ANALYTICAL REPORT

Job Number: 410-33727-1

Job Description: fYNOP Monthly Surface Water

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

Attention: Christopher O'Neil

Approved for release.
Marrissa C Williams
Project Manager
3/31/2021 10:27 AM

Marrissa C Williams, Project Manager
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03/31/2021

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

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

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
FH	MS and/or MSD recovery above control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job Narrative
410-33727-1

Receipt
The samples were received on 3/25/2021 9:16 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

GC/MS VOA
Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-108546 recovered above the upper control limit for 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 analytical batch 410-108546 is compliant under 8260D method criteria for Acetone. 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.

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: 410-33727-1

Client Sample ID: HD-COD-SW-6-0/1-0 — Lab Sample ID: 410-33727-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.6	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-7-0/1-0 — Lab Sample ID: 410-33727-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.8	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.069	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.096	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-8-0/1-0 — Lab Sample ID: 410-33727-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.3	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.062	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.088	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.097	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-9-0/1-0 — Lab Sample ID: 410-33727-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.60	J ^c	5.0	0.60	ug/L	1		8260D	Total/NA
Acetone	2.9	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Methylene Chloride	0.11	J	0.50	0.070	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.078	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-13-0/1-0 — Lab Sample ID: 410-33727-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.063	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.085	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.060	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.097	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-15-0/1-0 — Lab Sample ID: 410-33727-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.14	J	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.071	J	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.26	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.78		0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	2.9		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.98		0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-16-0/1-0 — Lab Sample ID: 410-33727-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.7	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.061	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.082	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.090	J	0.50	0.060	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 410-33727-1

Client Sample ID: HD-COD-SW-17-0/1-0 — Lab Sample ID: 410-33727-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.084	J	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	1.4	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.13	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.57		0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	2.1		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.88		0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-26-0/1-0 — Lab Sample ID: 410-33727-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.091	J	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	2.1	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.31	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.069	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	2.1		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-27-0/1-0 — Lab Sample ID: 410-33727-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.9	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.066	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.079	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.096	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-28-0/1-0 — Lab Sample ID: 410-33727-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.85	J ^c	5.0	0.60	ug/L	1		8260D	Total/NA
Acetone	3.5	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Methylene Chloride	0.092	J	0.50	0.070	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.068	J	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.092	J	0.50	0.070	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-29-0/1-0 — Lab Sample ID: 410-33727-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.4	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.072	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.083	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.10	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-QC1-0/1-1 — Lab Sample ID: 410-33727-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.087	J	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	1.1	J ^c	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.16	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.76		0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.0		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	1.2		0.50	0.060	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Job ID: 410-33727-1
Project/Site: fYNOP Monthly Surface Water

Client Sample ID: HD-QC1-0/1-2
Lab Sample ID: 410-33727-14

No Detections.

This Detection Summary does not include radiochemical test results.

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

Date Collected: 03/24/21 11:00
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 23:22	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 23:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 23:22	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 23:22	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/29/21 23:22	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 23:22	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/29/21 23:22	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/29/21 23:22	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/29/21 23:22	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/29/21 23:22	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/29/21 23:22	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/29/21 23:22	1
Acetone	**2.6**	**J ^c**	5.0	0.90	ug/L			03/29/21 23:22	1
Benzene	ND		0.50	0.050	ug/L			03/29/21 23:22	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/29/21 23:22	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/29/21 23:22	1
Bromoform	ND		1.0	0.30	ug/L			03/29/21 23:22	1
Bromomethane	ND		0.50	0.070	ug/L			03/29/21 23:22	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/29/21 23:22	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/29/21 23:22	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/29/21 23:22	1
Chloroethane	ND		0.50	0.070	ug/L			03/29/21 23:22	1
Chloroform	ND		0.50	0.090	ug/L			03/29/21 23:22	1
Chloromethane	ND		0.50	0.060	ug/L			03/29/21 23:22	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			03/29/21 23:22	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/29/21 23:22	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/29/21 23:22	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/29/21 23:22	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/29/21 23:22	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/29/21 23:22	1
Styrene	ND		0.50	0.050	ug/L			03/29/21 23:22	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/29/21 23:22	1
Toluene	ND		0.50	0.070	ug/L			03/29/21 23:22	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 23:22	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/29/21 23:22	1
Trichloroethene	ND		0.50	0.060	ug/L			03/29/21 23:22	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/29/21 23:22	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/29/21 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*03/29/21 23:22*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/29/21 23:22*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/29/21 23:22*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/29/21 23:22*	*1*

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

Date Collected: 03/24/21 11:45
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 23:43	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 23:43	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 23:43	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 23:43	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/29/21 23:43	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 23:43	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/29/21 23:43	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/29/21 23:43	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/29/21 23:43	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/29/21 23:43	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/29/21 23:43	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/29/21 23:43	1
Acetone	**2.8**	**J ^c**	5.0	0.90	ug/L			03/29/21 23:43	1
Benzene	ND		0.50	0.050	ug/L			03/29/21 23:43	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/29/21 23:43	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/29/21 23:43	1
Bromoform	ND		1.0	0.30	ug/L			03/29/21 23:43	1
Bromomethane	ND		0.50	0.070	ug/L			03/29/21 23:43	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/29/21 23:43	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/29/21 23:43	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/29/21 23:43	1
Chloroethane	ND		0.50	0.070	ug/L			03/29/21 23:43	1
Chloroform	ND		0.50	0.090	ug/L			03/29/21 23:43	1
Chloromethane	ND		0.50	0.060	ug/L			03/29/21 23:43	1
cis-1,2-Dichloroethene	**0.069**	**J**	0.50	0.050	ug/L			03/29/21 23:43	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/29/21 23:43	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/29/21 23:43	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/29/21 23:43	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/29/21 23:43	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/29/21 23:43	1
Styrene	ND		0.50	0.050	ug/L			03/29/21 23:43	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/29/21 23:43	1
Toluene	ND		0.50	0.070	ug/L			03/29/21 23:43	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 23:43	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/29/21 23:43	1
Trichloroethene	**0.096**	**J**	0.50	0.060	ug/L			03/29/21 23:43	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/29/21 23:43	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/29/21 23:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*03/29/21 23:43*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/29/21 23:43*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/29/21 23:43*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/29/21 23:43*	*1*

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

Date Collected: 03/24/21 09:15
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 00:05	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 00:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 00:05	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 00:05	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 00:05	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 00:05	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 00:05	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 00:05	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 00:05	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/30/21 00:05	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 00:05	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 00:05	1
Acetone	**1.3**	**J ^c**	5.0	0.90	ug/L			03/30/21 00:05	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 00:05	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 00:05	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 00:05	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 00:05	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 00:05	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 00:05	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 00:05	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 00:05	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 00:05	1
Chloroform	ND		0.50	0.090	ug/L			03/30/21 00:05	1
Chloromethane	**0.062**	**J**	0.50	0.060	ug/L			03/30/21 00:05	1
cis-1,2-Dichloroethene	**0.088**	**J**	0.50	0.050	ug/L			03/30/21 00:05	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 00:05	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 00:05	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 00:05	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 00:05	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/30/21 00:05	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 00:05	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/30/21 00:05	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 00:05	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 00:05	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 00:05	1
Trichloroethene	**0.097**	**J**	0.50	0.060	ug/L			03/30/21 00:05	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 00:05	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*03/30/21 00:05*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/30/21 00:05*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*03/30/21 00:05*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 00:05*	*1*

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

Date Collected: 03/24/21 12:40
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 00:26	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 00:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 00:26	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 00:26	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 00:26	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 00:26	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 00:26	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 00:26	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 00:26	1
2-Butanone (MEK)	**0.60**	**J ^c**	5.0	0.60	ug/L			03/30/21 00:26	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 00:26	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 00:26	1
Acetone	**2.9**	**J ^c**	5.0	0.90	ug/L			03/30/21 00:26	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 00:26	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 00:26	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 00:26	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 00:26	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 00:26	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 00:26	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 00:26	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 00:26	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 00:26	1
Chloroform	ND		0.50	0.090	ug/L			03/30/21 00:26	1
Chloromethane	ND		0.50	0.060	ug/L			03/30/21 00:26	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			03/30/21 00:26	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 00:26	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 00:26	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 00:26	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 00:26	1
Methylene Chloride	**0.11**	**J**	0.50	0.070	ug/L			03/30/21 00:26	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 00:26	1
Tetrachloroethene	**0.078**	**J**	0.50	0.060	ug/L			03/30/21 00:26	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 00:26	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 00:26	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 00:26	1
Trichloroethene	ND		0.50	0.060	ug/L			03/30/21 00:26	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 00:26	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/30/21 00:26*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/30/21 00:26*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/30/21 00:26*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 00:26*	*1*

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

Date Collected: 03/24/21 09:40
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 00:47	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 00:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 00:47	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 00:47	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 00:47	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 00:47	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 00:47	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 00:47	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 00:47	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/30/21 00:47	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 00:47	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 00:47	1
Acetone	**1.5**	**J ^c**	5.0	0.90	ug/L			03/30/21 00:47	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 00:47	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 00:47	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 00:47	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 00:47	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 00:47	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 00:47	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 00:47	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 00:47	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 00:47	1
Chloroform	ND		0.50	0.090	ug/L			03/30/21 00:47	1
Chloromethane	**0.063**	**J**	0.50	0.060	ug/L			03/30/21 00:47	1
cis-1,2-Dichloroethene	**0.085**	**J**	0.50	0.050	ug/L			03/30/21 00:47	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 00:47	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 00:47	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 00:47	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 00:47	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/30/21 00:47	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 00:47	1
Tetrachloroethene	**0.060**	**J**	0.50	0.060	ug/L			03/30/21 00:47	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 00:47	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 00:47	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 00:47	1
Trichloroethene	**0.097**	**J**	0.50	0.060	ug/L			03/30/21 00:47	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 00:47	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 00:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/30/21 00:47*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/30/21 00:47*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/30/21 00:47*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*03/30/21 00:47*	*1*

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

Date Collected: 03/24/21 12:20
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 21:58	1
1,1,1-Trichloroethane	**0.14**	**J**	0.50	0.060	ug/L			03/29/21 21:58	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 21:58	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 21:58	1
1,1-Dichloroethane	**0.071**	**J**	0.50	0.070	ug/L			03/29/21 21:58	1
1,1-Dichloroethene	**0.11**	**J**	0.50	0.060	ug/L			03/29/21 21:58	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/29/21 21:58	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/29/21 21:58	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/29/21 21:58	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/29/21 21:58	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/29/21 21:58	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/29/21 21:58	1
Acetone	ND	^c	5.0	0.90	ug/L			03/29/21 21:58	1
Benzene	ND		0.50	0.050	ug/L			03/29/21 21:58	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/29/21 21:58	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/29/21 21:58	1
Bromoform	ND		1.0	0.30	ug/L			03/29/21 21:58	1
Bromomethane	ND		0.50	0.070	ug/L			03/29/21 21:58	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/29/21 21:58	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/29/21 21:58	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/29/21 21:58	1
Chloroethane	ND		0.50	0.070	ug/L			03/29/21 21:58	1
Chloroform	**0.26**	**J**	0.50	0.090	ug/L			03/29/21 21:58	1
Chloromethane	ND	FH	0.50	0.060	ug/L			03/29/21 21:58	1
cis-1,2-Dichloroethene	**0.78**		0.50	0.050	ug/L			03/29/21 21:58	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/29/21 21:58	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/29/21 21:58	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/29/21 21:58	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/29/21 21:58	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/29/21 21:58	1
Styrene	ND		0.50	0.050	ug/L			03/29/21 21:58	1
Tetrachloroethene	**2.9**		0.50	0.060	ug/L			03/29/21 21:58	1
Toluene	ND		0.50	0.070	ug/L			03/29/21 21:58	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 21:58	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/29/21 21:58	1
Trichloroethene	**0.98**		0.50	0.060	ug/L			03/29/21 21:58	1
Vinyl chloride	ND	FH	0.50	0.10	ug/L			03/29/21 21:58	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/29/21 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*03/29/21 21:58*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/29/21 21:58*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/29/21 21:58*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/29/21 21:58*	*1*

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

Date Collected: 03/24/21 10:00
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 01:09	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 01:09	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 01:09	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 01:09	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 01:09	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 01:09	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 01:09	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 01:09	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 01:09	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/30/21 01:09	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 01:09	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 01:09	1
Acetone	**1.7**	**J ^c**	5.0	0.90	ug/L			03/30/21 01:09	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 01:09	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 01:09	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 01:09	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 01:09	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 01:09	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 01:09	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 01:09	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 01:09	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 01:09	1
Chloroform	ND		0.50	0.090	ug/L			03/30/21 01:09	1
Chloromethane	**0.061**	**J**	0.50	0.060	ug/L			03/30/21 01:09	1
cis-1,2-Dichloroethene	**0.082**	**J**	0.50	0.050	ug/L			03/30/21 01:09	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 01:09	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 01:09	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 01:09	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 01:09	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/30/21 01:09	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 01:09	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/30/21 01:09	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 01:09	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 01:09	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 01:09	1
Trichloroethene	**0.090**	**J**	0.50	0.060	ug/L			03/30/21 01:09	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 01:09	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*03/30/21 01:09*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/30/21 01:09*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/30/21 01:09*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 01:09*	*1*

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

Date Collected: 03/24/21 10:20
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 01:30	1
1,1,1-Trichloroethane	**0.084**	**J**	0.50	0.060	ug/L			03/30/21 01:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 01:30	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 01:30	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 01:30	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 01:30	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 01:30	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 01:30	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 01:30	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/30/21 01:30	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 01:30	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 01:30	1
Acetone	**1.4**	**J ^c**	5.0	0.90	ug/L			03/30/21 01:30	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 01:30	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 01:30	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 01:30	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 01:30	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 01:30	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 01:30	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 01:30	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 01:30	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 01:30	1
Chloroform	**0.13**	**J**	0.50	0.090	ug/L			03/30/21 01:30	1
Chloromethane	ND		0.50	0.060	ug/L			03/30/21 01:30	1
cis-1,2-Dichloroethene	**0.57**		0.50	0.050	ug/L			03/30/21 01:30	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 01:30	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 01:30	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 01:30	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 01:30	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/30/21 01:30	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 01:30	1
Tetrachloroethene	**2.1**		0.50	0.060	ug/L			03/30/21 01:30	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 01:30	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 01:30	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 01:30	1
Trichloroethene	**0.88**		0.50	0.060	ug/L			03/30/21 01:30	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 01:30	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*03/30/21 01:30*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/30/21 01:30*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/30/21 01:30*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 01:30*	*1*

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

Date Collected: 03/24/21 11:30
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 01:51	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 01:51	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 01:51	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 01:51	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 01:51	1
1,1-Dichloroethene	**0.091**	**J**	0.50	0.060	ug/L			03/30/21 01:51	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 01:51	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 01:51	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 01:51	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/30/21 01:51	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 01:51	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 01:51	1
Acetone	**2.1**	**J ^c**	5.0	0.90	ug/L			03/30/21 01:51	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 01:51	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 01:51	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 01:51	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 01:51	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 01:51	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 01:51	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 01:51	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 01:51	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 01:51	1
Chloroform	**0.31**	**J**	0.50	0.090	ug/L			03/30/21 01:51	1
Chloromethane	ND		0.50	0.060	ug/L			03/30/21 01:51	1
cis-1,2-Dichloroethene	**0.069**	**J**	0.50	0.050	ug/L			03/30/21 01:51	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 01:51	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 01:51	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 01:51	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 01:51	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/30/21 01:51	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 01:51	1
Tetrachloroethene	**2.1**		0.50	0.060	ug/L			03/30/21 01:51	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 01:51	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 01:51	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 01:51	1
Trichloroethene	**0.14**	**J**	0.50	0.060	ug/L			03/30/21 01:51	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 01:51	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 01:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*03/30/21 01:51*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/30/21 01:51*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/30/21 01:51*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 01:51*	*1*

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

Date Collected: 03/24/21 12:10
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 02:12	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 02:12	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 02:12	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 02:12	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 02:12	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 02:12	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 02:12	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 02:12	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 02:12	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/30/21 02:12	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 02:12	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 02:12	1
Acetone	**2.9**	**J ^c**	5.0	0.90	ug/L			03/30/21 02:12	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 02:12	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 02:12	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 02:12	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 02:12	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 02:12	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 02:12	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 02:12	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 02:12	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 02:12	1
Chloroform	ND		0.50	0.090	ug/L			03/30/21 02:12	1
Chloromethane	**0.066**	**J**	0.50	0.060	ug/L			03/30/21 02:12	1
cis-1,2-Dichloroethene	**0.079**	**J**	0.50	0.050	ug/L			03/30/21 02:12	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 02:12	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 02:12	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 02:12	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 02:12	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/30/21 02:12	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 02:12	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/30/21 02:12	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 02:12	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 02:12	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 02:12	1
Trichloroethene	**0.096**	**J**	0.50	0.060	ug/L			03/30/21 02:12	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 02:12	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*03/30/21 02:12*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/30/21 02:12*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/30/21 02:12*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 02:12*	*1*

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

Date Collected: 03/24/21 12:45
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 02:34	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 02:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 02:34	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 02:34	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 02:34	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 02:34	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 02:34	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 02:34	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 02:34	1
2-Butanone (MEK)	**0.85**	**J ^c**	5.0	0.60	ug/L			03/30/21 02:34	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 02:34	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 02:34	1
Acetone	**3.5**	**J ^c**	5.0	0.90	ug/L			03/30/21 02:34	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 02:34	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 02:34	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 02:34	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 02:34	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 02:34	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 02:34	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 02:34	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 02:34	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 02:34	1
Chloroform	ND		0.50	0.090	ug/L			03/30/21 02:34	1
Chloromethane	ND		0.50	0.060	ug/L			03/30/21 02:34	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			03/30/21 02:34	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 02:34	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 02:34	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 02:34	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 02:34	1
Methylene Chloride	**0.092**	**J**	0.50	0.070	ug/L			03/30/21 02:34	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 02:34	1
Tetrachloroethene	**0.068**	**J**	0.50	0.060	ug/L			03/30/21 02:34	1
Toluene	**0.092**	**J**	0.50	0.070	ug/L			03/30/21 02:34	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 02:34	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 02:34	1
Trichloroethene	ND		0.50	0.060	ug/L			03/30/21 02:34	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 02:34	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 02:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/30/21 02:34*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/30/21 02:34*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/30/21 02:34*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 02:34*	*1*

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

Date Collected: 03/24/21 09:00
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-12

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 02:55	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 02:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 02:55	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 02:55	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 02:55	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 02:55	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 02:55	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 02:55	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 02:55	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/30/21 02:55	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 02:55	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 02:55	1
Acetone	**1.4**	**J ^c**	5.0	0.90	ug/L			03/30/21 02:55	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 02:55	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 02:55	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 02:55	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 02:55	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 02:55	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 02:55	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 02:55	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 02:55	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 02:55	1
Chloroform	ND		0.50	0.090	ug/L			03/30/21 02:55	1
Chloromethane	**0.072**	**J**	0.50	0.060	ug/L			03/30/21 02:55	1
cis-1,2-Dichloroethene	**0.083**	**J**	0.50	0.050	ug/L			03/30/21 02:55	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 02:55	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 02:55	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 02:55	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 02:55	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/30/21 02:55	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 02:55	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/30/21 02:55	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 02:55	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 02:55	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 02:55	1
Trichloroethene	**0.10**	**J**	0.50	0.060	ug/L			03/30/21 02:55	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 02:55	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 02:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*03/30/21 02:55*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/30/21 02:55*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*03/30/21 02:55*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 02:55*	*1*

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

Date Collected: 03/24/21 12:00
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 03:16	1
1,1,1-Trichloroethane	**0.11**	**J**	0.50	0.060	ug/L			03/30/21 03:16	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/30/21 03:16	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/30/21 03:16	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/30/21 03:16	1
1,1-Dichloroethene	**0.087**	**J**	0.50	0.060	ug/L			03/30/21 03:16	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/30/21 03:16	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/30/21 03:16	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/30/21 03:16	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/30/21 03:16	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/30/21 03:16	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/30/21 03:16	1
Acetone	**1.1**	**J ^c**	5.0	0.90	ug/L			03/30/21 03:16	1
Benzene	ND		0.50	0.050	ug/L			03/30/21 03:16	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/30/21 03:16	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/30/21 03:16	1
Bromoform	ND		1.0	0.30	ug/L			03/30/21 03:16	1
Bromomethane	ND		0.50	0.070	ug/L			03/30/21 03:16	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/30/21 03:16	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/30/21 03:16	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/30/21 03:16	1
Chloroethane	ND		0.50	0.070	ug/L			03/30/21 03:16	1
Chloroform	**0.16**	**J**	0.50	0.090	ug/L			03/30/21 03:16	1
Chloromethane	ND		0.50	0.060	ug/L			03/30/21 03:16	1
cis-1,2-Dichloroethene	**0.76**		0.50	0.050	ug/L			03/30/21 03:16	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/30/21 03:16	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/30/21 03:16	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/30/21 03:16	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/30/21 03:16	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/30/21 03:16	1
Styrene	ND		0.50	0.050	ug/L			03/30/21 03:16	1
Tetrachloroethene	**3.0**		0.50	0.060	ug/L			03/30/21 03:16	1
Toluene	ND		0.50	0.070	ug/L			03/30/21 03:16	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/30/21 03:16	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/30/21 03:16	1
Trichloroethene	**1.2**		0.50	0.060	ug/L			03/30/21 03:16	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/30/21 03:16	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/30/21 03:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*03/30/21 03:16*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*03/30/21 03:16*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/30/21 03:16*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/30/21 03:16*	*1*

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

Date Collected: 03/24/21 00:00
Date Received: 03/25/21 21:16

Lab Sample ID: 410-33727-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 20:53	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 20:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 20:53	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 20:53	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/29/21 20:53	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 20:53	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/29/21 20:53	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/29/21 20:53	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/29/21 20:53	1
2-Butanone (MEK)	ND	^c	5.0	0.60	ug/L			03/29/21 20:53	1
2-Hexanone	ND	^c	5.0	0.60	ug/L			03/29/21 20:53	1
4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70	ug/L			03/29/21 20:53	1
Acetone	ND	^c	5.0	0.90	ug/L			03/29/21 20:53	1
Benzene	ND		0.50	0.050	ug/L			03/29/21 20:53	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/29/21 20:53	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/29/21 20:53	1
Bromoform	ND		1.0	0.30	ug/L			03/29/21 20:53	1
Bromomethane	ND		0.50	0.070	ug/L			03/29/21 20:53	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/29/21 20:53	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/29/21 20:53	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/29/21 20:53	1
Chloroethane	ND		0.50	0.070	ug/L			03/29/21 20:53	1
Chloroform	ND		0.50	0.090	ug/L			03/29/21 20:53	1
Chloromethane	ND		0.50	0.060	ug/L			03/29/21 20:53	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			03/29/21 20:53	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/29/21 20:53	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/29/21 20:53	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/29/21 20:53	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/29/21 20:53	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/29/21 20:53	1
Styrene	ND		0.50	0.050	ug/L			03/29/21 20:53	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/29/21 20:53	1
Toluene	ND		0.50	0.070	ug/L			03/29/21 20:53	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 20:53	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/29/21 20:53	1
Trichloroethene	ND		0.50	0.060	ug/L			03/29/21 20:53	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/29/21 20:53	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/29/21 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*03/29/21 20:53*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/29/21 20:53*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/29/21 20:53*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/29/21 20:53*	*1*

Default Detection Limits

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

Job ID: 410-33727-1

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: 410-33727-1

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)
410-33727-1	HD-COD-SW-6-0/1-0	105	97	101	99
410-33727-2	HD-COD-SW-7-0/1-0	105	97	101	99
410-33727-3	HD-COD-SW-8-0/1-0	104	96	101	99
410-33727-4	HD-COD-SW-9-0/1-0	107	96	102	99
410-33727-5	HD-COD-SW-13-0/1-0	107	97	103	100
410-33727-6	HD-COD-SW-15-0/1-0	106	96	102	99
410-33727-6 MS	HD-COD-SW-15-0/1-0 MS	104	98	101	99
410-33727-6 MSD	HD-COD-SW-15-0/1-0 MSD	103	98	99	99
410-33727-7	HD-COD-SW-16-0/1-0	106	97	102	99
410-33727-8	HD-COD-SW-17-0/1-0	103	96	102	99
410-33727-9	HD-COD-SW-26-0/1-0	106	97	103	99
410-33727-10	HD-COD-SW-27-0/1-0	106	96	102	99
410-33727-11	HD-COD-SW-28-0/1-0	107	96	102	99
410-33727-12	HD-COD-SW-29-0/1-0	107	97	103	99
410-33727-13	HD-QC1-0/1-1	105	96	102	99
410-33727-14	HD-QC1-0/1-2	105	97	102	99
LCS 410-108546/4	Lab Control Sample	102	99	100	100
MB 410-108546/6	Method Blank	104	97	102	99

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 410-108546/6
Matrix: Water
Analysis Batch: 108546

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			03/29/21 20:11	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 20:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			03/29/21 20:11	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			03/29/21 20:11	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			03/29/21 20:11	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 20:11	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			03/29/21 20:11	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			03/29/21 20:11	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			03/29/21 20:11	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			03/29/21 20:11	1
2-Hexanone	ND		5.0	0.60	ug/L			03/29/21 20:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			03/29/21 20:11	1
Acetone	0.992	J	5.0	0.90	ug/L			03/29/21 20:11	1
Benzene	ND		0.50	0.050	ug/L			03/29/21 20:11	1
Bromochloromethane	ND		0.50	0.050	ug/L			03/29/21 20:11	1
Bromodichloromethane	ND		0.50	0.050	ug/L			03/29/21 20:11	1
Bromoform	ND		1.0	0.30	ug/L			03/29/21 20:11	1
Bromomethane	ND		0.50	0.070	ug/L			03/29/21 20:11	1
Carbon disulfide	ND		1.0	0.060	ug/L			03/29/21 20:11	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			03/29/21 20:11	1
Chlorobenzene	ND		0.50	0.060	ug/L			03/29/21 20:11	1
Chloroethane	ND		0.50	0.070	ug/L			03/29/21 20:11	1
Chloroform	ND		0.50	0.090	ug/L			03/29/21 20:11	1
Chloromethane	ND		0.50	0.060	ug/L			03/29/21 20:11	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			03/29/21 20:11	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			03/29/21 20:11	1
Dibromochloromethane	ND		0.50	0.070	ug/L			03/29/21 20:11	1
Ethylbenzene	ND		0.50	0.060	ug/L			03/29/21 20:11	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			03/29/21 20:11	1
Methylene Chloride	ND		0.50	0.070	ug/L			03/29/21 20:11	1
Styrene	ND		0.50	0.050	ug/L			03/29/21 20:11	1
Tetrachloroethene	ND		0.50	0.060	ug/L			03/29/21 20:11	1
Toluene	ND		0.50	0.070	ug/L			03/29/21 20:11	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			03/29/21 20:11	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			03/29/21 20:11	1
Trichloroethene	ND		0.50	0.060	ug/L			03/29/21 20:11	1
Vinyl chloride	ND		0.50	0.10	ug/L			03/29/21 20:11	1
Xylenes, Total	ND		1.0	0.15	ug/L			03/29/21 20:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*03/29/21 20:11*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*03/29/21 20:11*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*03/29/21 20:11*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*03/29/21 20:11*	*1*

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

Lab Sample ID: LCS 410-108546/4
Matrix: Water
Analysis Batch: 108546

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	5.06		ug/L		101	71 - 134
1,1,1-Trichloroethane	5.00	4.99		ug/L		100	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.61		ug/L		112	75 - 123
1,1,2-Trichloroethane	5.00	5.44		ug/L		109	80 - 120
1,1-Dichloroethane	5.00	5.22		ug/L		104	74 - 120
1,1-Dichloroethene	5.00	5.40		ug/L		108	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.18		ug/L		104	80 - 120
1,2-Dichloroethane	5.00	5.00		ug/L		100	69 - 122
1,2-Dichloropropane	5.00	5.47		ug/L		109	80 - 120
2-Butanone (MEK)	37.5	45.2		ug/L		120	59 - 141
2-Hexanone	25.0	29.7		ug/L		119	52 - 140
4-Methyl-2-pentanone (MIBK)	25.0	29.8		ug/L		119	55 - 140
Acetone	37.5	42.4		ug/L		113	60 - 146
Benzene	5.00	5.20		ug/L		104	80 - 120
Bromochloromethane	5.00	4.99		ug/L		100	80 - 120
Bromodichloromethane	5.00	5.23		ug/L		105	73 - 124
Bromoform	5.00	5.24		ug/L		105	49 - 144
Bromomethane	5.00	5.33		ug/L		107	60 - 136
Carbon disulfide	5.00	5.25		ug/L		105	67 - 130
Carbon tetrachloride	5.00	4.90		ug/L		98	64 - 141
Chlorobenzene	5.00	5.18		ug/L		104	80 - 120
Chloroethane	5.00	5.28		ug/L		106	63 - 120
Chloroform	5.00	5.06		ug/L		101	80 - 120
Chloromethane	5.00	5.65		ug/L		113	56 - 124
cis-1,2-Dichloroethene	5.00	5.09		ug/L		102	80 - 122
cis-1,3-Dichloropropene	5.00	5.21		ug/L		104	67 - 121
Dibromochloromethane	5.00	5.29		ug/L		106	64 - 138
Ethylbenzene	5.00	5.14		ug/L		103	80 - 120
Methyl tert-butyl ether	5.00	4.84		ug/L		97	69 - 120
Methylene Chloride	5.00	5.42		ug/L		108	80 - 120
Styrene	5.00	5.18		ug/L		104	80 - 120
Tetrachloroethene	5.00	5.18		ug/L		104	80 - 120
Toluene	5.00	5.10		ug/L		102	80 - 120
trans-1,2-Dichloroethene	5.00	5.15		ug/L		103	80 - 122
trans-1,3-Dichloropropene	5.00	5.29		ug/L		106	61 - 129
Trichloroethene	5.00	5.11		ug/L		102	80 - 120
Vinyl chloride	5.00	5.70		ug/L		114	60 - 125
Xylenes, Total	15.0	15.4		ug/L		103	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

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

Lab Sample ID: 410-33727-6 MS
Matrix: Water
Analysis Batch: 108546

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		5.00	4.91		ug/L		98	71 - 134
1,1,1-Trichloroethane	0.14	J	5.00	5.32		ug/L		103	78 - 126
1,1,2,2-Tetrachloroethane	ND		5.00	5.42		ug/L		108	75 - 123
1,1,2-Trichloroethane	ND		5.00	5.35		ug/L		107	80 - 120
1,1-Dichloroethane	0.071	J	5.00	5.38		ug/L		106	74 - 120
1,1-Dichloroethene	0.11	J	5.00	5.79		ug/L		113	80 - 131
1,2-Dibromoethane (EDB)	ND		5.00	5.07		ug/L		101	80 - 120
1,2-Dichloroethane	ND		5.00	4.84		ug/L		97	69 - 122
1,2-Dichloropropane	ND		5.00	5.45		ug/L		109	80 - 120
2-Butanone (MEK)	ND	^c	37.5	45.1		ug/L		120	59 - 141
2-Hexanone	ND	^c	25.0	30.9		ug/L		123	52 - 140
4-Methyl-2-pentanone (MIBK)	ND	^c	25.0	29.5		ug/L		118	55 - 140
Acetone	ND	^c	37.5	35.2		ug/L		94	60 - 146
Benzene	ND		5.00	5.29		ug/L		106	80 - 120
Bromochloromethane	ND		5.00	5.02		ug/L		100	80 - 120
Bromodichloromethane	ND		5.00	5.18		ug/L		104	73 - 124
Bromoform	ND		5.00	4.79		ug/L		96	49 - 144
Bromomethane	ND		5.00	5.56		ug/L		111	60 - 136
Carbon disulfide	ND		5.00	5.40		ug/L		108	67 - 130
Carbon tetrachloride	ND		5.00	5.12		ug/L		102	64 - 141
Chlorobenzene	ND		5.00	5.27		ug/L		105	80 - 120
Chloroethane	ND		5.00	5.70		ug/L		114	63 - 120
Chloroform	0.26	J	5.00	5.49		ug/L		105	80 - 120
Chloromethane	ND	FH	5.00	5.94		ug/L		119	80 - 120
cis-1,2-Dichloroethene	0.78		5.00	6.02		ug/L		105	80 - 122
cis-1,3-Dichloropropene	ND		5.00	5.08		ug/L		102	67 - 121
Dibromochloromethane	ND		5.00	5.08		ug/L		102	64 - 138
Ethylbenzene	ND		5.00	5.29		ug/L		106	80 - 120
Methyl tert-butyl ether	ND		5.00	4.58		ug/L		91	69 - 120
Methylene Chloride	ND		5.00	5.49		ug/L		110	80 - 120
Styrene	ND		5.00	5.13		ug/L		102	80 - 120
Tetrachloroethene	2.9		5.00	8.29		ug/L		108	80 - 120
Toluene	ND		5.00	5.23		ug/L		105	80 - 120
trans-1,2-Dichloroethene	ND		5.00	5.29		ug/L		106	80 - 122
trans-1,3-Dichloropropene	ND		5.00	5.05		ug/L		101	61 - 129
Trichloroethene	0.98		5.00	6.34		ug/L		107	80 - 120
Vinyl chloride	ND	FH	5.00	6.46	FH	ug/L		129	60 - 125
Xylenes, Total	ND		15.0	15.7		ug/L		104	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

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

Lab Sample ID: 410-33727-6 MSD
Matrix: Water
Analysis Batch: 108546

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		5.00	4.96		ug/L		99	71 - 134	1	30
1,1,1-Trichloroethane	0.14	J	5.00	5.36		ug/L		104	78 - 126	1	30
1,1,2,2-Tetrachloroethane	ND		5.00	5.50		ug/L		110	75 - 123	1	30
1,1,2-Trichloroethane	ND		5.00	5.52		ug/L		110	80 - 120	3	30
1,1-Dichloroethane	0.071	J	5.00	5.41		ug/L		107	74 - 120	1	30
1,1-Dichloroethene	0.11	J	5.00	5.80		ug/L		114	80 - 131	0	30
1,2-Dibromoethane (EDB)	ND		5.00	5.10		ug/L		102	80 - 120	0	30
1,2-Dichloroethane	ND		5.00	4.84		ug/L		97	69 - 122	0	30
1,2-Dichloropropane	ND		5.00	5.45		ug/L		109	80 - 120	0	30
2-Butanone (MEK)	ND	^c	37.5	42.8		ug/L		114	59 - 141	5	30
2-Hexanone	ND	^c	25.0	28.8		ug/L		115	52 - 140	7	30
4-Methyl-2-pentanone (MIBK)	ND	^c	25.0	28.0		ug/L		112	55 - 140	5	30
Acetone	ND	^c	37.5	34.5		ug/L		92	60 - 146	2	30
Benzene	ND		5.00	5.32		ug/L		106	80 - 120	1	30
Bromochloromethane	ND		5.00	5.04		ug/L		101	80 - 120	0	30
Bromodichloromethane	ND		5.00	5.18		ug/L		103	73 - 124	0	30
Bromoform	ND		5.00	4.84		ug/L		97	49 - 144	1	30
Bromomethane	ND		5.00	5.78		ug/L		115	60 - 136	4	30
Carbon disulfide	ND		5.00	5.49		ug/L		110	67 - 130	2	30
Carbon tetrachloride	ND		5.00	5.12		ug/L		102	64 - 141	0	30
Chlorobenzene	ND		5.00	5.25		ug/L		105	80 - 120	0	30
Chloroethane	ND		5.00	5.81		ug/L		116	63 - 120	2	30
Chloroform	0.26	J	5.00	5.48		ug/L		104	80 - 120	0	30
Chloromethane	ND	FH	5.00	6.22	FH	ug/L		124	80 - 120	5	30
cis-1,2-Dichloroethene	0.78		5.00	6.01		ug/L		105	80 - 122	0	30
cis-1,3-Dichloropropene	ND		5.00	5.06		ug/L		101	67 - 121	0	30
Dibromochloromethane	ND		5.00	5.06		ug/L		101	64 - 138	0	30
Ethylbenzene	ND		5.00	5.30		ug/L		106	80 - 120	0	30
Methyl tert-butyl ether	ND		5.00	4.71		ug/L		94	69 - 120	3	30
Methylene Chloride	ND		5.00	5.52		ug/L		110	80 - 120	0	30
Styrene	ND		5.00	5.14		ug/L		103	80 - 120	0	30
Tetrachloroethene	2.9		5.00	8.29		ug/L		108	80 - 120	0	30
Toluene	ND		5.00	5.23		ug/L		105	80 - 120	0	30
trans-1,2-Dichloroethene	ND		5.00	5.30		ug/L		106	80 - 122	0	30
trans-1,3-Dichloropropene	ND		5.00	5.11		ug/L		102	61 - 129	1	30
Trichloroethene	0.98		5.00	6.37		ug/L		108	80 - 120	0	30
Vinyl chloride	ND	FH	5.00	6.57	FH	ug/L		131	60 - 125	2	30
Xylenes, Total	ND		15.0	15.8		ug/L		105	80 - 120	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

GC/MS VOA

Analysis Batch: 108546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-33727-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260D	
410-33727-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260D	
410-33727-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260D	
410-33727-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260D	
410-33727-5	HD-COD-SW-13-0/1-0	Total/NA	Water	8260D	
410-33727-6	HD-COD-SW-15-0/1-0	Total/NA	Water	8260D	
410-33727-7	HD-COD-SW-16-0/1-0	Total/NA	Water	8260D	
410-33727-8	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-33727-9	HD-COD-SW-26-0/1-0	Total/NA	Water	8260D	
410-33727-10	HD-COD-SW-27-0/1-0	Total/NA	Water	8260D	
410-33727-11	HD-COD-SW-28-0/1-0	Total/NA	Water	8260D	
410-33727-12	HD-COD-SW-29-0/1-0	Total/NA	Water	8260D	
410-33727-13	HD-QC1-0/1-1	Total/NA	Water	8260D	
410-33727-14	HD-QC1-0/1-2	Total/NA	Water	8260D	
MB 410-108546/6	Method Blank	Total/NA	Water	8260D	
LCS 410-108546/4	Lab Control Sample	Total/NA	Water	8260D	
410-33727-6 MS	HD-COD-SW-15-0/1-0 MS	Total/NA	Water	8260D	
410-33727-6 MSD	HD-COD-SW-15-0/1-0 MSD	Total/NA	Water	8260D	

Client Sample ID: HD-COD-SW-6-0/1-0
Lab Sample ID: 410-33727-1
Date Collected: 03/24/21 11:00
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/29/21 23:22	K4WN	ELLE

Client Sample ID: HD-COD-SW-7-0/1-0
Lab Sample ID: 410-33727-2
Date Collected: 03/24/21 11:45
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/29/21 23:43	K4WN	ELLE

Client Sample ID: HD-COD-SW-8-0/1-0
Lab Sample ID: 410-33727-3
Date Collected: 03/24/21 09:15
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 00:05	K4WN	ELLE

Client Sample ID: HD-COD-SW-9-0/1-0
Lab Sample ID: 410-33727-4
Date Collected: 03/24/21 12:40
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 00:26	K4WN	ELLE

Client Sample ID: HD-COD-SW-13-0/1-0
Lab Sample ID: 410-33727-5
Date Collected: 03/24/21 09:40
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 00:47	K4WN	ELLE

Client Sample ID: HD-COD-SW-15-0/1-0
Lab Sample ID: 410-33727-6
Date Collected: 03/24/21 12:20
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/29/21 21:58	K4WN	ELLE

Client Sample ID: HD-COD-SW-16-0/1-0
Lab Sample ID: 410-33727-7
Date Collected: 03/24/21 10:00
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 01:09	K4WN	ELLE

Client Sample ID: HD-COD-SW-17-0/1-0
Lab Sample ID: 410-33727-8
Date Collected: 03/24/21 10:20
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 01:30	K4WN	ELLE

Client Sample ID: HD-COD-SW-26-0/1-0
Lab Sample ID: 410-33727-9
Date Collected: 03/24/21 11:30
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 01:51	K4WN	ELLE

Client Sample ID: HD-COD-SW-27-0/1-0
Lab Sample ID: 410-33727-10
Date Collected: 03/24/21 12:10
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 02:12	K4WN	ELLE

Client Sample ID: HD-COD-SW-28-0/1-0
Lab Sample ID: 410-33727-11
Date Collected: 03/24/21 12:45
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 02:34	K4WN	ELLE

Client Sample ID: HD-COD-SW-29-0/1-0
Lab Sample ID: 410-33727-12
Date Collected: 03/24/21 09:00
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 02:55	K4WN	ELLE

Client Sample ID: HD-QC1-0/1-1
Lab Sample ID: 410-33727-13
Date Collected: 03/24/21 12:00
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/30/21 03:16	K4WN	ELLE

Client Sample ID: HD-QC1-0/1-2
Lab Sample ID: 410-33727-14
Date Collected: 03/24/21 00:00
Matrix: Water
Date Received: 03/25/21 21:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	108546	03/29/21 20:53	K4WN	ELLE

Laboratory References:

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

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
Job ID: 410-33727-1
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: 410-33727-1

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: 410-33727-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-33727-1	HD-COD-SW-6-0/1-0	Water	03/24/21 11:00	03/25/21 21:16	
410-33727-2	HD-COD-SW-7-0/1-0	Water	03/24/21 11:45	03/25/21 21:16	
410-33727-3	HD-COD-SW-8-0/1-0	Water	03/24/21 09:15	03/25/21 21:16	
410-33727-4	HD-COD-SW-9-0/1-0	Water	03/24/21 12:40	03/25/21 21:16	
410-33727-5	HD-COD-SW-13-0/1-0	Water	03/24/21 09:40	03/25/21 21:16	
410-33727-6	HD-COD-SW-15-0/1-0	Water	03/24/21 12:20	03/25/21 21:16	
410-33727-7	HD-COD-SW-16-0/1-0	Water	03/24/21 10:00	03/25/21 21:16	
410-33727-8	HD-COD-SW-17-0/1-0	Water	03/24/21 10:20	03/25/21 21:16	
410-33727-9	HD-COD-SW-26-0/1-0	Water	03/24/21 11:30	03/25/21 21:16	
410-33727-10	HD-COD-SW-27-0/1-0	Water	03/24/21 12:10	03/25/21 21:16	
410-33727-11	HD-COD-SW-28-0/1-0	Water	03/24/21 12:45	03/25/21 21:16	
410-33727-12	HD-COD-SW-29-0/1-0	Water	03/24/21 09:00	03/25/21 21:16	
410-33727-13	HD-QC1-0/1-1	Water	03/24/21 12:00	03/25/21 21:16	
410-33727-14	HD-QC1-0/1-2	Water	03/24/21 00:00	03/25/21 21:16	

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33727-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 92110

Lab Sample ID: IC 410-92110/12 Client Sample ID:

Date Analyzed: 02/08/21 19:27 Lab File ID: HF08I11.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.85	Baseline	longj	02/09/21 14:57

Lab Sample ID: IC 410-92110/16 Client Sample ID:

Date Analyzed: 02/08/21 20:51 Lab File ID: HF08I15.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	2.40	Incomplete Integration	knouses	02/09/21 13:20

Lab Sample ID: IC 410-92110/17 Client Sample ID:

Date Analyzed: 02/08/21 21:13 Lab File ID: HF08I16.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	2.39	Incomplete Integration	knouses	02/09/21 13:22
Carbon disulfide	4.07	Incomplete Integration	knouses	02/09/21 13:23
Methacrylonitrile	6.62	Incomplete Integration	knouses	02/09/21 13:24
n-Butanol	8.30	Incomplete Integration	knouses	02/09/21 13:25

Lab Sample ID: IC 410-92110/18 Client Sample ID:

Date Analyzed: 02/08/21 21:34 Lab File ID: HF08I17.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.62	Incomplete Integration	knouses	02/09/21 13:26
Carbon disulfide	4.08	Incomplete Integration	knouses	02/09/21 13:27
2-Nitropropane	9.36	Incomplete Integration	knouses	02/09/21 13:27

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33727-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 92110

Lab Sample ID: ICV 410-92110/19 Client Sample ID:

Date Analyzed: 02/08/21 21:55 Lab File ID: HF08V11.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.61	Incomplete Integration	knouses	02/09/21 13:29

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33727-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 108546

Lab Sample ID: CCVIS 410-108546/3 Client Sample ID:

Date Analyzed: 03/29/21 19:07 Lab File ID: HM29C31.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.85	Incomplete Integration	campbellme	03/29/21 19:45
tert-Butylbenzene	12.89	Incomplete Integration	campbellme	03/29/21 19:45
Benzyl chloride	13.30	Incomplete Integration	campbellme	03/29/21 19:46
n-Butylbenzene	13.44	Incomplete Integration	campbellme	03/29/21 19:46

Lab Sample ID: MB 410-108546/6 Client Sample ID:

Date Analyzed: 03/29/21 20:11 Lab File ID: HM29B31.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.79	Incomplete Integration	campbellme	03/30/21 00:23

Lab Sample ID: 410-33727-14 Client Sample ID: HD-QC1-0/1-2

Date Analyzed: 03/29/21 20:53 Lab File ID: HM29S32.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone		Invalid Compound ID	campbellme	03/30/21 00:23

Lab Sample ID: 410-33727-6 Client Sample ID: HD-COD-SW-15-0/1-0

Date Analyzed: 03/29/21 21:58 Lab File ID: HM29S35.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone		Invalid Compound ID	beckerk	03/30/21 16:41

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33727-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 108546

Lab Sample ID: 410-33727-1 Client Sample ID: HD-COD-SW-6-0/1-0

Date Analyzed: 03/29/21 23:22 Lab File ID: HM29S39.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	03/30/21 17:00

Lab Sample ID: 410-33727-2 Client Sample ID: HD-COD-SW-7-0/1-0

Date Analyzed: 03/29/21 23:43 Lab File ID: HM29S40.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.80	Split Peak	beckerk	03/30/21 17:01
2-Butanone (MEK)		Invalid Compound ID	beckerk	03/30/21 17:11

Lab Sample ID: 410-33727-3 Client Sample ID: HD-COD-SW-8-0/1-0

Date Analyzed: 03/30/21 00:05 Lab File ID: HM29S41.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.80	Split Peak	beckerk	03/30/21 17:12

Lab Sample ID: 410-33727-4 Client Sample ID: HD-COD-SW-9-0/1-0

Date Analyzed: 03/30/21 00:26 Lab File ID: HM29S42.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.81	Split Peak	beckerk	03/30/21 17:13

Lab Sample ID: 410-33727-5 Client Sample ID: HD-COD-SW-13-0/1-0

Date Analyzed: 03/30/21 00:47 Lab File ID: HM29S43.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.81	Split Peak	beckerk	03/30/21 17:13

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-33727-1

SDG No.:

Instrument ID: 19094 Analysis Batch Number: 108546

Lab Sample ID: 410-33727-7 Client Sample ID: HD-COD-SW-16-0/1-0

Date Analyzed: 03/30/21 01:09 Lab File ID: HM29S44.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.81	Split Peak	beckerk	03/30/21 17:14

Lab Sample ID: 410-33727-10 Client Sample ID: HD-COD-SW-27-0/1-0

Date Analyzed: 03/30/21 02:12 Lab File ID: HM29S47.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.81	Split Peak	beckerk	03/30/21 17:35
2-Butanone (MEK)		Invalid Compound ID	beckerk	03/30/21 17:37

Lab Sample ID: 410-33727-11 Client Sample ID: HD-COD-SW-28-0/1-0

Date Analyzed: 03/30/21 02:34 Lab File ID: HM29S48.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.80	Split Peak	beckerk	03/30/21 17:37

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MSV_30_826ISS_00006	05/31/21	11/30/20	Methanol, Lot DZ644	50 mL	MSV_8260_SS_00252	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_00156	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_00252	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_00156	05/31/21		Restek, Lot A0138205		(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_Q_QVOA1_00067	03/10/21	02/08/21	Methanol, Lot DZ644	25 mL	MSV_Q#1B_00102	1 mL	1,1,1,2-Tetrachloroethane	40 mg/L
							1,1,1-Trichloroethane	40 mg/L
							1,1,2,2-Tetrachloroethane	40 mg/L
							1,1,2-Trichloroethane	40 mg/L
							1,1-Dichloroethane	40 mg/L
							1,1-Dichloroethene	40 mg/L
							1,2-Dibromoethane (EDB)	40 mg/L
							1,2-Dichloroethane	40 mg/L
							1,2-Dichloropropane	40 mg/L
							Benzene	40 mg/L
							Bromodichloromethane	40 mg/L
							Bromoform	40 mg/L
							Carbon tetrachloride	40 mg/L
							Chlorobenzene	40 mg/L
							Chloroform	40 mg/L
							cis-1,2-Dichloroethene	40 mg/L
							cis-1,3-Dichloropropene	40 mg/L
							Dibromochloromethane	40 mg/L
							Ethylbenzene	40 mg/L
							Methylene Chloride	40 mg/L
							Styrene	40 mg/L
							Tetrachloroethene	40 mg/L
							Toluene	40 mg/L
							trans-1,2-Dichloroethene	40 mg/L
							trans-1,3-Dichloropropene	40 mg/L
							Trichloroethene	40 mg/L
					MSV_Q#3B_00074	1 mL	2-Butanone (MEK)	300 mg/L
							2-Hexanone	200 mg/L
							4-Methyl-2-pentanone (MIBK)	200 mg/L
							Acetone	300 mg/L
					MSV_Q#4C_00080	1 mL	Carbon disulfide	40 mg/L

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

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 mg/L
.MSV_Q#1B_00102	10/31/23		Restek, Lot A0165522		(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
							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_Q#3B_00074	09/30/21		Restek, Lot A0158722		(Purchased Reagent)		2-Butanone (MEK)	7500 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	7500 ug/mL
.MSV_Q#4C_00080	03/31/21		Restek, Lot A0158704		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
MSV_Q_QVOA1_00074	03/31/21	03/29/21	Methanol, Lot DZ644	25 mL	MSV_Q#1B_00093	1 mL	1,1,1,2-Tetrachloroethane	40 mg/L
							1,1,1-Trichloroethane	40 mg/L
							1,1,2,2-Tetrachloroethane	40 mg/L
							1,1,2-Trichloroethane	40 mg/L
							1,1-Dichloroethane	40 mg/L
							1,1-Dichloroethene	40 mg/L
							1,2-Dibromoethane (EDB)	40 mg/L
							1,2-Dichloroethane	40 mg/L
							1,2-Dichloropropane	40 mg/L
							Benzene	40 mg/L
							Bromodichloromethane	40 mg/L
							Bromoform	40 mg/L
							Carbon tetrachloride	40 mg/L
							Chlorobenzene	40 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	40 mg/L
							cis-1,2-Dichloroethene	40 mg/L
							cis-1,3-Dichloropropene	40 mg/L
							Dibromochloromethane	40 mg/L
							Ethylbenzene	40 mg/L
							Methylene Chloride	40 mg/L
							Styrene	40 mg/L
							Tetrachloroethene	40 mg/L
							Toluene	40 mg/L
							trans-1,2-Dichloroethene	40 mg/L
							trans-1,3-Dichloropropene	40 mg/L
							Trichloroethene	40 mg/L
					MSV_Q#3B_00091	1 mL	2-Butanone (MEK)	300 mg/L
							2-Hexanone	200 mg/L
							4-Methyl-2-pentanone (MIBK)	200 mg/L
							Acetone	300 mg/L
					MSV_Q#4C_00090	1 mL	Carbon disulfide	40 mg/L
							Methyl tert-butyl ether	40 mg/L
.MSV_Q#1B_00093	10/31/23		Restek, Lot A0165522		(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
							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_Q#3B_00091	09/30/22		Restek, Lot A0169795		(Purchased Reagent)		2-Butanone (MEK)	7500 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	7500 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_Q#4C_00090	03/31/21		Restek, Lot A0158704		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
MSV_Q_QVOA6_00065	03/10/21	02/08/21	Methanol, Lot DZ644	25 mL	MSV_QCS#6Std_00079	1 mL	Bromochloromethane	40 ug/mL
.MSV_QCS#6Std_00079	09/30/21		Restek, Lot A0158906		(Purchased Reagent)		Bromochloromethane	1000 ug/mL
MSV_Q_QVOA6_00072	04/28/21	03/29/21	Methanol, Lot DZ644	25 mL	MSV_QCS#6Std_00089	1 mL	Bromochloromethane	40 ug/mL
.MSV_QCS#6Std_00089	04/28/21		Restek, Lot A0158906		(Purchased Reagent)		Bromochloromethane	1000 ug/mL
MSV_QGAS_826_00109	02/15/21	02/08/21	Methanol, Lot DZ644	1 mL	MSV_502QGas_00142	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_502QGas_00142	02/15/21		Restek, Lot A0155823		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_QGAS_826_00118	04/01/21	03/25/21	Methanol, Lot DZ644	1 mL	MSV_502QGas_00160	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_502QGas_00160	04/01/21		Restek, Lot A0155823		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_RV1_826_00037	02/13/21	02/08/21	Methanol, Lot DZ644	1 mL	MSV_V#1B_00142	10 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
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trichlorobenzene	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
							1-Chlorohexane	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	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
					MSV_V#2B_00188	10 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	5000 ug/mL
							Propionitrile	1000 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
					MSV_V#4C_00122	10 uL	1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,2-Dichloro-1,1,2-trifluoroethane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							Benzyl chloride	50 ug/mL
							Butadiene	50 ug/mL
							Carbon disulfide	50 ug/mL
							Cyclohexane	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Hexane	50 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iodomethane	50 ug/mL
							Isopropyl ether	50 ug/mL
							Methyl methacrylate	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							n-Heptane	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					MSV_V_VOA2_00070	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	5000 ug/mL
							Propionitrile	1000 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
					MSV_V_VOA3_00067	100 uL	2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL
							2-Nitropropane	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
							Acrylonitrile	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Acrolein	2500.09 ug/mL
.MSV_V#1B_00142	03/10/21		Restek, Lot A0158586		(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-Trichlorobenzene	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
							1-Chlorohexane	5000 ug/mL
							2,2-Dichloropropane	5000 ug/mL
							2-Chlorotoluene	5000 ug/mL
							4-Chlorotoluene	5000 ug/mL
							4-Isopropyltoluene	5000 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	5000 ug/mL
							Bromobenzene	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_V#2B_00188	03/10/21		Restek, Lot A0159694		(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_V#4C_00122	03/10/21		Restek, Lot A0158660		(Purchased Reagent)		1,1,2-Trichloro-1,2,2-trifluoroethane	5000 ug/mL
							1,2-Dichloro-1,1,2-trifluoroethane	5000 ug/mL
							2-Chloro-1,3-butadiene	5000 ug/mL
							Benzyl chloride	5000 ug/mL
							Butadiene	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
							Isopropyl ether	5000 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

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
							n-Heptane	5000 ug/mL
							Tert-amyl methyl ether	5000 ug/mL
							Tert-butyl ethyl ether	5000 ug/mL
.MSV_V_VOA2_00070	03/10/21	02/08/21	Methanol, Lot DZ644	5 mL	MSV_V#2B_00188	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_00188	03/10/21		Restek, Lot A0159694		(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_V_VOA3_00067	02/13/21	02/08/21	Methanol, Lot DZ644	5 mL	MSV_V#3B_00080	1 mL	2-Butanone (MEK)	5000 ug/mL
							2-Hexanone	5000 ug/mL
							2-Nitropropane	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
					MSV_VACR_00014	1 mL	Acrolein	25000.9 ug/mL
..MSV_V#3B_00080	03/10/21		Restek, Lot A0158677		(Purchased Reagent)		2-Butanone (MEK)	25000 ug/mL
							2-Hexanone	25000 ug/mL
							2-Nitropropane	25000 ug/mL
							4-Methyl-2-pentanone (MIBK)	25000 ug/mL
							Acetone	25000 ug/mL
							Acrylonitrile	12500 ug/mL
							Tetrahydrofuran	25000 ug/mL
..MSV_VACR_00014	02/13/21	12/15/20	Methanol, Lot DZ644	10 mL	MSV_VACR_STK_00016	9.207 mL	Acrolein	125005 ug/mL
...MSV_VACR_STK_00016	02/13/21	12/15/20	Methanol, Lot DZ644	10 mL	MSV_ACROLEIN_00009	1.449 g	Acrolein	135771 ug/mL
....MSV_ACROLEIN_00009	09/30/21		Chem Service, Lot 10804400		(Purchased Reagent)		Acrolein	0.937 g/g
MSV_RV1_826_00042	03/31/21	03/25/21	Methanol, Lot DZ644	1 mL	MSV_V_VOA1_00134	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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

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_V_VOA3_00074	100 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_V_VOA1_00134	03/31/21	03/22/21	Methanol, Lot DZ644	5 mL	MSV_V#1B_00148	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_V#4C_00128	1 mL	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
..MSV_V#1B_00148	04/21/21		Restek, Lot A0158586		(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
							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_V#4C_00128	03/31/21		Restek, Lot A0158660		(Purchased Reagent)		Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_V_VOA3_00074	04/11/21	03/22/21	Methanol, Lot DZ644	5 mL	MSV_V#3B_00087	1 mL	2-Butanone (MEK)	5000 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	5000 ug/mL
..MSV_V#3B_00087	04/21/21		Restek, Lot A0158677		(Purchased Reagent)		2-Butanone (MEK)	25000 ug/mL
							2-Hexanone	25000 ug/mL
							4-Methyl-2-pentanone (MIBK)	25000 ug/mL
							Acetone	25000 ug/mL
MSV_RV4_826_00044	02/26/21	02/08/21	Methanol, Lot DZ644	1 mL	MSV_V_EE_00004	50 uL	Ethyl ether	50.0108 ug/mL
					MSV_V_VOA6_00074	50 uL	1,2,3-Trimethylbenzene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Methyl acetate	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Pentachloroethane	50 ug/mL
.MSV_V_EE_00004	04/21/21	10/21/20	Methanol, Lot DX212	100 mL	MSV_EE_MISCSK_00005	1.434 mL	Ethyl ether	1000.22 ug/mL
..MSV_EE_MISCSK_00005	04/21/21	10/21/20	Methanol, Lot DX212	10 mL	MSV_EE_Neat_00003	0.6975 g	Ethyl ether	69750 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...MSV_EE_Neat_00003	11/30/21	Chem Service, Lot 7967000			(Purchased Reagent)		Ethyl ether	1 g/g
.MSV_V_VOA6_00074	03/10/21	02/08/21	Methanol, Lot DZ644	5 mL	MSV_V#6_00058	1 mL	1,2,3-Trimethylbenzene	1000 ug/mL
							3-Chloro-1-propene	1000 ug/mL
							Bromochloromethane	1000 ug/mL
							Methyl acetate	1000 ug/mL
							Methylcyclohexane	1000 ug/mL
							Pentachloroethane	1000 ug/mL
..MSV_V#6_00058	03/10/21	Restek, Lot A0158625			(Purchased Reagent)		1,2,3-Trimethylbenzene	5000 ug/mL
							3-Chloro-1-propene	5000 ug/mL
							Bromochloromethane	5000 ug/mL
							Methyl acetate	5000 ug/mL
							Methylcyclohexane	5000 ug/mL
							Pentachloroethane	5000 ug/mL
MSV_RV4_826_00048	04/21/21	03/24/21	Methanol, Lot DZ644	1 mL	MSV_V_VOA6_00080	50 uL	Bromochloromethane	50 ug/mL
.MSV_V_VOA6_00080	04/21/21	03/22/21	Methanol, Lot DZ644	5 mL	MSV_V#6_00064	1 mL	Bromochloromethane	1000 ug/mL
..MSV_V#6_00064	04/21/21	Restek, Lot A0158625			(Purchased Reagent)		Bromochloromethane	5000 ug/mL
MSV_RV4GAS826_00112	02/15/21	02/08/21	Methanol, Lot DZ644	1 mL	MSV_DCFM_00034	25 uL	Dichlorofluoromethane	50 ug/mL
					MSV_V_Gas_00206	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_DCFM_00034	03/05/21	AccuStandard, Lot 220101035			(Purchased Reagent)		Dichlorofluoromethane	2000 ug/mL
.MSV_V_Gas_00206	02/15/21	Restek, Lot A0159812			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_RV4GAS826_00121	04/01/21	03/25/21	Methanol, Lot DZ644	1 mL	MSV_V_Gas_00230	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_V_Gas_00230	04/01/21	Restek, Lot A0159812			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_V_BFB_00004							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Xylenes, Total	
					MSV_VBFB_STK_00005	0.124 mL	BFB	49.8282 ug/mL
.MSV_VBFB_STK_00005	07/14/21	01/14/21	Methanol, Lot DZ644	10 mL	MSV_4BFB_NEAT_00004	1.0046 g	BFB	100460 ug/mL
..MSV_4BFB_NEAT_00004	02/28/25	Chem Service, Lot 10727100			(Purchased Reagent)		BFB	1 g/g

Reagent

MSV_502QGas_00142

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. : 55669.SEC **Lot No.:** A0155823

Description : Custom 502.2 "Q" Gas Mix

Custom 502.2 "Q" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : January 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,016.5 µg/mL	+/- 19.3550 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 26165)		+/- 114.1077 µg/mL	Unstressed
	Purity 99%		+/- 116.7296 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,005.6 µg/mL	+/- 18.7428 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 113.4037 µg/mL	Unstressed
	Purity 99%		+/- 116.0133 µg/mL	Stressed
3	Vinyl chloride	2,004.4 µg/mL	+/- 15.4000 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 112.8325 µg/mL	Unstressed
	Purity 99%		+/- 115.4519 µg/mL	Stressed
4	Bromomethane (methyl bromide)	2,022.0 µg/mL	+/- 18.0735 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 114.2018 µg/mL	Unstressed
	Purity 99%		+/- 116.8358 µg/mL	Stressed
5	Chloroethane (ethyl chloride)	2,013.1 µg/mL	+/- 20.5181 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/- 114.1209 µg/mL	Unstressed
	Purity 99%		+/- 116.7336 µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)	2,001.1 µg/mL	+/- 17.4531 µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot 253600)		+/- 112.9531 µg/mL	Unstressed
	Purity 99%		+/- 115.5613 µg/mL	Stressed

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

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

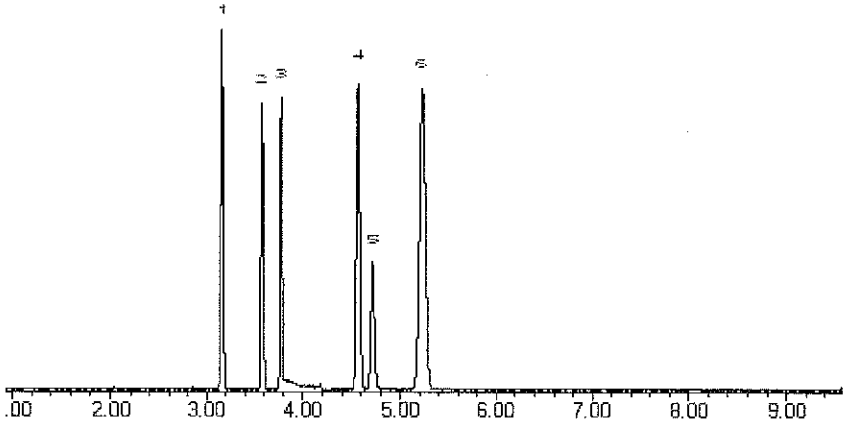
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

Date Mixed: 16-Dec-2019 **Balance:** 1127510105

Amanda Miller - Operations Tech-ARM QC

Date Passed: 27-Dec-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_502QGas_00160

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. : 55669.SEC **Lot No.:** A0155823

Description : Custom 502.2 "Q" Gas Mix

Custom 502.2 "Q" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : January 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,016.5 µg/mL	+/- 19.3550 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 26165)		+/- 114.1077 µg/mL	Unstressed
	Purity 99%		+/- 116.7296 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,005.6 µg/mL	+/- 18.7428 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 113.4037 µg/mL	Unstressed
	Purity 99%		+/- 116.0133 µg/mL	Stressed
3	Vinyl chloride	2,004.4 µg/mL	+/- 15.4000 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 112.8325 µg/mL	Unstressed
	Purity 99%		+/- 115.4519 µg/mL	Stressed
4	Bromomethane (methyl bromide)	2,022.0 µg/mL	+/- 18.0735 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/- 114.2018 µg/mL	Unstressed
	Purity 99%		+/- 116.8358 µg/mL	Stressed
5	Chloroethane (ethyl chloride)	2,013.1 µg/mL	+/- 20.5181 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/- 114.1209 µg/mL	Unstressed
	Purity 99%		+/- 116.7336 µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)	2,001.1 µg/mL	+/- 17.4531 µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot 253600)		+/- 112.9531 µg/mL	Unstressed
	Purity 99%		+/- 115.5613 µg/mL	Stressed

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

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

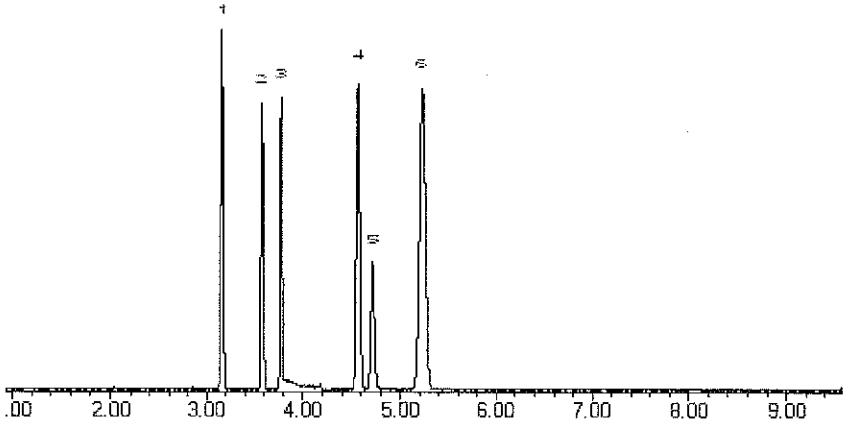
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

Date Mixed: 16-Dec-2019 **Balance:** 1127510105

Amanda Miller - Operations Tech-ARM QC

Date Passed: 27-Dec-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_00252

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)

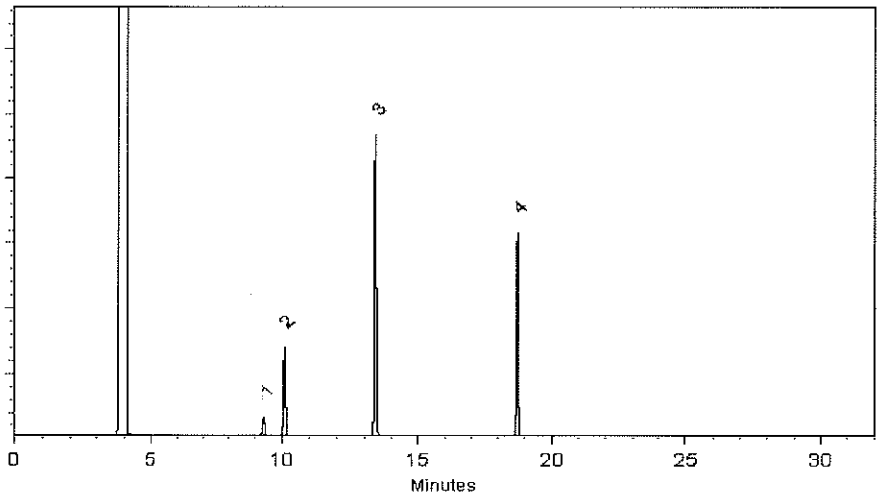
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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_ACROLEIN_00009

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
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CERTIFICATE OF ANALYSIS

Acrolein

CATALOG NUMBER	RPN-11030-1G
LOT NUMBER	10804400
DATE CERTIFIED	09/30/20
EXPIRATION DATE	09/30/21
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)	93.7

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

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CERTIFICATE OF ANALYSIS

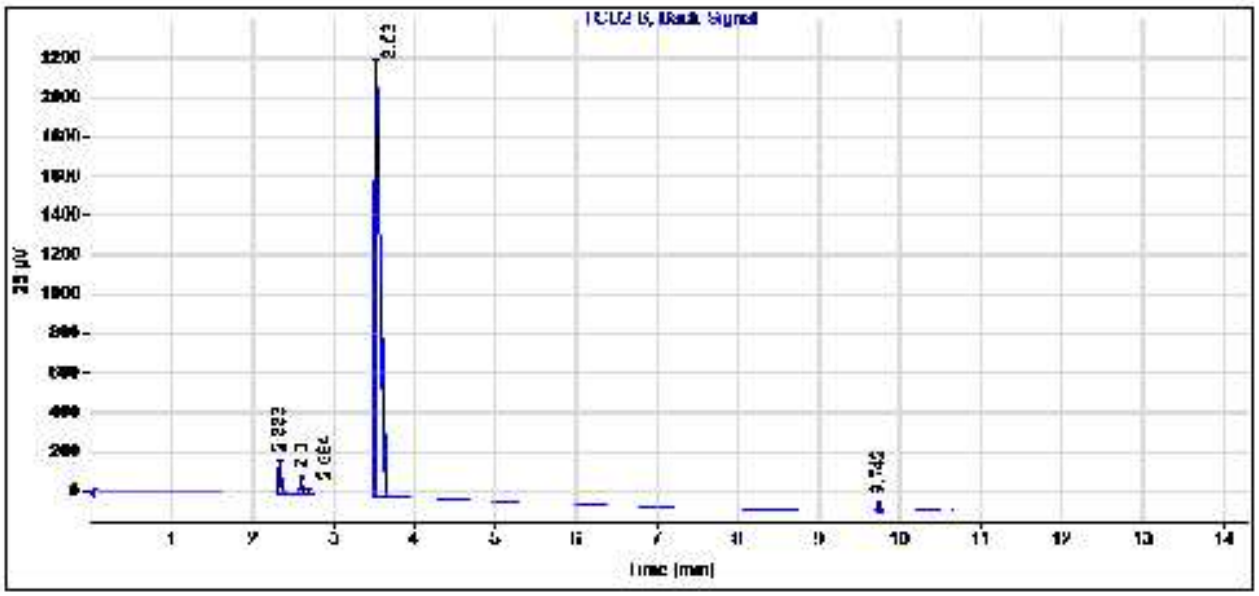
Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2020 DATA\0920\SIG2022755.D

Sample name: Acrolein

Instrument: GC 1
Injection date: 9/30/2020 9:06:04 AM
Acq. method: GASBOMB_TCD.M
Column name: DB-624 (30m x 0.53mm x 3.0um)

Sample type: Blank
Location:
Injection volume: 1.0uL



Signal: TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
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2.600	BV	0.0380	151.1861	63.0647	1.5703
2.684	VB	0.0386	21.2574	8.3698	0.2208
3.530	BB S	0.0570	9029.5508	2193.4321	93.7829
9.742	BB	0.0333	43.6692	20.1758	0.4536
		Sum	9628.1440		

Reagent

MSV_Cus826_IS_00156

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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

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.:** A0138205

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, 2021 **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		12,613.8	µg/mL	+/- 73.3376	µg/mL	Gravimetric
	CAS # 53001-22-2	(Lot PR-29485)			+/- 270.0624	µg/mL	Unstressed
	Purity 98%				+/- 277.9136	µg/mL	Stressed
2	Fluorobenzene		2,517.8	µg/mL	+/- 14.6387	µg/mL	Gravimetric
	CAS # 462-06-6	(Lot BCBK8171V)			+/- 53.9064	µg/mL	Unstressed
	Purity 99%				+/- 55.4736	µg/mL	Stressed
3	Chlorobenzene-d5		2,518.8	µg/mL	+/- 14.6445	µg/mL	Gravimetric
	CAS # 3114-55-4	(Lot PR-22736)			+/- 53.9278	µg/mL	Unstressed
	Purity 99%				+/- 55.4956	µg/mL	Stressed
4	1,4-Dichlorobenzene-d4		2,511.0	µg/mL	+/- 14.5992	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)			+/- 53.7608	µg/mL	Unstressed
	Purity 99%				+/- 55.3237	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)

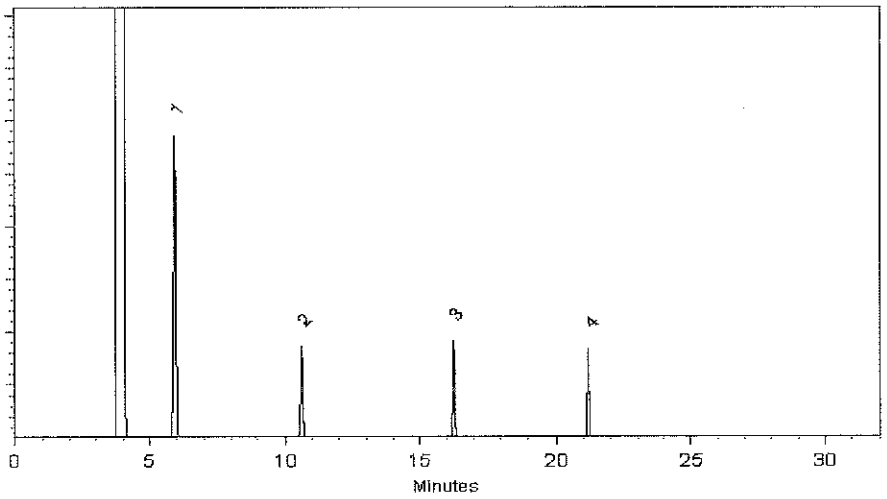
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Tom Suckar - Mix Technician

Date Mixed: 21-May-2018 **Balance:** 1128342314

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 23-May-2018

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity values are rounded to the nearest whole number.

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
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0°C or colder (Freezer)	< 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_DCFM_00034

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-502-61-10X
Description: Dichlorofluoromethane
Lot: 220101035
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Oct 6, 2020
Expiration: Oct 6, 2030
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY AT-1339

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Dichlorofluoromethane	75-43-4	98.0	2006	1966

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

MSV_EE_Neat_00003

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info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Ethyl ether

CATALOG NUMBER	N-11897-1G
LOT NUMBER	7967000
DATE CERTIFIED	11/16/18
EXPIRATION DATE	11/30/21
CAS NUMBER	60-29-7
MOLECULAR FORMULA	C4H10O
MOLECULAR WEIGHT	74.12
STORAGE	Store under refrigeration.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.
ISO GUIDE 34 CERTIFIED	[ ]

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

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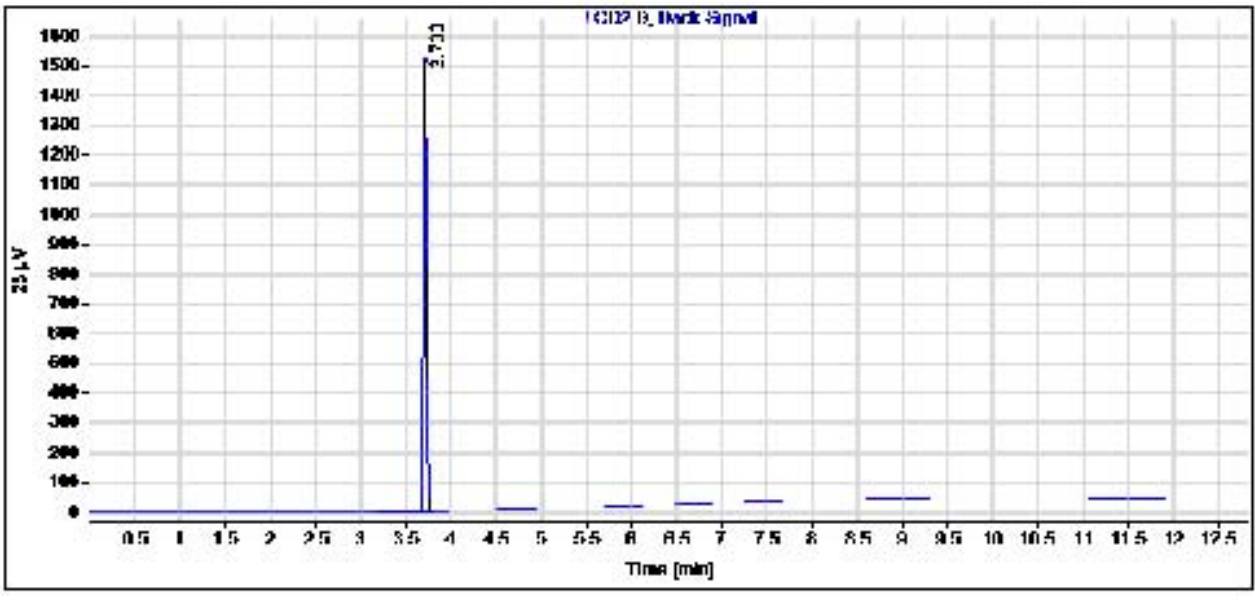
CERTIFICATE OF ANALYSIS

Gas Chromatography / Thermal Conductivity Detector (GC/TCD)

Data file: C:\CHEM32\1\DATA\2018 DATA\1118\SIG2080873.D

Sample name: Ethyl ether

Instrument:	GC 1	**Sample type:**	Sample
Injection date:	11/16/2018 10:06:22 AM	**Location:**	Vial 1
Acq. method:	TCD_M	**Injection volume:**	1.0uL
Column name:	DB-624 (30m x 0.53mm x 3.0um)		



Signal: TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
3.706	BV	0.0361	3473.9382	1497.5255	100.0000
		Sum	3473.9382		

Reagent

MSV_Q#1B_00093

RESTEK®
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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. : 569936-1.SEC **Lot No.:** A0165522

Description : Custom Revised Q #1B Standard

Custom Revised Q #1B Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,1-Dichloroethene	1,003.8 µg/mL	+/- 27.1548 µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 9201700)		+/- 62.2148 µg/mL	Unstressed
	Purity 99%		+/- 63.4085 µg/mL	Stressed
2	Methylene chloride (dichloromethane)	1,001.8 µg/mL	+/- 27.1007 µg/mL	Gravimetric
	CAS # 75-09-2.SEC (Lot FGM02)		+/- 62.0908 µg/mL	Unstressed
	Purity 99%		+/- 63.2822 µg/mL	Stressed
3	trans-1,2-Dichloroethene	1,000.3 µg/mL	+/- 27.0615 µg/mL	Gravimetric
	CAS # 156-60-5.SEC (Lot TS5UB)		+/- 62.0010 µg/mL	Unstressed
	Purity 99%		+/- 63.1906 µg/mL	Stressed
4	1,1-Dichloroethane	1,002.0 µg/mL	+/- 27.1075 µg/mL	Gravimetric
	CAS # 75-34-3.SEC (Lot 7482000)		+/- 62.1063 µg/mL	Unstressed
	Purity 99%		+/- 63.2980 µg/mL	Stressed
5	2,2-Dichloropropane	1,000.0 µg/mL	+/- 7.1361 µg/mL	Gravimetric
	CAS # 594-20-7.SEC (Lot I7E8E)		+/- 56.2215 µg/mL	Unstressed
	Purity 99%		+/- 57.5299 µg/mL	Stressed
6	cis-1,2-Dichloroethene	1,000.2 µg/mL	+/- 7.1372 µg/mL	Gravimetric
	CAS # 156-59-2.SEC (Lot YZO5O)		+/- 56.2305 µg/mL	Unstressed
	Purity 99%		+/- 57.5391 µg/mL	Stressed
7	Chloroform	1,000.8 µg/mL	+/- 27.0736 µg/mL	Gravimetric
	CAS # 67-66-3.SEC (Lot 1297547)		+/- 62.0289 µg/mL	Unstressed
	Purity 99%		+/- 63.2190 µg/mL	Stressed

8	1,1,1-trichloroethane		1,000.3	µg/mL	+/-	27.0618	µg/mL	Gravimetric
	CAS # 71-55-6 *	(Lot 190123CG)			+/-	62.0018	µg/mL	Unstressed
	Purity 98%				+/-	63.1914	µg/mL	Stressed
9	1,1-Dichloropropene		1,000.4	µg/mL	+/-	7.1389	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 556500)			+/-	56.2440	µg/mL	Unstressed
	Purity 99%				+/-	57.5529	µg/mL	Stressed
10	Carbon tetrachloride		1,000.8	µg/mL	+/-	27.0736	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	62.0289	µg/mL	Unstressed
	Purity 99%				+/-	63.2190	µg/mL	Stressed
11	1,2-Dichloroethane		1,000.6	µg/mL	+/-	27.0707	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot 00016165)			+/-	62.0222	µg/mL	Unstressed
	Purity 99%				+/-	63.2122	µg/mL	Stressed
12	Benzene		1,000.1	µg/mL	+/-	7.1366	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	56.2260	µg/mL	Unstressed
	Purity 99%				+/-	57.5345	µg/mL	Stressed
13	Trichloroethene		1,000.9	µg/mL	+/-	27.0771	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	62.0368	µg/mL	Unstressed
	Purity 99%				+/-	63.2271	µg/mL	Stressed
14	1,2-Dichloropropane		1,000.1	µg/mL	+/-	27.0571	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)			+/-	61.9910	µg/mL	Unstressed
	Purity 99%				+/-	63.1805	µg/mL	Stressed
15	Bromodichloromethane		1,000.8	µg/mL	+/-	27.0749	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)			+/-	62.0316	µg/mL	Unstressed
	Purity 99%				+/-	63.2218	µg/mL	Stressed
16	Dibromomethane		1,000.1	µg/mL	+/-	7.1366	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot MOKKJ)			+/-	56.2260	µg/mL	Unstressed
	Purity 99%				+/-	57.5345	µg/mL	Stressed
17	cis-1,3-Dichloropropene		1,000.9	µg/mL	+/-	27.0778	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	62.0384	µg/mL	Unstressed
	Purity 98%				+/-	63.2287	µg/mL	Stressed
18	Toluene		1,000.1	µg/mL	+/-	7.1366	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	56.2260	µg/mL	Unstressed
	Purity 99%				+/-	57.5345	µg/mL	Stressed
19	trans-1,3-Dichloropropene		1,002.1	µg/mL	+/-	27.1112	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	62.1150	µg/mL	Unstressed
	Purity 96%				+/-	63.3068	µg/mL	Stressed
20	1,1,2-Trichloroethane		1,001.3	µg/mL	+/-	27.0872	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)			+/-	62.0598	µg/mL	Unstressed
	Purity 99%				+/-	63.2506	µg/mL	Stressed
21	1,3-Dichloropropane		1,000.1	µg/mL	+/-	7.1366	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot IQCON)			+/-	56.2260	µg/mL	Unstressed
	Purity 99%				+/-	57.5345	µg/mL	Stressed
22	Tetrachloroethene		1,000.2	µg/mL	+/-	27.0598	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	61.9972	µg/mL	Unstressed
	Purity 99%				+/-	63.1868	µg/mL	Stressed
23	Dibromochloromethane		1,000.5	µg/mL	+/-	27.0665	µg/mL	Gravimetric
	CAS # 124-48-1.SEC	(Lot 10206360)			+/-	62.0126	µg/mL	Unstressed
	Purity 97%				+/-	63.2024	µg/mL	Stressed

24	1,2-Dibromoethane (EDB)		1,000.3	µg/mL	+/-	7.1384	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 8529900)			+/-	56.2395	µg/mL	Unstressed
	Purity 99%				+/-	57.5483	µg/mL	Stressed
25	1-Chlorohexane		1,002.0	µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 544-10-5.SEC	(Lot 8171700)			+/-	56.1943	µg/mL	Unstressed
	Purity 99%				+/-	57.5086	µg/mL	Stressed
26	Chlorobenzene		1,001.4	µg/mL	+/-	27.0909	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)			+/-	62.0684	µg/mL	Unstressed
	Purity 99%				+/-	63.2593	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane		1,000.5	µg/mL	+/-	7.1395	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot 9366000)			+/-	56.2485	µg/mL	Unstressed
	Purity 99%				+/-	57.5576	µg/mL	Stressed
28	Ethylbenzene		1,000.4	µg/mL	+/-	7.1389	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)			+/-	56.2440	µg/mL	Unstressed
	Purity 99%				+/-	57.5529	µg/mL	Stressed
29	m-Xylene		1,000.3	µg/mL	+/-	7.1384	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)			+/-	56.2395	µg/mL	Unstressed
	Purity 99%				+/-	57.5483	µg/mL	Stressed
30	p-Xylene		1,000.0	µg/mL	+/-	7.1361	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot D6UOA)			+/-	56.2215	µg/mL	Unstressed
	Purity 99%				+/-	57.5299	µg/mL	Stressed
31	o-Xylene		1,000.2	µg/mL	+/-	7.1372	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01)			+/-	56.2305	µg/mL	Unstressed
	Purity 99%				+/-	57.5391	µg/mL	Stressed
32	Styrene		1,000.5	µg/mL	+/-	7.1395	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot QGQ7F)			+/-	56.2485	µg/mL	Unstressed
	Purity 99%				+/-	57.5576	µg/mL	Stressed
33	Isopropylbenzene (cumene)		1,000.1	µg/mL	+/-	7.1366	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot WVREC)			+/-	56.2260	µg/mL	Unstressed
	Purity 99%				+/-	57.5345	µg/mL	Stressed
34	Bromoform		1,001.7	µg/mL	+/-	27.1004	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 9170700)			+/-	62.0902	µg/mL	Unstressed
	Purity 99%				+/-	63.2815	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane		1,001.6	µg/mL	+/-	27.0978	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot BCCB0724)			+/-	62.0842	µg/mL	Unstressed
	Purity 98%				+/-	63.2754	µg/mL	Stressed
36	1,2,3-Trichloropropane		1,000.0	µg/mL	+/-	7.1361	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot GUHZN)			+/-	56.2215	µg/mL	Unstressed
	Purity 99%				+/-	57.5299	µg/mL	Stressed
37	n-Propylbenzene		1,000.2	µg/mL	+/-	7.1372	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC)			+/-	56.2305	µg/mL	Unstressed
	Purity 99%				+/-	57.5391	µg/mL	Stressed
38	Bromobenzene		1,000.1	µg/mL	+/-	7.1366	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 8DKWJ)			+/-	56.2260	µg/mL	Unstressed
	Purity 99%				+/-	57.5345	µg/mL	Stressed
39	1,3,5-Trichlorobenzene		1,002.0	µg/mL	+/-	5.9516	µg/mL	Gravimetric
	CAS # 108-70-3.SEC	(Lot I28U021)			+/-	56.1943	µg/mL	Unstressed
	Purity 99%				+/-	57.5086	µg/mL	Stressed

40	2-Chlorotoluene		1,000.1	µg/mL	+/- 7.1366	µg/mL	Gravimetric
	CAS # 95-49-8.SEC	(Lot BRHPM)			+/- 56.2260	µg/mL	Unstressed
	Purity 99%				+/- 57.5345	µg/mL	Stressed
41	4-Chlorotoluene		1,000.1	µg/mL	+/- 7.1366	µg/mL	Gravimetric
	CAS # 106-43-4.SEC	(Lot S5SKD)			+/- 56.2260	µg/mL	Unstressed
	Purity 99%				+/- 57.5345	µg/mL	Stressed
42	tert-Butylbenzene		1,000.2	µg/mL	+/- 7.1378	µg/mL	Gravimetric
	CAS # 98-06-6.SEC	(Lot D6OHC)			+/- 56.2350	µg/mL	Unstressed
	Purity 99%				+/- 57.5437	µg/mL	Stressed
43	1,2,4-Trimethylbenzene		1,000.5	µg/mL	+/- 7.1395	µg/mL	Gravimetric
	CAS # 95-63-6.SEC	(Lot JMIYD)			+/- 56.2485	µg/mL	Unstressed
	Purity 99%				+/- 57.5576	µg/mL	Stressed
44	sec-Butylbenzene		1,000.0	µg/mL	+/- 7.1361	µg/mL	Gravimetric
	CAS # 135-98-8.SEC	(Lot O4HRF)			+/- 56.2215	µg/mL	Unstressed
	Purity 99%				+/- 57.5299	µg/mL	Stressed
45	4-Isopropyltoluene (p-cymene)		1,000.2	µg/mL	+/- 7.1378	µg/mL	Gravimetric
	CAS # 99-87-6.SEC	(Lot 6628200)			+/- 56.2350	µg/mL	Unstressed
	Purity 99%				+/- 57.5437	µg/mL	Stressed
46	1,3-Dichlorobenzene		1,000.1	µg/mL	+/- 27.0551	µg/mL	Gravimetric
	CAS # 541-73-1.SEC	(Lot FMDFD)			+/- 61.9864	µg/mL	Unstressed
	Purity 99%				+/- 63.1757	µg/mL	Stressed
47	1,4-Dichlorobenzene		1,002.5	µg/mL	+/- 27.1206	µg/mL	Gravimetric
	CAS # 106-46-7.SEC	(Lot YWKDC-MK)			+/- 62.1364	µg/mL	Unstressed
	Purity 99%				+/- 63.3286	µg/mL	Stressed
48	n-Butylbenzene		1,000.2	µg/mL	+/- 7.1372	µg/mL	Gravimetric
	CAS # 104-51-8.SEC	(Lot MMPGA)			+/- 56.2305	µg/mL	Unstressed
	Purity 99%				+/- 57.5391	µg/mL	Stressed
49	1,2-Dichlorobenzene		1,001.6	µg/mL	+/- 27.0966	µg/mL	Gravimetric
	CAS # 95-50-1.SEC	(Lot R6QDM)			+/- 62.0815	µg/mL	Unstressed
	Purity 99%				+/- 63.2727	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane		1,000.5	µg/mL	+/- 7.1395	µg/mL	Gravimetric
	CAS # 96-12-8.SEC	(Lot Q135-105)			+/- 56.2485	µg/mL	Unstressed
	Purity 99%				+/- 57.5576	µg/mL	Stressed
51	1,3,5-Trimethylbenzene		1,000.2	µg/mL	+/- 7.1372	µg/mL	Gravimetric
	CAS # 108-67-8.SEC	(Lot TOOOF)			+/- 56.2305	µg/mL	Unstressed
	Purity 99%				+/- 57.5391	µg/mL	Stressed
52	1,2,4-Trichlorobenzene		1,000.2	µg/mL	+/- 7.1372	µg/mL	Gravimetric
	CAS # 120-82-1.SEC	(Lot IGLFA)			+/- 56.2305	µg/mL	Unstressed
	Purity 99%				+/- 57.5391	µg/mL	Stressed
53	Hexachlorobutadiene		1,000.0	µg/mL	+/- 7.1363	µg/mL	Gravimetric
	CAS # 87-68-3.SEC	(Lot 6878400)			+/- 56.2232	µg/mL	Unstressed
	Purity 97%				+/- 57.5317	µg/mL	Stressed
54	Naphthalene		1,000.4	µg/mL	+/- 7.1389	µg/mL	Gravimetric
	CAS # 91-20-3.SEC	(Lot SKZ5N)			+/- 56.2440	µg/mL	Unstressed
	Purity 99%				+/- 57.5529	µg/mL	Stressed
55	1,2,3-Trichlorobenzene		1,000.2	µg/mL	+/- 7.1377	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)			+/- 56.2342	µg/mL	Unstressed
	Purity 98%				+/- 57.5430	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)

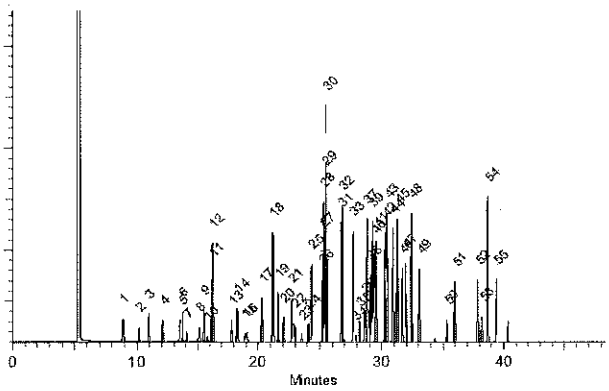
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 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.

Michael J Maye

Date Mixed: 20-Oct-2020 **Balance:** 1128342314

Justine Albertson - Operations Tech-ARM QC

Date Passed: 23-Oct-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -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#3B_00074

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. : 56736.SEC **Lot No.:** A0158722

Description : Custom Q #3B Standard

Custom Q #3B Standard 1,000-7,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	7,550.0 µg/mL	+/- 44.3076 µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot U13B039)		+/- 373.5308 µg/mL	Unstressed
	Purity 99%		+/- 382.8166 µg/mL	Stressed
2	Acrylonitrile	5,003.0 µg/mL	+/- 29.3604 µg/mL	Gravimetric
	CAS # 107-13-1.SEC (Lot CCFKL-GL)		+/- 247.5198 µg/mL	Unstressed
	Purity 99%		+/- 253.6730 µg/mL	Stressed
3	2-Butanone (MEK)	7,517.0 µg/mL	+/- 44.1140 µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/- 371.8982 µg/mL	Unstressed
	Purity 99%		+/- 381.1434 µg/mL	Stressed
4	Tetrahydrofuran	5,023.0 µg/mL	+/- 29.4778 µg/mL	Gravimetric
	CAS # 109-99-9.SEC (Lot 8DAOJ)		+/- 248.5093 µg/mL	Unstressed
	Purity 99%		+/- 254.6871 µg/mL	Stressed
5	2-Nitropropane	1,000.6 µg/mL	+/- 5.9431 µg/mL	Gravimetric
	CAS # 79-46-9.SEC (Lot Y4YWD)		+/- 49.5115 µg/mL	Unstressed
	Purity 98%		+/- 50.7419 µg/mL	Stressed
6	4-Methyl-2-pentanone (MIBK)	5,032.0 µg/mL	+/- 29.5306 µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/- 248.9546 µg/mL	Unstressed
	Purity 99%		+/- 255.1435 µg/mL	Stressed
7	2-Hexanone	5,036.2 µg/mL	+/- 29.5554 µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/- 249.1634 µg/mL	Unstressed
	Purity 98%		+/- 255.3574 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)

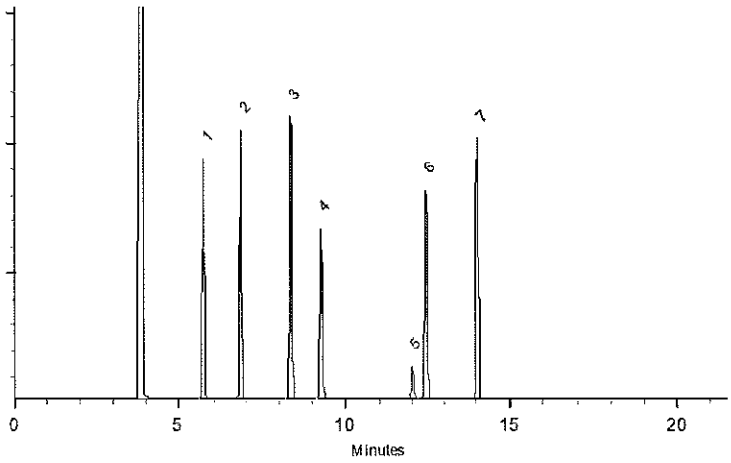
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Brandon Reish - Mix Technician

Date Mixed: 11-Mar-2020 **Balance:** 1127510105

Justine Albertson - Operations Tech-ARM QC

Date Passed: 19-Mar-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

  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_Q#4C_00080

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Tel: (800)356-1688
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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. : 572312.SEC **Lot No.:** A0158704

Description : Custom Q #4C (Rev 3) Standard

Custom Q #4C (Rev 3) Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,3-Butadiene	999.8 µg/mL	+/- 9.3559	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 24033)		+/- 60.7686	µg/mL	Unstressed
	Purity 99%		+/- 60.9107	µg/mL	Stressed
2	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	998.8 µg/mL	+/- 17.4916	µg/mL	Gravimetric
	CAS # 354-23-4 * (Lot Q9B-64)		+/- 62.4823	µg/mL	Unstressed
	Purity 99%		+/- 62.6203	µg/mL	Stressed
3	n-Pentane (C5)	1,002.5 µg/mL	+/- 5.8832	µg/mL	Gravimetric
	CAS # 109-66-0.SEC (Lot FGH02)		+/- 60.4906	µg/mL	Unstressed
	Purity 99%		+/- 60.6341	µg/mL	Stressed
4	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,003.5 µg/mL	+/- 5.8891	µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/- 60.5509	µg/mL	Unstressed
	Purity 99%		+/- 60.6946	µg/mL	Stressed
5	Iodomethane (methyl iodide)	1,008.0 µg/mL	+/- 5.9155	µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/- 60.8224	µg/mL	Unstressed
	Purity 99%		+/- 60.9668	µg/mL	Stressed
6	Carbon disulfide	1,005.0 µg/mL	+/- 5.8979	µg/mL	Gravimetric
	CAS # 75-15-0.SEC (Lot MKBL1376V)		+/- 60.6414	µg/mL	Unstressed
	Purity 99%		+/- 60.7854	µg/mL	Stressed
7	Methyl-tert-butyl ether (MTBE)	1,002.0 µg/mL	+/- 5.8803	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC (Lot ZHKYA)		+/- 60.4604	µg/mL	Unstressed
	Purity 99%		+/- 60.6039	µg/mL	Stressed

8	n-Hexane (C6)		1,002.0	µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot 10188491)			+/-	60.4604	µg/mL	Unstressed
	Purity 99%				+/-	60.6039	µg/mL	Stressed
9	Diisopropyl ether (DIPE)		1,003.0	µg/mL	+/-	5.8862	µg/mL	Gravimetric
	CAS # 108-20-3.SEC	(Lot LL7TN-SH)			+/-	60.5207	µg/mL	Unstressed
	Purity 99%				+/-	60.6644	µg/mL	Stressed
10	Chloroprene (2-chloro-1,3-butadiene)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 126-99-8 *	(Lot 191204JLM)			+/-	60.4302	µg/mL	Unstressed
	Purity 99%				+/-	60.5737	µg/mL	Stressed
11	Ethyl-tert-butyl ether (ETBE)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 637-92-3.SEC	(Lot MHBJG-QK)			+/-	60.4000	µg/mL	Unstressed
	Purity 99%				+/-	60.5434	µg/mL	Stressed
12	Cyclohexane		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	60.4302	µg/mL	Unstressed
	Purity 99%				+/-	60.5737	µg/mL	Stressed
13	tert-Amyl methyl ether (TAME)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS # 994-05-8.SEC	(Lot 8471400)			+/-	60.7017	µg/mL	Unstressed
	Purity 99%				+/-	60.8458	µg/mL	Stressed
14	n-Heptane (C7)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot OGM01)			+/-	60.7017	µg/mL	Unstressed
	Purity 99%				+/-	60.8458	µg/mL	Stressed
15	tert-Amyl ethyl ether (TAEE)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS # 919-94-8.SEC	(Lot 6455100)			+/-	60.7017	µg/mL	Unstressed
	Purity 99%				+/-	60.8458	µg/mL	Stressed
16	Methyl methacrylate		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS # 80-62-6.SEC	(Lot G01X021)			+/-	60.7017	µg/mL	Unstressed
	Purity 99%				+/-	60.8458	µg/mL	Stressed
17	Ethyl methacrylate		1,004.5	µg/mL	+/-	5.8950	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	60.6112	µg/mL	Unstressed
	Purity 99%				+/-	60.7551	µg/mL	Stressed
18	Benzyl chloride		1,003.5	µg/mL	+/-	5.8891	µg/mL	Gravimetric
	CAS # 100-44-7.SEC	(Lot H29N03)			+/-	60.5509	µg/mL	Unstressed
	Purity 99%				+/-	60.6946	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)

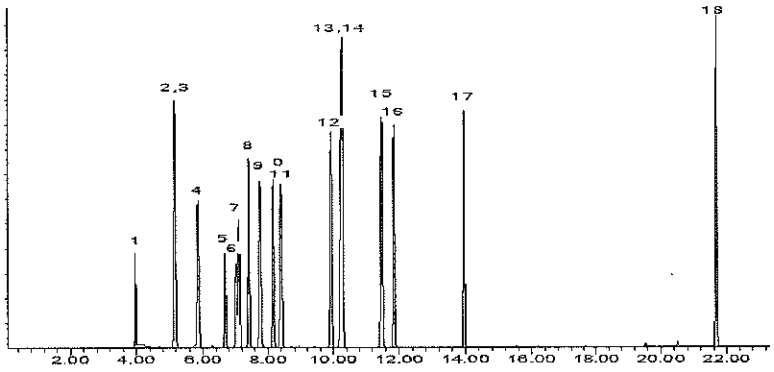
Carrier Gas:
helium-constant pressure 30 psi

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.

Matt Fragassi - Mix Technician

Date Mixed: 11-Mar-2020 **Balance:** 1128342314

Feng-Yun Lo – QC Analyst

Date Passed: 25-Mar-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

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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. : 572312.SEC **Lot No.:** A0158704

Description : Custom Q #4C (Rev 3) Standard

Custom Q #4C (Rev 3) Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,3-Butadiene	999.8 µg/mL	+/- 9.3559 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 24033)		+/- 60.7686 µg/mL	Unstressed
	Purity 99%		+/- 60.9107 µg/mL	Stressed
2	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	998.8 µg/mL	+/- 17.4916 µg/mL	Gravimetric
	CAS # 354-23-4 * (Lot Q9B-64)		+/- 62.4823 µg/mL	Unstressed
	Purity 99%		+/- 62.6203 µg/mL	Stressed
3	n-Pentane (C5)	1,002.5 µg/mL	+/- 5.8832 µg/mL	Gravimetric
	CAS # 109-66-0.SEC (Lot FGH02)		+/- 60.4906 µg/mL	Unstressed
	Purity 99%		+/- 60.6341 µg/mL	Stressed
4	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,003.5 µg/mL	+/- 5.8891 µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/- 60.5509 µg/mL	Unstressed
	Purity 99%		+/- 60.6946 µg/mL	Stressed
5	Iodomethane (methyl iodide)	1,008.0 µg/mL	+/- 5.9155 µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/- 60.8224 µg/mL	Unstressed
	Purity 99%		+/- 60.9668 µg/mL	Stressed
6	Carbon disulfide	1,005.0 µg/mL	+/- 5.8979 µg/mL	Gravimetric
	CAS # 75-15-0.SEC (Lot MKBL1376V)		+/- 60.6414 µg/mL	Unstressed
	Purity 99%		+/- 60.7854 µg/mL	Stressed
7	Methyl-tert-butyl ether (MTBE)	1,002.0 µg/mL	+/- 5.8803 µg/mL	Gravimetric
	CAS # 1634-04-4.SEC (Lot ZHKYA)		+/- 60.4604 µg/mL	Unstressed
	Purity 99%		+/- 60.6039 µg/mL	Stressed

8	n-Hexane (C6)		1,002.0	µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot 10188491)			+/-	60.4604	µg/mL	Unstressed
	Purity 99%				+/-	60.6039	µg/mL	Stressed
9	Diisopropyl ether (DIPE)		1,003.0	µg/mL	+/-	5.8862	µg/mL	Gravimetric
	CAS # 108-20-3.SEC	(Lot LL7TN-SH)			+/-	60.5207	µg/mL	Unstressed
	Purity 99%				+/-	60.6644	µg/mL	Stressed
10	Chloroprene (2-chloro-1,3-butadiene)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 126-99-8 *	(Lot 191204JLM)			+/-	60.4302	µg/mL	Unstressed
	Purity 99%				+/-	60.5737	µg/mL	Stressed
11	Ethyl-tert-butyl ether (ETBE)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 637-92-3.SEC	(Lot MHBJG-QK)			+/-	60.4000	µg/mL	Unstressed
	Purity 99%				+/-	60.5434	µg/mL	Stressed
12	Cyclohexane		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	60.4302	µg/mL	Unstressed
	Purity 99%				+/-	60.5737	µg/mL	Stressed
13	tert-Amyl methyl ether (TAME)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS # 994-05-8.SEC	(Lot 8471400)			+/-	60.7017	µg/mL	Unstressed
	Purity 99%				+/-	60.8458	µg/mL	Stressed
14	n-Heptane (C7)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot OGM01)			+/-	60.7017	µg/mL	Unstressed
	Purity 99%				+/-	60.8458	µg/mL	Stressed
15	tert-Amyl ethyl ether (TAEE)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS # 919-94-8.SEC	(Lot 6455100)			+/-	60.7017	µg/mL	Unstressed
	Purity 99%				+/-	60.8458	µg/mL	Stressed
16	Methyl methacrylate		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS # 80-62-6.SEC	(Lot G01X021)			+/-	60.7017	µg/mL	Unstressed
	Purity 99%				+/-	60.8458	µg/mL	Stressed
17	Ethyl methacrylate		1,004.5	µg/mL	+/-	5.8950	µg/mL	Gravimetric
	CAS # 97-63-2.SEC	(Lot MLWYK-LS)			+/-	60.6112	µg/mL	Unstressed
	Purity 99%				+/-	60.7551	µg/mL	Stressed
18	Benzyl chloride		1,003.5	µg/mL	+/-	5.8891	µg/mL	Gravimetric
	CAS # 100-44-7.SEC	(Lot H29N03)			+/-	60.5509	µg/mL	Unstressed
	Purity 99%				+/-	60.6946	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)

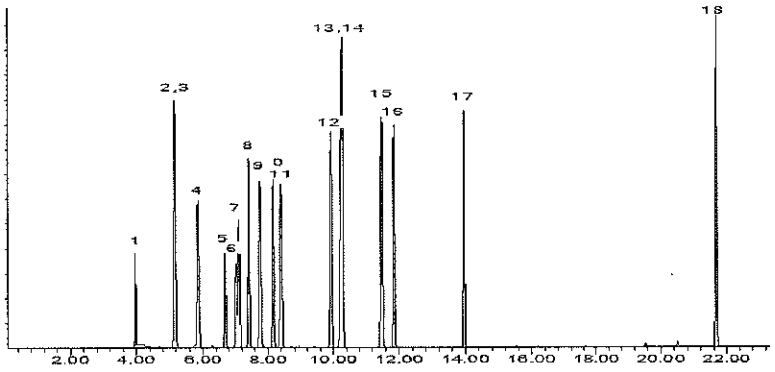
Carrier Gas:
helium-constant pressure 30 psi

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.

Matt Fragassi - Mix Technician

Date Mixed: 11-Mar-2020 **Balance:** 1128342314

Feng-Yun Lo – QC Analyst

Date Passed: 25-Mar-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

MSV_QCS#6Std_00079

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Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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. : 558268.SEC **Lot No.:** A0158906

Description : Custom QCS #6 Standard

Custom QCS #6 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Methyl acetate		1,005.3 µg/mL	+/- 5.9714 µg/mL	Gravimetric
	CAS # 79-20-9.SEC	(Lot 6WOXM-KD)		+/- 60.6685 µg/mL	Unstressed
	Purity 99%			+/- 60.8125 µg/mL	Stressed
2	Allyl chloride (3-chloropropene)		1,001.3 µg/mL	+/- 5.9476 µg/mL	Gravimetric
	CAS # 107-05-1.SEC	(Lot H3HGC)		+/- 60.4271 µg/mL	Unstressed
	Purity 99%			+/- 60.5705 µg/mL	Stressed
3	Bromochloromethane		1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 8529200)		+/- 60.4674 µg/mL	Unstressed
	Purity 99%			+/- 60.6109 µg/mL	Stressed
4	Methylcyclohexane		1,004.7 µg/mL	+/- 5.9674 µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot 24MSD-CD)		+/- 60.6283 µg/mL	Unstressed
	Purity 99%			+/- 60.7722 µg/mL	Stressed
5	Pentachloroethane		1,004.7 µg/mL	+/- 5.9674 µg/mL	Gravimetric
	CAS # 76-01-7.SEC	(Lot 8170200)		+/- 60.6283 µg/mL	Unstressed
	Purity 99%			+/- 60.7722 µg/mL	Stressed
6	1,2,3-Trimethylbenzene		1,004.6 µg/mL	+/- 5.9673 µg/mL	Gravimetric
	CAS # 526-73-8.SEC	(Lot 7110200)		+/- 60.6267 µg/mL	Unstressed
	Purity 92%			+/- 60.7706 µg/mL	Stressed
7	1,3-Diethylbenzene		1,006.0 µg/mL	+/- 5.9753 µg/mL	Gravimetric
	CAS # 141-93-5.SEC	(Lot 113566-1)		+/- 60.7087 µg/mL	Unstressed
	Purity 99%			+/- 60.8528 µg/mL	Stressed

8	1,4-Diethylbenzene		1,006.1 µg/mL	+/-	5.9761	µg/mL	Gravimetric
	CAS # 105-05-5.SEC	(Lot FBQ02)		+/-	60.7168	µg/mL	Unstressed
	Purity 98%			+/-	60.8609	µg/mL	Stressed
9	1,2-Diethylbenzene		1,008.7 µg/mL	+/-	5.9912	µg/mL	Gravimetric
	CAS # 135-01-3.SEC	(Lot BCBF3667V)		+/-	60.8697	µg/mL	Unstressed
	Purity 99%			+/-	61.0141	µg/mL	Stressed
10	2-Methylnaphthalene		1,006.0 µg/mL	+/-	5.9753	µg/mL	Gravimetric
	CAS # 91-57-6.SEC	(Lot 76023-1)		+/-	60.7087	µg/mL	Unstressed
	Purity 99%			+/-	60.8528	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)

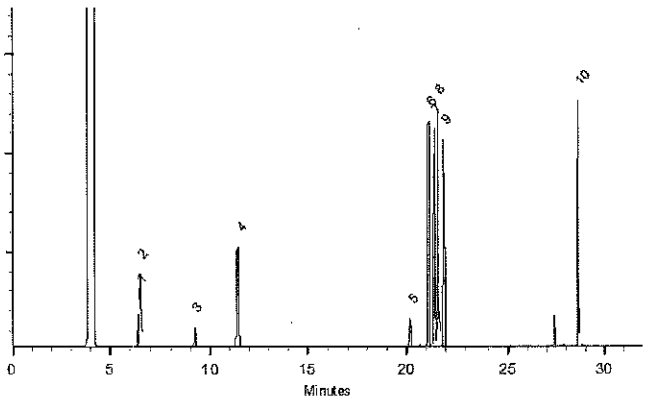
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Dalton Stover - Operations Technician I

Date Mixed: 17-Mar-2020 **Balance:** 1128342314

Feng-Yun Lo - QC Analyst

Date Passed: 20-Mar-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

MSV_QCS#6Std_00089

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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. : 558268.SEC **Lot No.:** A0158906

Description : Custom QCS #6 Standard

Custom QCS #6 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl acetate		1,005.3 µg/mL	+/- 5.9714	µg/mL	Gravimetric
	CAS # 79-20-9.SEC	(Lot 6WOXM-KD)		+/- 60.6685	µg/mL	Unstressed
	Purity 99%			+/- 60.8125	µg/mL	Stressed
2	Allyl chloride (3-chloropropene)		1,001.3 µg/mL	+/- 5.9476	µg/mL	Gravimetric
	CAS # 107-05-1.SEC	(Lot H3HGC)		+/- 60.4271	µg/mL	Unstressed
	Purity 99%			+/- 60.5705	µg/mL	Stressed
3	Bromochloromethane		1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 8529200)		+/- 60.4674	µg/mL	Unstressed
	Purity 99%			+/- 60.6109	µg/mL	Stressed
4	Methylcyclohexane		1,004.7 µg/mL	+/- 5.9674	µg/mL	Gravimetric
	CAS # 108-87-2.SEC	(Lot 24MSD-CD)		+/- 60.6283	µg/mL	Unstressed
	Purity 99%			+/- 60.7722	µg/mL	Stressed
5	Pentachloroethane		1,004.7 µg/mL	+/- 5.9674	µg/mL	Gravimetric
	CAS # 76-01-7.SEC	(Lot 8170200)		+/- 60.6283	µg/mL	Unstressed
	Purity 99%			+/- 60.7722	µg/mL	Stressed
6	1,2,3-Trimethylbenzene		1,004.6 µg/mL	+/- 5.9673	µg/mL	Gravimetric
	CAS # 526-73-8.SEC	(Lot 7110200)		+/- 60.6267	µg/mL	Unstressed
	Purity 92%			+/- 60.7706	µg/mL	Stressed
7	1,3-Diethylbenzene		1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 141-93-5.SEC	(Lot 113566-1)		+/- 60.7087	µg/mL	Unstressed
	Purity 99%			+/- 60.8528	µg/mL	Stressed

8	1,4-Diethylbenzene		1,006.1 µg/mL	+/-	5.9761	µg/mL	Gravimetric
	CAS # 105-05-5.SEC	(Lot FBQ02)		+/-	60.7168	µg/mL	Unstressed
	Purity 98%			+/-	60.8609	µg/mL	Stressed
9	1,2-Diethylbenzene		1,008.7 µg/mL	+/-	5.9912	µg/mL	Gravimetric
	CAS # 135-01-3.SEC	(Lot BCBF3667V)		+/-	60.8697	µg/mL	Unstressed
	Purity 99%			+/-	61.0141	µg/mL	Stressed
10	2-Methylnaphthalene		1,006.0 µg/mL	+/-	5.9753	µg/mL	Gravimetric
	CAS # 91-57-6.SEC	(Lot 76023-1)		+/-	60.7087	µg/mL	Unstressed
	Purity 99%			+/-	60.8528	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)

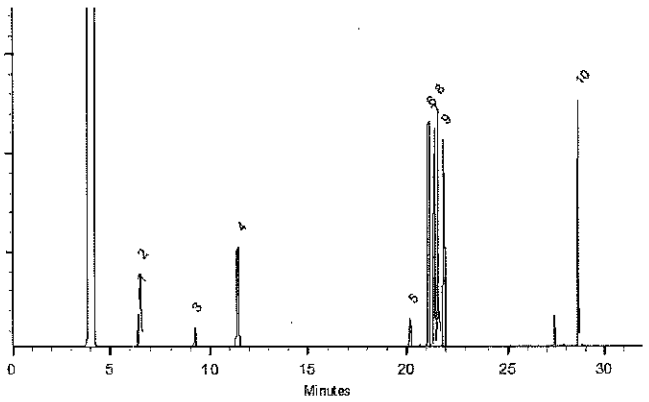
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Dalton Stover - Operations Technician I

Date Mixed: 17-Mar-2020 **Balance:** 1128342314

Feng-Yun Lo - QC Analyst

Date Passed: 20-Mar-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

  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.

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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

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. : 569936-1 **Lot No.:** A0158586

Description : Custom Revised V #1B Standard

Custom Revised V #1B Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBK2437) **Purity** 99%	5,011.4 µg/mL	+/- 31.9644 µg/mL +/- 281.2901 µg/mL +/- 287.8577 µg/mL	Gravimetric Unstressed Stressed
2	Methylene chloride (dichloromethane) **CAS #** 75-09-2 (Lot SHBL3107) **Purity** 99%	5,004.6 µg/mL	+/- 31.9213 µg/mL +/- 280.9112 µg/mL +/- 287.4700 µg/mL	Gravimetric Unstressed Stressed
3	trans-1,2-Dichloroethene **CAS #** 156-60-5 (Lot MKBH9850V) **Purity** 99%	5,017.5 µg/mL	+/- 32.0035 µg/mL +/- 281.6339 µg/mL +/- 288.2096 µg/mL	Gravimetric Unstressed Stressed
4	1,1-Dichloroethane **CAS #** 75-34-3 (Lot 580900) **Purity** 99%	5,020.4 µg/mL	+/- 32.0218 µg/mL +/- 281.7953 µg/mL +/- 288.3747 µg/mL	Gravimetric Unstressed Stressed
5	2,2-Dichloropropane **CAS #** 594-20-7 (Lot BCBT5124) **Purity** 99%	5,050.0 µg/mL	+/- 32.0202 µg/mL +/- 283.4366 µg/mL +/- 290.0553 µg/mL	Gravimetric Unstressed Stressed
6	cis-1,2-Dichloroethene **CAS #** 156-59-2 (Lot MKBX5945V) **Purity** 99%	5,046.5 µg/mL	+/- 31.9980 µg/mL +/- 283.2401 µg/mL +/- 289.8543 µg/mL	Gravimetric Unstressed Stressed
7	chloroform **CAS #** 67-66-3 (Lot SHBJ9076) **Purity** 99%	5,034.3 µg/mL	+/- 32.1103 µg/mL +/- 282.5741 µg/mL +/- 289.1717 µg/mL	Gravimetric Unstressed Stressed

8	1,1,1-trichloroethane		5,001.3	µg/mL	+/-	31.9002	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot 190123CG)			+/-	280.7250	µg/mL	Unstressed
	Purity 98%				+/-	287.2795	µg/mL	Stressed
9	1,1-Dichloropropene		5,048.9	µg/mL	+/-	32.0131	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot 170301JLM)			+/-	283.3734	µg/mL	Unstressed
	Purity 99%				+/-	289.9907	µg/mL	Stressed
10	carbon tetrachloride		5,022.9	µg/mL	+/-	32.0378	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBG8938V)			+/-	281.9356	µg/mL	Unstressed
	Purity 99%				+/-	288.5183	µg/mL	Stressed
11	1,2-Dichloroethane		5,007.9	µg/mL	+/-	31.9421	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot MKCH9948)			+/-	281.0937	µg/mL	Unstressed
	Purity 99%				+/-	287.6567	µg/mL	Stressed
12	Benzene		5,042.9	µg/mL	+/-	31.9750	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot SHBG7317V)			+/-	283.0367	µg/mL	Unstressed
	Purity 99%				+/-	289.6461	µg/mL	Stressed
13	Trichloroethene		5,012.9	µg/mL	+/-	31.9740	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBJ4611)			+/-	281.3743	µg/mL	Unstressed
	Purity 99%				+/-	287.9439	µg/mL	Stressed
14	1,2-Dichloropropane		5,012.6	µg/mL	+/-	31.9724	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot BCBR0882V)			+/-	281.3603	µg/mL	Unstressed
	Purity 99%				+/-	287.9295	µg/mL	Stressed
15	bromodichloromethane		5,039.1	µg/mL	+/-	32.1414	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot MKCJ0238)			+/-	282.8477	µg/mL	Unstressed
	Purity 99%				+/-	289.4517	µg/mL	Stressed
16	Dibromomethane		5,047.3	µg/mL	+/-	32.0027	µg/mL	Gravimetric
	CAS # 74-95-3	(Lot 10201030)			+/-	283.2822	µg/mL	Unstressed
	Purity 99%				+/-	289.8973	µg/mL	Stressed
17	cis-1,3-Dichloropropene		5,015.1	µg/mL	+/-	31.9883	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot 200107JLM)			+/-	281.5006	µg/mL	Unstressed
	Purity 99%				+/-	288.0731	µg/mL	Stressed
18	Toluene		5,031.9	µg/mL	+/-	31.9053	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot SHBH9895)			+/-	282.4193	µg/mL	Unstressed
	Purity 99%				+/-	289.0143	µg/mL	Stressed
19	trans-1,3-Dichloropropene		5,003.8	µg/mL	+/-	31.9158	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot 19420164-D1219)			+/-	280.8621	µg/mL	Unstressed
	Purity 99%				+/-	287.4198	µg/mL	Stressed
20	1,1,2-Trichloroethane		5,015.4	µg/mL	+/-	31.9899	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)			+/-	281.5146	µg/mL	Unstressed
	Purity 99%				+/-	288.0875	µg/mL	Stressed
21	1,3-Dichloropropane		5,042.4	µg/mL	+/-	31.9718	µg/mL	Gravimetric
	CAS # 142-28-9	(Lot BCBG2162V)			+/-	283.0086	µg/mL	Unstressed
	Purity 99%				+/-	289.6173	µg/mL	Stressed
22	Tetrachloroethene		5,014.3	µg/mL	+/-	31.9827	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBJ7422)			+/-	281.4515	µg/mL	Unstressed
	Purity 99%				+/-	288.0229	µg/mL	Stressed
23	dibromochloromethane		5,016.1	µg/mL	+/-	31.9947	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKCK6472)			+/-	281.5567	µg/mL	Unstressed
	Purity 99%				+/-	288.1306	µg/mL	Stressed

24	1,2-Dibromoethane (EDB) **CAS #** 106-93-4 **Purity** 99%	(Lot BCBP2268V)	5,037.4	µg/mL	+/- 31.9401 +/- 282.7280 +/- 289.3302	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1-Chlorohexane **CAS #** 544-10-5 **Purity** 98%	(Lot BCBS3368V)	5,010.7	µg/mL	+/- 29.3390 +/- 280.9687 +/- 287.5420	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Chlorobenzene **CAS #** 108-90-7 **Purity** 99%	(Lot SHBJ0839)	5,009.0	µg/mL	+/- 31.9493 +/- 281.1568 +/- 287.7213	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6 **Purity** 99%	(Lot MKBS3769V)	5,038.6	µg/mL	+/- 31.9481 +/- 282.7981 +/- 289.4020	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethylbenzene **CAS #** 100-41-4 **Purity** 99%	(Lot SHBJ3183)	5,029.3	µg/mL	+/- 31.8886 +/- 282.2719 +/- 288.8635	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	m-Xylene **CAS #** 108-38-3 **Purity** 99%	(Lot SHBH8323)	5,038.4	µg/mL	+/- 31.9465 +/- 282.7841 +/- 289.3876	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	p-Xylene **CAS #** 106-42-3 **Purity** 99%	(Lot SHBJ0052)	5,038.0	µg/mL	+/- 31.9441 +/- 282.7630 +/- 289.3661	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	o-Xylene **CAS #** 95-47-6 **Purity** 99%	(Lot SHBH3432V)	5,046.4	µg/mL	+/- 31.9972 +/- 283.2331 +/- 289.8471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Styrene **CAS #** 100-42-5 **Purity** 99%	(Lot MKBV4061V)	5,047.0	µg/mL	+/- 32.0012 +/- 283.2682 +/- 289.8830	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Isopropylbenzene (cumene) **CAS #** 98-82-8 **Purity** 99%	(Lot 10185056)	5,035.3	µg/mL	+/- 31.9267 +/- 282.6087 +/- 289.2081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	bromoform **CAS #** 75-25-2 **Purity** 99%	(Lot SHBJ4835)	5,013.0	µg/mL	+/- 31.9748 +/- 281.3813 +/- 287.9511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5 **Purity** 99%	(Lot CFA4D)	5,016.0	µg/mL	+/- 31.9939 +/- 281.5497 +/- 288.1234	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,2,3-Trichloropropane **CAS #** 96-18-4 **Purity** 99%	(Lot BCBH8722V)	5,033.4	µg/mL	+/- 31.9148 +/- 282.5035 +/- 289.1004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	n-Propylbenzene **CAS #** 103-65-1 **Purity** 99%	(Lot MKBJ0332V)	5,032.4	µg/mL	+/- 31.9084 +/- 282.4473 +/- 289.0430	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot WXBC5147V)	5,035.5	µg/mL	+/- 31.9282 +/- 282.6227 +/- 289.2225	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBS7648V)	5,029.8	µg/mL	+/- 31.8918 +/- 282.3000 +/- 288.8922	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBW5554V)	5,037.5	µg/mL	+/- 31.9409 +/- 282.7350 +/- 289.3373	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBL7753V)	5,039.1	µg/mL	+/- 31.9512 +/- 282.8262 +/- 289.4307	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot STBD6954V)	5,049.8	µg/mL	+/- 32.0186 +/- 283.4225 +/- 290.0409	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 98%	(Lot MKBJ6229V)	5,046.8	µg/mL	+/- 31.9996 +/- 283.2544 +/- 289.8689	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBR9260V)	5,042.8	µg/mL	+/- 31.9742 +/- 283.0296 +/- 289.6389	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBV3556V)	5,038.4	µg/mL	+/- 31.9465 +/- 282.7841 +/- 289.3876	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBQ7100V)	5,017.6	µg/mL	+/- 32.0043 +/- 281.6409 +/- 288.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBS4401V)	5,023.8	µg/mL	+/- 32.0433 +/- 281.9847 +/- 288.5686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene **CAS #** 104-51-8 **Purity** 99%	(Lot 09804AE)	5,024.8	µg/mL	+/- 31.8601 +/- 282.0194 +/- 288.6050	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene **CAS #** 95-50-1 **Purity** 99%	(Lot SHBG3111V)	5,024.5	µg/mL	+/- 32.0481 +/- 282.0268 +/- 288.6117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01)	5,036.4	µg/mL	+/- 31.9338 +/- 282.6718 +/- 289.2727	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,3,5-Trichlorobenzene **CAS #** 108-70-3 **Purity** 99%	(Lot 11319AS)	5,034.0	µg/mL	+/- 29.4752 +/- 282.2729 +/- 288.8768	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot SHBJ0905)	5,036.5	µg/mL	+/- 31.9346 +/- 282.6789 +/- 289.2799	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 99%	(Lot J31X013)	5,033.6	µg/mL	+/- 31.9164 +/- 282.5175 +/- 289.1148	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBW2603V)	5,033.6	µg/mL	+/- 31.9164 +/- 282.5175 +/- 289.1148	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	1,2,3-Trichlorobenzene **CAS #** 87-61-6 **Purity** 99%	(Lot MKBS4859V)	5,016.0	µg/mL	+/- 31.8046 +/- 281.5283 +/- 288.1024	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

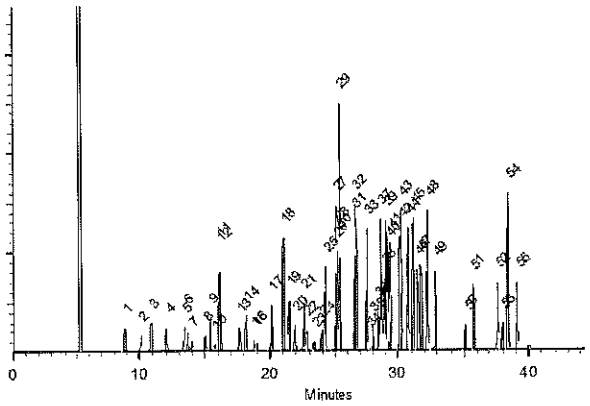
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 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.

Cydnei L. Crust - Mix Technician

Date Mixed: 09-Mar-2020 **Balance:** B251644995

Feng-Yun Lo - QC Analyst

Date Passed: 11-Mar-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

MSV_V#1B_00148

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. : 569936-1 **Lot No.:** A0158586

Description : Custom Revised V #1B Standard

Custom Revised V #1B Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,1-dichloroethene **CAS #** 75-35-4 (Lot SHBK2437) **Purity** 99%	5,011.4 µg/mL	+/- 31.9644 µg/mL +/- 281.2901 µg/mL +/- 287.8577 µg/mL	Gravimetric Unstressed Stressed
2	Methylene chloride (dichloromethane) **CAS #** 75-09-2 (Lot SHBL3107) **Purity** 99%	5,004.6 µg/mL	+/- 31.9213 µg/mL +/- 280.9112 µg/mL +/- 287.4700 µg/mL	Gravimetric Unstressed Stressed
3	trans-1,2-Dichloroethene **CAS #** 156-60-5 (Lot MKBH9850V) **Purity** 99%	5,017.5 µg/mL	+/- 32.0035 µg/mL +/- 281.6339 µg/mL +/- 288.2096 µg/mL	Gravimetric Unstressed Stressed
4	1,1-Dichloroethane **CAS #** 75-34-3 (Lot 580900) **Purity** 99%	5,020.4 µg/mL	+/- 32.0218 µg/mL +/- 281.7953 µg/mL +/- 288.3747 µg/mL	Gravimetric Unstressed Stressed
5	2,2-Dichloropropane **CAS #** 594-20-7 (Lot BCBT5124) **Purity** 99%	5,050.0 µg/mL	+/- 32.0202 µg/mL +/- 283.4366 µg/mL +/- 290.0553 µg/mL	Gravimetric Unstressed Stressed
6	cis-1,2-Dichloroethene **CAS #** 156-59-2 (Lot MKBX5945V) **Purity** 99%	5,046.5 µg/mL	+/- 31.9980 µg/mL +/- 283.2401 µg/mL +/- 289.8543 µg/mL	Gravimetric Unstressed Stressed
7	chloroform **CAS #** 67-66-3 (Lot SHBJ9076) **Purity** 99%	5,034.3 µg/mL	+/- 32.1103 µg/mL +/- 282.5741 µg/mL +/- 289.1717 µg/mL	Gravimetric Unstressed Stressed

8	1,1,1-trichloroethane		5,001.3	µg/mL	+/-	31.9002	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot 190123CG)			+/-	280.7250	µg/mL	Unstressed
	Purity 98%				+/-	287.2795	µg/mL	Stressed
9	1,1-Dichloropropene		5,048.9	µg/mL	+/-	32.0131	µg/mL	Gravimetric
	CAS # 563-58-6	(Lot 170301JLM)			+/-	283.3734	µg/mL	Unstressed
	Purity 99%				+/-	289.9907	µg/mL	Stressed
10	carbon tetrachloride		5,022.9	µg/mL	+/-	32.0378	µg/mL	Gravimetric
	CAS # 56-23-5	(Lot SHBG8938V)			+/-	281.9356	µg/mL	Unstressed
	Purity 99%				+/-	288.5183	µg/mL	Stressed
11	1,2-Dichloroethane		5,007.9	µg/mL	+/-	31.9421	µg/mL	Gravimetric
	CAS # 107-06-2	(Lot MKCH9948)			+/-	281.0937	µg/mL	Unstressed
	Purity 99%				+/-	287.6567	µg/mL	Stressed
12	Benzene		5,042.9	µg/mL	+/-	31.9750	µg/mL	Gravimetric
	CAS # 71-43-2	(Lot SHBG7317V)			+/-	283.0367	µg/mL	Unstressed
	Purity 99%				+/-	289.6461	µg/mL	Stressed
13	Trichloroethene		5,012.9	µg/mL	+/-	31.9740	µg/mL	Gravimetric
	CAS # 79-01-6	(Lot SHBJ4611)			+/-	281.3743	µg/mL	Unstressed
	Purity 99%				+/-	287.9439	µg/mL	Stressed
14	1,2-Dichloropropane		5,012.6	µg/mL	+/-	31.9724	µg/mL	Gravimetric
	CAS # 78-87-5	(Lot BCBR0882V)			+/-	281.3603	µg/mL	Unstressed
	Purity 99%				+/-	287.9295	µg/mL	Stressed
15	bromodichloromethane		5,039.1	µg/mL	+/-	32.1414	µg/mL	Gravimetric
	CAS # 75-27-4	(Lot MKCJ0238)			+/-	282.8477	µg/mL	Unstressed
	Purity 99%				+/-	289.4517	µg/mL	Stressed
16	Dibromomethane		5,047.3	µg/mL	+/-	32.0027	µg/mL	Gravimetric
	CAS # 74-95-3	(Lot 10201030)			+/-	283.2822	µg/mL	Unstressed
	Purity 99%				+/-	289.8973	µg/mL	Stressed
17	cis-1,3-Dichloropropene		5,015.1	µg/mL	+/-	31.9883	µg/mL	Gravimetric
	CAS # 10061-01-5	(Lot 200107JLM)			+/-	281.5006	µg/mL	Unstressed
	Purity 99%				+/-	288.0731	µg/mL	Stressed
18	Toluene		5,031.9	µg/mL	+/-	31.9053	µg/mL	Gravimetric
	CAS # 108-88-3	(Lot SHBH9895)			+/-	282.4193	µg/mL	Unstressed
	Purity 99%				+/-	289.0143	µg/mL	Stressed
19	trans-1,3-Dichloropropene		5,003.8	µg/mL	+/-	31.9158	µg/mL	Gravimetric
	CAS # 10061-02-6	(Lot 19420164-D1219)			+/-	280.8621	µg/mL	Unstressed
	Purity 99%				+/-	287.4198	µg/mL	Stressed
20	1,1,2-Trichloroethane		5,015.4	µg/mL	+/-	31.9899	µg/mL	Gravimetric
	CAS # 79-00-5	(Lot FGB01)			+/-	281.5146	µg/mL	Unstressed
	Purity 99%				+/-	288.0875	µg/mL	Stressed
21	1,3-Dichloropropane		5,042.4	µg/mL	+/-	31.9718	µg/mL	Gravimetric
	CAS # 142-28-9	(Lot BCBG2162V)			+/-	283.0086	µg/mL	Unstressed
	Purity 99%				+/-	289.6173	µg/mL	Stressed
22	Tetrachloroethene		5,014.3	µg/mL	+/-	31.9827	µg/mL	Gravimetric
	CAS # 127-18-4	(Lot SHBJ7422)			+/-	281.4515	µg/mL	Unstressed
	Purity 99%				+/-	288.0229	µg/mL	Stressed
23	dibromochloromethane		5,016.1	µg/mL	+/-	31.9947	µg/mL	Gravimetric
	CAS # 124-48-1	(Lot MKCK6472)			+/-	281.5567	µg/mL	Unstressed
	Purity 99%				+/-	288.1306	µg/mL	Stressed

24	1,2-Dibromoethane (EDB) **CAS #** 106-93-4 **Purity** 99%	(Lot BCBP2268V)	5,037.4	µg/mL	+/- 31.9401 +/- 282.7280 +/- 289.3302	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1-Chlorohexane **CAS #** 544-10-5 **Purity** 98%	(Lot BCBS3368V)	5,010.7	µg/mL	+/- 29.3390 +/- 280.9687 +/- 287.5420	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Chlorobenzene **CAS #** 108-90-7 **Purity** 99%	(Lot SHBJ0839)	5,009.0	µg/mL	+/- 31.9493 +/- 281.1568 +/- 287.7213	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6 **Purity** 99%	(Lot MKBS3769V)	5,038.6	µg/mL	+/- 31.9481 +/- 282.7981 +/- 289.4020	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethylbenzene **CAS #** 100-41-4 **Purity** 99%	(Lot SHBJ3183)	5,029.3	µg/mL	+/- 31.8886 +/- 282.2719 +/- 288.8635	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	m-Xylene **CAS #** 108-38-3 **Purity** 99%	(Lot SHBH8323)	5,038.4	µg/mL	+/- 31.9465 +/- 282.7841 +/- 289.3876	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	p-Xylene **CAS #** 106-42-3 **Purity** 99%	(Lot SHBJ0052)	5,038.0	µg/mL	+/- 31.9441 +/- 282.7630 +/- 289.3661	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	o-Xylene **CAS #** 95-47-6 **Purity** 99%	(Lot SHBH3432V)	5,046.4	µg/mL	+/- 31.9972 +/- 283.2331 +/- 289.8471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Styrene **CAS #** 100-42-5 **Purity** 99%	(Lot MKBV4061V)	5,047.0	µg/mL	+/- 32.0012 +/- 283.2682 +/- 289.8830	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Isopropylbenzene (cumene) **CAS #** 98-82-8 **Purity** 99%	(Lot 10185056)	5,035.3	µg/mL	+/- 31.9267 +/- 282.6087 +/- 289.2081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	bromoform **CAS #** 75-25-2 **Purity** 99%	(Lot SHBJ4835)	5,013.0	µg/mL	+/- 31.9748 +/- 281.3813 +/- 287.9511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,1,2,2-Tetrachloroethane **CAS #** 79-34-5 **Purity** 99%	(Lot CFA4D)	5,016.0	µg/mL	+/- 31.9939 +/- 281.5497 +/- 288.1234	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,2,3-Trichloropropane **CAS #** 96-18-4 **Purity** 99%	(Lot BCBH8722V)	5,033.4	µg/mL	+/- 31.9148 +/- 282.5035 +/- 289.1004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	n-Propylbenzene **CAS #** 103-65-1 **Purity** 99%	(Lot MKBJ0332V)	5,032.4	µg/mL	+/- 31.9084 +/- 282.4473 +/- 289.0430	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	Bromobenzene **CAS #** 108-86-1 **Purity** 99%	(Lot WXBC5147V)	5,035.5	µg/mL	+/- 31.9282 +/- 282.6227 +/- 289.2225	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3,5-Trimethylbenzene **CAS #** 108-67-8 **Purity** 99%	(Lot BCBS7648V)	5,029.8	µg/mL	+/- 31.8918 +/- 282.3000 +/- 288.8922	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Chlorotoluene **CAS #** 95-49-8 **Purity** 99%	(Lot MKBW5554V)	5,037.5	µg/mL	+/- 31.9409 +/- 282.7350 +/- 289.3373	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene **CAS #** 106-43-4 **Purity** 99%	(Lot MKBL7753V)	5,039.1	µg/mL	+/- 31.9512 +/- 282.8262 +/- 289.4307	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene **CAS #** 98-06-6 **Purity** 99%	(Lot STBD6954V)	5,049.8	µg/mL	+/- 32.0186 +/- 283.4225 +/- 290.0409	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene **CAS #** 95-63-6 **Purity** 98%	(Lot MKBJ6229V)	5,046.8	µg/mL	+/- 31.9996 +/- 283.2544 +/- 289.8689	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene **CAS #** 135-98-8 **Purity** 99%	(Lot MKBR9260V)	5,042.8	µg/mL	+/- 31.9742 +/- 283.0296 +/- 289.6389	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	p-Isopropyltoluene (p-Cymene) **CAS #** 99-87-6 **Purity** 99%	(Lot MKBV3556V)	5,038.4	µg/mL	+/- 31.9465 +/- 282.7841 +/- 289.3876	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene **CAS #** 541-73-1 **Purity** 99%	(Lot BCBQ7100V)	5,017.6	µg/mL	+/- 32.0043 +/- 281.6409 +/- 288.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene **CAS #** 106-46-7 **Purity** 99%	(Lot MKBS4401V)	5,023.8	µg/mL	+/- 32.0433 +/- 281.9847 +/- 288.5686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene **CAS #** 104-51-8 **Purity** 99%	(Lot 09804AE)	5,024.8	µg/mL	+/- 31.8601 +/- 282.0194 +/- 288.6050	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene **CAS #** 95-50-1 **Purity** 99%	(Lot SHBG3111V)	5,024.5	µg/mL	+/- 32.0481 +/- 282.0268 +/- 288.6117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane **CAS #** 96-12-8 **Purity** 99%	(Lot FBL01)	5,036.4	µg/mL	+/- 31.9338 +/- 282.6718 +/- 289.2727	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,3,5-Trichlorobenzene **CAS #** 108-70-3 **Purity** 99%	(Lot 11319AS)	5,034.0	µg/mL	+/- 29.4752 +/- 282.2729 +/- 288.8768	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,2,4-Trichlorobenzene **CAS #** 120-82-1 **Purity** 99%	(Lot SHBJ0905)	5,036.5	µg/mL	+/- 31.9346 +/- 282.6789 +/- 289.2799	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Hexachlorobutadiene **CAS #** 87-68-3 **Purity** 99%	(Lot J31X013)	5,033.6	µg/mL	+/- 31.9164 +/- 282.5175 +/- 289.1148	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	Naphthalene **CAS #** 91-20-3 **Purity** 99%	(Lot MKBW2603V)	5,033.6	µg/mL	+/- 31.9164 +/- 282.5175 +/- 289.1148	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	1,2,3-Trichlorobenzene **CAS #** 87-61-6 **Purity** 99%	(Lot MKBS4859V)	5,016.0	µg/mL	+/- 31.8046 +/- 281.5283 +/- 288.1024	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

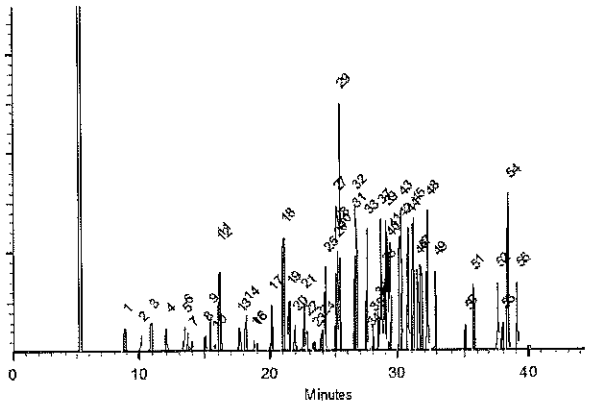
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 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.

Cydnei L. Crust - Mix Technician

Date Mixed: 09-Mar-2020 **Balance:** B251644995

Feng-Yun Lo - QC Analyst

Date Passed: 11-Mar-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

MSV_V#2B_00188

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

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 56734 **Lot No.:** A0159694

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, 2022 **Storage:** 0°C or colder

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%	25,019.2 µg/mL	+/- 146.4929 µg/mL
2	tert-Butanol (TBA)	75-65-0	99%	25,022.4 µg/mL	+/- 146.5117 µg/mL
3	Propionitrile	107-12-0	99%	25,020.0 µg/mL	+/- 146.4976 µg/mL
4	Methacrylonitrile	126-98-7	99%	12,533.6 µg/mL	+/- 73.3870 µg/mL
5	Isobutanol (2-Methyl-1-propanol)	78-83-1	99%	62,702.0 µg/mL	+/- 367.1151 µg/mL
6	1-Butanol	71-36-3	99%	125,150.0 µg/mL	+/- 732.7430 µg/mL
7	1,4-Dioxane	123-91-1	99%	62,550.0 µg/mL	+/- 366.2251 µg/mL
8	trans-1,4-dichloro-2-butene	110-57-6	95%	12,549.5 µg/mL	+/- 73.4801 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)

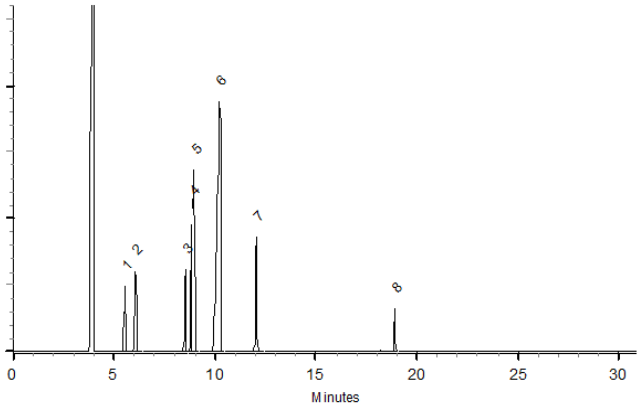
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Clara Windle - Operations Technician I

Date Mixed: 07-Apr-2020 **Balance:** B251644995

Fang-Yun Lo - QC Analyst

Date Passed: 10-Apr-2020

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#3B_00080

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Certificate of Analysis

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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. : 56736 **Lot No.:** A0158677

Description : Custom V # 3B Standard

Custom V #3B Standard 12,500-25,000µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone		25,001.0	µg/mL	+/- 146.3864	µg/mL	Gravimetric
	CAS # 67-64-1	(Lot MKCK2598)			+/- 1,236.8670	µg/mL	Unstressed
	Purity 99%				+/- 1,267.6168	µg/mL	Stressed
2	Acrylonitrile		12,511.0	µg/mL	+/- 73.2547	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot A0387097)			+/- 618.9529	µg/mL	Unstressed
	Purity 99%				+/- 634.3408	µg/mL	Stressed
3	2-Butanone (MEK)		25,007.0	µg/mL	+/- 146.4215	µg/mL	Gravimetric
	CAS # 78-93-3	(Lot SHBK9603)			+/- 1,237.1638	µg/mL	Unstressed
	Purity 99%				+/- 1,267.9210	µg/mL	Stressed
4	Tetrahydrofuran		25,049.0	µg/mL	+/- 146.6674	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBK8926)			+/- 1,239.2417	µg/mL	Unstressed
	Purity 99%				+/- 1,270.0505	µg/mL	Stressed
5	2-Nitropropane		24,758.3	µg/mL	+/- 144.9652	µg/mL	Gravimetric
	CAS # 79-46-9	(Lot BCCB9352)			+/- 1,224.8589	µg/mL	Unstressed
	Purity 97%				+/- 1,255.3102	µg/mL	Stressed
6	4-Methyl-2-pentanone (MIBK)		25,014.0	µg/mL	+/- 146.4625	µg/mL	Gravimetric
	CAS # 108-10-1	(Lot SHBL5515)			+/- 1,237.5101	µg/mL	Unstressed
	Purity 99%				+/- 1,268.2759	µg/mL	Stressed
7	2-Hexanone		25,016.0	µg/mL	+/- 146.4742	µg/mL	Gravimetric
	CAS # 591-78-6	(Lot MKCL1599)			+/- 1,237.6091	µg/mL	Unstressed
	Purity 99%				+/- 1,268.3773	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)

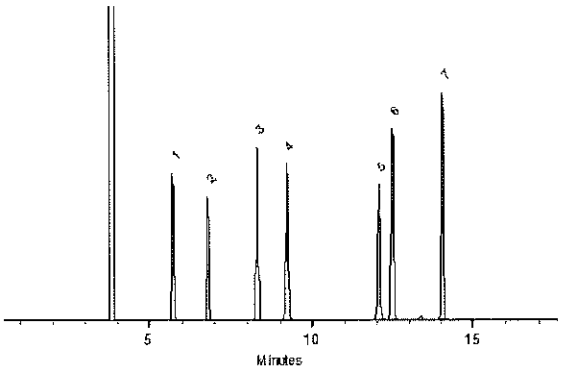
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Kylie Struble - Operations Technician I

Date Mixed: 10-Mar-2020 **Balance:** B251644995

Feng-Yun Lo - QC Analyst

Date Passed: 12-Mar-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

MSV_V#3B_00087

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CERTIFIED REFERENCE MATERIAL

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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. : 56736 **Lot No.:** A0158677

Description : Custom V # 3B Standard

Custom V #3B Standard 12,500-25,000µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone		25,001.0	µg/mL	+/- 146.3864	µg/mL	Gravimetric
	CAS # 67-64-1	(Lot MKCK2598)			+/- 1,236.8670	µg/mL	Unstressed
	Purity 99%				+/- 1,267.6168	µg/mL	Stressed
2	Acrylonitrile		12,511.0	µg/mL	+/- 73.2547	µg/mL	Gravimetric
	CAS # 107-13-1	(Lot A0387097)			+/- 618.9529	µg/mL	Unstressed
	Purity 99%				+/- 634.3408	µg/mL	Stressed
3	2-Butanone (MEK)		25,007.0	µg/mL	+/- 146.4215	µg/mL	Gravimetric
	CAS # 78-93-3	(Lot SHBK9603)			+/- 1,237.1638	µg/mL	Unstressed
	Purity 99%				+/- 1,267.9210	µg/mL	Stressed
4	Tetrahydrofuran		25,049.0	µg/mL	+/- 146.6674	µg/mL	Gravimetric
	CAS # 109-99-9	(Lot SHBK8926)			+/- 1,239.2417	µg/mL	Unstressed
	Purity 99%				+/- 1,270.0505	µg/mL	Stressed
5	2-Nitropropane		24,758.3	µg/mL	+/- 144.9652	µg/mL	Gravimetric
	CAS # 79-46-9	(Lot BCCB9352)			+/- 1,224.8589	µg/mL	Unstressed
	Purity 97%				+/- 1,255.3102	µg/mL	Stressed
6	4-Methyl-2-pentanone (MIBK)		25,014.0	µg/mL	+/- 146.4625	µg/mL	Gravimetric
	CAS # 108-10-1	(Lot SHBL5515)			+/- 1,237.5101	µg/mL	Unstressed
	Purity 99%				+/- 1,268.2759	µg/mL	Stressed
7	2-Hexanone		25,016.0	µg/mL	+/- 146.4742	µg/mL	Gravimetric
	CAS # 591-78-6	(Lot MKCL1599)			+/- 1,237.6091	µg/mL	Unstressed
	Purity 99%				+/- 1,268.3773	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)

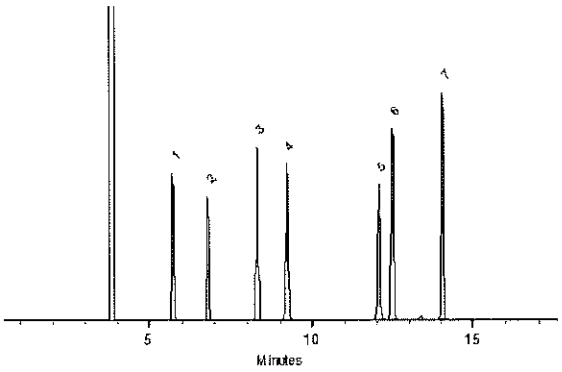
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Kylie Struble - Operations Technician I

Date Mixed: 10-Mar-2020 **Balance:** B251644995

Feng-Yun Lo - QC Analyst

Date Passed: 12-Mar-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V#4C_00122

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CERTIFIED REFERENCE MATERIAL

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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. : 572312 **Lot No.:** A0158660

Description : Custom V #4C (Rev 3) Standard

Custom V #4C (Rev 3) Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,3-Butadiene	5,002.1 µg/mL	+/- 39.8717 µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBK2299)		+/- 303.0271 µg/mL	Unstressed
	Purity 99%		+/- 303.7407 µg/mL	Stressed
2	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	5,001.4 µg/mL	+/- 47.3932 µg/mL	Gravimetric
	CAS # 354-23-4 (Lot Q9B-64)		+/- 304.0702 µg/mL	Unstressed
	Purity 99%		+/- 304.7812 µg/mL	Stressed
3	n-Pentane (C5)	5,025.0 µg/mL	+/- 29.4225 µg/mL	Gravimetric
	CAS # 109-66-0 (Lot SHBL0400)		+/- 303.2005 µg/mL	Unstressed
	Purity 99%		+/- 303.9203 µg/mL	Stressed
4	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,024.0 µg/mL	+/- 29.4166 µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00016133)		+/- 303.1402 µg/mL	Unstressed
	Purity 99%		+/- 303.8598 µg/mL	Stressed
5	Iodomethane (methyl iodide)	5,035.0 µg/mL	+/- 29.4810 µg/mL	Gravimetric
	CAS # 74-88-4 (Lot D4406-0122JM)		+/- 303.8039 µg/mL	Unstressed
	Purity 99%		+/- 304.5251 µg/mL	Stressed
6	Carbon disulfide	5,046.0 µg/mL	+/- 29.5454 µg/mL	Gravimetric
	CAS # 75-15-0 (Lot U22D706)		+/- 304.4676 µg/mL	Unstressed
	Purity 99%		+/- 305.1904 µg/mL	Stressed
7	Methyl-tert-butyl ether (MTBE)	5,025.0 µg/mL	+/- 29.4225 µg/mL	Gravimetric
	CAS # 1634-04-4 (Lot SHBK4806)		+/- 303.2005 µg/mL	Unstressed
	Purity 99%		+/- 303.9203 µg/mL	Stressed

8	n-Hexane (C6)		5,025.5	µg/mL	+/-	29.4254	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBL0924)			+/-	303.2307	µg/mL	Unstressed
	Purity 99%				+/-	303.9505	µg/mL	Stressed
9	Diisopropyl ether (DIPE)		5,015.0	µg/mL	+/-	29.3639	µg/mL	Gravimetric
	CAS # 108-20-3	(Lot SHBH1927V)			+/-	302.5971	µg/mL	Unstressed
	Purity 99%				+/-	303.3154	µg/mL	Stressed
10	Chloroprene (2-chloro-1,3-butadiene)		5,046.5	µg/mL	+/-	29.5484	µg/mL	Gravimetric
	CAS # 126-99-8	(Lot 191204JLM)			+/-	304.4978	µg/mL	Unstressed
	Purity 99%				+/-	305.2206	µg/mL	Stressed
11	Ethyl-tert-butyl ether (ETBE)		5,026.5	µg/mL	+/-	29.4313	µg/mL	Gravimetric
	CAS # 637-92-3	(Lot MKCJ3589)			+/-	303.2910	µg/mL	Unstressed
	Purity 99%				+/-	304.0110	µg/mL	Stressed
12	Cyclohexane		5,028.5	µg/mL	+/-	29.4430	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKCF5831)			+/-	303.4117	µg/mL	Unstressed
	Purity 99%				+/-	304.1319	µg/mL	Stressed
13	tert-Amyl methyl ether (TAME)		5,021.0	µg/mL	+/-	29.3991	µg/mL	Gravimetric
	CAS # 994-05-8	(Lot HMBG6382V)			+/-	302.9592	µg/mL	Unstressed
	Purity 99%				+/-	303.6783	µg/mL	Stressed
14	n-Heptane (C7)		5,044.1	µg/mL	+/-	29.5341	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot SHBK8626)			+/-	304.3506	µg/mL	Unstressed
	Purity 98%				+/-	305.0730	µg/mL	Stressed
15	tert-Amyl ethyl ether (TAEE)		5,018.5	µg/mL	+/-	29.3844	µg/mL	Gravimetric
	CAS # 919-94-8	(Lot IKVYB)			+/-	302.8083	µg/mL	Unstressed
	Purity 99%				+/-	303.5271	µg/mL	Stressed
16	Methyl methacrylate		5,028.0	µg/mL	+/-	29.4400	µg/mL	Gravimetric
	CAS # 80-62-6	(Lot MKCG6589)			+/-	303.3815	µg/mL	Unstressed
	Purity 99%				+/-	304.1017	µg/mL	Stressed
17	Ethyl methacrylate		5,043.0	µg/mL	+/-	29.5279	µg/mL	Gravimetric
	CAS # 97-63-2	(Lot SHBF9649V)			+/-	304.2866	µg/mL	Unstressed
	Purity 99%				+/-	305.0089	µg/mL	Stressed
18	Benzyl chloride		5,019.5	µg/mL	+/-	29.3903	µg/mL	Gravimetric
	CAS # 100-44-7	(Lot SHBH2102V)			+/-	302.8686	µg/mL	Unstressed
	Purity 99%				+/-	303.5876	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)

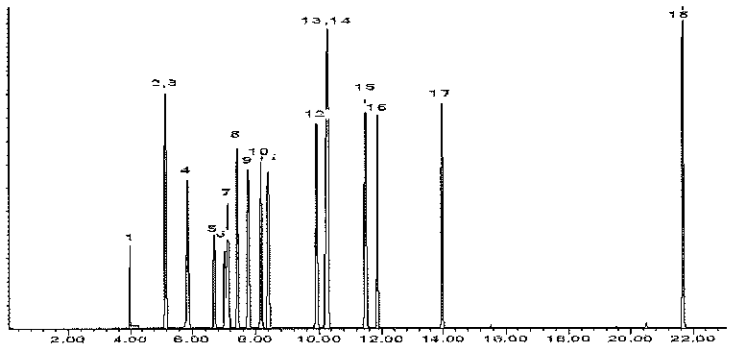
Carrier Gas:
helium-constant pressure 30 psi

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.

Tom Suckar - Mix Technician

Date Mixed: 10-Mar-2020 **Balance:** B707717271

Fang-Yun Lo - QC Analyst

Date Passed: 25-Mar-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

MSV_V#4C_00128

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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. : 572312 **Lot No.:** A0158660

Description : Custom V #4C (Rev 3) Standard

Custom V #4C (Rev 3) Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,3-Butadiene	5,002.1 µg/mL	+/- 39.8717 µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBK2299)		+/- 303.0271 µg/mL	Unstressed
	Purity 99%		+/- 303.7407 µg/mL	Stressed
2	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	5,001.4 µg/mL	+/- 47.3932 µg/mL	Gravimetric
	CAS # 354-23-4 (Lot Q9B-64)		+/- 304.0702 µg/mL	Unstressed
	Purity 99%		+/- 304.7812 µg/mL	Stressed
3	n-Pentane (C5)	5,025.0 µg/mL	+/- 29.4225 µg/mL	Gravimetric
	CAS # 109-66-0 (Lot SHBL0400)		+/- 303.2005 µg/mL	Unstressed
	Purity 99%		+/- 303.9203 µg/mL	Stressed
4	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,024.0 µg/mL	+/- 29.4166 µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00016133)		+/- 303.1402 µg/mL	Unstressed
	Purity 99%		+/- 303.8598 µg/mL	Stressed
5	Iodomethane (methyl iodide)	5,035.0 µg/mL	+/- 29.4810 µg/mL	Gravimetric
	CAS # 74-88-4 (Lot D4406-0122JM)		+/- 303.8039 µg/mL	Unstressed
	Purity 99%		+/- 304.5251 µg/mL	Stressed
6	Carbon disulfide	5,046.0 µg/mL	+/- 29.5454 µg/mL	Gravimetric
	CAS # 75-15-0 (Lot U22D706)		+/- 304.4676 µg/mL	Unstressed
	Purity 99%		+/- 305.1904 µg/mL	Stressed
7	Methyl-tert-butyl ether (MTBE)	5,025.0 µg/mL	+/- 29.4225 µg/mL	Gravimetric
	CAS # 1634-04-4 (Lot SHBK4806)		+/- 303.2005 µg/mL	Unstressed
	Purity 99%		+/- 303.9203 µg/mL	Stressed

8	n-Hexane (C6)		5,025.5	µg/mL	+/-	29.4254	µg/mL	Gravimetric
	CAS # 110-54-3	(Lot SHBL0924)			+/-	303.2307	µg/mL	Unstressed
	Purity 99%				+/-	303.9505	µg/mL	Stressed
9	Diisopropyl ether (DIPE)		5,015.0	µg/mL	+/-	29.3639	µg/mL	Gravimetric
	CAS # 108-20-3	(Lot SHBH1927V)			+/-	302.5971	µg/mL	Unstressed
	Purity 99%				+/-	303.3154	µg/mL	Stressed
10	Chloroprene (2-chloro-1,3-butadiene)		5,046.5	µg/mL	+/-	29.5484	µg/mL	Gravimetric
	CAS # 126-99-8	(Lot 191204JLM)			+/-	304.4978	µg/mL	Unstressed
	Purity 99%				+/-	305.2206	µg/mL	Stressed
11	Ethyl-tert-butyl ether (ETBE)		5,026.5	µg/mL	+/-	29.4313	µg/mL	Gravimetric
	CAS # 637-92-3	(Lot MKCJ3589)			+/-	303.2910	µg/mL	Unstressed
	Purity 99%				+/-	304.0110	µg/mL	Stressed
12	Cyclohexane		5,028.5	µg/mL	+/-	29.4430	µg/mL	Gravimetric
	CAS # 110-82-7	(Lot MKCF5831)			+/-	303.4117	µg/mL	Unstressed
	Purity 99%				+/-	304.1319	µg/mL	Stressed
13	tert-Amyl methyl ether (TAME)		5,021.0	µg/mL	+/-	29.3991	µg/mL	Gravimetric
	CAS # 994-05-8	(Lot HMBG6382V)			+/-	302.9592	µg/mL	Unstressed
	Purity 99%				+/-	303.6783	µg/mL	Stressed
14	n-Heptane (C7)		5,044.1	µg/mL	+/-	29.5341	µg/mL	Gravimetric
	CAS # 142-82-5	(Lot SHBK8626)			+/-	304.3506	µg/mL	Unstressed
	Purity 98%				+/-	305.0730	µg/mL	Stressed
15	tert-Amyl ethyl ether (TAEE)		5,018.5	µg/mL	+/-	29.3844	µg/mL	Gravimetric
	CAS # 919-94-8	(Lot IKVYB)			+/-	302.8083	µg/mL	Unstressed
	Purity 99%				+/-	303.5271	µg/mL	Stressed
16	Methyl methacrylate		5,028.0	µg/mL	+/-	29.4400	µg/mL	Gravimetric
	CAS # 80-62-6	(Lot MKCG6589)			+/-	303.3815	µg/mL	Unstressed
	Purity 99%				+/-	304.1017	µg/mL	Stressed
17	Ethyl methacrylate		5,043.0	µg/mL	+/-	29.5279	µg/mL	Gravimetric
	CAS # 97-63-2	(Lot SHBF9649V)			+/-	304.2866	µg/mL	Unstressed
	Purity 99%				+/-	305.0089	µg/mL	Stressed
18	Benzyl chloride		5,019.5	µg/mL	+/-	29.3903	µg/mL	Gravimetric
	CAS # 100-44-7	(Lot SHBH2102V)			+/-	302.8686	µg/mL	Unstressed
	Purity 99%				+/-	303.5876	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)

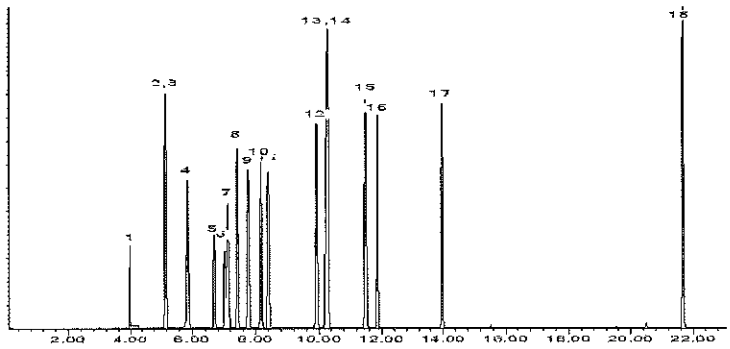
Carrier Gas:
helium-constant pressure 30 psi

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.

Tom Suckar - Mix Technician

Date Mixed: 10-Mar-2020 **Balance:** B707717271

Fang-Yun Lo - QC Analyst

Date Passed: 25-Mar-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

MSV_V#6_00058

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CERTIFIED REFERENCE MATERIAL

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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. : 558268 **Lot No.:** A0158625

Description : Custom CS#6 Standard

Custom CS#6 Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl acetate		5,039.0 µg/mL	+/- 29.5717	µg/mL	Gravimetric
	CAS # 79-20-9	(Lot SHBK5436)		+/- 304.0518	µg/mL	Unstressed
	Purity 99%			+/- 304.7735	µg/mL	Stressed
2	Allyl chloride (3-chloropropene)		5,046.0 µg/mL	+/- 29.6128	µg/mL	Gravimetric
	CAS # 107-05-1	(Lot 191118KJ)		+/- 304.4742	µg/mL	Unstressed
	Purity 99%			+/- 305.1969	µg/mL	Stressed
3	Bromochloromethane		5,040.1 µg/mL	+/- 29.5784	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00008541)		+/- 304.1206	µg/mL	Unstressed
	Purity 98%			+/- 304.8425	µg/mL	Stressed
4	Methylcyclohexane		5,041.0 µg/mL	+/- 29.5834	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot SHBJ0457)		+/- 304.1725	µg/mL	Unstressed
	Purity 99%			+/- 304.8945	µg/mL	Stressed
5	Pentachloroethane		5,035.0 µg/mL	+/- 29.5482	µg/mL	Gravimetric
	CAS # 76-01-7	(Lot 8866000)		+/- 303.8104	µg/mL	Unstressed
	Purity 99%			+/- 304.5316	µg/mL	Stressed
6	1,2,3-Trimethylbenzene		5,012.0 µg/mL	+/- 29.4132	µg/mL	Gravimetric
	CAS # 526-73-8	(Lot 8766.05-14)		+/- 302.4226	µg/mL	Unstressed
	Purity 99%			+/- 303.1405	µg/mL	Stressed
7	1,3-Diethylbenzene		5,041.1 µg/mL	+/- 29.5841	µg/mL	Gravimetric
	CAS # 141-93-5	(Lot BCBT8967)		+/- 304.1797	µg/mL	Unstressed
	Purity 98%			+/- 304.9017	µg/mL	Stressed

8	1,4-Diethylbenzene		5,035.2	µg/mL	+/- 29.5496	µg/mL	Gravimetric
	CAS # 105-05-5	(Lot RLHJK)			+/- 303.8249	µg/mL	Unstressed
	Purity 98%				+/- 304.5461	µg/mL	Stressed
9	1,2-Diethylbenzene		5,011.0	µg/mL	+/- 29.4074	µg/mL	Gravimetric
	CAS # 135-01-3	(Lot ECH2970181)			+/- 302.3623	µg/mL	Unstressed
	Purity 99%				+/- 303.0800	µg/mL	Stressed
10	2-Methylnaphthalene		5,023.7	µg/mL	+/- 29.4818	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot STBG8884)			+/- 303.1274	µg/mL	Unstressed
	Purity 96%				+/- 303.8469	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)

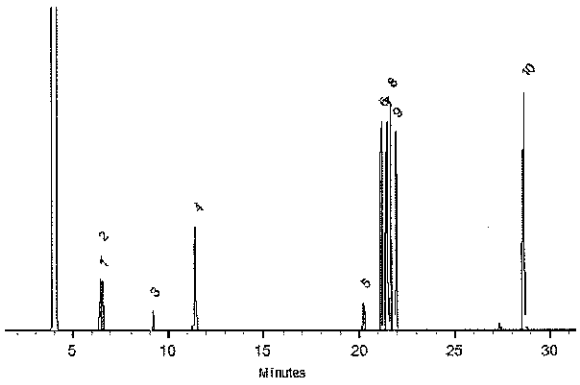
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Tom Suckar - Mix Technician

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

Feng-Yue Lu - QC Analyst

Date Passed: 12-Mar-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.
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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_V#6_00064

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Certificate #3222.01

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ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 558268 **Lot No.:** A0158625

Description : Custom CS#6 Standard

Custom CS#6 Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl acetate		5,039.0	µg/mL	+/- 29.5717	µg/mL	Gravimetric
	CAS # 79-20-9	(Lot SHBK5436)			+/- 304.0518	µg/mL	Unstressed
	Purity 99%				+/- 304.7735	µg/mL	Stressed
2	Allyl chloride (3-chloropropene)		5,046.0	µg/mL	+/- 29.6128	µg/mL	Gravimetric
	CAS # 107-05-1	(Lot 191118KJ)			+/- 304.4742	µg/mL	Unstressed
	Purity 99%				+/- 305.1969	µg/mL	Stressed
3	Bromochloromethane		5,040.1	µg/mL	+/- 29.5784	µg/mL	Gravimetric
	CAS # 74-97-5	(Lot 00008541)			+/- 304.1206	µg/mL	Unstressed
	Purity 98%				+/- 304.8425	µg/mL	Stressed
4	Methylcyclohexane		5,041.0	µg/mL	+/- 29.5834	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot SHBJ0457)			+/- 304.1725	µg/mL	Unstressed
	Purity 99%				+/- 304.8945	µg/mL	Stressed
5	Pentachloroethane		5,035.0	µg/mL	+/- 29.5482	µg/mL	Gravimetric
	CAS # 76-01-7	(Lot 8866000)			+/- 303.8104	µg/mL	Unstressed
	Purity 99%				+/- 304.5316	µg/mL	Stressed
6	1,2,3-Trimethylbenzene		5,012.0	µg/mL	+/- 29.4132	µg/mL	Gravimetric
	CAS # 526-73-8	(Lot 8766.05-14)			+/- 302.4226	µg/mL	Unstressed
	Purity 99%				+/- 303.1405	µg/mL	Stressed
7	1,3-Diethylbenzene		5,041.1	µg/mL	+/- 29.5841	µg/mL	Gravimetric
	CAS # 141-93-5	(Lot BCBT8967)			+/- 304.1797	µg/mL	Unstressed
	Purity 98%				+/- 304.9017	µg/mL	Stressed

8	1,4-Diethylbenzene		5,035.2	µg/mL	+/- 29.5496	µg/mL	Gravimetric
	CAS # 105-05-5	(Lot RLHJK)			+/- 303.8249	µg/mL	Unstressed
	Purity 98%				+/- 304.5461	µg/mL	Stressed
9	1,2-Diethylbenzene		5,011.0	µg/mL	+/- 29.4074	µg/mL	Gravimetric
	CAS # 135-01-3	(Lot ECH2970181)			+/- 302.3623	µg/mL	Unstressed
	Purity 99%				+/- 303.0800	µg/mL	Stressed
10	2-Methylnaphthalene		5,023.7	µg/mL	+/- 29.4818	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot STBG8884)			+/- 303.1274	µg/mL	Unstressed
	Purity 96%				+/- 303.8469	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)

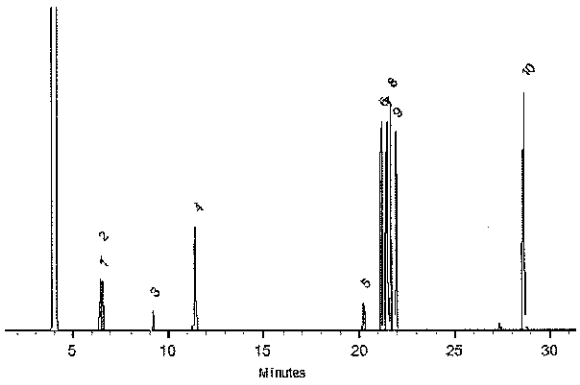
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Tom Suckar - Mix Technician

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

Feng-Yue Lu - QC Analyst

Date Passed: 12-Mar-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

MSV_V_Gas_00206

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. : 55669 **Lot No.:** A0159812

Description : Custom 502.2 "V" Gas Mix

Custom 502.2 "V" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : May 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,005.1 µg/mL	+/- 16.8576 µg/mL	Gravimetric
	CAS # 75-71-8 (Lot 00012554)		+/- 113.0809 µg/mL	Unstressed
	Purity 99%		+/- 115.6966 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,003.5 µg/mL	+/- 19.3327 µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBK6571)		+/- 113.3884 µg/mL	Unstressed
	Purity 99%		+/- 115.9929 µg/mL	Stressed
3	Vinyl chloride	2,001.1 µg/mL	+/- 18.1213 µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 00015559)		+/- 113.0560 µg/mL	Unstressed
	Purity 99%		+/- 115.6619 µg/mL	Stressed
4	Bromomethane (methyl bromide)	1,998.8 µg/mL	+/- 17.7535 µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/- 112.8737 µg/mL	Unstressed
	Purity 99%		+/- 115.4779 µg/mL	Stressed
5	Chloroethane (ethyl chloride)	2,002.3 µg/mL	+/- 17.1357 µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 107-401039114-1)		+/- 112.9711 µg/mL	Unstressed
	Purity 99%		+/- 115.5821 µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)	2,020.0 µg/mL	+/- 11.7716 µg/mL	Gravimetric
	CAS # 75-69-4 (Lot 25931)		+/- 113.2622 µg/mL	Unstressed
	Purity 99%		+/- 115.9123 µg/mL	Stressed

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

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

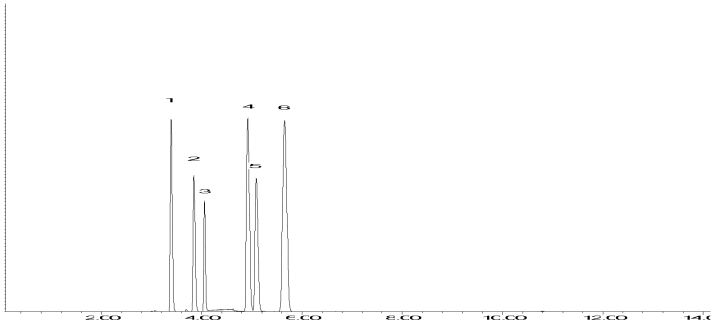
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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Tom Suckar - Mix Technician

Date Mixed: 10-Apr-2020 **Balance:** B707717271

Jennifer Pollino - 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.
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Purity Notes:

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Reagent

MSV_V_Gas_00230

RESTEK®
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CAS # 67-56-1
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Rtx-502.2 (cat.#10916)

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helium-constant flow 2.0 mL/min.

