.4	
19 Acetone	43	3.556	3.556	0.000	100	744454	100.0	69.2	
20 112TCTFE	101	3.568	3.568	0.000	91	440786	10.0	8.46	
21 Isopropyl alcohol	45	3.702	3.702	0.000	97	250058	200.0	317.5	
22 Iodomethane	142	3.727	3.727	0.000	99	984872	10.0	10.8	
23 Ethyl bromide	108	3.751	3.751	0.000	98	514100	10.0	11.6	
24 Carbon disulfide	76	3.836	3.836	0.000	99	1374920	10.0	10.8	
26 Methyl acetate	43	3.965	3.965	0.000	97	233512	10.0	6.33	M
27 3-Chloro-1-propene	41	4.007	4.007	0.000	92	861457	10.0	10.7	
* 28 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	47	118769	50.0	50.0	
29 Methylene Chloride	84	4.190	4.190	0.000	91	580814	10.0	10.5	
30 2-Methyl-2-propanol	59	4.306	4.306	0.000	100	446363	200.0	177.8	
31 Acrylonitrile	53	4.519	4.519	0.000	99	266395	25.0	18.4	
32 Methyl tert-butyl ether	73	4.592	4.592	0.000	95	1256788	10.0	11.1	
33 trans-1,2-Dichloroethene	96	4.611	4.611	0.000	99	615007	10.0	11.0	
34 Hexane	57	5.031	5.031	0.000	91	603728	10.0	8.17	
35 1,1-Dichloroethane	63	5.263	5.263	0.000	96	1124584	10.0	10.9	
37 Isopropyl ether	45	5.318	5.318	0.000	95	1853458	10.0	10.9	
38 2-Chloro-1,3-butadiene	53	5.373	5.373	0.000	90	933703	10.0	11.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.854	5.854	0.000	98	1613030	10.0	11.1	
41 2-Butanone (MEK)	43	6.043	6.043	0.000	100	1391443	100.0	70.6	
42 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	82	669895	10.0	11.0	
43 2,2-Dichloropropane	77	6.110	6.110	0.000	87	908641	10.0	10.7	
45 Propionitrile	54	6.135	6.135	0.000	99	739365	200.0	146.3	
47 Methacrylonitrile	67	6.348	6.348	0.000	92	1453380	100.0	64.7	
48 Chlorobromomethane	128	6.421	6.421	0.000	91	284080	10.0	11.1	
49 Tetrahydrofuran	71	6.427	6.427	0.000	81	187210	50.0	34.1	
50 Chloroform	83	6.568	6.568	0.000	93	1102554	10.0	11.0	
$ 51 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	549844	10.0	10.7	
52 1,1,1-Trichloroethane	97	6.799	6.799	0.000	99	995249	10.0	10.8	
53 Cyclohexane	56	6.903	6.903	0.000	90	899917	10.0	9.06	
55 1,1-Dichloropropene	75	7.007	7.007	0.000	98	896320	10.0	11.0	
56 Carbon tetrachloride	117	7.013	7.013	0.000	97	869822	10.0	10.8	
57 Isobutyl alcohol	41	7.141	7.141	0.000	94	420891	500.0	398.2	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	95	102281	10.0	10.7	
59 Benzene	78	7.269	7.269	0.000	96	2578434	10.0	11.0	
60 1,2-Dichloroethane	62	7.336	7.336	0.000	97	625694	10.0	10.7	
62 Tert-amyl methyl ether	73	7.458	7.458	0.000	99	1404359	10.0	11.6	
* 65 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	1948263	10.0	10.0	
64 n-Heptane	43	7.689	7.689	0.000	92	642729	10.0	8.24	
66 n-Butanol	56	8.019	8.019	0.000	88	665448	875.0	944.4	
67 Trichloroethene	95	8.147	8.147	0.000	98	695408	10.0	11.3	
68 Methylcyclohexane	83	8.464	8.464	0.000	92	934318	10.0	8.93	
70 1,2-Dichloropropane	63	8.482	8.482	0.000	85	657789	10.0	11.1	
69 2-ethoxy-2-methyl butane	87	8.488	8.488	0.000	91	800502	10.0	12.6	
71 Methyl methacrylate	69	8.561	8.561	0.000	90	276628	10.0	6.77	
72 1,4-Dioxane	88	8.567	8.567	0.000	36	75649	500.0	401.6	
73 Dibromomethane	93	8.592	8.592	0.000	95	299629	10.0	11.4	
75 Dichlorobromomethane	83	8.823	8.823	0.000	99	769435	10.0	11.6	
76 2-Nitropropane	41	9.085	9.085	0.000	99	378528	50.0	34.1	
79 1-Bromo-2-chloroethane	63	9.213	9.213	0.000	98	647492	10.0	12.4	
80 cis-1,3-Dichloropropene	75	9.372	9.372	0.000	96	967072	10.0	11.6	
81 4-Methyl-2-pentanone (MIBK)	43	9.537	9.537	0.000	96	3536251	100.0	65.9	
$ 82 Toluene-d8 (Surr)	98	9.677	9.677	0.000	93	2352106	10.0	9.04	
83 Toluene	92	9.756	9.756	0.000	98	1662144	10.0	8.88	
85 trans-1,3-Dichloropropene	75	10.006	10.006	0.000	92	757855	10.0	9.39	
86 Ethyl methacrylate	69	10.067	10.067	0.000	89	575948	10.0	9.50	
87 1,1,2-Trichloroethane	97	10.213	10.213	0.000	90	423541	10.0	9.16	
88 Tetrachloroethene	166	10.299	10.299	0.000	98	798525	10.0	8.96	
89 1,3-Dichloropropane	76	10.372	10.372	0.000	90	744850	10.0	9.12	
91 2-Hexanone	43	10.421	10.421	0.000	97	2460848	100.0	67.7	
93 Chlorodibromomethane	129	10.591	10.591	0.000	90	548943	10.0	10.3	
94 Ethylene Dibromide	107	10.701	10.701	0.000	99	413855	10.0	9.33	
* 97 Chlorobenzene-d5 (IS)	117	11.128	11.128	0.000	85	2003726	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	965712	10.0	8.67	
98 Chlorobenzene	112	11.158	11.158	0.000	95	1834721	10.0	8.91	
99 1,1,1,2-Tetrachloroethane	131	11.237	11.237	0.000	96	631707	10.0	9.08	
100 Ethylbenzene	91	11.244	11.244	0.000	98	3244829	10.0	9.01	
101 m-Xylene & p-Xylene	106	11.353	11.353	0.000	98	2528624	20.0	18.1	
102 o-Xylene	106	11.683	11.683	0.000	96	1218264	10.0	8.90	
103 Styrene	104	11.701	11.701	0.000	95	1994759	10.0	9.23	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.859	11.859	0.000	98	317148	10.0	11.5	
105 Isopropylbenzene	105	11.981	11.981	0.000	96	3276346	10.0	9.09	
$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	93	1045249	10.0	10.4	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	92	519956	10.0	8.98	
111 Bromobenzene	156	12.243	12.243	0.000	97	739227	10.0	8.55	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	91	1186852	100.0	70.0	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	84	137250	10.0	8.80	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	3855385	10.0	8.76	
114 2-Chlorotoluene	126	12.384	12.384	0.000	97	769679	10.0	8.64	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	0.000	94	2720081	10.0	8.67	
116 4-Chlorotoluene	126	12.475	12.475	0.000	97	775985	10.0	8.62	
118 tert-Butylbenzene	134	12.682	12.682	0.000	93	601986	10.0	8.56	
119 Pentachloroethane	167	12.719	12.719	0.000	94	481050	10.0	9.19	
120 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	97	2784332	10.0	8.60	
121 sec-Butylbenzene	105	12.847	12.847	0.000	94	3477995	10.0	8.75	
122 1,3-Dichlorobenzene	146	12.944	12.944	0.000	98	1510767	10.0	8.64	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	3023742	10.0	8.81	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1194652	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.018	13.018	0.000	95	1500435	10.0	8.64	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	1177777	10.0	8.33	
127 Benzyl chloride	126	13.097	13.097	0.000	98	195565	10.0	10.9	
129 p-Diethylbenzene	119	13.152	13.152	0.000	91	1773264	10.0	8.86	
130 n-Butylbenzene	92	13.243	13.243	0.000	98	1472720	10.0	9.08	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	99	1350625	10.0	8.51	
134 1,2-Dibromo-3-Chloropropane	155	13.816	13.816	0.000	88	76945	10.0	10.1	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	1165904	10.0	8.98	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	992759	10.0	9.02	
137 Hexachlorobutadiene	225	14.444	14.444	0.000	96	454051	10.0	8.72	
138 Naphthalene	128	14.542	14.542	0.000	97	1689751	10.0	8.98	
139 1,2,3-Trichlorobenzene	180	14.682	14.682	0.000	95	849782	10.0	8.70	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	93	975180	10.0	9.17	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00029	Amount Added: 20.00	Units: uL	
MSV_LL_#2_826_00035	Amount Added: 20.00	Units: uL	
MSV_LL_GAS826_00057	Amount Added: 20.00	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 29-Dec-2021 11:37:21 Chrom Revision: 2.3 28-Dec-2021 14:15:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X02.D

Injection Date: 29-Dec-2021 10:59:30 Instrument ID: 19094 Operator ID: KNK41612

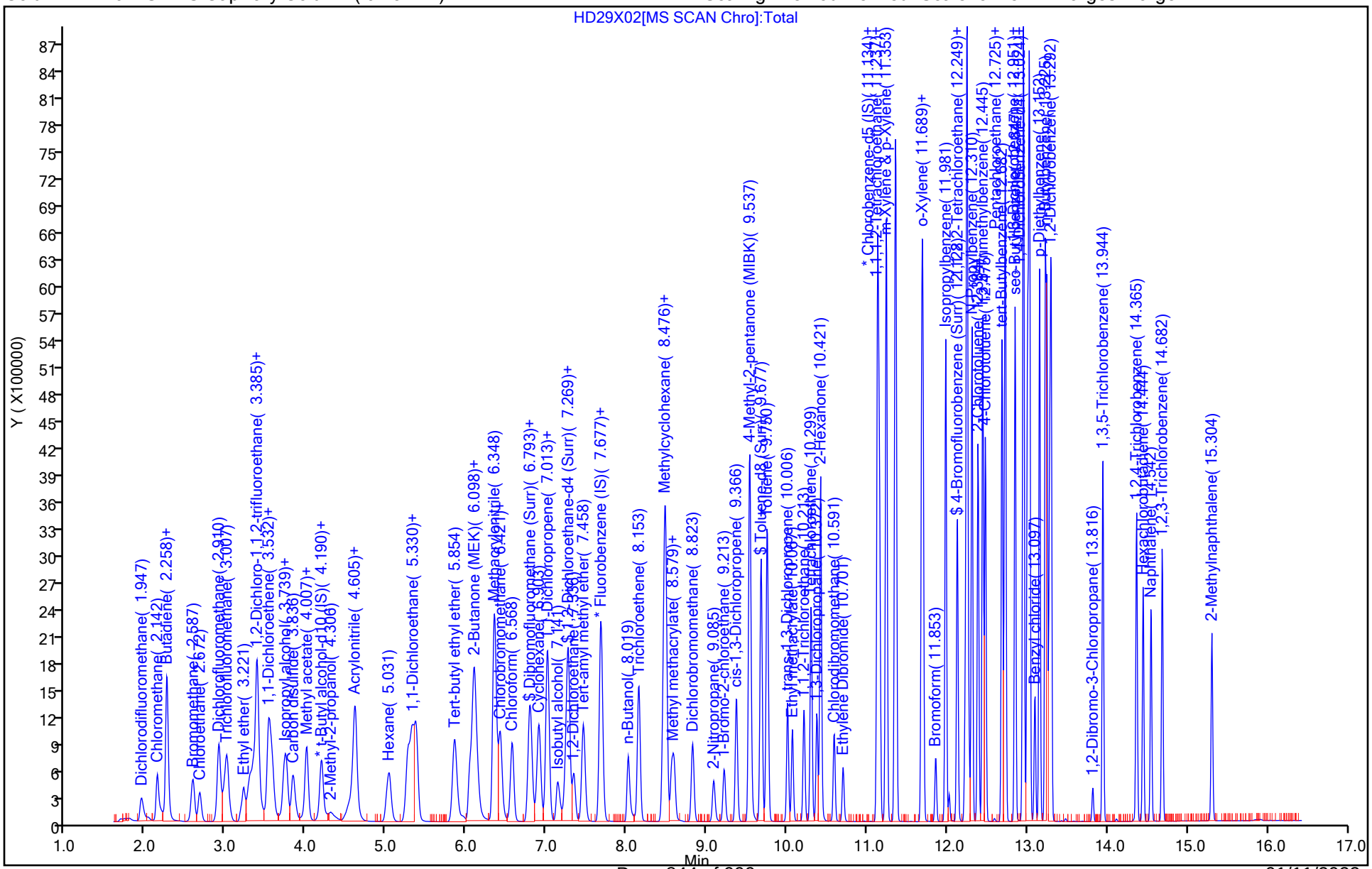
Lims ID: CCVIS VSTD10 Worklist Smp#: 3

Client ID:

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

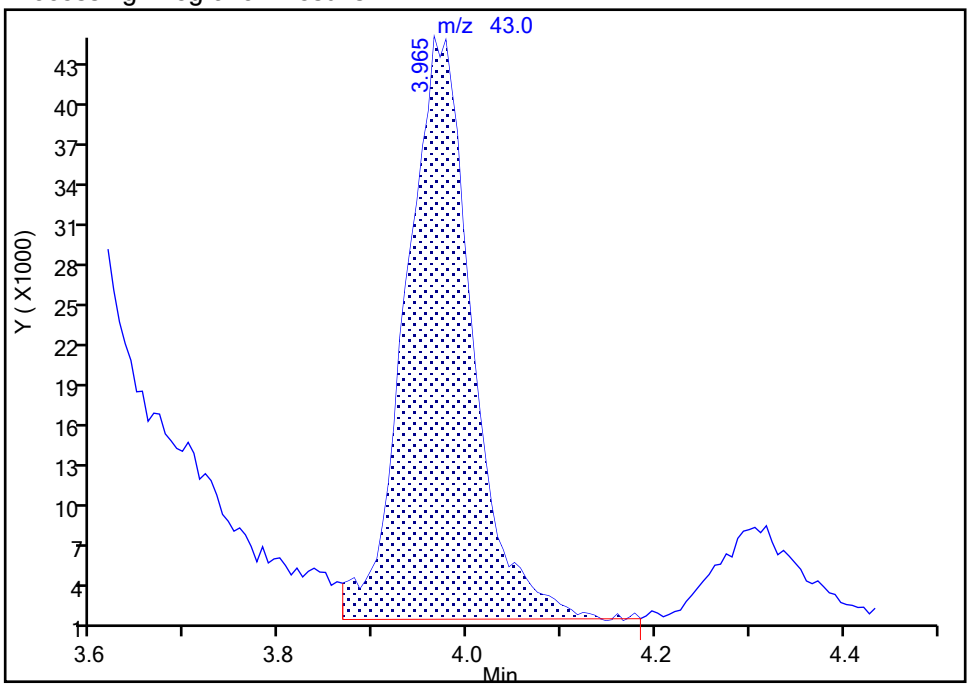
Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X02.D
Injection Date: 29-Dec-2021 10:59:30 Instrument ID: 19094
Lims ID: CCVIS VSTD10
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

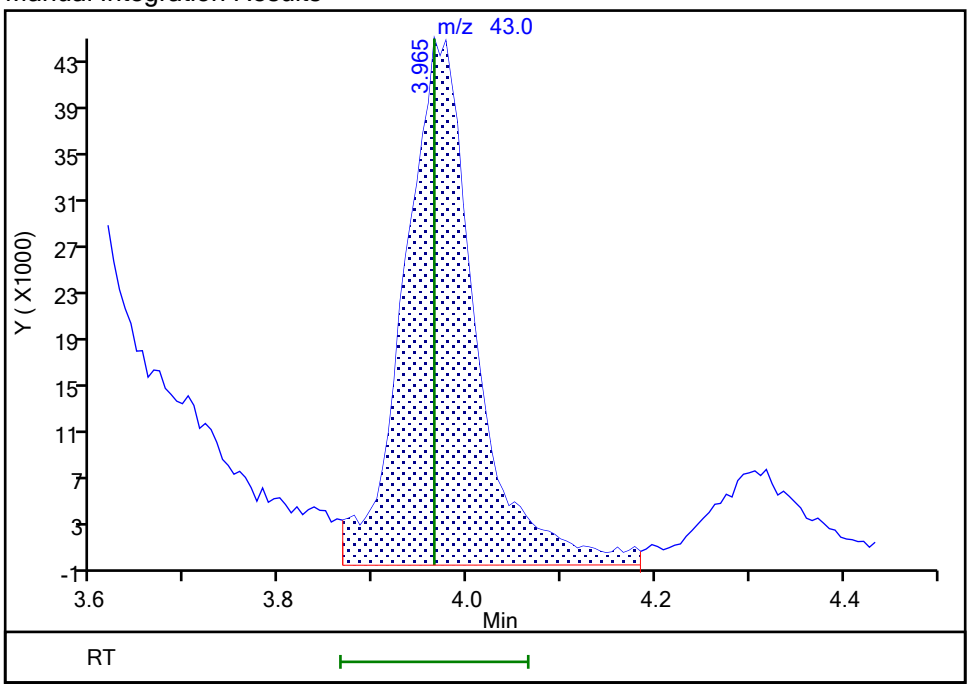
Processing Integration Results

RT: 3.96
Area: 212051
Amount: 5.751686
Amount Units: ug/l



Manual Integration Results

RT: 3.96
Area: 233512
Amount: 6.333796
Amount Units: ug/l



Reviewer: kephartk, 29-Dec-2021 11:26:03
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

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.: 410-67460-1

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.: 410-67460-1

SDG No.:

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.686	2.787		5.19	5.00	3.8	30.0
4-Chlorotoluene	Ave	0.7706	0.7862		5.10	5.00	2.0	30.0
tert-Butylbenzene	Ave	0.5890	0.6160		5.23	5.00	4.6	30.0
Pentachloroethane	Ave	0.4757	0.5156		5.42	5.00	8.4	30.0
1,2,4-Trimethylbenzene	Ave	2.753	2.852		5.18	5.00	3.6	30.0
sec-Butylbenzene	Ave	3.394	3.596		5.30	5.00	5.9	30.0
1,3-Dichlorobenzene	Ave	1.528	1.566	0.6000	5.12	5.00	2.5	30.0
p-Isopropyltoluene	Ave	3.002	3.128		5.21	5.00	4.2	30.0
1,4-Dichlorobenzene	Ave	1.562	1.579	0.5000	5.06	5.00	1.1	30.0
1,2,3-Trimethylbenzene	Ave	1.218	1.249		5.13	5.00	2.5	30.0
Benzyl chloride	Ave	0.2262	0.2392		5.29	5.00	5.7	30.0
n-Butylbenzene	Ave	1.403	1.417		5.05	5.00	1.0	30.0
1,2-Dichlorobenzene	Ave	1.396	1.438	0.4000	5.15	5.00	3.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.0870	0.0500	5.35	5.00	7.0	30.0
1,3,5-Trichlorobenzene	Ave	1.118	1.122		5.02	5.00	0.3	30.0
1,2,4-Trichlorobenzene	Ave	0.9433	0.9382	0.2000	4.97	5.00	-0.5	30.0
Hexachlorobutadiene	Ave	0.4098	0.3745		4.57	5.00	-8.6	30.0
Naphthalene	Ave	1.798	1.746		4.85	5.00	-2.9	30.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.7774		4.77	5.00	-4.6	30.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2541		10.1	10.0	0.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0504		10.0	10.0	0.0	30.0
Toluene-d8 (Surr)	Ave	1.292	1.296		10.0	10.0	0.3	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4907		9.94	10.0	-0.6	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D
Lims ID: ICV LG
Client ID:
Sample Type: ICV
Inject. Date: 24-Aug-2021 03:13:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0037607-019
Misc. Info.: ICV LG
Operator ID: mec29284 Instrument ID: 19930
Sublist:

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:57:03 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 16:07:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	437699	5.00	6.41	
4 Chloromethane	50	2.178	2.172	0.006	99	439513	5.00	5.65	
6 Butadiene	39	2.294	2.288	0.006	90	386504	5.00	5.41	
5 Vinyl chloride	62	2.300	2.294	0.006	73	441552	5.00	5.63	
7 Bromomethane	94	2.623	2.623	0.000	90	301136	5.00	5.30	
8 Chloroethane	64	2.708	2.709	-0.001	100	253839	5.00	5.40	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	623302	5.00	5.52	
10 Trichlorofluoromethane	101	3.013	3.020	-0.007	97	589092	5.00	5.83	
11 Ethyl ether	59	3.263	3.257	0.006	90	225441	5.02	5.49	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	398432	5.00	5.51	
13 Acrolein	56	3.440	3.428	0.012	98	255737	37.5	34.3	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	286176	5.00	5.49	
15 Acetone	43	3.611	3.599	0.012	100	562768	62.5	59.3	
16 112TCTFE	101	3.617	3.611	0.006	91	323206	5.00	5.94	
17 Iodomethane	142	3.775	3.769	0.006	100	541414	5.00	5.20	
18 Ethyl bromide	108	3.806	3.794	0.012	99	240936	5.07	5.08	
19 Carbon disulfide	76	3.885	3.879	0.006	99	738164	5.00	5.13	
21 Methyl acetate	43	4.037	4.038	-0.001	97	133771	5.00	4.79	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	91	439940	5.00	5.15	
23 Methylene Chloride	84	4.245	4.239	0.006	90	301185	5.00	5.30	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	95	170769	50.0	50.0	
25 2-Methyl-2-propanol	59	4.397	4.397	0.000	99	203324	50.0	56.5	
26 Acrylonitrile	53	4.586	4.592	-0.006	99	309652	25.0	24.5	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	94	768950	5.00	5.18	
28 trans-1,2-Dichloroethene	96	4.671	4.672	-0.001	99	304528	5.00	5.15	
29 Hexane	57	5.092	5.086	0.006	91	441246	5.00	5.34	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	549029	5.00	5.11	
32 Isopropyl ether	45	5.385	5.385	0.000	94	914534	5.00	5.10	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	91	483480	5.00	5.40	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	921451	5.00	5.26	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.116	6.116	0.000	99	997599	62.5	60.2	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	352537	5.00	5.35	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	90	508145	5.00	5.44	
40 Propionitrile	54	6.208	6.208	0.000	98	163382	37.5	37.1	
42 Methacrylonitrile	67	6.421	6.415	0.006	91	603546	37.5	36.3	
43 Chlorobromomethane	128	6.494	6.482	0.012	91	152671	5.00	5.37	
44 Tetrahydrofuran	71	6.494	6.494	0.000	80	117689	25.0	24.0	
45 Chloroform	83	6.641	6.635	0.006	93	549073	5.00	5.16	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	554531	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.866	6.860	0.006	98	519977	5.00	5.26	
48 Cyclohexane	56	6.964	6.964	0.000	89	541150	5.00	5.52	
50 Carbon tetrachloride	117	7.080	7.067	0.013	90	465504	5.00	5.46	
51 1,1-Dichloropropene	75	7.073	7.074	-0.001	96	449547	5.00	5.39	
52 Isobutyl alcohol	41	7.214	7.214	0.000	94	135141	125.0	117.8	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	93	110057	10.0	10.0	
54 Benzene	78	7.336	7.336	0.000	96	1276844	5.00	5.20	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	97	343788	5.00	5.17	
57 Tert-amyl methyl ether	73	7.518	7.519	-0.001	99	837925	5.00	5.15	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2182088	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	92	425979	5.00	5.02	
60 n-Butanol	56	8.092	8.098	-0.006	88	239239	250.0	224.6	
61 Trichloroethene	95	8.213	8.214	-0.001	97	337234	5.00	5.11	
62 Methylcyclohexane	83	8.524	8.525	-0.001	93	604005	5.00	5.51	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	82	319656	5.00	5.30	
64 Methyl methacrylate	69	8.628	8.628	0.000	88	149196	5.00	4.56	
65 1,4-Dioxane	88	8.634	8.640	-0.006	31	27070	125.0	90.1	M
66 Dibromomethane	93	8.652	8.653	-0.001	93	153739	5.00	5.22	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	390138	5.00	5.34	
69 2-Nitropropane	41	9.152	9.152	0.000	98	42545	5.00	4.55	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	325188	5.00	5.50	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	471258	5.00	5.14	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	2543694	62.5	61.0	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2195010	10.0	10.0	
76 Toluene	92	9.811	9.811	0.000	98	831998	5.00	5.12	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	402527	5.00	5.38	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	336492	5.00	5.38	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	90	226603	5.00	5.23	
81 Tetrachloroethene	166	10.359	10.360	-0.001	98	404374	5.00	5.23	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	382334	5.00	5.19	
83 2-Hexanone	43	10.481	10.481	0.000	96	1835506	62.5	62.8	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	278622	5.00	5.28	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	218638	5.00	5.23	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	86	1693972	10.0	10.0	
88 1-Chlorohexane	91	11.188	11.189	-0.001	96	471211	5.00	4.96	
90 Chlorobenzene	112	11.213	11.213	0.000	95	919057	5.00	5.11	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	333557	5.00	5.31	
92 Ethylbenzene	91	11.298	11.298	0.000	98	1619334	5.00	5.18	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	1286861	10.0	10.4	
94 o-Xylene	106	11.737	11.737	0.000	96	622361	5.00	5.11	
95 Styrene	104	11.755	11.756	-0.001	95	1034424	5.00	5.26	
96 Bromoform	173	11.914	11.914	0.000	97	167946	5.00	5.31	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	1705372	5.00	5.30	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	831259	10.0	9.94	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	289381	5.00	5.26	
102 Bromobenzene	156	12.298	12.298	0.000	97	407348	5.00	5.40	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	89	357283	25.0	23.7	
104 1,2,3-Trichloropropane	110	12.329	12.329	-0.001	83	81877	5.00	5.42	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1924114	5.00	5.26	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	390702	5.00	5.20	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1386314	5.00	5.19	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	391109	5.00	5.10	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	306426	5.00	5.23	
110 Pentachloroethane	167	12.774	12.774	0.000	93	256460	5.00	5.42	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1418708	5.00	5.18	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	1788570	5.00	5.30	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	778901	5.00	5.12	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1555925	5.00	5.21	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	994893	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	95	785427	5.00	5.06	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	98	621165	5.00	5.13	
118 Benzyl chloride	126	13.158	13.158	0.000	98	118974	5.00	5.29	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	704682	5.00	5.05	
120 1,2-Dichlorobenzene	146	13.341	13.341	-0.001	99	715454	5.00	5.15	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	88	43268	5.00	5.35	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	557931	5.00	5.02	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	466716	5.00	4.97	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	186275	5.00	4.57	
126 Naphthalene	128	14.609	14.609	0.000	97	868382	5.00	4.85	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	95	386694	5.00	4.77	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_EE_00004	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00015	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00017	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00006	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00026	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 24-Aug-2021 16:07:56 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D

Injection Date: 24-Aug-2021 03:13:30 Instrument ID: 19930 Operator ID: mec29284

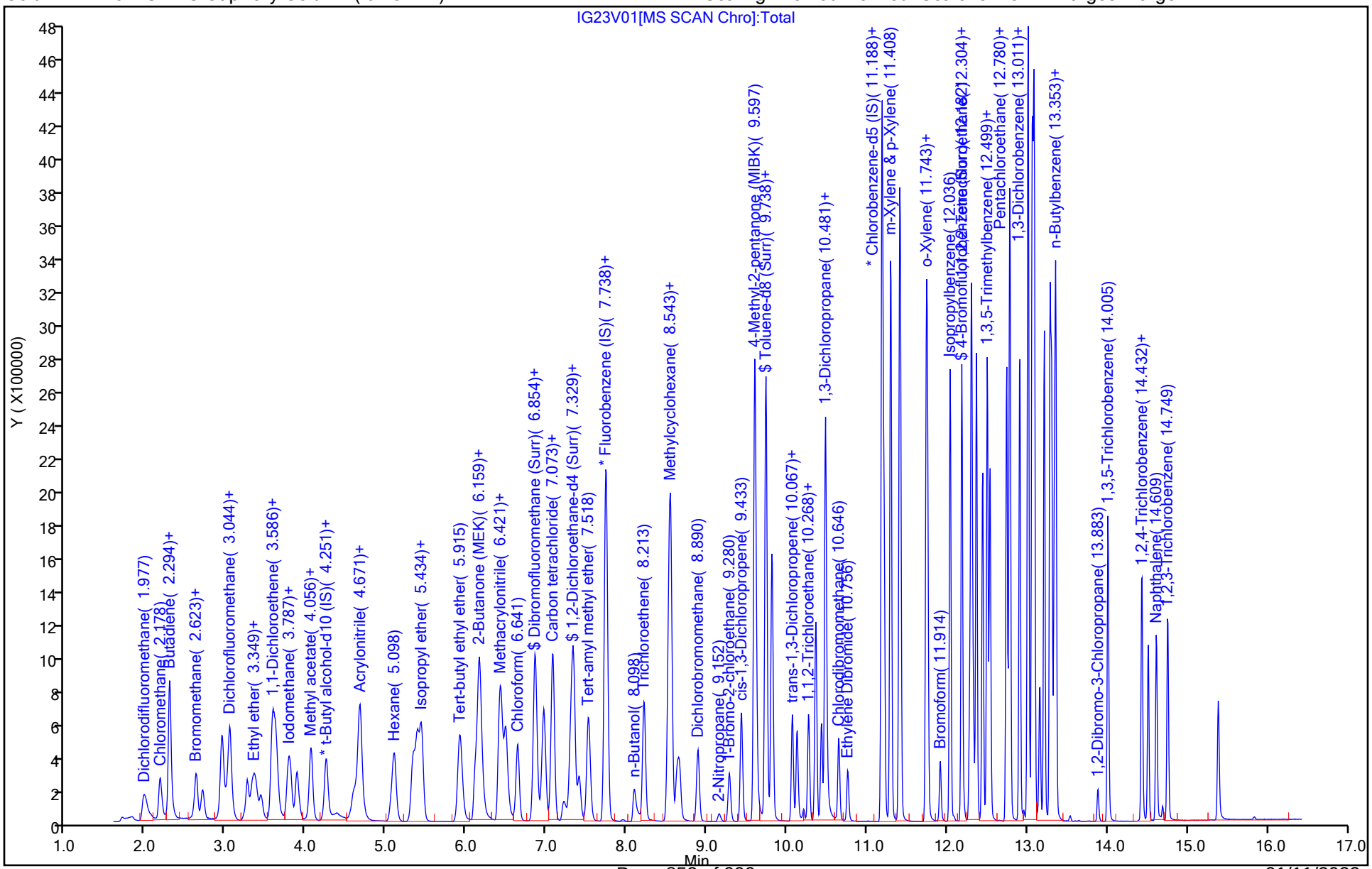
Lims ID: ICV LG Worklist Smp#: 19

Client ID:

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 18

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

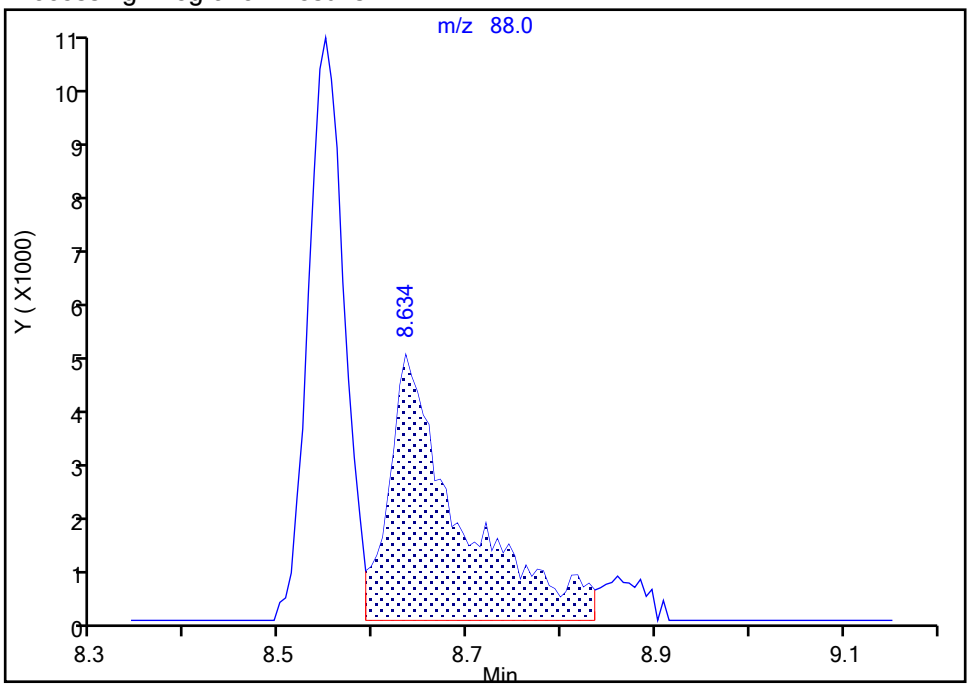
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D				
Injection Date:	24-Aug-2021 03:13:30	Instrument ID:	19930		
Lims ID:	ICV LG				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

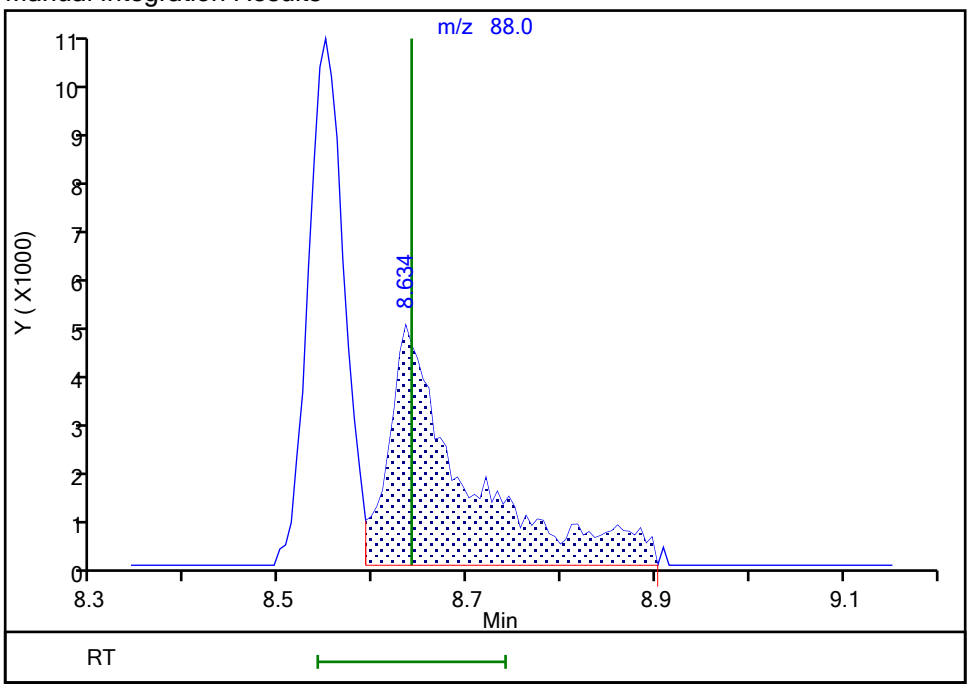
Processing Integration Results

RT: 8.63
Area: 24779
Amount: 87.218368
Amount Units: ug/l



Manual Integration Results

RT: 8.63
Area: 27070
Amount: 90.099969
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:37:39

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-209587/3 Calibration Date: 12/28/2021 10:04

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: ID28X02.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	0.3317	0.1000	13.3	12.5	6.0	20.0
Chloromethane	Ave	0.3563	0.4533	0.1000	15.9	12.5	27.2*	20.0
1,3-Butadiene	Ave	0.3273	0.5915		22.6	12.5	80.7*	20.0
Vinyl chloride	Ave	0.3592	0.4640	0.1000	16.1	12.5	29.1*	20.0
Bromomethane	Ave	0.2603	0.3247	0.1000	15.6	12.5	24.7*	20.0
Chloroethane	Ave	0.2153	0.2704	0.1000	15.7	12.5	25.6*	20.0
Dichlorofluoromethane	Ave	0.5179	0.6146		14.8	12.5	18.7	20.0
Trichlorofluoromethane	Ave	0.4629	0.5270	0.1000	14.2	12.5	13.8	20.0
Ethyl ether	Ave	0.1881	0.2001		13.3	12.5	6.4	20.0
Freon 123a	Ave	0.3316	0.3407		12.8	12.5	2.7	20.0
Acrolein	Ave	2.185	2.405		688	625	10.1	20.0
1,1-Dichloroethene	Ave	0.2387	0.2491	0.1000	13.0	12.5	4.4	20.0
Acetone	Ave	2.778	2.817	0.1000	127	125	1.4	20.0
Freon 113	Ave	0.2492	0.2215	0.1000	11.1	12.5	-11.1	20.0
Methyl iodide	Ave	0.4771	0.4500		11.8	12.5	-5.7	20.0
Carbon disulfide	Ave	0.6588	0.6167	0.1000	11.7	12.5	-6.4	20.0
Methyl acetate	Ave	8.176	9.635	0.1000	14.7	12.5	17.8	20.0
Allyl chloride	Ave	0.3915	0.3718		11.9	12.5	-5.0	20.0
Methylene Chloride	Ave	0.2605	0.2704	0.1000	13.0	12.5	3.8	20.0
t-Butyl alcohol	Ave	1.053	0.9433		224	250	-10.4	20.0
Acrylonitrile	Ave	3.702	4.095		34.6	31.3	10.6	20.0
Methyl tert-butyl ether	Ave	0.6808	0.6404	0.1000	11.8	12.5	-5.9	20.0
trans-1,2-Dichloroethene	Ave	0.2711	0.2795	0.1000	12.9	12.5	3.1	20.0
n-Hexane	Ave	0.3785	0.3420		11.3	12.5	-9.6	20.0
1,1-Dichloroethane	Ave	0.4919	0.5099	0.2000	13.0	12.5	3.7	20.0
di-Isopropyl ether	Ave	0.8217	0.8141		12.4	12.5	-0.9	20.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.4075		12.4	12.5	-0.7	20.0
Ethyl t-butyl ether	Ave	0.8035	0.7392		11.5	12.5	-8.0	20.0
2-Butanone (MEK)	Ave	4.850	5.830	0.1000	150	125	20.2*	20.0
cis-1,2-Dichloroethene	Ave	0.3020	0.3174	0.1000	13.1	12.5	5.1	20.0
2,2-Dichloropropane	Ave	0.4277	0.4351		12.7	12.5	1.7	20.0
Propionitrile	Ave	1.288	1.640		318	250	27.3*	20.0
Methacrylonitrile	Ave	4.873	5.997		154	125	23.1*	20.0
Bromochloromethane	Ave	0.1303	0.1432		13.7	12.5	9.9	20.0
Tetrahydrofuran	Ave	1.439	1.631		70.9	62.5	13.4	20.0
Chloroform	Ave	0.4873	0.5118	0.2000	13.1	12.5	5.0	20.0
1,1,1-Trichloroethane	Ave	0.4528	0.4665	0.1000	12.9	12.5	3.0	20.0
Cyclohexane	Ave	0.4489	0.4261	0.1000	11.9	12.5	-5.1	20.0
1,1-Dichloropropene	Ave	0.3820	0.4084		13.4	12.5	6.9	20.0
Carbon tetrachloride	Ave	0.3908	0.4202	0.1000	13.4	12.5	7.5	20.0
Isobutyl alcohol	Ave	0.3359	0.4017		747	625	19.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-209587/3 Calibration Date: 12/28/2021 10:04

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: ID28X02.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
Benzene	Ave	1.124	1.209	0.5000	13.4	12.5	7.5	20.0
1,2-Dichloroethane	Ave	0.3046	0.3102	0.1000	12.7	12.5	1.8	20.0
t-Amyl methyl ether	Ave	0.7459	0.6834		11.5	12.5	-8.4	20.0
n-Heptane	Ave	0.3892	0.3558		11.4	12.5	-8.6	20.0
n-Butanol	Ave	0.3118	0.4038		1420	1090	29.5*	20.0
Trichloroethene	Ave	0.3022	0.3260	0.2000	13.5	12.5	7.9	20.0
Methylcyclohexane	Ave	0.5026	0.4807	0.1000	12.0	12.5	-4.3	20.0
1,2-Dichloropropane	Ave	0.2761	0.3093	0.1000	14.0	12.5	12.0	20.0
Methyl methacrylate	Ave	9.578	11.57		15.1	12.5	20.8*	20.0
1,4-Dioxane	Qua		0.0913	0.0050	710	625	13.6	20.0
Dibromomethane	Ave	0.1350	0.1495		13.8	12.5	10.8	20.0
Bromodichloromethane	Ave	0.3347	0.3788	0.2000	14.1	12.5	13.2	20.0
2-Nitropropane	Ave	2.740	3.063		69.9	62.5	11.8	20.0
1-Bromo-2-chloroethane	Ave	0.2710	0.3328		15.3	12.5	22.8*	20.0
cis-1,3-Dichloropropene	Ave	0.4206	0.4798	0.2000	14.3	12.5	14.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	14.79	0.1000	151	125	21.1*	20.0
Toluene	Ave	0.9586	1.010	0.4000	13.2	12.5	5.4	20.0
trans-1,3-Dichloropropene	Ave	0.4420	0.4934	0.1000	14.0	12.5	11.6	20.0
Ethyl methacrylate	Ave	0.3689	0.3948		13.4	12.5	7.0	20.0
1,1,2-Trichloroethane	Ave	0.2557	0.2786	0.1000	13.6	12.5	8.9	20.0
Tetrachloroethene	Ave	0.4567	0.4993	0.2000	13.7	12.5	9.3	20.0
1,3-Dichloropropane	Ave	0.4348	0.4696		13.5	12.5	8.0	20.0
2-Hexanone	Ave	8.554	10.79	0.1000	158	125	26.1*	20.0
Dibromochloromethane	Ave	0.3116	0.3598		14.4	12.5	15.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2705	0.1000	13.7	12.5	9.6	20.0
1-Chlorohexane	Ave	0.5606	0.5668		12.6	12.5	1.1	20.0
Chlorobenzene	Ave	1.062	1.150	0.5000	13.5	12.5	8.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.3919		13.2	12.5	5.7	20.0
Ethylbenzene	Ave	1.846	1.937	0.1000	13.1	12.5	4.9	20.0
m&p-Xylene	Ave	0.7292	0.7849	0.1000	26.9	25.0	7.6	20.0
o-Xylene	Ave	0.7197	0.7500	0.3000	13.0	12.5	4.2	20.0
Styrene	Ave	1.162	1.254	0.3000	13.5	12.5	7.9	20.0
Bromoform	Ave	0.1867	0.2227	0.1000	14.9	12.5	19.3	20.0
Isopropylbenzene	Ave	1.900	1.949	0.1000	12.8	12.5	2.6	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5528	0.5930	0.3000	13.4	12.5	7.3	20.0
Bromobenzene	Ave	0.7576	0.8401		13.9	12.5	10.9	20.0
trans-1,4-Dichloro-2-butene	Ave	4.418	4.747		134	125	7.5	20.0
1,2,3-Trichloropropane	Ave	0.1520	0.1655		13.6	12.5	8.9	20.0
N-Propylbenzene	Ave	3.678	3.988		13.6	12.5	8.4	20.0
2-Chlorotoluene	Ave	0.7546	0.8129		13.5	12.5	7.7	20.0
1,3,5-Trimethylbenzene	Ave	2.686	2.865		13.3	12.5	6.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-209587/3 Calibration Date: 12/28/2021 10:04

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: ID28X02.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
4-Chlorotoluene	Ave	0.7706	0.8407		13.6	12.5	9.1	20.0
tert-Butylbenzene	Ave	0.5890	0.6352		13.5	12.5	7.9	20.0
Pentachloroethane	Ave	0.4757	0.5528		14.5	12.5	16.2	20.0
1,2,4-Trimethylbenzene	Ave	2.753	2.911		13.2	12.5	5.7	20.0
sec-Butylbenzene	Ave	3.394	3.613		13.3	12.5	6.5	20.0
1,3-Dichlorobenzene	Ave	1.528	1.660	0.6000	13.6	12.5	8.7	20.0
p-Isopropyltoluene	Ave	3.002	3.200		13.3	12.5	6.6	20.0
1,4-Dichlorobenzene	Ave	1.562	1.654	0.5000	13.2	12.5	5.9	20.0
1,2,3-Trimethylbenzene	Ave	1.218	1.268		13.0	12.5	4.1	20.0
Benzyl chloride	Ave	0.2262	0.2632		14.5	12.5	16.4	20.0
n-Butylbenzene	Ave	1.403	1.497		13.3	12.5	6.7	20.0
1,2-Dichlorobenzene	Ave	1.396	1.478	0.4000	13.2	12.5	5.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.0883	0.0500	13.6	12.5	8.6	20.0
1,3,5-Trichlorobenzene	Ave	1.118	1.146		12.8	12.5	2.5	20.0
1,2,4-Trichlorobenzene	Ave	0.9433	0.9707	0.2000	12.9	12.5	2.9	20.0
Hexachlorobutadiene	Ave	0.4098	0.3989		12.2	12.5	-2.7	20.0
Naphthalene	Ave	1.798	1.757		12.2	12.5	-2.3	20.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.8149		12.5	12.5	-0.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2506		9.95	10.0	-0.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0525		10.4	10.0	4.3	20.0
Toluene-d8 (Surr)	Ave	1.292	1.301		10.1	10.0	0.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4869		9.86	10.0	-1.4	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X02.D
Lims ID: CCVIS VSTD12.5
Client ID:
Sample Type: CCVIS
Inject. Date: 28-Dec-2021 10:04:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-003
Misc. Info.: CCVIS
Operator ID: KNK41612 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub52

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 12:28:50 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: CTX1612