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

Inj. Temp:
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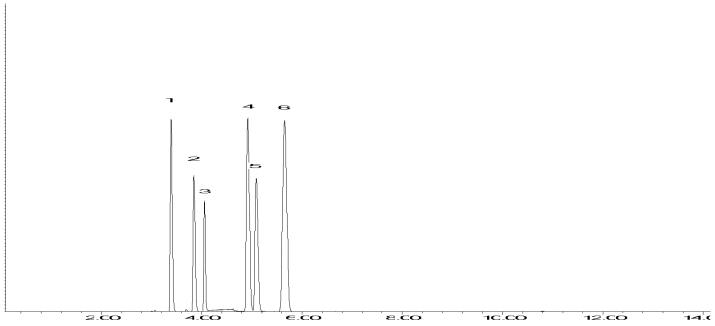
Det. Temp:
250°C

Det. Type:
MSD



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Tom Suckar - Mix Technician

Date Mixed: 10-Apr-2020 **Balance:** B707717271

Jennifer Pollino - 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

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Manufacturing Notes:

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Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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.: 410-33727-1

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	410-33727-1	101	105	99	97
HD-COD-SW-7-0/1-0	410-33727-2	101	105	99	97
HD-COD-SW-8-0/1-0	410-33727-3	101	104	99	96
HD-COD-SW-9-0/1-0	410-33727-4	102	107	99	96
HD-COD-SW-13-0/1-0	410-33727-5	103	107	100	97
HD-COD-SW-15-0/1-0	410-33727-6	102	106	99	96
HD-COD-SW-16-0/1-0	410-33727-7	102	106	99	97
HD-COD-SW-17-0/1-0	410-33727-8	102	103	99	96
HD-COD-SW-26-0/1-0	410-33727-9	103	106	99	97
HD-COD-SW-27-0/1-0	410-33727-10	102	106	99	96
HD-COD-SW-28-0/1-0	410-33727-11	102	107	99	96
HD-COD-SW-29-0/1-0	410-33727-12	103	107	99	97
HD-QC1-0/1-1	410-33727-13	102	105	99	96
HD-QC1-0/1-2	410-33727-14	102	105	99	97
	MB 410-108546/6	102	104	99	97
	LCS 410-108546/4	100	102	100	99
HD-COD-SW-15-0/1-0 MS MS	410-33727-6 MS	101	104	99	98
HD-COD-SW-15-0/1-0 MSD MSD	410-33727-6 MSD	99	103	99	98

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: HM29L31.D

Lab ID: LCS 410-108546/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.06	101	71-134	
1,1,1-Trichloroethane	5.00	4.99	100	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.61	112	75-123	
1,1,2-Trichloroethane	5.00	5.44	109	80-120	
1,1-Dichloroethane	5.00	5.22	104	74-120	
1,1-Dichloroethene	5.00	5.40	108	80-131	
1,2-Dibromoethane (EDB)	5.00	5.18	104	80-120	
1,2-Dichloroethane	5.00	5.00	100	69-122	
1,2-Dichloropropane	5.00	5.47	109	80-120	
2-Butanone (MEK)	37.5	45.2	120	59-141	
2-Hexanone	25.0	29.7	119	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	29.8	119	55-140	
Acetone	37.5	42.4	113	60-146	
Benzene	5.00	5.20	104	80-120	
Bromochloromethane	5.00	4.99	100	80-120	
Bromodichloromethane	5.00	5.23	105	73-124	
Bromoform	5.00	5.24	105	49-144	
Bromomethane	5.00	5.33	107	60-136	
Carbon disulfide	5.00	5.25	105	67-130	
Carbon tetrachloride	5.00	4.90	98	64-141	
Chlorobenzene	5.00	5.18	104	80-120	
Chloroethane	5.00	5.28	106	63-120	
Chloroform	5.00	5.06	101	80-120	
Chloromethane	5.00	5.65	113	56-124	
cis-1,2-Dichloroethene	5.00	5.09	102	80-122	
cis-1,3-Dichloropropene	5.00	5.21	104	67-121	
Dibromochloromethane	5.00	5.29	106	64-138	
Ethylbenzene	5.00	5.14	103	80-120	
Methyl tert-butyl ether	5.00	4.84	97	69-120	
Methylene Chloride	5.00	5.42	108	80-120	
Styrene	5.00	5.18	104	80-120	
Tetrachloroethene	5.00	5.18	104	80-120	
Toluene	5.00	5.10	102	80-120	
trans-1,2-Dichloroethene	5.00	5.15	103	80-122	
trans-1,3-Dichloropropene	5.00	5.29	106	61-129	
Trichloroethene	5.00	5.11	102	80-120	
Vinyl chloride	5.00	5.70	114	60-125	
Xylenes, Total	15.0	15.4	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: HM29S36.D

Lab ID: 410-33727-6 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	4.91	98	71-134	
1,1,1-Trichloroethane	5.00	0.14 J	5.32	103	78-126	
1,1,2,2-Tetrachloroethane	5.00	ND	5.42	108	75-123	
1,1,2-Trichloroethane	5.00	ND	5.35	107	80-120	
1,1-Dichloroethane	5.00	0.071 J	5.38	106	74-120	
1,1-Dichloroethene	5.00	0.11 J	5.79	113	80-131	
1,2-Dibromoethane (EDB)	5.00	ND	5.07	101	80-120	
1,2-Dichloroethane	5.00	ND	4.84	97	69-122	
1,2-Dichloropropane	5.00	ND	5.45	109	80-120	
2-Butanone (MEK)	37.5	ND	45.1	120	59-141	
2-Hexanone	25.0	ND	30.9	123	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	ND	29.5	118	55-140	
Acetone	37.5	ND	35.2	94	60-146	
Benzene	5.00	ND	5.29	106	80-120	
Bromochloromethane	5.00	ND	5.02	100	80-120	
Bromodichloromethane	5.00	ND	5.18	104	73-124	
Bromoform	5.00	ND	4.79	96	49-144	
Bromomethane	5.00	ND	5.56	111	60-136	
Carbon disulfide	5.00	ND	5.40	108	67-130	
Carbon tetrachloride	5.00	ND	5.12	102	64-141	
Chlorobenzene	5.00	ND	5.27	105	80-120	
Chloroethane	5.00	ND	5.70	114	63-120	
Chloroform	5.00	0.26 J	5.49	105	80-120	
Chloromethane	5.00	ND	5.94	119	80-120	
cis-1,2-Dichloroethene	5.00	0.78	6.02	105	80-122	
cis-1,3-Dichloropropene	5.00	ND	5.08	102	67-121	
Dibromochloromethane	5.00	ND	5.08	102	64-138	
Ethylbenzene	5.00	ND	5.29	106	80-120	
Methyl tert-butyl ether	5.00	ND	4.58	91	69-120	
Methylene Chloride	5.00	ND	5.49	110	80-120	
Styrene	5.00	ND	5.13	102	80-120	
Tetrachloroethene	5.00	2.9	8.29	108	80-120	
Toluene	5.00	ND	5.23	105	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.29	106	80-122	
trans-1,3-Dichloropropene	5.00	ND	5.05	101	61-129	
Trichloroethene	5.00	0.98	6.34	107	80-120	
Vinyl chloride	5.00	ND	6.46	129	60-125	FH
Xylenes, Total	15.0	ND	15.7	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33727-1

SDG No.:

Matrix: Water Level: Low Lab File ID: HM29S37.D

Lab ID: 410-33727-6 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	4.96	99	1	30	71-134	
1,1,1-Trichloroethane	5.00	5.36	104	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.50	110	1	30	75-123	
1,1,2-Trichloroethane	5.00	5.52	110	3	30	80-120	
1,1-Dichloroethane	5.00	5.41	107	1	30	74-120	
1,1-Dichloroethene	5.00	5.80	114	0	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.10	102	0	30	80-120	
1,2-Dichloroethane	5.00	4.84	97	0	30	69-122	
1,2-Dichloropropane	5.00	5.45	109	0	30	80-120	
2-Butanone (MEK)	37.5	42.8	114	5	30	59-141	
2-Hexanone	25.0	28.8	115	7	30	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	28.0	112	5	30	55-140	
Acetone	37.5	34.5	92	2	30	60-146	
Benzene	5.00	5.32	106	1	30	80-120	
Bromochloromethane	5.00	5.04	101	0	30	80-120	
Bromodichloromethane	5.00	5.18	103	0	30	73-124	
Bromoform	5.00	4.84	97	1	30	49-144	
Bromomethane	5.00	5.78	115	4	30	60-136	
Carbon disulfide	5.00	5.49	110	2	30	67-130	
Carbon tetrachloride	5.00	5.12	102	0	30	64-141	
Chlorobenzene	5.00	5.25	105	0	30	80-120	
Chloroethane	5.00	5.81	116	2	30	63-120	
Chloroform	5.00	5.48	104	0	30	80-120	
Chloromethane	5.00	6.22	124	5	30	80-120	FH
cis-1,2-Dichloroethene	5.00	6.01	105	0	30	80-122	
cis-1,3-Dichloropropene	5.00	5.06	101	0	30	67-121	
Dibromochloromethane	5.00	5.06	101	0	30	64-138	
Ethylbenzene	5.00	5.30	106	0	30	80-120	
Methyl tert-butyl ether	5.00	4.71	94	3	30	69-120	
Methylene Chloride	5.00	5.52	110	0	30	80-120	
Styrene	5.00	5.14	103	0	30	80-120	
Tetrachloroethene	5.00	8.29	108	0	30	80-120	
Toluene	5.00	5.23	105	0	30	80-120	
trans-1,2-Dichloroethene	5.00	5.30	106	0	30	80-122	
trans-1,3-Dichloropropene	5.00	5.11	102	1	30	61-129	
Trichloroethene	5.00	6.37	108	0	30	80-120	
Vinyl chloride	5.00	6.57	131	2	30	60-125	FH
Xylenes, Total	15.0	15.8	105	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-33727-1

SDG No.:

Lab File ID: HM29B31.D Lab Sample ID: MB 410-108546/6

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

Instrument ID: 19094 Date Analyzed: 03/29/2021 20:11

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 410-108546/4	HM29L31.D	03/29/2021 19:28
HD-QC1-0/1-2	410-33727-14	HM29S32.D	03/29/2021 20:53
HD-COD-SW-15-0/1-0	410-33727-6	HM29S35.D	03/29/2021 21:58
HD-COD-SW-15-0/1-0 MS MS	410-33727-6 MS	HM29S36.D	03/29/2021 22:19
HD-COD-SW-15-0/1-0 MSD MSD	410-33727-6 MSD	HM29S37.D	03/29/2021 22:40
HD-COD-SW-6-0/1-0	410-33727-1	HM29S39.D	03/29/2021 23:22
HD-COD-SW-7-0/1-0	410-33727-2	HM29S40.D	03/29/2021 23:43
HD-COD-SW-8-0/1-0	410-33727-3	HM29S41.D	03/30/2021 00:05
HD-COD-SW-9-0/1-0	410-33727-4	HM29S42.D	03/30/2021 00:26
HD-COD-SW-13-0/1-0	410-33727-5	HM29S43.D	03/30/2021 00:47
HD-COD-SW-16-0/1-0	410-33727-7	HM29S44.D	03/30/2021 01:09
HD-COD-SW-17-0/1-0	410-33727-8	HM29S45.D	03/30/2021 01:30
HD-COD-SW-26-0/1-0	410-33727-9	HM29S46.D	03/30/2021 01:51
HD-COD-SW-27-0/1-0	410-33727-10	HM29S47.D	03/30/2021 02:12
HD-COD-SW-28-0/1-0	410-33727-11	HM29S48.D	03/30/2021 02:34
HD-COD-SW-29-0/1-0	410-33727-12	HM29S49.D	03/30/2021 02:55
HD-QC1-0/1-1	410-33727-13	HM29S50.D	03/30/2021 03:16

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Lab File ID: HF08T01.D BFB Injection Date: 02/08/2021

Instrument ID: 19094 BFB Injection Time: 14:59

Analysis Batch No.: 92110

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.9	
75	30.0 - 60.0 % of mass 95	46.4	
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	0.9	(1.0) 1
174	Greater than 50% of mass 95	91.9	
175	5.0 - 9.0 % of mass 174	6.5	(7.1) 1
176	95.0 - 101.0 % of mass 174	89.2	(97.1) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-92110/12	HF08I11.D	02/08/2021	19:27
	ICIS 410-92110/13	HF08I12.D	02/08/2021	19:48
	IC 410-92110/14	HF08I13.D	02/08/2021	20:09
	IC 410-92110/15	HF08I14.D	02/08/2021	20:30
	IC 410-92110/16	HF08I15.D	02/08/2021	20:51
	IC 410-92110/17	HF08I16.D	02/08/2021	21:13
	IC 410-92110/18	HF08I17.D	02/08/2021	21:34
	ICV 410-92110/19	HF08V11.D	02/08/2021	21:55

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Lab File ID: HM29T31.D BFB Injection Date: 03/29/2021

Instrument ID: 19094 BFB Injection Time: 18:30

Analysis Batch No.: 108546

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.2	
75	30.0 - 60.0 % of mass 95	46.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.7	(0.7) 1
174	Greater than 50% of mass 95	97.9	
175	5.0 - 9.0 % of mass 174	6.9	(7.1) 1
176	95.0 - 101.0 % of mass 174	94.6	(96.6) 1
177	5.0 - 9.0 % of mass 176	6.0	(6.3) 2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-108546/3	HM29C31.D	03/29/2021	19:07
	LCS 410-108546/4	HM29L31.D	03/29/2021	19:28
	MB 410-108546/6	HM29B31.D	03/29/2021	20:11
HD-QC1-0/1-2	410-33727-14	HM29S32.D	03/29/2021	20:53
HD-COD-SW-15-0/1-0	410-33727-6	HM29S35.D	03/29/2021	21:58
HD-COD-SW-15-0/1-0 MS MS	410-33727-6 MS	HM29S36.D	03/29/2021	22:19
HD-COD-SW-15-0/1-0 MSD MSD	410-33727-6 MSD	HM29S37.D	03/29/2021	22:40
HD-COD-SW-6-0/1-0	410-33727-1	HM29S39.D	03/29/2021	23:22
HD-COD-SW-7-0/1-0	410-33727-2	HM29S40.D	03/29/2021	23:43
HD-COD-SW-8-0/1-0	410-33727-3	HM29S41.D	03/30/2021	0:05
HD-COD-SW-9-0/1-0	410-33727-4	HM29S42.D	03/30/2021	0:26
HD-COD-SW-13-0/1-0	410-33727-5	HM29S43.D	03/30/2021	0:47
HD-COD-SW-16-0/1-0	410-33727-7	HM29S44.D	03/30/2021	1:09
HD-COD-SW-17-0/1-0	410-33727-8	HM29S45.D	03/30/2021	1:30
HD-COD-SW-26-0/1-0	410-33727-9	HM29S46.D	03/30/2021	1:51
HD-COD-SW-27-0/1-0	410-33727-10	HM29S47.D	03/30/2021	2:12
HD-COD-SW-28-0/1-0	410-33727-11	HM29S48.D	03/30/2021	2:34
HD-COD-SW-29-0/1-0	410-33727-12	HM29S49.D	03/30/2021	2:55
HD-QC1-0/1-1	410-33727-13	HM29S50.D	03/30/2021	3:16

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Sample No.: ICIS 410-92110/13 Date Analyzed: 02/08/2021 19:48

Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): HF08I12.D Heated Purge: (Y/N) N

Calibration ID: 20165

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		101309	4.46	2280609	7.95	1755795	11.37
UPPER LIMIT		202618	4.96	4561218	8.45	3511590	11.87
LOWER LIMIT		50655	3.96	1140305	7.45	877898	10.87
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-92110/19		112989	4.46	2145607	7.95	1654372	11.37
CCVIS 410-108546/3		81710	4.50	2414811	7.96	1856504	11.35

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.: 410-33727-1

SDG No.:

Sample No.: ICIS 410-92110/13 Date Analyzed: 02/08/2021 19:48

Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): HF08I12.D Heated Purge: (Y/N) N

Calibration ID: 20165

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		960975	13.24				
UPPER LIMIT		1921950	13.74				
LOWER LIMIT		480488	12.74				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-92110/19		924621	13.24				
CCVIS 410-108546/3		1031140	13.21				

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.: 410-33727-1

SDG No.:

Sample No.: CCVIS 410-108546/3 Date Analyzed: 03/29/2021 19:07

Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): HM29C31.D Heated Purge: (Y/N) N

Calibration ID: 20165

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		81710	4.50	2414811	7.96	1856504	11.35
UPPER LIMIT		163420	5.00	4829622	8.46	3713008	11.85
LOWER LIMIT		40855	4.00	1207406	7.46	928252	10.85
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-108546/4		106189	4.56	2462196	7.95	1878047	11.35
MB 410-108546/6		110110	4.53	2383904	7.95	1841050	11.35
410-33727-14	HD-QC1-0/1-2	106282	4.50	2371038	7.96	1827569	11.35
410-33727-6	HD-COD-SW-15-0/1-0	105725	4.51	2412758	7.96	1864503	11.35
410-33727-6 MS	HD-COD-SW-15-0/1-0 MS MS	94903	4.45	2429867	7.96	1863588	11.35
410-33727-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	105019	4.44	2453884	7.96	1876423	11.35
410-33727-1	HD-COD-SW-6-0/1-0	125373	4.50	2409526	7.96	1852098	11.35
410-33727-2	HD-COD-SW-7-0/1-0	123756	4.47	2384348	7.96	1837724	11.35
410-33727-3	HD-COD-SW-8-0/1-0	125328	4.46	2382643	7.95	1841470	11.35
410-33727-4	HD-COD-SW-9-0/1-0	132821	4.51	2371776	7.96	1839088	11.35
410-33727-5	HD-COD-SW-13-0/1-0	138476	4.51	2376924	7.96	1831617	11.35
410-33727-7	HD-COD-SW-16-0/1-0	134867	4.49	2384768	7.95	1844572	11.35
410-33727-8	HD-COD-SW-17-0/1-0	137348	4.50	2430210	7.96	1870911	11.35
410-33727-9	HD-COD-SW-26-0/1-0	123190	4.51	2348956	7.96	1827647	11.35
410-33727-10	HD-COD-SW-27-0/1-0	134366	4.50	2359234	7.96	1838995	11.35
410-33727-11	HD-COD-SW-28-0/1-0	135496	4.51	2371988	7.96	1826002	11.35
410-33727-12	HD-COD-SW-29-0/1-0	121571	4.50	2344144	7.96	1819821	11.35
410-33727-13	HD-QC1-0/1-1	128176	4.50	2357889	7.96	1830294	11.35

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.: 410-33727-1

SDG No.:

Sample No.: CCVIS 410-108546/3 Date Analyzed: 03/29/2021 19:07

Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): HM29C31.D Heated Purge: (Y/N) N

Calibration ID: 20165

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		1031140	13.21				
UPPER LIMIT		2062280	13.71				
LOWER LIMIT		515570	12.71				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-108546/4		1050584	13.21				
MB 410-108546/6		1022879	13.21				
410-33727-14	HD-QC1-0/1-2	1019277	13.21				
410-33727-6	HD-COD-SW-15-0/1-0	1024039	13.21				
410-33727-6 MS	HD-COD-SW-15-0/1-0 MS MS	1025859	13.21				
410-33727-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	1035023	13.21				
410-33727-1	HD-COD-SW-6-0/1-0	1011899	13.21				
410-33727-2	HD-COD-SW-7-0/1-0	1016434	13.21				
410-33727-3	HD-COD-SW-8-0/1-0	1005340	13.21				
410-33727-4	HD-COD-SW-9-0/1-0	1019596	13.21				
410-33727-5	HD-COD-SW-13-0/1-0	1006826	13.21				
410-33727-7	HD-COD-SW-16-0/1-0	1006175	13.21				
410-33727-8	HD-COD-SW-17-0/1-0	1034486	13.21				
410-33727-9	HD-COD-SW-26-0/1-0	1003973	13.21				
410-33727-10	HD-COD-SW-27-0/1-0	1000058	13.21				
410-33727-11	HD-COD-SW-28-0/1-0	1011984	13.21				
410-33727-12	HD-COD-SW-29-0/1-0	994879	13.21				
410-33727-13	HD-QC1-0/1-1	996924	13.21				

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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-33727-1

Matrix: Water Lab File ID: HM29S39.D

Analysis Method: 8260D Date Collected: 03/24/2021 11:00

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 23:22

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.: 108546 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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	2.6	J ^c	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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-33727-1

Matrix: Water Lab File ID: HM29S39.D

Analysis Method: 8260D Date Collected: 03/24/2021 11:00

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 23:22

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.: 108546 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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S39.D
Lims ID: 410-33727-A-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 29-Mar-2021 23:22:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-015
Misc. Info.: 410-33727-A-1
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:00:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.276	2.282	-0.006	96	2445	0.0328	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.812	3.788	0.024	97	21011	2.63	
24 Carbon disulfide	76	4.092	4.092	0.000	94	4616	0.0306	
29 Methylene Chloride	84		4.477				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.501	4.495	0.006	0	125373	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43		6.336				ND	U
42 cis-1,2-Dichloroethene	96		6.385				ND	7
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.854	6.860	-0.006	19	2700	0.0250	
$ 51 Dibromofluoromethane (Surr)	113	7.074	7.074	0.000	94	628133	10.1	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	122486	10.5	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62		7.628				ND	7
* 65 Fluorobenzene (IS)	96	7.958	7.958	0.000	99	2409526	10.0	
67 Trichloroethene	95		8.433				ND	7
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43	9.793	9.786	0.007	95	10546	0.3379	
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2387810	9.93	
83 Toluene	92		10.000				ND	7
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	7
88 Tetrachloroethene	166		10.536				ND	7
91 2-Hexanone	43		10.646				ND	7
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.353	11.347	0.006	85	1852098	10.0	
98 Chlorobenzene	112		11.378				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	93	866656	9.70	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1011899	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

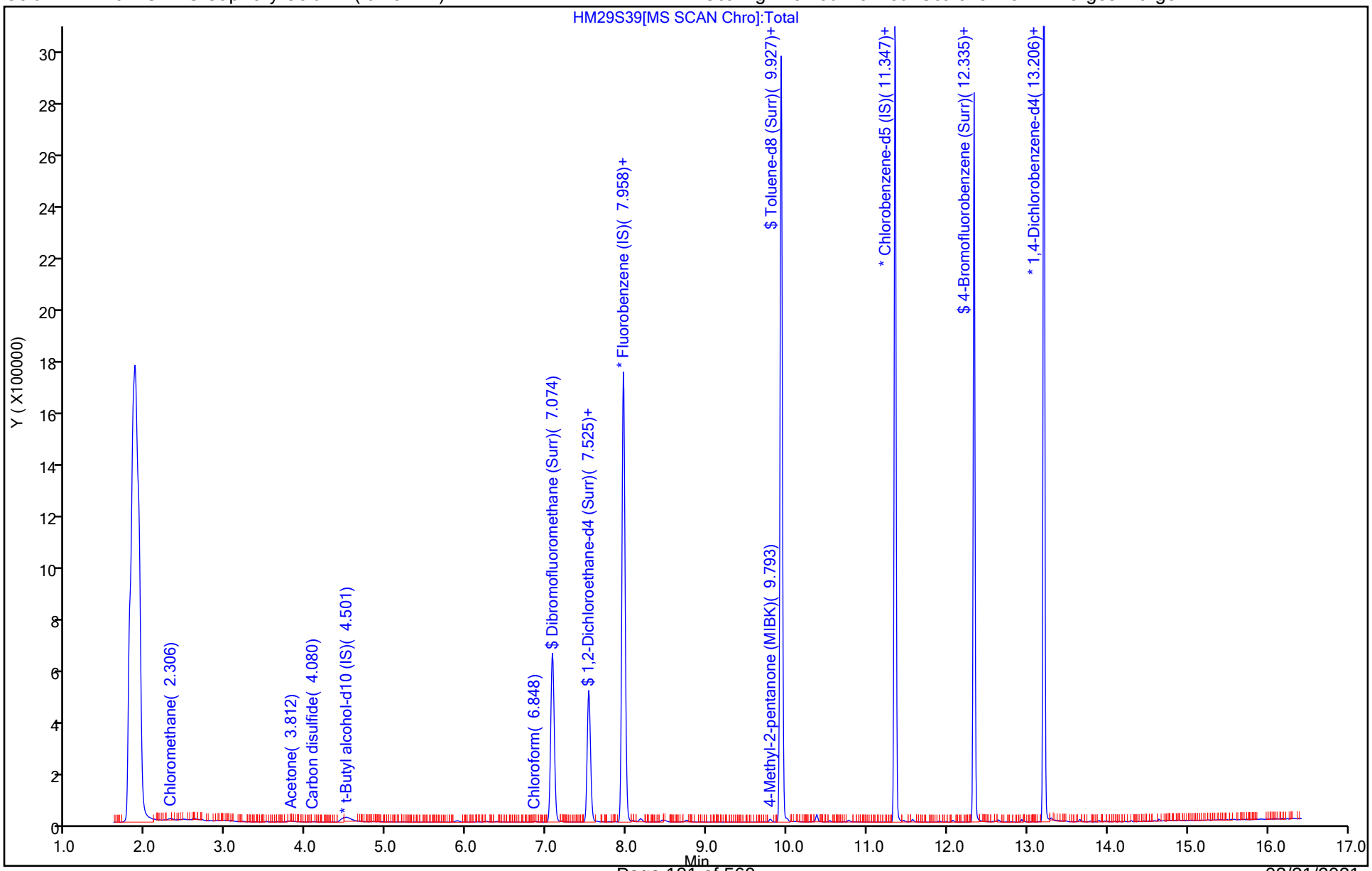
Report Date: 30-Mar-2021 17:45:34 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S39.D

Injection Date:	29-Mar-2021 23:22:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-1	Lab Sample ID:	410-33727-1	Worklist Smp#:	15
Client ID:	HD-COD-SW-6-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	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\20210329-25331.b\HM29S39.D
Lims ID: 410-33727-A-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 29-Mar-2021 23:22:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-015
Misc. Info.: 410-33727-A-1
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:00:53

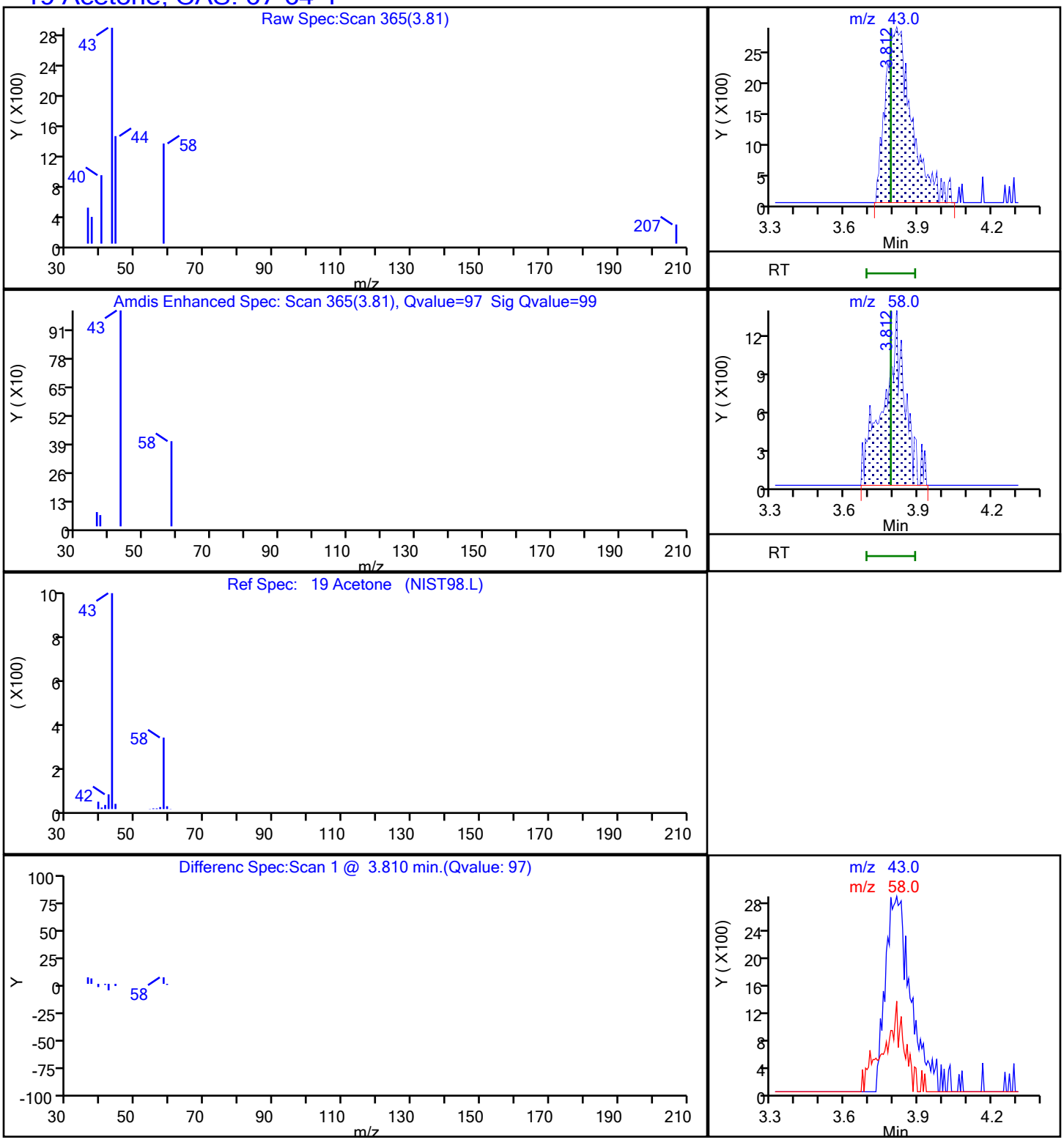
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.1	101.23
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.04
$ 82 Toluene-d8 (Surr)	10.0	9.93	99.33
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.70	96.95

Report Date: 30-Mar-2021 17:45:34 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S39.D				
Injection Date:	29-Mar-2021 23:22:30	Instrument ID:	19094		
Lims ID:	410-33727-A-1	Lab Sample ID:	410-33727-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	MEC29284	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		

19 Acetone, CAS: 67-64-1



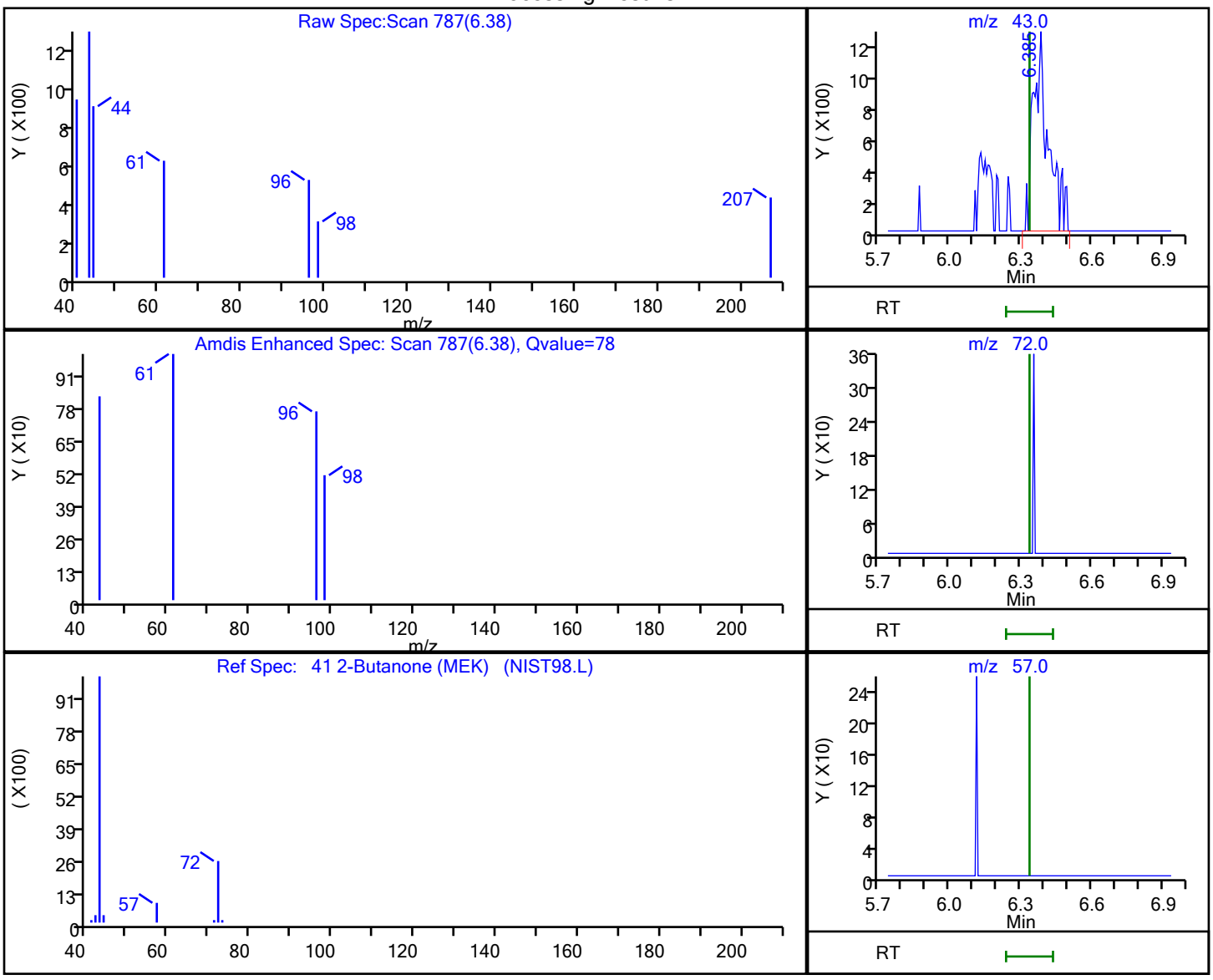
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S39.D				
Injection Date:	29-Mar-2021 23:22:30	Instrument ID:	19094		
Lims ID:	410-33727-A-1	Lab Sample ID:	410-33727-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	MEC29284	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		

41 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.38	43.00	5561	0.466385
6.34	72.00	0	
6.34	57.00	0	

Reviewer: beckerk, 30-Mar-2021 17:00:37

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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-33727-2

Matrix: Water Lab File ID: HM29S40.D

Analysis Method: 8260D Date Collected: 03/24/2021 11:45

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 23:43

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.: 108546 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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	2.8	J ^c	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.069	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.096	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-33727-2

Matrix: Water Lab File ID: HM29S40.D

Analysis Method: 8260D Date Collected: 03/24/2021 11:45

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 23:43

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.: 108546 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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S40.D
Lims ID: 410-33727-A-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 29-Mar-2021 23:43:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-016
Misc. Info.: 410-33727-A-2
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:12:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.269	2.282	-0.013	93	4271	0.0579	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.800	3.788	0.012	97	21941	2.78	M
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84		4.477				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.470	4.495	-0.025	0	123756	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43		6.336				ND	U
42 cis-1,2-Dichloroethene	96	6.378	6.385	-0.007	76	4620	0.0691	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.848	6.860	-0.012	86	7564	0.0708	
$ 51 Dibromofluoromethane (Surr)	113	7.067	7.074	-0.007	94	622815	10.1	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	-0.001	0	121531	10.5	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.622	7.628	-0.006	1	2064	0.0319	
* 65 Fluorobenzene (IS)	96	7.957	7.958	-0.001	99	2384348	10.0	
67 Trichloroethene	95	8.433	8.433	0.000	94	6366	0.0958	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.926	9.927	-0.001	93	2369029	9.93	
83 Toluene	92	10.000	10.000	0.000	97	7665	0.0481	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	
88 Tetrachloroethene	166	10.536	10.536	0.000	92	4001	0.0504	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1837724	10.0	
98 Chlorobenzene	112		11.378				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	861265	9.71	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1016434	10.0	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

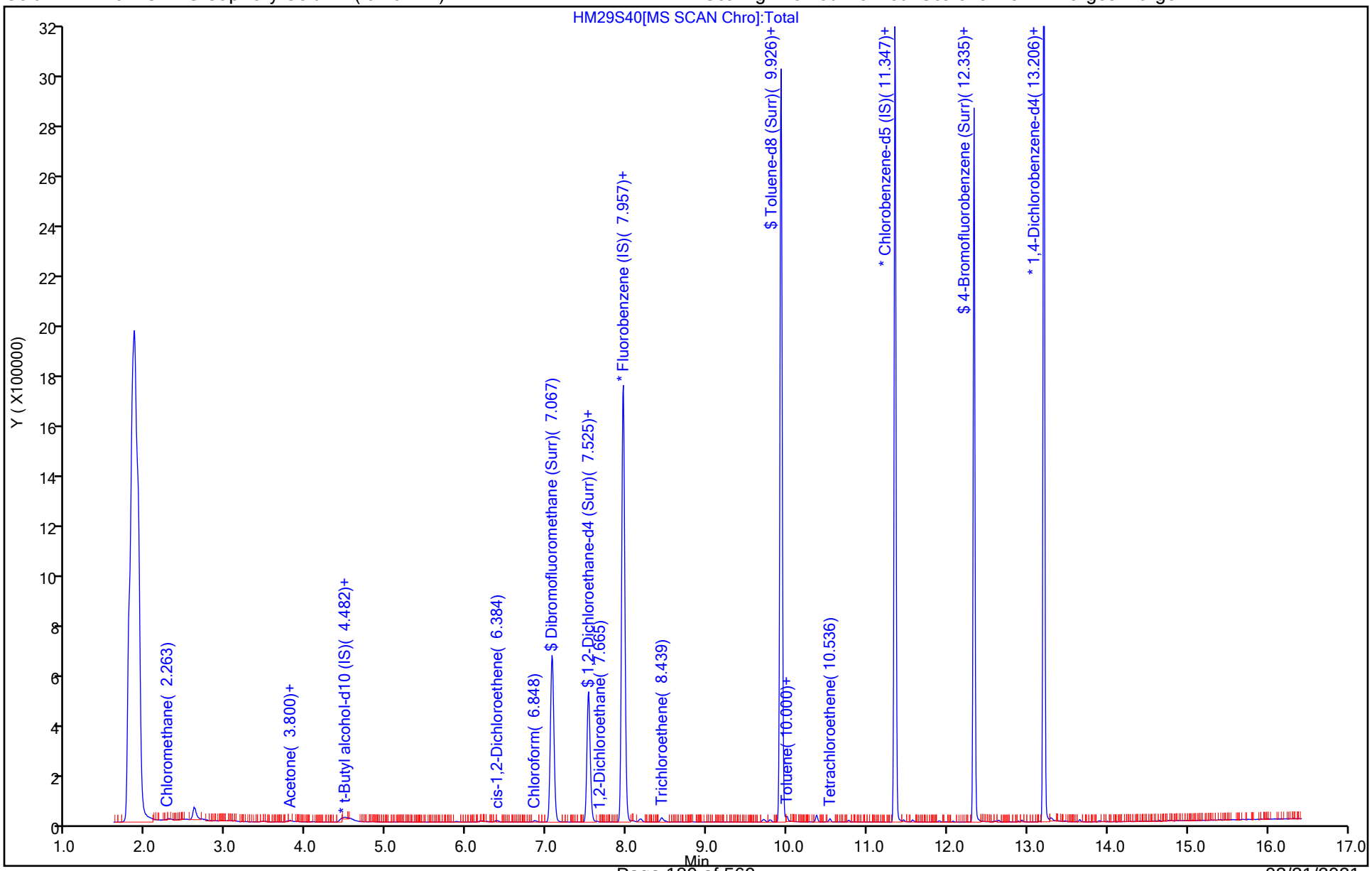
Report Date: 30-Mar-2021 17:45:36 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S40.D

Injection Date:	29-Mar-2021 23:43:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-2	Lab Sample ID:	410-33727-2	Worklist Smp#:	16
Client ID:	HD-COD-SW-7-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	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\20210329-25331.b\HM29S40.D
Lims ID: 410-33727-A-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 29-Mar-2021 23:43:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-016
Misc. Info.: 410-33727-A-2
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:12:08

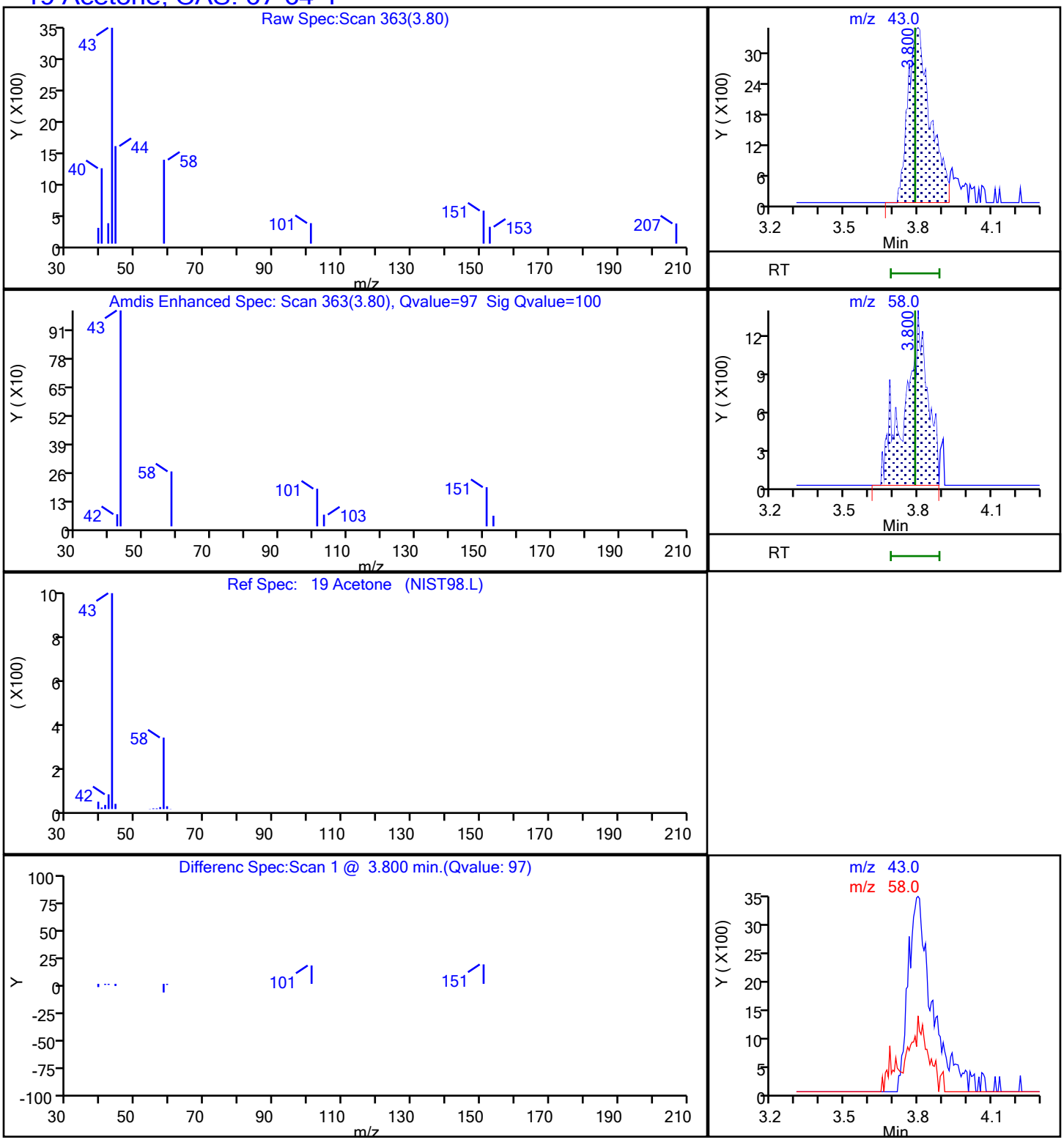
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.1	101.43
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.32
$ 82 Toluene-d8 (Surr)	10.0	9.93	99.32
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.71	97.10

Report Date: 30-Mar-2021 17:45:36 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S40.D				
Injection Date:	29-Mar-2021 23:43:30	Instrument ID:	19094		
Lims ID:	410-33727-A-2	Lab Sample ID:	410-33727-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	MEC29284	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		

19 Acetone, CAS: 67-64-1

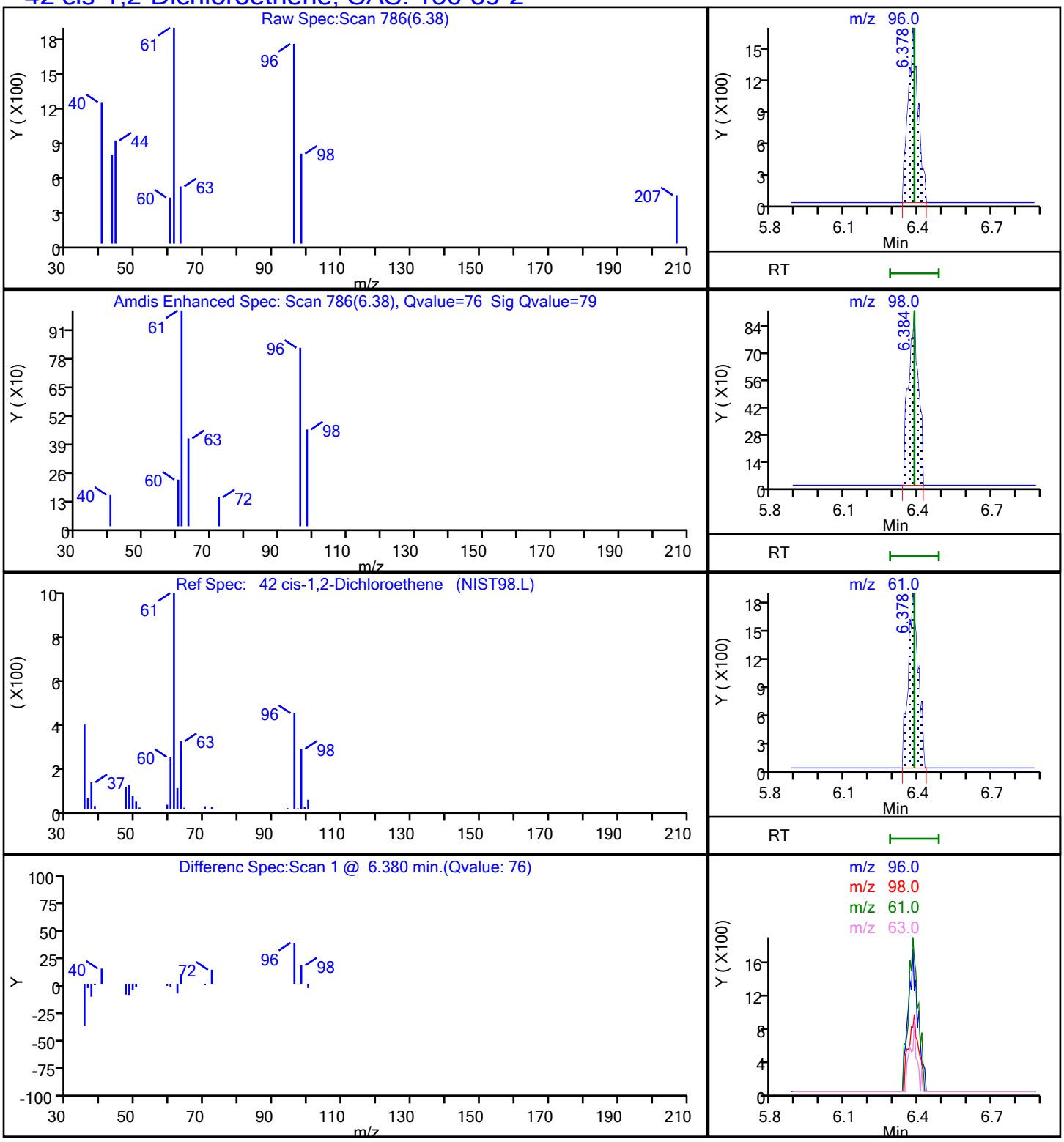


Report Date: 30-Mar-2021 17:45:36 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S40.D				
Injection Date:	29-Mar-2021 23:43:30	Instrument ID:	19094		
Lims ID:	410-33727-A-2	Lab Sample ID:	410-33727-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	MEC29284	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



Report Date: 30-Mar-2021 17:45:36 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S40.D

Injection Date: 29-Mar-2021 23:43:30 Instrument ID: 19094

Lims ID: 410-33727-A-2 Lab Sample ID: 410-33727-2

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

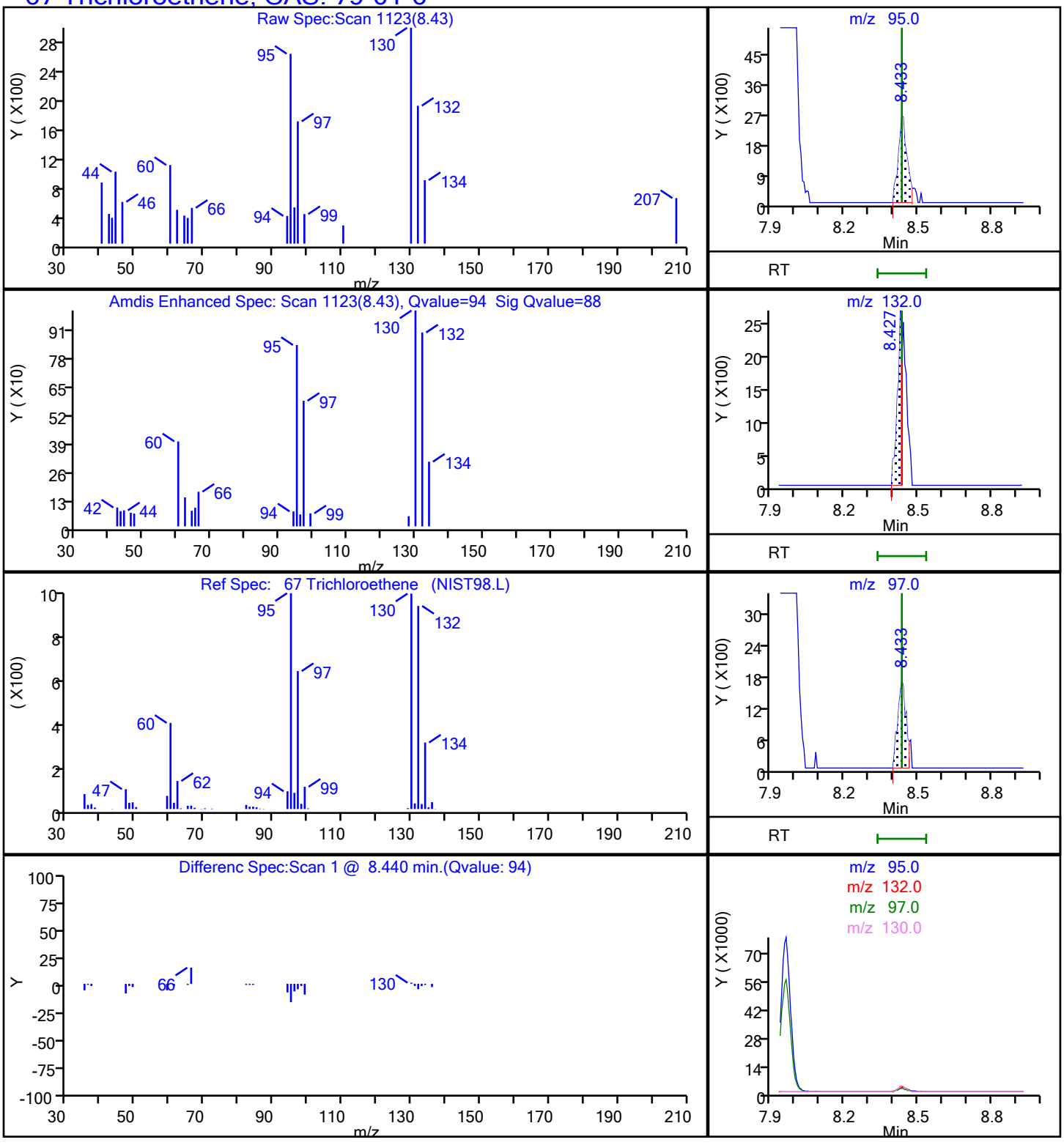
Operator ID: MEC29284 ALS Bottle#: 15 Worklist Smp#: 16

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



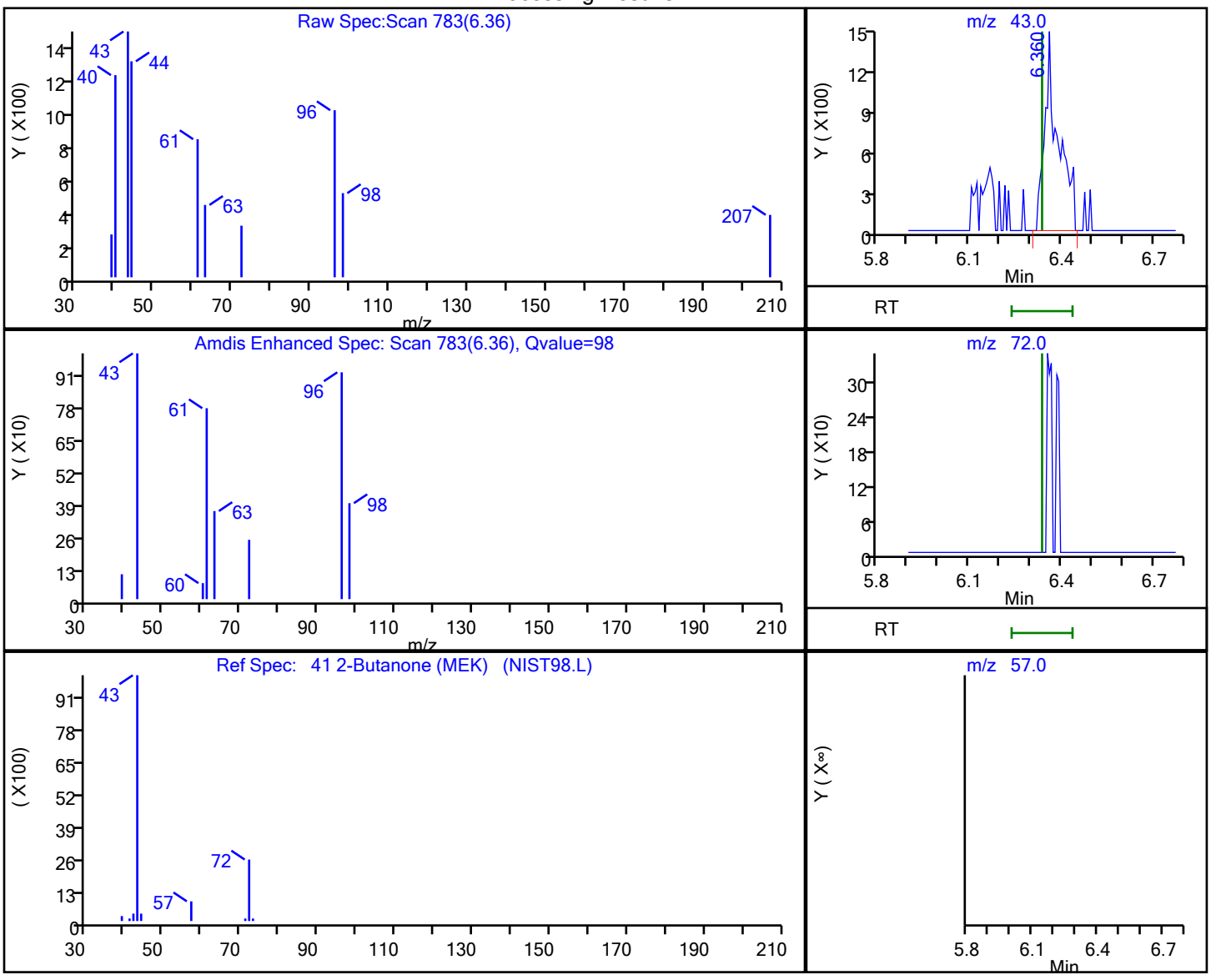
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S40.D				
Injection Date:	29-Mar-2021 23:43:30	Instrument ID:	19094		
Lims ID:	410-33727-A-2	Lab Sample ID:	410-33727-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	MEC29284	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		

41 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.36	43.00	4562	0.387601
6.34	72.00	0	
6.34	57.00	0	

Reviewer: beckerk, 30-Mar-2021 17:11:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

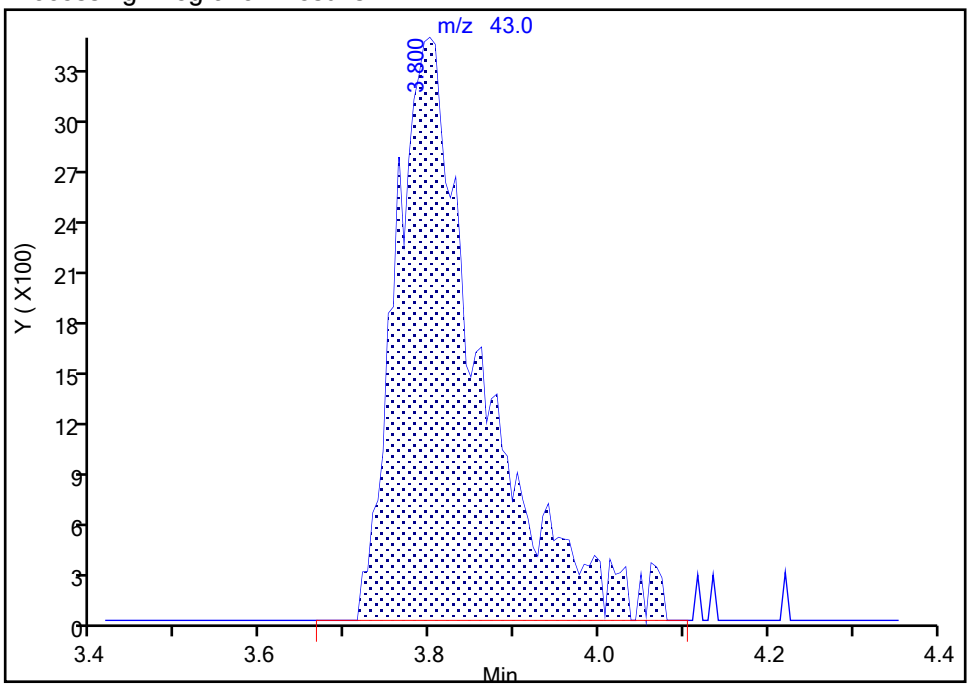
Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S40.D				
Injection Date:	29-Mar-2021 23:43:30	Instrument ID:	19094		
Lims ID:	410-33727-A-2	Lab Sample ID:	410-33727-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. 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

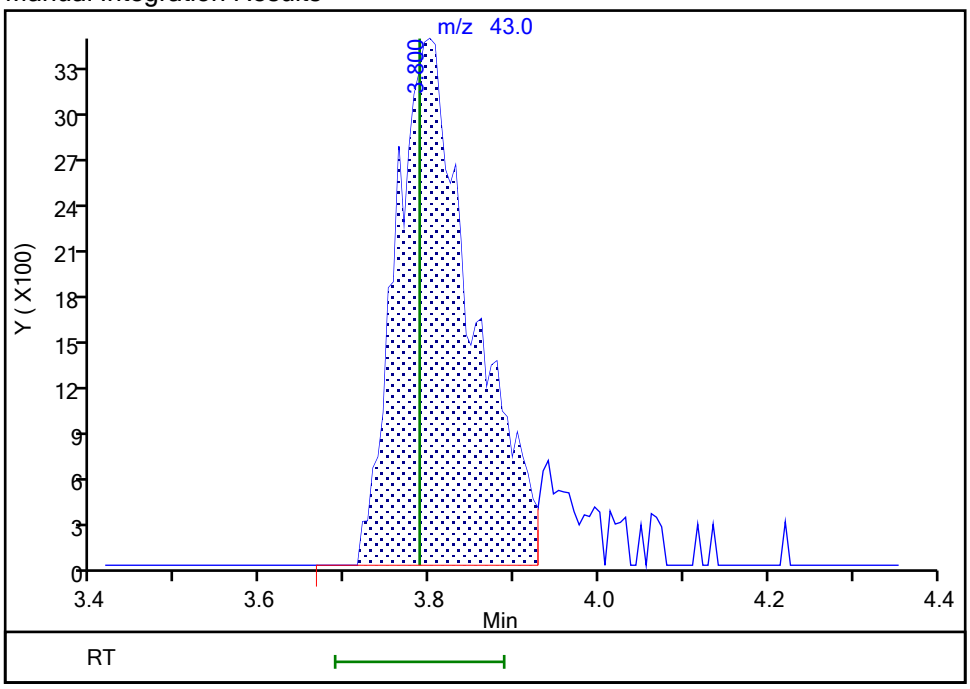
Processing Integration Results

RT: 3.80
Area: 24754
Amount: 3.138930
Amount Units: ug/l



Manual Integration Results

RT: 3.80
Area: 21941
Amount: 2.782227
Amount Units: ug/l



Reviewer: beckerk, 30-Mar-2021 17:01:08
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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-33727-3

Matrix: Water Lab File ID: HM29S41.D

Analysis Method: 8260D Date Collected: 03/24/2021 09:15

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 00:05

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.: 108546 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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	1.3	J ^c	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	0.062	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.088	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.097	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-33727-3

Matrix: Water Lab File ID: HM29S41.D

Analysis Method: 8260D Date Collected: 03/24/2021 09:15

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 00:05

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.: 108546 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S41.D
Lims ID: 410-33727-A-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 00:05:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-017
Misc. Info.: 410-33727-A-3
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:12:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.270	2.282	-0.012	95	4607	0.0625	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.800	3.788	0.012	98	10284	1.29	M
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84		4.477				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.464	4.495	-0.031	0	125328	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43		6.336				ND	7
42 cis-1,2-Dichloroethene	96	6.379	6.385	-0.006	78	5891	0.0881	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83		6.860				ND	7
$ 51 Dibromofluoromethane (Surr)	113	7.068	7.074	-0.006	94	622284	10.1	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.519	7.525	-0.006	0	120448	10.4	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.616	7.628	-0.012	1	1895	0.0294	
* 65 Fluorobenzene (IS)	96	7.952	7.958	-0.006	99	2382643	10.0	
67 Trichloroethene	95	8.427	8.433	-0.006	93	6421	0.0967	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2369640	9.91	
83 Toluene	92	10.000	10.000	0.000	97	4817	0.0302	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	7
88 Tetrachloroethene	166	10.530	10.536	-0.006	94	4095	0.0515	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1841470	10.0	
98 Chlorobenzene	112		11.378				ND	
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	854692	9.62	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	94	1005340	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

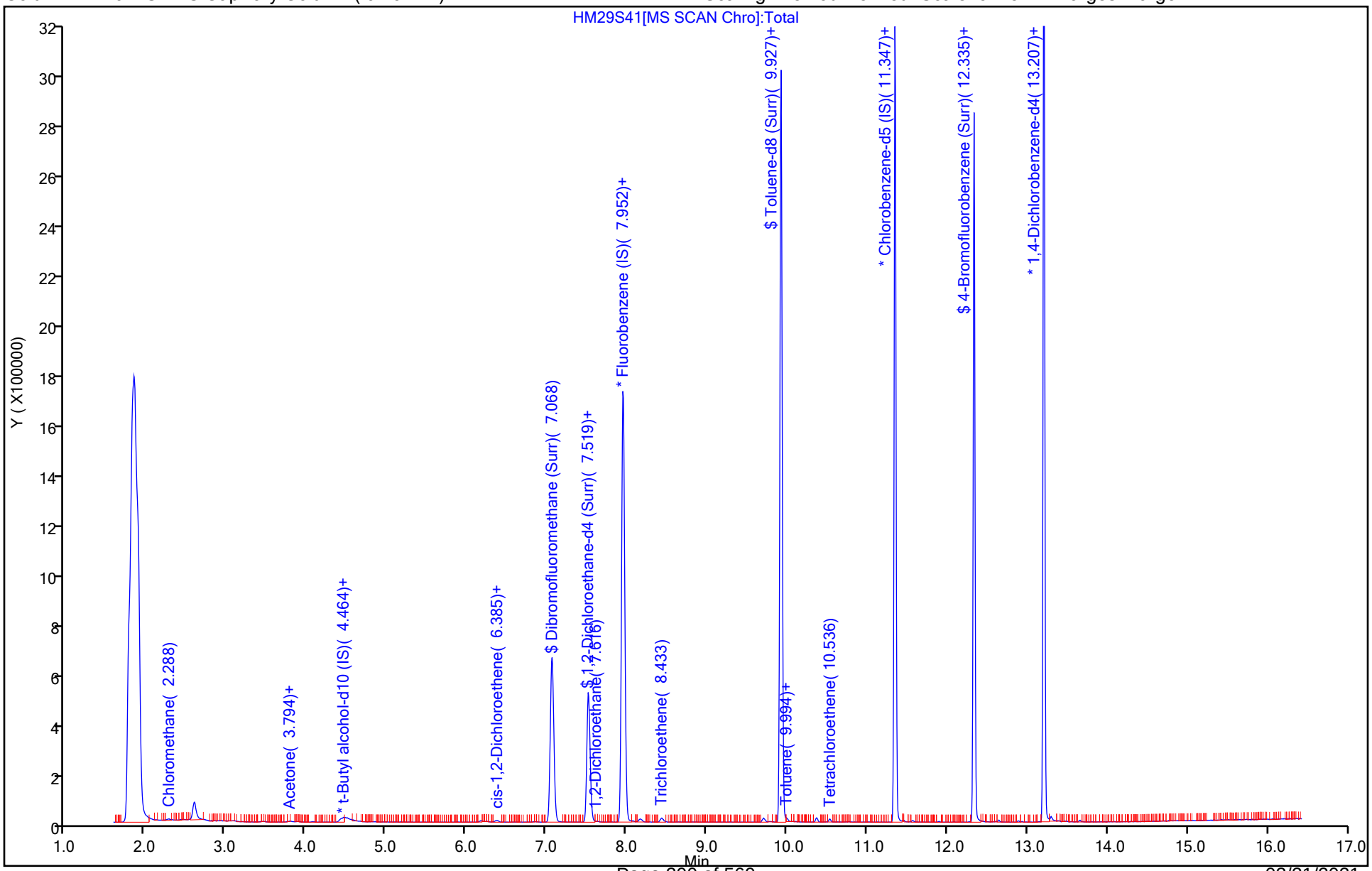
Report Date: 30-Mar-2021 17:45:38 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S41.D

Injection Date:	30-Mar-2021 00:05:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-3	Lab Sample ID:	410-33727-3	Worklist Smp#:	17
Client ID:	HD-COD-SW-8-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	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\20210329-25331.b\HM29S41.D
Lims ID: 410-33727-A-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 00:05:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-017
Misc. Info.: 410-33727-A-3
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:12:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.1	101.42
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.46
$ 82 Toluene-d8 (Surr)	10.0	9.91	99.14
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.62	96.17

Report Date: 30-Mar-2021 17:45:38 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S41.D

Injection Date: 30-Mar-2021 00:05:30 Instrument ID: 19094

Lims ID: 410-33727-A-3 Lab Sample ID: 410-33727-3

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

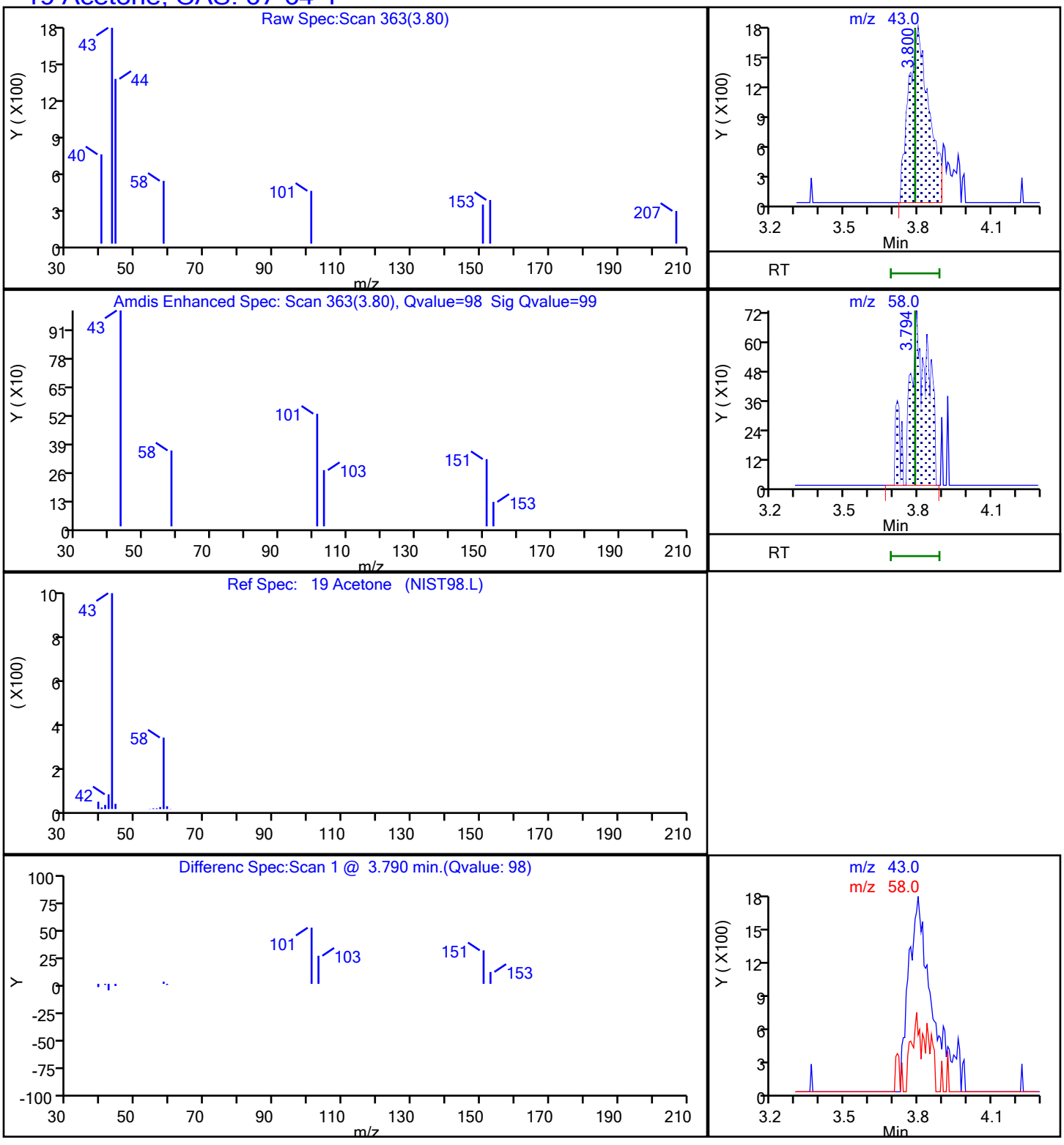
Operator ID: MEC29284 ALS Bottle#: 16 Worklist Smp#: 17

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



Report Date: 30-Mar-2021 17:45:38 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S41.D

Injection Date: 30-Mar-2021 00:05:30 Instrument ID: 19094

Lims ID: 410-33727-A-3 Lab Sample ID: 410-33727-3

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

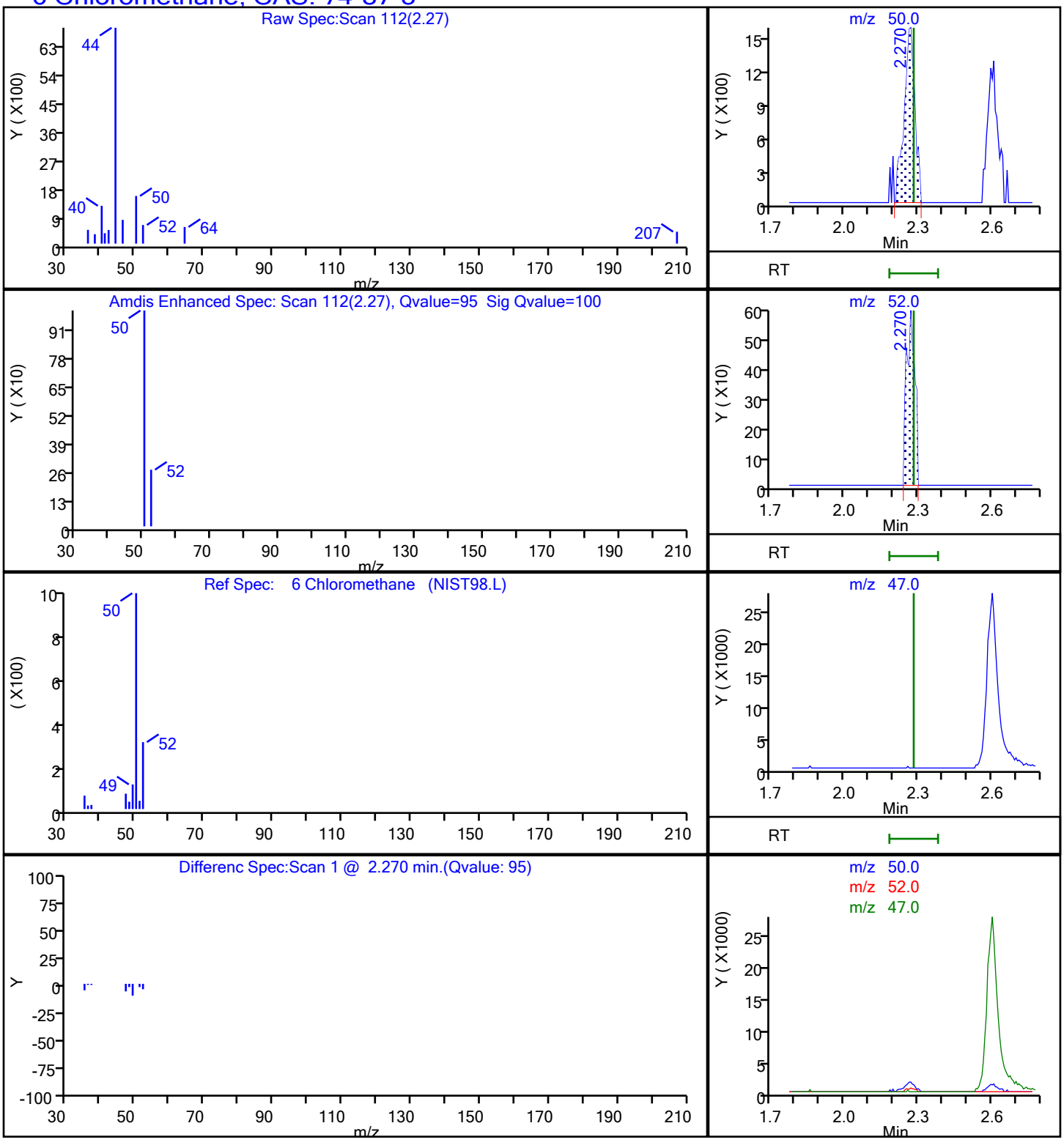
Operator ID: MEC29284 ALS Bottle#: 16 Worklist Smp#: 17

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

6 Chloromethane, CAS: 74-87-3



Report Date: 30-Mar-2021 17:45:38 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S41.D

Injection Date: 30-Mar-2021 00:05:30 Instrument ID: 19094

Lims ID: 410-33727-A-3 Lab Sample ID: 410-33727-3

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

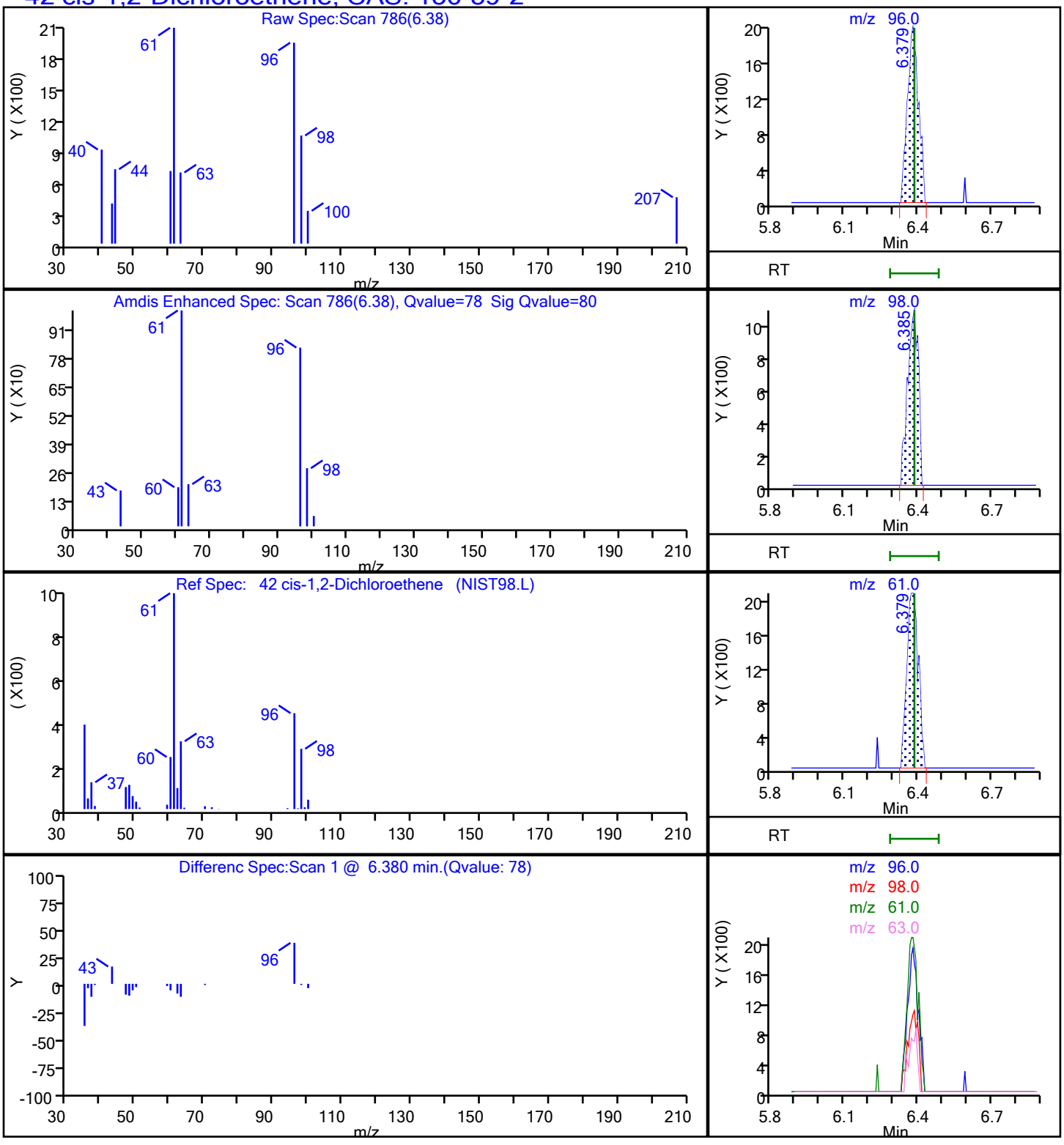
Operator ID: MEC29284 ALS Bottle#: 16 Worklist Smp#: 17

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

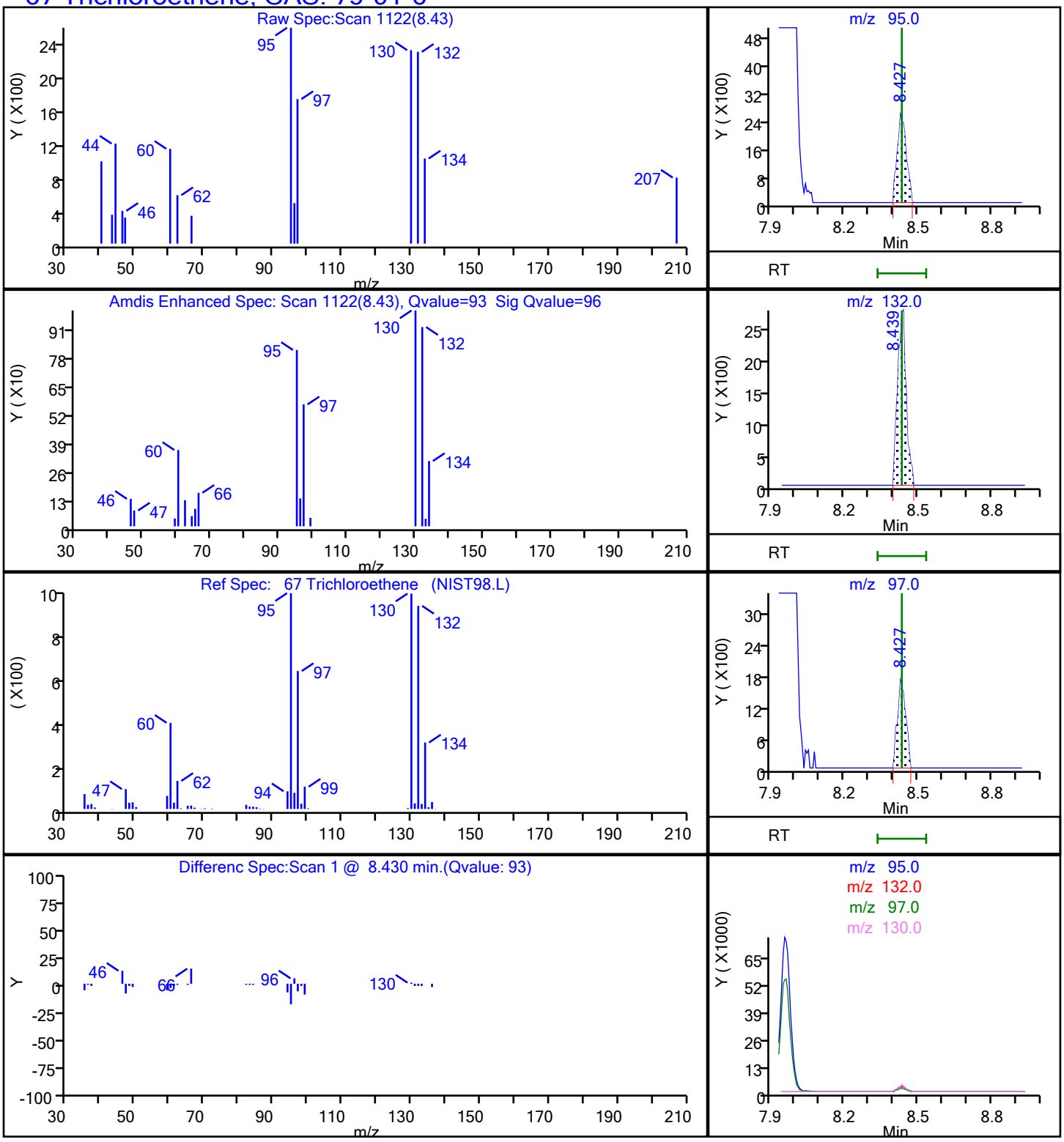


Report Date: 30-Mar-2021 17:45:38 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S41.D				
Injection Date:	30-Mar-2021 00:05:30	Instrument ID:	19094		
Lims ID:	410-33727-A-3	Lab Sample ID:	410-33727-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	MEC29284	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



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

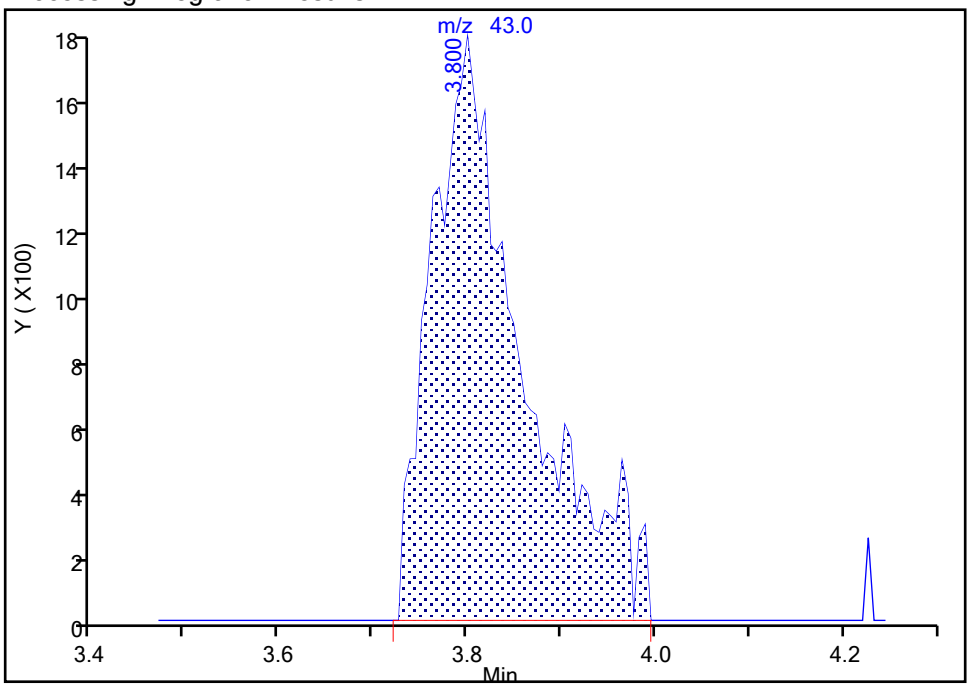
Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S41.D				
Injection Date:	30-Mar-2021 00:05:30	Instrument ID:	19094		
Lims ID:	410-33727-A-3	Lab Sample ID:	410-33727-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. 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

Signal: 1

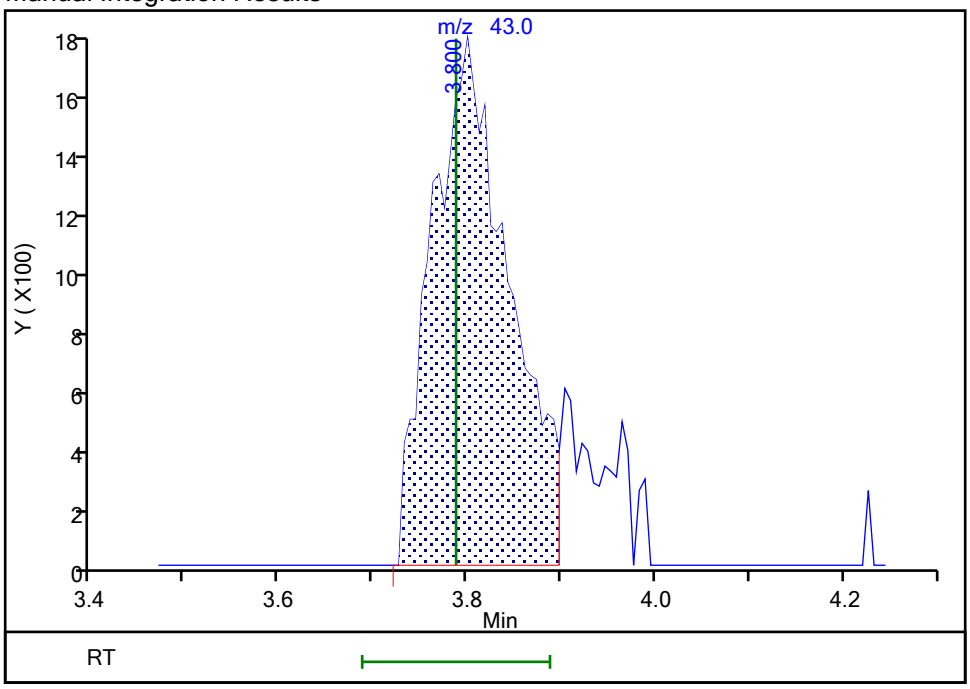
RT: 3.80
Area: 12184
Amount: 1.525613
Amount Units: ug/l

Processing Integration Results



RT: 3.80
Area: 10284
Amount: 1.287705
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 30-Mar-2021 17:12:21
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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-33727-4

Matrix: Water Lab File ID: HM29S42.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:40

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 00:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 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)	0.60	J ^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	2.9	J ^c	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	0.11	J	0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.078	J	0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-33727-4

Matrix: Water Lab File ID: HM29S42.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:40

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 00:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 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)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S42.D
Lims ID: 410-33727-A-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 00:26:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-018
Misc. Info.: 410-33727-A-4
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:13:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.282	2.282	0.000	86	4073	0.0555	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.812	3.788	0.024	97	24557	2.90	M
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84	4.483	4.477	0.006	80	6000	0.1099	
* 28 t-Butyl alcohol-d10 (IS)	65	4.507	4.495	0.012	0	132821	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43	6.366	6.336	0.030	97	7615	0.6028	
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	76	3087	0.0464	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.860	6.860	0.000	92	9453	0.0890	
$ 51 Dibromofluoromethane (Surr)	113	7.074	7.074	0.000	94	625443	10.2	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	123346	10.7	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.634	7.628	0.006	14	2102	0.0327	
* 65 Fluorobenzene (IS)	96	7.957	7.958	-0.001	99	2371776	10.0	
67 Trichloroethene	95	8.433	8.433	0.000	56	2753	0.0417	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2367378	9.92	
83 Toluene	92	10.006	10.000	0.006	98	10852	0.0681	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	
88 Tetrachloroethene	166	10.536	10.536	0.000	97	6202	0.0780	
91 2-Hexanone	43		10.646				ND	7
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1839088	10.0	
98 Chlorobenzene	112		11.378				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	93	856437	9.65	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1019596	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

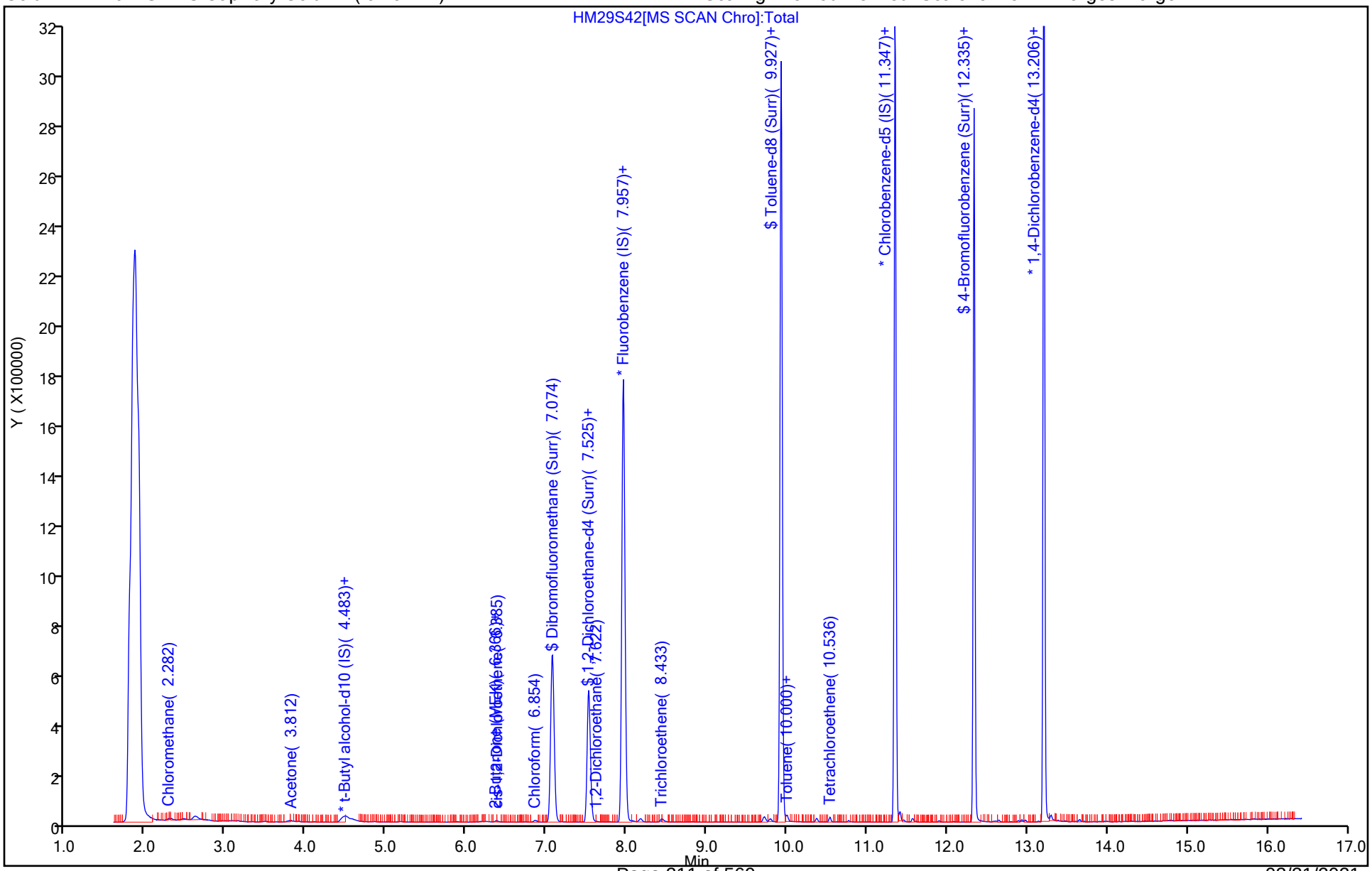
Report Date: 30-Mar-2021 17:45:39 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S42.D

Injection Date:	30-Mar-2021 00:26:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-4	Lab Sample ID:	410-33727-4	Worklist Smp#:	18
Client ID:	HD-COD-SW-9-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	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\20210329-25331.b\HM29S42.D
Lims ID: 410-33727-A-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 00:26:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-018
Misc. Info.: 410-33727-A-4
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:13:24

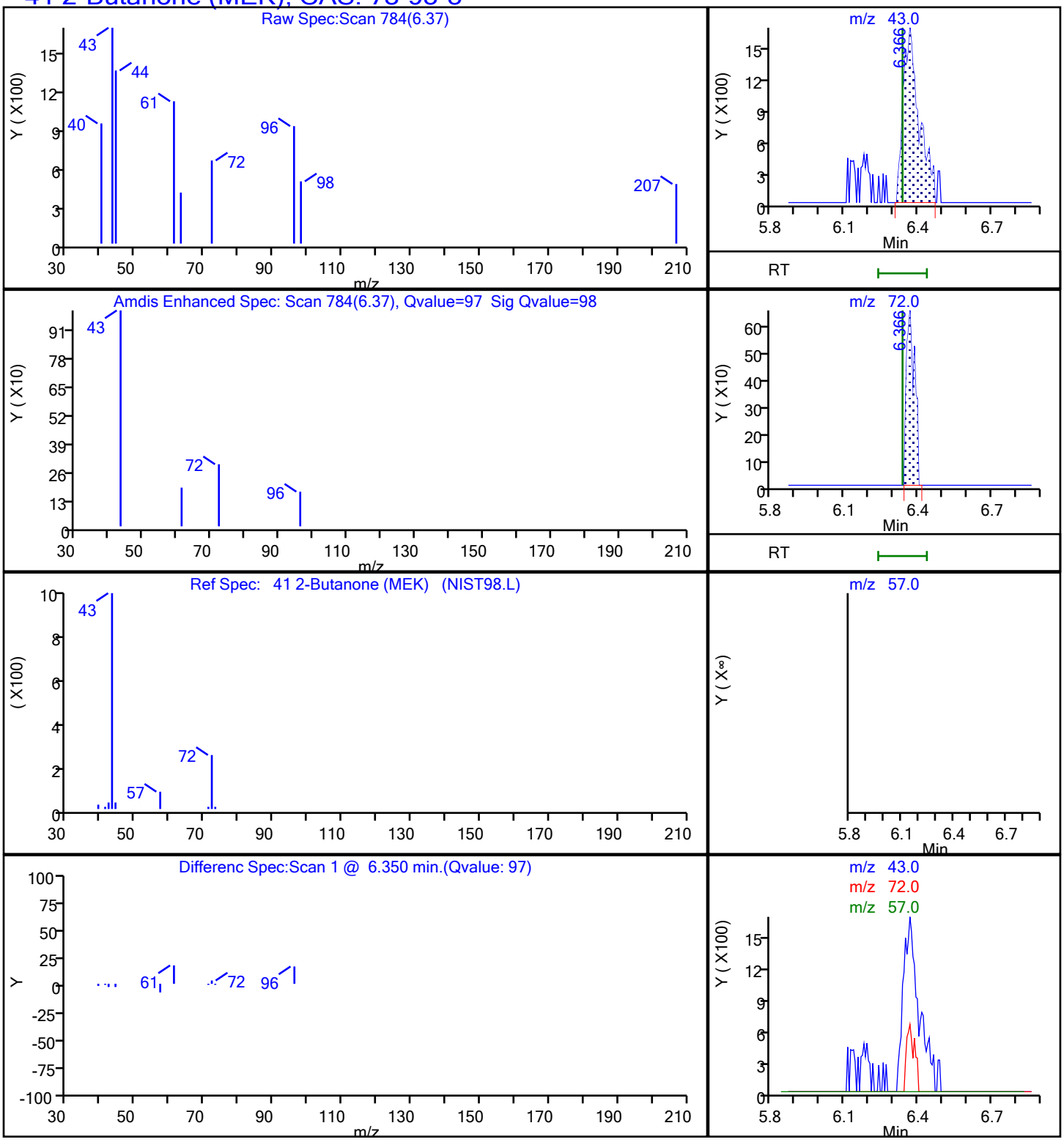
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	102.40
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.46
$ 82 Toluene-d8 (Surr)	10.0	9.92	99.18
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.65	96.49

Report Date: 30-Mar-2021 17:45:40 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S42.D				
Injection Date:	30-Mar-2021 00:26:30	Instrument ID:	19094		
Lims ID:	410-33727-A-4	Lab Sample ID:	410-33727-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	MEC29284	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		

41 2-Butanone (MEK), CAS: 78-93-3

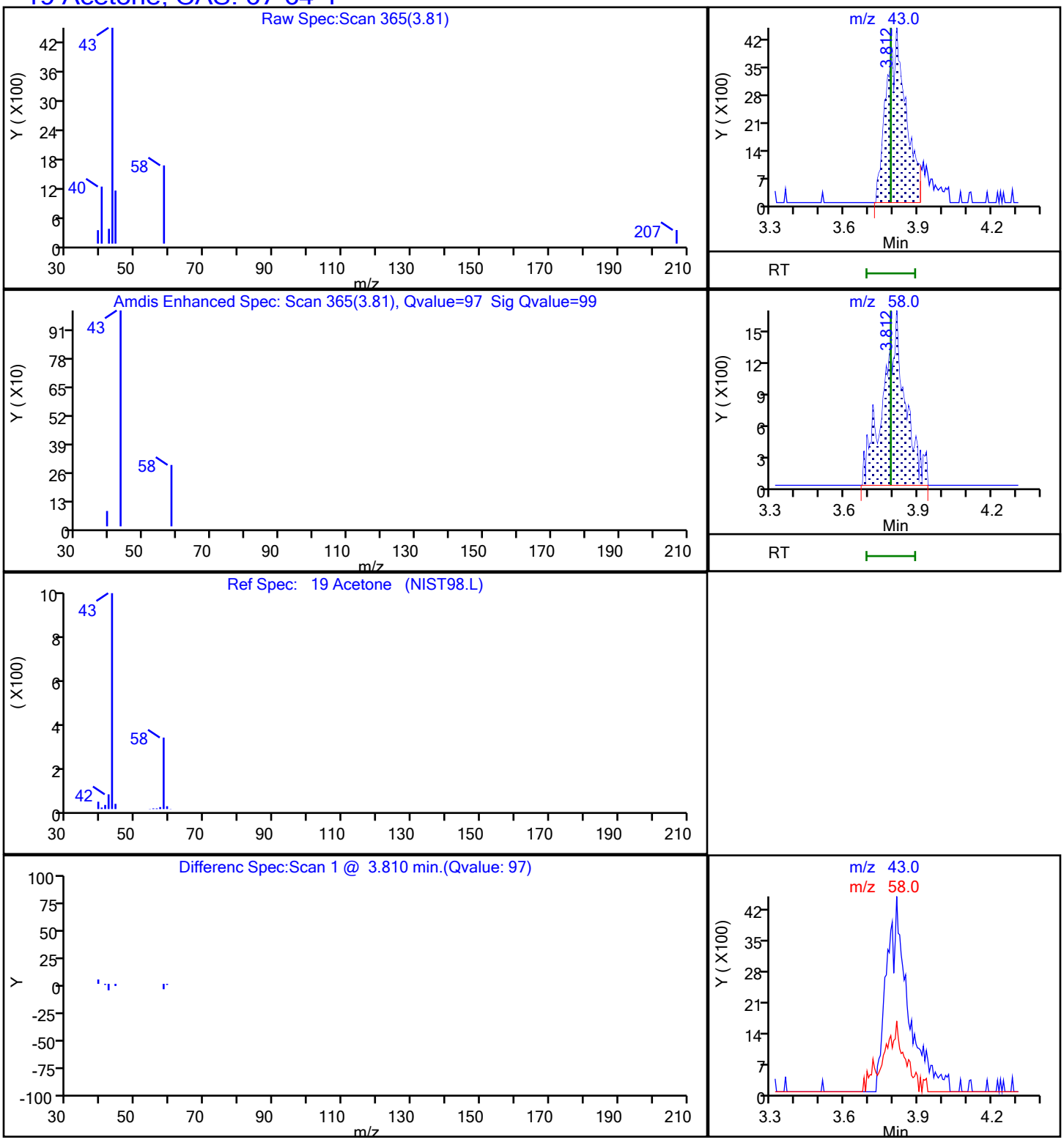


Report Date: 30-Mar-2021 17:45:39 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S42.D				
Injection Date:	30-Mar-2021 00:26:30	Instrument ID:	19094		
Lims ID:	410-33727-A-4	Lab Sample ID:	410-33727-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	MEC29284	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

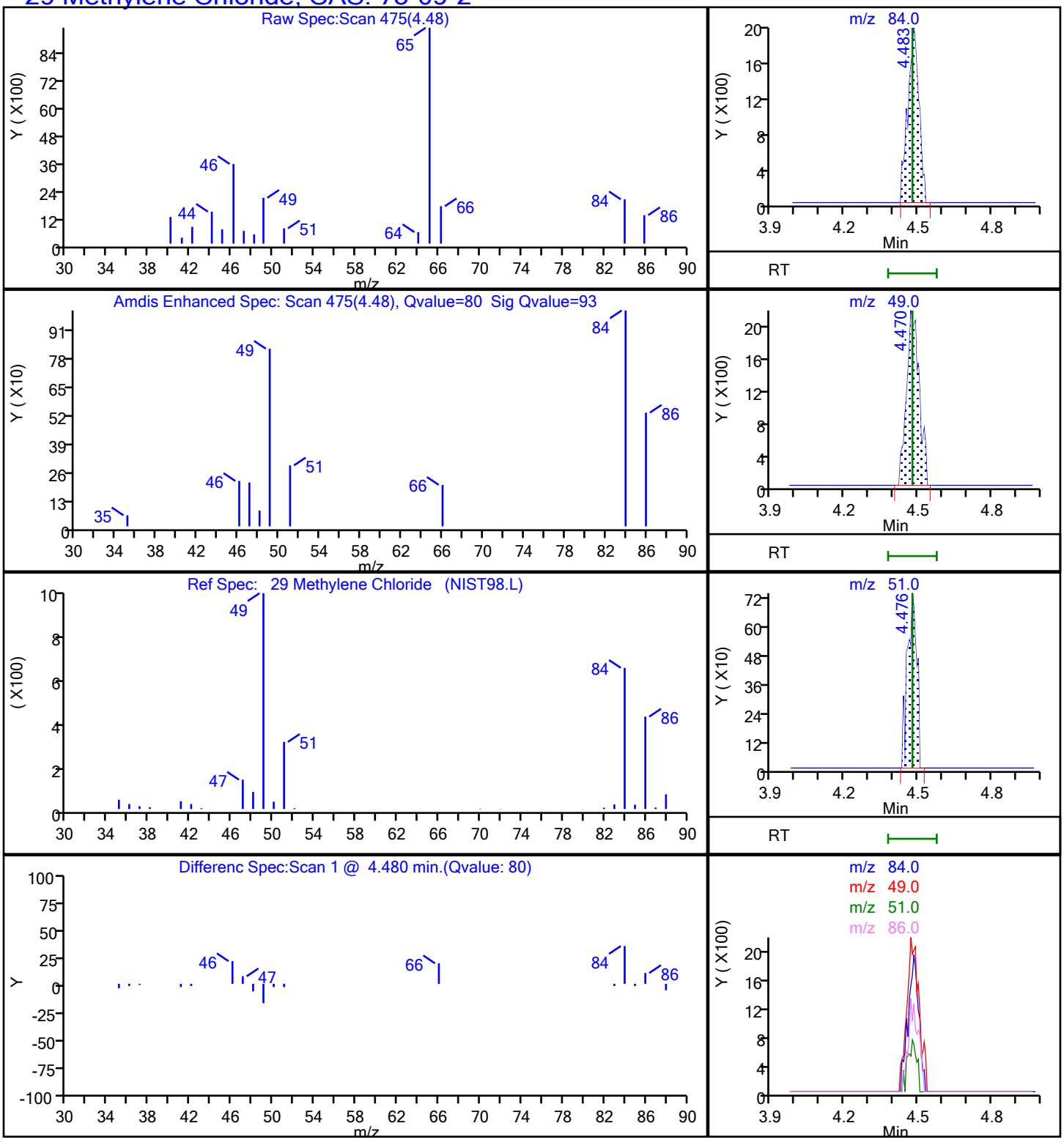


Report Date: 30-Mar-2021 17:45:40 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S42.D				
Injection Date:	30-Mar-2021 00:26:30	Instrument ID:	19094		
Lims ID:	410-33727-A-4	Lab Sample ID:	410-33727-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	MEC29284	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		

29 Methylene Chloride, CAS: 75-09-2

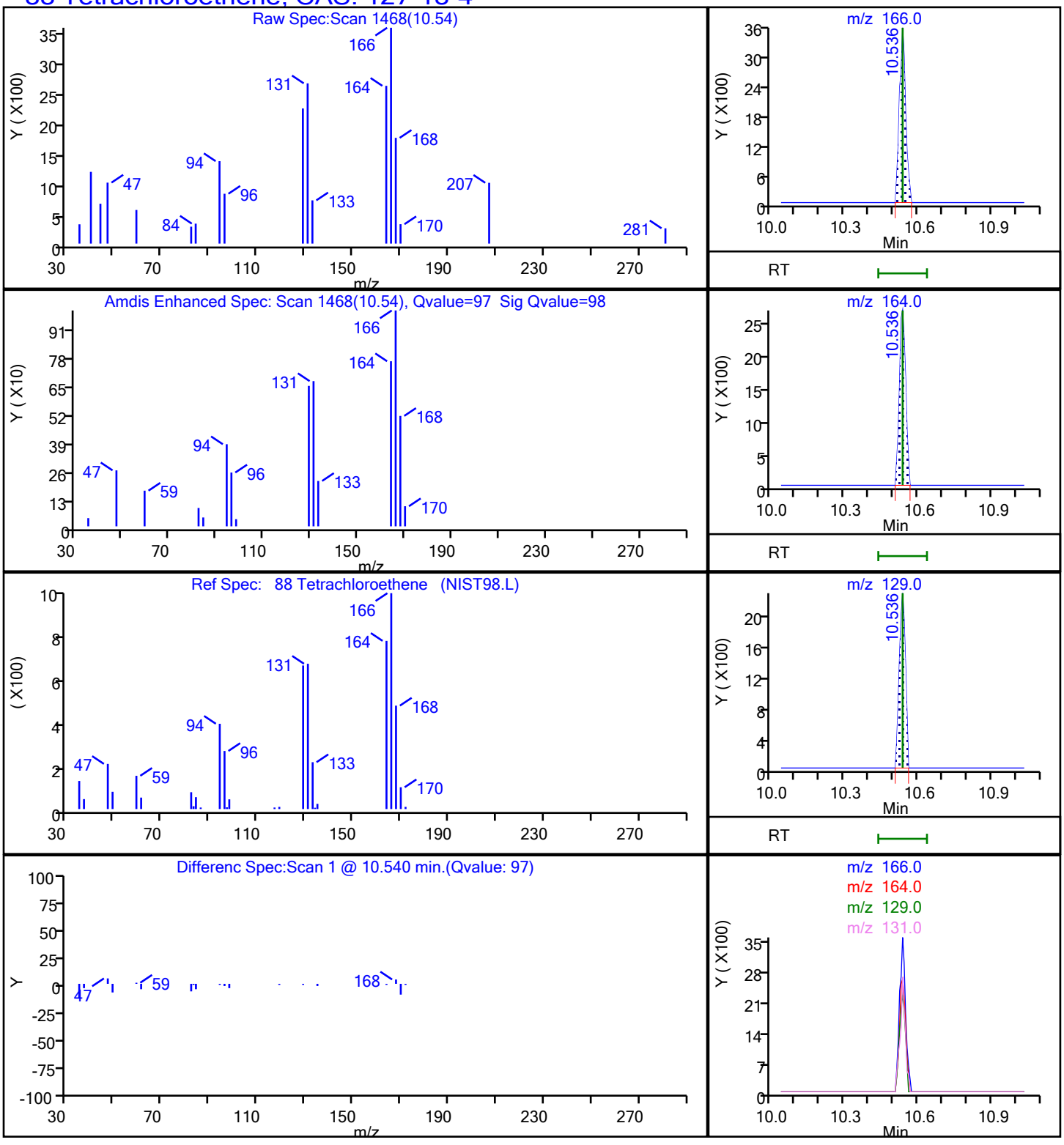


Report Date: 30-Mar-2021 17:45:40 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S42.D				
Injection Date:	30-Mar-2021 00:26:30	Instrument ID:	19094		
Lims ID:	410-33727-A-4	Lab Sample ID:	410-33727-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	MEC29284	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



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

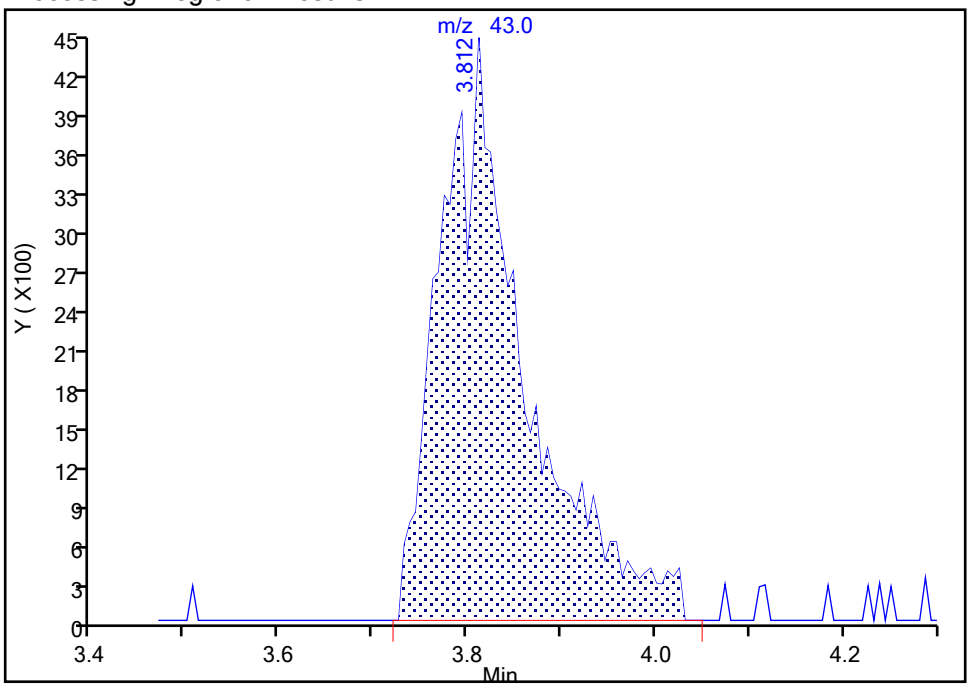
Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S42.D				
Injection Date:	30-Mar-2021 00:26:30	Instrument ID:	19094		
Lims ID:	410-33727-A-4	Lab Sample ID:	410-33727-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. 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

Signal: 1

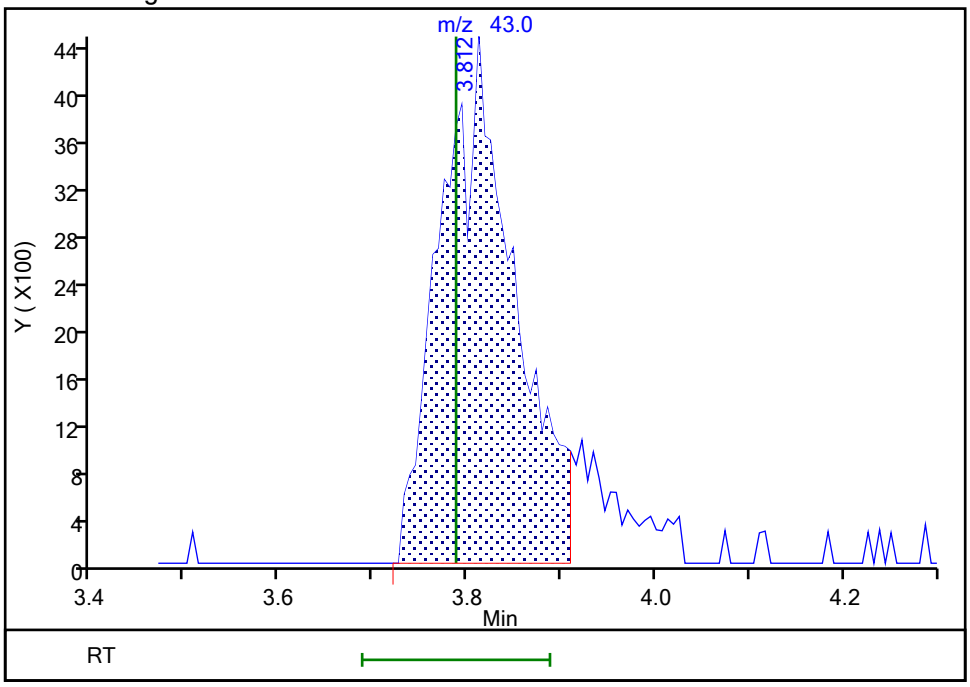
Processing Integration Results

RT: 3.81
Area: 28143
Amount: 3.325111
Amount Units: ug/l



Manual Integration Results

RT: 3.81
Area: 24557
Amount: 2.901423
Amount Units: ug/l



Reviewer: beckerk, 30-Mar-2021 17:13:00
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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-33727-5

Matrix: Water Lab File ID: HM29S43.D

Analysis Method: 8260D Date Collected: 03/24/2021 09:40

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 00:47

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.: 108546 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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	1.5	J ^c	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	0.063	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.085	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.060	J	0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.097	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-33727-5

Matrix: Water Lab File ID: HM29S43.D

Analysis Method: 8260D Date Collected: 03/24/2021 09:40

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 00:47

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.: 108546 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)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		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\19094\20210329-25331.b\HM29S43.D
Lims ID: 410-33727-A-5
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 00:47:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-019
Misc. Info.: 410-33727-A-5
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:14:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.276	2.282	-0.006	94	4648	0.0632	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.812	3.788	0.024	99	13166	1.49	M
24 Carbon disulfide	76	4.092	4.092	0.000	99	6947	0.0468	
29 Methylene Chloride	84		4.477				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.513	4.495	0.018	0	138476	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43		6.336				ND	7
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	71	5685	0.0852	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83		6.860				ND	7
$ 51 Dibromofluoromethane (Surr)	113	7.073	7.074	-0.001	94	627941	10.3	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	123053	10.7	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.628	7.628	0.000	1	2181	0.0339	
* 65 Fluorobenzene (IS)	96	7.957	7.958	-0.001	99	2376924	10.0	
67 Trichloroethene	95	8.439	8.433	0.006	95	6440	0.0972	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2368082	9.96	
83 Toluene	92	10.006	10.000	0.006	98	4619	0.0291	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	7
88 Tetrachloroethene	166	10.536	10.536	0.000	96	4740	0.0599	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1831617	10.0	
98 Chlorobenzene	112		11.378				ND	
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	855970	9.68	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1006826	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

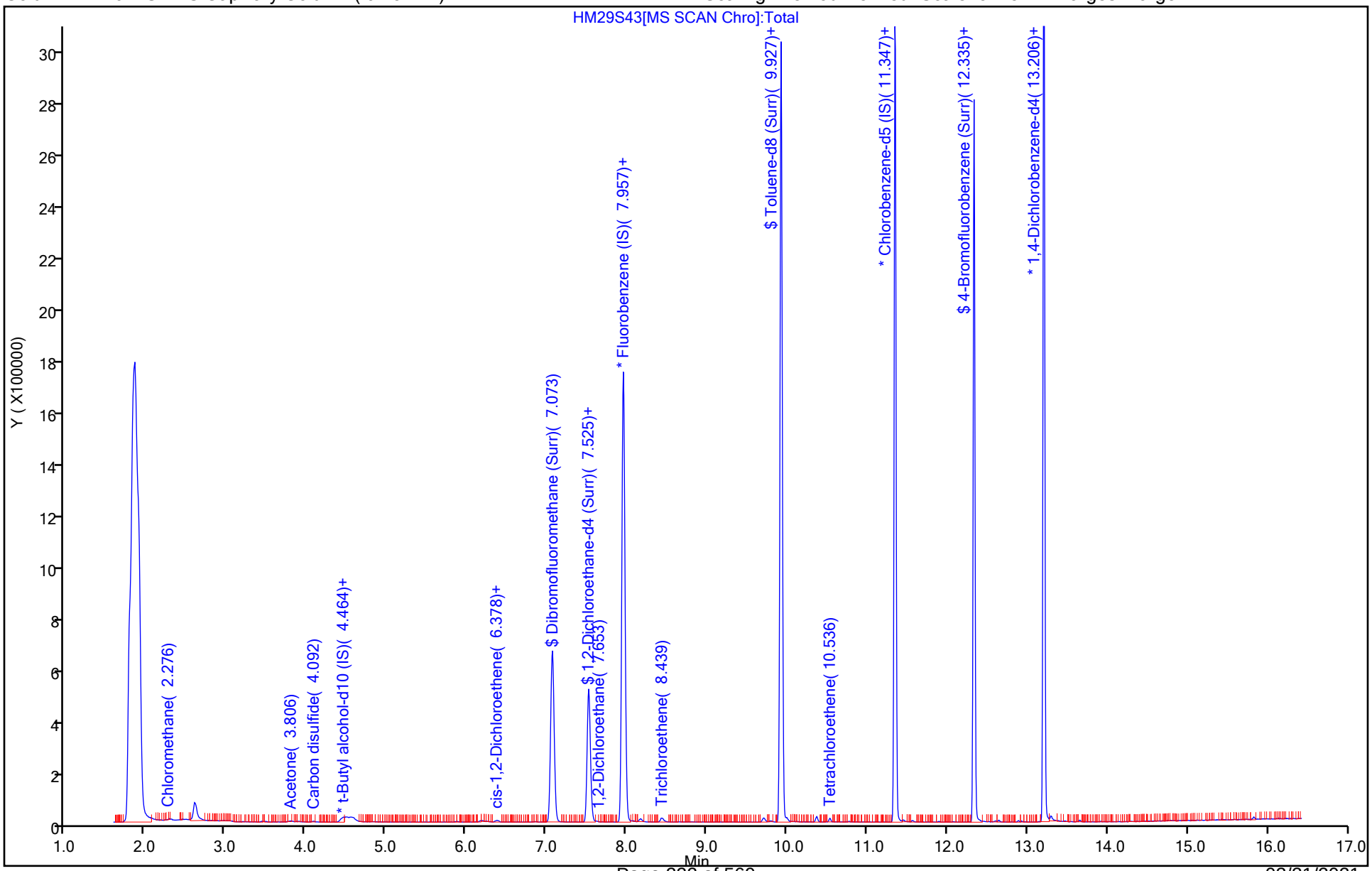
Report Date: 30-Mar-2021 17:45:42 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S43.D

Injection Date:	30-Mar-2021 00:47:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-5	Lab Sample ID:	410-33727-5	Worklist Smp#:	19
Client ID:	HD-COD-SW-13-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	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\20210329-25331.b\HM29S43.D
Lims ID: 410-33727-A-5
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 00:47:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-019
Misc. Info.: 410-33727-A-5
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:14:18

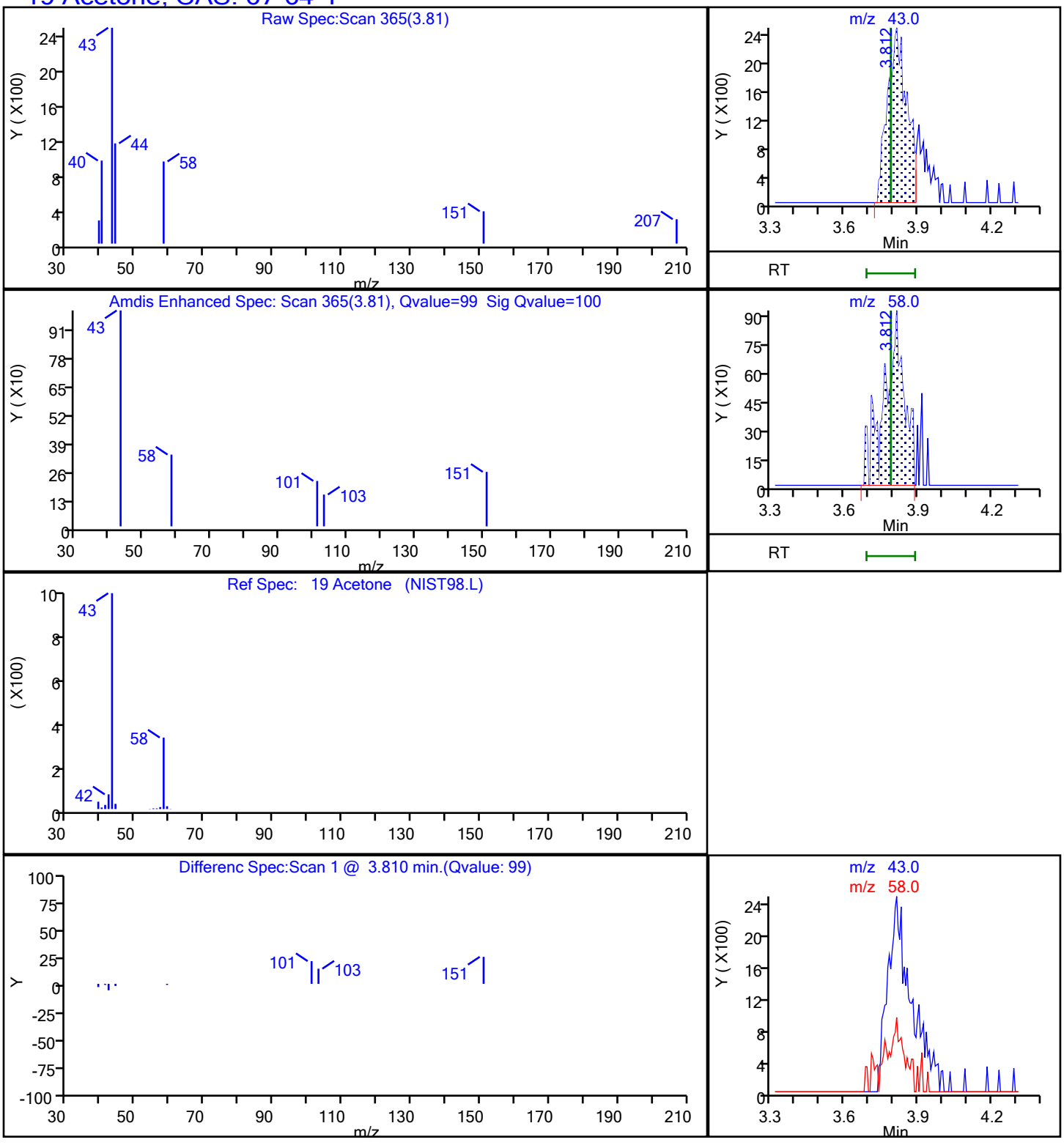
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.3	102.59
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.97
$ 82 Toluene-d8 (Surr)	10.0	9.96	99.61
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.68	96.83

Report Date: 30-Mar-2021 17:45:42 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S43.D				
Injection Date:	30-Mar-2021 00:47:30	Instrument ID:	19094		
Lims ID:	410-33727-A-5	Lab Sample ID:	410-33727-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	MEC29284	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		

19 Acetone, CAS: 67-64-1



Report Date: 30-Mar-2021 17:45:42 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S43.D

Injection Date: 30-Mar-2021 00:47:30 Instrument ID: 19094

Lims ID: 410-33727-A-5 Lab Sample ID: 410-33727-5

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

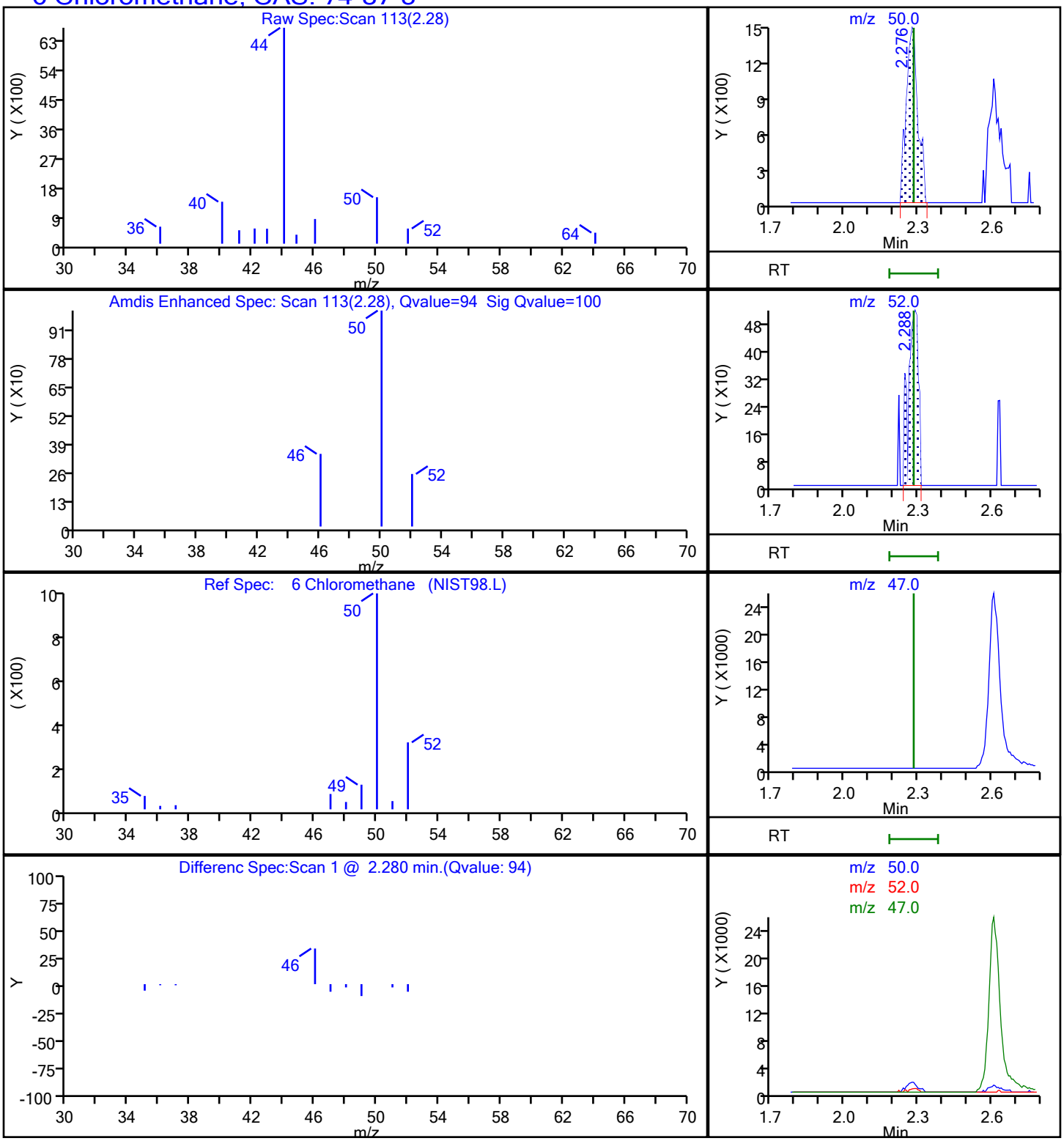
Operator ID: MEC29284 ALS Bottle#: 18 Worklist Smp#: 19

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

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

6 Chloromethane, CAS: 74-87-3

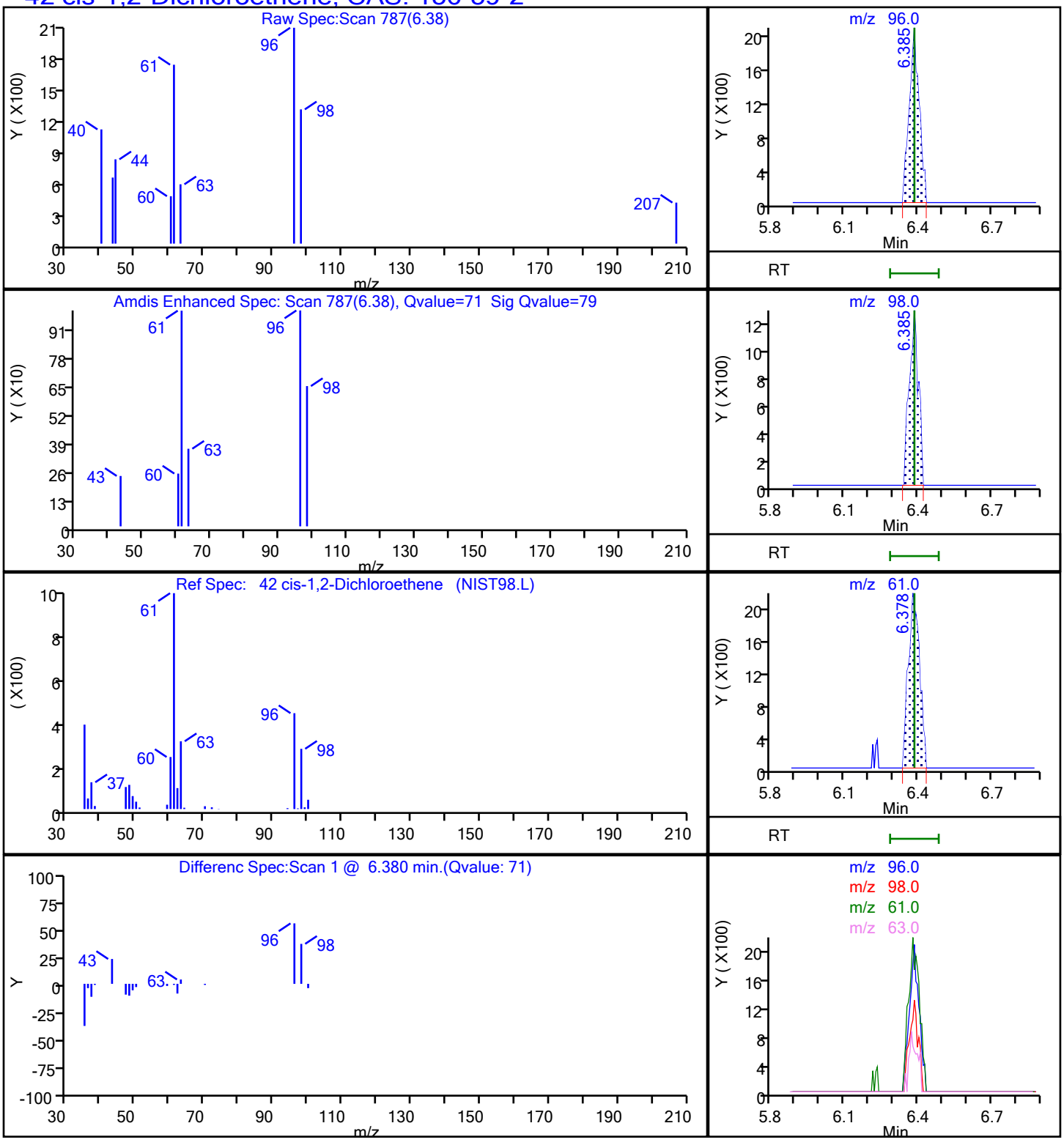


Report Date: 30-Mar-2021 17:45:42 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S43.D				
Injection Date:	30-Mar-2021 00:47:30	Instrument ID:	19094		
Lims ID:	410-33727-A-5	Lab Sample ID:	410-33727-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	MEC29284	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 (0.25 mm)	Detector	MS Quad		

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

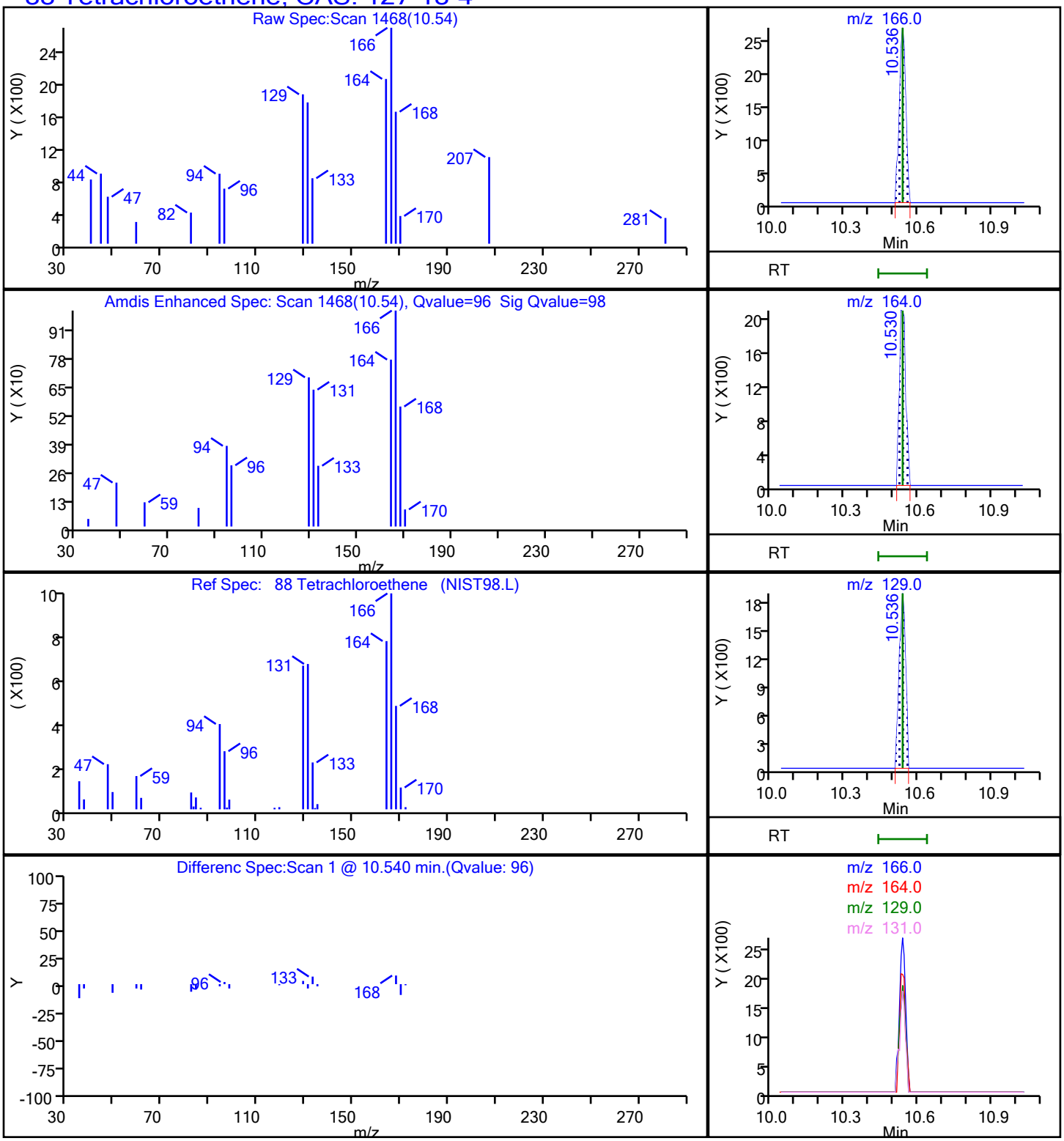


Report Date: 30-Mar-2021 17:45:42 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S43.D				
Injection Date:	30-Mar-2021 00:47:30	Instrument ID:	19094		
Lims ID:	410-33727-A-5	Lab Sample ID:	410-33727-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	MEC29284	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 (0.25 mm)	Detector	MS Quad		

88 Tetrachloroethene, CAS: 127-18-4



Report Date: 30-Mar-2021 17:45:42 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S43.D

Injection Date: 30-Mar-2021 00:47:30 Instrument ID: 19094

Lims ID: 410-33727-A-5 Lab Sample ID: 410-33727-5

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

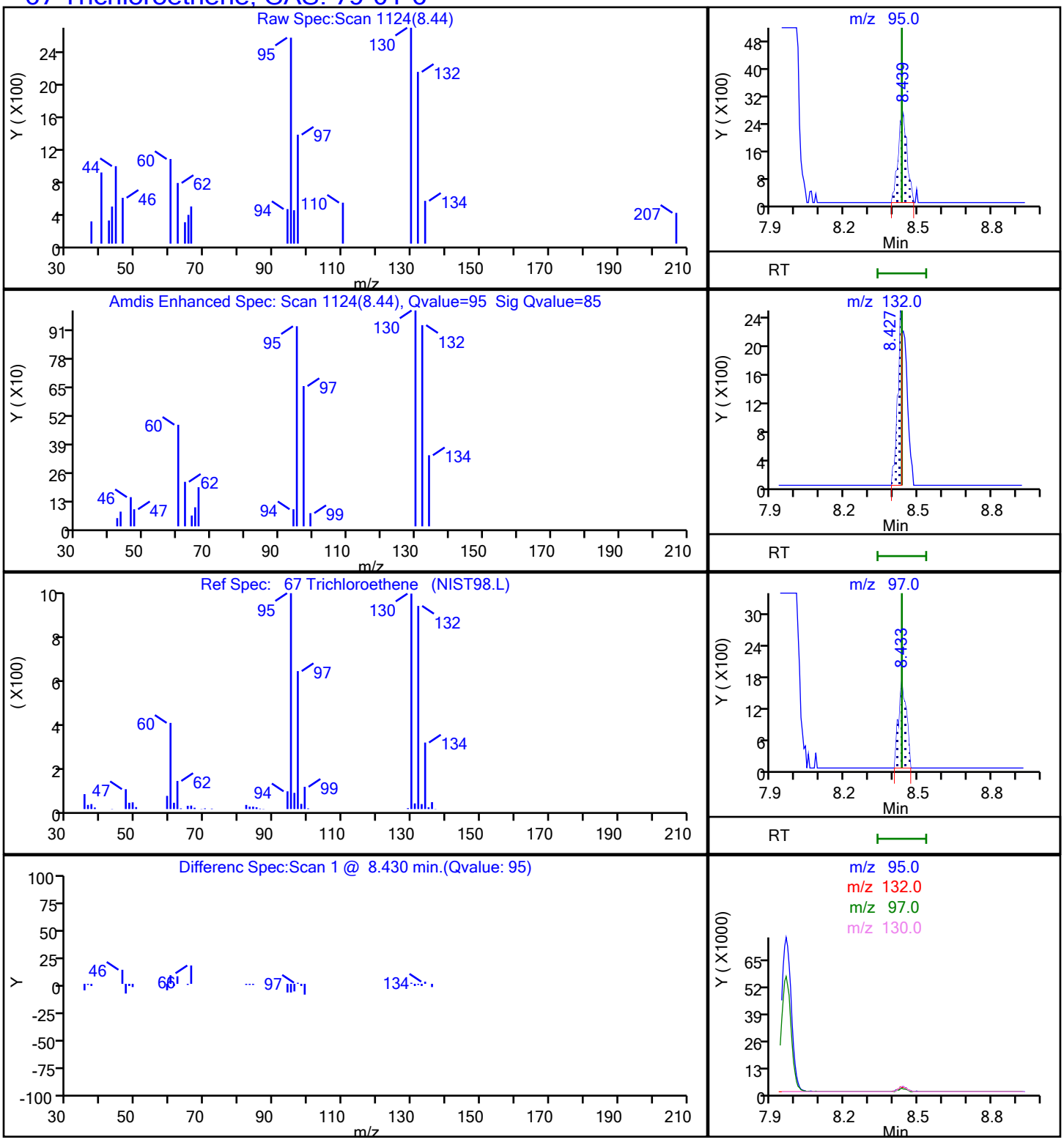
Operator ID: MEC29284 ALS Bottle#: 18 Worklist Smp#: 19

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

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

67 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

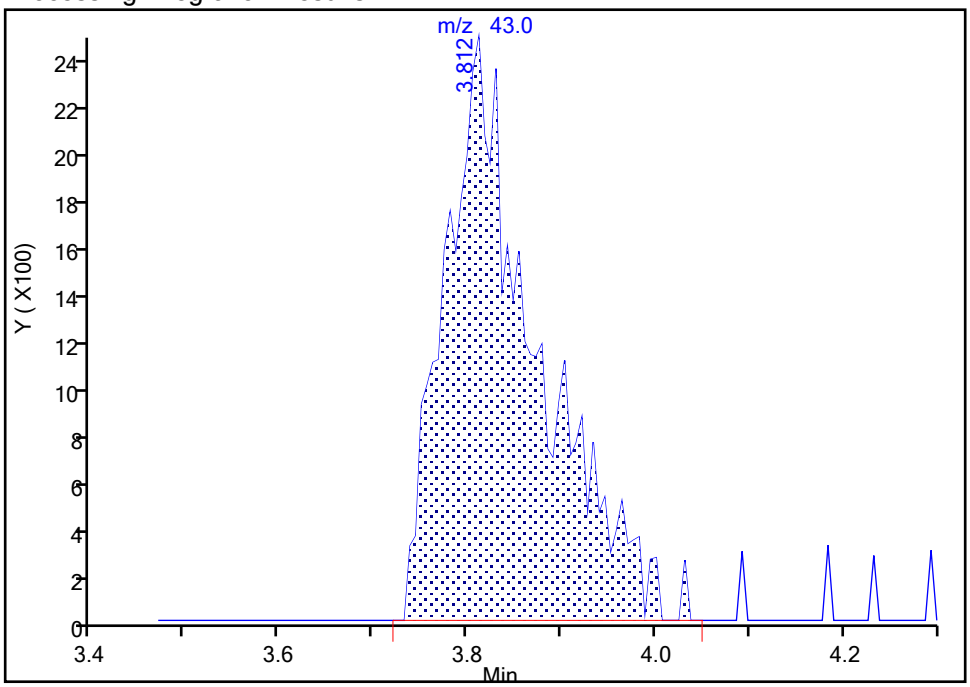
Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S43.D				
Injection Date:	30-Mar-2021 00:47:30	Instrument ID:	19094		
Lims ID:	410-33727-A-5	Lab Sample ID:	410-33727-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

19 Acetone, CAS: 67-64-1

Signal: 1

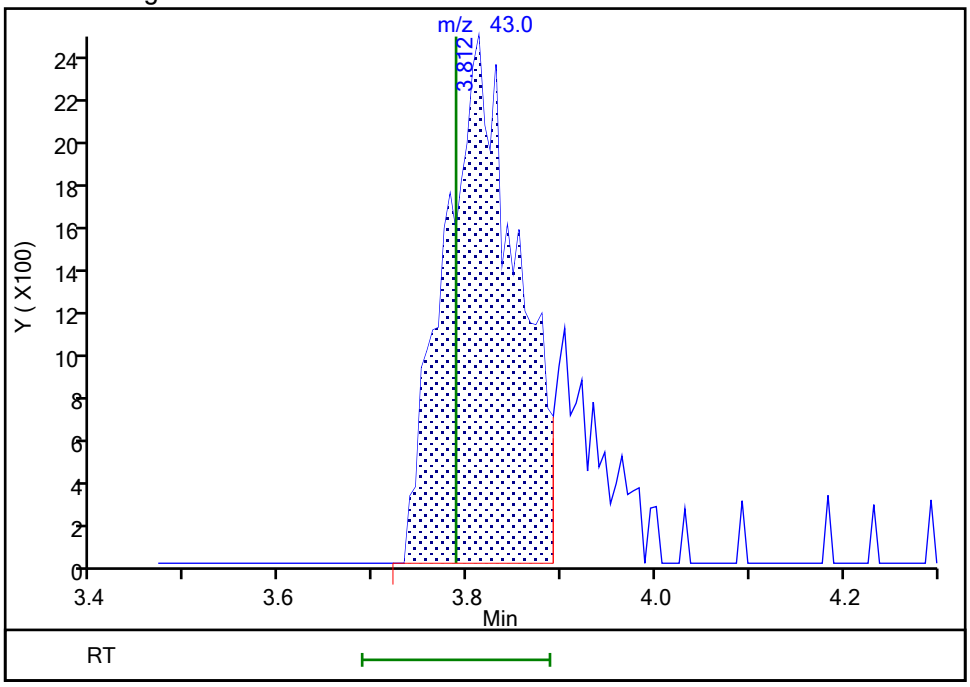
RT: 3.81
Area: 16582
Amount: 1.879165
Amount Units: ug/l

Processing Integration Results



Manual Integration Results

RT: 3.81
Area: 13166
Amount: 1.492045
Amount Units: ug/l



Reviewer: beckerk, 30-Mar-2021 17:13:39
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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-33727-6

Matrix: Water Lab File ID: HM29S35.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:20

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 21:58

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.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.14	J	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	0.071	J	0.50	0.070
75-35-4	1,1-Dichloroethene	0.11	J	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	ND	^c	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.26	J	0.50	0.090
74-87-3	Chloromethane	ND	FH	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.78		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	2.9		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.98		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-33727-6

Matrix: Water Lab File ID: HM29S35.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:20

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 21:58

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.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	FH	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)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D
Lims ID: 410-33727-A-6
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 29-Mar-2021 21:58:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-011
Misc. Info.: 410-33727-A-6
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 16:43:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1 Chlorotrifluoroethene	116		1.885				ND	
3 Dichlorodifluoromethane	85		2.075				ND	
2 Chlorodifluoromethane	51		2.087				ND	7
4 Dimethyl ether	45		2.160				ND	
5 2-Chloro-1,1,1-Trifluoroethane	118		2.233				ND	
6 Chloromethane	50	2.282	2.282	0.000	1	2382	0.0319	
8 Butadiene	39		2.404				ND	7
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
11 Dichlorofluoromethane	67		3.093				ND	7
12 Ethanol	45		3.111				ND	
13 Trichlorofluoromethane	101		3.172				ND	
15 Ethyl ether	59		3.434				ND	
T 184 Ethanol TIC	45		3.440				ND	7
16 1,2-Dichloro-1,1,2-trifluoroetha	67		3.519				ND	
17 Acrolein	56		3.623				ND	7
18 1,1-Dichloroethene	96	3.769	3.769	0.000	95	5981	0.1105	
19 Acetone	43		3.788				ND	U
20 112TCTFE	101		3.806				ND	
21 Isopropyl alcohol	45		3.940				ND	
22 Iodomethane	142		3.977				ND	
23 Ethyl bromide	108		4.013				ND	
24 Carbon disulfide	76		4.092				ND	7
25 Acetonitrile	41		4.178				ND	
T 185 Acetonitrile TIC	41		4.214				ND	
26 Methyl acetate	43		4.227				ND	
27 3-Chloro-1-propene	41		4.281				ND	
29 Methylene Chloride	84		4.477				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.507	4.495	0.012	0	105725	50.0	
30 2-Methyl-2-propanol	59		4.647				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
31 Acrylonitrile	53		4.818				ND	
32 Methyl tert-butyl ether	73	4.885	4.891	-0.006	1	4680	0.0362	
33 trans-1,2-Dichloroethene	96		4.909				ND	7
34 Hexane	57		5.318				ND	
36 Vinyl acetate	43		5.519				ND	
T 187 Vinyl acetate (TIC)	43		5.537				ND	
35 1,1-Dichloroethane	63	5.556	5.562	-0.006	91	7397	0.0712	
37 Isopropyl ether	45		5.617				ND	
38 2-Chloro-1,3-butadiene	53		5.665				ND	
39 Tert-butyl ethyl ether	59		6.141				ND	
S 40 1,2-Dichloroethene, Total	100				0		0.7753	
41 2-Butanone (MEK)	43		6.336				ND	7
42 cis-1,2-Dichloroethene	96	6.379	6.385	-0.006	78	52480	0.7753	
44 Ethyl acetate	43		6.391				ND	U
43 2,2-Dichloropropane	77		6.409				ND	
45 Propionitrile	54		6.427				ND	
46 Methyl acrylate	55		6.458				ND	
47 Methacrylonitrile	67		6.641				ND	
48 Chlorobromomethane	128		6.714				ND	
49 Tetrahydrofuran	71		6.714				ND	
50 Chloroform	83	6.854	6.860	-0.006	92	28124	0.2602	
$ 51 Dibromofluoromethane (Surr)	113	7.074	7.074	0.000	94	634627	10.2	
52 1,1,1-Trichloroethane	97	7.086	7.092	-0.006	77	15018	0.1449	
53 Cyclohexane	56		7.196				ND	
54 1-Chlorobutane	56		7.232				ND	
55 1,1-Dichloropropene	75		7.299				ND	
56 Carbon tetrachloride	117	7.305	7.305	0.000	85	3153	0.0342	
57 Isobutyl alcohol	41		7.421				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	123745	10.6	
59 Benzene	78		7.561				ND	7
61 Isopropyl acetate	43		7.616				ND	
60 1,2-Dichloroethane	62	7.628	7.628	0.000	10	1814	0.0277	
62 Tert-amyl methyl ether	73		7.744				ND	
63 t-Amyl alcohol	73		7.842				ND	
* 65 Fluorobenzene (IS)	96	7.958	7.958	0.000	99	2412758	10.0	
64 n-Heptane	43		7.964				ND	
66 n-Butanol	56		8.299				ND	
67 Trichloroethene	95	8.433	8.433	0.000	96	65969	0.9813	
68 Methylcyclohexane	83		8.750				ND	
69 2-ethoxy-2-methyl butane	87		8.762				ND	
70 1,2-Dichloropropane	63		8.768				ND	
71 Methyl methacrylate	69		8.835				ND	
72 1,4-Dioxane	88		8.848				ND	
73 Dibromomethane	93		8.878				ND	
74 n-Propyl acetate	61		8.915				ND	
75 Dichlorobromomethane	83		9.104				ND	
76 2-Nitropropane	41		9.360				ND	
77 Chloroacetonitrile	75		9.427				ND	
78 2-Chloroethyl vinyl ether	63		9.451				ND	
79 1-Bromo-2-chloroethane	63		9.488				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2386498	9.86	
83 Toluene	92		10.000				ND	7
T 181 Ethylene oxide TIC	44		10.000				ND	
T 179 Epichlorohydrin TIC	57		10.000				ND	U
T 175 2-Chloroethanol TIC	44		10.000				ND	U
T 182 2,3-Dibromopropene TIC	119		10.000				ND	U
T 173 2-Bromoethanol TIC	45		10.000				ND	U
T 183 3-Chloro-1,2-propanediol TIC	44		10.000				ND	U
T 180 2-Bromo-3-chloropropene TIC	75		10.000				ND	U
T 176 Epibromohydrin TIC	57		10.000				ND	
T 177 Chloroacetaldehyde TIC	50		10.000				ND	
T 178 Vinyl bromide TIC	106		10.000				ND	U
T 174 Monochloroacetic acid TIC	50		10.000				ND	U
T 172 2,3-Dibromo-1-propanol TIC	57		10.000				ND	U
S 84 1,3-Dichloropropene, Total	100		10.060				ND	7
85 trans-1,3-Dichloropropene	75		10.244				ND	
86 Ethyl methacrylate	69		10.299				ND	
87 1,1,2-Trichloroethane	97		10.445				ND	7
88 Tetrachloroethene	166	10.536	10.536	0.000	98	231688	2.88	
89 1,3-Dichloropropane	76		10.603				ND	
91 2-Hexanone	43		10.646				ND	
92 n-Butyl acetate	43	10.774	10.780	-0.006	43	1534	0.0281	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1864503	10.0	
96 1-Chlorohexane	91		11.353				ND	7
98 Chlorobenzene	112		11.378				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
105 Isopropylbenzene	105		12.188				ND	
106 cis-1,4-Dichloro-2-butene	88		12.255				ND	U
107 Cyclohexanone	55		12.292				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	867734	9.64	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
111 Bromobenzene	156		12.451				ND	
110 trans-1,4-Dichloro-2-butene	53		12.451				ND	
112 1,2,3-Trichloropropane	110		12.475				ND	
113 N-Propylbenzene	91		12.512				ND	7
114 2-Chlorotoluene	126		12.591				ND	
115 1,3,5-Trimethylbenzene	105		12.646				ND	7
116 4-Chlorotoluene	126		12.682				ND	
118 tert-Butylbenzene	134		12.890				ND	
119 Pentachloroethane	167		12.926				ND	
120 1,2,4-Trimethylbenzene	105		12.926				ND	7
121 sec-Butylbenzene	105		13.048				ND	
122 1,3-Dichlorobenzene	146		13.152				ND	7
123 4-Isopropyltoluene	119		13.152				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1024039	10.0	
125 1,4-Dichlorobenzene	146		13.225				ND	7
126 1,2,3-Trimethylbenzene	120		13.231				ND	7
127 Benzyl chloride	126		13.298				ND	
129 p-Diethylbenzene	119		13.426				ND	
130 n-Butylbenzene	92		13.444				ND	
131 1,2-Dichlorobenzene	146		13.481				ND	
133 Hexachloroethane	201		13.719				ND	
134 1,2-Dibromo-3-Chloropropane	155		14.023				ND	
135 1,3,5-Trichlorobenzene	180		14.145				ND	
136 1,2,4-Trichlorobenzene	180		14.566				ND	
137 Hexachlorobutadiene	225		14.645				ND	
138 Naphthalene	128		14.749				ND	7
139 1,2,3-Trichlorobenzene	180		14.895				ND	7
140 2-Methylnaphthalene	142		15.535				ND	
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	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

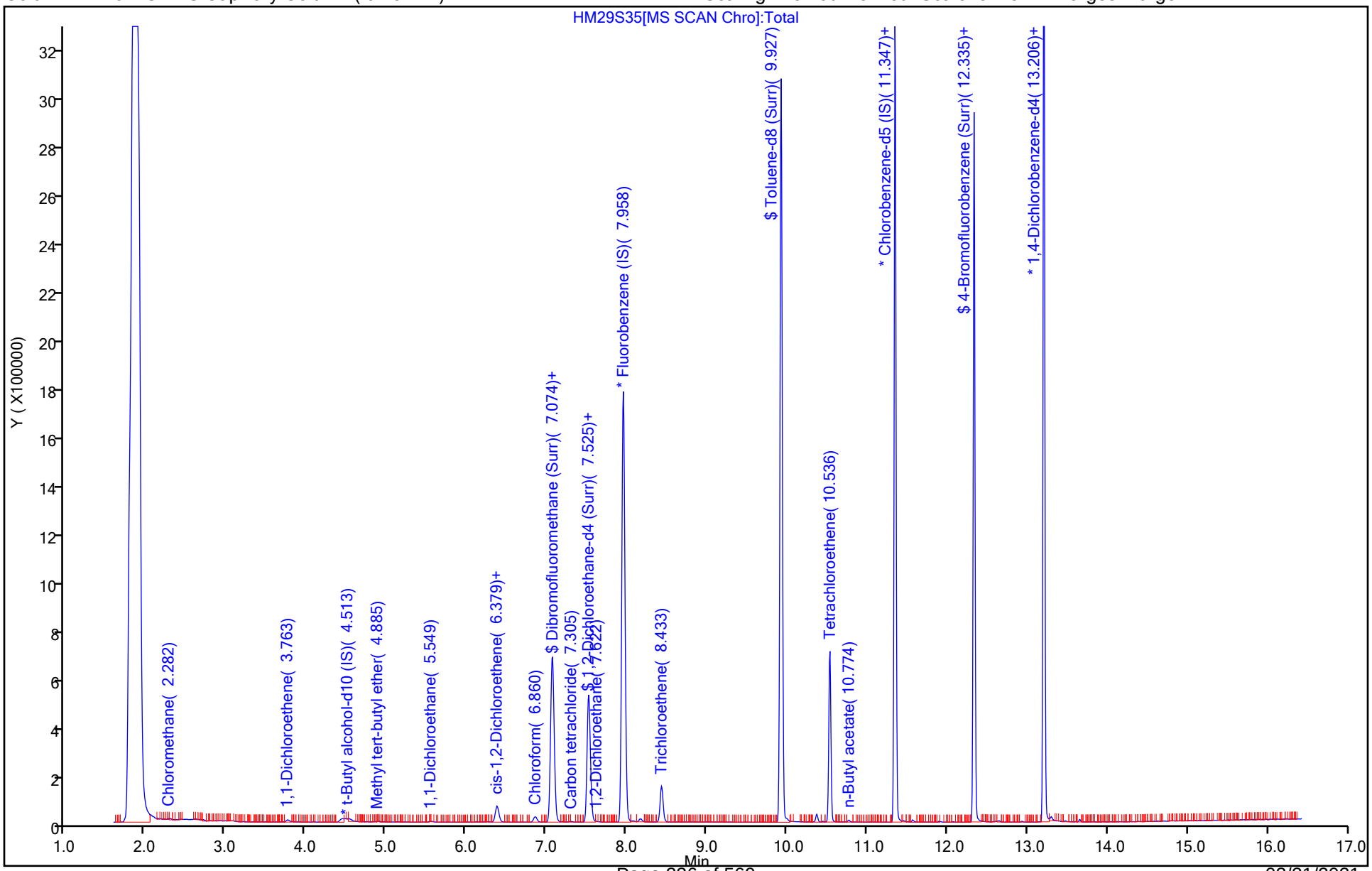
Report Date: 30-Mar-2021 17:46:16 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D

Injection Date:	29-Mar-2021 21:58:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-6	Lab Sample ID:	410-33727-6	Worklist Smp#:	11
Client ID:	HD-COD-SW-15-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
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\20210329-25331.b\HM29S35.D
Lims ID: 410-33727-A-6
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 29-Mar-2021 21:58:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-011
Misc. Info.: 410-33727-A-6
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 16:43:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	102.14
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.98
$ 82 Toluene-d8 (Surr)	10.0	9.86	98.61
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.64	96.43

Report Date: 30-Mar-2021 17:46:17 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D

Injection Date: 29-Mar-2021 21:58:30 Instrument ID: 19094

Lims ID: 410-33727-A-6 Lab Sample ID: 410-33727-6

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

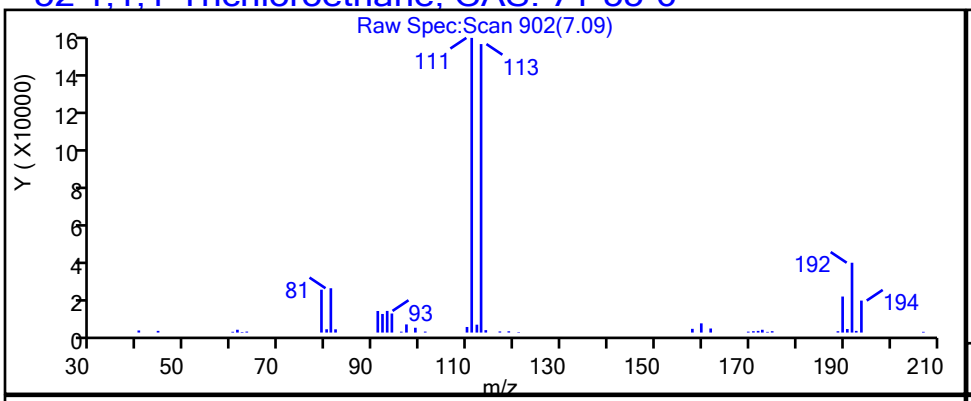
Operator ID: MEC29284 ALS Bottle#: 10 Worklist Smp#: 11

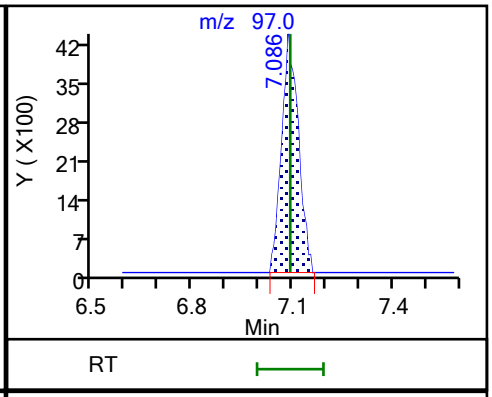
Purge Vol: 25.000 mL Dil. Factor: 1.0000

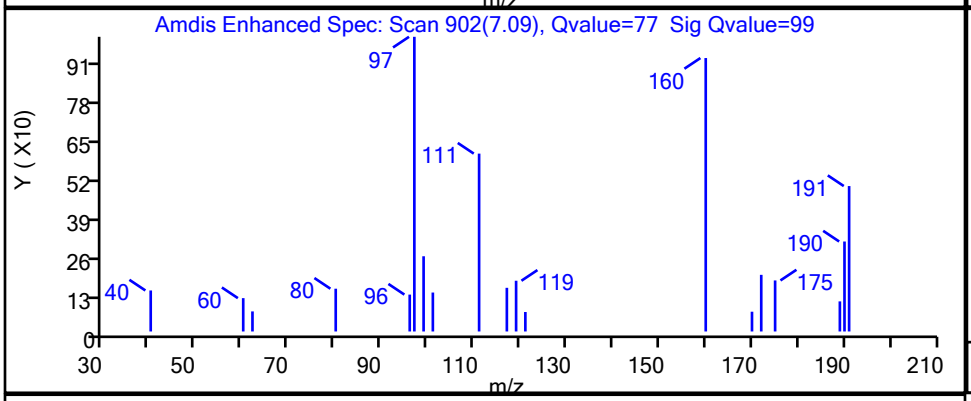
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

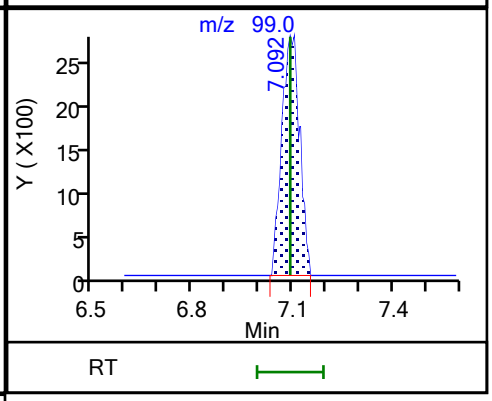
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