First Level Reviewer: kephartk Date: 28-Dec-2021 10:36:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.971	0.000	99	772901	12.5	13.3	
4 Chloromethane	50	2.166	2.166	0.000	99	1056336	12.5	15.9	
6 Butadiene	39	2.282	2.282	0.000	90	1378467	12.5	22.6	
5 Vinyl chloride	62	2.282	2.282	0.000	97	1081226	12.5	16.1	
7 Bromomethane	94	2.617	2.617	0.000	91	756620	12.5	15.6	
8 Chloroethane	64	2.696	2.696	0.000	100	630162	12.5	15.7	
9 Dichlorofluoromethane	67	2.934	2.934	0.000	96	1432274	12.5	14.8	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	97	1228084	12.5	14.2	M
11 Ethyl ether	59	3.245	3.245	0.000	90	466291	12.5	13.3	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.336	3.336	0.000	90	793941	12.5	12.8	
13 Acrolein	56	3.422	3.422	0.000	98	3682921	625.0	687.9	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	97	580473	12.5	13.0	
15 Acetone	43	3.586	3.586	0.000	100	862616	125.0	126.8	
16 112TCTFE	101	3.599	3.599	0.000	90	516110	12.5	11.1	
17 Iodomethane	142	3.751	3.751	0.000	99	1048695	12.5	11.8	
19 Carbon disulfide	76	3.861	3.861	0.000	99	1437199	12.5	11.7	
21 Methyl acetate	43	4.013	4.013	0.000	97	295097	12.5	14.7	M
22 3-Chloro-1-propene	41	4.037	4.037	0.000	93	866368	12.5	11.9	
23 Methylene Chloride	84	4.226	4.226	0.000	90	630080	12.5	13.0	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	97	122506	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.361	4.361	0.000	99	577823	250.0	224.0	
26 Acrylonitrile	53	4.574	4.574	0.000	99	313522	31.3	34.6	
27 Methyl tert-butyl ether	73	4.635	4.635	0.000	94	1492354	12.5	11.8	
28 trans-1,2-Dichloroethene	96	4.647	4.647	0.000	99	651390	12.5	12.9	
29 Hexane	57	5.074	5.074	0.000	91	797124	12.5	11.3	
31 1,1-Dichloroethane	63	5.306	5.306	0.000	96	1188388	12.5	13.0	
32 Isopropyl ether	45	5.366	5.366	0.000	94	1897352	12.5	12.4	
33 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	90	949593	12.5	12.4	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	97	1722746	12.5	11.5	
36 2-Butanone (MEK)	43	6.098	6.098	0.000	99	1785451	125.0	150.3	M

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	739719	12.5	13.1	
38 2,2-Dichloropropane	77	6.153	6.153	0.000	86	1013931	12.5	12.7	
40 Propionitrile	54	6.183	6.183	0.000	99	1004552	250.0	318.3	
42 Methacrylonitrile	67	6.403	6.403	0.000	90	1836822	125.0	153.8	
43 Chlorobromomethane	128	6.464	6.464	0.000	90	333758	12.5	13.7	
44 Tetrahydrofuran	71	6.482	6.482	0.000	83	249825	62.5	70.9	
45 Chloroform	83	6.616	6.616	0.000	93	1192751	12.5	13.1	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	93	467199	10.0	9.95	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	98	1087237	12.5	12.9	
48 Cyclohexane	56	6.945	6.945	0.000	88	992972	12.5	11.9	
51 1,1-Dichloropropene	75	7.049	7.049	0.000	97	951848	12.5	13.4	
50 Carbon tetrachloride	117	7.055	7.055	0.000	96	979316	12.5	13.4	
52 Isobutyl alcohol	41	7.201	7.201	0.000	95	615167	625.0	747.4	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	88	97964	10.0	10.4	
54 Benzene	78	7.311	7.311	0.000	96	2816895	12.5	13.4	
56 1,2-Dichloroethane	62	7.384	7.384	0.000	97	722884	12.5	12.7	
57 Tert-amyl methyl ether	73	7.506	7.506	0.000	99	1592692	12.5	11.5	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1864377	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	90	829254	12.5	11.4	
60 n-Butanol	56	8.079	8.079	0.000	86	1082048	1093.8	1416.2	
61 Trichloroethene	95	8.195	8.195	0.000	97	759782	12.5	13.5	
62 Methylcyclohexane	83	8.500	8.500	0.000	92	1120354	12.5	12.0	
63 1,2-Dichloropropane	63	8.518	8.518	0.000	86	720779	12.5	14.0	
64 Methyl methacrylate	69	8.604	8.604	0.000	88	354363	12.5	15.1	
65 1,4-Dioxane	88	8.616	8.616	0.000	38	139815	625.0	709.8	M
66 Dibromomethane	93	8.634	8.634	0.000	94	348407	12.5	13.8	
68 Dichlorobromomethane	83	8.866	8.866	0.000	99	882781	12.5	14.1	
69 2-Nitropropane	41	9.128	9.128	0.000	97	469072	62.5	69.9	
72 1-Bromo-2-chloroethane	63	9.256	9.256	0.000	98	775472	12.5	15.3	
73 cis-1,3-Dichloropropene	75	9.408	9.408	0.000	97	1118251	12.5	14.3	
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.579	0.000	95	4528164	125.0	151.3	
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	1988898	10.0	10.1	
76 Toluene	92	9.792	9.792	0.000	98	1930357	12.5	13.2	
78 trans-1,3-Dichloropropene	75	10.048	10.048	0.000	91	942832	12.5	14.0	
79 Ethyl methacrylate	69	10.109	10.109	0.000	88	754499	12.5	13.4	
80 1,1,2-Trichloroethane	97	10.250	10.250	0.000	91	532340	12.5	13.6	
81 Tetrachloroethene	166	10.341	10.341	0.000	98	954223	12.5	13.7	
82 1,3-Dichloropropane	76	10.408	10.408	0.000	88	897413	12.5	13.5	
83 2-Hexanone	43	10.457	10.457	0.000	95	3304128	125.0	157.7	
85 Chlorodibromomethane	129	10.628	10.628	0.000	90	687549	12.5	14.4	
86 Ethylene Dibromide	107	10.737	10.737	0.000	99	516924	12.5	13.7	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1528845	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.170	0.000	95	1083101	12.5	12.6	
90 Chlorobenzene	112	11.189	11.189	0.000	96	2198080	12.5	13.5	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	97	748957	12.5	13.2	
92 Ethylbenzene	91	11.274	11.274	0.000	98	3701267	12.5	13.1	
93 m-Xylene & p-Xylene	106	11.390	11.390	0.000	100	2999881	25.0	26.9	
94 o-Xylene	106	11.713	11.713	0.000	96	1433318	12.5	13.0	
95 Styrene	104	11.731	11.731	0.000	95	2395943	12.5	13.5	
96 Bromoform	173	11.890	11.890	0.000	98	425614	12.5	14.9	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	3724359	12.5	12.8	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	744353	10.0	9.86	

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	12.255	12.255	0.000	93	648337	12.5	13.4	
102 Bromobenzene	156	12.274	12.274	0.000	96	918465	12.5	13.9	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	91	1453910	125.0	134.3	
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	82	180918	12.5	13.6	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	4360013	12.5	13.6	
106 2-Chlorotoluene	126	12.420	12.420	0.000	97	888750	12.5	13.5	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	3132239	12.5	13.3	
108 4-Chlorotoluene	126	12.511	12.511	0.000	96	919114	12.5	13.6	
109 tert-Butylbenzene	134	12.713	12.713	0.000	92	694507	12.5	13.5	
110 Pentachloroethane	167	12.749	12.749	0.000	94	604380	12.5	14.5	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	96	3182488	12.5	13.2	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	3950208	12.5	13.3	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	1815445	12.5	13.6	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	3498186	12.5	13.3	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	92	874655	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	1808839	12.5	13.2	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	1386716	12.5	13.0	
118 Benzyl chloride	126	13.127	13.127	0.000	98	287768	12.5	14.5	
119 n-Butylbenzene	92	13.273	13.273	0.000	97	1637243	12.5	13.3	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	1616399	12.5	13.2	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	90	96518	12.5	13.6	
123 1,3,5-Trichlorobenzene	180	13.975	13.975	0.000	98	1252421	12.5	12.8	
124 1,2,4-Trichlorobenzene	180	14.395	14.395	0.000	94	1061256	12.5	12.9	
125 Hexachlorobutadiene	225	14.474	14.474	0.000	95	436080	12.5	12.2	
126 Naphthalene	128	14.572	14.572	0.000	97	1920708	12.5	12.2	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	890957	12.5	12.5	
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_00029	Amount Added: 25.00	Units: uL	
MSV_LL_#2_826_00034	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00057	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

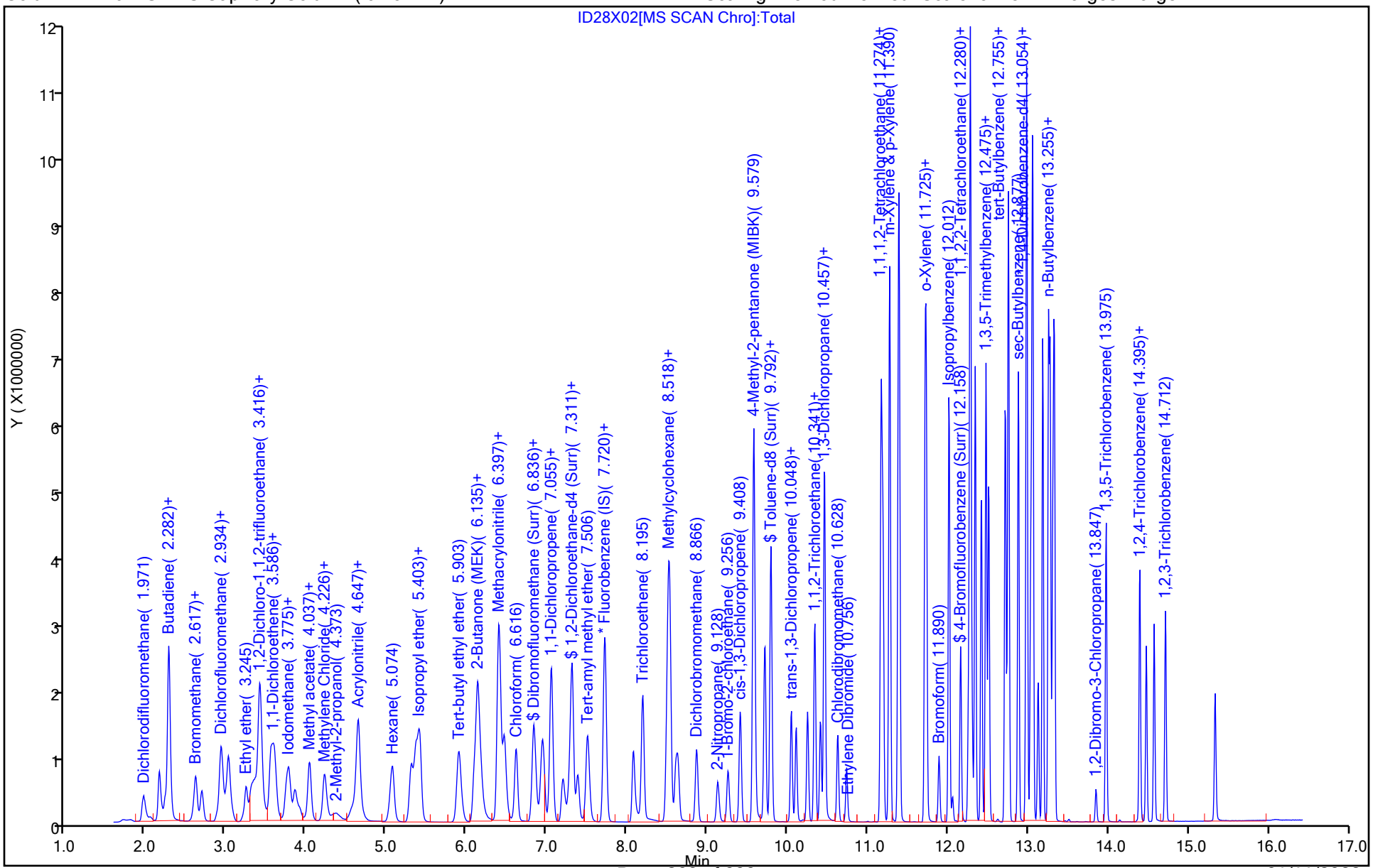
Report Date: 28-Dec-2021 12:28:52 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X02.D

Injection Date:	28-Dec-2021 10:04:30	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



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

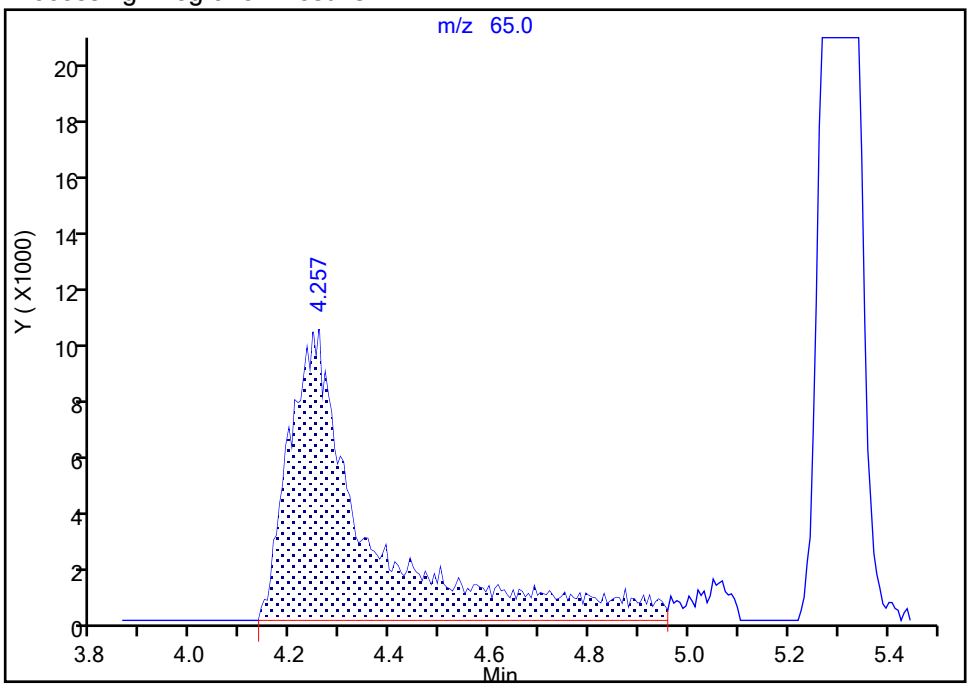
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X02.D				
Injection Date:	28-Dec-2021 10:04:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	KNK41612	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

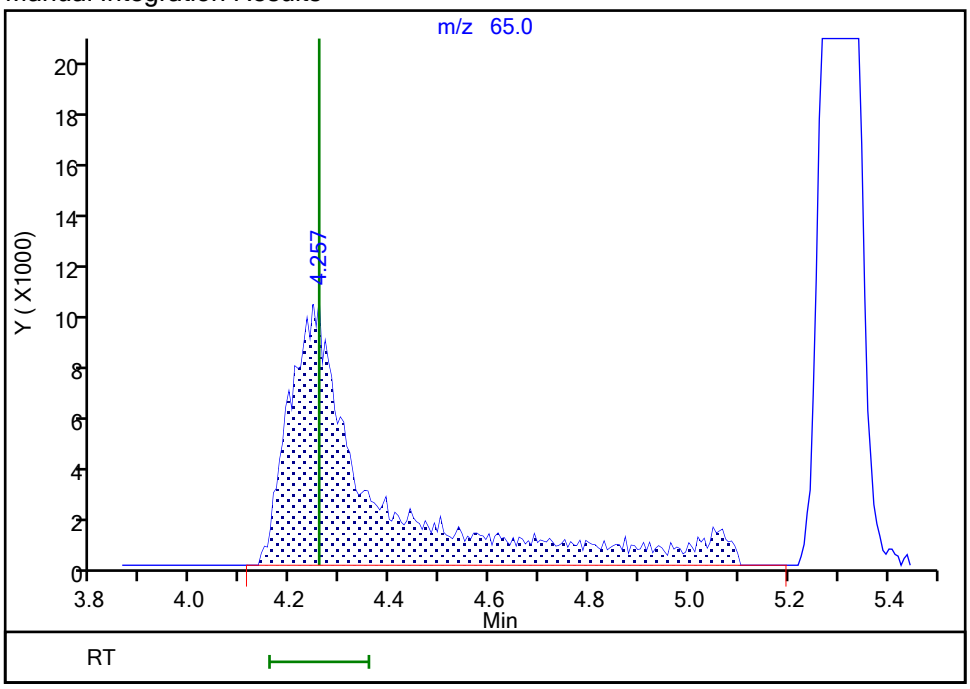
Processing Integration Results

RT: 4.26
Area: 115159
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.26
Area: 122506
Amount: 50.000000
Amount Units: ug/l



Reviewer: kephartk, 28-Dec-2021 10:35:03

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

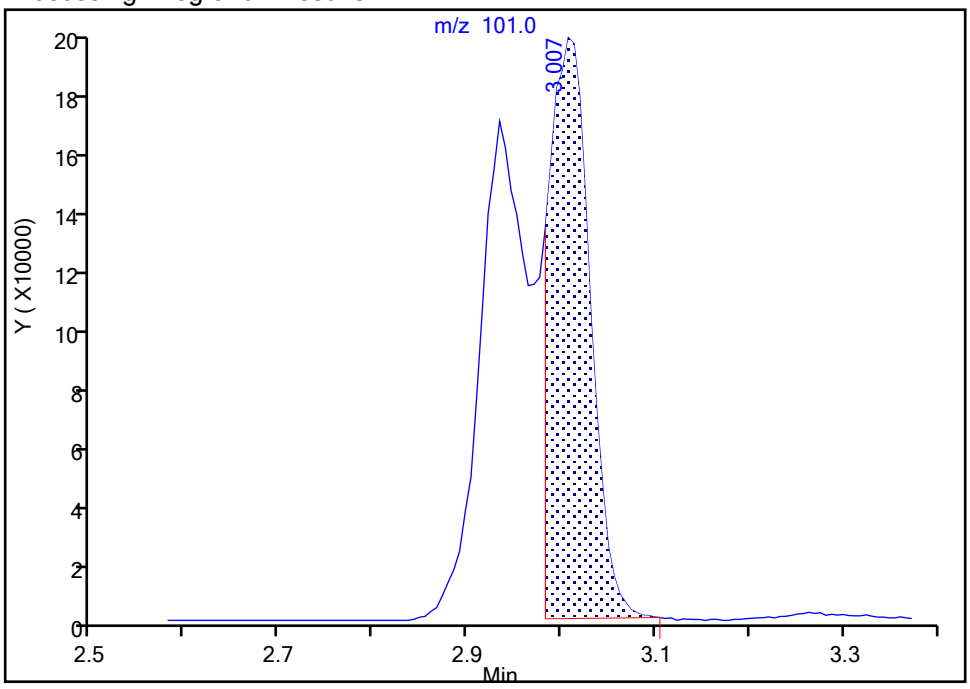
Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X02.D
Injection Date: 28-Dec-2021 10:04:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

10 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

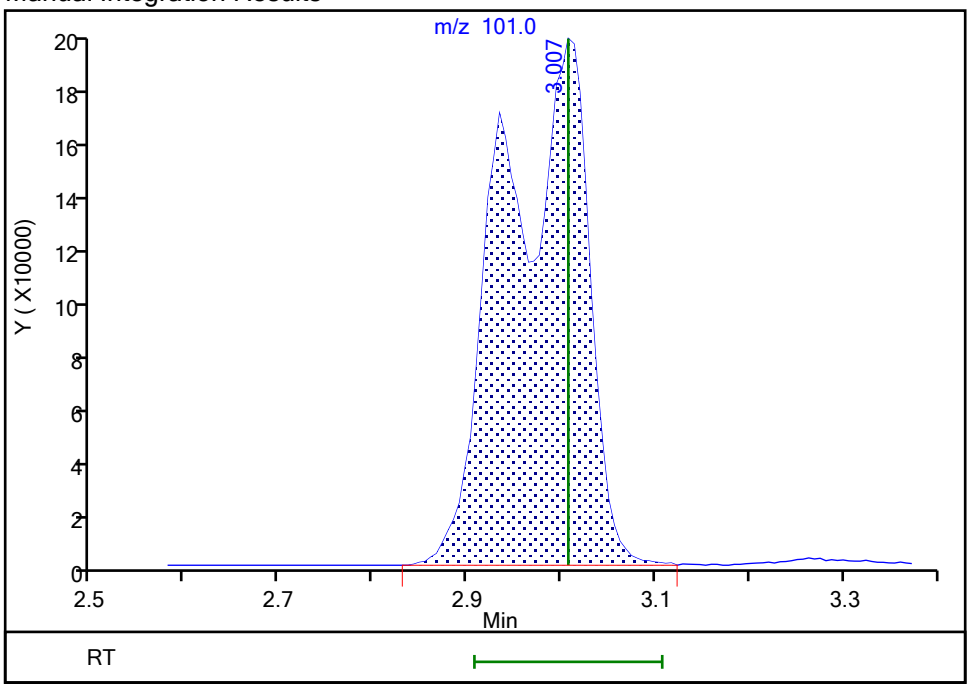
Processing Integration Results

RT: 3.01
Area: 597609
Amount: 6.924104
Amount Units: ug/l



Manual Integration Results

RT: 3.01
Area: 1228084
Amount: 14.229006
Amount Units: ug/l



Reviewer: kephartk, 28-Dec-2021 10:35:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

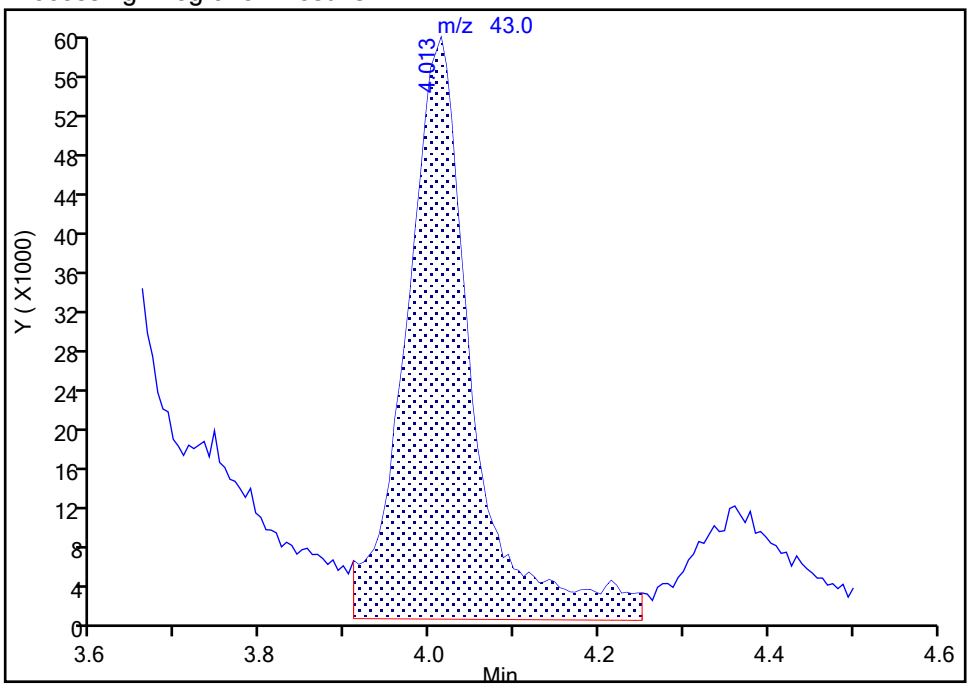
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X02.D				
Injection Date:	28-Dec-2021 10:04:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	KNK41612	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

21 Methyl acetate, CAS: 79-20-9

Signal: 1

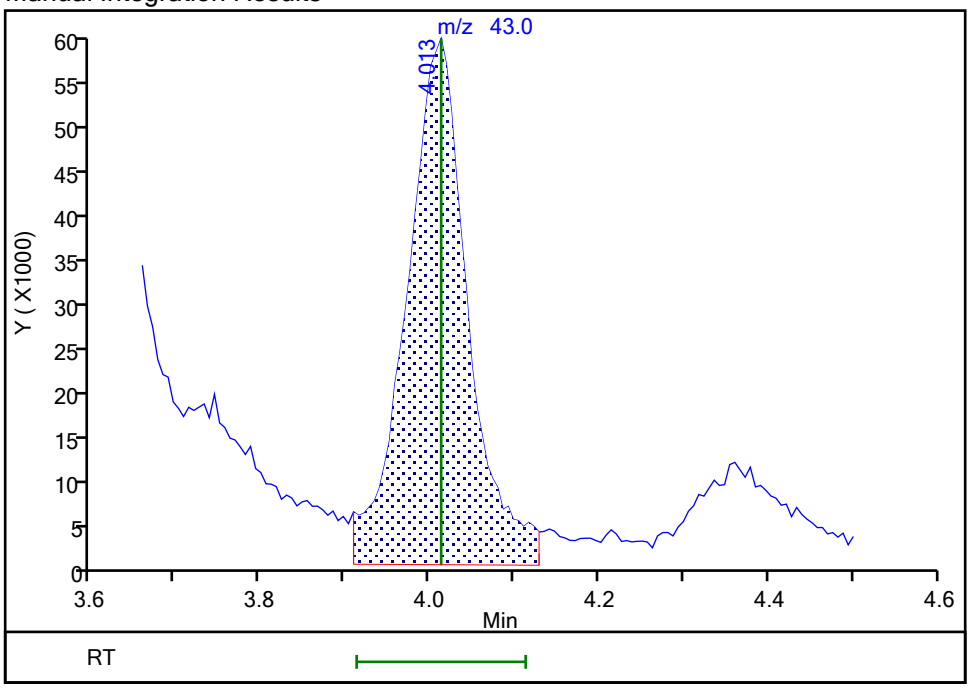
Processing Integration Results

RT: 4.01
Area: 317804
Amount: 15.864329
Amount Units: ug/l



Manual Integration Results

RT: 4.01
Area: 295097
Amount: 14.730827
Amount Units: ug/l



Reviewer: kephartk, 28-Dec-2021 10:35:14
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

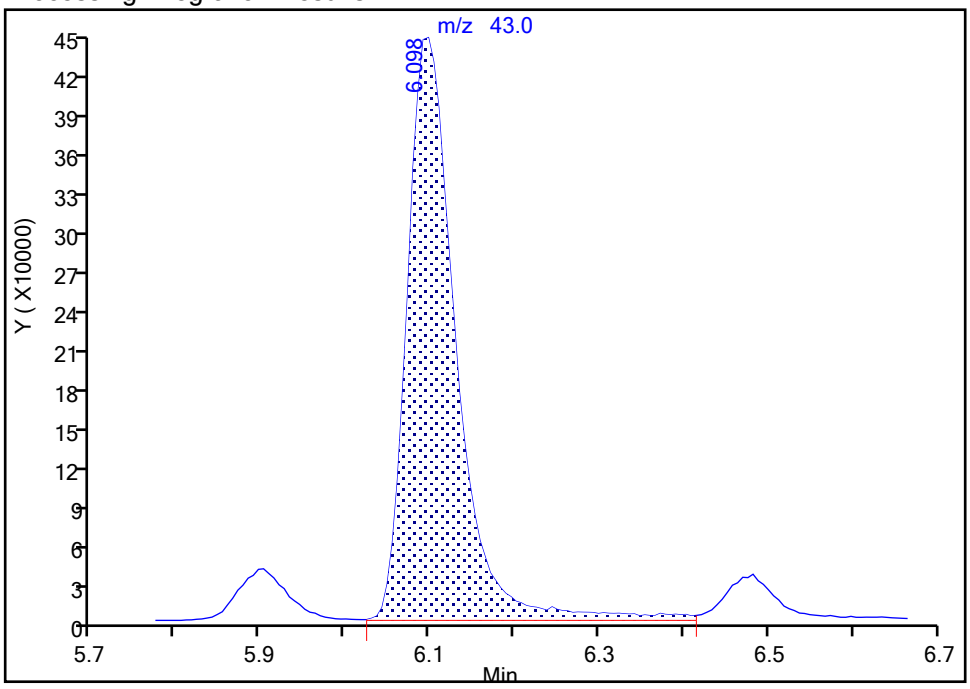
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X02.D				
Injection Date:	28-Dec-2021 10:04:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	KNK41612	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

36 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

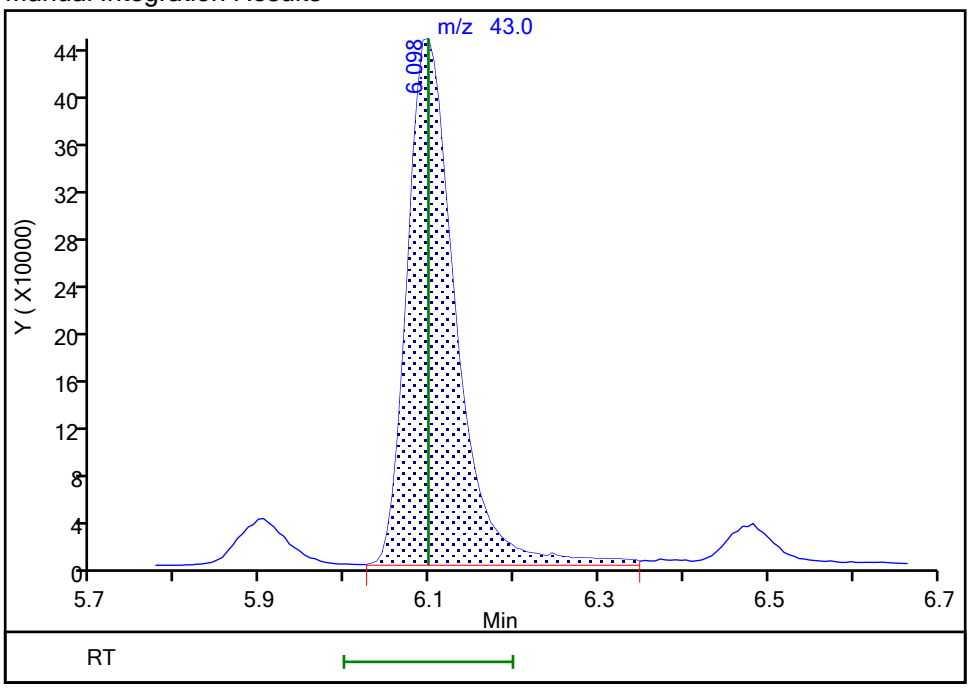
Processing Integration Results

RT: 6.10
Area: 1802261
Amount: 151.6654
Amount Units: ug/l



Manual Integration Results

RT: 6.10
Area: 1785451
Amount: 150.2508
Amount Units: ug/l



Reviewer: kephartk, 28-Dec-2021 10:35:57
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

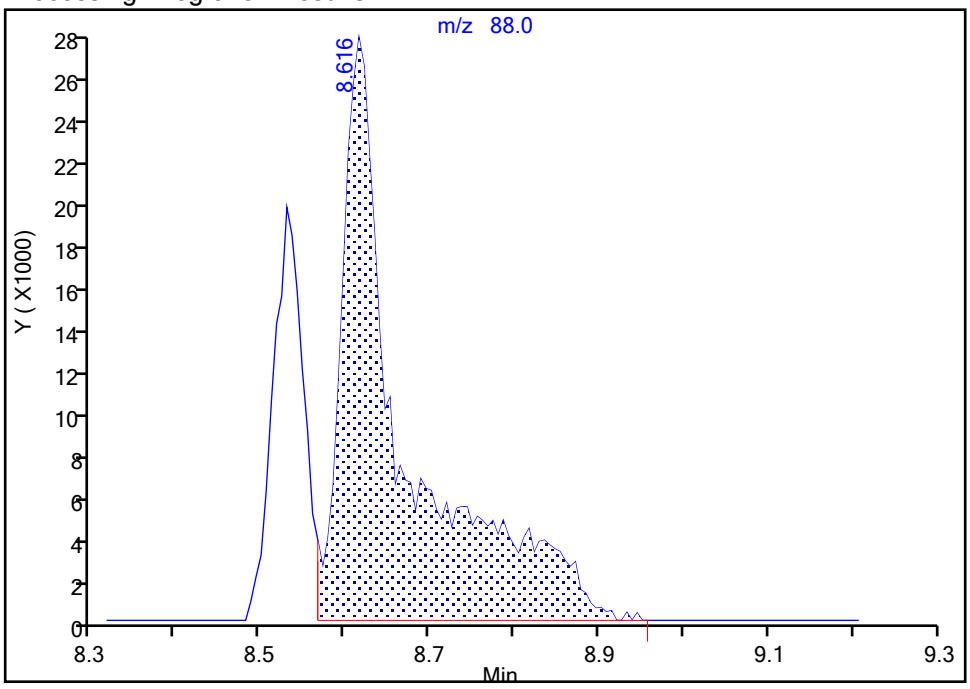
Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X02.D				
Injection Date:	28-Dec-2021 10:04:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	KNK41612	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

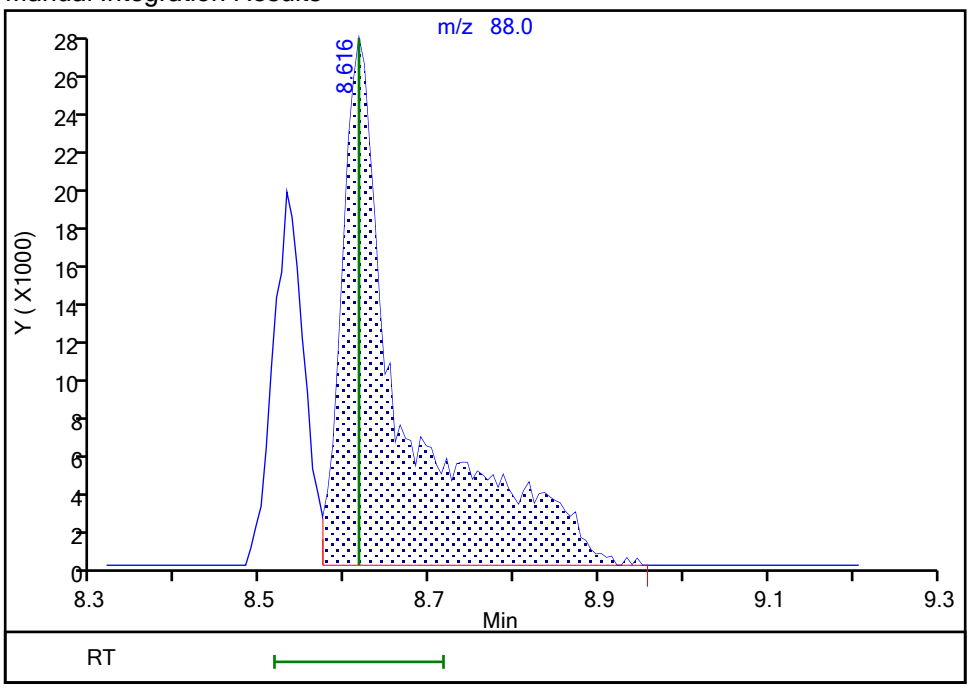
Processing Integration Results

RT: 8.62
Area: 141184
Amount: 722.0539
Amount Units: ug/l



Manual Integration Results

RT: 8.62
Area: 139815
Amount: 709.8100
Amount Units: ug/l



Reviewer: kephartk, 28-Dec-2021 10:36:16
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.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-211830/3 Calibration Date: 01/05/2022 09:16

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: IJ05X02.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	0.2375	0.1000	9.49	12.5	-24.1*	20.0
Chloromethane	Ave	0.3563	0.3201	0.1000	11.2	12.5	-10.2	20.0
Vinyl chloride	Ave	0.3592	0.3105	0.1000	10.8	12.5	-13.6	20.0
1,3-Butadiene	Ave	0.3273	0.4791		18.3	12.5	46.4*	20.0
Bromomethane	Ave	0.2603	0.2110	0.1000	10.1	12.5	-18.9	20.0
Chloroethane	Ave	0.2153	0.1803	0.1000	10.5	12.5	-16.3	20.0
Dichlorofluoromethane	Ave	0.5179	0.4252		10.3	12.5	-17.9	20.0
Trichlorofluoromethane	Ave	0.4629	0.3993	0.1000	10.8	12.5	-13.7	20.0
Ethyl ether	Ave	0.1881	0.2042		13.6	12.5	8.6	20.0
Freon 123a	Ave	0.3316	0.3339		12.6	12.5	0.7	20.0
Acrolein	Ave	2.185	2.323		664	625	6.3	20.0
1,1-Dichloroethene	Ave	0.2387	0.2501	0.1000	13.1	12.5	4.8	20.0
Acetone	Ave	2.778	2.810	0.1000	126	125	1.2	20.0
Freon 113	Ave	0.2492	0.2039	0.1000	10.2	12.5	-18.2	20.0
Methyl iodide	Ave	0.4771	0.4487		11.8	12.5	-5.9	20.0
Ethyl bromide	Ave	0.2175	0.2356		13.5	12.5	8.3	20.0
Carbon disulfide	Ave	0.6588	0.6267	0.1000	11.9	12.5	-4.9	20.0
Methyl acetate	Ave	8.176	9.513	0.1000	14.5	12.5	16.3	20.0
Allyl chloride	Ave	0.3915	0.4113		13.1	12.5	5.1	20.0
Methylene Chloride	Ave	0.2605	0.2754	0.1000	13.2	12.5	5.7	20.0
t-Butyl alcohol	Ave	1.053	0.8701		207	250	-17.4	20.0
Acrylonitrile	Ave	3.702	3.989		33.7	31.3	7.8	20.0
Methyl tert-butyl ether	Ave	0.6808	0.6557	0.1000	12.0	12.5	-3.7	20.0
trans-1,2-Dichloroethene	Ave	0.2711	0.2834	0.1000	13.1	12.5	4.6	20.0
n-Hexane	Ave	0.3785	0.2876		9.50	12.5	-24.0*	20.0
1,1-Dichloroethane	Ave	0.4919	0.5420	0.2000	13.8	12.5	10.2	20.0
di-Isopropyl ether	Ave	0.8217	0.9160		13.9	12.5	11.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.4356		13.3	12.5	6.2	20.0
Ethyl t-butyl ether	Ave	0.8035	0.8065		12.5	12.5	0.4	20.0
2-Butanone (MEK)	Ave	4.850	5.884	0.1000	152	125	21.3*	20.0
cis-1,2-Dichloroethene	Ave	0.3020	0.3226	0.1000	13.4	12.5	6.8	20.0
2,2-Dichloropropane	Ave	0.4277	0.3631		10.6	12.5	-15.1	20.0
Propionitrile	Ave	1.288	1.630		316	250	26.6*	20.0
Methacrylonitrile	Ave	4.873	5.733		147	125	17.7	20.0
Bromochloromethane	Ave	0.1303	0.1421		13.6	12.5	9.0	20.0
Tetrahydrofuran	Ave	1.439	1.576		68.5	62.5	9.5	20.0
Chloroform	Ave	0.4873	0.5299	0.2000	13.6	12.5	8.8	20.0
1,1,1-Trichloroethane	Ave	0.4528	0.4642	0.1000	12.8	12.5	2.5	20.0
Cyclohexane	Ave	0.4489	0.4356	0.1000	12.1	12.5	-3.0	20.0
1,1-Dichloropropene	Ave	0.3820	0.4242		13.9	12.5	11.0	20.0
Carbon tetrachloride	Ave	0.3908	0.4109	0.1000	13.1	12.5	5.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-211830/3 Calibration Date: 01/05/2022 09:16

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: IJ05X02.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	0.4147		772	625	23.5*	20.0
Benzene	Ave	1.124	1.258	0.5000	14.0	12.5	11.9	20.0
1,2-Dichloroethane	Ave	0.3046	0.3324	0.1000	13.6	12.5	9.1	20.0
t-Amyl methyl ether	Ave	0.7459	0.7393		12.4	12.5	-0.9	20.0
n-Heptane	Ave	0.3892	0.3126		10.0	12.5	-19.7	20.0
n-Butanol	Ave	0.3118	0.3826		1340	1090	22.7*	20.0
Trichloroethene	Ave	0.3022	0.3307	0.2000	13.7	12.5	9.5	20.0
Methylcyclohexane	Ave	0.5026	0.4476	0.1000	11.1	12.5	-10.9	20.0
1,2-Dichloropropane	Ave	0.2761	0.3328	0.1000	15.1	12.5	20.5*	20.0
Methyl methacrylate	Ave	9.578	11.60		15.1	12.5	21.1*	20.0
1,4-Dioxane	Qua		0.0806	0.0050	584	625	-6.6	20.0
Dibromomethane	Ave	0.1350	0.1536		14.2	12.5	13.8	20.0
Bromodichloromethane	Ave	0.3347	0.3938	0.2000	14.7	12.5	17.7	20.0
2-Nitropropane	Ave	2.740	3.019		68.9	62.5	10.2	20.0
1-Bromo-2-chloroethane	Ave	0.2710	0.3528		16.3	12.5	30.2*	20.0
cis-1,3-Dichloropropene	Ave	0.4206	0.4847	0.2000	14.4	12.5	15.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	15.16	0.1000	155	125	24.1*	20.0
Toluene	Ave	0.9586	1.019	0.4000	13.3	12.5	6.3	20.0
trans-1,3-Dichloropropene	Ave	0.4420	0.4993	0.1000	14.1	12.5	13.0	20.0
Ethyl methacrylate	Ave	0.3689	0.4179		14.2	12.5	13.3	20.0
1,1,2-Trichloroethane	Ave	0.2557	0.2906	0.1000	14.2	12.5	13.7	20.0
Tetrachloroethene	Ave	0.4567	0.4787	0.2000	13.1	12.5	4.8	20.0
1,3-Dichloropropane	Ave	0.4348	0.5041		14.5	12.5	15.9	20.0
2-Hexanone	Ave	8.554	11.29	0.1000	165	125	31.9*	20.0
Dibromochloromethane	Ave	0.3116	0.3667		14.7	12.5	17.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2822	0.1000	14.3	12.5	14.4	20.0
1-Chlorohexane	Ave	0.5606	0.5780		12.9	12.5	3.1	20.0
Chlorobenzene	Ave	1.062	1.177	0.5000	13.9	12.5	10.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.3965		13.4	12.5	6.9	20.0
Ethylbenzene	Ave	1.846	1.993	0.1000	13.5	12.5	8.0	20.0
m&p-Xylene	Ave	0.7292	0.7868	0.1000	27.0	25.0	7.9	20.0
o-Xylene	Ave	0.7197	0.7557	0.3000	13.1	12.5	5.0	20.0
Styrene	Ave	1.162	1.261	0.3000	13.6	12.5	8.6	20.0
Bromoform	Ave	0.1867	0.2242	0.1000	15.0	12.5	20.1*	20.0
Isopropylbenzene	Ave	1.900	1.943	0.1000	12.8	12.5	2.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5528	0.6534	0.3000	14.8	12.5	18.2	20.0
Bromobenzene	Ave	0.7576	0.8820		14.6	12.5	16.4	20.0
trans-1,4-Dichloro-2-butene	Ave	4.418	3.336		94.4	125	-24.5*	20.0
1,2,3-Trichloropropane	Ave	0.1520	0.1741		14.3	12.5	14.6	20.0
N-Propylbenzene	Ave	3.678	4.310		14.6	12.5	17.2	20.0
2-Chlorotoluene	Ave	0.7546	0.8795		14.6	12.5	16.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Lab Sample ID: CCVIS 410-211830/3 Calibration Date: 01/05/2022 09:16

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: IJ05X02.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	2.984		13.9	12.5	11.1	20.0
4-Chlorotoluene	Ave	0.7706	0.8984		14.6	12.5	16.6	20.0
tert-Butylbenzene	Ave	0.5890	0.6787		14.4	12.5	15.2	20.0
Pentachloroethane	Ave	0.4757	0.5738		15.1	12.5	20.6*	20.0
1,2,4-Trimethylbenzene	Ave	2.753	3.054		13.9	12.5	10.9	20.0
sec-Butylbenzene	Ave	3.394	3.870		14.3	12.5	14.0	20.0
1,3-Dichlorobenzene	Ave	1.528	1.719	0.6000	14.1	12.5	12.5	20.0
p-Isopropyltoluene	Ave	3.002	3.309		13.8	12.5	10.2	20.0
1,4-Dichlorobenzene	Ave	1.562	1.706	0.5000	13.7	12.5	9.2	20.0
1,2,3-Trimethylbenzene	Ave	1.218	1.313		13.5	12.5	7.8	20.0
Benzyl chloride	Ave	0.2262	0.1987		11.0	12.5	-12.2	20.0
n-Butylbenzene	Ave	1.403	1.616		14.4	12.5	15.2	20.0
1,2-Dichlorobenzene	Ave	1.396	1.550	0.4000	13.9	12.5	11.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.0994	0.0500	15.3	12.5	22.3*	20.0
1,3,5-Trichlorobenzene	Ave	1.118	1.187		13.3	12.5	6.2	20.0
1,2,4-Trichlorobenzene	Ave	0.9433	1.007	0.2000	13.3	12.5	6.7	20.0
Hexachlorobutadiene	Ave	0.4098	0.4107		12.5	12.5	0.2	20.0
Naphthalene	Ave	1.798	1.832		12.7	12.5	1.9	20.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.8575		13.1	12.5	5.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2501		9.93	10.0	-0.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0528		10.5	10.0	4.8	20.0
Toluene-d8 (Surr)	Ave	1.292	1.300		10.1	10.0	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4813		9.75	10.0	-2.5	20.0

Eurofins Lancaster Laboratories Environment Testing LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X02.D
Lims ID: CCVIS VSTD12.5
Client ID:
Sample Type: CCVIS
Inject. Date: 05-Jan-2022 09:16:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047767-003
Misc. Info.: CCVIS
Operator ID: KNK41612 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 05-Jan-2022 10:46:15 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: CTX1649

First Level Reviewer: kephartk Date: 05-Jan-2022 09:56:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.971	0.000	99	606888	12.5	9.49	
4 Chloromethane	50	2.172	2.172	0.000	99	818056	12.5	11.2	
5 Vinyl chloride	62	2.282	2.282	0.000	98	793446	12.5	10.8	
6 Butadiene	39	2.300	2.300	0.000	91	1224263	12.5	18.3	
7 Bromomethane	94	2.629	2.629	0.000	90	539323	12.5	10.1	
8 Chloroethane	64	2.708	2.708	0.000	100	460867	12.5	10.5	
9 Dichlorofluoromethane	67	2.952	2.952	0.000	97	1086550	12.5	10.3	
10 Trichlorofluoromethane	101	3.013	3.013	0.000	98	1020429	12.5	10.8	
11 Ethyl ether	59	3.257	3.257	0.000	92	521720	12.5	13.6	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.342	3.342	0.000	94	853380	12.5	12.6	
13 Acrolein	56	3.428	3.428	0.000	99	4209093	625.0	664.5	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	98	639200	12.5	13.1	
15 Acetone	43	3.592	3.592	0.000	92	1018104	125.0	126.4	
16 112TCTFE	101	3.605	3.605	0.000	91	521087	12.5	10.2	
17 Iodomethane	142	3.769	3.769	0.000	98	1146765	12.5	11.8	
18 Ethyl bromide	108	3.794	3.794	0.000	98	601795	12.5	13.5	
19 Carbon disulfide	76	3.873	3.873	0.000	99	1601545	12.5	11.9	
21 Methyl acetate	43	4.019	4.019	0.000	97	344690	12.5	14.5	M
22 3-Chloro-1-propene	41	4.050	4.050	0.000	93	1051158	12.5	13.1	
23 Methylene Chloride	84	4.233	4.233	0.000	92	703911	12.5	13.2	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	94	144937	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.391	4.391	0.000	99	630543	250.0	206.6	
26 Acrylonitrile	53	4.574	4.574	0.000	98	361388	31.3	33.7	
27 Methyl tert-butyl ether	73	4.647	4.647	0.000	95	1675768	12.5	12.0	
28 trans-1,2-Dichloroethene	96	4.659	4.659	0.000	99	724343	12.5	13.1	
29 Hexane	57	5.074	5.074	0.000	93	734924	12.5	9.50	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	1385027	12.5	13.8	
32 Isopropyl ether	45	5.373	5.373	0.000	95	2340744	12.5	13.9	
33 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	90	1113264	12.5	13.3	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	97	2061135	12.5	12.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	6.098	6.098	0.000	100	2132142	125.0	151.7	
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	82	824514	12.5	13.4	
38 2,2-Dichloropropane	77	6.147	6.147	0.000	88	927918	12.5	10.6	
40 Propionitrile	54	6.183	6.183	0.000	99	1181467	250.0	316.4	
42 Methacrylonitrile	67	6.403	6.403	0.000	92	2077360	125.0	147.1	
43 Chlorobromomethane	128	6.464	6.464	0.000	94	363143	12.5	13.6	
44 Tetrahydrofuran	71	6.482	6.482	0.000	80	285488	62.5	68.5	
45 Chloroform	83	6.616	6.616	0.000	93	1354163	12.5	13.6	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	93	511268	10.0	9.93	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	99	1186199	12.5	12.8	
48 Cyclohexane	56	6.945	6.945	0.000	90	1113163	12.5	12.1	
51 1,1-Dichloropropene	75	7.055	7.055	0.000	97	1083929	12.5	13.9	
50 Carbon tetrachloride	117	7.055	7.055	0.000	96	1050014	12.5	13.1	
52 Isobutyl alcohol	41	7.201	7.201	0.000	94	751399	625.0	771.6	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	97	107960	10.0	10.5	
54 Benzene	78	7.311	7.311	0.000	96	3214230	12.5	14.0	
56 1,2-Dichloroethane	62	7.384	7.384	0.000	97	849515	12.5	13.6	
57 Tert-amyl methyl ether	73	7.506	7.506	0.000	99	1889198	12.5	12.4	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	2044408	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	93	798761	12.5	10.0	
60 n-Butanol	56	8.079	8.079	0.000	88	1212925	1093.8	1341.9	
61 Trichloroethene	95	8.195	8.195	0.000	97	845226	12.5	13.7	
62 Methylcyclohexane	83	8.500	8.500	0.000	92	1143838	12.5	11.1	
63 1,2-Dichloropropane	63	8.518	8.518	0.000	84	850428	12.5	15.1	
64 Methyl methacrylate	69	8.604	8.604	0.000	92	420327	12.5	15.1	
65 1,4-Dioxane	88	8.622	8.622	0.000	35	146052	625.0	583.8	M
66 Dibromomethane	93	8.634	8.634	0.000	94	392591	12.5	14.2	
68 Dichlorobromomethane	83	8.866	8.866	0.000	100	1006431	12.5	14.7	
69 2-Nitropropane	41	9.128	9.128	0.000	97	546878	62.5	68.9	
72 1-Bromo-2-chloroethane	63	9.256	9.256	0.000	98	901667	12.5	16.3	
73 cis-1,3-Dichloropropene	75	9.408	9.408	0.000	96	1238771	12.5	14.4	
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.579	0.000	96	5492610	125.0	155.2	
$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	2143172	10.0	10.1	
76 Toluene	92	9.792	9.792	0.000	98	2099713	12.5	13.3	
78 trans-1,3-Dichloropropene	75	10.042	10.042	0.000	92	1029227	12.5	14.1	
79 Ethyl methacrylate	69	10.103	10.103	0.000	89	861381	12.5	14.2	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	91	599132	12.5	14.2	
81 Tetrachloroethene	166	10.341	10.341	0.000	98	986772	12.5	13.1	
82 1,3-Dichloropropane	76	10.408	10.408	0.000	89	1039177	12.5	14.5	
83 2-Hexanone	43	10.457	10.457	0.000	97	4089219	125.0	164.9	
85 Chlorodibromomethane	129	10.622	10.622	0.000	90	755917	12.5	14.7	
86 Ethylene Dibromide	107	10.737	10.737	0.000	99	581621	12.5	14.3	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1649089	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.170	0.000	98	1191546	12.5	12.9	
90 Chlorobenzene	112	11.189	11.189	0.000	95	2426416	12.5	13.9	
91 1,1,1,2-Tetrachloroethane	131	11.274	11.274	0.000	97	817415	12.5	13.4	
92 Ethylbenzene	91	11.274	11.274	0.000	98	4108267	12.5	13.5	
93 m-Xylene & p-Xylene	106	11.390	11.390	0.000	100	3243752	25.0	27.0	
94 o-Xylene	106	11.719	11.719	0.000	96	1557774	12.5	13.1	
95 Styrene	104	11.731	11.731	0.000	95	2599898	12.5	13.6	
96 Bromoform	173	11.890	11.890	0.000	98	462082	12.5	15.0	
97 Isopropylbenzene	105	12.018	12.018	0.000	95	4004707	12.5	12.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	793762	10.0	9.75	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	93	733396	12.5	14.8	
102 Bromobenzene	156	12.280	12.280	0.000	97	989999	12.5	14.6	
103 trans-1,4-Dichloro-2-butene	53	12.286	12.286	0.000	91	1208839	125.0	94.4	
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	82	195413	12.5	14.3	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	4837375	12.5	14.6	
106 2-Chlorotoluene	126	12.420	12.420	0.000	97	987099	12.5	14.6	
107 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	94	3349098	12.5	13.9	
108 4-Chlorotoluene	126	12.511	12.511	0.000	97	1008354	12.5	14.6	
109 tert-Butylbenzene	134	12.719	12.719	0.000	93	761739	12.5	14.4	
110 Pentachloroethane	167	12.755	12.755	0.000	92	644072	12.5	15.1	
111 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	97	3427765	12.5	13.9	
112 sec-Butylbenzene	105	12.883	12.883	0.000	94	4343590	12.5	14.3	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	1929161	12.5	14.1	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	3714251	12.5	13.8	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	897910	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	94	1914342	12.5	13.7	
117 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	98	1473519	12.5	13.5	
118 Benzyl chloride	126	13.133	13.133	0.000	98	222968	12.5	11.0	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	1814012	12.5	14.4	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	99	1739187	12.5	13.9	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	89	111607	12.5	15.3	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	1331933	12.5	13.3	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	1129879	12.5	13.3	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	460984	12.5	12.5	
126 Naphthalene	128	14.584	14.584	0.000	97	2056627	12.5	12.7	
127 1,2,3-Trichlorobenzene	180	14.724	14.724	0.000	96	962396	12.5	13.1	
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_#2_826_00035	Amount Added: 25.00	Units: uL	
MSV_LL_#1_826_00030	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00058	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 05-Jan-2022 10:46:17 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X02.D

Injection Date: 05-Jan-2022 09:16:30 Instrument ID: 19930 Operator ID: KNK41612

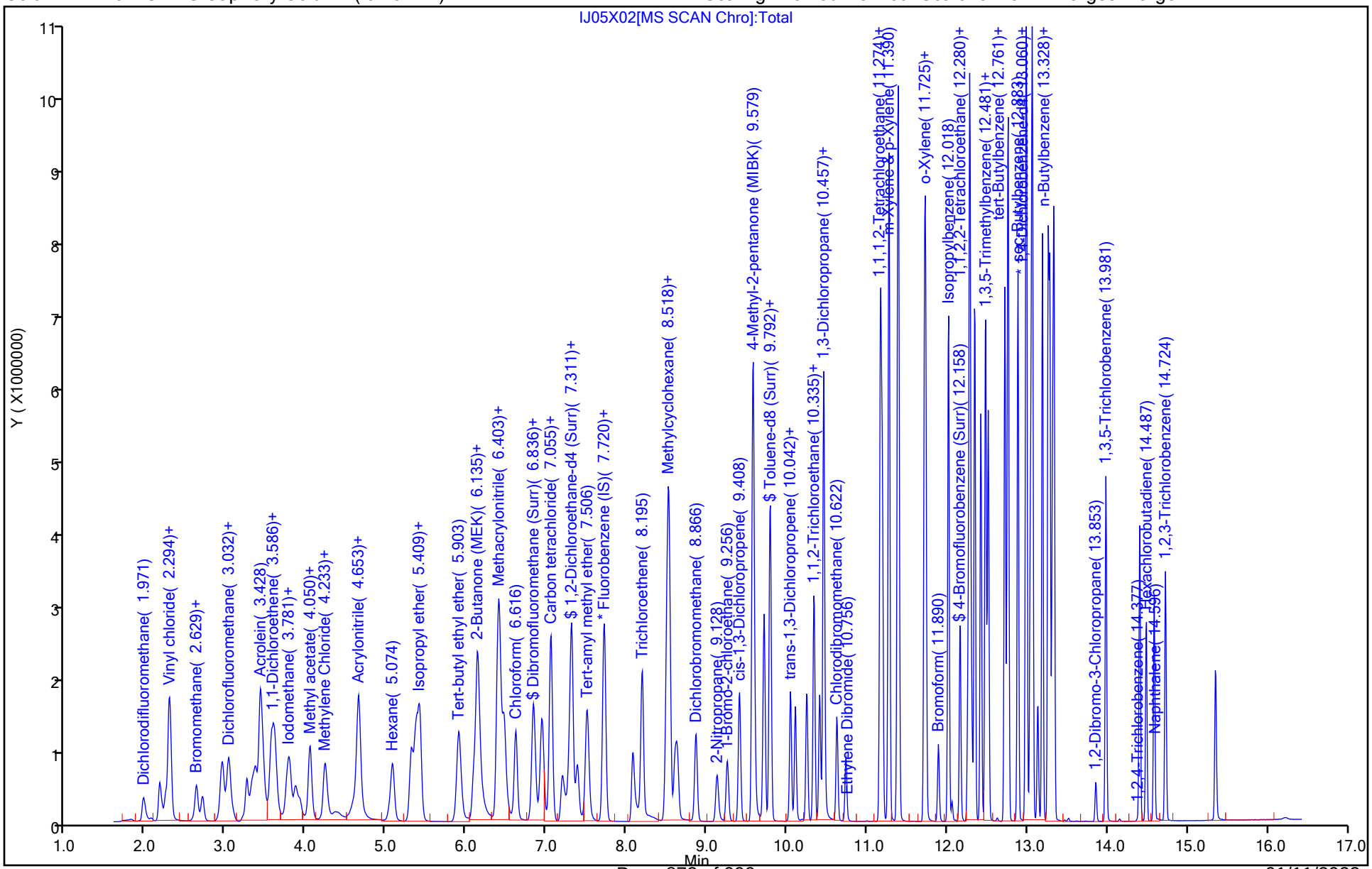
Lims ID: CCVIS VSTD12.5 Worklist Smp#: 3

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



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing LLC

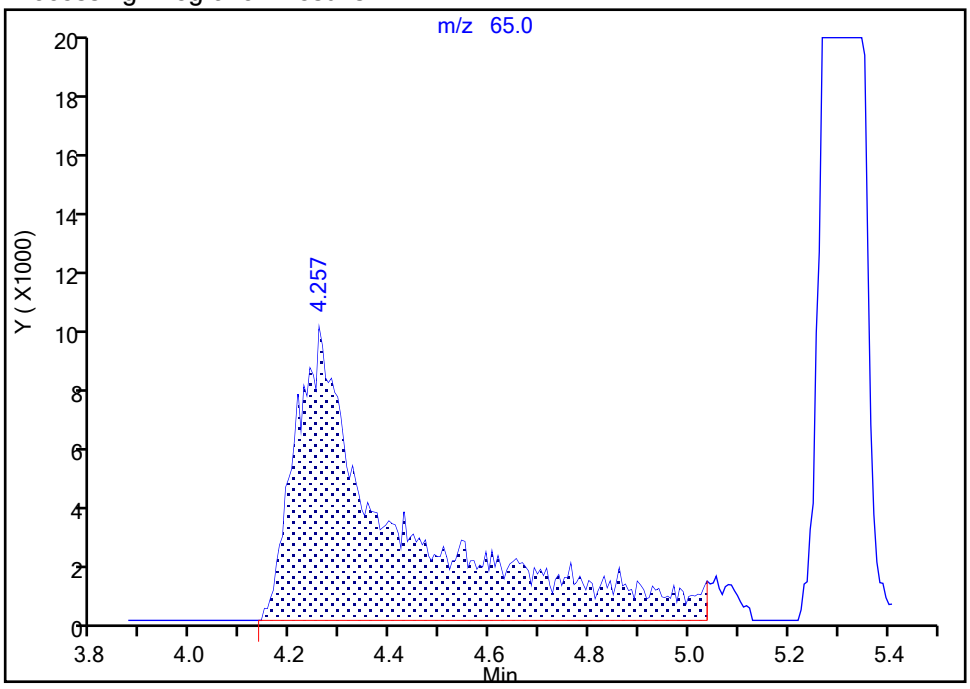
Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X02.D				
Injection Date:	05-Jan-2022 09:16:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	KNK41612	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

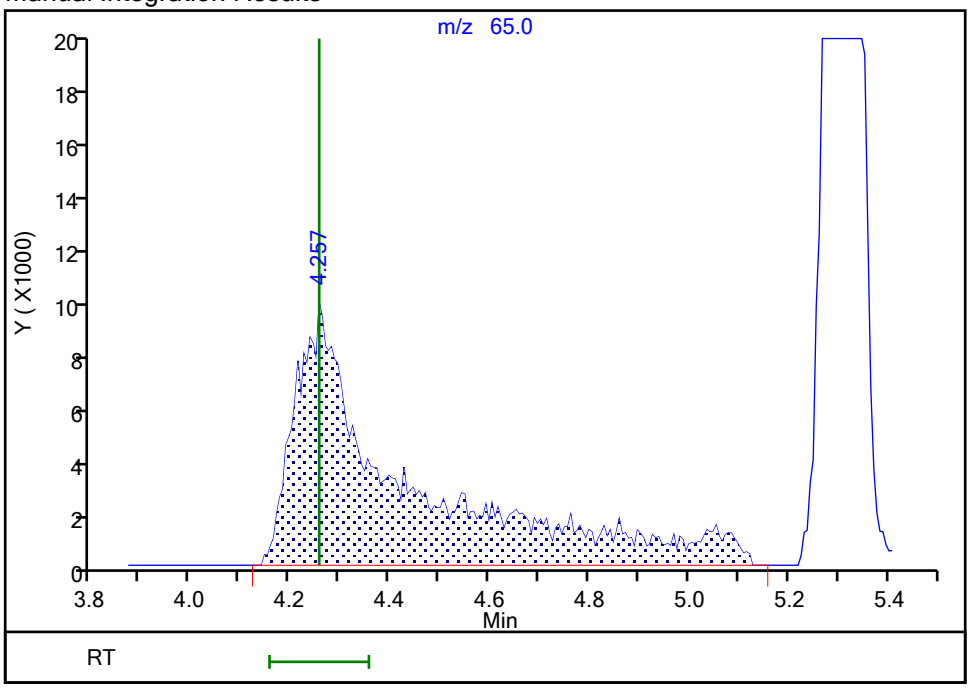
Processing Integration Results

RT: 4.26
Area: 140070
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.26
Area: 144937
Amount: 50.000000
Amount Units: ug/l



Reviewer: kephartk, 05-Jan-2022 09:55:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing LLC

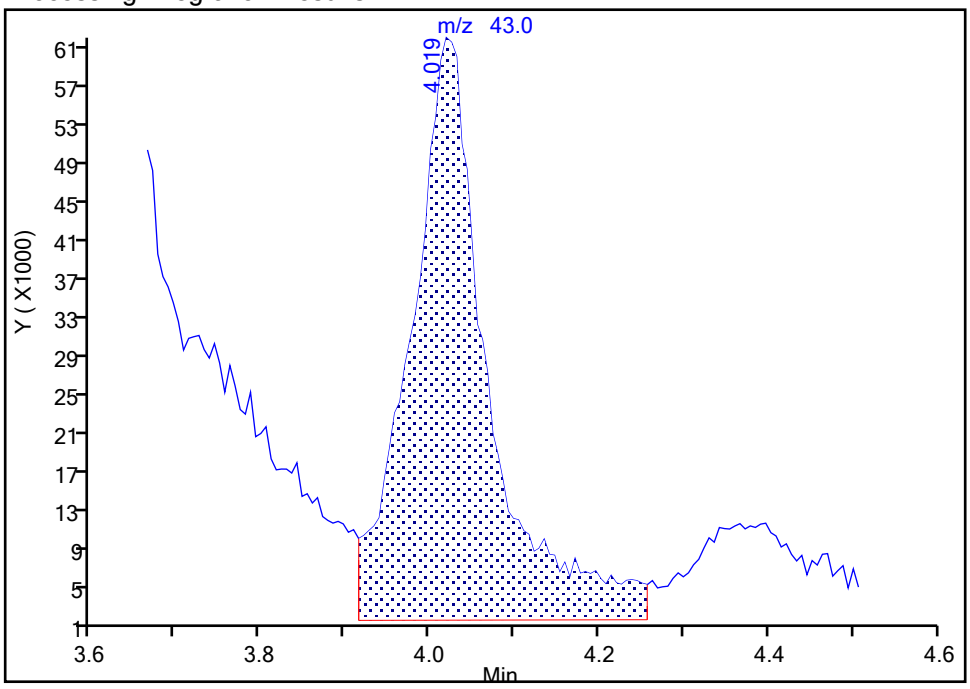
Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X02.D				
Injection Date:	05-Jan-2022 09:16:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	KNK41612	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

21 Methyl acetate, CAS: 79-20-9

Signal: 1

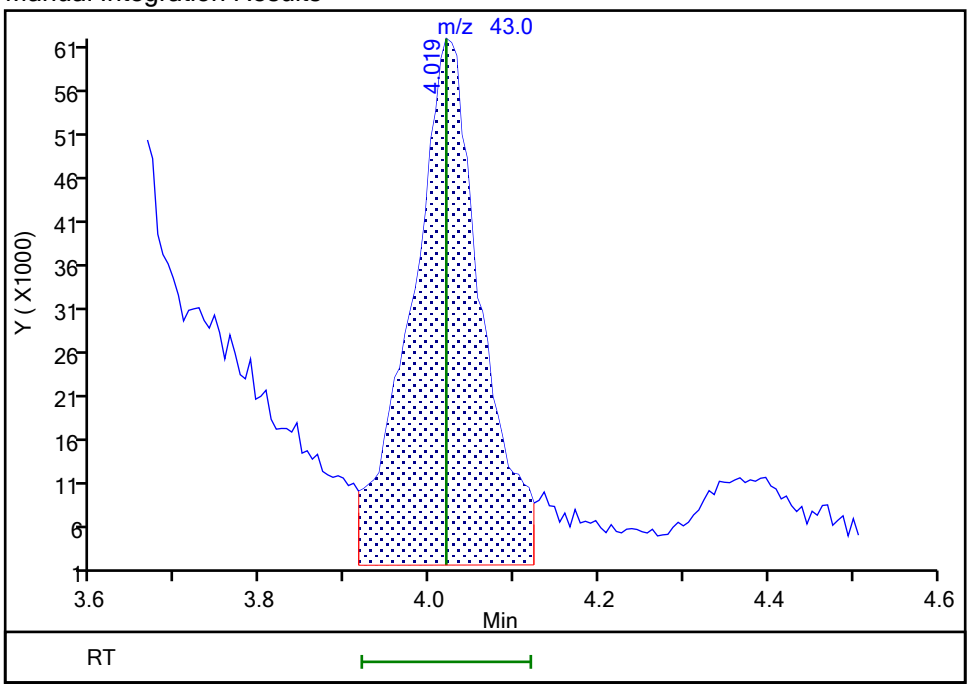
Processing Integration Results

RT: 4.02
Area: 384498
Amount: 16.786829
Amount Units: ug/l



Manual Integration Results

RT: 4.02
Area: 344690
Amount: 14.543506
Amount Units: ug/l



Reviewer: kephartk, 05-Jan-2022 09:55:05
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing LLC

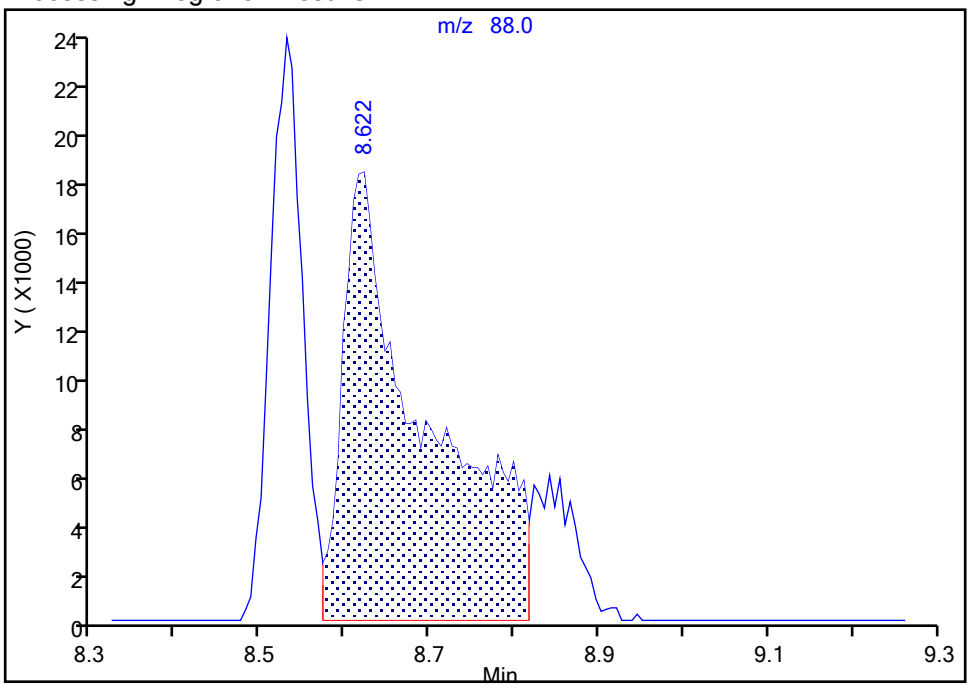
Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X02.D				
Injection Date:	05-Jan-2022 09:16:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	KNK41612	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

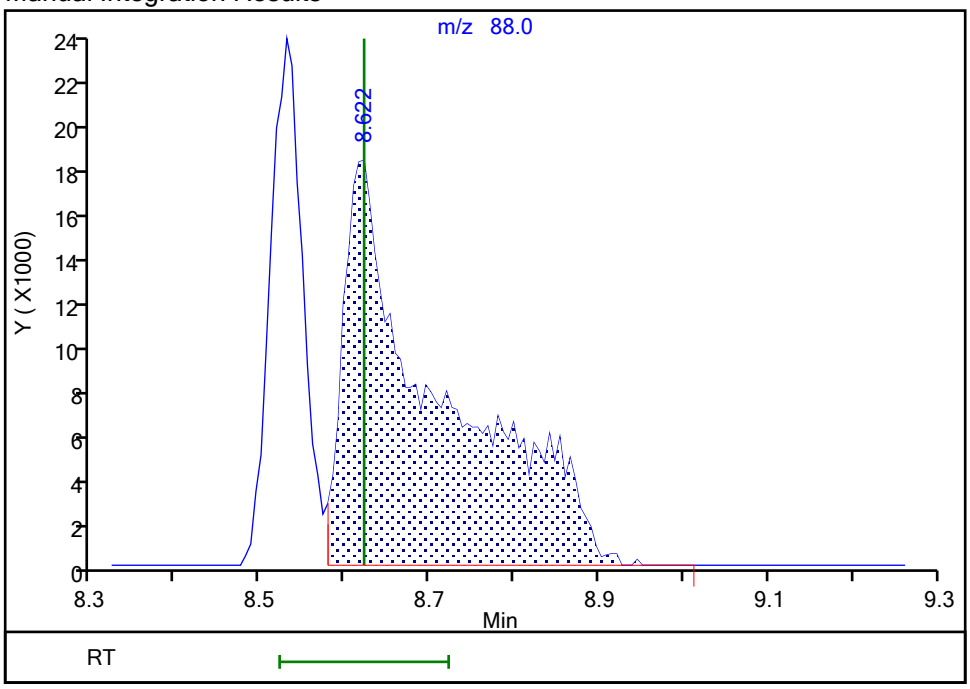
Processing Integration Results

RT: 8.62
Area: 127162
Amount: 483.5922
Amount Units: ug/l



Manual Integration Results

RT: 8.62
Area: 146052
Amount: 583.7737
Amount Units: ug/l



Reviewer: kephartk, 05-Jan-2022 09:55:55
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21T01.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	21-Dec-2021 14:04:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0046912-001				
Misc. Info.:	BFB				
Operator ID:	jml01693	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	21-Dec-2021 22:37:56	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1683				
First Level Reviewer: longj		Date:	21-Dec-2021 14:15:38		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 165 BFB	95	5.129	5.129	0.000	90	387278	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

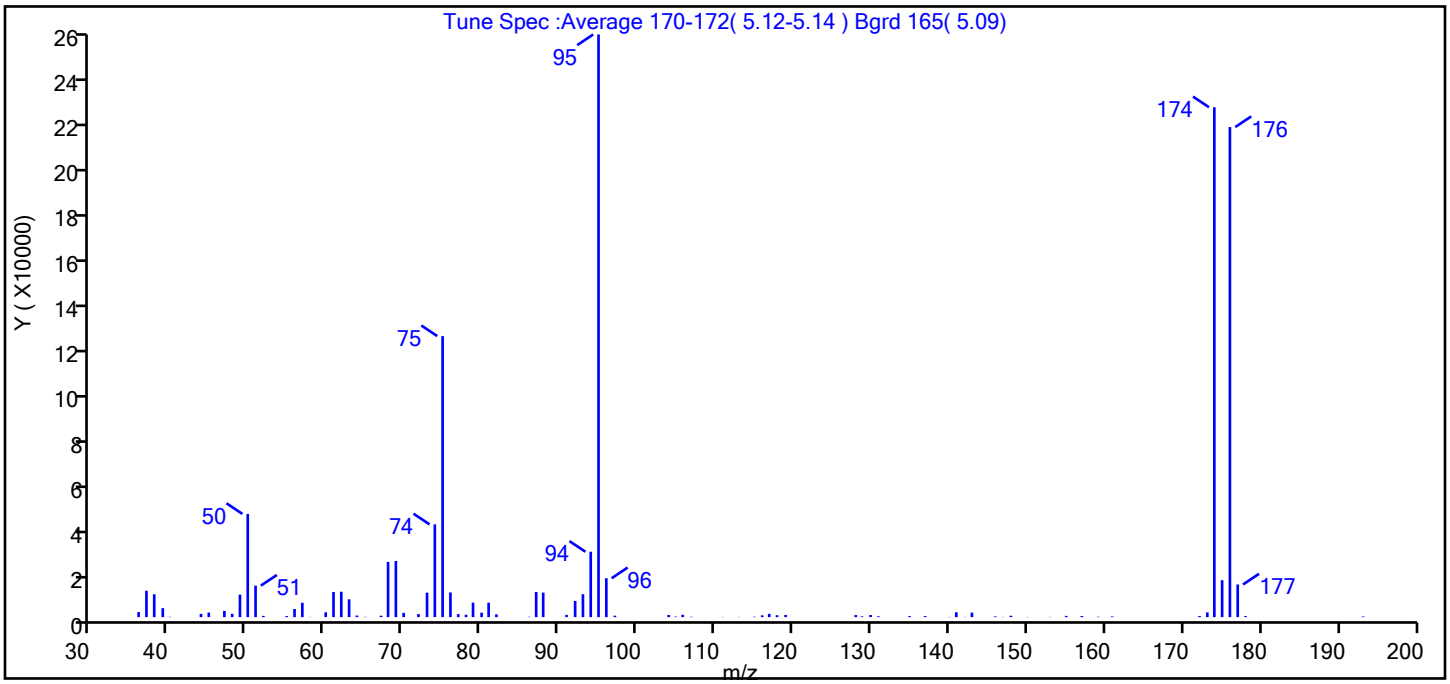
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21T01.D
Injection Date: 21-Dec-2021 14:04:30 Instrument ID: 19094
Lims ID: bfb
Client ID:
Operator ID: jml01693 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 165 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.7
75	30 to 60% of m/z 95	48.2
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.8 (0.9)
174	50 to 120% of m/z 95	87.5
175	5 to 9% of m/z 174	6.3 (7.2)
176	Greater than 95% but less than 101% of m/z 174	84.1 (96.1)
177	5 to 9% of m/z 176	5.6 (6.7)

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21T01.D\MSV_19094_25mL.rslt\spectra.d
Injection Date: 21-Dec-2021 14:04:30
Spectrum: Tune Spec :Average 170-172(5.12-5.14) Bgrd 165(5.09)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2238	65.00	128	94.00	28928	141.00	2159
37.00	11670	67.00	633	95.00	257792	142.00	107
38.00	10109	68.00	24456	96.00	17224	143.00	2019
39.00	3987	69.00	24864	97.00	652	146.00	322
40.00	143	70.00	1890	104.00	945	147.00	87
44.00	1442	72.00	1339	105.00	245	148.00	627
45.00	2045	73.00	10843	106.00	1030	150.00	90
47.00	2756	74.00	41048	107.00	182	153.00	112
48.00	1456	75.00	124336	111.00	96	155.00	559
49.00	9971	76.00	10932	113.00	96	157.00	506
50.00	45664	77.00	1345	115.00	198	159.00	187
51.00	13949	78.00	1065	116.00	793	161.00	310
52.00	559	79.00	6437	117.00	1462	172.00	499
55.00	507	80.00	1983	118.00	867	173.00	2089
56.00	3603	81.00	6398	119.00	983	174.00	225600
57.00	6368	82.00	1226	128.00	927	175.00	16349
58.00	97	86.00	161	129.00	338	176.00	216832
60.00	2132	87.00	11152	130.00	955	177.00	14455
61.00	11127	88.00	10869	131.00	380	178.00	492
62.00	11240	91.00	1010	135.00	473	193.00	293
63.00	7890	92.00	7143	137.00	489		
64.00	713	93.00	10136	140.00	102		

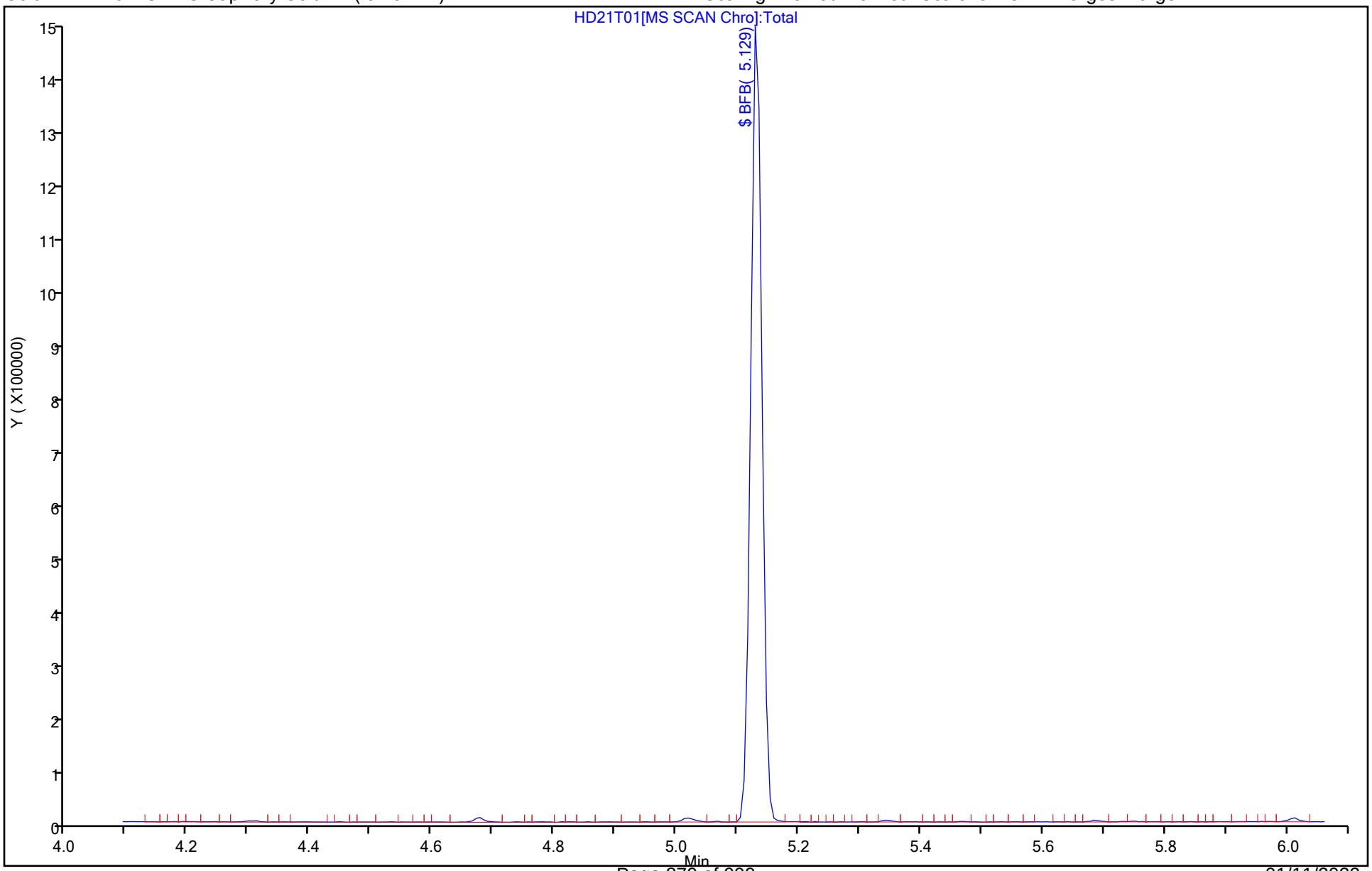
Report Date: 21-Dec-2021 22:37:56 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21T01.D

Injection Date:	21-Dec-2021 14:04:30	Instrument ID:	19094	Operator ID:	jml01693
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29T01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	29-Dec-2021 10:25:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	25.0 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-001				
Misc. Info.:	BFB				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 11:37:25	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1676				
First Level Reviewer: kephartk		Date:	29-Dec-2021 11:00:44		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 165 BFB	95	5.123	5.123	0.000	89	419228	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

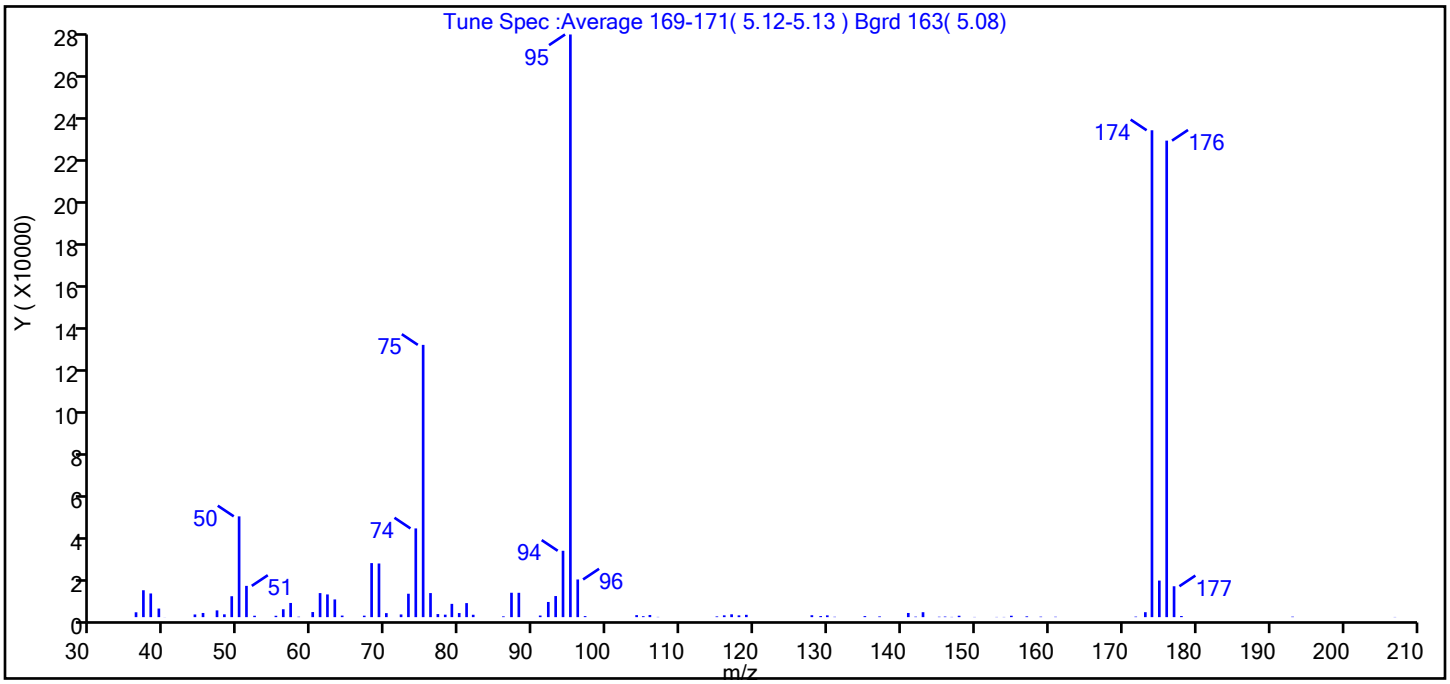
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29T01.D
Injection Date: 29-Dec-2021 10:25:30 Instrument ID: 19094
Lims ID: BFB
Client ID:
Operator ID: KNK41612 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 25.0 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 165 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.3
75	30 to 60% of m/z 95	46.7
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.8 (1.0)
174	50 to 120% of m/z 95	83.6
175	5 to 9% of m/z 174	6.3 (7.5)
176	Greater than 95% but less than 101% of m/z 174	81.8 (97.9)
177	5 to 9% of m/z 176	5.3 (6.5)

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29T01.D\MSV_19094_25mL.rslt\spectra.d
Injection Date: 29-Dec-2021 10:25:30
Spectrum: Tune Spec :Average 169-171(5.12-5.13) Bgrd 163(5.08)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 85

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2287	67.00	694	95.00	273664	146.00	275
37.00	12633	68.00	25384	96.00	17696	147.00	108
38.00	11123	69.00	25200	97.00	491	148.00	661
39.00	4043	70.00	1887	104.00	944	150.00	96
40.00	38	72.00	1262	105.00	436	153.00	100
44.00	1258	73.00	10997	106.00	1014	154.00	96
45.00	1959	74.00	41672	107.00	111	155.00	655
47.00	3175	75.00	127880	115.00	354	157.00	381
48.00	1318	76.00	11304	116.00	848	159.00	230
49.00	9825	77.00	1441	117.00	1331	161.00	186
50.00	47336	78.00	1163	118.00	842	172.00	254
51.00	14687	79.00	6237	119.00	1090	173.00	2324
52.00	662	80.00	1920	128.00	902	174.00	228672
55.00	647	81.00	6593	129.00	505	175.00	17176
56.00	3713	82.00	1124	130.00	837	176.00	223808
57.00	6664	86.00	362	131.00	169	177.00	14510
58.00	203	87.00	11461	135.00	493	178.00	518
60.00	2391	88.00	11433	137.00	340	193.00	229
61.00	11294	91.00	753	141.00	1960	207.00	88
62.00	10665	92.00	7128	142.00	234		
63.00	8319	93.00	9909	143.00	2323		
64.00	734	94.00	31176	145.00	193		

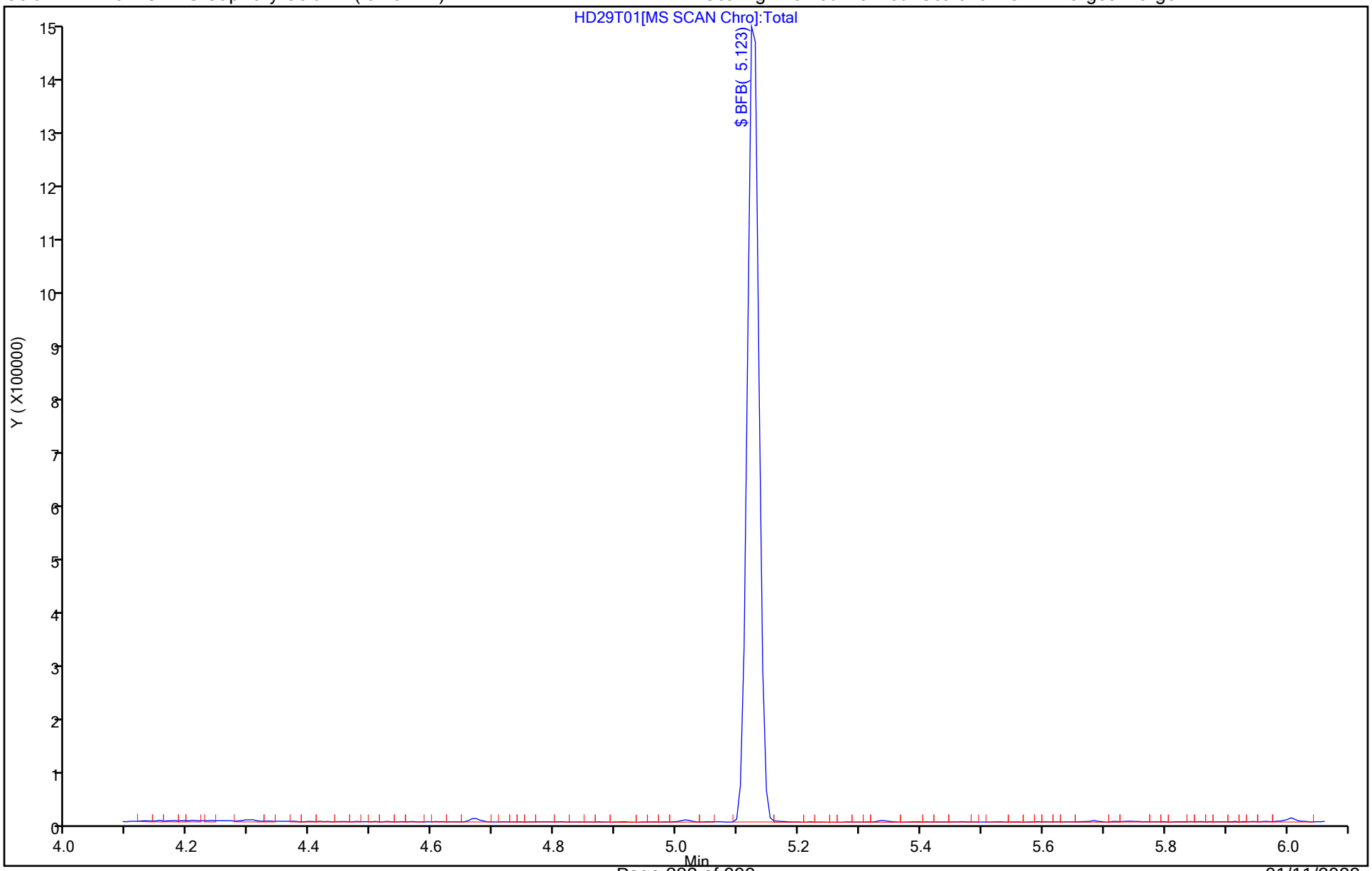
Report Date: 29-Dec-2021 11:37:25 Chrom Revision: 2.3 28-Dec-2021 14:15:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29T01.D

Injection Date:	29-Dec-2021 10:25:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D
Lims ID: bfb
Client ID:
Sample Type: BFB
Inject. Date: 23-Aug-2021 20:56:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info:
Misc. Info.: BFB
Operator ID: mec29284 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 24-Aug-2021 15:42:34 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1646

First Level Reviewer: campbellme Date: 23-Aug-2021 21:08:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 145 BFB	95	5.190	5.190	0.000	0	215193	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