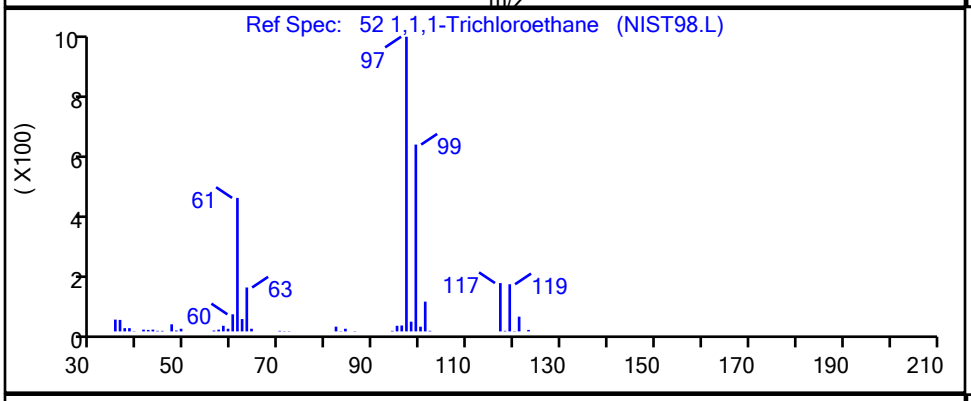
52 1,1,1-Trichloroethane, CAS: 71-55-6

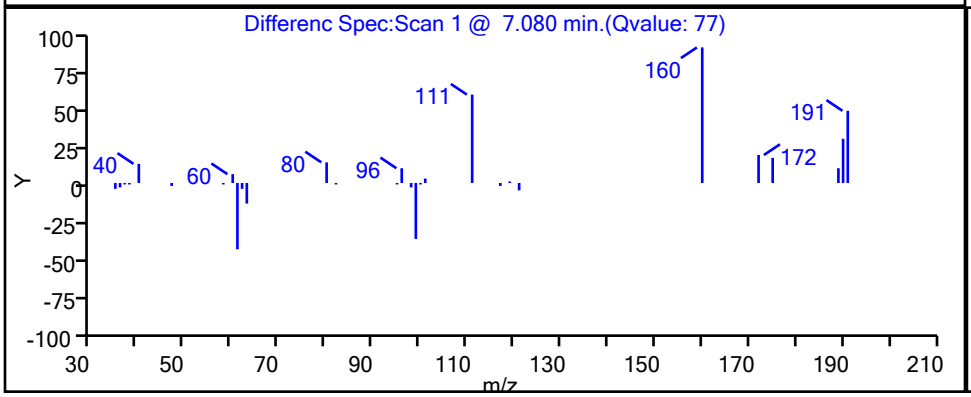


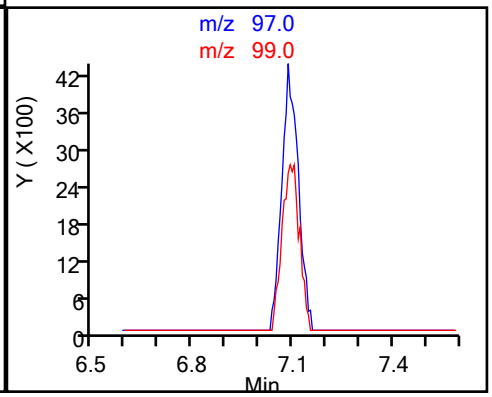












Report Date: 30-Mar-2021 17:46:16 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D

Injection Date: 29-Mar-2021 21:58:30 Instrument ID: 19094

Lims ID: 410-33727-A-6 Lab Sample ID: 410-33727-6

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

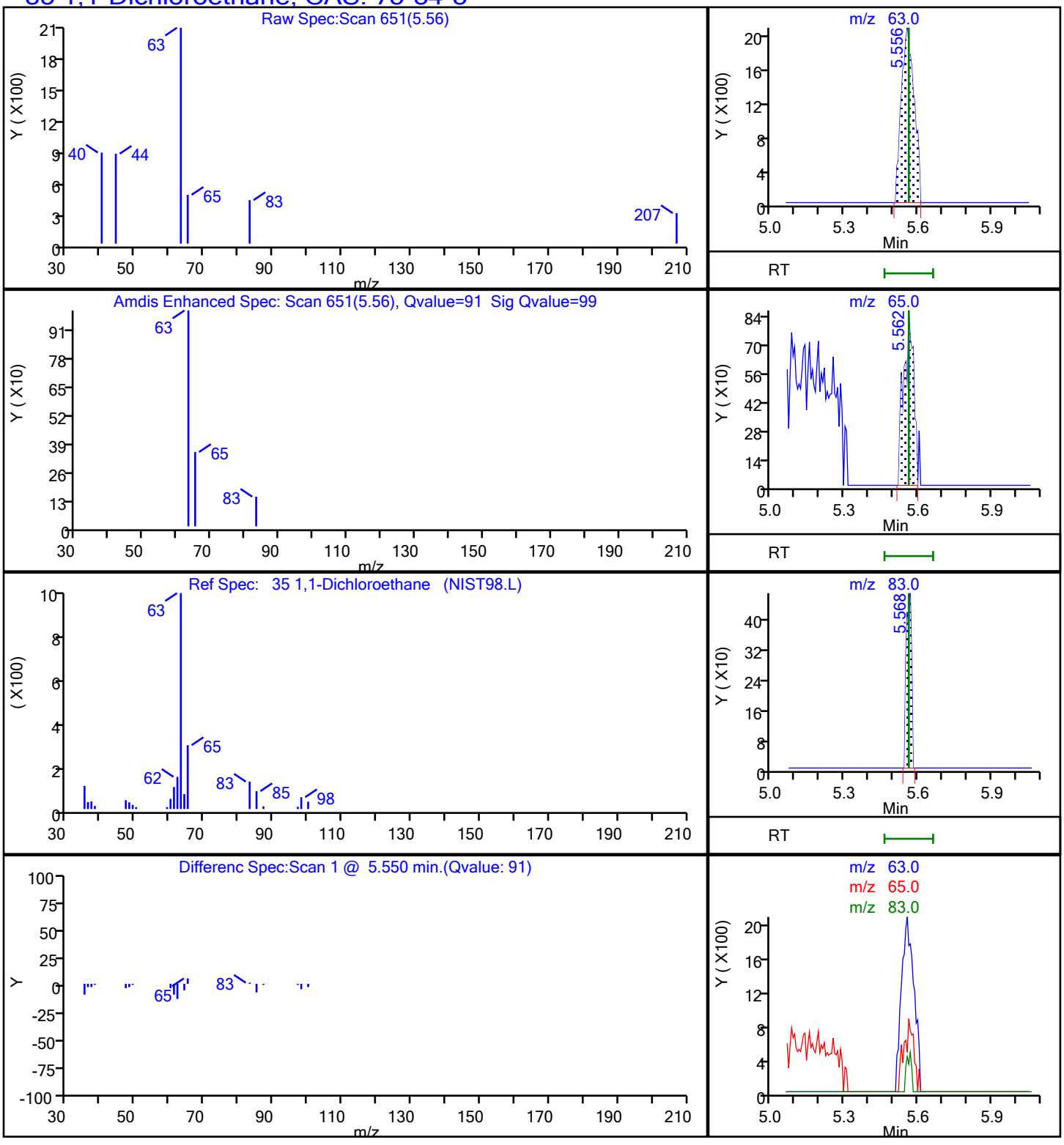
Operator ID: MEC29284 ALS Bottle#: 10 Worklist Smp#: 11

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

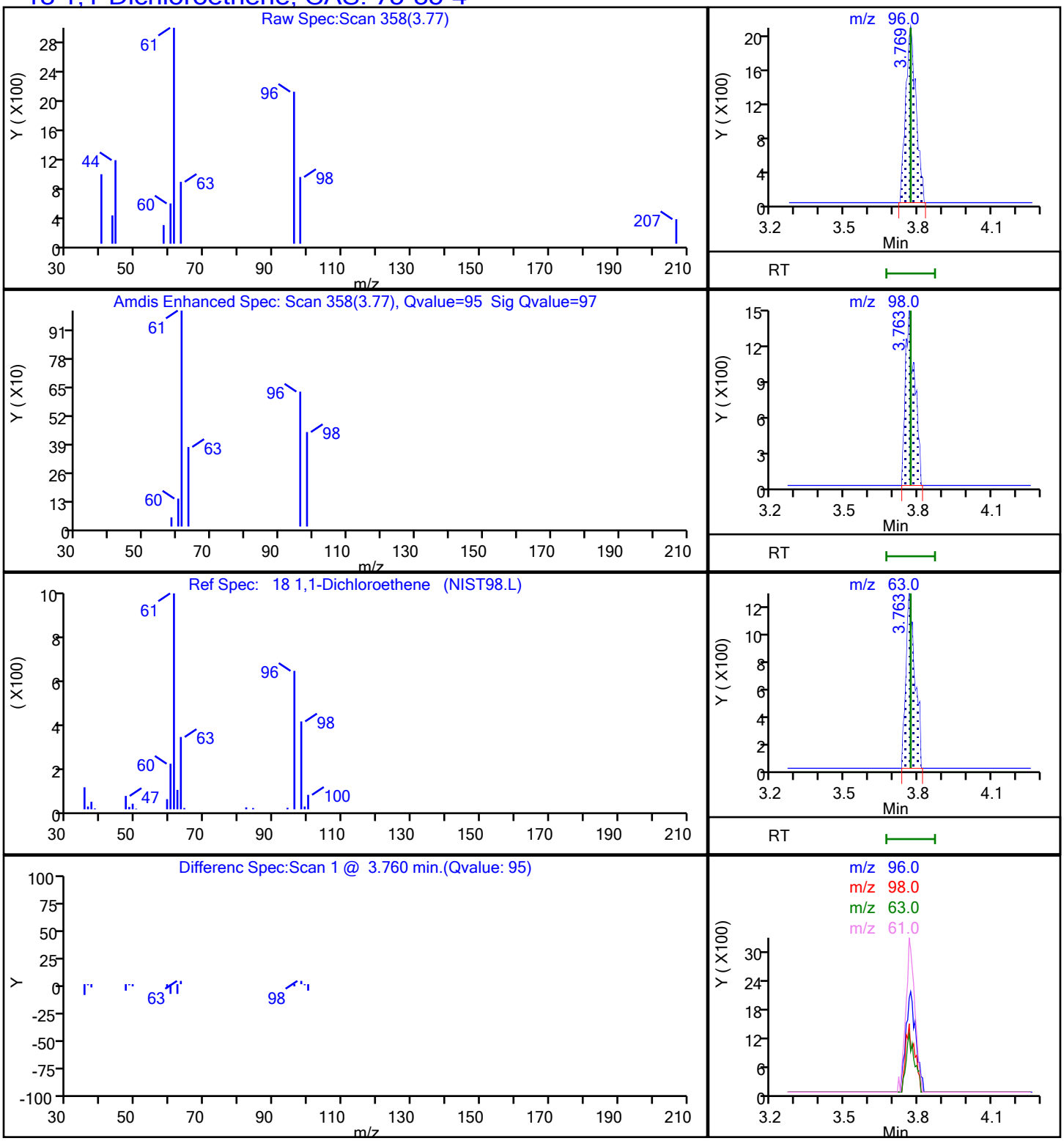


Report Date: 30-Mar-2021 17:46:16 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D				
Injection Date:	29-Mar-2021 21:58:30	Instrument ID:	19094		
Lims ID:	410-33727-A-6	Lab Sample ID:	410-33727-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	10	Worklist Smp#:	11
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		

18 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 30-Mar-2021 17:46:17 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D

Injection Date: 29-Mar-2021 21:58:30 Instrument ID: 19094

Lims ID: 410-33727-A-6 Lab Sample ID: 410-33727-6

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

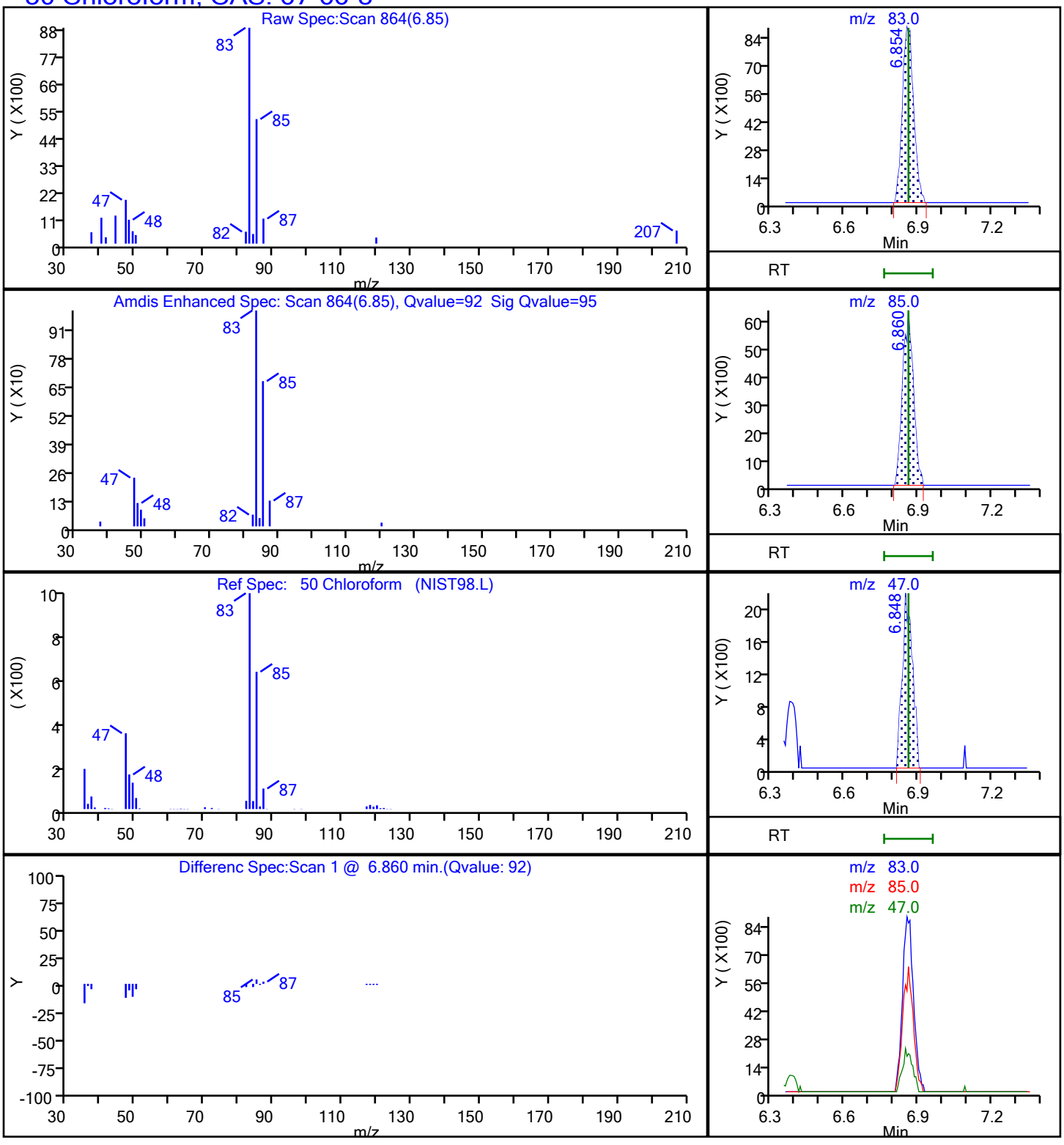
Operator ID: MEC29284 ALS Bottle#: 10 Worklist Smp#: 11

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

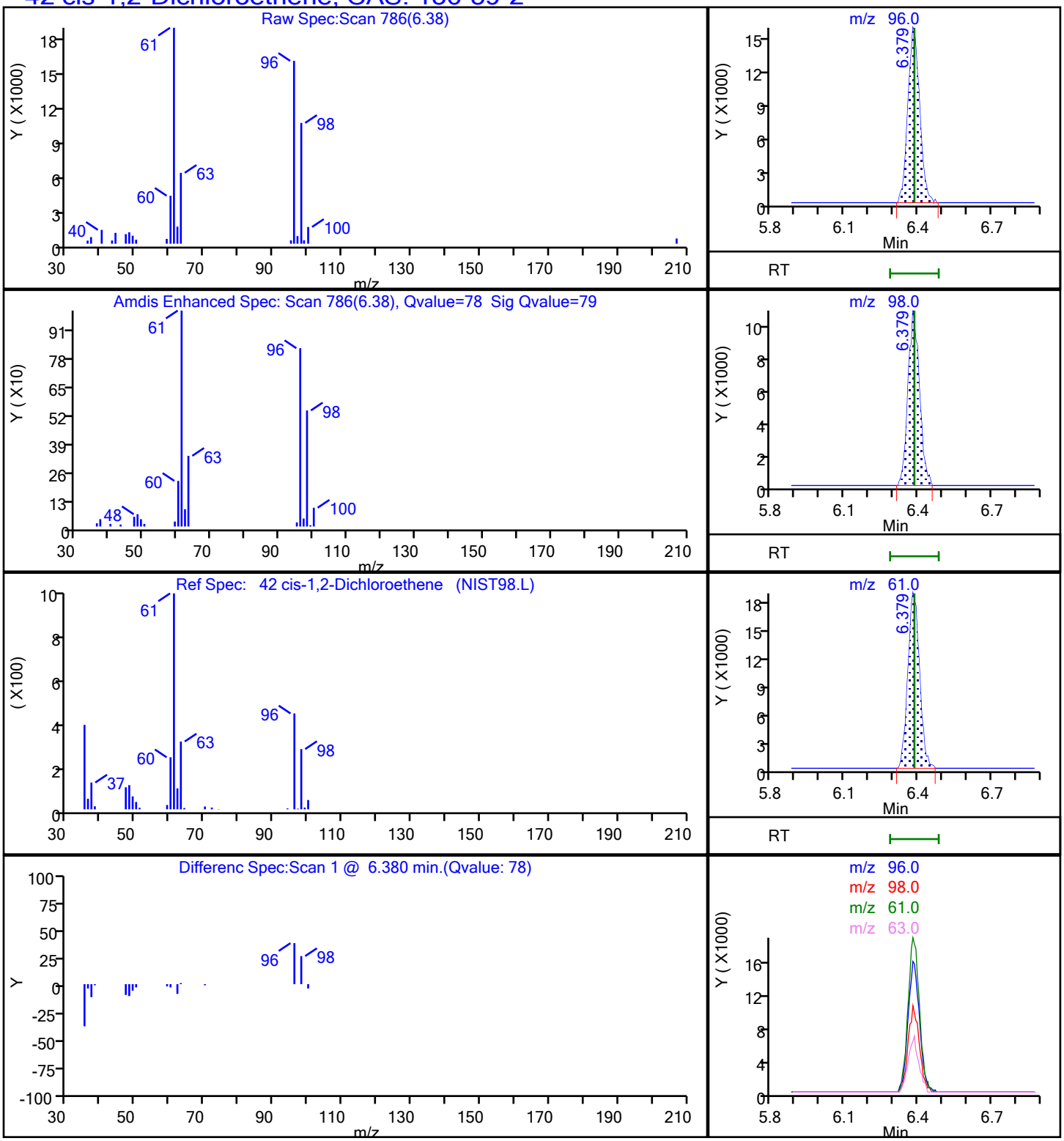
50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D				
Injection Date:	29-Mar-2021 21:58:30	Instrument ID:	19094		
Lims ID:	410-33727-A-6	Lab Sample ID:	410-33727-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	10	Worklist Smp#:	11
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

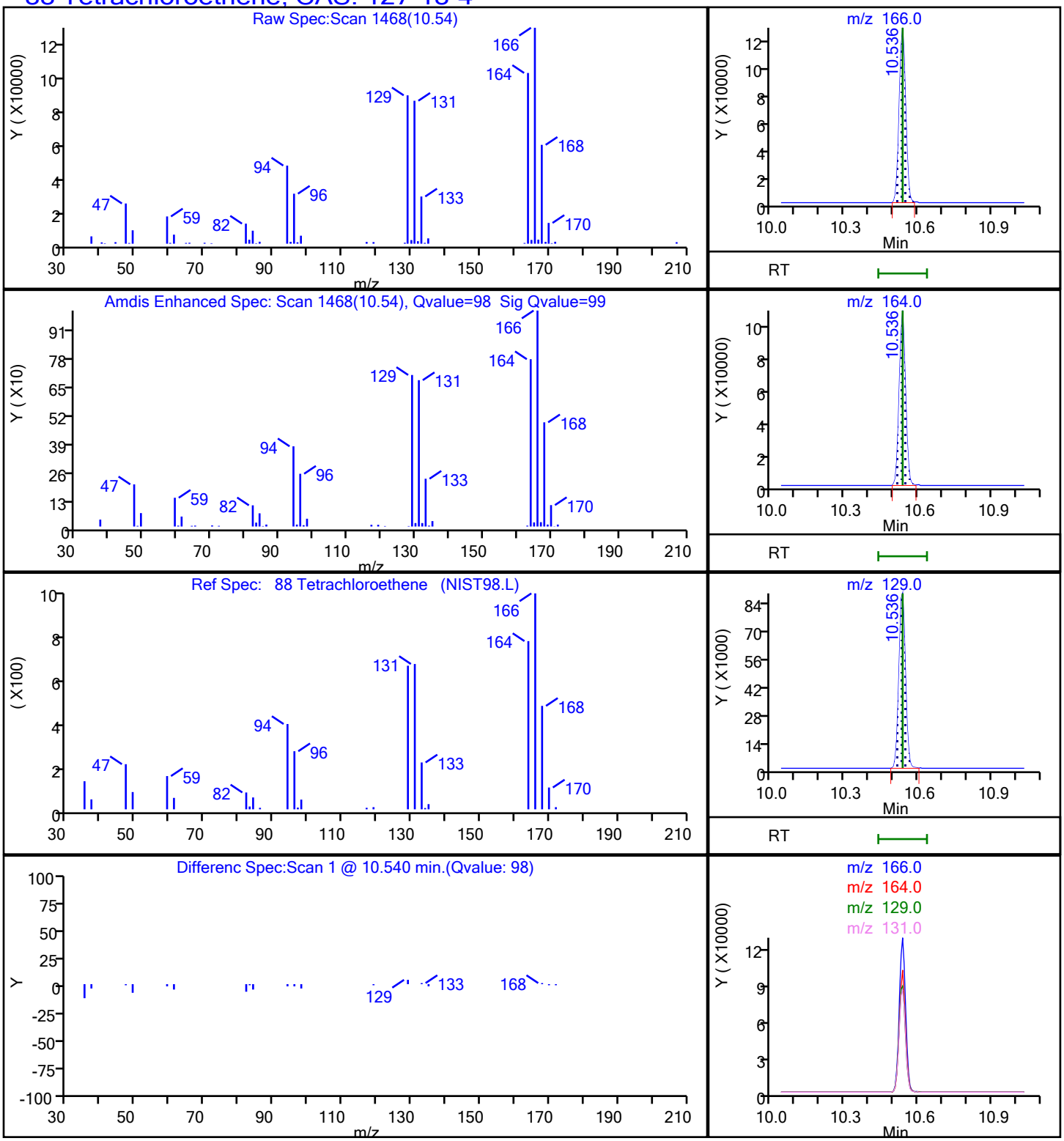


Report Date: 30-Mar-2021 17:46:18 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D				
Injection Date:	29-Mar-2021 21:58:30	Instrument ID:	19094		
Lims ID:	410-33727-A-6	Lab Sample ID:	410-33727-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	10	Worklist Smp#:	11
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: 30-Mar-2021 17:46:17 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D

Injection Date: 29-Mar-2021 21:58:30 Instrument ID: 19094

Lims ID: 410-33727-A-6 Lab Sample ID: 410-33727-6

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

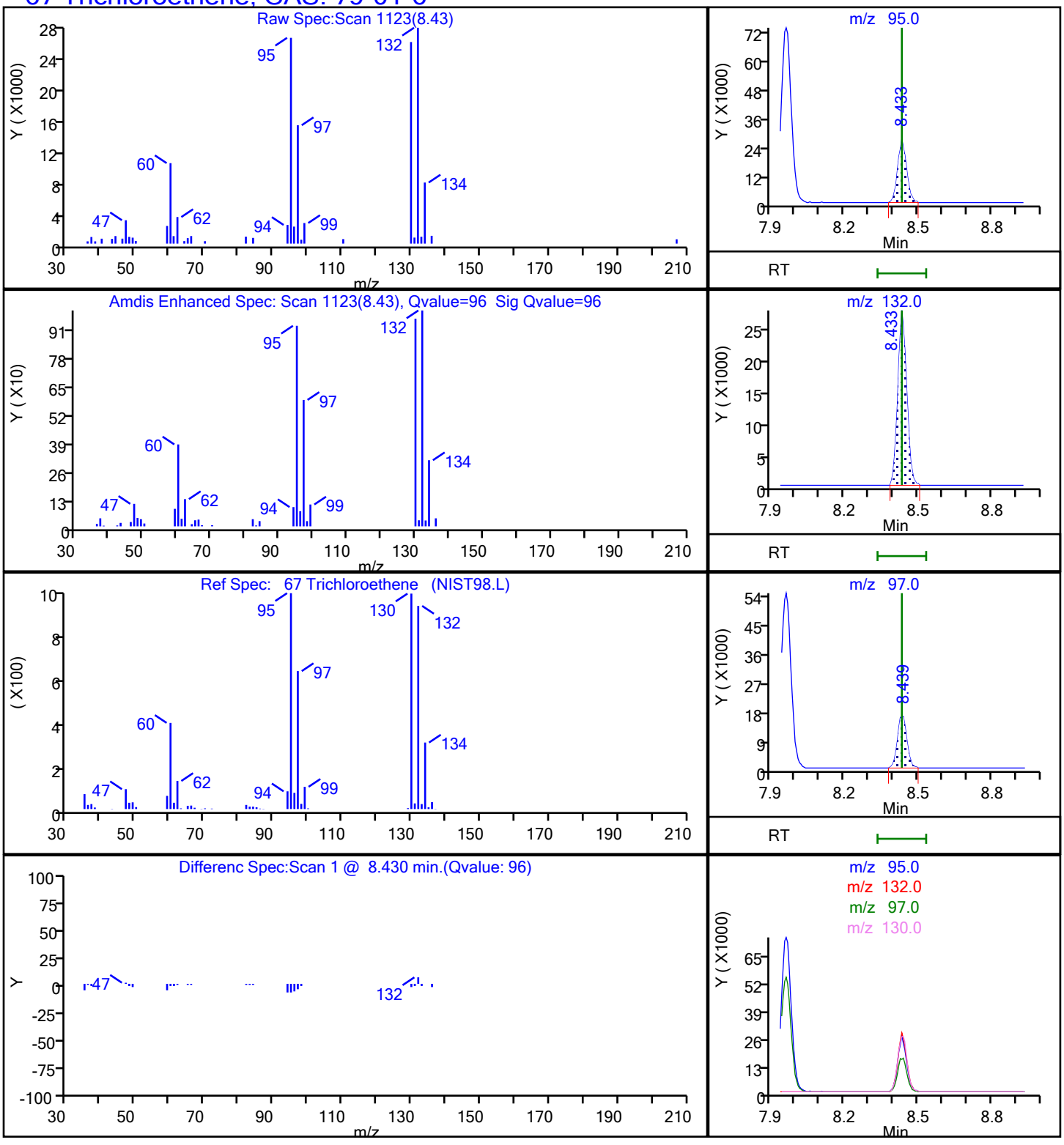
Operator ID: MEC29284 ALS Bottle#: 10 Worklist Smp#: 11

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



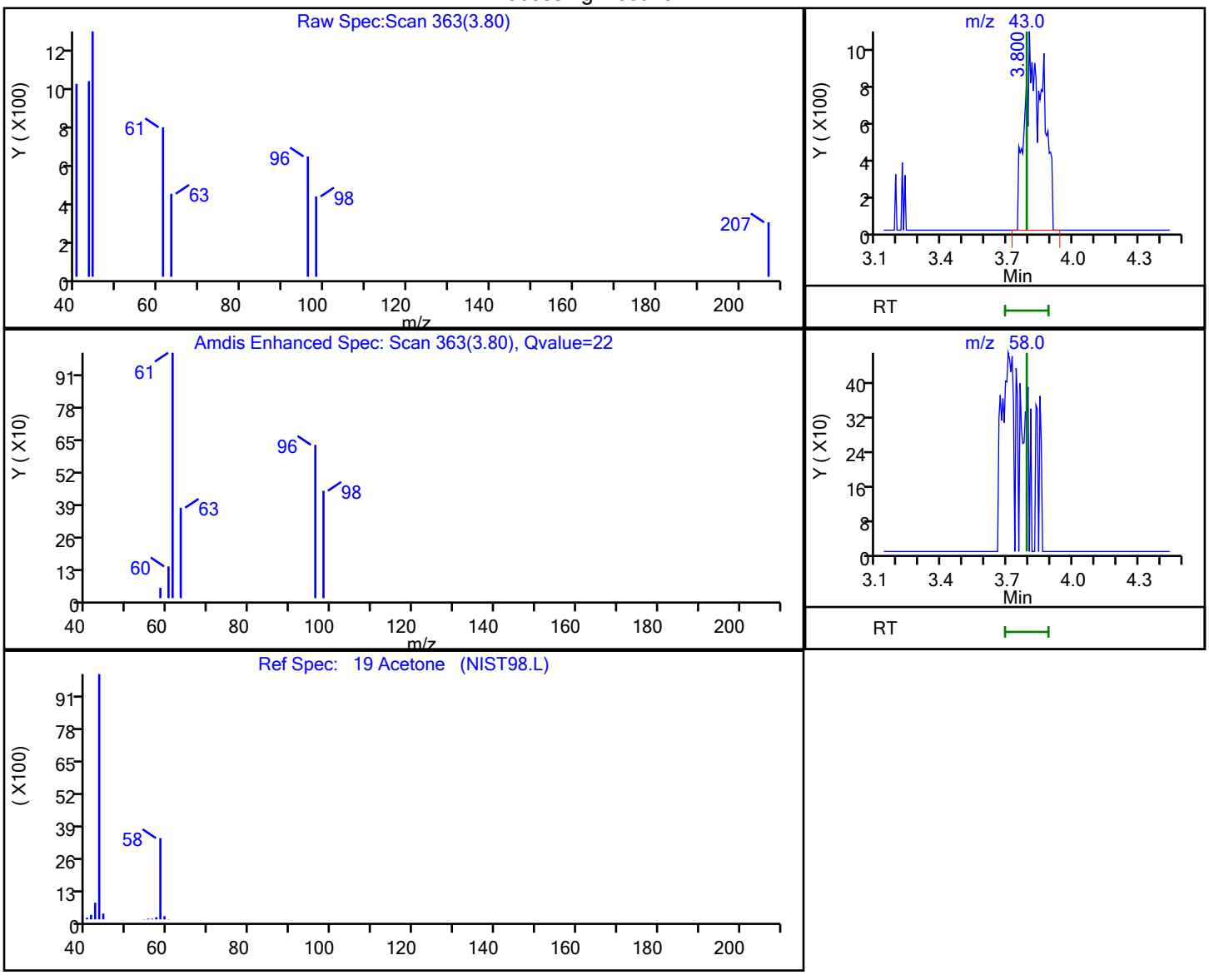
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S35.D				
Injection Date:	29-Mar-2021 21:58:30	Instrument ID:	19094		
Lims ID:	410-33727-A-6	Lab Sample ID:	410-33727-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	10	Worklist Smp#:	11
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

Processing Results



RT	Mass	Response	Amount
3.80	43.00	5750	0.853479
3.79	58.00	0	

Reviewer: beckerk, 30-Mar-2021 16:41:00

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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-33727-7

Matrix: Water Lab File ID: HM29S44.D

Analysis Method: 8260D Date Collected: 03/24/2021 10:00

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 01:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	1.7	J ^c	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	0.061	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.082	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.090	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-33727-7

Matrix: Water Lab File ID: HM29S44.D

Analysis Method: 8260D Date Collected: 03/24/2021 10:00

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 01:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 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)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S44.D
Lims ID: 410-33727-A-7
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 01:09:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-020
Misc. Info.: 410-33727-A-7
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:14:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.282	2.282	0.000	95	4531	0.0614	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.806	3.788	0.018	81	14666	1.71	M
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84		4.477				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.489	4.495	-0.006	0	134867	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43		6.336				ND	7
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	74	5478	0.0819	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.854	6.860	-0.006	16	3177	0.0297	
$ 51 Dibromofluoromethane (Surr)	113	7.068	7.074	-0.006	94	627765	10.2	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.519	7.525	-0.006	0	121979	10.6	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.622	7.628	-0.006	8	1857	0.0287	
* 65 Fluorobenzene (IS)	96	7.952	7.958	-0.006	99	2384768	10.0	
67 Trichloroethene	95	8.439	8.433	0.006	93	5953	0.0896	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2375894	9.92	
83 Toluene	92	10.000	10.000	0.000	98	5401	0.0338	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	
88 Tetrachloroethene	166	10.530	10.536	-0.006	96	4052	0.0508	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1844572	10.0	
98 Chlorobenzene	112		11.378				ND	
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	93	863030	9.69	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	94	1006175	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

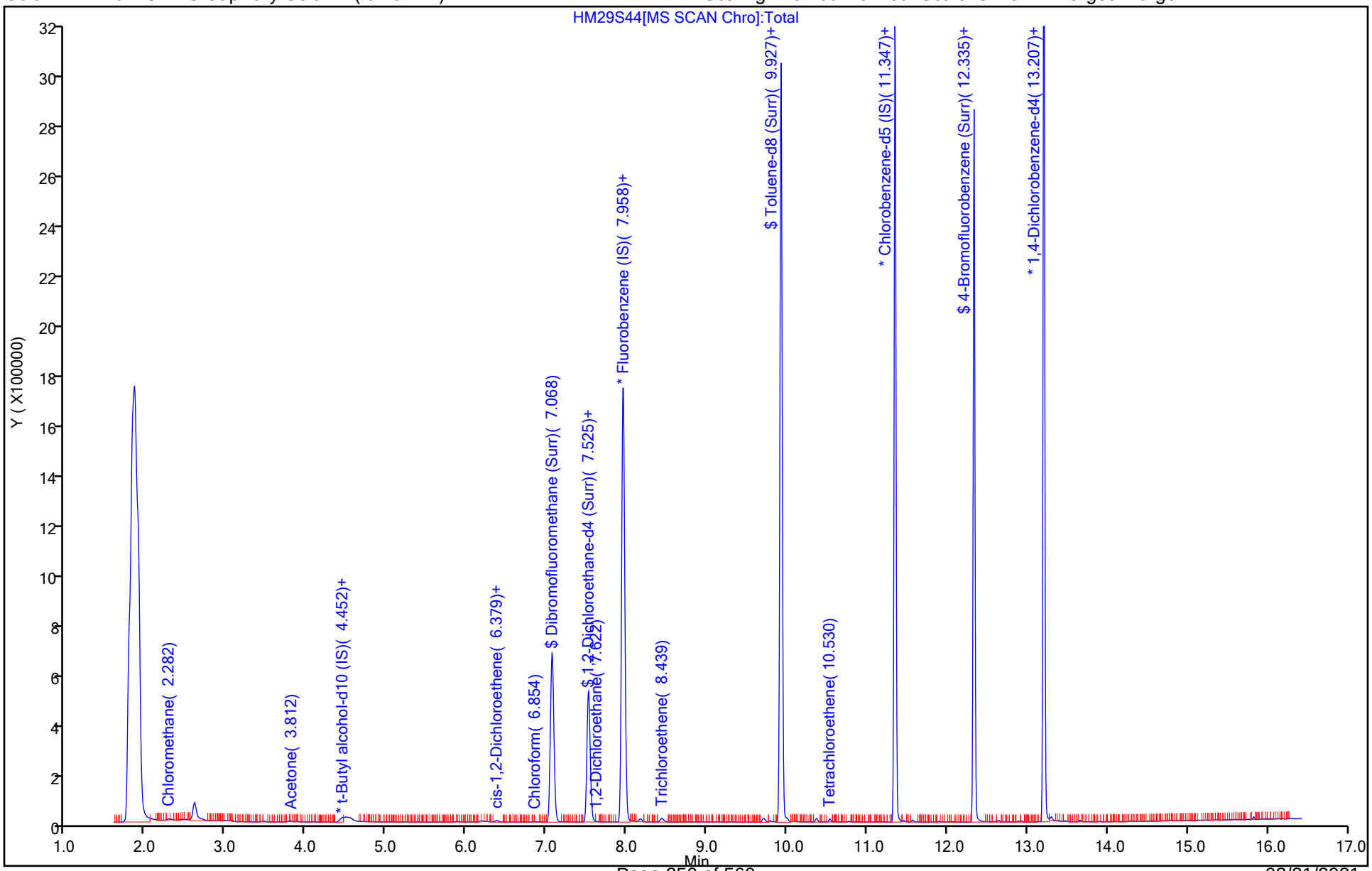
Report Date: 30-Mar-2021 17:45:44 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S44.D

Injection Date:	30-Mar-2021 01:09:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-7	Lab Sample ID:	410-33727-7	Worklist Smp#:	20
Client ID:	HD-COD-SW-16-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	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\20210329-25331.b\HM29S44.D				
Lims ID:	410-33727-A-7				
Client ID:	HD-COD-SW-16-0/1-0				
Sample Type:	Client				
Inject. Date:	30-Mar-2021 01:09:30	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0025331-020				
Misc. Info.:	410-33727-A-7				
Operator ID:	MEC29284	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	30-Mar-2021 17:44:24	Calib Date:	08-Feb-2021 21:34:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1609				

First Level Reviewer: beckerk Date: 30-Mar-2021 17:14:54

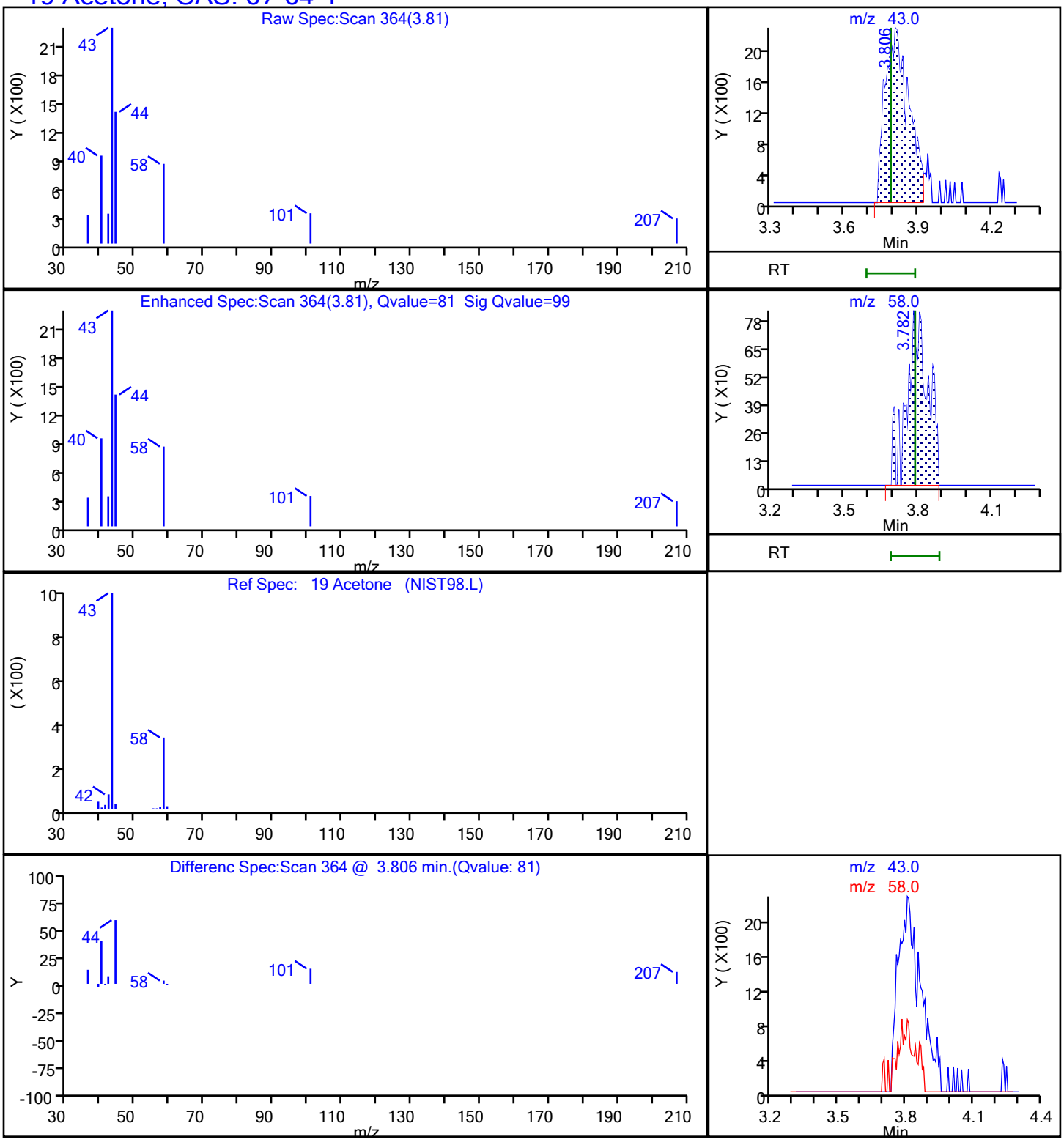
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	102.22
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.69
$ 82 Toluene-d8 (Surr)	10.0	9.92	99.24
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.69	96.94

Report Date: 30-Mar-2021 17:45:44 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S44.D				
Injection Date:	30-Mar-2021 01:09:30	Instrument ID:	19094		
Lims ID:	410-33727-A-7	Lab Sample ID:	410-33727-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	MEC29284	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		

19 Acetone, CAS: 67-64-1



Report Date: 30-Mar-2021 17:45:44 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S44.D

Injection Date: 30-Mar-2021 01:09:30 Instrument ID: 19094

Lims ID: 410-33727-A-7 Lab Sample ID: 410-33727-7

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

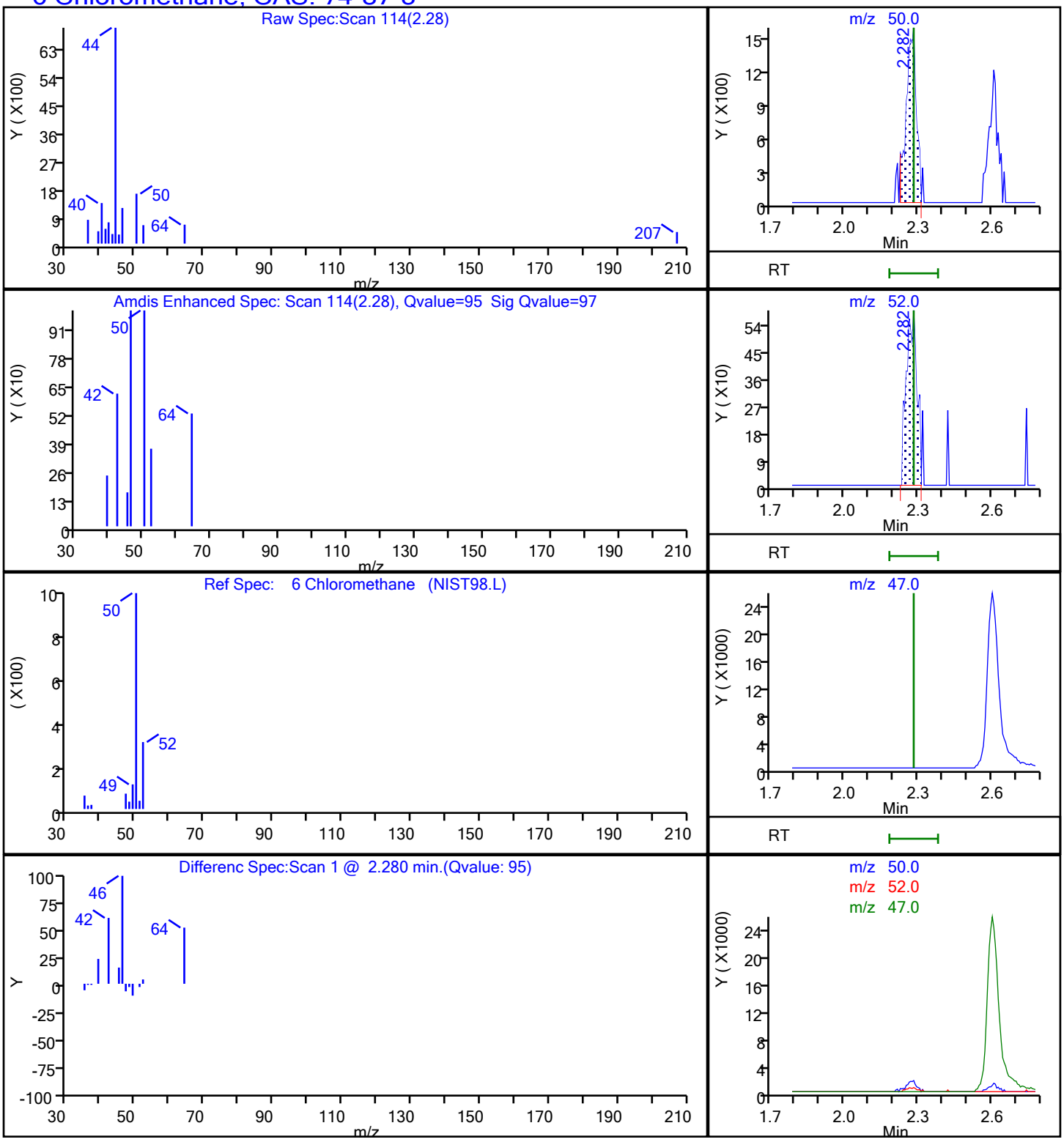
Operator ID: MEC29284 ALS Bottle#: 19 Worklist Smp#: 20

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

6 Chloromethane, CAS: 74-87-3

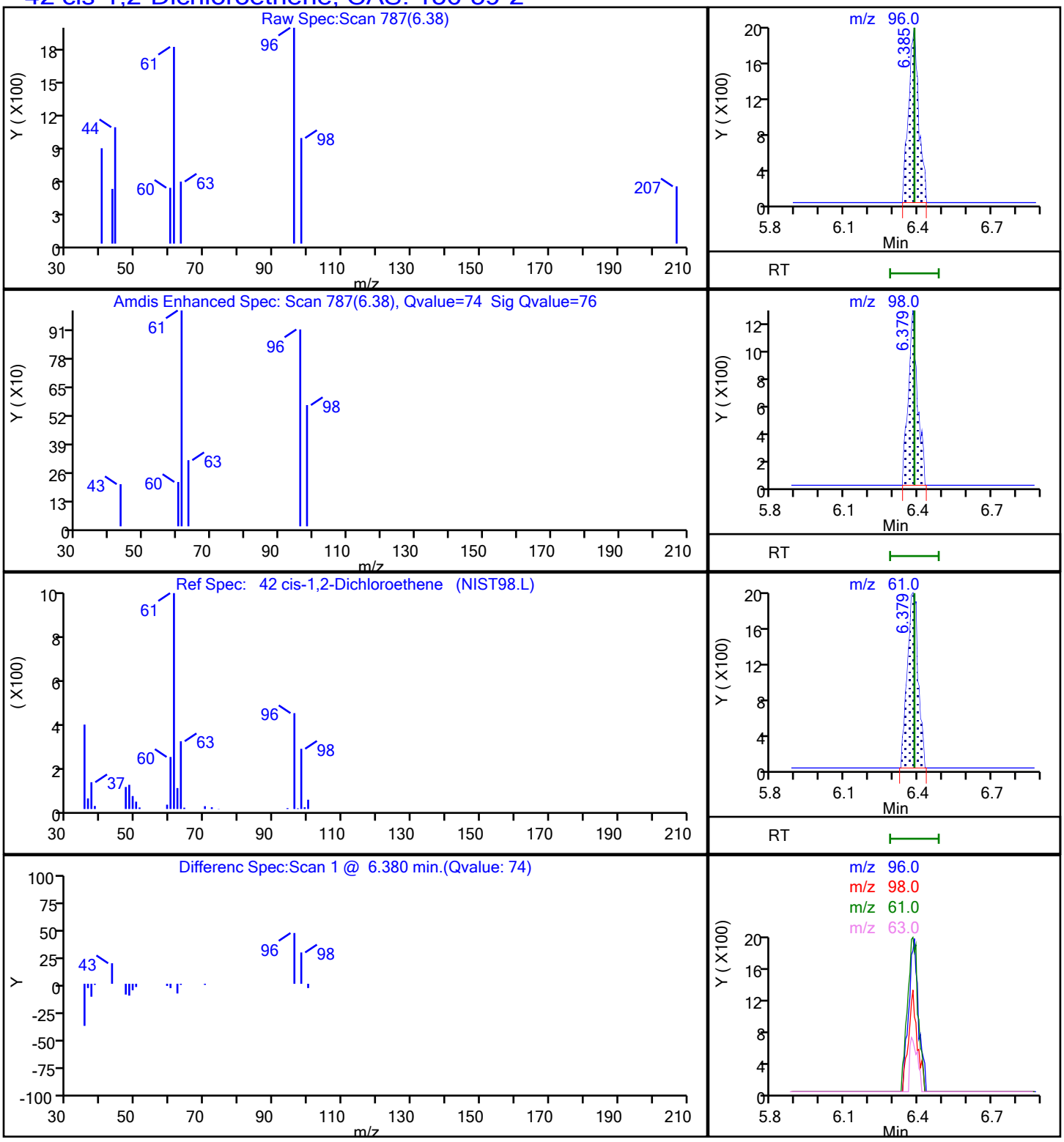


Report Date: 30-Mar-2021 17:45:44 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S44.D				
Injection Date:	30-Mar-2021 01:09:30	Instrument ID:	19094		
Lims ID:	410-33727-A-7	Lab Sample ID:	410-33727-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	MEC29284	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		

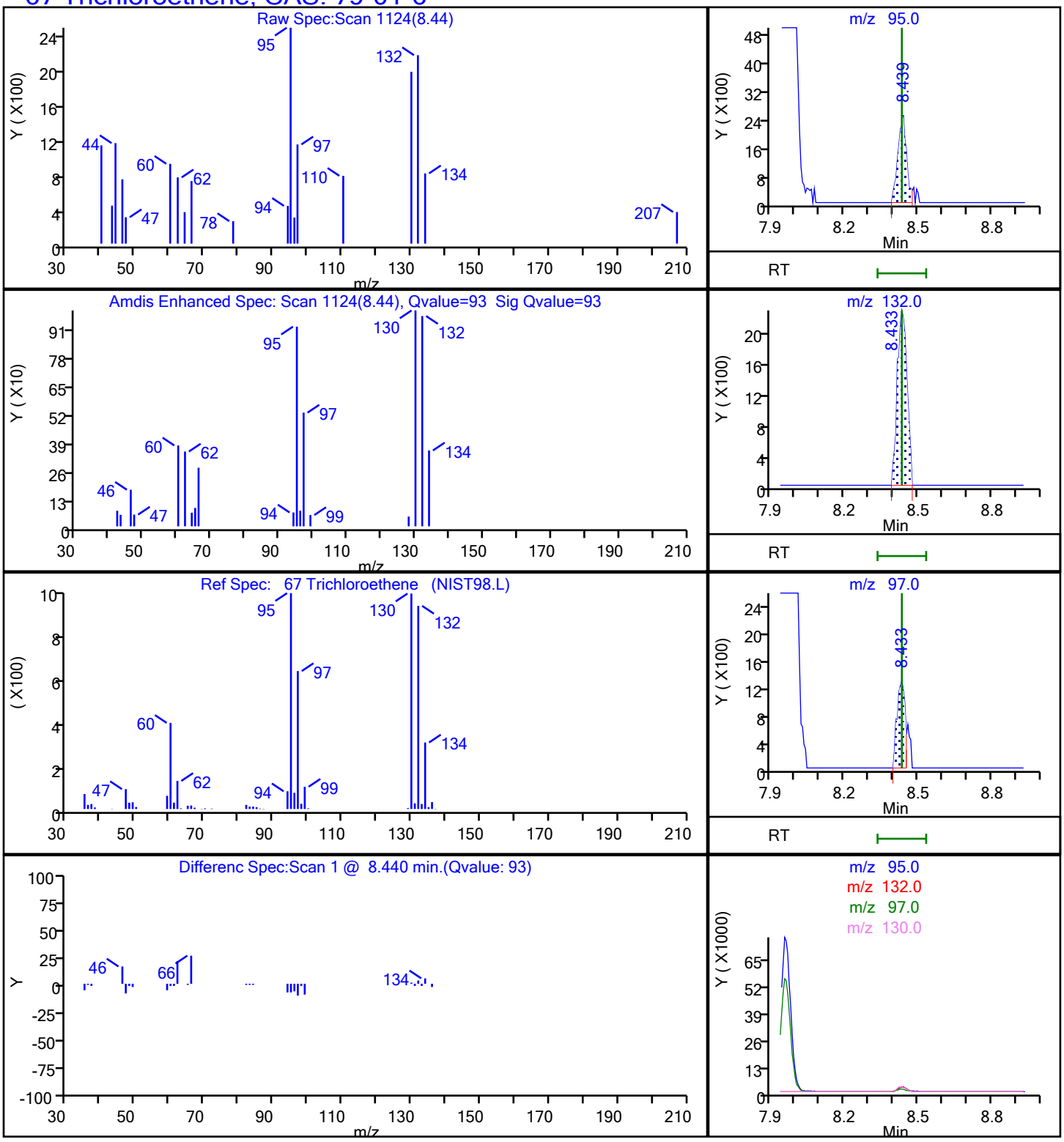
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S44.D				
Injection Date:	30-Mar-2021 01:09:30	Instrument ID:	19094		
Lims ID:	410-33727-A-7	Lab Sample ID:	410-33727-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	MEC29284	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		

67 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

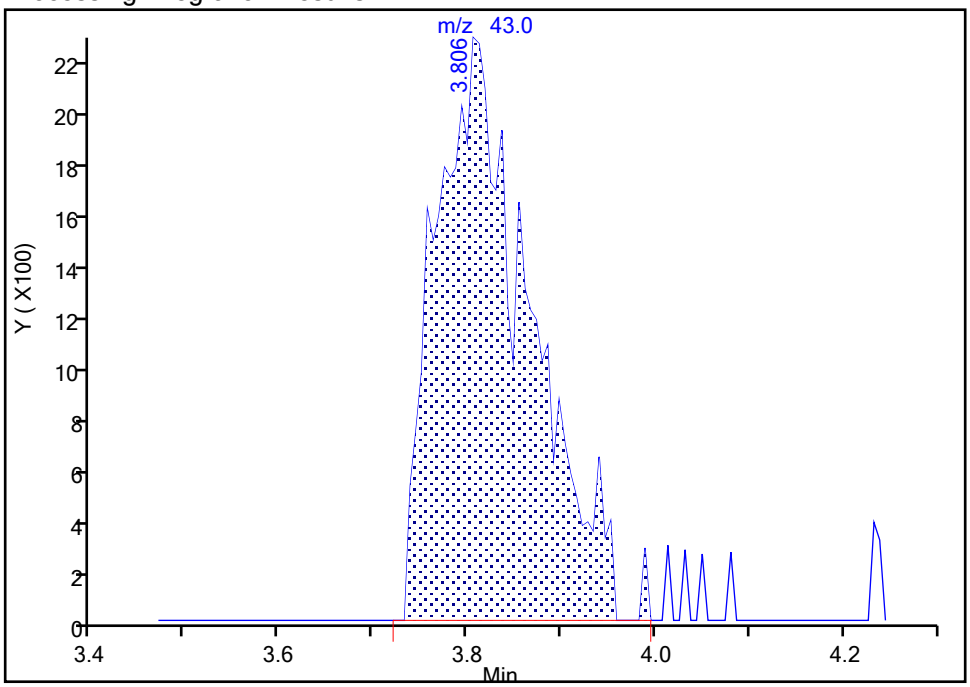
Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S44.D				
Injection Date:	30-Mar-2021 01:09:30	Instrument ID:	19094		
Lims ID:	410-33727-A-7	Lab Sample ID:	410-33727-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

19 Acetone, CAS: 67-64-1

Signal: 1

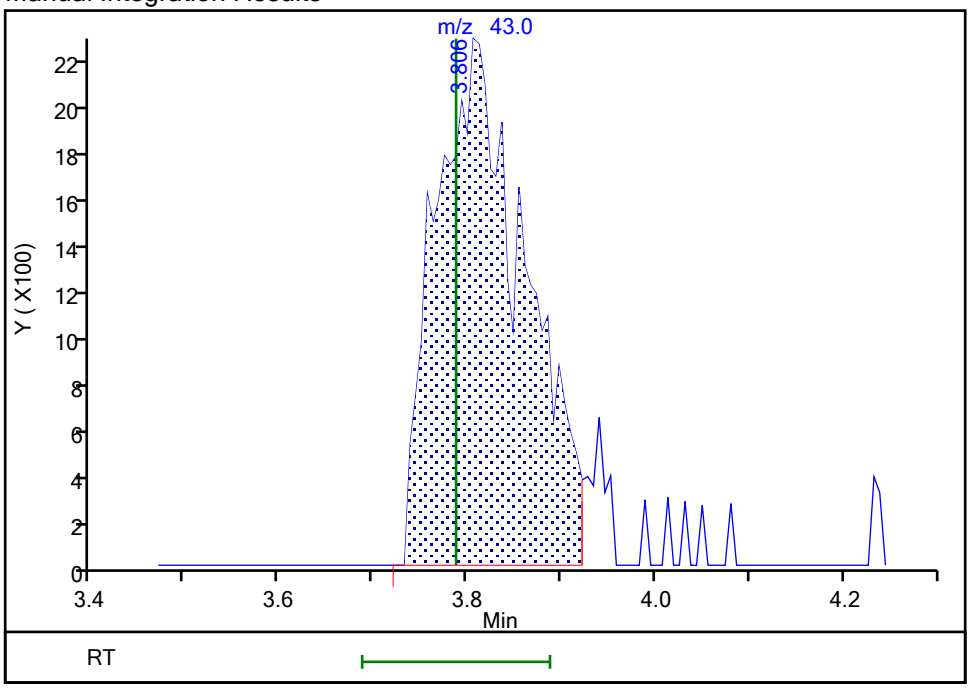
RT: 3.81
Area: 15504
Amount: 1.804017
Amount Units: ug/l

Processing Integration Results



Manual Integration Results

RT: 3.81
Area: 14666
Amount: 1.706509
Amount Units: ug/l



Reviewer: beckerk, 30-Mar-2021 17:14:33
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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-33727-8

Matrix: Water Lab File ID: HM29S45.D

Analysis Method: 8260D Date Collected: 03/24/2021 10:20

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 01:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.084	J	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	1.4	J ^c	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.13	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.57		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	2.1		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.88		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-33727-8

Matrix: Water Lab File ID: HM29S45.D

Analysis Method: 8260D Date Collected: 03/24/2021 10:20

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 01:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S45.D
Lims ID: 410-33727-A-8
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 01:30:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-021
Misc. Info.: 410-33727-A-8
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:15:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.269	2.282	-0.013	92	4156	0.0553	
7 Vinyl chloride	62		2.410				ND	7
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96	3.763	3.769	-0.006	91	2798	0.0513	
19 Acetone	43	3.800	3.788	0.012	69	12137	1.39	
24 Carbon disulfide	76	4.086	4.092	-0.006	46	5699	0.0375	
29 Methylene Chloride	84		4.477				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.501	4.495	0.006	0	137348	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	7
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63	5.555	5.562	-0.007	1	4943	0.0472	
41 2-Butanone (MEK)	43		6.336				ND	7
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	78	38994	0.5719	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.854	6.860	-0.006	93	14279	0.1312	
$ 51 Dibromofluoromethane (Surr)	113	7.067	7.074	-0.007	94	637104	10.2	
52 1,1,1-Trichloroethane	97	7.086	7.092	-0.006	42	8788	0.0842	
56 Carbon tetrachloride	117		7.305				ND	7
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	121724	10.3	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.628	7.628	0.000	1	2136	0.0324	
* 65 Fluorobenzene (IS)	96	7.957	7.958	-0.001	99	2430210	10.0	
67 Trichloroethene	95	8.433	8.433	0.000	97	59328	0.8761	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2413751	9.94	
83 Toluene	92	9.994	10.000	-0.006	97	4230	0.0261	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	7
88 Tetrachloroethene	166	10.536	10.536	0.000	97	169891	2.10	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1870911	10.0	
98 Chlorobenzene	112		11.378				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	870632	9.64	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1034486	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

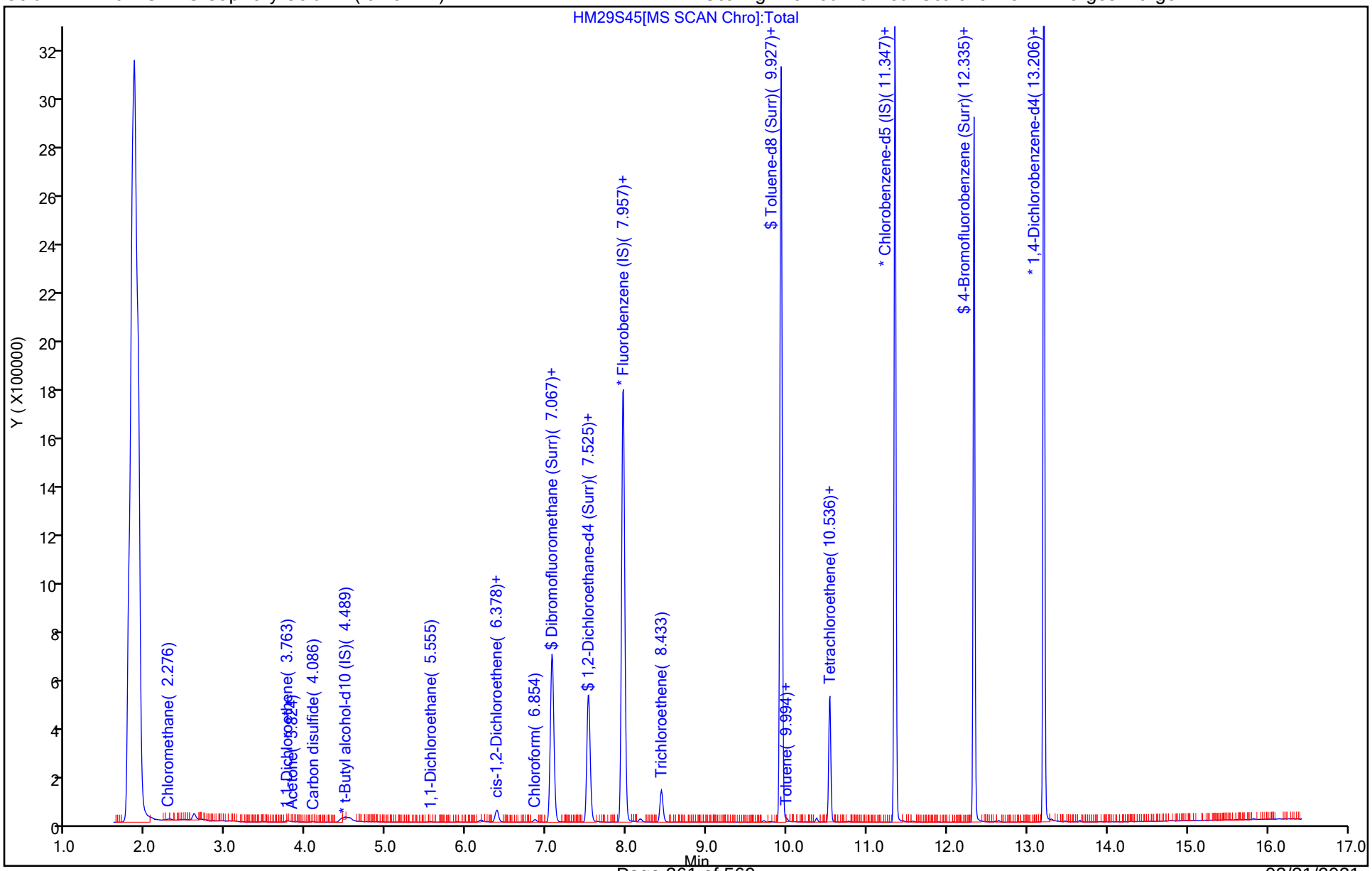
Report Date: 30-Mar-2021 17:45:46 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S45.D

Injection Date:	30-Mar-2021 01:30:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-8	Lab Sample ID:	410-33727-8	Worklist Smp#:	21
Client ID:	HD-COD-SW-17-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	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\20210329-25331.b\HM29S45.D
Lims ID: 410-33727-A-8
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 01:30:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-021
Misc. Info.: 410-33727-A-8
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:15:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	101.80
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	103.50
$ 82 Toluene-d8 (Surr)	10.0	9.94	99.40
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.64	96.42

Report Date: 30-Mar-2021 17:45:46 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S45.D

Injection Date: 30-Mar-2021 01:30:30 Instrument ID: 19094

Lims ID: 410-33727-A-8 Lab Sample ID: 410-33727-8

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

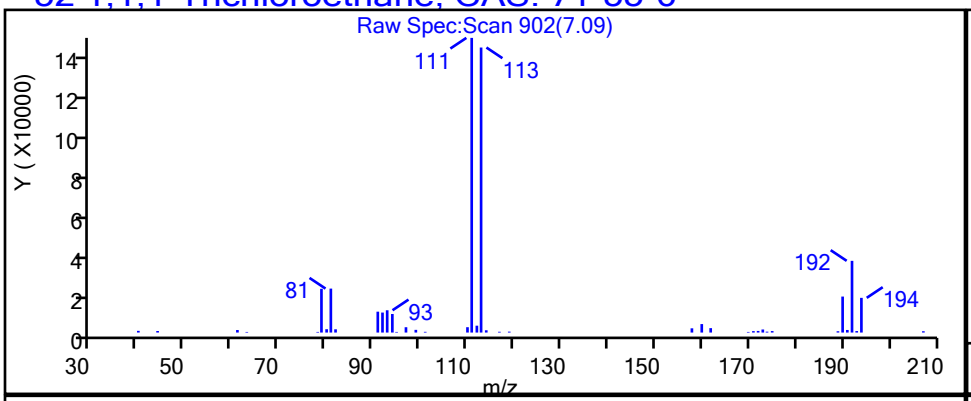
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21

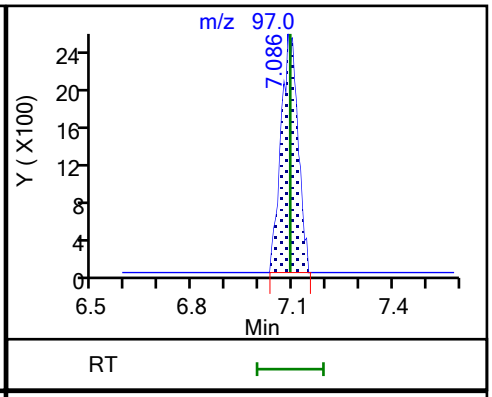
Purge Vol: 25.000 mL Dil. Factor: 1.0000

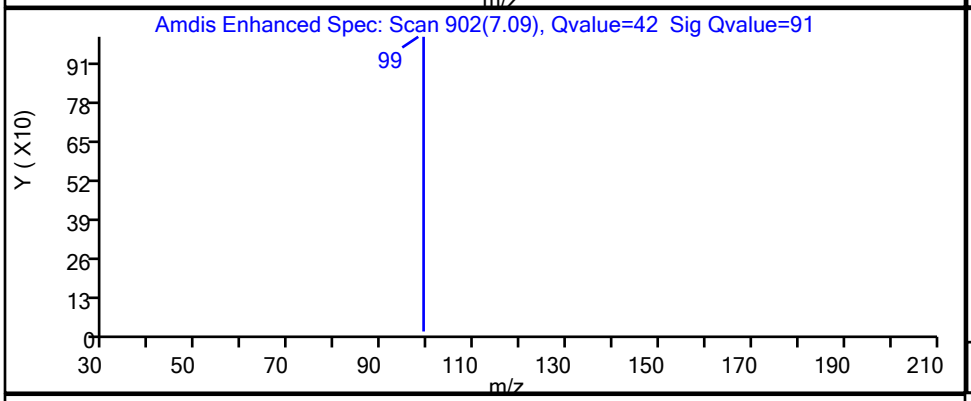
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

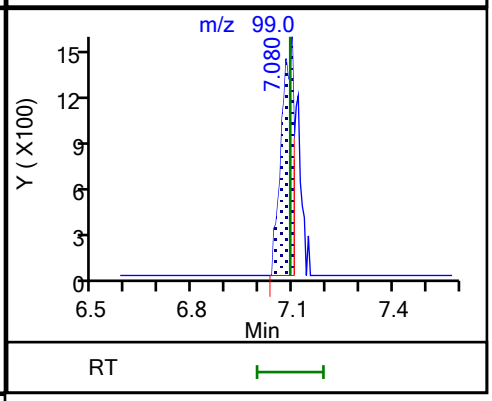
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

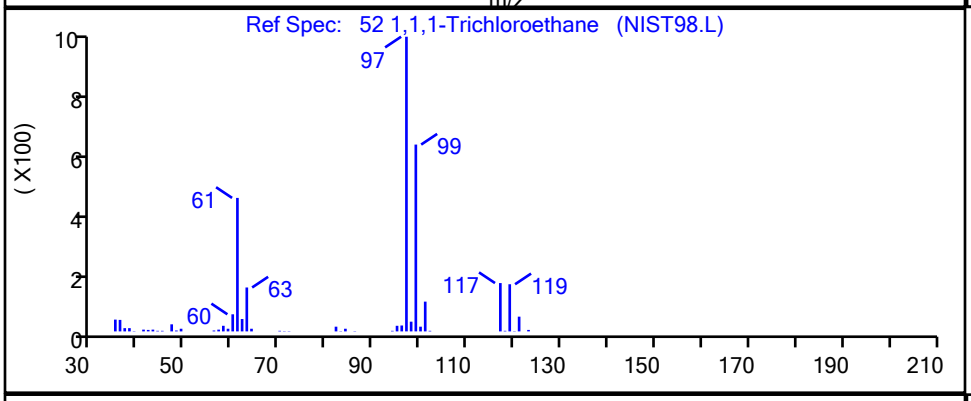
52 1,1,1-Trichloroethane, CAS: 71-55-6

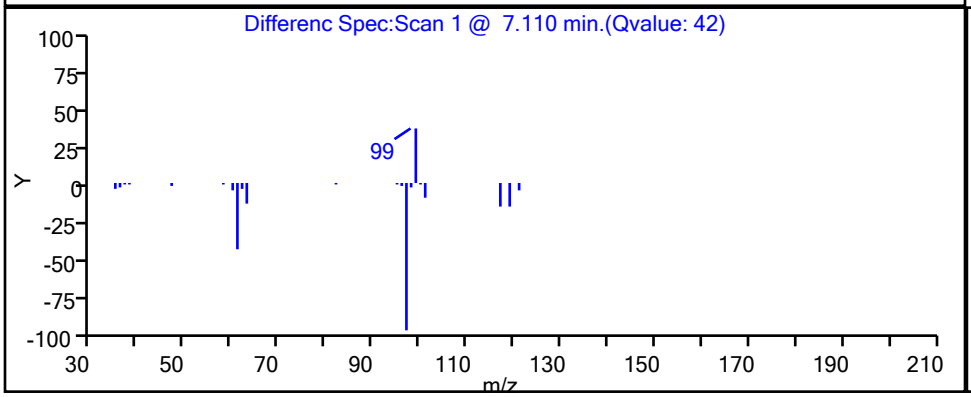


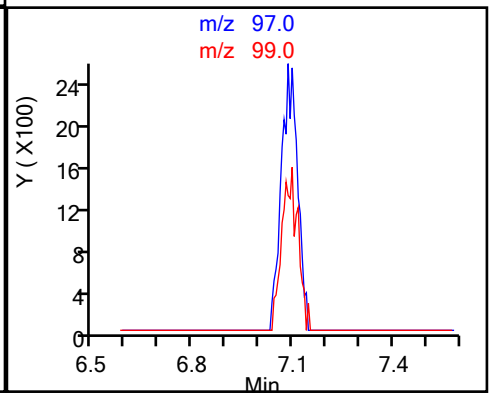








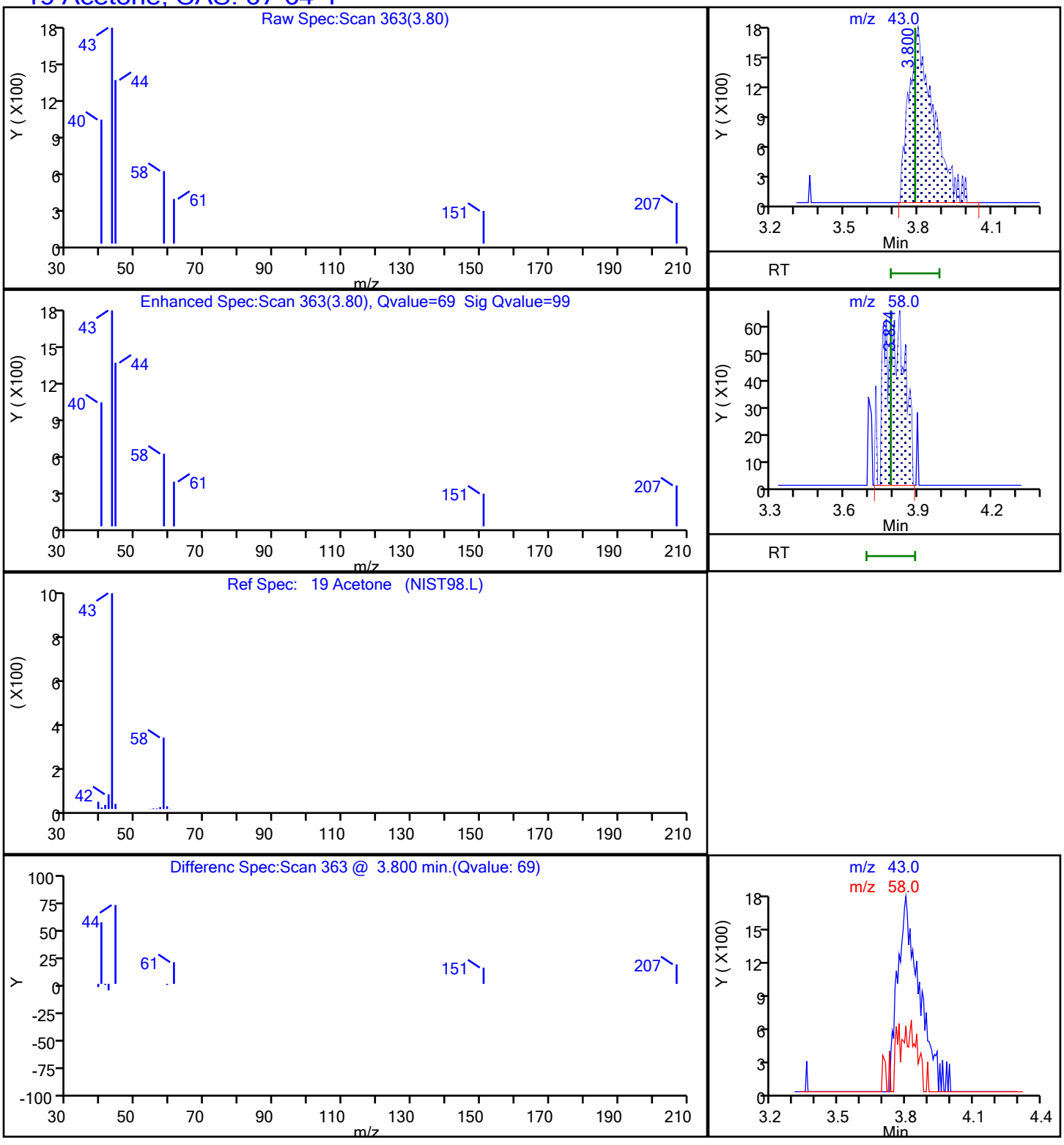




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S45.D				
Injection Date:	30-Mar-2021 01:30:30	Instrument ID:	19094		
Lims ID:	410-33727-A-8	Lab Sample ID:	410-33727-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	20	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		

19 Acetone, CAS: 67-64-1

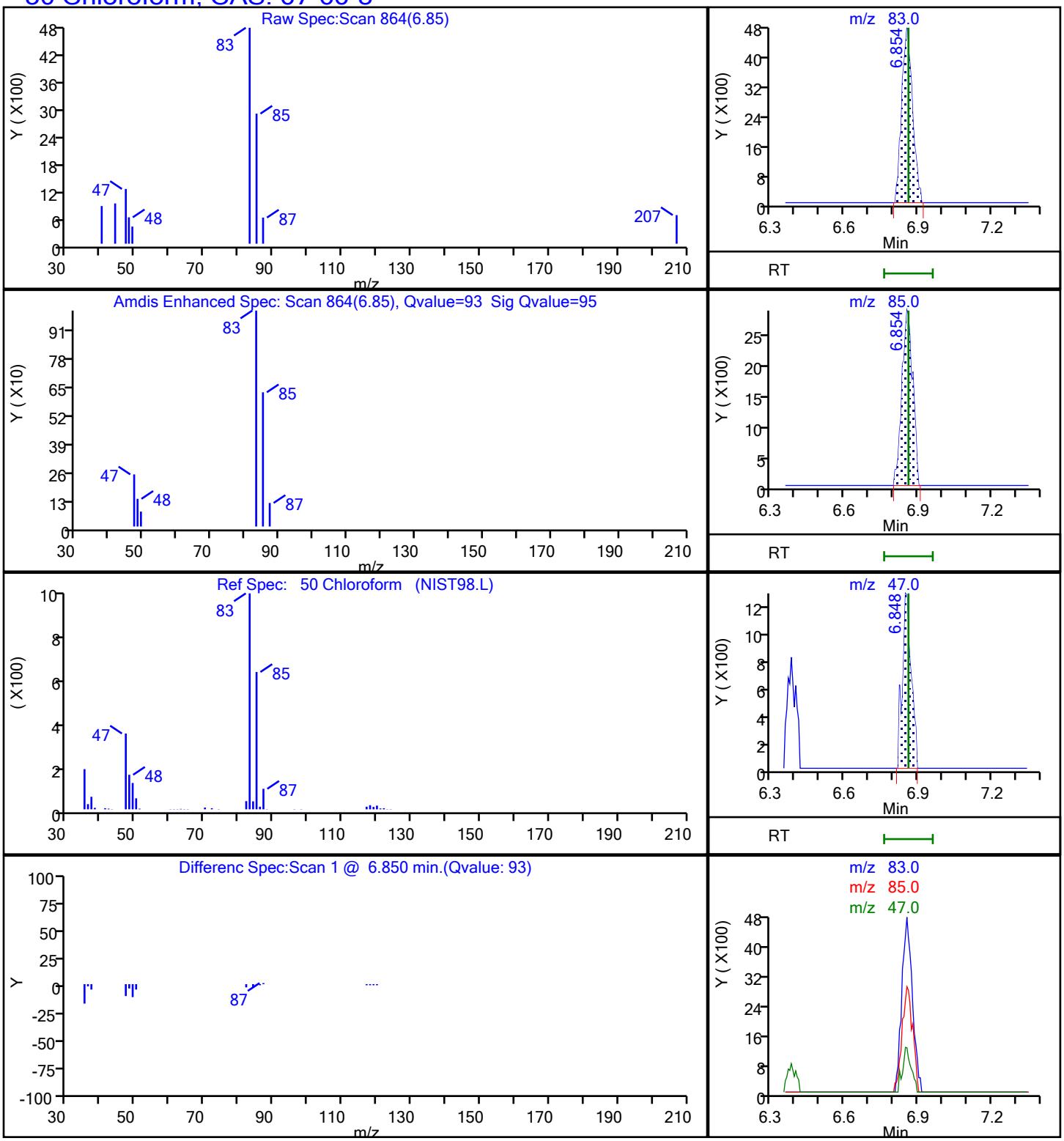


Report Date: 30-Mar-2021 17:45:46 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S45.D				
Injection Date:	30-Mar-2021 01:30:30	Instrument ID:	19094		
Lims ID:	410-33727-A-8	Lab Sample ID:	410-33727-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	20	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 (0.25 mm)	Detector	MS Quad		

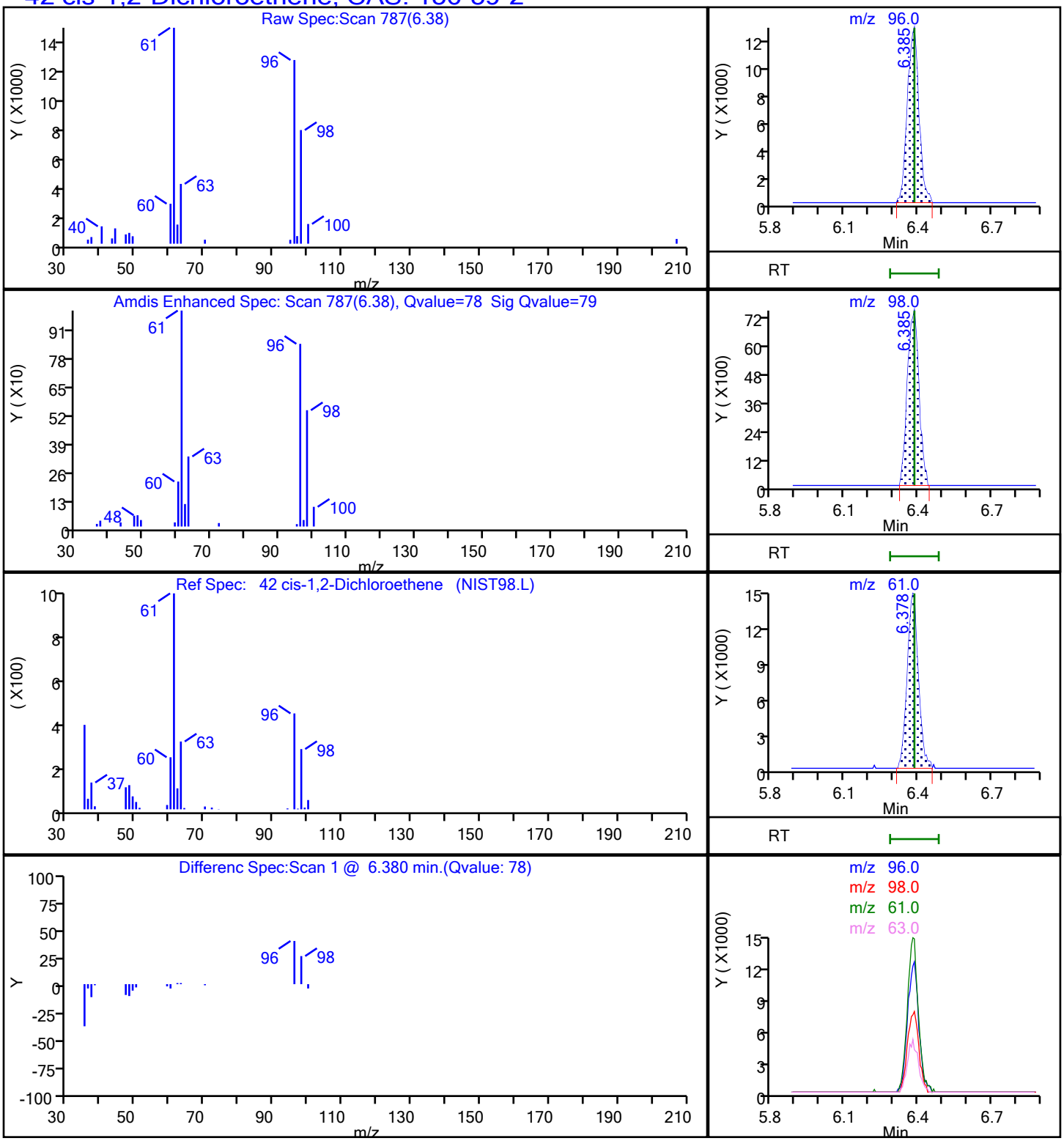
50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S45.D				
Injection Date:	30-Mar-2021 01:30:30	Instrument ID:	19094		
Lims ID:	410-33727-A-8	Lab Sample ID:	410-33727-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	20	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 (0.25 mm)	Detector	MS Quad		

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



Report Date: 30-Mar-2021 17:45:46 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S45.D

Injection Date: 30-Mar-2021 01:30:30 Instrument ID: 19094

Lims ID: 410-33727-A-8 Lab Sample ID: 410-33727-8

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

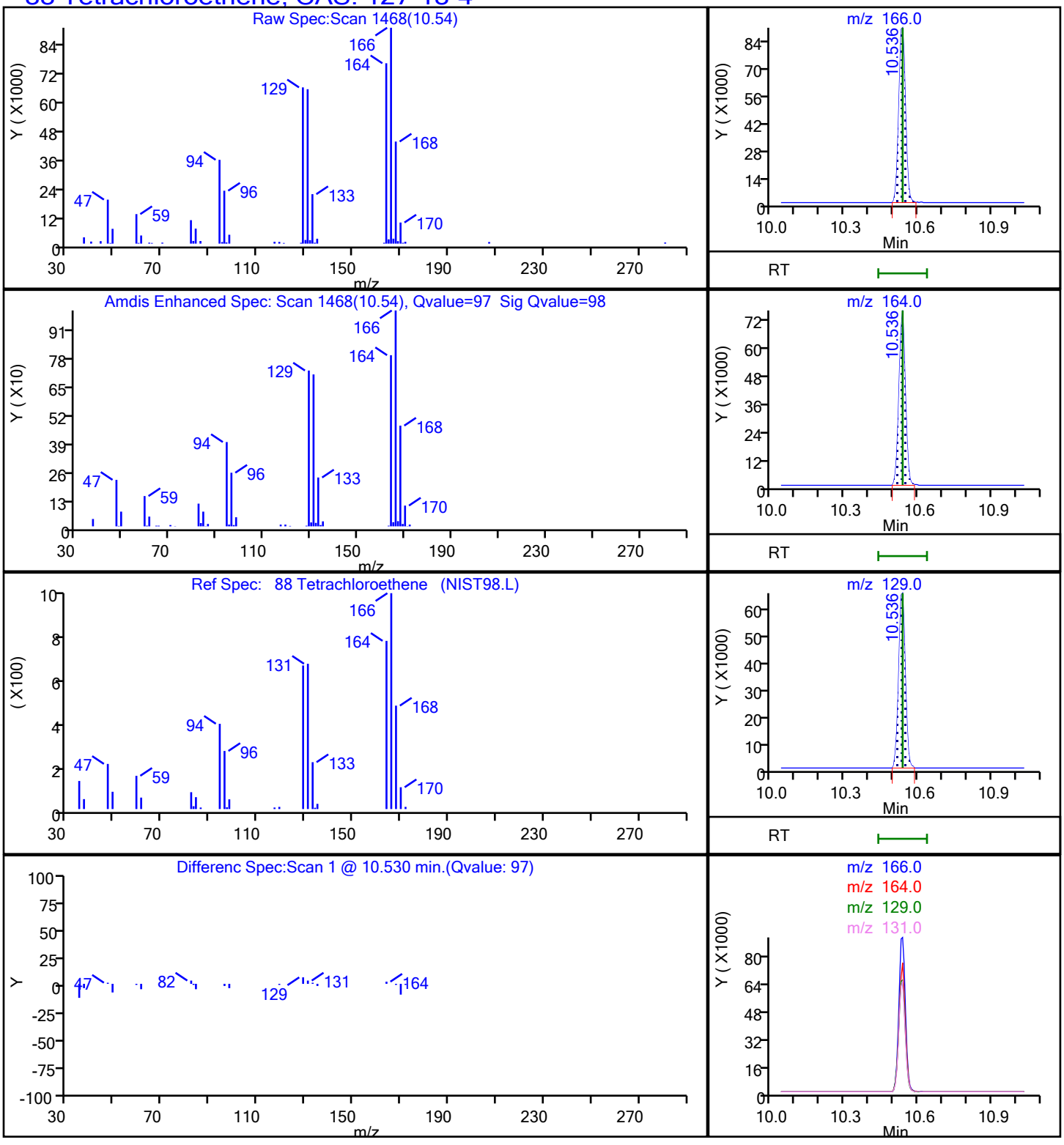
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21

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

88 Tetrachloroethene, CAS: 127-18-4

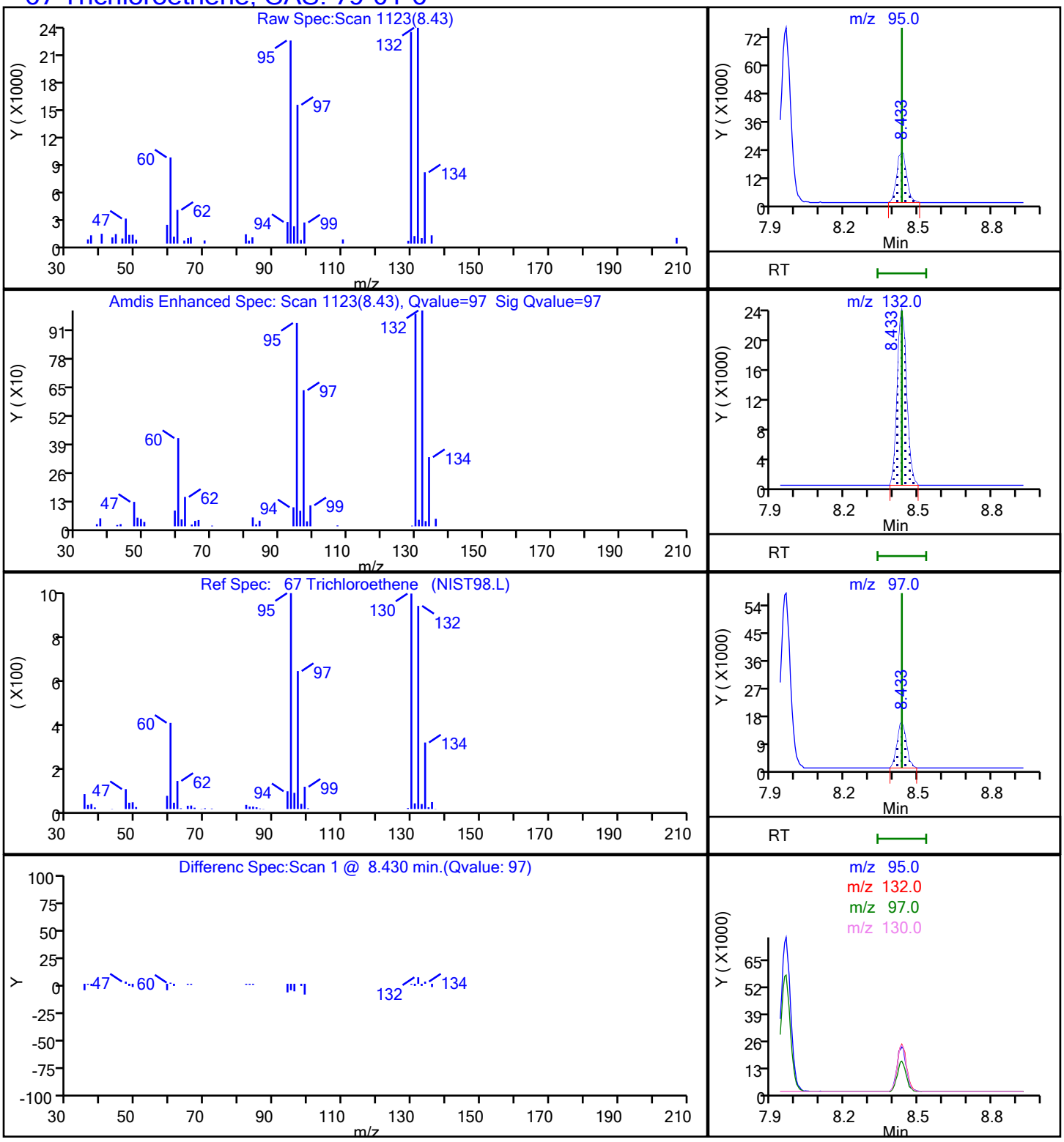


Report Date: 30-Mar-2021 17:45:46 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S45.D				
Injection Date:	30-Mar-2021 01:30:30	Instrument ID:	19094		
Lims ID:	410-33727-A-8	Lab Sample ID:	410-33727-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	20	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		

67 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-33727-9

Matrix: Water Lab File ID: HM29S46.D

Analysis Method: 8260D Date Collected: 03/24/2021 11:30

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 01:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	0.091	J	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	2.1	J ^c	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.31	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.069	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	2.1		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.14	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-33727-9

Matrix: Water Lab File ID: HM29S46.D

Analysis Method: 8260D Date Collected: 03/24/2021 11:30

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 01:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 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)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S46.D
Lims ID: 410-33727-A-9
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 01:51:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-022
Misc. Info.: 410-33727-A-9
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:15:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.282	2.282	0.000	1	3443	0.0474	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96	3.763	3.769	-0.006	95	4819	0.0914	
19 Acetone	43	3.824	3.788	0.036	69	16543	2.11	
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84		4.477				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.513	4.495	0.018	0	123190	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	7
41 2-Butanone (MEK)	43		6.336				ND	7
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	73	4562	0.0692	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.860	6.860	0.000	93	32534	0.3092	
$ 51 Dibromofluoromethane (Surr)	113	7.068	7.074	-0.006	94	623636	10.3	
52 1,1,1-Trichloroethane	97		7.092				ND	7
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.531	7.525	0.006	0	120608	10.6	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.634	7.628	0.006	1	2038	0.0320	
* 65 Fluorobenzene (IS)	96	7.958	7.958	0.000	99	2348956	10.0	
67 Trichloroethene	95	8.439	8.433	0.006	95	8845	0.1351	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2350027	9.91	
83 Toluene	92	10.006	10.000	0.006	98	5677	0.0359	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	7
88 Tetrachloroethene	166	10.536	10.536	0.000	98	168491	2.13	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1827647	10.0	
98 Chlorobenzene	112		11.378				ND	
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	853730	9.68	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	94	1003973	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

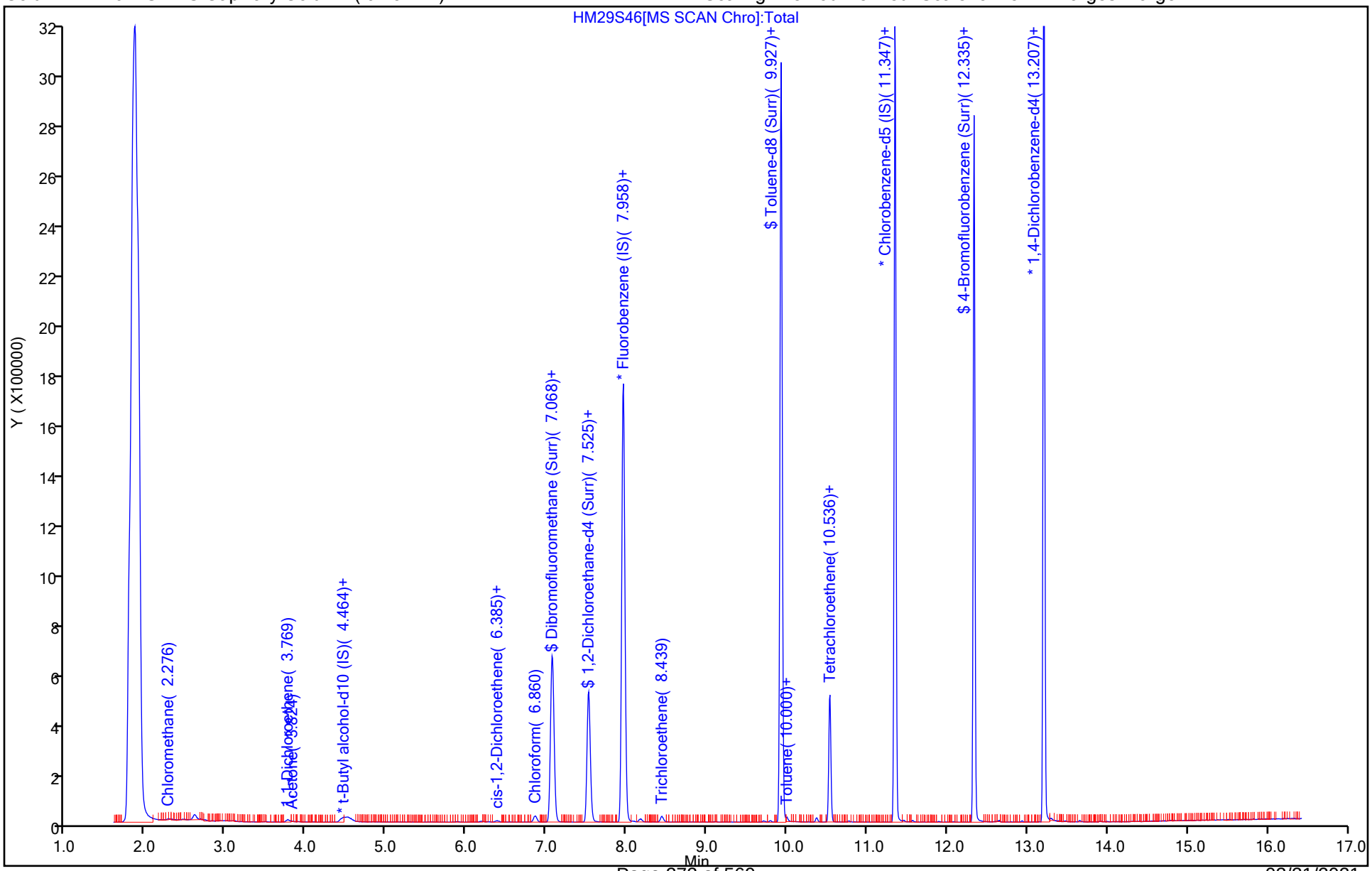
Report Date: 30-Mar-2021 17:45:48 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S46.D

Injection Date:	30-Mar-2021 01:51:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-9	Lab Sample ID:	410-33727-9	Worklist Smp#:	22
Client ID:	HD-COD-SW-26-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	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\20210329-25331.b\HM29S46.D
Lims ID: 410-33727-A-9
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 01:51:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-022
Misc. Info.: 410-33727-A-9
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:15:53

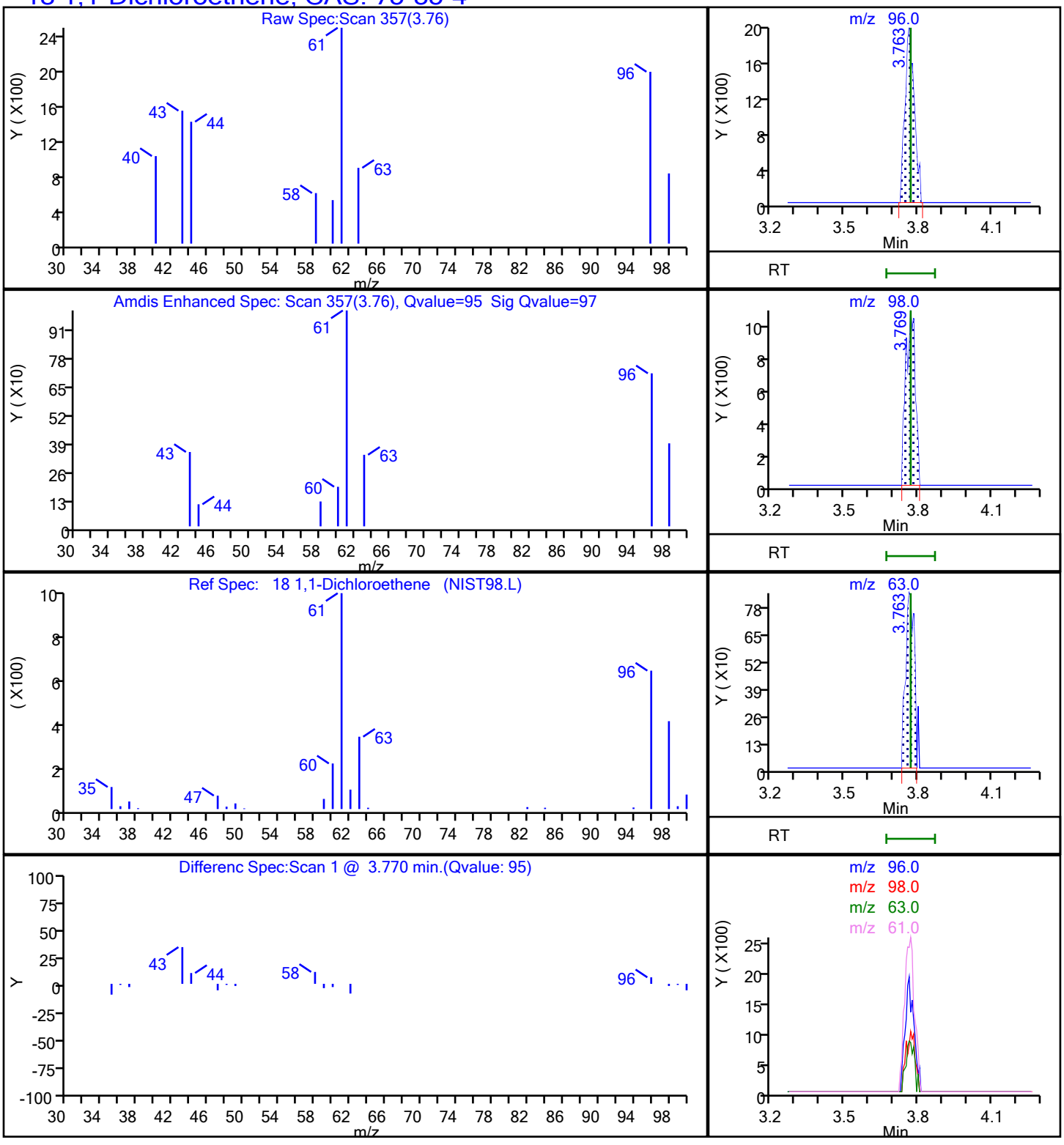
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.3	103.10
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.10
$ 82 Toluene-d8 (Surr)	10.0	9.91	99.06
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.68	96.78

Report Date: 30-Mar-2021 17:45:48 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S46.D				
Injection Date:	30-Mar-2021 01:51:30	Instrument ID:	19094		
Lims ID:	410-33727-A-9	Lab Sample ID:	410-33727-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	21	Worklist Smp#:	22
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		

18 1,1-Dichloroethene, CAS: 75-35-4

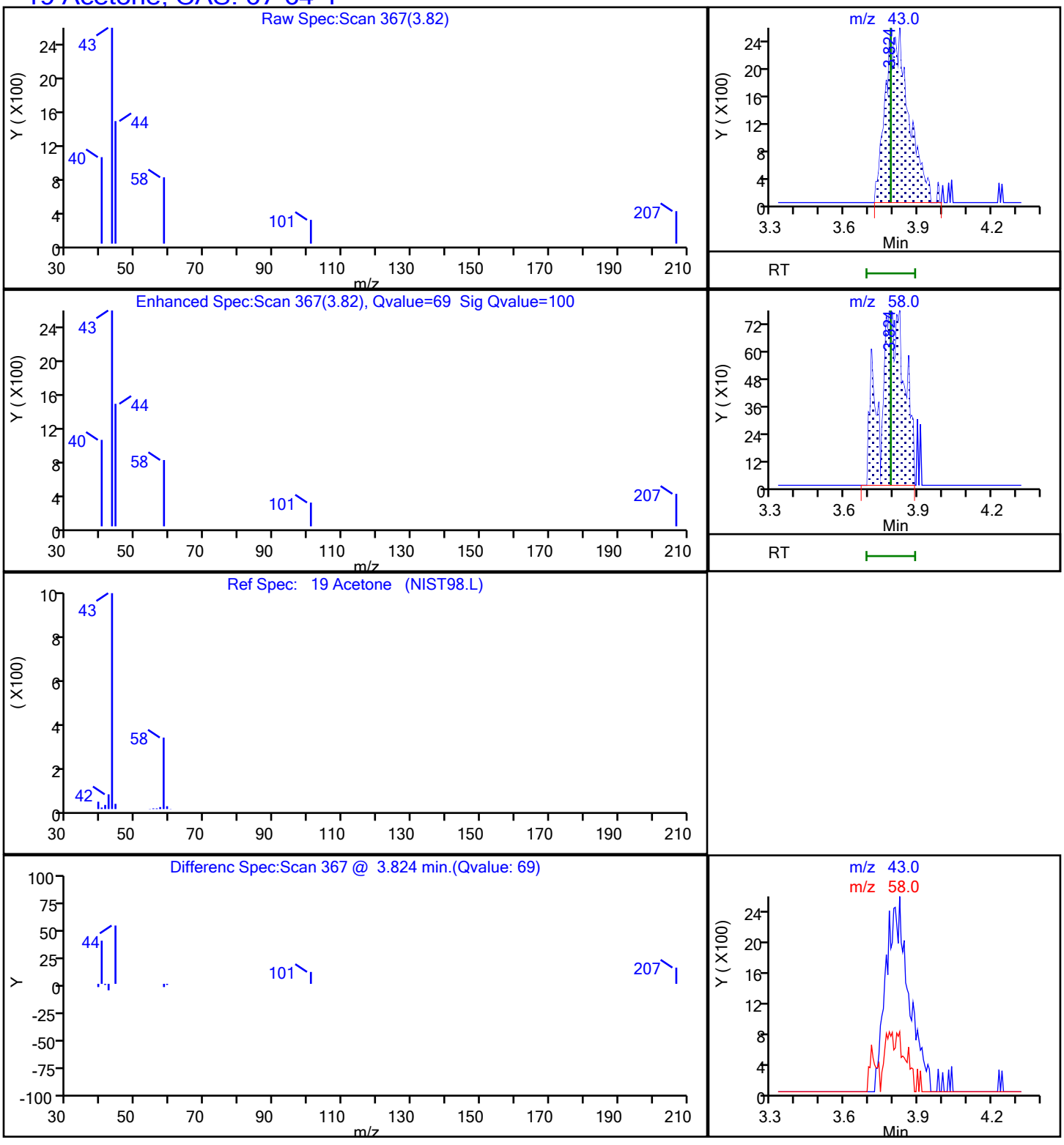


Report Date: 30-Mar-2021 17:45:48 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S46.D				
Injection Date:	30-Mar-2021 01:51:30	Instrument ID:	19094		
Lims ID:	410-33727-A-9	Lab Sample ID:	410-33727-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	21	Worklist Smp#:	22
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: 30-Mar-2021 17:45:48 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S46.D

Injection Date: 30-Mar-2021 01:51:30 Instrument ID: 19094

Lims ID: 410-33727-A-9 Lab Sample ID: 410-33727-9

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

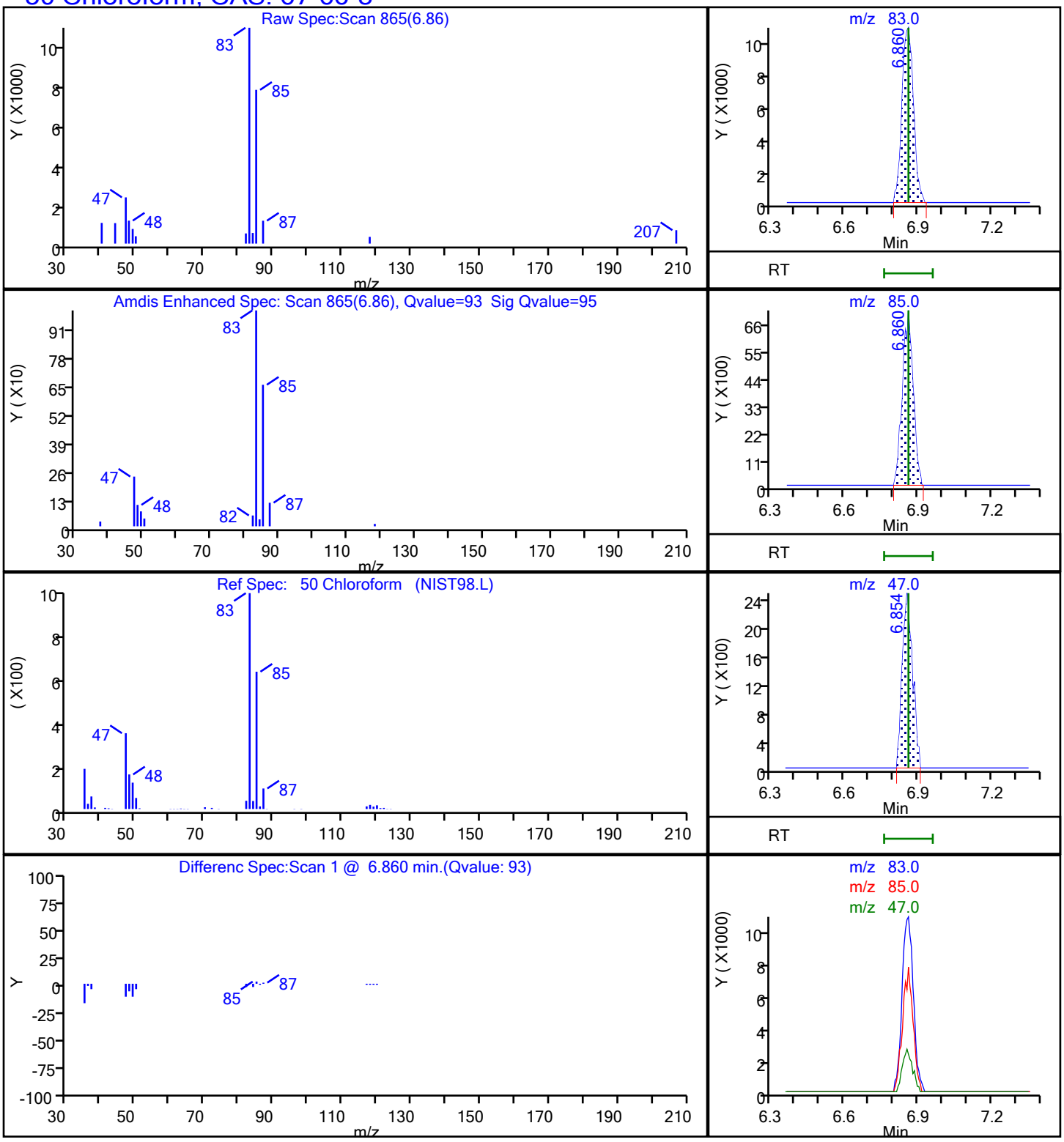
Operator ID: MEC29284 ALS Bottle#: 21 Worklist Smp#: 22

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

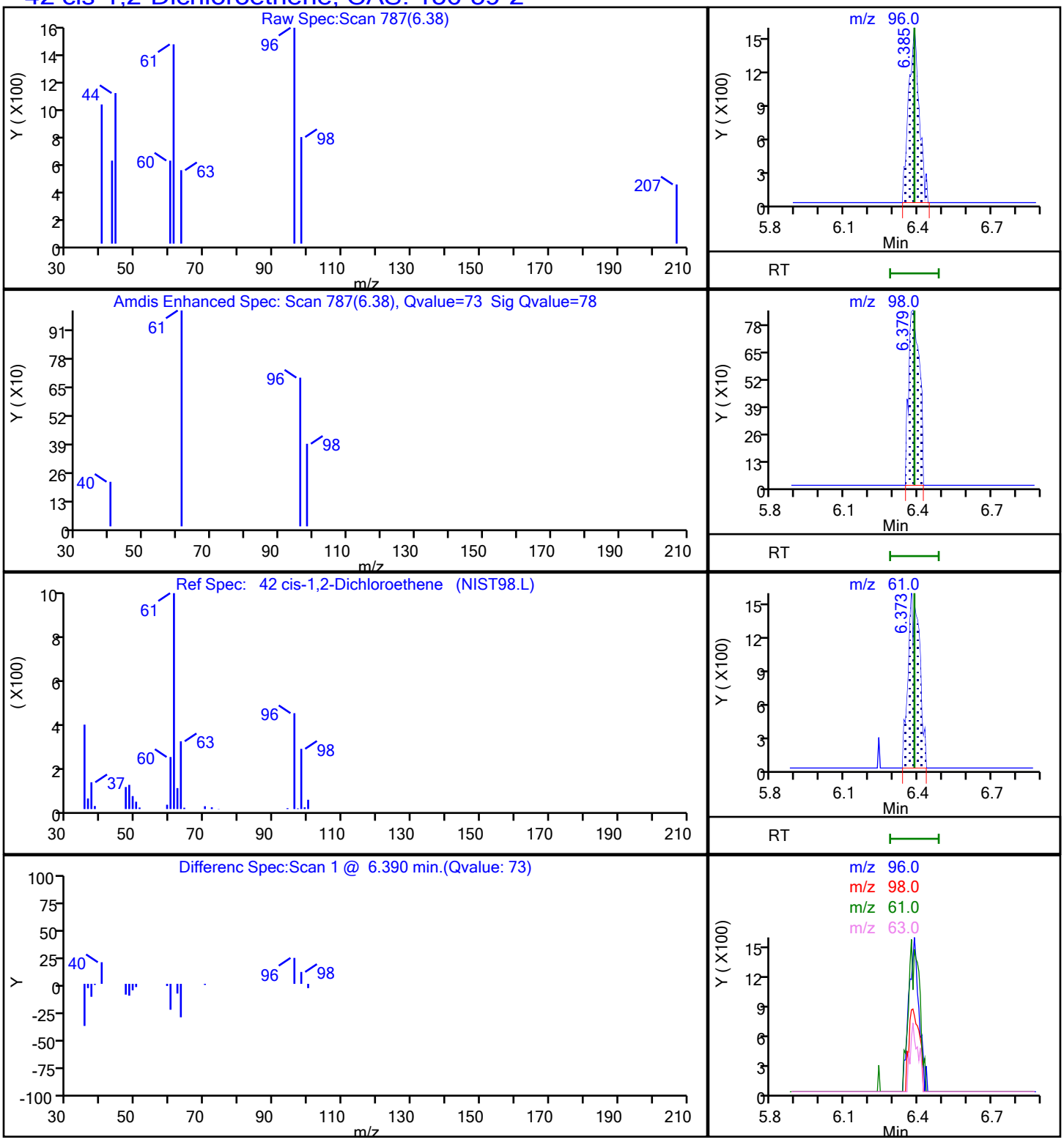


Report Date: 30-Mar-2021 17:45:48 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S46.D				
Injection Date:	30-Mar-2021 01:51:30	Instrument ID:	19094		
Lims ID:	410-33727-A-9	Lab Sample ID:	410-33727-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	21	Worklist Smp#:	22
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

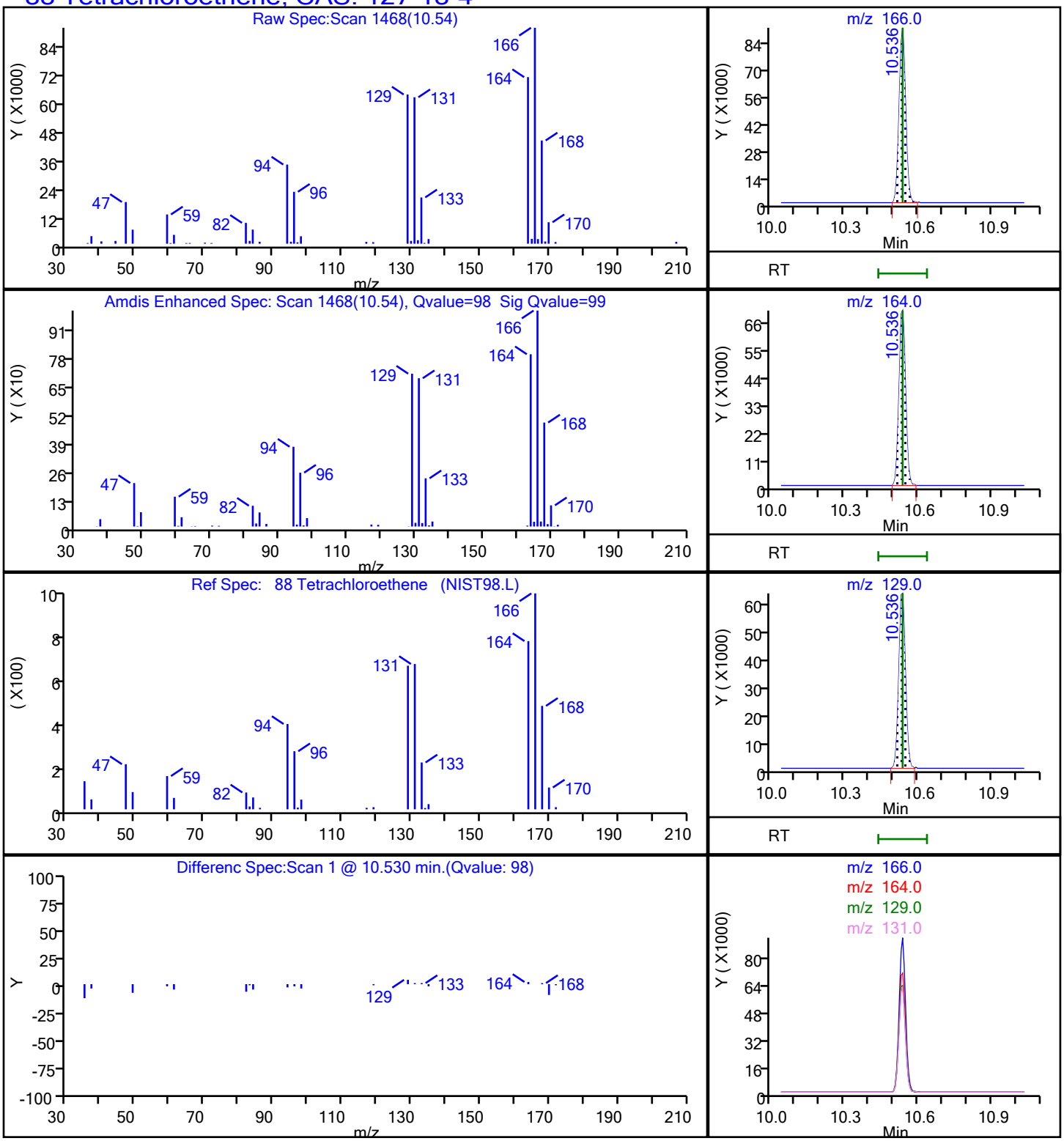


Report Date: 30-Mar-2021 17:45:48 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S46.D				
Injection Date:	30-Mar-2021 01:51:30	Instrument ID:	19094		
Lims ID:	410-33727-A-9	Lab Sample ID:	410-33727-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	21	Worklist Smp#:	22
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: 30-Mar-2021 17:45:48 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S46.D

Injection Date: 30-Mar-2021 01:51:30 Instrument ID: 19094

Lims ID: 410-33727-A-9 Lab Sample ID: 410-33727-9

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

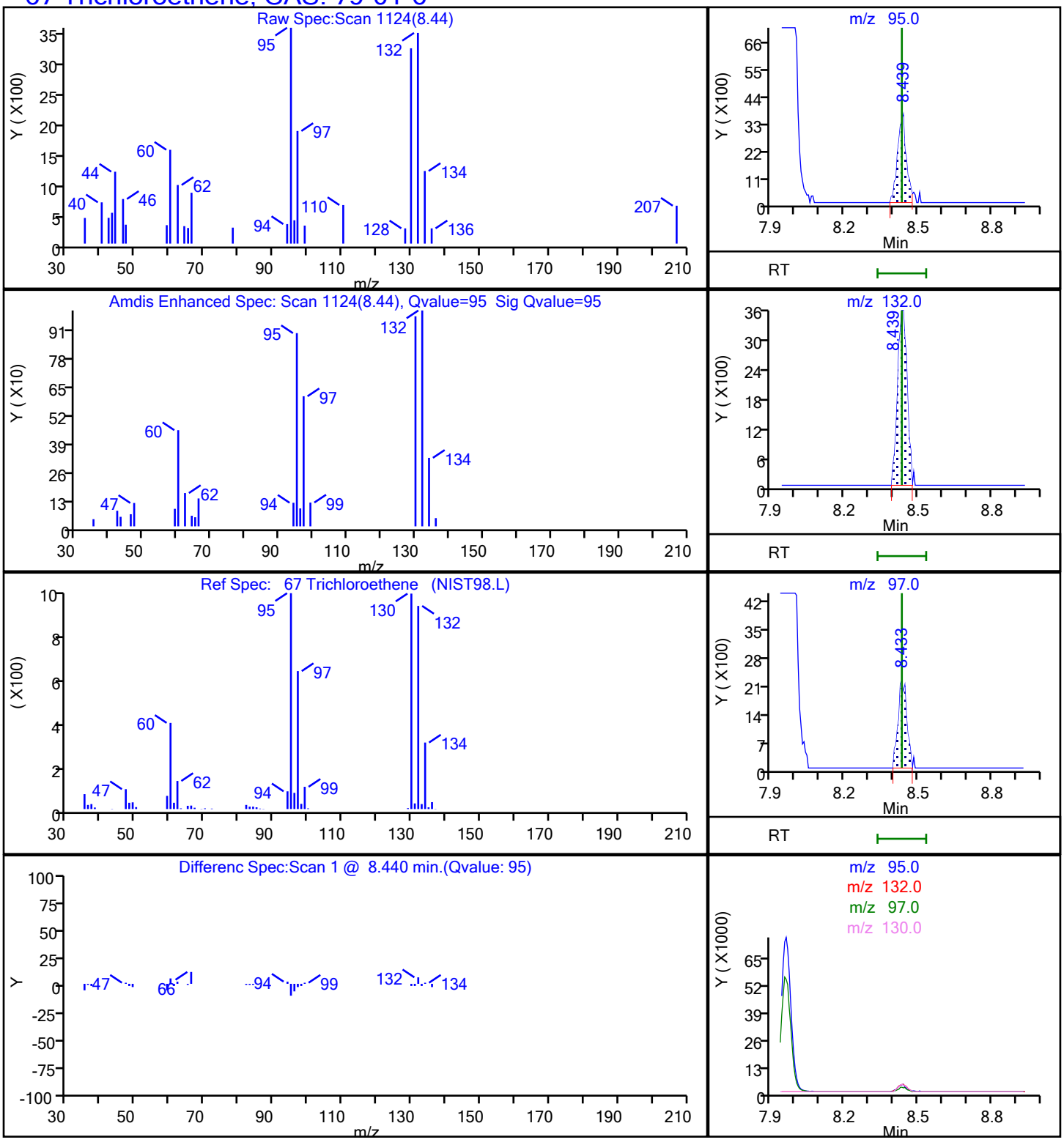
Operator ID: MEC29284 ALS Bottle#: 21 Worklist Smp#: 22

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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-33727-10

Matrix: Water Lab File ID: HM29S47.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:10

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 02:12

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.: 108546 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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	2.9	J ^c	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	0.066	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.079	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.096	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-33727-10

Matrix: Water Lab File ID: HM29S47.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:10

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 02:12

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.: 108546 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)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S47.D
Lims ID: 410-33727-A-10
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 02:12:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-023
Misc. Info.: 410-33727-A-10
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:37:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.276	2.282	-0.006	95	4847	0.0664	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.806	3.788	0.018	99	25014	2.92	M
24 Carbon disulfide	76	4.086	4.092	-0.006	98	6695	0.0454	
29 Methylene Chloride	84		4.477				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.501	4.495	0.006	0	134366	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43		6.336				ND	U
42 cis-1,2-Dichloroethene	96	6.391	6.385	0.006	76	5197	0.0785	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.848	6.860	-0.012	88	5441	0.0515	
$ 51 Dibromofluoromethane (Surr)	113	7.068	7.074	-0.006	94	620562	10.2	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	121516	10.6	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.628	7.628	0.000	1	2280	0.0357	
* 65 Fluorobenzene (IS)	96	7.958	7.958	0.000	99	2359234	10.0	
67 Trichloroethene	95	8.439	8.433	0.006	94	6285	0.0956	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2361661	9.89	
83 Toluene	92	10.006	10.000	0.006	97	6751	0.0424	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	
88 Tetrachloroethene	166	10.536	10.536	0.000	95	3563	0.0448	
91 2-Hexanone	43		10.646				ND	7
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1838995	10.0	
98 Chlorobenzene	112		11.378				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	852378	9.60	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	94	1000058	10.0	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

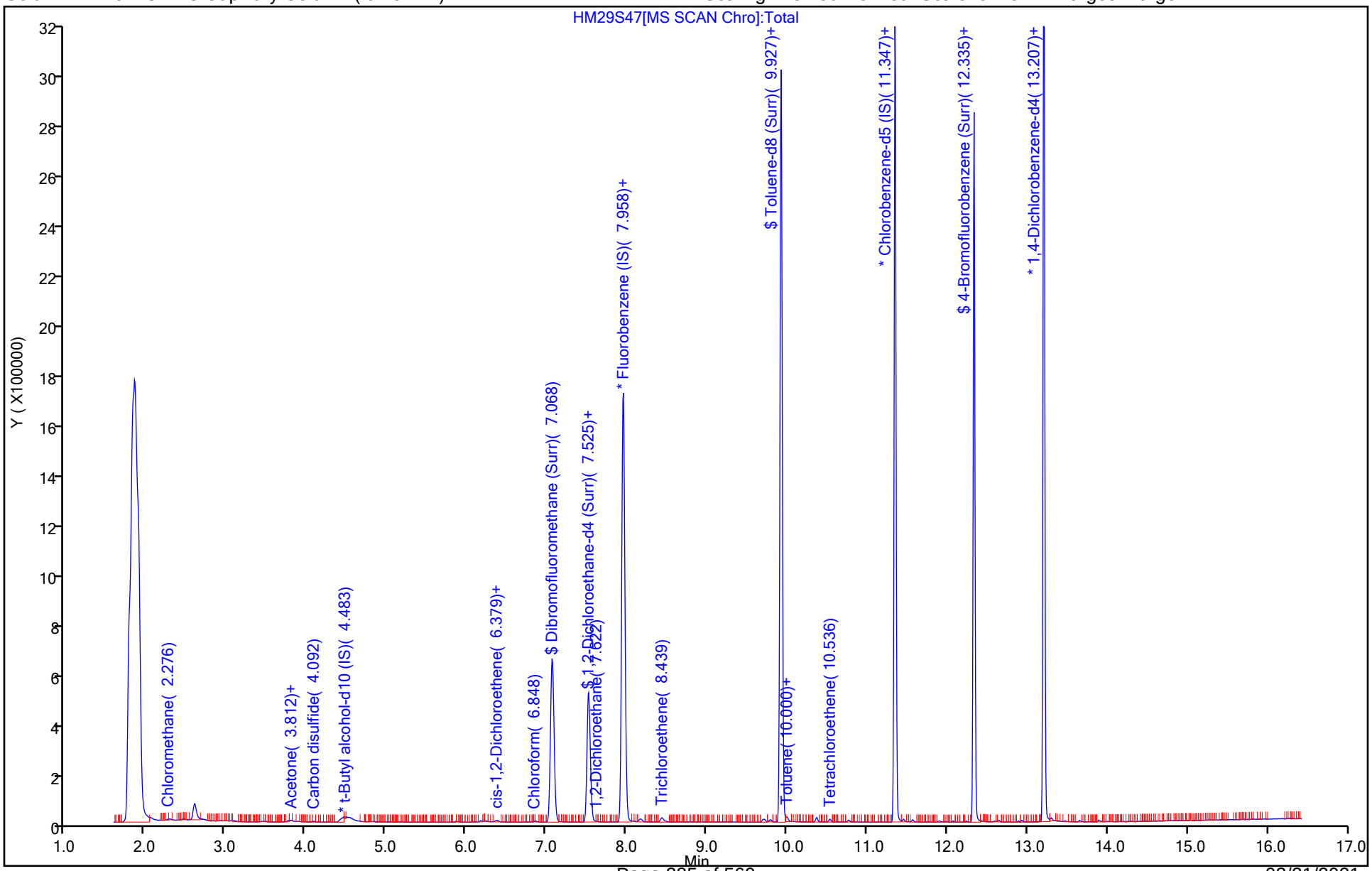
Report Date: 30-Mar-2021 17:45:50 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S47.D

Injection Date:	30-Mar-2021 02:12:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-10	Lab Sample ID:	410-33727-10	Worklist Smp#:	23
Client ID:	HD-COD-SW-27-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	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\20210329-25331.b\HM29S47.D
Lims ID: 410-33727-A-10
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 02:12:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-023
Misc. Info.: 410-33727-A-10
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:37:36

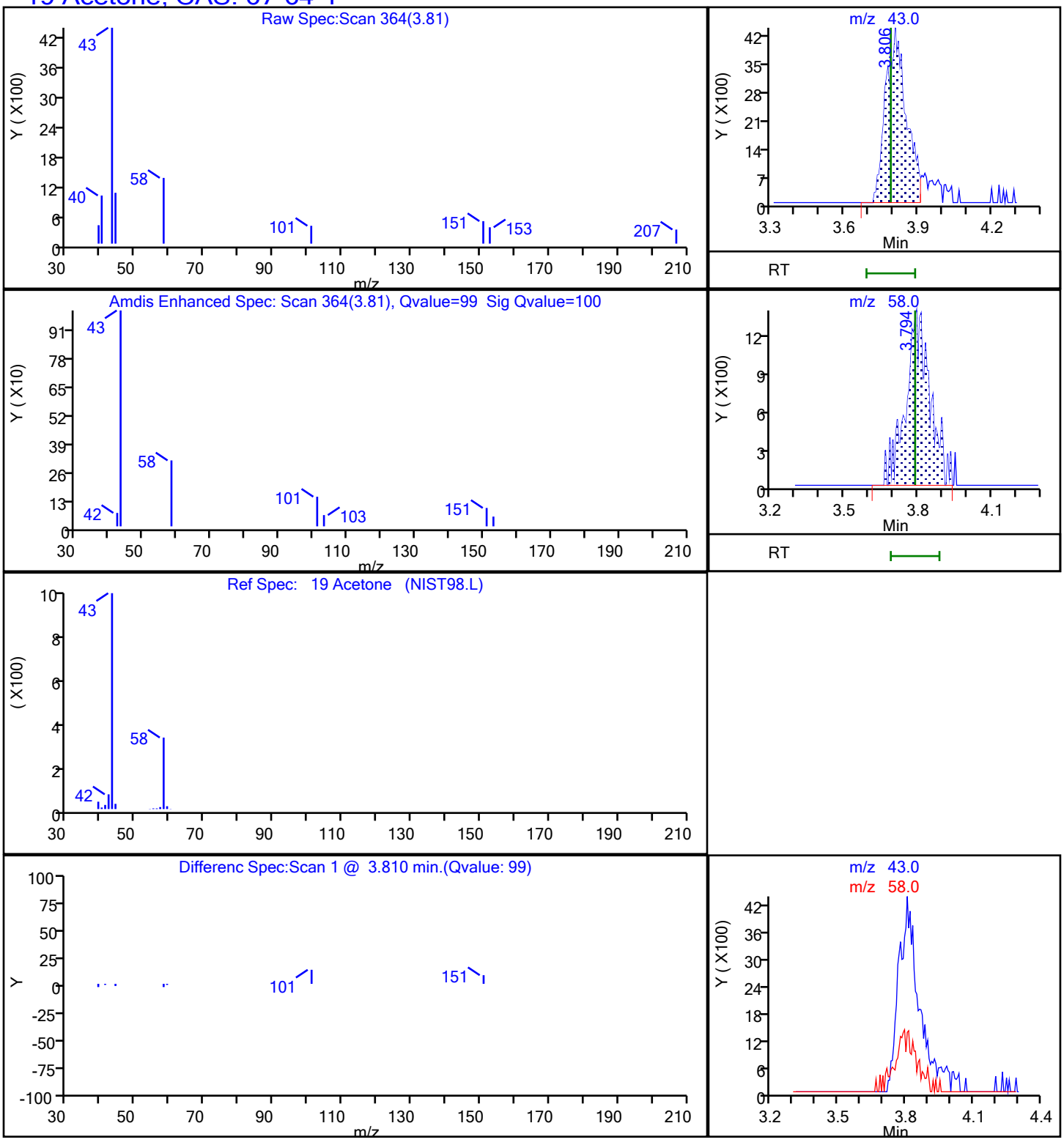
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	102.14
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.43
$ 82 Toluene-d8 (Surr)	10.0	9.89	98.94
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.60	96.03

Report Date: 30-Mar-2021 17:45:50 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S47.D				
Injection Date:	30-Mar-2021 02:12:30	Instrument ID:	19094		
Lims ID:	410-33727-A-10	Lab Sample ID:	410-33727-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	22	Worklist Smp#:	23
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: 30-Mar-2021 17:45:50 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S47.D

Injection Date: 30-Mar-2021 02:12:30 Instrument ID: 19094

Lims ID: 410-33727-A-10 Lab Sample ID: 410-33727-10

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

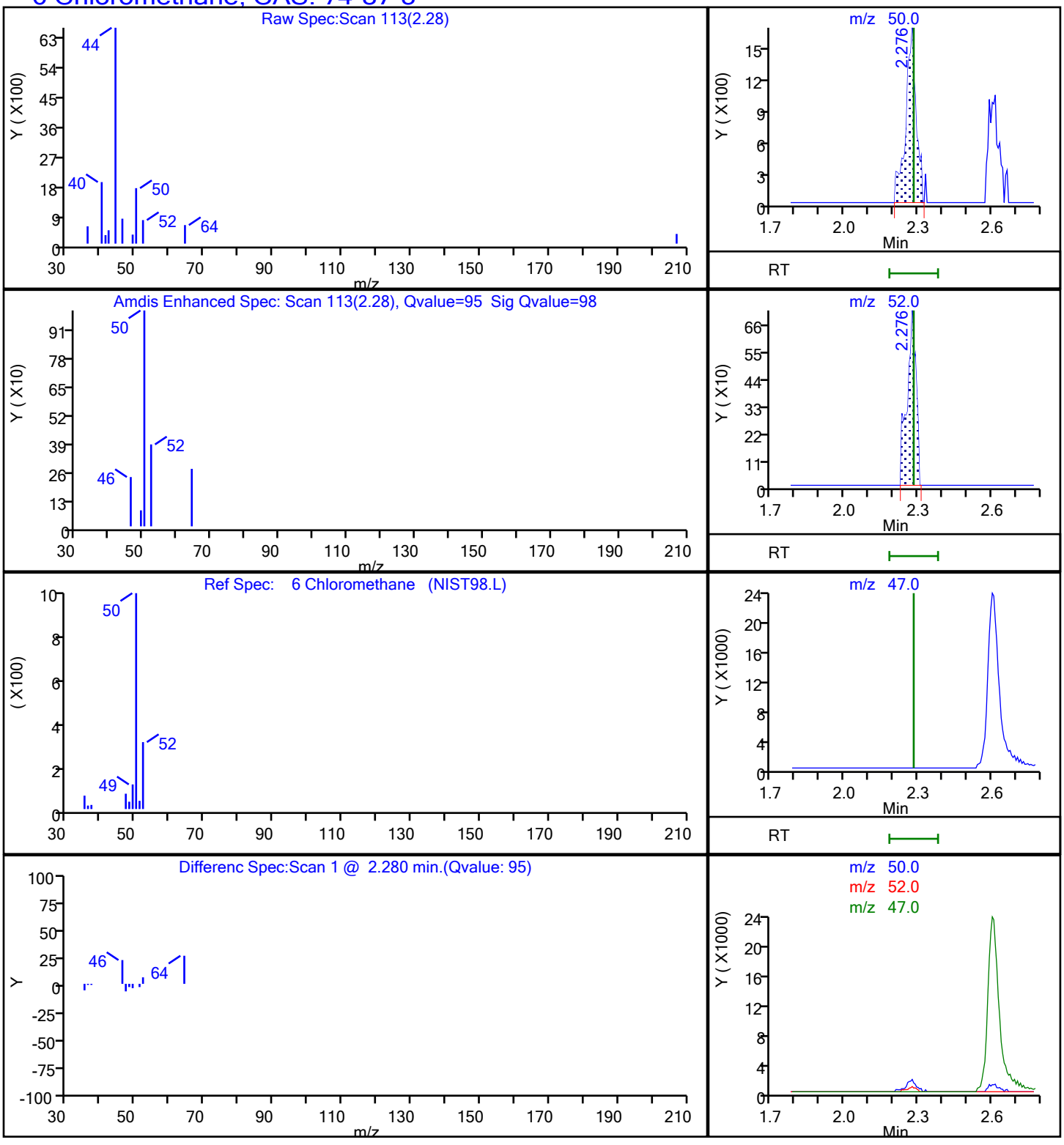
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23

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: 30-Mar-2021 17:45:50 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S47.D

Injection Date: 30-Mar-2021 02:12:30 Instrument ID: 19094

Lims ID: 410-33727-A-10 Lab Sample ID: 410-33727-10

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

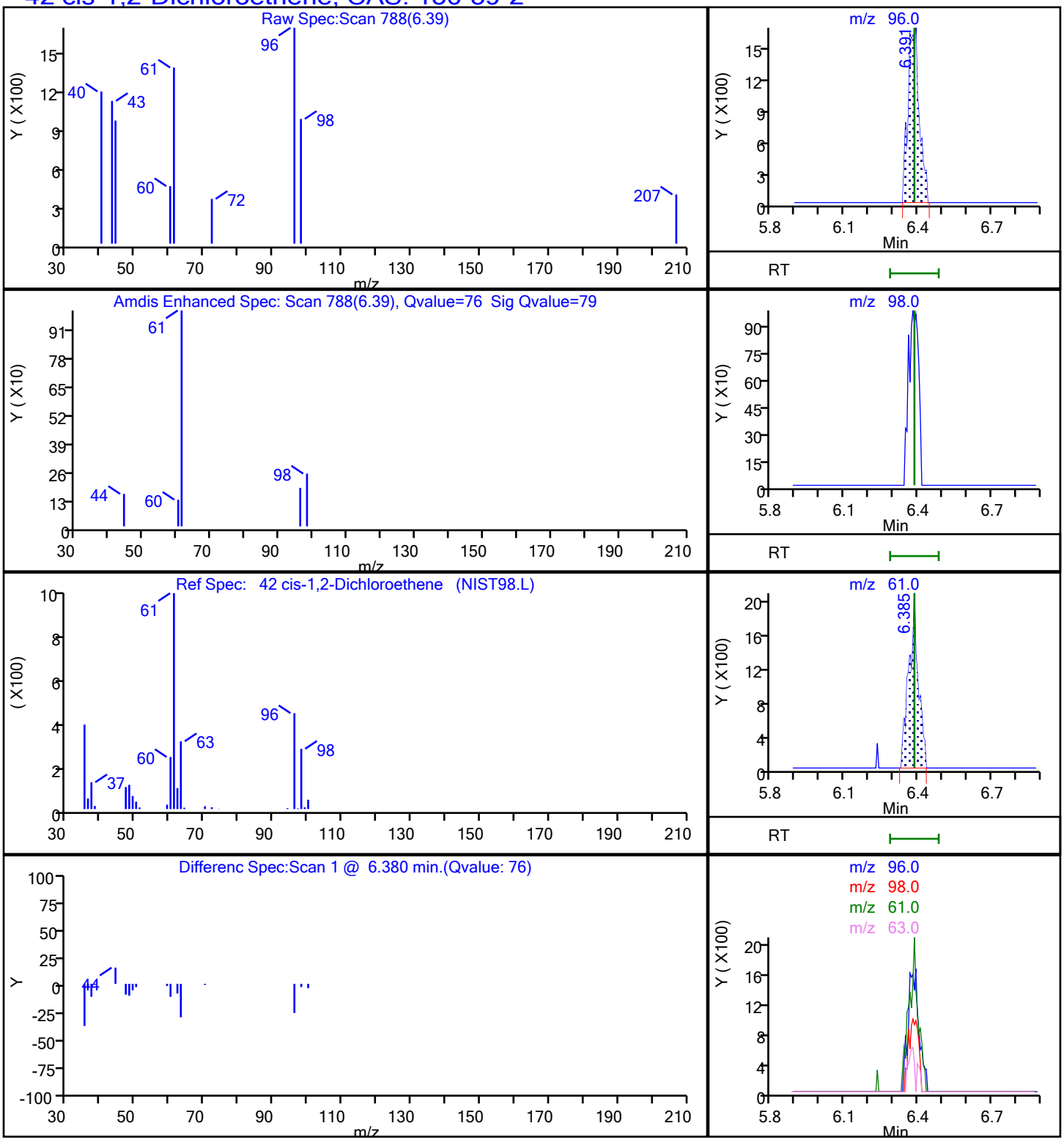
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23

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: 30-Mar-2021 17:45:50 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S47.D

Injection Date: 30-Mar-2021 02:12:30 Instrument ID: 19094

Lims ID: 410-33727-A-10 Lab Sample ID: 410-33727-10

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

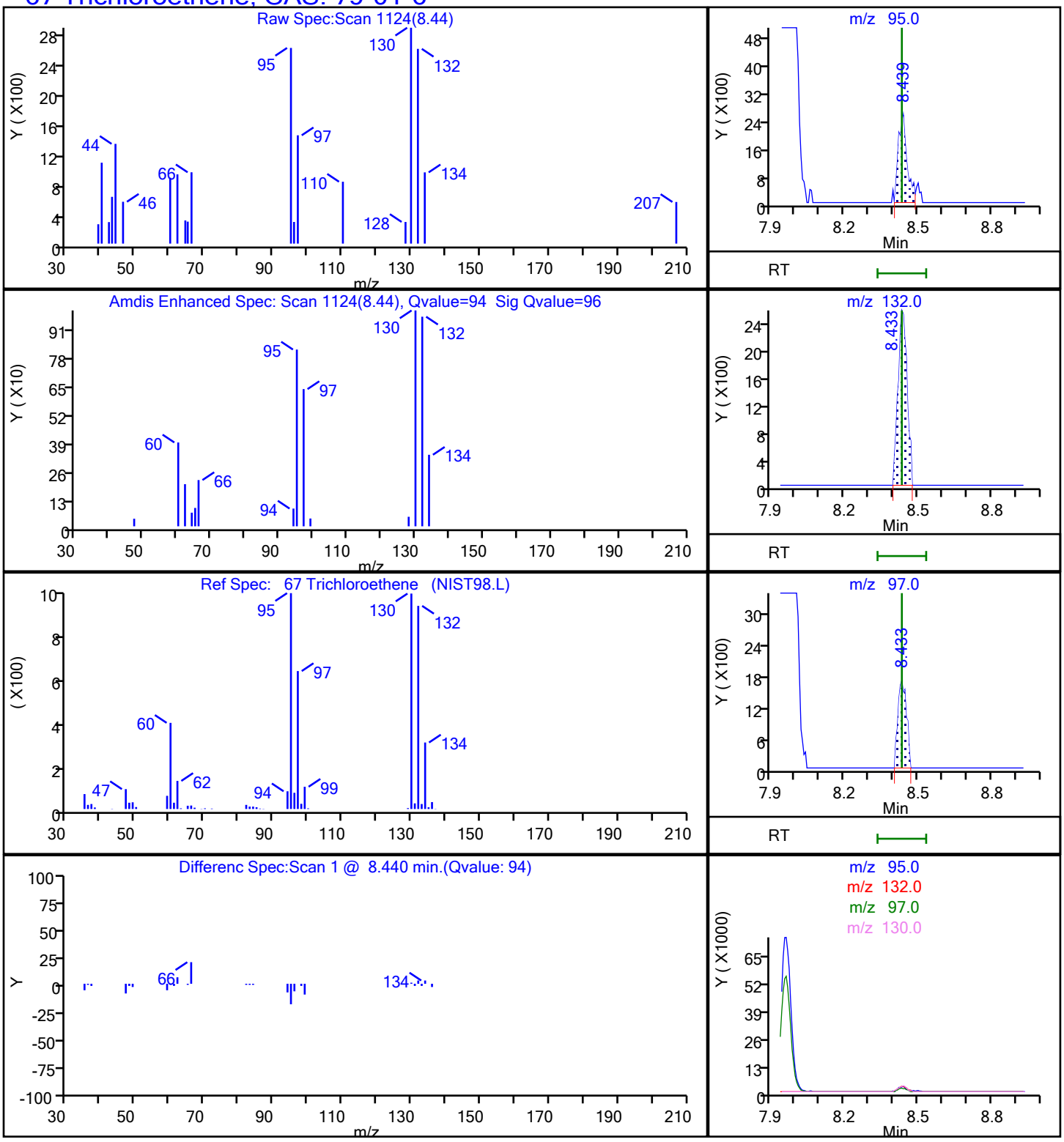
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23

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



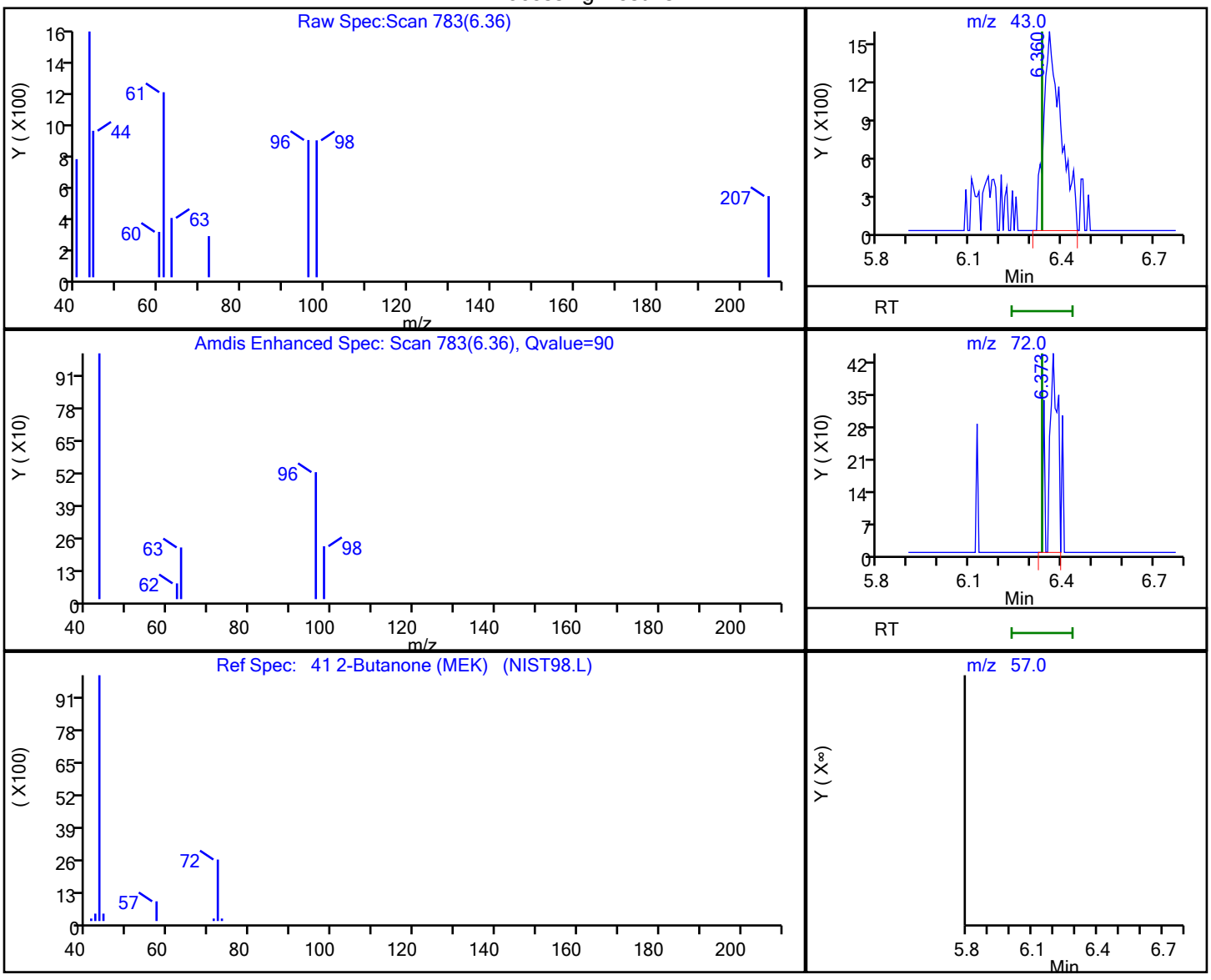
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S47.D				
Injection Date:	30-Mar-2021 02:12:30	Instrument ID:	19094		
Lims ID:	410-33727-A-10	Lab Sample ID:	410-33727-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	22	Worklist Smp#:	23
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		

41 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
6.36	43.00	5973	0.467411
6.37	72.00	844	
6.34	57.00	0	

Reviewer: beckerk, 30-Mar-2021 17:37:11

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

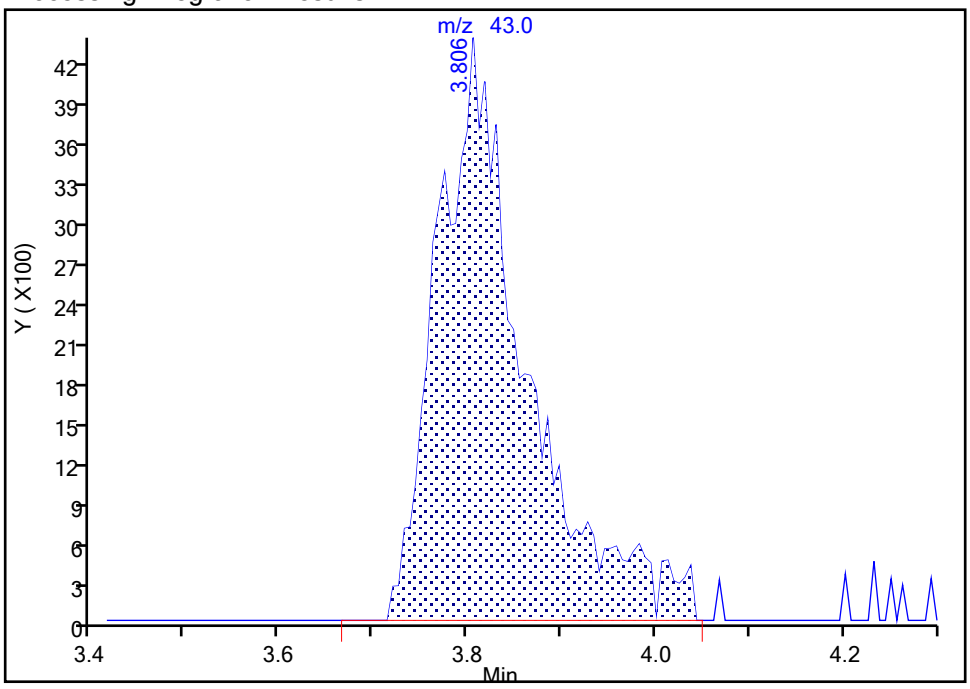
Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S47.D				
Injection Date:	30-Mar-2021 02:12:30	Instrument ID:	19094		
Lims ID:	410-33727-A-10	Lab Sample ID:	410-33727-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	25.000 mL	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

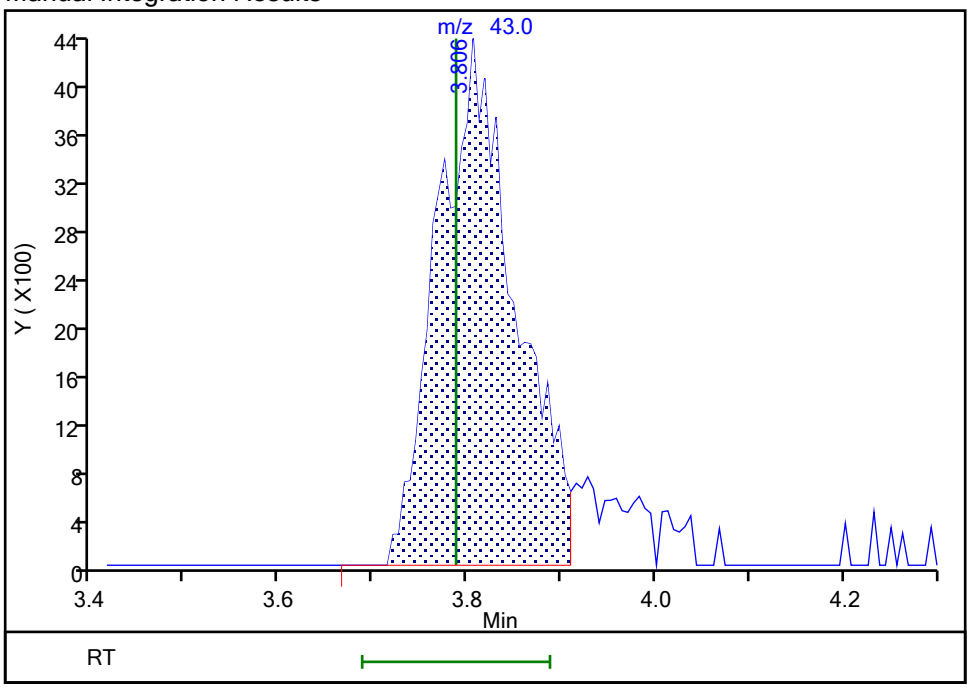
Processing Integration Results

RT: 3.81
Area: 28575
Amount: 3.337331
Amount Units: ug/l



Manual Integration Results

RT: 3.81
Area: 25014
Amount: 2.921435
Amount Units: ug/l



Reviewer: beckerk, 30-Mar-2021 17:35:25

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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-33727-11

Matrix: Water Lab File ID: HM29S48.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:45

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 02:34

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.: 108546 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)	0.85	J ^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	3.5	J ^c	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	0.092	J	0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.068	J	0.50	0.060
108-88-3	Toluene	0.092	J	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-33727-11

Matrix: Water Lab File ID: HM29S48.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:45

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 02:34

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.: 108546 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)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S48.D
Lims ID: 410-33727-A-11
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 02:34:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-024
Misc. Info.: 410-33727-A-11
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:38:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.276	2.282	-0.006	28	3712	0.0506	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.800	3.788	0.012	98	30431	3.52	M
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84	4.477	4.477	0.000	48	5020	0.0919	
* 28 t-Butyl alcohol-d10 (IS)	65	4.513	4.495	0.018	0	135496	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43	6.348	6.336	0.012	100	10957	0.8503	
42 cis-1,2-Dichloroethene	96		6.385				ND	7
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.860	6.860	0.000	90	8833	0.0831	
$ 51 Dibromofluoromethane (Surr)	113	7.074	7.074	0.000	94	624619	10.2	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	122602	10.7	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.641	7.628	0.013	1	1799	0.0280	
* 65 Fluorobenzene (IS)	96	7.958	7.958	0.000	99	2371988	10.0	
67 Trichloroethene	95	8.433	8.433	0.000	86	3481	0.0527	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43	9.799	9.786	0.013	91	10399	0.3083	
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2354094	9.93	
83 Toluene	92	10.006	10.000	0.006	96	14586	0.0922	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	
88 Tetrachloroethene	166	10.536	10.536	0.000	95	5398	0.0684	
91 2-Hexanone	43		10.646				ND	7
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1826002	10.0	
98 Chlorobenzene	112		11.378				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106	11.567	11.567	0.000	98	6286	0.0519	
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	7
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	849955	9.64	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	94	1011984	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

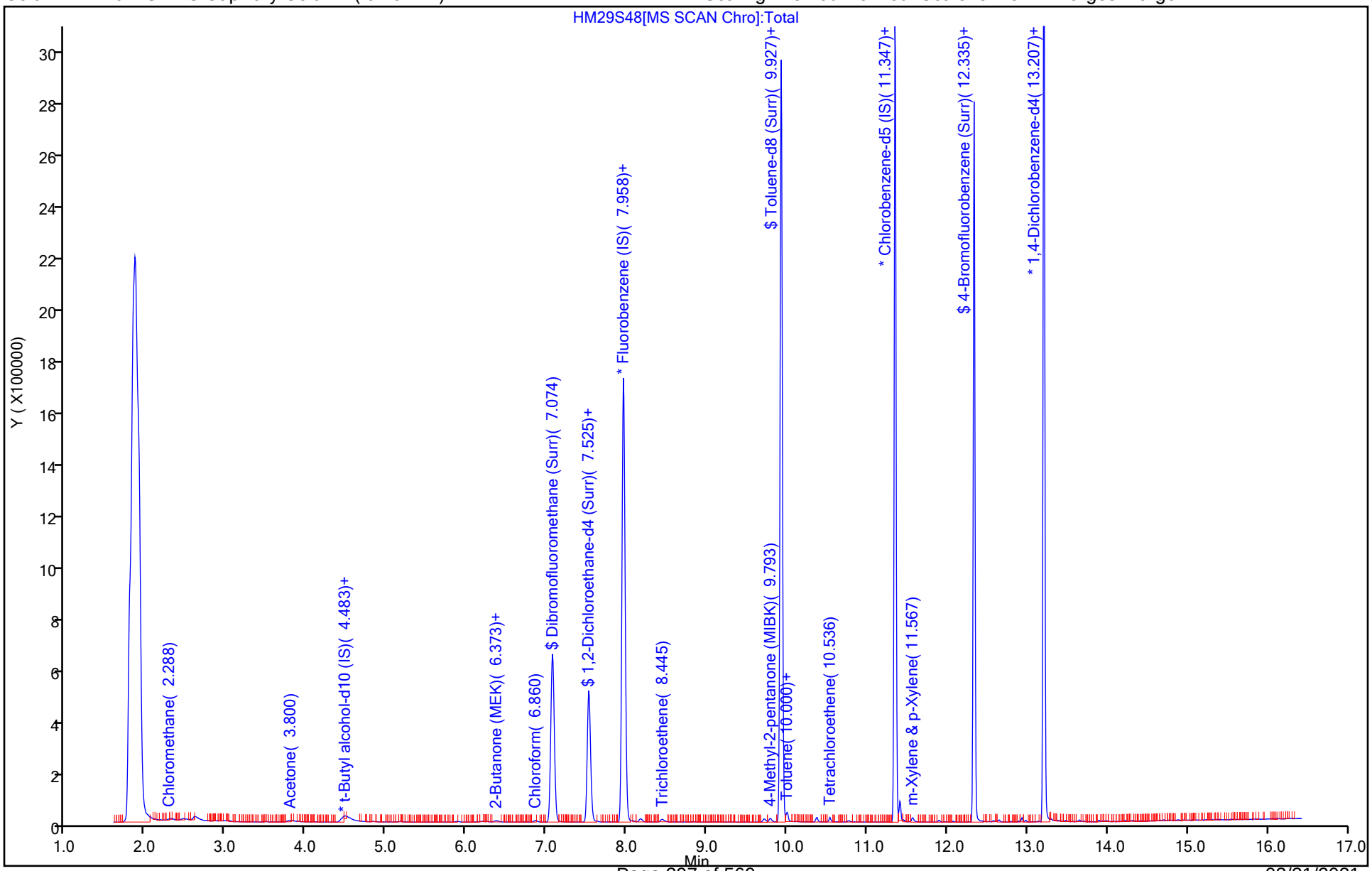
Report Date: 30-Mar-2021 17:45:53 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S48.D

Injection Date:	30-Mar-2021 02:34:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-11	Lab Sample ID:	410-33727-11	Worklist Smp#:	24
Client ID:	HD-COD-SW-28-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	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\20210329-25331.b\HM29S48.D
Lims ID: 410-33727-A-11
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 02:34:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-024
Misc. Info.: 410-33727-A-11
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:38:44

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	102.26
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.80
$ 82 Toluene-d8 (Surr)	10.0	9.93	99.33
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.64	96.44

Report Date: 30-Mar-2021 17:45:53 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S48.D

Injection Date: 30-Mar-2021 02:34:30 Instrument ID: 19094

Lims ID: 410-33727-A-11 Lab Sample ID: 410-33727-11

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

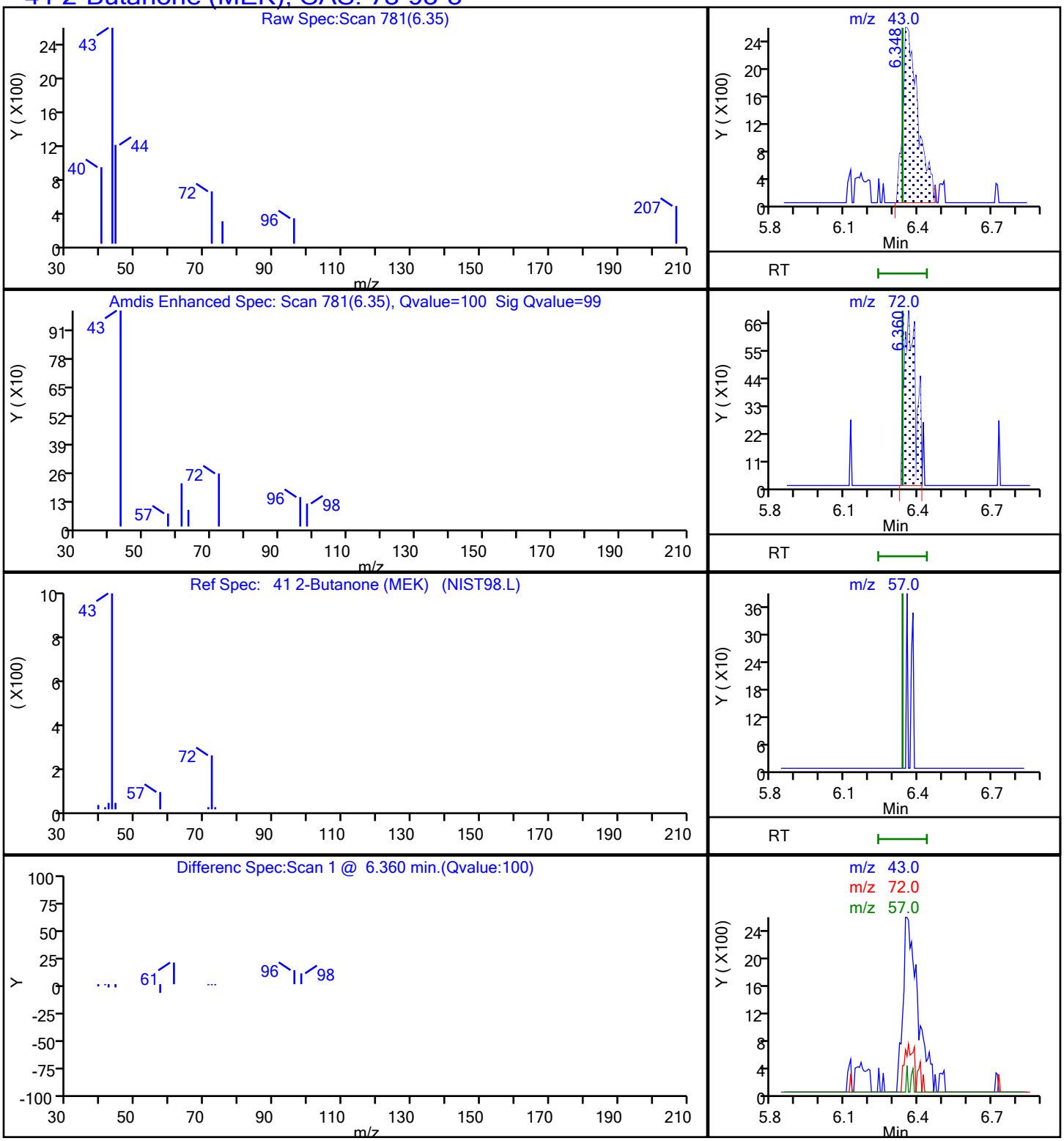
Operator ID: MEC29284 ALS Bottle#: 23 Worklist Smp#: 24

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

41 2-Butanone (MEK), CAS: 78-93-3

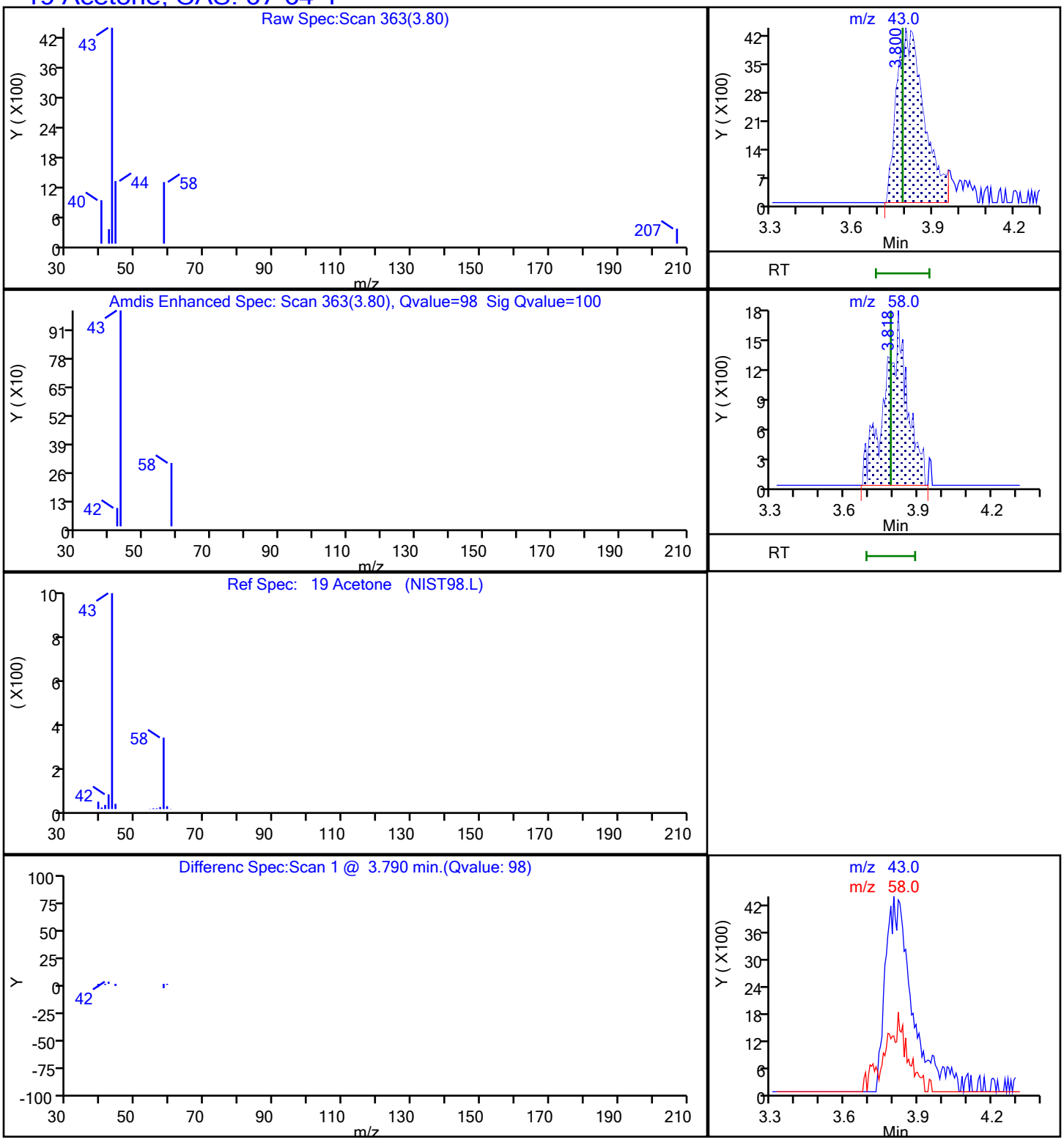


Report Date: 30-Mar-2021 17:45:53 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S48.D				
Injection Date:	30-Mar-2021 02:34:30	Instrument ID:	19094		
Lims ID:	410-33727-A-11	Lab Sample ID:	410-33727-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	23	Worklist Smp#:	24
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: 30-Mar-2021 17:45:53 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S48.D

Injection Date: 30-Mar-2021 02:34:30 Instrument ID: 19094

Lims ID: 410-33727-A-11 Lab Sample ID: 410-33727-11

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

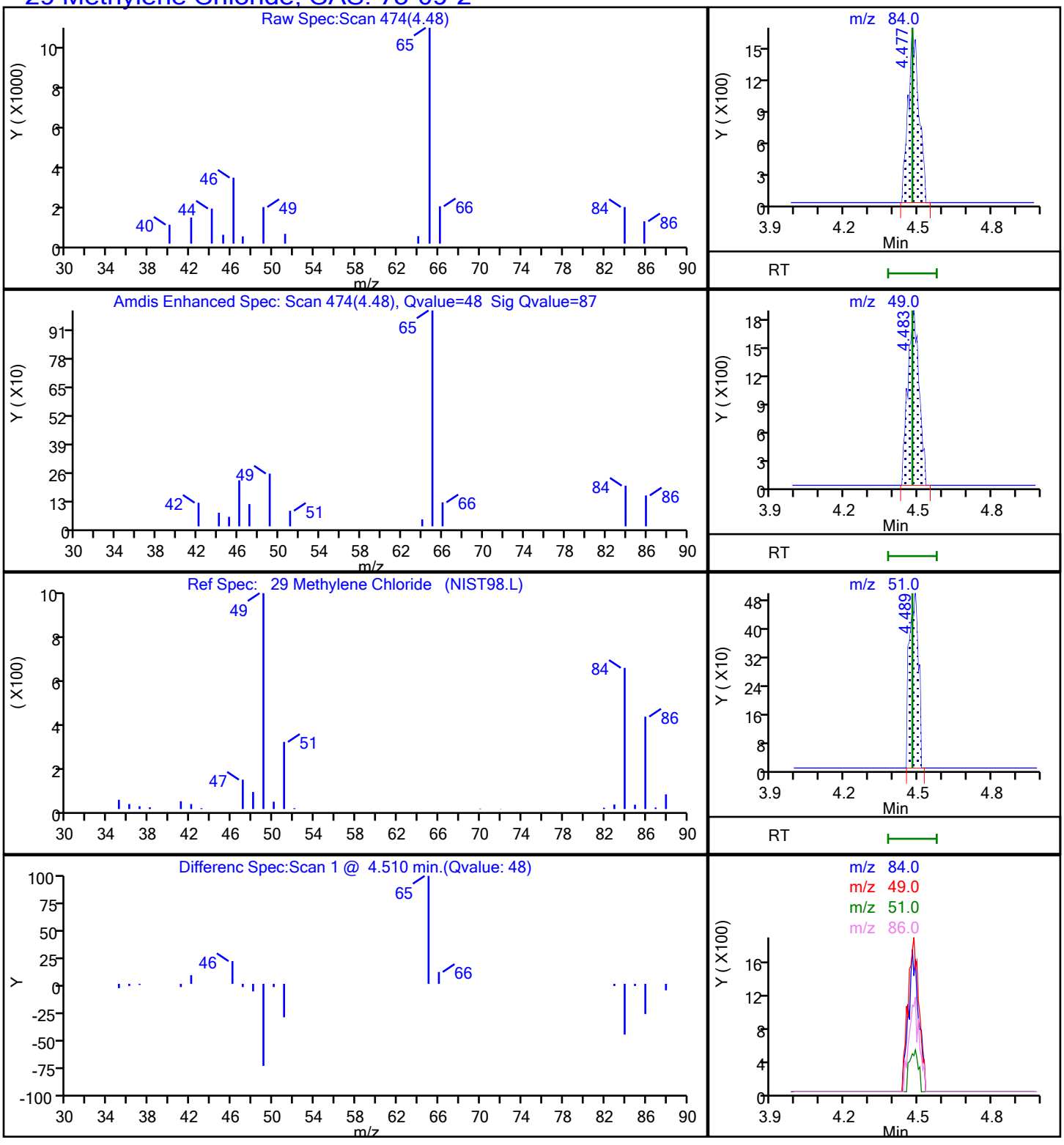
Operator ID: MEC29284 ALS Bottle#: 23 Worklist Smp#: 24

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

29 Methylene Chloride, CAS: 75-09-2

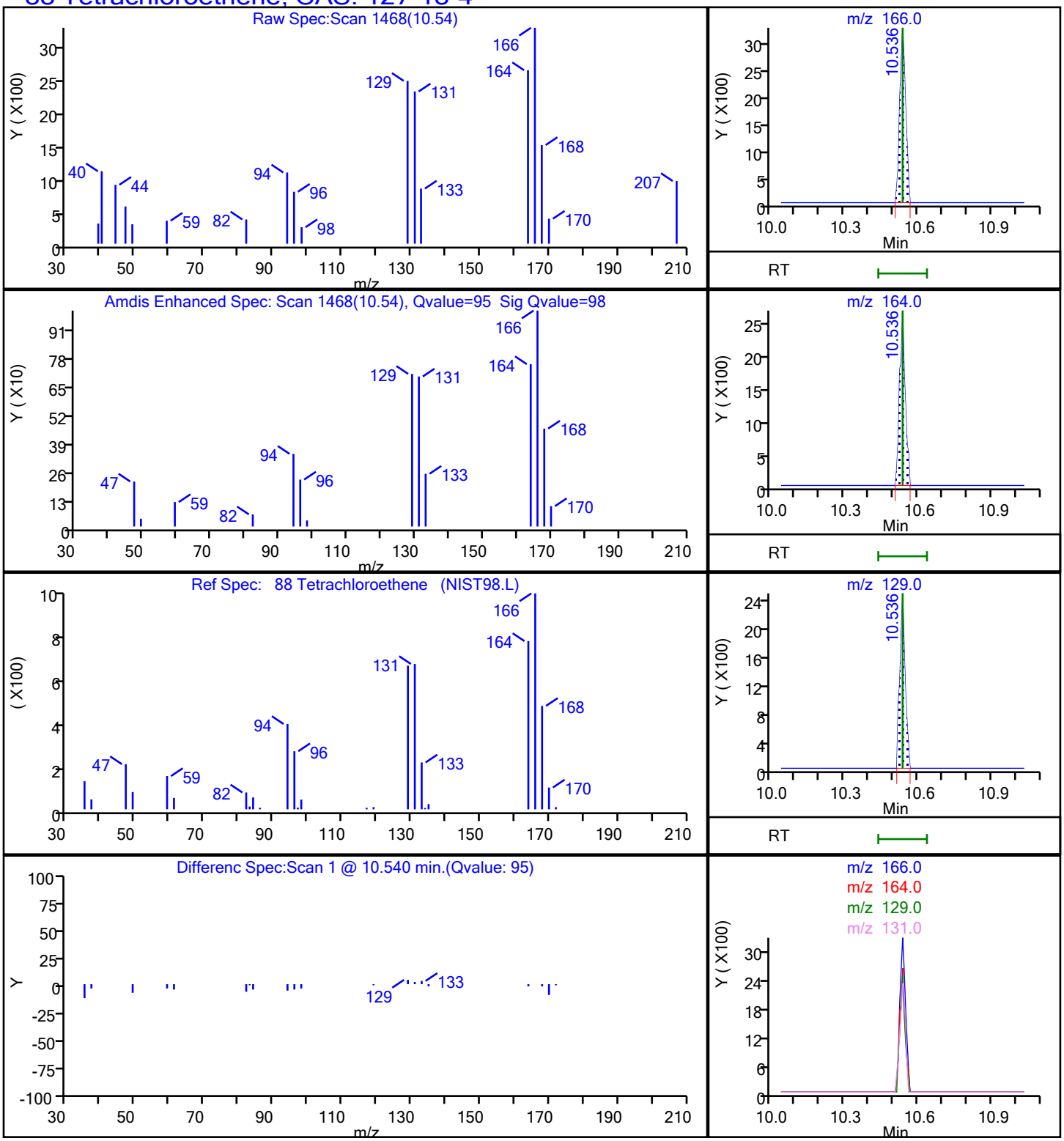


Report Date: 30-Mar-2021 17:45:53 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S48.D				
Injection Date:	30-Mar-2021 02:34:30	Instrument ID:	19094		
Lims ID:	410-33727-A-11	Lab Sample ID:	410-33727-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	23	Worklist Smp#:	24
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

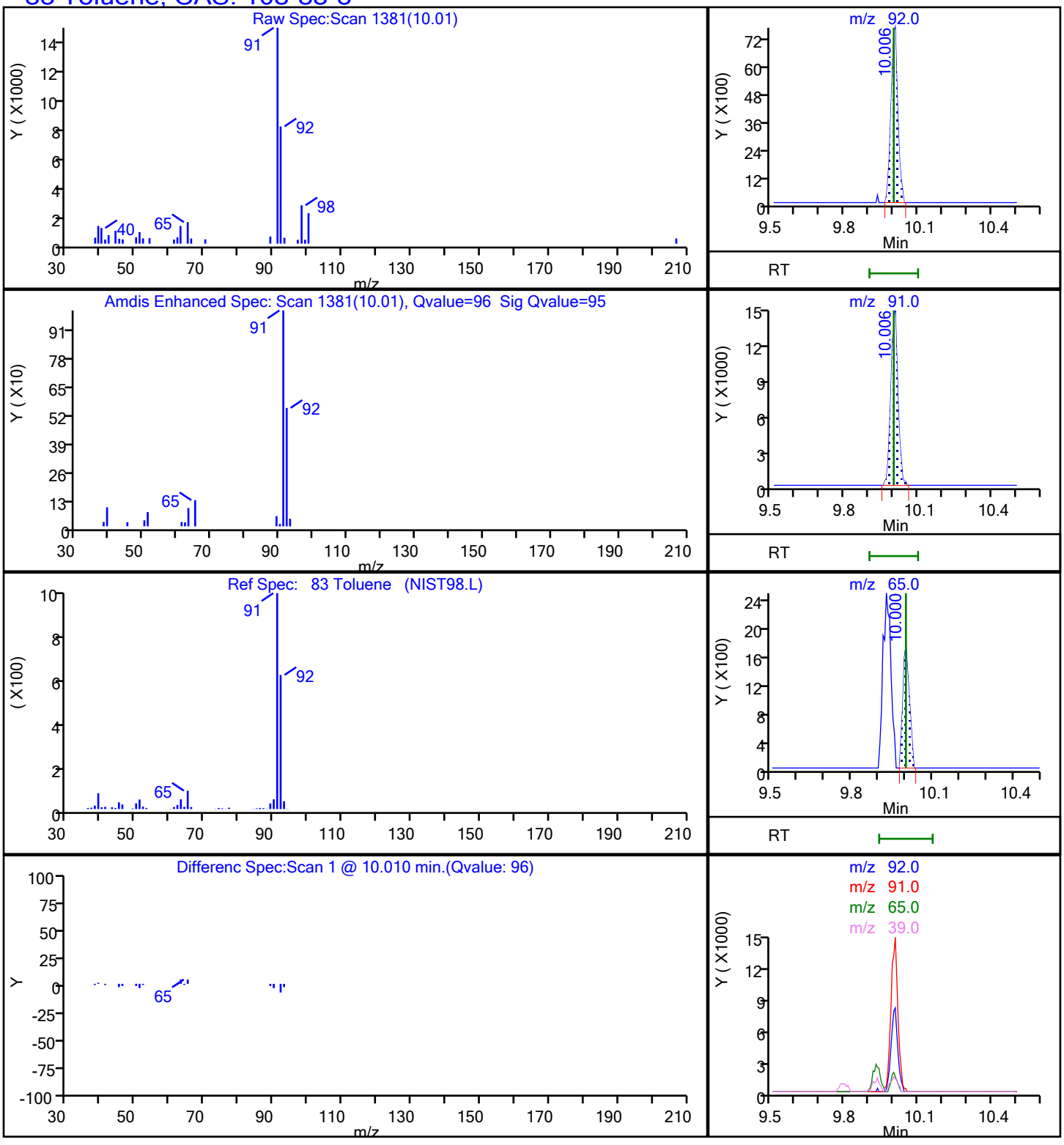


Report Date: 30-Mar-2021 17:45:53 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S48.D				
Injection Date:	30-Mar-2021 02:34:30	Instrument ID:	19094		
Lims ID:	410-33727-A-11	Lab Sample ID:	410-33727-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	23	Worklist Smp#:	24
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		

83 Toluene, CAS: 108-88-3



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

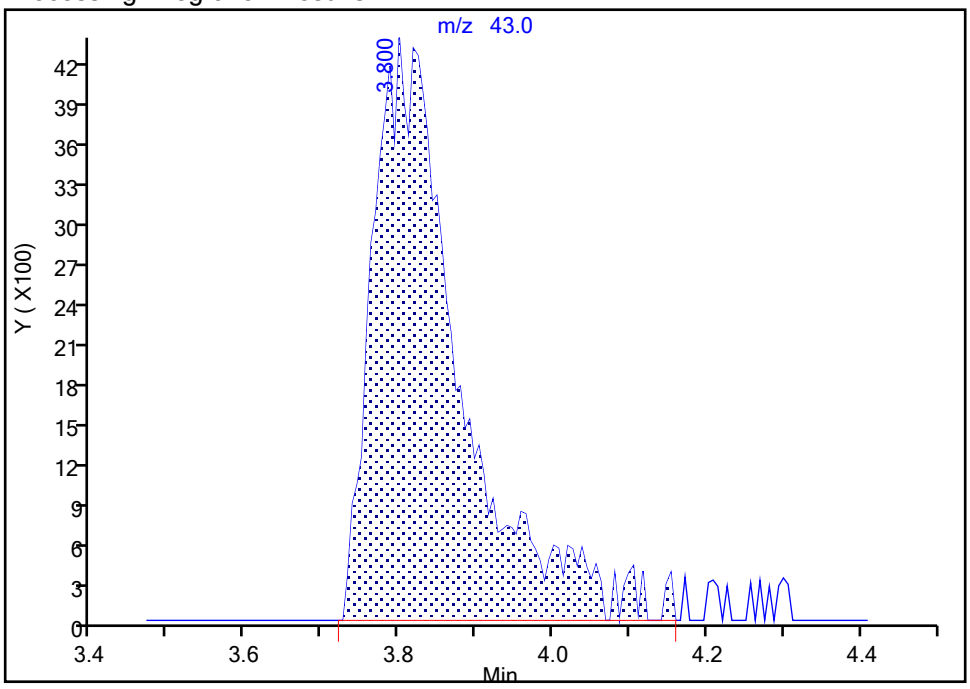
Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S48.D				
Injection Date:	30-Mar-2021 02:34:30	Instrument ID:	19094		
Lims ID:	410-33727-A-11	Lab Sample ID:	410-33727-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	25.000 mL	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

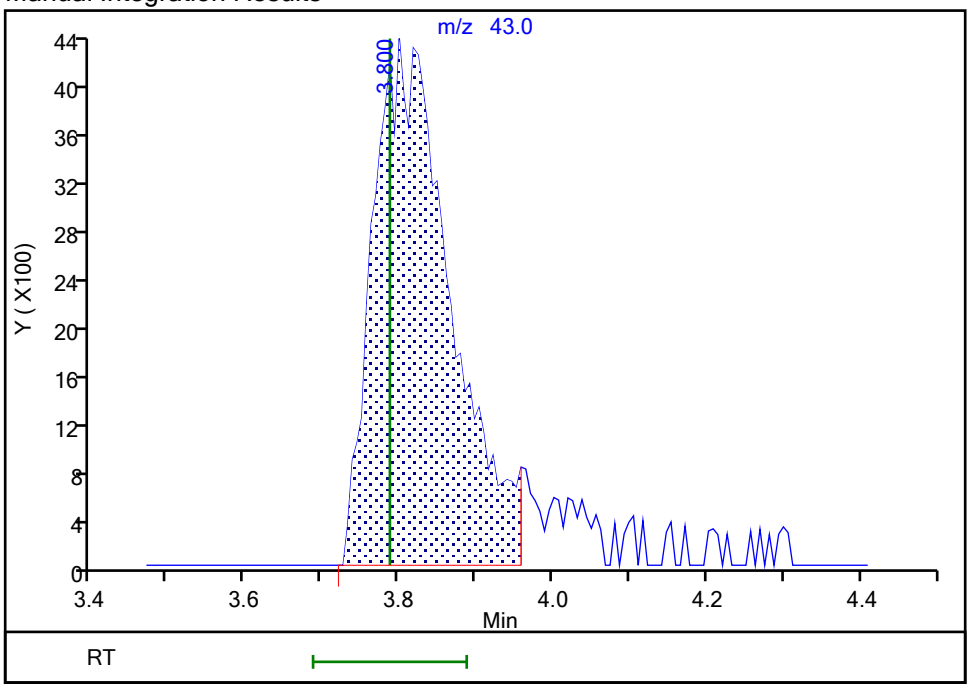
RT: 3.80
Area: 34183
Amount: 3.959006
Amount Units: ug/l

Processing Integration Results



RT: 3.80
Area: 30431
Amount: 3.524457
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 30-Mar-2021 17:37:59
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.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-33727-12

Matrix: Water Lab File ID: HM29S49.D

Analysis Method: 8260D Date Collected: 03/24/2021 09:00

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 02:55

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.: 108546 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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	1.4	J ^c	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	0.072	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.083	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.10	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-33727-12

Matrix: Water Lab File ID: HM29S49.D

Analysis Method: 8260D Date Collected: 03/24/2021 09:00

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 02:55

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.: 108546 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)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S49.D
Lims ID: 410-33727-A-12
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 02:55:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-025
Misc. Info.: 410-33727-A-12
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:39:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.270	2.282	-0.012	94	5193	0.0716	
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43	3.824	3.788	0.036	95	10807	1.40	
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84		4.477				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.495	4.495	0.000	0	121571	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43		6.336				ND	7
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	71	5477	0.0833	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.854	6.860	-0.006	1	2978	0.0284	
$ 51 Dibromofluoromethane (Surr)	113	7.074	7.074	0.000	94	620838	10.3	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	121298	10.7	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.634	7.628	0.006	1	2471	0.0389	
* 65 Fluorobenzene (IS)	96	7.958	7.958	0.000	99	2344144	10.0	
67 Trichloroethene	95	8.439	8.433	0.006	95	6710	0.1027	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2345633	9.93	
83 Toluene	92	10.000	10.000	0.000	97	4041	0.0256	
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	
88 Tetrachloroethene	166	10.536	10.536	0.000	95	4620	0.0587	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1819821	10.0	
98 Chlorobenzene	112		11.378				ND	
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	7
103 Styrene	104		11.908				ND	
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	852152	9.70	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	94	994879	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

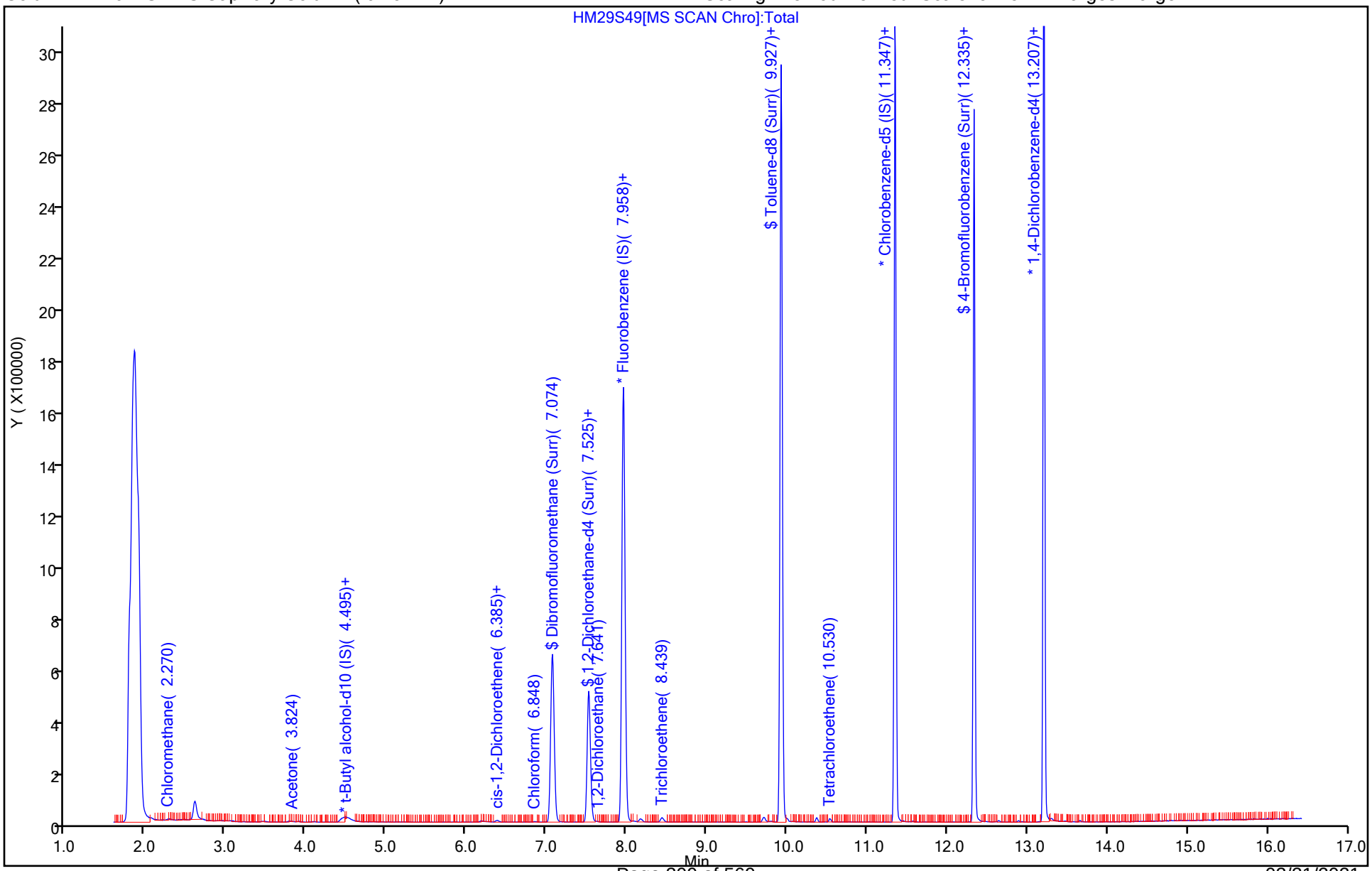
Report Date: 30-Mar-2021 17:45:55 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S49.D

Injection Date:	30-Mar-2021 02:55:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-12	Lab Sample ID:	410-33727-12	Worklist Smp#:	25
Client ID:	HD-COD-SW-29-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	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\20210329-25331.b\HM29S49.D
Lims ID: 410-33727-A-12
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 30-Mar-2021 02:55:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-025
Misc. Info.: 410-33727-A-12
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:39:12

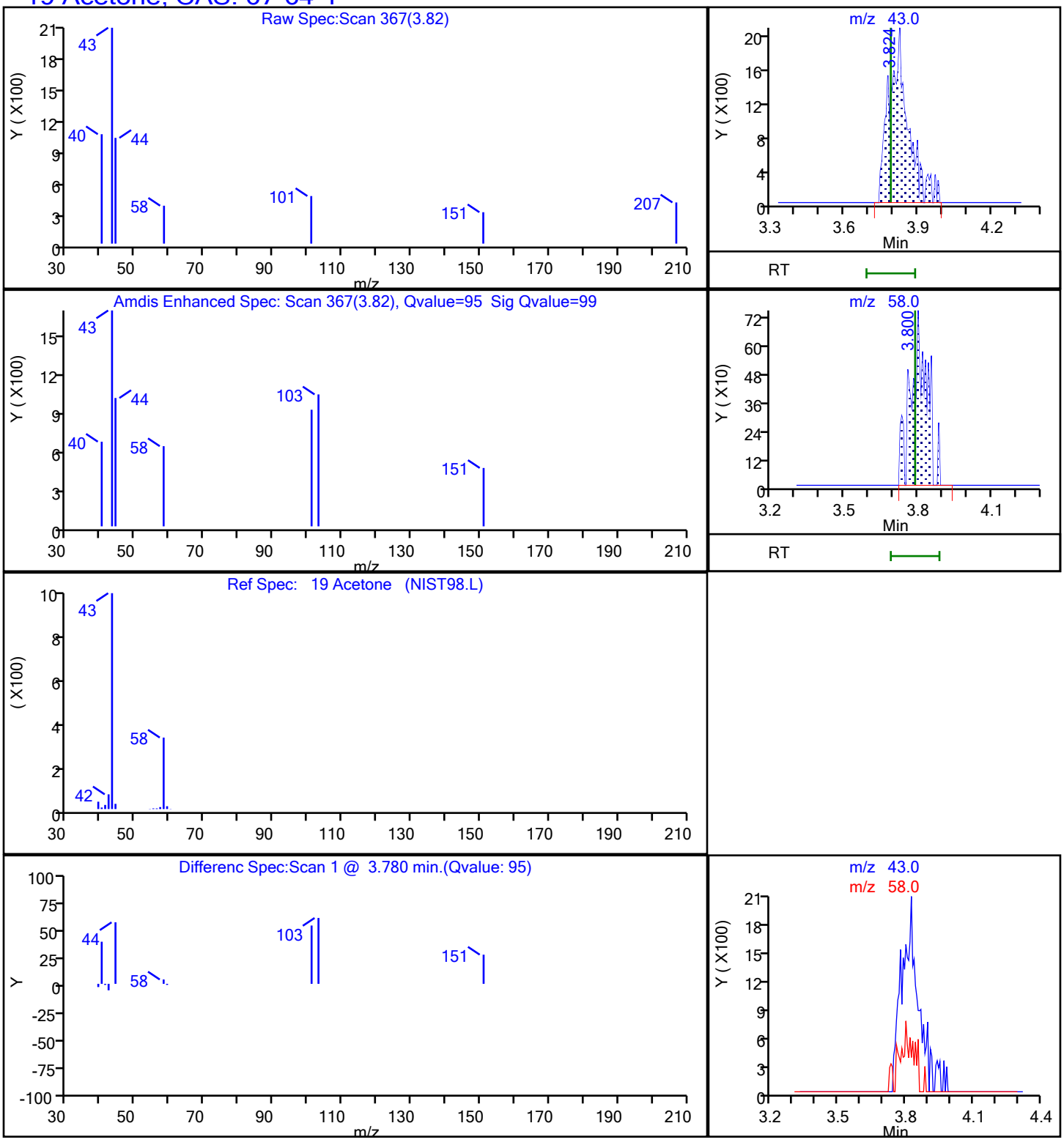
Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.3	102.84
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.92
$ 82 Toluene-d8 (Surr)	10.0	9.93	99.30
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.70	97.02

Report Date: 30-Mar-2021 17:45:55 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S49.D				
Injection Date:	30-Mar-2021 02:55:30	Instrument ID:	19094		
Lims ID:	410-33727-A-12	Lab Sample ID:	410-33727-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	24	Worklist Smp#:	25
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: 30-Mar-2021 17:45:55 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S49.D

Injection Date: 30-Mar-2021 02:55:30 Instrument ID: 19094

Lims ID: 410-33727-A-12 Lab Sample ID: 410-33727-12

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

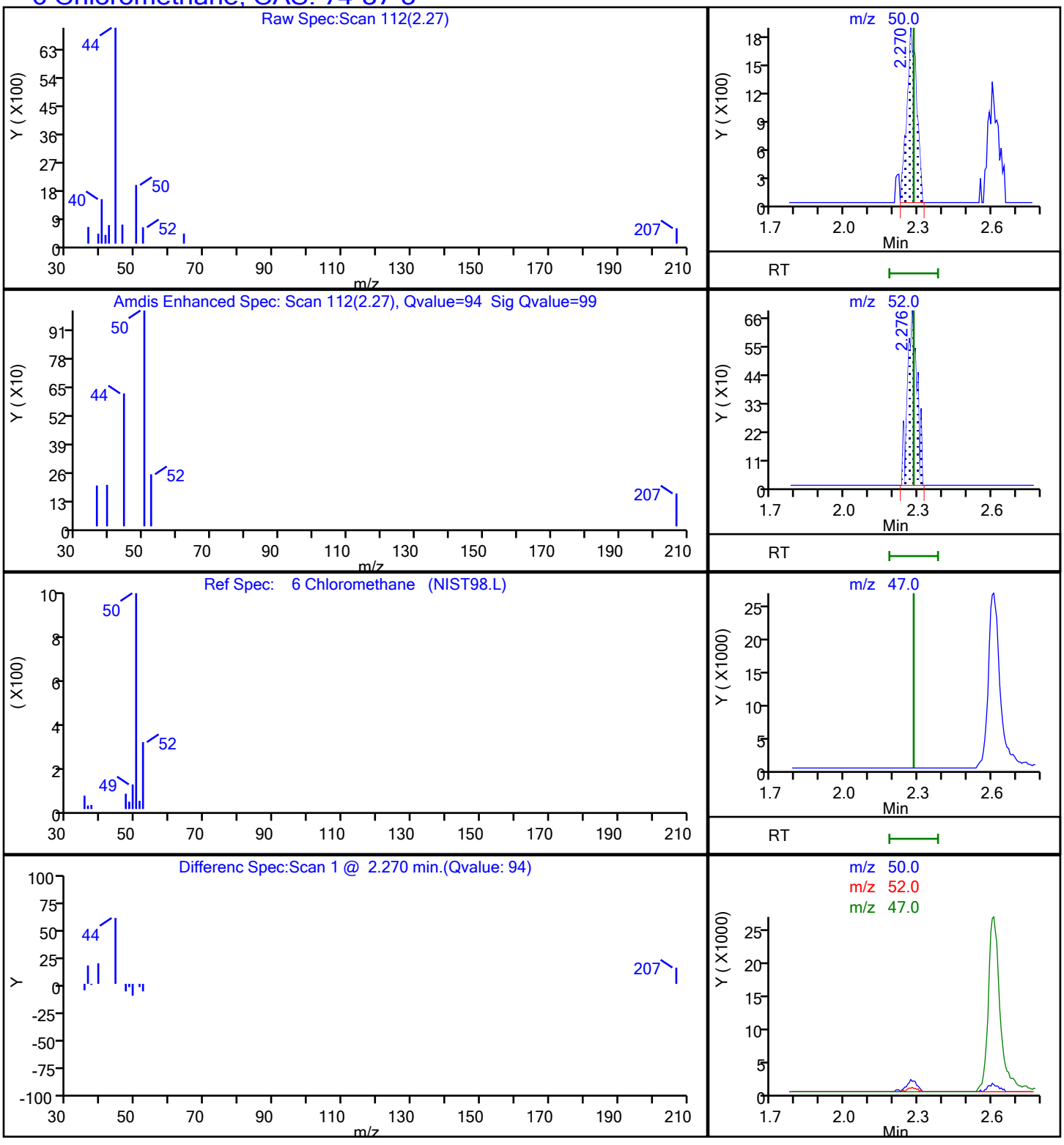
Operator ID: MEC29284 ALS Bottle#: 24 Worklist Smp#: 25

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

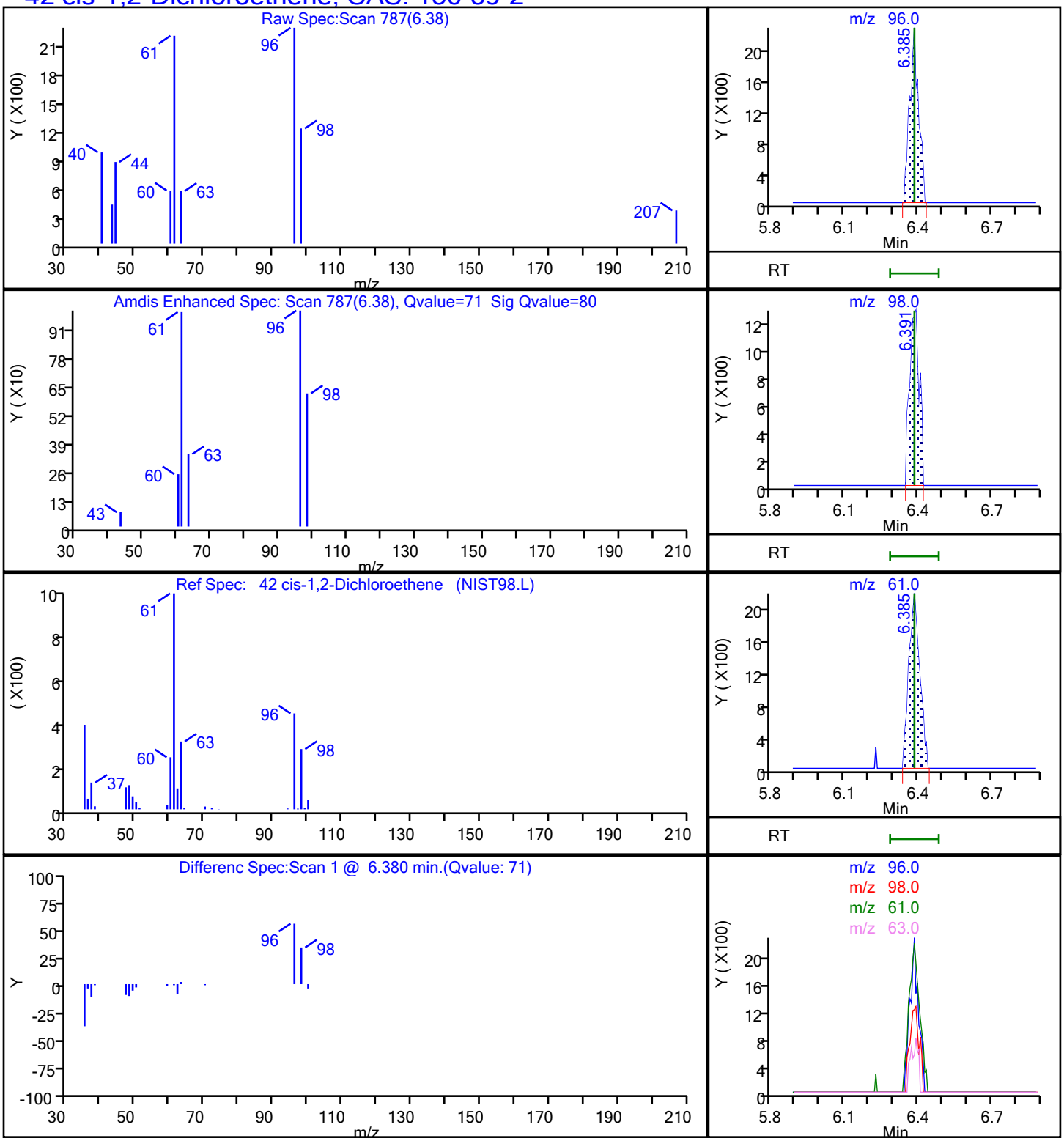


Report Date: 30-Mar-2021 17:45:55 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S49.D				
Injection Date:	30-Mar-2021 02:55:30	Instrument ID:	19094		
Lims ID:	410-33727-A-12	Lab Sample ID:	410-33727-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	MEC29284	ALS Bottle#:	24	Worklist Smp#:	25
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: 30-Mar-2021 17:45:55 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S49.D

Injection Date: 30-Mar-2021 02:55:30 Instrument ID: 19094

Lims ID: 410-33727-A-12 Lab Sample ID: 410-33727-12

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

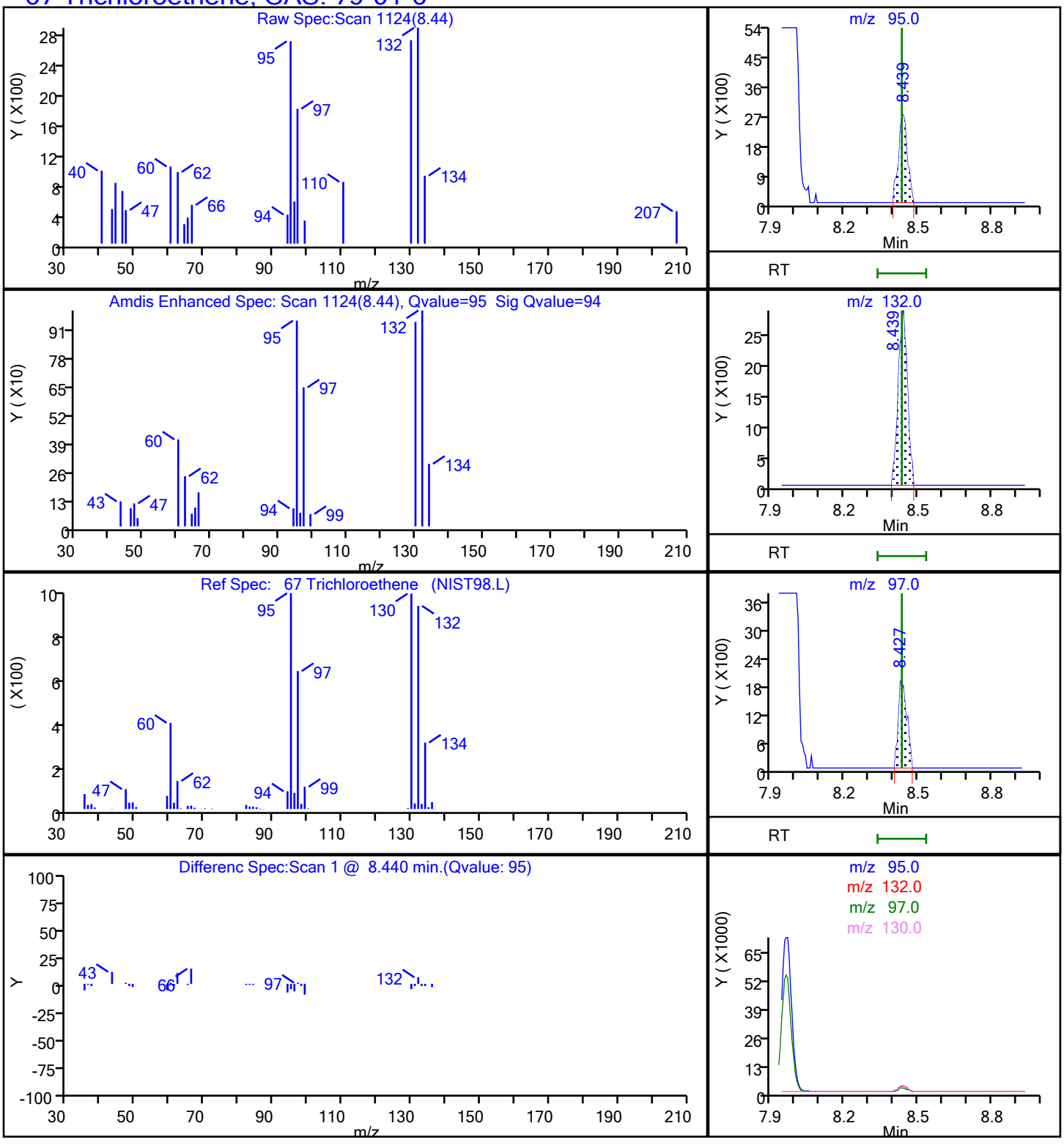
Operator ID: MEC29284 ALS Bottle#: 24 Worklist Smp#: 25

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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-33727-13

Matrix: Water Lab File ID: HM29S50.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:00

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 03:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.11	J	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	0.087	J	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	1.1	J ^c	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.16	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.76		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	3.0		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	1.2		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-33727-13

Matrix: Water Lab File ID: HM29S50.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:00

Sample wt/vol: 25(mL) Date Analyzed: 03/30/2021 03:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108546 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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D
Lims ID: 410-33727-A-13
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 30-Mar-2021 03:16:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-026
Misc. Info.: 410-33727-A-13
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:39:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.276	2.282	-0.006	53	3330	0.0456	
7 Vinyl chloride	62		2.410				ND	7
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96	3.769	3.769	0.000	92	4595	0.0868	
19 Acetone	43	3.824	3.788	0.036	66	9077	1.11	
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84		4.477				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.501	4.495	0.006	0	128176	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	7
33 trans-1,2-Dichloroethene	96		4.909				ND	7
35 1,1-Dichloroethane	63	5.543	5.562	-0.019	91	6992	0.0689	
41 2-Butanone (MEK)	43		6.336				ND	7
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	78	50448	0.7626	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83	6.860	6.860	0.000	91	16721	0.1583	
$ 51 Dibromofluoromethane (Surr)	113	7.067	7.074	-0.007	94	621977	10.2	
52 1,1,1-Trichloroethane	97	7.098	7.092	0.006	35	11538	0.1139	
56 Carbon tetrachloride	117		7.305				ND	7
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.519	7.525	-0.007	0	120255	10.5	
59 Benzene	78		7.561				ND	7
60 1,2-Dichloroethane	62	7.634	7.628	0.006	1	1984	0.0311	
* 65 Fluorobenzene (IS)	96	7.957	7.958	-0.001	99	2357889	10.0	
67 Trichloroethene	95	8.433	8.433	0.000	97	76975	1.17	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	7
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	7
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2350361	9.89	
83 Toluene	92		10.000				ND	7
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	7
88 Tetrachloroethene	166	10.536	10.536	0.000	98	240071	3.03	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1830294	10.0	
98 Chlorobenzene	112		11.378				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	7
101 m-Xylene & p-Xylene	106		11.567				ND	7
102 o-Xylene	106		11.896				ND	
103 Styrene	104		11.908				ND	
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	851730	9.64	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	996924	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

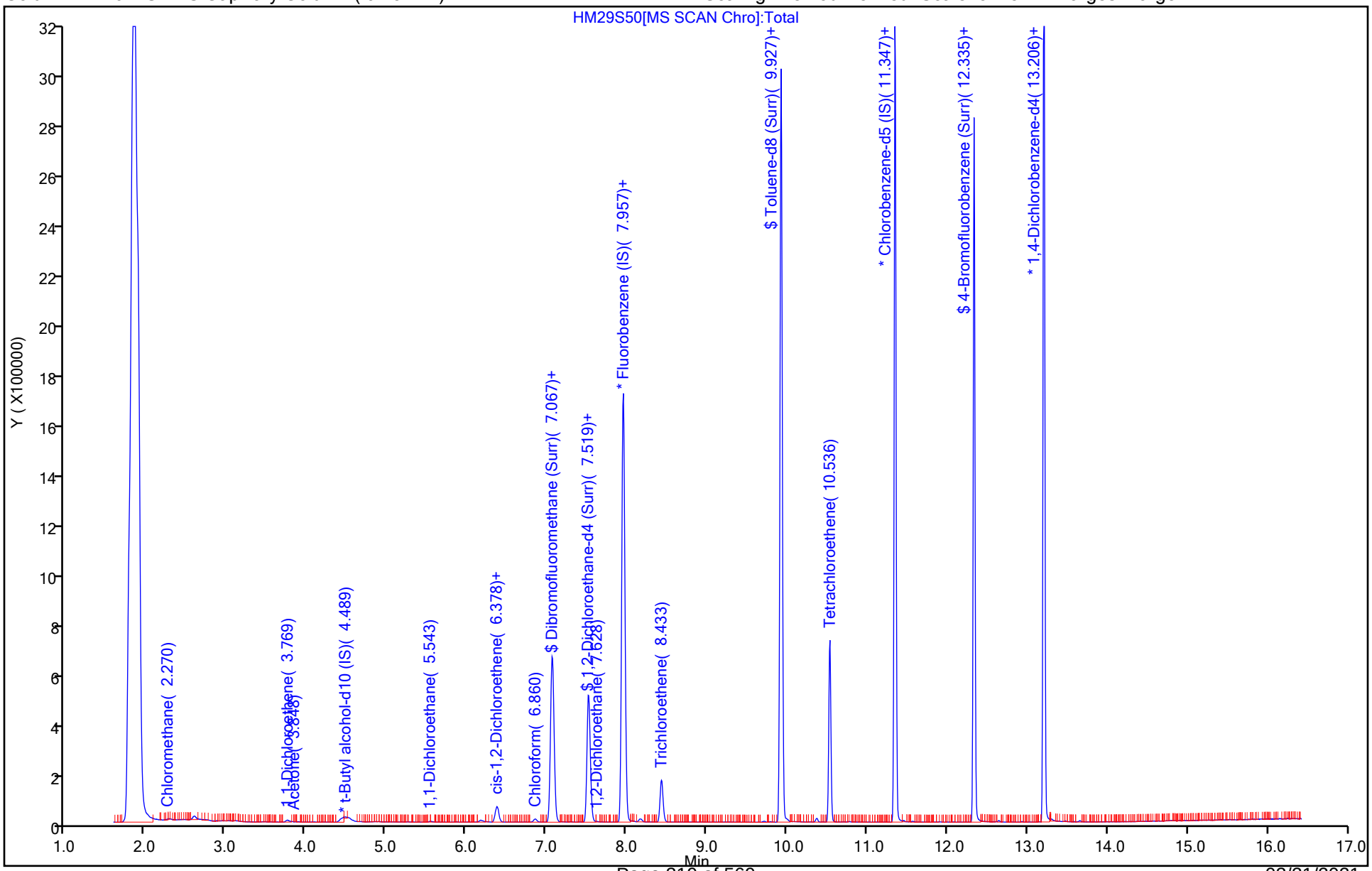
Report Date: 30-Mar-2021 17:45:57 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D

Injection Date:	30-Mar-2021 03:16:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-13	Lab Sample ID:	410-33727-13	Worklist Smp#:	26
Client ID:	HD-QC1-0/1-1				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
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\20210329-25331.b\HM29S50.D				
Lims ID:	410-33727-A-13				
Client ID:	HD-QC1-0/1-1				
Sample Type:	Client				
Inject. Date:	30-Mar-2021 03:16:30	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0025331-026				
Misc. Info.:	410-33727-A-13				
Operator ID:	MEC29284	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	30-Mar-2021 17:44:24	Calib Date:	08-Feb-2021 21:34:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1609				

First Level Reviewer: beckerk Date: 30-Mar-2021 17:39:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	102.43
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.38
$ 82 Toluene-d8 (Surr)	10.0	9.89	98.94
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.64	96.42

Report Date: 30-Mar-2021 17:45:57 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D

Injection Date: 30-Mar-2021 03:16:30 Instrument ID: 19094

Lims ID: 410-33727-A-13 Lab Sample ID: 410-33727-13

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

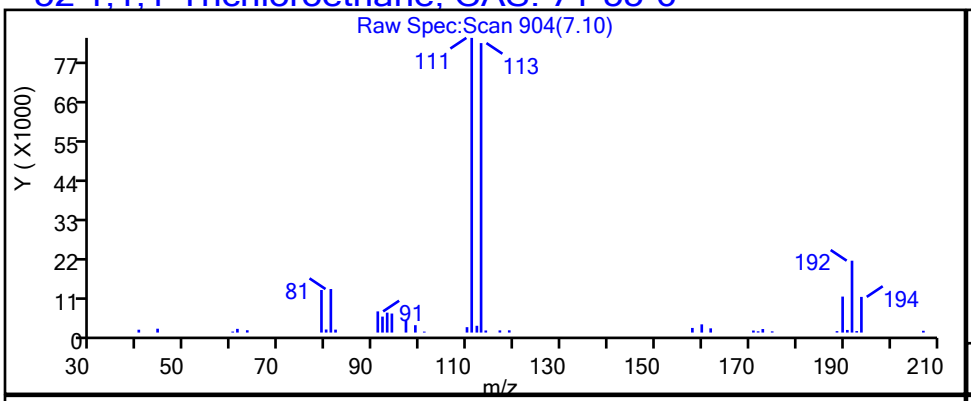
Operator ID: MEC29284 ALS Bottle#: 25 Worklist Smp#: 26

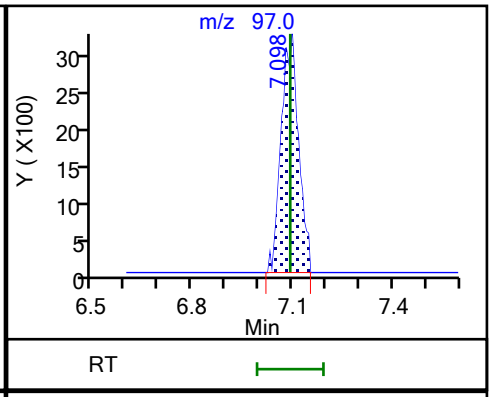
Purge Vol: 25.000 mL Dil. Factor: 1.0000

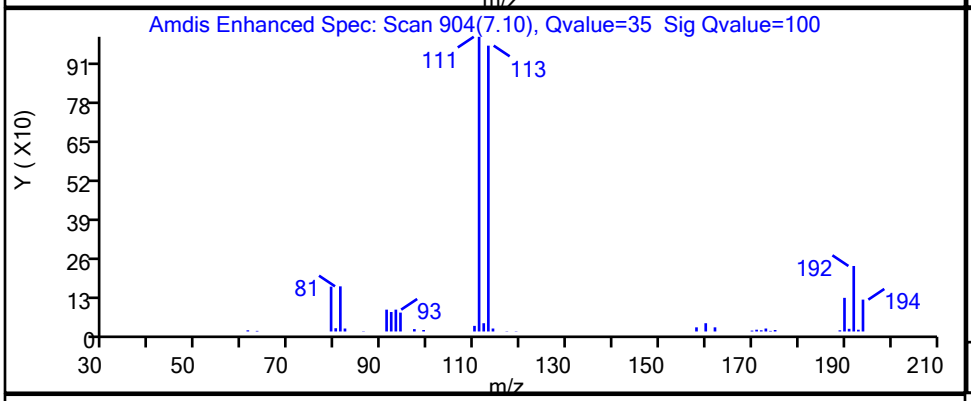
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D

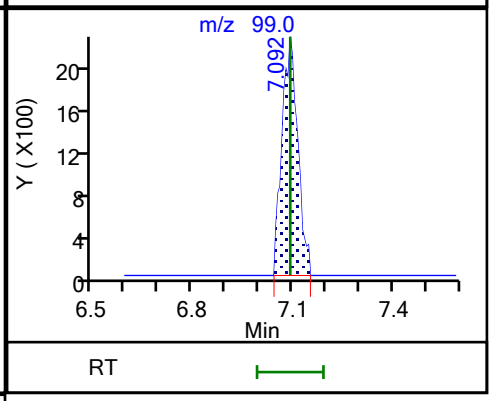
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

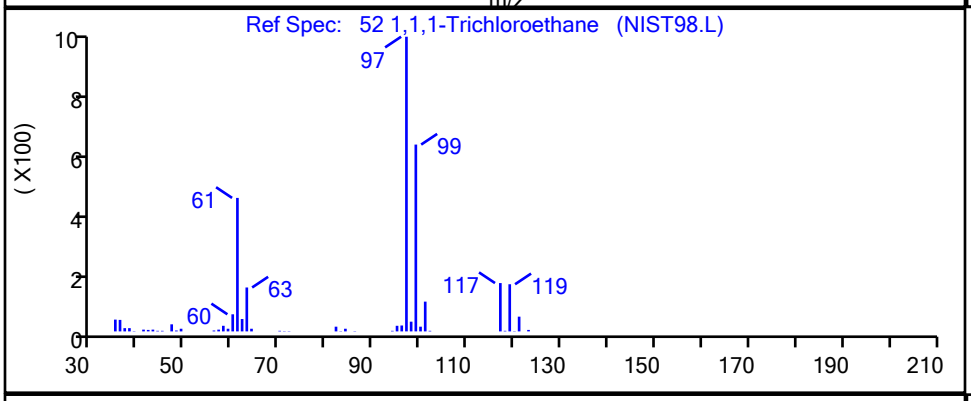
52 1,1,1-Trichloroethane, CAS: 71-55-6

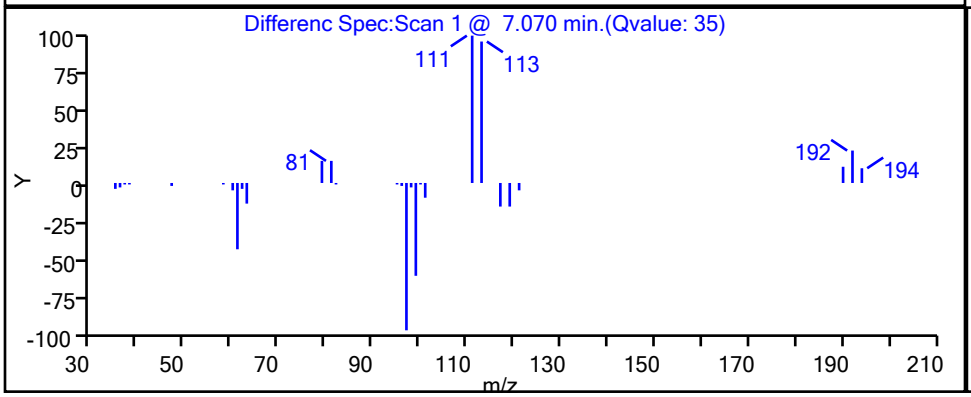


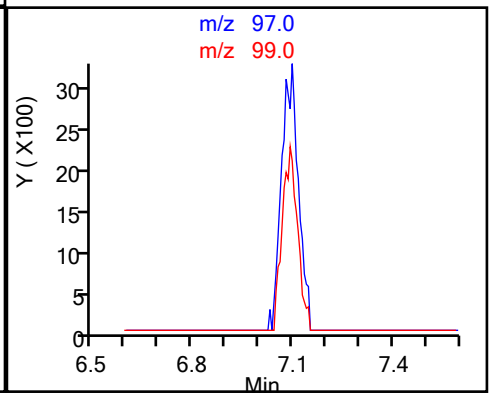












Report Date: 30-Mar-2021 17:45:57 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D

Injection Date: 30-Mar-2021 03:16:30 Instrument ID: 19094

Lims ID: 410-33727-A-13 Lab Sample ID: 410-33727-13

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

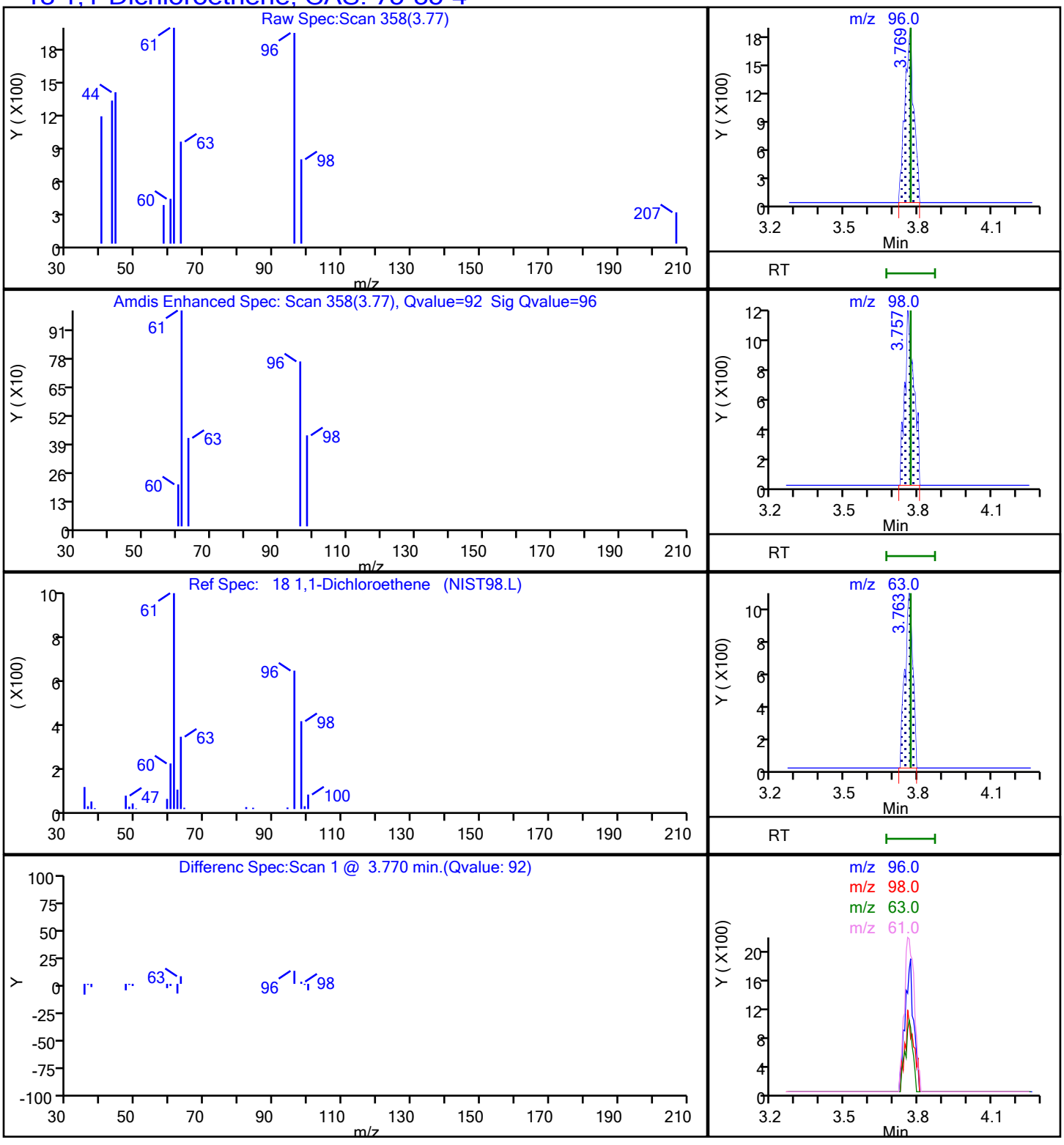
Operator ID: MEC29284 ALS Bottle#: 25 Worklist Smp#: 26

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

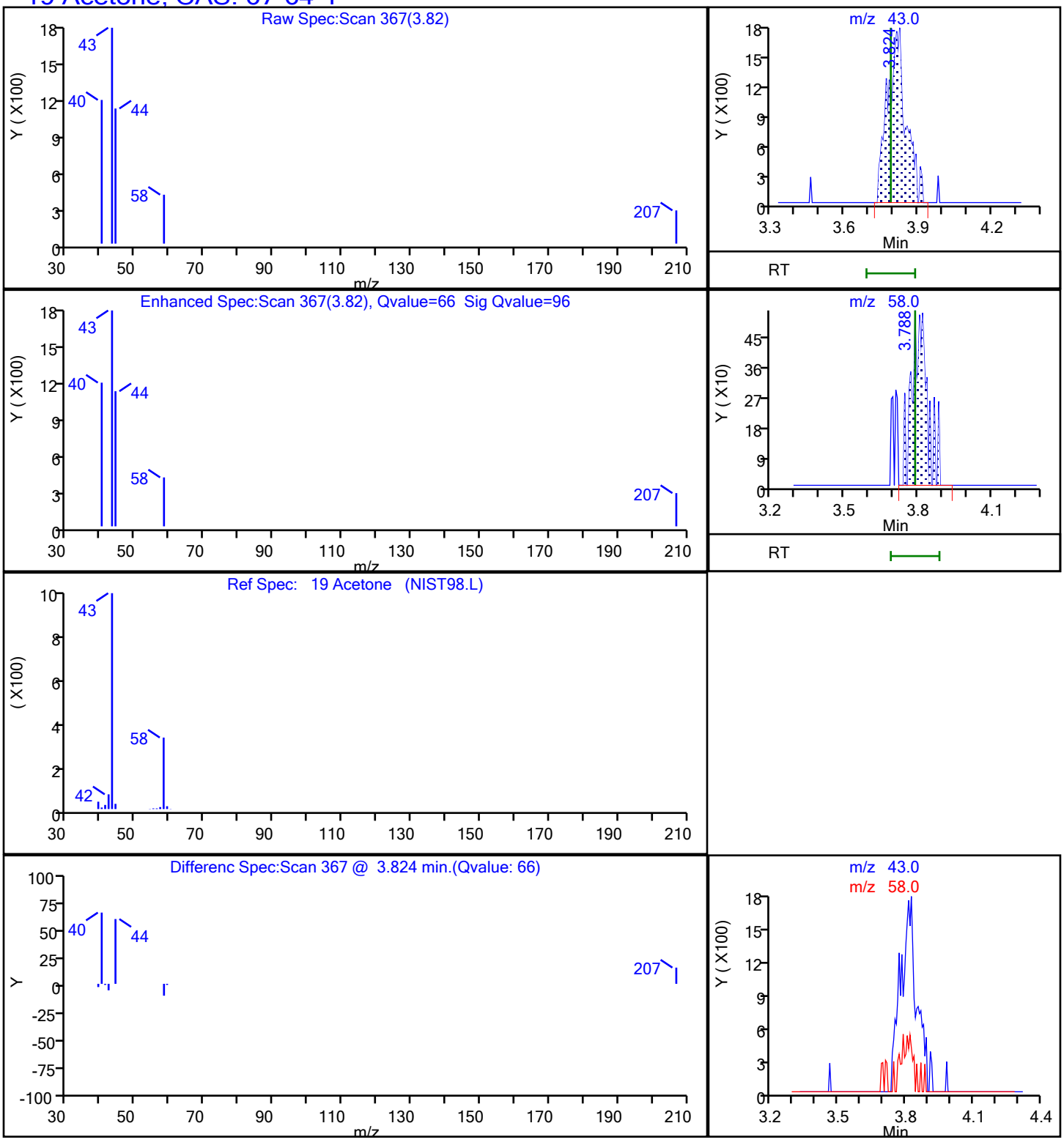
18 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D				
Injection Date:	30-Mar-2021 03:16:30	Instrument ID:	19094		
Lims ID:	410-33727-A-13	Lab Sample ID:	410-33727-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	MEC29284	ALS Bottle#:	25	Worklist Smp#:	26
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

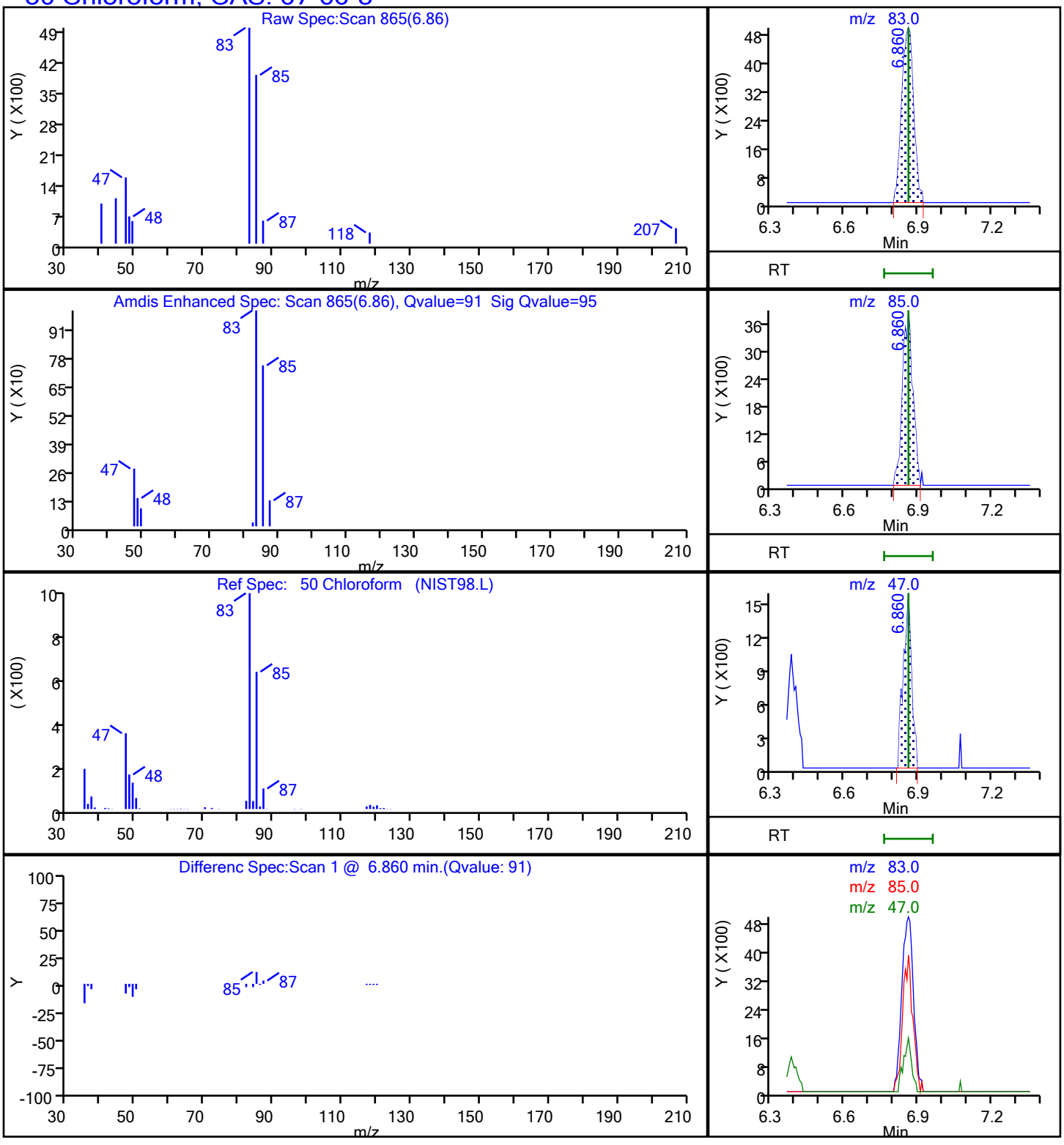


Report Date: 30-Mar-2021 17:45:57 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D				
Injection Date:	30-Mar-2021 03:16:30	Instrument ID:	19094		
Lims ID:	410-33727-A-13	Lab Sample ID:	410-33727-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	MEC29284	ALS Bottle#:	25	Worklist Smp#:	26
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		

50 Chloroform, CAS: 67-66-3

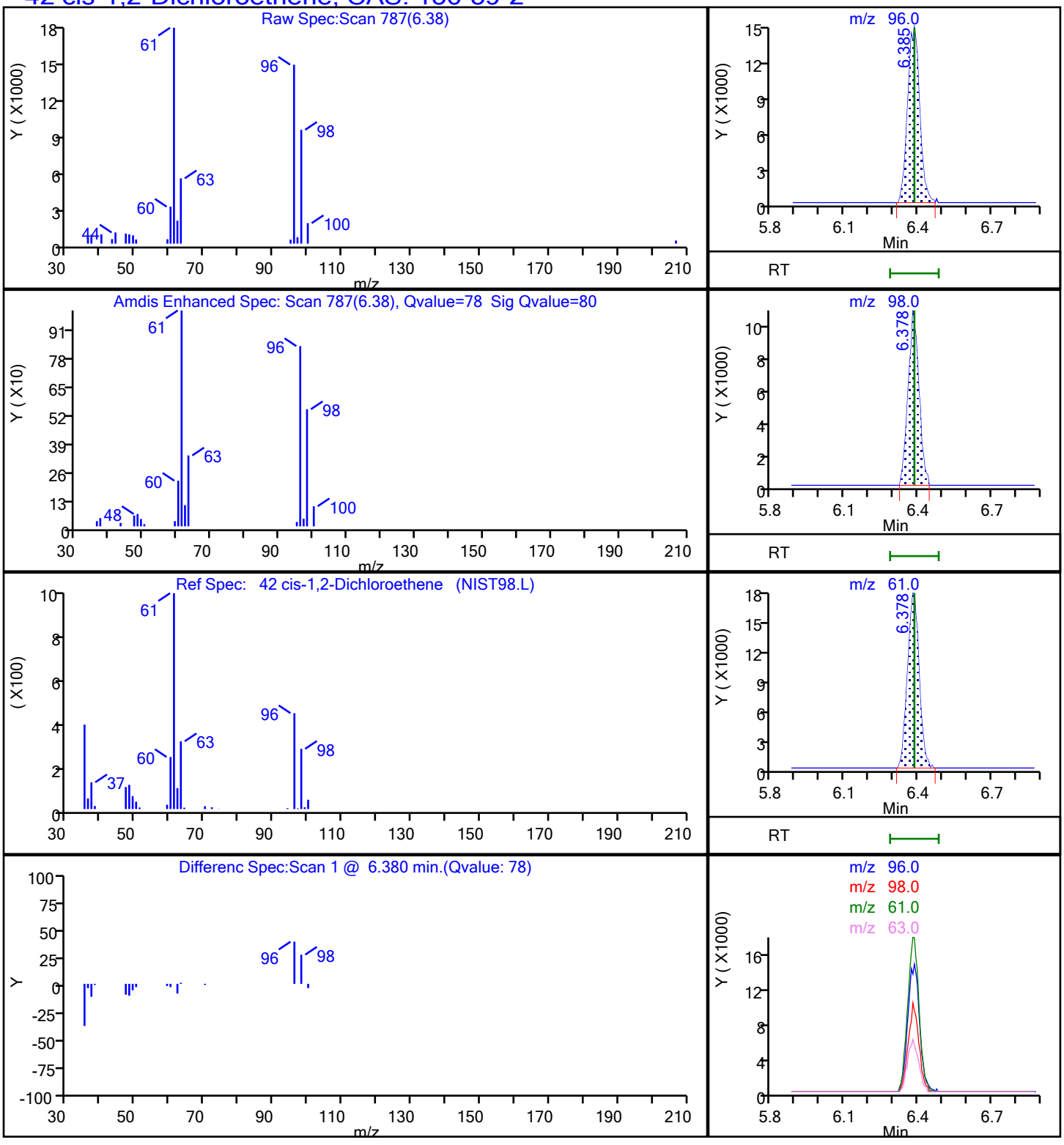


Report Date: 30-Mar-2021 17:45:57 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D				
Injection Date:	30-Mar-2021 03:16:30	Instrument ID:	19094		
Lims ID:	410-33727-A-13	Lab Sample ID:	410-33727-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	MEC29284	ALS Bottle#:	25	Worklist Smp#:	26
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

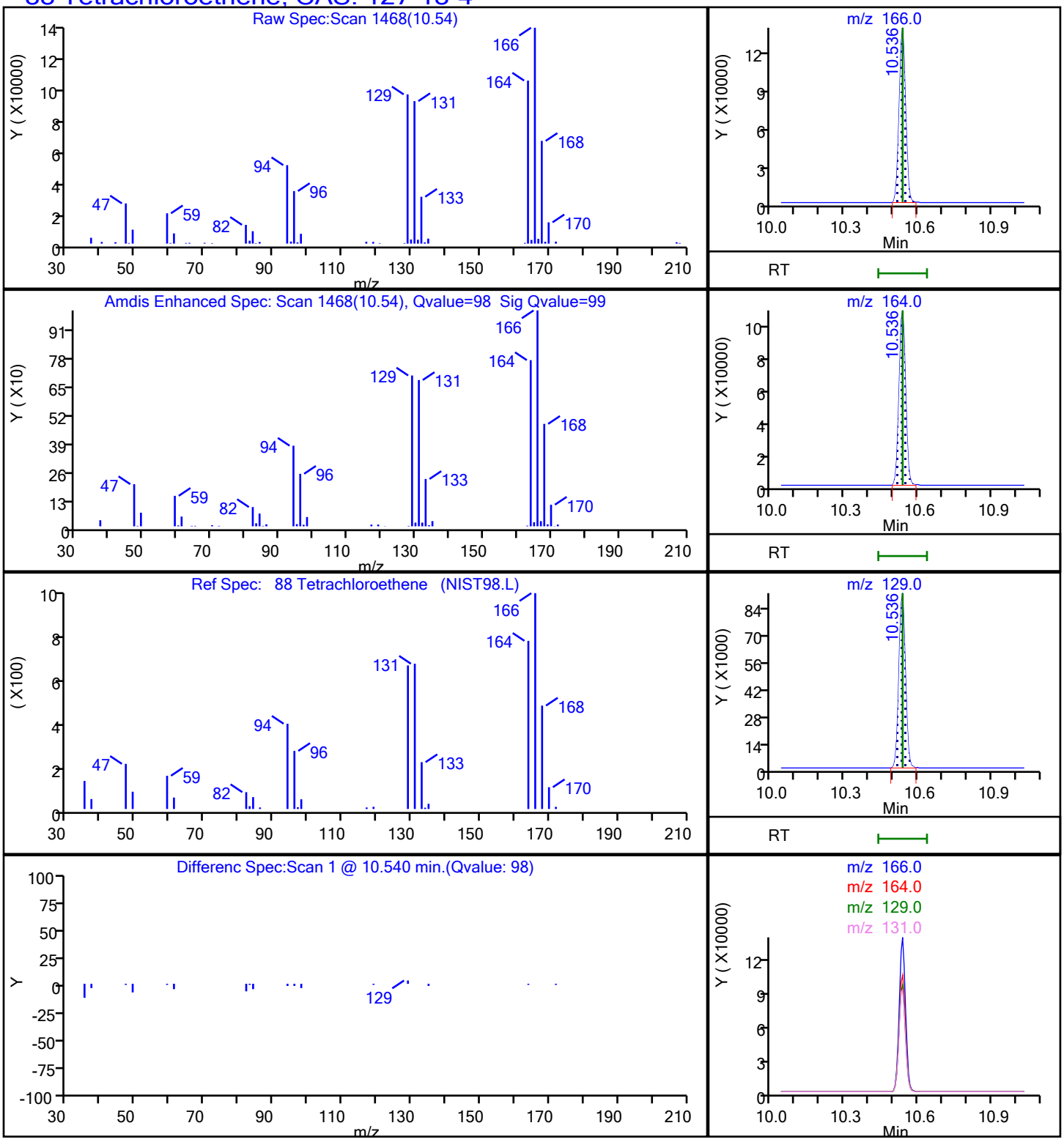


Report Date: 30-Mar-2021 17:45:57 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D				
Injection Date:	30-Mar-2021 03:16:30	Instrument ID:	19094		
Lims ID:	410-33727-A-13	Lab Sample ID:	410-33727-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	MEC29284	ALS Bottle#:	25	Worklist Smp#:	26
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

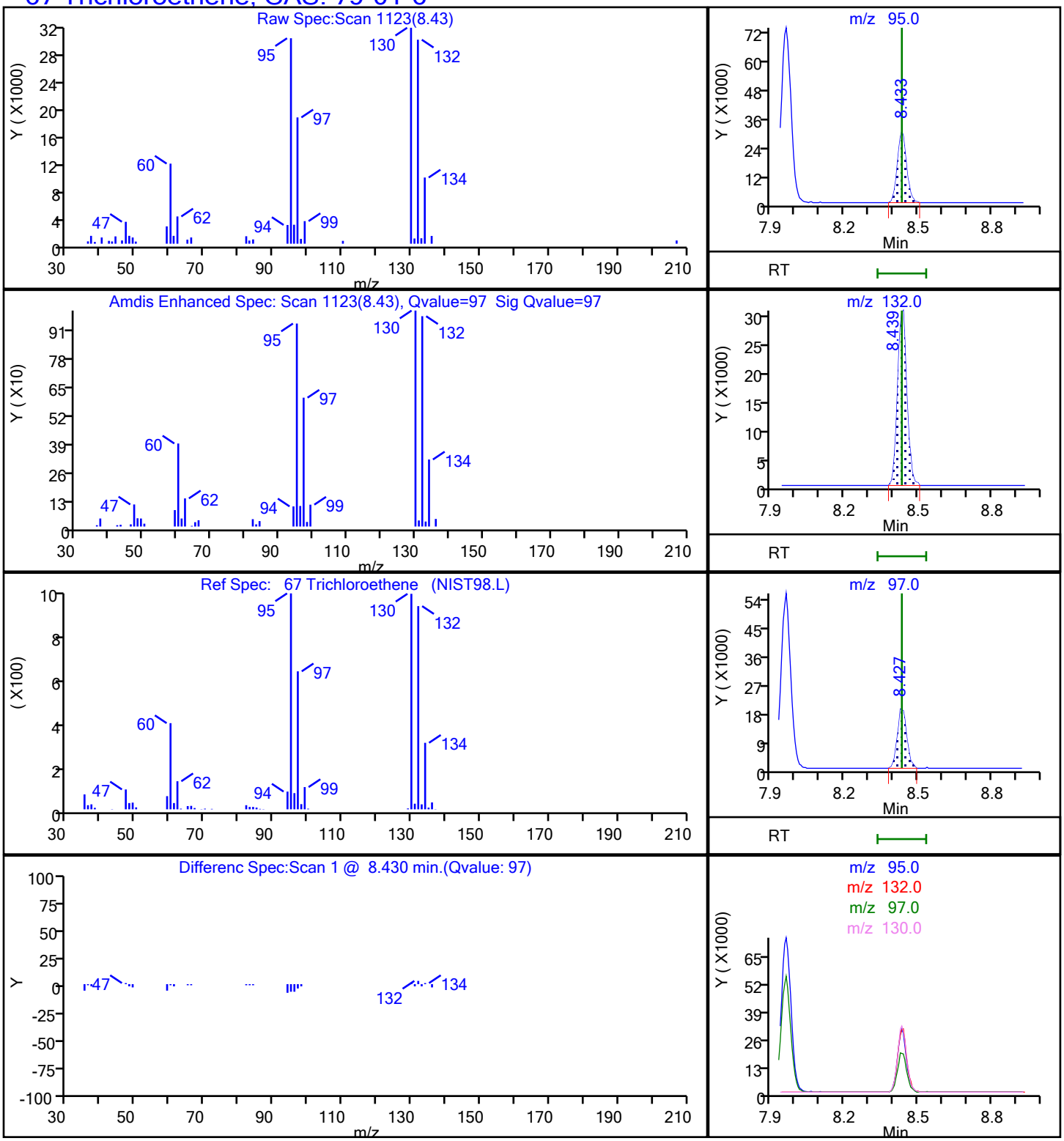


Report Date: 30-Mar-2021 17:45:57 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S50.D				
Injection Date:	30-Mar-2021 03:16:30	Instrument ID:	19094		
Lims ID:	410-33727-A-13	Lab Sample ID:	410-33727-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	MEC29284	ALS Bottle#:	25	Worklist Smp#:	26
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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-33727-14

Matrix: Water Lab File ID: HM29S32.D

Analysis Method: 8260D Date Collected: 03/24/2021 00:00

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 20:53

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.: 108546 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	^c	5.0	0.60
591-78-6	2-Hexanone	ND	^c	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c	5.0	0.70
67-64-1	Acetone	ND	^c	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.: 410-33727-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-33727-14

Matrix: Water Lab File ID: HM29S32.D

Analysis Method: 8260D Date Collected: 03/24/2021 00:00

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 20:53

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.: 108546 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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S32.D
Lims ID: 410-33727-A-14
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 29-Mar-2021 20:53:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-008
Misc. Info.: 410-33727-A-14
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 00:23:59 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: campbellme Date: 30-Mar-2021 00:23:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.282				ND	7
7 Vinyl chloride	62		2.410				ND	
9 Bromomethane	94		2.751				ND	
10 Chloroethane	64		2.849				ND	
18 1,1-Dichloroethene	96		3.769				ND	
19 Acetone	43		3.788				ND	U
24 Carbon disulfide	76		4.092				ND	7
29 Methylene Chloride	84		4.477				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.495	4.495	0.000	0	106282	50.0	
32 Methyl tert-butyl ether	73		4.891				ND	
33 trans-1,2-Dichloroethene	96		4.909				ND	
35 1,1-Dichloroethane	63		5.562				ND	
41 2-Butanone (MEK)	43		6.336				ND	
42 cis-1,2-Dichloroethene	96		6.385				ND	
48 Chlorobromomethane	128		6.714				ND	
50 Chloroform	83		6.860				ND	
$ 51 Dibromofluoromethane (Surr)	113	7.073	7.074	-0.001	94	620112	10.2	
52 1,1,1-Trichloroethane	97		7.092				ND	
56 Carbon tetrachloride	117		7.305				ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	120125	10.5	
59 Benzene	78		7.561				ND	
60 1,2-Dichloroethane	62	7.640	7.628	0.012	1	1841	0.0287	
* 65 Fluorobenzene (IS)	96	7.957	7.958	-0.001	99	2371038	10.0	
67 Trichloroethene	95		8.433				ND	
70 1,2-Dichloropropane	63		8.768				ND	
75 Dichlorobromomethane	83		9.104				ND	
80 cis-1,3-Dichloropropene	75		9.628				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786				ND	
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2351509	9.91	
83 Toluene	92		10.000				ND	7
85 trans-1,3-Dichloropropene	75		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
87 1,1,2-Trichloroethane	97		10.445				ND	7
88 Tetrachloroethene	166		10.536				ND	
91 2-Hexanone	43		10.646				ND	
93 Chlorodibromomethane	129		10.817				ND	
94 Ethylene Dibromide	107		10.933				ND	
S 95 Xylenes, Total	106		11.245				ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.353	11.347	0.006	85	1827569	10.0	
98 Chlorobenzene	112		11.378				ND	
99 1,1,1,2-Tetrachloroethane	131		11.457				ND	
100 Ethylbenzene	91		11.457				ND	
101 m-Xylene & p-Xylene	106		11.567				ND	
102 o-Xylene	106		11.896				ND	
103 Styrene	104		11.908				ND	
104 Bromoform	173		12.073				ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	855223	9.70	
109 1,1,2,2-Tetrachloroethane	83		12.426				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1019277	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

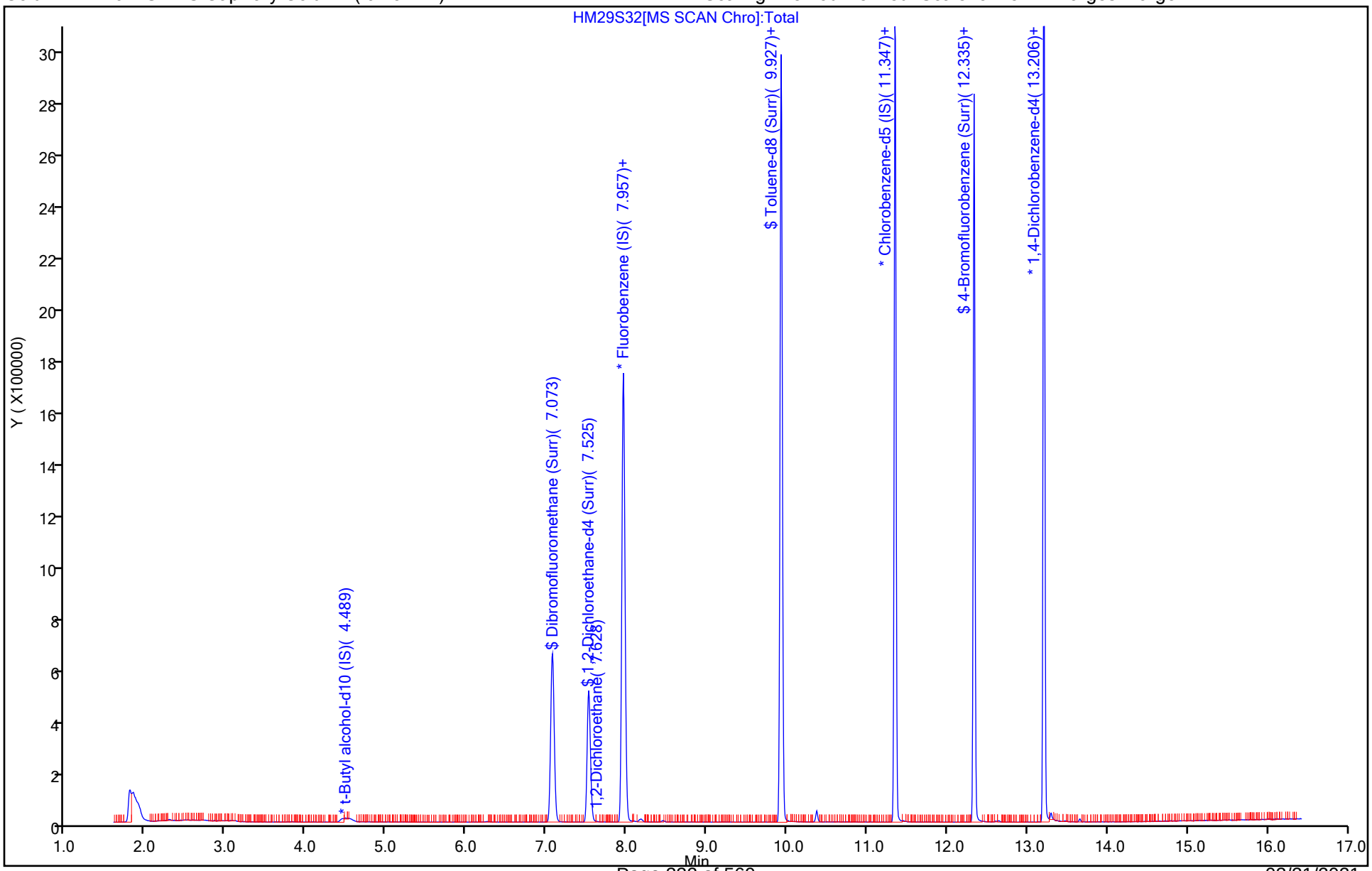
MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 30-Mar-2021 00:24:18 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S32.D				
Injection Date:	29-Mar-2021 20:53:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-14	Lab Sample ID:	410-33727-14	Worklist Smp#:	8
Client ID:	HD-QC1-0/1-2				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
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\20210329-25331.b\HM29S32.D
Lims ID: 410-33727-A-14
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 29-Mar-2021 20:53:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-008
Misc. Info.: 410-33727-A-14
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 00:23:59 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: campbellme Date: 30-Mar-2021 00:23:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	101.56
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.69
$ 82 Toluene-d8 (Surr)	10.0	9.91	99.13
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.70	96.96

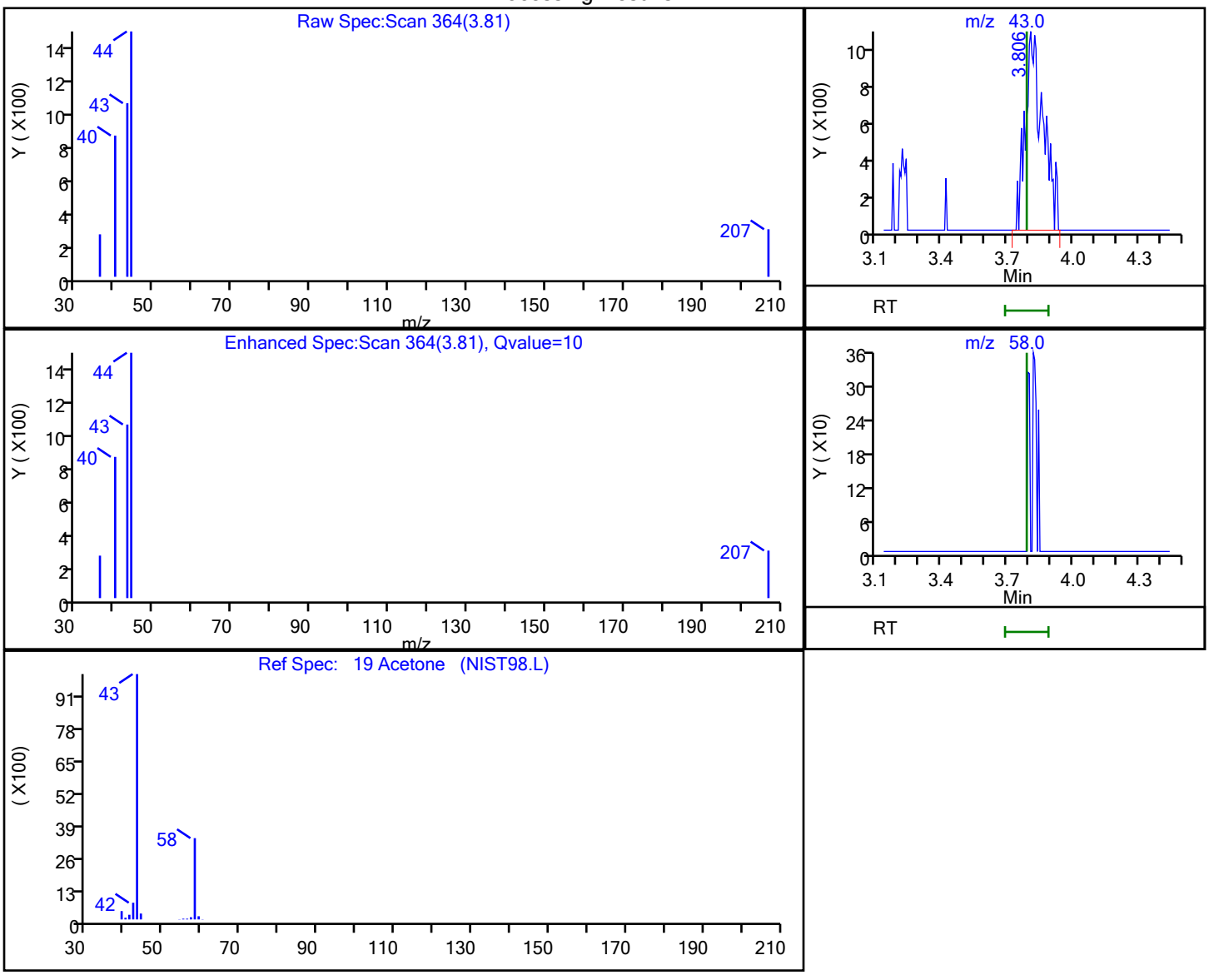
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S32.D				
Injection Date:	29-Mar-2021 20:53:30	Instrument ID:	19094		
Lims ID:	410-33727-A-14	Lab Sample ID:	410-33727-14		
Client ID:	HD-QC1-0/1-2				
Operator ID:	MEC29284	ALS Bottle#:	7	Worklist Smp#:	8
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

Processing Results



RT	Mass	Response	Amount
3.81	43.00	5871	0.866872
3.79	58.00	0	

Reviewer: campbellme, 30-Mar-2021 00:23:24

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-92110/18	HF08I17.D
Level 2	IC 410-92110/17	HF08I16.D
Level 3	IC 410-92110/16	HF08I15.D
Level 4	IC 410-92110/15	HF08I14.D
Level 5	IC 410-92110/14	HF08I13.D
Level 6	ICIS 410-92110/13	HF08I12.D
Level 7	IC 410-92110/12	HF08I11.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	0.2624 0.3157	0.3066 0.3230	0.2677	0.3131	0.3185	Ave		0.3010			0.1000	8.3		20.0			
Chloromethane	0.3279 0.3065	0.3287 0.3001	0.2838	0.3146	0.3041	Ave		0.3094			0.1000	5.1		20.0			
1,3-Butadiene	0.2793 0.2660	0.2699 0.2635	0.2682	0.2785	0.2533	Ave		0.2684				3.3		20.0			
Vinyl chloride	0.2817 0.2995	0.3049 0.3020	0.2711	0.3001	0.3027	Ave		0.2946			0.1000	4.4		20.0			
Bromomethane	0.2398 0.2276	0.2632 0.2300	0.2132	0.2352	0.2288	Ave		0.2340			0.1000	6.5		20.0			
Chloroethane	0.1937 0.1905	0.2014 0.1908	0.1754	0.1930	0.1899	Ave		0.1907			0.1000	4.1		20.0			
Dichlorofluoromethane	0.4568 0.4176	0.4662 0.4243	0.3993	0.4340	0.4253	Ave		0.4319			0.1000	5.3		20.0			
Trichlorofluoromethane	0.4195 0.4502	0.4593 0.4615	0.4032	0.4524	0.4569	Ave		0.4433			0.1000	5.1		20.0			
Ethyl ether	0.1535 0.1543	0.1414 0.1508	0.1494	0.1427	0.1372	Ave		0.1470				4.5		20.0			
Freon 123a	0.2396 0.2927	0.2642 0.2913	0.2920	0.3005	0.2780	Ave		0.2798				7.6		20.0			
Acrolein	2.1403 2.4665	2.1460 2.3238	2.2005	2.4464	2.2987	Ave		2.2889				5.9		20.0			
1,1-Dichloroethene	0.1981 0.2329	0.2129 0.2348	0.2289	0.2401	0.2233	Ave		0.2244			0.1000	6.5		20.0			
Freon 113	0.1872 0.2730	0.2253 0.2718	0.2547	0.2806	0.2555	Ave		0.2497			0.1000	13.2		20.0			
Acetone	4.1249 2.8634	3.3804 2.7265	3.1565	3.2299	2.8216	Ave		3.1862			0.1000	15.0		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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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 iodide	0.4552 0.4732	0.4710 0.4836	0.4715	0.5027	0.4567	Ave		0.4734				3.4		20.0			
Carbon disulfide	0.5884 0.6452	0.6031 0.6490	0.6235	0.6529	0.6141	Ave		0.6252			0.1000	4.0		20.0			
Methyl acetate	10.712 8.8236	10.573 8.0873	6.1384	7.2754	8.0423	Ave		8.5217			0.1000	19.6		20.0			
Allyl chloride	0.4002 0.3513	0.3605 0.3560	0.3587	0.3201	0.3271	Ave		0.3534				7.4		20.0			
Methylene Chloride	0.2211 0.2327	0.2219 0.2373	0.2300	0.2425	0.2264	Ave		0.2303			0.1000	3.4		20.0			
t-Butyl alcohol	0.8962 1.0284	1.0328 0.9829	1.0683	1.2358	1.1200	Ave		1.0520				10.2		20.0			
Acrylonitrile	3.3020 4.0623	3.6513 3.8160	3.7352	4.1360	3.8416	Ave		3.7920				7.3		20.0			
Methyl tert-butyl ether	0.5051 0.5450	0.5114 0.5497	0.5462	0.5674	0.5279	Ave		0.5361			0.1000	4.2		20.0			
trans-1,2-Dichloroethene	0.2386 0.2529	0.2447 0.2580	0.2517	0.2671	0.2458	Ave		0.2513			0.1000	3.8		20.0			
n-Hexane	0.2495 0.3551	0.2925 0.3488	0.3164	0.3537	0.3318	Ave		0.3211				12.1		20.0			
1,1-Dichloroethane	0.3899 0.4433	0.4161 0.4502	0.4354	0.4598	0.4191	Ave		0.4305			0.2000	5.5		20.0			
di-Isopropyl ether	0.6538 0.6906	0.6511 0.6999	0.6788	0.7134	0.6739	Ave		0.6802				3.4		20.0			
2-Chloro-1,3-butadiene	0.3266 0.3927	0.3609 0.4003	0.3754	0.4011	0.3761	Ave		0.3762				7.0		20.0			
Ethyl t-butyl ether	0.6381 0.6835	0.6360 0.6899	0.6766	0.7060	0.6609	Ave		0.6701				3.9		20.0			
2-Butanone (MEK)	4.6573 5.1188	4.5127 4.7851	4.3976	5.1039	4.7115	Ave		4.7553			0.1000	5.8		20.0			
cis-1,2-Dichloroethene	0.2763 0.2827	0.2693 0.2891	0.2808	0.2913	0.2744	Ave		0.2806			0.1000	2.8		20.0			
2,2-Dichloropropane	0.3564 0.4090	0.3783 0.4176	0.4016	0.4221	0.3963	Ave		0.3973				5.8		20.0			
Propionitrile	1.1404 1.3151	1.2092 1.3139	1.2761	1.3807	1.3556	Ave		1.2844				6.6		20.0			
Methacrylonitrile	4.6952 5.9217	4.8962 5.4504	5.0028	5.5530	5.2585	Ave		5.2540				8.1		20.0			
Bromochloromethane	0.1252 0.1282	0.1208 0.1310	0.1327	0.1261	0.1211	Ave		0.1265				3.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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								
Tetrahydrofuran	1.2690 1.5818	1.3498 1.4661	1.3903	1.5240	1.4366	Ave		1.4311				7.4		20.0			
Chloroform	0.4380 0.4493	0.4282 0.4614	0.4520	0.4684	0.4387	Ave		0.4480			0.2000	3.1		20.0			
1,1,1-Trichloroethane	0.3861 0.4413	0.4072 0.4529	0.4335	0.4588	0.4274	Ave		0.4296			0.1000	6.0		20.0			
Cyclohexane	0.3278 0.4386	0.3666 0.4425	0.4204	0.4425	0.4114	Ave		0.4071			0.1000	10.8		20.0			
1,1-Dichloropropene	0.3131 0.3632	0.3313 0.3753	0.3519	0.3686	0.3460	Ave		0.3499				6.3		20.0			
Carbon tetrachloride	0.3381 0.4002	0.3585 0.4083	0.3855	0.4065	0.3812	Ave		0.3826			0.1000	6.8		20.0			
Isobutyl alcohol	0.4312 0.3322	0.3649 0.2973	0.3236	0.4029	0.3398	Ave		0.3560				13.2		20.0			
Benzene	0.9393 1.0140	0.9424 1.0438	1.0006	1.0543	0.9797	Ave		0.9963			0.5000	4.6		20.0			
1,2-Dichloroethane	0.2881 0.2541	0.2796 0.2695	0.2739	0.2817	0.2498	Ave		0.2709			0.1000	5.3		20.0			
t-Amyl methyl ether	0.5591 0.6143	0.5739 0.6276	0.6073	0.6370	0.5945	Ave		0.6019				4.7		20.0			
n-Heptane	0.2810 0.3586	0.2962 0.3448	0.3341	0.3584	0.3340	Ave		0.3296				9.1		20.0			
n-Butanol	0.2731 0.3453	0.2776 0.2424	0.2922	0.3469	0.3150	Ave		0.2989				13.0		20.0			
Trichloroethene	0.2593 0.2835	0.2651 0.2913	0.2834	0.2944	0.2735	Ave		0.2786			0.2000	4.7		20.0			
Methylcyclohexane	0.4301 0.5058	0.4047 0.5075	0.4722	0.4483	0.4652	Ave		0.4620			0.1000	8.2		20.0			
1,2-Dichloropropane	0.2233 0.2428	0.2297 0.2497	0.2356	0.2464	0.2339	Ave		0.2373			0.1000	4.0		20.0			
Methyl methacrylate	9.0279 11.824	8.8866 10.917	9.7209	10.963	10.653	Ave		10.285				10.7		20.0			
1,4-Dioxane	0.0458 0.1038	0.0834 +++++	0.1143	0.1503	0.1134	Qua	-0.588	0.1375	-0.000066		0.0050				0.9950		0.9900
Dibromomethane	0.1214 0.1209	0.1151 0.1238	0.1191	0.1299	0.1158	Ave		0.1209				4.2		20.0			
Bromodichloromethane	0.2937 0.3197	0.2925 0.3339	0.3168	0.3252	0.3080	Ave		0.3128			0.2000	5.0		20.0			
2-Nitropropane	3.1384 3.6024	3.1095 3.4197	3.1213	3.4640	3.2496	Ave		3.3007				5.9		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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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								
cis-1,3-Dichloropropene	0.3389 0.3812	0.3330 0.3945	0.3577	0.3818	0.3602	Ave		0.3639			0.2000	6.3		20.0			
4-Methyl-2-pentanone (MIBK)	11.292 13.808	11.471 12.783	11.870	13.343	12.575	Ave		12.449			0.1000	7.6		20.0			
Toluene	0.8210 0.8793	0.8361 0.9025	0.8674	0.9113	0.8471	Ave		0.8664			0.4000	3.9		20.0			
trans-1,3-Dichloropropene	0.3327 0.4013	0.3548 0.4177	0.3755	0.3983	0.3801	Ave		0.3801			0.1000	7.7		20.0			
Ethyl methacrylate	0.2496 0.3006	0.2623 0.3102	0.2848	0.3058	0.2873	Ave		0.2858				7.9		20.0			
1,1,2-Trichloroethane	0.2118 0.2200	0.2021 0.2284	0.2209	0.2265	0.2150	Ave		0.2178			0.1000	4.2		20.0			
Tetrachloroethene	0.3825 0.4439	0.4115 0.4557	0.4393	0.4648	0.4277	Ave		0.4322			0.2000	6.5		20.0			
1,3-Dichloropropane	0.3550 0.3729	0.3494 0.3814	0.3671	0.3833	0.3615	Ave		0.3672				3.5		20.0			
2-Hexanone	7.5216 9.5390	7.8017 8.6876	8.2333	9.0792	8.5375	Ave		8.4857			0.1000	8.3		20.0			
Dibromochloromethane	0.2636 0.3009	0.2605 0.3158	0.2856	0.3019	0.2877	Ave		0.2880				7.1		20.0			
1,2-Dibromoethane (EDB)	0.2067 0.2253	0.2058 0.2299	0.2251	0.2326	0.2121	Ave		0.2196			0.1000	5.1		20.0			
1-Chlorohexane	0.5208 0.5195	0.4985 0.5251	0.5121	0.5388	0.4951	Ave		0.5157				3.0		20.0			
Chlorobenzene	0.9283 0.9707	0.9492 0.9954	0.9756	1.0170	0.9488	Ave		0.9693			0.5000	3.1		20.0			
1,1,1,2-Tetrachloroethane	0.3297 0.3563	0.3329 0.3680	0.3453	0.3660	0.3464	Ave		0.3492				4.3		20.0			
Ethylbenzene	1.5570 1.7268	1.5955 1.7555	1.6930	1.7896	1.6893	Ave		1.6867			0.1000	5.0		20.0			
m&p-Xylene	0.5982 0.6757	0.6391 0.6925	0.6720	0.7091	0.6594	Ave		0.6637			0.1000	5.5		20.0			
o-Xylene	0.5957 0.6656	0.6125 0.6807	0.6454	0.6853	0.6451	Ave		0.6472			0.3000	5.2		20.0			
Styrene	0.9790 1.0798	0.9944 1.1083	1.0360	1.1144	1.0538	Ave		1.0522			0.3000	5.0		20.0			
Bromoform	0.1568 0.1776	0.1484 0.1886	0.1659	0.1767	0.1682	Ave		0.1689			0.1000	8.0		20.0			
Isopropylbenzene	1.5708 1.8102	1.6513 1.8430	1.7685	1.8637	1.7480	Ave		1.7508			0.1000	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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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								
1,1,2,2-Tetrachloroethane	0.4062 0.4661	0.4229 0.4888	0.4469	0.4810	0.4483	Ave		0.4515			0.3000	6.6		20.0			
Bromobenzene	0.6956 0.7596	0.7118 0.7859	0.7515	0.7644	0.7291	Ave		0.7426				4.3		20.0			
trans-1,4-Dichloro-2-butene	4.4598 5.9522	4.6457 5.4289	4.8574	5.5792	5.2763	Ave		5.1714				10.4		20.0			
1,2,3-Trichloropropane	0.1269 0.1326	0.1335 0.1374	0.1386	0.1414	0.1277	Ave		0.1340				4.1		20.0			
N-Propylbenzene	3.0598 3.7184	3.3193 3.8035	3.4858	3.7779	3.5534	Ave		3.5312				7.7		20.0			
2-Chlorotoluene	0.6975 0.7660	0.6889 0.7933	0.7391	0.7753	0.7306	Ave		0.7415				5.3		20.0			
1,3,5-Trimethylbenzene	2.3449 2.7610	2.4005 2.8426	2.5933	2.7533	2.6308	Ave		2.6180				7.2		20.0			
4-Chlorotoluene	0.6616 0.7685	0.7028 0.7934	0.7546	0.7818	0.7470	Ave		0.7442				6.3		20.0			
tert-Butylbenzene	0.5183 0.6043	0.5214 0.6311	0.5762	0.6103	0.5738	Ave		0.5765				7.5		20.0			
Pentachloroethane	0.4097 0.4959	0.4193 0.5210	0.4671	0.4393	0.4568	Ave		0.4584				8.8		20.0			
1,2,4-Trimethylbenzene	2.4114 2.7819	2.5256 2.8689	2.6302	2.8295	2.6787	Ave		2.6752				6.2		20.0			
sec-Butylbenzene	2.7507 3.5999	3.0659 3.6735	3.3314	3.5492	3.3881	Ave		3.3370				9.8		20.0			
1,3-Dichlorobenzene	1.4226 1.5037	1.3777 1.5506	1.4654	1.5349	1.4466	Ave		1.4717			0.6000	4.2		20.0			
p-Isopropyltoluene	2.4034 3.0920	2.6768 3.1481	2.8278	3.0864	2.9430	Ave		2.8825				9.3		20.0			
1,4-Dichlorobenzene	1.3879 1.4768	1.4213 1.5314	1.4665	1.5251	1.4267	Ave		1.4622			0.5000	3.7		20.0			
1,2,3-Trimethylbenzene	1.2247 1.2002	1.1302 1.2349	1.1856	1.1036	1.1178	Ave		1.1710				4.6		20.0			
Benzyl chloride	0.1530 0.2114	0.1671 0.2277	0.1869	0.1976	0.1955	Ave		0.1913				13.2		20.0			
n-Butylbenzene	1.1276 1.4645	1.2151 1.5007	1.3081	1.4381	1.3738	Ave		1.3468				10.2		20.0			
1,2-Dichlorobenzene	1.2539 1.3456	1.2618 1.3836	1.3478	1.4049	1.2973	Ave		1.3278			0.4000	4.4		20.0			
1,2-Dibromo-3-Chloropropane	0.0560 0.0739	0.0639 0.0812	0.0749	0.0774	0.0723	Ave		0.0714			0.0500	12.1		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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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								
1,3,5-Trichlorobenzene	1.0343 1.1835	1.0014 1.2274	1.0739	1.1492	1.1146	Ave		1.1120				7.3		20.0			
1,2,4-Trichlorobenzene	0.8408 1.0011	0.8541 1.0522	0.9065	0.9825	0.9449	Ave		0.9403			0.2000	8.3		20.0			
Hexachlorobutadiene	0.3999 0.4337	0.4147 0.4442	0.4290	0.4557	0.4123	Ave		0.4271				4.6		20.0			
Naphthalene	1.4336 1.6944	1.4596 1.7890	1.6112	1.7172	1.6435	Ave		1.6212				8.1		20.0			
1,2,3-Trichlorobenzene	0.7394 0.8633	0.7292 0.8897	0.8081	0.8678	0.8159	Ave		0.8162				7.7		20.0			
Dibromofluoromethane (Surr)	0.2562 0.2572	0.2562 0.2592	0.2573	0.2593	0.2571	Ave		0.2575				0.5		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0480 0.0483	0.0475 0.0486	0.0488	0.0489	0.0486	Ave		0.0484				1.1		20.0			
Toluene-d8 (Surr)	1.2987 1.2949	1.2948 1.2954	1.2986	1.3027	1.3007	Ave		1.2980				0.2		20.0			
4-Bromofluorobenzene (Surr)	0.4827 0.4831	0.4811 0.4828	0.4828	0.4815	0.4845	Ave		0.4826				0.2		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
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-92110/18	HF08I17.D
Level 2	IC 410-92110/17	HF08I16.D
Level 3	IC 410-92110/16	HF08I15.D
Level 4	IC 410-92110/15	HF08I14.D
Level 5	IC 410-92110/14	HF08I13.D
Level 6	ICIS 410-92110/13	HF08I12.D
Level 7	IC 410-92110/12	HF08I11.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	11655 719959	34357 1852532	60407	141598	362946	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	14567 699038	36827 1721184	64058	142283	346581	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	12406 606735	30238 1511268	60524	125930	288719	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	12513 683094	34166 1732038	61192	135729	344925	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	10652 519106	29496 1319071	48114	106382	260771	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	8607 434468	22568 1094433	39588	87256	216452	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	20294 952421	52234 2433441	90119	196244	484719	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	18638 1026722	51465 2646453	90990	204604	520710	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	6819 351961	15847 864851	33718	64539	156356	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Freon 123a	FB	Ave	10643 667469	29608 1670355	65904	135902	316831	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd10	Ave	48602 2498890	120988 6627495	257871	540913	1256343	10.0 500	25.0 1250	50.0	100	250
1,1-Dichloroethene	FB	Ave	8802 531126	23855 1346829	51660	108581	254460	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Freon 113	FB	Ave	8316 622602	25240 1558666	57479	126884	291216	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd10	Ave	18733 580168	38115 1555155	73976	142821	308417	2.00 100	5.00 250	10.0	20.0	50.0
Methyl iodide	FB	Ave	20222	52774	106405	227332	520481	0.200	0.500	1.00	2.00	5.00

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
			1079208	2773260				10.0	25.0			
Carbon disulfide	FB	Ave	26141 1471339	67575 3722236	140713	295236	699874	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd10	Ave	4865 178783	11921 461285	14386	32171	87906	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	17780 801092	40396 2041646	80942	144767	372820	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	9822 530650	24863 1360934	51907	109645	258013	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd10	Ave	8140 416747	23290 1121236	50072	109293	244837	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd10	Ave	7498 411544	20585 1088299	43769	91444	209949	1.00 50.0	2.50 125	5.00	10.0	25.0
Methyl tert-butyl ether	FB	Ave	22440 1242826	57304 3152562	123263	256581	601661	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	10599 576863	27423 1479924	56799	120805	280075	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	11083 809796	32777 2000487	71414	159964	378146	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	17322 1010891	46626 2581690	98266	207923	477682	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	29044 1575080	72954 4014057	153198	322605	768054	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	14508 895697	40438 2295965	84730	181387	428618	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	28346 1558769	71271 3956419	152705	319253	753172	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd10	Ave	21151 1037152	50883 2729334	103062	225688	514983	2.00 100	5.00 250	10.0	20.0	50.0
cis-1,2-Dichloroethene	FB	Ave	12276 644803	30172 1658068	63377	131736	312669	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	15832 932709	42387 2394926	90637	190864	451619	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd10	Ave	10358 532921	27268 1498898	59813	122110	296336	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd10	Ave	21323	55207	117247	245545	574780	2.00	5.00	10.0	20.0	50.0

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
			1199836	3108775				100	250			
Bromochloromethane	FB	Ave	5563 292408	13541 751523	29956	57027	138017	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd10	Ave	5763 320500	15219 836231	32583	67389	157026	2.00 100	5.00 250	10.0	20.0	50.0
Chloroform	FB	Ave	19457 1024636	47981 2645964	102013	211828	499937	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	17152 1006507	45623 2597584	97830	207490	487131	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	14564 1000175	41082 2537511	94880	200115	468824	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	13909 828417	37122 2152623	79418	166669	394366	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	15021 912626	40172 2341416	87009	183830	434411	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	TBAd10	Ave	9792 336586	20572 847994	37919	89083	185685	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	41729 2312544	105594 5986444	225811	476783	1116469	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	12798 579583	31331 1545433	61811	127372	284633	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	24839 1400948	64304 3599537	137060	288045	677467	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	12485 817870	33195 1977329	75411	162092	380691	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butanol	TBAd10	Ave	12405 699641	31304 1382745	68469	153415	344278	20.0 1000	50.0 2500	100	200	500
Trichloroethene	FB	Ave	11519 646583	29704 1670795	63948	133150	311660	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylcyclohexane	FB	Ave	19106 1153460	45345 2910630	106574	202735	530185	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloropropane	FB	Ave	9918 553636	25741 1431911	53180	111445	266612	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl methacrylate	TBAd10	Ave	4100 239581	10020 622700	22782	48479	116438	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dioxane	TBAd10	Qua	1039 105174	4700 +++++	13396	33238	61980	10.0 500	25.0 +++++	50.0	100	250

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
Dibromomethane	FB	Ave	5394 275630	12896 710271	26884	58736	131949	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromodichloromethane	FB	Ave	13048 729056	32775 1914983	71488	147061	351051	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Nitropropane	TBAd10	Ave	14253 729914	35061 1950510	73151	153173	355199	2.00 100	5.00 250	10.0	20.0	50.0
cis-1,3-Dichloropropene	FB	Ave	15055 869365	37316 2262544	80733	172643	410517	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Methyl-2-pentanone (MIBK)	TBAd10	Ave	51282 2797813	129338 7291246	278180	590002	1374501	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZd5	Ave	27993 1543819	71637 3985183	150180	316733	737312	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,3-Dichloropropene	CBZd5	Ave	11343 704578	30405 1844163	65006	138441	330823	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl methacrylate	CBZd5	Ave	8510 527750	22477 1369772	49307	106294	250052	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2-Trichloroethane	CBZd5	Ave	7222 386276	17313 1008358	38243	78702	187103	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrachloroethene	CBZd5	Ave	13041 779350	35260 2012000	76059	161526	372239	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichloropropane	CBZd5	Ave	12103 654691	29940 1684240	63555	133204	314617	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Hexanone	TBAd10	Ave	34159 1932766	87967 4955228	192957	401472	933185	2.00 100	5.00 250	10.0	20.0	50.0
Dibromochloromethane	CBZd5	Ave	8988 528261	22318 1394208	49447	104913	250435	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromoethane (EDB)	CBZd5	Ave	7047 395557	17638 1014944	38974	80842	184626	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1-Chlorohexane	CBZd5	Ave	17756 912088	42717 2318472	88654	187272	430905	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chlorobenzene	CBZd5	Ave	31649 1704365	81335 4395277	168911	353462	825829	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1,2-Tetrachloroethane	CBZd5	Ave	11242 625552	28524 1625091	59780	127217	301549	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethylbenzene	CBZd5	Ave	53087 3031833	136707 7751384	293117	621950	1470367	0.200 10.0	0.500 25.0	1.00	2.00	5.00
m&p-Xylene	CBZd5	Ave	40791 2372673	109525 6115063	232683	492874	1147966	0.400 20.0	1.00 50.0	2.00	4.00	10.0
o-Xylene	CBZd5	Ave	20311	52478	111744	238182	561521	0.200	0.500	1.00	2.00	5.00

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
			1168600	3005757				10.0	25.0			
Styrene	CBZd5	Ave	33379 1895902	85205 4893590	179370	387292	917222	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromoform	CBZd5	Ave	5345 311784	12718 832653	28723	61427	146398	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isopropylbenzene	CBZd5	Ave	53557 3178372	141491 8137938	306175	647733	1521473	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2,2-Tetrachloroethane	DCBd4	Ave	7854 447932	20394 1171712	43443	93895	216307	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromobenzene	DCBd4	Ave	13450 729952	34331 1883867	73044	149220	351783	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,4-Dichloro-2-butene	TBAd10	Ave	20254 1206031	52382 3096537	113839	246704	576720	2.00 100	5.00 250	10.0	20.0	50.0
1,2,3-Trichloropropane	DCBd4	Ave	2454 127400	6437 329291	13475	27601	61617	0.200 10.0	0.500 25.0	1.00	2.00	5.00
N-Propylbenzene	DCBd4	Ave	59163 3573259	160083 9117385	338831	737514	1714465	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chlorotoluene	DCBd4	Ave	13486 736118	33225 1901554	71843	151360	352494	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trimethylbenzene	DCBd4	Ave	45340 2653261	115771 6813943	252069	537490	1269331	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Chlorotoluene	DCBd4	Ave	12792 738480	33893 1901768	73344	152629	360423	0.200 10.0	0.500 25.0	1.00	2.00	5.00
tert-Butylbenzene	DCBd4	Ave	10022 580760	25145 1512730	56005	119134	276868	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Pentachloroethane	DCBd4	Ave	7921 476560	20222 1248884	45407	85761	220385	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trimethylbenzene	DCBd4	Ave	46627 2673300	121808 6876974	255661	552380	1292442	0.200 10.0	0.500 25.0	1.00	2.00	5.00
sec-Butylbenzene	DCBd4	Ave	53187 3459448	147864 8805675	323823	692872	1634674	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichlorobenzene	DCBd4	Ave	27507 1445066	66445 3716862	142442	299647	697947	0.200 10.0	0.500 25.0	1.00	2.00	5.00
p-Isopropyltoluene	DCBd4	Ave	46471 2971338	129096 7546223	274870	602524	1419932	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dichlorobenzene	DCBd4	Ave	26836 1419167	68545 3670993	142551	297722	688371	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trimethylbenzene	DCBd4	Ave	23680 1153375	54508 2960062	115239	215450	539324	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Benzyl chloride	DCBd4	Ave	2959 203162	8061 545827	18169	38570	94324	0.200 10.0	0.500 25.0	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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
n-Butylbenzene	DCBd4	Ave	21803 1407312	58601 3597323	127147	280745	662837	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichlorobenzene	DCBd4	Ave	24245 1293101	60854 3316661	131007	274265	625909	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	1083 71060	3083 194660	7276	15111	34863	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trichlorobenzene	DCBd4	Ave	19999 1137336	48298 2942164	104382	224343	537786	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trichlorobenzene	DCBd4	Ave	16258 962015	41194 2522273	88117	191804	455902	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Hexachlorobutadiene	DCBd4	Ave	7732 416734	20000 1064891	41704	88959	198948	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Naphthalene	DCBd4	Ave	27720 1628238	70396 4288455	156615	335239	792959	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trichlorobenzene	DCBd4	Ave	14297 829651	35167 2132656	78552	169405	393678	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dibromofluoromethane (Surr)	FB	Ave	569173 586546	574253 594574	580759	586341	586089	10.0 10.0	10.0 10.0	10.0	10.0	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	106666 110191	106377 111562	110149	110631	110768	10.0 10.0	10.0 10.0	10.0	10.0	10.0
Toluene-d8 (Surr)	CBZd5	Ave	2213889 2273593	2218827 2287914	2248221	2263708	2264366	10.0 10.0	10.0 10.0	10.0	10.0	10.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	822819 848283	824416 852650	835893	836737	843493	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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-92110/18	HF08I17.D
Level 2	IC 410-92110/17	HF08I16.D
Level 3	IC 410-92110/16	HF08I15.D
Level 4	IC 410-92110/15	HF08I14.D
Level 5	IC 410-92110/14	HF08I13.D
Level 6	ICIS 410-92110/13	HF08I12.D
Level 7	IC 410-92110/12	HF08I11.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	-12.8 7.3	1.9	-11.1	4.0	5.8	4.9	50 30	30	30	30	30	30
Chloromethane	6.0 -3.0	6.2	-8.3	1.7	-1.7	-0.9	50 30	30	30	30	30	30
1,3-Butadiene	4.1 -1.8	0.5	-0.1	3.8	-5.6	-0.9	50 30	30	30	30	30	30
Vinyl chloride	-4.4 2.5	3.5	-8.0	1.9	2.7	1.7	50 30	30	30	30	30	30
Bromomethane	2.5 -1.7	12.5	-8.9	0.5	-2.2	-2.7	50 30	30	30	30	30	30
Chloroethane	1.6 0.1	5.6	-8.0	1.2	-0.4	-0.1	50 30	30	30	30	30	30
Dichlorofluoromethane	5.8 -1.8	7.9	-7.5	0.5	-1.5	-3.3	50 30	30	30	30	30	30
Trichlorofluoromethane	-5.4 4.1	3.6	-9.0	2.1	3.1	1.6	50 30	30	30	30	30	30
Ethyl ether	4.4 2.5	-3.8	1.6	-2.9	-6.7	4.9	50 30	30	30	30	30	30
Freon 123a	-14.4 4.1	-5.5	4.4	7.4	-0.6	4.6	50 30	30	30	30	30	30
Acrolein	-6.5 1.5	-6.2	-3.9	6.9	0.4	7.8	50 30	30	30	30	30	30
1,1-Dichloroethene	-11.7 4.6	-5.1	2.0	7.0	-0.5	3.8	50 30	30	30	30	30	30
Freon 113	-25.0 8.8	-9.8	2.0	12.4	2.3	9.3	50 30	30	30	30	30	30
Acetone	29.5 -14.4	6.1	-0.9	1.4	-11.4	-10.1	50 30	30	30	30	30	30
Methyl iodide	-3.8 2.1	-0.5	-0.4	6.2	-3.5	0.0	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
Carbon disulfide	-5.9 3.8	-3.5	-0.3	4.4	-1.8	3.2	50 30	30	30	30	30	30
Methyl acetate	25.7 -5.1	24.1	-28.0	-14.6	-5.6	3.5	50 30	30	30	30	30	30
Allyl chloride	13.2 0.7	2.0	1.5	-9.4	-7.4	-0.6	50 30	30	30	30	30	30
Methylene Chloride	-4.0 3.1	-3.6	-0.1	5.3	-1.7	1.1	50 30	30	30	30	30	30
t-Butyl alcohol	-14.8 -6.6	-1.8	1.5	17.5	6.5	-2.2	50 30	30	30	30	30	30
Acrylonitrile	-12.9 0.6	-3.7	-1.5	9.1	1.3	7.1	50 30	30	30	30	30	30
Methyl tert-butyl ether	-5.8 2.5	-4.6	1.9	5.8	-1.5	1.7	50 30	30	30	30	30	30
trans-1,2-Dichloroethene	-5.0 2.7	-2.6	0.2	6.3	-2.2	0.7	50 30	30	30	30	30	30
n-Hexane	-22.3 8.6	-8.9	-1.5	10.2	3.3	10.6	50 30	30	30	30	30	30
1,1-Dichloroethane	-9.4 4.6	-3.4	1.1	6.8	-2.6	3.0	50 30	30	30	30	30	30
di-Isopropyl ether	-3.9 2.9	-4.3	-0.2	4.9	-0.9	1.5	50 30	30	30	30	30	30
2-Chloro-1,3-butadiene	-13.2 6.4	-4.1	-0.2	6.6	0.0	4.4	50 30	30	30	30	30	30
Ethyl t-butyl ether	-4.8 2.9	-5.1	1.0	5.3	-1.4	2.0	50 30	30	30	30	30	30
2-Butanone (MEK)	-2.1 0.6	-5.1	-7.5	7.3	-0.9	7.6	50 30	30	30	30	30	30
cis-1,2-Dichloroethene	-1.5 3.0	-4.0	0.1	3.8	-2.2	0.8	50 30	30	30	30	30	30
2,2-Dichloropropane	-10.3 5.1	-4.8	1.1	6.2	-0.3	2.9	50 30	30	30	30	30	30
Propionitrile	-11.2 2.3	-5.9	-0.6	7.5	5.5	2.4	50 30	30	30	30	30	30
Methacrylonitrile	-10.6 3.7	-6.8	-4.8	5.7	0.1	12.7	50 30	30	30	30	30	30
Bromochloromethane	-1.0 3.6	-4.4	5.0	-0.3	-4.2	1.4	50 30	30	30	30	30	30
Tetrahydrofuran	-11.3 2.4	-5.7	-2.8	6.5	0.4	10.5	50 30	30	30	30	30	30
Chloroform	-2.2 3.0	-4.4	0.9	4.6	-2.1	0.3	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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
1,1,1-Trichloroethane	-10.1 5.4	-5.2	0.9	6.8	-0.5	2.7	50 30	30	30	30	30	30
Cyclohexane	-19.5 8.7	-9.9	3.3	8.7	1.0	7.7	50 30	30	30	30	30	30
1,1-Dichloropropene	-10.5 7.3	-5.3	0.6	5.3	-1.1	3.8	50 30	30	30	30	30	30
Carbon tetrachloride	-11.6 6.7	-6.3	0.8	6.2	-0.4	4.6	50 30	30	30	30	30	30
Isobutyl alcohol	21.1 -16.5	2.5	-9.1	13.2	-4.6	-6.7	50 30	30	30	30	30	30
Benzene	-5.7 4.8	-5.4	0.4	5.8	-1.7	1.8	50 30	30	30	30	30	30
1,2-Dichloroethane	6.3 -0.5	3.2	1.1	4.0	-7.8	-6.2	50 30	30	30	30	30	30
t-Amyl methyl ether	-7.1 4.3	-4.7	0.9	5.8	-1.2	2.0	50 30	30	30	30	30	30
n-Heptane	-14.7 4.6	-10.1	1.4	8.7	1.3	8.8	50 30	30	30	30	30	30
n-Butanol	-8.6 -18.9	-7.1	-2.3	16.1	5.4	15.5	50 30	30	30	30	30	30
Trichloroethene	-6.9 4.6	-4.9	1.7	5.7	-1.9	1.7	50 30	30	30	30	30	30
Methylcyclohexane	-6.9 9.9	-12.4	2.2	-3.0	0.7	9.5	50 30	30	30	30	30	30
1,2-Dichloropropane	-5.9 5.2	-3.2	-0.7	3.8	-1.4	2.3	50 30	30	30	30	30	30
Methyl methacrylate	-12.2 6.2	-13.6	-5.5	6.6	3.6	15.0	50 30	30	30	30	30	30
1,4-Dioxane	-23.7 +++++	-21.5	-6.2	20.6	-5.0	0.7	50	30	30	30	30	30
Dibromomethane	0.5 2.5	-4.8	-1.4	7.5	-4.2	0.0	50 30	30	30	30	30	30
Bromodichloromethane	-6.1 6.7	-6.5	1.3	4.0	-1.5	2.2	50 30	30	30	30	30	30
2-Nitropropane	-4.9 3.6	-5.8	-5.4	4.9	-1.5	9.1	50 30	30	30	30	30	30
cis-1,3-Dichloropropene	-6.9 8.4	-8.5	-1.7	4.9	-1.0	4.8	50 30	30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	-9.3 2.7	-7.9	-4.7	7.2	1.0	10.9	50 30	30	30	30	30	30
Toluene	-5.2 4.2	-3.5	0.1	5.2	-2.2	1.5	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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
trans-1,3-Dichloropropene	-12.5 9.9	-6.6	-1.2	4.8	0.0	5.6	50 30	30	30	30	30	30
Ethyl methacrylate	-12.7 8.5	-8.2	-0.4	7.0	0.5	5.2	50 30	30	30	30	30	30
1,1,2-Trichloroethane	-2.7 4.9	-7.2	1.4	4.0	-1.3	1.0	50 30	30	30	30	30	30
Tetrachloroethene	-11.5 5.4	-4.8	1.7	7.5	-1.0	2.7	50 30	30	30	30	30	30
1,3-Dichloropropane	-3.3 3.9	-4.8	0.0	4.4	-1.6	1.5	50 30	30	30	30	30	30
2-Hexanone	-11.4 2.4	-8.1	-3.0	7.0	0.6	12.4	50 30	30	30	30	30	30
Dibromochloromethane	-8.5 9.6	-9.6	-0.8	4.8	-0.1	4.5	50 30	30	30	30	30	30
1,2-Dibromoethane (EDB)	-5.9 4.7	-6.3	2.5	5.9	-3.4	2.6	50 30	30	30	30	30	30
1-Chlorohexane	1.0 1.8	-3.3	-0.7	4.5	-4.0	0.7	50 30	30	30	30	30	30
Chlorobenzene	-4.2 2.7	-2.1	0.7	4.9	-2.1	0.1	50 30	30	30	30	30	30
1,1,1,2-Tetrachloroethane	-5.6 5.4	-4.7	-1.1	4.8	-0.8	2.0	50 30	30	30	30	30	30
Ethylbenzene	-7.7 4.1	-5.4	0.4	6.1	0.2	2.4	50 30	30	30	30	30	30
m&p-Xylene	-9.9 4.3	-3.7	1.2	6.8	-0.6	1.8	50 30	30	30	30	30	30
o-Xylene	-8.0 5.2	-5.4	-0.3	5.9	-0.3	2.8	50 30	30	30	30	30	30
Styrene	-7.0 5.3	-5.5	-1.5	5.9	0.1	2.6	50 30	30	30	30	30	30
Bromoform	-7.2 11.7	-12.1	-1.8	4.7	-0.4	5.1	50 30	30	30	30	30	30
Isopropylbenzene	-10.3 5.3	-5.7	1.0	6.5	-0.2	3.4	50 30	30	30	30	30	30
1,1,2,2-Tetrachloroethane	-10.0 8.3	-6.3	-1.0	6.5	-0.7	3.2	50 30	30	30	30	30	30
Bromobenzene	-6.3 5.8	-4.1	1.2	2.9	-1.8	2.3	50 30	30	30	30	30	30
trans-1,4-Dichloro-2-butene	-13.8 5.0	-10.2	-6.1	7.9	2.0	15.1	50 30	30	30	30	30	30
1,2,3-Trichloropropane	-5.3 2.5	-0.4	3.4	5.5	-4.7	-1.1	50 30	30	30	30	30	30

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
N-Propylbenzene	-13.3 7.7	-6.0	-1.3	7.0	0.6	5.3	50 30	30	30	30	30	30
2-Chlorotoluene	-5.9 7.0	-7.1	-0.3	4.6	-1.5	3.3	50 30	30	30	30	30	30
1,3,5-Trimethylbenzene	-10.4 8.6	-8.3	-0.9	5.2	0.5	5.5	50 30	30	30	30	30	30
4-Chlorotoluene	-11.1 6.6	-5.6	1.4	5.1	0.4	3.3	50 30	30	30	30	30	30
tert-Butylbenzene	-10.1 9.5	-9.6	-0.1	5.9	-0.5	4.8	50 30	30	30	30	30	30
Pentachloroethane	-10.6 13.6	-8.5	1.9	-4.2	-0.4	8.2	50 30	30	30	30	30	30
1,2,4-Trimethylbenzene	-9.9 7.2	-5.6	-1.7	5.8	0.1	4.0	50 30	30	30	30	30	30
sec-Butylbenzene	-17.6 10.1	-8.1	-0.2	6.4	1.5	7.9	50 30	30	30	30	30	30
1,3-Dichlorobenzene	-3.3 5.4	-6.4	-0.4	4.3	-1.7	2.2	50 30	30	30	30	30	30
p-Isopropyltoluene	-16.6 9.2	-7.1	-1.9	7.1	2.1	7.3	50 30	30	30	30	30	30
1,4-Dichlorobenzene	-5.1 4.7	-2.8	0.3	4.3	-2.4	1.0	50 30	30	30	30	30	30
1,2,3-Trimethylbenzene	4.6 5.5	-3.5	1.2	-5.8	-4.5	2.5	50 30	30	30	30	30	30
Benzyl chloride	-20.0 19.0	-12.6	-2.3	3.3	2.2	10.5	50 30	30	30	30	30	30
n-Butylbenzene	-16.3 11.4	-9.8	-2.9	6.8	2.0	8.7	50 30	30	30	30	30	30
1,2-Dichlorobenzene	-5.6 4.2	-5.0	1.5	5.8	-2.3	1.3	50 30	30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-21.5 13.8	-10.4	4.9	8.5	1.2	3.6	50 30	30	30	30	30	30
1,3,5-Trichlorobenzene	-7.0 10.4	-9.9	-3.4	3.3	0.2	6.4	50 30	30	30	30	30	30
1,2,4-Trichlorobenzene	-10.6 11.9	-9.2	-3.6	4.5	0.5	6.5	50 30	30	30	30	30	30
Hexachlorobutadiene	-6.4 4.0	-2.9	0.5	6.7	-3.4	1.5	50 30	30	30	30	30	30
Naphthalene	-11.6 10.3	-10.0	-0.6	5.9	1.4	4.5	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	-9.4 9.0	-10.7	-1.0	6.3	0.0	5.8	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.: 410-33727-1 Analy Batch No.: 92110

SDG No.:

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2021 19:27 Calibration End Date: 02/08/2021 21:34 Calibration ID: 20165

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
Dibromofluoromethane (Surr)	-0.5 0.6	-0.5	-0.1	0.7	-0.1	-0.1	50 30	30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	-0.8 0.5	-1.9	0.9	1.1	0.4	-0.2	50 30	30	30	30	30	30
Toluene-d8 (Surr)	0.1 -0.2	-0.2	0.0	0.4	0.2	-0.2	50 30	30	30	30	30	30
4-Bromofluorobenzene (Surr)	0.0 0.0	-0.3	0.0	-0.2	0.4	0.1	50 30	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I11.D
Lims ID: IC std7 25
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 08-Feb-2021 19:27:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-012
Misc. Info.: IC STD7 25
Operator ID: SRK36897 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:38:43 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: knouses Date: 09-Feb-2021 13:15:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.068	2.069	-0.001	99	1852532	25.0	26.8	
6 Chloromethane	50	2.270	2.276	-0.006	99	1721184	25.0	24.3	
8 Butadiene	39	2.392	2.398	-0.006	91	1511268	25.0	24.5	
7 Vinyl chloride	62	2.398	2.398	0.000	98	1732038	25.0	25.6	
9 Bromomethane	94	2.727	2.733	-0.006	91	1319071	25.0	24.6	
10 Chloroethane	64	2.824	2.831	-0.007	100	1094433	25.0	25.0	
11 Dichlorofluoromethane	67	3.074	3.081	-0.007	97	2433441	25.0	24.6	
13 Trichlorofluoromethane	101	3.147	3.135	0.012	99	2646453	25.0	26.0	
15 Ethyl ether	59	3.422	3.428	-0.006	90	864851	25.0	25.6	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.495	3.507	-0.012	90	1670355	25.0	26.0	
17 Acrolein	56	3.599	3.611	-0.012	99	6627495	1250.0	1269.1	
18 1,1-Dichloroethene	96	3.745	3.751	-0.006	98	1346829	25.0	26.2	
20 112TCTFE	101	3.775	3.782	-0.007	91	1558666	25.0	27.2	
19 Acetone	43	3.775	3.788	-0.013	99	1555155	250.0	213.9	
22 Iodomethane	142	3.952	3.958	-0.006	99	2773260	25.0	25.5	
21 Isopropyl alcohol	45	3.952	3.989	-0.037	96	489958	500.0	399.5	
23 Ethyl bromide	108	3.989	3.995	-0.006	99	1226431	25.0	25.9	
24 Carbon disulfide	76	4.068	4.074	-0.006	99	3722236	25.0	26.0	
26 Methyl acetate	43	4.227	4.227	0.000	97	461285	25.0	23.7	
27 3-Chloro-1-propene	41	4.257	4.257	0.000	89	2041646	25.0	25.2	
29 Methylene Chloride	84	4.452	4.458	-0.006	89	1360934	25.0	25.8	
* 28 t-Butyl alcohol-d10 (IS)	65	4.458	4.464	-0.006	0	114076	50.0	50.0	
30 2-Methyl-2-propanol	59	4.586	4.611	-0.025	99	1121236	500.0	467.1	
31 Acrylonitrile	53	4.793	4.812	-0.019	97	1088299	125.0	125.8	
32 Methyl tert-butyl ether	73	4.867	4.861	0.006	94	3152562	25.0	25.6	
33 trans-1,2-Dichloroethene	96	4.879	4.885	-0.006	99	1479924	25.0	25.7	
34 Hexane	57	5.299	5.306	-0.007	92	2000487	25.0	27.2	
35 1,1-Dichloroethane	63	5.537	5.543	-0.006	96	2581690	25.0	26.1	
37 Isopropyl ether	45	5.592	5.592	0.000	93	4014057	25.0	25.7	
38 2-Chloro-1,3-butadiene	53	5.647	5.647	0.000	91	2295965	25.0	26.6	

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	6.123	6.123	-0.001	97	3956419	25.0	25.7	
S 40 1,2-Dichloroethene, Total	100				0			51.4	
41 2-Butanone (MEK)	43	6.318	6.318	0.000	99	2729334	250.0	251.6	
42 cis-1,2-Dichloroethene	96	6.366	6.366	0.000	81	1658068	25.0	25.8	
43 2,2-Dichloropropane	77	6.385	6.385	0.000	89	2394926	25.0	26.3	
45 Propionitrile	54	6.403	6.409	-0.006	99	1498898	500.0	511.5	
47 Methacrylonitrile	67	6.629	6.623	0.005	91	3108775	250.0	259.3	
48 Chlorobromomethane	128	6.696	6.702	-0.006	87	751523	25.0	25.9	
49 Tetrahydrofuran	71	6.702	6.702	0.000	85	836231	250.0	256.1	
50 Chloroform	83	6.842	6.842	0.000	93	2645964	25.0	25.7	
$ 51 Dibromofluoromethane (Surr)	113	7.055	7.055	0.000	94	594574	10.0	10.1	
52 1,1,1-Trichloroethane	97	7.080	7.080	0.000	98	2597584	25.0	26.4	
53 Cyclohexane	56	7.177	7.183	-0.006	89	2537511	25.0	27.2	
55 1,1-Dichloropropene	75	7.287	7.287	0.000	97	2152623	25.0	26.8	
56 Carbon tetrachloride	117	7.293	7.293	0.000	96	2341416	25.0	26.7	
57 Isobutyl alcohol	41	7.415	7.421	-0.006	93	847994	1250.0	1044.1	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.512	7.513	-0.001	0	111562	10.0	10.0	
59 Benzene	78	7.549	7.549	0.000	95	5986444	25.0	26.2	
60 1,2-Dichloroethane	62	7.616	7.616	0.000	98	1545433	25.0	24.9	
62 Tert-amyl methyl ether	73	7.732	7.732	0.000	98	3599537	25.0	26.1	
* 65 Fluorobenzene (IS)	96	7.951	7.951	0.000	99	2294031	10.0	10.0	
64 n-Heptane	43	7.958	7.958	0.000	90	1977329	25.0	26.2	
66 n-Butanol	56	8.293	8.293	0.000	87	1382745	2500.0	2027.4	
67 Trichloroethene	95	8.433	8.427	0.006	97	1670795	25.0	26.1	
68 Methylcyclohexane	83	8.744	8.744	0.000	92	2910630	25.0	27.5	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	96	2327632	25.0	26.4	
70 1,2-Dichloropropane	63	8.762	8.762	0.000	70	1431911	25.0	26.3	
71 Methyl methacrylate	69	8.835	8.836	-0.001	89	622700	25.0	26.5	
72 1,4-Dioxane	88	8.854	8.860	-0.006	30	133072	1250.0	602.6	M
73 Dibromomethane	93	8.878	8.878	0.000	93	710271	25.0	25.6	
75 Dichlorobromomethane	83	9.110	9.104	0.006	99	1914983	25.0	26.7	
76 2-Nitropropane	41	9.366	9.366	0.000	98	1950510	250.0	259.0	
79 1-Bromo-2-chloroethane	63	9.494	9.494	0.000	98	1308653	25.0	26.9	
80 cis-1,3-Dichloropropene	75	9.634	9.634	0.000	96	2262544	25.0	27.1	
81 4-Methyl-2-pentanone (MIBK)	43	9.799	9.799	0.000	95	7291246	250.0	256.7	
$ 82 Toluene-d8 (Surr)	98	9.939	9.933	0.006	93	2287914	10.0	9.98	
83 Toluene	92	10.012	10.012	0.000	98	3985183	25.0	26.0	
S 84 1,3-Dichloropropene, Total	100				0			54.6	
85 trans-1,3-Dichloropropene	75	10.256	10.256	0.000	92	1844163	25.0	27.5	
86 Ethyl methacrylate	69	10.311	10.311	0.000	88	1369772	25.0	27.1	
87 1,1,2-Trichloroethane	97	10.463	10.457	0.006	90	1008358	25.0	26.2	
88 Tetrachloroethene	166	10.548	10.549	-0.001	98	2012000	25.0	26.4	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	89	1684240	25.0	26.0	
91 2-Hexanone	43	10.664	10.664	0.000	95	4955228	250.0	255.9	
93 Chlorodibromomethane	129	10.835	10.835	0.000	89	1394208	25.0	27.4	
94 Ethylene Dibromide	107	10.951	10.951	0.000	99	1014944	25.0	26.2	
S 95 Xylenes, Total	106				0			78.5	
* 97 Chlorobenzene-d5 (IS)	117	11.371	11.371	0.000	85	1766200	10.0	10.0	
96 1-Chlorohexane	91	11.371	11.372	-0.001	96	2318472	25.0	25.5	
98 Chlorobenzene	112	11.396	11.396	0.000	98	4395277	25.0	25.7	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	96	1625091	25.0	26.3	
100 Ethylbenzene	91	11.481	11.481	0.000	98	7751384	25.0	26.0	

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	11.591	11.591	0.000	98	6115063	50.0	52.2	
102 o-Xylene	106	11.920	11.920	0.000	97	3005757	25.0	26.3	
103 Styrene	104	11.932	11.932	0.000	94	4893590	25.0	26.3	
104 Bromoform	173	12.097	12.097	0.000	98	832653	25.0	27.9	
105 Isopropylbenzene	105	12.213	12.213	0.000	96	8137938	25.0	26.3	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	93	852650	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	93	1171712	25.0	27.1	
111 Bromobenzene	156	12.481	12.481	0.000	96	1883867	25.0	26.5	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	89	3096537	250.0	262.5	
112 1,2,3-Trichloropropane	110	12.505	12.506	-0.001	82	329291	25.0	25.6	
113 N-Propylbenzene	91	12.542	12.542	0.000	99	9117385	25.0	26.9	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	1901554	25.0	26.7	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	94	6813943	25.0	27.1	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	1901768	25.0	26.7	
118 tert-Butylbenzene	134	12.920	12.920	0.000	92	1512730	25.0	27.4	
119 Pentachloroethane	167	12.957	12.957	0.000	95	1248884	25.0	28.4	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	6876974	25.0	26.8	
121 sec-Butylbenzene	105	13.085	13.085	0.000	94	8805675	25.0	27.5	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	98	3716862	25.0	26.3	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	7546223	25.0	27.3	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	958836	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	95	3670993	25.0	26.2	
126 1,2,3-Trimethylbenzene	120	13.267	13.268	-0.001	98	2960062	25.0	26.4	
127 Benzyl chloride	126	13.335	13.335	-0.001	98	545827	25.0	29.8	
129 p-Diethylbenzene	119	13.456	13.457	-0.001	96	4733768	25.0	27.6	
130 n-Butylbenzene	92	13.481	13.481	0.000	97	3597323	25.0	27.9	
131 1,2-Dichlorobenzene	146	13.517	13.518	-0.001	99	3316661	25.0	26.1	
134 1,2-Dibromo-3-Chloropropane	155	14.060	14.060	0.000	89	194660	25.0	28.4	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	98	2942164	25.0	27.6	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	94	2522273	25.0	28.0	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	96	1064891	25.0	26.0	
138 Naphthalene	128	14.792	14.792	0.000	97	4288455	25.0	27.6	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	96	2132656	25.0	27.3	
140 2-Methylnaphthalene	142	15.584	15.584	0.000	92	2756262	25.0	29.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

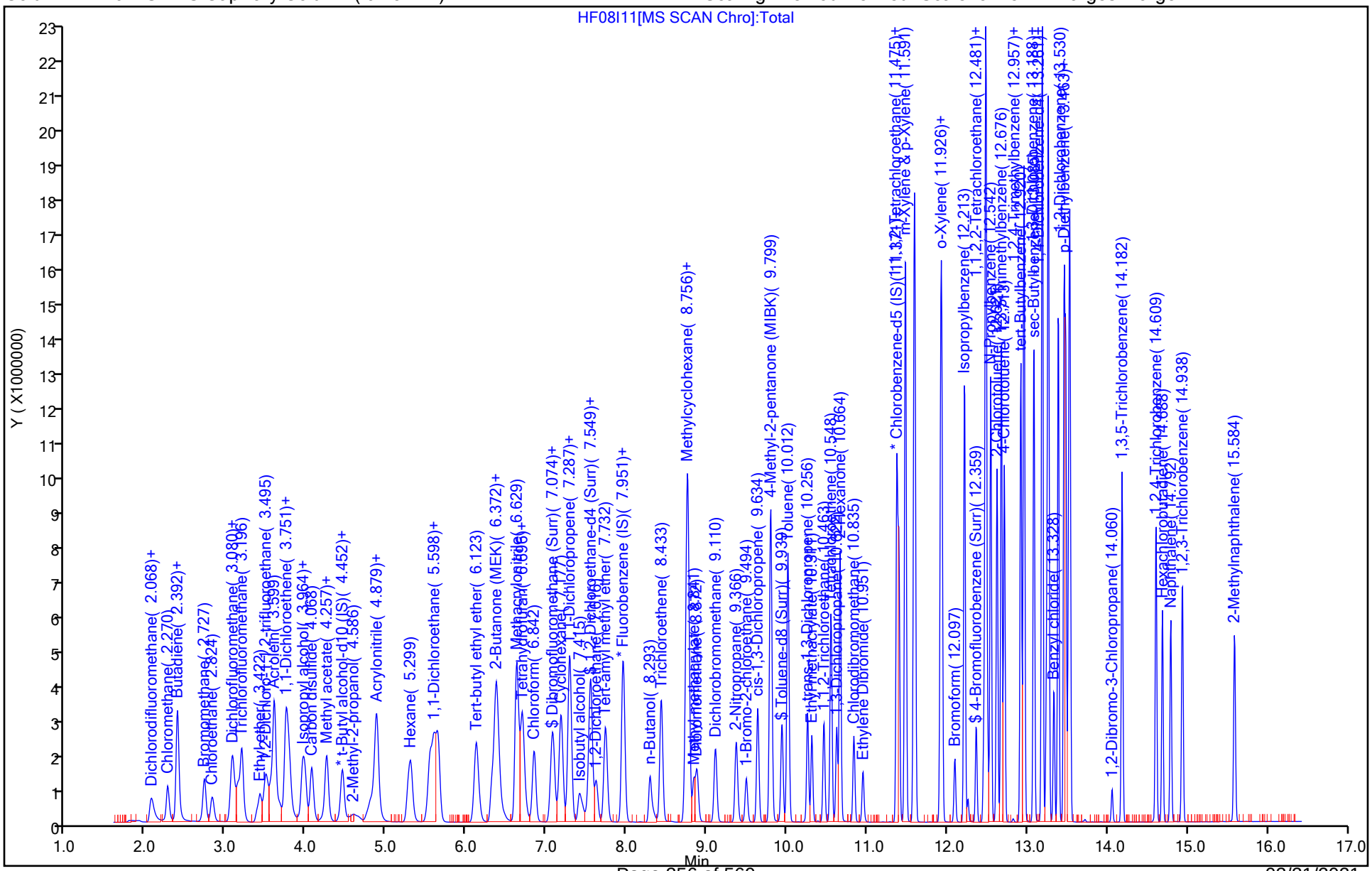
MSV_RV4_826_00044	Amount Added: 25.00	Units: uL	
MSV_RV1_826_00037	Amount Added: 25.00	Units: uL	
MSV_RV4GAS826_00112	Amount Added: 25.00	Units: uL	
MSV_30_826ISS_00006	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 09-Feb-2021 15:38:45 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I11.D				
Injection Date:	08-Feb-2021 19:27:30	Instrument ID:	19094	Operator ID:	SRK36897
Lims ID:	IC std7 25			Worklist Smp#:	12
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
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

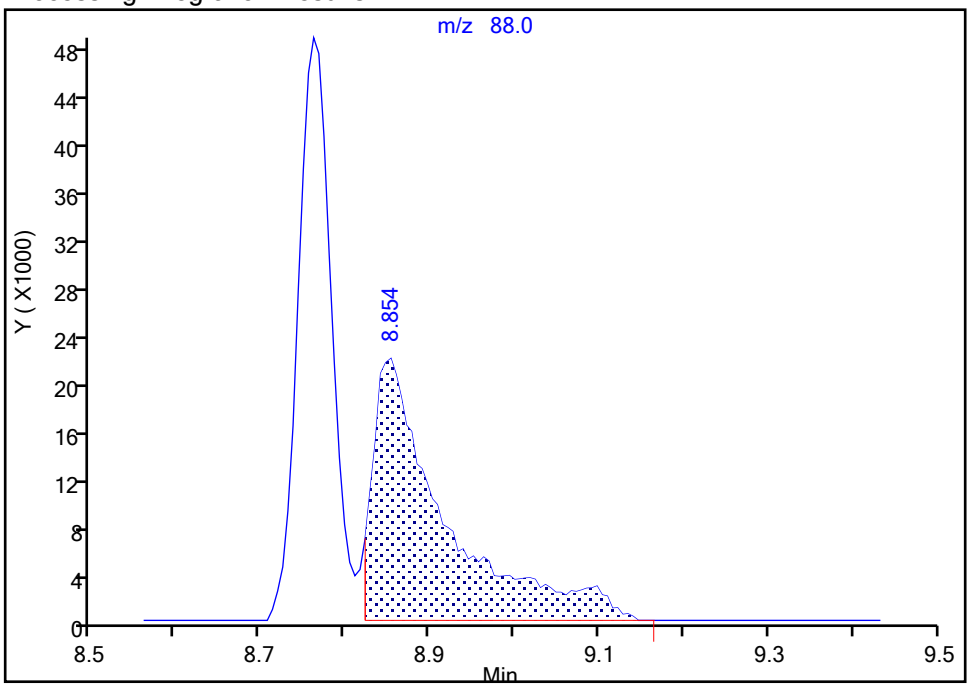
Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I11.D				
Injection Date:	08-Feb-2021 19:27:30	Instrument ID:	19094		
Lims ID:	IC std7 25				
Client ID:					
Operator ID:	SRK36897	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit 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

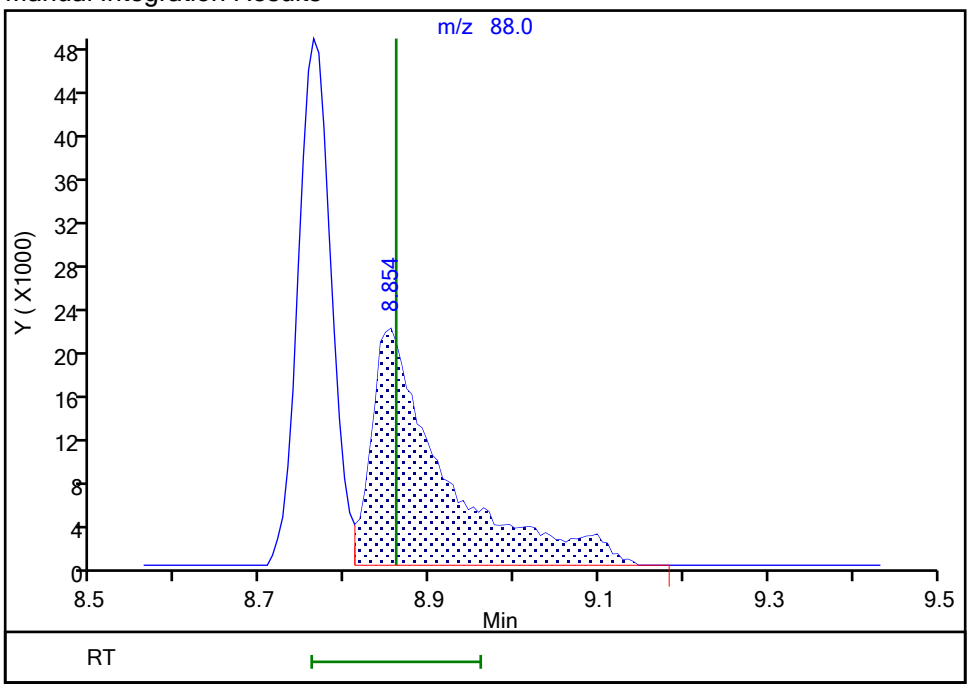
Processing Integration Results

RT: 8.85
Area: 130159
Amount: 608.1644
Amount Units: ug/l



Manual Integration Results

RT: 8.85
Area: 133072
Amount: 602.6380
Amount Units: ug/l



Reviewer: longj, 09-Feb-2021 14:57:24
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I12.D
Lims ID: ICIS 10
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 08-Feb-2021 19:48:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-013
Misc. Info.: ICIS 10
Operator ID: SRK36897 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:39:00 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: knouses Date: 09-Feb-2021 13:17:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.074	2.074	0.000	99	719959	10.0	10.5	
6 Chloromethane	50	2.276	2.276	0.000	99	699038	10.0	9.91	
8 Butadiene	39	2.391	2.391	0.000	92	606735	10.0	9.91	
7 Vinyl chloride	62	2.398	2.398	0.000	98	683094	10.0	10.2	
9 Bromomethane	94	2.733	2.733	0.000	90	519106	10.0	9.73	
10 Chloroethane	64	2.830	2.830	0.000	100	434468	10.0	10.0	
11 Dichlorofluoromethane	67	3.074	3.074	0.000	97	952421	10.0	9.67	
13 Trichlorofluoromethane	101	3.141	3.141	0.000	97	1026722	10.0	10.2	
15 Ethyl ether	59	3.428	3.428	0.000	89	351961	10.0	10.5	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.501	3.501	0.000	90	667469	10.0	10.5	
17 Acrolein	56	3.605	3.605	0.000	99	2498890	500.0	538.8	
18 1,1-Dichloroethene	96	3.751	3.751	0.000	98	531126	10.0	10.4	
20 112TCTFE	101	3.781	3.781	0.000	92	622602	10.0	10.9	
19 Acetone	43	3.775	3.775	0.000	76	580168	100.0	89.9	
22 Iodomethane	142	3.958	3.958	0.000	99	1079208	10.0	10.0	
21 Isopropyl alcohol	45	3.964	3.964	0.000	99	220594	200.0	180.9	
23 Ethyl bromide	108	3.989	3.989	0.000	99	478872	10.0	10.2	
24 Carbon disulfide	76	4.074	4.074	0.000	99	1471339	10.0	10.3	
26 Methyl acetate	43	4.220	4.220	0.000	96	178783	10.0	10.4	
27 3-Chloro-1-propene	41	4.257	4.257	0.000	90	801092	10.0	9.94	
29 Methylene Chloride	84	4.452	4.452	0.000	89	530650	10.0	10.1	
* 28 t-Butyl alcohol-d10 (IS)	65	4.458	4.458	0.000	0	101309	50.0	50.0	
30 2-Methyl-2-propanol	59	4.598	4.598	0.000	100	416747	200.0	195.5	
31 Acrylonitrile	53	4.793	4.793	0.000	100	411544	50.0	53.6	
32 Methyl tert-butyl ether	73	4.860	4.860	0.000	95	1242826	10.0	10.2	
33 trans-1,2-Dichloroethene	96	4.885	4.885	0.000	99	576863	10.0	10.1	
34 Hexane	57	5.299	5.299	0.000	92	809796	10.0	11.1	
35 1,1-Dichloroethane	63	5.543	5.543	0.000	96	1010891	10.0	10.3	
37 Isopropyl ether	45	5.592	5.592	0.000	92	1575080	10.0	10.2	
38 2-Chloro-1,3-butadiene	53	5.647	5.647	0.000	91	895697	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
39 Tert-butyl ethyl ether	59	6.122	6.122	0.000	97	1558769	10.0	10.2	
41 2-Butanone (MEK)	43	6.324	6.324	0.000	99	1037152	100.0	107.6	
42 cis-1,2-Dichloroethene	96	6.366	6.366	0.000	81	644803	10.0	10.1	
43 2,2-Dichloropropane	77	6.385	6.385	0.000	88	932709	10.0	10.3	
45 Propionitrile	54	6.409	6.409	0.000	98	532921	200.0	204.8	
47 Methacrylonitrile	67	6.628	6.628	0.000	91	1199836	100.0	112.7	
48 Chlorobromomethane	128	6.695	6.695	0.000	85	292408	10.0	10.1	
49 Tetrahydrofuran	71	6.702	6.702	0.000	90	320500	100.0	110.5	
50 Chloroform	83	6.848	6.848	0.000	93	1024636	10.0	10.0	
$ 51 Dibromofluoromethane (Surr)	113	7.061	7.061	0.000	94	586546	10.0	9.99	
52 1,1,1-Trichloroethane	97	7.080	7.080	0.000	98	1006507	10.0	10.3	
53 Cyclohexane	56	7.183	7.183	0.000	89	1000175	10.0	10.8	
55 1,1-Dichloropropene	75	7.287	7.287	0.000	97	828417	10.0	10.4	
56 Carbon tetrachloride	117	7.293	7.293	0.000	96	912626	10.0	10.5	
57 Isobutyl alcohol	41	7.409	7.409	0.000	93	336586	500.0	466.6	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.519	7.519	0.000	0	110191	10.0	9.98	
59 Benzene	78	7.549	7.549	0.000	96	2312544	10.0	10.2	
60 1,2-Dichloroethane	62	7.622	7.622	0.000	98	579583	10.0	9.38	
62 Tert-amyl methyl ether	73	7.732	7.732	0.000	98	1400948	10.0	10.2	
* 65 Fluorobenzene (IS)	96	7.951	7.951	0.000	99	2280609	10.0	10.0	
64 n-Heptane	43	7.957	7.957	0.000	89	817870	10.0	10.9	
66 n-Butanol	56	8.293	8.293	0.000	88	699641	1000.0	1155.1	
67 Trichloroethene	95	8.427	8.427	0.000	97	646583	10.0	10.2	
68 Methylcyclohexane	83	8.744	8.744	0.000	93	1153460	10.0	10.9	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	94	899934	10.0	10.3	
70 1,2-Dichloropropane	63	8.768	8.768	0.000	85	553636	10.0	10.2	
71 Methyl methacrylate	69	8.835	8.835	0.000	90	239581	10.0	11.5	
72 1,4-Dioxane	88	8.854	8.854	0.000	88	105174	500.0	503.3	
73 Dibromomethane	93	8.872	8.872	0.000	94	275630	10.0	10.0	
75 Dichlorobromomethane	83	9.104	9.104	0.000	99	729056	10.0	10.2	
76 2-Nitropropane	41	9.366	9.366	0.000	98	729914	100.0	109.1	
79 1-Bromo-2-chloroethane	63	9.494	9.494	0.000	98	508126	10.0	10.5	
80 cis-1,3-Dichloropropene	75	9.634	9.634	0.000	96	869365	10.0	10.5	
81 4-Methyl-2-pentanone (MIBK)	43	9.799	9.799	0.000	96	2797813	100.0	110.9	
$ 82 Toluene-d8 (Surr)	98	9.939	9.939	0.000	93	2273593	10.0	9.98	
83 Toluene	92	10.012	10.012	0.000	98	1543819	10.0	10.1	
85 trans-1,3-Dichloropropene	75	10.256	10.256	0.000	92	704578	10.0	10.6	
86 Ethyl methacrylate	69	10.311	10.311	0.000	88	527750	10.0	10.5	
87 1,1,2-Trichloroethane	97	10.457	10.457	0.000	91	386276	10.0	10.1	
88 Tetrachloroethene	166	10.548	10.548	0.000	98	779350	10.0	10.3	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	89	654691	10.0	10.2	
91 2-Hexanone	43	10.664	10.664	0.000	96	1932766	100.0	112.4	
93 Chlorodibromomethane	129	10.835	10.835	0.000	89	528261	10.0	10.4	
94 Ethylene Dibromide	107	10.951	10.951	0.000	99	395557	10.0	10.3	
* 97 Chlorobenzene-d5 (IS)	117	11.371	11.371	0.000	86	1755795	10.0	10.0	
96 1-Chlorohexane	91	11.371	11.371	0.000	94	912088	10.0	10.1	
98 Chlorobenzene	112	11.396	11.396	0.000	96	1704365	10.0	10.0	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	44	625552	10.0	10.2	
100 Ethylbenzene	91	11.481	11.481	0.000	98	3031833	10.0	10.2	
101 m-Xylene & p-Xylene	106	11.591	11.591	0.000	98	2372673	20.0	20.4	
102 o-Xylene	106	11.920	11.920	0.000	96	1168600	10.0	10.3	
103 Styrene	104	11.932	11.932	0.000	94	1895902	10.0	10.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	12.097	12.097	0.000	98	311784	10.0	10.5	
105 Isopropylbenzene	105	12.219	12.219	0.000	95	3178372	10.0	10.3	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	93	848283	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	94	447932	10.0	10.3	
111 Bromobenzene	156	12.481	12.481	0.000	94	729952	10.0	10.2	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	89	1206031	100.0	115.1	
112 1,2,3-Trichloropropane	110	12.505	12.505	0.000	82	127400	10.0	9.89	
113 N-Propylbenzene	91	12.542	12.542	0.000	99	3573259	10.0	10.5	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	736118	10.0	10.3	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	95	2653261	10.0	10.5	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	738480	10.0	10.3	
118 tert-Butylbenzene	134	12.920	12.920	0.000	92	580760	10.0	10.5	
119 Pentachloroethane	167	12.956	12.956	0.000	92	476560	10.0	10.8	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	2673300	10.0	10.4	
121 sec-Butylbenzene	105	13.084	13.084	0.000	94	3459448	10.0	10.8	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	97	1445066	10.0	10.2	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	2971338	10.0	10.7	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	960975	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	95	1419167	10.0	10.1	
126 1,2,3-Trimethylbenzene	120	13.267	13.267	0.000	98	1153375	10.0	10.2	
127 Benzyl chloride	126	13.334	13.334	0.000	98	203162	10.0	11.0	
129 p-Diethylbenzene	119	13.456	13.456	0.000	95	1857221	10.0	10.8	
130 n-Butylbenzene	92	13.481	13.481	0.000	96	1407312	10.0	10.9	
131 1,2-Dichlorobenzene	146	13.517	13.517	0.000	99	1293101	10.0	10.1	
134 1,2-Dibromo-3-Chloropropane	155	14.060	14.060	0.000	89	71060	10.0	10.4	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	98	1137336	10.0	10.6	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	94	962015	10.0	10.6	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	97	416734	10.0	10.2	
138 Naphthalene	128	14.791	14.791	0.000	97	1628238	10.0	10.5	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	96	829651	10.0	10.6	
140 2-Methylnaphthalene	142	15.584	15.584	0.000	92	1076437	10.0	11.4	

QC Flag Legend

Processing Flags

Reagents:

MSV_RV1_826_00037	Amount Added: 10.00	Units: uL	
MSV_RV4_826_00044	Amount Added: 10.00	Units: uL	
MSV_RV4GAS826_00112	Amount Added: 10.00	Units: uL	
MSV_30_826ISS_00006	Amount Added: 5.00	Units: uL	Run Reagent

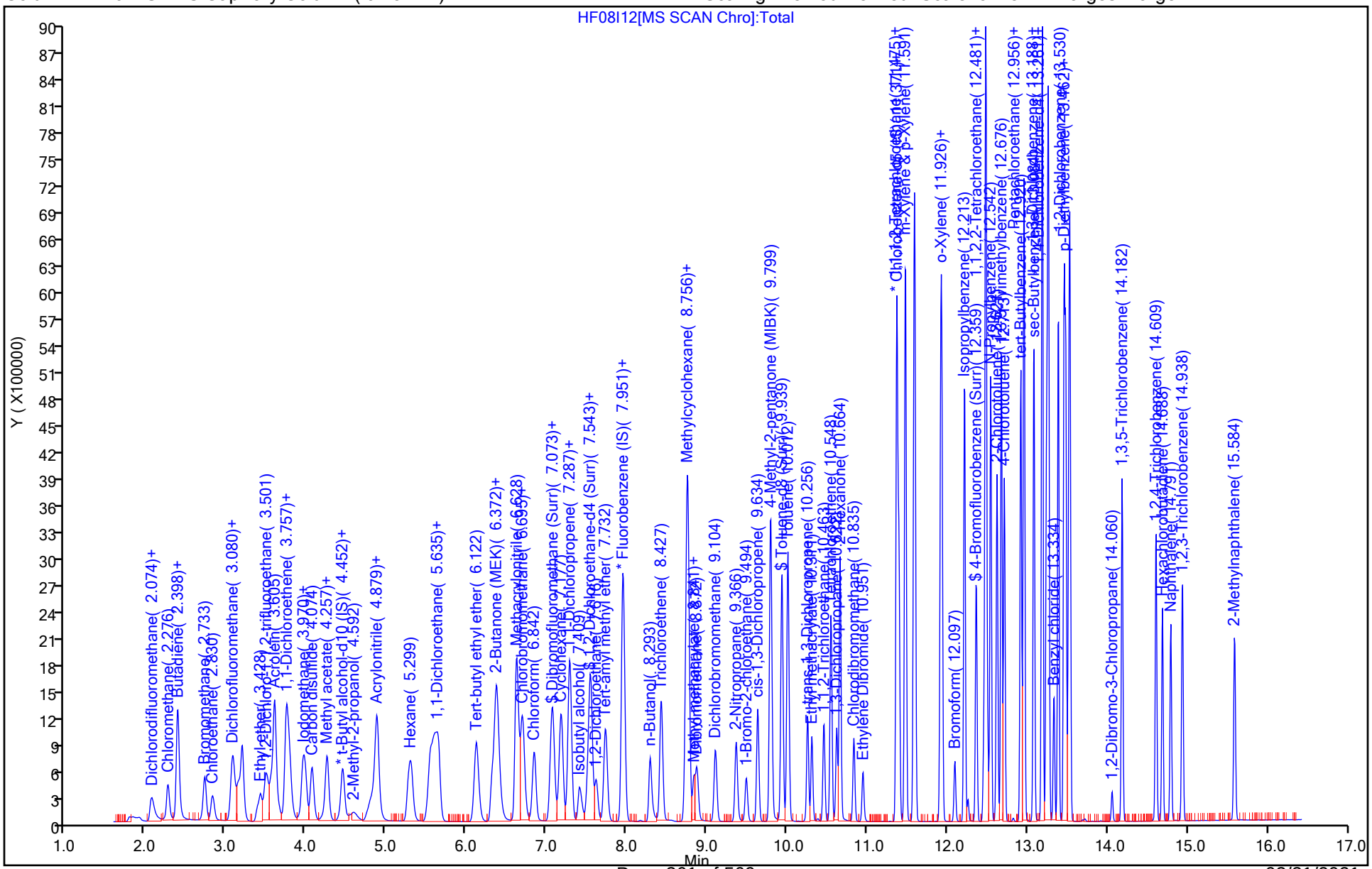
Report Date: 09-Feb-2021 15:39:02 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I12.D