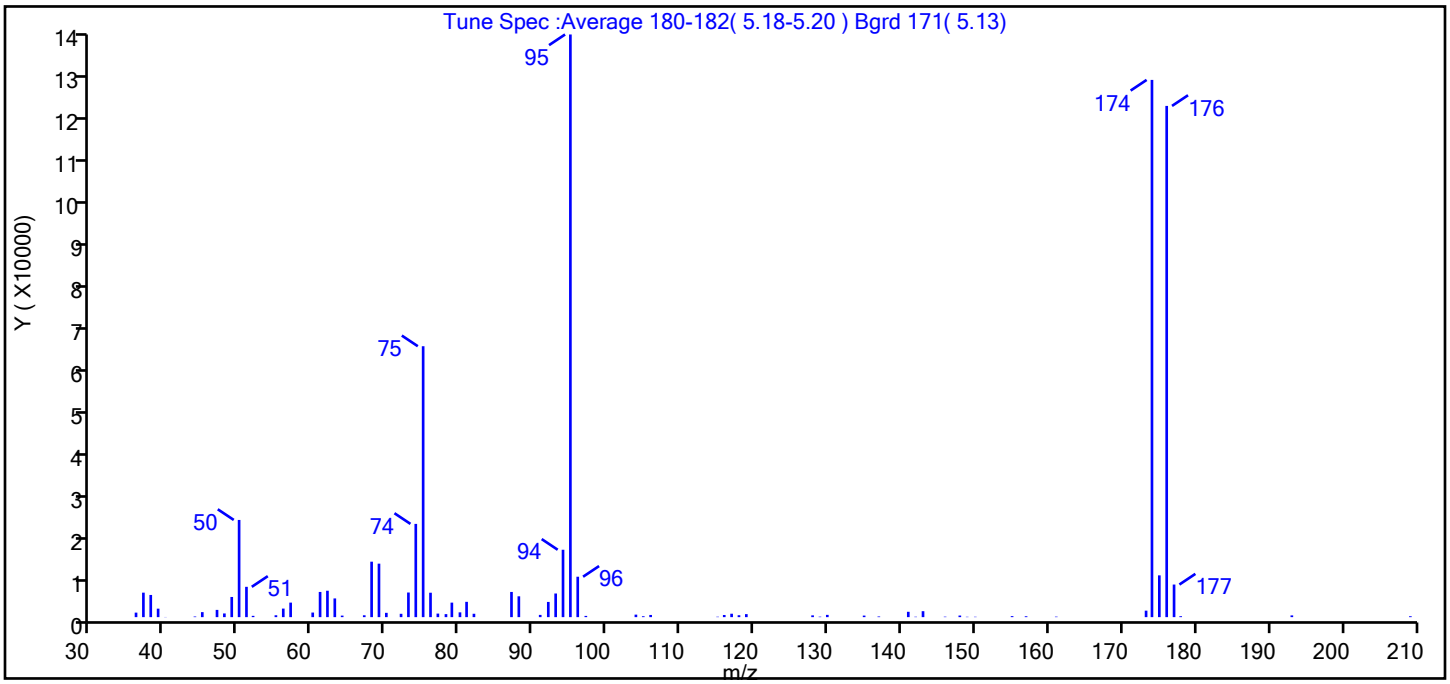
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D
Injection Date: 23-Aug-2021 20:56:30 Instrument ID: 19930
Lims ID: bfb
Client ID:
Operator ID: mec29284 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 1624

$ 145 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.7
75	30 to 60% of m/z 95	46.5
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	1.1 (1.2)
174	50 to 120% of m/z 95	92.2
175	5 to 9% of m/z 174	7.2 (7.8)
176	Greater than 95% but less than 101% of m/z 174	87.7 (95.2)
177	5 to 9% of m/z 176	5.6 (6.4)

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D\8260 25ml HP31.rslt\spectra.d
Injection Date: 23-Aug-2021 20:56:30
Spectrum: Tune Spec :Average 180-182(5.18-5.20) Bgrd 171(5.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1061	63.00	4393	91.00	527	137.00	156
37.00	5748	64.00	362	92.00	3571	141.00	1257
38.00	5208	67.00	438	93.00	5550	142.00	96
39.00	1992	68.00	13018	94.00	15820	143.00	1399
40.00	38	69.00	12555	95.00	136768	146.00	111
44.00	148	70.00	1011	96.00	9487	148.00	376
45.00	1176	72.00	785	97.00	292	149.00	83
47.00	1700	73.00	5782	104.00	590	150.00	88
48.00	866	74.00	21888	105.00	210	155.00	237
49.00	4735	75.00	63592	106.00	514	157.00	206
50.00	22816	76.00	5733	115.00	97	161.00	118
51.00	7117	77.00	836	116.00	504	173.00	1521
52.00	304	78.00	708	117.00	803	174.00	126104
55.00	442	79.00	3409	118.00	451	175.00	9808
56.00	2008	80.00	1125	119.00	708	176.00	120000
57.00	3411	81.00	3594	128.00	418	177.00	7653
60.00	1079	82.00	794	129.00	110	178.00	217
61.00	5915	87.00	5915	130.00	532	193.00	410
62.00	6198	88.00	4892	135.00	365	209.00	208

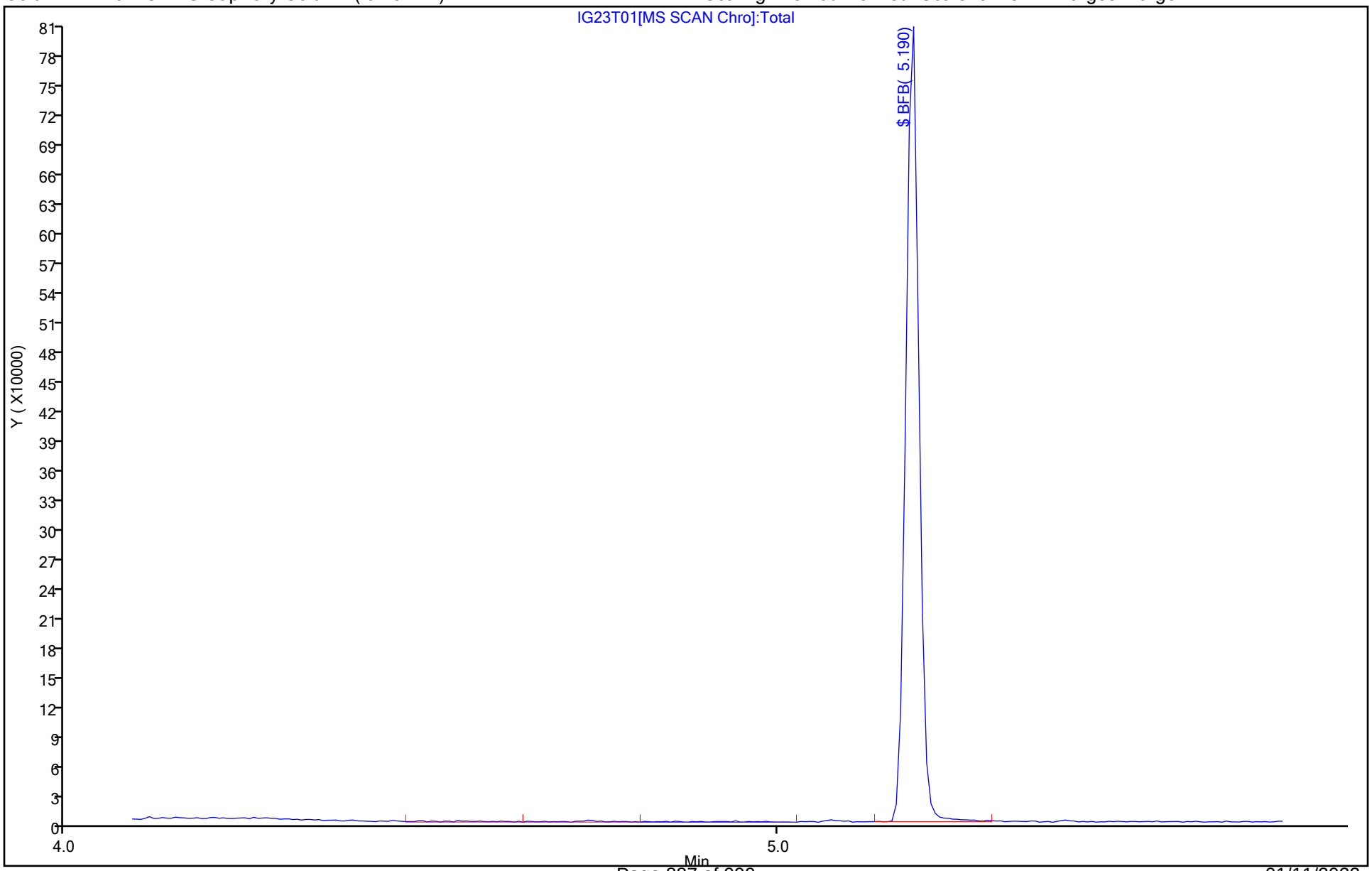
Report Date: 24-Aug-2021 15:42:35 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D

Injection Date:	23-Aug-2021 20:56:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28T01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	28-Dec-2021 09:26:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0047269-001				
Misc. Info.:	BFB				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Dec-2021 12:28:49	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:	CTX1612				

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	192781	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

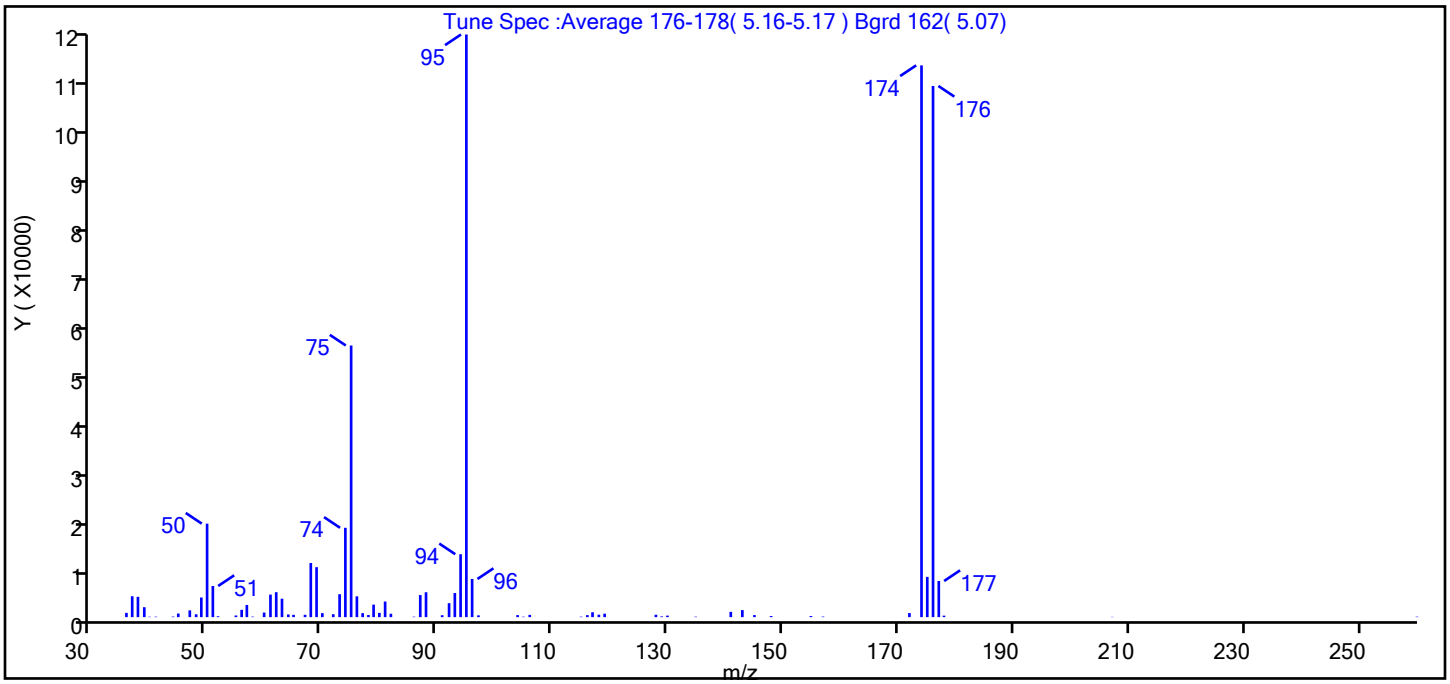
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28T01.D
Injection Date: 28-Dec-2021 09:26:30 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	16.0
75	30 to 60% of m/z 95	46.6
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	94.7
175	5 to 9% of m/z 174	6.9 (7.3)
176	Greater than 95% but less than 101% of m/z 174	91.2 (96.3)
177	5 to 9% of m/z 176	6.2 (6.8)

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28T01.D\8260 25ml HP31.rslt\spectra.d
Injection Date: 28-Dec-2021 09:26:30
Spectrum: Tune Spec :Average 176-178(5.16-5.17) Bgrd 162(5.07)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 75

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	838	61.00	4436	82.00	666	128.00	467
37.00	4111	62.00	4900	86.00	92	129.00	146
38.00	3988	63.00	3625	87.00	4341	130.00	303
39.00	1952	64.00	528	88.00	4889	135.00	90
40.00	79	65.00	449	91.00	377	141.00	1041
41.00	93	67.00	458	92.00	2740	143.00	1390
44.00	109	68.00	10635	93.00	4740	145.00	402
45.00	707	69.00	9824	94.00	12365	148.00	216
47.00	1332	70.00	787	95.00	114504	155.00	214
48.00	560	72.00	573	96.00	7498	157.00	109
49.00	3857	73.00	4506	97.00	353	172.00	802
50.00	18376	74.00	17560	104.00	399	174.00	108432
51.00	6124	75.00	53384	105.00	86	175.00	7913
52.00	173	76.00	4088	106.00	445	176.00	104384
55.00	327	77.00	786	115.00	94	177.00	7104
56.00	1437	78.00	421	116.00	396	178.00	292
57.00	2397	79.00	2462	117.00	963	207.00	53
58.00	101	80.00	838	118.00	486	260.00	92
60.00	901	81.00	3070	119.00	677		

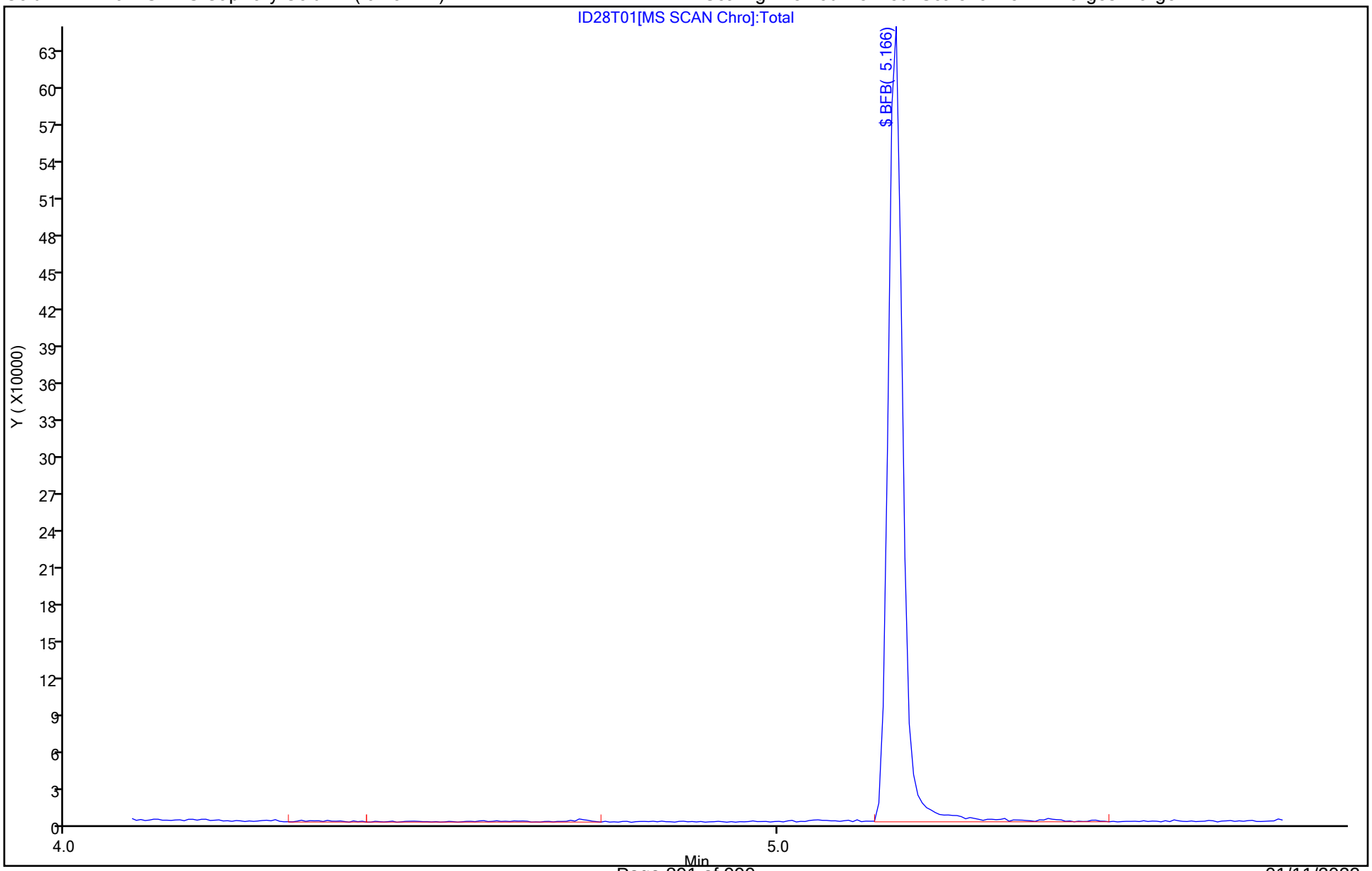
Report Date: 28-Dec-2021 12:28:49 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28T01.D

Injection Date:	28-Dec-2021 09:26:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05T01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	05-Jan-2022 08:42:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0047767-001				
Misc. Info.:	BFB				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	05-Jan-2022 10:46:14	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:	CTX1649				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 145 BFB	95	5.172	5.172	0.000	0	78335	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

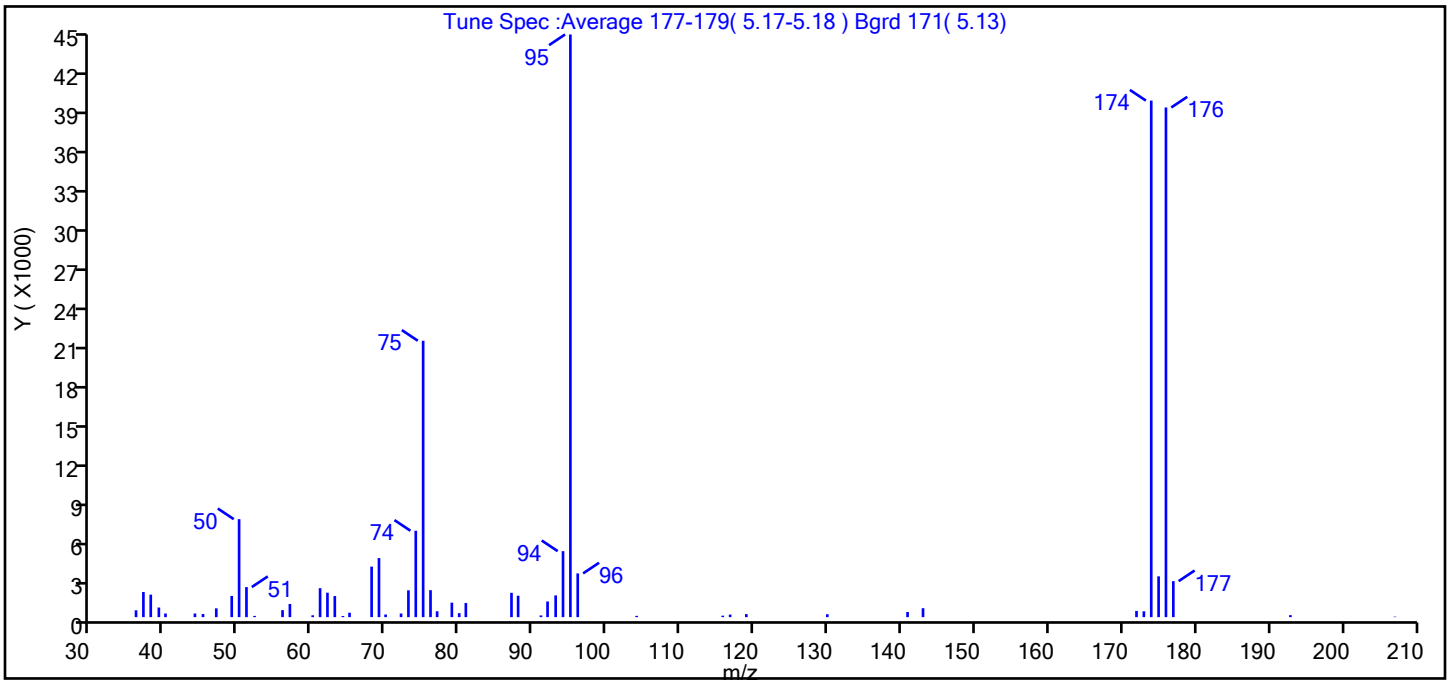
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05T01.D
Injection Date: 05-Jan-2022 08:42:30 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	16.8
75	30 to 60% of m/z 95	47.4
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	1.0 (1.1)
174	50 to 120% of m/z 95	88.7
175	5 to 9% of m/z 174	7.0 (7.9)
176	Greater than 95% but less than 101% of m/z 174	87.5 (98.7)
177	5 to 9% of m/z 176	6.2 (7.1)

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05T01.D\8260 25ml HP31.rslt\spectra.d
Injection Date: 05-Jan-2022 08:42:30
Spectrum: Tune Spec :Average 177-179(5.17-5.18) Bgrd 171(5.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 55

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	524	60.00	141	77.00	449	117.00	197
37.00	1929	61.00	2224	79.00	1112	119.00	232
38.00	1728	62.00	1878	80.00	304	130.00	222
39.00	738	63.00	1621	81.00	1086	141.00	395
40.00	279	64.00	87	87.00	1867	143.00	688
44.00	279	65.00	339	88.00	1646	172.00	476
45.00	242	68.00	3882	91.00	131	173.00	449
47.00	676	69.00	4536	92.00	1205	174.00	39680
49.00	1630	70.00	203	93.00	1670	175.00	3134
50.00	7526	72.00	278	94.00	5069	176.00	39152
51.00	2311	73.00	2059	95.00	44760	177.00	2765
52.00	96	74.00	6636	96.00	3360	193.00	153
56.00	539	75.00	21232	104.00	100	207.00	37
57.00	1011	76.00	2072	116.00	113		

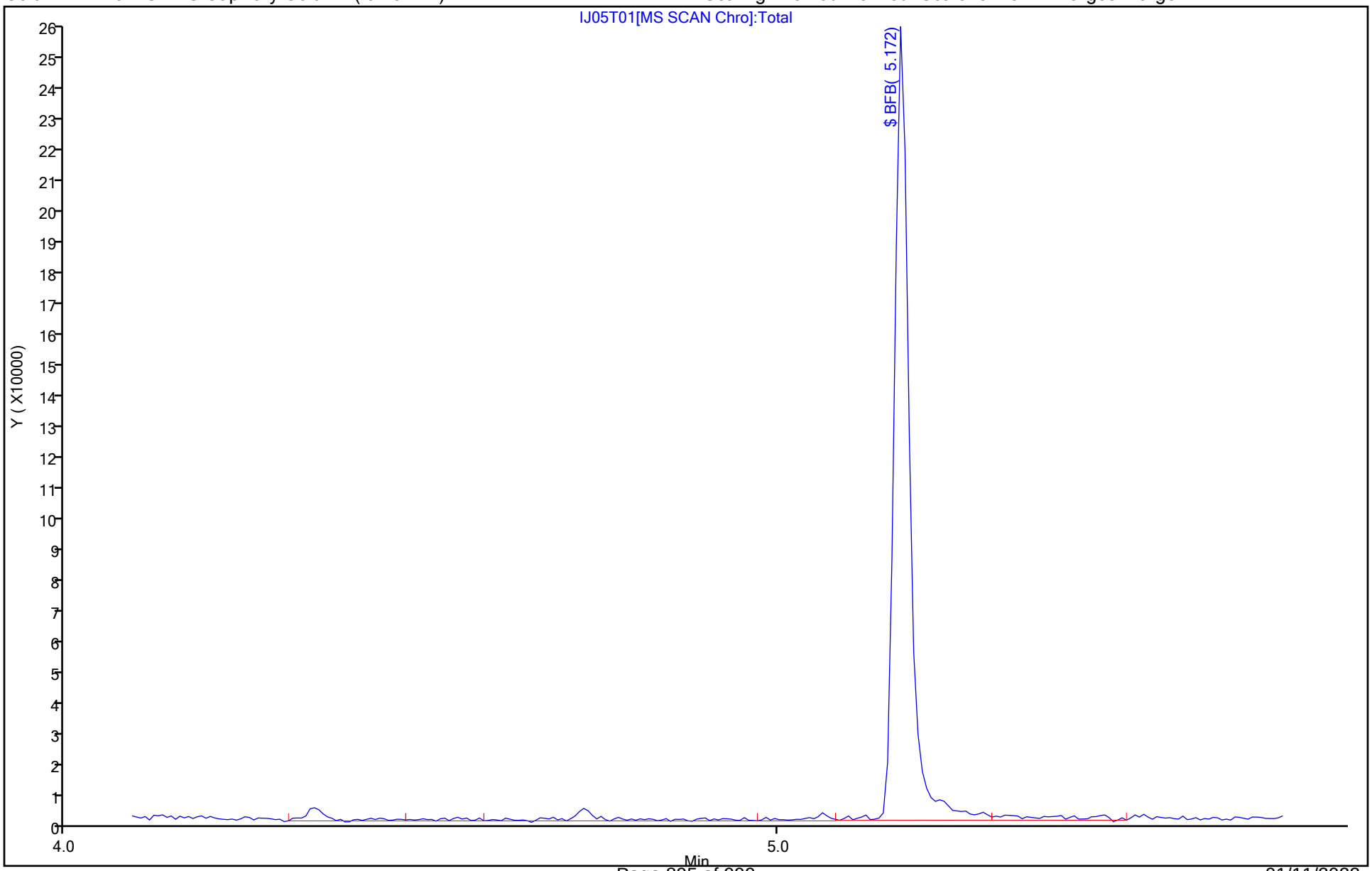
Report Date: 05-Jan-2022 10:46:14 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05T01.D

Injection Date:	05-Jan-2022 08:42:30	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.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-209587/7

Matrix: Water Lab File ID: ID28X06.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 11:29

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.: 209587 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.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-209587/7

Matrix: Water Lab File ID: ID28X06.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 11:29

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.: 209587 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)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		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\20211228-47269.b\ID28X06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 28-Dec-2021 11:29:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-007
Misc. Info.: MB
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 12:28:50 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: CTX1612

First Level Reviewer: kephartk Date: 28-Dec-2021 12:28:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.971					ND	
2 Chlorodifluoromethane	51		1.989					ND	
3 Dimethyl ether	45		2.050					ND	
4 Chloromethane	50		2.166					ND	
6 Butadiene	39		2.282					ND	7
5 Vinyl chloride	62		2.282					ND	
7 Bromomethane	94		2.617					ND	
8 Chloroethane	64		2.696					ND	
9 Dichlorofluoromethane	67		2.934					ND	
10 Trichlorofluoromethane	101		3.007					ND	
11 Ethyl ether	59		3.245					ND	
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.336					ND	
13 Acrolein	56		3.422					ND	7
14 1,1-Dichloroethene	96		3.556					ND	
15 Acetone	43		3.586					ND	7
16 112TCTFE	101		3.599					ND	
17 Iodomethane	142		3.751					ND	
18 Ethyl bromide	108		3.800					ND	
19 Carbon disulfide	76		3.861					ND	7
20 Acetonitrile	41		3.995					ND	
21 Methyl acetate	43		4.013					ND	
22 3-Chloro-1-propene	41		4.037					ND	
23 Methylene Chloride	84		4.226					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	26	136110	50.0	50.0	
25 2-Methyl-2-propanol	59		4.361					ND	
26 Acrylonitrile	53		4.574					ND	
27 Methyl tert-butyl ether	73		4.635					ND	
28 trans-1,2-Dichloroethene	96		4.647					ND	
29 Hexane	57		5.074					ND	
31 1,1-Dichloroethane	63		5.306					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		5.366					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	6.019	6.098	-0.079	22	4144		0.3139	
37 cis-1,2-Dichloroethene	96		6.135					ND	
38 2,2-Dichloropropane	77		6.153					ND	
S 35 1,2-Dichloroethene, Total	100		6.155					ND	7
40 Propionitrile	54		6.183					ND	
39 Ethyl acetate	43		6.190					ND	
41 Methyl acrylate	55		6.220					ND	
42 Methacrylonitrile	67		6.403					ND	
43 Chlorobromomethane	128		6.464					ND	
44 Tetrahydrofuran	71		6.482					ND	
45 Chloroform	83		6.616					ND	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	481483	10.0	10.2	
47 1,1,1-Trichloroethane	97		6.842					ND	
48 Cyclohexane	56		6.945					ND	
49 1-Chlorobutane	56		7.019					ND	
51 1,1-Dichloropropene	75		7.049					ND	
50 Carbon tetrachloride	117		7.055					ND	
52 Isobutyl alcohol	41		7.201					ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	67	101055	10.0	10.7	
54 Benzene	78		7.311					ND	
56 1,2-Dichloroethane	62		7.384					ND	
55 Isopropyl acetate	43		7.415					ND	
57 Tert-amyl methyl ether	73		7.506					ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1868582	10.0	10.0	
59 n-Heptane	43		7.726					ND	7
60 n-Butanol	56		8.079					ND	
61 Trichloroethene	95		8.195					ND	
62 Methylcyclohexane	83		8.500					ND	7
63 1,2-Dichloropropane	63		8.518					ND	
64 Methyl methacrylate	69		8.604					ND	
65 1,4-Dioxane	88		8.616					ND	
66 Dibromomethane	93		8.634					ND	
67 n-Propyl acetate	43		8.707					ND	
68 Dichlorobromomethane	83		8.866					ND	
69 2-Nitropropane	41		9.128					ND	
70 Chloroacetonitrile	75		9.226					ND	
72 1-Bromo-2-chloroethane	63		9.256					ND	
71 2-Chloroethyl vinyl ether	63		9.256					ND	
73 cis-1,3-Dichloropropene	75		9.408					ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579					ND	7
$ 75 Toluene-d8 (Surr)	98	9.720	9.719	0.001	93	1970598	10.0	10.0	
76 Toluene	92		9.792					ND	
78 trans-1,3-Dichloropropene	75		10.048					ND	
S 77 1,3-Dichloropropene, Total	100		10.060					ND	7
79 Ethyl methacrylate	69		10.109					ND	
80 1,1,2-Trichloroethane	97		10.250					ND	
81 Tetrachloroethene	166		10.341					ND	
82 1,3-Dichloropropane	76		10.408					ND	
83 2-Hexanone	43		10.457					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		10.628					ND	
86 Ethylene Dibromide	107		10.737					ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1525091	10.0	10.0	
88 1-Chlorohexane	91		11.170					ND	7
90 Chlorobenzene	112		11.189					ND	
S 89 Xylenes, Total	106		11.245					ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268					ND	
92 Ethylbenzene	91		11.274					ND	
93 m-Xylene & p-Xylene	106		11.390					ND	
94 o-Xylene	106		11.713					ND	
95 Styrene	104		11.731					ND	
96 Bromoform	173		11.890					ND	
97 Isopropylbenzene	105		12.012					ND	
98 cis-1,4-Dichloro-2-butene	88		12.079					ND	U
99 Cyclohexanone	55		12.121					ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	706270	10.0	9.38	
101 1,1,2,2-Tetrachloroethane	83		12.255					ND	
102 Bromobenzene	156		12.274					ND	
103 trans-1,4-Dichloro-2-butene	53		12.280					ND	
104 1,2,3-Trichloropropane	110		12.304					ND	
105 N-Propylbenzene	91		12.341					ND	
106 2-Chlorotoluene	126		12.420					ND	
107 1,3,5-Trimethylbenzene	105		12.475					ND	7
108 4-Chlorotoluene	126		12.511					ND	
109 tert-Butylbenzene	134		12.713					ND	
110 Pentachloroethane	167		12.749					ND	
111 1,2,4-Trimethylbenzene	105		12.755					ND	7
112 sec-Butylbenzene	105		12.877					ND	7
113 1,3-Dichlorobenzene	146		12.981					ND	7
114 4-Isopropyltoluene	119		12.987					ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	856533	10.0	10.0	
116 1,4-Dichlorobenzene	146		13.054					ND	7
117 1,2,3-Trimethylbenzene	120		13.060					ND	7
118 Benzyl chloride	126		13.127					ND	
119 n-Butylbenzene	92		13.273					ND	7
120 1,2-Dichlorobenzene	146		13.310					ND	
121 Hexachloroethane	117		13.542					ND	
122 1,2-Dibromo-3-Chloropropane	155		13.847					ND	
123 1,3,5-Trichlorobenzene	180		13.975					ND	7
124 1,2,4-Trichlorobenzene	180		14.395					ND	7
125 Hexachlorobutadiene	225	14.475	14.474	0.001	88	2080		0.0593	
126 Naphthalene	128		14.572					ND	7
127 1,2,3-Trichlorobenzene	180	14.737	14.712	0.025	85	2167		0.0310	
128 Dodecane	57		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	
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	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
130 Chlorotrifluoroethene	1		0.000					ND	
204 Pentane	43		0.000					ND	
206 Pentachloroethane TIC	1		0.000					ND	
142 2-Bromo-1-chloropropane	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	
202 1,3-Dichloro-2-propanol TIC	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_00002 Amount Added: 5.00 Units: uL Run Reagent

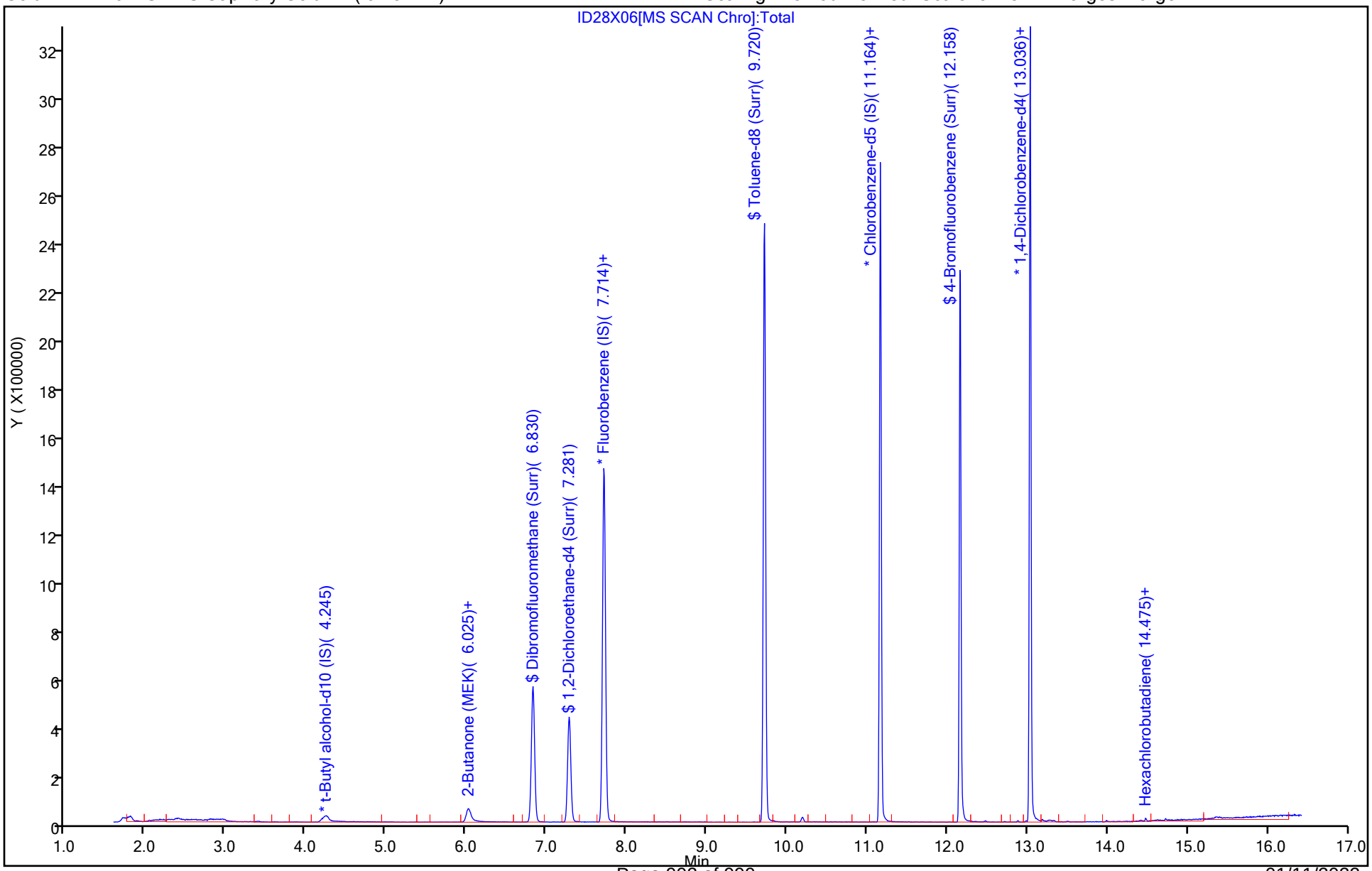
Report Date: 28-Dec-2021 12:29:07 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X06.D

Injection Date:	28-Dec-2021 11:29:30	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\20211228-47269.b\ID28X06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 28-Dec-2021 11:29:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-007
Misc. Info.: MB
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 12:28:50 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: CTX1612

First Level Reviewer: kephartk Date: 28-Dec-2021 12:28:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	102.29
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.32
$ 75 Toluene-d8 (Surr)	10.0	10.0	99.99
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.38	93.76

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-210047/7

Matrix: Water Lab File ID: HD29X06.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 12:21

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.: 210047 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.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-210047/7

Matrix: Water Lab File ID: HD29X06.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 12:21

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.: 210047 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)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	107		80-120
2037-26-5	Toluene-d8 (Surr)	90		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X06.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-Dec-2021 12:21:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-007
Misc. Info.: MB
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 14:13:21 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1676

First Level Reviewer: kephartk Date: 29-Dec-2021 14:08:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Chlorotrifluoroethene	116		1.892					ND	
3 Dichlorodifluoromethane	85		1.947					ND	
2 Chlorodifluoromethane	51		1.952					ND	
4 Dimethyl ether	45		2.013					ND	
6 Chloromethane	50		2.142					ND	
8 Butadiene	39		2.258					ND	7
7 Vinyl chloride	62		2.258					ND	
5 2-Chloro-1,1,1-Trifluoroethane	118		2.330					ND	
9 Bromomethane	94		2.587					ND	
10 Chloroethane	64		2.672					ND	
11 Dichlorofluoromethane	67		2.910					ND	
13 Trichlorofluoromethane	101		2.977					ND	
12 Ethanol	45		3.111					ND	
15 Ethyl ether	59		3.221					ND	
16 1,2-Dichloro-1,1,2-trifluoroetha	67		3.306					ND	
17 Acrolein	56		3.385					ND	
18 1,1-Dichloroethene	96		3.532					ND	
19 Acetone	43		3.556					ND	
20 112TCTFE	101		3.568					ND	
21 Isopropyl alcohol	45		3.702					ND	
22 Iodomethane	142		3.727					ND	
23 Ethyl bromide	108		3.751					ND	
24 Carbon disulfide	76		3.836					ND	7
26 Methyl acetate	43		3.965					ND	
25 Acetonitrile	41		3.970					ND	
27 3-Chloro-1-propene	41		4.007					ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	89	125543	50.0	50.0	
29 Methylene Chloride	84		4.190					ND	
30 2-Methyl-2-propanol	59		4.306					ND	
31 Acrylonitrile	53		4.519					ND	
32 Methyl tert-butyl ether	73		4.592					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 trans-1,2-Dichloroethene	96		4.611					ND	
34 Hexane	57		5.031					ND	
36 Vinyl acetate	43		5.257					ND	
35 1,1-Dichloroethane	63		5.263					ND	
37 Isopropyl ether	45		5.318					ND	
38 2-Chloro-1,3-butadiene	53		5.373					ND	
39 Tert-butyl ethyl ether	59		5.854					ND	7
41 2-Butanone (MEK)	43		6.043					ND	7
42 cis-1,2-Dichloroethene	96		6.092					ND	
43 2,2-Dichloropropane	77		6.110					ND	
45 Propionitrile	54		6.135					ND	
44 Ethyl acetate	43		6.141					ND	
S 40 1,2-Dichloroethene, Total	100		6.155					ND	7
47 Methacrylonitrile	67		6.348					ND	
48 Chlorobromomethane	128		6.421					ND	
49 Tetrahydrofuran	71		6.427					ND	
46 Methyl acrylate	55		6.482					ND	
50 Chloroform	83		6.568					ND	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	543826	10.0	10.7	
52 1,1,1-Trichloroethane	97		6.799					ND	
53 Cyclohexane	56		6.903					ND	
55 1,1-Dichloropropene	75		7.007					ND	
56 Carbon tetrachloride	117		7.013					ND	
57 Isobutyl alcohol	41		7.141					ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	47	100949	10.0	10.6	
54 1-Chlorobutane	56		7.250					ND	
59 Benzene	78		7.269					ND	
60 1,2-Dichloroethane	62		7.336					ND	7
61 Isopropyl acetate	43		7.354					ND	
62 Tert-amyl methyl ether	73		7.458					ND	
* 65 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	1935407	10.0	10.0	
64 n-Heptane	43	7.683	7.689	-0.006	36	1955		0.0252	
63 t-Amyl alcohol	73		7.842					ND	
66 n-Butanol	56		8.019					ND	
67 Trichloroethene	95		8.147					ND	
68 Methylcyclohexane	83		8.464					ND	
70 1,2-Dichloropropane	63		8.482					ND	
69 2-ethoxy-2-methyl butane	87		8.488					ND	
71 Methyl methacrylate	69		8.561					ND	
72 1,4-Dioxane	88		8.567					ND	
73 Dibromomethane	93		8.592					ND	
74 n-Propyl acetate	61		8.652					ND	
75 Dichlorobromomethane	83		8.823					ND	
76 2-Nitropropane	41		9.085					ND	
78 2-Chloroethyl vinyl ether	63		9.207					ND	
79 1-Bromo-2-chloroethane	63		9.213					ND	
80 cis-1,3-Dichloropropene	75		9.372					ND	
77 Chloroacetonitrile	75		9.427					ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.537					ND	7
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2328947	10.0	8.98	
83 Toluene	92		9.756					ND	
85 trans-1,3-Dichloropropene	75		10.006					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 84 1,3-Dichloropropene, Total	100		10.060					ND	7
86 Ethyl methacrylate	69		10.067					ND	
87 1,1,2-Trichloroethane	97		10.213					ND	
88 Tetrachloroethene	166		10.299					ND	
89 1,3-Dichloropropane	76		10.372					ND	
91 2-Hexanone	43		10.421					ND	7
92 n-Butyl acetate	43		10.548					ND	
93 Chlorodibromomethane	129		10.591					ND	
94 Ethylene Dibromide	107		10.701					ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	85	1997239	10.0	10.0	
96 1-Chlorohexane	91		11.140					ND	7
98 Chlorobenzene	112		11.158					ND	7
99 1,1,1,2-Tetrachloroethane	131		11.237					ND	
100 Ethylbenzene	91		11.244					ND	
S 95 Xylenes, Total	106		11.245					ND	7
101 m-Xylene & p-Xylene	106		11.353					ND	
102 o-Xylene	106		11.683					ND	
103 Styrene	104		11.701					ND	
104 Bromoform	173		11.859					ND	
105 Isopropylbenzene	105		11.981					ND	7
106 cis-1,4-Dichloro-2-butene	88		12.030					ND	U
107 Cyclohexanone	55		12.066					ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	91	1032970	10.0	10.3	
109 1,1,2,2-Tetrachloroethane	83		12.225					ND	
111 Bromobenzene	156		12.243					ND	
110 trans-1,4-Dichloro-2-butene	53		12.249					ND	
112 1,2,3-Trichloropropane	110		12.274					ND	
113 N-Propylbenzene	91		12.310					ND	7
114 2-Chlorotoluene	126		12.384					ND	
115 1,3,5-Trimethylbenzene	105		12.445					ND	7
116 4-Chlorotoluene	126		12.475					ND	
118 tert-Butylbenzene	134		12.682					ND	
119 Pentachloroethane	167		12.719					ND	
120 1,2,4-Trimethylbenzene	105		12.725					ND	7
121 sec-Butylbenzene	105		12.847					ND	7
122 1,3-Dichlorobenzene	146		12.944					ND	7
123 4-Isopropyltoluene	119		12.957					ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1187973	10.0	10.0	
125 1,4-Dichlorobenzene	146		13.018					ND	7
126 1,2,3-Trimethylbenzene	120		13.030					ND	7
127 Benzyl chloride	126		13.097					ND	7
129 p-Diethylbenzene	119	13.158	13.152	0.006	87	1502		0.007550	
130 n-Butylbenzene	92		13.243					ND	7
131 1,2-Dichlorobenzene	146		13.280					ND	7
133 Hexachloroethane	201		13.682					ND	
134 1,2-Dibromo-3-Chloropropane	155		13.816					ND	
135 1,3,5-Trichlorobenzene	180		13.944					ND	7
136 1,2,4-Trichlorobenzene	180		14.365					ND	7
137 Hexachlorobutadiene	225	14.450	14.444	0.006	90	3873		0.0748	
138 Naphthalene	128		14.542					ND	7
139 1,2,3-Trichlorobenzene	180		14.682					ND	7
140 2-Methylnaphthalene	142	15.304	15.304	0.000	90	5439		0.0514	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
151 tert-Butyl Formate	1		0.000					ND	
152 Dodecane	57		0.000					ND	
157 Methylal	1		0.000					ND	
142 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
150 Propene oxide	1		0.000					ND	
162 1-Chloropropane	1		0.000					ND	
163 1-Bromo-3-Chloropropane	1		0.000					ND	
160 n-Decane	57		0.000					ND	
161 2-Bromo-1-chloropropane	1		0.000					ND	
186 Isopropyl alcohol TIC	1		0.000					ND	
188 Decamethylcyclopentasiloxane TIC	1		0.000					ND	
189 Hexachloroethane TIC	1		0.000					ND	
190 Nitrobenzene TIC	1		0.000					ND	
191 Octamethylcyclotetrasiloxane TIC	1		0.000					ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