Injection Date:	08-Feb-2021 19:48:30	Instrument ID:	19094	Operator ID:	SRK36897
Lims ID:	ICIS 10			Worklist Smp#:	13
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
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\20210208-21577.b\HF08I13.D
Lims ID: IC std5 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 08-Feb-2021 20:09:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-014
Misc. Info.: IC STD5 5
Operator ID: SRK36897 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:39:15 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: knouses Date: 09-Feb-2021 13:18:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.074	2.074	0.000	99	362946	5.00	5.29	
6 Chloromethane	50	2.282	2.276	0.006	99	346581	5.00	4.91	
8 Butadiene	39	2.404	2.391	0.013	91	288719	5.00	4.72	
7 Vinyl chloride	62	2.404	2.398	0.006	89	344925	5.00	5.14	
9 Bromomethane	94	2.739	2.733	0.006	91	260771	5.00	4.89	
10 Chloroethane	64	2.836	2.830	0.006	100	216452	5.00	4.98	
11 Dichlorofluoromethane	67	3.080	3.074	0.006	97	484719	5.00	4.92	
13 Trichlorofluoromethane	101	3.147	3.141	0.006	98	520710	5.00	5.15	
15 Ethyl ether	59	3.434	3.428	0.006	89	156356	5.00	4.67	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.507	3.501	0.006	91	316831	5.00	4.97	
17 Acrolein	56	3.611	3.605	0.006	99	1256343	250.0	251.1	
18 1,1-Dichloroethene	96	3.757	3.751	0.006	98	254460	5.00	4.97	
19 Acetone	43	3.794	3.775	0.019	78	308417	50.0	44.3	
20 112TCTFE	101	3.794	3.781	0.013	91	291216	5.00	5.12	
22 Iodomethane	142	3.964	3.958	0.006	99	520481	5.00	4.82	
21 Isopropyl alcohol	45	3.964	3.964	0.000	97	130737	100.0	107.3	
23 Ethyl bromide	108	3.995	3.989	0.006	99	226992	5.00	4.83	
24 Carbon disulfide	76	4.080	4.074	0.006	99	699874	5.00	4.91	
26 Methyl acetate	43	4.233	4.220	0.013	97	87906	5.00	4.72	
27 3-Chloro-1-propene	41	4.269	4.257	0.012	90	372820	5.00	4.63	
29 Methylene Chloride	84	4.458	4.452	0.006	89	258013	5.00	4.92	
* 28 t-Butyl alcohol-d10 (IS)	65	4.470	4.458	0.012	0	109304	50.0	50.0	
30 2-Methyl-2-propanol	59	4.611	4.598	0.012	99	244837	100.0	106.5	
31 Acrylonitrile	53	4.812	4.793	0.019	99	209949	25.0	25.3	
32 Methyl tert-butyl ether	73	4.873	4.860	0.013	94	601661	5.00	4.92	
33 trans-1,2-Dichloroethene	96	4.891	4.885	0.006	99	280075	5.00	4.89	
34 Hexane	57	5.299	5.299	0.000	92	378146	5.00	5.17	
35 1,1-Dichloroethane	63	5.543	5.543	0.000	96	477682	5.00	4.87	
37 Isopropyl ether	45	5.592	5.592	0.000	94	768054	5.00	4.95	
38 2-Chloro-1,3-butadiene	53	5.653	5.647	0.006	91	428618	5.00	5.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	6.122	6.122	0.000	97	753172	5.00	4.93	
S 40 1,2-Dichloroethene, Total	100				0			9.78	
41 2-Butanone (MEK)	43	6.324	6.324	0.000	99	514983	50.0	49.5	
42 cis-1,2-Dichloroethene	96	6.372	6.366	0.006	81	312669	5.00	4.89	
43 2,2-Dichloropropane	77	6.391	6.385	0.006	87	451619	5.00	4.99	
45 Propionitrile	54	6.409	6.409	0.000	99	296336	100.0	105.5	
47 Methacrylonitrile	67	6.628	6.628	0.000	91	574780	50.0	50.0	
48 Chlorobromomethane	128	6.702	6.695	0.007	86	138017	5.00	4.79	
49 Tetrahydrofuran	71	6.708	6.702	0.006	83	157026	50.0	50.2	
50 Chloroform	83	6.848	6.848	0.000	93	499937	5.00	4.90	
$ 51 Dibromofluoromethane (Surr)	113	7.061	7.061	0.000	94	586089	10.0	9.99	
52 1,1,1-Trichloroethane	97	7.086	7.080	0.006	98	487131	5.00	4.97	
53 Cyclohexane	56	7.183	7.183	0.000	89	468824	5.00	5.05	
55 1,1-Dichloropropene	75	7.293	7.287	0.006	97	394366	5.00	4.94	
56 Carbon tetrachloride	117	7.299	7.293	0.006	97	434411	5.00	4.98	
57 Isobutyl alcohol	41	7.415	7.409	0.006	94	185685	250.0	238.6	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.518	7.519	0.000	0	110768	10.0	10.0	
59 Benzene	78	7.549	7.549	0.000	96	1116469	5.00	4.92	
60 1,2-Dichloroethane	62	7.622	7.622	0.000	98	284633	5.00	4.61	
62 Tert-amyl methyl ether	73	7.738	7.732	0.006	98	677467	5.00	4.94	
* 65 Fluorobenzene (IS)	96	7.951	7.951	0.000	99	2279291	10.0	10.0	
64 n-Heptane	43	7.957	7.957	0.000	92	380691	5.00	5.07	
66 n-Butanol	56	8.293	8.293	0.000	88	344278	500.0	526.8	
67 Trichloroethene	95	8.433	8.427	0.006	97	311660	5.00	4.91	
68 Methylcyclohexane	83	8.750	8.744	0.006	93	530185	5.00	5.04	
69 2-ethoxy-2-methyl butane	87	8.768	8.762	0.006	93	434768	5.00	4.97	
70 1,2-Dichloropropane	63	8.768	8.768	0.000	87	266612	5.00	4.93	
71 Methyl methacrylate	69	8.835	8.835	0.000	88	116438	5.00	5.18	
72 1,4-Dioxane	88	8.854	8.854	0.000	88	61980	250.0	237.6	
73 Dibromomethane	93	8.872	8.872	0.000	93	131949	5.00	4.79	
75 Dichlorobromomethane	83	9.110	9.104	0.006	99	351051	5.00	4.92	
76 2-Nitropropane	41	9.366	9.366	0.000	99	355199	50.0	49.2	
79 1-Bromo-2-chloroethane	63	9.494	9.494	0.000	98	231571	5.00	4.79	
80 cis-1,3-Dichloropropene	75	9.634	9.634	0.000	96	410517	5.00	4.95	
81 4-Methyl-2-pentanone (MIBK)	43	9.799	9.799	0.000	96	1374501	50.0	50.5	
$ 82 Toluene-d8 (Surr)	98	9.939	9.939	0.000	93	2264366	10.0	10.0	
83 Toluene	92	10.012	10.012	0.000	98	737312	5.00	4.89	
S 84 1,3-Dichloropropene, Total	100				0			9.95	
85 trans-1,3-Dichloropropene	75	10.256	10.256	0.000	92	330823	5.00	5.00	
86 Ethyl methacrylate	69	10.311	10.311	0.000	88	250052	5.00	5.03	
87 1,1,2-Trichloroethane	97	10.463	10.457	0.006	90	187103	5.00	4.93	
88 Tetrachloroethene	166	10.548	10.548	0.000	98	372239	5.00	4.95	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	89	314617	5.00	4.92	
91 2-Hexanone	43	10.664	10.664	0.000	96	933185	50.0	50.3	
93 Chlorodibromomethane	129	10.835	10.835	0.000	89	250435	5.00	5.00	
94 Ethylene Dibromide	107	10.951	10.951	0.000	99	184626	5.00	4.83	
S 95 Xylenes, Total	106				0			14.9	
* 97 Chlorobenzene-d5 (IS)	117	11.371	11.371	0.000	86	1740825	10.0	10.0	
96 1-Chlorohexane	91	11.371	11.371	0.000	94	430905	5.00	4.80	
98 Chlorobenzene	112	11.396	11.396	0.000	96	825829	5.00	4.89	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	95	301549	5.00	4.96	
100 Ethylbenzene	91	11.481	11.481	0.000	98	1470367	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
101 m-Xylene & p-Xylene	106	11.591	11.591	0.000	98	1147966	10.0	9.94	
102 o-Xylene	106	11.920	11.920	0.000	96	561521	5.00	4.98	
103 Styrene	104	11.932	11.932	0.000	95	917222	5.00	5.01	
104 Bromoform	173	12.097	12.097	0.000	97	146398	5.00	4.98	
105 Isopropylbenzene	105	12.219	12.219	0.000	95	1521473	5.00	4.99	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	93	843493	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	93	216307	5.00	4.97	
111 Bromobenzene	156	12.481	12.481	0.000	95	351783	5.00	4.91	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	91	576720	50.0	51.0	
112 1,2,3-Trichloropropane	110	12.505	12.505	0.000	82	61617	5.00	4.77	
113 N-Propylbenzene	91	12.542	12.542	0.000	99	1714465	5.00	5.03	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	352494	5.00	4.93	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	94	1269331	5.00	5.02	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	360423	5.00	5.02	
118 tert-Butylbenzene	134	12.920	12.920	0.000	92	276868	5.00	4.98	
119 Pentachloroethane	167	12.956	12.956	0.000	91	220385	5.00	4.98	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	1292442	5.00	5.01	
121 sec-Butylbenzene	105	13.084	13.084	0.000	94	1634674	5.00	5.08	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	98	697947	5.00	4.91	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	1419932	5.00	5.10	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	964960	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	96	688371	5.00	4.88	
126 1,2,3-Trimethylbenzene	120	13.267	13.267	0.000	98	539324	5.00	4.77	
127 Benzyl chloride	126	13.334	13.334	0.000	98	94324	5.00	5.11	
129 p-Diethylbenzene	119	13.456	13.456	0.000	96	854798	5.00	4.96	
130 n-Butylbenzene	92	13.481	13.481	0.000	96	662837	5.00	5.10	
131 1,2-Dichlorobenzene	146	13.517	13.517	0.000	99	625909	5.00	4.88	
134 1,2-Dibromo-3-Chloropropane	155	14.060	14.060	0.000	88	34863	5.00	5.06	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	98	537786	5.00	5.01	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	94	455902	5.00	5.02	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	97	198948	5.00	4.83	
138 Naphthalene	128	14.791	14.791	0.000	96	792959	5.00	5.07	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	96	393678	5.00	5.00	
140 2-Methylnaphthalene	142	15.590	15.584	0.006	92	488926	5.00	5.14	

QC Flag Legend

Processing Flags

Reagents:

MSV_RV1_826_00037	Amount Added:	5.00	Units: uL	
MSV_RV4_826_00044	Amount Added:	5.00	Units: uL	
MSV_RV4GAS826_00112	Amount Added:	5.00	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 09-Feb-2021 15:39:17 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I13.D

Injection Date: 08-Feb-2021 20:09:30 Instrument ID: 19094 Operator ID: SRK36897

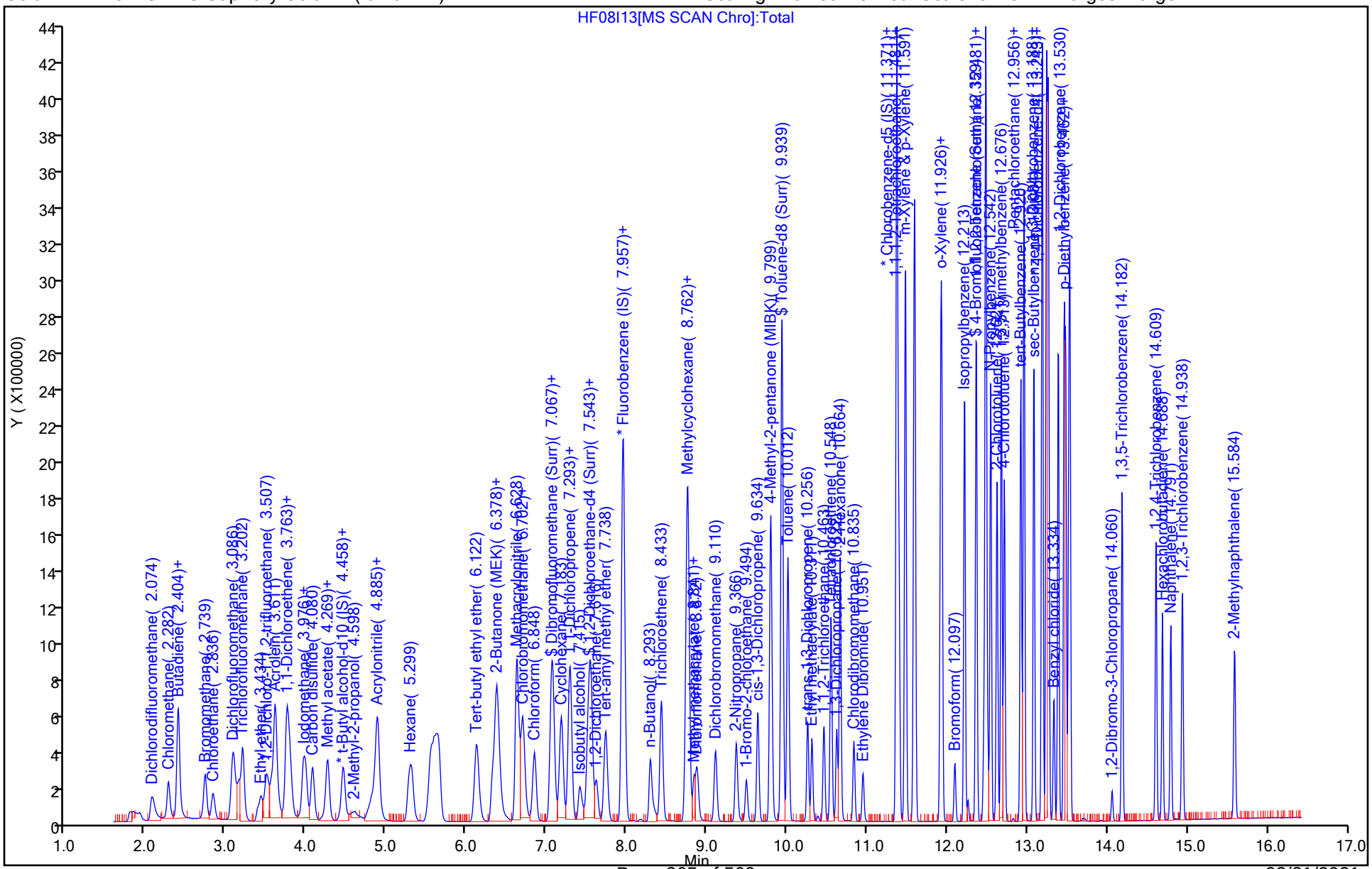
Lims ID: IC std5 5 Worklist Smp#: 14

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



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I14.D
Lims ID: IC std4 2
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 08-Feb-2021 20:30:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-015
Misc. Info.: IC STD4 2
Operator ID: SRK36897 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:39:31 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: knouses Date: 09-Feb-2021 13:19:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.069	2.069	0.000	99	141598	2.00	2.08	
6 Chloromethane	50	2.276	2.276	0.000	99	142283	2.00	2.03	
8 Butadiene	39	2.398	2.398	0.000	90	125930	2.00	2.08	
7 Vinyl chloride	62	2.398	2.398	0.000	84	135729	2.00	2.04	
9 Bromomethane	94	2.733	2.733	0.000	90	106382	2.00	2.01	
10 Chloroethane	64	2.831	2.831	0.000	100	87256	2.00	2.02	
11 Dichlorofluoromethane	67	3.081	3.081	0.000	97	196244	2.00	2.01	
13 Trichlorofluoromethane	101	3.135	3.135	0.000	97	204604	2.00	2.04	
15 Ethyl ether	59	3.428	3.428	0.000	88	64539	2.00	1.94	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.507	3.507	0.000	88	135902	2.00	2.15	
17 Acrolein	56	3.611	3.611	0.000	99	540913	100.0	106.9	
18 1,1-Dichloroethene	96	3.751	3.751	0.000	98	108581	2.00	2.14	
19 Acetone	43	3.788	3.788	0.000	77	142821	20.0	20.3	
20 112TCTFE	101	3.782	3.782	0.000	92	126884	2.00	2.25	
22 Iodomethane	142	3.958	3.958	0.000	99	227332	2.00	2.12	
21 Isopropyl alcohol	45	3.989	3.989	0.000	33	59407	40.0	49.1	
23 Ethyl bromide	108	3.995	3.995	0.000	98	90416	2.00	1.94	
24 Carbon disulfide	76	4.074	4.074	0.000	99	295236	2.00	2.09	
26 Methyl acetate	43	4.227	4.227	0.000	84	32171	2.00	1.71	
27 3-Chloro-1-propene	41	4.257	4.257	0.000	89	144767	2.00	1.81	
29 Methylene Chloride	84	4.458	4.458	0.000	89	109645	2.00	2.11	
* 28 t-Butyl alcohol-d10 (IS)	65	4.471	4.471	0.000	0	110547	50.0	50.0	
30 2-Methyl-2-propanol	59	4.611	4.611	0.000	99	109293	40.0	47.0	
31 Acrylonitrile	53	4.812	4.812	0.000	99	91444	10.0	10.9	
32 Methyl tert-butyl ether	73	4.861	4.861	0.000	95	256581	2.00	2.12	
33 trans-1,2-Dichloroethene	96	4.885	4.885	0.000	98	120805	2.00	2.13	
34 Hexane	57	5.306	5.306	0.000	93	159964	2.00	2.20	
35 1,1-Dichloroethane	63	5.543	5.543	0.000	96	207923	2.00	2.14	
37 Isopropyl ether	45	5.592	5.592	0.000	92	322605	2.00	2.10	
38 2-Chloro-1,3-butadiene	53	5.647	5.647	0.000	91	181387	2.00	2.13	

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	6.123	6.123	0.000	97	319253	2.00	2.11	
S 40 1,2-Dichloroethene, Total	100				0			4.20	
41 2-Butanone (MEK)	43	6.318	6.318	0.000	100	225688	20.0	21.5	
42 cis-1,2-Dichloroethene	96	6.366	6.366	0.000	81	131736	2.00	2.08	
43 2,2-Dichloropropane	77	6.385	6.385	0.000	87	190864	2.00	2.12	
45 Propionitrile	54	6.409	6.409	0.000	99	122110	40.0	43.0	
47 Methacrylonitrile	67	6.623	6.623	0.000	91	245545	20.0	21.1	
48 Chlorobromomethane	128	6.702	6.702	0.000	83	57027	2.00	1.99	
49 Tetrahydrofuran	71	6.702	6.702	0.000	78	67389	20.0	21.3	
50 Chloroform	83	6.842	6.842	0.000	93	211828	2.00	2.09	
$ 51 Dibromofluoromethane (Surr)	113	7.055	7.055	0.000	94	586341	10.0	10.1	
52 1,1,1-Trichloroethane	97	7.080	7.080	0.000	98	207490	2.00	2.14	
53 Cyclohexane	56	7.183	7.183	0.000	89	200115	2.00	2.17	
55 1,1-Dichloropropene	75	7.287	7.287	0.000	97	166669	2.00	2.11	
56 Carbon tetrachloride	117	7.293	7.293	0.000	96	183830	2.00	2.12	
57 Isobutyl alcohol	41	7.421	7.421	0.000	93	89083	100.0	113.2	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.513	7.513	0.000	0	110631	10.0	10.1	
59 Benzene	78	7.549	7.549	0.000	96	476783	2.00	2.12	
60 1,2-Dichloroethane	62	7.616	7.616	0.000	97	127372	2.00	2.08	
62 Tert-amyl methyl ether	73	7.732	7.732	0.000	98	288045	2.00	2.12	
* 65 Fluorobenzene (IS)	96	7.952	7.952	0.000	99	2261074	10.0	10.0	
64 n-Heptane	43	7.958	7.958	0.000	84	162092	2.00	2.17	
66 n-Butanol	56	8.293	8.293	0.000	88	153415	200.0	232.1	
67 Trichloroethene	95	8.427	8.427	0.000	97	133150	2.00	2.11	
68 Methylcyclohexane	83	8.744	8.744	0.000	93	202735	2.00	1.94	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	93	185729	2.00	2.14	
70 1,2-Dichloropropane	63	8.762	8.762	0.000	84	111445	2.00	2.08	
71 Methyl methacrylate	69	8.836	8.836	0.000	93	48479	2.00	2.13	
72 1,4-Dioxane	88	8.860	8.860	0.000	90	33238	100.0	120.6	
73 Dibromomethane	93	8.878	8.878	0.000	94	58736	2.00	2.15	
75 Dichlorobromomethane	83	9.104	9.104	0.000	99	147061	2.00	2.08	
76 2-Nitropropane	41	9.366	9.366	0.000	99	153173	20.0	21.0	
79 1-Bromo-2-chloroethane	63	9.494	9.494	0.000	99	93277	2.00	1.94	
80 cis-1,3-Dichloropropene	75	9.634	9.634	0.000	96	172643	2.00	2.10	
81 4-Methyl-2-pentanone (MIBK)	43	9.799	9.799	0.000	96	590002	20.0	21.4	
$ 82 Toluene-d8 (Surr)	98	9.933	9.933	0.000	93	2263708	10.0	10.0	
83 Toluene	92	10.012	10.012	0.000	98	316733	2.00	2.10	
S 84 1,3-Dichloropropene, Total	100				0			4.19	
85 trans-1,3-Dichloropropene	75	10.256	10.256	0.000	92	138441	2.00	2.10	
86 Ethyl methacrylate	69	10.311	10.311	0.000	89	106294	2.00	2.14	
87 1,1,2-Trichloroethane	97	10.457	10.457	0.000	90	78702	2.00	2.08	
88 Tetrachloroethene	166	10.549	10.549	0.000	98	161526	2.00	2.15	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	89	133204	2.00	2.09	
91 2-Hexanone	43	10.664	10.664	0.000	96	401472	20.0	21.4	
93 Chlorodibromomethane	129	10.835	10.835	0.000	90	104913	2.00	2.10	
94 Ethylene Dibromide	107	10.951	10.951	0.000	98	80842	2.00	2.12	
S 95 Xylenes, Total	106				0			6.39	
* 97 Chlorobenzene-d5 (IS)	117	11.372	11.372	0.000	86	1737725	10.0	10.0	
96 1-Chlorohexane	91	11.372	11.372	0.000	95	187272	2.00	2.09	
98 Chlorobenzene	112	11.396	11.396	0.000	97	353462	2.00	2.10	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	94	127217	2.00	2.10	
100 Ethylbenzene	91	11.481	11.481	0.000	98	621950	2.00	2.12	

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	11.591	11.591	0.000	98	492874	4.00	4.27	
102 o-Xylene	106	11.920	11.920	0.000	96	238182	2.00	2.12	
103 Styrene	104	11.932	11.932	0.000	94	387292	2.00	2.12	
104 Bromoform	173	12.097	12.097	0.000	96	61427	2.00	2.09	
105 Isopropylbenzene	105	12.213	12.213	0.000	96	647733	2.00	2.13	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	93	836737	10.0	9.98	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	94	93895	2.00	2.13	
111 Bromobenzene	156	12.481	12.481	0.000	97	149220	2.00	2.06	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	94	246704	20.0	21.6	
112 1,2,3-Trichloropropane	110	12.506	12.506	0.000	83	27601	2.00	2.11	
113 N-Propylbenzene	91	12.542	12.542	0.000	99	737514	2.00	2.14	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	151360	2.00	2.09	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	94	537490	2.00	2.10	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	152629	2.00	2.10	
118 tert-Butylbenzene	134	12.920	12.920	0.000	92	119134	2.00	2.12	
119 Pentachloroethane	167	12.957	12.957	0.000	92	85761	2.00	1.92	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	552380	2.00	2.12	
121 sec-Butylbenzene	105	13.085	13.085	0.000	94	692872	2.00	2.13	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	98	299647	2.00	2.09	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	602524	2.00	2.14	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	976099	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	95	297722	2.00	2.09	
126 1,2,3-Trimethylbenzene	120	13.268	13.268	0.000	98	215450	2.00	1.88	
127 Benzyl chloride	126	13.335	13.335	0.000	98	38570	2.00	2.07	
129 p-Diethylbenzene	119	13.457	13.457	0.000	96	338097	2.00	1.94	
130 n-Butylbenzene	92	13.481	13.481	0.000	97	280745	2.00	2.14	
131 1,2-Dichlorobenzene	146	13.518	13.518	0.000	98	274265	2.00	2.12	
134 1,2-Dibromo-3-Chloropropane	155	14.060	14.060	0.000	90	15111	2.00	2.17	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	97	224343	2.00	2.07	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	94	191804	2.00	2.09	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	96	88959	2.00	2.13	
138 Naphthalene	128	14.792	14.792	0.000	97	335239	2.00	2.12	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	96	169405	2.00	2.13	
140 2-Methylnaphthalene	142	15.584	15.584	0.000	92	187258	2.00	1.95	

QC Flag Legend

Processing Flags

Reagents:

MSV_RV1_826_00037	Amount Added:	2.00	Units: uL	
MSV_RV4_826_00044	Amount Added:	2.00	Units: uL	
MSV_RV4GAS826_00112	Amount Added:	2.00	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

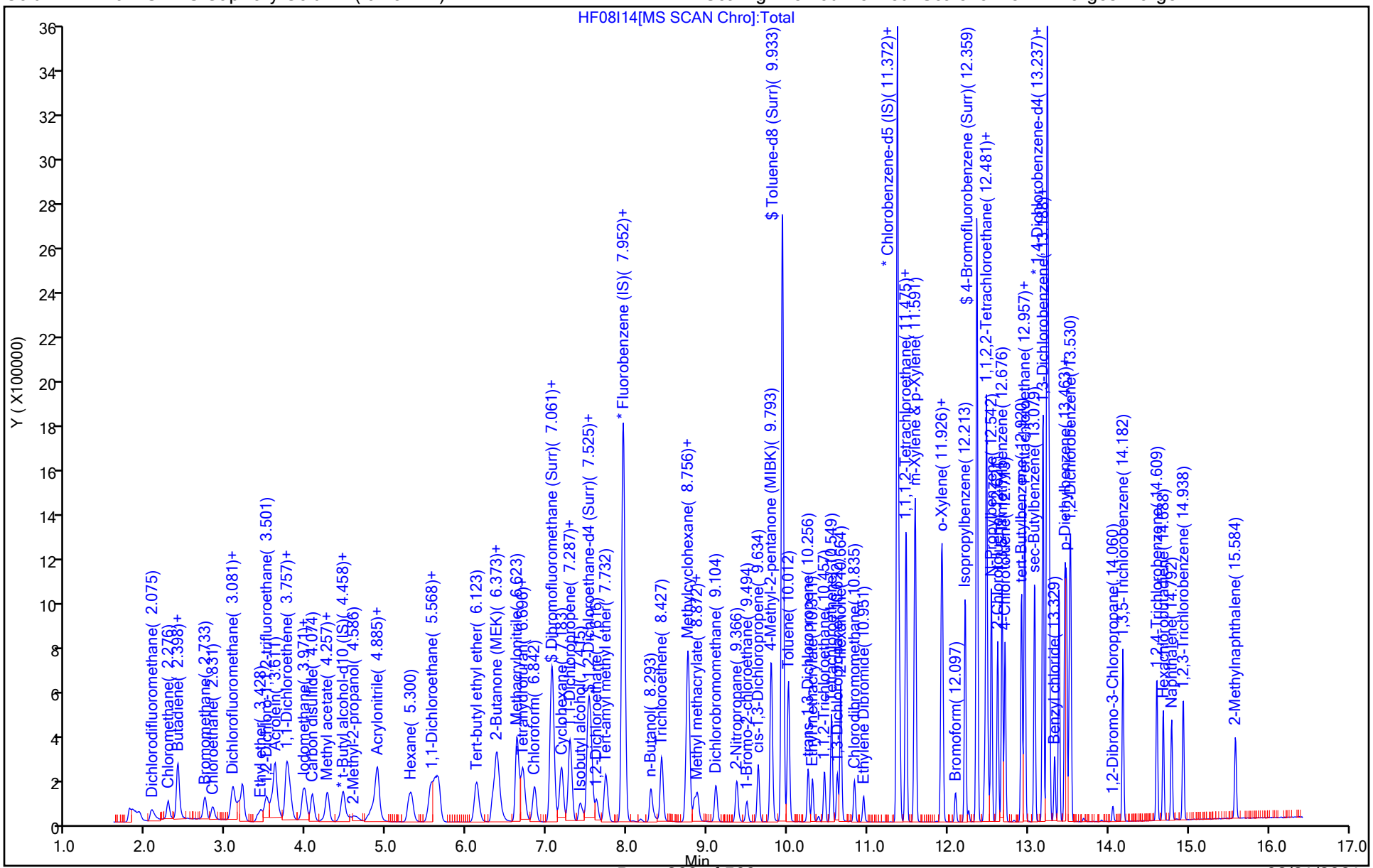
Report Date: 09-Feb-2021 15:39:33 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I14.D

Injection Date:	08-Feb-2021 20:30:30	Instrument ID:	19094	Operator ID:	SRK36897
Lims ID:	IC std4 2			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



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I15.D
Lims ID: IC std3 1
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 08-Feb-2021 20:51:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-016
Misc. Info.: IC STD3 1
Operator ID: SRK36897 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:39:47 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: knouses Date: 09-Feb-2021 13:21:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.074	2.069	0.005	99	60407	1.00	0.8893	
6 Chloromethane	50	2.282	2.276	0.006	98	64058	1.00	0.9174	
8 Butadiene	39	2.398	2.398	0.000	93	60524	1.00	1.00	
7 Vinyl chloride	62	2.404	2.398	0.006	82	61192	1.00	0.9204	M
9 Bromomethane	94	2.739	2.733	0.006	91	48114	1.00	0.9112	
10 Chloroethane	64	2.843	2.831	0.012	100	39588	1.00	0.9199	
11 Dichlorofluoromethane	67	3.080	3.081	-0.001	97	90119	1.00	0.9245	
13 Trichlorofluoromethane	101	3.160	3.135	0.025	97	90990	1.00	0.9095	
15 Ethyl ether	59	3.428	3.428	0.000	89	33718	1.00	1.02	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.507	3.507	0.000	90	65904	1.00	1.04	
17 Acrolein	56	3.611	3.611	0.000	99	257871	50.0	48.1	
18 1,1-Dichloroethene	96	3.751	3.751	0.000	98	51660	1.00	1.02	
20 112TCTFE	101	3.788	3.782	0.006	91	57479	1.00	1.02	
19 Acetone	43	3.800	3.788	0.012	93	73976	10.0	9.91	
22 Iodomethane	142	3.964	3.958	0.006	99	106405	1.00	1.00	
21 Isopropyl alcohol	45	3.977	3.989	-0.013	27	25854	20.0	21.4	
23 Ethyl bromide	108	3.995	3.995	0.000	98	48106	1.00	1.03	
24 Carbon disulfide	76	4.080	4.074	0.006	99	140713	1.00	1.00	
26 Methyl acetate	43	4.239	4.227	0.012	32	14386	1.00	0.7203	
27 3-Chloro-1-propene	41	4.263	4.257	0.006	89	80942	1.00	1.01	
29 Methylene Chloride	84	4.464	4.458	0.006	90	51907	1.00	1.00	
* 28 t-Butyl alcohol-d10 (IS)	65	4.464	4.471	-0.007	0	117181	50.0	50.0	
30 2-Methyl-2-propanol	59	4.598	4.611	-0.013	98	50072	20.0	20.3	
31 Acrylonitrile	53	4.806	4.812	-0.006	98	43769	5.00	4.92	
32 Methyl tert-butyl ether	73	4.867	4.861	0.006	94	123263	1.00	1.02	
33 trans-1,2-Dichloroethene	96	4.891	4.885	0.006	98	56799	1.00	1.00	
34 Hexane	57	5.306	5.306	0.000	93	71414	1.00	0.9854	
35 1,1-Dichloroethane	63	5.543	5.543	0.000	96	98266	1.00	1.01	
37 Isopropyl ether	45	5.598	5.592	0.006	94	153198	1.00	1.00	
38 2-Chloro-1,3-butadiene	53	5.653	5.647	0.006	91	84730	1.00	1.00	

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	6.129	6.123	0.006	97	152705	1.00	1.01	
S 40 1,2-Dichloroethene, Total	100				0			2.00	
41 2-Butanone (MEK)	43	6.324	6.318	0.006	99	103062	10.0	9.25	
42 cis-1,2-Dichloroethene	96	6.372	6.366	0.006	81	63377	1.00	1.00	
43 2,2-Dichloropropane	77	6.385	6.385	0.000	90	90637	1.00	1.01	
45 Propionitrile	54	6.415	6.409	0.006	98	59813	20.0	19.9	
47 Methacrylonitrile	67	6.628	6.623	0.005	90	117247	10.0	9.52	
48 Chlorobromomethane	128	6.702	6.702	0.000	84	29956	1.00	1.05	
49 Tetrahydrofuran	71	6.702	6.702	0.000	92	32583	10.0	9.72	
50 Chloroform	83	6.848	6.842	0.006	93	102013	1.00	1.01	
$ 51 Dibromofluoromethane (Surr)	113	7.061	7.055	0.006	94	580759	10.0	10.0	
52 1,1,1-Trichloroethane	97	7.086	7.080	0.006	98	97830	1.00	1.01	
53 Cyclohexane	56	7.189	7.183	0.006	89	94880	1.00	1.03	
55 1,1-Dichloropropene	75	7.287	7.287	0.000	97	79418	1.00	1.01	
56 Carbon tetrachloride	117	7.293	7.293	0.000	97	87009	1.00	1.01	
57 Isobutyl alcohol	41	7.415	7.421	-0.006	91	37919	50.0	45.4	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.519	7.513	0.005	0	110149	10.0	10.1	
59 Benzene	78	7.549	7.549	0.000	95	225811	1.00	1.00	
60 1,2-Dichloroethane	62	7.622	7.616	0.006	98	61811	1.00	1.01	
62 Tert-amyl methyl ether	73	7.738	7.732	0.006	98	137060	1.00	1.01	
* 65 Fluorobenzene (IS)	96	7.951	7.952	-0.001	99	2256808	10.0	10.0	
64 n-Heptane	43	7.957	7.958	-0.001	90	75411	1.00	1.01	
66 n-Butanol	56	8.299	8.293	0.006	88	68469	100.0	97.7	
67 Trichloroethene	95	8.427	8.427	0.000	97	63948	1.00	1.02	
68 Methylcyclohexane	83	8.744	8.744	0.000	93	106574	1.00	1.02	
69 2-ethoxy-2-methyl butane	87	8.768	8.762	0.006	89	87573	1.00	1.01	
70 1,2-Dichloropropane	63	8.768	8.762	0.006	72	53180	1.00	0.99	
71 Methyl methacrylate	69	8.841	8.836	0.005	85	22782	1.00	0.9452	
72 1,4-Dioxane	88	8.848	8.860	-0.012	38	13396	50.0	46.9	
73 Dibromomethane	93	8.878	8.878	0.000	94	26884	1.00	0.9857	
75 Dichlorobromomethane	83	9.110	9.104	0.006	99	71488	1.00	1.01	
76 2-Nitropropane	41	9.366	9.366	0.000	99	73151	10.0	9.46	
79 1-Bromo-2-chloroethane	63	9.494	9.494	0.000	98	48199	1.00	1.01	
80 cis-1,3-Dichloropropene	75	9.634	9.634	0.000	95	80733	1.00	0.9830	
81 4-Methyl-2-pentanone (MIBK)	43	9.799	9.799	0.000	97	278180	10.0	9.53	
$ 82 Toluene-d8 (Surr)	98	9.939	9.933	0.006	93	2248221	10.0	10.0	
83 Toluene	92	10.012	10.012	0.000	98	150180	1.00	1.00	
S 84 1,3-Dichloropropene, Total	100				0			1.97	
85 trans-1,3-Dichloropropene	75	10.262	10.256	0.006	92	65006	1.00	0.9879	
86 Ethyl methacrylate	69	10.311	10.311	0.000	89	49307	1.00	1.00	
87 1,1,2-Trichloroethane	97	10.457	10.457	0.000	90	38243	1.00	1.01	
88 Tetrachloroethene	166	10.548	10.549	-0.001	98	76059	1.00	1.02	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	89	63555	1.00	1.00	
91 2-Hexanone	43	10.664	10.664	0.000	97	192957	10.0	9.70	
93 Chlorodibromomethane	129	10.835	10.835	0.000	89	49447	1.00	0.99	
94 Ethylene Dibromide	107	10.945	10.951	-0.006	97	38974	1.00	1.02	
S 95 Xylenes, Total	106				0			3.02	
* 97 Chlorobenzene-d5 (IS)	117	11.371	11.372	-0.001	85	1731311	10.0	10.0	
96 1-Chlorohexane	91	11.371	11.372	-0.001	88	88654	1.00	0.99	
98 Chlorobenzene	112	11.396	11.396	0.000	97	168911	1.00	1.01	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	94	59780	1.00	0.9887	
100 Ethylbenzene	91	11.481	11.481	0.000	98	293117	1.00	1.00	

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	11.591	11.591	0.000	98	232683	2.00	2.02	
102 o-Xylene	106	11.920	11.920	0.000	96	111744	1.00	1.00	
103 Styrene	104	11.932	11.932	0.000	94	179370	1.00	0.9846	
104 Bromoform	173	12.091	12.097	-0.006	96	28723	1.00	0.9824	
105 Isopropylbenzene	105	12.213	12.213	0.000	95	306175	1.00	1.01	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	94	835893	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	95	43443	1.00	0.9900	
111 Bromobenzene	156	12.481	12.481	0.000	83	73044	1.00	1.01	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	94	113839	10.0	9.39	
112 1,2,3-Trichloropropane	110	12.505	12.506	-0.001	82	13475	1.00	1.03	
113 N-Propylbenzene	91	12.542	12.542	0.000	98	338831	1.00	0.9872	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	71843	1.00	1.00	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	95	252069	1.00	0.99	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	73344	1.00	1.01	
118 tert-Butylbenzene	134	12.920	12.920	0.000	93	56005	1.00	1.00	
119 Pentachloroethane	167	12.956	12.957	-0.001	85	45407	1.00	1.02	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	255661	1.00	0.9832	
121 sec-Butylbenzene	105	13.084	13.085	-0.001	94	323823	1.00	1.00	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	98	142442	1.00	1.00	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	274870	1.00	0.9810	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	972019	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	94	142551	1.00	1.00	
126 1,2,3-Trimethylbenzene	120	13.267	13.268	-0.001	98	115239	1.00	1.01	
127 Benzyl chloride	126	13.334	13.335	-0.001	98	18169	1.00	0.9770	
129 p-Diethylbenzene	119	13.456	13.457	-0.001	95	172054	1.00	0.99	
130 n-Butylbenzene	92	13.481	13.481	0.000	97	127147	1.00	0.9712	
131 1,2-Dichlorobenzene	146	13.517	13.518	-0.001	98	131007	1.00	1.02	
134 1,2-Dibromo-3-Chloropropane	155	14.060	14.060	0.000	89	7276	1.00	1.05	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	98	104382	1.00	0.9657	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	94	88117	1.00	0.9641	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	96	41704	1.00	1.00	
138 Naphthalene	128	14.791	14.792	-0.001	97	156615	1.00	0.99	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	94	78552	1.00	0.99	
140 2-Methylnaphthalene	142	15.584	15.584	0.000	92	92709	1.00	0.9673	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00037	Amount Added:	2.00	Units: uL	
MSV_RV4_826_00044	Amount Added:	2.00	Units: uL	
MSV_RV4GAS826_00112	Amount Added:	2.00	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

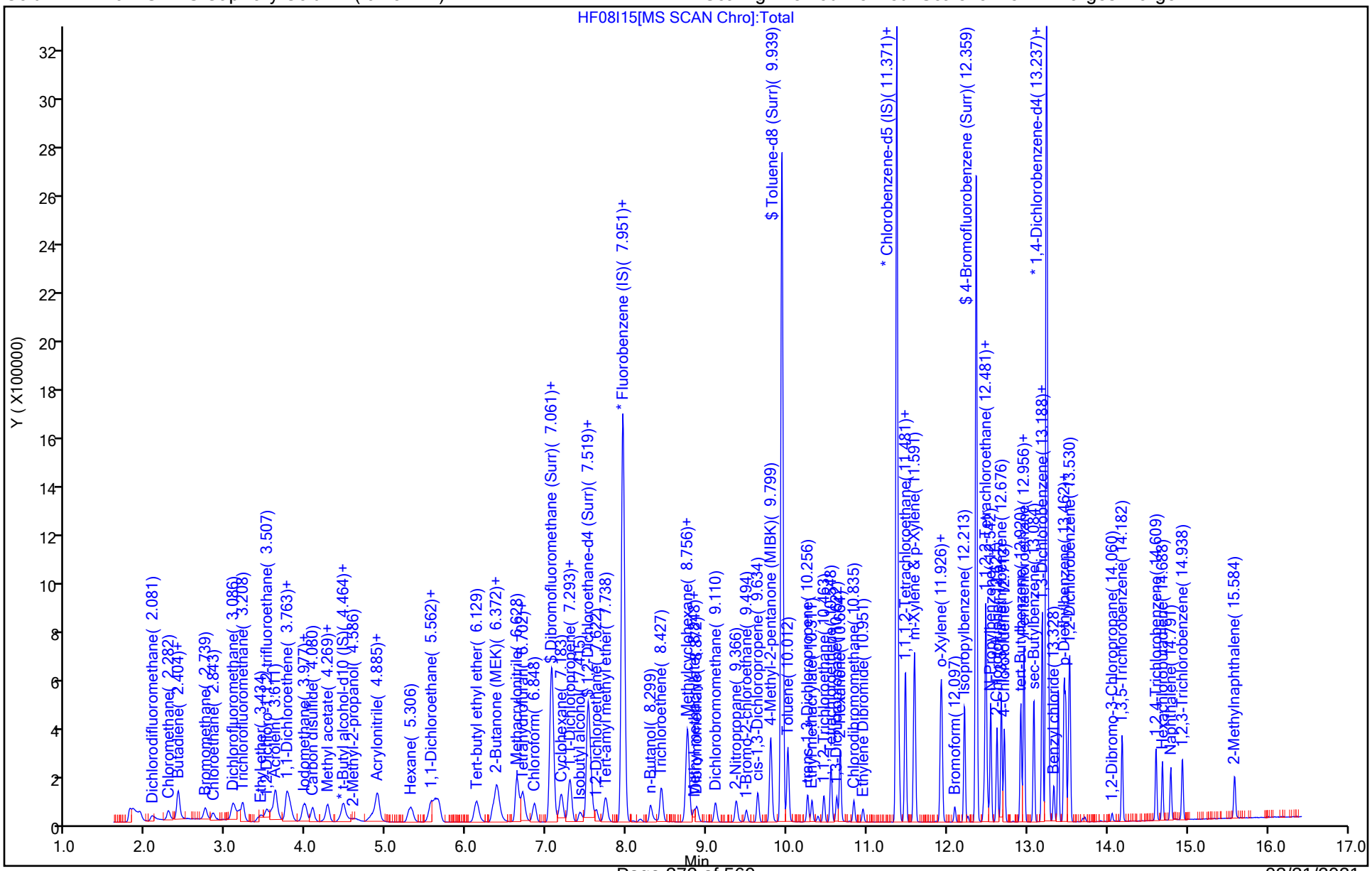
Report Date: 09-Feb-2021 15:39:48 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I15.D

Injection Date:	08-Feb-2021 20:51:30	Instrument ID:	19094	Operator ID:	SRK36897
Lims ID:	IC std3 1			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



Eurofins Lancaster Laboratories Env, LLC

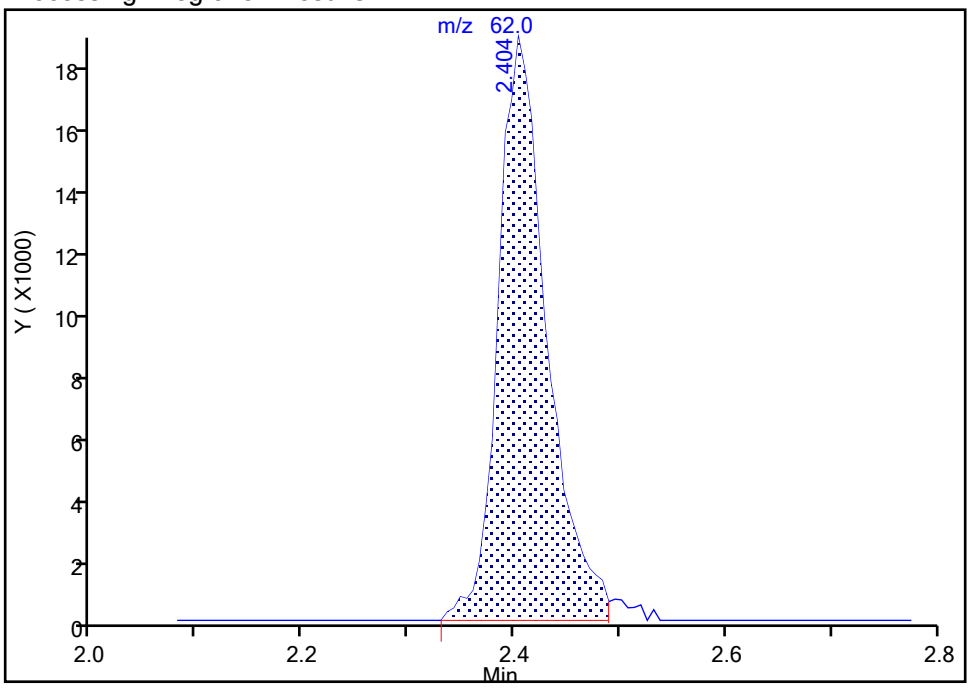
Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I15.D
Injection Date: 08-Feb-2021 20:51:30 Instrument ID: 19094
Lims ID: IC std3 1
Client ID:
Operator ID: SRK36897 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

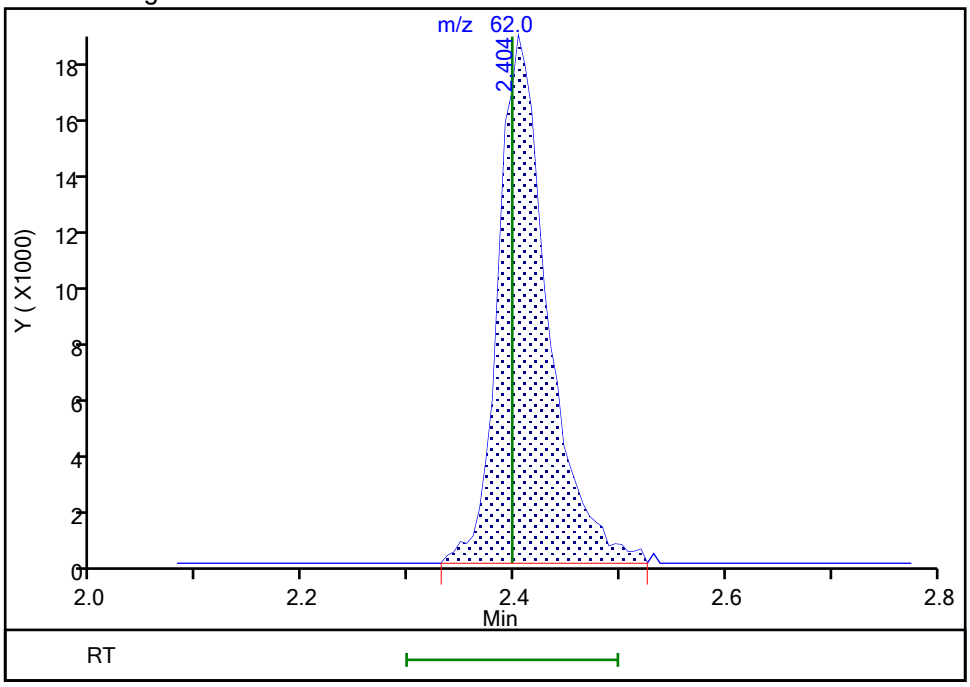
Processing Integration Results

RT: 2.40
Area: 60217
Amount: 0.917295
Amount Units: ug/l



Manual Integration Results

RT: 2.40
Area: 61192
Amount: 0.920447
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:20:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I16.D
Lims ID: IC std2 0.5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 08-Feb-2021 21:13:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-017
Misc. Info.: IC STD2 0.5
Operator ID: SRK36897 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:40:01 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: knouses Date: 09-Feb-2021 13:25:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.069	2.069	0.000	97	34357	0.5000	0.5093	
6 Chloromethane	50	2.270	2.276	-0.006	98	36827	0.5000	0.5311	
8 Butadiene	39	2.392	2.398	-0.006	91	30238	0.5000	0.5027	
7 Vinyl chloride	62	2.392	2.398	-0.006	97	34166	0.5000	0.5175	M
9 Bromomethane	94	2.733	2.733	0.000	91	29496	0.5000	0.5625	
10 Chloroethane	64	2.831	2.831	0.000	98	22568	0.5000	0.5281	
11 Dichlorofluoromethane	67	3.074	3.081	-0.007	97	52234	0.5000	0.5396	
13 Trichlorofluoromethane	101	3.111	3.135	-0.024	97	51465	0.5000	0.5181	
15 Ethyl ether	59	3.428	3.428	0.000	88	15847	0.5001	0.4810	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.495	3.507	-0.012	87	29608	0.5000	0.4723	
17 Acrolein	56	3.605	3.611	-0.006	99	120988	25.0	23.4	
18 1,1-Dichloroethene	96	3.751	3.751	0.000	97	23855	0.5000	0.4743	
20 112TCTFE	101	3.782	3.782	0.000	90	25240	0.5000	0.4510	
19 Acetone	43	3.788	3.788	0.000	93	38115	5.00	5.30	
22 Iodomethane	142	3.958	3.958	0.000	99	52774	0.5000	0.4974	
21 Isopropyl alcohol	45	3.940	3.989	-0.049	26	11427	10.0	9.54	M
23 Ethyl bromide	108	3.989	3.995	-0.006	96	22536	0.5002	0.4877	
24 Carbon disulfide	76	4.068	4.074	-0.006	99	67575	0.5000	0.4823	M
26 Methyl acetate	43	4.221	4.227	-0.006	45	11921	0.5000	0.6203	
27 3-Chloro-1-propene	41	4.263	4.257	0.006	88	40396	0.5000	0.5100	
29 Methylene Chloride	84	4.458	4.458	0.000	89	24863	0.5000	0.4818	
* 28 t-Butyl alcohol-d10 (IS)	65	4.464	4.471	-0.007	0	112754	50.0	50.0	
30 2-Methyl-2-propanol	59	4.592	4.611	-0.019	82	23290	10.0	9.82	
31 Acrylonitrile	53	4.812	4.812	0.000	99	20585	2.50	2.41	
32 Methyl tert-butyl ether	73	4.861	4.861	0.000	94	57304	0.5000	0.4770	
33 trans-1,2-Dichloroethene	96	4.879	4.885	-0.006	98	27423	0.5000	0.4870	
34 Hexane	57	5.306	5.306	0.000	91	32777	0.5000	0.4555	
35 1,1-Dichloroethane	63	5.537	5.543	-0.006	95	46626	0.5000	0.4832	
37 Isopropyl ether	45	5.592	5.592	0.000	93	72954	0.5000	0.4786	
38 2-Chloro-1,3-butadiene	53	5.647	5.647	0.000	92	40438	0.5000	0.4797	

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	6.129	6.123	0.006	97	71271	0.5000	0.4746	
S 40 1,2-Dichloroethene, Total	100				0			0.9669	
41 2-Butanone (MEK)	43	6.324	6.318	0.006	99	50883	5.00	4.75	
42 cis-1,2-Dichloroethene	96	6.360	6.366	-0.006	81	30172	0.5000	0.4799	
43 2,2-Dichloropropane	77	6.379	6.385	-0.006	94	42387	0.5000	0.4760	
45 Propionitrile	54	6.409	6.409	0.000	96	27268	10.0	9.41	
47 Methacrylonitrile	67	6.623	6.623	0.000	90	55207	5.00	4.66	M
48 Chlorobromomethane	128	6.696	6.702	-0.006	87	13541	0.5000	0.4778	
49 Tetrahydrofuran	71	6.702	6.702	0.000	86	15219	5.00	4.72	
50 Chloroform	83	6.836	6.842	-0.006	92	47981	0.5000	0.4779	
$ 51 Dibromofluoromethane (Surr)	113	7.055	7.055	0.000	94	574253	10.0	9.95	
52 1,1,1-Trichloroethane	97	7.080	7.080	0.000	98	45623	0.5000	0.4739	
53 Cyclohexane	56	7.177	7.183	-0.006	89	41082	0.5000	0.4503	
55 1,1-Dichloropropene	75	7.281	7.287	-0.006	94	37122	0.5000	0.4734	
56 Carbon tetrachloride	117	7.299	7.293	0.006	94	40172	0.5000	0.4685	
57 Isobutyl alcohol	41	7.409	7.421	-0.012	91	20572	25.0	25.6	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.513	7.513	0.000	0	106377	10.0	9.81	
59 Benzene	78	7.549	7.549	0.000	92	105594	0.5000	0.4729	
60 1,2-Dichloroethane	62	7.622	7.616	0.006	98	31331	0.5000	0.5160	
62 Tert-amyl methyl ether	73	7.738	7.732	0.006	98	64304	0.5000	0.4767	
* 65 Fluorobenzene (IS)	96	7.945	7.952	-0.007	99	2241057	10.0	10.0	
64 n-Heptane	43	7.958	7.958	0.000	43	33195	0.5000	0.4494	
66 n-Butanol	56	8.299	8.293	0.006	90	31304	50.0	46.4	M
67 Trichloroethene	95	8.427	8.427	0.000	95	29704	0.5000	0.4757	
68 Methylcyclohexane	83	8.744	8.744	0.000	92	45345	0.5000	0.4380	
69 2-ethoxy-2-methyl butane	87	8.756	8.762	-0.006	92	39497	0.5000	0.4593	
70 1,2-Dichloropropane	63	8.762	8.762	0.000	79	25741	0.5000	0.4839	
71 Methyl methacrylate	69	8.836	8.836	0.000	88	10020	0.5000	0.4320	
72 1,4-Dioxane	88	8.860	8.860	0.000	78	4700	25.0	19.6	
73 Dibromomethane	93	8.878	8.878	0.000	94	12896	0.5000	0.4761	
75 Dichlorobromomethane	83	9.104	9.104	0.000	98	32775	0.5000	0.4675	
76 2-Nitropropane	41	9.366	9.366	0.000	97	35061	5.00	4.71	
79 1-Bromo-2-chloroethane	63	9.494	9.494	0.000	98	23089	0.5000	0.4856	
80 cis-1,3-Dichloropropene	75	9.634	9.634	0.000	95	37316	0.5000	0.4576	
81 4-Methyl-2-pentanone (MIBK)	43	9.799	9.799	0.000	96	129338	5.00	4.61	
$ 82 Toluene-d8 (Surr)	98	9.933	9.933	0.000	94	2218827	10.0	9.98	
83 Toluene	92	10.012	10.012	0.000	98	71637	0.5000	0.4825	
S 84 1,3-Dichloropropene, Total	100				0			0.9244	
85 trans-1,3-Dichloropropene	75	10.256	10.256	0.000	93	30405	0.5000	0.4668	
86 Ethyl methacrylate	69	10.311	10.311	0.000	88	22477	0.5000	0.4589	
87 1,1,2-Trichloroethane	97	10.457	10.457	0.000	92	17313	0.5000	0.4639	
88 Tetrachloroethene	166	10.549	10.549	0.000	98	35260	0.5000	0.4761	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	87	29940	0.5000	0.4758	
91 2-Hexanone	43	10.664	10.664	0.000	97	87967	5.00	4.60	
93 Chlorodibromomethane	129	10.835	10.835	0.000	92	22318	0.5000	0.4522	
94 Ethylene Dibromide	107	10.945	10.951	-0.006	99	17638	0.5000	0.4686	
S 95 Xylenes, Total	106				0			1.44	
* 97 Chlorobenzene-d5 (IS)	117	11.372	11.372	0.000	85	1713701	10.0	10.0	
96 1-Chlorohexane	91	11.372	11.372	0.000	77	42717	0.5000	0.4834	
98 Chlorobenzene	112	11.396	11.396	0.000	97	81335	0.5000	0.4897	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	45	28524	0.5000	0.4766	
100 Ethylbenzene	91	11.475	11.481	-0.006	98	136707	0.5000	0.4730	

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	11.591	11.591	0.000	98	109525	1.00	0.9629	
102 o-Xylene	106	11.920	11.920	0.000	96	52478	0.5000	0.4732	
103 Styrene	104	11.932	11.932	0.000	94	85205	0.5000	0.4725	
104 Bromoform	173	12.097	12.097	0.000	96	12718	0.5000	0.4394	
105 Isopropylbenzene	105	12.213	12.213	0.000	95	141491	0.5000	0.4716	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	93	824416	10.0	9.97	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	93	20394	0.5000	0.4683	
111 Bromobenzene	156	12.481	12.481	0.000	93	34331	0.5000	0.4793	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	94	52382	5.00	4.49	
112 1,2,3-Trichloropropane	110	12.506	12.506	0.000	82	6437	0.5000	0.4980	
113 N-Propylbenzene	91	12.542	12.542	0.000	98	160083	0.5000	0.4700	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	33225	0.5000	0.4645	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	95	115771	0.5000	0.4584	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	33893	0.5000	0.4721	
118 tert-Butylbenzene	134	12.920	12.920	0.000	92	25145	0.5000	0.4522	
119 Pentachloroethane	167	12.957	12.957	0.000	86	20222	0.5000	0.4573	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	121808	0.5000	0.4720	
121 sec-Butylbenzene	105	13.085	13.085	0.000	94	147864	0.5000	0.4594	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	98	66445	0.5000	0.4681	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	129096	0.5000	0.4643	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	964571	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	95	68545	0.5000	0.4860	
126 1,2,3-Trimethylbenzene	120	13.268	13.268	0.000	97	54508	0.5000	0.4826	
127 Benzyl chloride	126	13.335	13.335	0.000	99	8061	0.5000	0.4368	
129 p-Diethylbenzene	119	13.463	13.457	0.006	95	80175	0.5000	0.4653	
130 n-Butylbenzene	92	13.481	13.481	0.000	97	58601	0.5000	0.4511	
131 1,2-Dichlorobenzene	146	13.518	13.518	0.000	98	60854	0.5000	0.4751	
134 1,2-Dibromo-3-Chloropropane	155	14.054	14.060	-0.006	84	3083	0.5000	0.4478	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	96	48298	0.5000	0.4503	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	94	41194	0.5000	0.4542	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	96	20000	0.5000	0.4855	
138 Naphthalene	128	14.792	14.792	0.000	97	70396	0.5000	0.4502	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	96	35167	0.5000	0.4467	
140 2-Methylnaphthalene	142	15.590	15.584	0.006	91	41262	0.5000	0.4338	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00037	Amount Added:	2.00	Units: uL	
MSV_RV4_826_00044	Amount Added:	2.00	Units: uL	
MSV_RV4GAS826_00112	Amount Added:	2.00	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 09-Feb-2021 15:40:03 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I16.D

Injection Date: 08-Feb-2021 21:13:30 Instrument ID: 19094 Operator ID: SRK36897

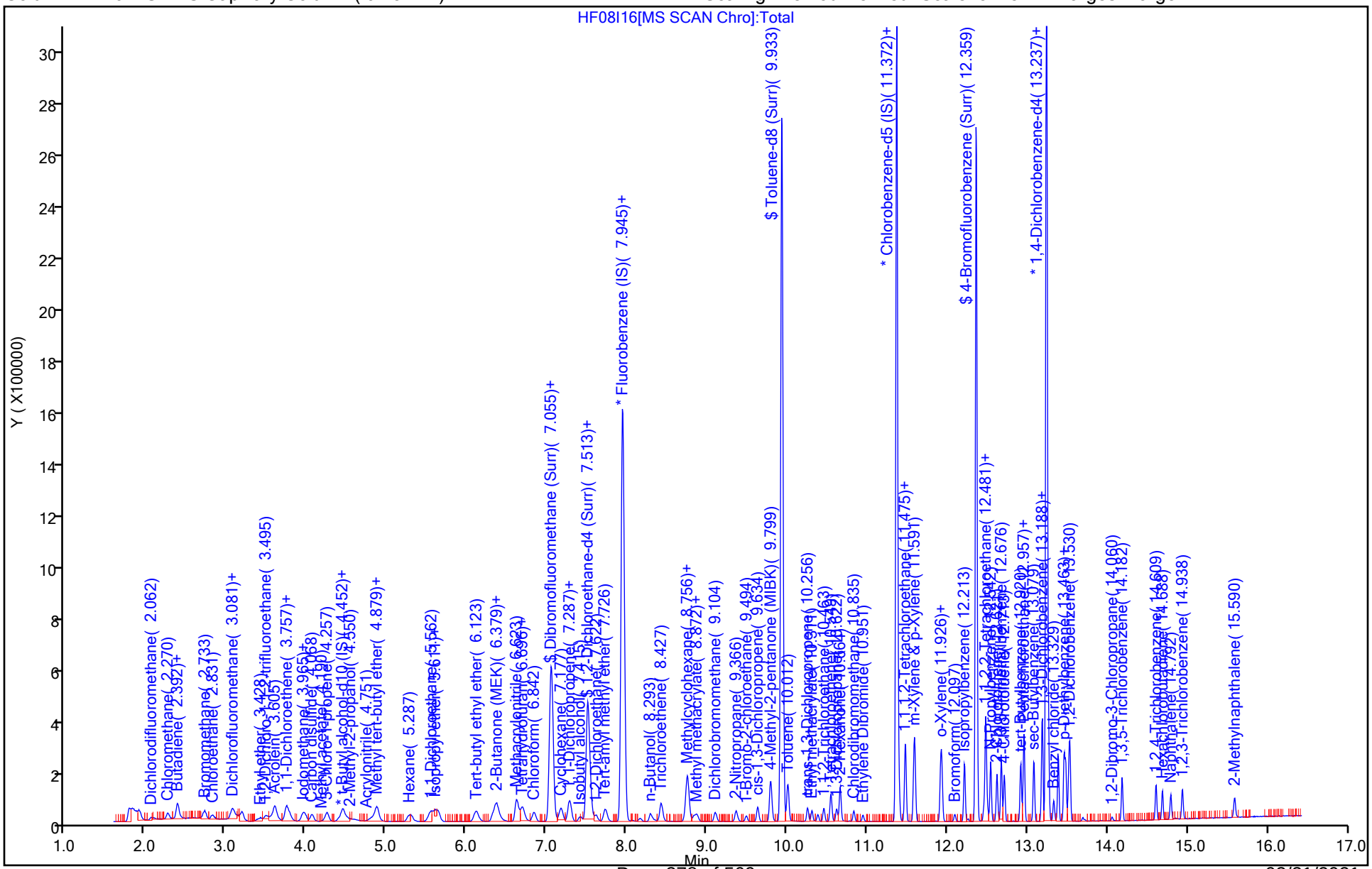
Lims ID: IC std2 0.5 Worklist Smp#: 17

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



Eurofins Lancaster Laboratories Env, LLC

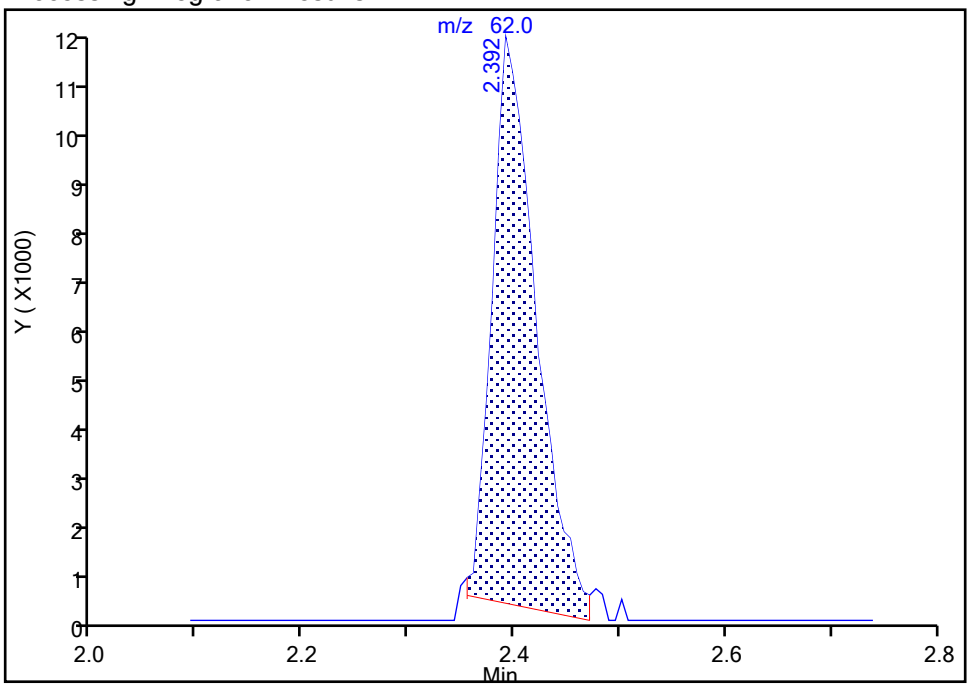
Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I16.D
Injection Date: 08-Feb-2021 21:13:30 Instrument ID: 19094
Lims ID: IC std2 0.5
Client ID:
Operator ID: SRK36897 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

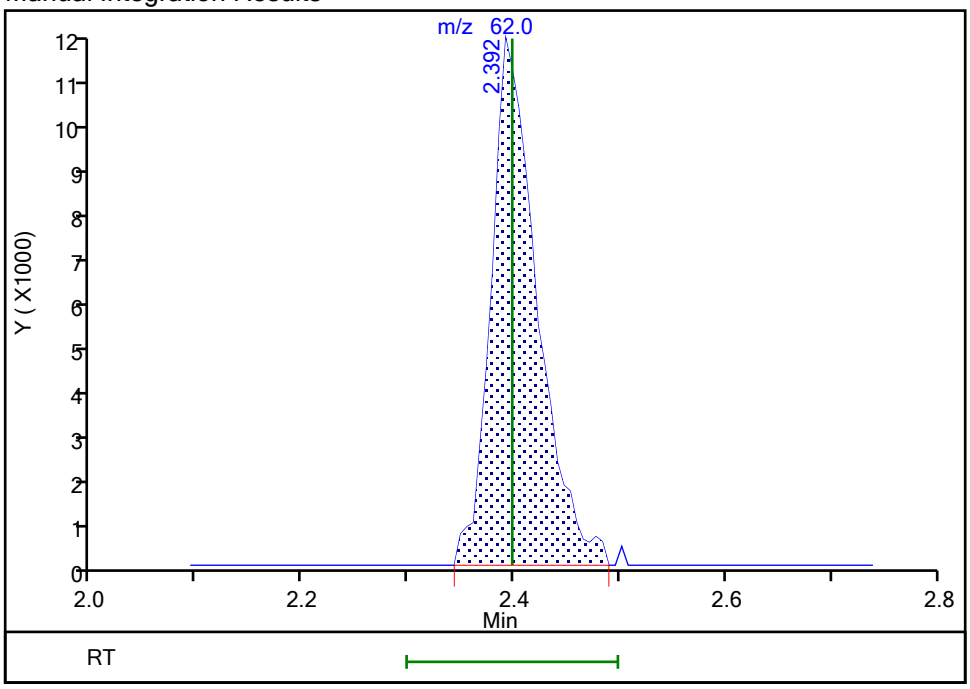
Processing Integration Results

RT: 2.39
Area: 31750
Amount: 0.486021
Amount Units: ug/l



Manual Integration Results

RT: 2.39
Area: 34166
Amount: 0.517535
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:22:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

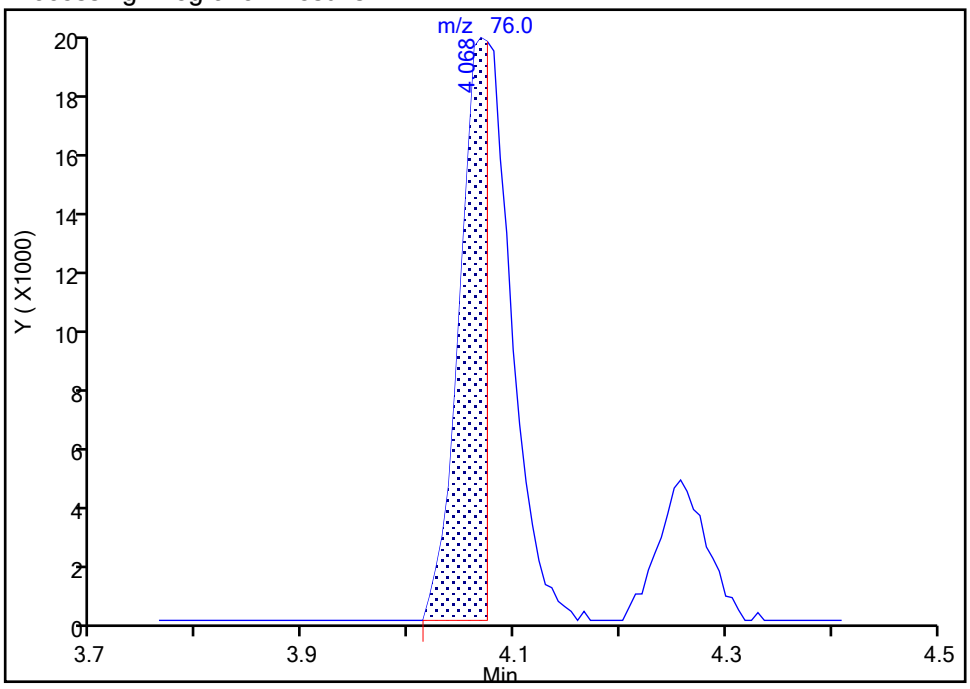
Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I16.D
Injection Date: 08-Feb-2021 21:13:30 Instrument ID: 19094
Lims ID: IC std2 0.5
Client ID:
Operator ID: SRK36897 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

24 Carbon disulfide, CAS: 75-15-0

Signal: 1

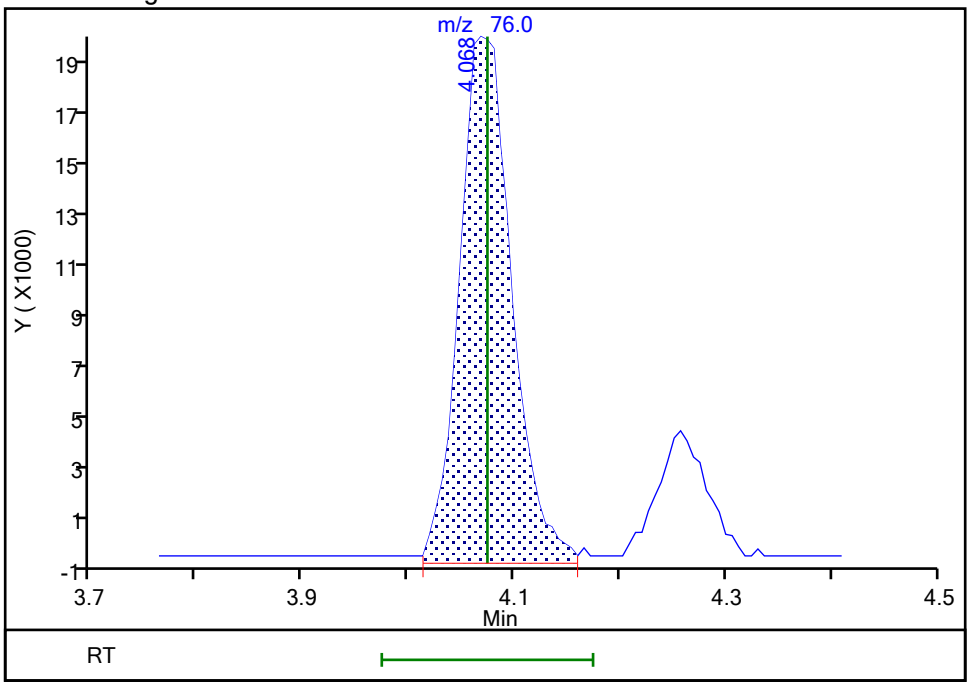
Processing Integration Results

RT: 4.07
Area: 37332
Amount: 0.284368
Amount Units: ug/l



Manual Integration Results

RT: 4.07
Area: 67575
Amount: 0.482323
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:23:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

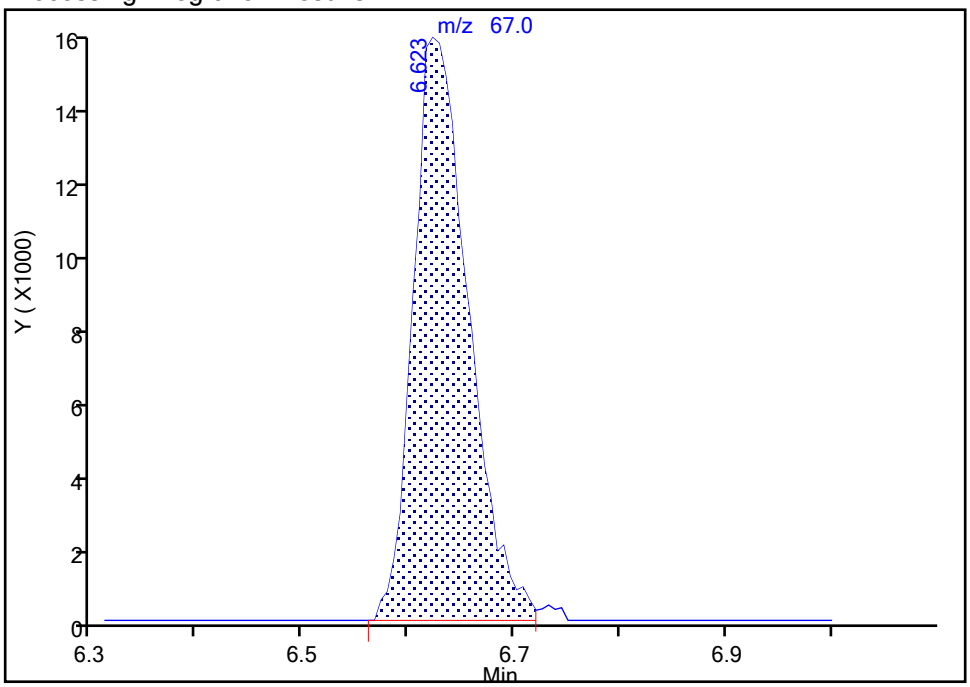
Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I16.D				
Injection Date:	08-Feb-2021 21:13:30	Instrument ID:	19094		
Lims ID:	IC std2 0.5				
Client ID:					
Operator ID:	SRK36897	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

47 Methacrylonitrile, CAS: 126-98-7

Signal: 1

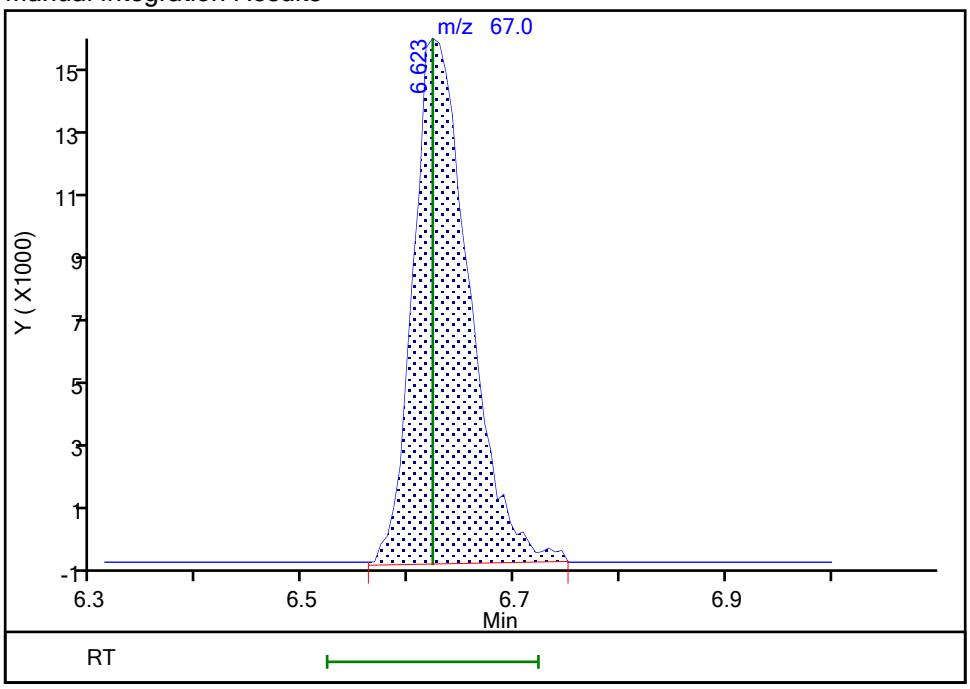
Processing Integration Results

RT: 6.62
Area: 54351
Amount: 4.596804
Amount Units: ug/l



Manual Integration Results

RT: 6.62
Area: 55207
Amount: 4.659563
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:24:18

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

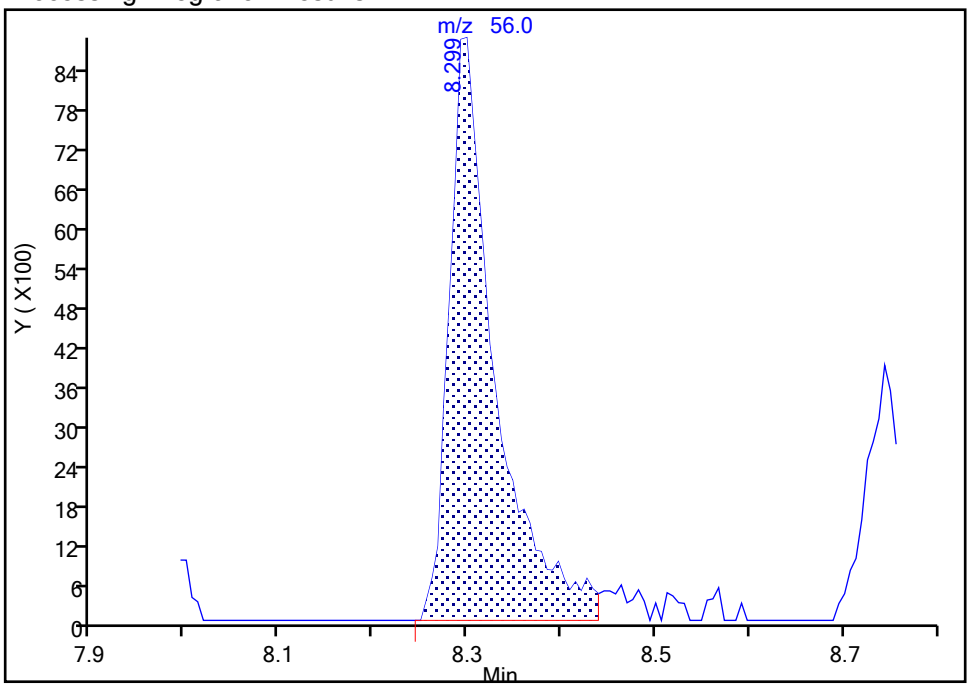
Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I16.D
Injection Date: 08-Feb-2021 21:13:30 Instrument ID: 19094
Lims ID: IC std2 0.5
Client ID:
Operator ID: SRK36897 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

66 n-Butanol, CAS: 71-36-3

Signal: 1

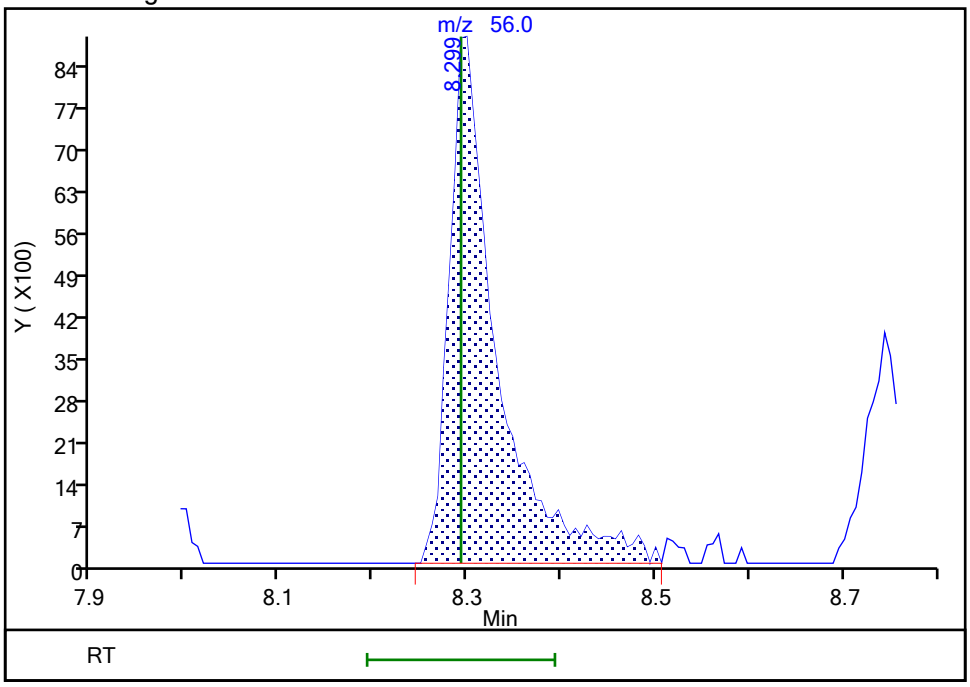
Processing Integration Results

RT: 8.30
Area: 30046
Amount: 44.808830
Amount Units: ug/l



Manual Integration Results

RT: 8.30
Area: 31304
Amount: 46.436026
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:25:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D
Lims ID: IC std1 0.2
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 08-Feb-2021 21:34:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-018
Misc. Info.: IC STD1 0.2
Operator ID: SRK36897 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:40:15 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: longj Date: 09-Feb-2021 12:52:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.081	2.069	0.012	98	11655	0.2000	0.1743	
6 Chloromethane	50	2.282	2.276	0.006	99	14567	0.2000	0.2120	
8 Butadiene	39	2.398	2.398	0.000	92	12406	0.2000	0.2081	
7 Vinyl chloride	62	2.404	2.398	0.006	97	12513	0.2000	0.1912	
9 Bromomethane	94	2.739	2.733	0.006	92	10652	0.2000	0.2049	
10 Chloroethane	64	2.830	2.831	-0.001	97	8607	0.2000	0.2032	
11 Dichlorofluoromethane	67	3.080	3.081	-0.001	97	20294	0.2000	0.2115	
13 Trichlorofluoromethane	101	3.147	3.135	0.012	51	18638	0.2000	0.1893	
15 Ethyl ether	59	3.434	3.428	0.006	65	6819	0.2000	0.2088	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.507	3.507	0.000	81	10643	0.2000	0.1713	
17 Acrolein	56	3.617	3.611	0.006	97	48602	10.0	9.35	M
18 1,1-Dichloroethene	96	3.757	3.751	0.006	97	8802	0.2000	0.1766	
20 112TCTFE	101	3.788	3.782	0.006	77	8316	0.2000	0.1499	
19 Acetone	43	3.794	3.788	0.006	73	18733	2.00	2.59	
22 Iodomethane	142	3.964	3.958	0.006	99	20222	0.2000	0.1923	
21 Isopropyl alcohol	45	3.971	3.989	-0.019	27	4605	4.00	3.88	
23 Ethyl bromide	108	4.001	3.995	0.006	96	9186	0.2001	0.2006	
24 Carbon disulfide	76	4.080	4.074	0.006	99	26141	0.2000	0.1882	M
26 Methyl acetate	43	4.227	4.227	0.000	19	4865	0.2000	0.2514	
27 3-Chloro-1-propene	41	4.269	4.257	0.012	89	17780	0.2000	0.2265	
29 Methylene Chloride	84	4.470	4.458	0.012	88	9822	0.2000	0.1920	
* 28 t-Butyl alcohol-d10 (IS)	65	4.483	4.471	0.012	0	113537	50.0	50.0	
30 2-Methyl-2-propanol	59	4.605	4.611	-0.006	91	8140	4.00	3.41	
31 Acrylonitrile	53	4.830	4.812	0.018	97	7498	1.00	0.8708	
32 Methyl tert-butyl ether	73	4.867	4.861	0.006	95	22440	0.2000	0.1884	
33 trans-1,2-Dichloroethene	96	4.891	4.885	0.006	97	10599	0.2000	0.1899	
34 Hexane	57	5.293	5.306	-0.013	93	11083	0.2000	0.1554	
35 1,1-Dichloroethane	63	5.543	5.543	0.000	94	17322	0.2000	0.1811	
37 Isopropyl ether	45	5.592	5.592	0.000	93	29044	0.2000	0.1922	
38 2-Chloro-1,3-butadiene	53	5.653	5.647	0.006	92	14508	0.2000	0.1736	

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	6.123	6.123	0.000	96	28346	0.2000	0.1904	
S 40 1,2-Dichloroethene, Total	100				0			0.3869	
41 2-Butanone (MEK)	43	6.330	6.318	0.012	98	21151	2.00	1.96	
42 cis-1,2-Dichloroethene	96	6.372	6.366	0.006	81	12276	0.2000	0.1970	
43 2,2-Dichloropropane	77	6.385	6.385	0.000	66	15832	0.2000	0.1794	
45 Propionitrile	54	6.421	6.409	0.012	77	10358	4.00	3.55	
47 Methacrylonitrile	67	6.629	6.623	0.006	88	21323	2.00	1.79	
48 Chlorobromomethane	128	6.696	6.702	-0.006	81	5563	0.2000	0.1980	
49 Tetrahydrofuran	71	6.708	6.702	0.006	86	5763	2.00	1.77	
50 Chloroform	83	6.848	6.842	0.006	93	19457	0.2000	0.1955	
$ 51 Dibromofluoromethane (Surr)	113	7.061	7.055	0.006	94	569173	10.0	9.95	
52 1,1,1-Trichloroethane	97	7.074	7.080	-0.006	92	17152	0.2000	0.1797	
53 Cyclohexane	56	7.171	7.183	-0.012	89	14564	0.2000	0.1611	
55 1,1-Dichloropropene	75	7.293	7.287	0.006	93	13909	0.2000	0.1789	
56 Carbon tetrachloride	117	7.287	7.293	-0.006	91	15021	0.2000	0.1767	
57 Isobutyl alcohol	41	7.409	7.421	-0.012	93	9792	10.0	12.1	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.512	7.513	-0.001	0	106666	10.0	9.92	
59 Benzene	78	7.555	7.549	0.006	96	41729	0.2000	0.1886	
60 1,2-Dichloroethane	62	7.616	7.616	0.000	96	12798	0.2000	0.2126	
62 Tert-amyl methyl ether	73	7.738	7.732	0.006	97	24839	0.2000	0.1858	
* 65 Fluorobenzene (IS)	96	7.951	7.952	-0.001	99	2221269	10.0	10.0	
64 n-Heptane	43	7.958	7.958	0.000	37	12485	0.2000	0.1705	
66 n-Butanol	56	8.305	8.293	0.012	88	12405	20.0	18.3	
67 Trichloroethene	95	8.427	8.427	0.000	96	11519	0.2000	0.1861	
68 Methylcyclohexane	83	8.744	8.744	0.000	91	19106	0.2000	0.1862	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	88	15672	0.2000	0.1839	
70 1,2-Dichloropropane	63	8.762	8.762	0.000	74	9918	0.2000	0.1881	
71 Methyl methacrylate	69	8.835	8.836	-0.001	90	4100	0.2000	0.1756	
72 1,4-Dioxane	88	8.872	8.860	0.012	34	1039	10.0	7.63	
73 Dibromomethane	93	8.878	8.878	0.000	97	5394	0.2000	0.2009	
75 Dichlorobromomethane	83	9.110	9.104	0.006	98	13048	0.2000	0.1878	
76 2-Nitropropane	41	9.360	9.366	-0.006	99	14253	2.00	1.90	M
79 1-Bromo-2-chloroethane	63	9.488	9.494	-0.006	95	9109	0.2000	0.1933	
80 cis-1,3-Dichloropropene	75	9.640	9.634	0.006	95	15055	0.2000	0.1862	
81 4-Methyl-2-pentanone (MIBK)	43	9.799	9.799	0.000	96	51282	2.00	1.81	
$ 82 Toluene-d8 (Surr)	98	9.939	9.933	0.006	94	2213889	10.0	10.0	
83 Toluene	92	10.006	10.012	-0.006	98	27993	0.2000	0.1895	
S 84 1,3-Dichloropropene, Total	100				0			0.3613	
85 trans-1,3-Dichloropropene	75	10.262	10.256	0.006	94	11343	0.2000	0.1751	
86 Ethyl methacrylate	69	10.317	10.311	0.006	89	8510	0.2000	0.1747	
87 1,1,2-Trichloroethane	97	10.457	10.457	0.000	90	7222	0.2000	0.1945	
88 Tetrachloroethene	166	10.548	10.549	-0.001	97	13041	0.2000	0.1770	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	87	12103	0.2000	0.1933	
91 2-Hexanone	43	10.664	10.664	0.000	96	34159	2.00	1.77	
93 Chlorodibromomethane	129	10.835	10.835	0.000	89	8988	0.2000	0.1831	
94 Ethylene Dibromide	107	10.951	10.951	0.000	95	7047	0.2000	0.1882	
S 95 Xylenes, Total	106				0			0.5446	
* 97 Chlorobenzene-d5 (IS)	117	11.371	11.372	-0.001	85	1704740	10.0	10.0	
96 1-Chlorohexane	91	11.371	11.372	-0.001	49	17756	0.2000	0.2020	
98 Chlorobenzene	112	11.396	11.396	0.000	95	31649	0.2000	0.1915	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	44	11242	0.2000	0.1888	
100 Ethylbenzene	91	11.481	11.481	0.000	98	53087	0.2000	0.1846	

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	11.591	11.591	0.000	98	40791	0.4000	0.3605	
102 o-Xylene	106	11.920	11.920	0.000	96	20311	0.2000	0.1841	
103 Styrene	104	11.932	11.932	0.000	94	33379	0.2000	0.1861	
104 Bromoform	173	12.097	12.097	0.000	94	5345	0.2000	0.1857	
105 Isopropylbenzene	105	12.219	12.213	0.006	95	53557	0.2000	0.1794	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	93	822819	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	93	7854	0.2000	0.1799	
111 Bromobenzene	156	12.481	12.481	0.000	84	13450	0.2000	0.1874	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	88	20254	2.00	1.72	
112 1,2,3-Trichloropropane	110	12.505	12.506	-0.001	54	2454	0.2000	0.1894	
113 N-Propylbenzene	91	12.542	12.542	0.000	99	59163	0.2000	0.1733	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	13486	0.2000	0.1881	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	94	45340	0.2000	0.1791	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	12792	0.2000	0.1778	
118 tert-Butylbenzene	134	12.920	12.920	0.000	92	10022	0.2000	0.1798	
119 Pentachloroethane	167	12.957	12.957	0.000	73	7921	0.2000	0.1787	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	46627	0.2000	0.1803	
121 sec-Butylbenzene	105	13.085	13.085	0.000	94	53187	0.2000	0.1649	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	97	27507	0.2000	0.1933	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	46471	0.2000	0.1668	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	966789	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	93	26836	0.2000	0.1898	
126 1,2,3-Trimethylbenzene	120	13.267	13.268	-0.001	96	23680	0.2000	0.2092	
127 Benzyl chloride	126	13.335	13.335	0.000	97	2959	0.2000	0.1600	
129 p-Diethylbenzene	119	13.456	13.457	-0.001	96	32138	0.2000	0.1861	
130 n-Butylbenzene	92	13.481	13.481	0.000	97	21803	0.2000	0.1674	
131 1,2-Dichlorobenzene	146	13.517	13.518	-0.001	97	24245	0.2000	0.1889	
134 1,2-Dibromo-3-Chloropropane	155	14.060	14.060	0.000	83	1083	0.2000	0.1570	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	97	19999	0.2000	0.1860	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	93	16258	0.2000	0.1788	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	96	7732	0.2000	0.1873	
138 Naphthalene	128	14.792	14.792	0.000	97	27720	0.2000	0.1769	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	95	14297	0.2000	0.1812	
140 2-Methylnaphthalene	142	15.590	15.584	0.006	92	16439	0.2000	0.1724	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00037	Amount Added:	2.00	Units: uL	
MSV_RV4_826_00044	Amount Added:	2.00	Units: uL	
MSV_RV4GAS826_00112	Amount Added:	2.00	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

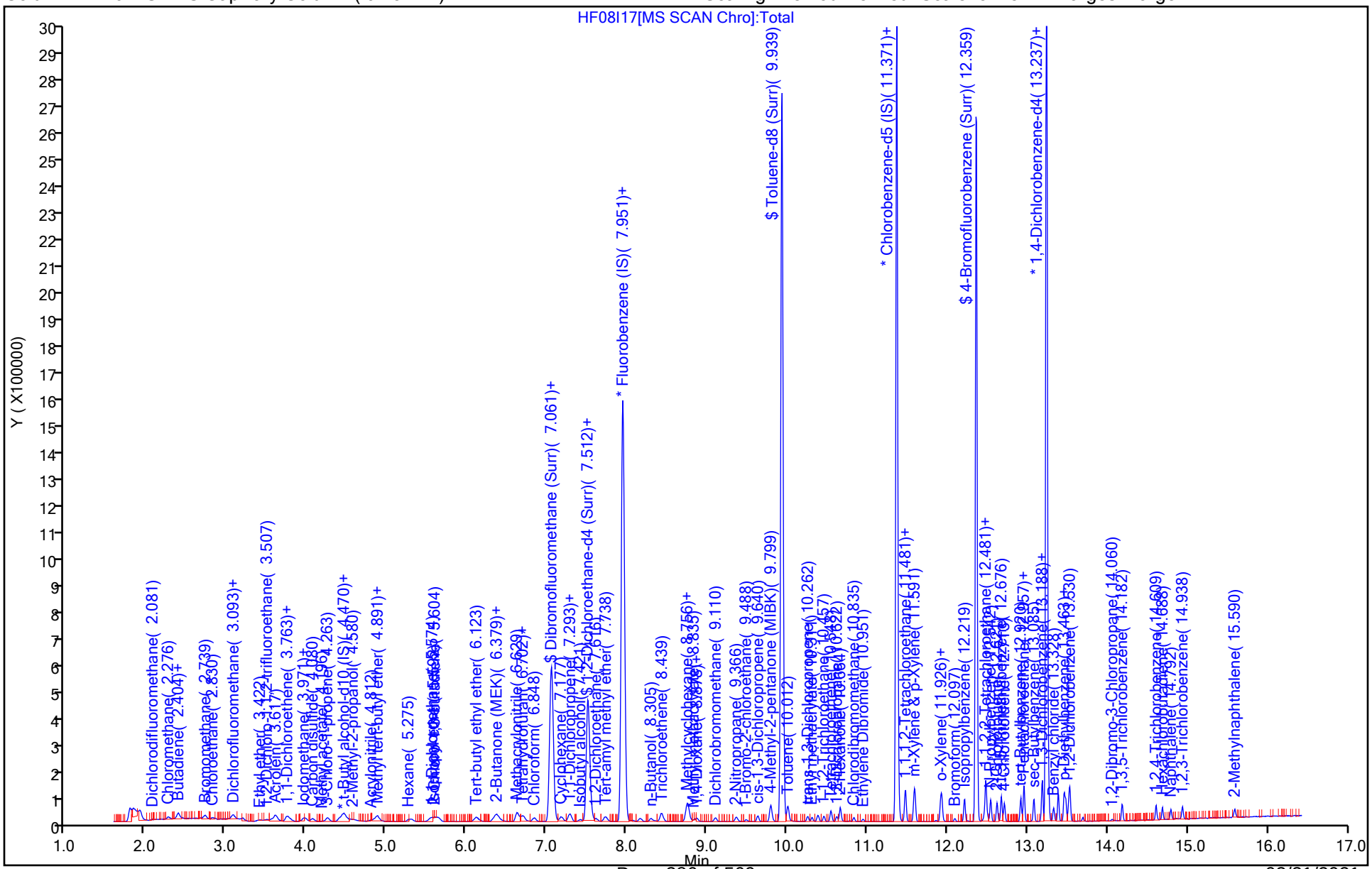
Report Date: 09-Feb-2021 15:40:17 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Injection Date:	08-Feb-2021 21:34:30	Instrument ID:	19094	Operator ID:	SRK36897
Lims ID:	IC std1 0.2			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

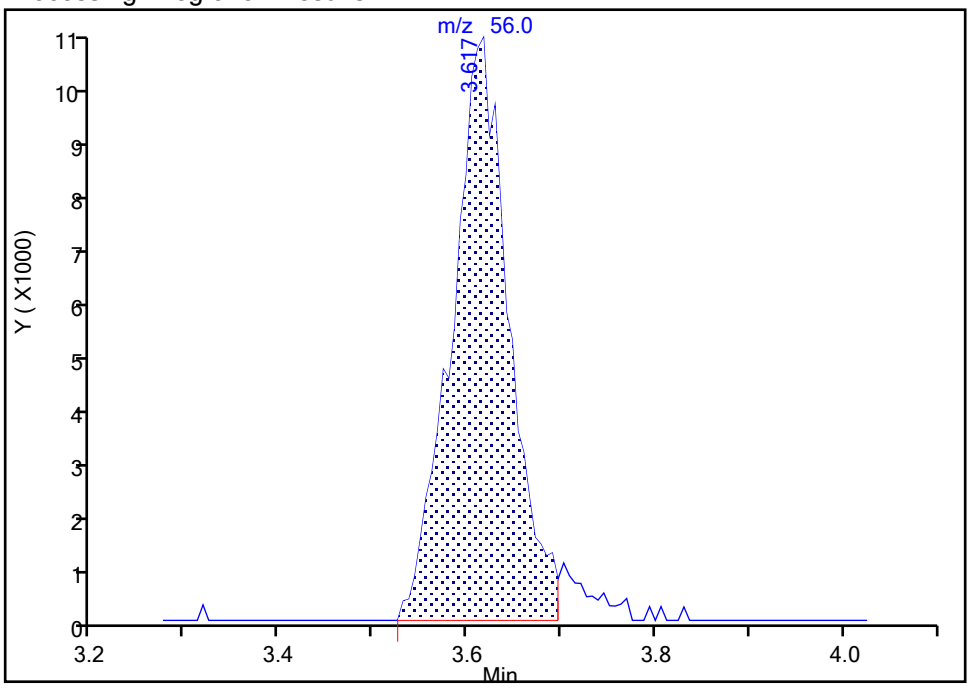
Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D				
Injection Date:	08-Feb-2021 21:34:30	Instrument ID:	19094		
Lims ID:	IC std1 0.2				
Client ID:					
Operator ID:	SRK36897	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 Acrolein, CAS: 107-02-8

Signal: 1

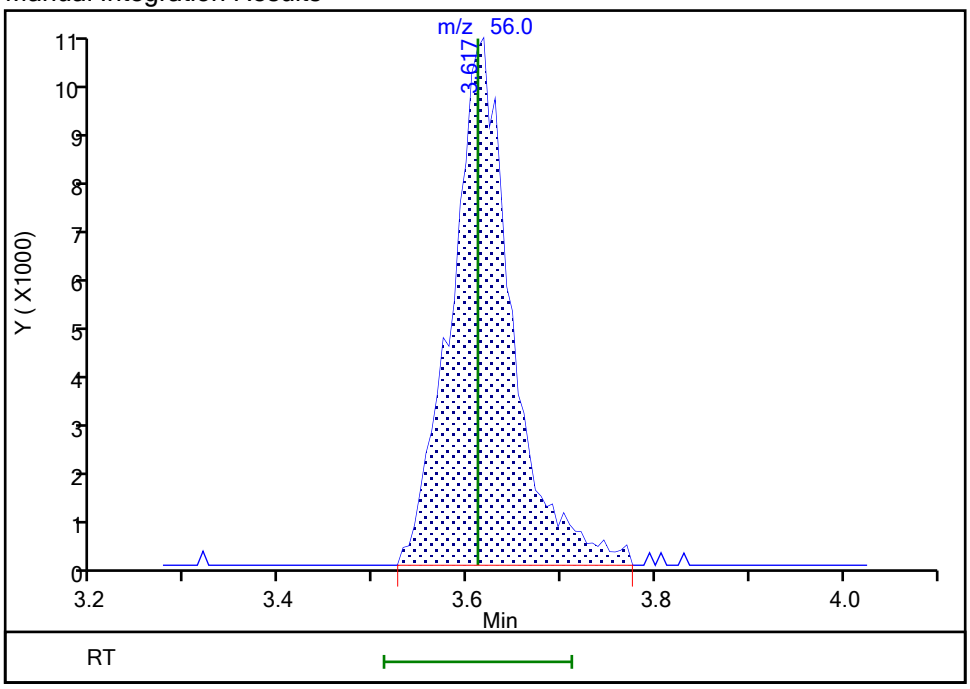
Processing Integration Results

RT: 3.62
Area: 46281
Amount: 8.961668
Amount Units: ug/l



Manual Integration Results

RT: 3.62
Area: 48602
Amount: 9.351061
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:26:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

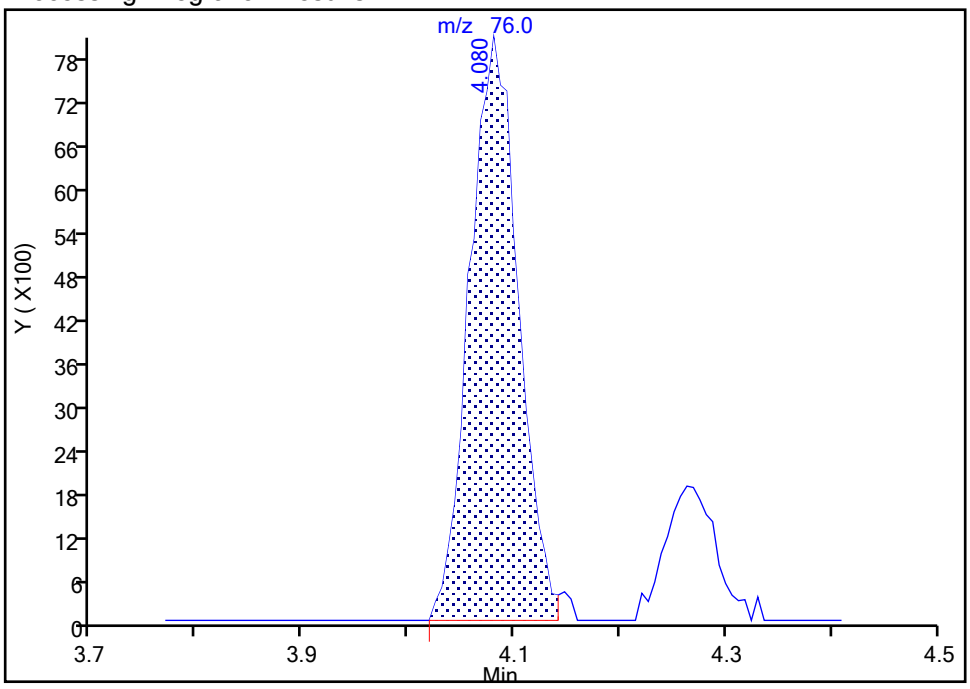
Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D
Injection Date: 08-Feb-2021 21:34:30 Instrument ID: 19094
Lims ID: IC std1 0.2
Client ID:
Operator ID: SRK36897 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

24 Carbon disulfide, CAS: 75-15-0

Signal: 1

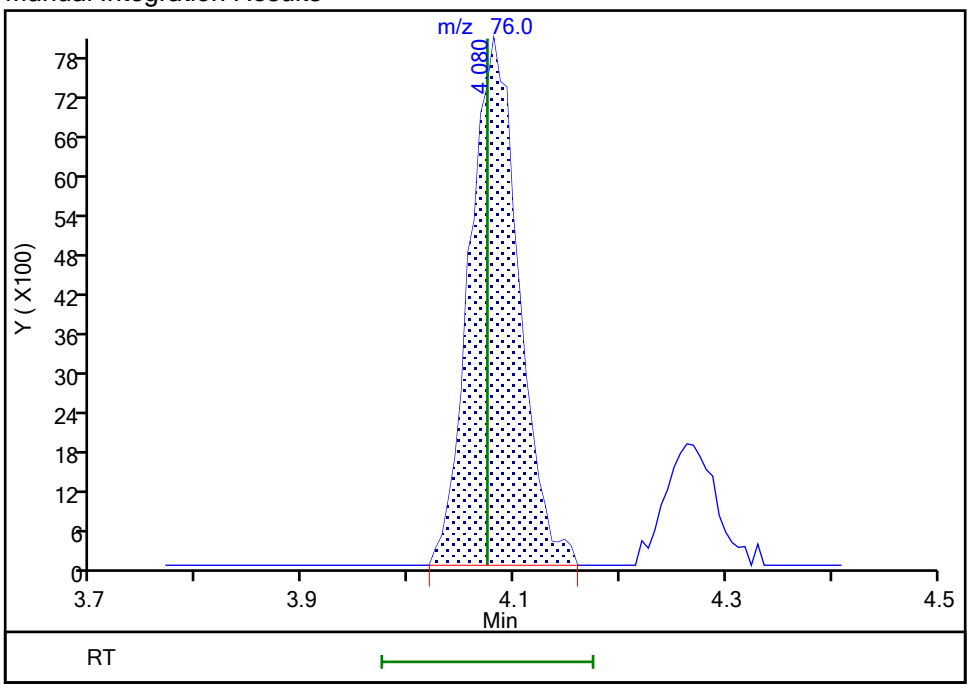
Processing Integration Results

RT: 4.08
Area: 25889
Amount: 0.186673
Amount Units: ug/l



Manual Integration Results

RT: 4.08
Area: 26141
Amount: 0.188246
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:27:10
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

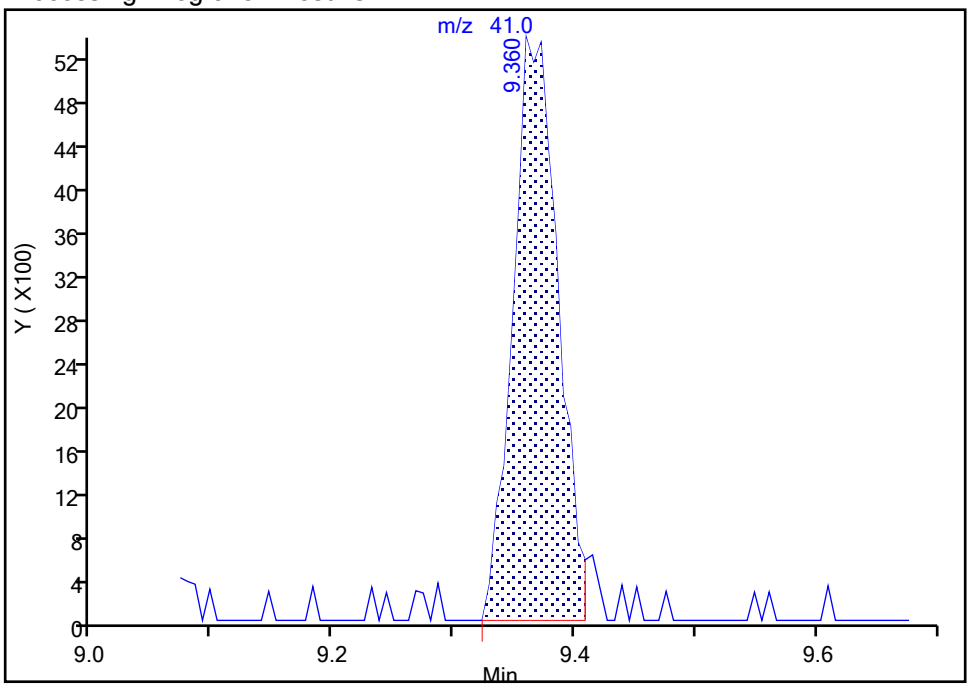
Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D				
Injection Date:	08-Feb-2021 21:34:30	Instrument ID:	19094		
Lims ID:	IC std1 0.2				
Client ID:					
Operator ID:	SRK36897	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

76 2-Nitropropane, CAS: 79-46-9

Signal: 1

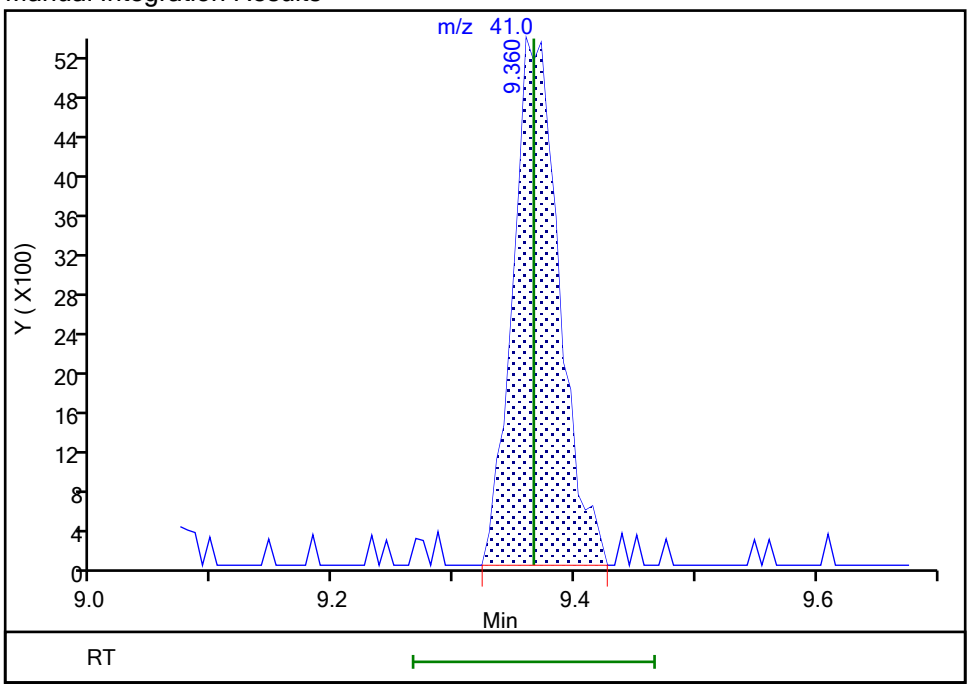
Processing Integration Results

RT: 9.36
Area: 13921
Amount: 1.863259
Amount Units: ug/l



Manual Integration Results

RT: 9.36
Area: 14253
Amount: 1.901659
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:27:58

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

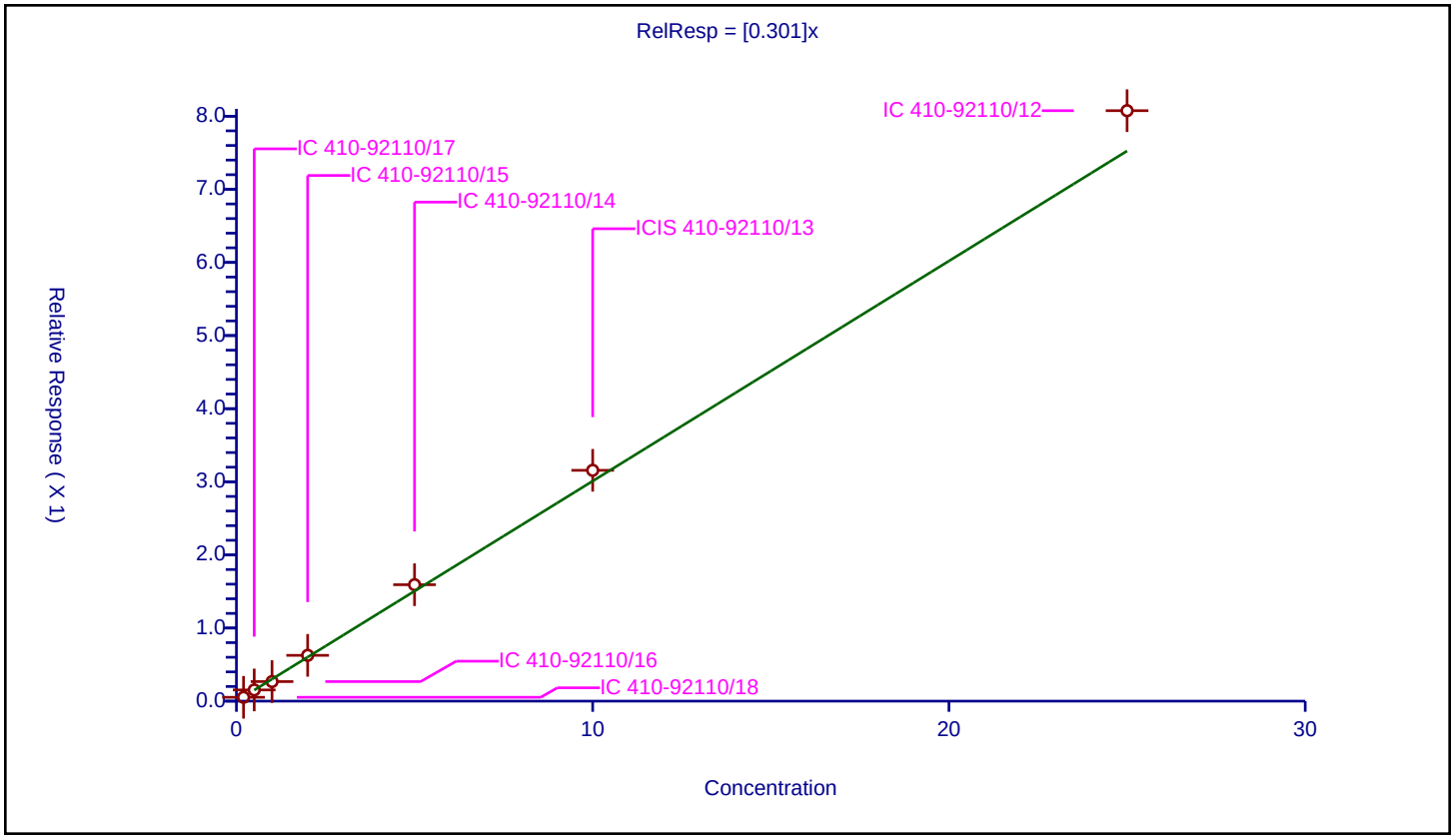
Curve Coefficients

Intercept:	0
Slope:	0.301

Error Coefficients

Standard Error:	827000
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 410-92110/18	0.2	0.05247	10.0	2221269.0	0.26235	Y
2	IC 410-92110/17	0.5	0.153307	10.0	2241057.0	0.306614	Y
3	IC 410-92110/16	1.0	0.267666	10.0	2256808.0	0.267666	Y
4	IC 410-92110/15	2.0	0.626242	10.0	2261074.0	0.313121	Y
5	IC 410-92110/14	5.0	1.592364	10.0	2279291.0	0.318473	Y
6	ICIS 410-92110/13	10.0	3.156872	10.0	2280609.0	0.315687	Y
7	IC 410-92110/12	25.0	8.075444	10.0	2294031.0	0.323018	Y



Calibration / Chloromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

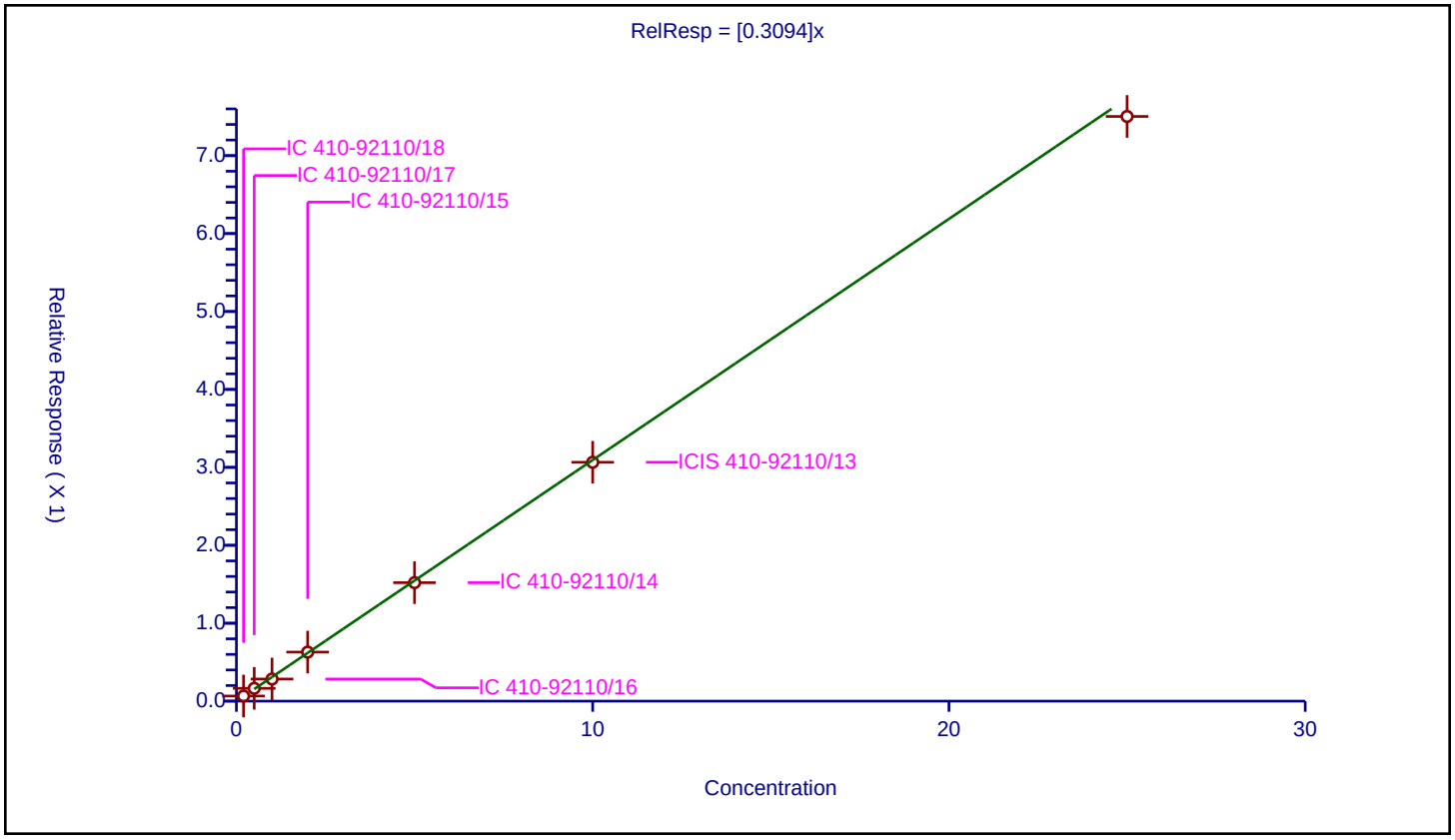
Curve Coefficients

Intercept:	0
Slope:	0.3094

Error Coefficients

Standard Error:	774000
Relative Standard Error:	5.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.06558	10.0	2221269.0	0.327898	Y
2	IC 410-92110/17	0.5	0.164329	10.0	2241057.0	0.328657	Y
3	IC 410-92110/16	1.0	0.283843	10.0	2256808.0	0.283843	Y
4	IC 410-92110/15	2.0	0.629272	10.0	2261074.0	0.314636	Y
5	IC 410-92110/14	5.0	1.520565	10.0	2279291.0	0.304113	Y
6	ICIS 410-92110/13	10.0	3.065137	10.0	2280609.0	0.306514	Y
7	IC 410-92110/12	25.0	7.50288	10.0	2294031.0	0.300115	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

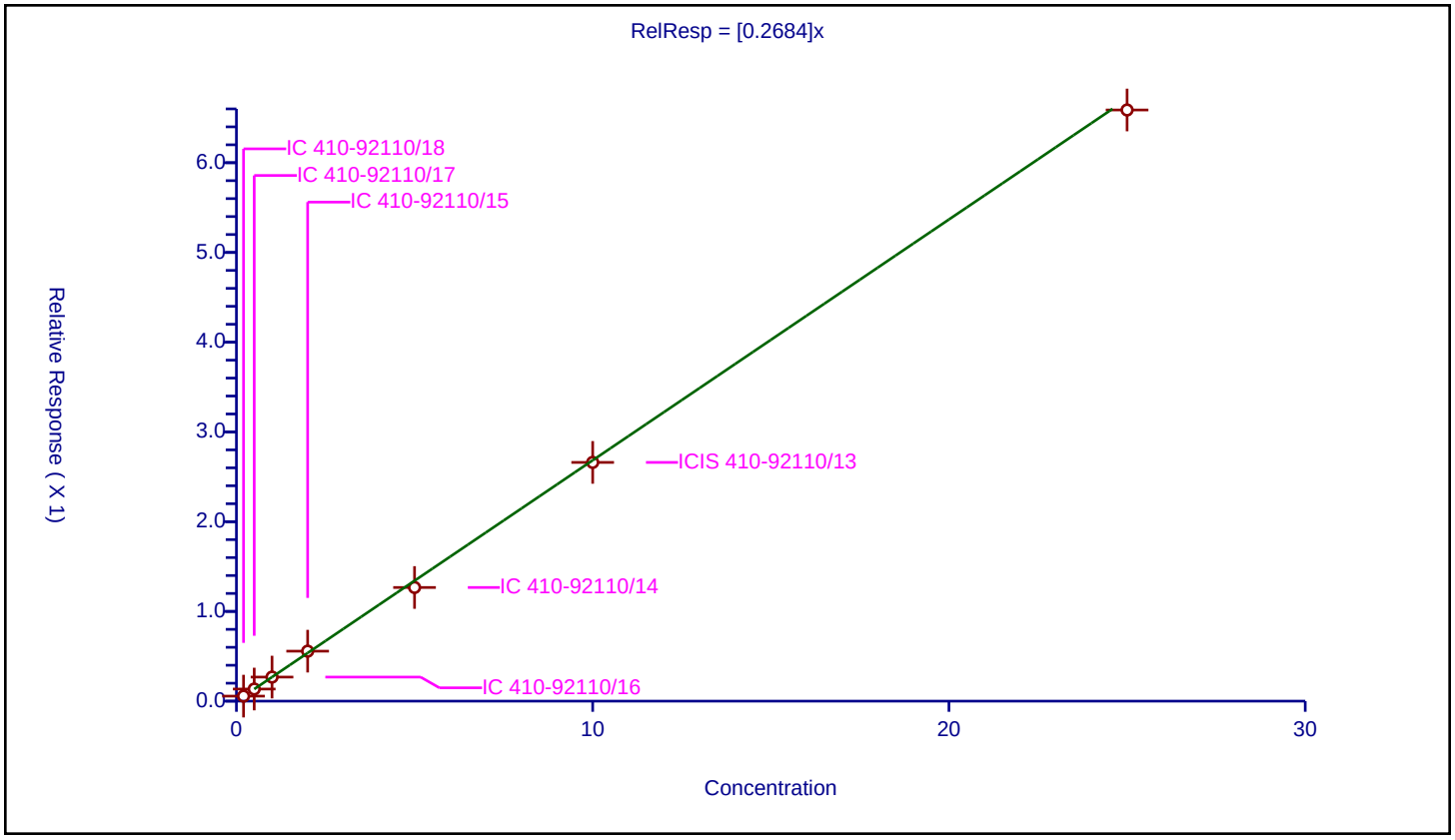
Curve Coefficients

Intercept:	0
Slope:	0.2684

Error Coefficients

Standard Error:	678000
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 410-92110/18	0.2	0.055851	10.0	2221269.0	0.279255	Y
2	IC 410-92110/17	0.5	0.134927	10.0	2241057.0	0.269855	Y
3	IC 410-92110/16	1.0	0.268184	10.0	2256808.0	0.268184	Y
4	IC 410-92110/15	2.0	0.556948	10.0	2261074.0	0.278474	Y
5	IC 410-92110/14	5.0	1.266705	10.0	2279291.0	0.253341	Y
6	ICIS 410-92110/13	10.0	2.660408	10.0	2280609.0	0.266041	Y
7	IC 410-92110/12	25.0	6.587827	10.0	2294031.0	0.263513	Y



Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

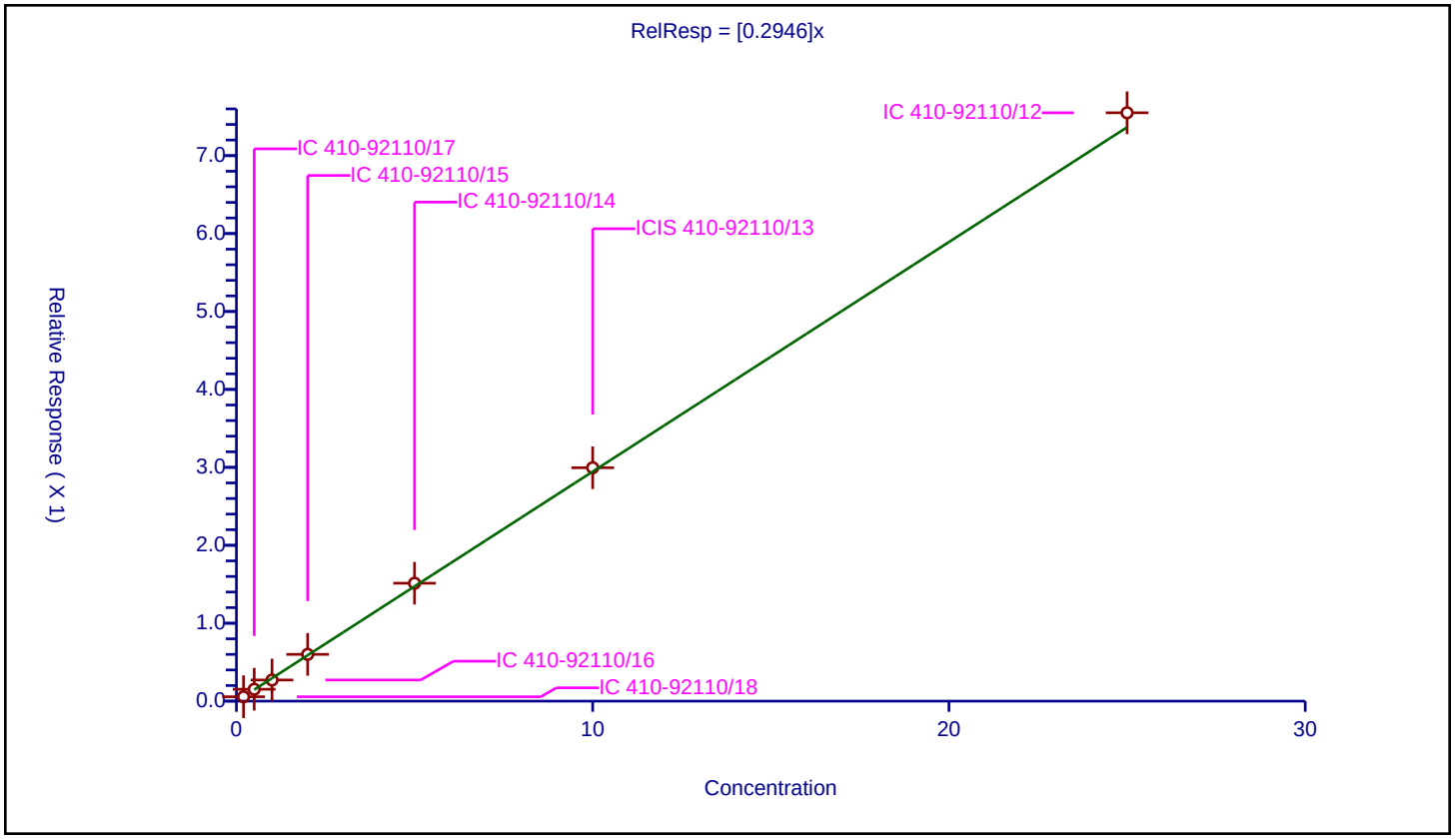
Curve Coefficients

Intercept:	0
Slope:	0.2946

Error Coefficients

Standard Error:	776000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.056333	10.0	2221269.0	0.281663	Y
2	IC 410-92110/17	0.5	0.152455	10.0	2241057.0	0.30491	Y
3	IC 410-92110/16	1.0	0.271144	10.0	2256808.0	0.271144	Y
4	IC 410-92110/15	2.0	0.600286	10.0	2261074.0	0.300143	Y
5	IC 410-92110/14	5.0	1.5133	10.0	2279291.0	0.30266	Y
6	ICIS 410-92110/13	10.0	2.995226	10.0	2280609.0	0.299523	Y
7	IC 410-92110/12	25.0	7.550194	10.0	2294031.0	0.302008	Y



Calibration / Bromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

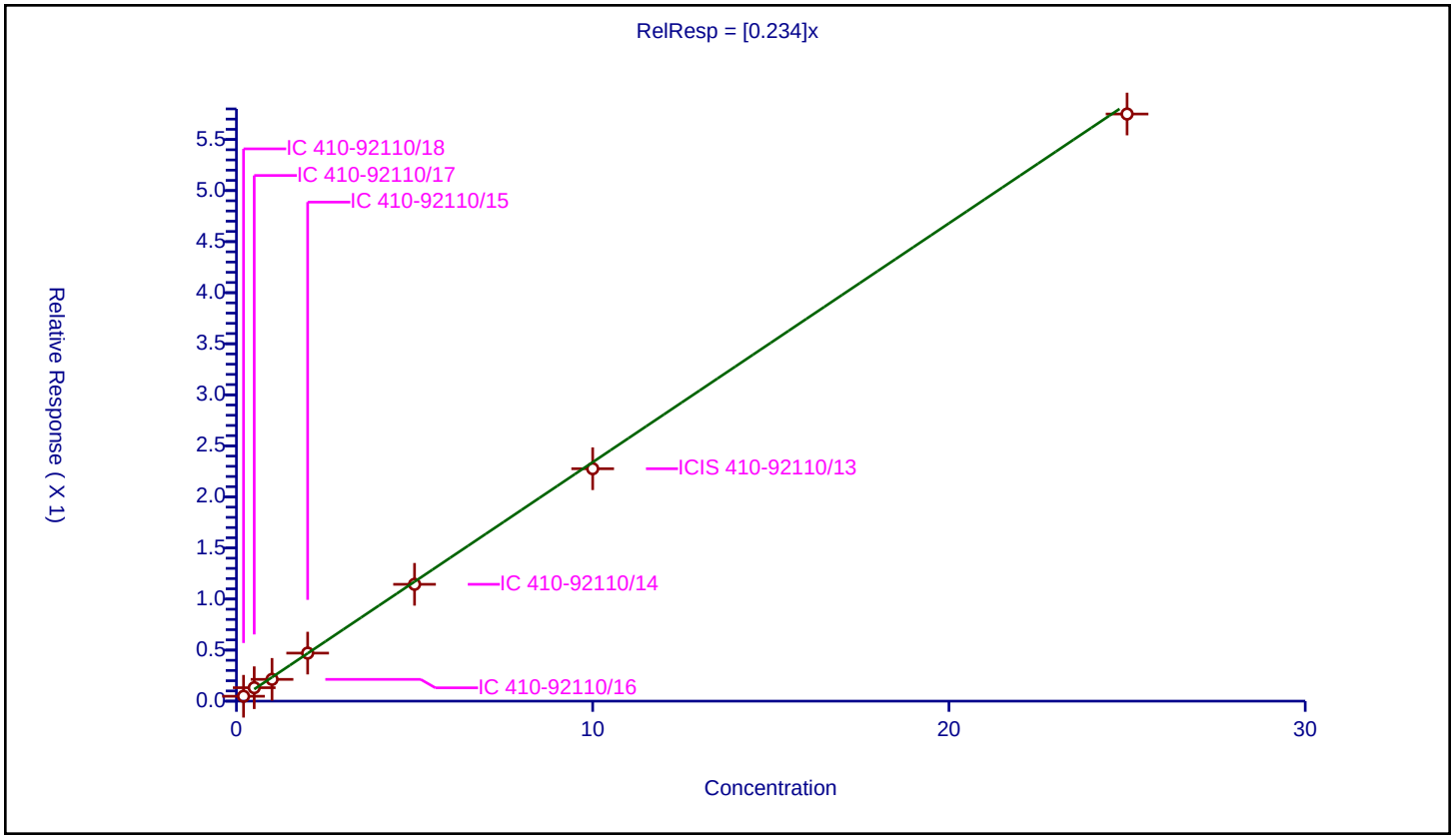
Curve Coefficients

Intercept:	0
Slope:	0.234

Error Coefficients

Standard Error:	590000
Relative Standard Error:	6.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.047955	10.0	2221269.0	0.239773	Y
2	IC 410-92110/17	0.5	0.131616	10.0	2241057.0	0.263233	Y
3	IC 410-92110/16	1.0	0.213195	10.0	2256808.0	0.213195	Y
4	IC 410-92110/15	2.0	0.470493	10.0	2261074.0	0.235247	Y
5	IC 410-92110/14	5.0	1.144088	10.0	2279291.0	0.228818	Y
6	ICIS 410-92110/13	10.0	2.276173	10.0	2280609.0	0.227617	Y
7	IC 410-92110/12	25.0	5.750014	10.0	2294031.0	0.230001	Y



Calibration / Chloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

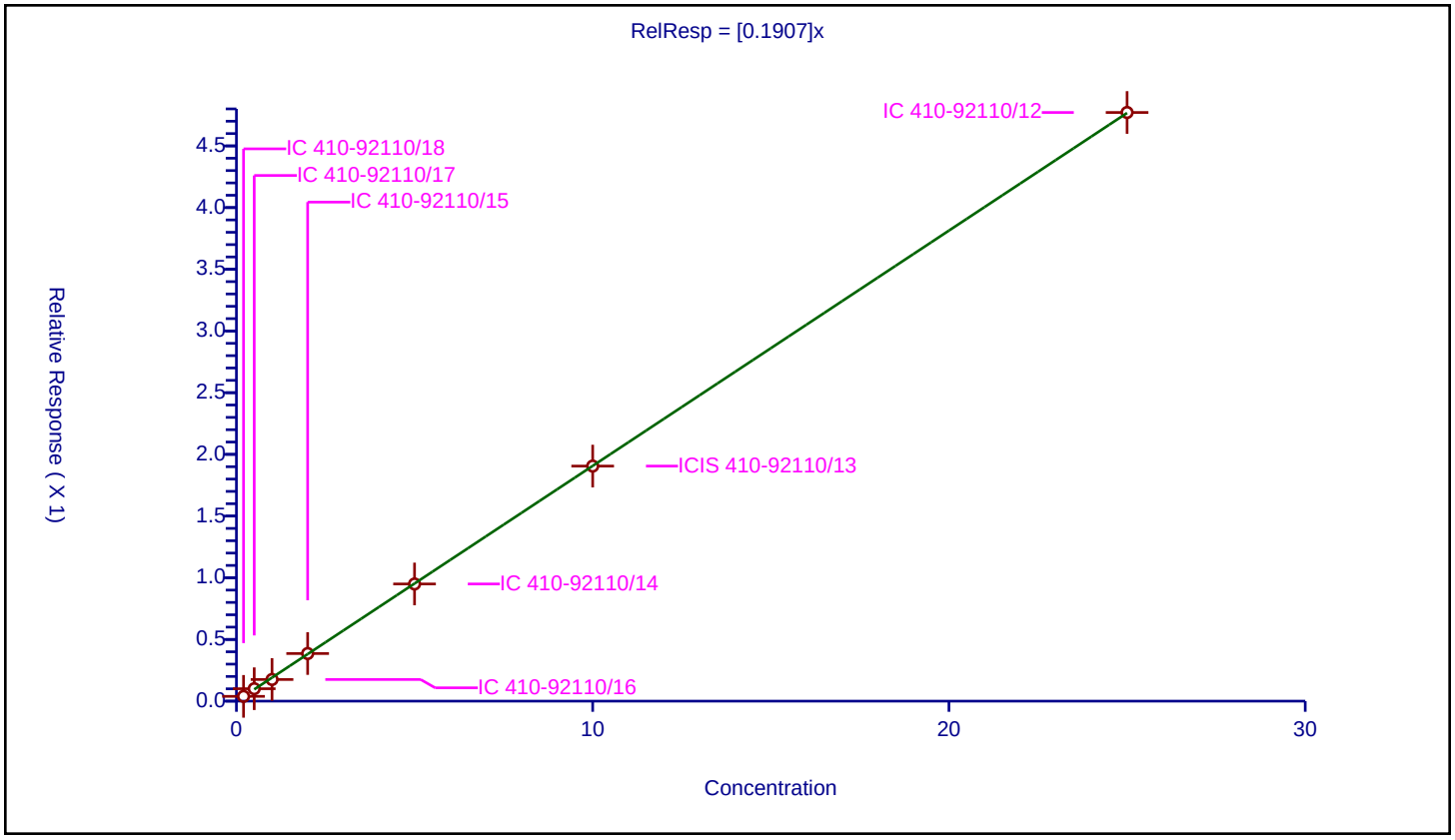
Curve Coefficients

Intercept:	0
Slope:	0.1907

Error Coefficients

Standard Error:	490000
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 410-92110/18	0.2	0.038748	10.0	2221269.0	0.193741	Y
2	IC 410-92110/17	0.5	0.100702	10.0	2241057.0	0.201405	Y
3	IC 410-92110/16	1.0	0.175416	10.0	2256808.0	0.175416	Y
4	IC 410-92110/15	2.0	0.385905	10.0	2261074.0	0.192953	Y
5	IC 410-92110/14	5.0	0.949646	10.0	2279291.0	0.189929	Y
6	ICIS 410-92110/13	10.0	1.905053	10.0	2280609.0	0.190505	Y
7	IC 410-92110/12	25.0	4.770786	10.0	2294031.0	0.190831	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

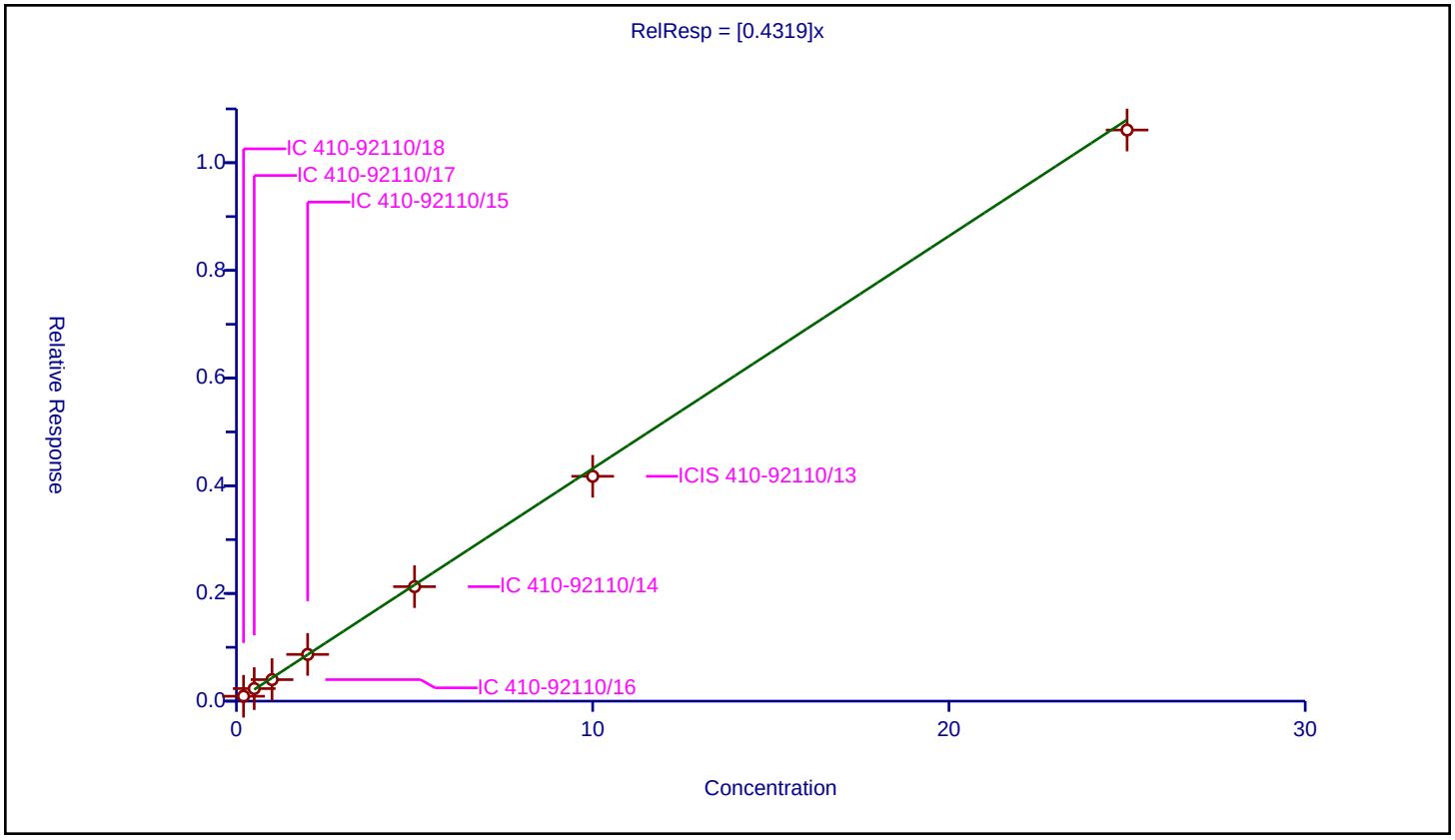
Curve Coefficients

Intercept:	0
Slope:	0.4319

Error Coefficients

Standard Error:	1090000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.091362	10.0	2221269.0	0.456811	Y
2	IC 410-92110/17	0.5	0.233078	10.0	2241057.0	0.466155	Y
3	IC 410-92110/16	1.0	0.399321	10.0	2256808.0	0.399321	Y
4	IC 410-92110/15	2.0	0.867924	10.0	2261074.0	0.433962	Y
5	IC 410-92110/14	5.0	2.126622	10.0	2279291.0	0.425324	Y
6	ICIS 410-92110/13	10.0	4.17617	10.0	2280609.0	0.417617	Y
7	IC 410-92110/12	25.0	10.607708	10.0	2294031.0	0.424308	Y



Calibration / Trichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

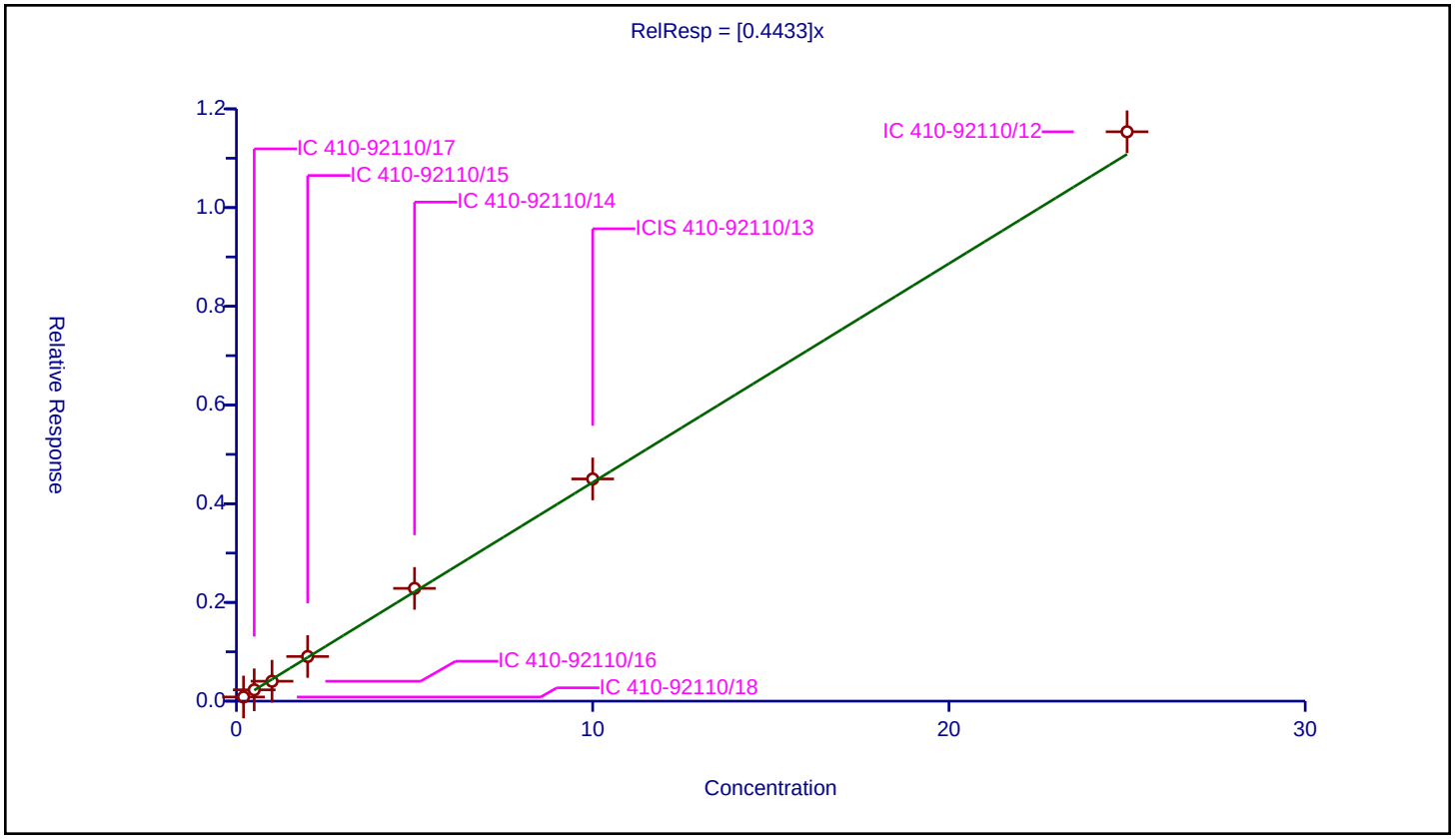
Curve Coefficients

Intercept:	0
Slope:	0.4433

Error Coefficients

Standard Error:	1180000
Relative Standard Error:	5.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.083907	10.0	2221269.0	0.419535	Y
2	IC 410-92110/17	0.5	0.229646	10.0	2241057.0	0.459292	Y
3	IC 410-92110/16	1.0	0.40318	10.0	2256808.0	0.40318	Y
4	IC 410-92110/15	2.0	0.904897	10.0	2261074.0	0.452449	Y
5	IC 410-92110/14	5.0	2.284526	10.0	2279291.0	0.456905	Y
6	ICIS 410-92110/13	10.0	4.501964	10.0	2280609.0	0.450196	Y
7	IC 410-92110/12	25.0	11.536256	10.0	2294031.0	0.46145	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

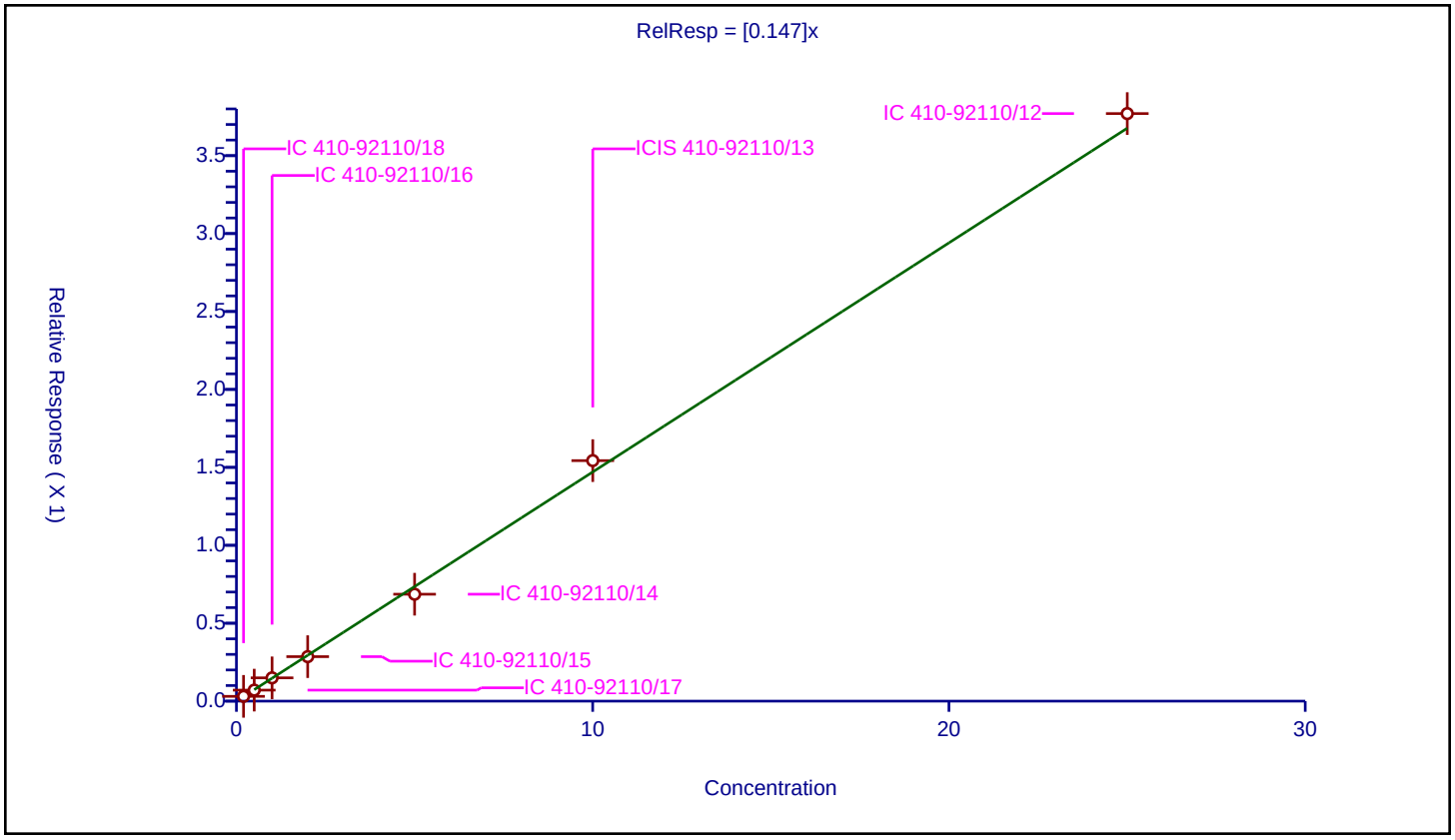
Curve Coefficients

Intercept:	0
Slope:	0.147

Error Coefficients

Standard Error:	388000
Relative Standard Error:	4.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.200043	0.030699	10.0	2221269.0	0.15346	Y
2	IC 410-92110/17	0.500108	0.070712	10.0	2241057.0	0.141394	Y
3	IC 410-92110/16	1.000215	0.149406	10.0	2256808.0	0.149374	Y
4	IC 410-92110/15	2.00043	0.285435	10.0	2261074.0	0.142687	Y
5	IC 410-92110/14	5.001075	0.685985	10.0	2279291.0	0.137168	Y
6	ICIS 410-92110/13	10.00215	1.543276	10.0	2280609.0	0.154294	Y
7	IC 410-92110/12	25.005375	3.770006	10.0	2294031.0	0.150768	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

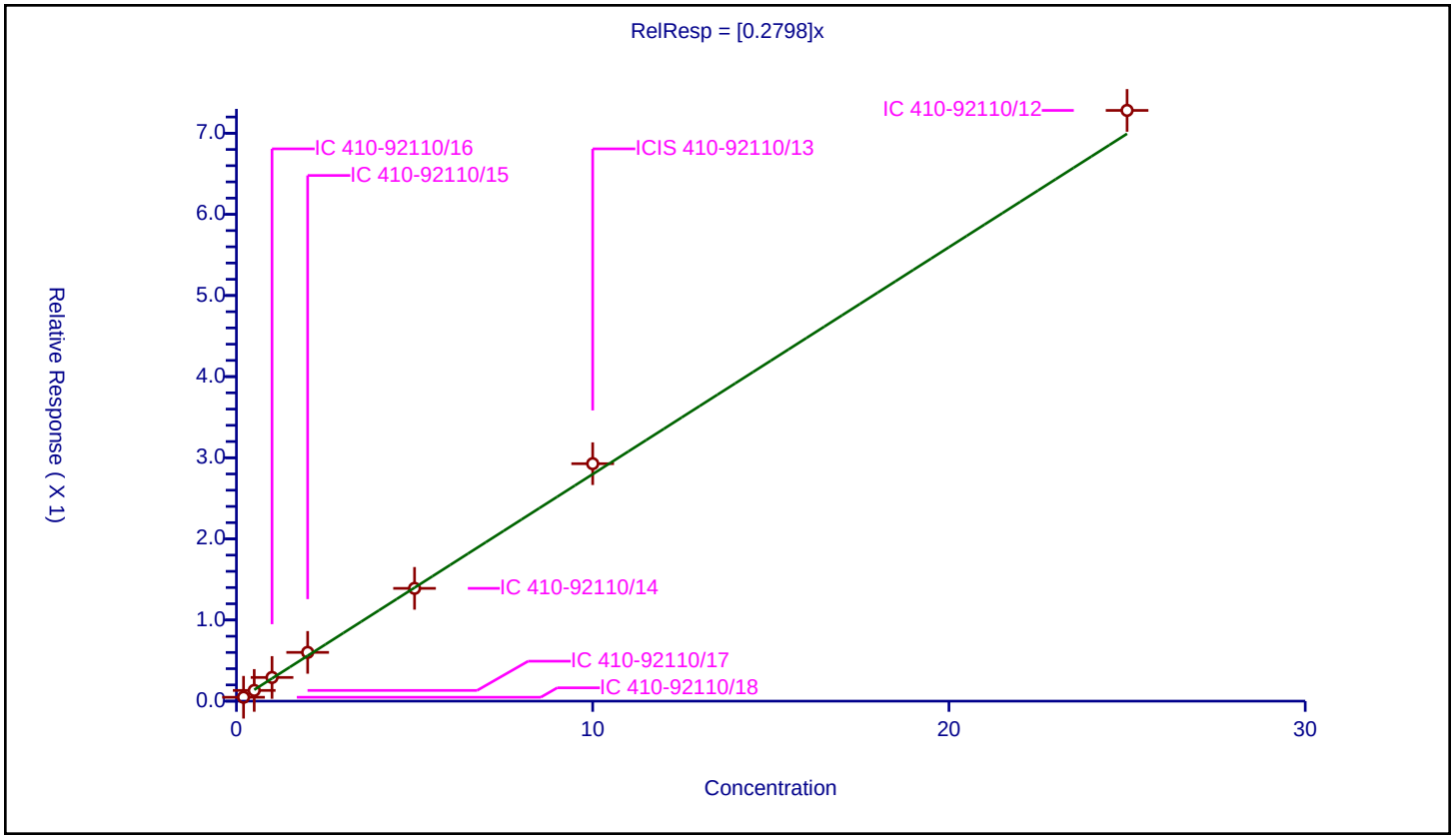
Curve Coefficients

Intercept:	0
Slope:	0.2798

Error Coefficients

Standard Error:	748000
Relative Standard Error:	7.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.047914	10.0	2221269.0	0.23957	Y
2	IC 410-92110/17	0.5	0.132116	10.0	2241057.0	0.264232	Y
3	IC 410-92110/16	1.0	0.292023	10.0	2256808.0	0.292023	Y
4	IC 410-92110/15	2.0	0.601051	10.0	2261074.0	0.300525	Y
5	IC 410-92110/14	5.0	1.390042	10.0	2279291.0	0.278008	Y
6	ICIS 410-92110/13	10.0	2.926714	10.0	2280609.0	0.292671	Y
7	IC 410-92110/12	25.0	7.28131	10.0	2294031.0	0.291252	Y



Calibration / Acrolein

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

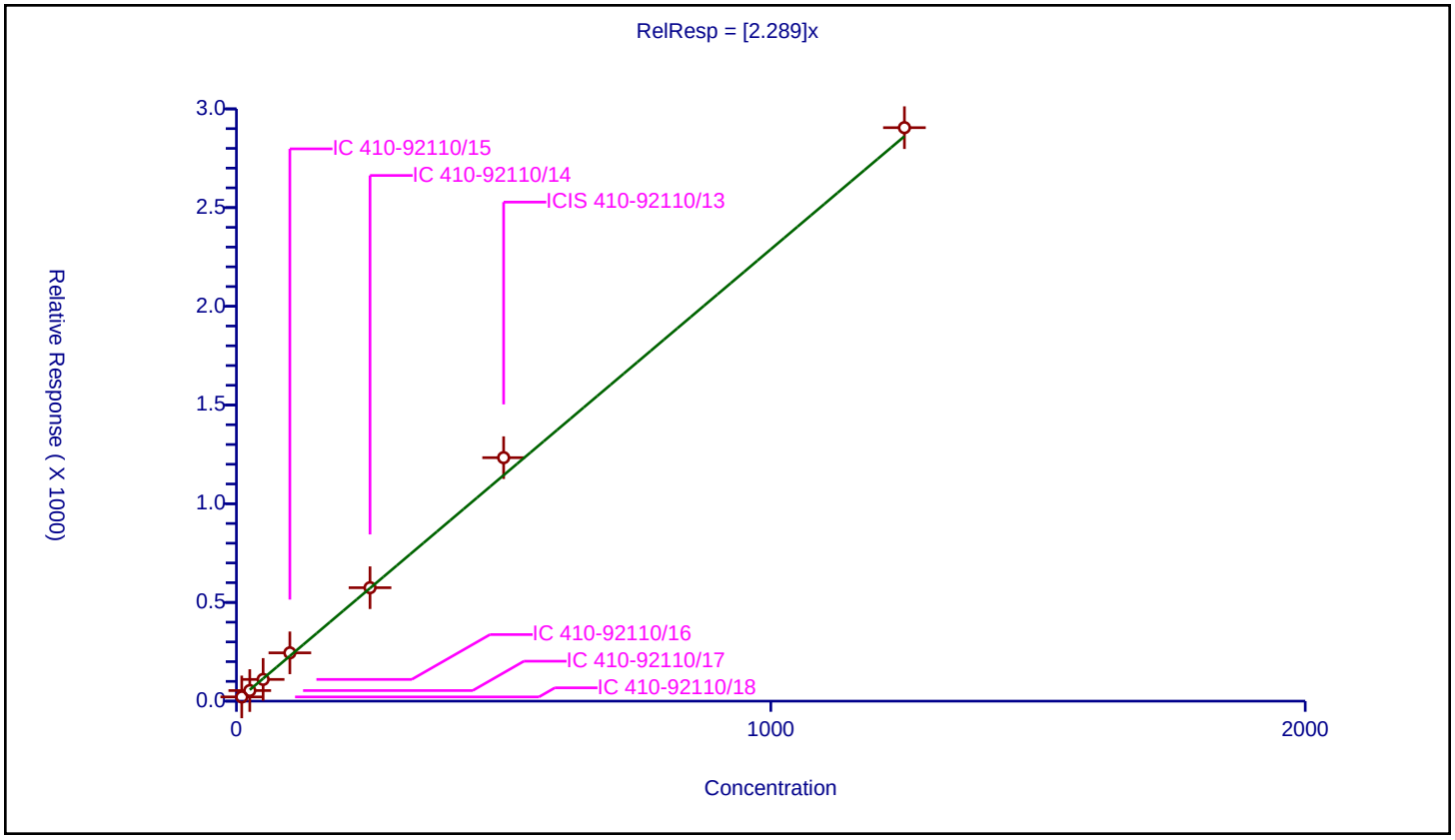
Curve Coefficients

Intercept:	0
Slope:	2.289

Error Coefficients

Standard Error:	2950000
Relative Standard Error:	5.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	10.000371	21.403595	50.0	113537.0	2.14028	Y
2	IC 410-92110/17	25.000927	53.651312	50.0	112754.0	2.145973	Y
3	IC 410-92110/16	50.001854	110.031063	50.0	117181.0	2.20054	Y
4	IC 410-92110/15	100.003709	244.652953	50.0	110547.0	2.446439	Y
5	IC 410-92110/14	250.009272	574.701292	50.0	109304.0	2.29872	Y
6	ICIS 410-92110/13	500.018544	1233.301089	50.0	101309.0	2.466511	Y
7	IC 410-92110/12	1250.046359	2904.85948	50.0	114076.0	2.323801	Y



Calibration / 1,1-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

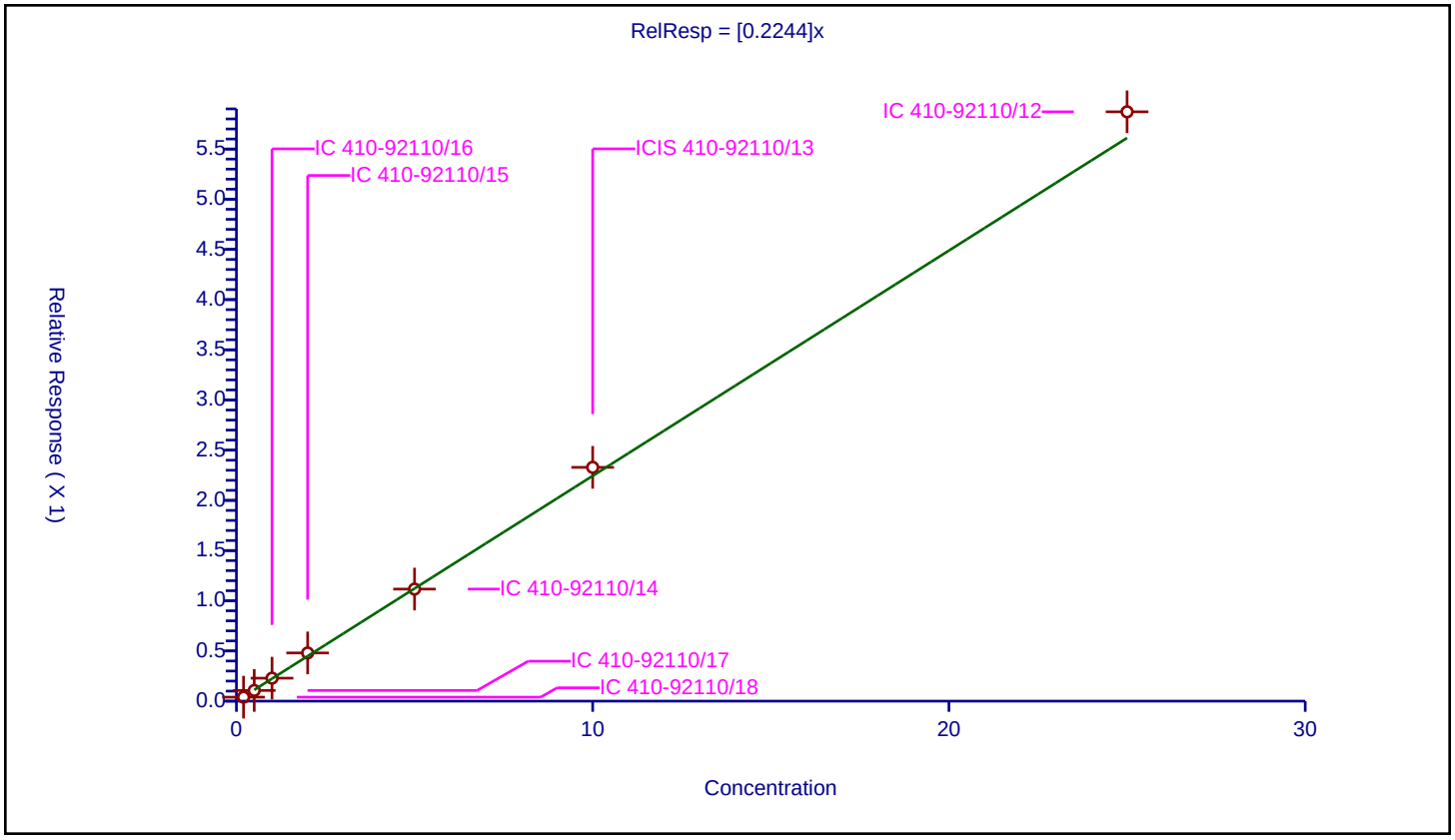
Curve Coefficients

Intercept:	0
Slope:	0.2244

Error Coefficients

Standard Error:	602000
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 410-92110/18	0.2	0.039626	10.0	2221269.0	0.19813	Y
2	IC 410-92110/17	0.5	0.106445	10.0	2241057.0	0.212891	Y
3	IC 410-92110/16	1.0	0.228907	10.0	2256808.0	0.228907	Y
4	IC 410-92110/15	2.0	0.480219	10.0	2261074.0	0.240109	Y
5	IC 410-92110/14	5.0	1.1164	10.0	2279291.0	0.22328	Y
6	ICIS 410-92110/13	10.0	2.328878	10.0	2280609.0	0.232888	Y
7	IC 410-92110/12	25.0	5.871015	10.0	2294031.0	0.234841	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

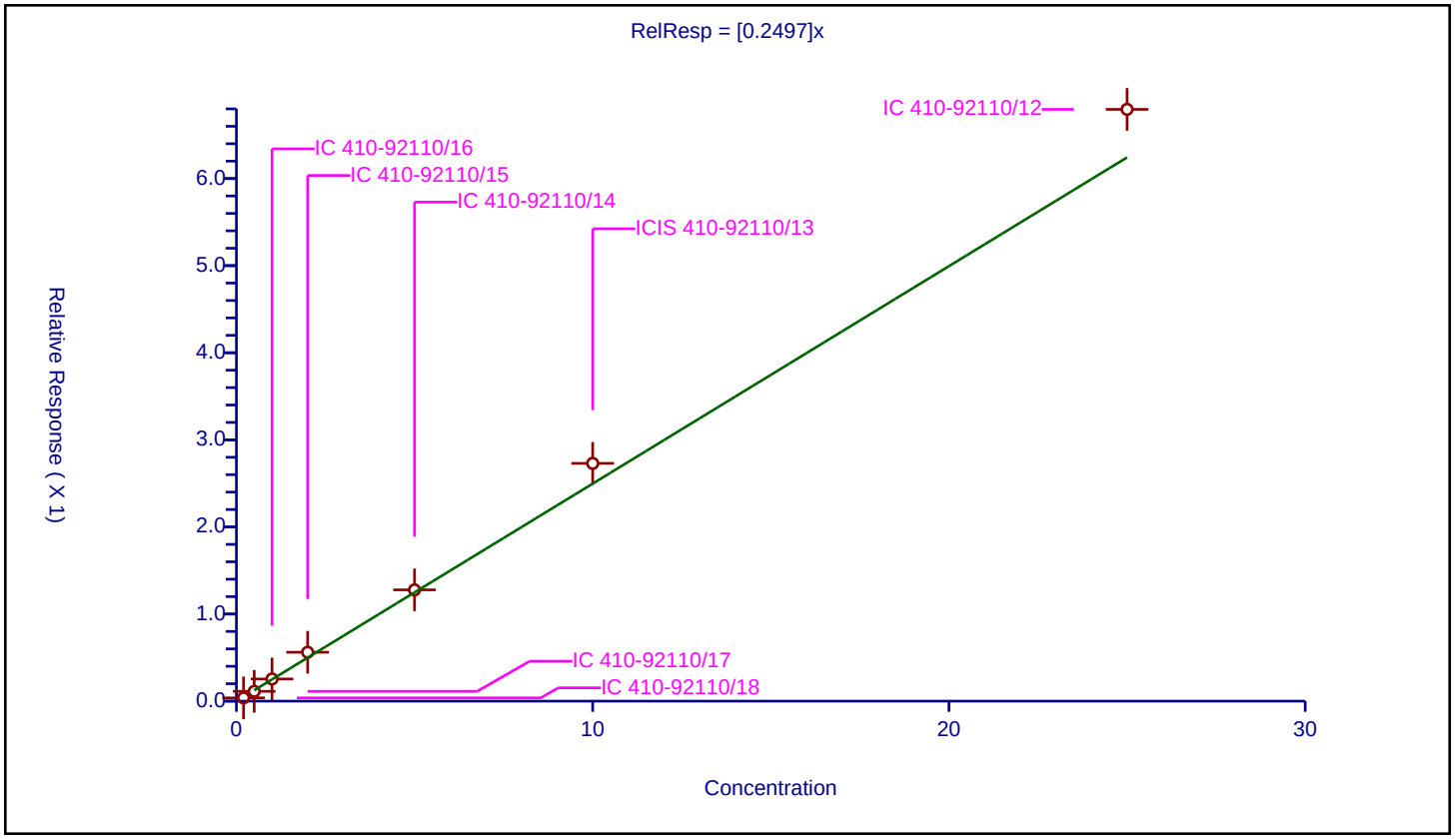
Curve Coefficients

Intercept:	0
Slope:	0.2497

Error Coefficients

Standard Error:	698000
Relative Standard Error:	13.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.037438	10.0	2221269.0	0.18719	Y
2	IC 410-92110/17	0.5	0.112625	10.0	2241057.0	0.225251	Y
3	IC 410-92110/16	1.0	0.254692	10.0	2256808.0	0.254692	Y
4	IC 410-92110/15	2.0	0.561167	10.0	2261074.0	0.280583	Y
5	IC 410-92110/14	5.0	1.27766	10.0	2279291.0	0.255532	Y
6	ICIS 410-92110/13	10.0	2.729981	10.0	2280609.0	0.272998	Y
7	IC 410-92110/12	25.0	6.794442	10.0	2294031.0	0.271778	Y