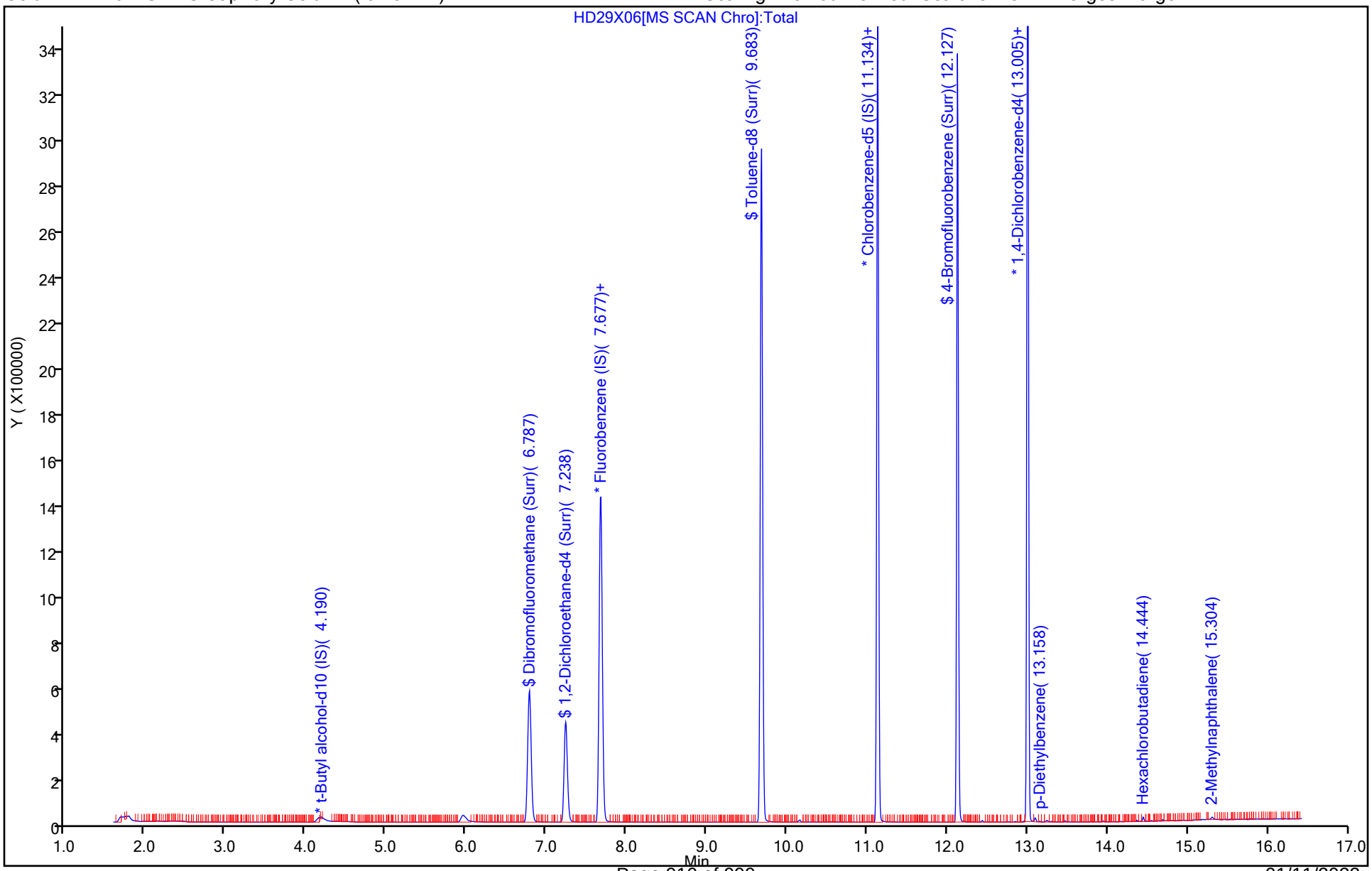
Report Date: 29-Dec-2021 14:14:04 Chrom Revision: 2.3 28-Dec-2021 14:15:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X06.D

Injection Date:	29-Dec-2021 12:21:30	Instrument ID:	19094	Operator ID:	KNK41612
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X06.D				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	29-Dec-2021 12:21:30	ALS Bottle#:	6	Worklist Smp#:	7
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-007				
Misc. Info.:	MB				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 14:13:21	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1676				

First Level Reviewer: kephartk Date: 29-Dec-2021 14:08:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.7	106.51
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.07
$ 82 Toluene-d8 (Surr)	10.0	8.98	89.77
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.3	102.89

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-211830/11

Matrix: Water Lab File ID: IJ05X10.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 01/05/2022 12:05

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.: 211830 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.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-211830/11

Matrix: Water Lab File ID: IJ05X10.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 01/05/2022 12:05

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.: 211830 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)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	103		80-120

Eurofins Lancaster Laboratories Environment Testing LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X10.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 05-Jan-2022 12:05:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047767-011
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 05-Jan-2022 12:44:37 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: CTX1649

First Level Reviewer: kephartk Date: 05-Jan-2022 12:44:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.971					ND	
2 Chlorodifluoromethane	51		1.989					ND	
3 Dimethyl ether	45		2.050					ND	
4 Chloromethane	50		2.172					ND	7
5 Vinyl chloride	62		2.282					ND	
6 Butadiene	39		2.300					ND	7
7 Bromomethane	94		2.629					ND	
8 Chloroethane	64		2.708					ND	
9 Dichlorofluoromethane	67		2.952					ND	
10 Trichlorofluoromethane	101		3.013					ND	
11 Ethyl ether	59		3.257					ND	
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.342					ND	
13 Acrolein	56		3.428					ND	7
14 1,1-Dichloroethene	96		3.568					ND	
15 Acetone	43		3.592					ND	7
16 112TCTFE	101		3.605					ND	
17 Iodomethane	142		3.769					ND	
18 Ethyl bromide	108		3.794					ND	
19 Carbon disulfide	76		3.873					ND	
20 Acetonitrile	41		3.995					ND	
21 Methyl acetate	43		4.019					ND	
22 3-Chloro-1-propene	41		4.050					ND	
23 Methylene Chloride	84		4.233					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	23	166742	50.0	50.0	
25 2-Methyl-2-propanol	59		4.391					ND	
26 Acrylonitrile	53		4.574					ND	
27 Methyl tert-butyl ether	73		4.647					ND	
28 trans-1,2-Dichloroethene	96		4.659					ND	
29 Hexane	57		5.074					ND	
31 1,1-Dichloroethane	63		5.312					ND	
30 Vinyl acetate	43		5.312					ND	
32 Isopropyl ether	45		5.373					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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		6.098					ND	7
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		6.183					ND	
39 Ethyl acetate	43		6.190					ND	
41 Methyl acrylate	55		6.220					ND	
42 Methacrylonitrile	67		6.403					ND	
43 Chlorobromomethane	128		6.464					ND	
44 Tetrahydrofuran	71		6.482					ND	
45 Chloroform	83		6.616					ND	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	527432	10.0	10.2	
47 1,1,1-Trichloroethane	97		6.842					ND	
48 Cyclohexane	56		6.945					ND	
49 1-Chlorobutane	56		7.019					ND	
51 1,1-Dichloropropene	75		7.055					ND	
50 Carbon tetrachloride	117		7.055					ND	
52 Isobutyl alcohol	41		7.201					ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	67	109600	10.0	10.6	
54 Benzene	78		7.311					ND	
56 1,2-Dichloroethane	62		7.384					ND	
55 Isopropyl acetate	43		7.415					ND	
57 Tert-amyl methyl ether	73		7.506					ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	2061301	10.0	10.0	
59 n-Heptane	43		7.726					ND	7
60 n-Butanol	56		8.079					ND	
61 Trichloroethene	95		8.195					ND	
62 Methylcyclohexane	83		8.500					ND	
63 1,2-Dichloropropane	63		8.518					ND	
64 Methyl methacrylate	69		8.604					ND	
65 1,4-Dioxane	88		8.622					ND	
66 Dibromomethane	93		8.634					ND	
67 n-Propyl acetate	43		8.707					ND	
68 Dichlorobromomethane	83		8.866					ND	
69 2-Nitropropane	41		9.128					ND	
70 Chloroacetonitrile	75		9.226					ND	
72 1-Bromo-2-chloroethane	63		9.256					ND	
71 2-Chloroethyl vinyl ether	63		9.256					ND	
73 cis-1,3-Dichloropropene	75		9.408					ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.579					ND	
$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	2136763	10.0	10.3	
76 Toluene	92		9.792					ND	
78 trans-1,3-Dichloropropene	75		10.042					ND	
S 77 1,3-Dichloropropene, Total	100		10.060					ND	7
79 Ethyl methacrylate	69		10.103					ND	
80 1,1,2-Trichloroethane	97		10.244					ND	
81 Tetrachloroethene	166		10.341					ND	
82 1,3-Dichloropropane	76		10.408					ND	
83 2-Hexanone	43		10.457					ND	
84 n-Butyl acetate	43		10.603					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 Chlorodibromomethane	129		10.622					ND	
86 Ethylene Dibromide	107		10.737					ND	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	85	1612356	10.0	10.0	
88 1-Chlorohexane	91		11.170					ND	7
90 Chlorobenzene	112		11.189					ND	
S 89 Xylenes, Total	106		11.245					ND	7
91 1,1,1,2-Tetrachloroethane	131		11.274					ND	
92 Ethylbenzene	91		11.274					ND	
93 m-Xylene & p-Xylene	106		11.390					ND	
94 o-Xylene	106		11.719					ND	
95 Styrene	104		11.731					ND	
96 Bromoform	173		11.890					ND	
97 Isopropylbenzene	105		12.018					ND	
98 cis-1,4-Dichloro-2-butene	88		12.079					ND	U
99 Cyclohexanone	55		12.121					ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.164	12.158	0.006	95	744100	10.0	9.34	
101 1,1,2,2-Tetrachloroethane	83		12.255					ND	
102 Bromobenzene	156		12.280					ND	
103 trans-1,4-Dichloro-2-butene	53		12.286					ND	
104 1,2,3-Trichloropropane	110		12.304					ND	
105 N-Propylbenzene	91		12.341					ND	
106 2-Chlorotoluene	126		12.420					ND	
107 1,3,5-Trimethylbenzene	105		12.481					ND	
108 4-Chlorotoluene	126		12.511					ND	
109 tert-Butylbenzene	134		12.719					ND	
110 Pentachloroethane	167		12.755					ND	
111 1,2,4-Trimethylbenzene	105		12.761					ND	
112 sec-Butylbenzene	105		12.883					ND	
113 1,3-Dichlorobenzene	146		12.981					ND	7
114 4-Isopropyltoluene	119		12.987					ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	854750	10.0	10.0	
116 1,4-Dichlorobenzene	146		13.054					ND	7
117 1,2,3-Trimethylbenzene	120		13.066					ND	7
118 Benzyl chloride	126		13.133					ND	
119 n-Butylbenzene	92		13.280					ND	
120 1,2-Dichlorobenzene	146		13.316					ND	
121 Hexachloroethane	117		13.542					ND	
122 1,2-Dibromo-3-Chloropropane	155		13.853					ND	
123 1,3,5-Trichlorobenzene	180		13.981					ND	
124 1,2,4-Trichlorobenzene	180		14.401					ND	
125 Hexachlorobutadiene	225		14.487					ND	
126 Naphthalene	128		14.584					ND	7
127 1,2,3-Trichlorobenzene	180		14.724					ND	
128 Dodecane	57		0.000					ND	
134 Isopropyl alcohol	45		0.000					ND	
141 1-Chloropropane	1		0.000					ND	
129 Propene oxide	1		0.000					ND	
207 Acetonitrile TIC	1		0.000					ND	
130 Chlorotrifluoroethene	1		0.000					ND	
204 Pentane	43		0.000					ND	
206 Pentachloroethane TIC	1		0.000					ND	
142 2-Bromo-1-chloropropane	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
131 tert-Butyl Formate	1		0.000					ND	
132 Methylal	1		0.000					ND	
133 t-Amyl alcohol	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	
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	
140 Ethanol	45		3.269					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

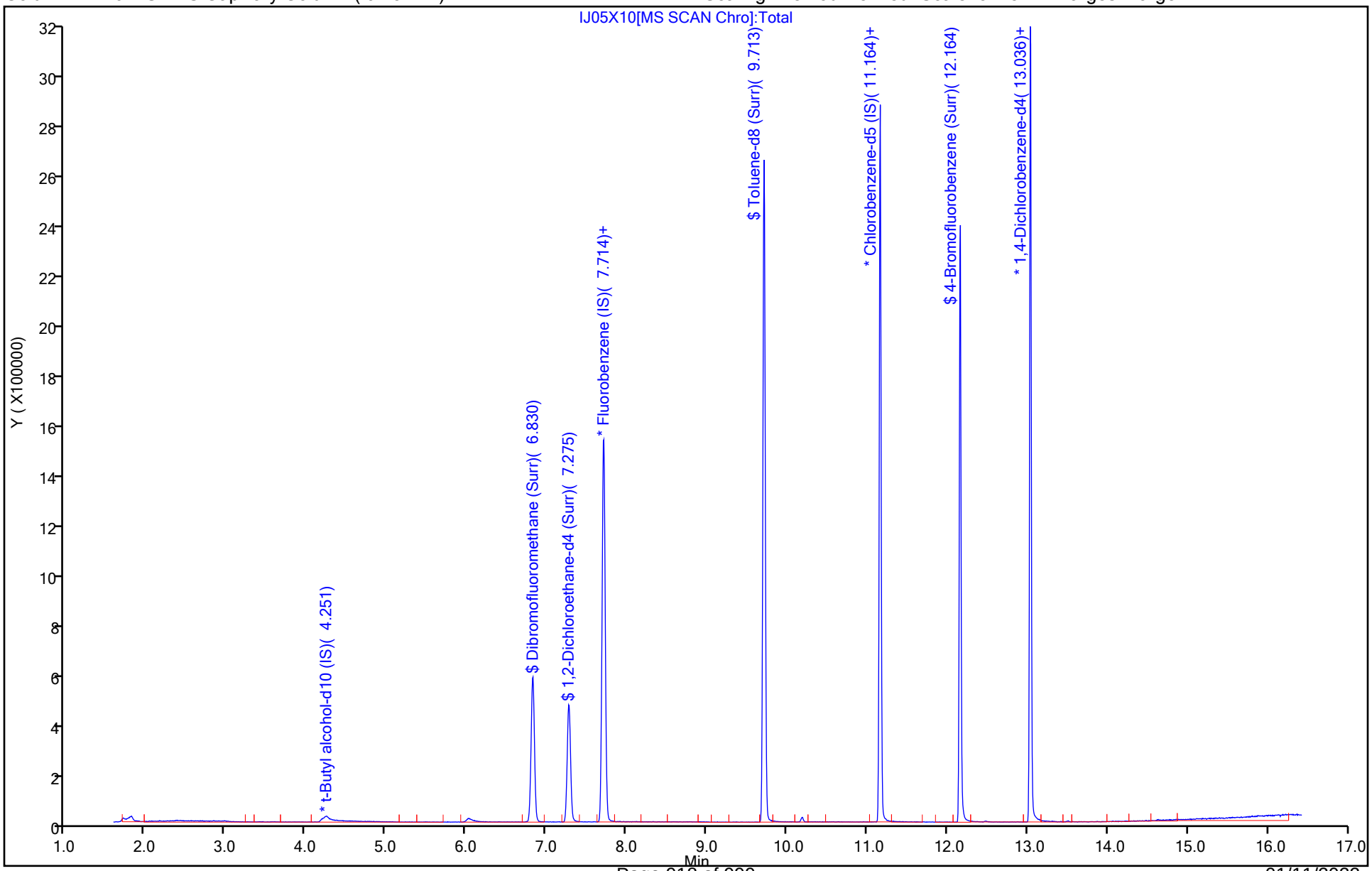
Report Date: 05-Jan-2022 12:44:51 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X10.D

Injection Date:	05-Jan-2022 12:05:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	MB			Worklist Smp#:	11
Client ID:					
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 Environment Testing LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X10.D				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	05-Jan-2022 12:05:30	ALS Bottle#:	10	Worklist Smp#:	11
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047767-011				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	05-Jan-2022 12:44:37	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:	CTX1649				

First Level Reviewer: kephartk Date: 05-Jan-2022 12:44:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	101.57
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.51
$ 75 Toluene-d8 (Surr)	10.0	10.3	102.55
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.34	93.44

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-209587/4

Matrix: Water Lab File ID: ID28X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 10:25

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.45		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.23		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.49		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.78		0.50	0.060
75-34-3	1,1-Dichloroethane	5.19		0.50	0.070
75-35-4	1,1-Dichloroethene	5.49		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.47		0.50	0.060
107-06-2	1,2-Dichloroethane	5.16		0.50	0.050
78-87-5	1,2-Dichloropropane	5.65		0.50	0.060
78-93-3	2-Butanone (MEK)	78.9		5.0	0.60
591-78-6	2-Hexanone	81.7		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	77.0		5.0	0.70
67-64-1	Acetone	63.9		5.0	0.90
71-43-2	Benzene	5.52		0.50	0.050
74-97-5	Bromochloromethane	5.62		0.50	0.050
75-27-4	Bromodichloromethane	5.71		0.50	0.050
75-25-2	Bromoform	5.81		1.0	0.30
74-83-9	Bromomethane	4.82		0.50	0.070
75-15-0	Carbon disulfide	5.50		1.0	0.060
56-23-5	Carbon tetrachloride	5.56		0.50	0.070
108-90-7	Chlorobenzene	5.54		0.50	0.060
75-00-3	Chloroethane	5.28		0.50	0.070
67-66-3	Chloroform	5.36		0.50	0.090
74-87-3	Chloromethane	4.76		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.42		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.44		0.50	0.050
124-48-1	Dibromochloromethane	5.74		0.50	0.070
100-41-4	Ethylbenzene	5.33		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.86		0.50	0.050
75-09-2	Methylene Chloride	5.34		0.50	0.070
100-42-5	Styrene	5.36		0.50	0.050
127-18-4	Tetrachloroethene	5.62		0.50	0.060
108-88-3	Toluene	5.40		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.26		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.63		0.50	0.060
79-01-6	Trichloroethene	5.39		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-209587/4

Matrix: Water Lab File ID: ID28X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 10:25

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.90		0.50	0.10
1330-20-7	Xylenes, Total	16.0		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 28-Dec-2021 10:25:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-004
Misc. Info.: LCS
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 12:28:50 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: CTX1612

First Level Reviewer: kephartk Date: 28-Dec-2021 10:57:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.965	1.971	-0.006	99	141254	5.00	2.37	
4 Chloromethane	50	2.166	2.166	0.000	99	323078	5.00	4.76	
6 Butadiene	39	2.282	2.282	0.000	91	414686	5.00	6.65	
5 Vinyl chloride	62	2.282	2.282	0.000	96	335619	5.00	4.90	
7 Bromomethane	94	2.617	2.617	0.000	90	239109	5.00	4.82	
8 Chloroethane	64	2.703	2.696	0.007	100	216484	5.00	5.28	
9 Dichlorofluoromethane	67	2.940	2.934	0.006	96	550629	5.00	5.58	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	97	422578	5.00	4.79	M
11 Ethyl ether	59	3.251	3.245	0.006	90	190332	4.97	5.31	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.331	3.336	-0.006	90	307246	5.00	4.86	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	249644	5.00	5.49	
15 Acetone	43	3.587	3.586	0.001	100	436384	62.5	63.9	
16 112TCTFE	101	3.605	3.599	0.006	88	236900	5.00	4.99	
17 Iodomethane	142	3.757	3.751	0.006	98	480532	5.00	5.29	
18 Ethyl bromide	108	3.788	3.800	-0.012	98	218741	4.99	5.28	
19 Carbon disulfide	76	3.861	3.861	0.000	99	689643	5.00	5.50	
21 Methyl acetate	43	4.007	4.013	-0.006	97	126782	5.00	6.31	M
22 3-Chloro-1-propene	41	4.038	4.037	0.001	93	379840	5.00	5.09	
23 Methylene Chloride	84	4.227	4.226	0.001	90	265130	5.00	5.34	
* 24 t-Butyl alcohol-d10 (IS)	65	4.227	4.257	-0.030	97	122897	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.379	4.361	0.018	99	129389	50.0	50.0	
26 Acrylonitrile	53	4.568	4.574	-0.006	99	266203	25.0	29.3	
27 Methyl tert-butyl ether	73	4.635	4.635	0.000	94	630954	5.00	4.86	
28 trans-1,2-Dichloroethene	96	4.653	4.647	0.006	99	271522	5.00	5.26	
29 Hexane	57	5.074	5.074	0.000	91	338963	5.00	4.70	
31 1,1-Dichloroethane	63	5.306	5.306	0.000	96	486641	5.00	5.19	
32 Isopropyl ether	45	5.373	5.366	0.007	94	799485	5.00	5.11	
33 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	90	416270	5.00	5.33	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	97	731670	5.00	4.78	
36 2-Butanone (MEK)	43	6.104	6.098	0.006	99	940349	62.5	78.9	
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	311910	5.00	5.42	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 2,2-Dichloropropane	77	6.153	6.153	0.000	86	434034	5.00	5.33	
40 Propionitrile	54	6.184	6.183	0.001	98	150377	37.5	47.5	
42 Methacrylonitrile	67	6.403	6.403	0.000	91	567548	37.5	47.4	
43 Chlorobromomethane	128	6.470	6.464	0.006	91	139640	5.00	5.62	
44 Tetrahydrofuran	71	6.482	6.482	0.000	83	107187	25.0	30.3	
45 Chloroform	83	6.616	6.616	0.000	92	497782	5.00	5.36	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	483154	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	98	451261	5.00	5.23	
48 Cyclohexane	56	6.946	6.945	0.001	88	420828	5.00	4.92	
51 1,1-Dichloropropene	75	7.055	7.049	0.006	97	403016	5.00	5.54	
50 Carbon tetrachloride	117	7.055	7.055	0.000	97	413611	5.00	5.56	
52 Isobutyl alcohol	41	7.208	7.201	0.007	94	119282	125.0	144.5	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	85	100716	10.0	10.5	
54 Benzene	78	7.318	7.311	0.007	96	1181869	5.00	5.52	
56 1,2-Dichloroethane	62	7.385	7.384	0.001	98	299503	5.00	5.16	
57 Tert-amyl methyl ether	73	7.513	7.506	0.007	99	664101	5.00	4.67	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1905056	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	90	353635	5.00	4.77	
60 n-Butanol	56	8.086	8.079	0.007	86	250069	250.0	326.3	
61 Trichloroethene	95	8.195	8.195	0.000	96	310322	5.00	5.39	
62 Methylcyclohexane	83	8.500	8.500	0.000	92	465811	5.00	4.87	
63 1,2-Dichloropropane	63	8.525	8.518	0.007	94	297144	5.00	5.65	
64 Methyl methacrylate	69	8.610	8.604	0.006	87	144383	5.00	6.13	
65 1,4-Dioxane	88	8.616	8.616	0.000	32	30405	125.0	130.4	M
66 Dibromomethane	93	8.628	8.634	-0.006	93	144194	5.00	5.61	
68 Dichlorobromomethane	83	8.866	8.866	0.000	99	364009	5.00	5.71	
69 2-Nitropropane	41	9.134	9.128	0.006	99	38558	5.00	5.73	
72 1-Bromo-2-chloroethane	63	9.256	9.256	0.000	98	303905	5.00	5.89	
73 cis-1,3-Dichloropropene	75	9.415	9.408	0.007	97	436138	5.00	5.44	
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.579	0.000	96	2312048	62.5	77.0	
$ 75 Toluene-d8 (Surr)	98	9.720	9.719	0.001	93	2017093	10.0	10.2	
76 Toluene	92	9.793	9.792	0.001	98	791614	5.00	5.40	
78 trans-1,3-Dichloropropene	75	10.049	10.048	0.001	91	380678	5.00	5.63	
79 Ethyl methacrylate	69	10.110	10.109	0.001	88	293534	5.00	5.21	
80 1,1,2-Trichloroethane	97	10.250	10.250	0.000	90	226020	5.00	5.78	
81 Tetrachloroethene	166	10.341	10.341	0.000	97	391988	5.00	5.62	
82 1,3-Dichloropropane	76	10.414	10.408	0.006	87	368404	5.00	5.54	
83 2-Hexanone	43	10.463	10.457	0.006	95	1718025	62.5	81.7	
85 Chlorodibromomethane	129	10.628	10.628	0.000	90	273595	5.00	5.74	
86 Ethylene Dibromide	107	10.738	10.737	0.001	99	206292	5.00	5.47	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	85	1528428	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.170	0.000	95	444598	5.00	5.19	
90 Chlorobenzene	112	11.189	11.189	0.000	96	898729	5.00	5.54	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	96	308730	5.00	5.45	
92 Ethylbenzene	91	11.274	11.274	0.000	98	1503698	5.00	5.33	
93 m-Xylene & p-Xylene	106	11.390	11.390	0.000	100	1219869	10.0	10.9	
94 o-Xylene	106	11.719	11.713	0.006	96	564962	5.00	5.14	
95 Styrene	104	11.731	11.731	0.000	95	951011	5.00	5.36	
96 Bromoform	173	11.890	11.890	0.000	98	165682	5.00	5.81	
97 Isopropylbenzene	105	12.018	12.012	0.006	95	1532277	5.00	5.28	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	740947	10.0	9.82	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.255	0.001	94	265141	5.00	5.49	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Bromobenzene	156	12.274	12.274	0.000	93	378202	5.00	5.71	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	88	274666	25.0	25.3	
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	82	72145	5.00	5.43	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	1795527	5.00	5.59	
106 2-Chlorotoluene	126	12.420	12.420	0.000	97	356144	5.00	5.40	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1282575	5.00	5.47	
108 4-Chlorotoluene	126	12.512	12.511	0.001	96	376110	5.00	5.59	
109 tert-Butylbenzene	134	12.719	12.713	0.006	91	276976	5.00	5.38	
111 1,2,4-Trimethylbenzene	105	12.762	12.755	0.007	97	1290018	5.00	5.36	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	1649960	5.00	5.56	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	722484	5.00	5.41	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1430786	5.00	5.46	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	873658	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	744846	5.00	5.46	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	563702	5.00	5.30	
118 Benzyl chloride	126	13.127	13.127	0.000	98	110241	5.00	5.58	
119 n-Butylbenzene	92	13.274	13.273	0.001	97	655011	5.00	5.34	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	660065	5.00	5.41	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.847	0.006	89	39222	5.00	5.52	
123 1,3,5-Trichlorobenzene	180	13.975	13.975	0.000	97	509933	5.00	5.22	
124 1,2,4-Trichlorobenzene	180	14.395	14.395	0.000	94	423215	5.00	5.14	
125 Hexachlorobutadiene	225	14.475	14.474	0.001	95	178318	5.00	4.98	
126 Naphthalene	128	14.572	14.572	0.000	97	792047	5.00	5.04	
127 1,2,3-Trichlorobenzene	180	14.719	14.712	0.007	96	380119	5.00	5.34	
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_VOC#1_00033	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00057	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 28-Dec-2021 12:28:56 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X03.D

Injection Date: 28-Dec-2021 10:25:30 Instrument ID: 19930 Operator ID: KNK41612

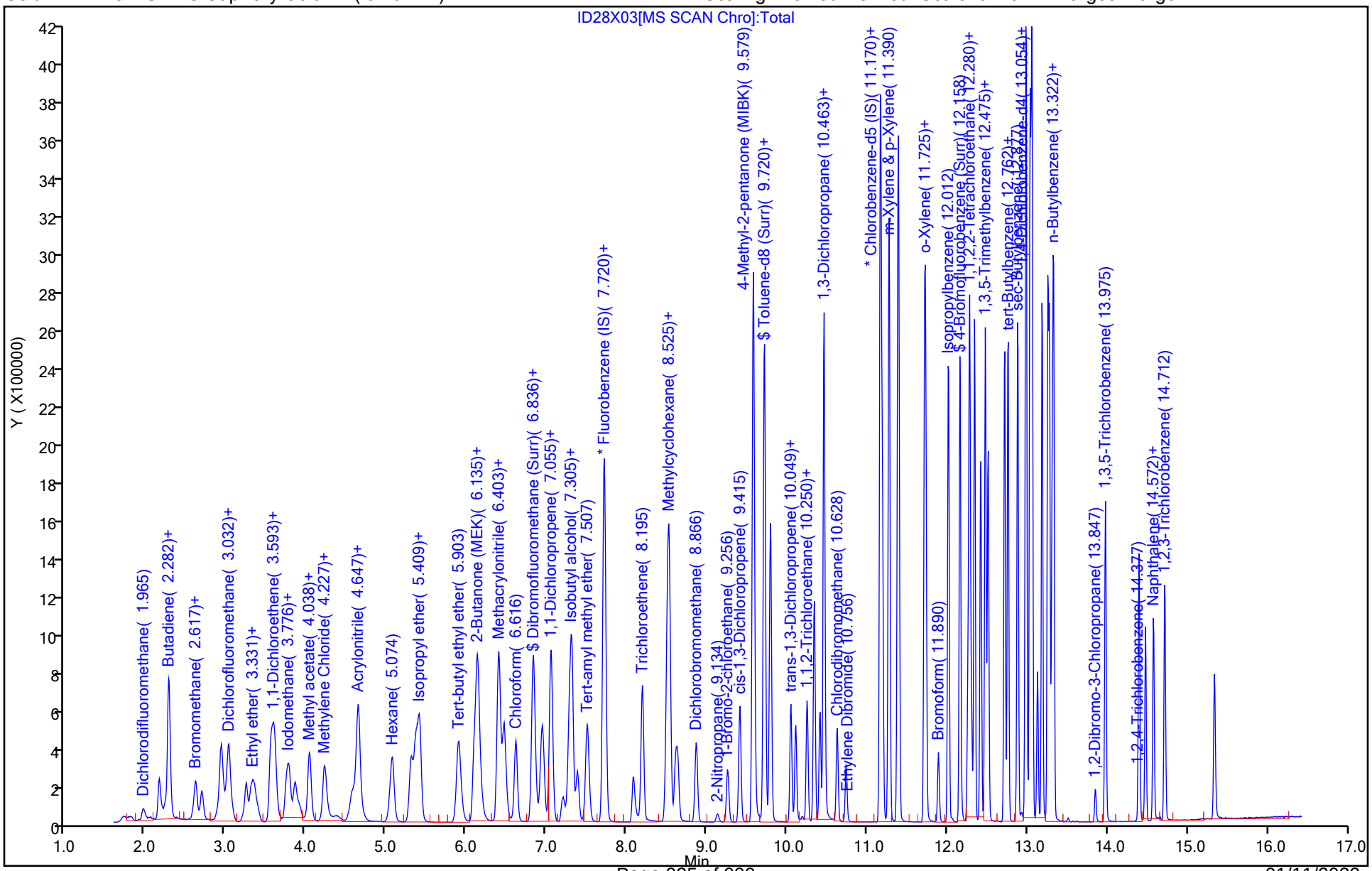
Lims ID: LCS Worklist Smp#: 4

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\20211228-47269.b\ID28X03.D				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	28-Dec-2021 10:25:30	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047269-004				
Misc. Info.:	LCS				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Dec-2021 12:28:50	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:	CTX1612				
First Level Reviewer: kephartk		Date:	28-Dec-2021 10:57:42		

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.1	100.68
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.91
$ 75 Toluene-d8 (Surr)	10.0	10.2	102.12
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.82	98.15

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

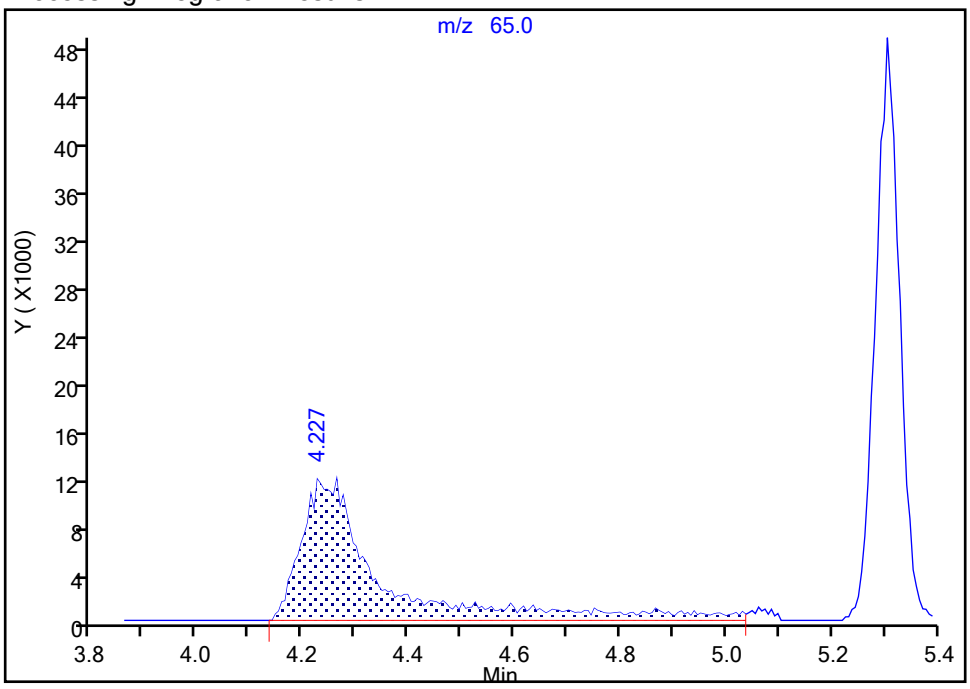
Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X03.D
Injection Date: 28-Dec-2021 10:25:30 Instrument ID: 19930
Lims ID: LCS
Client ID:
Operator ID: KNK41612 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

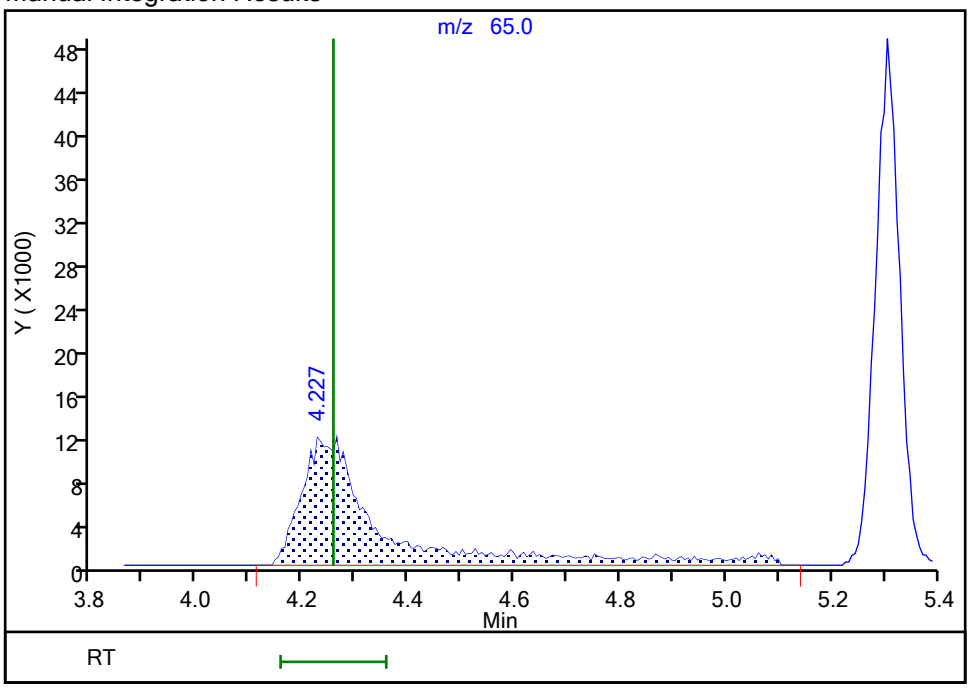
Processing Integration Results

RT: 4.23
Area: 120232
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.23
Area: 122897
Amount: 50.000000
Amount Units: ug/l



Reviewer: kephartk, 28-Dec-2021 10:56:53
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.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-210047/4

Matrix: Water Lab File ID: HD29X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 11:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.61		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.50		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	4.55		0.50	0.070
79-00-5	1,1,2-Trichloroethane	4.62		0.50	0.060
75-34-3	1,1-Dichloroethane	5.52		0.50	0.070
75-35-4	1,1-Dichloroethene	5.64		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.61		0.50	0.060
107-06-2	1,2-Dichloroethane	5.50		0.50	0.050
78-87-5	1,2-Dichloropropane	5.61		0.50	0.060
78-93-3	2-Butanone (MEK)	41.9		5.0	0.60
591-78-6	2-Hexanone	40.3		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	39.0		5.0	0.70
67-64-1	Acetone	41.1		5.0	0.90
71-43-2	Benzene	5.63		0.50	0.050
74-97-5	Bromochloromethane	5.77		0.50	0.050
75-27-4	Bromodichloromethane	5.90		0.50	0.050
75-25-2	Bromoform	5.60		1.0	0.30
74-83-9	Bromomethane	5.64		0.50	0.070
75-15-0	Carbon disulfide	6.42		1.0	0.060
56-23-5	Carbon tetrachloride	5.49		0.50	0.070
108-90-7	Chlorobenzene	4.50		0.50	0.060
75-00-3	Chloroethane	5.69		0.50	0.070
67-66-3	Chloroform	5.58		0.50	0.090
74-87-3	Chloromethane	5.35		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.76		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.64		0.50	0.050
124-48-1	Dibromochloromethane	5.07		0.50	0.070
100-41-4	Ethylbenzene	4.56		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.86		0.50	0.050
75-09-2	Methylene Chloride	5.46		0.50	0.070
100-42-5	Styrene	4.67		0.50	0.050
127-18-4	Tetrachloroethene	4.45		0.50	0.060
108-88-3	Toluene	4.48		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.62		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.80		0.50	0.060
79-01-6	Trichloroethene	5.67		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-210047/4

Matrix: Water Lab File ID: HD29X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 11:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	5.31		0.50	0.10
1330-20-7	Xylenes, Total	13.7		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	108		80-120
2037-26-5	Toluene-d8 (Surr)	90		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 29-Dec-2021 11:20:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-004
Misc. Info.: LCS
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 14:13:21 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1676

First Level Reviewer: kephartk Date: 29-Dec-2021 11:44:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.946	1.947	-0.001	99	268534	5.00	4.31	
6 Chloromethane	50	2.148	2.142	0.006	99	410249	5.00	5.35	
8 Butadiene	39	2.263	2.258	0.005	92	347672	5.00	4.48	
7 Vinyl chloride	62	2.263	2.258	0.005	97	405704	5.00	5.31	
9 Bromomethane	94	2.593	2.587	0.006	91	288795	5.00	5.64	
10 Chloroethane	64	2.678	2.672	0.006	100	247571	5.00	5.69	
11 Dichlorofluoromethane	67	2.916	2.910	0.006	97	595545	5.00	5.93	
13 Trichlorofluoromethane	101	2.989	2.977	0.012	97	464743	5.00	4.85	
15 Ethyl ether	59	3.221	3.221	0.000	91	176925	4.97	5.23	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.306	3.306	0.000	93	385884	5.00	5.52	
18 1,1-Dichloroethene	96	3.538	3.532	0.006	98	290170	5.00	5.64	
19 Acetone	43	3.562	3.556	0.006	100	464787	62.5	41.1	
20 112TCTFE	101	3.580	3.568	0.012	91	241927	5.00	4.70	
21 Isopropyl alcohol	45	3.727	3.702	0.025	26	40167	37.5	51.6	
22 Iodomethane	142	3.733	3.727	0.006	98	550822	5.00	6.11	
23 Ethyl bromide	108	3.763	3.751	0.012	98	252588	4.99	5.77	
24 Carbon disulfide	76	3.842	3.836	0.006	99	809665	5.00	6.42	
26 Methyl acetate	43	3.983	3.965	0.019	97	135938	5.00	3.51	
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	478169	5.00	6.00	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	40	124778	50.0	50.0	
29 Methylene Chloride	84	4.196	4.190	0.006	92	298958	5.00	5.46	
30 2-Methyl-2-propanol	59	4.324	4.306	0.018	99	121417	50.0	46.0	
31 Acrylonitrile	53	4.531	4.519	0.012	99	264959	25.0	17.4	
32 Methyl tert-butyl ether	73	4.604	4.592	0.012	95	657576	5.00	5.86	
33 trans-1,2-Dichloroethene	96	4.623	4.611	0.012	99	310658	5.00	5.62	
34 Hexane	57	5.037	5.031	0.006	92	312938	5.00	4.29	
35 1,1-Dichloroethane	63	5.269	5.263	0.006	96	561872	5.00	5.52	
37 Isopropyl ether	45	5.330	5.318	0.012	94	946713	5.00	5.65	
38 2-Chloro-1,3-butadiene	53	5.379	5.373	0.006	90	493902	5.00	5.90	
39 Tert-butyl ethyl ether	59	5.860	5.854	0.006	98	847178	5.00	5.92	
41 2-Butanone (MEK)	43	6.049	6.043	0.006	100	866924	62.5	41.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 cis-1,2-Dichloroethene	96	6.098	6.092	0.006	82	347104	5.00	5.76	
43 2,2-Dichloropropane	77	6.116	6.110	0.006	89	494513	5.00	5.91	
45 Propionitrile	54	6.141	6.135	0.006	98	153642	37.5	28.9	
47 Methacrylonitrile	67	6.354	6.348	0.006	91	541477	37.5	22.9	
48 Chlorobromomethane	128	6.433	6.421	0.012	93	145703	5.00	5.77	
49 Tetrahydrofuran	71	6.439	6.427	0.012	81	97474	25.0	16.9	
50 Chloroform	83	6.574	6.568	0.006	93	553553	5.00	5.58	
$ 51 Dibromofluoromethane (Surr)	113	6.793	6.781	0.012	94	548299	10.0	10.8	
52 1,1,1-Trichloroethane	97	6.811	6.799	0.012	98	501922	5.00	5.50	
53 Cyclohexane	56	6.915	6.903	0.012	90	464041	5.00	4.73	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	98	457762	5.00	5.67	
56 Carbon tetrachloride	117	7.025	7.013	0.012	96	436840	5.00	5.49	
57 Isobutyl alcohol	41	7.153	7.141	0.012	94	105464	125.0	95.0	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.238	0.006	95	100186	10.0	10.6	
59 Benzene	78	7.275	7.269	0.006	97	1306689	5.00	5.63	
60 1,2-Dichloroethane	62	7.348	7.336	0.012	97	317969	5.00	5.50	
62 Tert-amyl methyl ether	73	7.464	7.458	0.006	99	719654	5.00	6.00	
* 65 Fluorobenzene (IS)	96	7.677	7.671	0.006	98	1924164	10.0	10.0	
64 n-Heptane	43	7.695	7.689	0.006	92	328757	5.00	4.27	
66 n-Butanol	56	8.031	8.019	0.012	90	199409	250.0	269.4	
67 Trichloroethene	95	8.159	8.147	0.012	98	346228	5.00	5.67	
68 Methylcyclohexane	83	8.470	8.464	0.006	92	465304	5.00	4.50	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	84	327491	5.00	5.61	
69 2-ethoxy-2-methyl butane	87	8.494	8.488	0.006	91	409481	5.00	6.52	
71 Methyl methacrylate	69	8.567	8.561	0.006	91	135484	5.00	3.16	
72 1,4-Dioxane	88	8.585	8.567	0.018	34	25965	125.0	117.7	
73 Dibromomethane	93	8.598	8.592	0.006	96	148816	5.00	5.72	
75 Dichlorobromomethane	83	8.829	8.823	0.006	99	385865	5.00	5.90	
76 2-Nitropropane	41	9.097	9.085	0.012	99	35805	5.00	3.07	
79 1-Bromo-2-chloroethane	63	9.219	9.213	0.006	98	321598	5.00	6.25	
80 cis-1,3-Dichloropropene	75	9.372	9.372	0.000	96	465887	5.00	5.64	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.537	0.006	96	2201711	62.5	39.0	
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2315274	10.0	9.00	
83 Toluene	92	9.756	9.756	0.000	98	828303	5.00	4.48	
85 trans-1,3-Dichloropropene	75	10.012	10.006	0.006	93	383241	5.00	4.80	
86 Ethyl methacrylate	69	10.073	10.067	0.006	89	288671	5.00	4.82	
87 1,1,2-Trichloroethane	97	10.213	10.213	0.000	90	211213	5.00	4.62	
88 Tetrachloroethene	166	10.305	10.299	0.006	98	391735	5.00	4.45	
89 1,3-Dichloropropane	76	10.378	10.372	0.006	89	369076	5.00	4.58	
91 2-Hexanone	43	10.426	10.421	0.005	97	1538951	62.5	40.3	
93 Chlorodibromomethane	129	10.591	10.591	0.000	90	265991	5.00	5.07	
94 Ethylene Dibromide	107	10.707	10.701	0.006	99	202371	5.00	4.61	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	85	1979980	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	479067	5.00	4.35	
98 Chlorobenzene	112	11.158	11.158	0.000	95	914747	5.00	4.50	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.237	0.006	96	316792	5.00	4.61	
100 Ethylbenzene	91	11.243	11.244	-0.001	98	1621112	5.00	4.56	
101 m-Xylene & p-Xylene	106	11.359	11.353	0.006	98	1269488	10.0	9.19	
102 o-Xylene	106	11.688	11.683	0.006	96	611885	5.00	4.52	
103 Styrene	104	11.701	11.701	0.000	94	997160	5.00	4.67	
104 Bromoform	173	11.859	11.859	0.000	97	152544	5.00	5.60	
105 Isopropylbenzene	105	11.987	11.981	0.006	96	1660759	5.00	4.66	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	1032021	10.0	10.4	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	259821	5.00	4.55	
111 Bromobenzene	156	12.243	12.243	0.000	95	378943	5.00	4.44	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	92	270872	25.0	15.2	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	83	67964	5.00	4.42	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	1924289	5.00	4.43	
114 2-Chlorotoluene	126	12.390	12.384	0.006	97	383633	5.00	4.37	
115 1,3,5-Trimethylbenzene	105	12.444	12.445	-0.001	94	1355943	5.00	4.38	
116 4-Chlorotoluene	126	12.481	12.475	0.006	97	380382	5.00	4.28	
118 tert-Butylbenzene	134	12.688	12.682	0.006	92	291080	5.00	4.20	
120 1,2,4-Trimethylbenzene	105	12.731	12.725	0.006	97	1378059	5.00	4.31	
121 sec-Butylbenzene	105	12.853	12.847	0.006	94	1788394	5.00	4.56	
122 1,3-Dichlorobenzene	146	12.950	12.944	0.006	98	745709	5.00	4.32	
123 4-Isopropyltoluene	119	12.956	12.957	-0.001	97	1536229	5.00	4.54	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	93	1178501	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.018	0.006	95	743957	5.00	4.34	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	589405	5.00	4.22	
127 Benzyl chloride	126	13.097	13.097	0.000	98	96474	5.00	5.43	
129 p-Diethylbenzene	119	13.158	13.152	0.006	92	888068	5.00	4.50	
130 n-Butylbenzene	92	13.249	13.243	0.006	98	733653	5.00	4.58	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	675501	5.00	4.32	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.816	0.006	86	35799	5.00	4.76	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	590728	5.00	4.61	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	495297	5.00	4.56	
137 Hexachlorobutadiene	225	14.450	14.444	0.006	96	235305	5.00	4.58	
138 Naphthalene	128	14.548	14.542	0.006	97	838875	5.00	4.52	
139 1,2,3-Trichlorobenzene	180	14.688	14.682	0.006	96	433822	5.00	4.50	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	93	515374	5.00	4.91	

QC Flag Legend

Processing Flags

Reagents:

MSV_LCS_VOC#1_00033	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00057	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 29-Dec-2021 14:13:56 Chrom Revision: 2.3 28-Dec-2021 14:15:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X03.D

Injection Date: 29-Dec-2021 11:20:30 Instrument ID: 19094 Operator ID: KNK41612

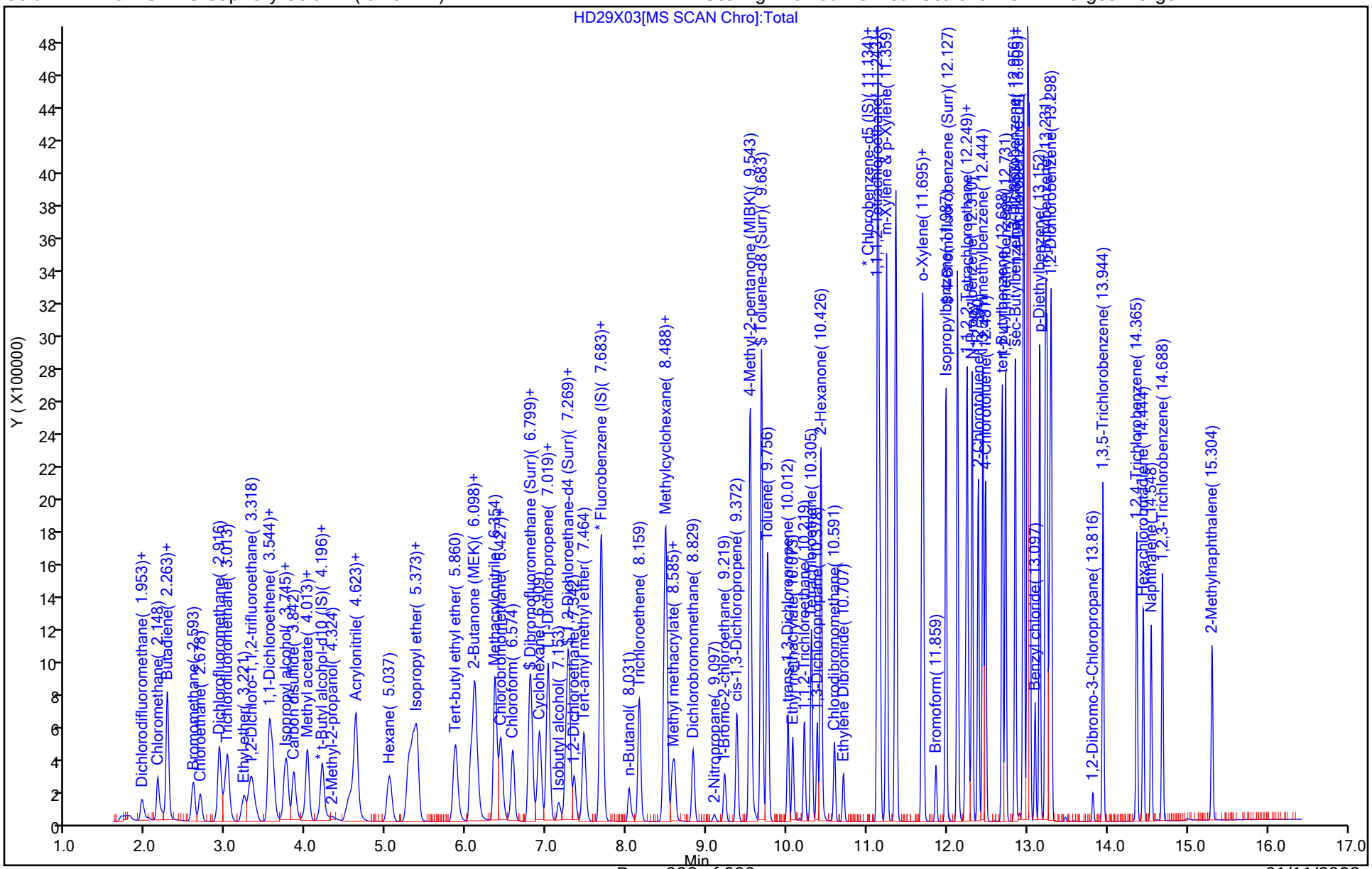
Lims ID: LCS Worklist Smp#: 4

Client ID:

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X03.D				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	29-Dec-2021 11:20:30	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-004				
Misc. Info.:	LCS				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 14:13:21	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1676				

First Level Reviewer: kephartk Date: 29-Dec-2021 11:44:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.8	108.02
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.88
$ 82 Toluene-d8 (Surr)	10.0	9.00	90.02
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.4	103.69

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-211830/4

Matrix: Water Lab File ID: IJ05X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 01/05/2022 09:36

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.: 211830 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.59		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.14		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	6.13		0.50	0.060
75-34-3	1,1-Dichloroethane	5.43		0.50	0.070
75-35-4	1,1-Dichloroethene	5.54		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.89		0.50	0.060
107-06-2	1,2-Dichloroethane	5.53		0.50	0.050
78-87-5	1,2-Dichloropropane	6.13		0.50	0.060
78-93-3	2-Butanone (MEK)	82.4		5.0	0.60
591-78-6	2-Hexanone	89.6		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	84.3		5.0	0.70
67-64-1	Acetone	64.4		5.0	0.90
71-43-2	Benzene	5.73		0.50	0.050
74-97-5	Bromochloromethane	5.61		0.50	0.050
75-27-4	Bromodichloromethane	5.98		0.50	0.050
75-25-2	Bromoform	5.94		1.0	0.30
74-83-9	Bromomethane	4.28		0.50	0.070
75-15-0	Carbon disulfide	5.64		1.0	0.060
56-23-5	Carbon tetrachloride	5.25		0.50	0.070
108-90-7	Chlorobenzene	5.74		0.50	0.060
75-00-3	Chloroethane	4.35		0.50	0.070
67-66-3	Chloroform	5.48		0.50	0.090
74-87-3	Chloromethane	5.03		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.43		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.81		0.50	0.050
124-48-1	Dibromochloromethane	5.98		0.50	0.070
100-41-4	Ethylbenzene	5.60		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.93		0.50	0.050
75-09-2	Methylene Chloride	5.54		0.50	0.070
100-42-5	Styrene	5.55		0.50	0.050
127-18-4	Tetrachloroethene	5.62		0.50	0.060
108-88-3	Toluene	5.60		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.27		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.02		0.50	0.060
79-01-6	Trichloroethene	5.46		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-211830/4

Matrix: Water Lab File ID: IJ05X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 01/05/2022 09:36

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.: 211830 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.61		0.50	0.10
1330-20-7	Xylenes, Total	16.6		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Environment Testing LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 05-Jan-2022 09:36:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047767-004
Misc. Info.: LCS
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 05-Jan-2022 10:46:15 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: CTX1649

First Level Reviewer: kephartk Date: 05-Jan-2022 10:01:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.971	0.006	99	318054	5.00	4.29	
4 Chloromethane	50	2.178	2.172	0.006	99	424443	5.00	5.03	
5 Vinyl chloride	62	2.294	2.282	0.012	97	392271	5.00	4.61	
6 Butadiene	39	2.300	2.300	0.000	93	481891	5.00	6.22	
7 Bromomethane	94	2.635	2.629	0.006	90	263791	5.00	4.28	
8 Chloroethane	64	2.709	2.708	0.001	100	222104	5.00	4.35	
9 Dichlorofluoromethane	67	2.959	2.952	0.006	97	544534	5.00	4.44	
10 Trichlorofluoromethane	101	3.013	3.013	0.000	98	474883	5.00	4.33	M
11 Ethyl ether	59	3.257	3.257	0.000	92	262894	4.97	5.90	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.342	0.007	94	396733	5.00	5.05	
13 Acrolein	56	3.428	3.428	0.000	99	286829	37.5	40.9	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	98	313360	5.00	5.54	
15 Acetone	43	3.599	3.592	0.007	100	574339	62.5	64.4	
16 112TCTFE	101	3.611	3.605	0.006	91	270326	5.00	4.58	
17 Iodomethane	142	3.769	3.769	0.000	98	600013	5.00	5.31	
18 Ethyl bromide	108	3.794	3.794	0.000	98	251539	4.99	4.88	
19 Carbon disulfide	76	3.873	3.873	0.000	99	880161	5.00	5.64	
21 Methyl acetate	43	4.025	4.019	0.006	51	155575	5.00	5.92	
22 3-Chloro-1-propene	41	4.050	4.050	0.000	93	524706	5.00	5.66	
23 Methylene Chloride	84	4.233	4.233	0.000	92	341876	5.00	5.54	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	95	160599	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.361	4.391	-0.030	99	161931	50.0	47.9	
26 Acrylonitrile	53	4.586	4.574	0.012	99	335114	25.0	28.2	
27 Methyl tert-butyl ether	73	4.647	4.647	0.000	90	795033	5.00	4.93	
28 trans-1,2-Dichloroethene	96	4.659	4.659	0.000	99	338124	5.00	5.27	
29 Hexane	57	5.080	5.074	0.006	93	395821	5.00	4.41	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	632695	5.00	5.43	
32 Isopropyl ether	45	5.373	5.373	0.000	94	1103450	5.00	5.67	
33 2-Chloro-1,3-butadiene	53	5.421	5.415	0.006	91	541797	5.00	5.58	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	97	996891	5.00	5.24	
36 2-Butanone (MEK)	43	6.098	6.098	0.000	100	1283935	62.5	82.4	

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	82	388470	5.00	5.43	
38 2,2-Dichloropropane	77	6.153	6.147	0.006	89	536187	5.00	5.29	
40 Propionitrile	54	6.183	6.183	0.000	98	205172	37.5	49.6	
42 Methacrylonitrile	67	6.403	6.403	0.000	92	725387	37.5	46.3	
43 Chlorobromomethane	128	6.464	6.464	0.000	95	173289	5.00	5.61	
44 Tetrahydrofuran	71	6.482	6.482	0.000	83	142004	25.0	30.7	
45 Chloroform	83	6.616	6.616	0.000	93	632260	5.00	5.48	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	588195	10.0	9.86	
47 1,1,1-Trichloroethane	97	6.848	6.842	0.006	98	551479	5.00	5.14	
48 Cyclohexane	56	6.939	6.945	-0.006	91	513038	5.00	4.82	
51 1,1-Dichloropropene	75	7.055	7.055	0.000	96	510292	5.00	5.64	
50 Carbon tetrachloride	117	7.055	7.055	0.000	81	486337	5.00	5.25	
52 Isobutyl alcohol	41	7.195	7.201	-0.006	95	165136	125.0	153.0	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	88	124419	10.0	10.4	
54 Benzene	78	7.317	7.311	0.006	97	1524819	5.00	5.73	
56 1,2-Dichloroethane	62	7.384	7.384	0.000	97	399351	5.00	5.53	
57 Tert-amyl methyl ether	73	7.506	7.506	0.000	98	885367	5.00	5.01	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	2368512	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	91	444883	5.00	4.83	
60 n-Butanol	56	8.079	8.079	0.000	90	333851	250.0	333.3	
61 Trichloroethene	95	8.195	8.195	0.000	98	390573	5.00	5.46	
62 Methylcyclohexane	83	8.500	8.500	0.000	92	531758	5.00	4.47	
63 1,2-Dichloropropane	63	8.518	8.518	0.000	87	400920	5.00	6.13	
64 Methyl methacrylate	69	8.604	8.604	0.000	91	197395	5.00	6.42	
65 1,4-Dioxane	88	8.616	8.622	-0.006	32	39662	125.0	130.2	M
66 Dibromomethane	93	8.634	8.634	0.000	94	182906	5.00	5.72	
68 Dichlorobromomethane	83	8.866	8.866	0.000	99	474294	5.00	5.98	
69 2-Nitropropane	41	9.128	9.128	0.000	100	50378	5.00	5.72	
72 1-Bromo-2-chloroethane	63	9.256	9.256	0.000	98	413506	5.00	6.44	
73 cis-1,3-Dichloropropene	75	9.408	9.408	0.000	96	578535	5.00	5.81	
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.579	0.000	97	3305451	62.5	84.3	
$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	2466452	10.0	10.2	
76 Toluene	92	9.793	9.792	0.001	99	1002035	5.00	5.60	
78 trans-1,3-Dichloropropene	75	10.042	10.042	0.000	92	497099	5.00	6.02	
79 Ethyl methacrylate	69	10.103	10.103	0.000	89	405345	5.00	5.88	
80 1,1,2-Trichloroethane	97	10.250	10.244	0.006	90	293008	5.00	6.13	
81 Tetrachloroethene	166	10.335	10.341	-0.006	98	479657	5.00	5.62	
82 1,3-Dichloropropane	76	10.408	10.408	0.000	89	500350	5.00	6.16	
83 2-Hexanone	43	10.457	10.457	0.000	97	2462430	62.5	89.6	
85 Chlorodibromomethane	129	10.622	10.622	0.000	90	348229	5.00	5.98	
86 Ethylene Dibromide	107	10.737	10.737	0.000	99	271375	5.00	5.89	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	85	1868000	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.170	0.000	97	561726	5.00	5.36	
90 Chlorobenzene	112	11.189	11.189	0.001	95	1137658	5.00	5.74	
91 1,1,1,2-Tetrachloroethane	131	11.274	11.274	0.000	96	387267	5.00	5.59	
92 Ethylbenzene	91	11.274	11.274	0.000	98	1929906	5.00	5.60	
93 m-Xylene & p-Xylene	106	11.390	11.390	0.000	100	1526782	10.0	11.2	
94 o-Xylene	106	11.719	11.719	0.000	96	725938	5.00	5.40	
95 Styrene	104	11.731	11.731	0.000	94	1204823	5.00	5.55	
96 Bromoform	173	11.890	11.890	0.000	97	207271	5.00	5.94	
97 Isopropylbenzene	105	12.018	12.018	0.000	95	1901879	5.00	5.36	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	890325	10.0	9.65	

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	12.255	12.255	0.000	94	350217	5.00	6.25	
102 Bromobenzene	156	12.274	12.280	-0.006	94	467605	5.00	6.09	
103 trans-1,4-Dichloro-2-butene	53	12.286	12.286	0.000	89	258048	25.0	18.2	
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	83	94395	5.00	6.13	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	2242297	5.00	6.01	
106 2-Chlorotoluene	126	12.420	12.420	0.000	97	457998	5.00	5.99	
107 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	95	1577814	5.00	5.79	
108 4-Chlorotoluene	126	12.512	12.511	0.001	97	475646	5.00	6.09	
109 tert-Butylbenzene	134	12.719	12.719	0.000	93	350661	5.00	5.87	
110 Pentachloroethane	167	12.755	12.755	0.000	90	272679	5.00	5.65	
111 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	97	1587693	5.00	5.69	
112 sec-Butylbenzene	105	12.883	12.883	0.000	94	2074996	5.00	6.03	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	879885	5.00	5.68	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1775520	5.00	5.83	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1014006	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	892325	5.00	5.64	
117 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	98	699550	5.00	5.66	
118 Benzyl chloride	126	13.133	13.133	0.000	98	134696	5.00	5.87	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	839145	5.00	5.90	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	99	796625	5.00	5.63	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	89	47914	5.00	5.81	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	634920	5.00	5.60	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	536846	5.00	5.61	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	222034	5.00	5.34	
126 Naphthalene	128	14.584	14.584	0.000	97	987796	5.00	5.42	
127 1,2,3-Trichlorobenzene	180	14.725	14.724	0.000	96	470474	5.00	5.69	
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_VOC#1_00034	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00037	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00010	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00059	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 05-Jan-2022 10:46:20 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X03.D

Injection Date: 05-Jan-2022 09:36:30 Instrument ID: 19930 Operator ID: KNK41612

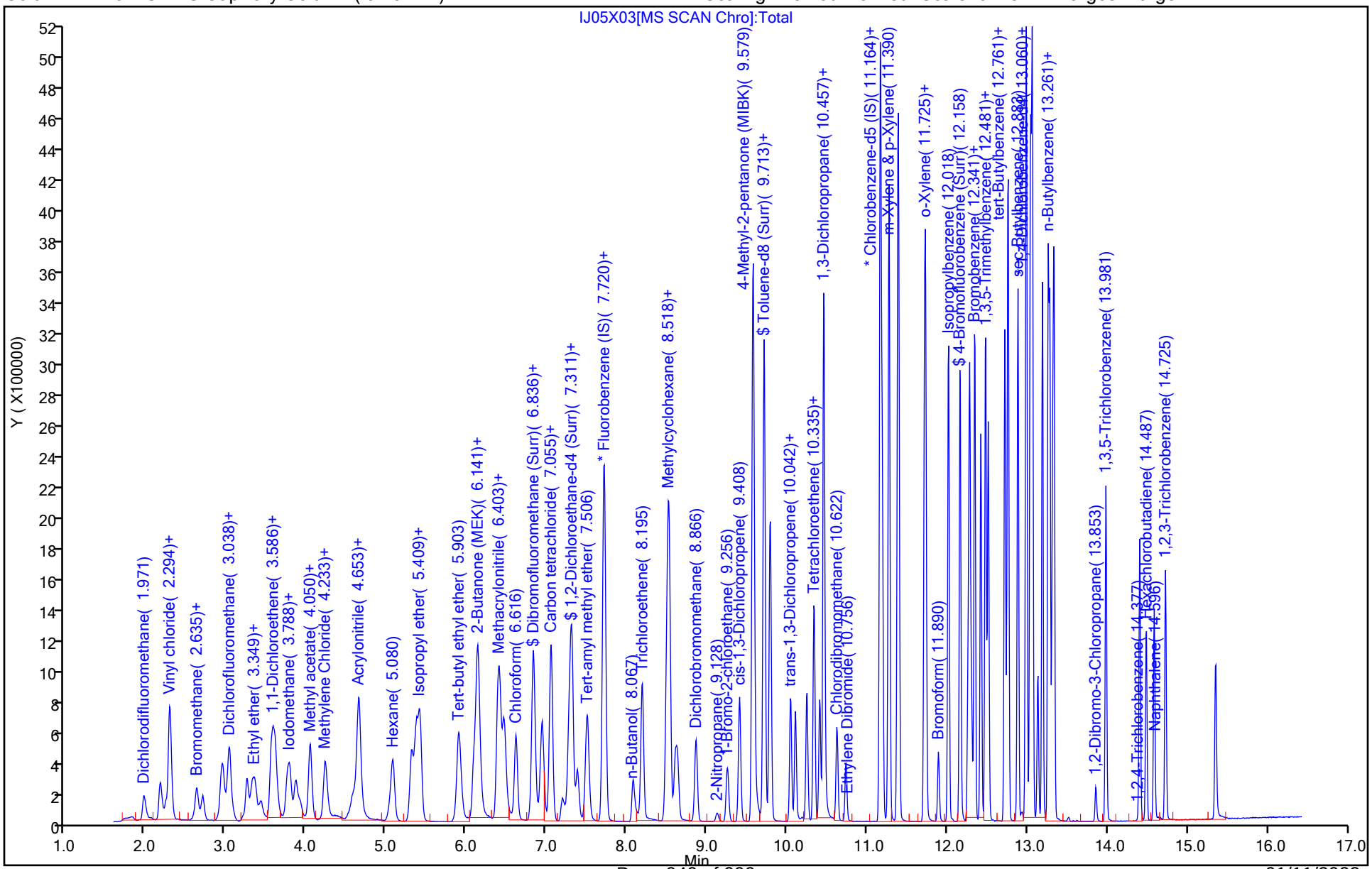
Lims ID: LCS Worklist Smp#: 4

Client ID:

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X03.D				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	05-Jan-2022 09:36:30	ALS Bottle#:	3	Worklist Smp#:	4
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047767-004				
Misc. Info.:	LCS				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	05-Jan-2022 10:46:15	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:	CTX1649				
First Level Reviewer: kephartk		Date:	05-Jan-2022 10:01:32		

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	9.86	98.58
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.24
$ 75 Toluene-d8 (Surr)	10.0	10.2	102.17
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.65	96.50

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing LLC

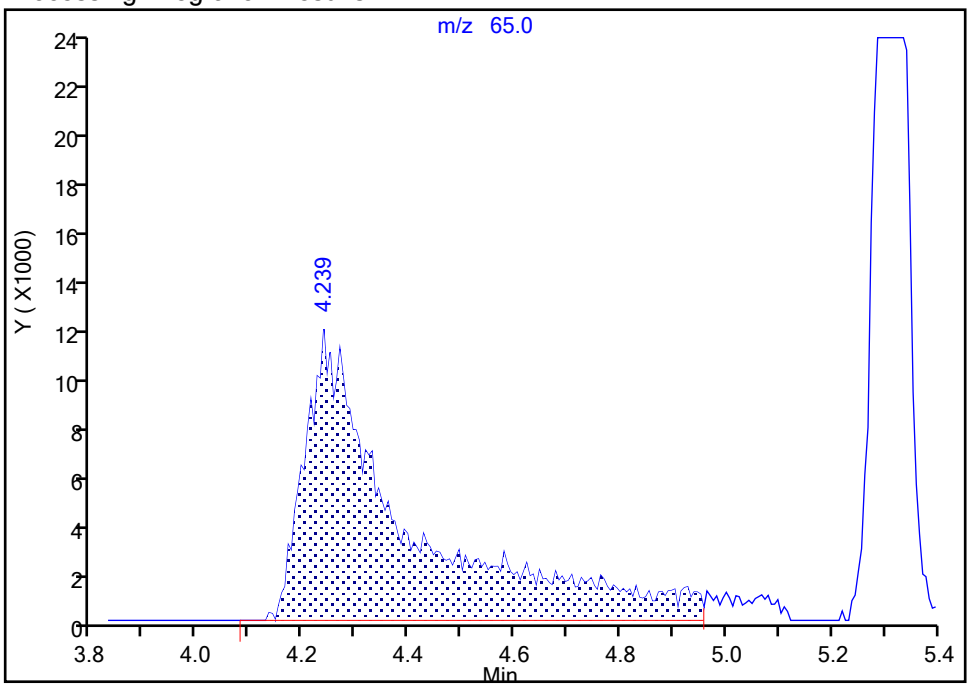
Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X03.D
Injection Date: 05-Jan-2022 09:36:30 Instrument ID: 19930
Lims ID: LCS
Client ID:
Operator ID: KNK41612 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

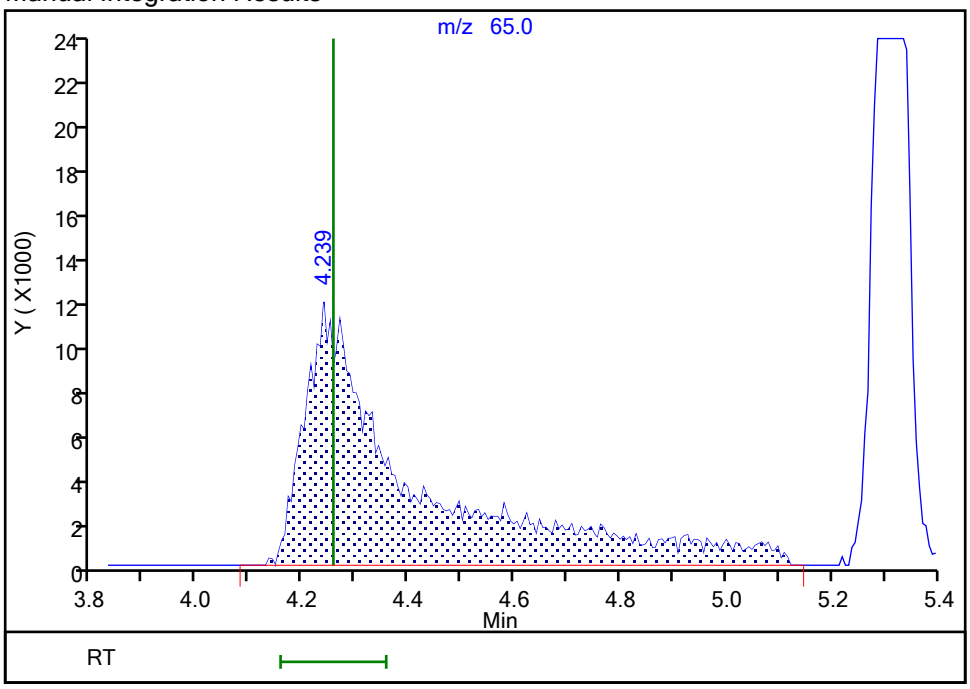
Processing Integration Results

RT: 4.24
Area: 152988
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.24
Area: 160599
Amount: 50.000000
Amount Units: ug/l



Reviewer: kephartk, 05-Jan-2022 10:00:28
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.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-209587/5

Matrix: Water Lab File ID: ID28X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 10:46

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.42		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.32		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.60		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.68		0.50	0.060
75-34-3	1,1-Dichloroethane	5.24		0.50	0.070
75-35-4	1,1-Dichloroethene	5.64		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.47		0.50	0.060
107-06-2	1,2-Dichloroethane	5.27		0.50	0.050
78-87-5	1,2-Dichloropropane	5.68		0.50	0.060
78-93-3	2-Butanone (MEK)	72.1		5.0	0.60
591-78-6	2-Hexanone	73.7		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	69.9		5.0	0.70
67-64-1	Acetone	61.4		5.0	0.90
71-43-2	Benzene	5.53		0.50	0.050
74-97-5	Bromochloromethane	5.76		0.50	0.050
75-27-4	Bromodichloromethane	5.75		0.50	0.050
75-25-2	Bromoform	5.72		1.0	0.30
74-83-9	Bromomethane	4.92		0.50	0.070
75-15-0	Carbon disulfide	5.60		1.0	0.060
56-23-5	Carbon tetrachloride	5.52		0.50	0.070
108-90-7	Chlorobenzene	5.50		0.50	0.060
75-00-3	Chloroethane	5.25		0.50	0.070
67-66-3	Chloroform	5.35		0.50	0.090
74-87-3	Chloromethane	5.05		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.49		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.37		0.50	0.050
124-48-1	Dibromochloromethane	5.64		0.50	0.070
100-41-4	Ethylbenzene	5.32		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.93		0.50	0.050
75-09-2	Methylene Chloride	5.42		0.50	0.070
100-42-5	Styrene	5.43		0.50	0.050
127-18-4	Tetrachloroethene	5.57		0.50	0.060
108-88-3	Toluene	5.43		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.36		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.56		0.50	0.060
79-01-6	Trichloroethene	5.45		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-209587/5

Matrix: Water Lab File ID: ID28X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 10:46

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	5.09		0.50	0.10
1330-20-7	Xylenes, Total	16.2		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		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\20211228-47269.b\ID28X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 28-Dec-2021 10:46:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-005
Misc. Info.: LCSD
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 12:28:50 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: CTX1612

First Level Reviewer: kephartk Date: 28-Dec-2021 11:12:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.971	-0.012	98	148847	5.00	2.49	
4 Chloromethane	50	2.160	2.166	-0.006	99	344150	5.00	5.05	
6 Butadiene	39	2.282	2.282	0.000	90	434455	5.00	6.94	
5 Vinyl chloride	62	2.282	2.282	0.000	93	349564	5.00	5.09	
7 Bromomethane	94	2.617	2.617	0.000	91	244971	5.00	4.92	
8 Chloroethane	64	2.696	2.696	0.000	99	216063	5.00	5.25	
9 Dichlorofluoromethane	67	2.934	2.934	0.000	97	561974	5.00	5.68	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	97	421606	5.00	4.76	M
11 Ethyl ether	59	3.245	3.245	0.000	91	195475	4.97	5.44	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.330	3.336	-0.006	94	307422	5.00	4.85	
14 1,1-Dichloroethene	96	3.550	3.556	-0.006	98	257587	5.00	5.64	
15 Acetone	43	3.580	3.586	-0.006	99	468685	62.5	61.4	
16 112TCTFE	101	3.599	3.599	0.000	90	241595	5.00	5.07	
17 Iodomethane	142	3.751	3.751	0.000	98	489830	5.00	5.37	
18 Ethyl bromide	108	3.788	3.800	-0.012	98	219054	4.99	5.27	
19 Carbon disulfide	76	3.861	3.861	0.000	99	705819	5.00	5.60	
21 Methyl acetate	43	4.007	4.013	-0.006	97	142500	5.00	6.34	M
22 3-Chloro-1-propene	41	4.038	4.037	0.001	92	383809	5.00	5.13	
23 Methylene Chloride	84	4.220	4.226	-0.006	90	269946	5.00	5.42	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.257	-0.018	96	137507	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.367	4.361	0.006	99	107324	50.0	37.1	
26 Acrylonitrile	53	4.568	4.574	-0.006	100	273302	25.0	26.8	
27 Methyl tert-butyl ether	73	4.629	4.635	-0.006	94	642251	5.00	4.93	
28 trans-1,2-Dichloroethene	96	4.647	4.647	0.000	100	277751	5.00	5.36	
29 Hexane	57	5.068	5.074	-0.006	91	342300	5.00	4.73	
31 1,1-Dichloroethane	63	5.299	5.306	-0.007	96	492779	5.00	5.24	
32 Isopropyl ether	45	5.367	5.366	0.001	93	793986	5.00	5.05	
33 2-Chloro-1,3-butadiene	53	5.409	5.415	-0.006	89	418118	5.00	5.33	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	97	746082	5.00	4.86	
36 2-Butanone (MEK)	43	6.098	6.098	0.000	99	962308	62.5	72.1	
37 cis-1,2-Dichloroethene	96	6.129	6.135	-0.006	81	316776	5.00	5.49	

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	6.153	6.153	0.000	86	434736	5.00	5.32	
40 Propionitrile	54	6.177	6.183	-0.006	98	142066	37.5	40.1	
42 Methacrylonitrile	67	6.397	6.403	-0.006	90	565164	37.5	42.2	
43 Chlorobromomethane	128	6.464	6.464	0.000	91	143541	5.00	5.76	
44 Tetrahydrofuran	71	6.476	6.482	-0.006	86	111225	25.0	28.1	
45 Chloroform	83	6.616	6.616	0.000	92	498544	5.00	5.35	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	479018	10.0	9.95	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	98	460835	5.00	5.32	
48 Cyclohexane	56	6.946	6.945	0.001	88	422753	5.00	4.93	
51 1,1-Dichloropropene	75	7.049	7.049	0.000	96	403528	5.00	5.53	
50 Carbon tetrachloride	117	7.055	7.055	0.000	81	412219	5.00	5.52	
52 Isobutyl alcohol	41	7.202	7.201	0.001	93	108345	125.0	117.3	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	87	100494	10.0	10.4	
54 Benzene	78	7.311	7.311	0.000	97	1188908	5.00	5.53	
56 1,2-Dichloroethane	62	7.384	7.384	0.000	97	307013	5.00	5.27	
57 Tert-amyl methyl ether	73	7.500	7.506	-0.006	99	674262	5.00	4.73	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1912027	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	90	355681	5.00	4.78	
60 n-Butanol	56	8.086	8.079	0.007	86	251722	250.0	293.5	
61 Trichloroethene	95	8.195	8.195	0.000	96	314735	5.00	5.45	
62 Methylcyclohexane	83	8.506	8.500	0.006	91	474392	5.00	4.94	
63 1,2-Dichloropropane	63	8.524	8.518	0.006	85	299987	5.00	5.68	
64 Methyl methacrylate	69	8.604	8.604	0.000	88	149234	5.00	5.67	
65 1,4-Dioxane	88	8.622	8.616	0.006	39	31343	125.0	121.5	M
66 Dibromomethane	93	8.634	8.634	0.000	92	143884	5.00	5.58	
68 Dichlorobromomethane	83	8.866	8.866	0.000	99	368315	5.00	5.75	
69 2-Nitropropane	41	9.134	9.128	0.006	99	38814	5.00	5.15	
72 1-Bromo-2-chloroethane	63	9.256	9.256	0.000	98	311090	5.00	6.00	
73 cis-1,3-Dichloropropene	75	9.408	9.408	0.000	97	431579	5.00	5.37	
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.579	0.000	96	2346617	62.5	69.9	
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	2020160	10.0	10.1	
76 Toluene	92	9.793	9.792	0.000	98	803784	5.00	5.43	
78 trans-1,3-Dichloropropene	75	10.049	10.048	0.001	91	379661	5.00	5.56	
79 Ethyl methacrylate	69	10.110	10.109	0.001	89	291959	5.00	5.12	
80 1,1,2-Trichloroethane	97	10.250	10.250	0.000	89	224472	5.00	5.68	
81 Tetrachloroethene	166	10.341	10.341	0.000	98	393186	5.00	5.57	
82 1,3-Dichloropropane	76	10.414	10.408	0.006	87	370586	5.00	5.52	
83 2-Hexanone	43	10.463	10.457	0.006	96	1734848	62.5	73.7	
85 Chlorodibromomethane	129	10.628	10.628	0.000	90	271615	5.00	5.64	
86 Ethylene Dibromide	107	10.737	10.737	0.000	99	208440	5.00	5.47	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	85	1545162	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.170	0.000	96	440813	5.00	5.09	
90 Chlorobenzene	112	11.195	11.189	0.006	96	902834	5.00	5.50	
91 1,1,1,2-Tetrachloroethane	131	11.274	11.268	0.006	96	310697	5.00	5.42	
92 Ethylbenzene	91	11.274	11.274	0.000	98	1516506	5.00	5.32	
93 m-Xylene & p-Xylene	106	11.390	11.390	0.000	100	1234804	10.0	11.0	
94 o-Xylene	106	11.719	11.713	0.006	95	574509	5.00	5.17	
95 Styrene	104	11.731	11.731	0.000	95	974592	5.00	5.43	
96 Bromoform	173	11.890	11.890	0.000	98	165036	5.00	5.72	
97 Isopropylbenzene	105	12.018	12.012	0.006	95	1541851	5.00	5.25	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	734363	10.0	9.62	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	93	272439	5.00	5.60	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Bromobenzene	156	12.274	12.274	0.000	93	379838	5.00	5.70	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	271376	25.0	22.3	
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	82	75648	5.00	5.66	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	1803656	5.00	5.58	
106 2-Chlorotoluene	126	12.420	12.420	0.000	97	359797	5.00	5.42	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1266513	5.00	5.36	
108 4-Chlorotoluene	126	12.511	12.511	0.000	97	376857	5.00	5.56	
109 tert-Butylbenzene	134	12.719	12.713	0.006	92	276412	5.00	5.34	
111 1,2,4-Trimethylbenzene	105	12.761	12.755	0.006	97	1295212	5.00	5.35	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	1656143	5.00	5.55	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	734963	5.00	5.47	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1442683	5.00	5.46	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	879547	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	739139	5.00	5.38	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	569295	5.00	5.31	
118 Benzyl chloride	126	13.127	13.127	0.000	98	112114	5.00	5.64	
119 n-Butylbenzene	92	13.274	13.273	0.001	97	651460	5.00	5.28	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	659404	5.00	5.37	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.847	0.006	89	38486	5.00	5.38	
123 1,3,5-Trichlorobenzene	180	13.975	13.975	0.000	97	497004	5.00	5.05	
124 1,2,4-Trichlorobenzene	180	14.395	14.395	0.000	94	412834	5.00	4.98	
125 Hexachlorobutadiene	225	14.475	14.474	0.001	95	173823	5.00	4.82	
126 Naphthalene	128	14.572	14.572	0.000	96	771947	5.00	4.88	
127 1,2,3-Trichlorobenzene	180	14.718	14.712	0.006	96	365427	5.00	5.10	
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_VOC#1_00033	Amount Added:	12.50	Units: uL	
MSV_QC_Gas826_00057	Amount Added:	12.50	Units: uL	
MSV_LCS_EE_00001	Amount Added:	12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added:	12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

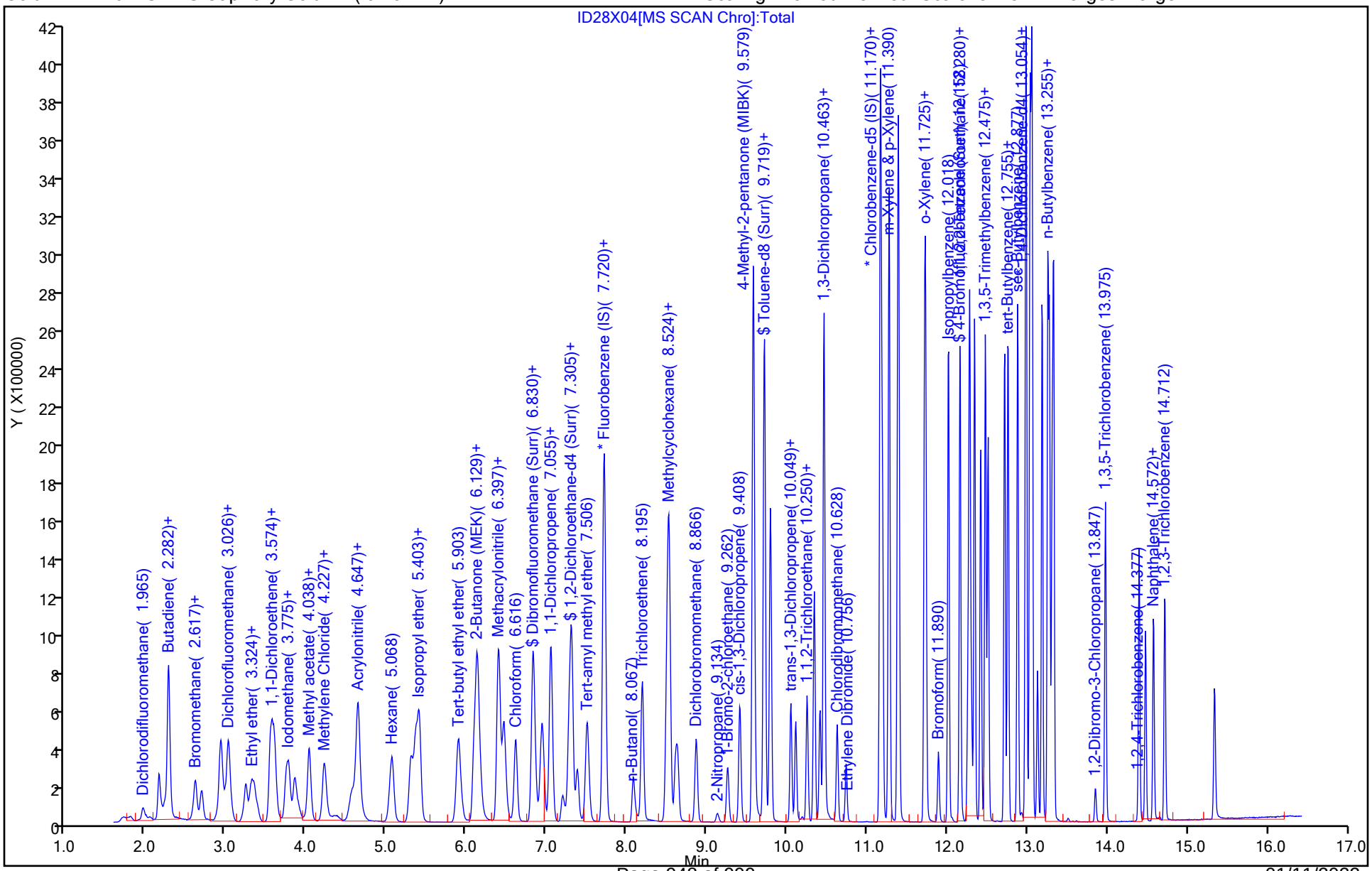
Report Date: 28-Dec-2021 12:29:00 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X04.D

Injection Date:	28-Dec-2021 10:46:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 28-Dec-2021 10:46:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-005
Misc. Info.: LCSD
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 12:28:50 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: CTX1612

First Level Reviewer: kephartk Date: 28-Dec-2021 11:12:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	9.95	99.45
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.29
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.17
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.62	96.23

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

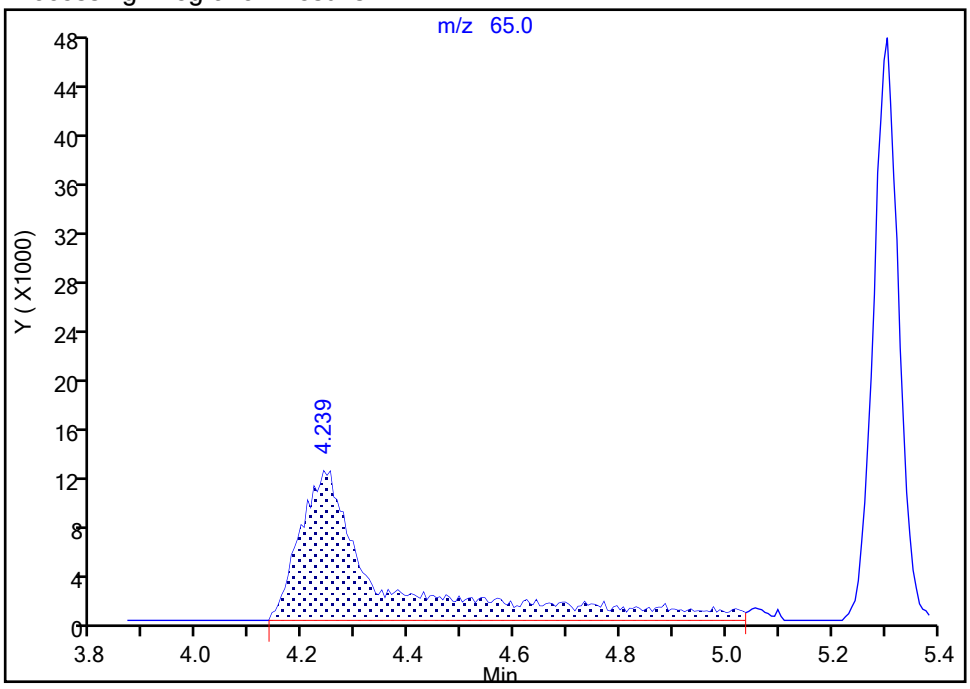
Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X04.D
Injection Date: 28-Dec-2021 10:46:30 Instrument ID: 19930
Lims ID: LCSD
Client ID:
Operator ID: KNK41612 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

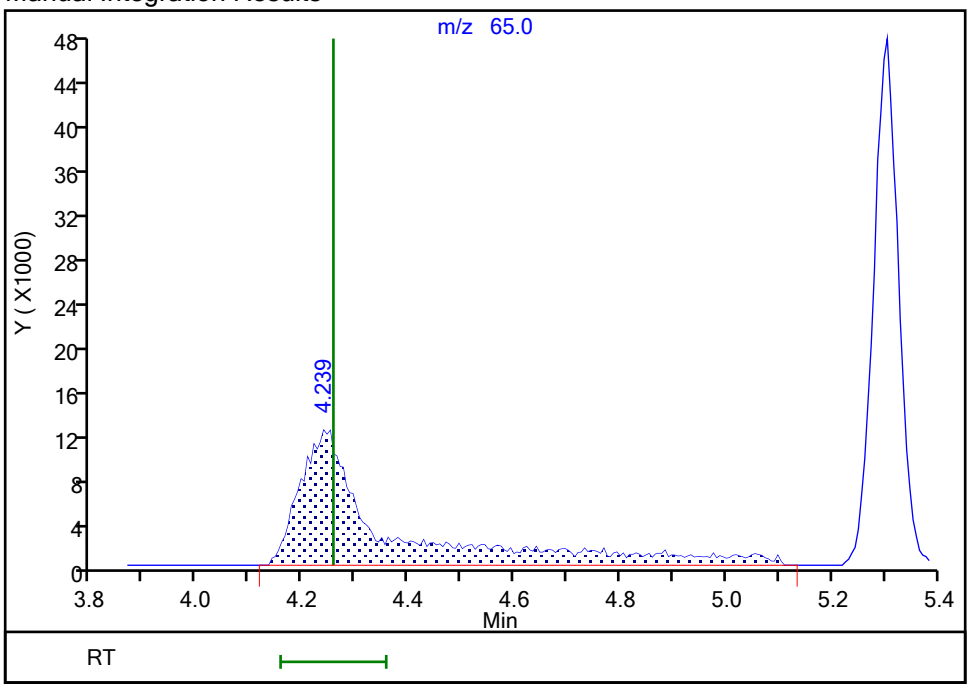
Processing Integration Results

RT: 4.24
Area: 134720
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.24
Area: 137507
Amount: 50.000000
Amount Units: ug/l



Reviewer: kephartk, 28-Dec-2021 11:11:53
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.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-210047/5