Calibration / Acetone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

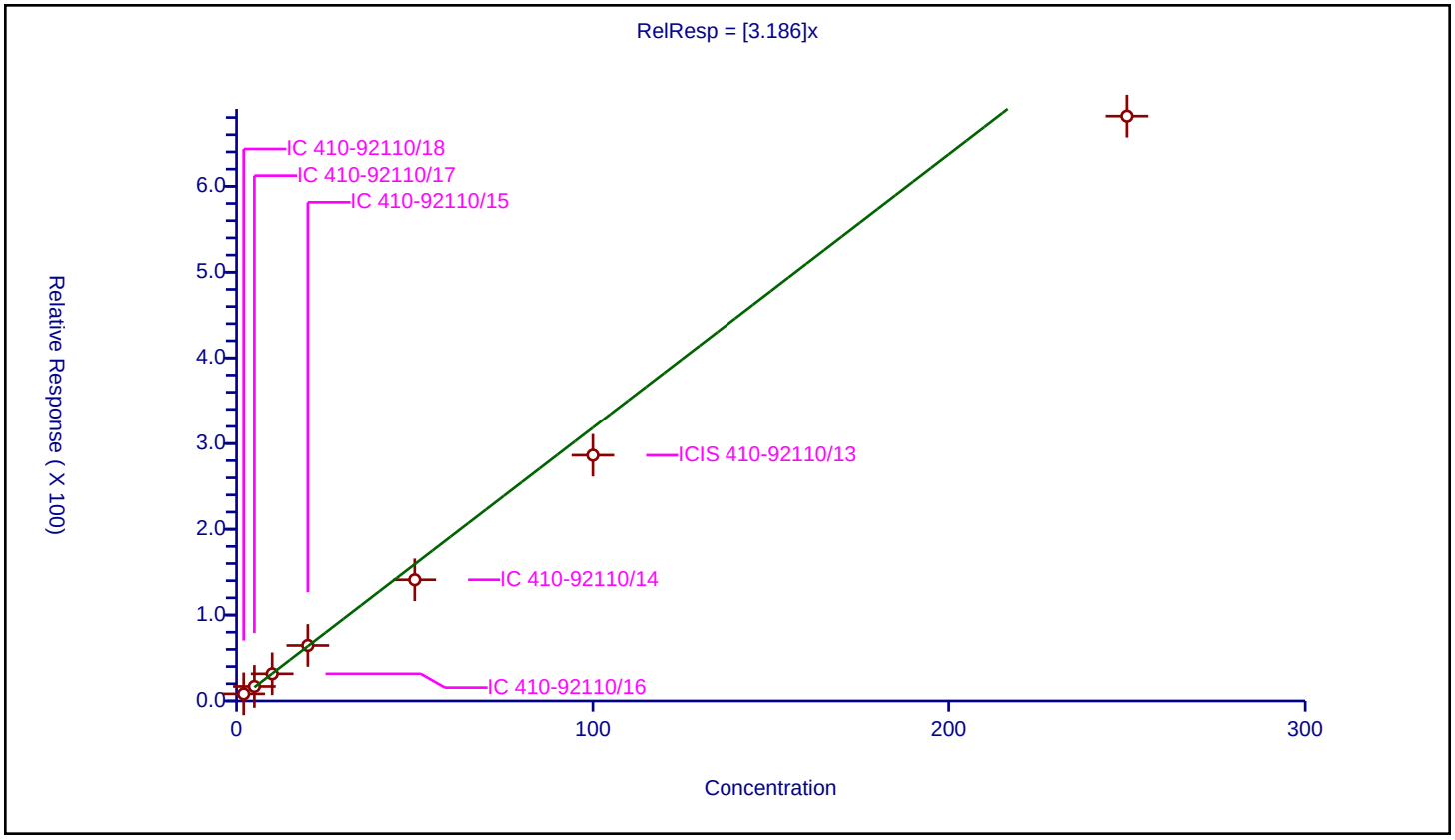
Curve Coefficients

Intercept:	0
Slope:	3.186

Error Coefficients

Standard Error:	692000
Relative Standard Error:	15.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	2.0	8.249734	50.0	113537.0	4.124867	Y
2	IC 410-92110/17	5.0	16.901839	50.0	112754.0	3.380368	Y
3	IC 410-92110/16	10.0	31.564844	50.0	117181.0	3.156484	Y
4	IC 410-92110/15	20.0	64.597411	50.0	110547.0	3.229871	Y
5	IC 410-92110/14	50.0	141.082211	50.0	109304.0	2.821644	Y
6	ICIS 410-92110/13	100.0	286.335864	50.0	101309.0	2.863359	Y
7	IC 410-92110/12	250.0	681.631106	50.0	114076.0	2.726524	Y



Calibration / Iodomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

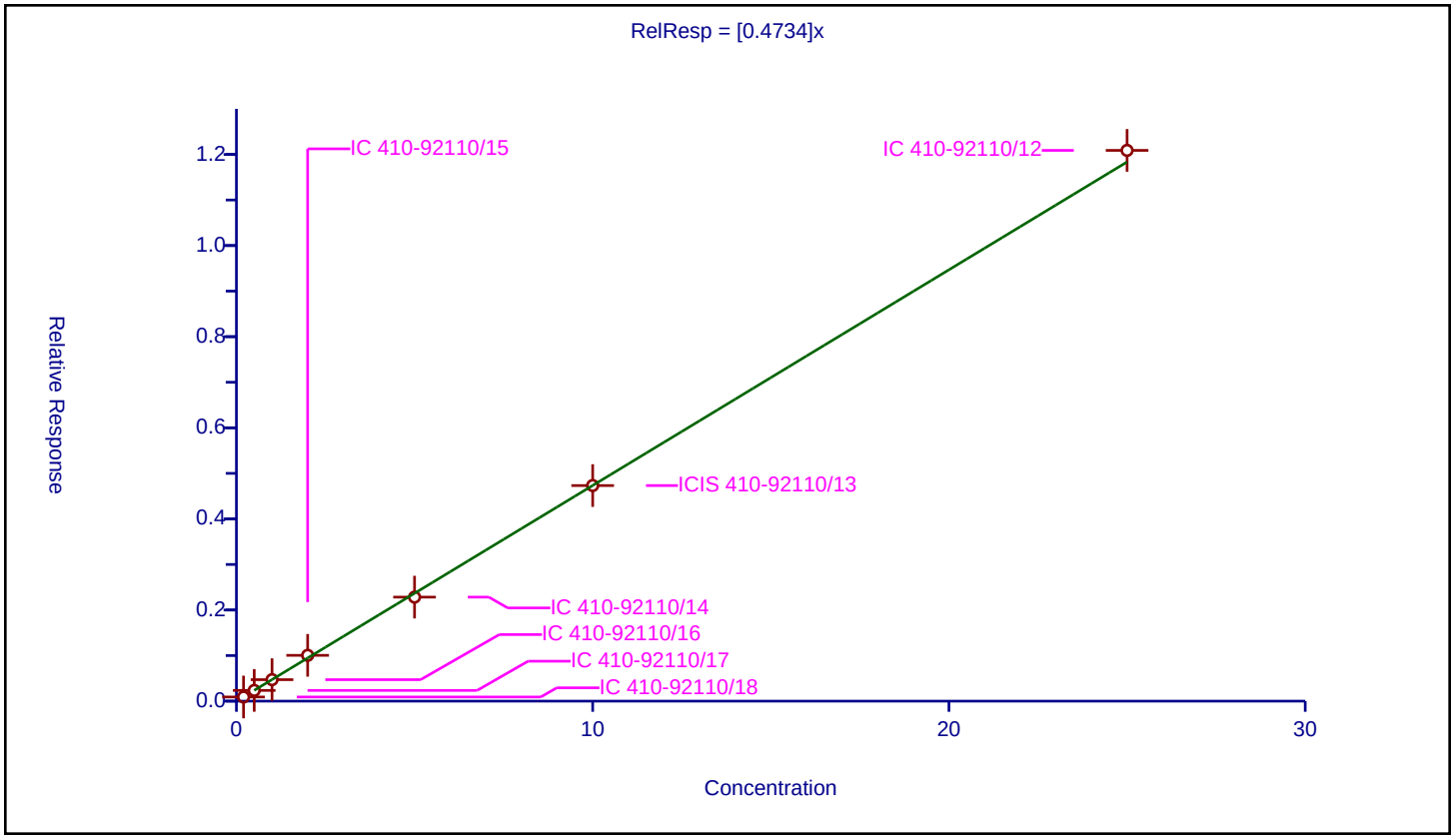
Curve Coefficients

Intercept:	0
Slope:	0.4734

Error Coefficients

Standard Error:	1240000
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 410-92110/18	0.2	0.091038	10.0	2221269.0	0.45519	Y
2	IC 410-92110/17	0.5	0.235487	10.0	2241057.0	0.470974	Y
3	IC 410-92110/16	1.0	0.471485	10.0	2256808.0	0.471485	Y
4	IC 410-92110/15	2.0	1.005416	10.0	2261074.0	0.502708	Y
5	IC 410-92110/14	5.0	2.283521	10.0	2279291.0	0.456704	Y
6	ICIS 410-92110/13	10.0	4.732104	10.0	2280609.0	0.47321	Y
7	IC 410-92110/12	25.0	12.089026	10.0	2294031.0	0.483561	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

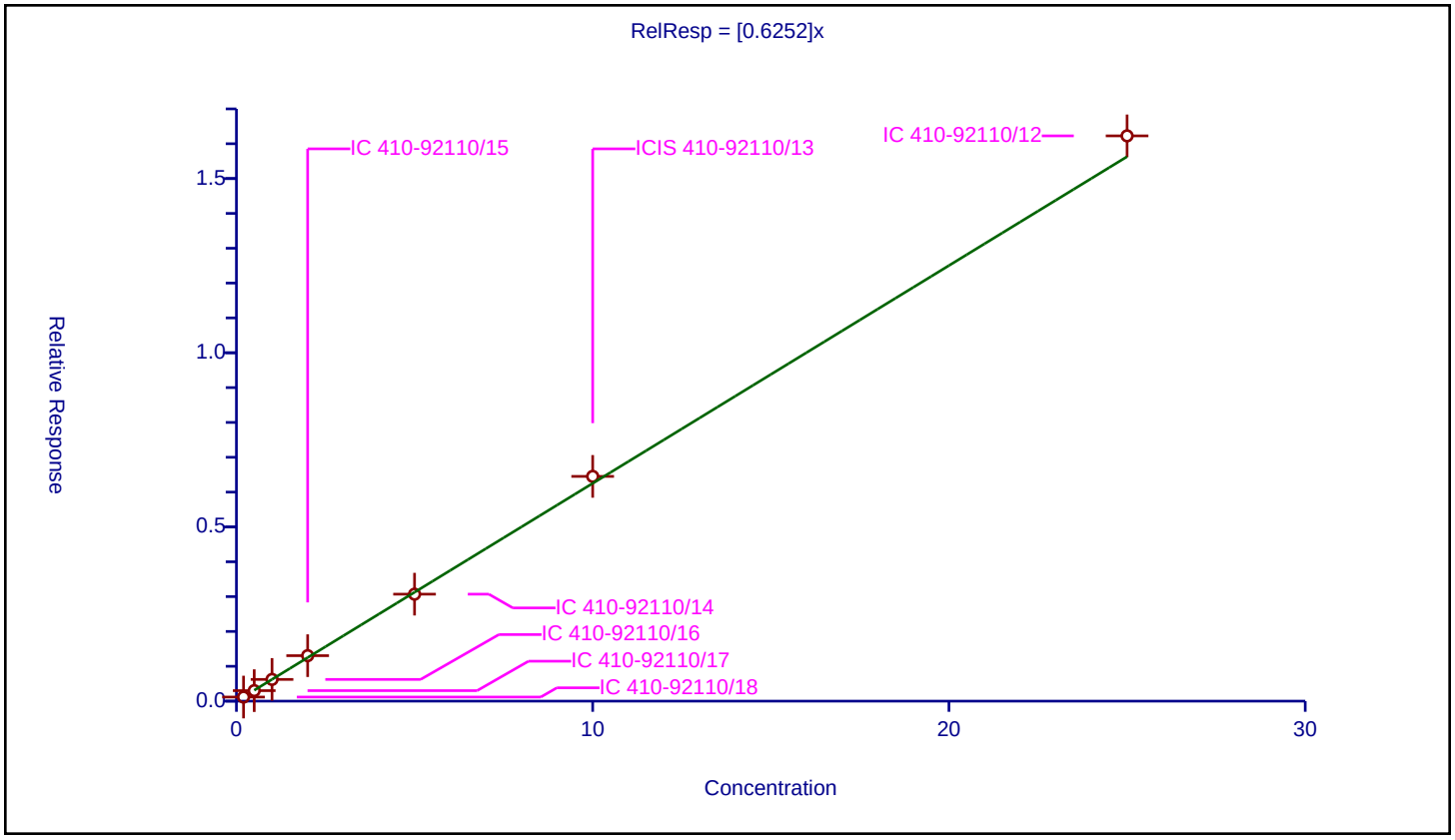
Curve Coefficients

Intercept:	0
Slope:	0.6252

Error Coefficients

Standard Error:	1660000
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 410-92110/18	0.2	0.117685	10.0	2221269.0	0.588425	Y
2	IC 410-92110/17	0.5	0.301532	10.0	2241057.0	0.603064	Y
3	IC 410-92110/16	1.0	0.623505	10.0	2256808.0	0.623505	Y
4	IC 410-92110/15	2.0	1.305733	10.0	2261074.0	0.652867	Y
5	IC 410-92110/14	5.0	3.070578	10.0	2279291.0	0.614116	Y
6	ICIS 410-92110/13	10.0	6.451518	10.0	2280609.0	0.645152	Y
7	IC 410-92110/12	25.0	16.225744	10.0	2294031.0	0.64903	Y



Calibration / Methyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

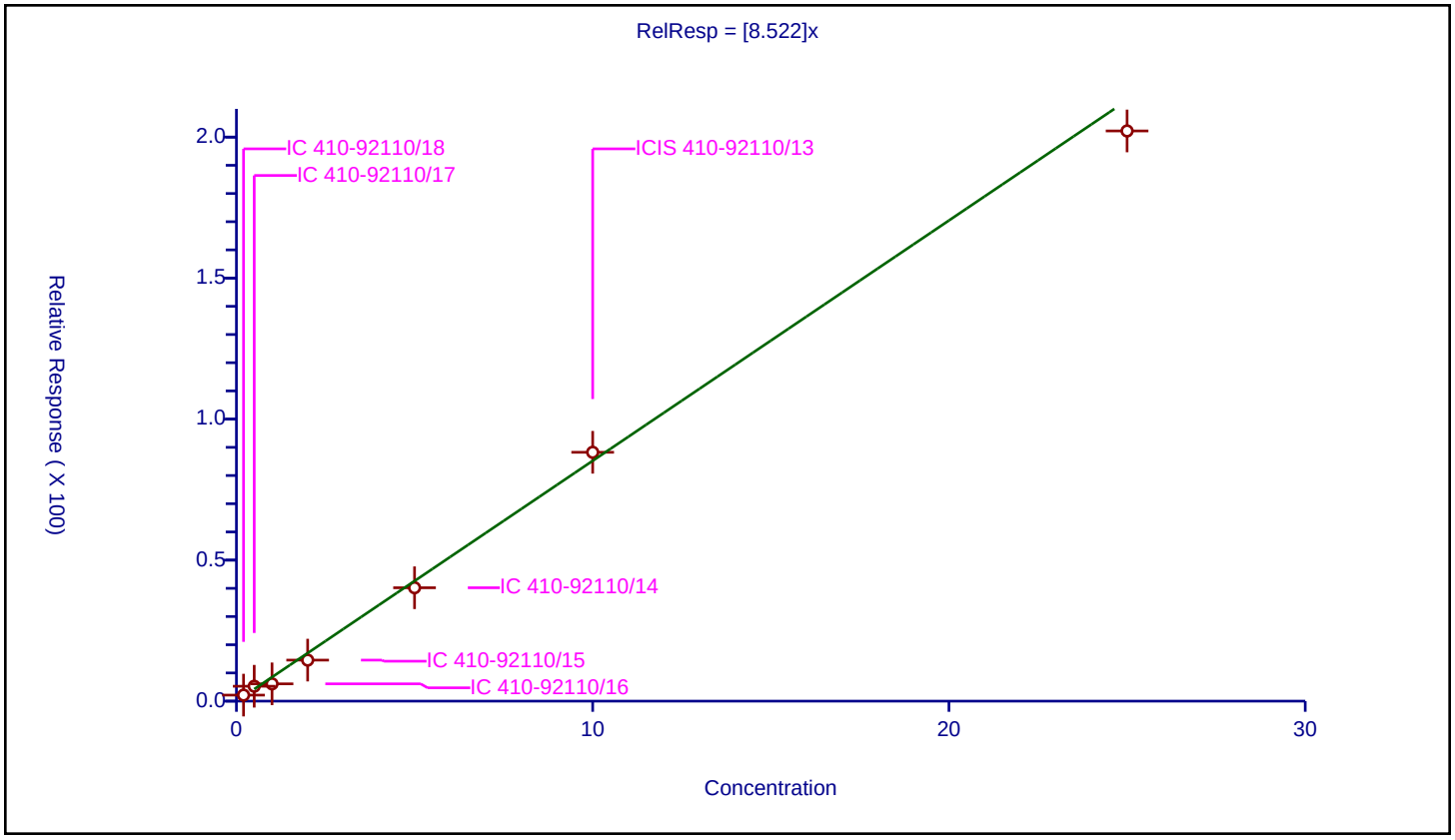
Curve Coefficients

Intercept:	0
Slope:	8.522

Error Coefficients

Standard Error:	206000
Relative Standard Error:	19.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.939

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	2.142473	50.0	113537.0	10.712367	Y
2	IC 410-92110/17	0.5	5.286287	50.0	112754.0	10.572574	Y
3	IC 410-92110/16	1.0	6.138367	50.0	117181.0	6.138367	Y
4	IC 410-92110/15	2.0	14.550825	50.0	110547.0	7.275412	Y
5	IC 410-92110/14	5.0	40.211703	50.0	109304.0	8.042341	Y
6	ICIS 410-92110/13	10.0	88.236484	50.0	101309.0	8.823648	Y
7	IC 410-92110/12	25.0	202.183194	50.0	114076.0	8.087328	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

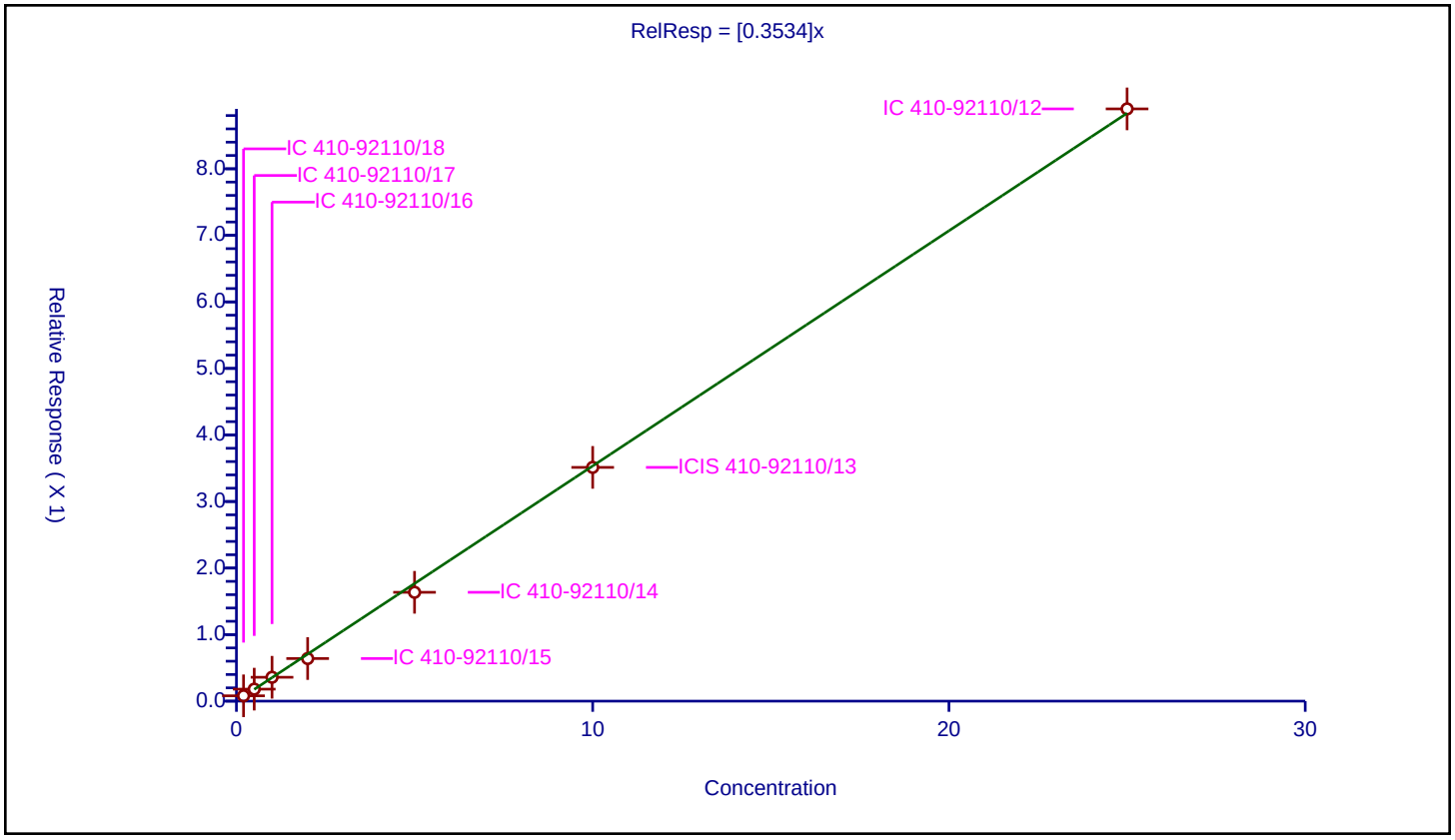
Curve Coefficients

Intercept:	0
Slope:	0.3534

Error Coefficients

Standard Error:	911000
Relative Standard Error:	7.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.080044	10.0	2221269.0	0.400222	Y
2	IC 410-92110/17	0.5	0.180254	10.0	2241057.0	0.360508	Y
3	IC 410-92110/16	1.0	0.358657	10.0	2256808.0	0.358657	Y
4	IC 410-92110/15	2.0	0.640258	10.0	2261074.0	0.320129	Y
5	IC 410-92110/14	5.0	1.635684	10.0	2279291.0	0.327137	Y
6	ICIS 410-92110/13	10.0	3.512623	10.0	2280609.0	0.351262	Y
7	IC 410-92110/12	25.0	8.899819	10.0	2294031.0	0.355993	Y



Calibration / Methylene Chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

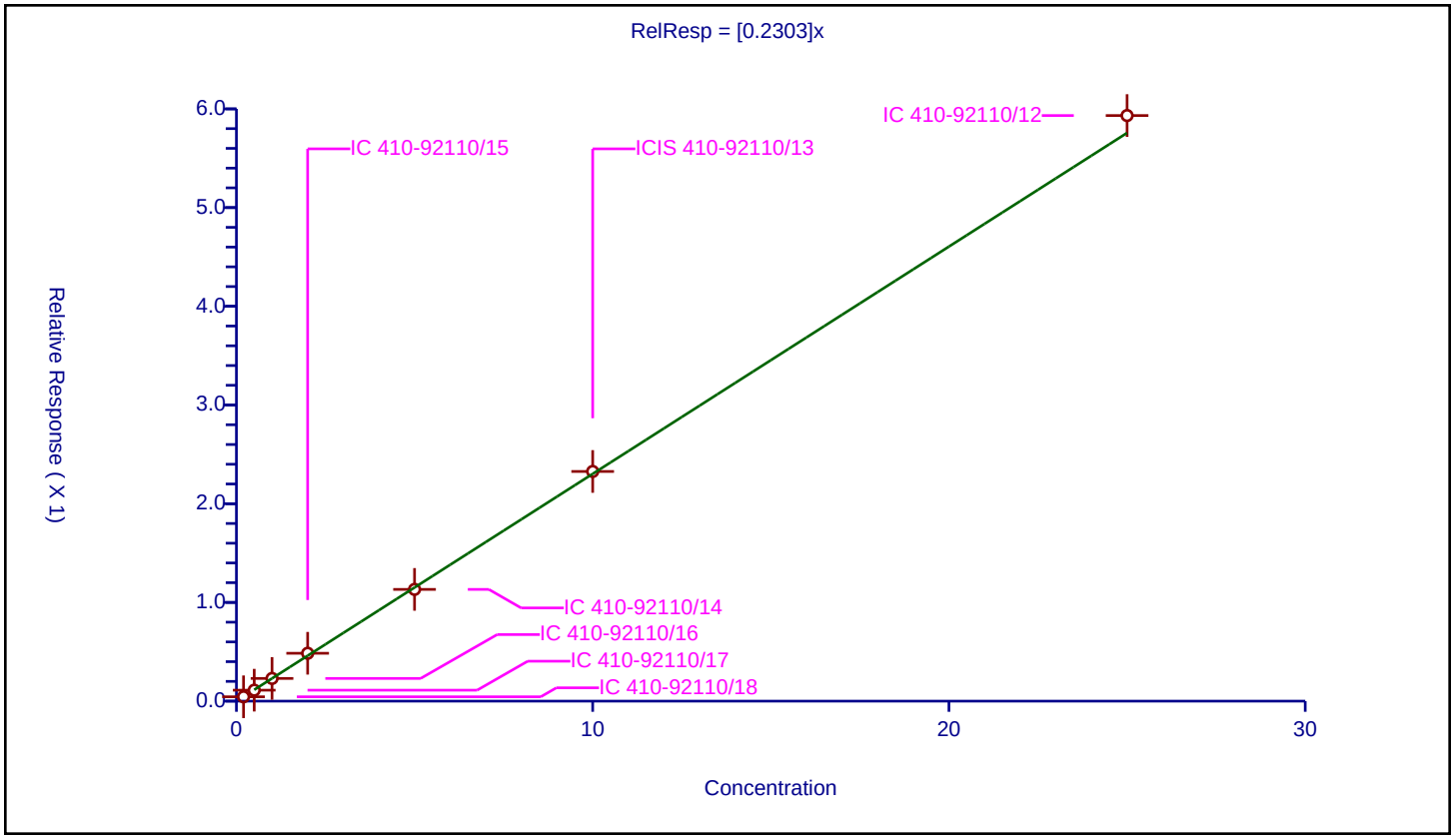
Curve Coefficients

Intercept:	0
Slope:	0.2303

Error Coefficients

Standard Error:	608000
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 410-92110/18	0.2	0.044218	10.0	2221269.0	0.22109	Y
2	IC 410-92110/17	0.5	0.110943	10.0	2241057.0	0.221886	Y
3	IC 410-92110/16	1.0	0.230002	10.0	2256808.0	0.230002	Y
4	IC 410-92110/15	2.0	0.484924	10.0	2261074.0	0.242462	Y
5	IC 410-92110/14	5.0	1.131988	10.0	2279291.0	0.226398	Y
6	ICIS 410-92110/13	10.0	2.326791	10.0	2280609.0	0.232679	Y
7	IC 410-92110/12	25.0	5.9325	10.0	2294031.0	0.2373	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

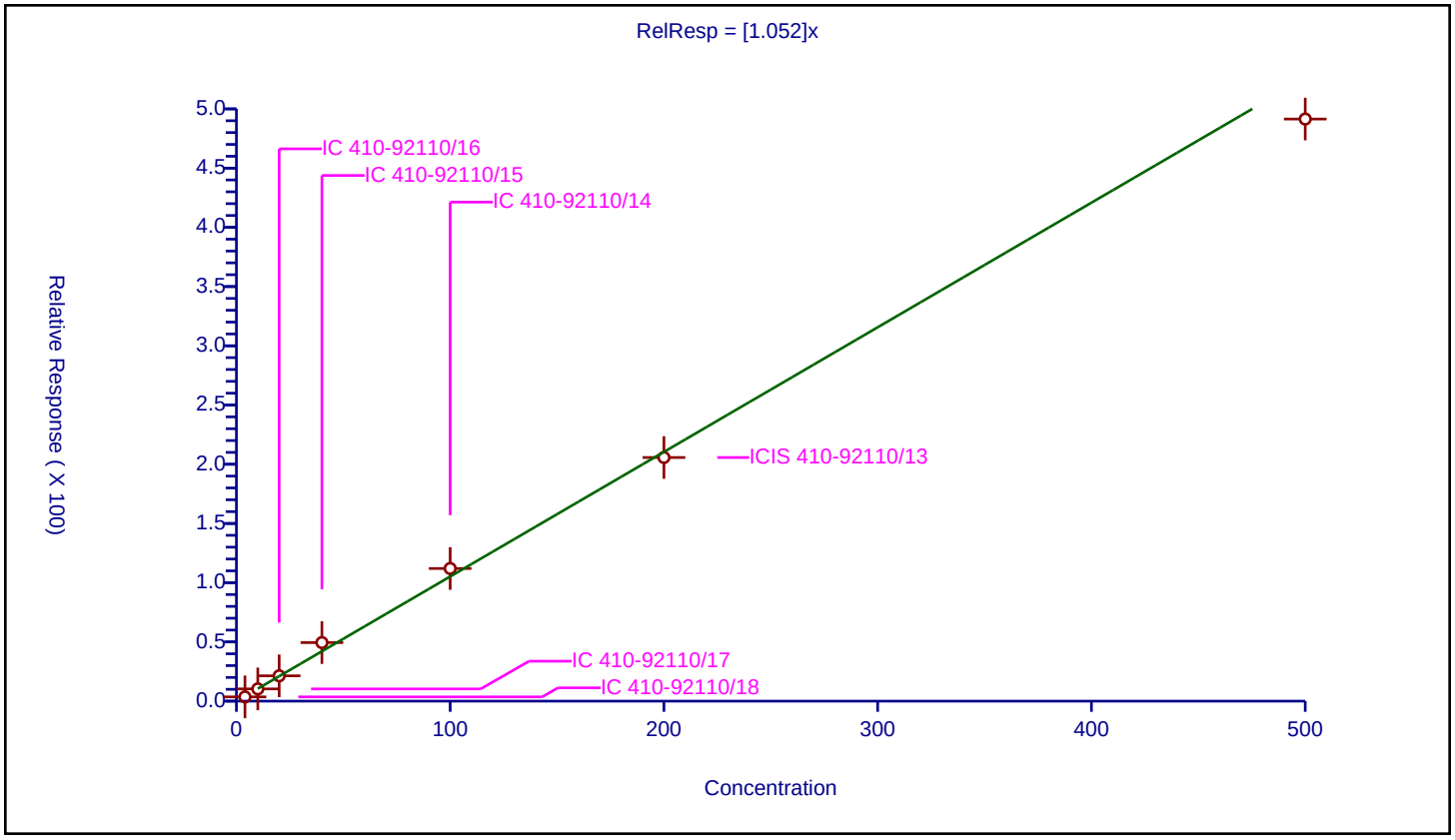
Curve Coefficients

Intercept:	0
Slope:	1.052

Error Coefficients

Standard Error:	501000
Relative Standard Error:	10.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	4.0	3.584734	50.0	113537.0	0.896184	Y
2	IC 410-92110/17	10.0	10.327793	50.0	112754.0	1.032779	Y
3	IC 410-92110/16	20.0	21.365238	50.0	117181.0	1.068262	Y
4	IC 410-92110/15	40.0	49.43282	50.0	110547.0	1.235821	Y
5	IC 410-92110/14	100.0	111.998189	50.0	109304.0	1.119982	Y
6	ICIS 410-92110/13	200.0	205.681134	50.0	101309.0	1.028406	Y
7	IC 410-92110/12	500.0	491.442547	50.0	114076.0	0.982885	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

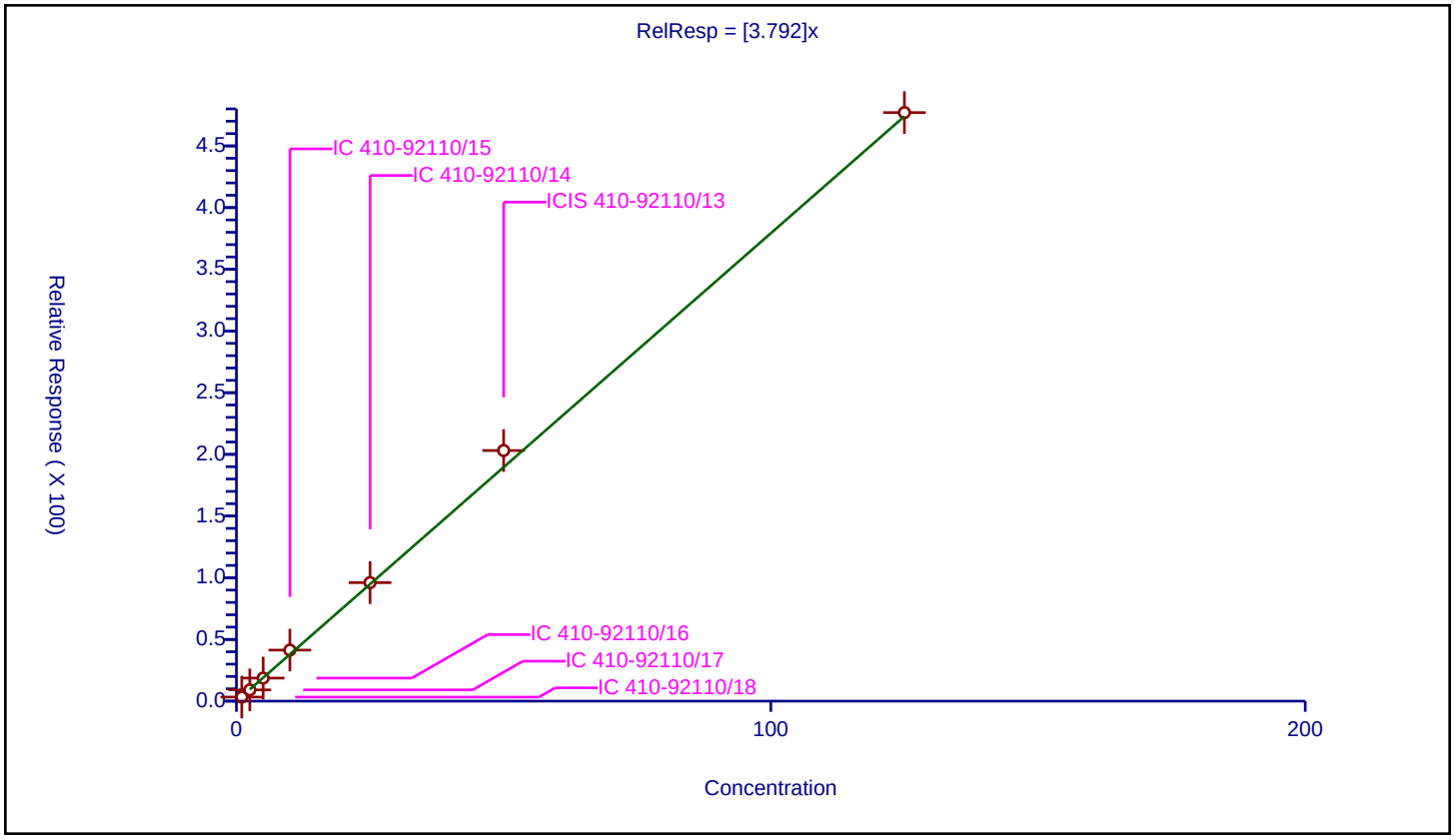
Curve Coefficients

Intercept:	0
Slope:	3.792

Error Coefficients

Standard Error:	484000
Relative Standard Error:	7.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	1.0	3.302007	50.0	113537.0	3.302007	Y
2	IC 410-92110/17	2.5	9.128279	50.0	112754.0	3.651312	Y
3	IC 410-92110/16	5.0	18.675809	50.0	117181.0	3.735162	Y
4	IC 410-92110/15	10.0	41.359784	50.0	110547.0	4.135978	Y
5	IC 410-92110/14	25.0	96.039029	50.0	109304.0	3.841561	Y
6	ICIS 410-92110/13	50.0	203.113248	50.0	101309.0	4.062265	Y
7	IC 410-92110/12	125.0	477.006119	50.0	114076.0	3.816049	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

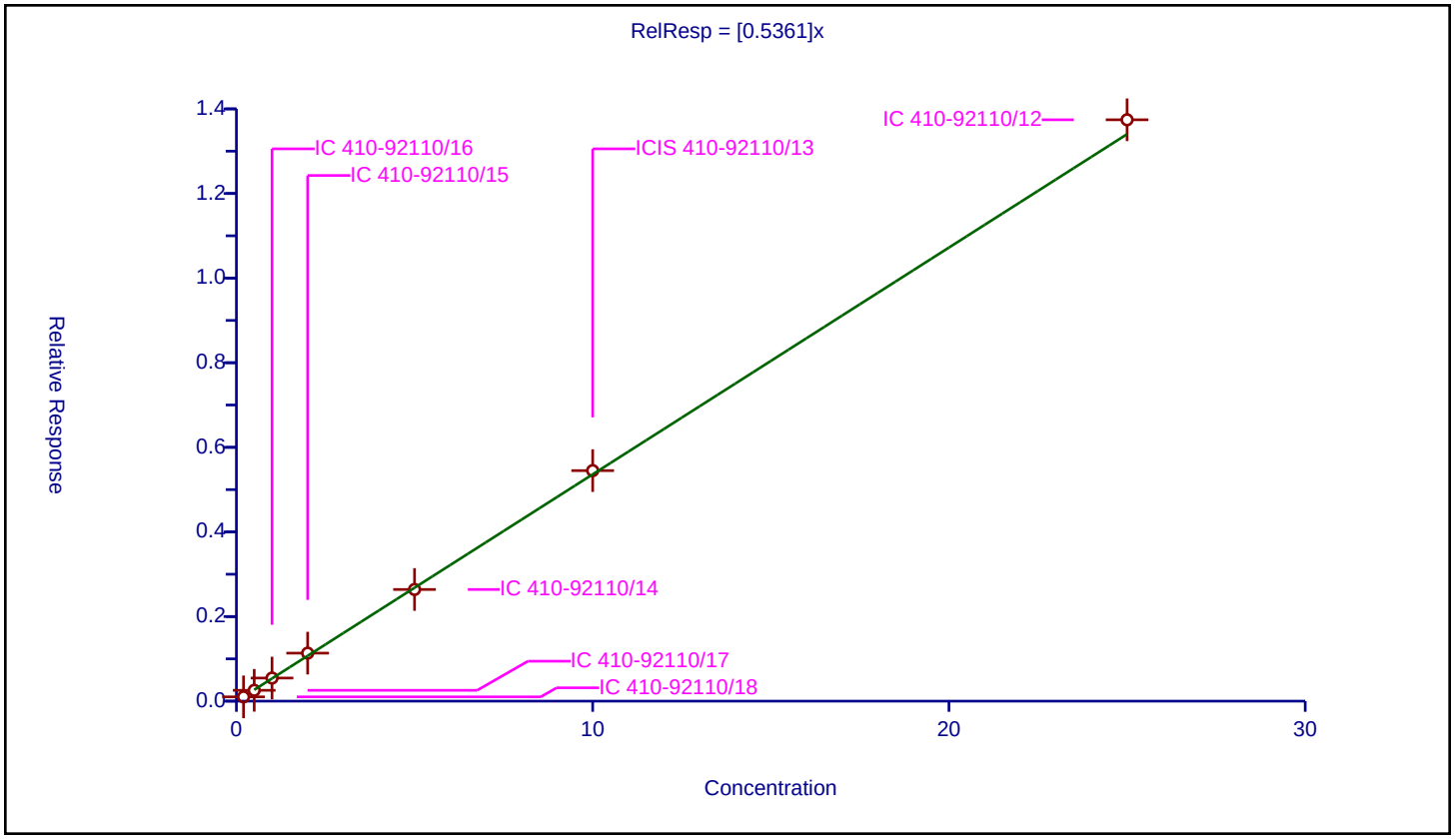
Curve Coefficients

Intercept:	0
Slope:	0.5361

Error Coefficients

Standard Error:	1410000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.101023	10.0	2221269.0	0.505117	Y
2	IC 410-92110/17	0.5	0.255701	10.0	2241057.0	0.511402	Y
3	IC 410-92110/16	1.0	0.546183	10.0	2256808.0	0.546183	Y
4	IC 410-92110/15	2.0	1.134775	10.0	2261074.0	0.567387	Y
5	IC 410-92110/14	5.0	2.639685	10.0	2279291.0	0.527937	Y
6	ICIS 410-92110/13	10.0	5.449536	10.0	2280609.0	0.544954	Y
7	IC 410-92110/12	25.0	13.742456	10.0	2294031.0	0.549698	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

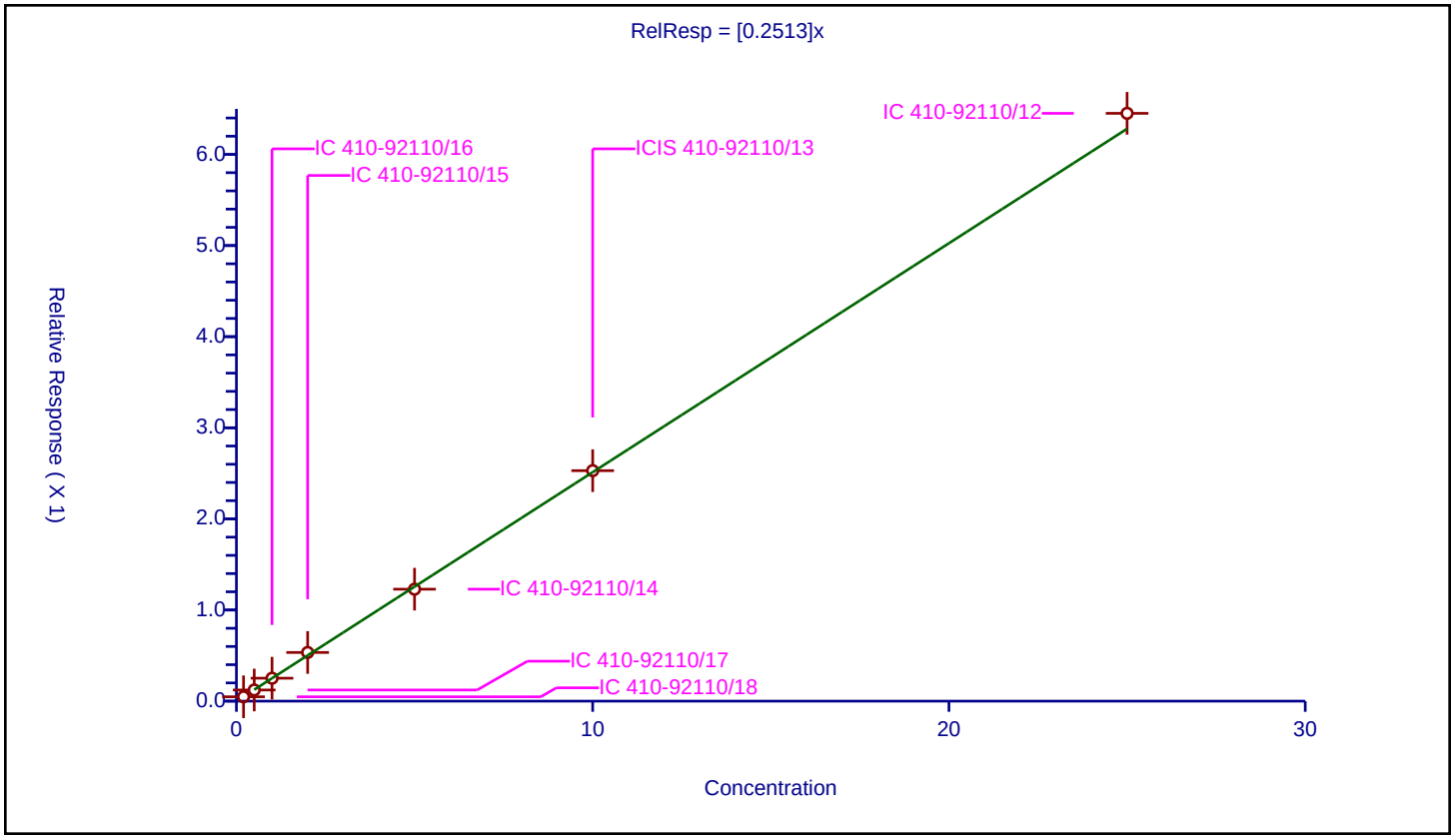
Curve Coefficients

Intercept:	0
Slope:	0.2513

Error Coefficients

Standard Error:	661000
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 410-92110/18	0.2	0.047716	10.0	2221269.0	0.23858	Y
2	IC 410-92110/17	0.5	0.122366	10.0	2241057.0	0.244733	Y
3	IC 410-92110/16	1.0	0.251678	10.0	2256808.0	0.251678	Y
4	IC 410-92110/15	2.0	0.534281	10.0	2261074.0	0.267141	Y
5	IC 410-92110/14	5.0	1.228781	10.0	2279291.0	0.245756	Y
6	ICIS 410-92110/13	10.0	2.529425	10.0	2280609.0	0.252943	Y
7	IC 410-92110/12	25.0	6.451194	10.0	2294031.0	0.258048	Y



Calibration / Hexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

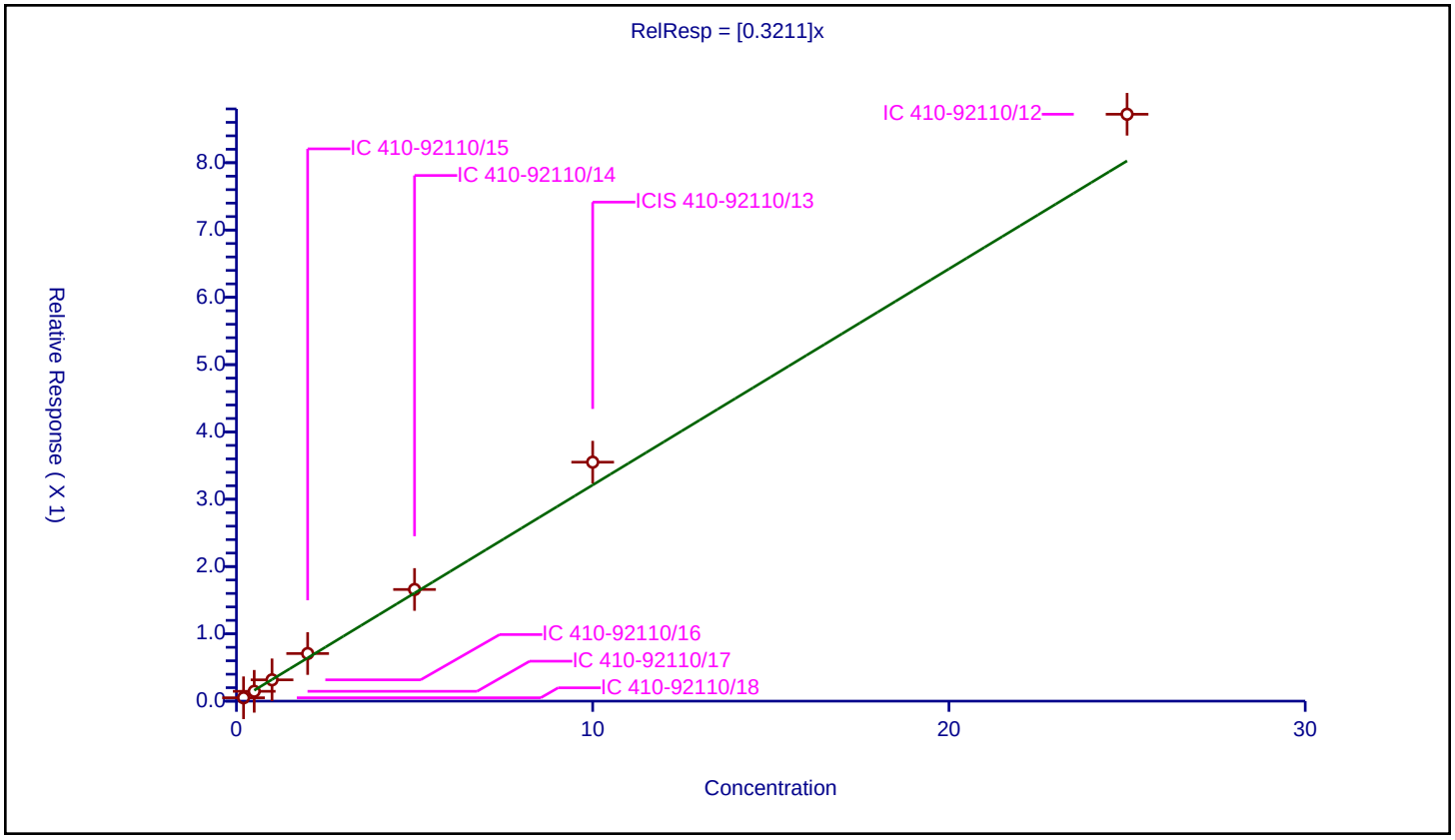
Curve Coefficients

Intercept:	0
Slope:	0.3211

Error Coefficients

Standard Error:	897000
Relative Standard Error:	12.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.049895	10.0	2221269.0	0.249475	Y
2	IC 410-92110/17	0.5	0.146257	10.0	2241057.0	0.292514	Y
3	IC 410-92110/16	1.0	0.316438	10.0	2256808.0	0.316438	Y
4	IC 410-92110/15	2.0	0.707469	10.0	2261074.0	0.353735	Y
5	IC 410-92110/14	5.0	1.659051	10.0	2279291.0	0.33181	Y
6	ICIS 410-92110/13	10.0	3.550788	10.0	2280609.0	0.355079	Y
7	IC 410-92110/12	25.0	8.720401	10.0	2294031.0	0.348816	Y



Calibration / 1,1-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

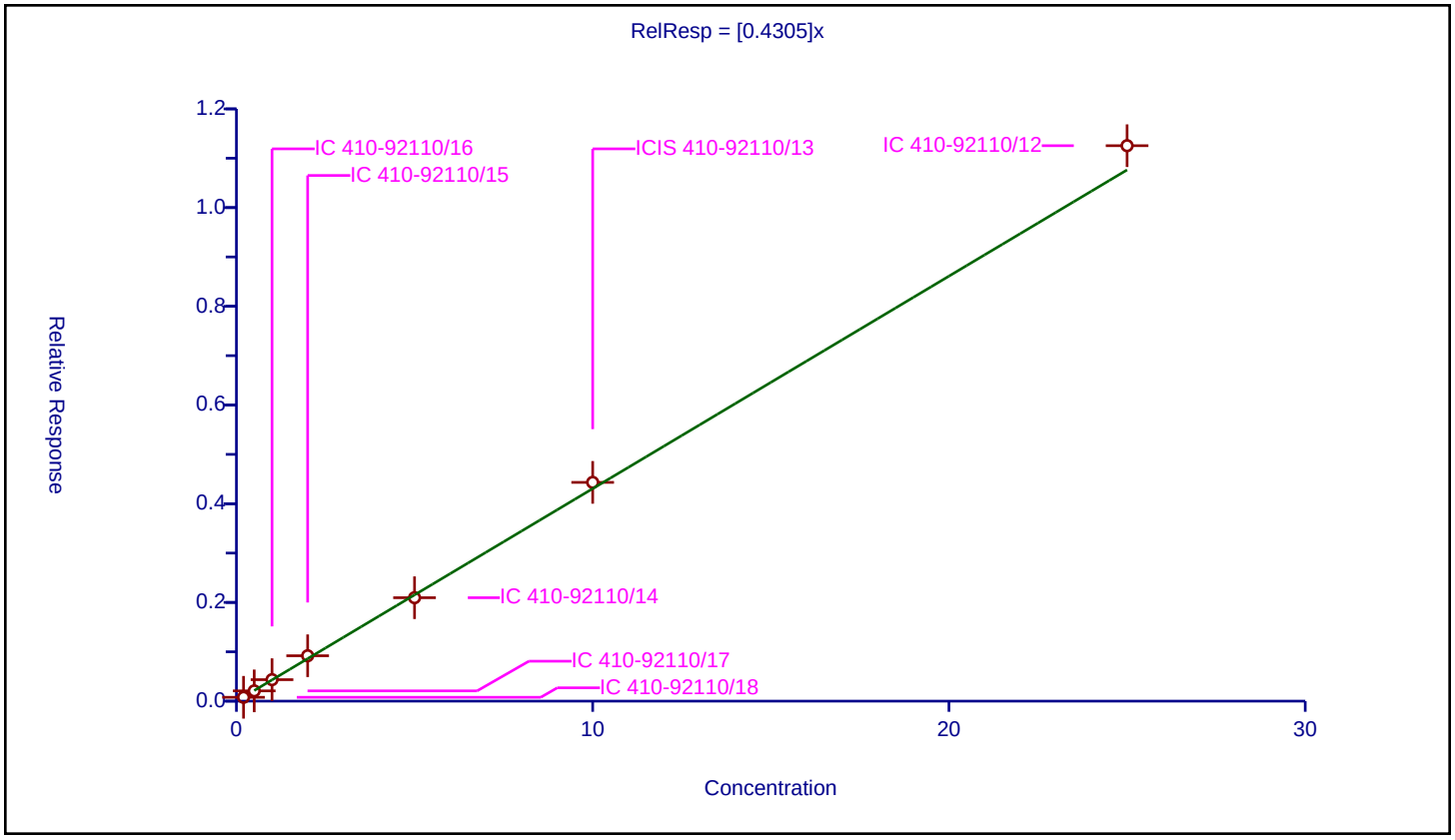
Curve Coefficients

Intercept:	0
Slope:	0.4305

Error Coefficients

Standard Error:	1150000
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.077982	10.0	2221269.0	0.389912	Y
2	IC 410-92110/17	0.5	0.208054	10.0	2241057.0	0.416107	Y
3	IC 410-92110/16	1.0	0.43542	10.0	2256808.0	0.43542	Y
4	IC 410-92110/15	2.0	0.919576	10.0	2261074.0	0.459788	Y
5	IC 410-92110/14	5.0	2.095748	10.0	2279291.0	0.41915	Y
6	ICIS 410-92110/13	10.0	4.432548	10.0	2280609.0	0.443255	Y
7	IC 410-92110/12	25.0	11.253946	10.0	2294031.0	0.450158	Y



Calibration / Isopropyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

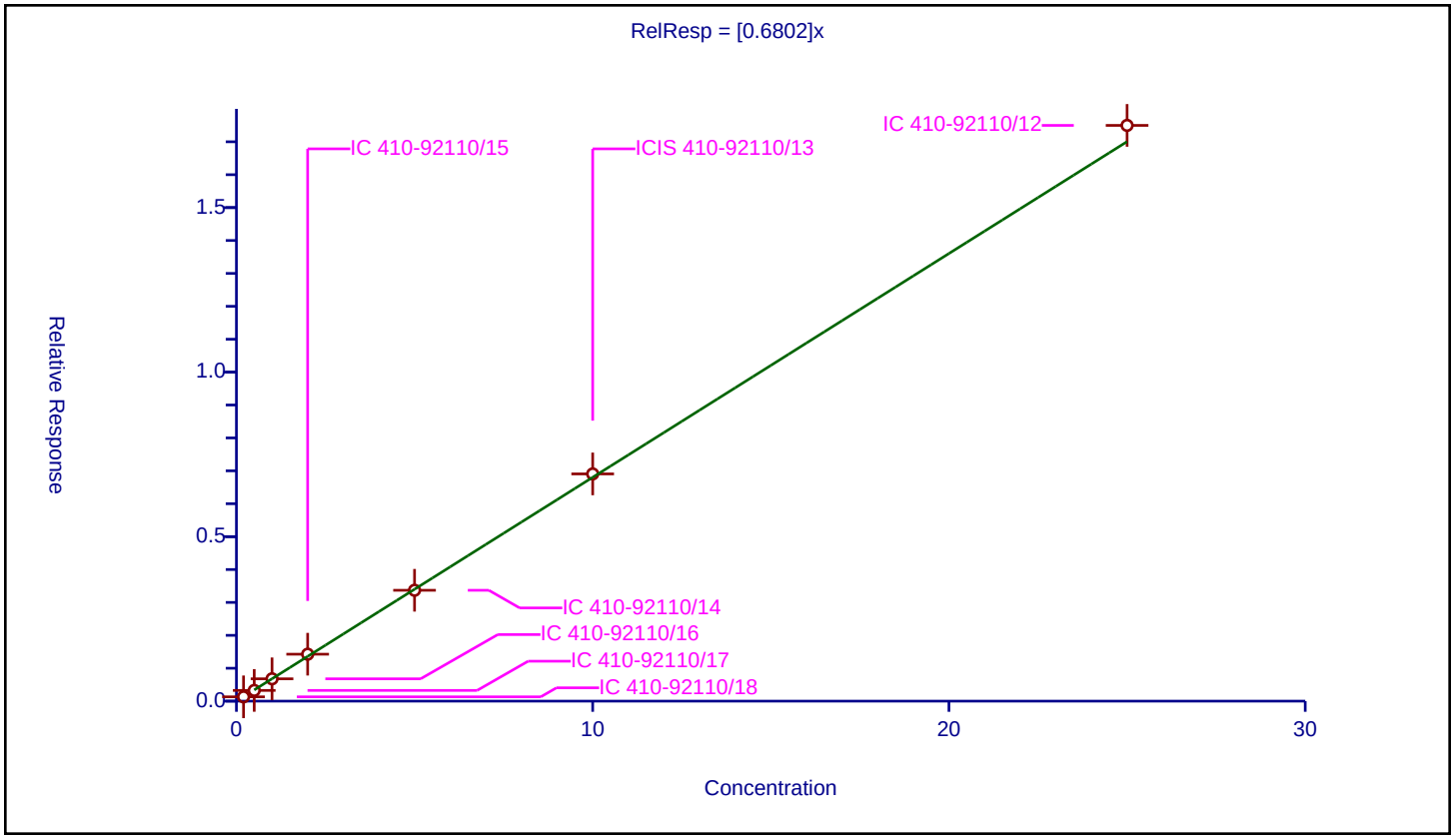
Curve Coefficients

Intercept:	0
Slope:	0.6802

Error Coefficients

Standard Error:	1790000
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 410-92110/18	0.2	0.130754	10.0	2221269.0	0.65377	Y
2	IC 410-92110/17	0.5	0.325534	10.0	2241057.0	0.651068	Y
3	IC 410-92110/16	1.0	0.678826	10.0	2256808.0	0.678826	Y
4	IC 410-92110/15	2.0	1.426778	10.0	2261074.0	0.713389	Y
5	IC 410-92110/14	5.0	3.369706	10.0	2279291.0	0.673941	Y
6	ICIS 410-92110/13	10.0	6.906401	10.0	2280609.0	0.69064	Y
7	IC 410-92110/12	25.0	17.497832	10.0	2294031.0	0.699913	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

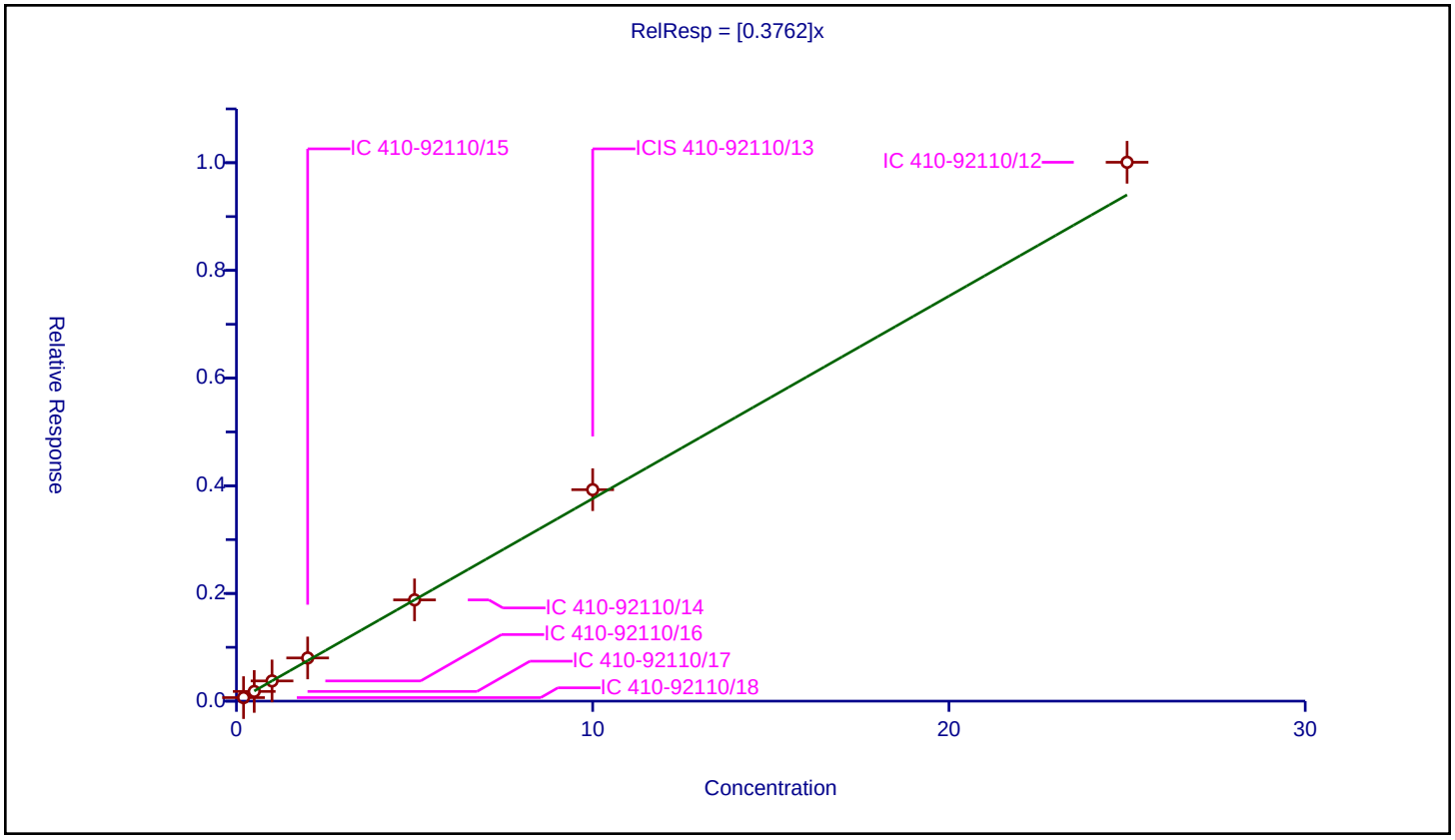
Curve Coefficients

Intercept:	0
Slope:	0.3762

Error Coefficients

Standard Error:	1020000
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 410-92110/18	0.2	0.065314	10.0	2221269.0	0.32657	Y
2	IC 410-92110/17	0.5	0.180442	10.0	2241057.0	0.360883	Y
3	IC 410-92110/16	1.0	0.375442	10.0	2256808.0	0.375442	Y
4	IC 410-92110/15	2.0	0.802216	10.0	2261074.0	0.401108	Y
5	IC 410-92110/14	5.0	1.880488	10.0	2279291.0	0.376098	Y
6	ICIS 410-92110/13	10.0	3.927447	10.0	2280609.0	0.392745	Y
7	IC 410-92110/12	25.0	10.008431	10.0	2294031.0	0.400337	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

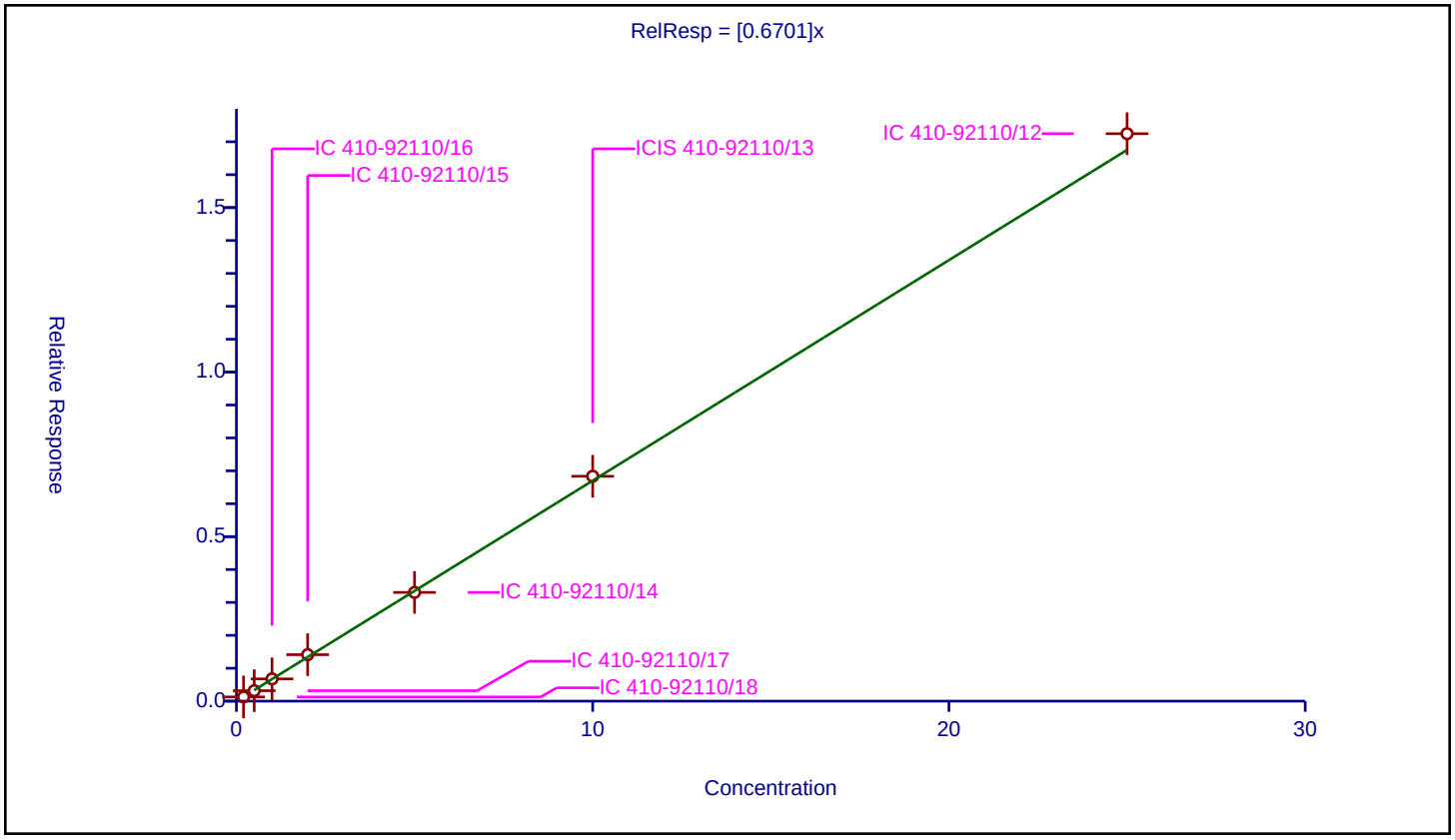
Curve Coefficients

Intercept:	0
Slope:	0.6701

Error Coefficients

Standard Error:	1770000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.127612	10.0	2221269.0	0.638059	Y
2	IC 410-92110/17	0.5	0.318024	10.0	2241057.0	0.636048	Y
3	IC 410-92110/16	1.0	0.676642	10.0	2256808.0	0.676642	Y
4	IC 410-92110/15	2.0	1.411953	10.0	2261074.0	0.705976	Y
5	IC 410-92110/14	5.0	3.304414	10.0	2279291.0	0.660883	Y
6	ICIS 410-92110/13	10.0	6.834881	10.0	2280609.0	0.683488	Y
7	IC 410-92110/12	25.0	17.24658	10.0	2294031.0	0.689863	Y



Calibration / 2-Butanone (MEK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

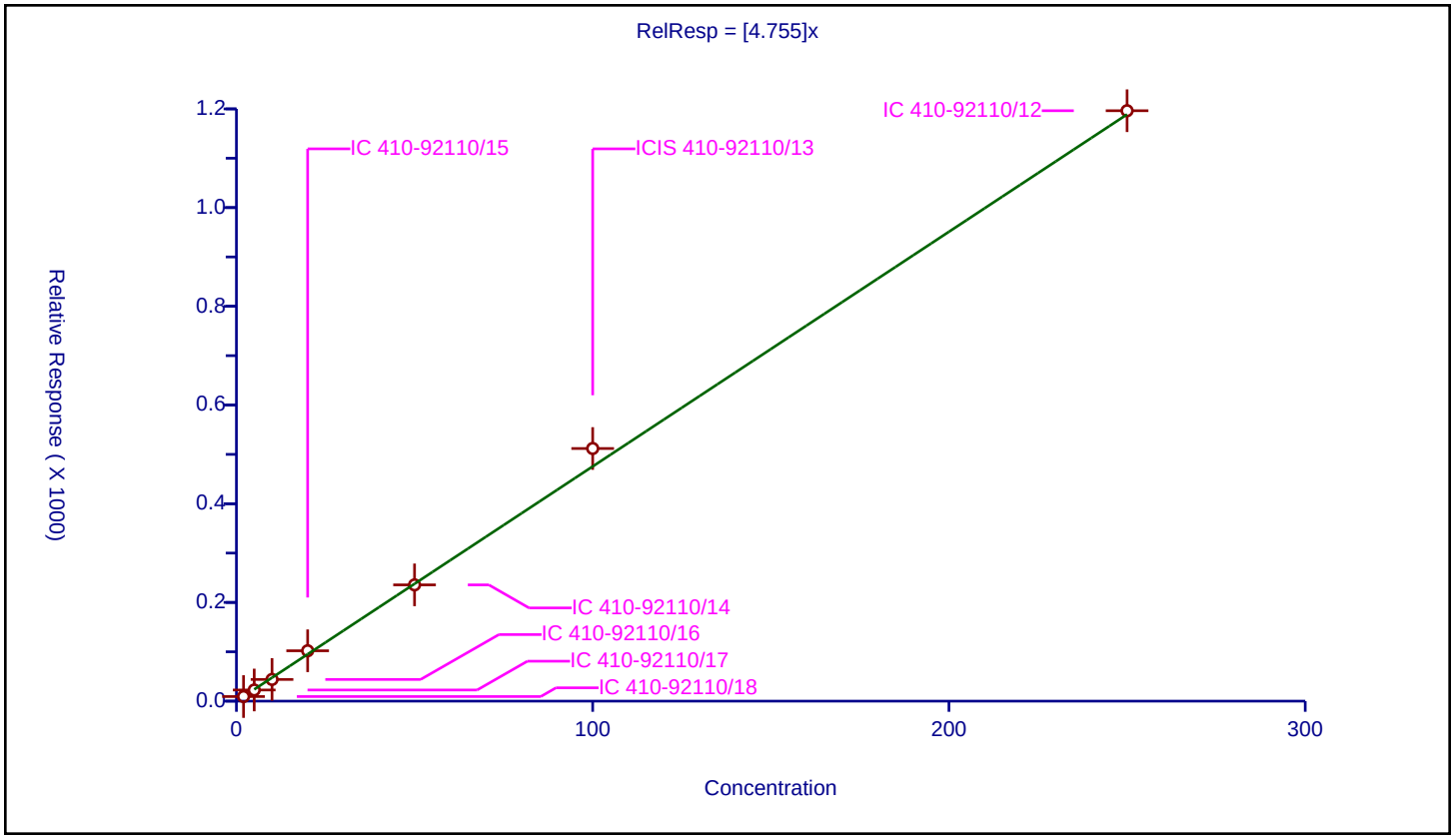
Curve Coefficients

Intercept:	0
Slope:	4.755

Error Coefficients

Standard Error:	1210000
Relative Standard Error:	5.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	2.0	9.314585	50.0	113537.0	4.657292	Y
2	IC 410-92110/17	5.0	22.563723	50.0	112754.0	4.512745	Y
3	IC 410-92110/16	10.0	43.975559	50.0	117181.0	4.397556	Y
4	IC 410-92110/15	20.0	102.077849	50.0	110547.0	5.103892	Y
5	IC 410-92110/14	50.0	235.573721	50.0	109304.0	4.711474	Y
6	ICIS 410-92110/13	100.0	511.875549	50.0	101309.0	5.118755	Y
7	IC 410-92110/12	250.0	1196.278797	50.0	114076.0	4.785115	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

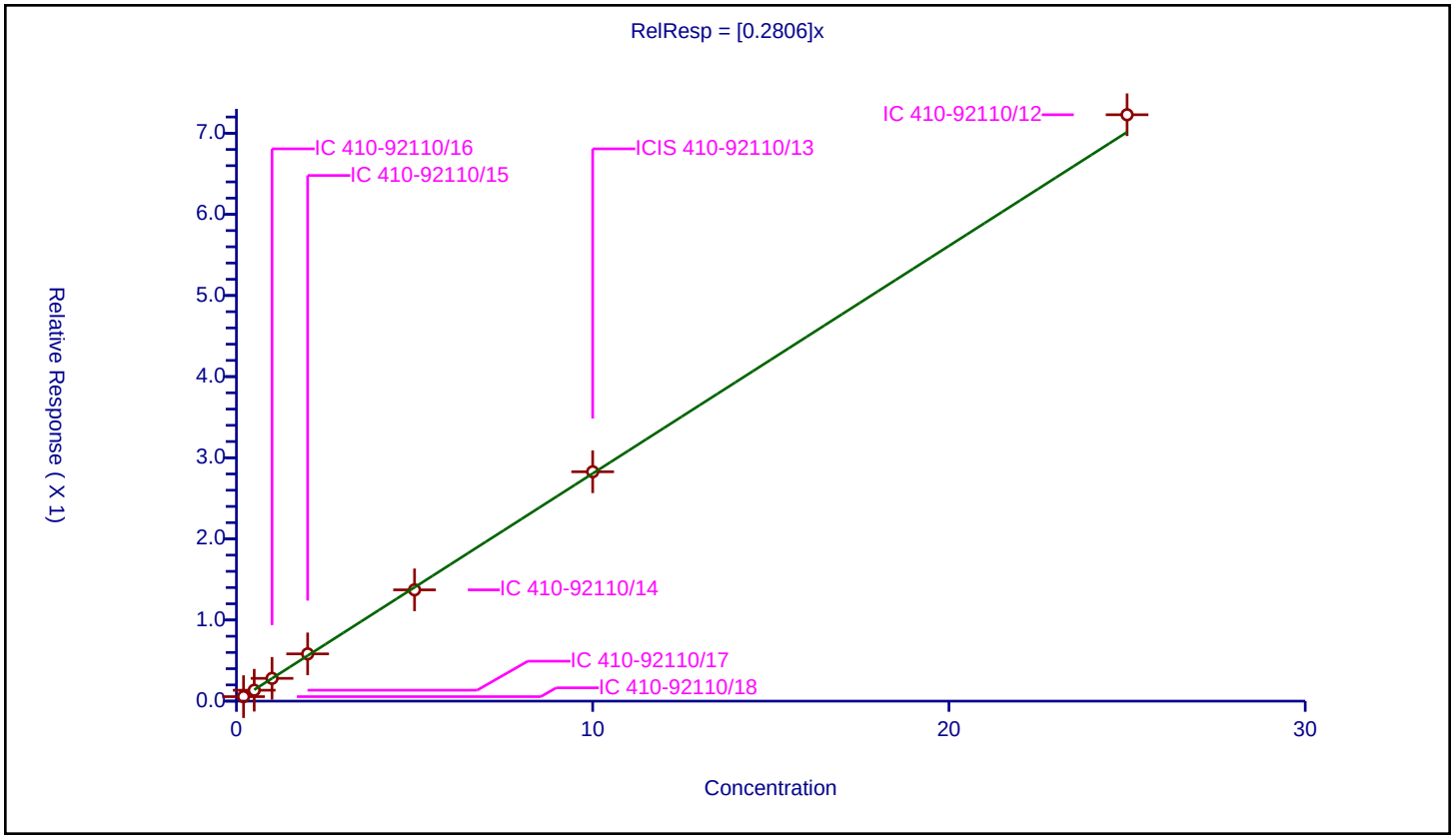
Curve Coefficients

Intercept:	0
Slope:	0.2806

Error Coefficients

Standard Error:	740000
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 410-92110/18	0.2	0.055266	10.0	2221269.0	0.276329	Y
2	IC 410-92110/17	0.5	0.134633	10.0	2241057.0	0.269266	Y
3	IC 410-92110/16	1.0	0.280826	10.0	2256808.0	0.280826	Y
4	IC 410-92110/15	2.0	0.582626	10.0	2261074.0	0.291313	Y
5	IC 410-92110/14	5.0	1.371782	10.0	2279291.0	0.274356	Y
6	ICIS 410-92110/13	10.0	2.827328	10.0	2280609.0	0.282733	Y
7	IC 410-92110/12	25.0	7.227749	10.0	2294031.0	0.28911	Y



Calibration / 2,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

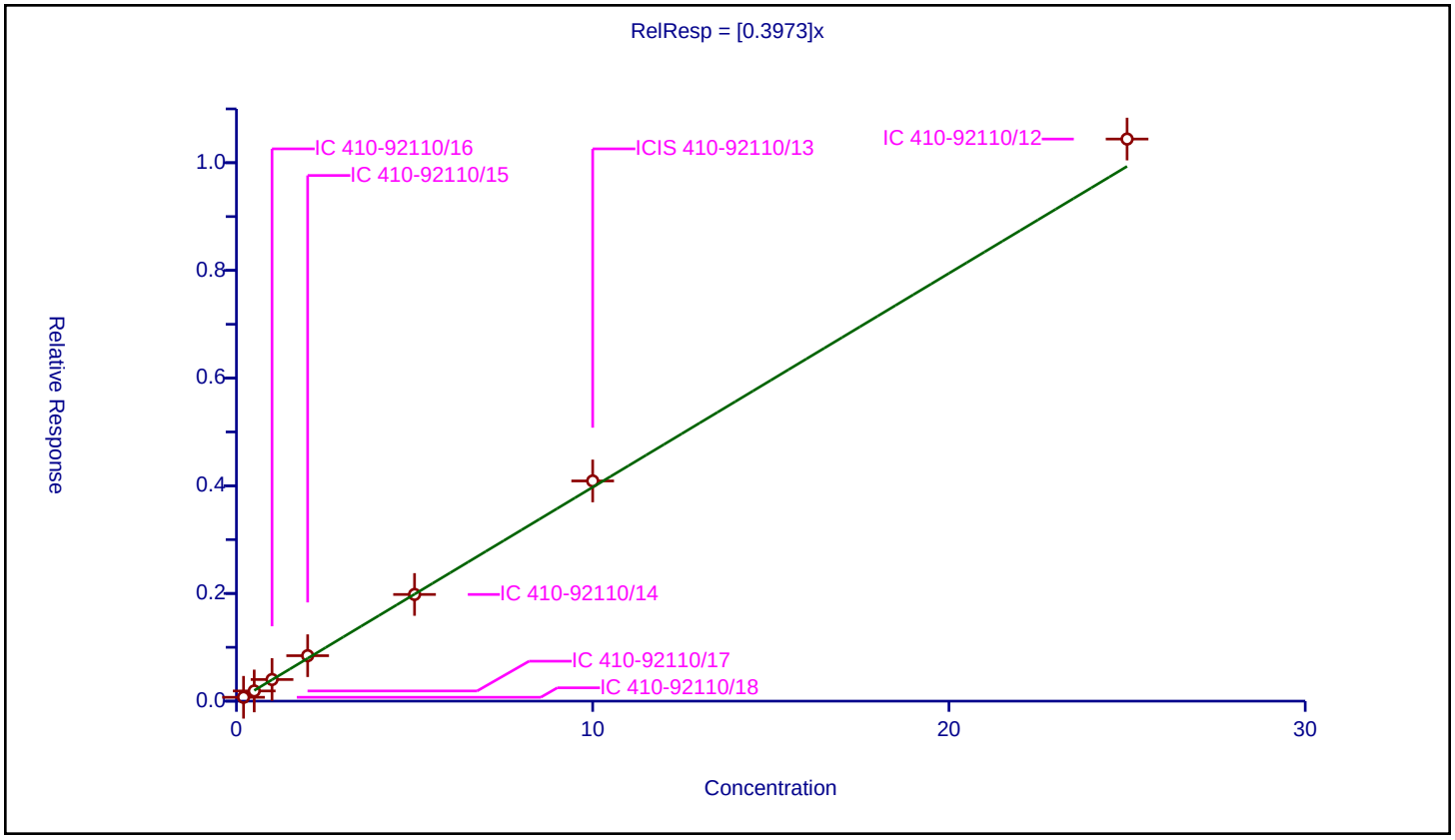
Curve Coefficients

Intercept:	0
Slope:	0.3973

Error Coefficients

Standard Error:	1070000
Relative Standard Error:	5.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.071275	10.0	2221269.0	0.356373	Y
2	IC 410-92110/17	0.5	0.189138	10.0	2241057.0	0.378277	Y
3	IC 410-92110/16	1.0	0.401616	10.0	2256808.0	0.401616	Y
4	IC 410-92110/15	2.0	0.84413	10.0	2261074.0	0.422065	Y
5	IC 410-92110/14	5.0	1.981401	10.0	2279291.0	0.39628	Y
6	ICIS 410-92110/13	10.0	4.089737	10.0	2280609.0	0.408974	Y
7	IC 410-92110/12	25.0	10.439815	10.0	2294031.0	0.417593	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

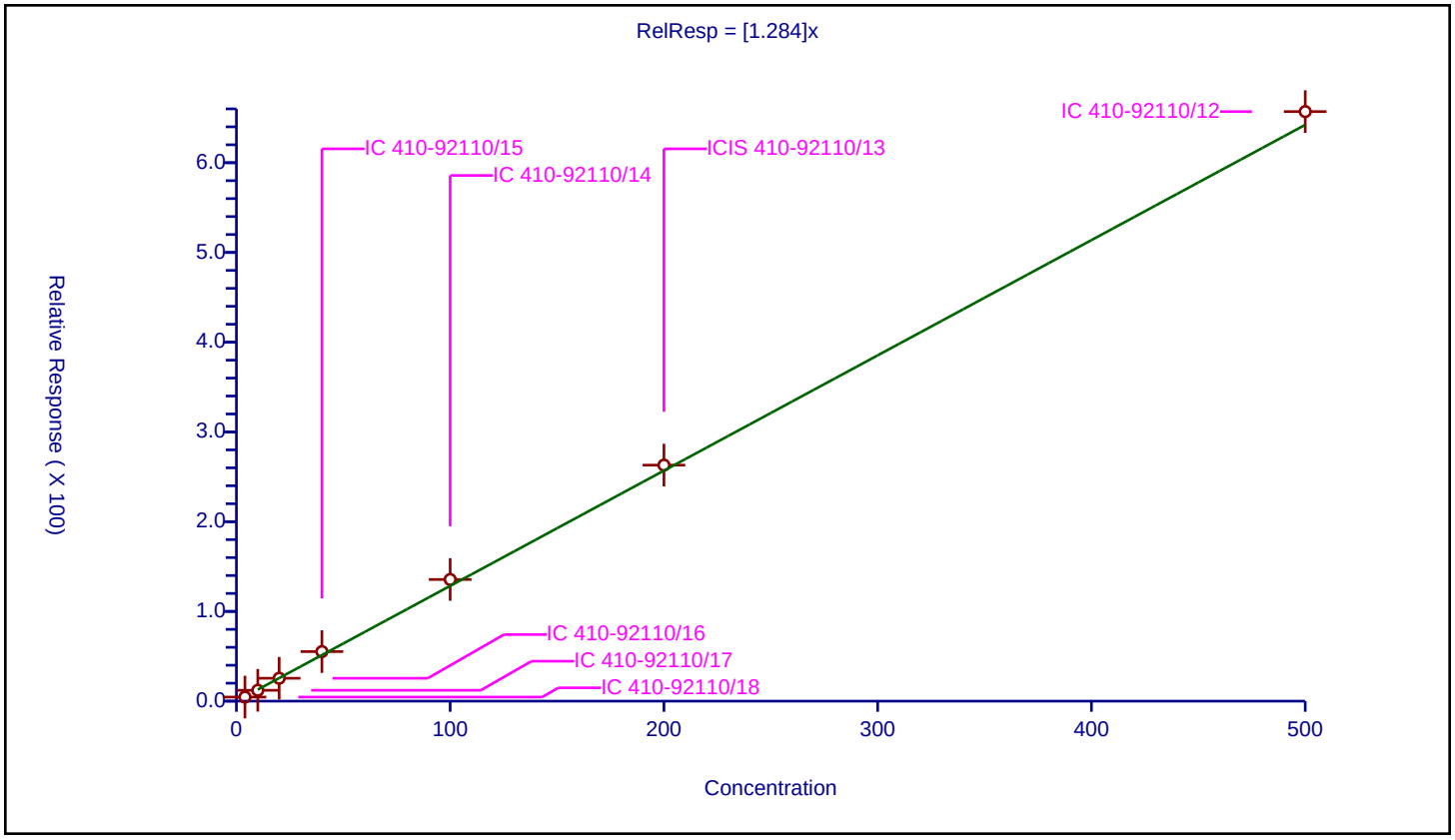
Curve Coefficients

Intercept:	0
Slope:	1.284

Error Coefficients

Standard Error:	663000
Relative Standard Error:	6.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	4.0	4.561509	50.0	113537.0	1.140377	Y
2	IC 410-92110/17	10.0	12.09181	50.0	112754.0	1.209181	Y
3	IC 410-92110/16	20.0	25.521629	50.0	117181.0	1.276081	Y
4	IC 410-92110/15	40.0	55.229902	50.0	110547.0	1.380748	Y
5	IC 410-92110/14	100.0	135.555881	50.0	109304.0	1.355559	Y
6	ICIS 410-92110/13	200.0	263.0176	50.0	101309.0	1.315088	Y
7	IC 410-92110/12	500.0	656.973421	50.0	114076.0	1.313947	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

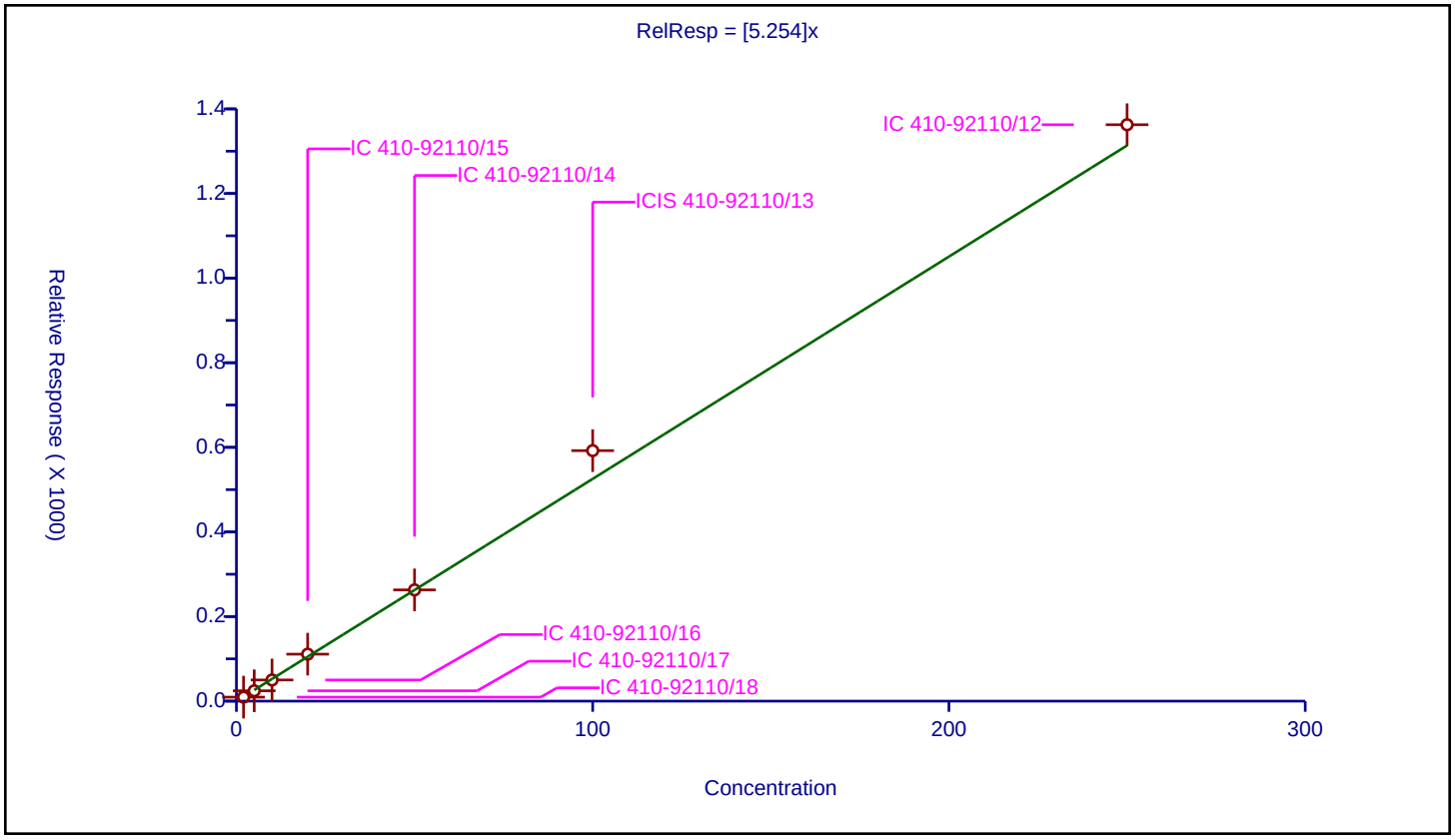
Curve Coefficients

Intercept:	0
Slope:	5.254

Error Coefficients

Standard Error:	1380000
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 410-92110/18	2.0	9.390331	50.0	113537.0	4.695165	Y
2	IC 410-92110/17	5.0	24.481171	50.0	112754.0	4.896234	Y
3	IC 410-92110/16	10.0	50.028162	50.0	117181.0	5.002816	Y
4	IC 410-92110/15	20.0	111.059097	50.0	110547.0	5.552955	Y
5	IC 410-92110/14	50.0	262.927249	50.0	109304.0	5.258545	Y
6	ICIS 410-92110/13	100.0	592.16654	50.0	101309.0	5.921665	Y
7	IC 410-92110/12	250.0	1362.589414	50.0	114076.0	5.450358	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

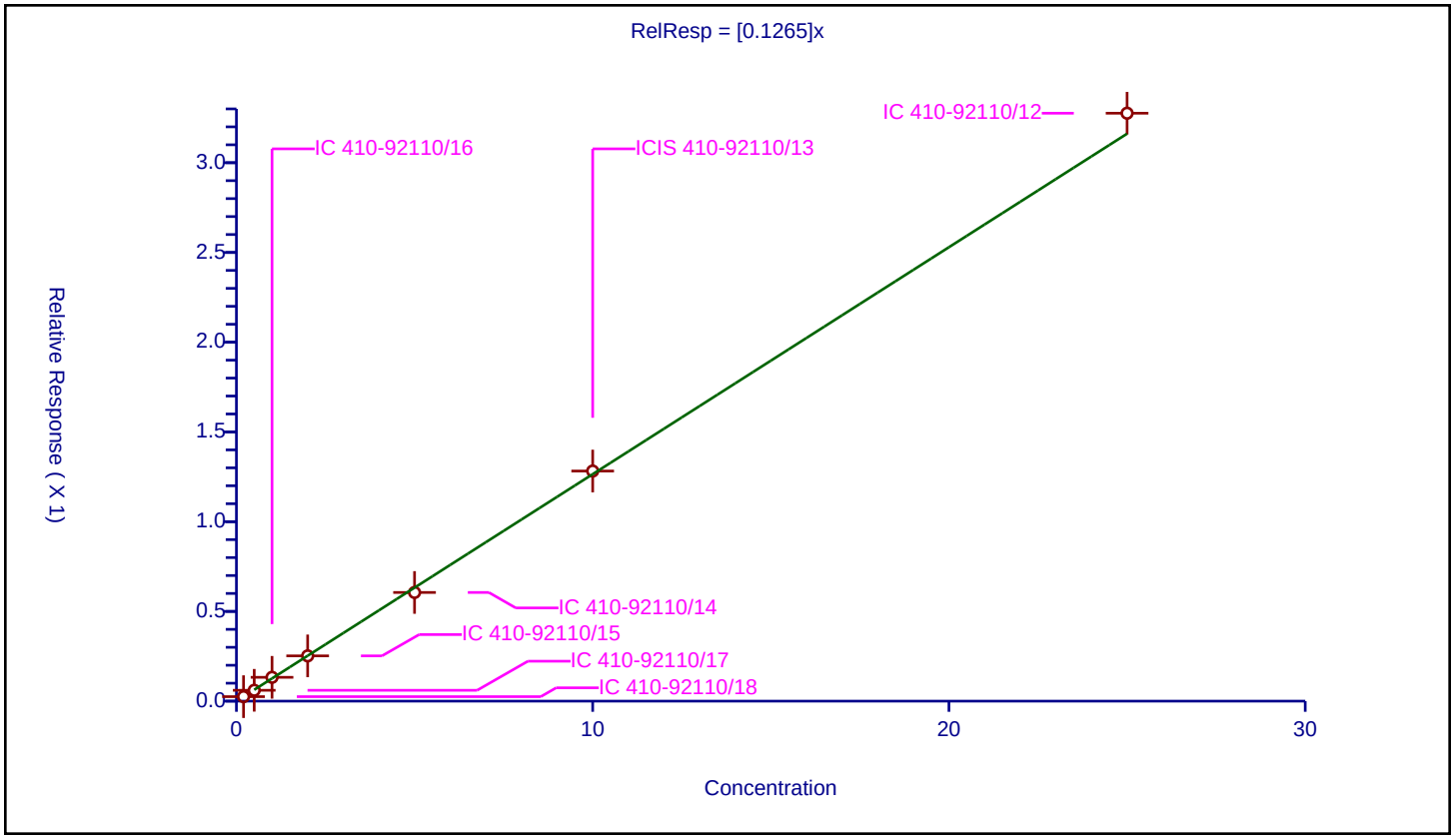
Curve Coefficients

Intercept:	0
Slope:	0.1265

Error Coefficients

Standard Error:	335000
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.025044	10.0	2221269.0	0.125221	Y
2	IC 410-92110/17	0.5	0.060422	10.0	2241057.0	0.120845	Y
3	IC 410-92110/16	1.0	0.132736	10.0	2256808.0	0.132736	Y
4	IC 410-92110/15	2.0	0.252212	10.0	2261074.0	0.126106	Y
5	IC 410-92110/14	5.0	0.605526	10.0	2279291.0	0.121105	Y
6	ICIS 410-92110/13	10.0	1.282149	10.0	2280609.0	0.128215	Y
7	IC 410-92110/12	25.0	3.275993	10.0	2294031.0	0.13104	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

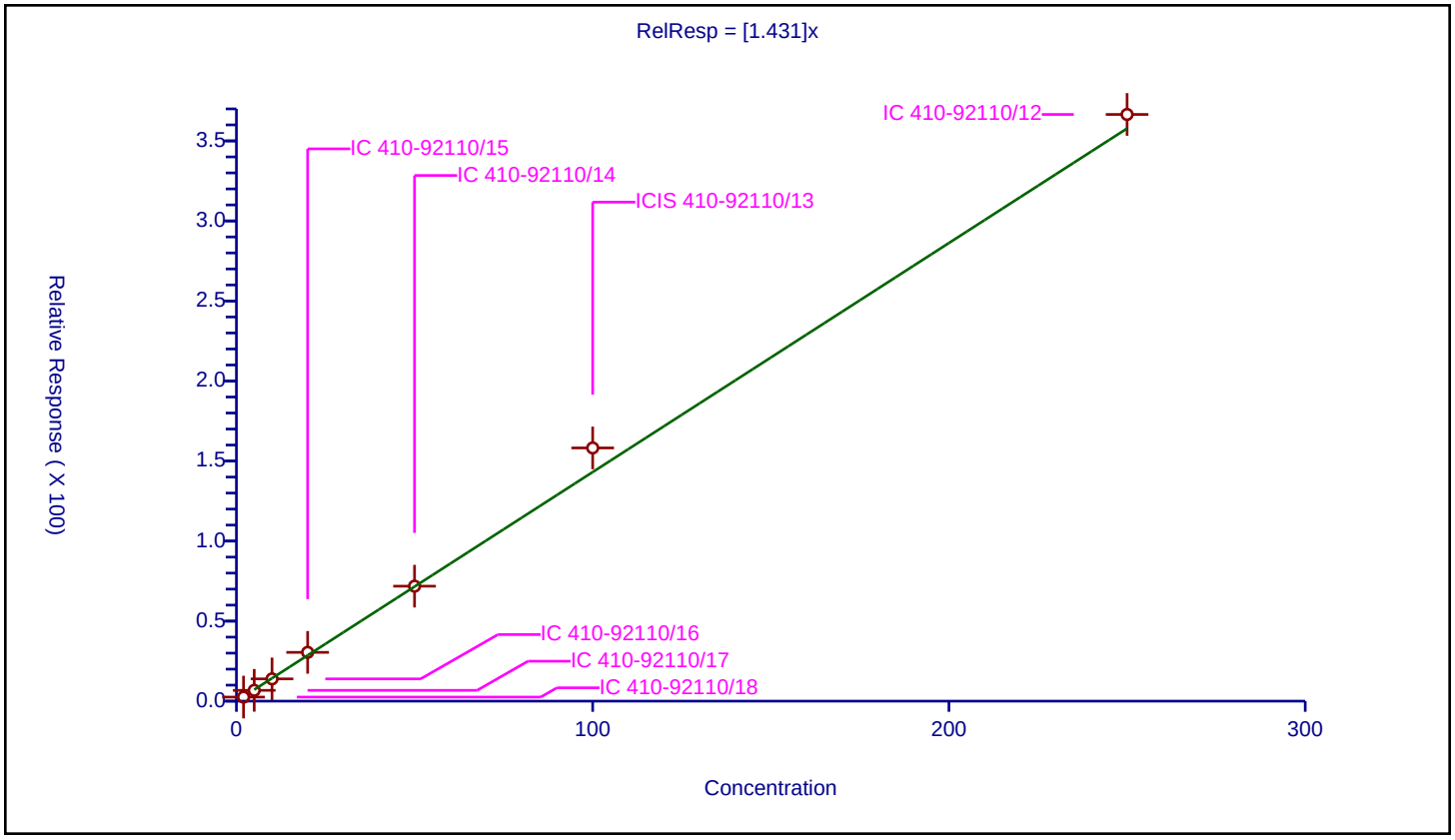
Curve Coefficients

Intercept:	0
Slope:	1.431

Error Coefficients

Standard Error:	372000
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 410-92110/18	2.0	2.537939	50.0	113537.0	1.26897	Y
2	IC 410-92110/17	5.0	6.748763	50.0	112754.0	1.349753	Y
3	IC 410-92110/16	10.0	13.902851	50.0	117181.0	1.390285	Y
4	IC 410-92110/15	20.0	30.479796	50.0	110547.0	1.52399	Y
5	IC 410-92110/14	50.0	71.829942	50.0	109304.0	1.436599	Y
6	ICIS 410-92110/13	100.0	158.179431	50.0	101309.0	1.581794	Y
7	IC 410-92110/12	250.0	366.523633	50.0	114076.0	1.466095	Y



Calibration / Chloroform

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

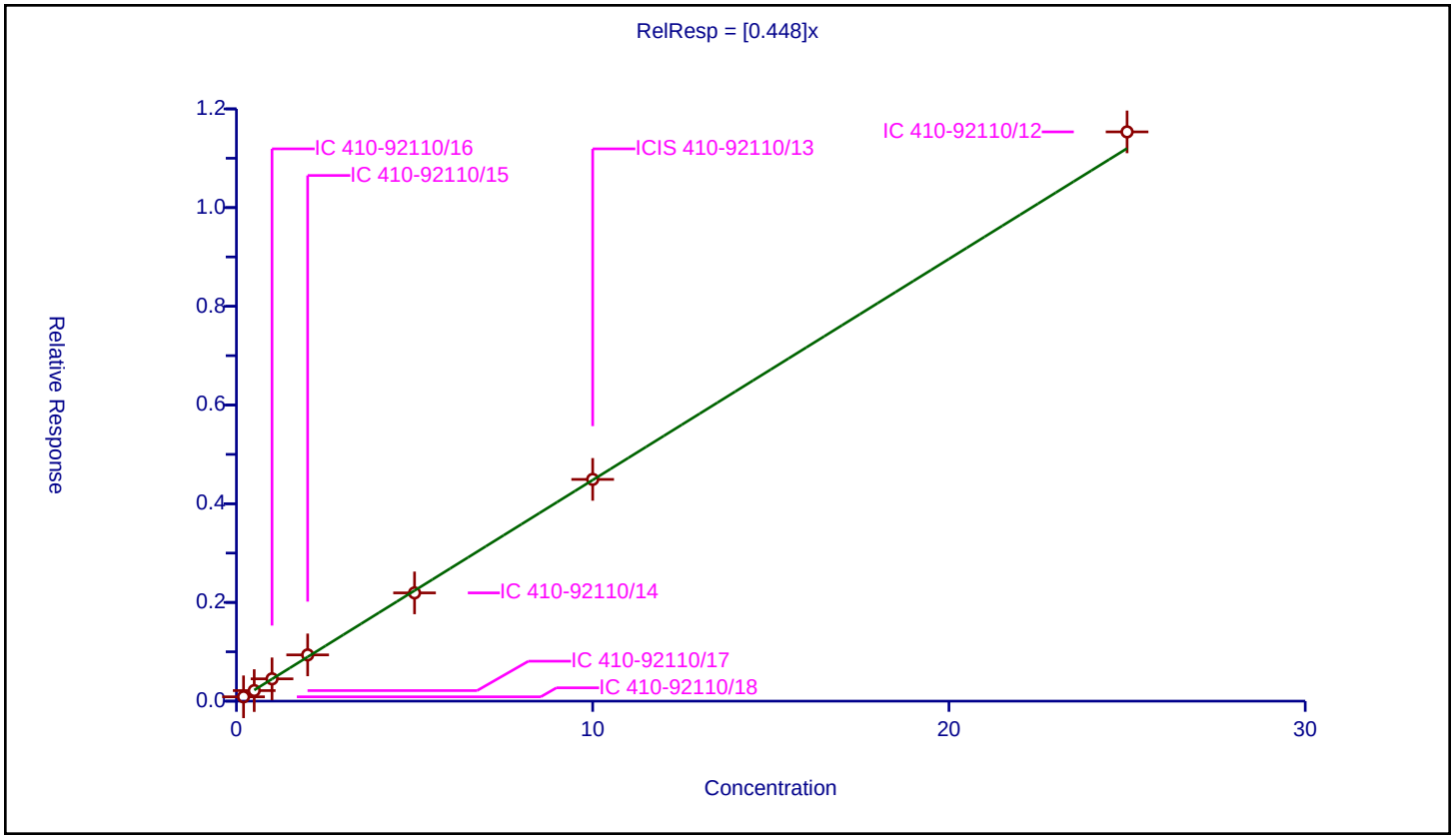
Curve Coefficients

Intercept:	0
Slope:	0.448

Error Coefficients

Standard Error:	1180000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.087594	10.0	2221269.0	0.43797	Y
2	IC 410-92110/17	0.5	0.2141	10.0	2241057.0	0.4282	Y
3	IC 410-92110/16	1.0	0.452023	10.0	2256808.0	0.452023	Y
4	IC 410-92110/15	2.0	0.936847	10.0	2261074.0	0.468423	Y
5	IC 410-92110/14	5.0	2.193388	10.0	2279291.0	0.438678	Y
6	ICIS 410-92110/13	10.0	4.492817	10.0	2280609.0	0.449282	Y
7	IC 410-92110/12	25.0	11.534125	10.0	2294031.0	0.461365	Y



Calibration / Dibromofluoromethane (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

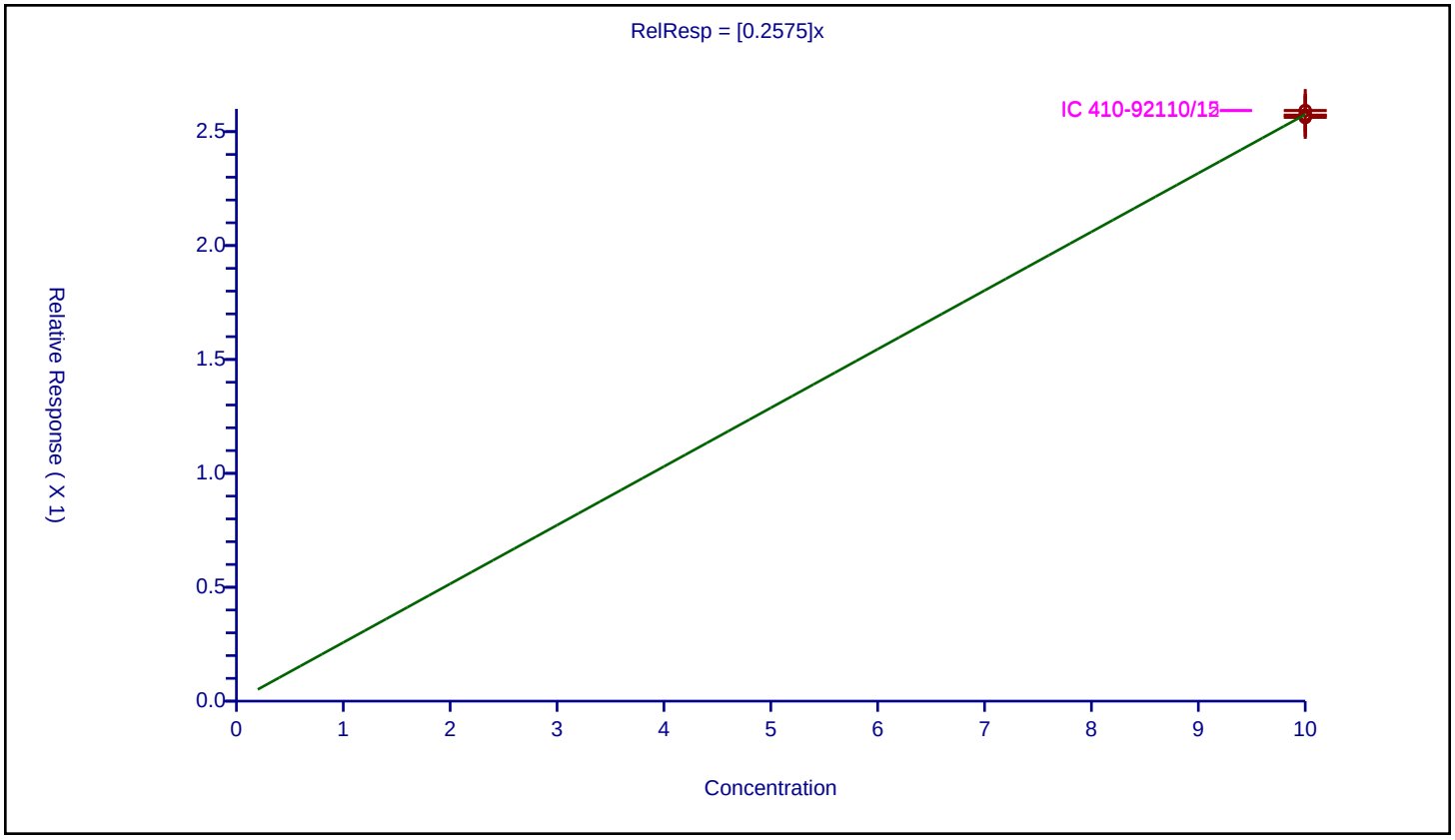
Curve Coefficients

Intercept:	0
Slope:	0.2575

Error Coefficients

Standard Error:	629000
Relative Standard Error:	0.5
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/12	10.0	2.591831	10.0	2294031.0	0.259183	Y
2	ICIS 410-92110/13	10.0	2.571883	10.0	2280609.0	0.257188	Y
3	IC 410-92110/14	10.0	2.571365	10.0	2279291.0	0.257137	Y
4	IC 410-92110/15	10.0	2.593197	10.0	2261074.0	0.25932	Y
5	IC 410-92110/16	10.0	2.573365	10.0	2256808.0	0.257336	Y
6	IC 410-92110/17	10.0	2.56242	10.0	2241057.0	0.256242	Y
7	IC 410-92110/18	10.0	2.562378	10.0	2221269.0	0.256238	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

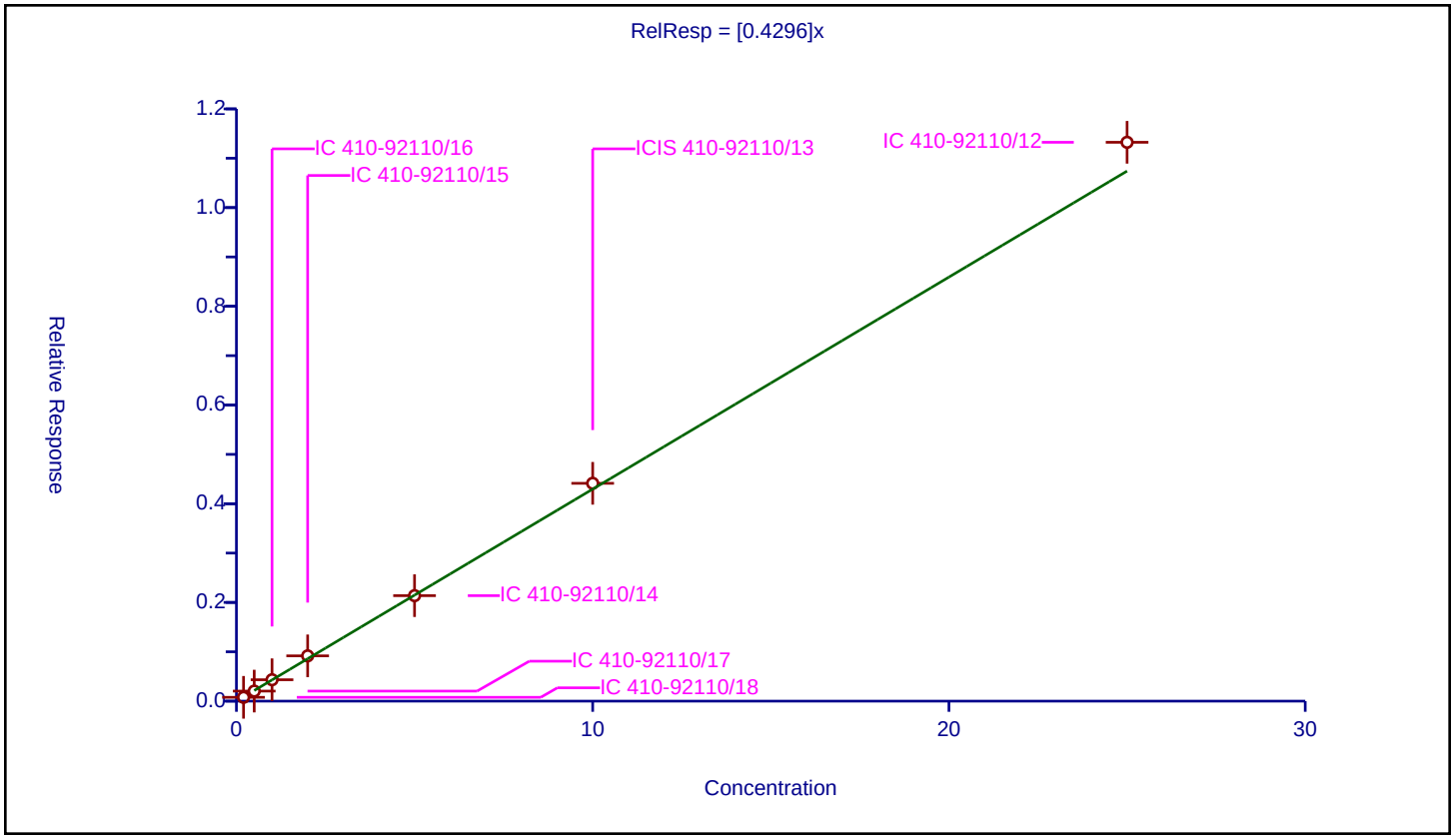
Curve Coefficients

Intercept:	0
Slope:	0.4296

Error Coefficients

Standard Error:	1160000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.077217	10.0	2221269.0	0.386086	Y
2	IC 410-92110/17	0.5	0.203578	10.0	2241057.0	0.407156	Y
3	IC 410-92110/16	1.0	0.433488	10.0	2256808.0	0.433488	Y
4	IC 410-92110/15	2.0	0.917661	10.0	2261074.0	0.458831	Y
5	IC 410-92110/14	5.0	2.137204	10.0	2279291.0	0.427441	Y
6	ICIS 410-92110/13	10.0	4.413326	10.0	2280609.0	0.441333	Y
7	IC 410-92110/12	25.0	11.32323	10.0	2294031.0	0.452929	Y



Calibration / Cyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

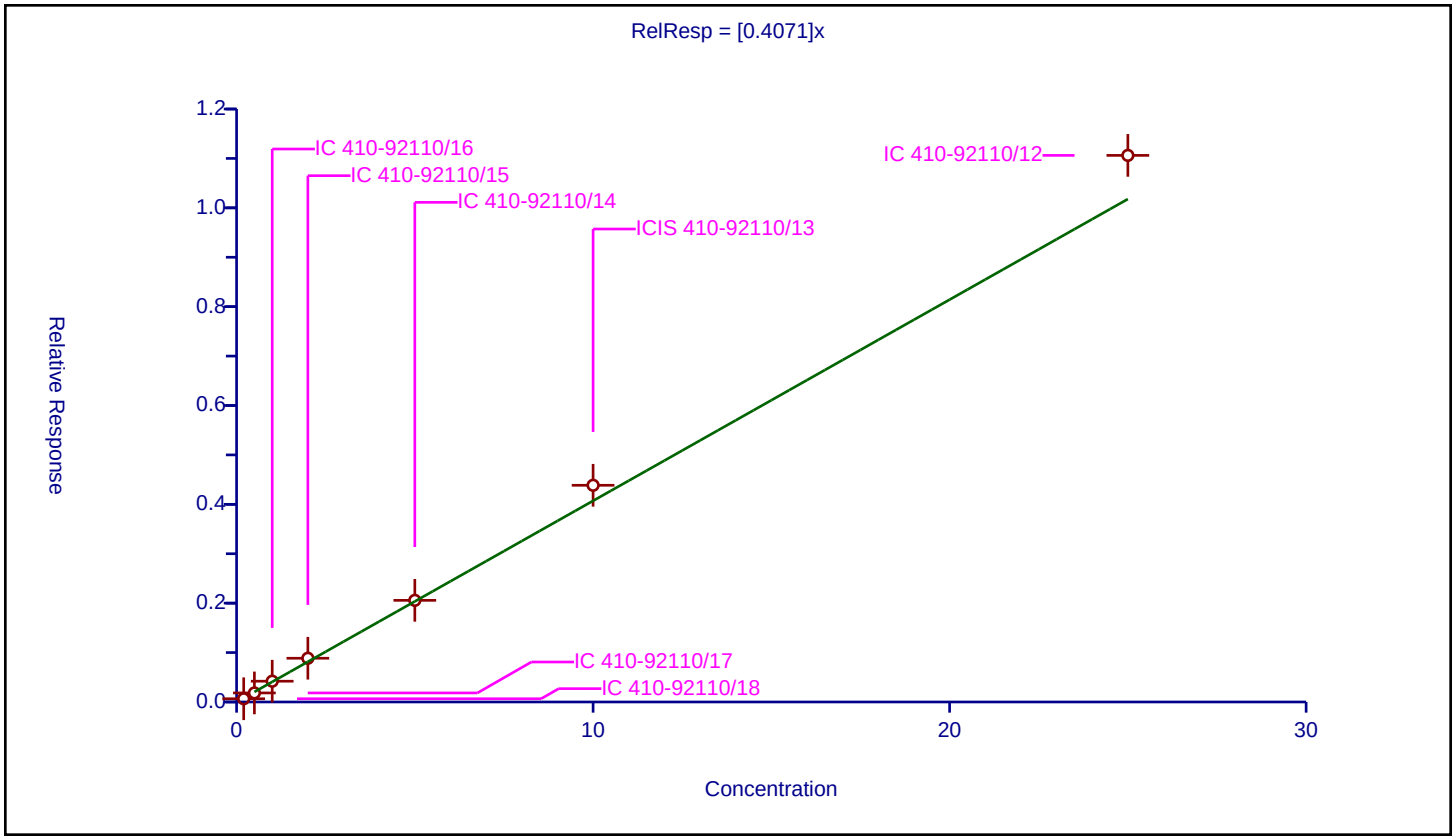
Curve Coefficients

Intercept:	0
Slope:	0.4071

Error Coefficients

Standard Error:	1130000
Relative Standard Error:	10.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.065566	10.0	2221269.0	0.327831	Y
2	IC 410-92110/17	0.5	0.183315	10.0	2241057.0	0.366631	Y
3	IC 410-92110/16	1.0	0.420417	10.0	2256808.0	0.420417	Y
4	IC 410-92110/15	2.0	0.885044	10.0	2261074.0	0.442522	Y
5	IC 410-92110/14	5.0	2.056885	10.0	2279291.0	0.411377	Y
6	ICIS 410-92110/13	10.0	4.385561	10.0	2280609.0	0.438556	Y
7	IC 410-92110/12	25.0	11.061363	10.0	2294031.0	0.442455	Y



Calibration / 1,1-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

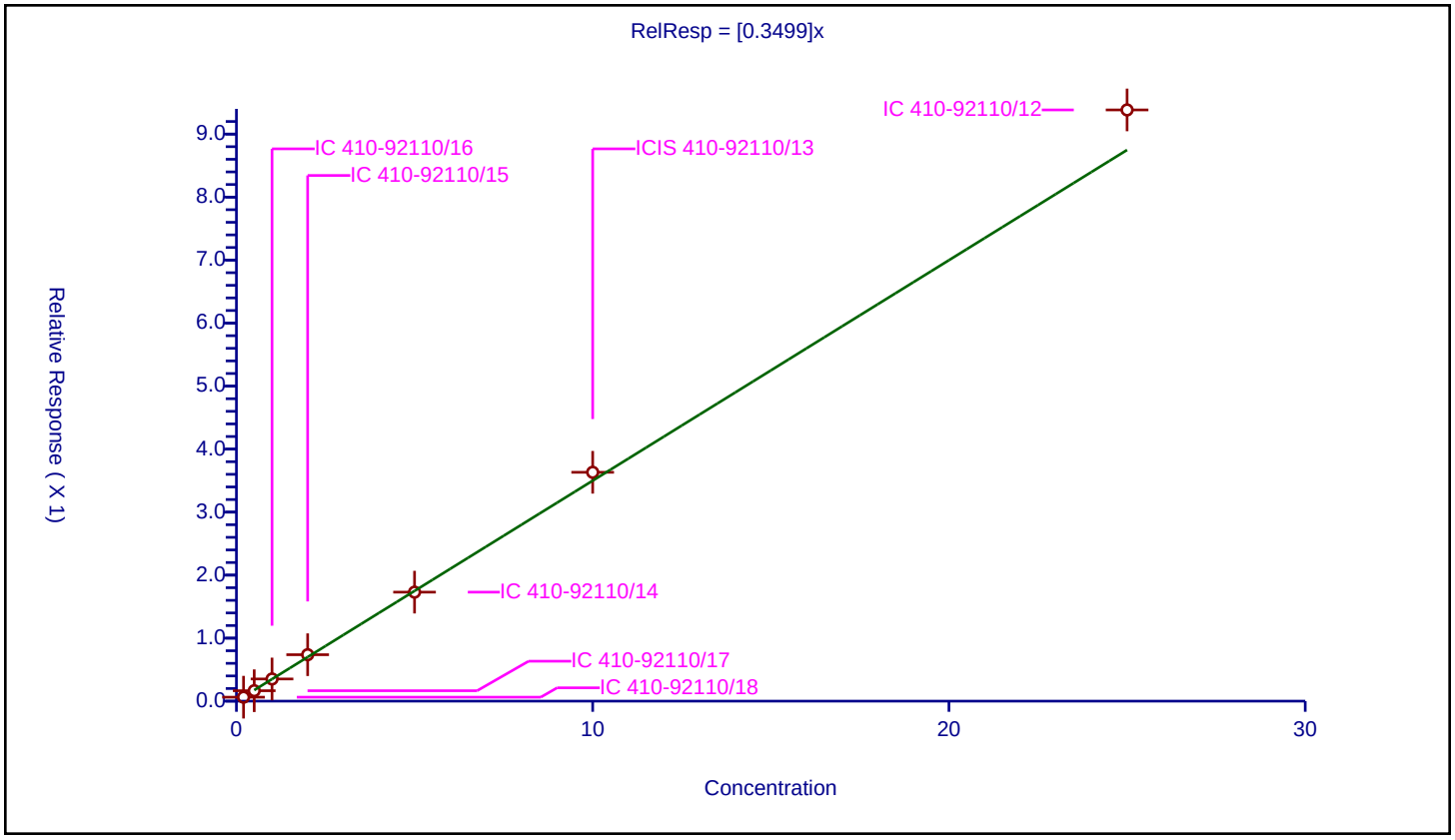
Curve Coefficients

Intercept:	0
Slope:	0.3499

Error Coefficients

Standard Error:	958000
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 410-92110/18	0.2	0.062617	10.0	2221269.0	0.313087	Y
2	IC 410-92110/17	0.5	0.165645	10.0	2241057.0	0.33129	Y
3	IC 410-92110/16	1.0	0.351904	10.0	2256808.0	0.351904	Y
4	IC 410-92110/15	2.0	0.737123	10.0	2261074.0	0.368562	Y
5	IC 410-92110/14	5.0	1.730213	10.0	2279291.0	0.346043	Y
6	ICIS 410-92110/13	10.0	3.632438	10.0	2280609.0	0.363244	Y
7	IC 410-92110/12	25.0	9.383583	10.0	2294031.0	0.375343	Y



Calibration / Carbon tetrachloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

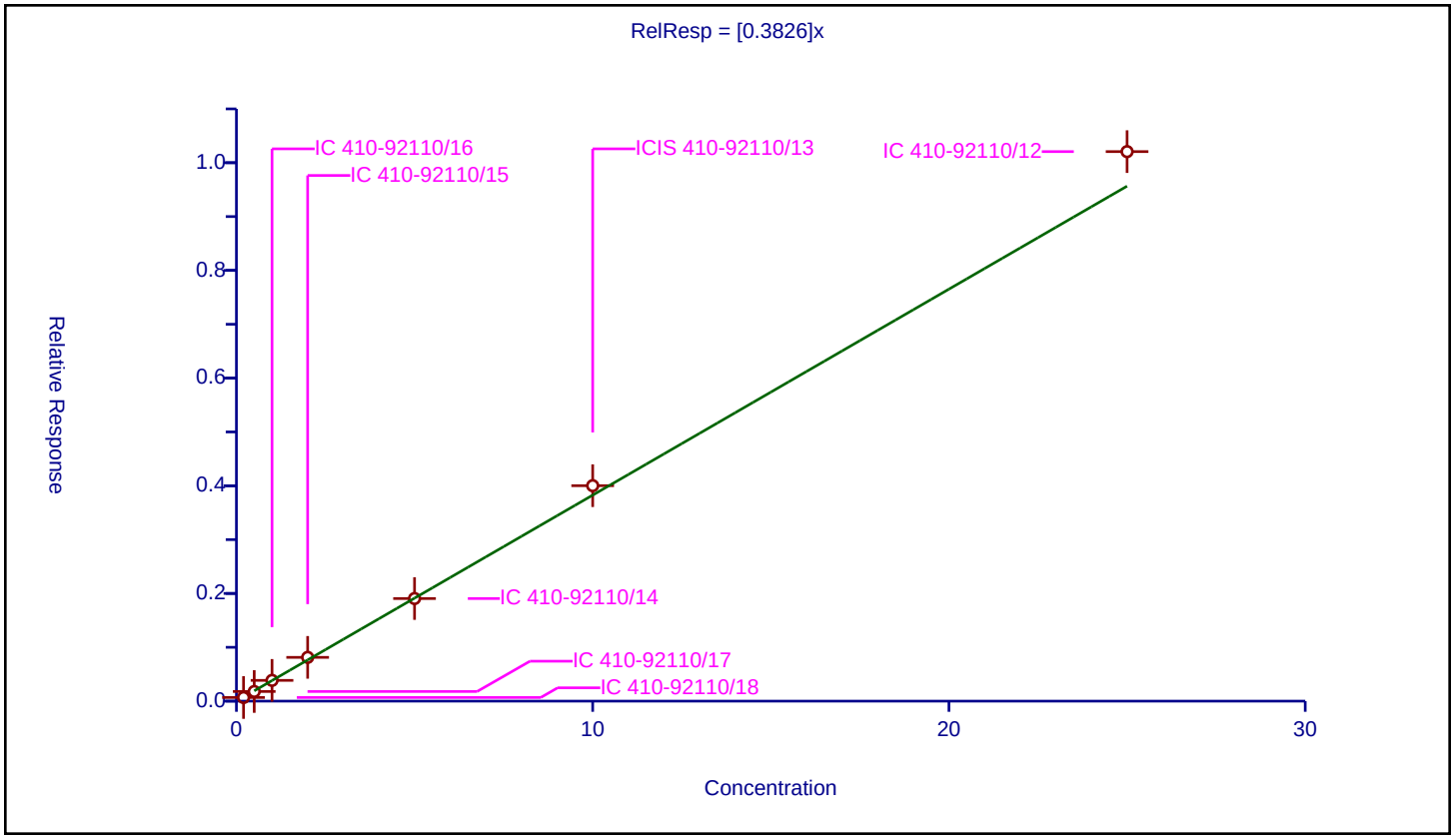
Curve Coefficients

Intercept:	0
Slope:	0.3826

Error Coefficients

Standard Error:	1040000
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 410-92110/18	0.2	0.067624	10.0	2221269.0	0.338118	Y
2	IC 410-92110/17	0.5	0.179255	10.0	2241057.0	0.358509	Y
3	IC 410-92110/16	1.0	0.38554	10.0	2256808.0	0.38554	Y
4	IC 410-92110/15	2.0	0.813021	10.0	2261074.0	0.40651	Y
5	IC 410-92110/14	5.0	1.905904	10.0	2279291.0	0.381181	Y
6	ICIS 410-92110/13	10.0	4.001677	10.0	2280609.0	0.400168	Y
7	IC 410-92110/12	25.0	10.206558	10.0	2294031.0	0.408262	Y



Calibration / Isobutyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

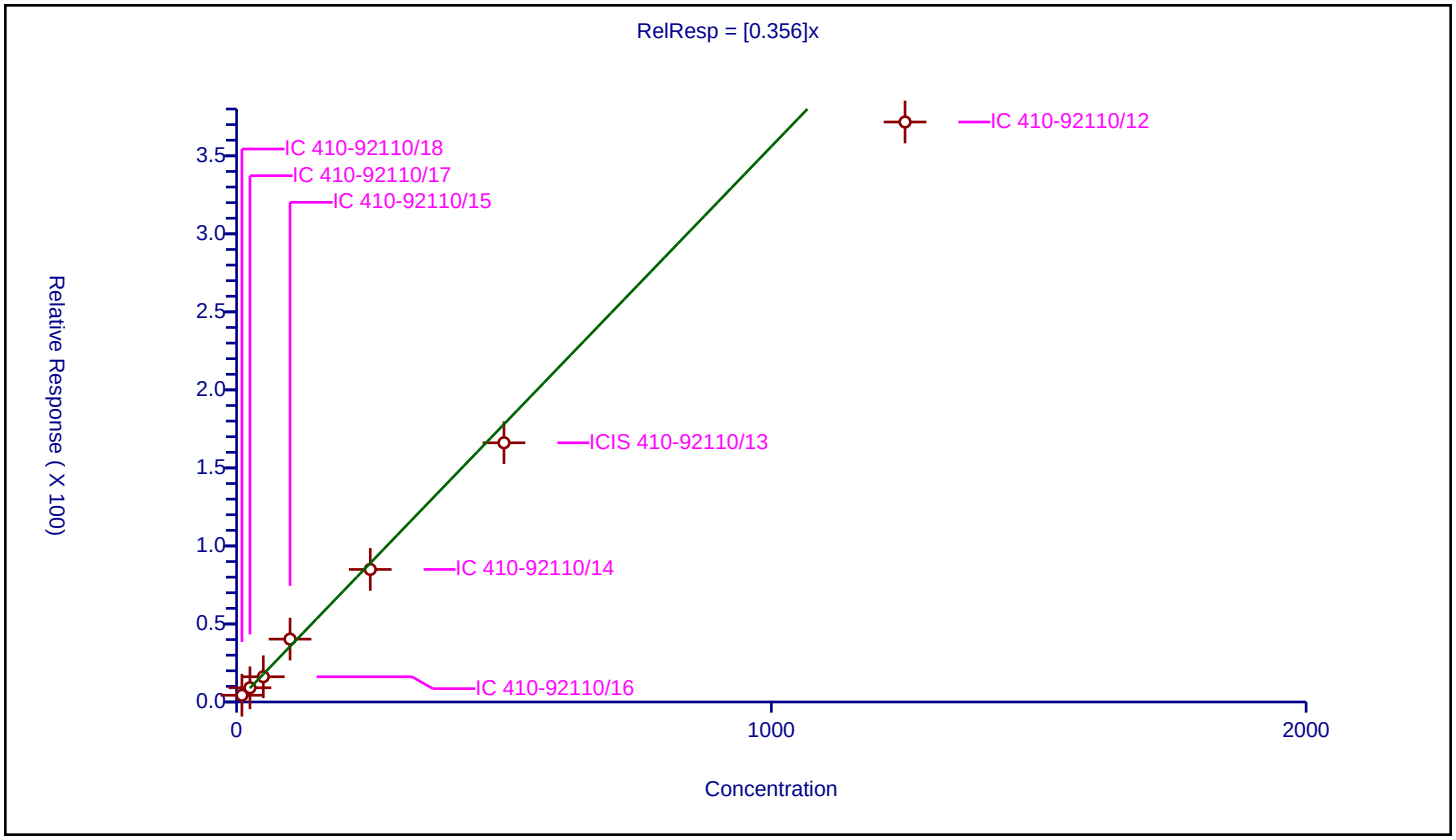
Curve Coefficients

Intercept:	0
Slope:	0.356

Error Coefficients

Standard Error:	382000
Relative Standard Error:	13.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	10.0	4.312251	50.0	113537.0	0.431225	Y
2	IC 410-92110/17	25.0	9.122515	50.0	112754.0	0.364901	Y
3	IC 410-92110/16	50.0	16.179671	50.0	117181.0	0.323593	Y
4	IC 410-92110/15	100.0	40.291912	50.0	110547.0	0.402919	Y
5	IC 410-92110/14	250.0	84.939709	50.0	109304.0	0.339759	Y
6	ICIS 410-92110/13	500.0	166.118509	50.0	101309.0	0.332237	Y
7	IC 410-92110/12	1250.0	371.679407	50.0	114076.0	0.297344	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

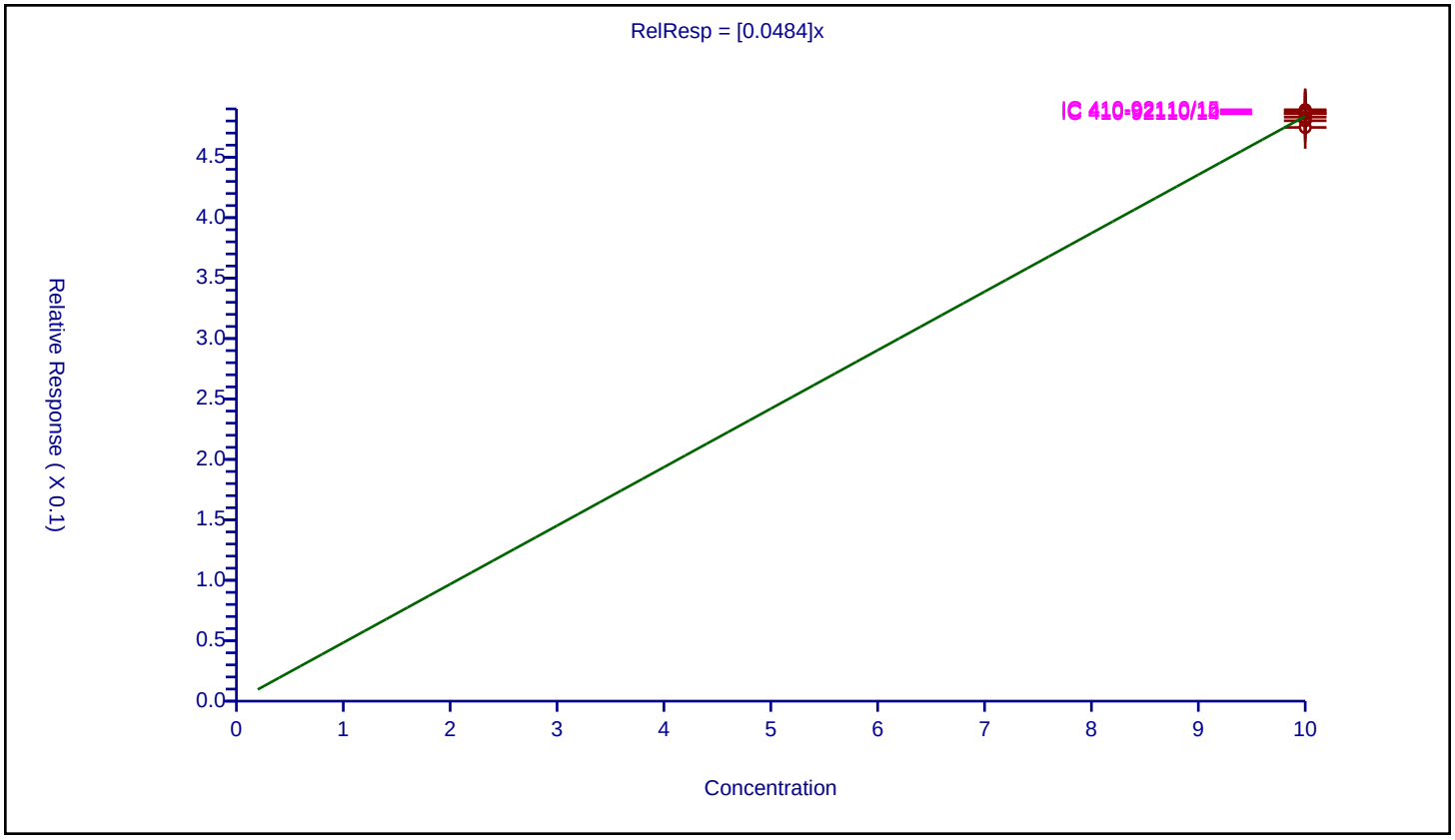
Curve Coefficients

Intercept:	0
Slope:	0.0484

Error Coefficients

Standard Error:	118000
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 410-92110/12	10.0	0.486314	10.0	2294031.0	0.048631	Y
2	ICIS 410-92110/13	10.0	0.483165	10.0	2280609.0	0.048316	Y
3	IC 410-92110/14	10.0	0.485976	10.0	2279291.0	0.048598	Y
4	IC 410-92110/15	10.0	0.489285	10.0	2261074.0	0.048929	Y
5	IC 410-92110/16	10.0	0.488074	10.0	2256808.0	0.048807	Y
6	IC 410-92110/17	10.0	0.474673	10.0	2241057.0	0.047467	Y
7	IC 410-92110/18	10.0	0.480203	10.0	2221269.0	0.04802	Y



Calibration / Benzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

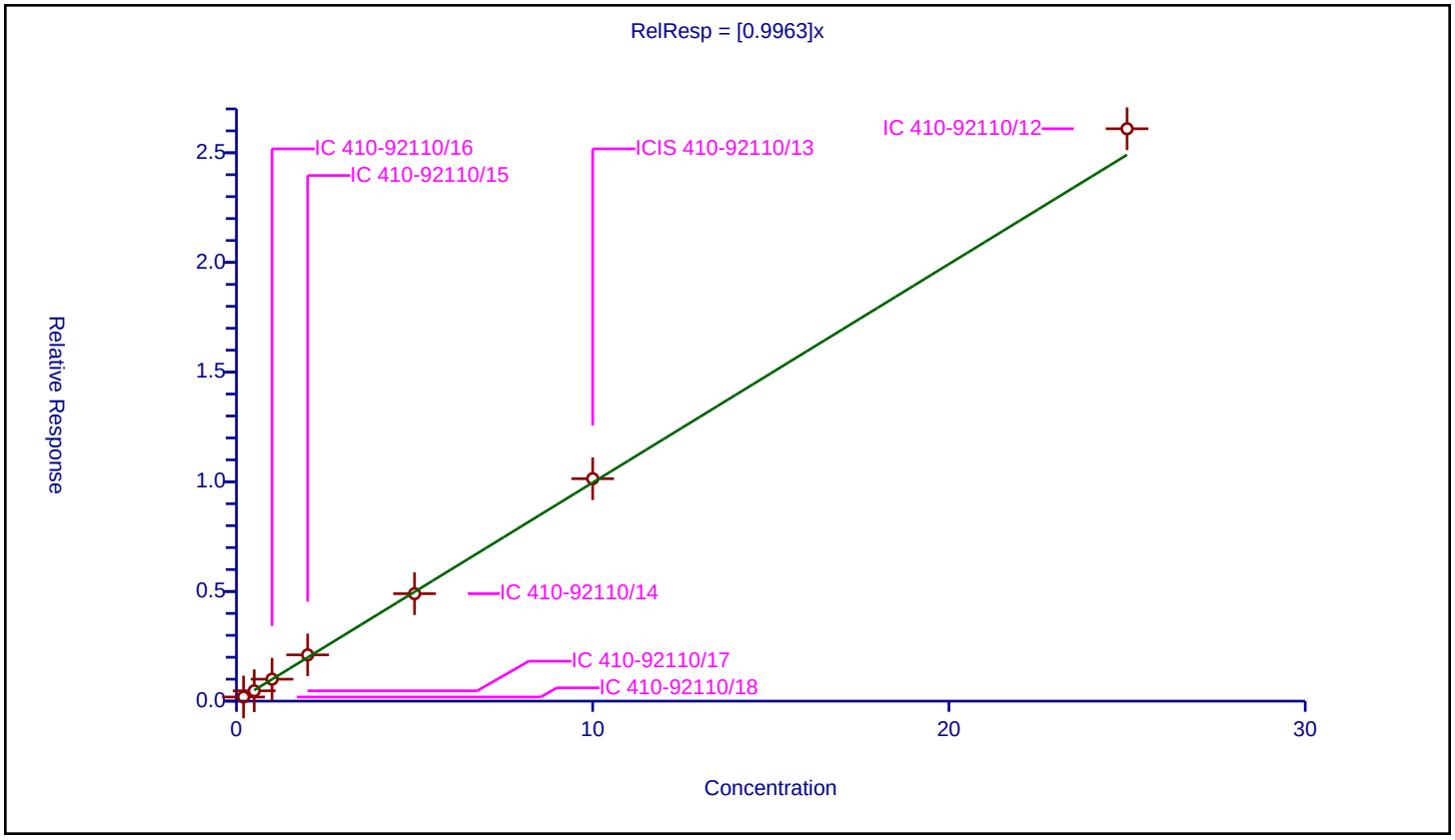
Curve Coefficients

Intercept:	0
Slope:	0.9963

Error Coefficients

Standard Error:	2670000
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.187861	10.0	2221269.0	0.939305	Y
2	IC 410-92110/17	0.5	0.471179	10.0	2241057.0	0.942359	Y
3	IC 410-92110/16	1.0	1.000577	10.0	2256808.0	1.000577	Y
4	IC 410-92110/15	2.0	2.108657	10.0	2261074.0	1.054329	Y
5	IC 410-92110/14	5.0	4.898317	10.0	2279291.0	0.979663	Y
6	ICIS 410-92110/13	10.0	10.140028	10.0	2280609.0	1.014003	Y
7	IC 410-92110/12	25.0	26.095742	10.0	2294031.0	1.04383	Y



Calibration / 1,2-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

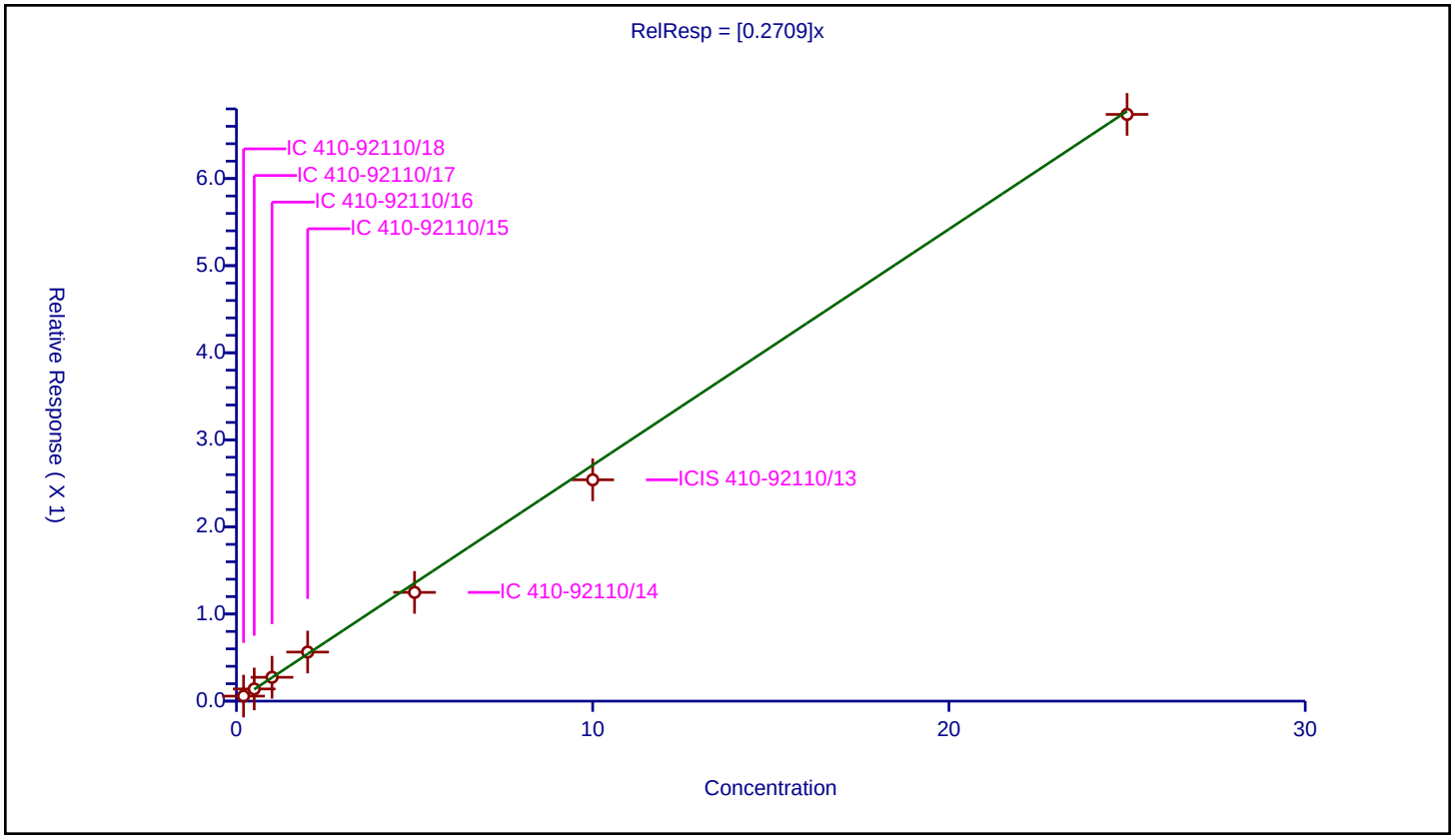
Curve Coefficients

Intercept:	0
Slope:	0.2709

Error Coefficients

Standard Error:	686000
Relative Standard Error:	5.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.057616	10.0	2221269.0	0.288079	Y
2	IC 410-92110/17	0.5	0.139805	10.0	2241057.0	0.279609	Y
3	IC 410-92110/16	1.0	0.273887	10.0	2256808.0	0.273887	Y
4	IC 410-92110/15	2.0	0.563325	10.0	2261074.0	0.281663	Y
5	IC 410-92110/14	5.0	1.248779	10.0	2279291.0	0.249756	Y
6	ICIS 410-92110/13	10.0	2.541352	10.0	2280609.0	0.254135	Y
7	IC 410-92110/12	25.0	6.736757	10.0	2294031.0	0.26947	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

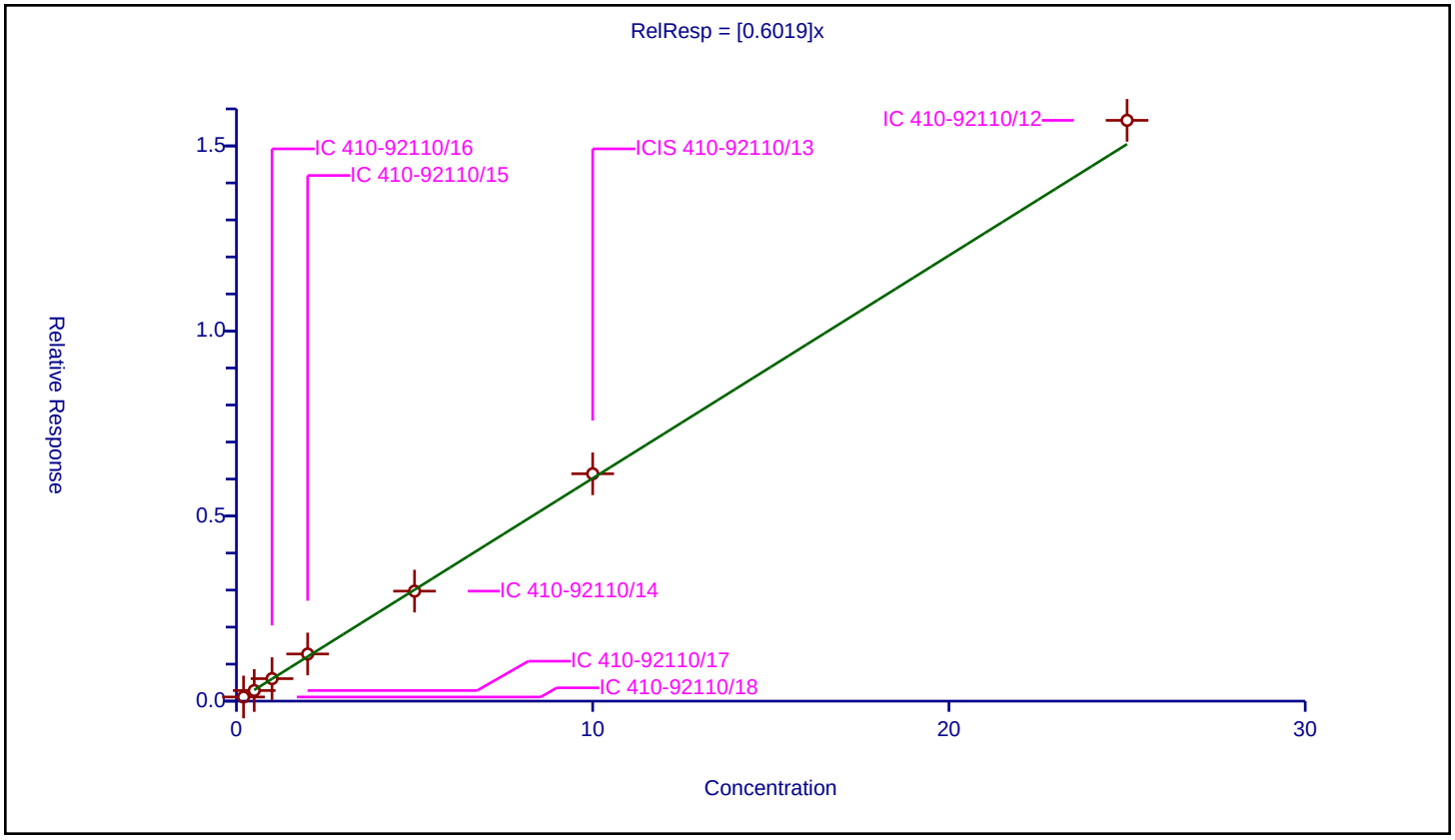
Curve Coefficients

Intercept:	0
Slope:	0.6019

Error Coefficients

Standard Error:	1610000
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.111823	10.0	2221269.0	0.559117	Y
2	IC 410-92110/17	0.5	0.286936	10.0	2241057.0	0.573872	Y
3	IC 410-92110/16	1.0	0.607318	10.0	2256808.0	0.607318	Y
4	IC 410-92110/15	2.0	1.27393	10.0	2261074.0	0.636965	Y
5	IC 410-92110/14	5.0	2.972271	10.0	2279291.0	0.594454	Y
6	ICIS 410-92110/13	10.0	6.142868	10.0	2280609.0	0.614287	Y
7	IC 410-92110/12	25.0	15.690882	10.0	2294031.0	0.627635	Y



Calibration / n-Heptane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

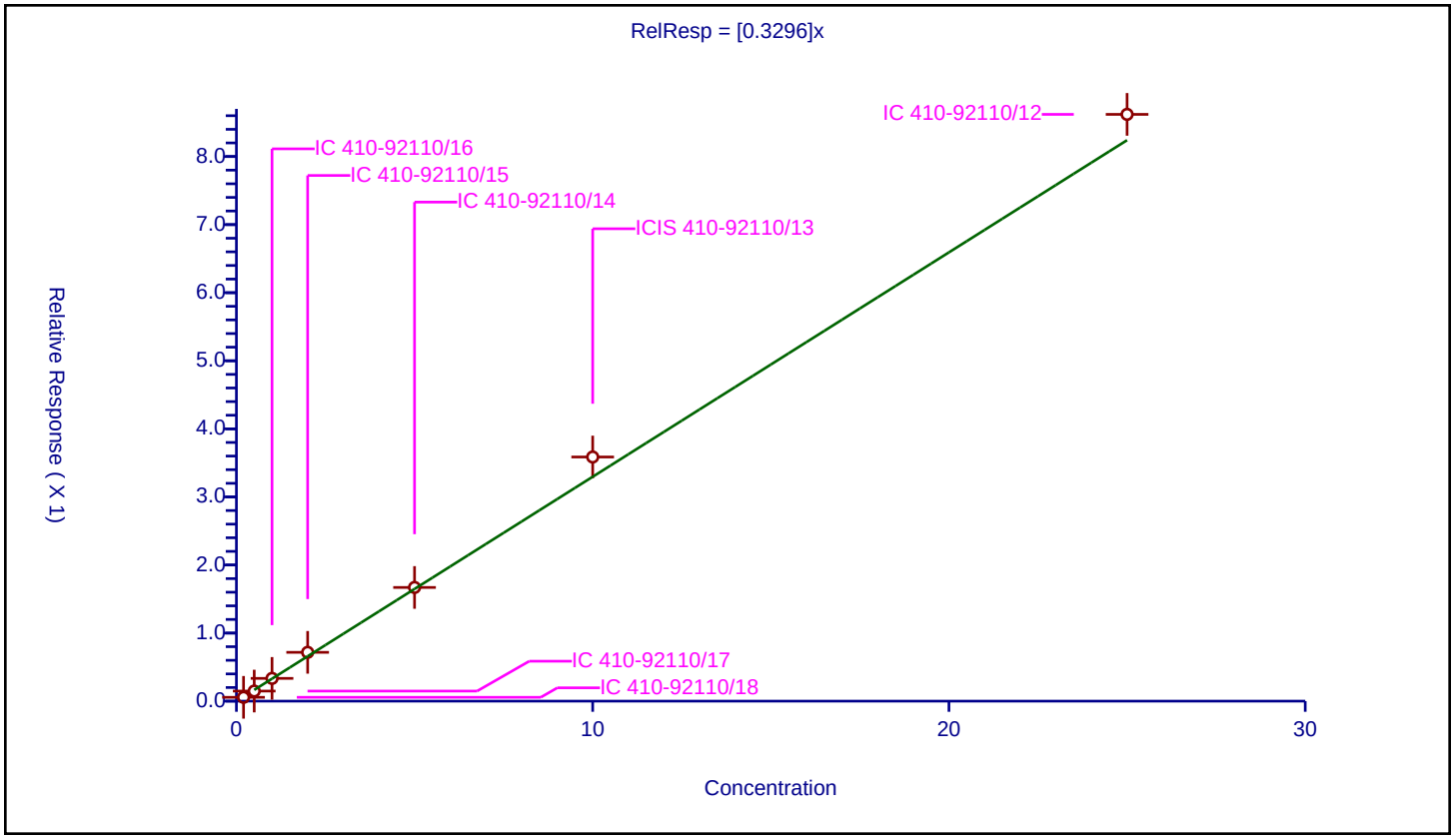
Curve Coefficients

Intercept:	0
Slope:	0.3296

Error Coefficients

Standard Error:	890000
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 410-92110/18	0.2	0.056207	10.0	2221269.0	0.281033	Y
2	IC 410-92110/17	0.5	0.148122	10.0	2241057.0	0.296244	Y
3	IC 410-92110/16	1.0	0.334149	10.0	2256808.0	0.334149	Y
4	IC 410-92110/15	2.0	0.716881	10.0	2261074.0	0.35844	Y
5	IC 410-92110/14	5.0	1.670217	10.0	2279291.0	0.334043	Y
6	ICIS 410-92110/13	10.0	3.586191	10.0	2280609.0	0.358619	Y
7	IC 410-92110/12	25.0	8.619452	10.0	2294031.0	0.344778	Y



Calibration / n-Butanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

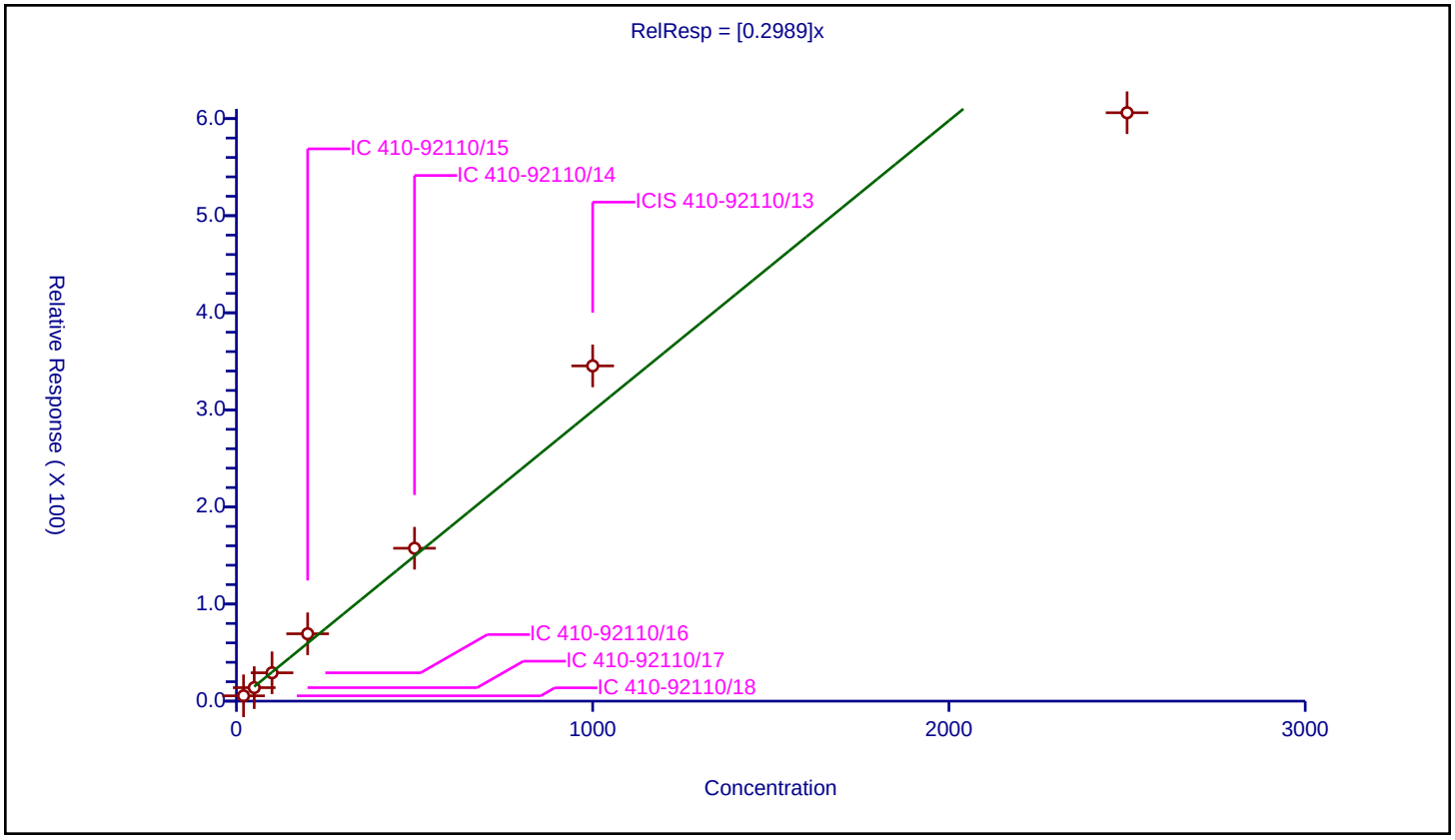
Curve Coefficients

Intercept:	0
Slope:	0.2989

Error Coefficients

Standard Error:	652000
Relative Standard Error:	13.0
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	20.0	5.462977	50.0	113537.0	0.273149	Y
2	IC 410-92110/17	50.0	13.881547	50.0	112754.0	0.277631	Y
3	IC 410-92110/16	100.0	29.21506	50.0	117181.0	0.292151	Y
4	IC 410-92110/15	200.0	69.389038	50.0	110547.0	0.346945	Y
5	IC 410-92110/14	500.0	157.48646	50.0	109304.0	0.314973	Y
6	ICIS 410-92110/13	1000.0	345.300516	50.0	101309.0	0.345301	Y
7	IC 410-92110/12	2500.0	606.063063	50.0	114076.0	0.242425	Y



Calibration / Trichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

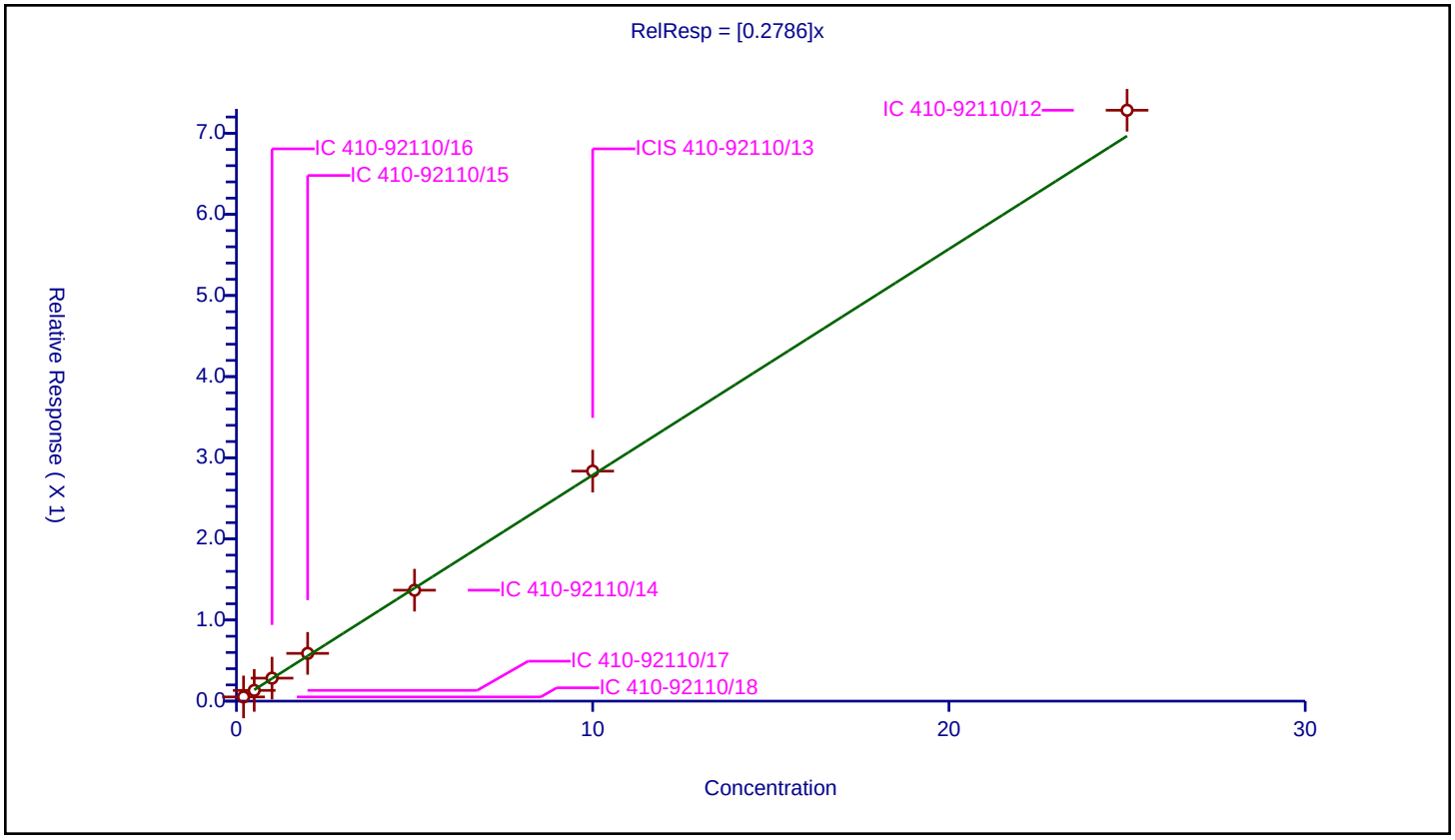
Curve Coefficients

Intercept:	0
Slope:	0.2786

Error Coefficients

Standard Error:	745000
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.051858	10.0	2221269.0	0.259289	Y
2	IC 410-92110/17	0.5	0.132545	10.0	2241057.0	0.265089	Y
3	IC 410-92110/16	1.0	0.283356	10.0	2256808.0	0.283356	Y
4	IC 410-92110/15	2.0	0.588879	10.0	2261074.0	0.29444	Y
5	IC 410-92110/14	5.0	1.367355	10.0	2279291.0	0.273471	Y
6	ICIS 410-92110/13	10.0	2.835133	10.0	2280609.0	0.283513	Y
7	IC 410-92110/12	25.0	7.283228	10.0	2294031.0	0.291329	Y



Calibration / Methylcyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

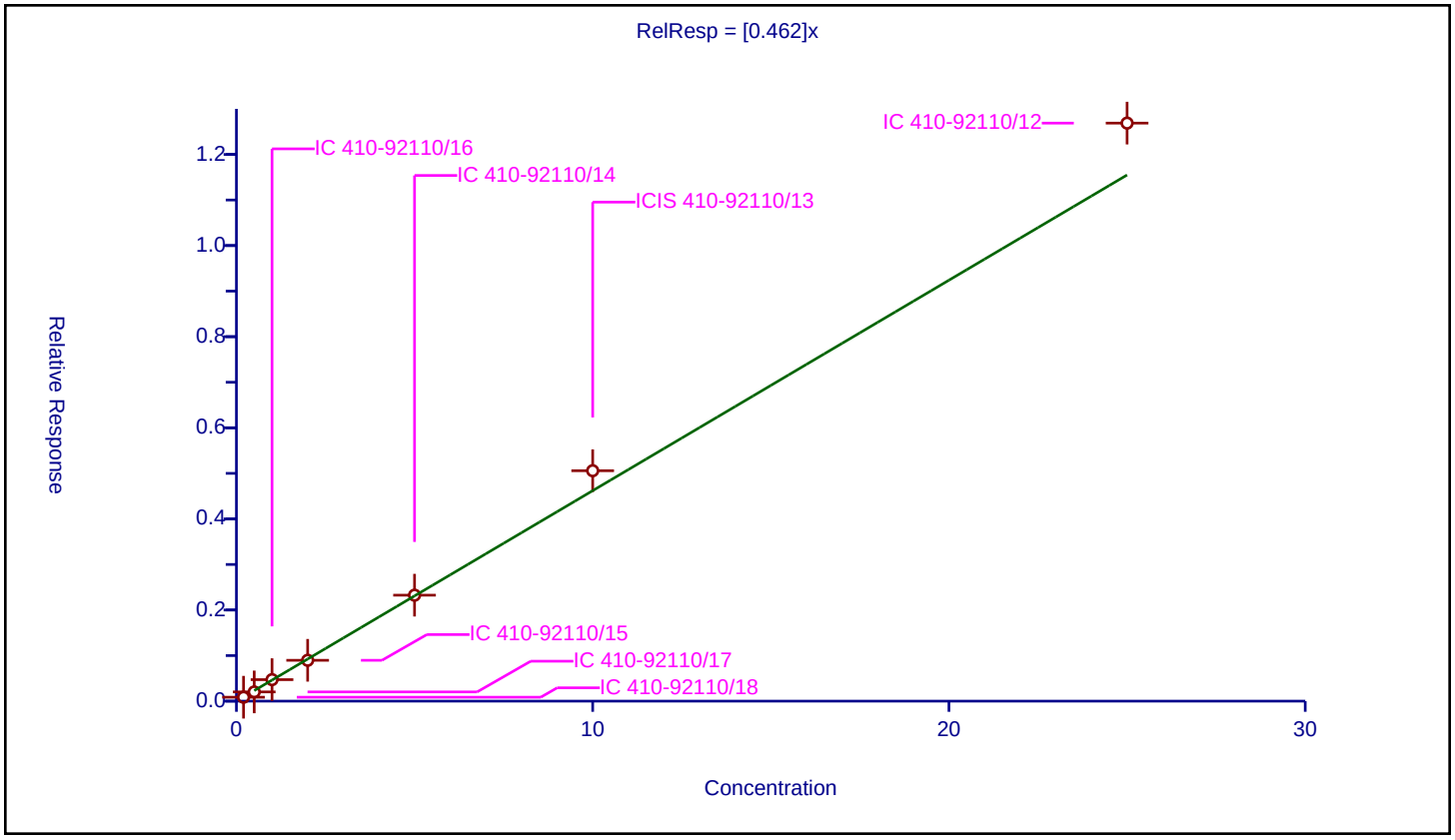
Curve Coefficients

Intercept:	0
Slope:	0.462

Error Coefficients

Standard Error:	1300000
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 410-92110/18	0.2	0.086014	10.0	2221269.0	0.430069	Y
2	IC 410-92110/17	0.5	0.202338	10.0	2241057.0	0.404675	Y
3	IC 410-92110/16	1.0	0.472233	10.0	2256808.0	0.472233	Y
4	IC 410-92110/15	2.0	0.896631	10.0	2261074.0	0.448316	Y
5	IC 410-92110/14	5.0	2.326096	10.0	2279291.0	0.465219	Y
6	ICIS 410-92110/13	10.0	5.057684	10.0	2280609.0	0.505768	Y
7	IC 410-92110/12	25.0	12.687841	10.0	2294031.0	0.507514	Y