Matrix: Water Lab File ID: HD29X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 11:40

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.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.49		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.41		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	4.49		0.50	0.070
79-00-5	1,1,2-Trichloroethane	4.60		0.50	0.060
75-34-3	1,1-Dichloroethane	5.35		0.50	0.070
75-35-4	1,1-Dichloroethene	5.47		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.59		0.50	0.060
107-06-2	1,2-Dichloroethane	5.35		0.50	0.050
78-87-5	1,2-Dichloropropane	5.51		0.50	0.060
78-93-3	2-Butanone (MEK)	42.6		5.0	0.60
591-78-6	2-Hexanone	40.4		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	38.8		5.0	0.70
67-64-1	Acetone	40.9		5.0	0.90
71-43-2	Benzene	5.49		0.50	0.050
74-97-5	Bromochloromethane	5.66		0.50	0.050
75-27-4	Bromodichloromethane	5.76		0.50	0.050
75-25-2	Bromoform	5.51		1.0	0.30
74-83-9	Bromomethane	5.52		0.50	0.070
75-15-0	Carbon disulfide	6.27		1.0	0.060
56-23-5	Carbon tetrachloride	5.36		0.50	0.070
108-90-7	Chlorobenzene	4.42		0.50	0.060
75-00-3	Chloroethane	5.67		0.50	0.070
67-66-3	Chloroform	5.44		0.50	0.090
74-87-3	Chloromethane	5.48		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.61		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.61		0.50	0.050
124-48-1	Dibromochloromethane	4.93		0.50	0.070
100-41-4	Ethylbenzene	4.50		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.67		0.50	0.050
75-09-2	Methylene Chloride	5.34		0.50	0.070
100-42-5	Styrene	4.57		0.50	0.050
127-18-4	Tetrachloroethene	4.36		0.50	0.060
108-88-3	Toluene	4.45		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.50		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.69		0.50	0.060
79-01-6	Trichloroethene	5.56		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-210047/5

Matrix: Water Lab File ID: HD29X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 12/29/2021 11:40

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.: 210047 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	5.29		0.50	0.10
1330-20-7	Xylenes, Total	13.5		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)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	107		80-120
2037-26-5	Toluene-d8 (Surr)	91		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 29-Dec-2021 11:40:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047368-005
Misc. Info.: LCSD
Operator ID: KNK41612 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Dec-2021 14:13:21 Calib Date: 21-Dec-2021 20:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1676

First Level Reviewer: kephartk Date: 29-Dec-2021 14:13:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.940	1.947	-0.007	99	277609	5.00	4.39	
6 Chloromethane	50	2.135	2.142	-0.007	99	426678	5.00	5.48	
8 Butadiene	39	2.257	2.258	-0.001	91	349239	5.00	4.43	
7 Vinyl chloride	62	2.251	2.258	-0.007	97	410514	5.00	5.29	
9 Bromomethane	94	2.580	2.587	-0.007	90	287203	5.00	5.52	
10 Chloroethane	64	2.666	2.672	-0.006	100	250648	5.00	5.67	
11 Dichlorofluoromethane	67	2.904	2.910	-0.006	97	598297	5.00	5.86	
13 Trichlorofluoromethane	101	2.977	2.977	0.000	97	472421	5.00	4.86	
15 Ethyl ether	59	3.215	3.221	-0.007	92	175522	4.97	5.11	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.306	3.306	0.000	91	381388	5.00	5.37	
18 1,1-Dichloroethene	96	3.532	3.532	0.000	98	285849	5.00	5.47	
19 Acetone	43	3.550	3.556	-0.006	100	458936	62.5	40.9	
20 112TCTFE	101	3.574	3.568	0.006	91	245620	5.00	4.70	
21 Isopropyl alcohol	45	3.721	3.702	0.018	41	41234	37.5	52.2	
22 Iodomethane	142	3.727	3.727	0.000	99	545109	5.00	5.96	
23 Ethyl bromide	108	3.757	3.751	0.006	98	248541	4.99	5.59	
24 Carbon disulfide	76	3.836	3.836	0.000	99	803155	5.00	6.27	
26 Methyl acetate	43	3.964	3.965	0.000	97	122785	5.00	3.19	M
27 3-Chloro-1-propene	41	4.001	4.007	-0.006	92	471984	5.00	5.83	
* 28 t-Butyl alcohol-d10 (IS)	65	4.172	4.184	-0.012	42	123949	50.0	50.0	
29 Methylene Chloride	84	4.190	4.190	0.000	92	296712	5.00	5.34	
30 2-Methyl-2-propanol	59	4.300	4.306	-0.006	100	97979	50.0	37.4	
31 Acrylonitrile	53	4.513	4.519	-0.006	98	268089	25.0	17.7	
32 Methyl tert-butyl ether	73	4.586	4.592	-0.006	96	646027	5.00	5.67	
33 trans-1,2-Dichloroethene	96	4.611	4.611	0.000	99	308972	5.00	5.50	
34 Hexane	57	5.025	5.031	-0.006	93	311766	5.00	4.20	
35 1,1-Dichloroethane	63	5.263	5.263	0.000	96	553845	5.00	5.35	
37 Isopropyl ether	45	5.318	5.318	0.000	94	943846	5.00	5.54	
38 2-Chloro-1,3-butadiene	53	5.373	5.373	0.000	90	490346	5.00	5.76	
39 Tert-butyl ethyl ether	59	5.854	5.854	0.000	97	835099	5.00	5.75	
41 2-Butanone (MEK)	43	6.049	6.043	0.006	100	876582	62.5	42.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	82	343219	5.00	5.61	
43 2,2-Dichloropropane	77	6.104	6.110	-0.006	90	493496	5.00	5.81	
45 Propionitrile	54	6.141	6.135	0.006	99	146346	37.5	27.7	
47 Methacrylonitrile	67	6.354	6.348	0.006	91	538524	37.5	23.0	
48 Chlorobromomethane	128	6.421	6.421	0.000	94	145260	5.00	5.66	
49 Tetrahydrofuran	71	6.427	6.427	0.000	84	94870	25.0	16.6	
50 Chloroform	83	6.574	6.568	0.006	93	547760	5.00	5.44	
$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	551152	10.0	10.7	
52 1,1,1-Trichloroethane	97	6.805	6.799	0.006	99	501978	5.00	5.41	
53 Cyclohexane	56	6.909	6.903	0.006	90	461159	5.00	4.63	
55 1,1-Dichloropropene	75	7.013	7.007	0.006	98	454259	5.00	5.53	
56 Carbon tetrachloride	117	7.019	7.013	0.006	96	433339	5.00	5.36	
57 Isobutyl alcohol	41	7.147	7.141	0.006	95	106976	125.0	97.0	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	94	100233	10.0	10.4	
59 Benzene	78	7.275	7.269	0.006	97	1292467	5.00	5.49	
60 1,2-Dichloroethane	62	7.342	7.336	0.006	97	314154	5.00	5.35	
62 Tert-amyl methyl ether	73	7.464	7.458	0.006	99	712375	5.00	5.85	
* 65 Fluorobenzene (IS)	96	7.677	7.671	0.006	98	1954504	10.0	10.0	
64 n-Heptane	43	7.689	7.689	0.000	91	329095	5.00	4.21	
66 n-Butanol	56	8.025	8.019	0.006	88	181914	250.0	247.4	
67 Trichloroethene	95	8.153	8.147	0.006	98	344588	5.00	5.56	
68 Methylcyclohexane	83	8.470	8.464	0.006	92	469223	5.00	4.47	
70 1,2-Dichloropropane	63	8.482	8.482	0.000	95	326649	5.00	5.51	
69 2-ethoxy-2-methyl butane	87	8.494	8.488	0.006	94	410225	5.00	6.43	
71 Methyl methacrylate	69	8.567	8.561	0.006	89	134322	5.00	3.15	
72 1,4-Dioxane	88	8.567	8.567	0.000	31	21248	125.0	97.1	
73 Dibromomethane	93	8.592	8.592	0.000	96	148650	5.00	5.63	
75 Dichlorobromomethane	83	8.829	8.823	0.006	100	382624	5.00	5.76	
76 2-Nitropropane	41	9.091	9.085	0.006	99	34907	5.00	3.01	
79 1-Bromo-2-chloroethane	63	9.219	9.213	0.006	99	320333	5.00	6.12	
80 cis-1,3-Dichloropropene	75	9.372	9.372	0.000	96	470687	5.00	5.61	
81 4-Methyl-2-pentanone (MIBK)	43	9.536	9.537	-0.001	97	2172287	62.5	38.8	
$ 82 Toluene-d8 (Surr)	98	9.683	9.677	0.006	93	2354369	10.0	9.07	
83 Toluene	92	9.756	9.756	0.000	98	831071	5.00	4.45	
85 trans-1,3-Dichloropropene	75	10.012	10.006	0.006	92	377885	5.00	4.69	
86 Ethyl methacrylate	69	10.073	10.067	0.006	89	289551	5.00	4.79	
87 1,1,2-Trichloroethane	97	10.219	10.213	0.006	90	212077	5.00	4.60	
88 Tetrachloroethene	166	10.305	10.299	0.006	98	387903	5.00	4.36	
89 1,3-Dichloropropane	76	10.378	10.372	0.006	90	368581	5.00	4.53	
91 2-Hexanone	43	10.420	10.421	-0.001	97	1530543	62.5	40.4	
93 Chlorodibromomethane	129	10.591	10.591	0.000	90	260901	5.00	4.93	
94 Ethylene Dibromide	107	10.707	10.701	0.006	99	203182	5.00	4.59	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.128	0.006	86	1998209	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	481810	5.00	4.34	
98 Chlorobenzene	112	11.158	11.158	0.000	95	908477	5.00	4.42	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.237	0.006	95	311815	5.00	4.49	
100 Ethylbenzene	91	11.243	11.244	-0.001	98	1617138	5.00	4.50	
101 m-Xylene & p-Xylene	106	11.359	11.353	0.006	98	1269821	10.0	9.11	
102 o-Xylene	106	11.688	11.683	0.006	96	605005	5.00	4.43	
103 Styrene	104	11.701	11.701	0.000	95	984652	5.00	4.57	
104 Bromoform	173	11.859	11.859	0.000	97	151618	5.00	5.51	
105 Isopropylbenzene	105	11.987	11.981	0.006	95	1648290	5.00	4.58	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	1029749	10.0	10.3	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	257995	5.00	4.49	
111 Bromobenzene	156	12.243	12.243	0.000	95	375351	5.00	4.37	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	89	260342	25.0	14.7	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	83	67005	5.00	4.33	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	1928253	5.00	4.41	
114 2-Chlorotoluene	126	12.390	12.384	0.006	97	382984	5.00	4.33	
115 1,3,5-Trimethylbenzene	105	12.444	12.445	-0.001	94	1356395	5.00	4.36	
116 4-Chlorotoluene	126	12.481	12.475	0.006	97	383596	5.00	4.29	
118 tert-Butylbenzene	134	12.688	12.682	0.006	92	288861	5.00	4.14	
120 1,2,4-Trimethylbenzene	105	12.731	12.725	0.006	97	1382882	5.00	4.30	
121 sec-Butylbenzene	105	12.847	12.847	0.000	94	1781933	5.00	4.52	
122 1,3-Dichlorobenzene	146	12.950	12.944	0.006	98	733464	5.00	4.23	
123 4-Isopropyltoluene	119	12.957	12.957	-0.001	97	1520421	5.00	4.46	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	96	1186201	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.018	0.006	95	734035	5.00	4.26	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	593508	5.00	4.23	
127 Benzyl chloride	126	13.097	13.097	0.000	98	93628	5.00	5.23	
129 p-Diethylbenzene	119	13.158	13.152	0.006	92	880363	5.00	4.43	
130 n-Butylbenzene	92	13.249	13.243	0.006	97	725381	5.00	4.50	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	99	669422	5.00	4.25	
134 1,2-Dibromo-3-Chloropropane	155	13.816	13.816	0.000	88	34965	5.00	4.62	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	579014	5.00	4.49	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	485770	5.00	4.44	
137 Hexachlorobutadiene	225	14.450	14.444	0.006	96	229591	5.00	4.44	
138 Naphthalene	128	14.548	14.542	0.006	97	818129	5.00	4.38	
139 1,2,3-Trichlorobenzene	180	14.688	14.682	0.006	95	425634	5.00	4.39	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	486435	5.00	4.61	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_VOC#1_00033	Amount Added:	12.50	Units: uL	
MSV_QC_Gas826_00057	Amount Added:	12.50	Units: uL	
MSV_LCS_EE_00001	Amount Added:	12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added:	12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 29-Dec-2021 14:14:00 Chrom Revision: 2.3 28-Dec-2021 14:15:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X04.D

Injection Date: 29-Dec-2021 11:40:30 Instrument ID: 19094 Operator ID: KNK41612

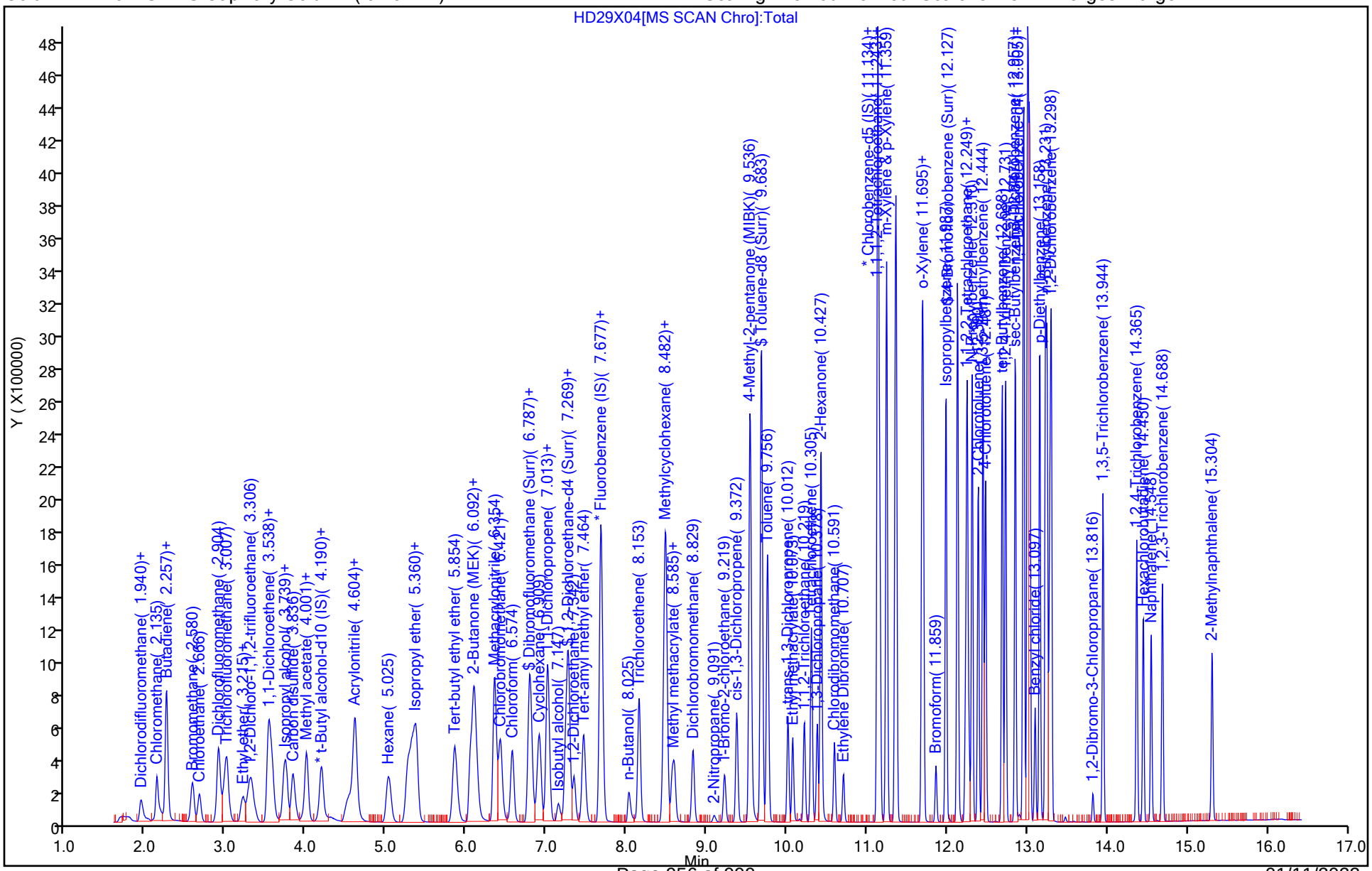
Lims ID: LCSD Worklist Smp#: 5

Client ID:

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\HD29X04.D				
Lims ID:	LCSD				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	29-Dec-2021 11:40:30	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047368-005				
Misc. Info.:	LCSD				
Operator ID:	KNK41612	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20211229-47368.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Dec-2021 14:13:21	Calib Date:	21-Dec-2021 20:38:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1676				

First Level Reviewer: kephartk Date: 29-Dec-2021 14:13:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.7	106.89
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.29
$ 82 Toluene-d8 (Surr)	10.0	9.07	90.70
$ 108 4-Bromofluorobenzene (Surr)	10.0	10.3	102.52

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-211830/5

Matrix: Water Lab File ID: IJ05X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 01/05/2022 09:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 211830 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.40		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.99		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	5.92		0.50	0.060
75-34-3	1,1-Dichloroethane	5.36		0.50	0.070
75-35-4	1,1-Dichloroethene	5.41		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.74		0.50	0.060
107-06-2	1,2-Dichloroethane	5.46		0.50	0.050
78-87-5	1,2-Dichloropropane	5.88		0.50	0.060
78-93-3	2-Butanone (MEK)	83.8		5.0	0.60
591-78-6	2-Hexanone	92.2		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	85.2		5.0	0.70
67-64-1	Acetone	64.1		5.0	0.90
71-43-2	Benzene	5.56		0.50	0.050
74-97-5	Bromochloromethane	5.53		0.50	0.050
75-27-4	Bromodichloromethane	5.81		0.50	0.050
75-25-2	Bromoform	5.73		1.0	0.30
74-83-9	Bromomethane	4.15		0.50	0.070
75-15-0	Carbon disulfide	5.46		1.0	0.060
56-23-5	Carbon tetrachloride	5.12		0.50	0.070
108-90-7	Chlorobenzene	5.53		0.50	0.060
75-00-3	Chloroethane	4.28		0.50	0.070
67-66-3	Chloroform	5.42		0.50	0.090
74-87-3	Chloromethane	4.79		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.38		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.60		0.50	0.050
124-48-1	Dibromochloromethane	5.81		0.50	0.070
100-41-4	Ethylbenzene	5.43		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.81		0.50	0.050
75-09-2	Methylene Chloride	5.47		0.50	0.070
100-42-5	Styrene	5.42		0.50	0.050
127-18-4	Tetrachloroethene	5.42		0.50	0.060
108-88-3	Toluene	5.41		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.19		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.86		0.50	0.060
79-01-6	Trichloroethene	5.47		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-211830/5

Matrix: Water Lab File ID: IJ05X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 01/05/2022 09:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 211830 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.27		0.50	0.10
1330-20-7	Xylenes, Total	16.0		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Environment Testing LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 05-Jan-2022 09:58:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047767-005
Misc. Info.: LCSD
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 05-Jan-2022 10:46:15 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: CTX1649

First Level Reviewer: kephartk Date: 05-Jan-2022 10:25:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.971	0.000	99	264080	5.00	3.96	
4 Chloromethane	50	2.172	2.172	0.000	99	363557	5.00	4.79	
5 Vinyl chloride	62	2.288	2.282	0.006	98	327068	5.00	4.27	
6 Butadiene	39	2.294	2.300	-0.006	93	423974	5.00	6.08	
7 Bromomethane	94	2.629	2.629	0.000	91	229940	5.00	4.15	
8 Chloroethane	64	2.708	2.708	0.000	100	196233	5.00	4.28	
9 Dichlorofluoromethane	67	2.952	2.952	0.000	97	469927	5.00	4.26	
10 Trichlorofluoromethane	101	3.019	3.013	0.006	97	410339	5.00	4.16	
11 Ethyl ether	59	3.263	3.257	0.006	92	234930	4.97	5.87	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.342	3.342	0.000	84	345775	5.00	4.90	
13 Acrolein	56	3.434	3.428	0.006	99	240725	37.5	40.0	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	275231	5.00	5.41	
15 Acetone	43	3.605	3.592	0.013	99	489866	62.5	64.1	
16 112TCTFE	101	3.605	3.605	0.000	91	232076	5.00	4.37	
17 Iodomethane	142	3.763	3.769	-0.006	98	522085	5.00	5.14	
18 Ethyl bromide	108	3.800	3.794	0.006	98	221331	4.99	4.78	
19 Carbon disulfide	76	3.873	3.873	0.000	99	766581	5.00	5.46	
21 Methyl acetate	43	4.019	4.019	0.000	98	152074	5.00	6.76	M
22 3-Chloro-1-propene	41	4.050	4.050	0.000	94	469270	5.00	5.63	
23 Methylene Chloride	84	4.233	4.233	0.000	93	303411	5.00	5.47	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.257	-0.006	94	137670	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.379	4.391	-0.012	98	139722	50.0	48.2	
26 Acrylonitrile	53	4.580	4.574	0.006	99	297677	25.0	29.2	
27 Methyl tert-butyl ether	73	4.641	4.647	-0.006	96	697039	5.00	4.81	
28 trans-1,2-Dichloroethene	96	4.659	4.659	0.000	98	299717	5.00	5.19	
29 Hexane	57	5.080	5.074	0.006	93	343182	5.00	4.26	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	561325	5.00	5.36	
32 Isopropyl ether	45	5.379	5.373	0.006	94	960463	5.00	5.49	
33 2-Chloro-1,3-butadiene	53	5.421	5.415	0.006	90	474925	5.00	5.44	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	97	866531	5.00	5.06	
36 2-Butanone (MEK)	43	6.104	6.098	0.006	100	1119261	62.5	83.8	

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	345956	5.00	5.38	
38 2,2-Dichloropropane	77	6.153	6.147	0.006	88	462368	5.00	5.08	
40 Propionitrile	54	6.183	6.183	0.000	98	183533	37.5	51.7	
42 Methacrylonitrile	67	6.403	6.403	0.000	92	649218	37.5	48.4	
43 Chlorobromomethane	128	6.470	6.464	0.006	94	153459	5.00	5.53	
44 Tetrahydrofuran	71	6.482	6.482	0.000	84	119955	25.0	30.3	
45 Chloroform	83	6.616	6.616	0.000	93	562505	5.00	5.42	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	531680	10.0	9.91	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	98	481578	5.00	4.99	
48 Cyclohexane	56	6.945	6.945	0.000	90	442948	5.00	4.63	
51 1,1-Dichloropropene	75	7.055	7.055	0.000	96	446898	5.00	5.49	
50 Carbon tetrachloride	117	7.055	7.055	0.000	80	425877	5.00	5.12	
52 Isobutyl alcohol	41	7.201	7.201	0.000	95	154767	125.0	167.3	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.275	0.012	97	108607	10.0	10.1	
54 Benzene	78	7.311	7.311	0.000	97	1331312	5.00	5.56	
56 1,2-Dichloroethane	62	7.384	7.384	0.000	97	354224	5.00	5.46	
57 Tert-amyl methyl ether	73	7.506	7.506	0.000	99	776250	5.00	4.89	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	2129725	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	92	380915	5.00	4.60	
60 n-Butanol	56	8.079	8.079	0.000	88	287395	250.0	334.7	
61 Trichloroethene	95	8.195	8.195	0.000	98	351878	5.00	5.47	
62 Methylcyclohexane	83	8.500	8.500	0.000	92	465216	5.00	4.35	
63 1,2-Dichloropropane	63	8.524	8.518	0.006	97	345695	5.00	5.88	
64 Methyl methacrylate	69	8.604	8.604	0.000	91	168636	5.00	6.39	
65 1,4-Dioxane	88	8.622	8.622	0.000	31	32119	125.0	123.9	M
66 Dibromomethane	93	8.634	8.634	0.000	94	163975	5.00	5.71	
68 Dichlorobromomethane	83	8.866	8.866	0.000	99	414149	5.00	5.81	
69 2-Nitropropane	41	9.134	9.128	0.006	98	45875	5.00	6.08	
72 1-Bromo-2-chloroethane	63	9.256	9.256	0.000	99	357925	5.00	6.20	
73 cis-1,3-Dichloropropene	75	9.408	9.408	0.000	96	501322	5.00	5.60	
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.579	0.000	96	2865187	62.5	85.2	
$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	2214222	10.0	10.2	
76 Toluene	92	9.792	9.792	0.000	98	871395	5.00	5.41	
78 trans-1,3-Dichloropropene	75	10.042	10.042	0.000	92	434512	5.00	5.86	
79 Ethyl methacrylate	69	10.103	10.103	0.000	89	349133	5.00	5.64	
80 1,1,2-Trichloroethane	97	10.250	10.244	0.006	91	254043	5.00	5.92	
81 Tetrachloroethene	166	10.341	10.341	0.000	98	415381	5.00	5.42	
82 1,3-Dichloropropane	76	10.408	10.408	0.000	90	433366	5.00	5.94	
83 2-Hexanone	43	10.457	10.457	0.000	97	2170449	62.5	92.2	
85 Chlorodibromomethane	129	10.622	10.622	0.000	90	303836	5.00	5.81	
86 Ethylene Dibromide	107	10.737	10.737	0.000	100	237586	5.00	5.74	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	85	1678859	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.170	0.000	98	480488	5.00	5.11	
90 Chlorobenzene	112	11.188	11.189	0.000	95	986403	5.00	5.53	
91 1,1,1,2-Tetrachloroethane	131	11.274	11.274	0.000	95	336431	5.00	5.40	
92 Ethylbenzene	91	11.274	11.274	0.000	98	1683782	5.00	5.43	
93 m-Xylene & p-Xylene	106	11.390	11.390	0.000	99	1326235	10.0	10.8	
94 o-Xylene	106	11.719	11.719	0.000	96	623945	5.00	5.16	
95 Styrene	104	11.731	11.731	0.000	94	1057112	5.00	5.42	
96 Bromoform	173	11.890	11.890	0.000	98	179440	5.00	5.73	
97 Isopropylbenzene	105	12.018	12.018	0.000	95	1651597	5.00	5.18	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	802127	10.0	9.67	

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	12.255	12.255	0.000	94	313293	5.00	6.21	
102 Bromobenzene	156	12.280	12.280	0.000	94	416864	5.00	6.03	
103 trans-1,4-Dichloro-2-butene	53	12.286	12.286	0.000	90	236612	25.0	19.5	
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	82	82051	5.00	5.91	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	1976605	5.00	5.89	
106 2-Chlorotoluene	126	12.420	12.420	0.000	97	401529	5.00	5.83	
107 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	94	1365077	5.00	5.57	
108 4-Chlorotoluene	126	12.511	12.511	0.000	97	417229	5.00	5.93	
109 tert-Butylbenzene	134	12.719	12.719	0.000	93	304256	5.00	5.66	
110 Pentachloroethane	167	12.755	12.755	0.000	91	234265	5.00	5.39	
111 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	97	1370621	5.00	5.45	
112 sec-Butylbenzene	105	12.883	12.883	0.000	94	1791117	5.00	5.78	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	762161	5.00	5.46	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1535720	5.00	5.60	
* 115 1,4-Dichlorobenzene-d4	152	13.042	13.036	0.006	93	912930	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	775483	5.00	5.44	
117 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	98	599524	5.00	5.39	
118 Benzyl chloride	126	13.133	13.133	0.000	98	117585	5.00	5.69	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	731291	5.00	5.71	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	99	701089	5.00	5.50	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	88	40748	5.00	5.49	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	541516	5.00	5.31	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	442050	5.00	5.13	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	95	189273	5.00	5.06	
126 Naphthalene	128	14.584	14.584	0.000	97	808328	5.00	4.92	
127 1,2,3-Trichlorobenzene	180	14.724	14.724	0.000	96	386226	5.00	5.19	
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_VOC#1_00034	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00037	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00010	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00059	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 05-Jan-2022 10:46:24 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins Lancaster Laboratories Environment Testing LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X04.D

Injection Date: 05-Jan-2022 09:58:30 Instrument ID: 19930 Operator ID: KNK41612

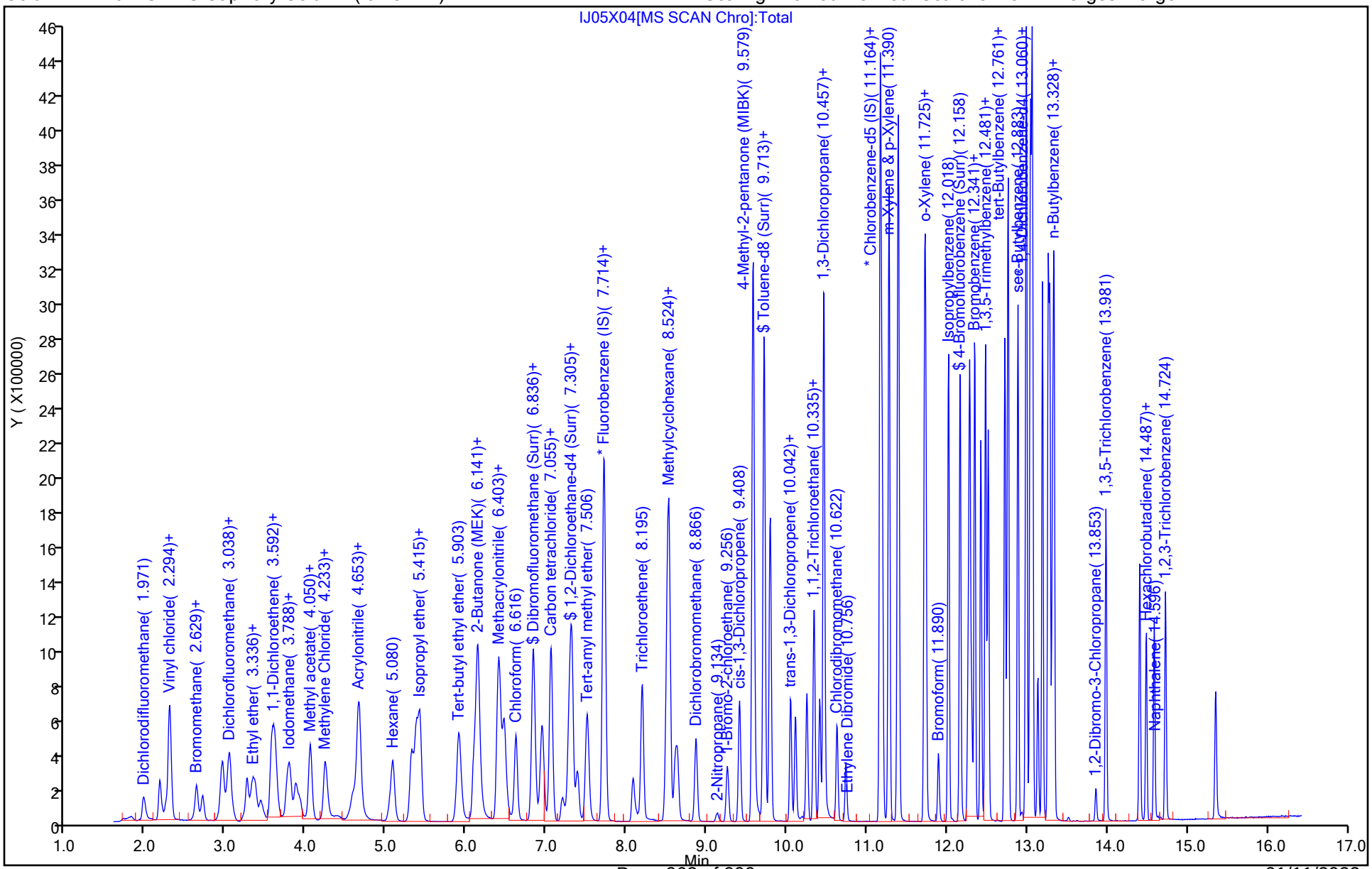
Lims ID: LCSD Worklist Smp#: 5

Client ID:

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 05-Jan-2022 09:58:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047767-005
Misc. Info.: LCSD
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 05-Jan-2022 10:46:15 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: CTX1649

First Level Reviewer: kephartk Date: 05-Jan-2022 10:25:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	9.91	99.10
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.19
$ 75 Toluene-d8 (Surr)	10.0	10.2	102.06
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.67	96.74

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Environment Testing LLC

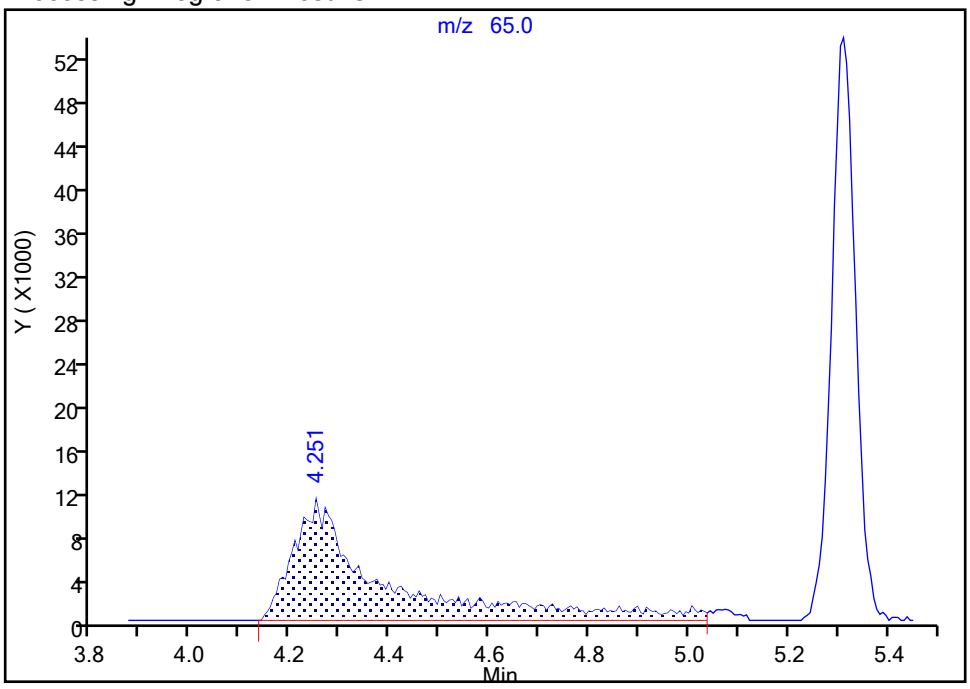
Data File: \\chromfs\Lancaster\ChromData\19930\20220105-47767.b\IJ05X04.D
Injection Date: 05-Jan-2022 09:58:30 Instrument ID: 19930
Lims ID: LCSD
Client ID:
Operator ID: KNK41612 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

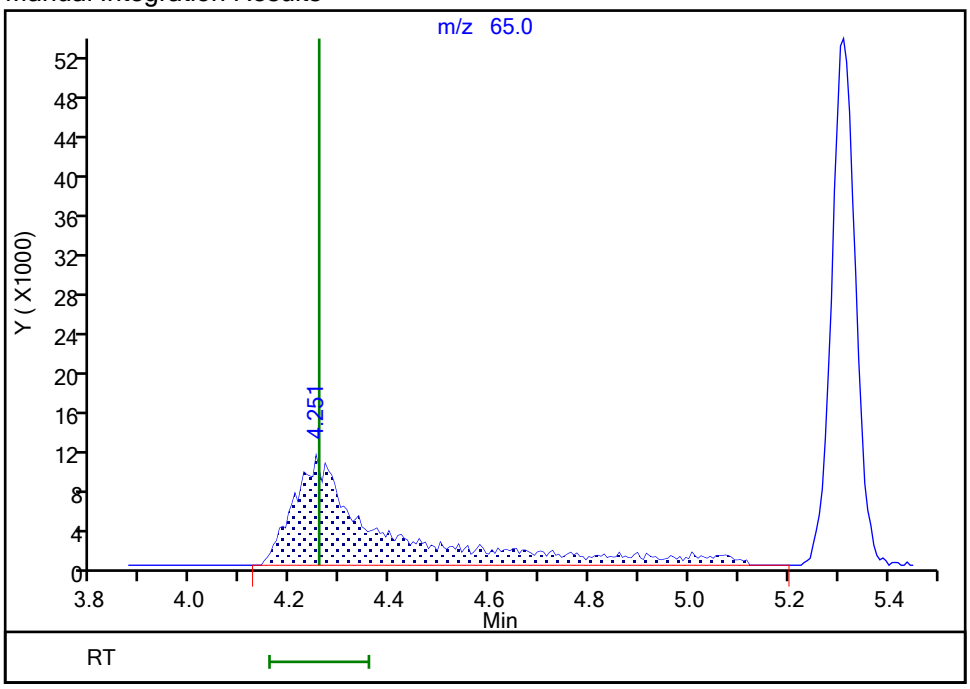
Processing Integration Results

RT: 4.25
Area: 134166
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.25
Area: 137670
Amount: 50.000000
Amount Units: ug/l



Reviewer: kephartk, 05-Jan-2022 10:24:57
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.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-67460-6 MS

Matrix: Water Lab File ID: ID28X17.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:15

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 15:56

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.45		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.77		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.28		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.75		0.50	0.060
75-34-3	1,1-Dichloroethane	5.60		0.50	0.070
75-35-4	1,1-Dichloroethene	6.16		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.33		0.50	0.060
107-06-2	1,2-Dichloroethane	5.28		0.50	0.050
78-87-5	1,2-Dichloropropane	5.89		0.50	0.060
78-93-3	2-Butanone (MEK)	75.1		5.0	0.60
591-78-6	2-Hexanone	76.4		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	73.2		5.0	0.70
67-64-1	Acetone	62.4		5.0	0.90
71-43-2	Benzene	5.81		0.50	0.050
74-97-5	Bromochloromethane	5.82		0.50	0.050
75-27-4	Bromodichloromethane	5.77		0.50	0.050
75-25-2	Bromoform	5.55		1.0	0.30
74-83-9	Bromomethane	4.50		0.50	0.070
75-15-0	Carbon disulfide	6.04		1.0	0.060
56-23-5	Carbon tetrachloride	5.99		0.50	0.070
108-90-7	Chlorobenzene	5.62		0.50	0.060
75-00-3	Chloroethane	5.30		0.50	0.070
67-66-3	Chloroform	5.87		0.50	0.090
74-87-3	Chloromethane	4.08		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.53		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.50		0.50	0.050
124-48-1	Dibromochloromethane	5.58		0.50	0.070
100-41-4	Ethylbenzene	5.53		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.93		0.50	0.050
75-09-2	Methylene Chloride	5.65		0.50	0.070
100-42-5	Styrene	5.46		0.50	0.050
127-18-4	Tetrachloroethene	10.3		0.50	0.060
108-88-3	Toluene	5.61		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.63		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.51		0.50	0.060
79-01-6	Trichloroethene	6.69		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-67460-6 MS

Matrix: Water Lab File ID: ID28X17.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:15

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 15:56

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.81		0.50	0.10
1330-20-7	Xylenes, Total	16.5		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X17.D
Lims ID: 410-67460-A-6 MS
Client ID: HD-COD-SW-15-0/1-0 MS
Sample Type: MS
Inject. Date: 28-Dec-2021 15:56:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-018
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.965	1.971	-0.006	99	186556	5.00	2.96	
4 Chloromethane	50	2.160	2.166	-0.006	99	293371	5.00	4.08	
6 Butadiene	39	2.282	2.282	0.000	92	437467	5.00	6.63	
5 Vinyl chloride	62	2.282	2.282	0.000	97	348481	5.00	4.81	
7 Bromomethane	94	2.617	2.617	0.000	91	236345	5.00	4.50	
8 Chloroethane	64	2.696	2.696	0.000	100	230211	5.00	5.30	
9 Dichlorofluoromethane	67	2.934	2.934	0.000	96	615374	5.00	5.89	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	98	366079	5.00	3.92	
11 Ethyl ether	59	3.245	3.245	0.000	90	201194	4.98	5.31	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.330	3.336	-0.006	91	354989	5.00	5.31	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	97	296582	5.00	6.16	
15 Acetone	43	3.587	3.586	0.001	100	463761	62.6	62.4	
16 112TCTFE	101	3.605	3.599	0.006	90	332502	5.00	6.62	
17 Iodomethane	142	3.757	3.751	0.006	98	537936	5.00	5.59	
18 Ethyl bromide	108	3.782	3.800	-0.018	98	240404	5.00	5.48	
19 Carbon disulfide	76	3.861	3.861	0.000	99	802268	5.00	6.04	
21 Methyl acetate	43	4.013	4.013	0.000	56	147191	5.00	6.73	
22 3-Chloro-1-propene	41	4.044	4.037	0.007	93	431053	5.00	5.46	
23 Methylene Chloride	84	4.227	4.226	0.001	90	296847	5.00	5.65	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	96	133804	50.0	50.0	
25 2-Methyl-2-propanol	59	4.367	4.361	0.006	99	115482	50.0	41.0	
26 Acrylonitrile	53	4.568	4.574	-0.006	99	279930	25.0	28.3	
27 Methyl tert-butyl ether	73	4.635	4.635	0.000	94	676538	5.00	4.93	
28 trans-1,2-Dichloroethene	96	4.647	4.647	0.000	100	307768	5.00	5.63	
29 Hexane	57	5.068	5.074	-0.006	92	482427	5.00	6.32	
31 1,1-Dichloroethane	63	5.306	5.306	0.000	96	555791	5.00	5.60	
32 Isopropyl ether	45	5.373	5.366	0.007	95	852904	5.00	5.15	
33 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	90	473460	5.00	5.73	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	96	774045	5.00	4.78	
36 2-Butanone (MEK)	43	6.104	6.098	0.006	100	974834	62.6	75.1	
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	397830	5.00	6.53	
38 2,2-Dichloropropane	77	6.147	6.153	-0.006	85	501223	5.00	5.81	
40 Propionitrile	54	6.184	6.183	0.001	98	166440	37.5	48.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 Methacrylonitrile	67	6.403	6.403	0.000	90	583382	37.5	44.7	
43 Chlorobromomethane	128	6.464	6.464	0.000	90	152977	5.00	5.82	
44 Tetrahydrofuran	71	6.476	6.482	-0.006	85	109654	25.0	28.5	
45 Chloroform	83	6.616	6.616	0.000	92	576907	5.00	5.87	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	509810	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	98	526453	5.00	5.77	
48 Cyclohexane	56	6.946	6.945	0.001	89	553281	5.00	6.11	
51 1,1-Dichloropropene	75	7.055	7.049	0.006	97	457813	5.00	5.95	
50 Carbon tetrachloride	117	7.055	7.055	0.000	94	472265	5.00	5.99	
52 Isobutyl alcohol	41	7.202	7.201	0.001	94	122910	125.1	136.7	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	88	107298	10.0	10.6	
54 Benzene	78	7.311	7.311	0.000	97	1316360	5.00	5.81	
56 1,2-Dichloroethane	62	7.385	7.384	0.001	97	324441	5.00	5.28	
57 Tert-amyl methyl ether	73	7.506	7.506	0.000	99	702048	5.00	4.67	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	2016078	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	89	501255	5.00	6.39	
60 n-Butanol	56	8.086	8.079	0.007	88	233019	250.2	279.2	
61 Trichloroethene	95	8.195	8.195	0.000	97	407353	5.00	6.69	
62 Methylcyclohexane	83	8.506	8.500	0.006	92	626806	5.00	6.19	
63 1,2-Dichloropropane	63	8.525	8.518	0.007	86	328088	5.00	5.89	
64 Methyl methacrylate	69	8.610	8.604	0.006	90	149790	5.00	5.84	
65 1,4-Dioxane	88	8.622	8.616	0.006	34	20596	125.1	88.1	
66 Dibromomethane	93	8.634	8.634	0.000	93	154382	5.00	5.67	
68 Dichlorobromomethane	83	8.866	8.866	0.000	99	389511	5.00	5.77	
69 2-Nitropropane	41	9.134	9.128	0.006	99	37502	5.00	5.11	
72 1-Bromo-2-chloroethane	63	9.256	9.256	0.000	98	322872	5.00	5.91	
73 cis-1,3-Dichloropropene	75	9.409	9.408	0.001	97	466664	5.00	5.50	
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.579	0.000	96	2393718	62.6	73.2	
$ 75 Toluene-d8 (Surr)	98	9.719	9.719	0.000	93	2155336	10.0	10.2	
76 Toluene	92	9.793	9.792	0.001	98	882040	5.00	5.61	
78 trans-1,3-Dichloropropene	75	10.049	10.048	0.001	91	399115	5.00	5.51	
79 Ethyl methacrylate	69	10.110	10.109	0.001	88	305347	5.00	5.05	
80 1,1,2-Trichloroethane	97	10.250	10.250	0.000	89	240859	5.00	5.75	
81 Tetrachloroethene	166	10.341	10.341	0.000	98	773998	5.00	10.3	
82 1,3-Dichloropropane	76	10.414	10.408	0.006	88	395756	5.00	5.55	
83 2-Hexanone	43	10.463	10.457	0.006	96	1749654	62.6	76.4	
85 Chlorodibromomethane	129	10.628	10.628	0.000	90	285250	5.00	5.58	
86 Ethylene Dibromide	107	10.738	10.737	0.001	99	215437	5.00	5.33	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	84	1639223	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.170	0.000	97	500938	5.00	5.45	
90 Chlorobenzene	112	11.189	11.189	0.000	96	978825	5.00	5.62	
91 1,1,1,2-Tetrachloroethane	131	11.274	11.268	0.006	96	331396	5.00	5.45	
92 Ethylbenzene	91	11.274	11.274	0.000	98	1673769	5.00	5.53	
93 m-Xylene & p-Xylene	106	11.390	11.390	0.000	100	1341871	10.0	11.2	
94 o-Xylene	106	11.719	11.713	0.006	96	624363	5.00	5.29	
95 Styrene	104	11.731	11.731	0.000	95	1040211	5.00	5.46	
96 Bromoform	173	11.890	11.890	0.000	98	169853	5.00	5.55	
97 Isopropylbenzene	105	12.018	12.012	0.006	95	1683380	5.00	5.41	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	787063	10.0	9.72	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.255	0.001	94	276925	5.00	5.28	
102 Bromobenzene	156	12.280	12.274	0.006	94	413850	5.00	5.76	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	87	268734	25.0	22.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	83	77114	5.00	5.35	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	1967367	5.00	5.64	
106 2-Chlorotoluene	126	12.420	12.420	0.000	97	398688	5.00	5.57	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1396547	5.00	5.48	
108 4-Chlorotoluene	126	12.512	12.511	0.001	97	413534	5.00	5.66	
109 tert-Butylbenzene	134	12.719	12.713	0.006	92	306553	5.00	5.49	
111 1,2,4-Trimethylbenzene	105	12.762	12.755	0.007	97	1400951	5.00	5.37	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	1836998	5.00	5.71	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	791965	5.00	5.47	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1574723	5.00	5.53	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	948416	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	800038	5.00	5.40	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	620759	5.00	5.37	
118 Benzyl chloride	126	13.127	13.127	0.000	98	117526	5.00	5.48	
119 n-Butylbenzene	92	13.274	13.273	0.001	97	727813	5.00	5.47	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	709817	5.00	5.36	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.847	0.006	89	38032	5.00	4.93	
123 1,3,5-Trichlorobenzene	180	13.975	13.975	0.000	98	543025	5.00	5.12	
124 1,2,4-Trichlorobenzene	180	14.395	14.395	0.000	94	437934	5.00	4.89	
125 Hexachlorobutadiene	225	14.481	14.474	0.007	94	193319	5.00	4.97	
126 Naphthalene	128	14.578	14.572	0.006	97	763963	5.00	4.48	
127 1,2,3-Trichlorobenzene	180	14.719	14.712	0.006	96	382359	5.00	4.95	
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

Reagents:

MSV_LCS_EE_00001	Amount Added:	5.38	Units: uL	
MSV_QC_Gas826_00057	Amount Added:	5.38	Units: uL	
MSV_LCS_ETBR_00001	Amount Added:	5.38	Units: uL	
MSV_LCS_VOC#1_00033	Amount Added:	5.38	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

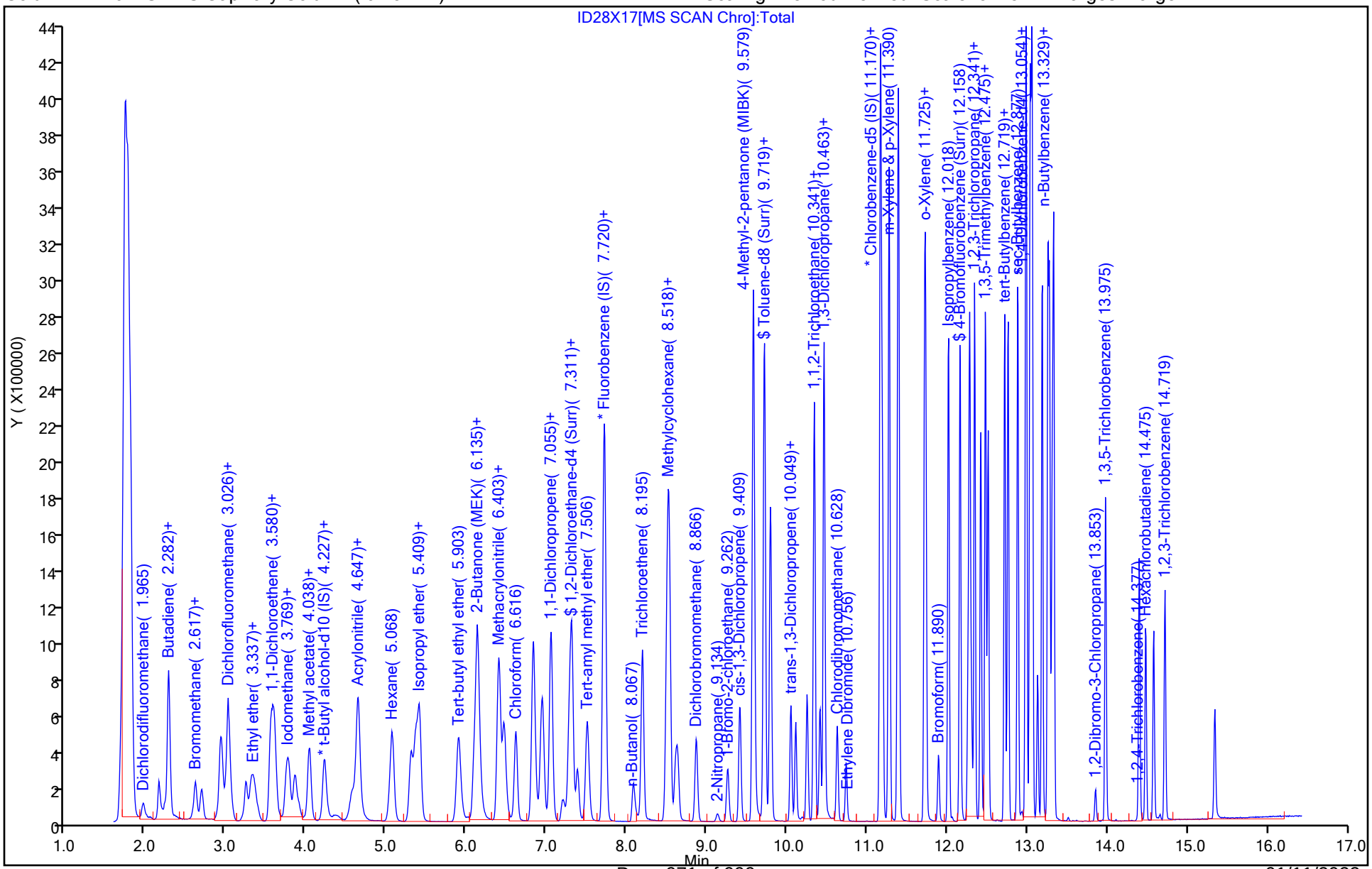
Report Date: 28-Dec-2021 17:58:43 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X17.D

Injection Date:	28-Dec-2021 15:56:30	Instrument ID:	19930	Operator ID:	KNK41612
Lims ID:	410-67460-A-6 MS			Worklist Smp#:	18
Client ID:	HD-COD-SW-15-0/1-0 MS				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X17.D				
Lims ID:	410-67460-A-6 MS				
Client ID:	HD-COD-SW-15-0/1-0 MS				
Sample Type:	MS				
Inject. Date:	28-Dec-2021 15:56:30	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0047269-018				
Operator ID:	KNK41612	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Dec-2021 17:57:17	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:	CTX1668				

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.0	100.38
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.61
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.74
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.72	97.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSD Lab Sample ID: 410-67460-6 MSD

Matrix: Water Lab File ID: ID28X18.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:15

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 16:17

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.48		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.76		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.28		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.69		0.50	0.060
75-34-3	1,1-Dichloroethane	5.52		0.50	0.070
75-35-4	1,1-Dichloroethene	6.18		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.45		0.50	0.060
107-06-2	1,2-Dichloroethane	5.14		0.50	0.050
78-87-5	1,2-Dichloropropane	5.92		0.50	0.060
78-93-3	2-Butanone (MEK)	79.0		5.0	0.60
591-78-6	2-Hexanone	83.1		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	78.3		5.0	0.70
67-64-1	Acetone	65.2		5.0	0.90
71-43-2	Benzene	5.81		0.50	0.050
74-97-5	Bromochloromethane	5.77		0.50	0.050
75-27-4	Bromodichloromethane	5.79		0.50	0.050
75-25-2	Bromoform	5.49		1.0	0.30
74-83-9	Bromomethane	4.75		0.50	0.070
75-15-0	Carbon disulfide	6.00		1.0	0.060
56-23-5	Carbon tetrachloride	5.96		0.50	0.070
108-90-7	Chlorobenzene	5.60		0.50	0.060
75-00-3	Chloroethane	5.31		0.50	0.070
67-66-3	Chloroform	5.81		0.50	0.090
74-87-3	Chloromethane	3.72		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.54		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.50		0.50	0.050
124-48-1	Dibromochloromethane	5.67		0.50	0.070
100-41-4	Ethylbenzene	5.53		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.89		0.50	0.050
75-09-2	Methylene Chloride	5.56		0.50	0.070
100-42-5	Styrene	5.45		0.50	0.050
127-18-4	Tetrachloroethene	10.4		0.50	0.060
108-88-3	Toluene	5.65		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.63		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.48		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-67460-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSD Lab Sample ID: 410-67460-6 MSD

Matrix: Water Lab File ID: ID28X18.D

Analysis Method: 8260D Date Collected: 12/17/2021 11:15

Sample wt/vol: 25(mL) Date Analyzed: 12/28/2021 16:17

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.: 209587 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	6.70		0.50	0.060
75-01-4	Vinyl chloride	4.38		0.50	0.10
1330-20-7	Xylenes, Total	16.6		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X18.D
Lims ID: 410-67460-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0 MSD
Sample Type: MSD
Inject. Date: 28-Dec-2021 16:17:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-019
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.965	1.971	-0.006	99	178771	5.00	2.78	
4 Chloromethane	50	2.166	2.166	0.000	99	272593	5.00	3.72	
6 Butadiene	39	2.282	2.282	0.000	91	420377	5.00	6.24	
5 Vinyl chloride	62	2.282	2.282	0.000	92	323550	5.00	4.38	
7 Bromomethane	94	2.617	2.617	0.000	90	254733	5.00	4.75	
8 Chloroethane	64	2.697	2.696	0.000	100	235157	5.00	5.31	
9 Dichlorofluoromethane	67	2.934	2.934	0.000	96	618465	5.00	5.80	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	97	374610	5.00	3.93	
11 Ethyl ether	59	3.245	3.245	0.000	90	237088	4.98	6.13	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.331	3.336	-0.005	95	407795	5.00	5.98	
14 1,1-Dichloroethene	96	3.562	3.556	0.006	97	303435	5.00	6.18	
15 Acetone	43	3.593	3.586	0.007	100	458461	62.6	65.2	
16 112TCTFE	101	3.599	3.599	0.000	90	331379	5.00	6.46	
17 Iodomethane	142	3.751	3.751	0.000	98	543836	5.00	5.54	
18 Ethyl bromide	108	3.788	3.800	-0.012	98	239863	5.00	5.36	
19 Carbon disulfide	76	3.861	3.861	0.000	99	813853	5.00	6.00	
21 Methyl acetate	43	4.013	4.013	0.000	96	110520	5.00	5.34	
22 3-Chloro-1-propene	41	4.038	4.037	0.001	93	439173	5.00	5.45	
23 Methylene Chloride	84	4.227	4.226	0.001	91	298119	5.00	5.56	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.257	-0.012	96	126625	50.0	50.0	
25 2-Methyl-2-propanol	59	4.367	4.361	0.006	99	128766	50.0	48.3	
26 Acrylonitrile	53	4.562	4.574	-0.012	98	272211	25.0	29.0	
27 Methyl tert-butyl ether	73	4.641	4.635	0.006	94	685429	5.00	4.89	
28 trans-1,2-Dichloroethene	96	4.647	4.647	0.000	99	313826	5.00	5.63	
29 Hexane	57	5.074	5.074	0.000	92	496955	5.00	6.38	
31 1,1-Dichloroethane	63	5.306	5.306	0.000	96	558782	5.00	5.52	
32 Isopropyl ether	45	5.361	5.366	-0.005	94	870015	5.00	5.14	
33 2-Chloro-1,3-butadiene	53	5.415	5.415	0.000	90	484513	5.00	5.74	
34 Tert-butyl ethyl ether	59	5.897	5.903	-0.006	98	800877	5.00	4.84	
36 2-Butanone (MEK)	43	6.098	6.098	0.000	99	969927	62.6	79.0	
37 cis-1,2-Dichloroethene	96	6.135	6.135	0.000	81	406457	5.00	6.54	
38 2,2-Dichloropropane	77	6.153	6.153	0.000	86	503859	5.00	5.72	
40 Propionitrile	54	6.202	6.183	0.019	98	150266	37.5	46.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 Methacrylonitrile	67	6.403	6.403	0.000	91	593407	37.5	48.1	
43 Chlorobromomethane	128	6.470	6.464	0.006	92	154640	5.00	5.77	
44 Tetrahydrofuran	71	6.488	6.482	0.006	84	113659	25.0	31.2	
45 Chloroform	83	6.616	6.616	0.000	93	582859	5.00	5.81	
$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	513619	10.0	9.91	
47 1,1,1-Trichloroethane	97	6.842	6.842	0.000	98	536488	5.00	5.76	
48 Cyclohexane	56	6.946	6.945	0.001	89	564091	5.00	6.11	
51 1,1-Dichloropropene	75	7.055	7.049	0.006	97	471183	5.00	5.99	
50 Carbon tetrachloride	117	7.055	7.055	0.000	82	479566	5.00	5.96	
52 Isobutyl alcohol	41	7.202	7.201	0.001	94	118519	125.1	139.3	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.281	0.000	85	109766	10.0	10.6	
54 Benzene	78	7.311	7.311	0.000	97	1344733	5.00	5.81	
56 1,2-Dichloroethane	62	7.385	7.384	0.001	97	322140	5.00	5.14	
57 Tert-amyl methyl ether	73	7.507	7.506	0.001	99	708535	5.00	4.62	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	2057991	10.0	10.0	
59 n-Heptane	43	7.732	7.726	0.006	91	517299	5.00	6.46	
60 n-Butanol	56	8.080	8.079	0.001	88	238520	250.2	302.0	
61 Trichloroethene	95	8.195	8.195	0.000	97	416649	5.00	6.70	
62 Methylcyclohexane	83	8.506	8.500	0.006	93	644196	5.00	6.23	
63 1,2-Dichloropropane	63	8.525	8.518	0.007	85	336469	5.00	5.92	
64 Methyl methacrylate	69	8.604	8.604	0.000	87	153103	5.00	6.31	
65 1,4-Dioxane	88	8.616	8.616	0.000	34	24966	125.1	107.4	
66 Dibromomethane	93	8.634	8.634	0.000	93	154907	5.00	5.58	
68 Dichlorobromomethane	83	8.866	8.866	0.000	99	398816	5.00	5.79	
69 2-Nitropropane	41	9.134	9.128	0.006	97	39196	5.00	5.65	
72 1-Bromo-2-chloroethane	63	9.262	9.256	0.006	98	324754	5.00	5.82	
73 cis-1,3-Dichloropropene	75	9.415	9.408	0.007	97	475757	5.00	5.50	
74 4-Methyl-2-pentanone (MIBK)	43	9.579	9.579	0.000	95	2421043	62.6	78.3	
$ 75 Toluene-d8 (Surr)	98	9.720	9.719	0.001	93	2194295	10.0	10.2	
76 Toluene	92	9.793	9.792	0.001	99	904338	5.00	5.65	
78 trans-1,3-Dichloropropene	75	10.049	10.048	0.001	91	404698	5.00	5.48	
79 Ethyl methacrylate	69	10.110	10.109	0.001	89	312949	5.00	5.08	
80 1,1,2-Trichloroethane	97	10.250	10.250	0.000	90	242970	5.00	5.69	
81 Tetrachloroethene	166	10.341	10.341	0.000	98	795732	5.00	10.4	
82 1,3-Dichloropropane	76	10.415	10.408	0.006	88	396659	5.00	5.46	
83 2-Hexanone	43	10.463	10.457	0.006	96	1799451	62.6	83.1	
85 Chlorodibromomethane	129	10.628	10.628	0.000	90	295428	5.00	5.67	
86 Ethylene Dibromide	107	10.738	10.737	0.001	100	224600	5.00	5.45	
* 87 Chlorobenzene-d5 (IS)	117	11.164	11.164	0.000	85	1671048	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.170	0.000	95	524113	5.00	5.59	
90 Chlorobenzene	112	11.189	11.189	0.000	96	993978	5.00	5.60	
91 1,1,1,2-Tetrachloroethane	131	11.274	11.268	0.006	96	339528	5.00	5.48	
92 Ethylbenzene	91	11.274	11.274	0.000	98	1705262	5.00	5.53	
93 m-Xylene & p-Xylene	106	11.390	11.390	0.000	100	1372001	10.0	11.3	
94 o-Xylene	106	11.719	11.713	0.006	96	631698	5.00	5.25	
95 Styrene	104	11.731	11.731	0.000	95	1058714	5.00	5.45	
96 Bromoform	173	11.890	11.890	0.000	98	171379	5.00	5.49	
97 Isopropylbenzene	105	12.018	12.012	0.006	95	1731221	5.00	5.45	
$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	799559	10.0	9.69	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.255	0.001	94	281641	5.00	5.28	
102 Bromobenzene	156	12.280	12.274	0.006	93	416019	5.00	5.69	
103 trans-1,4-Dichloro-2-butene	53	12.286	12.280	0.006	88	278848	25.0	24.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	83	76742	5.00	5.23	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	2018015	5.00	5.69	
106 2-Chlorotoluene	126	12.420	12.420	0.000	97	406643	5.00	5.59	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1427358	5.00	5.51	
108 4-Chlorotoluene	126	12.512	12.511	0.001	97	414379	5.00	5.57	
109 tert-Butylbenzene	134	12.719	12.713	0.006	92	311954	5.00	5.49	
111 1,2,4-Trimethylbenzene	105	12.762	12.755	0.007	97	1433427	5.00	5.40	
112 sec-Butylbenzene	105	12.884	12.877	0.007	94	1877458	5.00	5.73	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	803338	5.00	5.45	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1624399	5.00	5.61	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	964702	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	810377	5.00	5.38	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	97	620510	5.00	5.28	
118 Benzyl chloride	126	13.127	13.127	0.000	98	117145	5.00	5.37	
119 n-Butylbenzene	92	13.280	13.273	0.007	97	754451	5.00	5.57	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	718112	5.00	5.33	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.847	0.006	86	39371	5.00	5.02	
123 1,3,5-Trichlorobenzene	180	13.975	13.975	0.000	98	551978	5.00	5.12	
124 1,2,4-Trichlorobenzene	180	14.395	14.395	0.000	94	450581	5.00	4.95	
125 Hexachlorobutadiene	225	14.481	14.474	0.007	95	206683	5.00	5.23	
126 Naphthalene	128	14.578	14.572	0.006	97	797549	5.00	4.60	
127 1,2,3-Trichlorobenzene	180	14.719	14.712	0.007	94	395937	5.00	5.03	
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

Reagents:

MSV_LCS_EE_00001	Amount Added:	5.38	Units: uL	
MSV_QC_Gas826_00057	Amount Added:	5.38	Units: uL	
MSV_LCS_ETBR_00001	Amount Added:	5.38	Units: uL	
MSV_LCS_VOC#1_00033	Amount Added:	5.38	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 28-Dec-2021 17:58:45 Chrom Revision: 2.3 15-Nov-2021 20:34:30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X18.D

Injection Date: 28-Dec-2021 16:17:30 Instrument ID: 19930 Operator ID: KNK41612

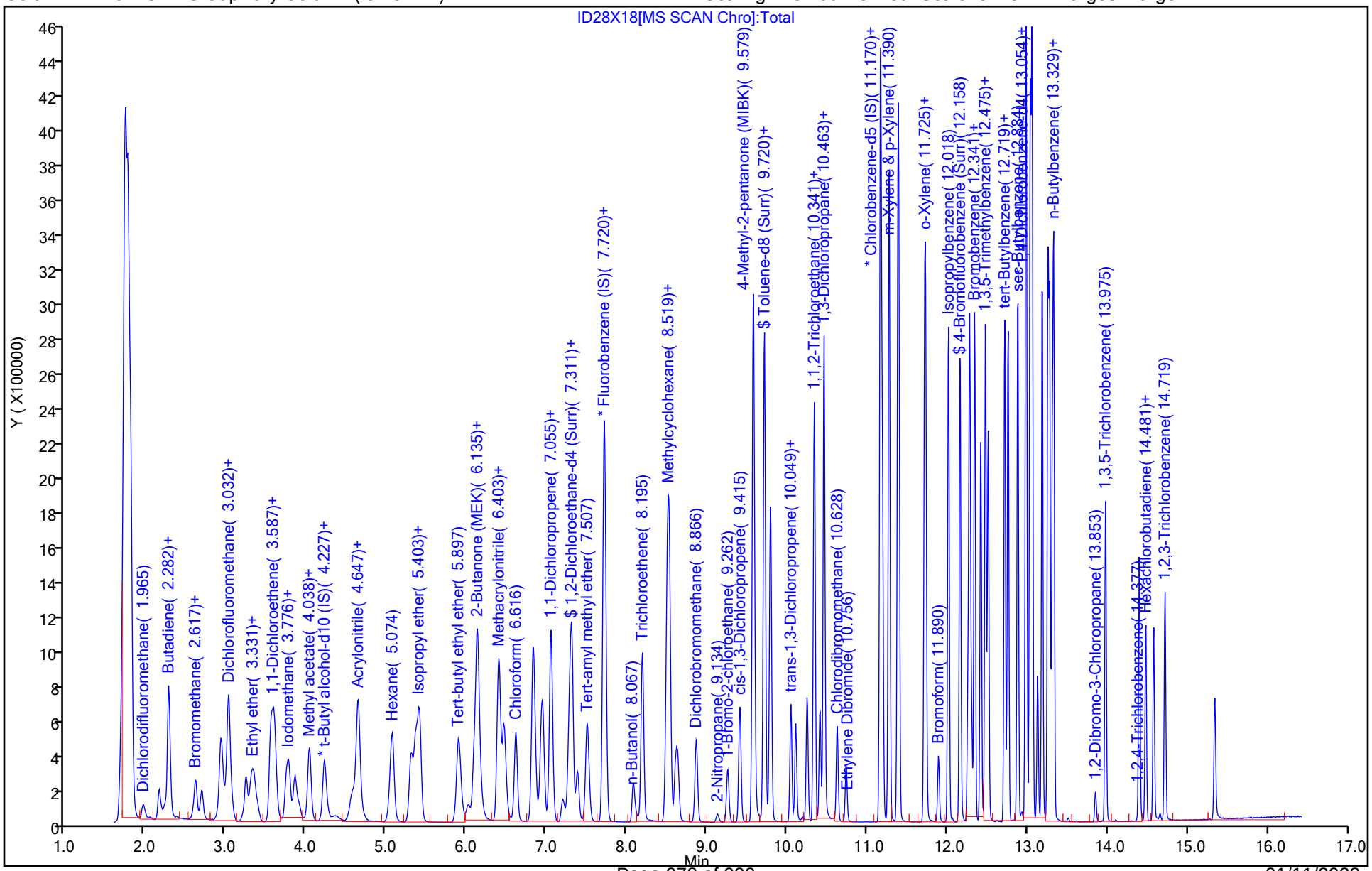
Lims ID: 410-67460-A-6 MSD Worklist Smp#: 19

Client ID: HD-COD-SW-15-0/1-0 MSD

Purge Vol: 25.000 mL Dil. Factor: 1.0000 ALS Bottle#: 18

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\ID28X18.D
Lims ID: 410-67460-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0 MSD
Sample Type: MSD
Inject. Date: 28-Dec-2021 16:17:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0047269-019
Operator ID: KNK41612 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211228-47269.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 28-Dec-2021 17:57:17 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: CTX1668

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	9.91	99.07
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.84
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.61
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.69	96.88

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Instrument ID: 19930 Start Date: 08/23/2021 20:56

Analysis Batch Number: 163707 End Date: 08/24/2021 03:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-163707/1		08/23/2021 20:56	1	IG23T01.D	R-624SilMS 30m 0.25(mm)
IC 410-163707/3		08/23/2021 21:31	1		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.: 410-67460-1

SDG No.:

Instrument ID: 19094 Start Date: 12/21/2021 14:04

Analysis Batch Number: 207981 End Date: 12/21/2021 21:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-207981/1		12/21/2021 14:04	1	HD21T01.D	R-624SilMS 30m 0.25(mm)
IC 410-207981/4		12/21/2021 15:10	1		R-624SilMS 30m 0.25(mm)
IC 410-207981/5		12/21/2021 15:30	1		R-624SilMS 30m 0.25(mm)
CCV 410-207981/1005		12/21/2021 15:30	1		R-624SilMS 30m 0.25(mm)
IC 410-207981/6		12/21/2021 15:51	1		R-624SilMS 30m 0.25(mm)
IC 410-207981/7		12/21/2021 16:11	1		R-624SilMS 30m 0.25(mm)
IC 410-207981/8		12/21/2021 16:32	1		R-624SilMS 30m 0.25(mm)
IC 410-207981/9		12/21/2021 16:52	1		R-624SilMS 30m 0.25(mm)
IC 410-207981/10		12/21/2021 17:13	1		R-624SilMS 30m 0.25(mm)
ICV 410-207981/11		12/21/2021 17:34	1		R-624SilMS 30m 0.25(mm)
IC 410-207981/14		12/21/2021 18:35	1	HD21I11.D	R-624SilMS 30m 0.25(mm)
ICIS 410-207981/15		12/21/2021 18:56	1	HD21I12.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-207981/1015		12/21/2021 18:56	1		R-624SilMS 30m 0.25(mm)
IC 410-207981/16		12/21/2021 19:16	1	HD21I13.D	R-624SilMS 30m 0.25(mm)
IC 410-207981/17		12/21/2021 19:37	1	HD21I14.D	R-624SilMS 30m 0.25(mm)
IC 410-207981/18		12/21/2021 19:57	1	HD21I15.D	R-624SilMS 30m 0.25(mm)
IC 410-207981/19		12/21/2021 20:18	1	HD21I16.D	R-624SilMS 30m 0.25(mm)
IC 410-207981/20		12/21/2021 20:38	1	HD21I17.D	R-624SilMS 30m 0.25(mm)
ICV 410-207981/31		12/21/2021 20:59	1		R-624SilMS 30m 0.25(mm)
ICV 410-207981/21		12/21/2021 21:20	1	HD21V11.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Instrument ID: 19930 Start Date: 12/28/2021 09:26

Analysis Batch Number: 209587 End Date: 12/28/2021 20:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-209587/1		12/28/2021 09:26	1	ID28T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-209587/3		12/28/2021 10:04	1	ID28X02.D	R-624SilMS 30m 0.25(mm)
LCS 410-209587/4		12/28/2021 10:25	1	ID28X03.D	R-624SilMS 30m 0.25(mm)
LCSD 410-209587/5		12/28/2021 10:46	1	ID28X04.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 11:07	1		R-624SilMS 30m 0.25(mm)
MB 410-209587/7		12/28/2021 11:29	1	ID28X06.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 12:23	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 12:45	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 13:06	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 13:28	1		R-624SilMS 30m 0.25(mm)
410-67460-1	HD-COD-SW-6-0/1-0	12/28/2021 13:49	1	ID28X11.D	R-624SilMS 30m 0.25(mm)
410-67460-2	HD-COD-SW-7-0/1-0	12/28/2021 14:10	1	ID28X12.D	R-624SilMS 30m 0.25(mm)
410-67460-3	HD-COD-SW-8-0/1-0	12/28/2021 14:31	1	ID28X13.D	R-624SilMS 30m 0.25(mm)
410-67460-4	HD-COD-SW-9-0/1-0	12/28/2021 14:52	1	ID28X14.D	R-624SilMS 30m 0.25(mm)
410-67460-5	HD-COD-SW-13-0/1-0	12/28/2021 15:13	1	ID28X15.D	R-624SilMS 30m 0.25(mm)
410-67460-6	HD-COD-SW-15-0/1-0	12/28/2021 15:34	1	ID28X16.D	R-624SilMS 30m 0.25(mm)
410-67460-6 MS	HD-COD-SW-15-0/1-0 MS MS	12/28/2021 15:56	1	ID28X17.D	R-624SilMS 30m 0.25(mm)
410-67460-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	12/28/2021 16:17	1	ID28X18.D	R-624SilMS 30m 0.25(mm)
410-67460-7	HD-COD-SW-16-0/1-0	12/28/2021 17:00	1	ID28X20.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 17:21	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 17:42	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 18:03	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 18:24	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 18:45	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 19:06	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 19:28	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 19:49	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/28/2021 20:10	1		R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Instrument ID: 19094 Start Date: 12/29/2021 10:25

Analysis Batch Number: 210047 End Date: 12/29/2021 17:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-210047/1		12/29/2021 10:25	1	HD29T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-210047/3		12/29/2021 10:59	1	HD29X02.D	R-624SilMS 30m 0.25(mm)
LCS 410-210047/4		12/29/2021 11:20	1	HD29X03.D	R-624SilMS 30m 0.25(mm)
LCSD 410-210047/5		12/29/2021 11:40	1	HD29X04.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 12:01	1		R-624SilMS 30m 0.25(mm)
MB 410-210047/7		12/29/2021 12:21	1	HD29X06.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 12:50	1		R-624SilMS 30m 0.25(mm)
410-67460-14	HD-QC1-0/1-2	12/29/2021 13:10	1	HD29X08.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 13:31	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 13:52	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 14:12	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 14:33	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 14:53	1		R-624SilMS 30m 0.25(mm)
410-67460-9	HD-COD-SW-26-0/1-0	12/29/2021 15:14	1	HD29X14.D	R-624SilMS 30m 0.25(mm)
410-67460-10	HD-COD-SW-27-0/1-0	12/29/2021 15:34	1	HD29X15.D	R-624SilMS 30m 0.25(mm)
410-67460-11	HD-COD-SW-28-0/1-0	12/29/2021 15:55	1	HD29X16.D	R-624SilMS 30m 0.25(mm)
410-67460-12	HD-COD-SW-29-0/1-0	12/29/2021 16:15	1	HD29X17.D	R-624SilMS 30m 0.25(mm)
410-67460-13	HD-QC1-0/1-1	12/29/2021 16:36	10	HD29X18.D	R-624SilMS 30m 0.25(mm)
410-67460-8 DL	HD-COD-SW-17-0/1-0 DL	12/29/2021 16:57	20	HD29X19.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 17:18	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 17:38	100		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/29/2021 17:58	200		R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-67460-1

SDG No.:

Instrument ID: 19930 Start Date: 01/05/2022 08:42

Analysis Batch Number: 211830 End Date: 01/05/2022 18:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-211830/1		01/05/2022 08:42	1	IJ05T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-211830/3		01/05/2022 09:16	1	IJ05X02.D	R-624SilMS 30m 0.25(mm)
LCS 410-211830/4		01/05/2022 09:36	1	IJ05X03.D	R-624SilMS 30m 0.25(mm)
LCSD 410-211830/5		01/05/2022 09:58	1	IJ05X04.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 10:19	1		R-624SilMS 30m 0.25(mm)
CCV 410-211830/7		01/05/2022 10:40	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 11:01	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 11:22	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 11:44	1		R-624SilMS 30m 0.25(mm)
MB 410-211830/11		01/05/2022 12:05	1	IJ05X10.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 12:26	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 12:47	500		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 13:08	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 13:29	200		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 13:50	1		R-624SilMS 30m 0.25(mm)
410-67460-8	HD-COD-SW-17-0/1-0	01/05/2022 14:12	1	IJ05X16.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 14:33	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 14:54	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 15:15	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 15:37	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 15:58	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 16:19	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 16:40	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 17:01	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 17:22	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 17:44	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 18:05	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 18:26	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		01/05/2022 18:47	1		R-624SilMS 30m 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-67460-1

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.: 410-67460-1

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.: 410-67460-1

SDG No.:

Batch Number: 207981 Batch Start Date: 12/21/21 14:04 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 00035	MSV_LCS_EE 00001	MSV_LCS_Penta 00010
BFB 410-207981/1		8260D		1 uL	1 uL				
IC 410-207981/14		8260D		25 mL	25 mL	2617			
ICIS 410-207981/15		8260D		25 mL	25 mL	2617			
IC 410-207981/16		8260D		25 mL	25 mL	2617			
IC 410-207981/17		8260D		25 mL	25 mL	2617			
IC 410-207981/18		8260D		25 mL	25 mL	2617			
IC 410-207981/19		8260D		25 mL	25 mL	2617			
IC 410-207981/20		8260D		25 mL	25 mL	2617			
ICV 410-207981/21		8260D		25 mL	25 mL	2617	12.5 uL	12.5 uL	12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_VOC#1 00032	MSV_LL_#1_826 00027	MSV_LL_#2_826 00031	MSV_LL_GAS826 00056	MSV_LLcentISS 00002	MSV_Q_ETBR 00008
BFB 410-207981/1		8260D							
IC 410-207981/14		8260D			25 uL	25 uL	25 uL	5 uL	
ICIS 410-207981/15		8260D			10 uL	10 uL	10 uL	5 uL	
IC 410-207981/16		8260D			5 uL	5 uL	5 uL	5 uL	
IC 410-207981/17		8260D			2 uL	2 uL	2 uL	5 uL	
IC 410-207981/18		8260D			2 uL	2 uL	2 uL	5 uL	
IC 410-207981/19		8260D			2 uL	2 uL	2 uL	5 uL	
IC 410-207981/20		8260D			2 uL	2 uL	2 uL	5 uL	
ICV 410-207981/21		8260D		12.5 uL				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.: 410-67460-1

SDG No.:

Batch Number: 207981 Batch Start Date: 12/21/21 14:04 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QC_Gas826 00056	MSV_V_BFB 00006				
BFB 410-207981/1		8260D			1 uL				
IC 410-207981/14		8260D							
ICIS 410-207981/15		8260D							
IC 410-207981/16		8260D							
IC 410-207981/17		8260D							
IC 410-207981/18		8260D							
IC 410-207981/19		8260D							
IC 410-207981/20		8260D							
ICV 410-207981/21		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.: 410-67460-1

SDG No.:

Batch Number: 209587 Batch Start Date: 12/28/21 09:26 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-209587/1		8260D		1 uL	1 uL				
CCVIS 410-209587/3		8260D		25 mL	25 mL				2617
LCS 410-209587/4		8260D		25 mL	25 mL				2617
LCSD 410-209587/5		8260D		25 mL	25 mL				2617
MB 410-209587/7		8260D		25 mL	25 mL				2617
410-67460-A-1	HD-COD-SW-6-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-2	HD-COD-SW-7-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-3	HD-COD-SW-8-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-4	HD-COD-SW-9-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-5	HD-COD-SW-13-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-6	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-7	HD-COD-SW-16-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_VOC#1 00033	MSV_LL_#1_826 00029	MSV_LL_#2_826 00034	MSV_LL_GAS826 00057
BFB 410-209587/1		8260D							
CCVIS 410-209587/3		8260D					25 uL	25 uL	25 uL
LCS 410-209587/4		8260D		12.5 uL	12.5 uL	12.5 uL			
LCSD 410-209587/5		8260D		12.5 uL	12.5 uL	12.5 uL			
MB 410-209587/7		8260D							
410-67460-A-1	HD-COD-SW-6-0/1-0	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.: 410-67460-1

SDG No.:

Batch Number: 209587 Batch Start Date: 12/28/21 09:26 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_VOC#1 00033	MSV_LL_#1_826 00029	MSV_LL_#2_826 00034	MSV_LL_GAS826 00057
410-67460-A-2	HD-COD-SW-7-0/1-0	8260D	T						
410-67460-A-3	HD-COD-SW-8-0/1-0	8260D	T						
410-67460-A-4	HD-COD-SW-9-0/1-0	8260D	T						
410-67460-A-5	HD-COD-SW-13-0/1-0	8260D	T						
410-67460-A-6	HD-COD-SW-15-0/1-0	8260D	T						
410-67460-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	5.38 uL	5.38 uL	5.38 uL			
410-67460-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	5.38 uL	5.38 uL	5.38 uL			
410-67460-A-7	HD-COD-SW-16-0/1-0	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LLcentISS 00002	MSV_QC_Gas826 00057	MSV_V_BFB 00006	AnalysisComment		
BFB 410-209587/1		8260D				1 uL			
CCVIS 410-209587/3		8260D		5 uL					
LCS 410-209587/4		8260D		5 uL	12.5 uL		see ME		
LCSD 410-209587/5		8260D		5 uL	12.5 uL				
MB 410-209587/7		8260D		5 uL					
410-67460-A-1	HD-COD-SW-6-0/1-0	8260D	T	5 uL					
410-67460-A-2	HD-COD-SW-7-0/1-0	8260D	T	5 uL					
410-67460-A-3	HD-COD-SW-8-0/1-0	8260D	T	5 uL					
410-67460-A-4	HD-COD-SW-9-0/1-0	8260D	T	5 uL					
410-67460-A-5	HD-COD-SW-13-0/1-0	8260D	T	5 uL					
410-67460-A-6	HD-COD-SW-15-0/1-0	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.: 410-67460-1

SDG No.:

Batch Number: 209587 Batch Start Date: 12/28/21 09:26 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LLcentISS 00002	MSV_QC_Gas826 00057	MSV_V_BFB 00006	AnalysisComment		
410-67460-A-6 MS	HD-COD-SW-15-0/1 -0 MS	8260D	T	5 uL	5.38 uL				
410-67460-A-6 MSD	HD-COD-SW-15-0/1 -0 MSD	8260D	T	5 uL	5.38 uL				
410-67460-A-7	HD-COD-SW-16-0/1 -0	8260D	T	5 uL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-67460-1

SDG No.:

Batch Number: 210047 Batch Start Date: 12/29/21 10:25 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-210047/1		8260D		25 mL	25 mL				
CCVIS 410-210047/3		8260D		25 mL	25 mL				2617
LCS 410-210047/4		8260D		25 mL	25 mL				2617
LCSD 410-210047/5		8260D		25 mL	25 mL				2617
MB 410-210047/7		8260D		25 mL	25 mL				2617
410-67460-A-14	HD-QC1-0/1-2	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-9	HD-COD-SW-26-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-10	HD-COD-SW-27-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-11	HD-COD-SW-28-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-A-12	HD-COD-SW-29-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-67460-B-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	2617
410-67460-B-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	2617

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_VOC#1 00033	MSV_LL_#1_826 00029	MSV_LL_#2_826 00035	MSV_LL_GAS826 00057
BFB 410-210047/1		8260D							
CCVIS 410-210047/3		8260D					20 uL	20 uL	20 uL
LCS 410-210047/4		8260D		12.5 uL	12.5 uL	12.5 uL			
LCSD 410-210047/5		8260D		12.5 uL	12.5 uL	12.5 uL			
MB 410-210047/7		8260D							
410-67460-A-14	HD-QC1-0/1-2	8260D	T						
410-67460-A-9	HD-COD-SW-26-0/1-0	8260D	T						
410-67460-A-10	HD-COD-SW-27-0/1-0	8260D	T						
410-67460-A-11	HD-COD-SW-28-0/1-0	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.: 410-67460-1

SDG No.:

Batch Number: 210047 Batch Start Date: 12/29/21 10:25 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_VOC#1 00033	MSV_LL_#1_826 00029	MSV_LL_#2_826 00035	MSV_LL_GAS826 00057
410-67460-A-12	HD-COD-SW-29-0/1-0	8260D	T						
410-67460-B-13	HD-QC1-0/1-1	8260D	T						
410-67460-B-8	HD-COD-SW-17-0/1-0	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LLcentISS 00002	MSV_QC_Gas826 00057	MSV_V_BFB 00006	AnalysisComment		
BFB 410-210047/1		8260D				1 uL			
CCVIS 410-210047/3		8260D		5 uL					
LCS 410-210047/4		8260D		5 uL	12.5 uL		see ME form		
LCSD 410-210047/5		8260D		5 uL	12.5 uL				
MB 410-210047/7		8260D		5 uL					
410-67460-A-14	HD-QC1-0/1-2	8260D	T	5 uL					
410-67460-A-9	HD-COD-SW-26-0/1-0	8260D	T	5 uL					
410-67460-A-10	HD-COD-SW-27-0/1-0	8260D	T	5 uL					
410-67460-A-11	HD-COD-SW-28-0/1-0	8260D	T	5 uL					
410-67460-A-12	HD-COD-SW-29-0/1-0	8260D	T	5 uL					
410-67460-B-13	HD-QC1-0/1-1	8260D	T	5 uL					
410-67460-B-8	HD-COD-SW-17-0/1-0	8260D	T	5 uL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-67460-1

SDG No.:

Batch Number: 211830 Batch Start Date: 01/05/22 08:42 Batch Analyst: Sposito, Kevin A

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-211830/1		8260D		1 uL	1 uL				
CCVIS 410-211830/3		8260D		25 mL	25 mL				2617
LCS 410-211830/4		8260D		25 mL	25 mL				2617
LCSD 410-211830/5		8260D		25 mL	25 mL				2617
MB 410-211830/11		8260D		25 mL	25 mL				2617
410-67460-C-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00037	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_Penta 00010	MSV_LCS_VOC#1 00034	MSV_LL_#1_826 00030
BFB 410-211830/1		8260D							
CCVIS 410-211830/3		8260D							25 uL
LCS 410-211830/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	
LCSD 410-211830/5		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	
MB 410-211830/11		8260D							
410-67460-C-8	HD-COD-SW-17-0/1-0	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_#2_826 00035	MSV_LL_GAS826 00058	MSV_LLcentISS 00002	MSV_QC_Gas826 00059	MSV_V_BFB 00006	AnalysisComment
BFB 410-211830/1		8260D						1 uL	
CCVIS 410-211830/3		8260D		25 uL	25 uL	5 uL			
LCS 410-211830/4		8260D				5 uL	12.5 uL		
LCSD 410-211830/5		8260D				5 uL	12.5 uL		
MB 410-211830/11		8260D				5 uL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-67460-1

SDG No.:

Batch Number: 211830 Batch Start Date: 01/05/22 08:42 Batch Analyst: Sposito, Kevin A

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_#2_826 00035	MSV_LL_GAS826 00058	MSV_LLcentISS 00002	MSV_QC_Gas826 00059	MSV_V_BFB 00006	AnalysisComment
410-67460-C-8	HD-COD-SW-17-0/1 -0	8260D	T			5 uL			Analyze ooh per client

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

Harrisburg #267

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Lancaster Laboratories Environmental

Environm[barcode]uest/Chain of Custody

410-67460 Chain of Custody

PAGE 1 of 2

Acct. # ___ Group # ___ Sample # ___

Client: Groundwater Sciences Corporation	
Project Name/#: fYNOP Monthly Surface Water	Site ID #: fYNOP, York PA
Project Manager: Chris O'Neil	P.O. #: 10012.47
Sampler: Casey Littlefield / ~~Erin Peeling~~ Chris O'Neil	PWSID #: N/A
Phone #: (717) 901-8176 / (717) 756-1246	Quote #:
State where samples were collected: York, PA	For Compliance: Yes ☐ No ☑

Matrix: Soil ☐ Sediment ☐ Tissue ☐; Water: Potable ☐ Ground ☐ Surface ☑ NPDES ☐; Other:

Analyses Requested / Preservation Codes: H — Aqueous VOCs via 8260D (low level - 25 ml purge)

Sample Identification	Collection Date	Collection Time	Grab	Composite	Soil	Water	Other	Total # of Containers	Aqueous VOCs via 8260D (low level - 25 ml purge) (H)	Remarks
HD-COD-SW-6-0/1-0	12/17/21	1005	X			X		3	X	
HD-COD-SW-7-0/1-0	↓	1045	X			X		3	X	
HD-COD-SW-8-0/1-0		0843	X			X		3	X	
HD-COD-SW-9-0/1-0		1145	X			X		3	X	
HD-COD-SW-13-0/1-0		0900	X			X		3	X	
HD-COD-SW-15-0/1-0		1115	X			X		3	X	
HD-COD-SW-15-0/1-0 MS		1115	X			X		3	X	
HD-COD-SW-15-0/1-0 MSD		1115	X			X		3	X	
HD-COD-SW-16-0/1-0		0925	X			X		3	X	
HD-COD-SW-17-0/1-0		0935	X			X		3	X	

For Lab Use Only

SF #: ___

SCR #: ___

Preservation Codes: H = HCl (circled); T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☒ Phone ☐

E-mail Address: ON - FILE

Phone:

Relinquished by	Date	Time	Received by	Date	Time
[signature] GSC	12/17/21	1320	[signature]	12/17/21	1320
[signature]	12/17/21	1330	[signature]	12/17/21	1456
[signature]	12/17/21	1615			
			[signature]	12/17/21	1643

Relinquished by Commercial Carrier:

UPS ___ FedEx ___ Other ✗

Temperature upon receipt 2.7 °C

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☑ No ☐ If yes, format: CLP Like Deliverables, Project Specific Analyte List

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7045 0216

AEH

01/11/2022

Harrisbury #267

Environmental Analysis Request/Chain of Custody

eurofins

Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

Client: **Groundwater Sciences Corporation**			
Project Name/#: fYNOP Monthly Surface Water	Site ID #: fYNOP, York PA		
Project Manager: Chris O'Neil	P.O. #: 10012.47		
Sampler: Casey Littlefield ~~/ Erin Peeling~~ CHRIS O'NEIL	PWSID #: N/A		
Phone #: (717) 901-8176 / (717) 756-1246	Quote #:		
State where samples were collected: York, PA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water: Ground	Polable	Surface	NPDES	Other: Trip Blank	Total # of Containers	Analyses Requested: Aqueous VOCs via 8260D (low level - 25 ml purge)	Preservation Codes: H
HD-COD-SW-26-0/1-0	12/17/21	1035	X					X					3	X	
HD-COD-SW-27-0/1-0		1105	X					X					3	X	
HD-COD-SW-28-0/1-0		1155	X					X					3	X	
HD-COD-SW-29-0/1-0		0830	X					X					3	X	
HD-QC1-0/1-1		0800	X					X					3	X	
HD-QC1-0/1-2	↓	—	X									X	2	X	

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HC (circled) T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other

Remarks

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☒ Phone ☐

E-mail Address: ON-FILE

Phone:

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☑ No ☐ If yes, format: CLP Like Deliverables, Project Specific Analyte List

Relinquished by:	Date	Time	Received by:	Date	Time
GSC	12/17/21	1320		12/17/21	1320
	12/17/21	1330		12/17/21	1456
	12/17/21	1615			
				12/17/21	16:43

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other X

Temperature upon receipt _____ °C

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-67460-1

Login Number: 67460
List Number: 1
Creator: Hess, Anna

List Source: Eurofins Lancaster Laboratories Env, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
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	