Calibration / 1,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

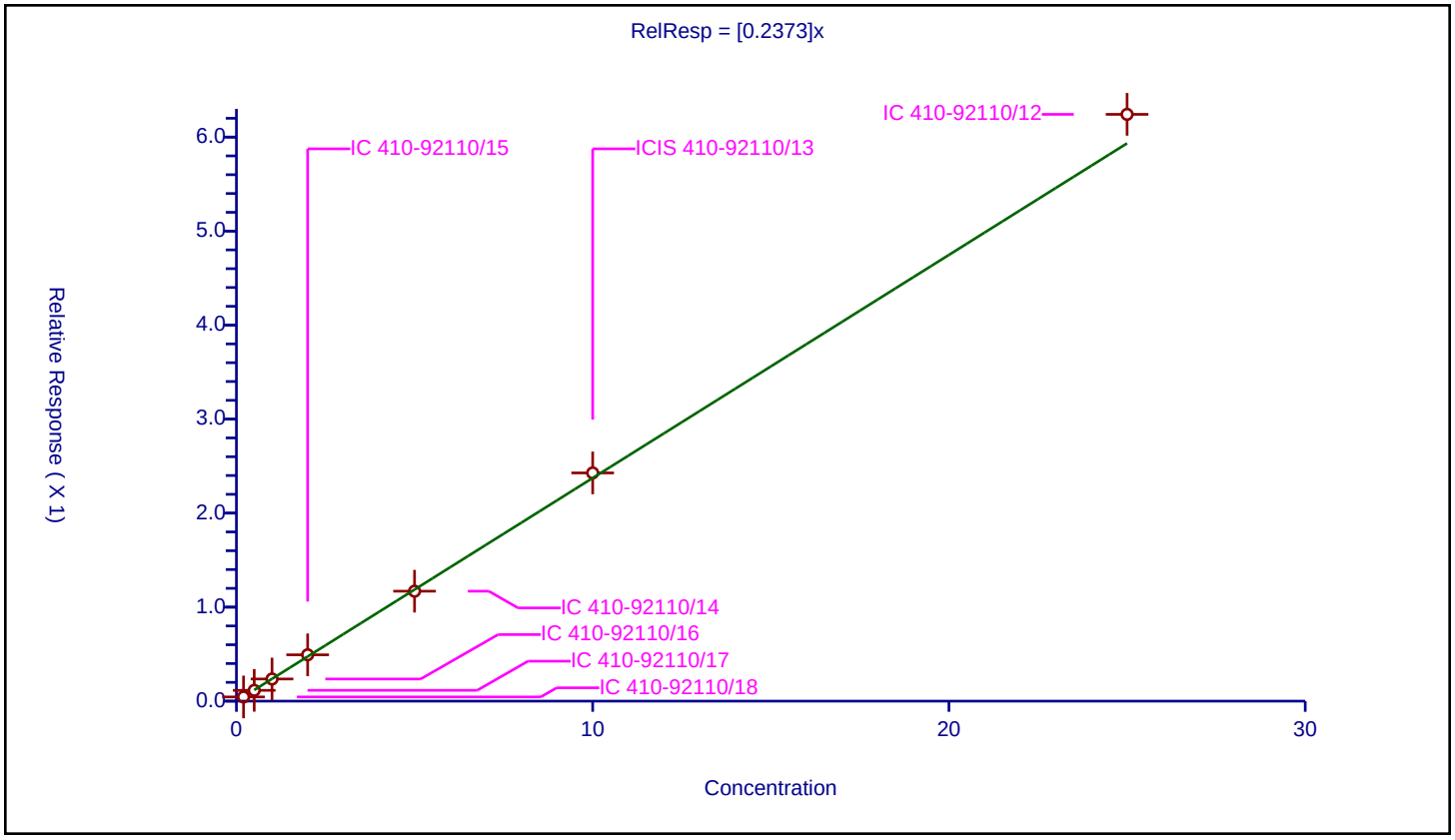
Curve Coefficients

Intercept:	0
Slope:	0.2373

Error Coefficients

Standard Error:	638000
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 410-92110/18	0.2	0.04465	10.0	2221269.0	0.223251	Y
2	IC 410-92110/17	0.5	0.114861	10.0	2241057.0	0.229722	Y
3	IC 410-92110/16	1.0	0.235643	10.0	2256808.0	0.235643	Y
4	IC 410-92110/15	2.0	0.492885	10.0	2261074.0	0.246443	Y
5	IC 410-92110/14	5.0	1.169715	10.0	2279291.0	0.233943	Y
6	ICIS 410-92110/13	10.0	2.42758	10.0	2280609.0	0.242758	Y
7	IC 410-92110/12	25.0	6.241899	10.0	2294031.0	0.249676	Y



Calibration / Methyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

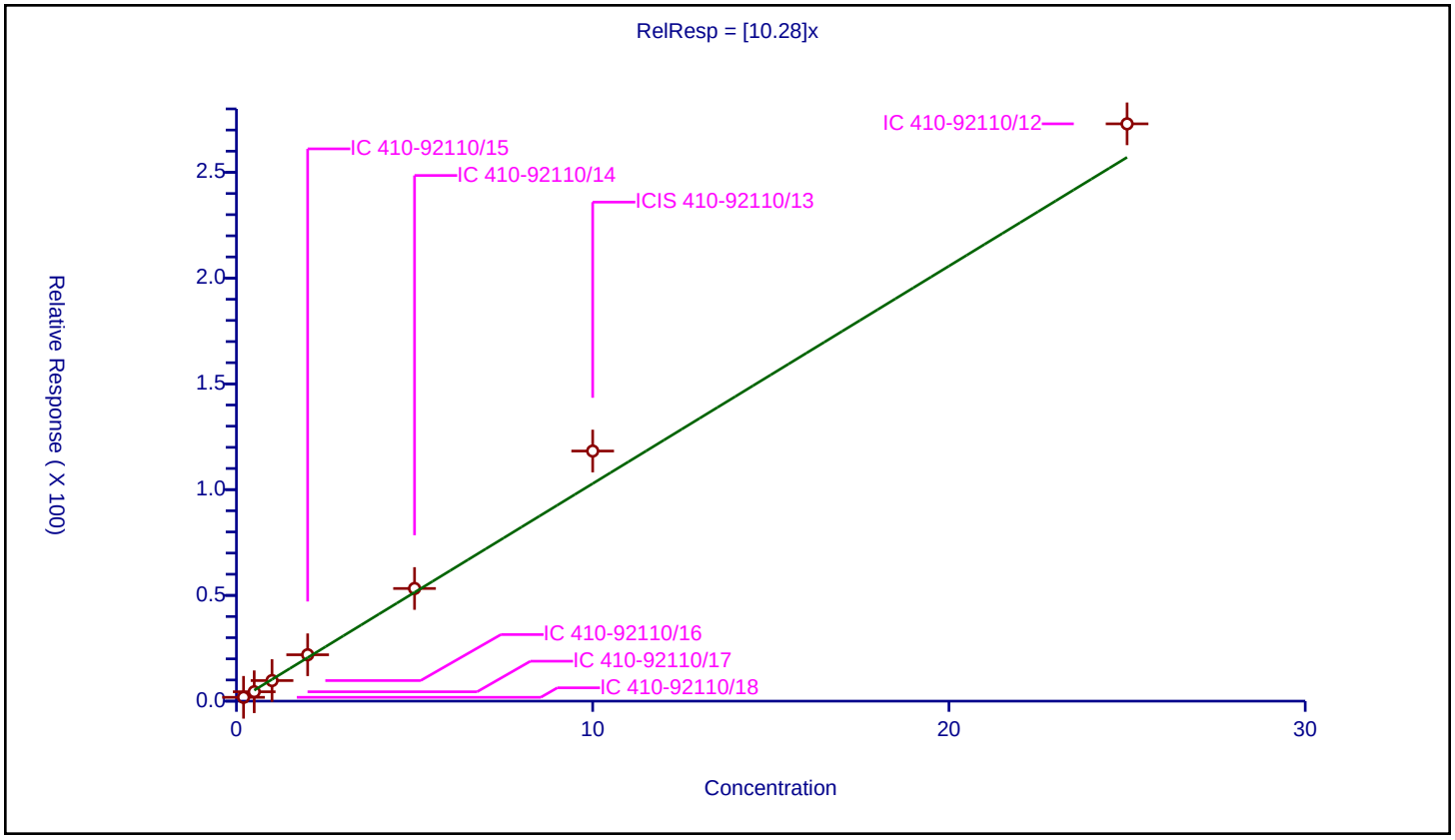
Curve Coefficients

Intercept:	0
Slope:	10.28

Error Coefficients

Standard Error:	277000
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 410-92110/18	0.2	1.805579	50.0	113537.0	9.027894	Y
2	IC 410-92110/17	0.5	4.443301	50.0	112754.0	8.886603	Y
3	IC 410-92110/16	1.0	9.720859	50.0	117181.0	9.720859	Y
4	IC 410-92110/15	2.0	21.926873	50.0	110547.0	10.963436	Y
5	IC 410-92110/14	5.0	53.263376	50.0	109304.0	10.652675	Y
6	ICIS 410-92110/13	10.0	118.242703	50.0	101309.0	11.82427	Y
7	IC 410-92110/12	25.0	272.93208	50.0	114076.0	10.917283	Y



Calibration / 1,4-Dioxane

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

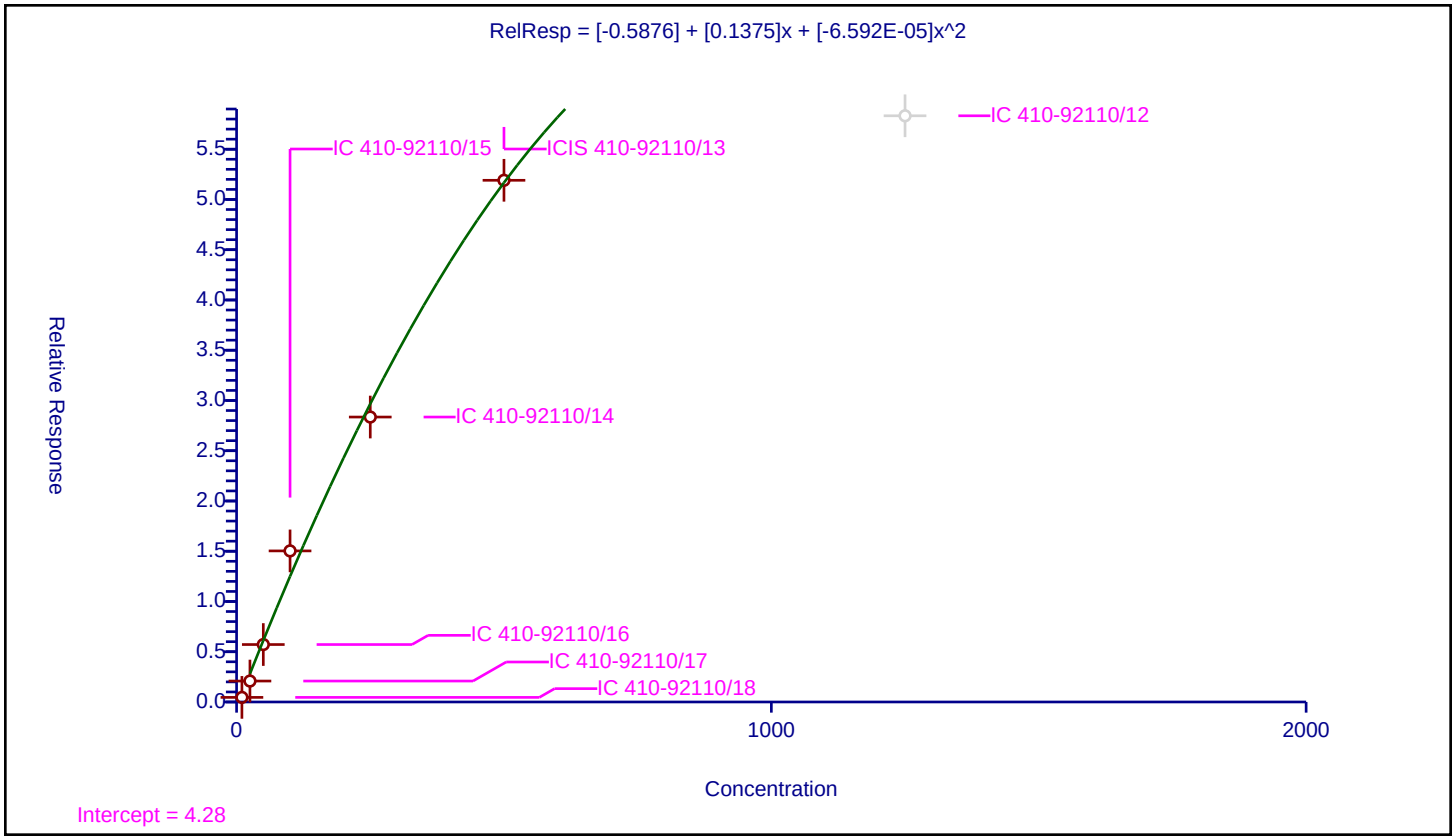
Curve Coefficients

Intercept:	-0.5876
Slope:	0.1375
Second Order:	-6.592E-05

Error Coefficients

Standard Error:	73500
Relative Standard Error:	22.5
Correlation Coefficient:	0.994
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	10.0	0.45756	50.0	113537.0	0.045756	Y
2	IC 410-92110/17	25.0	2.084183	50.0	112754.0	0.083367	Y
3	IC 410-92110/16	50.0	5.715944	50.0	117181.0	0.114319	Y
4	IC 410-92110/15	100.0	15.033425	50.0	110547.0	0.150334	Y
5	IC 410-92110/14	250.0	28.352119	50.0	109304.0	0.113408	Y
6	ICIS 410-92110/13	500.0	51.90753	50.0	101309.0	0.103815	Y
7	IC 410-92110/12	1250.0	58.326028	50.0	114076.0	0.046661	N



Calibration / Dibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

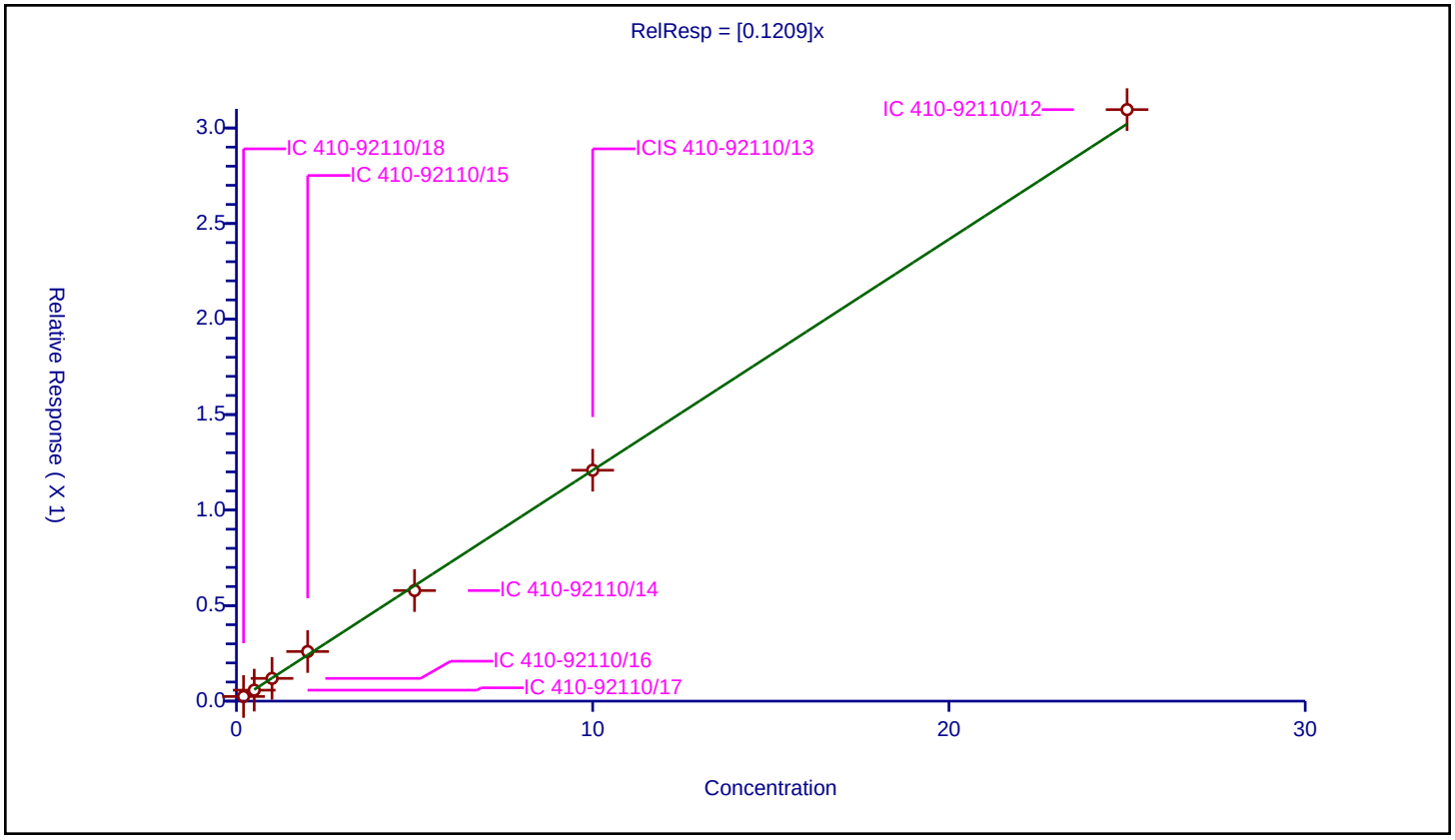
Curve Coefficients

Intercept:	0
Slope:	0.1209

Error Coefficients

Standard Error:	317000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.024283	10.0	2221269.0	0.121417	Y
2	IC 410-92110/17	0.5	0.057544	10.0	2241057.0	0.115089	Y
3	IC 410-92110/16	1.0	0.119124	10.0	2256808.0	0.119124	Y
4	IC 410-92110/15	2.0	0.25977	10.0	2261074.0	0.129885	Y
5	IC 410-92110/14	5.0	0.578904	10.0	2279291.0	0.115781	Y
6	ICIS 410-92110/13	10.0	1.208581	10.0	2280609.0	0.120858	Y
7	IC 410-92110/12	25.0	3.09617	10.0	2294031.0	0.123847	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

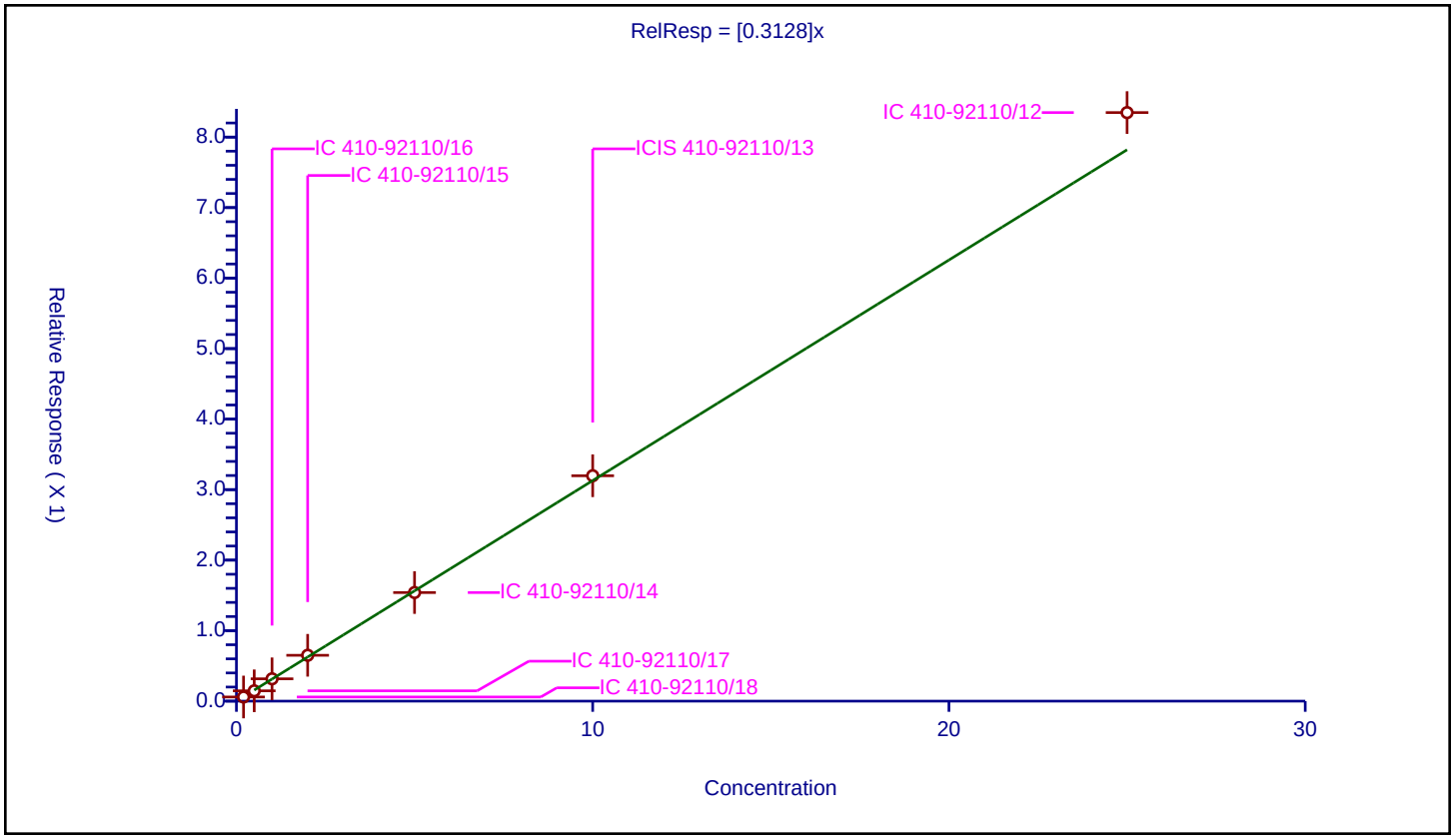
Curve Coefficients

Intercept:	0
Slope:	0.3128

Error Coefficients

Standard Error:	851000
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 410-92110/18	0.2	0.058741	10.0	2221269.0	0.293706	Y
2	IC 410-92110/17	0.5	0.146248	10.0	2241057.0	0.292496	Y
3	IC 410-92110/16	1.0	0.316766	10.0	2256808.0	0.316766	Y
4	IC 410-92110/15	2.0	0.650403	10.0	2261074.0	0.325202	Y
5	IC 410-92110/14	5.0	1.540176	10.0	2279291.0	0.308035	Y
6	ICIS 410-92110/13	10.0	3.19676	10.0	2280609.0	0.319676	Y
7	IC 410-92110/12	25.0	8.347677	10.0	2294031.0	0.333907	Y



Calibration / 2-Nitropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

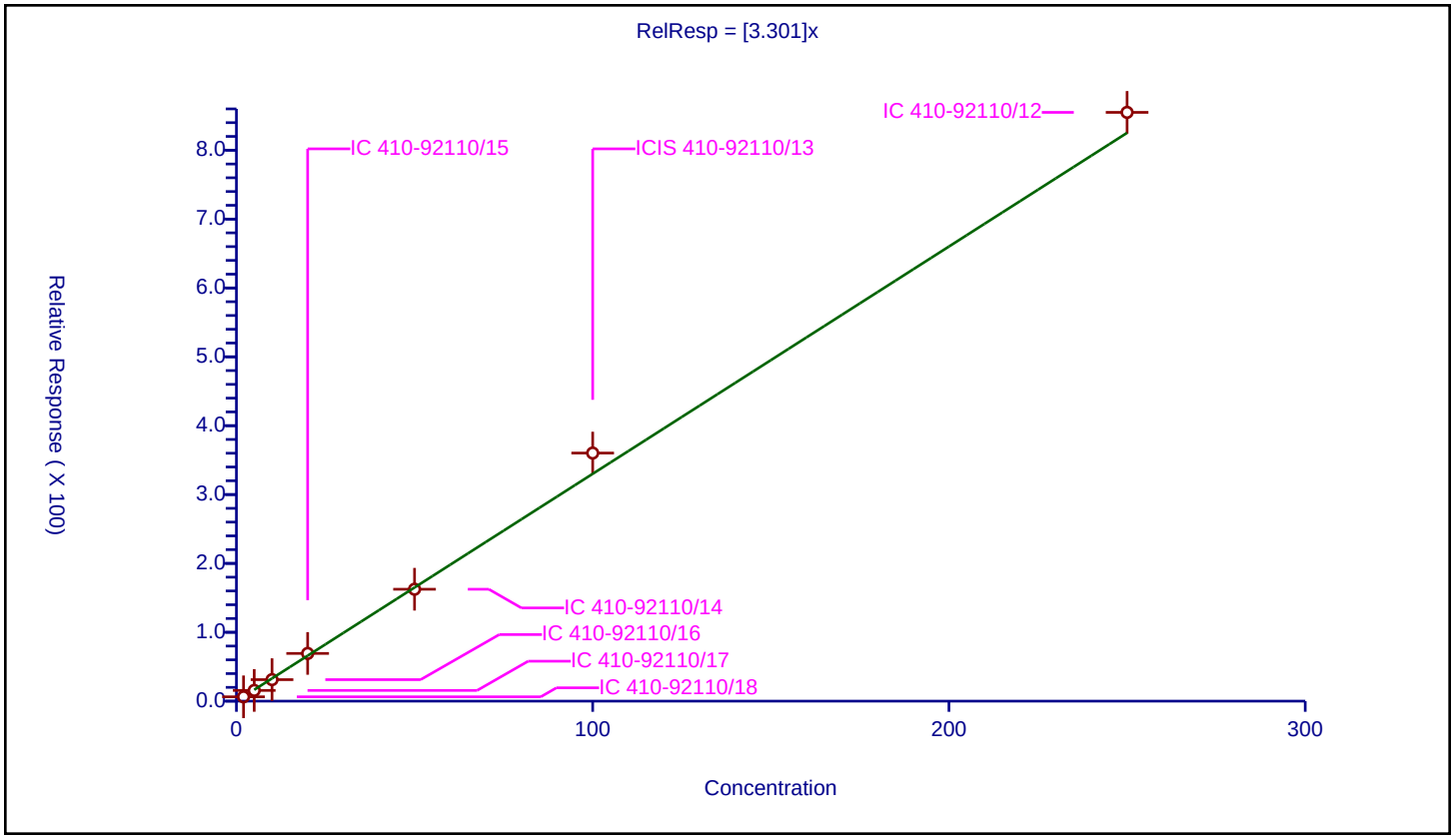
Curve Coefficients

Intercept:	0
Slope:	3.301

Error Coefficients

Standard Error:	865000
Relative Standard Error:	5.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	2.0	6.276808	50.0	113537.0	3.138404	Y
2	IC 410-92110/17	5.0	15.547564	50.0	112754.0	3.109513	Y
3	IC 410-92110/16	10.0	31.212825	50.0	117181.0	3.121282	Y
4	IC 410-92110/15	20.0	69.279582	50.0	110547.0	3.463979	Y
5	IC 410-92110/14	50.0	162.48216	50.0	109304.0	3.249643	Y
6	ICIS 410-92110/13	100.0	360.24144	50.0	101309.0	3.602414	Y
7	IC 410-92110/12	250.0	854.916898	50.0	114076.0	3.419668	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

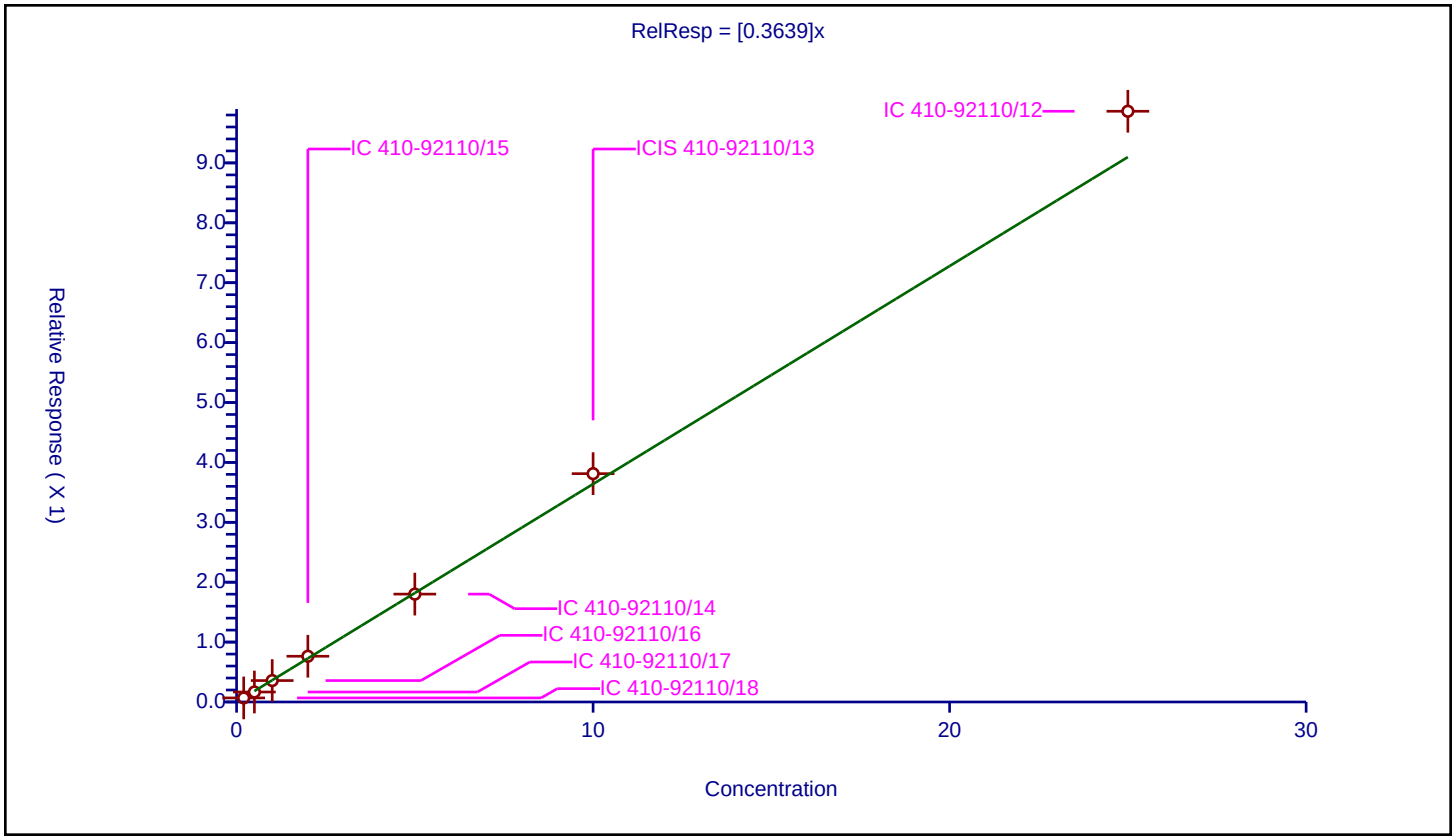
Curve Coefficients

Intercept:	0
Slope:	0.3639

Error Coefficients

Standard Error:	1010000
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 410-92110/18	0.2	0.067777	10.0	2221269.0	0.338883	Y
2	IC 410-92110/17	0.5	0.166511	10.0	2241057.0	0.333021	Y
3	IC 410-92110/16	1.0	0.357731	10.0	2256808.0	0.357731	Y
4	IC 410-92110/15	2.0	0.763544	10.0	2261074.0	0.381772	Y
5	IC 410-92110/14	5.0	1.801073	10.0	2279291.0	0.360215	Y
6	ICIS 410-92110/13	10.0	3.811986	10.0	2280609.0	0.381199	Y
7	IC 410-92110/12	25.0	9.862744	10.0	2294031.0	0.39451	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

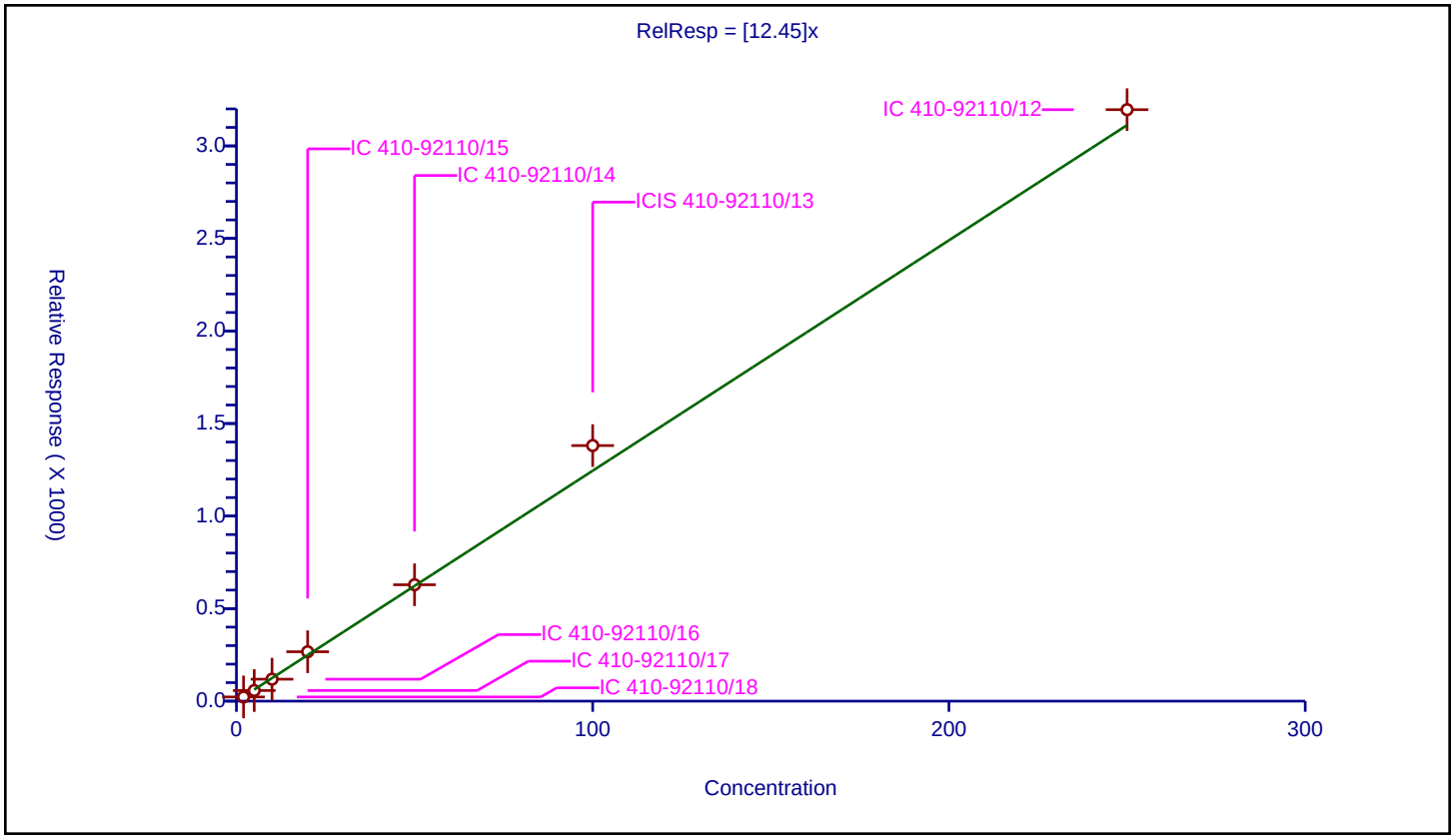
Curve Coefficients

Intercept:	0
Slope:	12.45

Error Coefficients

Standard Error:	3250000
Relative Standard Error:	7.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	2.0	22.583827	50.0	113537.0	11.291914	Y
2	IC 410-92110/17	5.0	57.354063	50.0	112754.0	11.470813	Y
3	IC 410-92110/16	10.0	118.696717	50.0	117181.0	11.869672	Y
4	IC 410-92110/15	20.0	266.855727	50.0	110547.0	13.342786	Y
5	IC 410-92110/14	50.0	628.751464	50.0	109304.0	12.575029	Y
6	ICIS 410-92110/13	100.0	1380.831417	50.0	101309.0	13.808314	Y
7	IC 410-92110/12	250.0	3195.784389	50.0	114076.0	12.783138	Y



Calibration / Toluene-d8 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

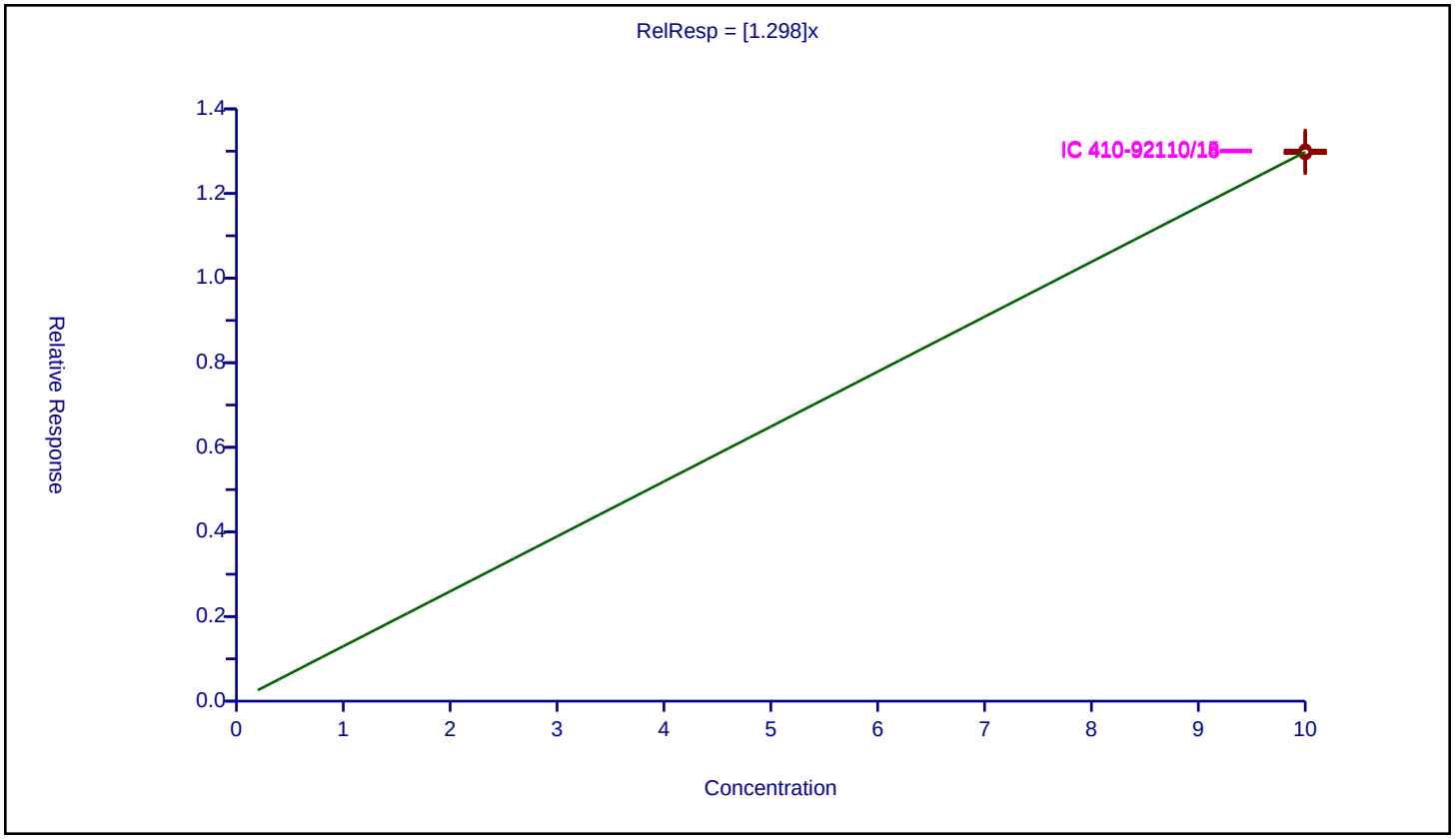
Curve Coefficients

Intercept:	0
Slope:	1.298

Error Coefficients

Standard Error:	2430000
Relative Standard Error:	0.2
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0.000000000000000222

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/12	10.0	12.953878	10.0	1766200.0	1.295388	Y
2	ICIS 410-92110/13	10.0	12.94908	10.0	1755795.0	1.294908	Y
3	IC 410-92110/14	10.0	13.00743	10.0	1740825.0	1.300743	Y
4	IC 410-92110/15	10.0	13.026848	10.0	1737725.0	1.302685	Y
5	IC 410-92110/16	10.0	12.985657	10.0	1731311.0	1.298566	Y
6	IC 410-92110/17	10.0	12.947574	10.0	1713701.0	1.294757	Y
7	IC 410-92110/18	10.0	12.986667	10.0	1704740.0	1.298667	Y



Calibration / Toluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

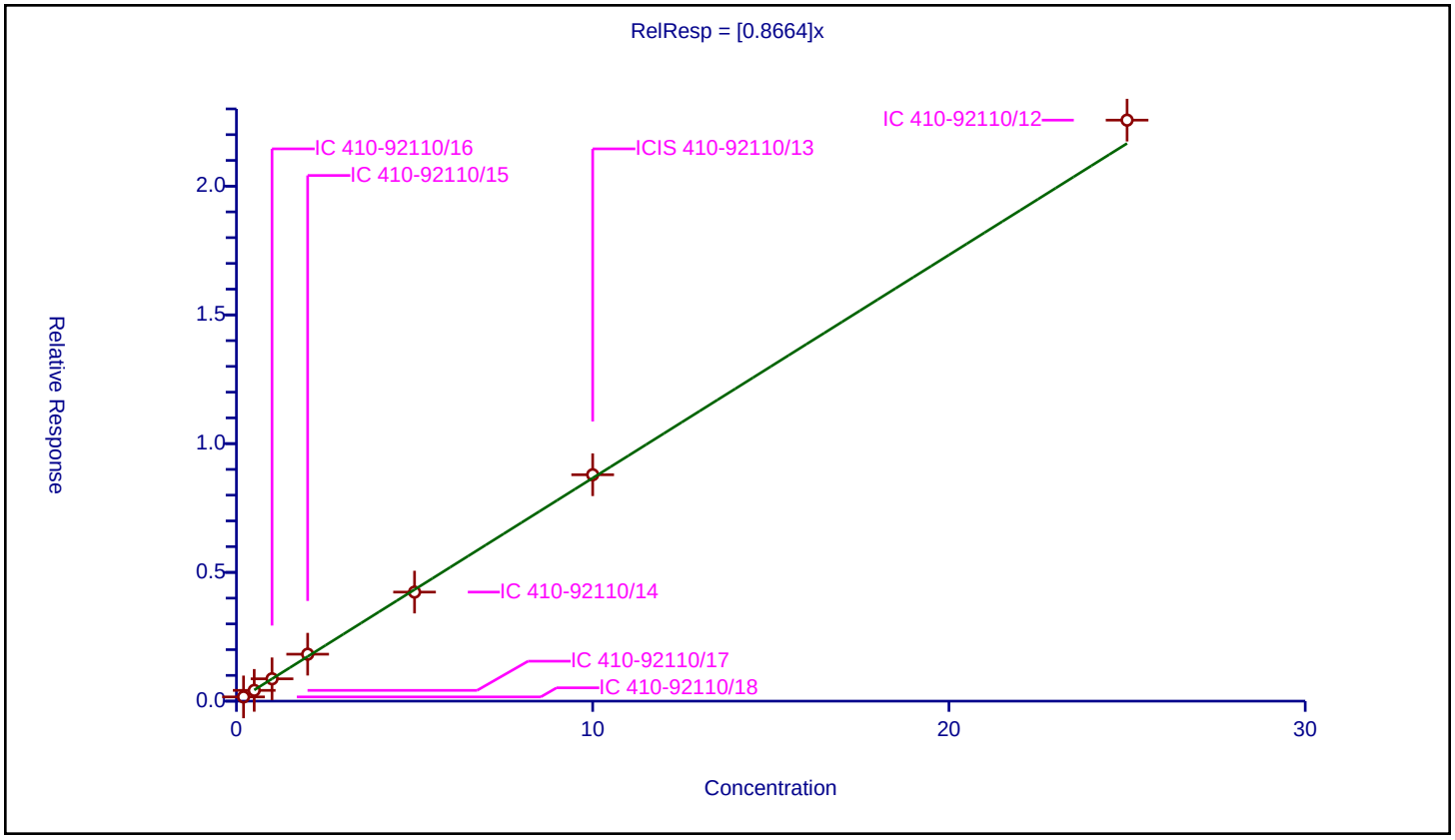
Curve Coefficients

Intercept:	0
Slope:	0.8664

Error Coefficients

Standard Error:	1780000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.164207	10.0	1704740.0	0.821034	Y
2	IC 410-92110/17	0.5	0.418025	10.0	1713701.0	0.83605	Y
3	IC 410-92110/16	1.0	0.867435	10.0	1731311.0	0.867435	Y
4	IC 410-92110/15	2.0	1.822688	10.0	1737725.0	0.911344	Y
5	IC 410-92110/14	5.0	4.235417	10.0	1740825.0	0.847083	Y
6	ICIS 410-92110/13	10.0	8.792706	10.0	1755795.0	0.879271	Y
7	IC 410-92110/12	25.0	22.5636	10.0	1766200.0	0.902544	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

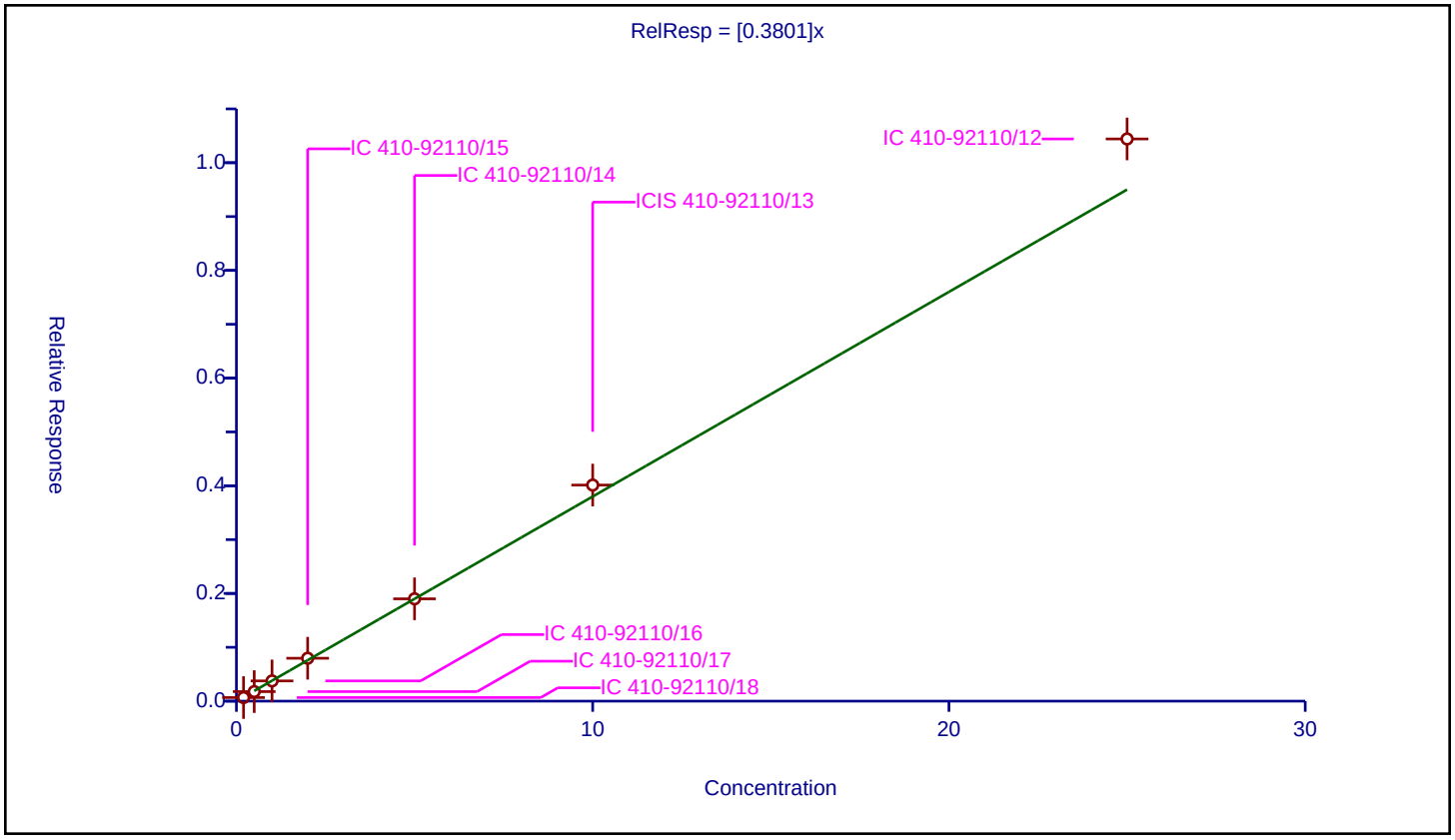
Curve Coefficients

Intercept:	0
Slope:	0.3801

Error Coefficients

Standard Error:	820000
Relative Standard Error:	7.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.066538	10.0	1704740.0	0.33269	Y
2	IC 410-92110/17	0.5	0.177423	10.0	1713701.0	0.354846	Y
3	IC 410-92110/16	1.0	0.375473	10.0	1731311.0	0.375473	Y
4	IC 410-92110/15	2.0	0.79668	10.0	1737725.0	0.39834	Y
5	IC 410-92110/14	5.0	1.900381	10.0	1740825.0	0.380076	Y
6	ICIS 410-92110/13	10.0	4.012872	10.0	1755795.0	0.401287	Y
7	IC 410-92110/12	25.0	10.441417	10.0	1766200.0	0.417657	Y



Calibration / Ethyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

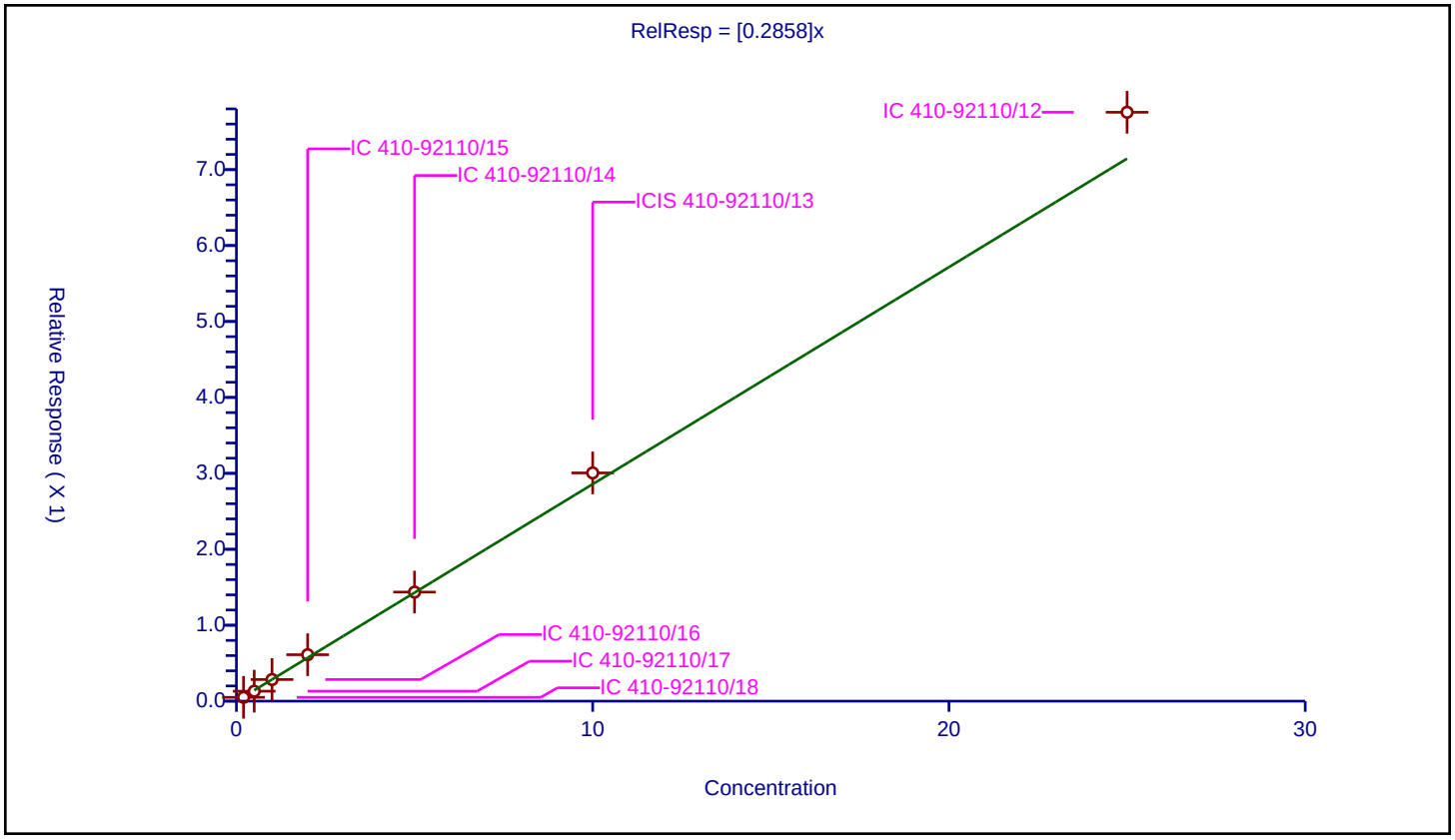
Curve Coefficients

Intercept:	0
Slope:	0.2858

Error Coefficients

Standard Error:	610000
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 410-92110/18	0.2	0.04992	10.0	1704740.0	0.249598	Y
2	IC 410-92110/17	0.5	0.131161	10.0	1713701.0	0.262321	Y
3	IC 410-92110/16	1.0	0.284796	10.0	1731311.0	0.284796	Y
4	IC 410-92110/15	2.0	0.611685	10.0	1737725.0	0.305842	Y
5	IC 410-92110/14	5.0	1.436399	10.0	1740825.0	0.28728	Y
6	ICIS 410-92110/13	10.0	3.005761	10.0	1755795.0	0.300576	Y
7	IC 410-92110/12	25.0	7.755475	10.0	1766200.0	0.310219	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

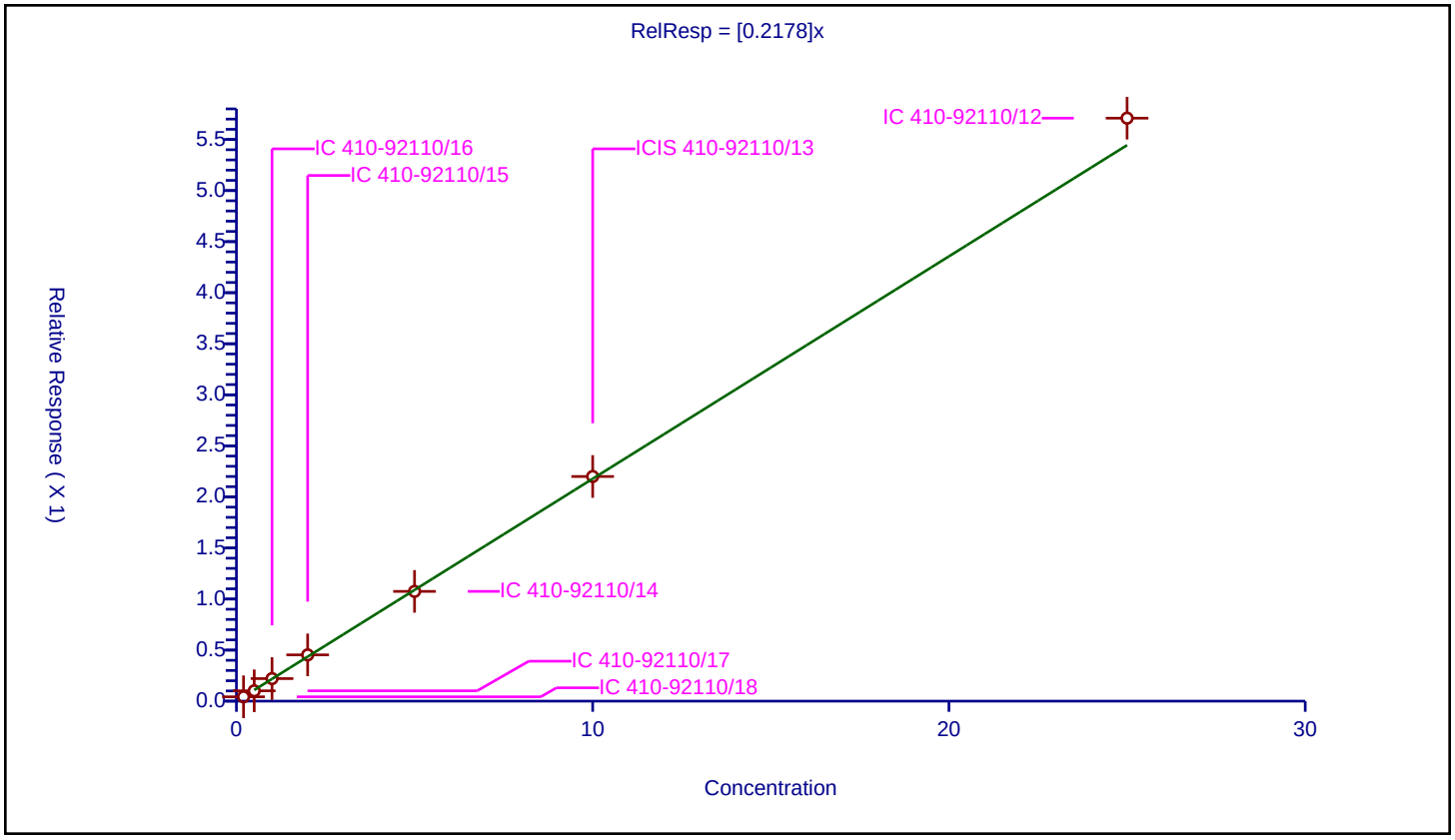
Curve Coefficients

Intercept:	0
Slope:	0.2178

Error Coefficients

Standard Error:	449000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.042364	10.0	1704740.0	0.211821	Y
2	IC 410-92110/17	0.5	0.101027	10.0	1713701.0	0.202054	Y
3	IC 410-92110/16	1.0	0.22089	10.0	1731311.0	0.22089	Y
4	IC 410-92110/15	2.0	0.452903	10.0	1737725.0	0.226451	Y
5	IC 410-92110/14	5.0	1.074795	10.0	1740825.0	0.214959	Y
6	ICIS 410-92110/13	10.0	2.200006	10.0	1755795.0	0.220001	Y
7	IC 410-92110/12	25.0	5.709195	10.0	1766200.0	0.228368	Y



Calibration / Tetrachloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

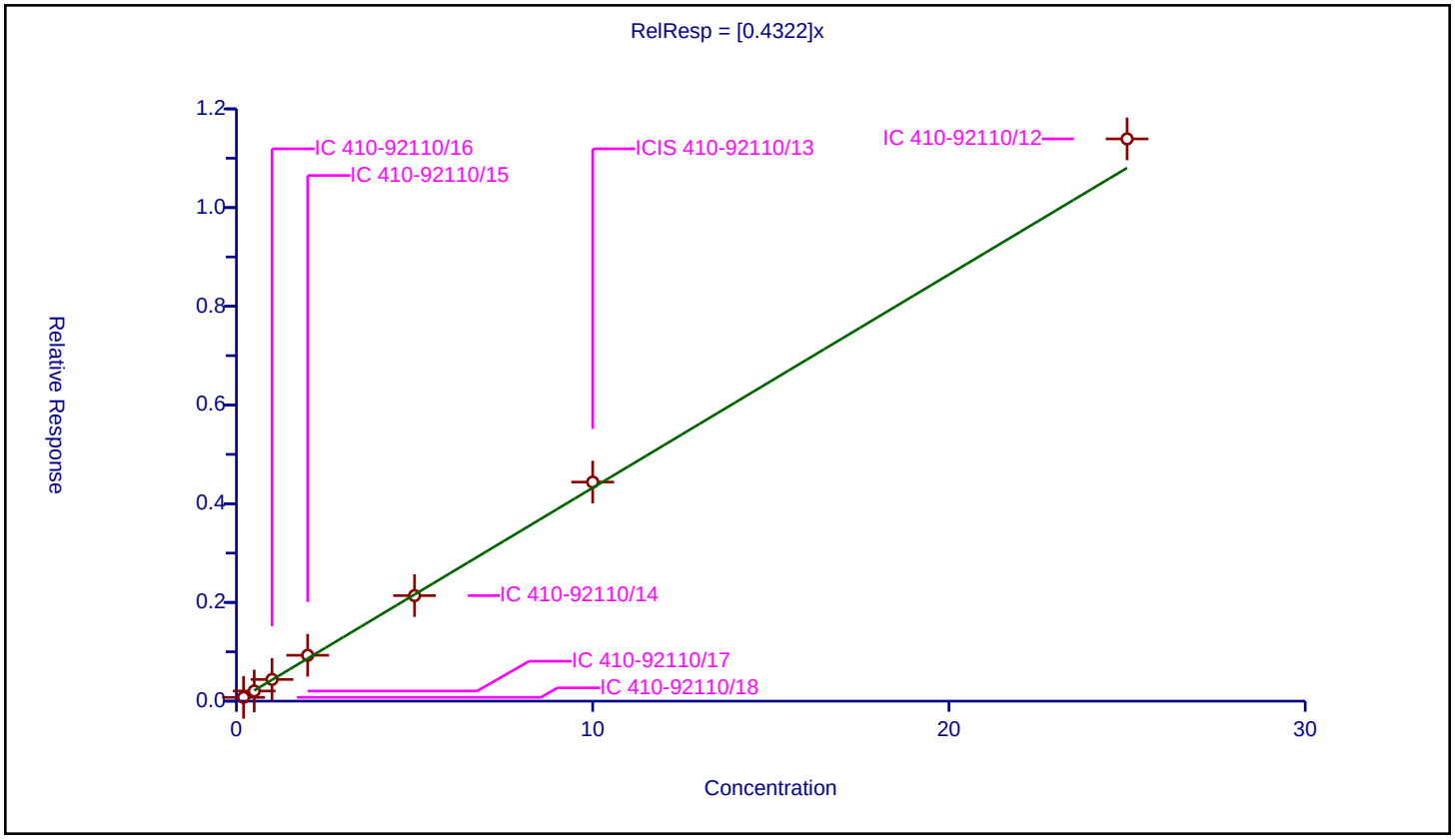
Curve Coefficients

Intercept:	0
Slope:	0.4322

Error Coefficients

Standard Error:	897000
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 410-92110/18	0.2	0.076498	10.0	1704740.0	0.382492	Y
2	IC 410-92110/17	0.5	0.205754	10.0	1713701.0	0.411507	Y
3	IC 410-92110/16	1.0	0.439314	10.0	1731311.0	0.439314	Y
4	IC 410-92110/15	2.0	0.929526	10.0	1737725.0	0.464763	Y
5	IC 410-92110/14	5.0	2.138291	10.0	1740825.0	0.427658	Y
6	ICIS 410-92110/13	10.0	4.43873	10.0	1755795.0	0.443873	Y
7	IC 410-92110/12	25.0	11.391688	10.0	1766200.0	0.455668	Y



Calibration / 1,3-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

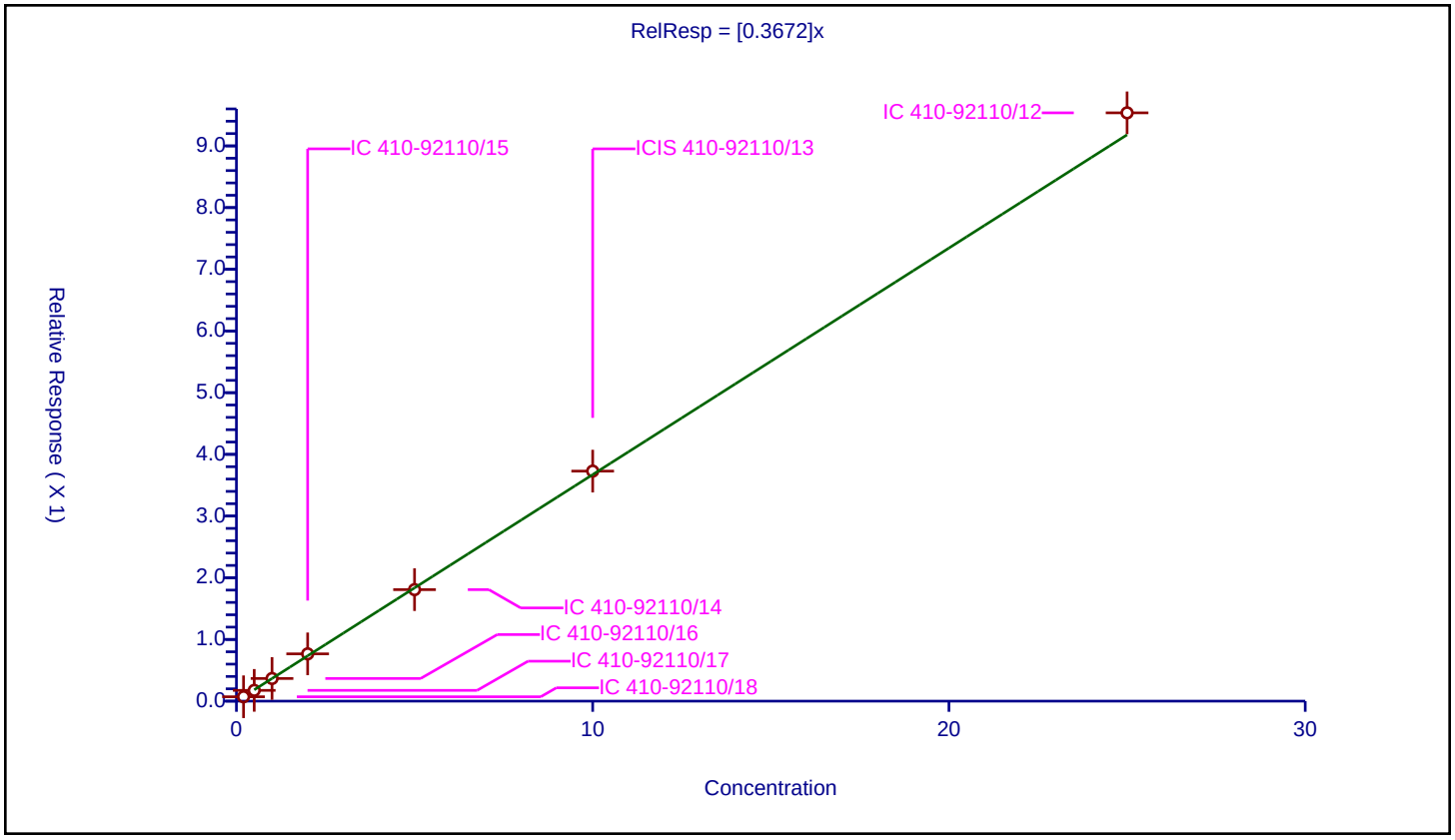
Curve Coefficients

Intercept:	0
Slope:	0.3672

Error Coefficients

Standard Error:	751000
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 410-92110/18	0.2	0.070996	10.0	1704740.0	0.354981	Y
2	IC 410-92110/17	0.5	0.17471	10.0	1713701.0	0.349419	Y
3	IC 410-92110/16	1.0	0.367092	10.0	1731311.0	0.367092	Y
4	IC 410-92110/15	2.0	0.766542	10.0	1737725.0	0.383271	Y
5	IC 410-92110/14	5.0	1.807287	10.0	1740825.0	0.361457	Y
6	ICIS 410-92110/13	10.0	3.728744	10.0	1755795.0	0.372874	Y
7	IC 410-92110/12	25.0	9.535953	10.0	1766200.0	0.381438	Y



Calibration / 2-Hexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

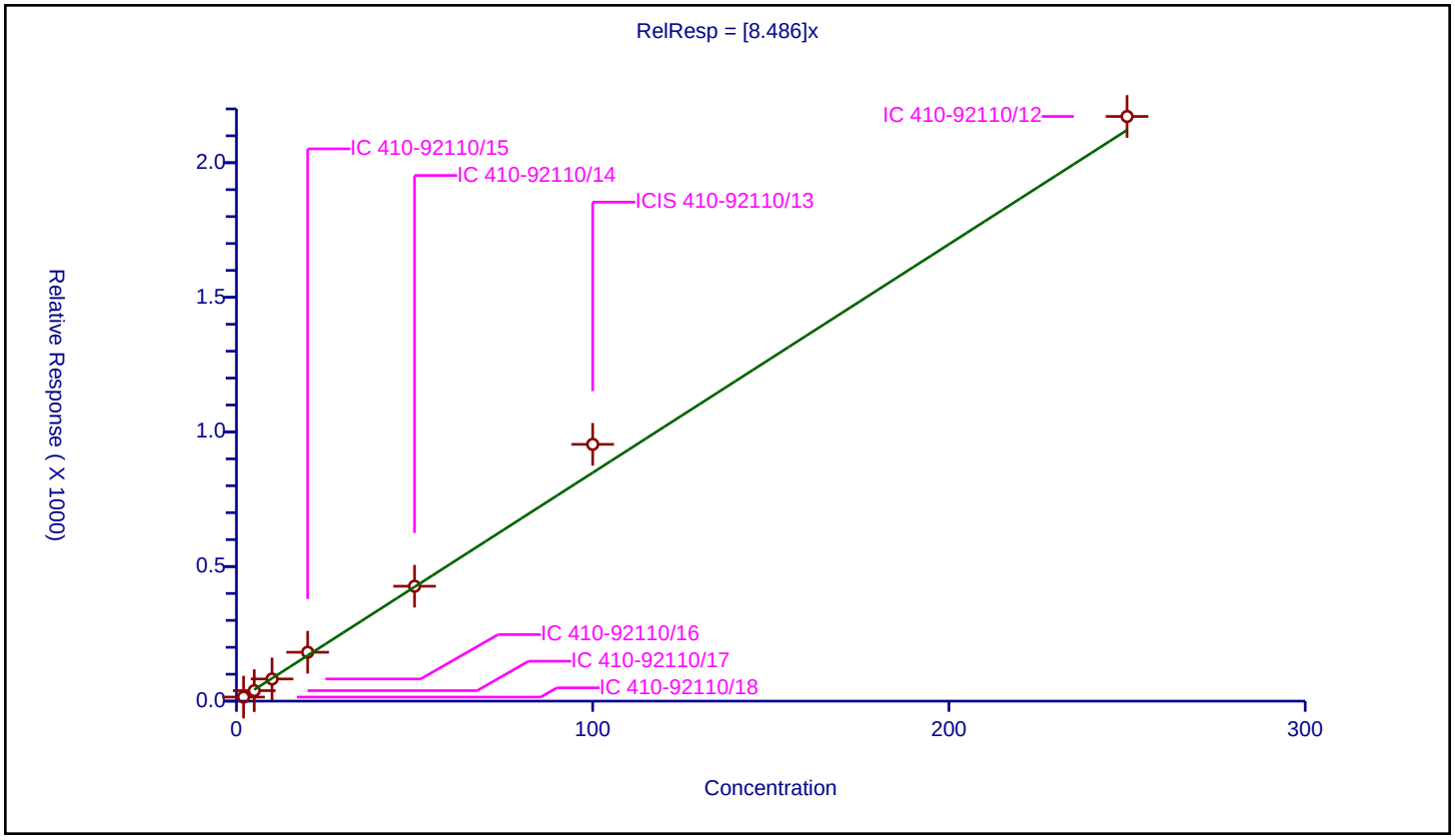
Curve Coefficients

Intercept:	0
Slope:	8.486

Error Coefficients

Standard Error:	2210000
Relative Standard Error:	8.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	2.0	15.043114	50.0	113537.0	7.521557	Y
2	IC 410-92110/17	5.0	39.008372	50.0	112754.0	7.801674	Y
3	IC 410-92110/16	10.0	82.332887	50.0	117181.0	8.233289	Y
4	IC 410-92110/15	20.0	181.584304	50.0	110547.0	9.079215	Y
5	IC 410-92110/14	50.0	426.875961	50.0	109304.0	8.537519	Y
6	ICIS 410-92110/13	100.0	953.896495	50.0	101309.0	9.538965	Y
7	IC 410-92110/12	250.0	2171.897682	50.0	114076.0	8.687591	Y



Calibration / Chlorodibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

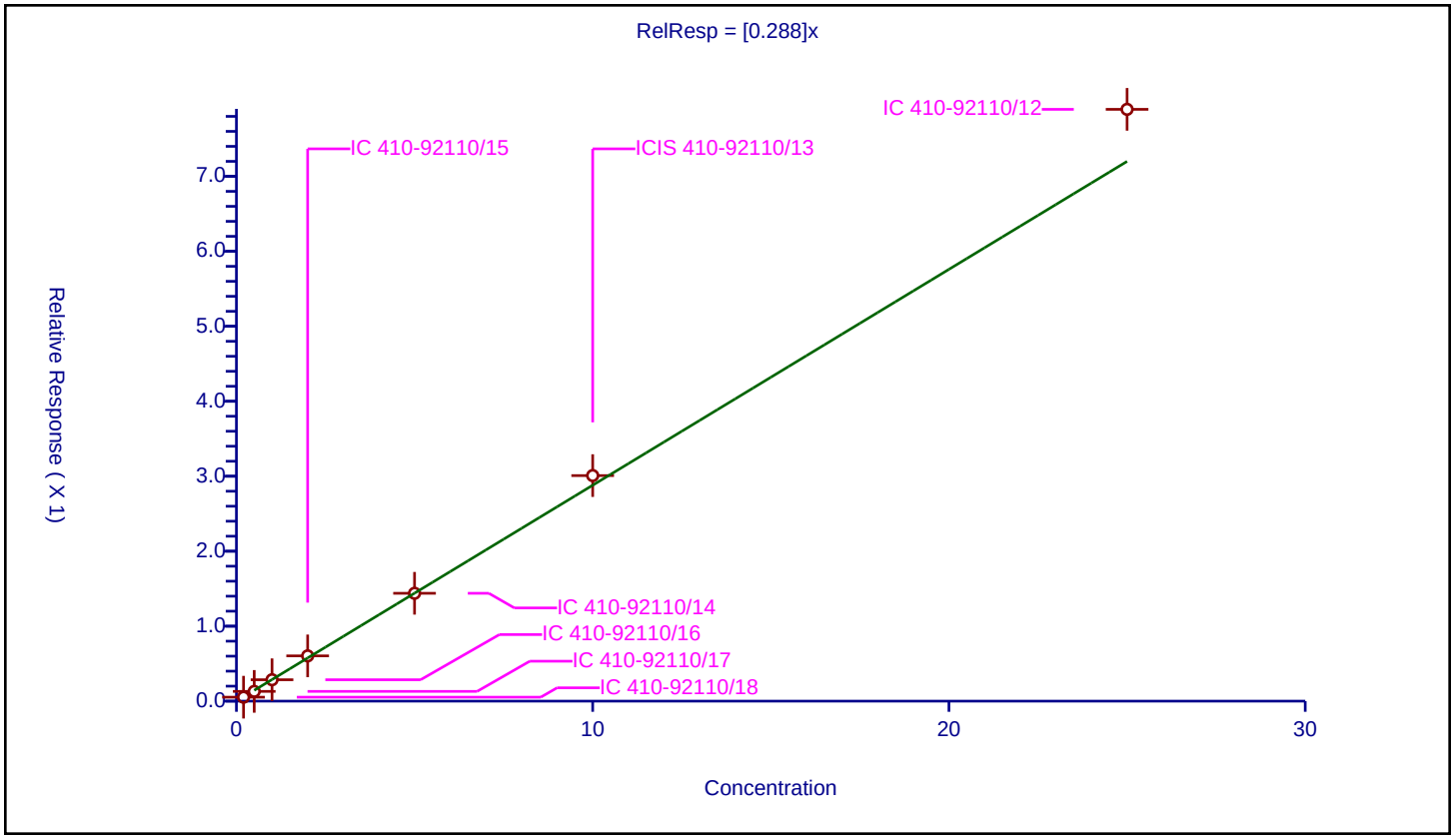
Curve Coefficients

Intercept:	0
Slope:	0.288

Error Coefficients

Standard Error:	619000
Relative Standard Error:	7.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.052724	10.0	1704740.0	0.263618	Y
2	IC 410-92110/17	0.5	0.130233	10.0	1713701.0	0.260466	Y
3	IC 410-92110/16	1.0	0.285604	10.0	1731311.0	0.285604	Y
4	IC 410-92110/15	2.0	0.603738	10.0	1737725.0	0.301869	Y
5	IC 410-92110/14	5.0	1.4386	10.0	1740825.0	0.28772	Y
6	ICIS 410-92110/13	10.0	3.008671	10.0	1755795.0	0.300867	Y
7	IC 410-92110/12	25.0	7.893829	10.0	1766200.0	0.315753	Y



Calibration / Ethylene Dibromide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

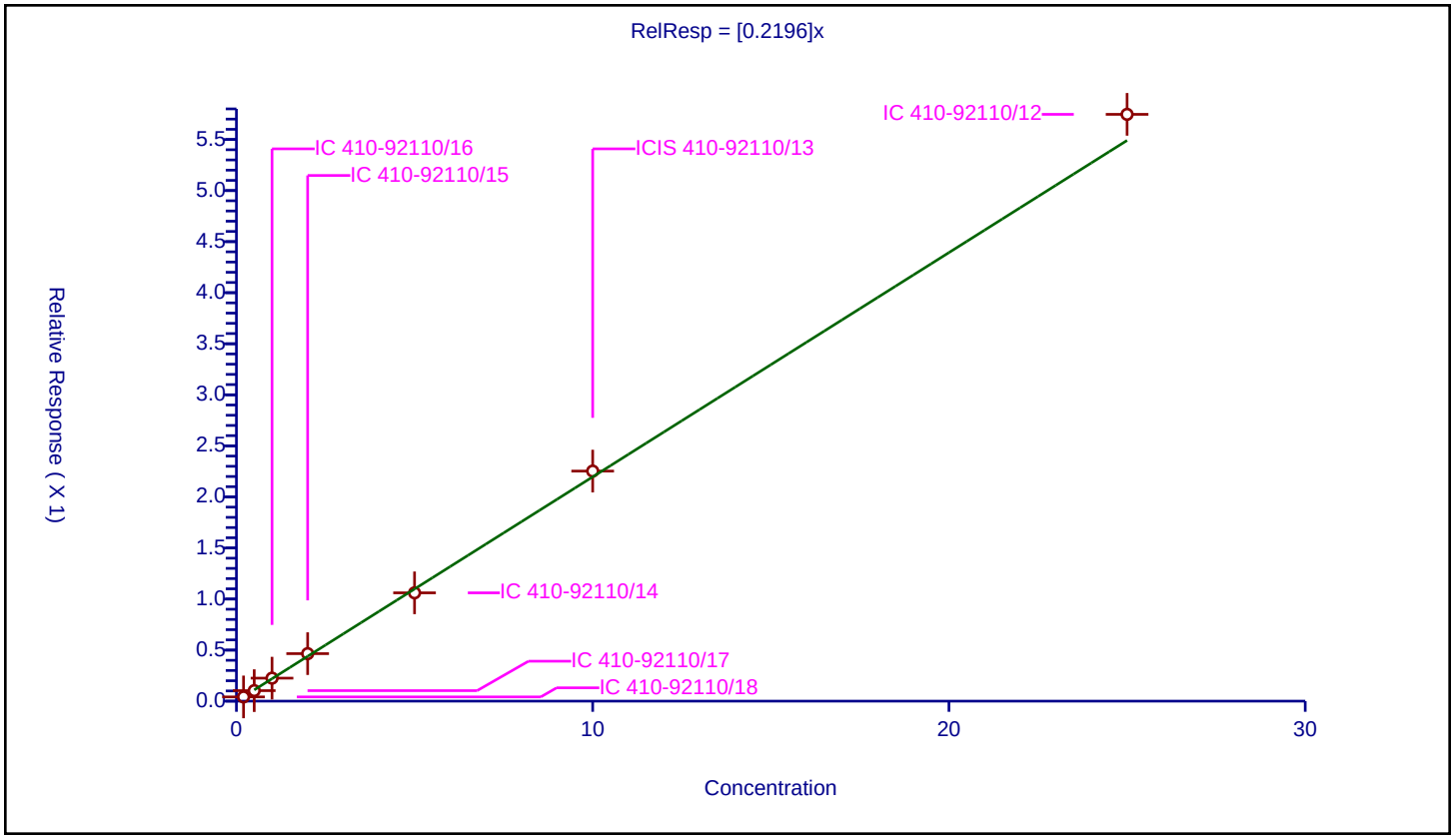
Curve Coefficients

Intercept:	0
Slope:	0.2196

Error Coefficients

Standard Error:	453000
Relative Standard Error:	5.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.041338	10.0	1704740.0	0.206688	Y
2	IC 410-92110/17	0.5	0.102923	10.0	1713701.0	0.205847	Y
3	IC 410-92110/16	1.0	0.225113	10.0	1731311.0	0.225113	Y
4	IC 410-92110/15	2.0	0.465217	10.0	1737725.0	0.232609	Y
5	IC 410-92110/14	5.0	1.060566	10.0	1740825.0	0.212113	Y
6	ICIS 410-92110/13	10.0	2.252866	10.0	1755795.0	0.225287	Y
7	IC 410-92110/12	25.0	5.746484	10.0	1766200.0	0.229859	Y



Calibration / 1-Chlorohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

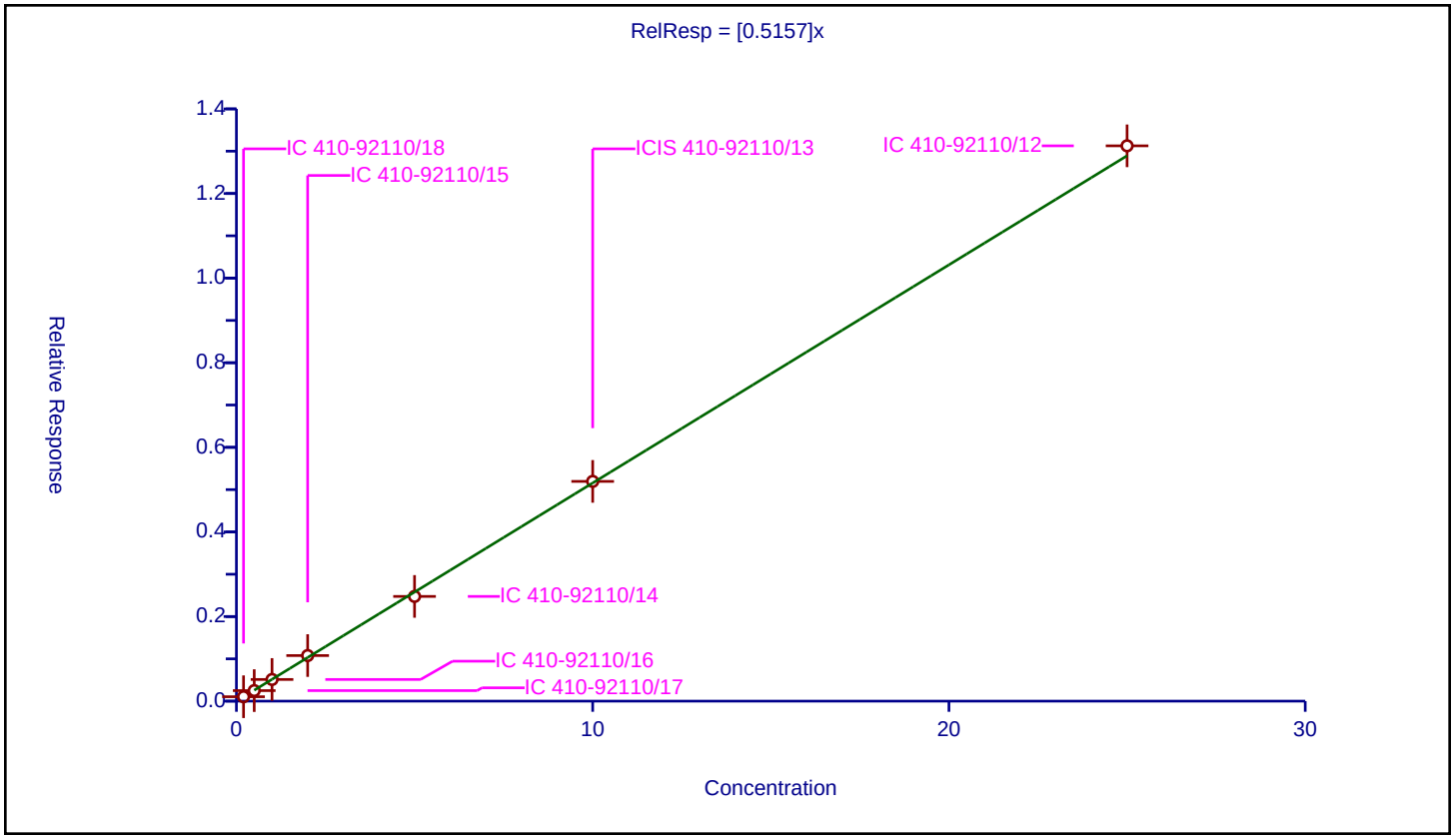
Curve Coefficients

Intercept:	0
Slope:	0.5157

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 410-92110/18	0.2	0.104157	10.0	1704740.0	0.520783	Y
2	IC 410-92110/17	0.5	0.249268	10.0	1713701.0	0.498535	Y
3	IC 410-92110/16	1.0	0.512063	10.0	1731311.0	0.512063	Y
4	IC 410-92110/15	2.0	1.077685	10.0	1737725.0	0.538842	Y
5	IC 410-92110/14	5.0	2.475292	10.0	1740825.0	0.495058	Y
6	ICIS 410-92110/13	10.0	5.194729	10.0	1755795.0	0.519473	Y
7	IC 410-92110/12	25.0	13.126894	10.0	1766200.0	0.525076	Y



Calibration / Chlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

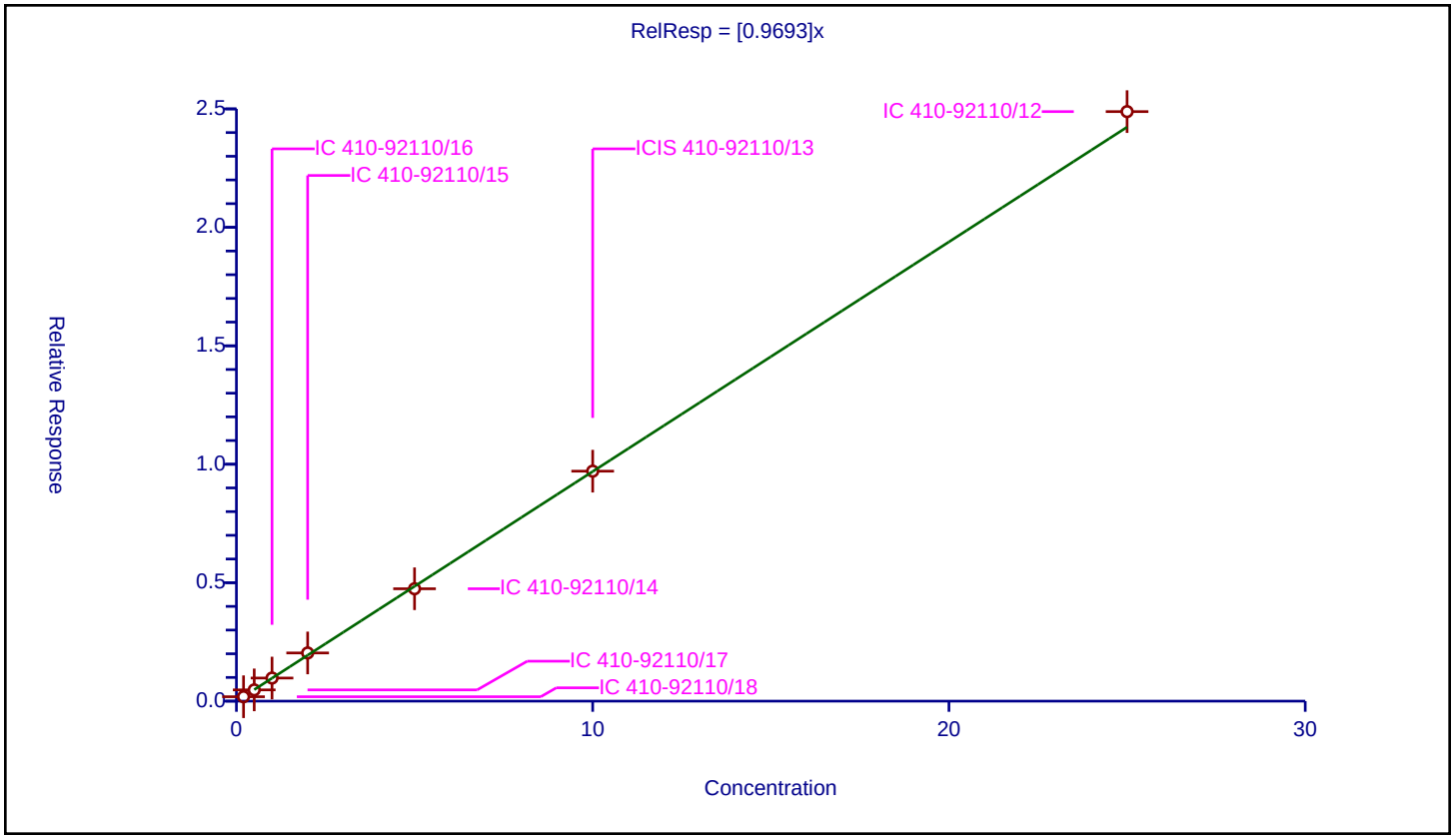
Curve Coefficients

Intercept:	0
Slope:	0.9693

Error Coefficients

Standard Error:	1960000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.185653	10.0	1704740.0	0.928265	Y
2	IC 410-92110/17	0.5	0.474616	10.0	1713701.0	0.949232	Y
3	IC 410-92110/16	1.0	0.975625	10.0	1731311.0	0.975625	Y
4	IC 410-92110/15	2.0	2.03405	10.0	1737725.0	1.017025	Y
5	IC 410-92110/14	5.0	4.743894	10.0	1740825.0	0.948779	Y
6	ICIS 410-92110/13	10.0	9.707084	10.0	1755795.0	0.970708	Y
7	IC 410-92110/12	25.0	24.8855	10.0	1766200.0	0.99542	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

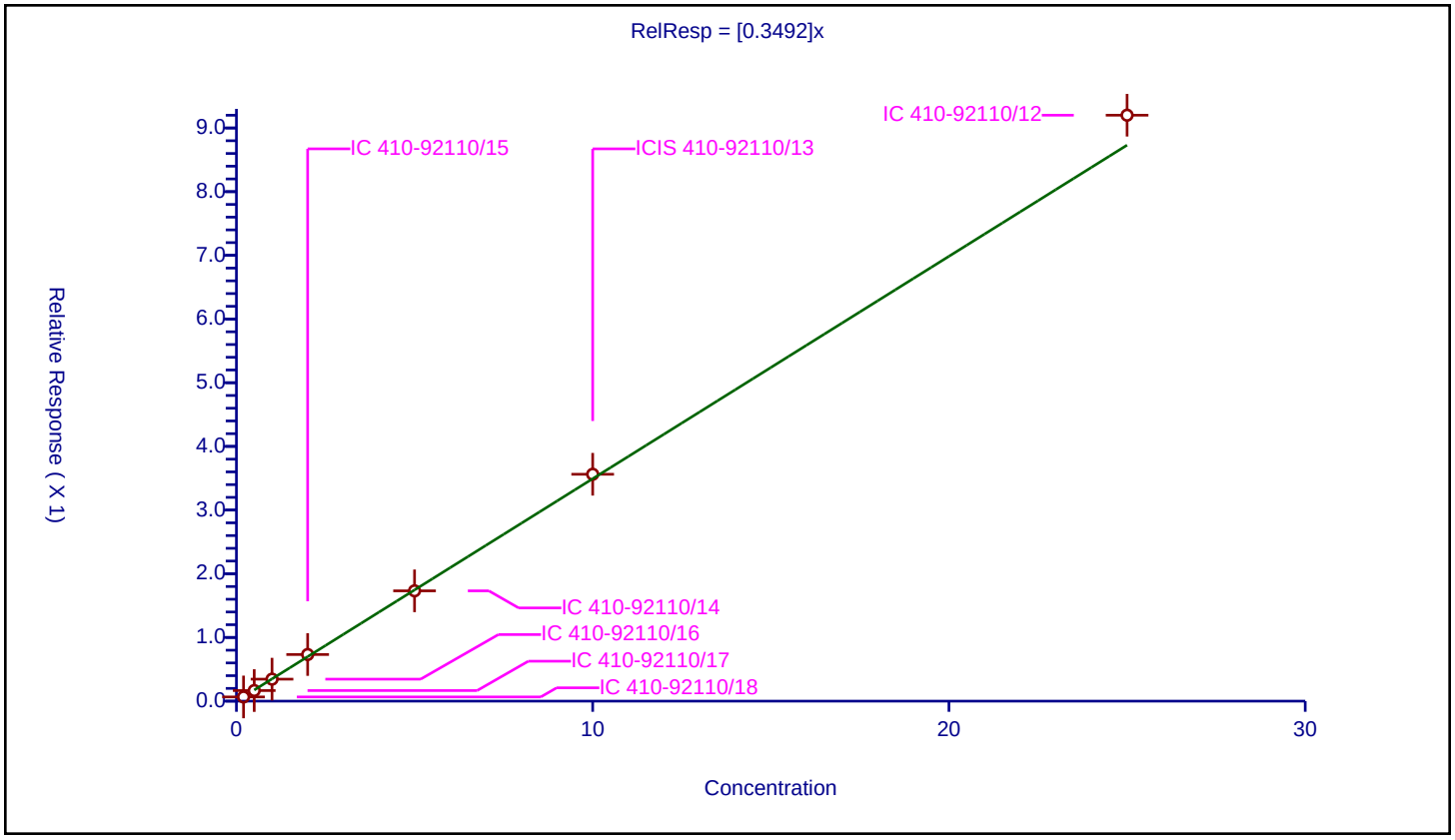
Curve Coefficients

Intercept:	0
Slope:	0.3492

Error Coefficients

Standard Error:	724000
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 410-92110/18	0.2	0.065946	10.0	1704740.0	0.329728	Y
2	IC 410-92110/17	0.5	0.166447	10.0	1713701.0	0.332894	Y
3	IC 410-92110/16	1.0	0.345287	10.0	1731311.0	0.345287	Y
4	IC 410-92110/15	2.0	0.732089	10.0	1737725.0	0.366045	Y
5	IC 410-92110/14	5.0	1.732219	10.0	1740825.0	0.346444	Y
6	ICIS 410-92110/13	10.0	3.562785	10.0	1755795.0	0.356278	Y
7	IC 410-92110/12	25.0	9.201059	10.0	1766200.0	0.368042	Y



Calibration / Ethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

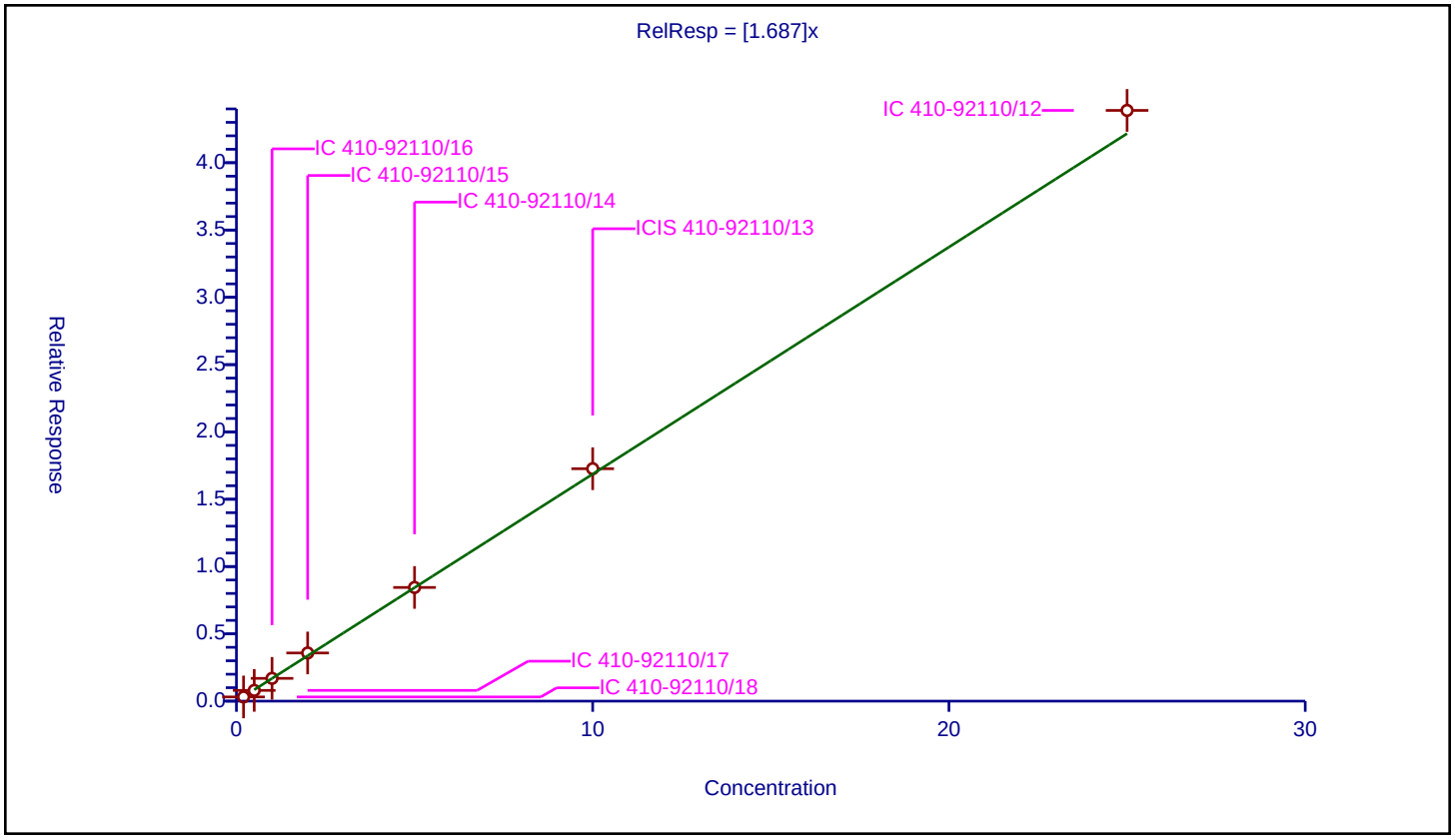
Curve Coefficients

Intercept:	0
Slope:	1.687

Error Coefficients

Standard Error:	3460000
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 410-92110/18	0.2	0.311408	10.0	1704740.0	1.557041	Y
2	IC 410-92110/17	0.5	0.79773	10.0	1713701.0	1.595459	Y
3	IC 410-92110/16	1.0	1.693035	10.0	1731311.0	1.693035	Y
4	IC 410-92110/15	2.0	3.579105	10.0	1737725.0	1.789552	Y
5	IC 410-92110/14	5.0	8.44638	10.0	1740825.0	1.689276	Y
6	ICIS 410-92110/13	10.0	17.26758	10.0	1755795.0	1.726758	Y
7	IC 410-92110/12	25.0	43.887351	10.0	1766200.0	1.755494	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

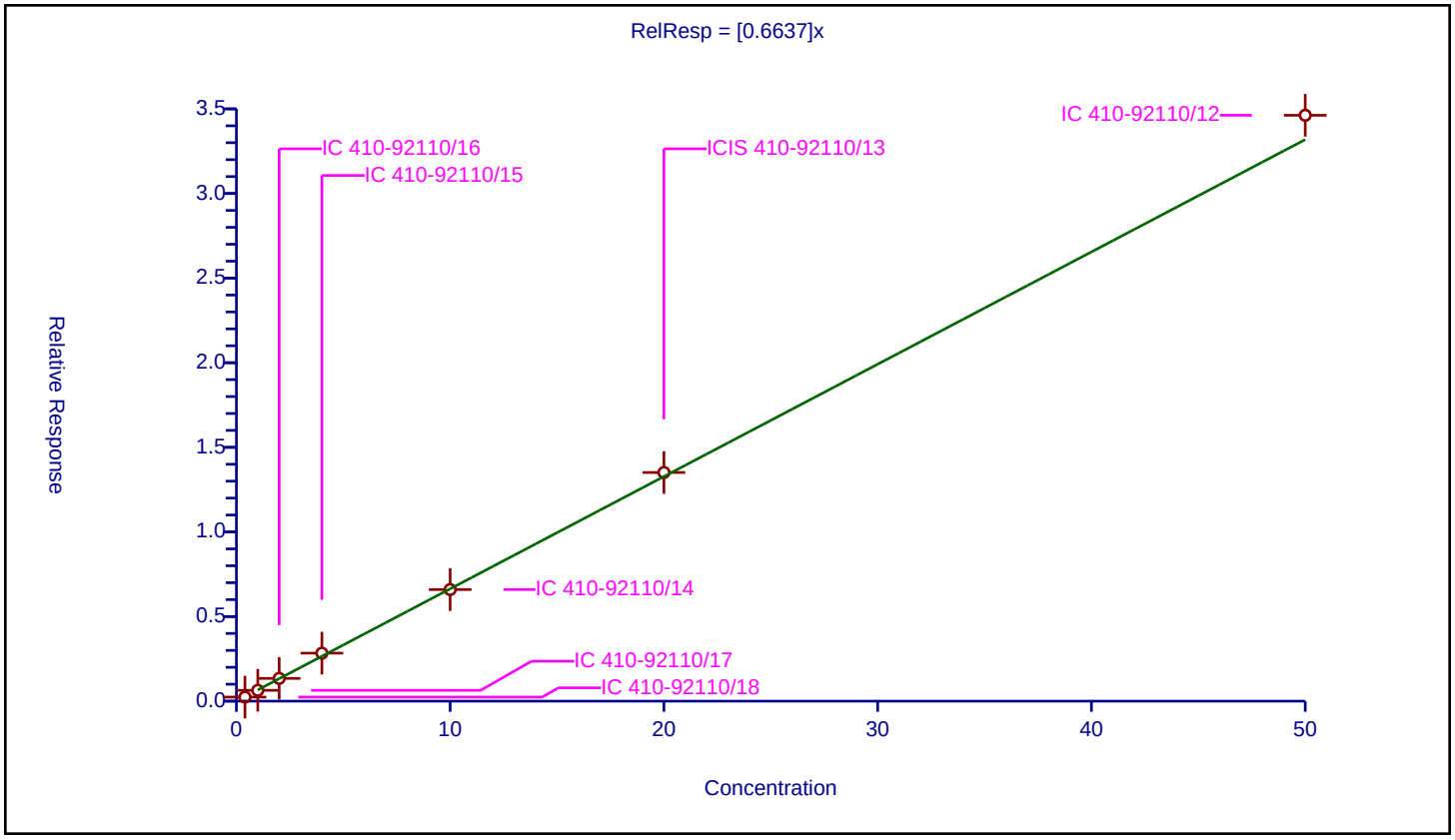
Curve Coefficients

Intercept:	0
Slope:	0.6637

Error Coefficients

Standard Error:	2730000
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.4	0.23928	10.0	1704740.0	0.5982	Y
2	IC 410-92110/17	1.0	0.639114	10.0	1713701.0	0.639114	Y
3	IC 410-92110/16	2.0	1.34397	10.0	1731311.0	0.671985	Y
4	IC 410-92110/15	4.0	2.836318	10.0	1737725.0	0.709079	Y
5	IC 410-92110/14	10.0	6.594379	10.0	1740825.0	0.659438	Y
6	ICIS 410-92110/13	20.0	13.513383	10.0	1755795.0	0.675669	Y
7	IC 410-92110/12	50.0	34.62271	10.0	1766200.0	0.692454	Y



Calibration / o-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

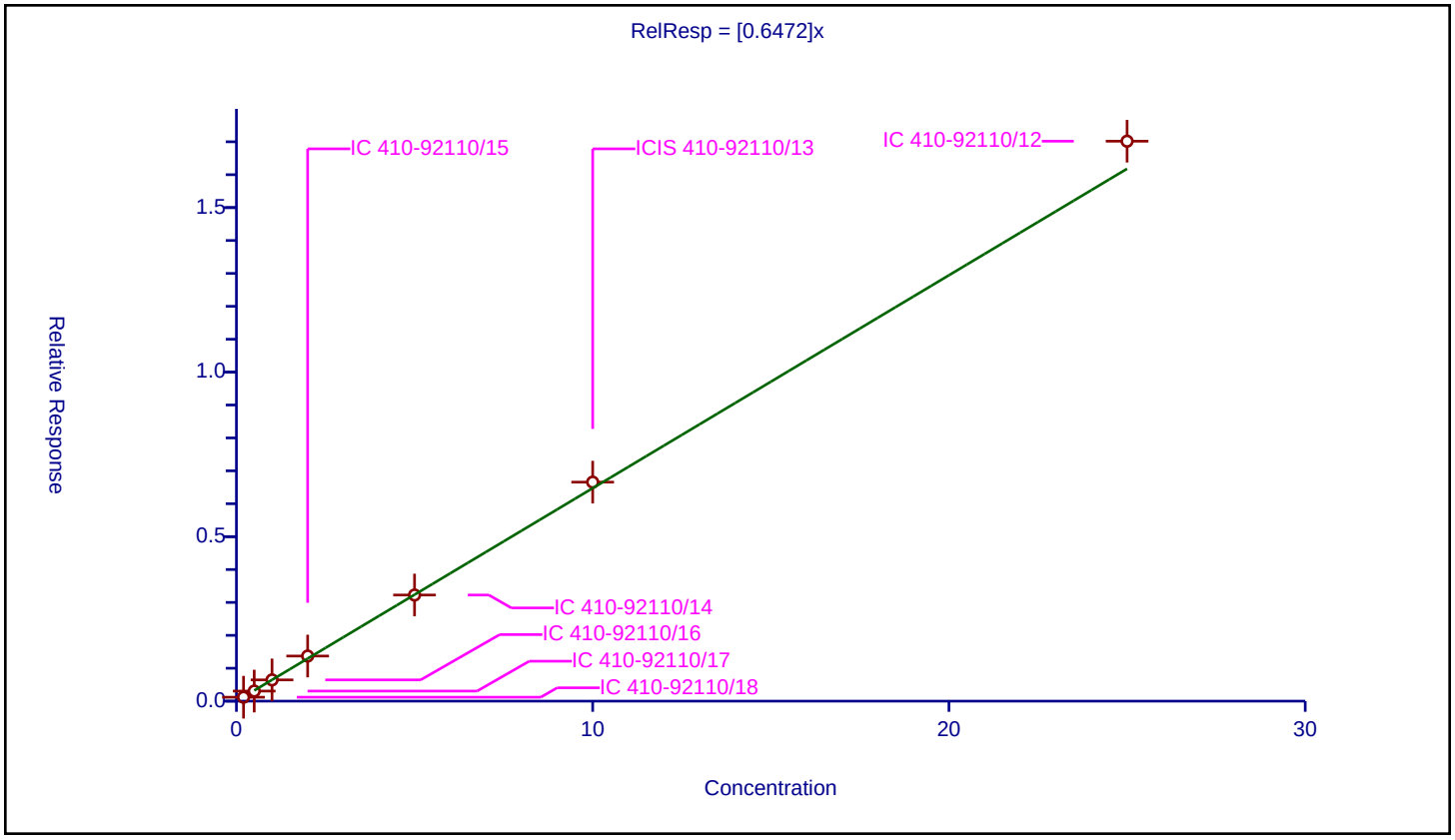
Curve Coefficients

Intercept:	0
Slope:	0.6472

Error Coefficients

Standard Error:	1340000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.119144	10.0	1704740.0	0.595721	Y
2	IC 410-92110/17	0.5	0.306226	10.0	1713701.0	0.612452	Y
3	IC 410-92110/16	1.0	0.64543	10.0	1731311.0	0.64543	Y
4	IC 410-92110/15	2.0	1.370654	10.0	1737725.0	0.685327	Y
5	IC 410-92110/14	5.0	3.225603	10.0	1740825.0	0.645121	Y
6	ICIS 410-92110/13	10.0	6.655674	10.0	1755795.0	0.665567	Y
7	IC 410-92110/12	25.0	17.018214	10.0	1766200.0	0.680729	Y



Calibration / Styrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

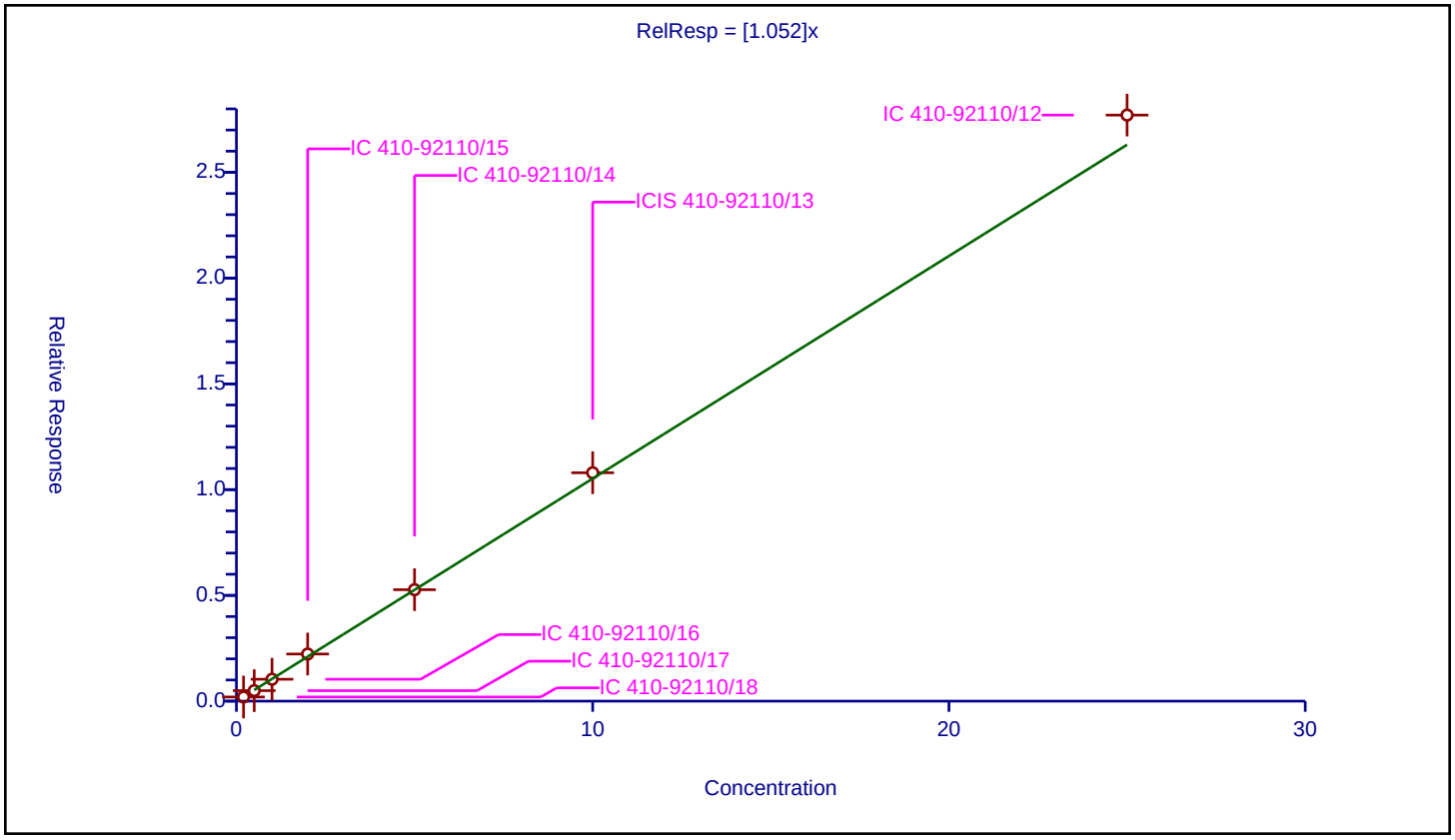
Curve Coefficients

Intercept:	0
Slope:	1.052

Error Coefficients

Standard Error:	2180000
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 410-92110/18	0.2	0.195801	10.0	1704740.0	0.979006	Y
2	IC 410-92110/17	0.5	0.497199	10.0	1713701.0	0.994398	Y
3	IC 410-92110/16	1.0	1.036036	10.0	1731311.0	1.036036	Y
4	IC 410-92110/15	2.0	2.22873	10.0	1737725.0	1.114365	Y
5	IC 410-92110/14	5.0	5.268893	10.0	1740825.0	1.053779	Y
6	ICIS 410-92110/13	10.0	10.797969	10.0	1755795.0	1.079797	Y
7	IC 410-92110/12	25.0	27.706885	10.0	1766200.0	1.108275	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

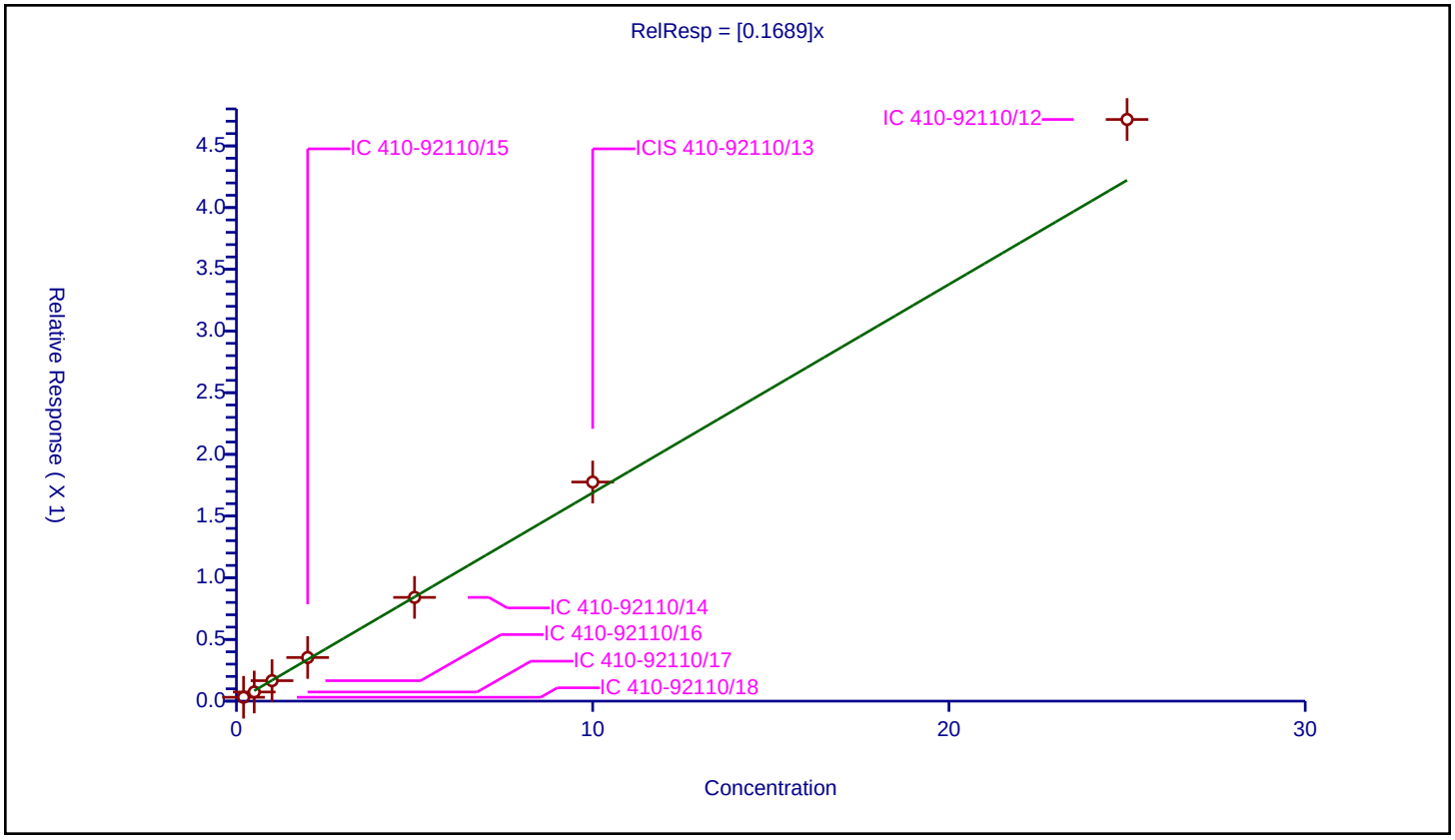
Curve Coefficients

Intercept:	0
Slope:	0.1689

Error Coefficients

Standard Error:	369000
Relative Standard Error:	8.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.031354	10.0	1704740.0	0.156769	Y
2	IC 410-92110/17	0.5	0.074214	10.0	1713701.0	0.148427	Y
3	IC 410-92110/16	1.0	0.165903	10.0	1731311.0	0.165903	Y
4	IC 410-92110/15	2.0	0.353491	10.0	1737725.0	0.176745	Y
5	IC 410-92110/14	5.0	0.840969	10.0	1740825.0	0.168194	Y
6	ICIS 410-92110/13	10.0	1.775743	10.0	1755795.0	0.177574	Y
7	IC 410-92110/12	25.0	4.714375	10.0	1766200.0	0.188575	Y



Calibration / Isopropylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

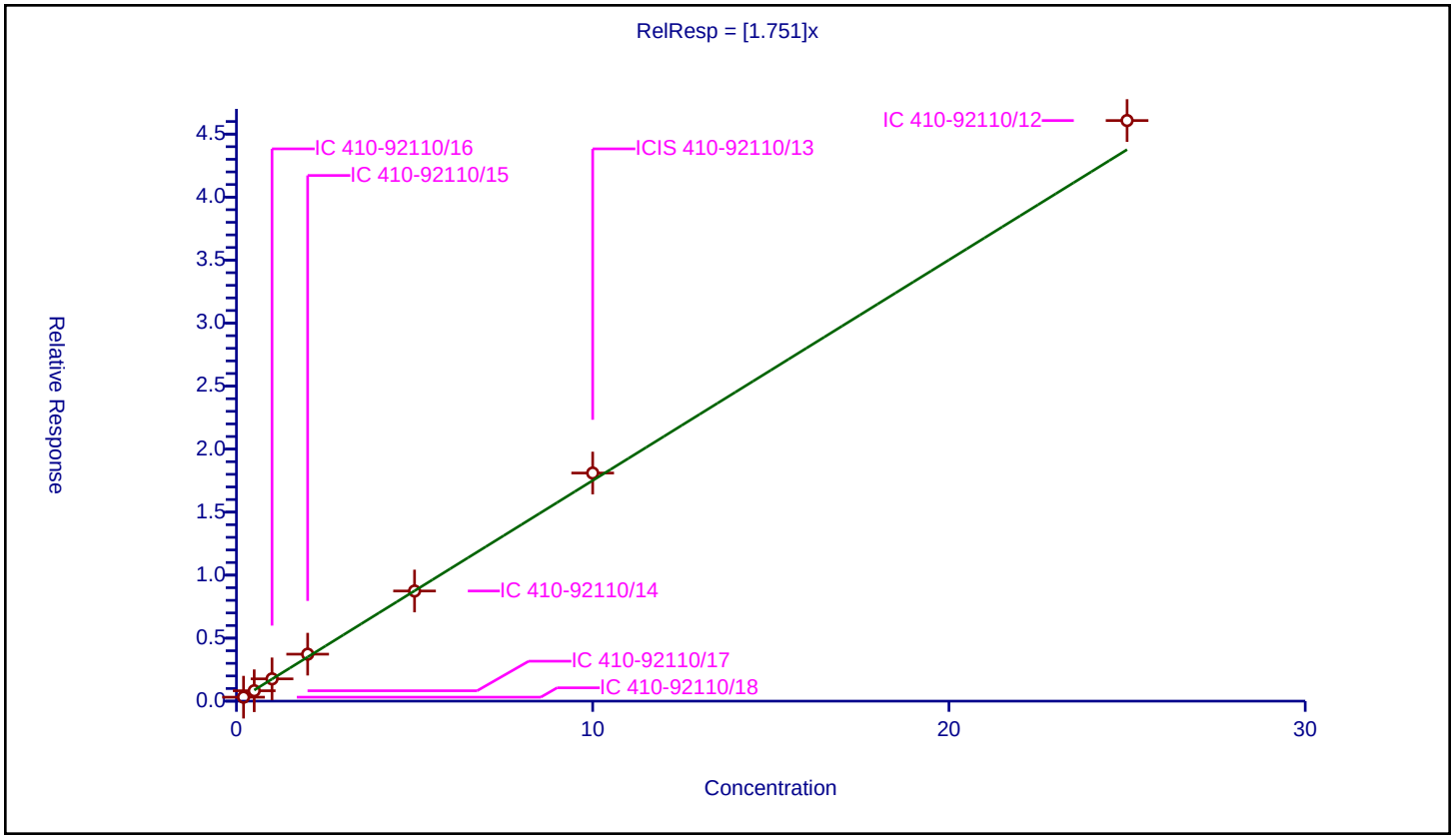
Curve Coefficients

Intercept:	0
Slope:	1.751

Error Coefficients

Standard Error:	3630000
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 410-92110/18	0.2	0.314165	10.0	1704740.0	1.570826	Y
2	IC 410-92110/17	0.5	0.825646	10.0	1713701.0	1.651292	Y
3	IC 410-92110/16	1.0	1.768458	10.0	1731311.0	1.768458	Y
4	IC 410-92110/15	2.0	3.727477	10.0	1737725.0	1.863739	Y
5	IC 410-92110/14	5.0	8.739954	10.0	1740825.0	1.747991	Y
6	ICIS 410-92110/13	10.0	18.102182	10.0	1755795.0	1.810218	Y
7	IC 410-92110/12	25.0	46.075971	10.0	1766200.0	1.843039	Y



Calibration / 4-Bromofluorobenzene (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

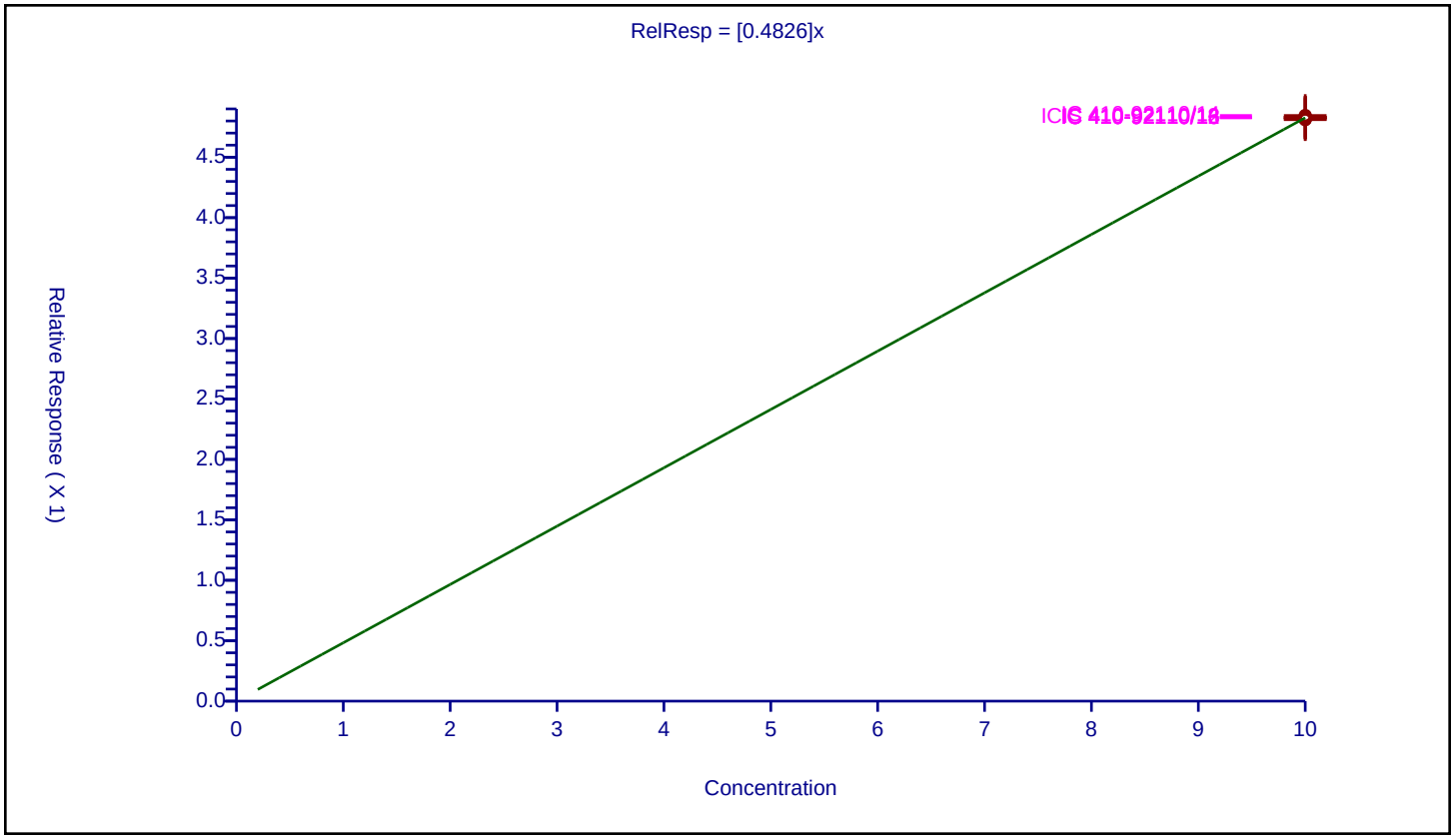
Curve Coefficients

Intercept:	0
Slope:	0.4826

Error Coefficients

Standard Error:	905000
Relative Standard Error:	0.2
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/12	10.0	4.827596	10.0	1766200.0	0.48276	Y
2	ICIS 410-92110/13	10.0	4.831333	10.0	1755795.0	0.483133	Y
3	IC 410-92110/14	10.0	4.845364	10.0	1740825.0	0.484536	Y
4	IC 410-92110/15	10.0	4.815129	10.0	1737725.0	0.481513	Y
5	IC 410-92110/16	10.0	4.828093	10.0	1731311.0	0.482809	Y
6	IC 410-92110/17	10.0	4.810734	10.0	1713701.0	0.481073	Y
7	IC 410-92110/18	10.0	4.826654	10.0	1704740.0	0.482665	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

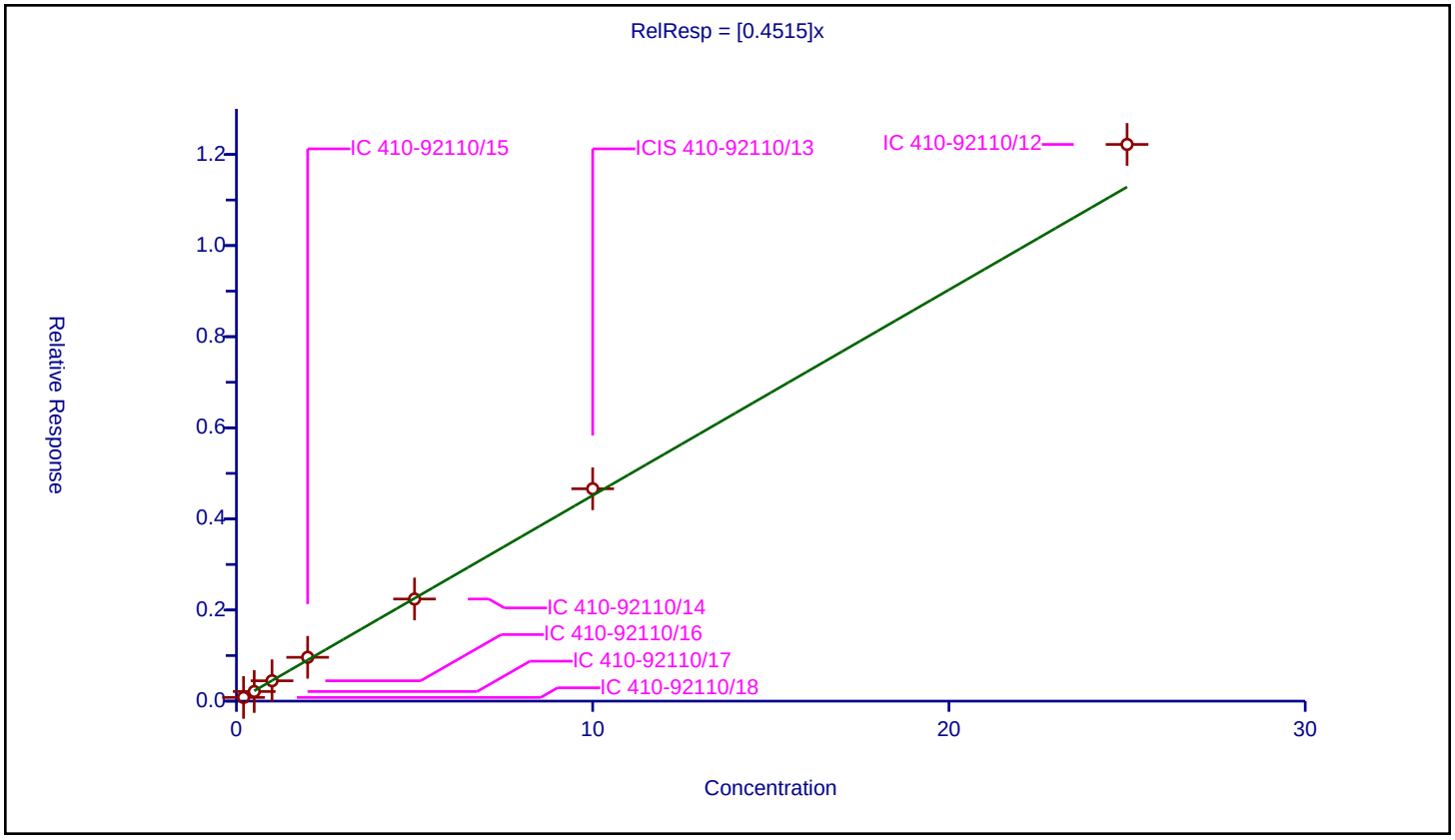
Curve Coefficients

Intercept:	0
Slope:	0.4515

Error Coefficients

Standard Error:	521000
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 410-92110/18	0.2	0.081238	10.0	966789.0	0.40619	Y
2	IC 410-92110/17	0.5	0.211431	10.0	964571.0	0.422862	Y
3	IC 410-92110/16	1.0	0.446936	10.0	972019.0	0.446936	Y
4	IC 410-92110/15	2.0	0.961941	10.0	976099.0	0.480971	Y
5	IC 410-92110/14	5.0	2.241616	10.0	964960.0	0.448323	Y
6	ICIS 410-92110/13	10.0	4.661224	10.0	960975.0	0.466122	Y
7	IC 410-92110/12	25.0	12.22015	10.0	958836.0	0.488806	Y



Calibration / Bromobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

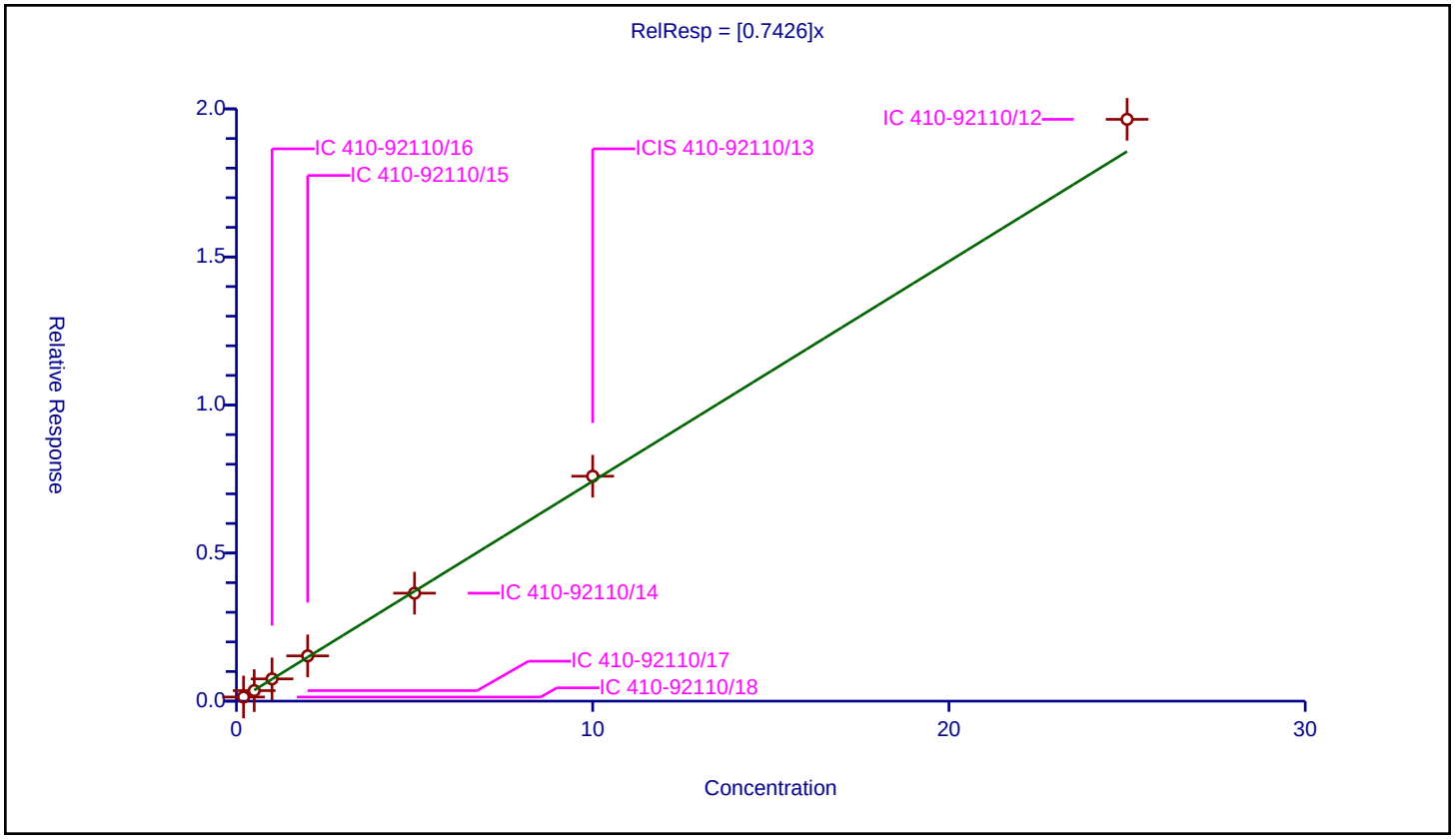
Curve Coefficients

Intercept:	0
Slope:	0.7426

Error Coefficients

Standard Error:	840000
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 410-92110/18	0.2	0.13912	10.0	966789.0	0.695602	Y
2	IC 410-92110/17	0.5	0.35592	10.0	964571.0	0.71184	Y
3	IC 410-92110/16	1.0	0.751467	10.0	972019.0	0.751467	Y
4	IC 410-92110/15	2.0	1.528738	10.0	976099.0	0.764369	Y
5	IC 410-92110/14	5.0	3.645571	10.0	964960.0	0.729114	Y
6	ICIS 410-92110/13	10.0	7.595952	10.0	960975.0	0.759595	Y
7	IC 410-92110/12	25.0	19.647437	10.0	958836.0	0.785897	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

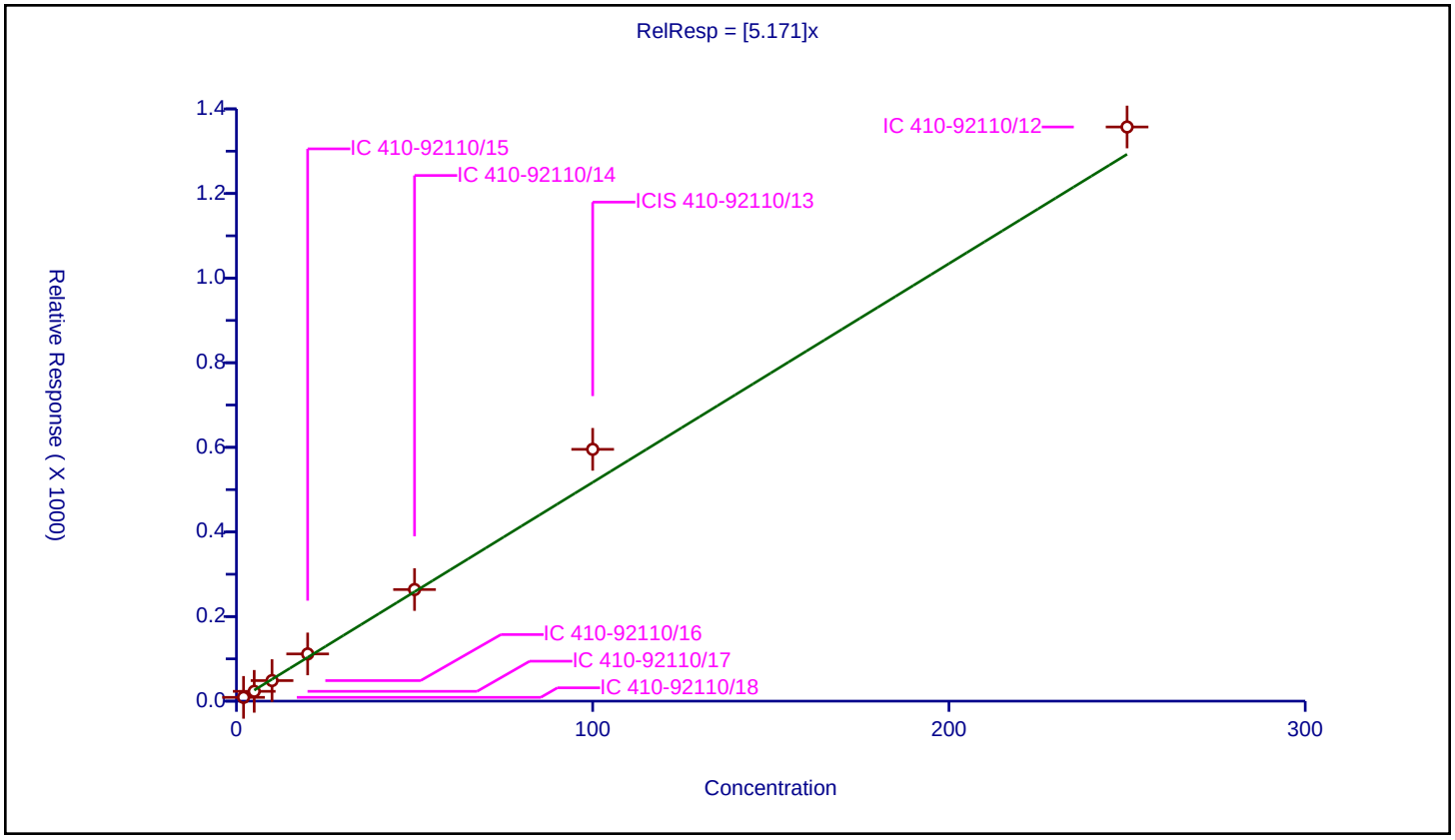
Curve Coefficients

Intercept:	0
Slope:	5.171

Error Coefficients

Standard Error:	1380000
Relative Standard Error:	10.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	2.0	8.919559	50.0	113537.0	4.45978	Y
2	IC 410-92110/17	5.0	23.228444	50.0	112754.0	4.645689	Y
3	IC 410-92110/16	10.0	48.574001	50.0	117181.0	4.8574	Y
4	IC 410-92110/15	20.0	111.583308	50.0	110547.0	5.579165	Y
5	IC 410-92110/14	50.0	263.814682	50.0	109304.0	5.276294	Y
6	ICIS 410-92110/13	100.0	595.224018	50.0	101309.0	5.95224	Y
7	IC 410-92110/12	250.0	1357.225446	50.0	114076.0	5.428902	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

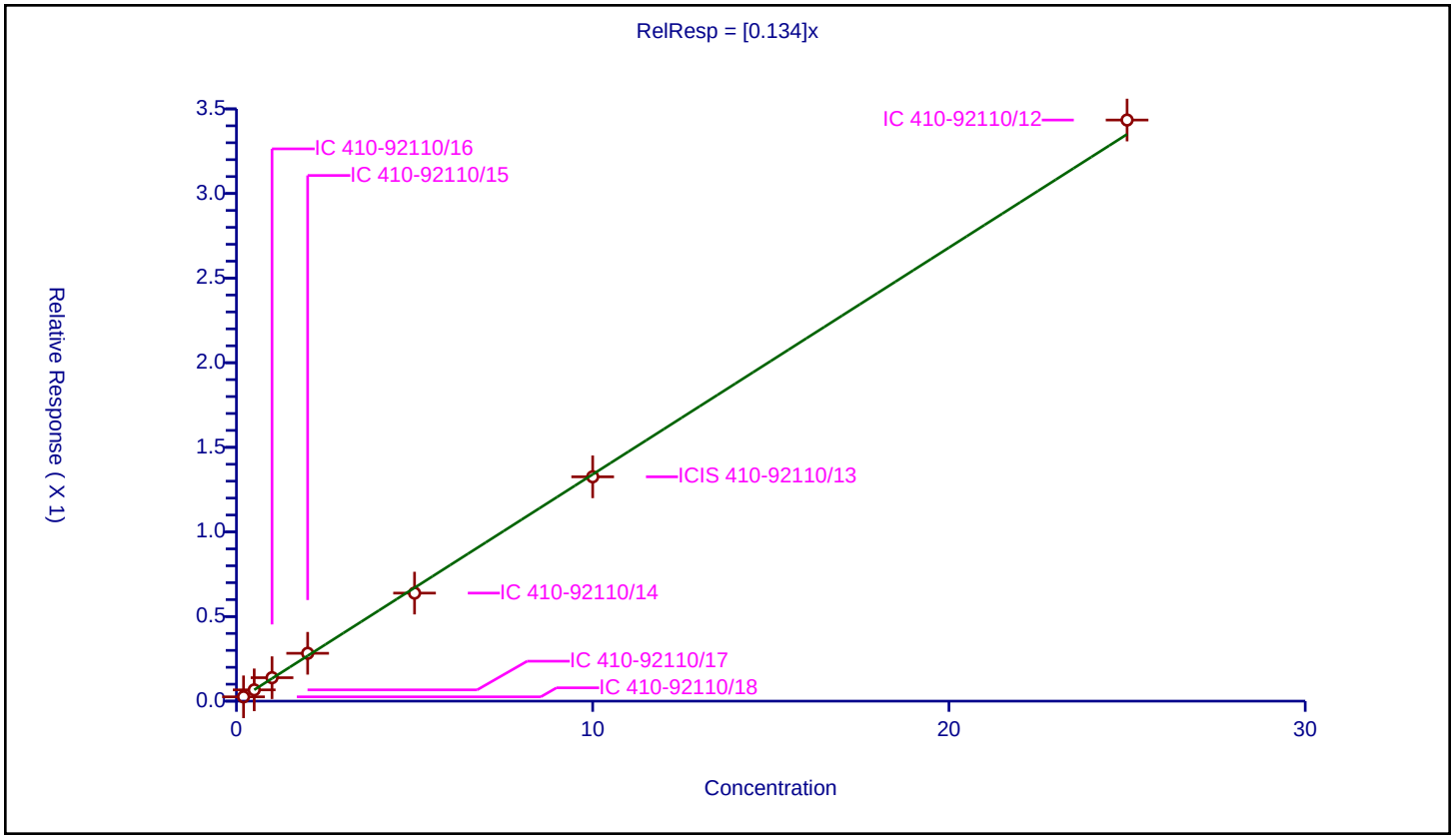
Curve Coefficients

Intercept:	0
Slope:	0.134

Error Coefficients

Standard Error:	147000
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 410-92110/18	0.2	0.025383	10.0	966789.0	0.126915	Y
2	IC 410-92110/17	0.5	0.066734	10.0	964571.0	0.133469	Y
3	IC 410-92110/16	1.0	0.138629	10.0	972019.0	0.138629	Y
4	IC 410-92110/15	2.0	0.282768	10.0	976099.0	0.141384	Y
5	IC 410-92110/14	5.0	0.638545	10.0	964960.0	0.127709	Y
6	ICIS 410-92110/13	10.0	1.325737	10.0	960975.0	0.132574	Y
7	IC 410-92110/12	25.0	3.434279	10.0	958836.0	0.137371	Y



Calibration / N-Propylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

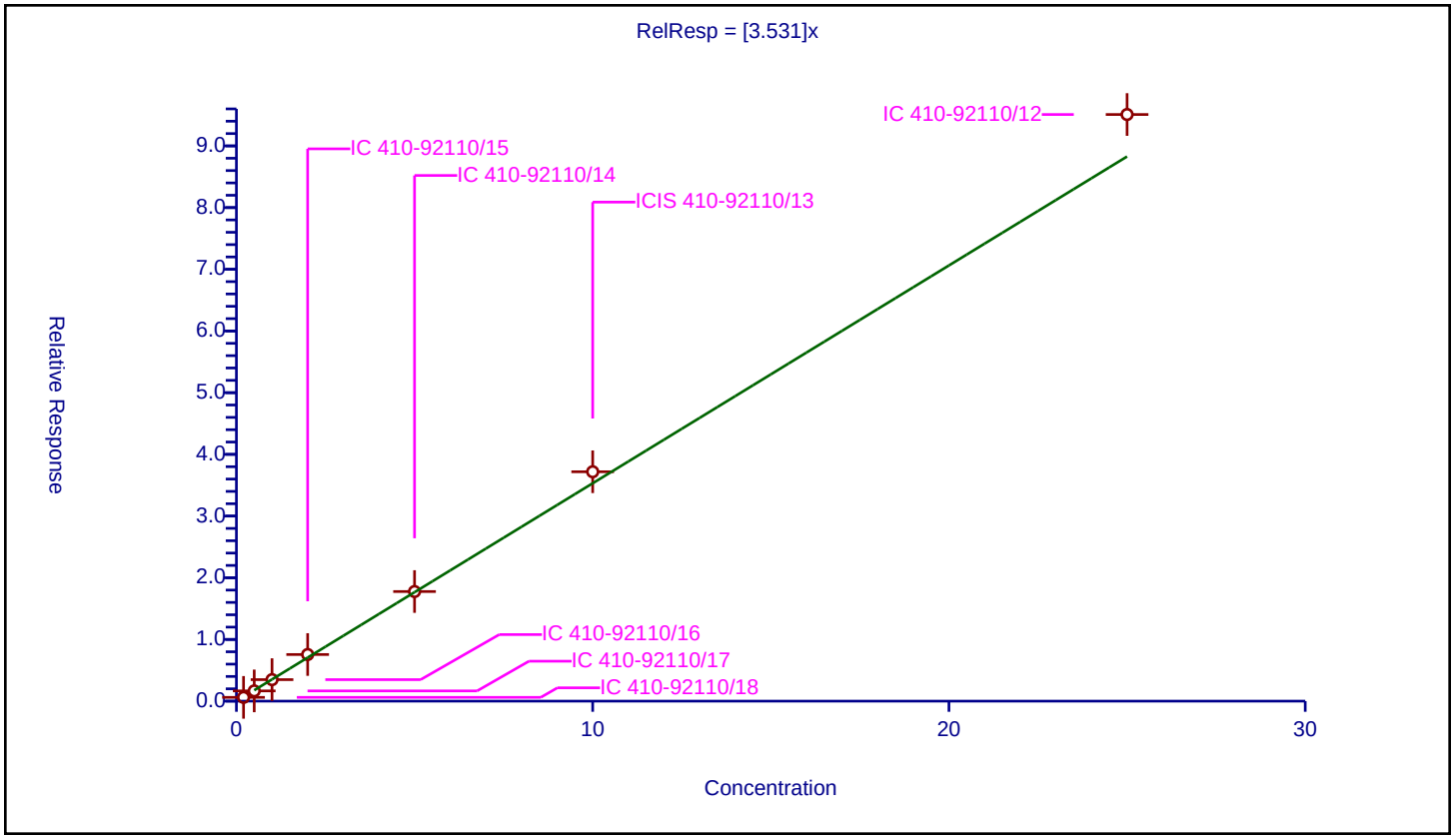
Curve Coefficients

Intercept:	0
Slope:	3.531

Error Coefficients

Standard Error:	4070000
Relative Standard Error:	7.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.611954	10.0	966789.0	3.059768	Y
2	IC 410-92110/17	0.5	1.659629	10.0	964571.0	3.319258	Y
3	IC 410-92110/16	1.0	3.485847	10.0	972019.0	3.485847	Y
4	IC 410-92110/15	2.0	7.555729	10.0	976099.0	3.777865	Y
5	IC 410-92110/14	5.0	17.767213	10.0	964960.0	3.553443	Y
6	ICIS 410-92110/13	10.0	37.183683	10.0	960975.0	3.718368	Y
7	IC 410-92110/12	25.0	95.088055	10.0	958836.0	3.803522	Y



Calibration / 2-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

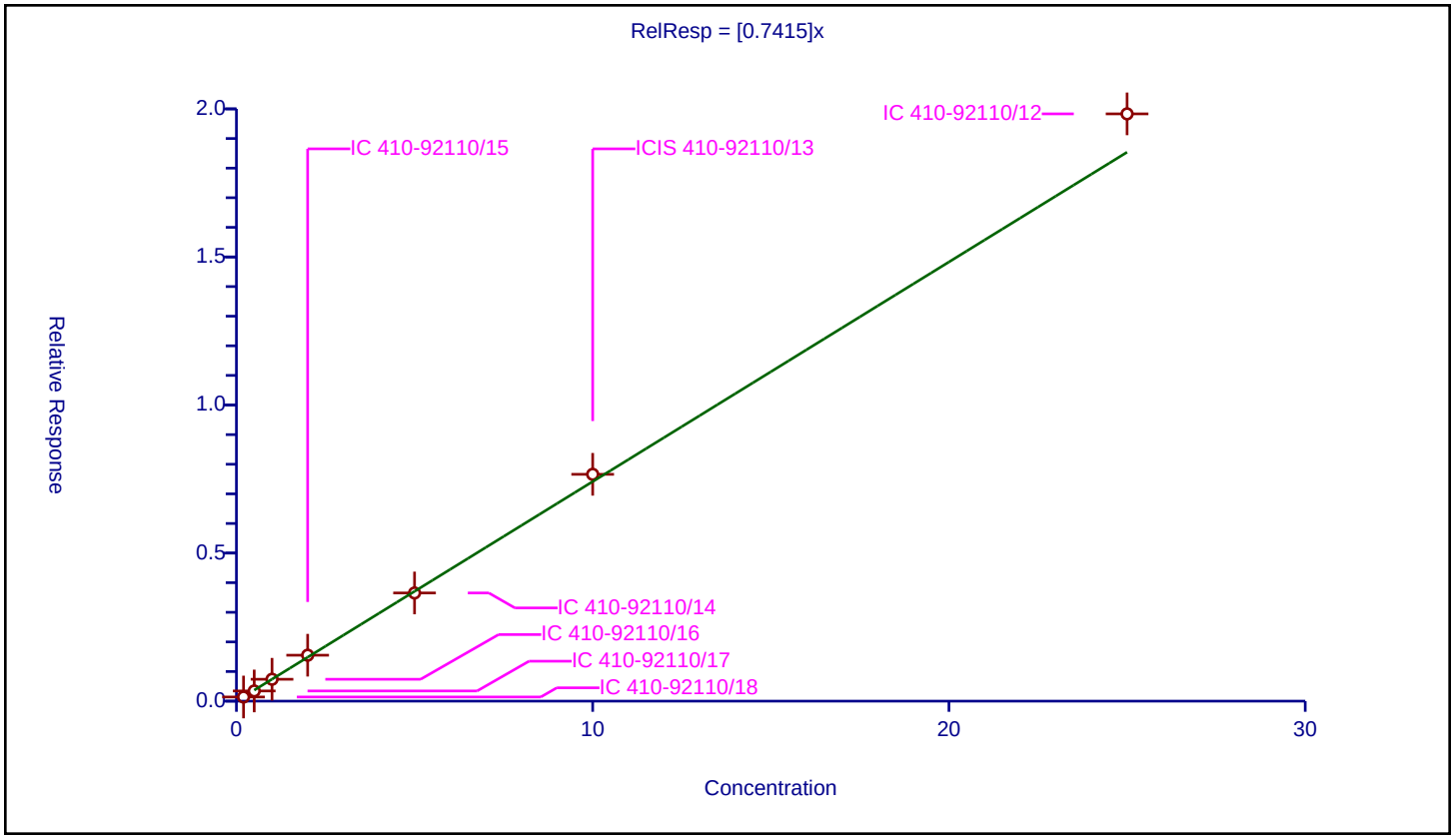
Curve Coefficients

Intercept:	0
Slope:	0.7415

Error Coefficients

Standard Error:	848000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.139493	10.0	966789.0	0.697463	Y
2	IC 410-92110/17	0.5	0.344454	10.0	964571.0	0.688907	Y
3	IC 410-92110/16	1.0	0.739111	10.0	972019.0	0.739111	Y
4	IC 410-92110/15	2.0	1.550662	10.0	976099.0	0.775331	Y
5	IC 410-92110/14	5.0	3.652939	10.0	964960.0	0.730588	Y
6	ICIS 410-92110/13	10.0	7.660116	10.0	960975.0	0.766012	Y
7	IC 410-92110/12	25.0	19.8319	10.0	958836.0	0.793276	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

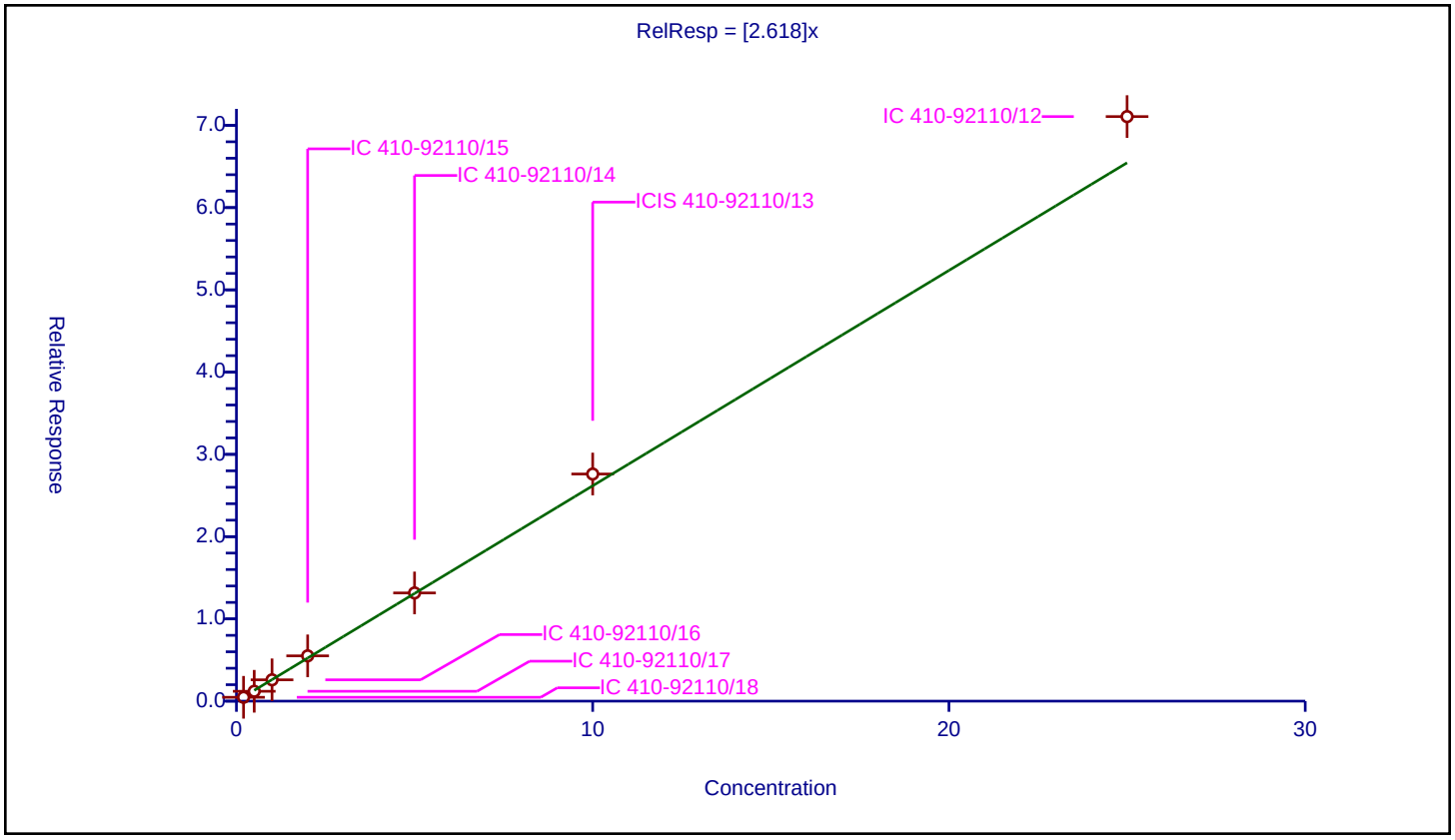
Curve Coefficients

Intercept:	0
Slope:	2.618

Error Coefficients

Standard Error:	3040000
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.468975	10.0	966789.0	2.344876	Y
2	IC 410-92110/17	0.5	1.200233	10.0	964571.0	2.400466	Y
3	IC 410-92110/16	1.0	2.593252	10.0	972019.0	2.593252	Y
4	IC 410-92110/15	2.0	5.506511	10.0	976099.0	2.753256	Y
5	IC 410-92110/14	5.0	13.154234	10.0	964960.0	2.630847	Y
6	ICIS 410-92110/13	10.0	27.610094	10.0	960975.0	2.761009	Y
7	IC 410-92110/12	25.0	71.064739	10.0	958836.0	2.84259	Y



Calibration / 4-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

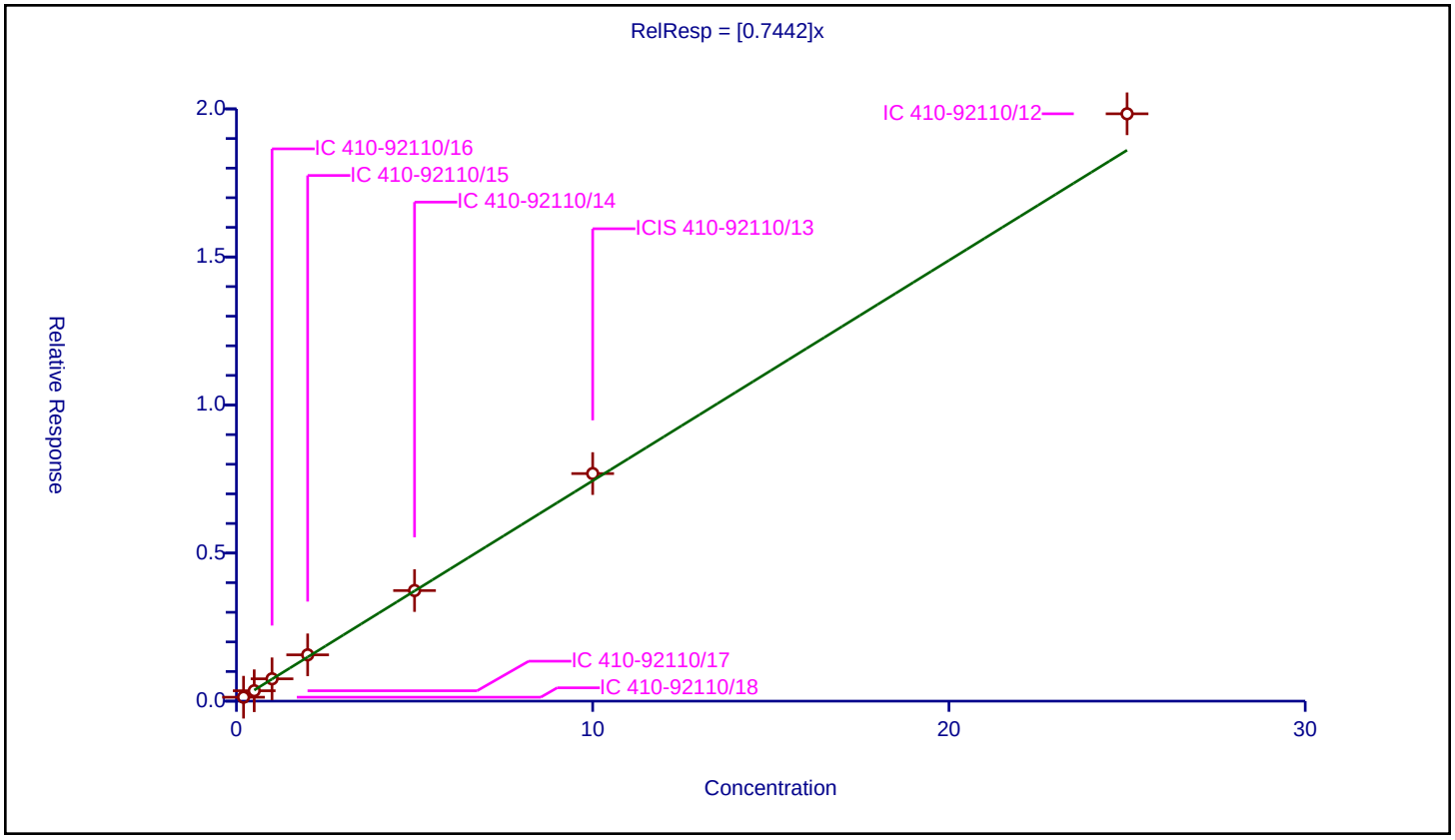
Curve Coefficients

Intercept:	0
Slope:	0.7442

Error Coefficients

Standard Error:	849000
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 410-92110/18	0.2	0.132314	10.0	966789.0	0.661571	Y
2	IC 410-92110/17	0.5	0.351379	10.0	964571.0	0.702758	Y
3	IC 410-92110/16	1.0	0.754553	10.0	972019.0	0.754553	Y
4	IC 410-92110/15	2.0	1.563663	10.0	976099.0	0.781832	Y
5	IC 410-92110/14	5.0	3.735108	10.0	964960.0	0.747022	Y
6	ICIS 410-92110/13	10.0	7.684695	10.0	960975.0	0.76847	Y
7	IC 410-92110/12	25.0	19.834132	10.0	958836.0	0.793365	Y



Calibration / tert-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

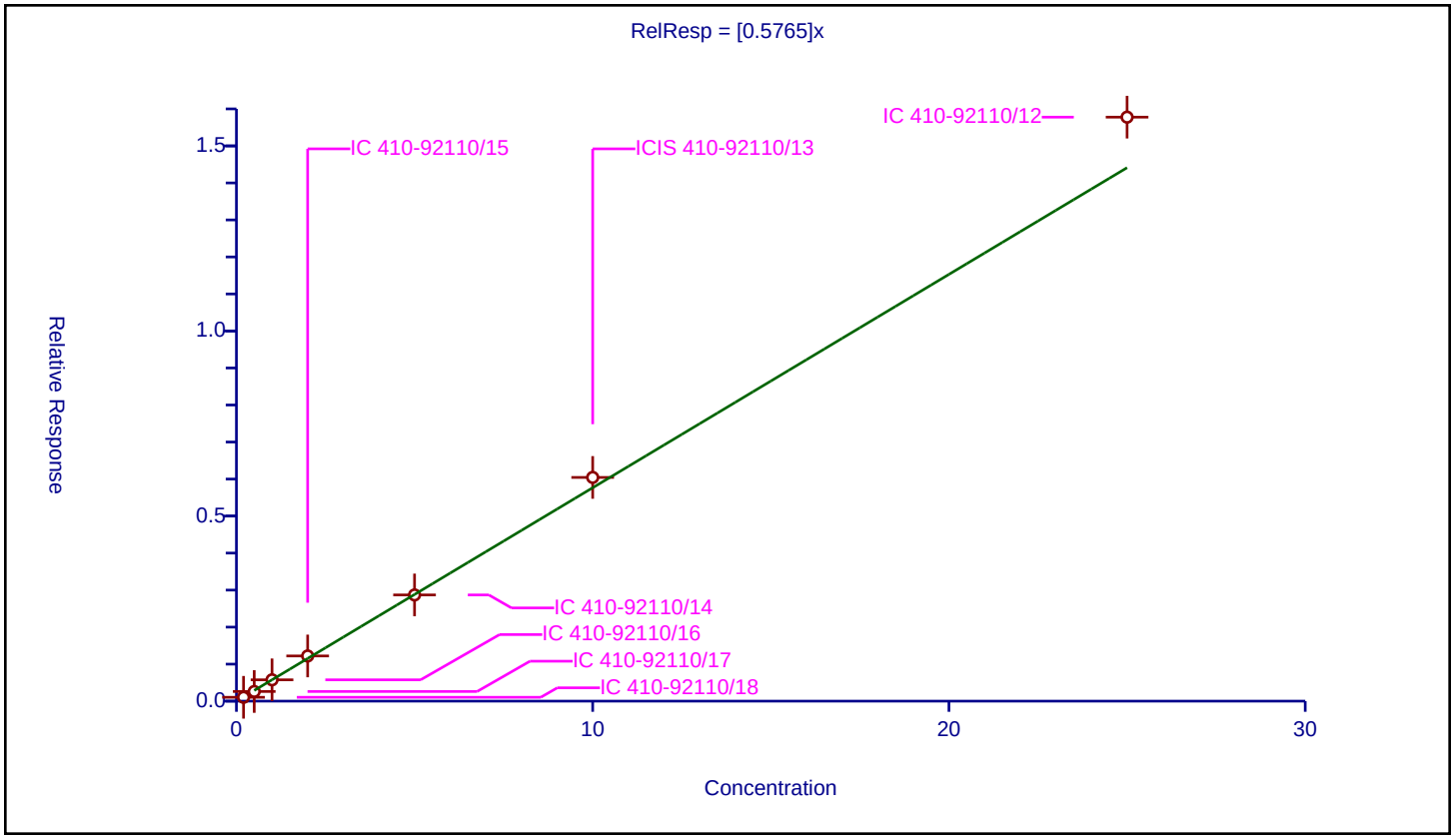
Curve Coefficients

Intercept:	0
Slope:	0.5765

Error Coefficients

Standard Error:	673000
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 410-92110/18	0.2	0.103663	10.0	966789.0	0.518314	Y
2	IC 410-92110/17	0.5	0.260686	10.0	964571.0	0.521372	Y
3	IC 410-92110/16	1.0	0.576172	10.0	972019.0	0.576172	Y
4	IC 410-92110/15	2.0	1.220511	10.0	976099.0	0.610256	Y
5	IC 410-92110/14	5.0	2.869217	10.0	964960.0	0.573843	Y
6	ICIS 410-92110/13	10.0	6.043445	10.0	960975.0	0.604345	Y
7	IC 410-92110/12	25.0	15.776733	10.0	958836.0	0.631069	Y



Calibration / Pentachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

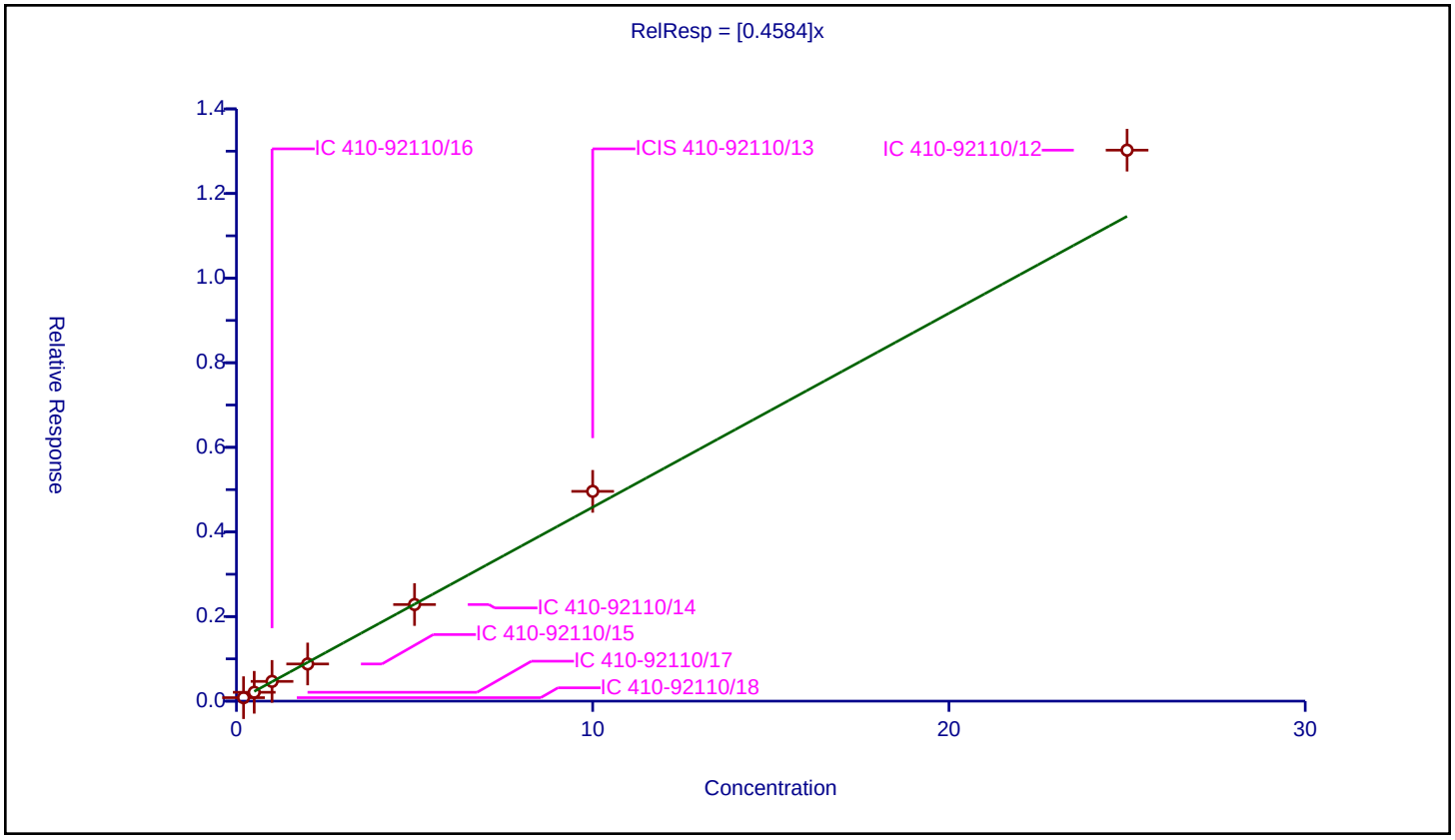
Curve Coefficients

Intercept:	0
Slope:	0.4584

Error Coefficients

Standard Error:	555000
Relative Standard Error:	8.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.081931	10.0	966789.0	0.409655	Y
2	IC 410-92110/17	0.5	0.209648	10.0	964571.0	0.419295	Y
3	IC 410-92110/16	1.0	0.467141	10.0	972019.0	0.467141	Y
4	IC 410-92110/15	2.0	0.87861	10.0	976099.0	0.439305	Y
5	IC 410-92110/14	5.0	2.283877	10.0	964960.0	0.456775	Y
6	ICIS 410-92110/13	10.0	4.95913	10.0	960975.0	0.495913	Y
7	IC 410-92110/12	25.0	13.025001	10.0	958836.0	0.521	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

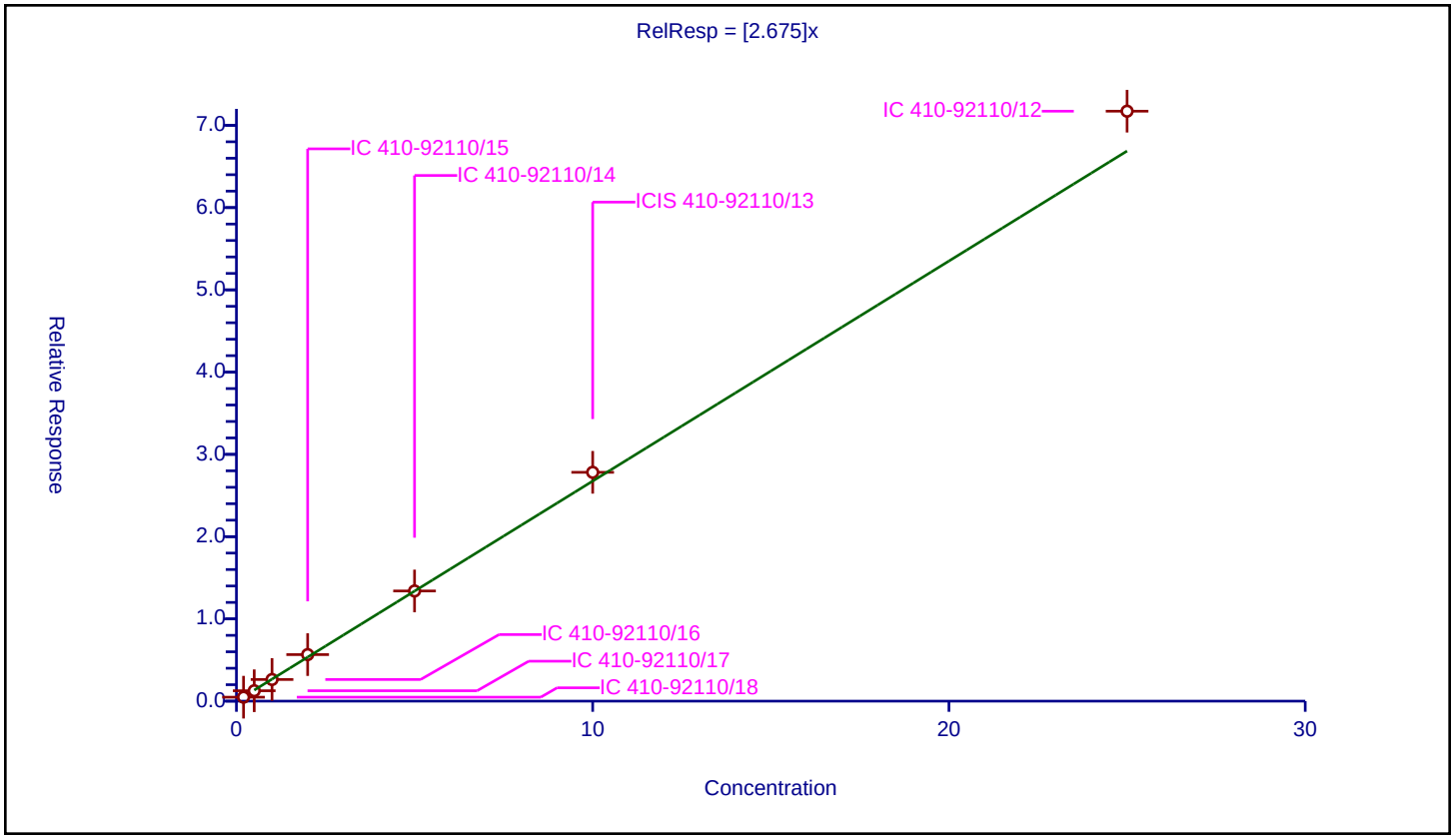
Curve Coefficients

Intercept:	0
Slope:	2.675

Error Coefficients

Standard Error:	3070000
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 410-92110/18	0.2	0.482287	10.0	966789.0	2.411436	Y
2	IC 410-92110/17	0.5	1.26282	10.0	964571.0	2.525641	Y
3	IC 410-92110/16	1.0	2.630206	10.0	972019.0	2.630206	Y
4	IC 410-92110/15	2.0	5.659057	10.0	976099.0	2.829529	Y
5	IC 410-92110/14	5.0	13.393737	10.0	964960.0	2.678747	Y
6	ICIS 410-92110/13	10.0	27.818622	10.0	960975.0	2.781862	Y
7	IC 410-92110/12	25.0	71.722109	10.0	958836.0	2.868884	Y



Calibration / sec-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

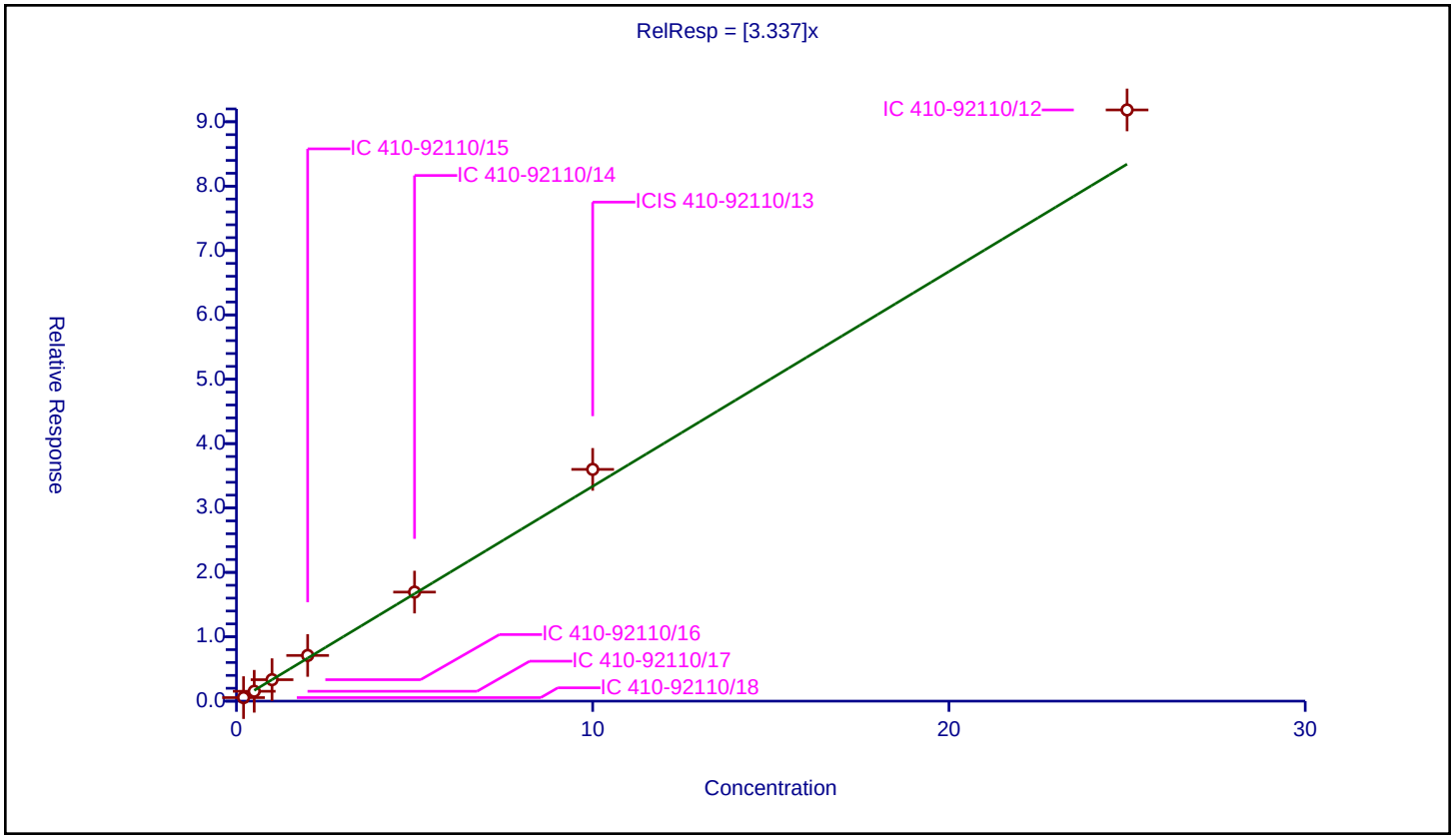
Curve Coefficients

Intercept:	0
Slope:	3.337

Error Coefficients

Standard Error:	3930000
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 410-92110/18	0.2	0.550141	10.0	966789.0	2.750704	Y
2	IC 410-92110/17	0.5	1.532951	10.0	964571.0	3.065902	Y
3	IC 410-92110/16	1.0	3.331447	10.0	972019.0	3.331447	Y
4	IC 410-92110/15	2.0	7.098378	10.0	976099.0	3.549189	Y
5	IC 410-92110/14	5.0	16.940329	10.0	964960.0	3.388066	Y
6	ICIS 410-92110/13	10.0	35.999355	10.0	960975.0	3.599935	Y
7	IC 410-92110/12	25.0	91.837134	10.0	958836.0	3.673485	Y



Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

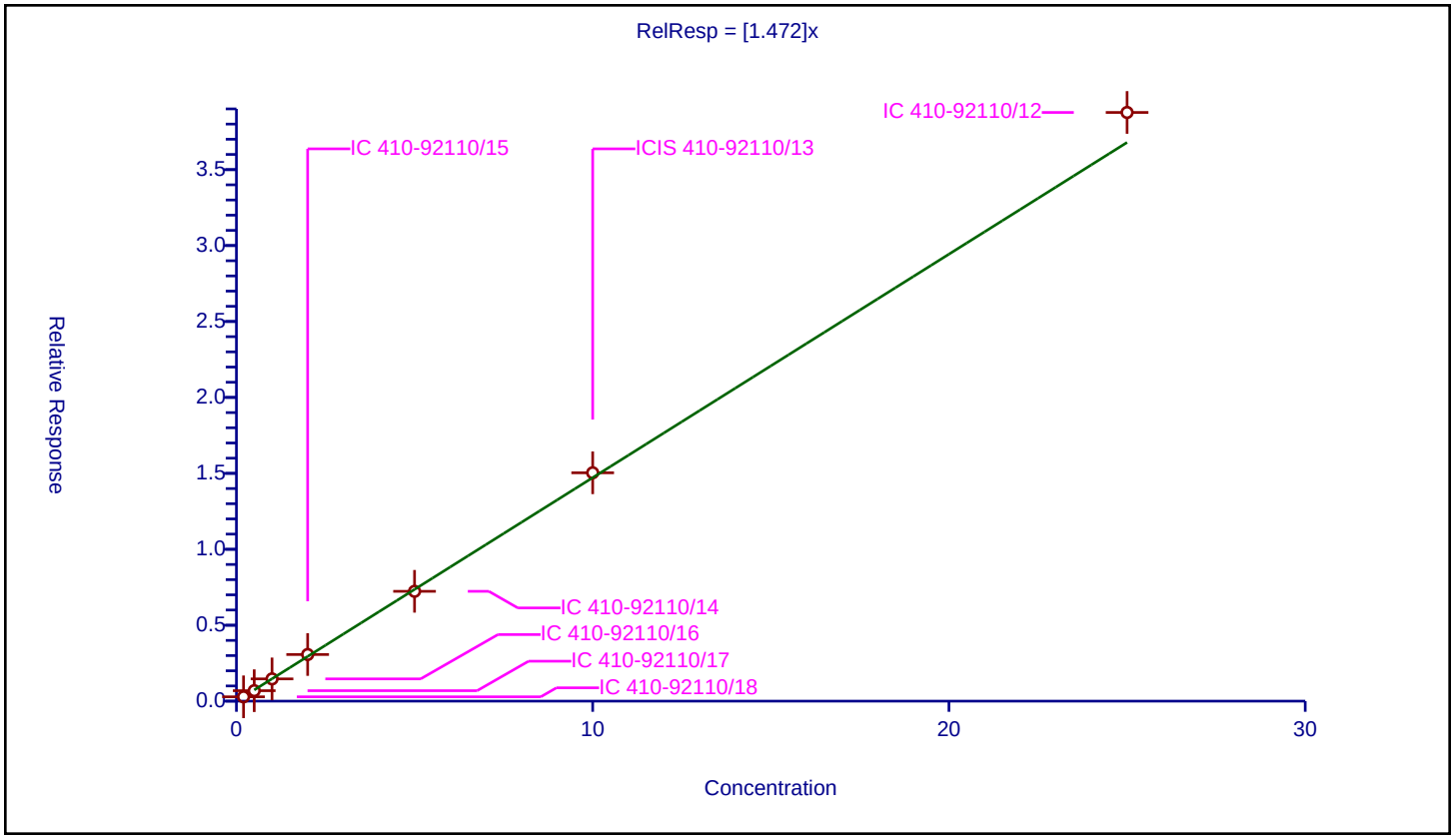
Curve Coefficients

Intercept:	0
Slope:	1.472

Error Coefficients

Standard Error:	1660000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.284519	10.0	966789.0	1.422596	Y
2	IC 410-92110/17	0.5	0.688855	10.0	964571.0	1.377711	Y
3	IC 410-92110/16	1.0	1.465424	10.0	972019.0	1.465424	Y
4	IC 410-92110/15	2.0	3.069842	10.0	976099.0	1.534921	Y
5	IC 410-92110/14	5.0	7.232911	10.0	964960.0	1.446582	Y
6	ICIS 410-92110/13	10.0	15.037498	10.0	960975.0	1.50375	Y
7	IC 410-92110/12	25.0	38.764314	10.0	958836.0	1.550573	Y



Calibration / 4-Isopropyltoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

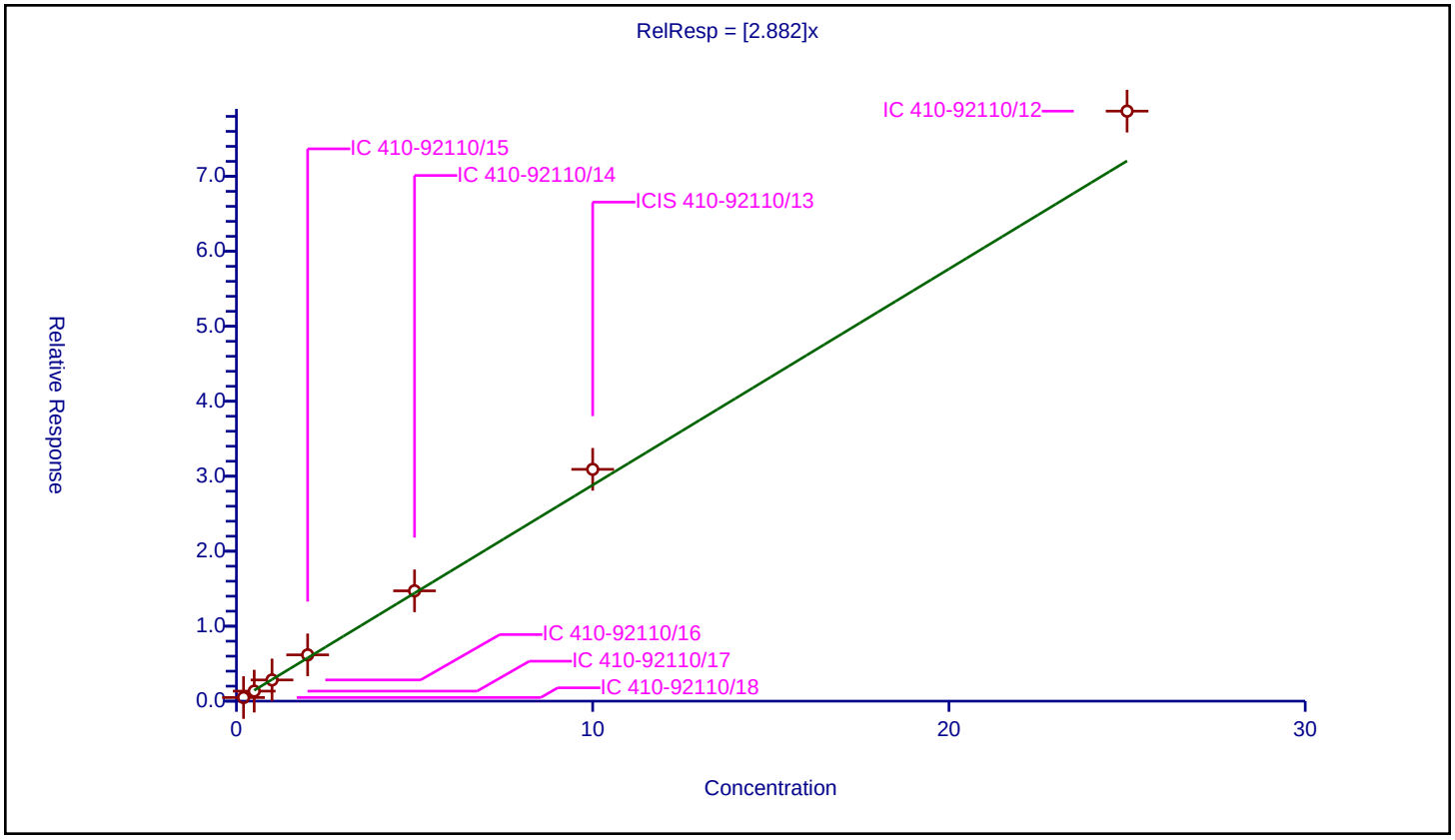
Curve Coefficients

Intercept:	0
Slope:	2.882

Error Coefficients

Standard Error:	3370000
Relative Standard Error:	9.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.480674	10.0	966789.0	2.403368	Y
2	IC 410-92110/17	0.5	1.338377	10.0	964571.0	2.676755	Y
3	IC 410-92110/16	1.0	2.827825	10.0	972019.0	2.827825	Y
4	IC 410-92110/15	2.0	6.172776	10.0	976099.0	3.086388	Y
5	IC 410-92110/14	5.0	14.714931	10.0	964960.0	2.942986	Y
6	ICIS 410-92110/13	10.0	30.920034	10.0	960975.0	3.092003	Y
7	IC 410-92110/12	25.0	78.701916	10.0	958836.0	3.148077	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

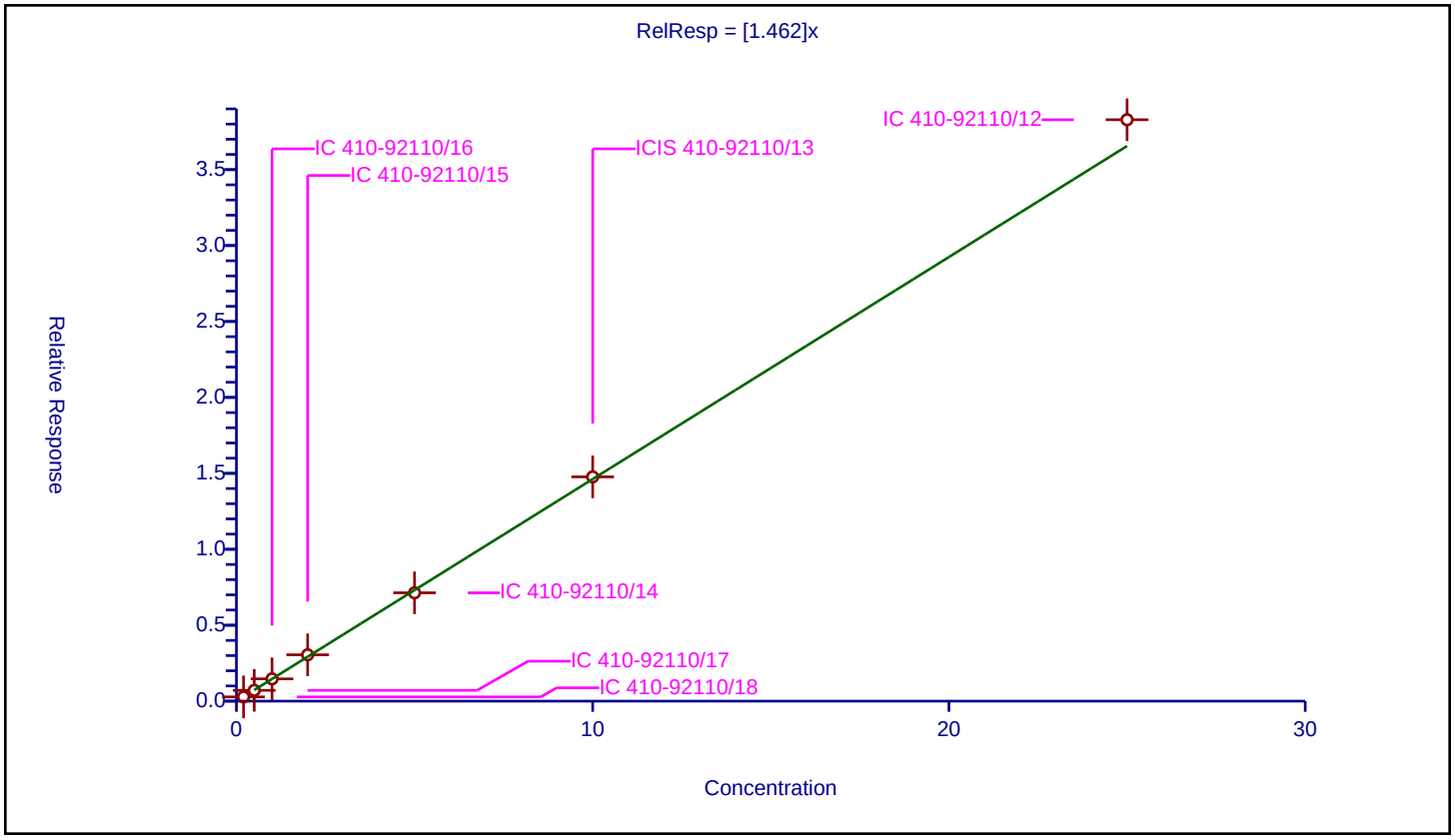
Curve Coefficients

Intercept:	0
Slope:	1.462

Error Coefficients

Standard Error:	1640000
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 410-92110/18	0.2	0.277579	10.0	966789.0	1.387893	Y
2	IC 410-92110/17	0.5	0.710627	10.0	964571.0	1.421254	Y
3	IC 410-92110/16	1.0	1.466545	10.0	972019.0	1.466545	Y
4	IC 410-92110/15	2.0	3.050121	10.0	976099.0	1.52506	Y
5	IC 410-92110/14	5.0	7.133674	10.0	964960.0	1.426735	Y
6	ICIS 410-92110/13	10.0	14.767991	10.0	960975.0	1.476799	Y
7	IC 410-92110/12	25.0	38.285932	10.0	958836.0	1.531437	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

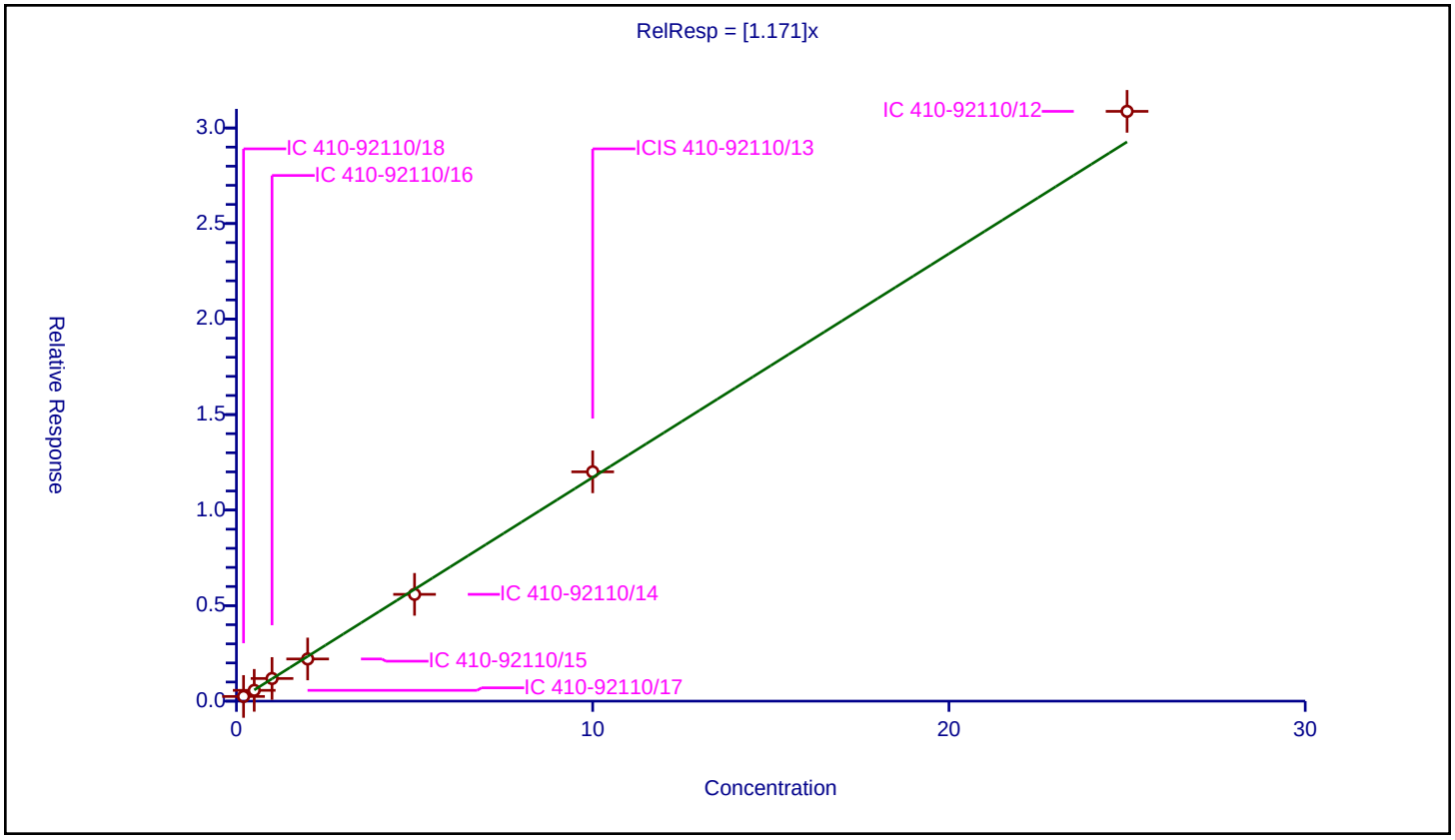
Curve Coefficients

Intercept:	0
Slope:	1.171

Error Coefficients

Standard Error:	1320000
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.244935	10.0	966789.0	1.224673	Y
2	IC 410-92110/17	0.5	0.565101	10.0	964571.0	1.130202	Y
3	IC 410-92110/16	1.0	1.185563	10.0	972019.0	1.185563	Y
4	IC 410-92110/15	2.0	2.207256	10.0	976099.0	1.103628	Y
5	IC 410-92110/14	5.0	5.589081	10.0	964960.0	1.117816	Y
6	ICIS 410-92110/13	10.0	12.002133	10.0	960975.0	1.200213	Y
7	IC 410-92110/12	25.0	30.871411	10.0	958836.0	1.234856	Y



Calibration / Benzyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

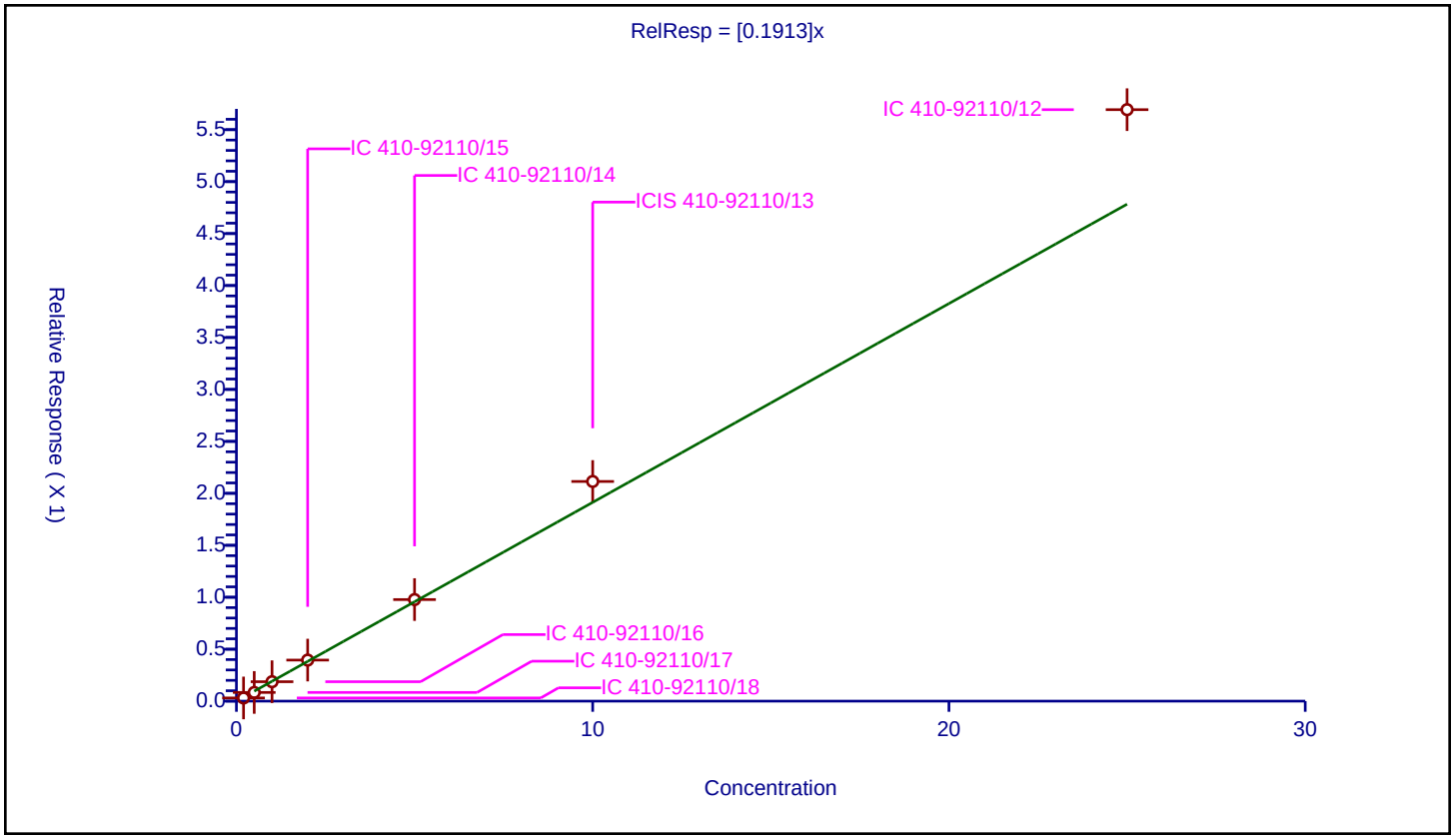
Curve Coefficients

Intercept:	0
Slope:	0.1913

Error Coefficients

Standard Error:	242000
Relative Standard Error:	13.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.030606	10.0	966789.0	0.153032	Y
2	IC 410-92110/17	0.5	0.083571	10.0	964571.0	0.167142	Y
3	IC 410-92110/16	1.0	0.18692	10.0	972019.0	0.18692	Y
4	IC 410-92110/15	2.0	0.395144	10.0	976099.0	0.197572	Y
5	IC 410-92110/14	5.0	0.977491	10.0	964960.0	0.195498	Y
6	ICIS 410-92110/13	10.0	2.114124	10.0	960975.0	0.211412	Y
7	IC 410-92110/12	25.0	5.6926	10.0	958836.0	0.227704	Y



Calibration / n-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

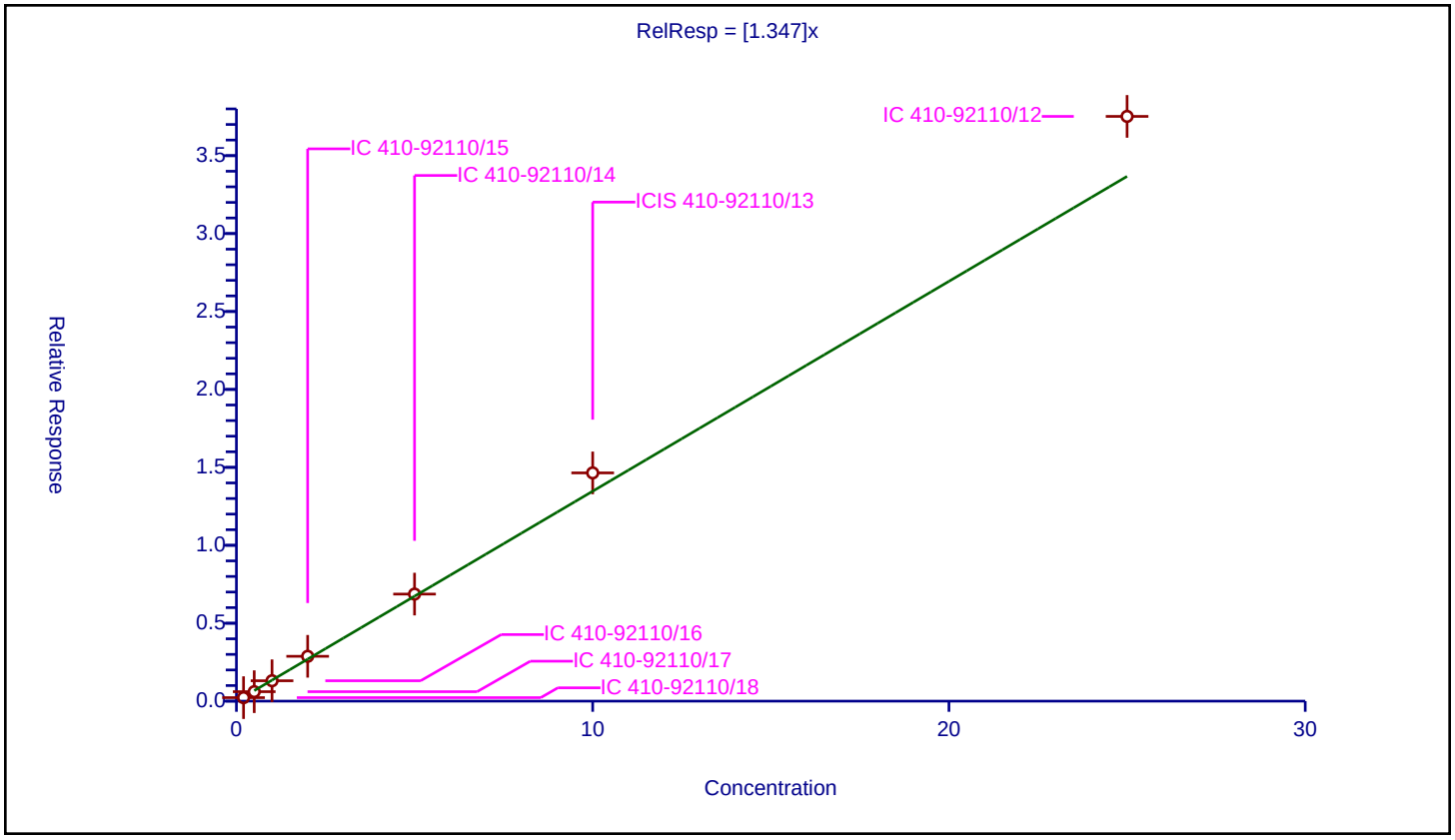
Curve Coefficients

Intercept:	0
Slope:	1.347

Error Coefficients

Standard Error:	1610000
Relative Standard Error:	10.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.22552	10.0	966789.0	1.127599	Y
2	IC 410-92110/17	0.5	0.607534	10.0	964571.0	1.215069	Y
3	IC 410-92110/16	1.0	1.308071	10.0	972019.0	1.308071	Y
4	IC 410-92110/15	2.0	2.876194	10.0	976099.0	1.438097	Y
5	IC 410-92110/14	5.0	6.869062	10.0	964960.0	1.373812	Y
6	ICIS 410-92110/13	10.0	14.644627	10.0	960975.0	1.464463	Y
7	IC 410-92110/12	25.0	37.517605	10.0	958836.0	1.500704	Y



Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

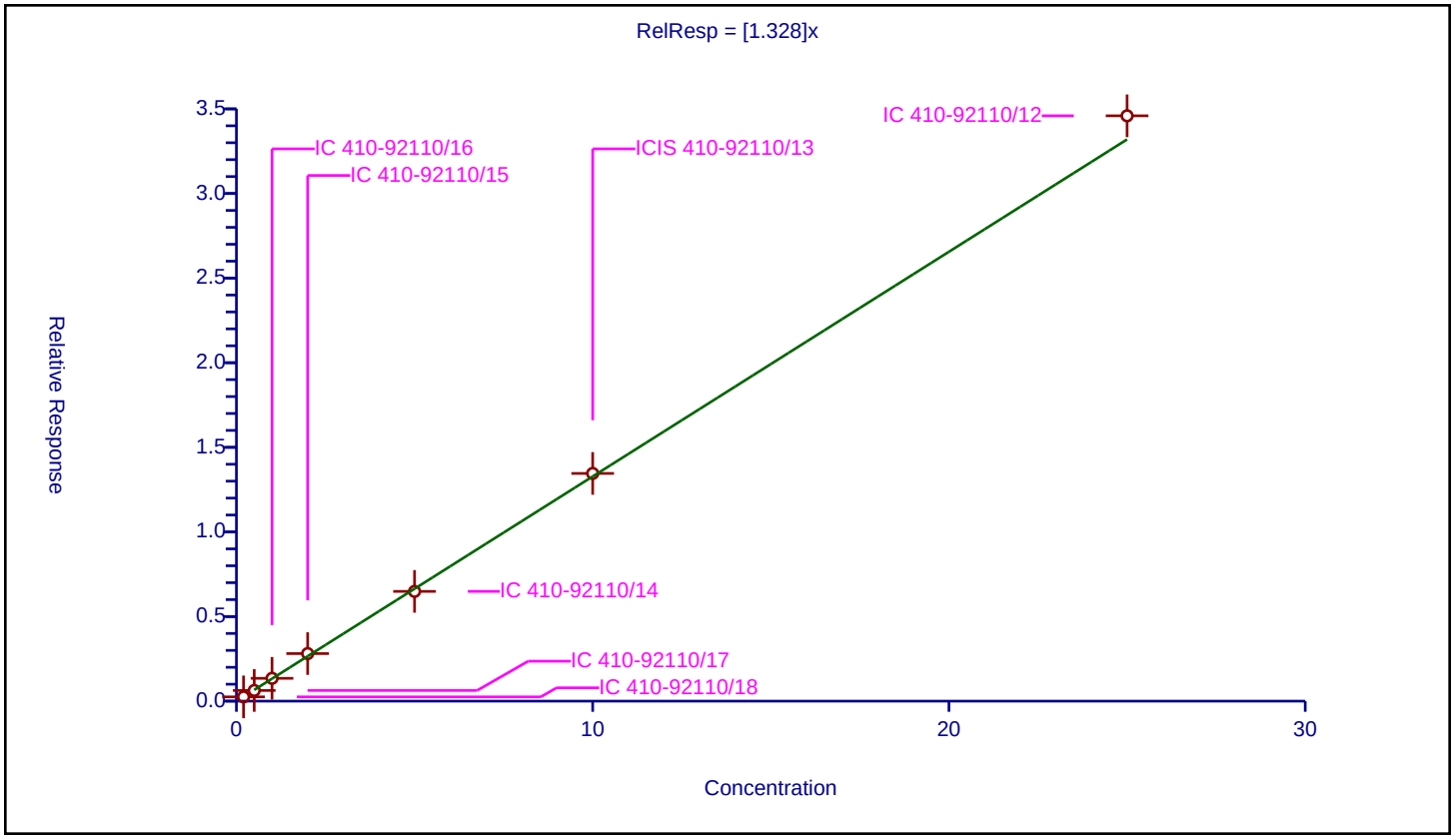
Curve Coefficients

Intercept:	0
Slope:	1.328

Error Coefficients

Standard Error:	1480000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.250779	10.0	966789.0	1.253893	Y
2	IC 410-92110/17	0.5	0.630892	10.0	964571.0	1.261784	Y
3	IC 410-92110/16	1.0	1.347782	10.0	972019.0	1.347782	Y
4	IC 410-92110/15	2.0	2.809807	10.0	976099.0	1.404904	Y
5	IC 410-92110/14	5.0	6.486372	10.0	964960.0	1.297274	Y
6	ICIS 410-92110/13	10.0	13.456136	10.0	960975.0	1.345614	Y
7	IC 410-92110/12	25.0	34.590493	10.0	958836.0	1.38362	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

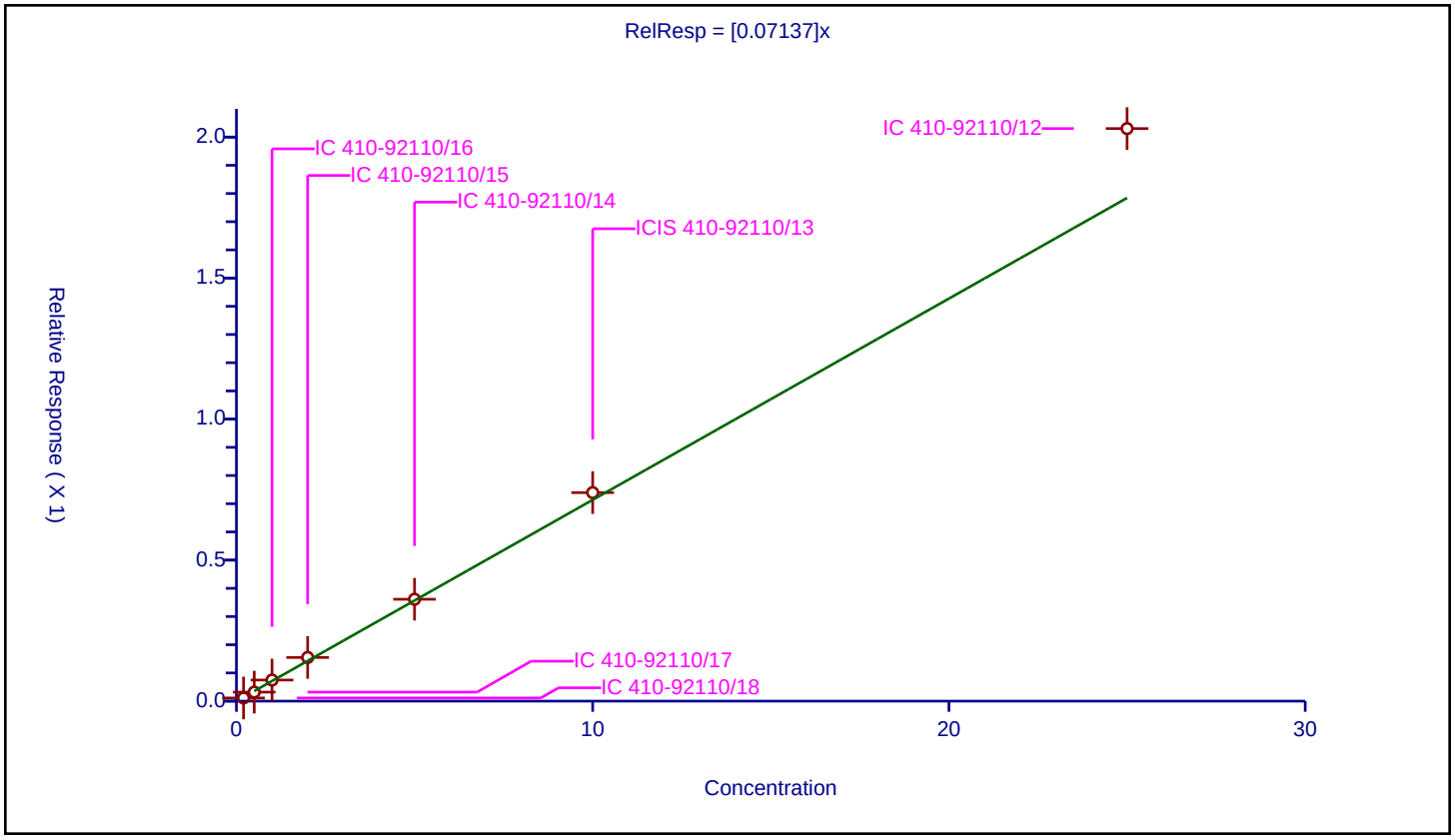
Curve Coefficients

Intercept:	0
Slope:	0.07137

Error Coefficients

Standard Error:	86100
Relative Standard Error:	12.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.011202	10.0	966789.0	0.05601	Y
2	IC 410-92110/17	0.5	0.031962	10.0	964571.0	0.063925	Y
3	IC 410-92110/16	1.0	0.074855	10.0	972019.0	0.074855	Y
4	IC 410-92110/15	2.0	0.15481	10.0	976099.0	0.077405	Y
5	IC 410-92110/14	5.0	0.36129	10.0	964960.0	0.072258	Y
6	ICIS 410-92110/13	10.0	0.739457	10.0	960975.0	0.073946	Y
7	IC 410-92110/12	25.0	2.03017	10.0	958836.0	0.081207	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

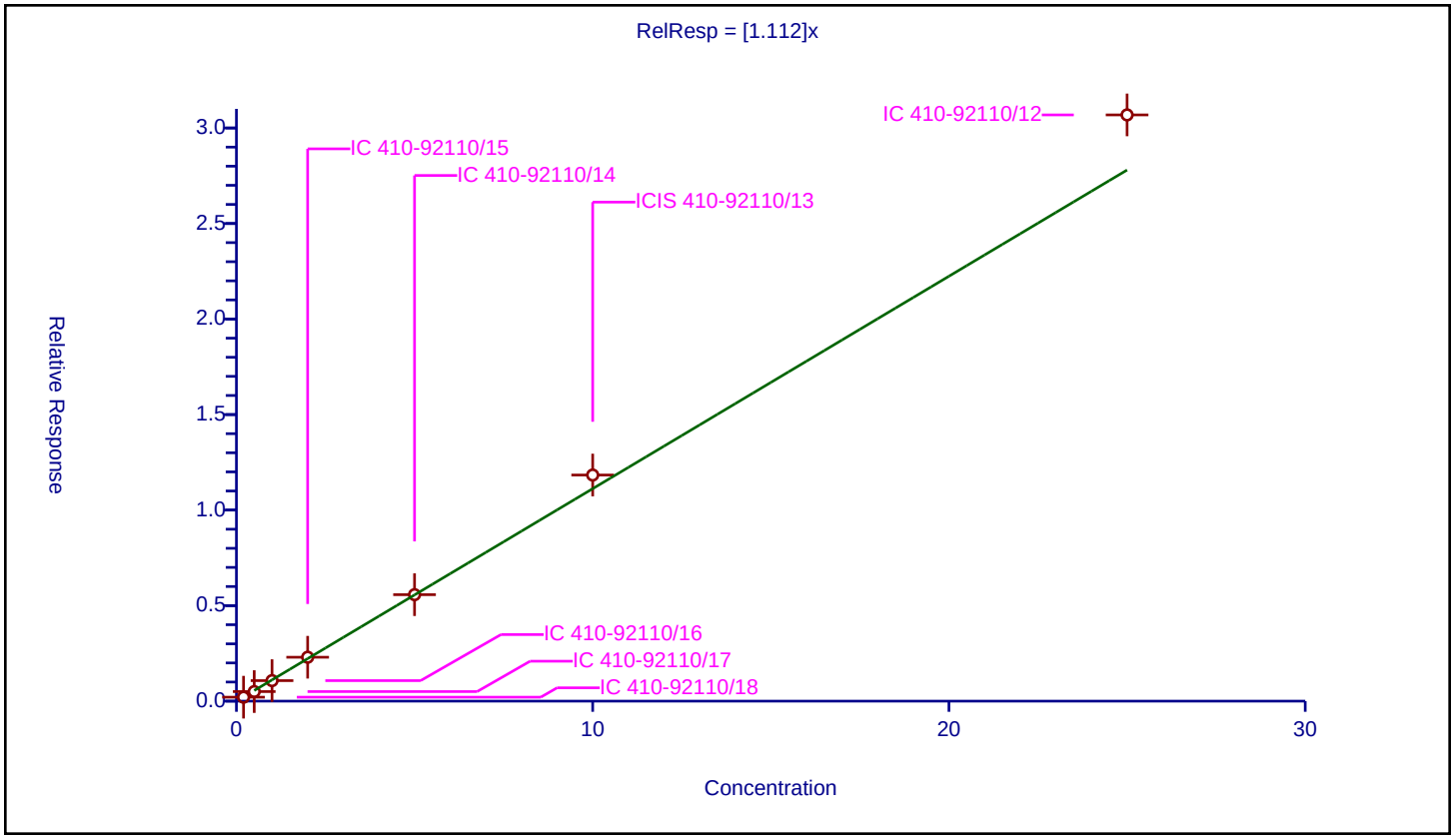
Curve Coefficients

Intercept:	0
Slope:	1.112

Error Coefficients

Standard Error:	1310000
Relative Standard Error:	7.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.20686	10.0	966789.0	1.0343	Y
2	IC 410-92110/17	0.5	0.50072	10.0	964571.0	1.00144	Y
3	IC 410-92110/16	1.0	1.073868	10.0	972019.0	1.073868	Y
4	IC 410-92110/15	2.0	2.298363	10.0	976099.0	1.149182	Y
5	IC 410-92110/14	5.0	5.573143	10.0	964960.0	1.114629	Y
6	ICIS 410-92110/13	10.0	11.83523	10.0	960975.0	1.183523	Y
7	IC 410-92110/12	25.0	30.684747	10.0	958836.0	1.22739	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

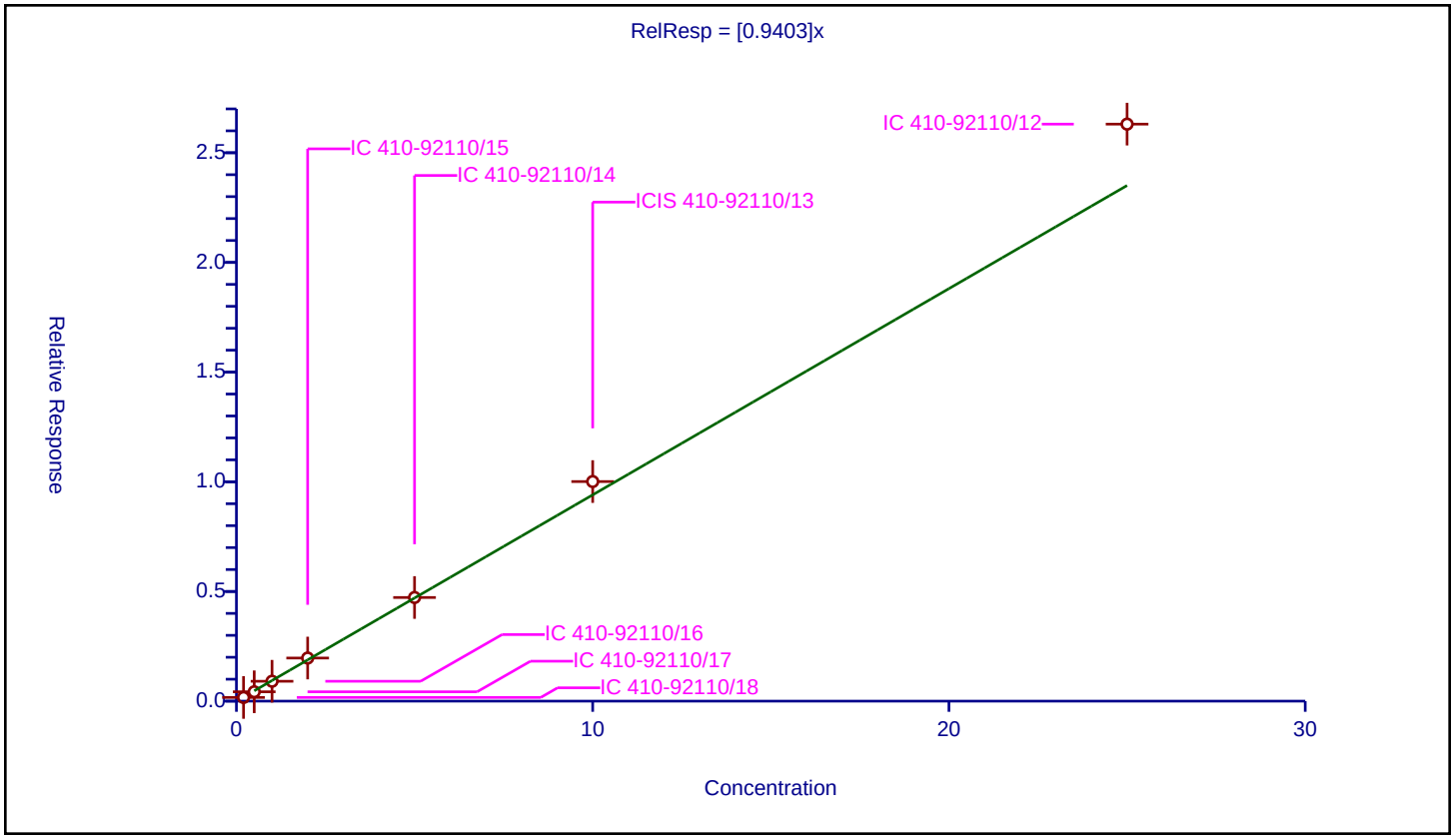
Curve Coefficients

Intercept:	0
Slope:	0.9403

Error Coefficients

Standard Error:	1120000
Relative Standard Error:	8.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.168165	10.0	966789.0	0.840825	Y
2	IC 410-92110/17	0.5	0.427071	10.0	964571.0	0.854141	Y
3	IC 410-92110/16	1.0	0.906536	10.0	972019.0	0.906536	Y
4	IC 410-92110/15	2.0	1.965006	10.0	976099.0	0.982503	Y
5	IC 410-92110/14	5.0	4.724569	10.0	964960.0	0.944914	Y
6	ICIS 410-92110/13	10.0	10.010822	10.0	960975.0	1.001082	Y
7	IC 410-92110/12	25.0	26.305573	10.0	958836.0	1.052223	Y



Calibration / Hexachlorobutadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

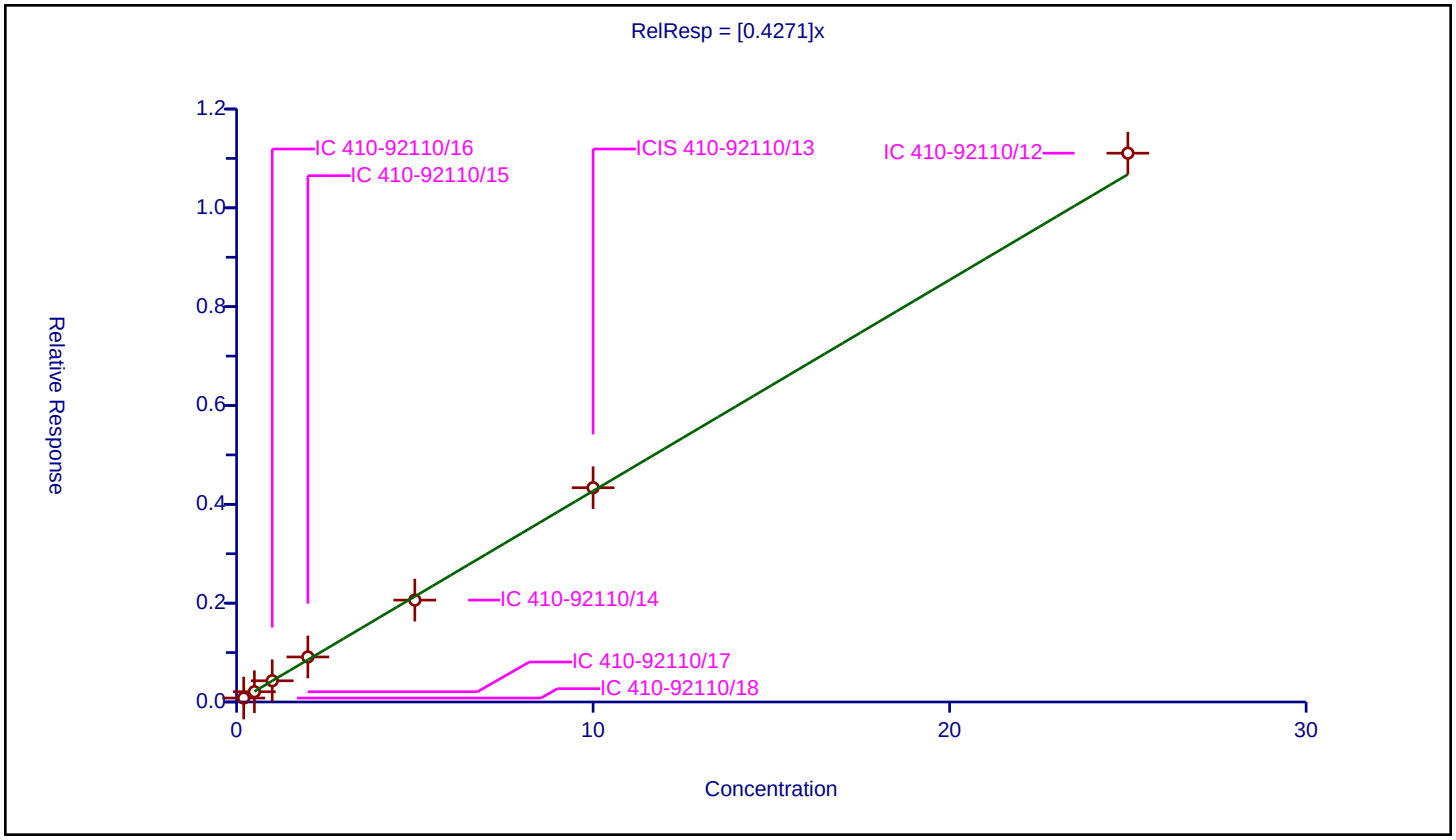
Curve Coefficients

Intercept:	0
Slope:	0.4271

Error Coefficients

Standard Error:	476000
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.079976	10.0	966789.0	0.39988	Y
2	IC 410-92110/17	0.5	0.207346	10.0	964571.0	0.414692	Y
3	IC 410-92110/16	1.0	0.429045	10.0	972019.0	0.429045	Y
4	IC 410-92110/15	2.0	0.911373	10.0	976099.0	0.455686	Y
5	IC 410-92110/14	5.0	2.061723	10.0	964960.0	0.412345	Y
6	ICIS 410-92110/13	10.0	4.336575	10.0	960975.0	0.433657	Y
7	IC 410-92110/12	25.0	11.106081	10.0	958836.0	0.444243	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

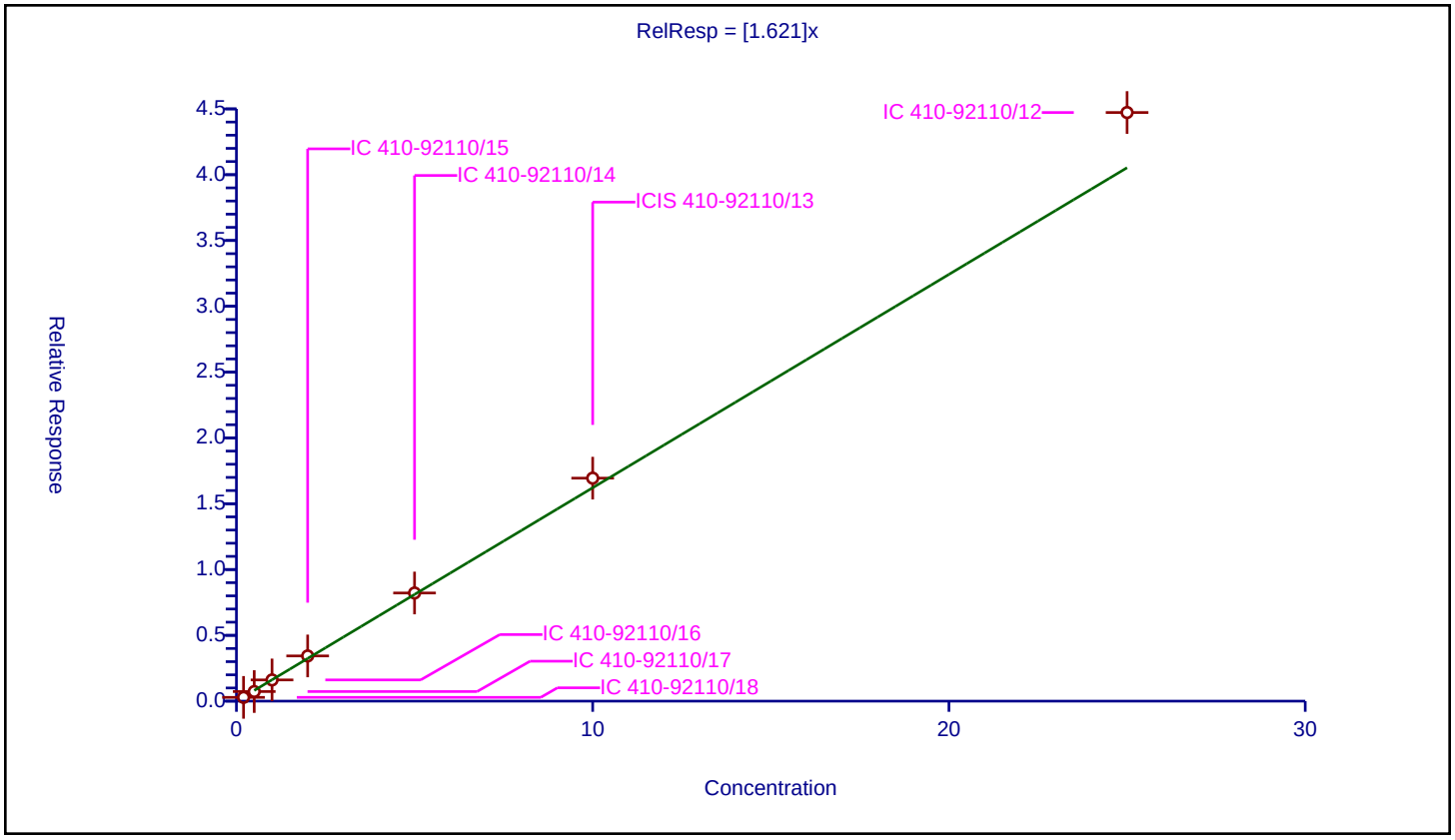
Curve Coefficients

Intercept:	0
Slope:	1.621

Error Coefficients

Standard Error:	1910000
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 410-92110/18	0.2	0.286722	10.0	966789.0	1.433612	Y
2	IC 410-92110/17	0.5	0.729817	10.0	964571.0	1.459633	Y
3	IC 410-92110/16	1.0	1.611234	10.0	972019.0	1.611234	Y
4	IC 410-92110/15	2.0	3.434477	10.0	976099.0	1.717239	Y
5	IC 410-92110/14	5.0	8.217532	10.0	964960.0	1.643506	Y
6	ICIS 410-92110/13	10.0	16.943604	10.0	960975.0	1.69436	Y
7	IC 410-92110/12	25.0	44.725636	10.0	958836.0	1.789025	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

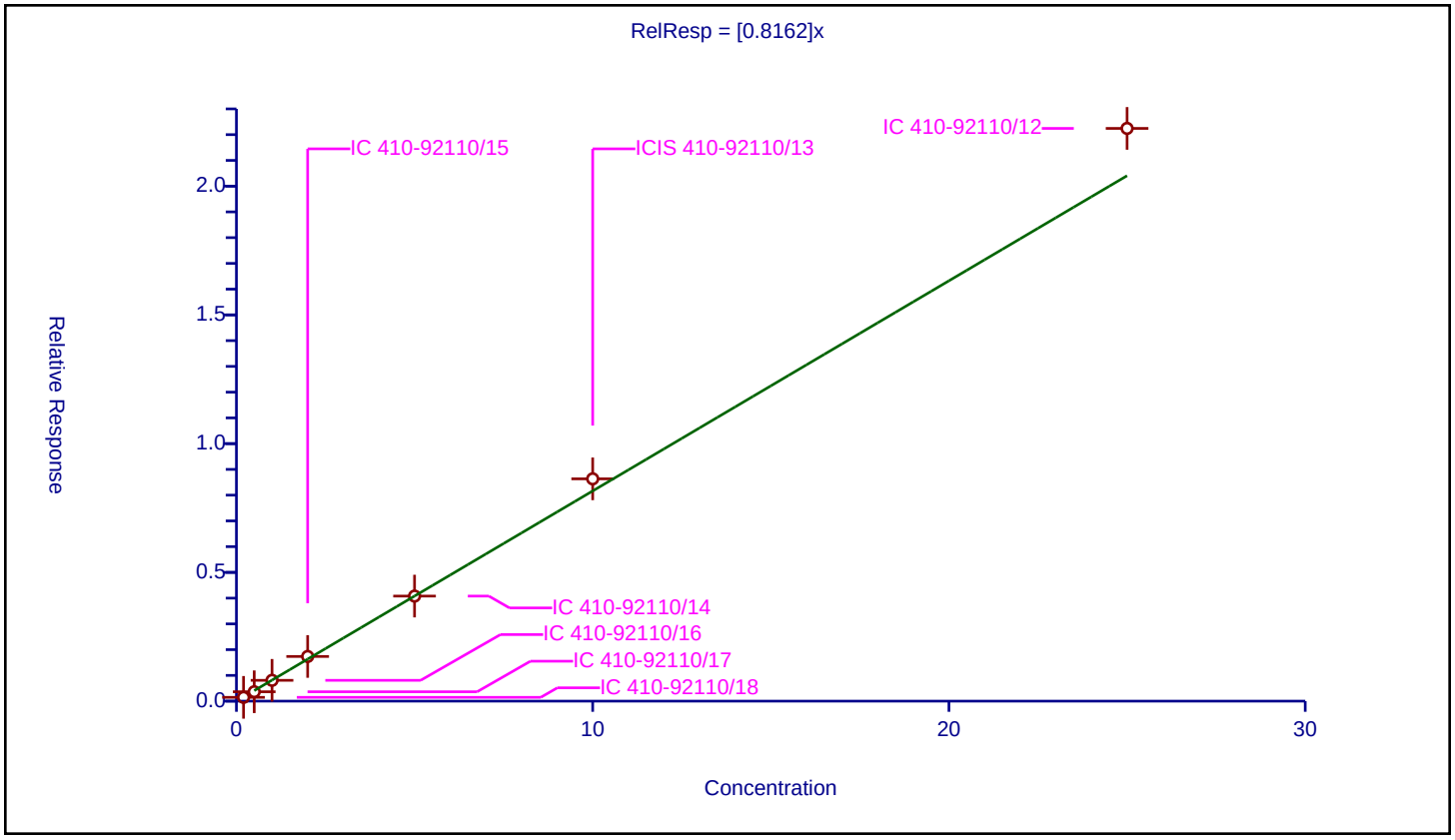
Curve Coefficients

Intercept:	0
Slope:	0.8162

Error Coefficients

Standard Error:	951000
Relative Standard Error:	7.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-92110/18	0.2	0.147881	10.0	966789.0	0.739406	Y
2	IC 410-92110/17	0.5	0.364587	10.0	964571.0	0.729174	Y
3	IC 410-92110/16	1.0	0.808132	10.0	972019.0	0.808132	Y
4	IC 410-92110/15	2.0	1.735531	10.0	976099.0	0.867765	Y
5	IC 410-92110/14	5.0	4.079734	10.0	964960.0	0.815947	Y
6	ICIS 410-92110/13	10.0	8.63343	10.0	960975.0	0.863343	Y
7	IC 410-92110/12	25.0	22.242135	10.0	958836.0	0.889685	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Lab Sample ID: ICV 410-92110/19 Calibration Date: 02/08/2021 21:55

Instrument ID: 19094 Calib Start Date: 02/08/2021 19:27

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 02/08/2021 21:34

Lab File ID: HF08V11.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	0.3010	0.3326	0.1000	5.52	5.00	10.5	30.0
Chloromethane	Ave	0.3094	0.3313	0.1000	5.35	5.00	7.1	30.0
1,3-Butadiene	Ave	0.2684	0.2761		5.14	5.00	2.9	30.0
Vinyl chloride	Ave	0.2946	0.3392	0.1000	5.76	5.00	15.1	30.0
Bromomethane	Ave	0.2340	0.2586	0.1000	5.53	5.00	10.5	30.0
Chloroethane	Ave	0.1907	0.2023	0.1000	5.30	5.00	6.1	30.0
Dichlorofluoromethane	Ave	0.4319	0.4316		5.00	5.00	-0.0	30.0
Trichlorofluoromethane	Ave	0.4433	0.4937	0.1000	5.57	5.00	11.4	30.0
Ethyl ether	Ave	0.1470	0.1600		5.44	5.00	8.8	30.0
Freon 123a	Ave	0.2798	0.3139		5.61	5.00	12.2	30.0
Acrolein	Ave	2.289	1.987		32.6	37.5	-13.2	30.0
1,1-Dichloroethene	Ave	0.2244	0.2556	0.1000	5.69	5.00	13.9	30.0
Acetone	Ave	3.186	2.686	0.1000	31.6	37.5	-15.7	30.0
Freon 113	Ave	0.2497	0.2617	0.1000	5.24	5.00	4.8	30.0
Methyl iodide	Ave	0.4734	0.4902		5.18	5.00	3.5	30.0
Ethyl bromide	Ave	0.2062	0.2008		4.90	5.03	-2.6	30.0
Carbon disulfide	Ave	0.6252	0.6597	0.1000	5.28	5.00	5.5	30.0
Methyl acetate	Ave	8.522	7.552	0.1000	4.43	5.00	-11.4	30.0
Allyl chloride	Ave	0.3534	0.3440		4.87	5.00	-2.7	30.0
Methylene Chloride	Ave	0.2303	0.2485	0.1000	5.40	5.00	7.9	30.0
t-Butyl alcohol	Ave	1.052	0.9681		46.0	50.0	-8.0	30.0
Acrylonitrile	Ave	3.792	3.767		24.8	25.0	-0.7	30.0
Methyl tert-butyl ether	Ave	0.5361	0.5559	0.1000	5.18	5.00	3.7	30.0
trans-1,2-Dichloroethene	Ave	0.2513	0.2685	0.1000	5.34	5.00	6.8	30.0
n-Hexane	Ave	0.3211	0.3433		5.35	5.00	6.9	30.0
1,1-Dichloroethane	Ave	0.4305	0.4584	0.2000	5.32	5.00	6.5	30.0
di-Isopropyl ether	Ave	0.6802	0.7060		5.19	5.00	3.8	30.0
2-Chloro-1,3-butadiene	Ave	0.3762	0.4100		5.45	5.00	9.0	30.0
Ethyl t-butyl ether	Ave	0.6701	0.7038		5.25	5.00	5.0	30.0
2-Butanone (MEK)	Ave	4.755	4.691	0.1000	37.0	37.5	-1.4	30.0
cis-1,2-Dichloroethene	Ave	0.2806	0.3003	0.1000	5.35	5.00	7.0	30.0
2,2-Dichloropropane	Ave	0.3973	0.4251		5.35	5.00	7.0	30.0
Propionitrile	Ave	1.284	1.224		35.7	37.5	-4.7	30.0
Methacrylonitrile	Ave	5.254	5.282		37.7	37.5	0.5	30.0
Bromochloromethane	Ave	0.1265	0.1265		5.00	5.00	0.0	30.0
Tetrahydrofuran	Ave	1.431	1.451		25.3	25.0	1.4	30.0
Chloroform	Ave	0.4480	0.4760	0.2000	5.31	5.00	6.2	30.0
1,1,1-Trichloroethane	Ave	0.4296	0.4769	0.1000	5.55	5.00	11.0	30.0
Cyclohexane	Ave	0.4071	0.4481	0.1000	5.50	5.00	10.1	30.0
1,1-Dichloropropene	Ave	0.3499	0.3770		5.39	5.00	7.7	30.0
Carbon tetrachloride	Ave	0.3826	0.4292	0.1000	5.61	5.00	12.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Lab Sample ID: ICV 410-92110/19 Calibration Date: 02/08/2021 21:55

Instrument ID: 19094 Calib Start Date: 02/08/2021 19:27

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 02/08/2021 21:34

Lab File ID: HF08V11.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	0.3560	0.2991		105	125	-16.0	30.0
Benzene	Ave	0.996	1.050	0.5000	5.27	5.00	5.4	30.0
1,2-Dichloroethane	Ave	0.2709	0.2888	0.1000	5.33	5.00	6.6	30.0
t-Amyl methyl ether	Ave	0.6019	0.6524		5.42	5.00	8.4	30.0
n-Heptane	Ave	0.3296	0.3408		5.17	5.00	3.4	30.0
n-Butanol	Ave	0.2989	0.2520		211	250	-15.7	30.0
Trichloroethene	Ave	0.2786	0.2959	0.2000	5.31	5.00	6.2	30.0
Methylcyclohexane	Ave	0.4620	0.4934	0.1000	5.34	5.00	6.8	30.0
1,2-Dichloropropane	Ave	0.2373	0.2521	0.1000	5.31	5.00	6.2	30.0
Methyl methacrylate	Ave	10.28	10.42		5.07	5.00	1.4	30.0
1,4-Dioxane	Qua		0.0615	0.0050	62.0	125	-50.4*	30.0
Dibromomethane	Ave	0.1209	0.1286		5.32	5.00	6.4	30.0
Bromodichloromethane	Ave	0.3128	0.3360	0.2000	5.37	5.00	7.4	30.0
2-Nitropropane	Ave	3.301	3.251		4.92	5.00	-1.5	30.0
1-Bromo-2-chloroethane	Ave	0.2122	0.2293		5.40	5.00	8.1	30.0
cis-1,3-Dichloropropene	Ave	0.3639	0.3896	0.2000	5.35	5.00	7.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	12.45	12.33	0.1000	24.8	25.0	-0.9	30.0
Toluene	Ave	0.8664	0.9148	0.4000	5.28	5.00	5.6	30.0
trans-1,3-Dichloropropene	Ave	0.3801	0.4275	0.1000	5.62	5.00	12.5	30.0
Ethyl methacrylate	Ave	0.2858	0.3133		5.48	5.00	9.6	30.0
1,1,2-Trichloroethane	Ave	0.2178	0.2362	0.1000	5.42	5.00	8.5	30.0
Tetrachloroethene	Ave	0.4322	0.4703	0.2000	5.44	5.00	8.8	30.0
1,3-Dichloropropane	Ave	0.3672	0.3885		5.29	5.00	5.8	30.0
2-Hexanone	Ave	8.486	8.740	0.1000	25.7	25.0	3.0	30.0
Dibromochloromethane	Ave	0.2880	0.3121		5.42	5.00	8.4	30.0
1,2-Dibromoethane (EDB)	Ave	0.2196	0.2339	0.1000	5.32	5.00	6.5	30.0
1-Chlorohexane	Ave	0.5157	0.5261		5.10	5.00	2.0	30.0
Chlorobenzene	Ave	0.9693	1.025	0.5000	5.29	5.00	5.8	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3492	0.3739		5.35	5.00	7.1	30.0
Ethylbenzene	Ave	1.687	1.816	0.1000	5.38	5.00	7.7	30.0
m&p-Xylene	Ave	0.6637	0.7127	0.1000	10.7	10.0	7.4	30.0
o-Xylene	Ave	0.6472	0.6907	0.3000	5.34	5.00	6.7	30.0
Styrene	Ave	1.052	1.133	0.3000	5.38	5.00	7.7	30.0
Bromoform	Ave	0.1689	0.1850	0.1000	5.48	5.00	9.5	30.0
Isopropylbenzene	Ave	1.751	1.861	0.1000	5.32	5.00	6.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.4515	0.4951	0.3000	5.48	5.00	9.7	30.0
Bromobenzene	Ave	0.7426	0.7977		5.37	5.00	7.4	30.0
trans-1,4-Dichloro-2-butene	Ave	5.171	5.256		25.4	25.0	1.6	30.0
1,2,3-Trichloropropane	Ave	0.1340	0.1419		5.29	5.00	5.9	30.0
N-Propylbenzene	Ave	3.531	3.860		5.47	5.00	9.3	30.0
2-Chlorotoluene	Ave	0.7415	0.7942		5.36	5.00	7.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Lab Sample ID: ICV 410-92110/19 Calibration Date: 02/08/2021 21:55

Instrument ID: 19094 Calib Start Date: 02/08/2021 19:27

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 02/08/2021 21:34

Lab File ID: HF08V11.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	2.618	2.819		5.38	5.00	7.7	30.0
4-Chlorotoluene	Ave	0.7442	0.7946		5.34	5.00	6.8	30.0
tert-Butylbenzene	Ave	0.5765	0.6227		5.40	5.00	8.0	30.0
Pentachloroethane	Ave	0.4584	0.5020		5.47	5.00	9.5	30.0
1,2,4-Trimethylbenzene	Ave	2.675	2.839		5.31	5.00	6.1	30.0
sec-Butylbenzene	Ave	3.337	3.668		5.50	5.00	9.9	30.0
1,3-Dichlorobenzene	Ave	1.472	1.554	0.6000	5.28	5.00	5.6	30.0
p-Isopropyltoluene	Ave	2.882	3.212		5.57	5.00	11.4	30.0
1,4-Dichlorobenzene	Ave	1.462	1.555	0.5000	5.32	5.00	6.4	30.0
1,2,3-Trimethylbenzene	Ave	1.171	1.282		5.48	5.00	9.5	30.0
Benzyl chloride	Ave	0.1913	0.2108		5.51	5.00	10.2	30.0
n-Butylbenzene	Ave	1.347	1.468		5.45	5.00	9.0	30.0
1,2-Dichlorobenzene	Ave	1.328	1.429	0.4000	5.38	5.00	7.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0714	0.0796	0.0500	5.58	5.00	11.5	30.0
1,3,5-Trichlorobenzene	Ave	1.112	1.190		5.35	5.00	7.0	30.0
1,2,4-Trichlorobenzene	Ave	0.9403	0.999	0.2000	5.31	5.00	6.2	30.0
Hexachlorobutadiene	Ave	0.4271	0.4351		5.09	5.00	1.9	30.0
Naphthalene	Ave	1.621	1.743		5.38	5.00	7.5	30.0
1,2,3-Trichlorobenzene	Ave	0.8162	0.8768		5.37	5.00	7.4	30.0
Dibromofluoromethane (Surr)	Ave	0.2575	0.2591		10.1	10.0	0.6	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0484	0.0493		10.2	10.0	1.9	30.0
Toluene-d8 (Surr)	Ave	1.298	1.293		9.96	10.0	-0.4	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4826	0.4846		10.0	10.0	0.4	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08V11.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 08-Feb-2021 21:55:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-019
Misc. Info.: ICV
Operator ID: SRK36897 Instrument ID: 19094
Sublist:

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:41:43 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: knouses Date: 09-Feb-2021 13:30:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.068	2.069	-0.001	99	356785	5.00	5.52	
6 Chloromethane	50	2.270	2.276	-0.006	99	355454	5.00	5.35	
8 Butadiene	39	2.392	2.398	-0.006	90	296193	5.00	5.14	
7 Vinyl chloride	62	2.398	2.398	0.000	97	363884	5.00	5.76	
9 Bromomethane	94	2.733	2.733	0.000	91	277467	5.00	5.53	
10 Chloroethane	64	2.830	2.831	-0.001	100	217004	5.00	5.30	
11 Dichlorofluoromethane	67	3.074	3.081	-0.007	97	463072	5.00	5.00	
13 Trichlorofluoromethane	101	3.141	3.135	0.006	97	529614	5.00	5.57	
15 Ethyl ether	59	3.422	3.428	-0.006	89	171687	5.00	5.44	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.501	3.507	-0.006	93	336759	5.00	5.61	
17 Acrolein	56	3.605	3.611	-0.006	98	168389	37.5	32.6	M
18 1,1-Dichloroethene	96	3.751	3.751	0.000	98	274176	5.00	5.69	
20 112TCTFE	101	3.781	3.782	-0.001	92	280757	5.00	5.24	
19 Acetone	43	3.781	3.788	-0.007	67	227614	37.5	31.6	
22 Iodomethane	142	3.958	3.958	0.000	99	525898	5.00	5.18	
21 Isopropyl alcohol	45	3.922	3.989	-0.067	95	37558	37.5	32.7	
23 Ethyl bromide	108	3.989	3.995	-0.006	98	216878	5.03	4.90	
24 Carbon disulfide	76	4.074	4.074	0.000	99	707781	5.00	5.28	
26 Methyl acetate	43	4.220	4.227	-0.007	97	85333	5.00	4.43	
27 3-Chloro-1-propene	41	4.257	4.257	0.000	89	369084	5.00	4.87	
29 Methylene Chloride	84	4.458	4.458	0.000	89	266626	5.00	5.40	
* 28 t-Butyl alcohol-d10 (IS)	65	4.458	4.464	-0.006	0	112989	50.0	50.0	
30 2-Methyl-2-propanol	59	4.586	4.611	-0.025	99	109381	50.0	46.0	
31 Acrylonitrile	53	4.793	4.812	-0.019	99	212834	25.0	24.8	
32 Methyl tert-butyl ether	73	4.861	4.861	0.000	95	596386	5.00	5.18	
33 trans-1,2-Dichloroethene	96	4.879	4.885	-0.006	98	288022	5.00	5.34	
34 Hexane	57	5.293	5.306	-0.013	92	368327	5.00	5.35	
35 1,1-Dichloroethane	63	5.537	5.543	-0.006	96	491784	5.00	5.32	
37 Isopropyl ether	45	5.592	5.592	0.000	92	757408	5.00	5.19	
38 2-Chloro-1,3-butadiene	53	5.647	5.647	0.000	91	439893	5.00	5.45	

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	6.122	6.123	-0.001	97	755030	5.00	5.25	
41 2-Butanone (MEK)	43	6.318	6.318	0.000	99	397529	37.5	37.0	
42 cis-1,2-Dichloroethene	96	6.366	6.366	0.000	81	322120	5.00	5.35	
43 2,2-Dichloropropane	77	6.385	6.385	0.000	89	456009	5.00	5.35	
45 Propionitrile	54	6.403	6.409	-0.006	98	103734	37.5	35.7	
47 Methacrylonitrile	67	6.622	6.623	-0.001	91	447605	37.5	37.7	
48 Chlorobromomethane	128	6.696	6.702	-0.006	87	135729	5.00	5.00	
49 Tetrahydrofuran	71	6.702	6.702	0.000	79	81948	25.0	25.3	
50 Chloroform	83	6.842	6.842	0.000	94	510641	5.00	5.31	
$ 51 Dibromofluoromethane (Surr)	113	7.061	7.055	0.006	94	555877	10.0	10.1	
52 1,1,1-Trichloroethane	97	7.080	7.080	0.000	98	511572	5.00	5.55	
53 Cyclohexane	56	7.177	7.183	-0.006	89	480696	5.00	5.50	
55 1,1-Dichloropropene	75	7.281	7.287	-0.006	97	404424	5.00	5.39	
56 Carbon tetrachloride	117	7.287	7.293	-0.006	97	460396	5.00	5.61	
57 Isobutyl alcohol	41	7.409	7.421	-0.012	93	84475	125.0	105.0	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.512	7.513	-0.001	0	105763	10.0	10.2	
59 Benzene	78	7.549	7.549	0.000	97	1126765	5.00	5.27	
60 1,2-Dichloroethane	62	7.616	7.616	0.000	98	309807	5.00	5.33	
62 Tert-amyl methyl ether	73	7.732	7.732	0.000	98	699920	5.00	5.42	
* 65 Fluorobenzene (IS)	96	7.951	7.951	0.000	99	2145607	10.0	10.0	
64 n-Heptane	43	7.957	7.958	-0.001	90	365583	5.00	5.17	
66 n-Butanol	56	8.293	8.293	0.000	89	142380	250.0	210.8	
67 Trichloroethene	95	8.427	8.427	0.000	97	317426	5.00	5.31	
68 Methylcyclohexane	83	8.744	8.744	0.000	93	529301	5.00	5.34	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	92	448606	5.00	5.45	
70 1,2-Dichloropropane	63	8.762	8.762	0.000	81	270500	5.00	5.31	
71 Methyl methacrylate	69	8.835	8.836	-0.001	89	117790	5.00	5.07	
72 1,4-Dioxane	88	8.848	8.860	-0.012	29	17371	125.0	62.0	
73 Dibromomethane	93	8.878	8.878	0.000	93	137916	5.00	5.32	
75 Dichlorobromomethane	83	9.104	9.104	0.000	99	360493	5.00	5.37	
76 2-Nitropropane	41	9.366	9.366	0.000	100	36728	5.00	4.92	
78 2-Chloroethyl vinyl ether	63		9.451				ND	ND	
79 1-Bromo-2-chloroethane	63	9.494	9.494	0.000	98	246001	5.00	5.40	
80 cis-1,3-Dichloropropene	75	9.634	9.634	0.000	96	417969	5.00	5.35	
81 4-Methyl-2-pentanone (MIBK)	43	9.793	9.799	-0.007	96	696840	25.0	24.8	
$ 82 Toluene-d8 (Surr)	98	9.933	9.933	0.000	93	2139131	10.0	9.96	
83 Toluene	92	10.012	10.012	0.000	98	756672	5.00	5.28	
85 trans-1,3-Dichloropropene	75	10.256	10.256	0.000	93	353598	5.00	5.62	
86 Ethyl methacrylate	69	10.311	10.311	0.000	88	259130	5.00	5.48	
87 1,1,2-Trichloroethane	97	10.463	10.457	0.006	91	195390	5.00	5.42	
88 Tetrachloroethene	166	10.548	10.549	-0.001	98	388998	5.00	5.44	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	89	321385	5.00	5.29	
91 2-Hexanone	43	10.664	10.664	0.000	96	493742	25.0	25.7	
93 Chlorodibromomethane	129	10.835	10.835	0.000	89	258134	5.00	5.42	
94 Ethylene Dibromide	107	10.951	10.951	0.000	99	193445	5.00	5.32	
* 97 Chlorobenzene-d5 (IS)	117	11.371	11.371	0.000	86	1654372	10.0	10.0	
96 1-Chlorohexane	91	11.371	11.372	-0.001	95	435163	5.00	5.10	
98 Chlorobenzene	112	11.396	11.396	0.000	96	848107	5.00	5.29	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	94	309266	5.00	5.35	
100 Ethylbenzene	91	11.481	11.481	0.000	98	1501973	5.00	5.38	
101 m-Xylene & p-Xylene	106	11.591	11.591	0.000	98	1179133	10.0	10.7	
102 o-Xylene	106	11.920	11.920	0.000	96	571317	5.00	5.34	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Styrene	104	11.932	11.932	0.000	94	937010	5.00	5.38	
104 Bromoform	173	12.097	12.097	0.000	97	153009	5.00	5.48	
105 Isopropylbenzene	105	12.213	12.213	0.000	96	1539801	5.00	5.32	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	93	801631	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	95	228872	5.00	5.48	
111 Bromobenzene	156	12.481	12.481	0.000	95	368768	5.00	5.37	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	91	296925	25.0	25.4	
112 1,2,3-Trichloropropane	110	12.505	12.506	-0.001	84	65589	5.00	5.29	
113 N-Propylbenzene	91	12.542	12.542	0.000	99	1784468	5.00	5.47	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	367187	5.00	5.36	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	94	1303326	5.00	5.38	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	367371	5.00	5.34	
118 tert-Butylbenzene	134	12.920	12.920	0.000	93	287879	5.00	5.40	
119 Pentachloroethane	167	12.957	12.957	0.000	93	232072	5.00	5.47	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	1312565	5.00	5.31	
121 sec-Butylbenzene	105	13.078	13.085	-0.007	94	1695775	5.00	5.50	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	98	718604	5.00	5.28	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	1484819	5.00	5.57	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	924621	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	95	719097	5.00	5.32	
126 1,2,3-Trimethylbenzene	120	13.267	13.268	-0.001	98	592898	5.00	5.48	
127 Benzyl chloride	126	13.334	13.335	-0.001	98	97476	5.00	5.51	
129 p-Diethylbenzene	119	13.456	13.457	-0.001	95	895358	5.00	5.42	
130 n-Butylbenzene	92	13.481	13.481	0.000	97	678696	5.00	5.45	
131 1,2-Dichlorobenzene	146	13.517	13.518	-0.001	99	660587	5.00	5.38	
134 1,2-Dibromo-3-Chloropropane	155	14.060	14.060	0.000	88	36803	5.00	5.58	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	98	550200	5.00	5.35	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	94	461681	5.00	5.31	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	97	201158	5.00	5.09	
138 Naphthalene	128	14.792	14.792	0.000	97	805876	5.00	5.38	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	96	405335	5.00	5.37	
140 2-Methylnaphthalene	142	15.584	15.584	0.000	92	477479	5.00	5.24	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00067	Amount Added:	12.50	Units: uL	
MSV_Q_QVOA6_00065	Amount Added:	12.50	Units: uL	
MSV_Q_QARC_00066	Amount Added:	12.50	Units: uL	
MSV_QGAS_826_00109	Amount Added:	12.50	Units: uL	
MSV_Q_EE_00003	Amount Added:	12.50	Units: uL	
MSV_Q_ETBR_00006	Amount Added:	12.50	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

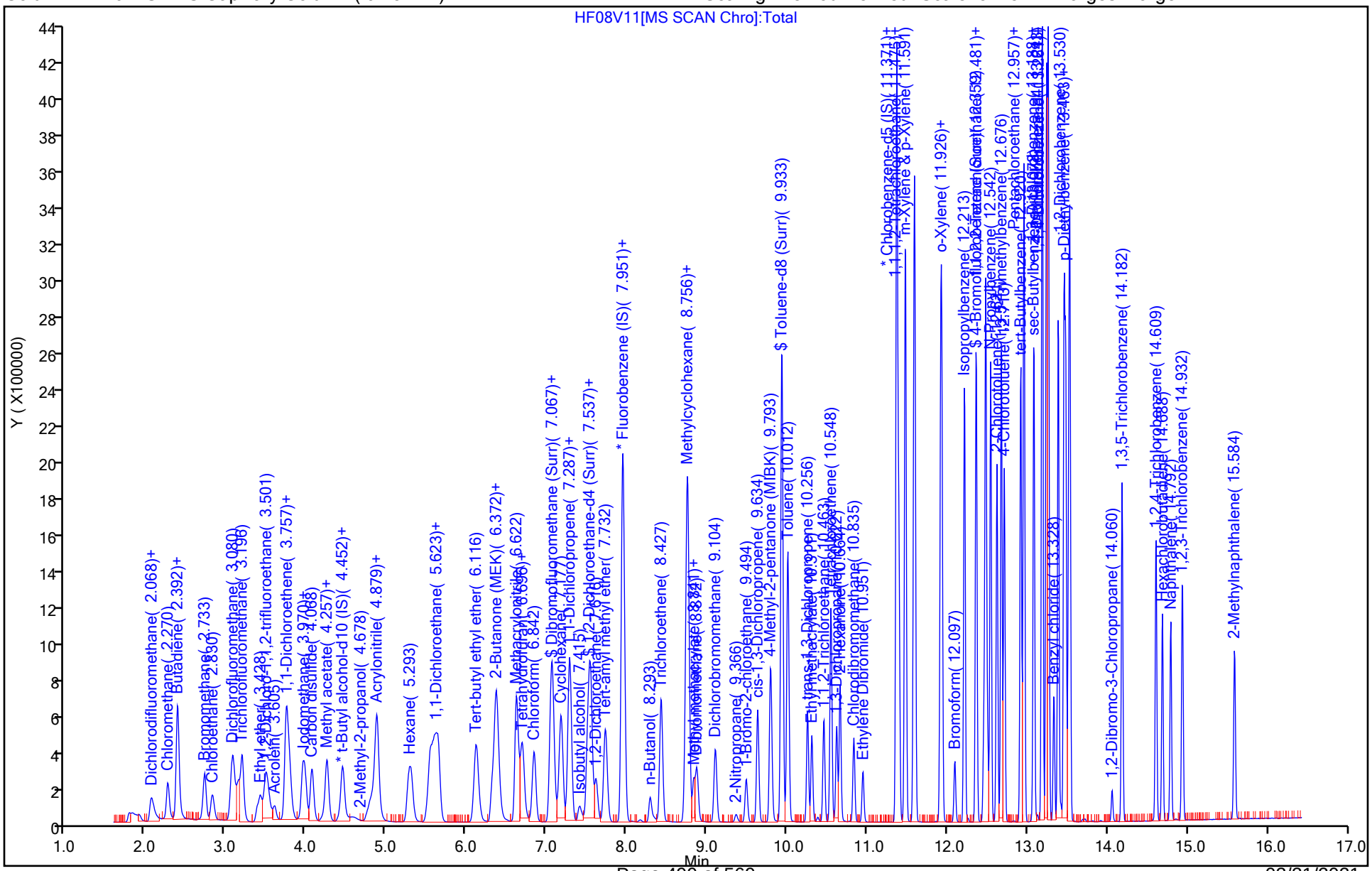
Report Date: 09-Feb-2021 15:41:47 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08V11.D

Injection Date:	08-Feb-2021 21:55:30	Instrument ID:	19094	Operator ID:	SRK36897
Lims ID:	ICV			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

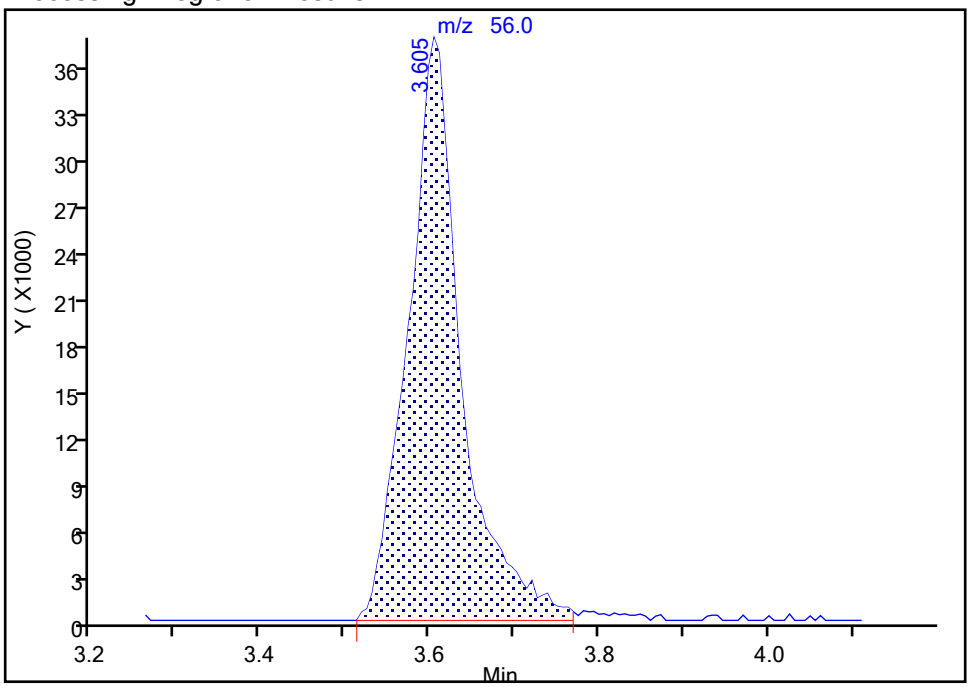
Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08V11.D				
Injection Date:	08-Feb-2021 21:55:30	Instrument ID:	19094		
Lims ID:	ICV				
Client ID:					
Operator ID:	SRK36897	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 Acrolein, CAS: 107-02-8

Signal: 1

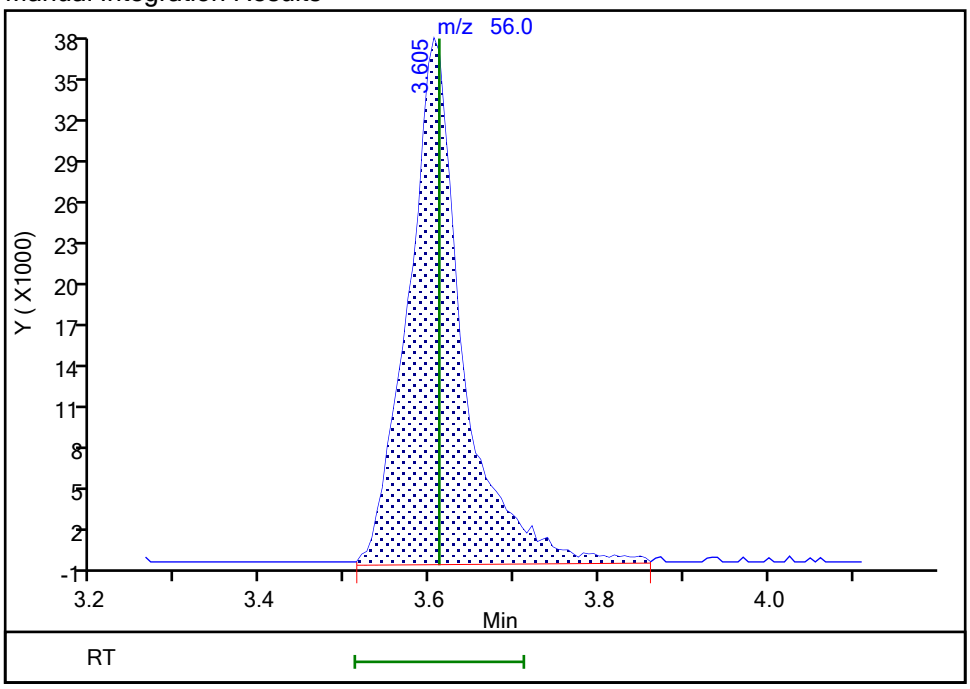
Processing Integration Results

RT: 3.60
Area: 162877
Amount: 31.489645
Amount Units: ug/l



Manual Integration Results

RT: 3.60
Area: 168389
Amount: 32.555302
Amount Units: ug/l



Reviewer: knouses, 09-Feb-2021 13:29:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Lab Sample ID: ICV 410-92110/19 Calibration Date: 02/08/2021 21:55

Instrument ID: 19094 Calib Start Date: 02/08/2021 16:15

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 02/08/2021 18:23

Lab File ID: HF08V11.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
2-Chloroethyl vinyl ether	Ave	0.1024				5.00		

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08V11.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 08-Feb-2021 21:55:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0021577-019
Misc. Info.: ICV
Operator ID: SRK36897 Instrument ID: 19094
Sublist:

Method: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 09-Feb-2021 15:41:43 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1623

First Level Reviewer: knouses Date: 09-Feb-2021 13:30:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.068	2.069	-0.001	99	356785	5.00	5.52	
6 Chloromethane	50	2.270	2.276	-0.006	99	355454	5.00	5.35	
8 Butadiene	39	2.392	2.398	-0.006	90	296193	5.00	5.14	
7 Vinyl chloride	62	2.398	2.398	0.000	97	363884	5.00	5.76	
9 Bromomethane	94	2.733	2.733	0.000	91	277467	5.00	5.53	
10 Chloroethane	64	2.830	2.831	-0.001	100	217004	5.00	5.30	
11 Dichlorofluoromethane	67	3.074	3.081	-0.007	97	463072	5.00	5.00	
13 Trichlorofluoromethane	101	3.141	3.135	0.006	97	529614	5.00	5.57	
15 Ethyl ether	59	3.422	3.428	-0.006	89	171687	5.00	5.44	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.501	3.507	-0.006	93	336759	5.00	5.61	
17 Acrolein	56	3.605	3.611	-0.006	98	168389	37.5	32.6	M
18 1,1-Dichloroethene	96	3.751	3.751	0.000	98	274176	5.00	5.69	
20 112TCTFE	101	3.781	3.782	-0.001	92	280757	5.00	5.24	
19 Acetone	43	3.781	3.788	-0.007	67	227614	37.5	31.6	
22 Iodomethane	142	3.958	3.958	0.000	99	525898	5.00	5.18	
21 Isopropyl alcohol	45	3.922	3.989	-0.067	95	37558	37.5	32.7	
23 Ethyl bromide	108	3.989	3.995	-0.006	98	216878	5.03	4.90	
24 Carbon disulfide	76	4.074	4.074	0.000	99	707781	5.00	5.28	
26 Methyl acetate	43	4.220	4.227	-0.007	97	85333	5.00	4.43	
27 3-Chloro-1-propene	41	4.257	4.257	0.000	89	369084	5.00	4.87	
29 Methylene Chloride	84	4.458	4.458	0.000	89	266626	5.00	5.40	
* 28 t-Butyl alcohol-d10 (IS)	65	4.458	4.464	-0.006	0	112989	50.0	50.0	
30 2-Methyl-2-propanol	59	4.586	4.611	-0.025	99	109381	50.0	46.0	
31 Acrylonitrile	53	4.793	4.812	-0.019	99	212834	25.0	24.8	
32 Methyl tert-butyl ether	73	4.861	4.861	0.000	95	596386	5.00	5.18	
33 trans-1,2-Dichloroethene	96	4.879	4.885	-0.006	98	288022	5.00	5.34	
34 Hexane	57	5.293	5.306	-0.013	92	368327	5.00	5.35	
35 1,1-Dichloroethane	63	5.537	5.543	-0.006	96	491784	5.00	5.32	
37 Isopropyl ether	45	5.592	5.592	0.000	92	757408	5.00	5.19	
38 2-Chloro-1,3-butadiene	53	5.647	5.647	0.000	91	439893	5.00	5.45	

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	6.122	6.123	-0.001	97	755030	5.00	5.25	
41 2-Butanone (MEK)	43	6.318	6.318	0.000	99	397529	37.5	37.0	
42 cis-1,2-Dichloroethene	96	6.366	6.366	0.000	81	322120	5.00	5.35	
43 2,2-Dichloropropane	77	6.385	6.385	0.000	89	456009	5.00	5.35	
45 Propionitrile	54	6.403	6.409	-0.006	98	103734	37.5	35.7	
47 Methacrylonitrile	67	6.622	6.623	-0.001	91	447605	37.5	37.7	
48 Chlorobromomethane	128	6.696	6.702	-0.006	87	135729	5.00	5.00	
49 Tetrahydrofuran	71	6.702	6.702	0.000	79	81948	25.0	25.3	
50 Chloroform	83	6.842	6.842	0.000	94	510641	5.00	5.31	
$ 51 Dibromofluoromethane (Surr)	113	7.061	7.055	0.006	94	555877	10.0	10.1	
52 1,1,1-Trichloroethane	97	7.080	7.080	0.000	98	511572	5.00	5.55	
53 Cyclohexane	56	7.177	7.183	-0.006	89	480696	5.00	5.50	
55 1,1-Dichloropropene	75	7.281	7.287	-0.006	97	404424	5.00	5.39	
56 Carbon tetrachloride	117	7.287	7.293	-0.006	97	460396	5.00	5.61	
57 Isobutyl alcohol	41	7.409	7.421	-0.012	93	84475	125.0	105.0	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.512	7.513	-0.001	0	105763	10.0	10.2	
59 Benzene	78	7.549	7.549	0.000	97	1126765	5.00	5.27	
60 1,2-Dichloroethane	62	7.616	7.616	0.000	98	309807	5.00	5.33	
62 Tert-amyl methyl ether	73	7.732	7.732	0.000	98	699920	5.00	5.42	
* 65 Fluorobenzene (IS)	96	7.951	7.951	0.000	99	2145607	10.0	10.0	
64 n-Heptane	43	7.957	7.958	-0.001	90	365583	5.00	5.17	
66 n-Butanol	56	8.293	8.293	0.000	89	142380	250.0	210.8	
67 Trichloroethene	95	8.427	8.427	0.000	97	317426	5.00	5.31	
68 Methylcyclohexane	83	8.744	8.744	0.000	93	529301	5.00	5.34	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	92	448606	5.00	5.45	
70 1,2-Dichloropropane	63	8.762	8.762	0.000	81	270500	5.00	5.31	
71 Methyl methacrylate	69	8.835	8.836	-0.001	89	117790	5.00	5.07	
72 1,4-Dioxane	88	8.848	8.860	-0.012	29	17371	125.0	62.0	
73 Dibromomethane	93	8.878	8.878	0.000	93	137916	5.00	5.32	
75 Dichlorobromomethane	83	9.104	9.104	0.000	99	360493	5.00	5.37	
76 2-Nitropropane	41	9.366	9.366	0.000	100	36728	5.00	4.92	
78 2-Chloroethyl vinyl ether	63		9.451				ND	ND	
79 1-Bromo-2-chloroethane	63	9.494	9.494	0.000	98	246001	5.00	5.40	
80 cis-1,3-Dichloropropene	75	9.634	9.634	0.000	96	417969	5.00	5.35	
81 4-Methyl-2-pentanone (MIBK)	43	9.793	9.799	-0.007	96	696840	25.0	24.8	
$ 82 Toluene-d8 (Surr)	98	9.933	9.933	0.000	93	2139131	10.0	9.96	
83 Toluene	92	10.012	10.012	0.000	98	756672	5.00	5.28	
85 trans-1,3-Dichloropropene	75	10.256	10.256	0.000	93	353598	5.00	5.62	
86 Ethyl methacrylate	69	10.311	10.311	0.000	88	259130	5.00	5.48	
87 1,1,2-Trichloroethane	97	10.463	10.457	0.006	91	195390	5.00	5.42	
88 Tetrachloroethene	166	10.548	10.549	-0.001	98	388998	5.00	5.44	
89 1,3-Dichloropropane	76	10.622	10.622	0.000	89	321385	5.00	5.29	
91 2-Hexanone	43	10.664	10.664	0.000	96	493742	25.0	25.7	
93 Chlorodibromomethane	129	10.835	10.835	0.000	89	258134	5.00	5.42	
94 Ethylene Dibromide	107	10.951	10.951	0.000	99	193445	5.00	5.32	
* 97 Chlorobenzene-d5 (IS)	117	11.371	11.371	0.000	86	1654372	10.0	10.0	
96 1-Chlorohexane	91	11.371	11.372	-0.001	95	435163	5.00	5.10	
98 Chlorobenzene	112	11.396	11.396	0.000	96	848107	5.00	5.29	
99 1,1,1,2-Tetrachloroethane	131	11.475	11.475	0.000	94	309266	5.00	5.35	
100 Ethylbenzene	91	11.481	11.481	0.000	98	1501973	5.00	5.38	
101 m-Xylene & p-Xylene	106	11.591	11.591	0.000	98	1179133	10.0	10.7	
102 o-Xylene	106	11.920	11.920	0.000	96	571317	5.00	5.34	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Styrene	104	11.932	11.932	0.000	94	937010	5.00	5.38	
104 Bromoform	173	12.097	12.097	0.000	97	153009	5.00	5.48	
105 Isopropylbenzene	105	12.213	12.213	0.000	96	1539801	5.00	5.32	
$ 108 4-Bromofluorobenzene (Surr)	95	12.359	12.359	0.000	93	801631	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.457	12.457	0.000	95	228872	5.00	5.48	
111 Bromobenzene	156	12.481	12.481	0.000	95	368768	5.00	5.37	
110 trans-1,4-Dichloro-2-butene	53	12.481	12.481	0.000	91	296925	25.0	25.4	
112 1,2,3-Trichloropropane	110	12.505	12.506	-0.001	84	65589	5.00	5.29	
113 N-Propylbenzene	91	12.542	12.542	0.000	99	1784468	5.00	5.47	
114 2-Chlorotoluene	126	12.621	12.621	0.000	97	367187	5.00	5.36	
115 1,3,5-Trimethylbenzene	105	12.676	12.676	0.000	94	1303326	5.00	5.38	
116 4-Chlorotoluene	126	12.713	12.713	0.000	97	367371	5.00	5.34	
118 tert-Butylbenzene	134	12.920	12.920	0.000	93	287879	5.00	5.40	
119 Pentachloroethane	167	12.957	12.957	0.000	93	232072	5.00	5.47	
120 1,2,4-Trimethylbenzene	105	12.963	12.963	0.000	97	1312565	5.00	5.31	
121 sec-Butylbenzene	105	13.078	13.085	-0.007	94	1695775	5.00	5.50	
122 1,3-Dichlorobenzene	146	13.182	13.182	0.000	98	718604	5.00	5.28	
123 4-Isopropyltoluene	119	13.188	13.188	0.000	97	1484819	5.00	5.57	
* 124 1,4-Dichlorobenzene-d4	152	13.237	13.237	0.000	94	924621	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.255	13.255	0.000	95	719097	5.00	5.32	
126 1,2,3-Trimethylbenzene	120	13.267	13.268	-0.001	98	592898	5.00	5.48	
127 Benzyl chloride	126	13.334	13.335	-0.001	98	97476	5.00	5.51	
129 p-Diethylbenzene	119	13.456	13.457	-0.001	95	895358	5.00	5.42	
130 n-Butylbenzene	92	13.481	13.481	0.000	97	678696	5.00	5.45	
131 1,2-Dichlorobenzene	146	13.517	13.518	-0.001	99	660587	5.00	5.38	
134 1,2-Dibromo-3-Chloropropane	155	14.060	14.060	0.000	88	36803	5.00	5.58	
135 1,3,5-Trichlorobenzene	180	14.182	14.182	0.000	98	550200	5.00	5.35	
136 1,2,4-Trichlorobenzene	180	14.609	14.609	0.000	94	461681	5.00	5.31	
137 Hexachlorobutadiene	225	14.688	14.688	0.000	97	201158	5.00	5.09	
138 Naphthalene	128	14.792	14.792	0.000	97	805876	5.00	5.38	
139 1,2,3-Trichlorobenzene	180	14.938	14.938	0.000	96	405335	5.00	5.37	
140 2-Methylnaphthalene	142	15.584	15.584	0.000	92	477479	5.00	5.24	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

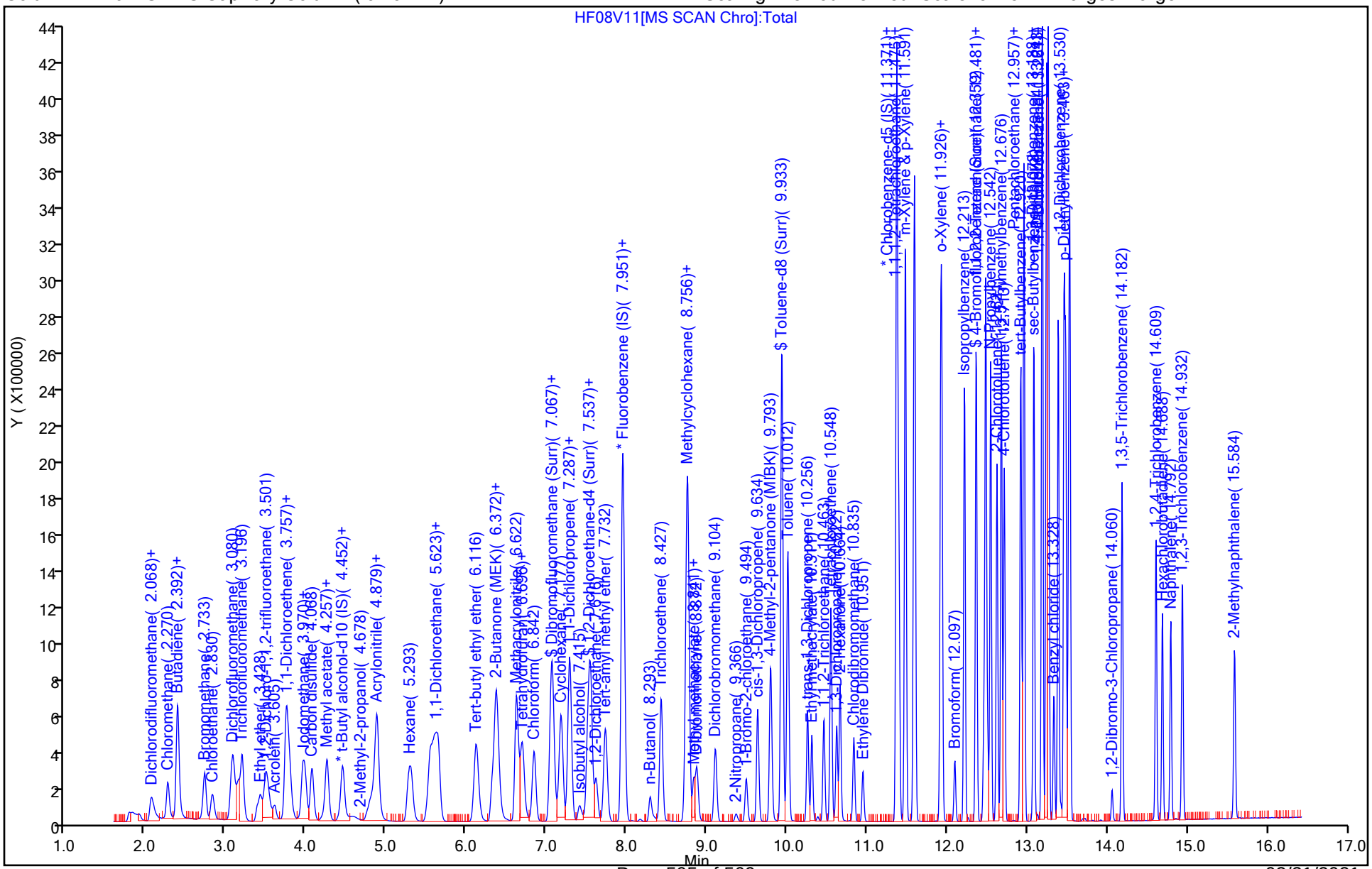
MSV_Q_QVOA1_00067	Amount Added:	12.50	Units: uL	
MSV_Q_QVOA6_00065	Amount Added:	12.50	Units: uL	
MSV_Q_QARC_00066	Amount Added:	12.50	Units: uL	
MSV_QGAS_826_00109	Amount Added:	12.50	Units: uL	
MSV_Q_EE_00003	Amount Added:	12.50	Units: uL	
MSV_Q_ETBR_00006	Amount Added:	12.50	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 09-Feb-2021 15:41:47 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08V11.D				
Injection Date:	08-Feb-2021 21:55:30	Instrument ID:	19094	Operator ID:	SRK36897
Lims ID:	ICV			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



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Lab Sample ID: CCVIS 410-108546/3 Calibration Date: 03/29/2021 19:07

Instrument ID: 19094 Calib Start Date: 02/08/2021 19:27

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 02/08/2021 21:34

Lab File ID: HM29C31.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	0.3010	0.2464	0.1000	8.19	10.0	-18.1	20.0
Chloromethane	Ave	0.3094	0.2995	0.1000	9.68	10.0	-3.2	20.0
1,3-Butadiene	Ave	0.2684	0.2336		8.70	10.0	-13.0	20.0
Vinyl chloride	Ave	0.2946	0.2999	0.1000	10.2	10.0	1.8	20.0
Bromomethane	Ave	0.2340	0.2303	0.1000	9.84	10.0	-1.6	20.0
Chloroethane	Ave	0.1907	0.1943	0.1000	10.2	10.0	1.9	20.0
Dichlorofluoromethane	Ave	0.4319	0.3058		7.08	10.0	-29.2*	20.0
Trichlorofluoromethane	Ave	0.4433	0.4386	0.1000	9.89	10.0	-1.1	20.0
Ethyl ether	Ave	0.1470	0.1676		11.4	10.0	14.0	20.0
Freon 123a	Ave	0.2798	0.2964		10.6	10.0	5.9	20.0
Acrolein	Ave	2.289	3.677		803	500	60.7*	20.0
1,1-Dichloroethene	Ave	0.2244	0.2258	0.1000	10.1	10.0	0.6	20.0
Acetone	Ave	3.186	3.835	0.1000	120	100	20.4*	20.0
Freon 113	Ave	0.2497	0.2617	0.1000	10.5	10.0	4.8	20.0
Methyl iodide	Ave	0.4734	0.4593		9.70	10.0	-3.0	20.0
Ethyl bromide	Ave	0.2062	0.2111		10.2	10.0	2.4	20.0
Carbon disulfide	Ave	0.6252	0.6265	0.1000	10.0	10.0	0.2	20.0
Methyl acetate	Ave	8.522	12.13	0.1000	14.2	10.0	42.4*	20.0
Allyl chloride	Ave	0.3534	0.3328		9.42	10.0	-5.8	20.0
Methylene Chloride	Ave	0.2303	0.2407	0.1000	10.5	10.0	4.5	20.0
t-Butyl alcohol	Ave	1.052	0.8836		168	200	-16.0	20.0
Acrylonitrile	Ave	3.792	5.839		77.0	50.0	54.0*	20.0
Methyl tert-butyl ether	Ave	0.5361	0.5268	0.1000	9.83	10.0	-1.7	20.0
trans-1,2-Dichloroethene	Ave	0.2513	0.2527	0.1000	10.1	10.0	0.6	20.0
n-Hexane	Ave	0.3211	0.3524		11.0	10.0	9.8	20.0
1,1-Dichloroethane	Ave	0.4305	0.4459	0.2000	10.4	10.0	3.6	20.0
di-Isopropyl ether	Ave	0.6802	0.7005		10.3	10.0	3.0	20.0
2-Chloro-1,3-butadiene	Ave	0.3762	0.3803		10.1	10.0	1.1	20.0
Ethyl t-butyl ether	Ave	0.6701	0.6483		9.67	10.0	-3.3	20.0
2-Butanone (MEK)	Ave	4.755	7.063	0.1000	149	100	48.5*	20.0
cis-1,2-Dichloroethene	Ave	0.2806	0.2877	0.1000	10.3	10.0	2.5	20.0
2,2-Dichloropropane	Ave	0.3973	0.3784		9.52	10.0	-4.8	20.0
Propionitrile	Ave	1.284	1.791		279	200	39.5*	20.0
Methacrylonitrile	Ave	5.254	8.363		159	100	59.2*	20.0
Bromochloromethane	Ave	0.1265	0.1335		10.6	10.0	5.6	20.0
Tetrahydrofuran	Ave	1.431	2.155		151	100	50.6*	20.0
Chloroform	Ave	0.4480	0.4588	0.2000	10.2	10.0	2.4	20.0
1,1,1-Trichloroethane	Ave	0.4296	0.4176	0.1000	9.72	10.0	-2.8	20.0
Cyclohexane	Ave	0.4071	0.4270	0.1000	10.5	10.0	4.9	20.0
1,1-Dichloropropene	Ave	0.3499	0.3643		10.4	10.0	4.1	20.0
Carbon tetrachloride	Ave	0.3826	0.3684	0.1000	9.63	10.0	-3.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Lab Sample ID: CCVIS 410-108546/3 Calibration Date: 03/29/2021 19:07

Instrument ID: 19094 Calib Start Date: 02/08/2021 19:27

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 02/08/2021 21:34

Lab File ID: HM29C31.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	0.3560	0.3081		433	500	-13.5	20.0
Benzene	Ave	0.996	1.047	0.5000	10.5	10.0	5.1	20.0
1,2-Dichloroethane	Ave	0.2709	0.2622	0.1000	9.68	10.0	-3.2	20.0
t-Amyl methyl ether	Ave	0.6019	0.5841		9.70	10.0	-3.0	20.0
n-Heptane	Ave	0.3296	0.3484		10.6	10.0	5.7	20.0
n-Butanol	Ave	0.2989	0.2290		766	1000	-23.4*	20.0
Trichloroethene	Ave	0.2786	0.2879	0.2000	10.3	10.0	3.3	20.0
Methylcyclohexane	Ave	0.4620	0.4914	0.1000	10.6	10.0	6.4	20.0
1,2-Dichloropropane	Ave	0.2373	0.2607	0.1000	11.0	10.0	9.8	20.0
Methyl methacrylate	Ave	10.28	15.78		15.3	10.0	53.4*	20.0
1,4-Dioxane	Qua		0.0348	0.0050	140	500	-71.9*	20.0
Dibromomethane	Ave	0.1209	0.1282		10.6	10.0	6.0	20.0
Bromodichloromethane	Ave	0.3128	0.3305	0.2000	10.6	10.0	5.7	20.0
2-Nitropropane	Ave	3.301	4.019		122	100	21.8*	20.0
1-Bromo-2-chloroethane	Ave	0.2122	0.2403		11.3	10.0	13.3	20.0
cis-1,3-Dichloropropene	Ave	0.3639	0.3883	0.2000	10.7	10.0	6.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.45	19.16	0.1000	154	100	53.9*	20.0
Toluene	Ave	0.8664	0.9016	0.4000	10.4	10.0	4.1	20.0
trans-1,3-Dichloropropene	Ave	0.3801	0.3978	0.1000	10.5	10.0	4.7	20.0
Ethyl methacrylate	Ave	0.2858	0.2916		10.2	10.0	2.0	20.0
1,1,2-Trichloroethane	Ave	0.2178	0.2401	0.1000	11.0	10.0	10.3	20.0
Tetrachloroethene	Ave	0.4322	0.4528	0.2000	10.5	10.0	4.8	20.0
1,3-Dichloropropane	Ave	0.3672	0.4030		11.0	10.0	9.7	20.0
2-Hexanone	Ave	8.486	12.97	0.1000	153	100	52.9*	20.0
Dibromochloromethane	Ave	0.2880	0.3098		10.8	10.0	7.6	20.0
1,2-Dibromoethane (EDB)	Ave	0.2196	0.2330	0.1000	10.6	10.0	6.1	20.0
1-Chlorohexane	Ave	0.5157	0.5193		10.1	10.0	0.7	20.0
Chlorobenzene	Ave	0.9693	1.013	0.5000	10.5	10.0	4.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3492	0.3542		10.1	10.0	1.4	20.0
Ethylbenzene	Ave	1.687	1.757	0.1000	10.4	10.0	4.2	20.0
m&p-Xylene	Ave	0.6637	0.6957	0.1000	21.0	20.0	4.8	20.0
o-Xylene	Ave	0.6472	0.6718	0.3000	10.4	10.0	3.8	20.0
Styrene	Ave	1.052	1.116	0.3000	10.6	10.0	6.0	20.0
Bromoform	Ave	0.1689	0.1799	0.1000	10.7	10.0	6.5	20.0
Isopropylbenzene	Ave	1.751	1.810	0.1000	10.3	10.0	3.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4515	0.5015	0.3000	11.1	10.0	11.1	20.0
Bromobenzene	Ave	0.7426	0.7821		10.5	10.0	5.3	20.0
trans-1,4-Dichloro-2-butene	Ave	5.171	6.538		126	100	26.4*	20.0
1,2,3-Trichloropropane	Ave	0.1340	0.1382		10.3	10.0	3.1	20.0
N-Propylbenzene	Ave	3.531	3.749		10.6	10.0	6.2	20.0
2-Chlorotoluene	Ave	0.7415	0.7642		10.3	10.0	3.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Lab Sample ID: CCVIS 410-108546/3 Calibration Date: 03/29/2021 19:07

Instrument ID: 19094 Calib Start Date: 02/08/2021 19:27

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 02/08/2021 21:34

Lab File ID: HM29C31.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	2.618	2.730		10.4	10.0	4.3	20.0
4-Chlorotoluene	Ave	0.7442	0.7906		10.6	10.0	6.2	20.0
tert-Butylbenzene	Ave	0.5765	0.5998		10.4	10.0	4.0	20.0
1,2,4-Trimethylbenzene	Ave	2.675	2.815		10.5	10.0	5.2	20.0
Pentachloroethane	Ave	0.4584	0.4751		10.4	10.0	3.6	20.0
sec-Butylbenzene	Ave	3.337	3.541		10.6	10.0	6.1	20.0
1,3-Dichlorobenzene	Ave	1.472	1.535	0.6000	10.4	10.0	4.3	20.0
p-Isopropyltoluene	Ave	2.882	3.038		10.5	10.0	5.4	20.0
1,4-Dichlorobenzene	Ave	1.462	1.512	0.5000	10.3	10.0	3.4	20.0
1,2,3-Trimethylbenzene	Ave	1.171	1.211		10.3	10.0	3.4	20.0
Benzyl chloride	Ave	0.1913	0.1708		8.93	10.0	-10.7	20.0
n-Butylbenzene	Ave	1.347	1.455		10.8	10.0	8.0	20.0
1,2-Dichlorobenzene	Ave	1.328	1.381	0.4000	10.4	10.0	4.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0714	0.0733	0.0500	10.3	10.0	2.7	20.0
1,3,5-Trichlorobenzene	Ave	1.112	1.169		10.5	10.0	5.1	20.0
1,2,4-Trichlorobenzene	Ave	0.9403	0.9922	0.2000	10.6	10.0	5.5	20.0
Hexachlorobutadiene	Ave	0.4271	0.4017		9.41	10.0	-5.9	20.0
Naphthalene	Ave	1.621	1.618		9.98	10.0	-0.2	20.0
1,2,3-Trichlorobenzene	Ave	0.8162	0.8449		10.4	10.0	3.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2575	0.2583		10.0	10.0	0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0484	0.0507		10.5	10.0	4.7	20.0
Toluene-d8 (Surr)	Ave	1.298	1.304		10.1	10.0	0.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4826	0.4769		9.88	10.0	-1.2	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29C31.D
Lims ID: CCVIS VSTD010
Client ID:
Sample Type: CCVIS
Inject. Date: 29-Mar-2021 19:07:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-003
Misc. Info.: CCVIS VSTD010
Operator ID: MEC29284 Instrument ID: 19094
Sublist: chrom-MSV_19094_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Mar-2021 20:16:16 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: campbellme Date: 29-Mar-2021 19:47:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.075	2.075	0.000	99	594985	10.0	8.19	
6 Chloromethane	50	2.282	2.282	0.000	99	723144	10.0	9.68	
8 Butadiene	39	2.404	2.404	0.000	92	564072	10.0	8.70	
7 Vinyl chloride	62	2.410	2.410	0.000	98	724111	10.0	10.2	
9 Bromomethane	94	2.751	2.751	0.000	90	556191	10.0	9.84	
10 Chloroethane	64	2.849	2.849	0.000	100	469164	10.0	10.2	
11 Dichlorofluoromethane	67	3.093	3.093	0.000	97	738549	10.0	7.08	
13 Trichlorofluoromethane	101	3.172	3.172	0.000	98	1059192	10.0	9.89	
15 Ethyl ether	59	3.434	3.434	0.000	91	404881	10.0	11.4	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.519	3.519	0.000	91	715735	10.0	10.6	
17 Acrolein	56	3.623	3.623	0.000	99	3004527	500.0	803.2	
18 1,1-Dichloroethene	96	3.769	3.769	0.000	98	545334	10.0	10.1	
19 Acetone	43	3.788	3.788	0.000	78	626709	100.0	120.4	
20 112TCTFE	101	3.806	3.806	0.000	92	631933	10.0	10.5	
21 Isopropyl alcohol	45	3.940	3.940	0.000	96	118934	200.0	92.1	
22 Iodomethane	142	3.977	3.977	0.000	98	1109122	10.0	9.70	
23 Ethyl bromide	108	4.013	4.013	0.000	98	509970	10.0	10.2	
24 Carbon disulfide	76	4.092	4.092	0.000	99	1512967	10.0	10.0	
26 Methyl acetate	43	4.227	4.227	0.000	98	198306	10.0	14.2	
27 3-Chloro-1-propene	41	4.281	4.281	0.000	90	803669	10.0	9.42	
29 Methylene Chloride	84	4.477	4.477	0.000	89	581174	10.0	10.5	
* 28 t-Butyl alcohol-d10 (IS)	65	4.495	4.495	0.000	0	81710	50.0	50.0	
30 2-Methyl-2-propanol	59	4.647	4.647	0.000	99	288802	200.0	168.0	
31 Acrylonitrile	53	4.818	4.818	0.000	99	477114	50.0	77.0	
32 Methyl tert-butyl ether	73	4.891	4.891	0.000	94	1272147	10.0	9.83	
33 trans-1,2-Dichloroethene	96	4.909	4.909	0.000	99	610304	10.0	10.1	
34 Hexane	57	5.318	5.318	0.000	92	851094	10.0	11.0	
35 1,1-Dichloroethane	63	5.562	5.562	0.000	96	1076748	10.0	10.4	
37 Isopropyl ether	45	5.617	5.617	0.000	93	1691462	10.0	10.3	
38 2-Chloro-1,3-butadiene	53	5.665	5.665	0.000	90	918252	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	6.141	6.141	0.000	97	1565403	10.0	9.67	
41 2-Butanone (MEK)	43	6.336	6.336	0.000	99	1154185	100.0	148.5	
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	82	694748	10.0	10.3	
43 2,2-Dichloropropane	77	6.409	6.409	0.000	87	913693	10.0	9.52	
45 Propionitrile	54	6.427	6.427	0.000	99	585521	200.0	279.0	
47 Methacrylonitrile	67	6.641	6.641	0.000	90	1366720	100.0	159.2	
48 Chlorobromomethane	128	6.714	6.714	0.000	88	322481	10.0	10.6	
49 Tetrahydrofuran	71	6.714	6.714	0.000	82	352136	100.0	150.6	
50 Chloroform	83	6.860	6.860	0.000	93	1108022	10.0	10.2	
$ 51 Dibromofluoromethane (Surr)	113	7.074	7.074	0.000	94	623813	10.0	10.0	
52 1,1,1-Trichloroethane	97	7.092	7.092	0.000	98	1008378	10.0	9.72	
53 Cyclohexane	56	7.196	7.196	0.000	89	1031059	10.0	10.5	
55 1,1-Dichloropropene	75	7.299	7.299	0.000	97	879740	10.0	10.4	
56 Carbon tetrachloride	117	7.305	7.305	0.000	97	889659	10.0	9.63	
57 Isobutyl alcohol	41	7.421	7.421	0.000	93	251745	500.0	432.7	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.525	7.525	0.000	0	122353	10.0	10.5	
59 Benzene	78	7.561	7.561	0.000	96	2527765	10.0	10.5	
60 1,2-Dichloroethane	62	7.628	7.628	0.000	97	633160	10.0	9.68	
62 Tert-amyl methyl ether	73	7.744	7.744	0.000	99	1410553	10.0	9.70	
* 65 Fluorobenzene (IS)	96	7.958	7.958	0.000	99	2414811	10.0	10.0	
64 n-Heptane	43	7.964	7.964	0.000	90	841246	10.0	10.6	
66 n-Butanol	56	8.299	8.299	0.000	87	374293	1000.0	766.2	
67 Trichloroethene	95	8.433	8.433	0.000	97	695135	10.0	10.3	
68 Methylcyclohexane	83	8.750	8.750	0.000	93	1186596	10.0	10.6	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	94	869047	10.0	9.38	
70 1,2-Dichloropropane	63	8.768	8.768	0.000	83	629542	10.0	11.0	
71 Methyl methacrylate	69	8.835	8.835	0.000	88	257878	10.0	15.3	
72 1,4-Dioxane	88	8.848	8.848	0.000	29	28468	500.0	140.4	M
73 Dibromomethane	93	8.878	8.878	0.000	94	309471	10.0	10.6	
75 Dichlorobromomethane	83	9.104	9.104	0.000	99	798173	10.0	10.6	
76 2-Nitropropane	41	9.360	9.360	0.000	98	656786	100.0	121.8	
79 1-Bromo-2-chloroethane	63	9.488	9.488	0.000	98	580211	10.0	11.3	
80 cis-1,3-Dichloropropene	75	9.628	9.628	0.000	97	937664	10.0	10.7	
81 4-Methyl-2-pentanone (MIBK)	43	9.786	9.786	0.000	96	3130832	100.0	153.9	
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2421783	10.0	10.1	
83 Toluene	92	10.000	10.000	0.000	98	1673778	10.0	10.4	
85 trans-1,3-Dichloropropene	75	10.244	10.244	0.000	91	738498	10.0	10.5	
86 Ethyl methacrylate	69	10.299	10.299	0.000	89	541293	10.0	10.2	
87 1,1,2-Trichloroethane	97	10.445	10.445	0.000	90	445823	10.0	11.0	
88 Tetrachloroethene	166	10.536	10.536	0.000	98	840677	10.0	10.5	
89 1,3-Dichloropropane	76	10.603	10.603	0.000	89	748083	10.0	11.0	
91 2-Hexanone	43	10.646	10.646	0.000	96	2119726	100.0	152.9	
93 Chlorodibromomethane	129	10.817	10.817	0.000	89	575142	10.0	10.8	
94 Ethylene Dibromide	107	10.933	10.933	0.000	98	432535	10.0	10.6	
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	84	1856504	10.0	10.0	
96 1-Chlorohexane	91	11.353	11.353	0.000	69	964018	10.0	10.1	
98 Chlorobenzene	112	11.378	11.378	0.000	96	1880701	10.0	10.5	
99 1,1,1,2-Tetrachloroethane	131	11.457	11.457	0.000	96	657536	10.0	10.1	
100 Ethylbenzene	91	11.457	11.457	0.000	98	3262579	10.0	10.4	
101 m-Xylene & p-Xylene	106	11.567	11.567	0.000	98	2583292	20.0	21.0	
102 o-Xylene	106	11.896	11.896	0.000	96	1247248	10.0	10.4	
103 Styrene	104	11.908	11.908	0.000	94	2071629	10.0	10.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	12.073	12.073	0.000	98	334064	10.0	10.7	
105 Isopropylbenzene	105	12.188	12.188	0.000	95	3359675	10.0	10.3	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	885430	10.0	9.88	
109 1,1,2,2-Tetrachloroethane	83	12.426	12.426	0.000	94	517088	10.0	11.1	
111 Bromobenzene	156	12.451	12.451	0.000	95	806482	10.0	10.5	
110 trans-1,4-Dichloro-2-butene	53	12.451	12.451	0.000	87	1068436	100.0	126.4	
112 1,2,3-Trichloropropane	110	12.475	12.475	0.000	81	142523	10.0	10.3	
113 N-Propylbenzene	91	12.512	12.512	0.000	99	3865294	10.0	10.6	
114 2-Chlorotoluene	126	12.591	12.591	0.000	97	787979	10.0	10.3	
115 1,3,5-Trimethylbenzene	105	12.646	12.646	0.000	94	2815363	10.0	10.4	
116 4-Chlorotoluene	126	12.682	12.682	0.000	97	815192	10.0	10.6	
118 tert-Butylbenzene	134	12.890	12.890	0.000	93	618464	10.0	10.4	a
119 Pentachloroethane	167	12.926	12.926	0.000	89	489868	10.0	10.4	
120 1,2,4-Trimethylbenzene	105	12.926	12.926	0.000	96	2902253	10.0	10.5	
121 sec-Butylbenzene	105	13.048	13.048	0.000	94	3650908	10.0	10.6	
122 1,3-Dichlorobenzene	146	13.152	13.152	0.000	98	1582587	10.0	10.4	
123 4-Isopropyltoluene	119	13.152	13.152	0.000	97	3133085	10.0	10.5	
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	93	1031140	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.225	13.225	0.000	95	1559215	10.0	10.3	
126 1,2,3-Trimethylbenzene	120	13.231	13.231	0.000	98	1248263	10.0	10.3	
127 Benzyl chloride	126	13.298	13.298	0.000	98	176157	10.0	8.93	a
129 p-Diethylbenzene	119	13.426	13.426	0.000	94	1961544	10.0	10.6	
130 n-Butylbenzene	92	13.444	13.444	0.000	96	1500024	10.0	10.8	a
131 1,2-Dichlorobenzene	146	13.481	13.481	0.000	99	1424225	10.0	10.4	
134 1,2-Dibromo-3-Chloropropane	155	14.023	14.023	0.000	89	75576	10.0	10.3	
135 1,3,5-Trichlorobenzene	180	14.145	14.145	0.000	98	1205426	10.0	10.5	
136 1,2,4-Trichlorobenzene	180	14.566	14.566	0.000	94	1023056	10.0	10.6	
137 Hexachlorobutadiene	225	14.645	14.645	0.000	96	414176	10.0	9.41	
138 Naphthalene	128	14.749	14.749	0.000	97	1668383	10.0	9.98	
139 1,2,3-Trichlorobenzene	180	14.895	14.895	0.000	96	871257	10.0	10.4	
140 2-Methylnaphthalene	142	15.535	15.535	0.000	92	892203	10.0	8.78	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_RV4GAS826_00121	Amount Added: 10.00	Units: uL	
MSV_RV1_826_00042	Amount Added: 10.00	Units: uL	
MSV_RV4_826_00048	Amount Added: 10.00	Units: uL	
MSV_30_826ISS_00006	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 29-Mar-2021 20:16:17 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29C31.D

Injection Date: 29-Mar-2021 19:07:30 Instrument ID: 19094 Operator ID: MEC29284

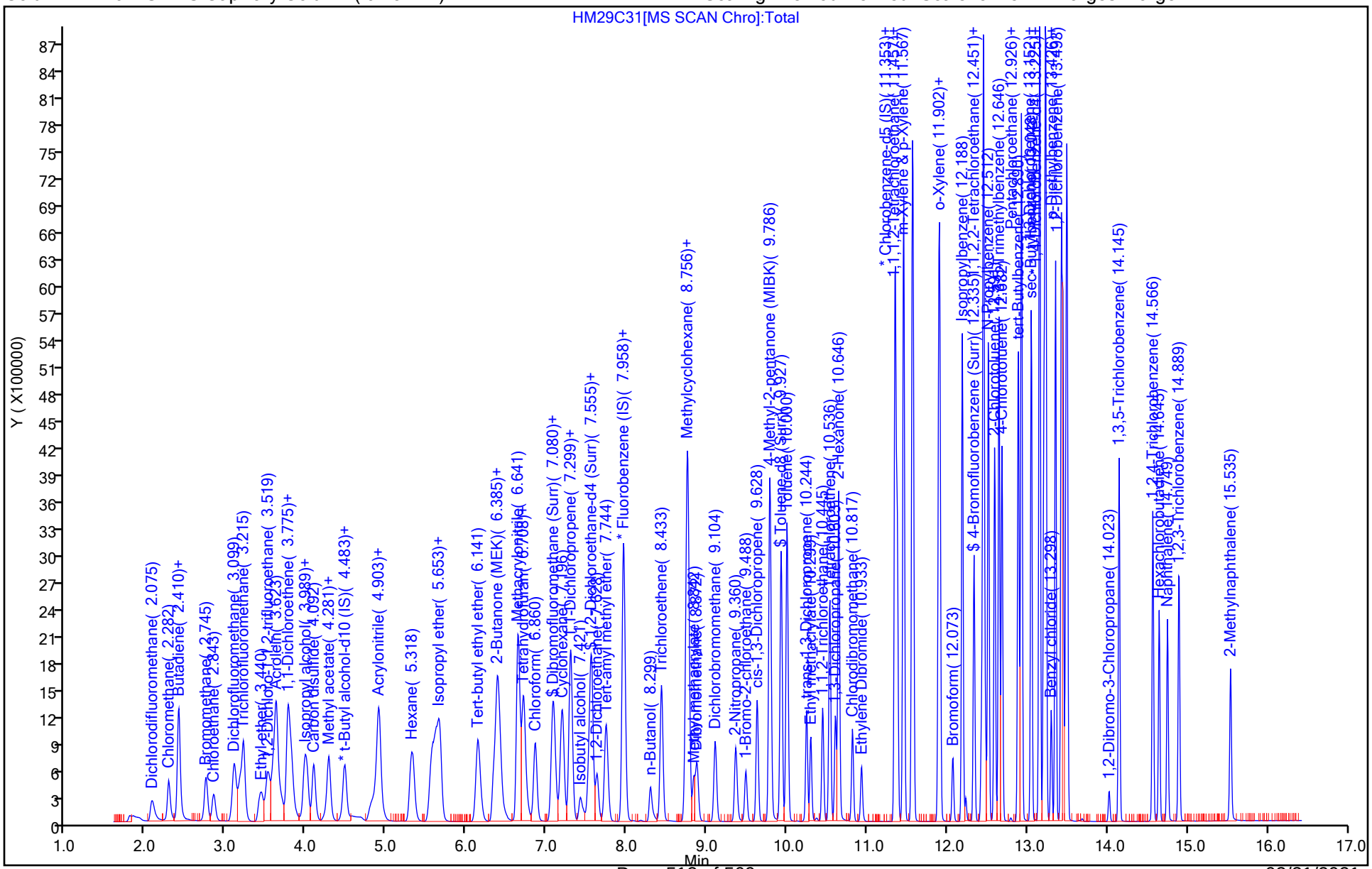
Lims ID: CCVIS VSTD010 Worklist Smp#: 3

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



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

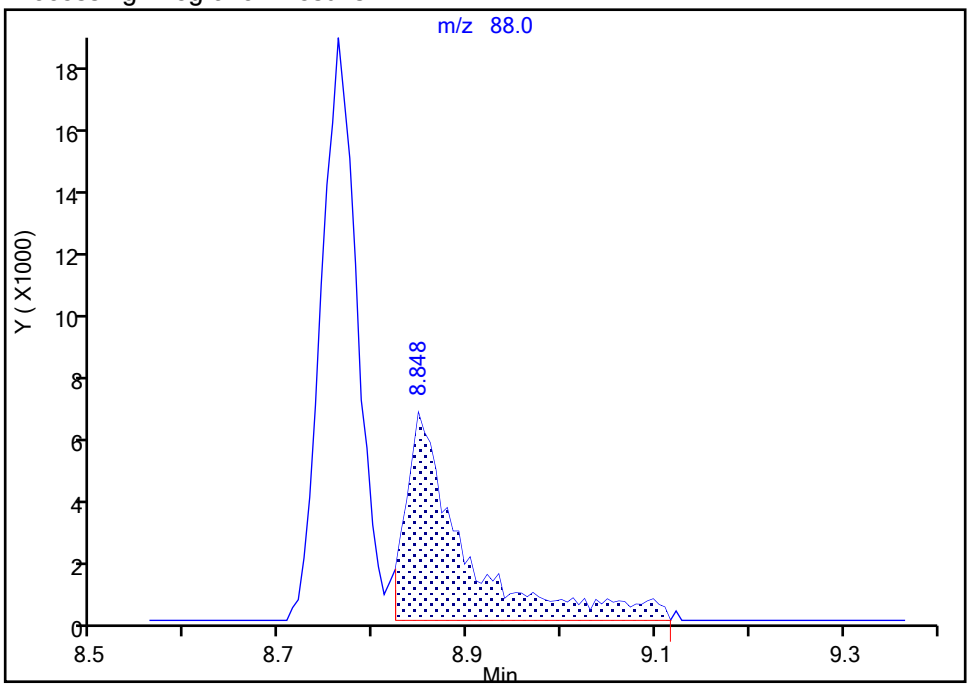
Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29C31.D
Injection Date: 29-Mar-2021 19:07:30 Instrument ID: 19094
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

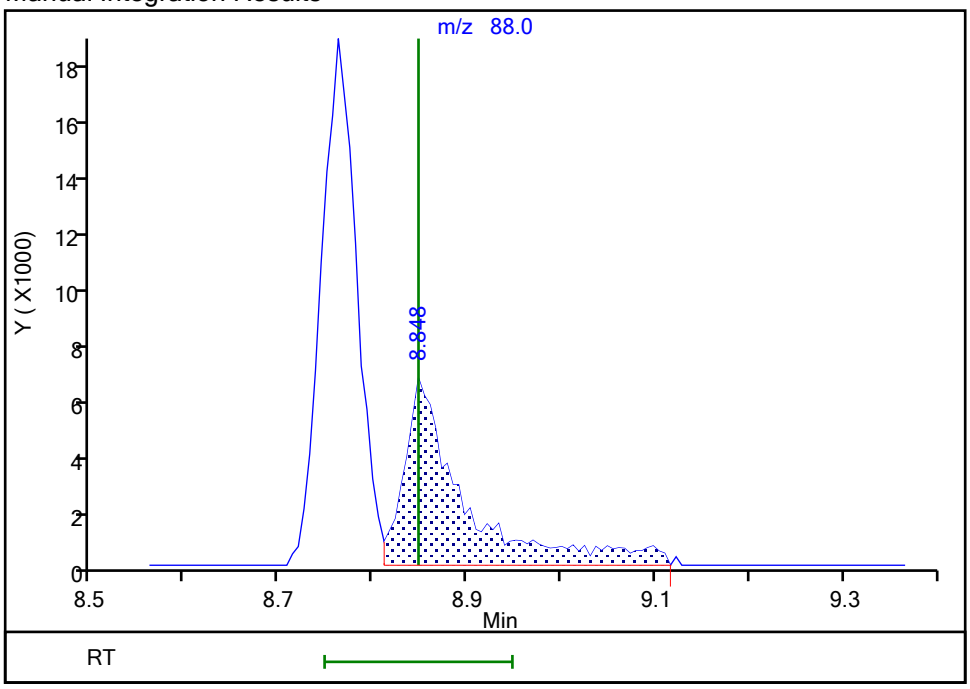
Processing Integration Results

RT: 8.85
Area: 27735
Amount: 136.6748
Amount Units: ug/l



Manual Integration Results

RT: 8.85
Area: 28468
Amount: 140.4371
Amount Units: ug/l



Reviewer: campbellme, 29-Mar-2021 19:45:38
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

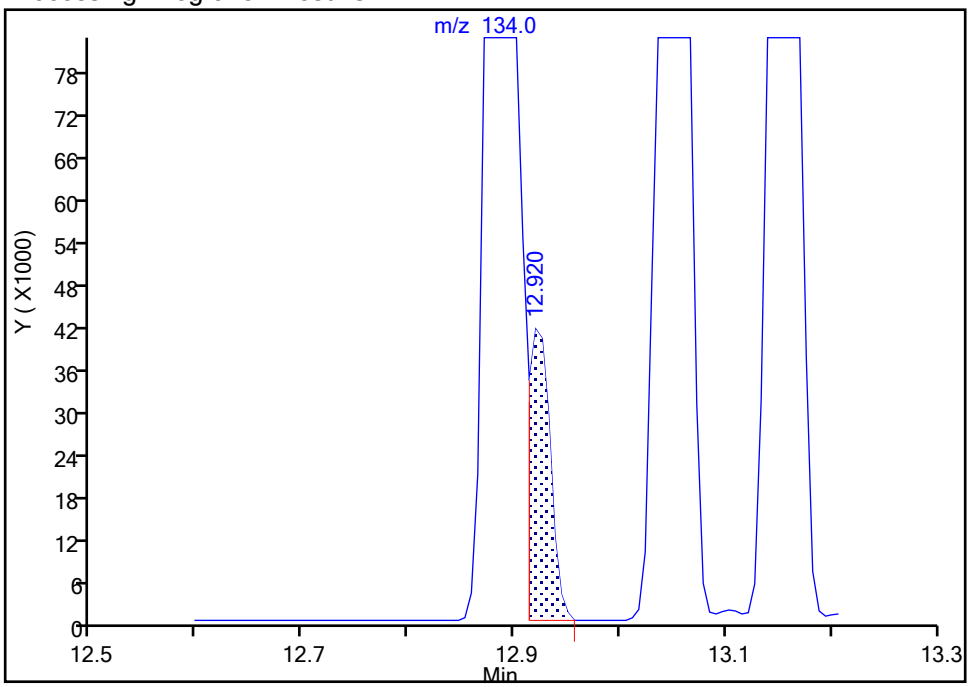
Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29C31.D
Injection Date: 29-Mar-2021 19:07:30 Instrument ID: 19094
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

118 tert-Butylbenzene, CAS: 98-06-6

Signal: 1

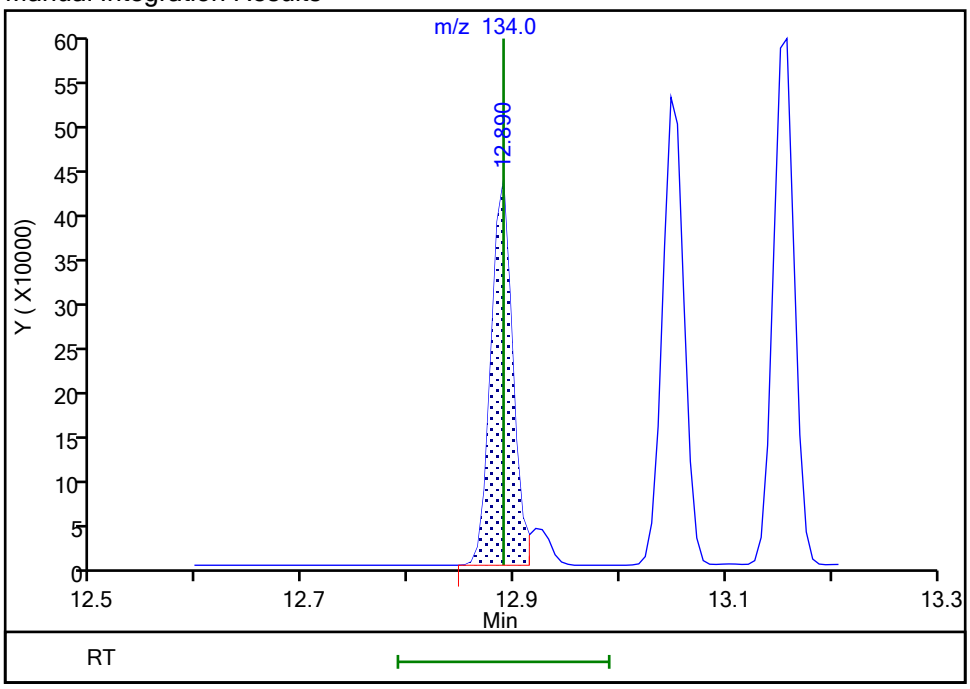
Processing Integration Results

RT: 12.92
Area: 59015
Amount: 0.992795
Amount Units: ug/l



Manual Integration Results

RT: 12.89
Area: 618464
Amount: 10.404266
Amount Units: ug/l



Reviewer: campbellme, 29-Mar-2021 19:45:51
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

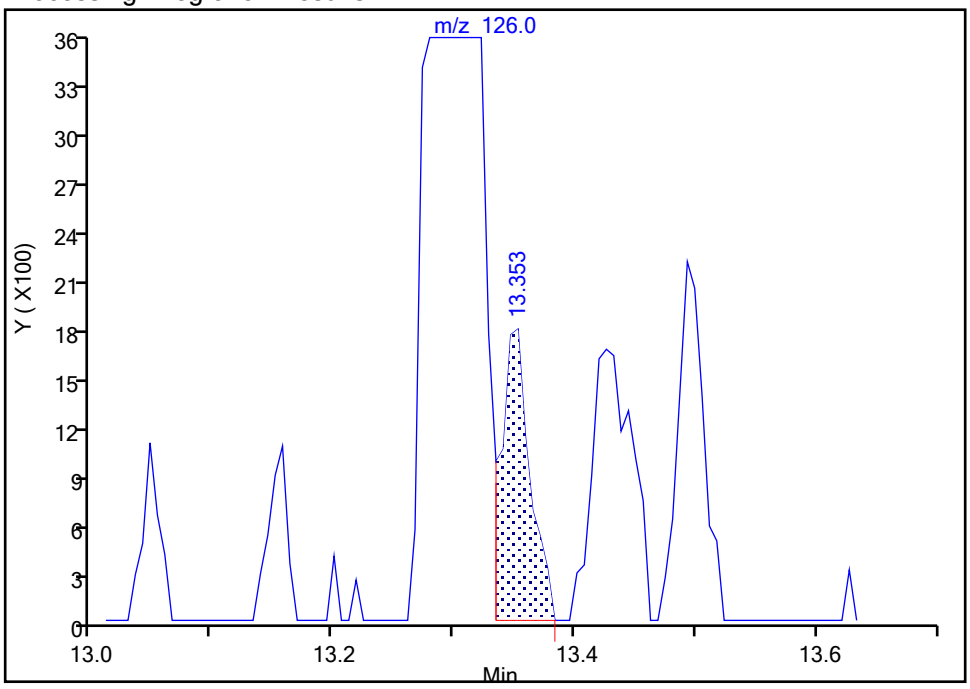
Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29C31.D
Injection Date: 29-Mar-2021 19:07:30 Instrument ID: 19094
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

127 Benzyl chloride, CAS: 100-44-7

Signal: 1

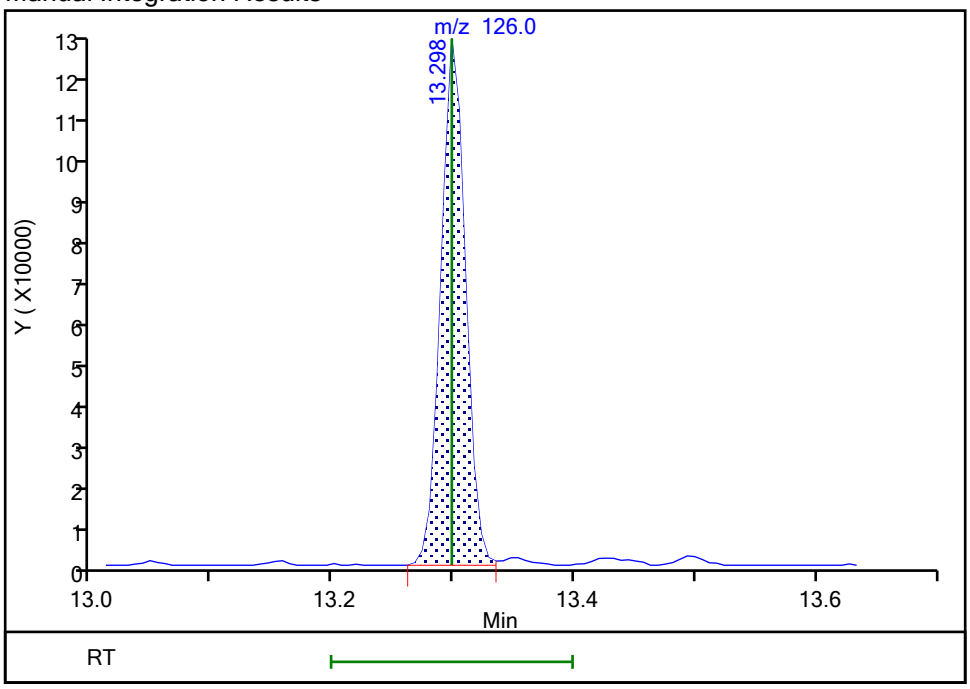
RT: 13.35
Area: 3024
Amount: 0.153282
Amount Units: ug/l

Processing Integration Results



Manual Integration Results

RT: 13.30
Area: 176157
Amount: 8.929119
Amount Units: ug/l



Reviewer: campbellme, 29-Mar-2021 19:46:11
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

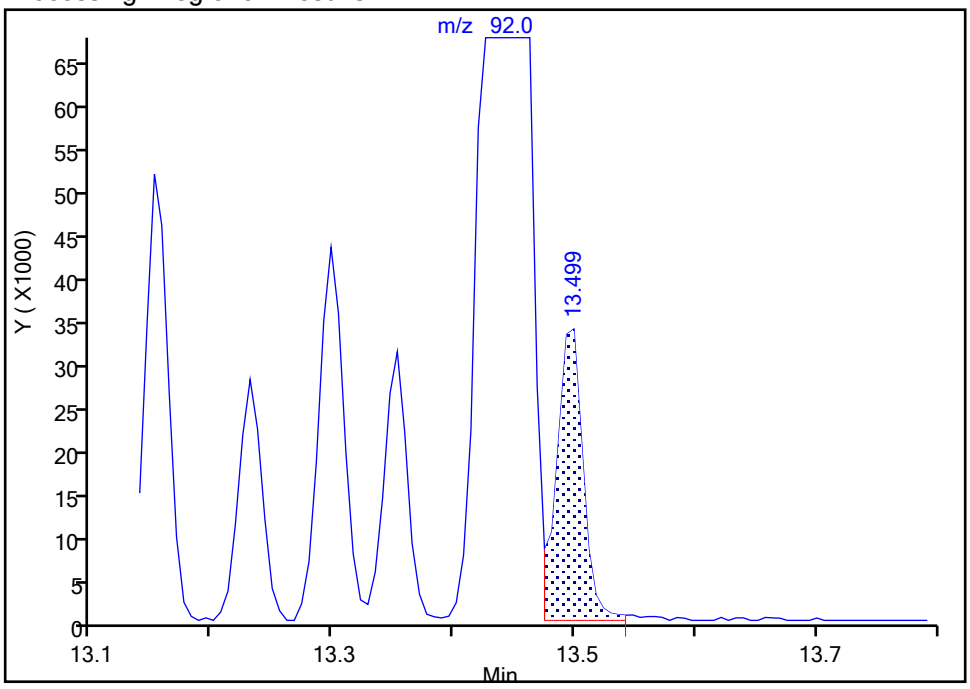
Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29C31.D
Injection Date: 29-Mar-2021 19:07:30 Instrument ID: 19094
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_19094_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

130 n-Butylbenzene, CAS: 104-51-8

Signal: 1

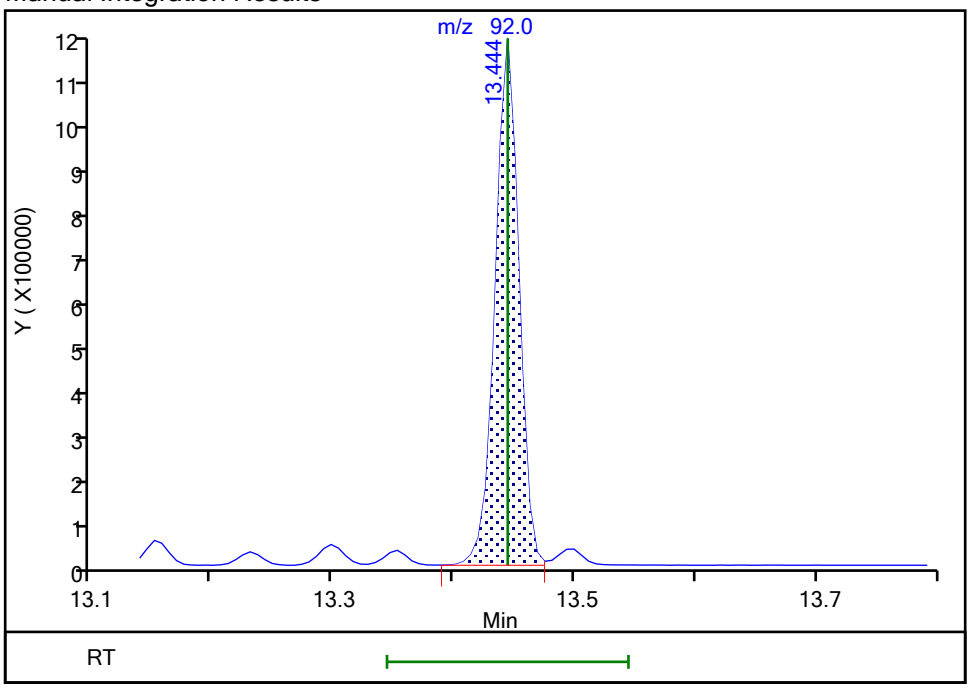
RT: 13.50
Area: 52655
Amount: 0.379148
Amount Units: ug/l

Processing Integration Results



Manual Integration Results

RT: 13.44
Area: 1500024
Amount: 10.801090
Amount Units: ug/l



Reviewer: campbellme, 29-Mar-2021 19:46:00
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08T01.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	08-Feb-2021 14:59:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0021577-001				
Misc. Info.:	BFB				
Operator ID:	SRK36897	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	09-Feb-2021 15:41:43	Calib Date:	08-Feb-2021 21:34:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1623				
First Level Reviewer: longj		Date:	08-Feb-2021 15:11:50		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 165 BFB	95	5.343	5.343	0.000	0	218690	NR	NR	a

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
Review Flags
a - User Assigned ID

Reagents:

MSV_V_BFB_00004 Amount Added: 1.00 Units: uL

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

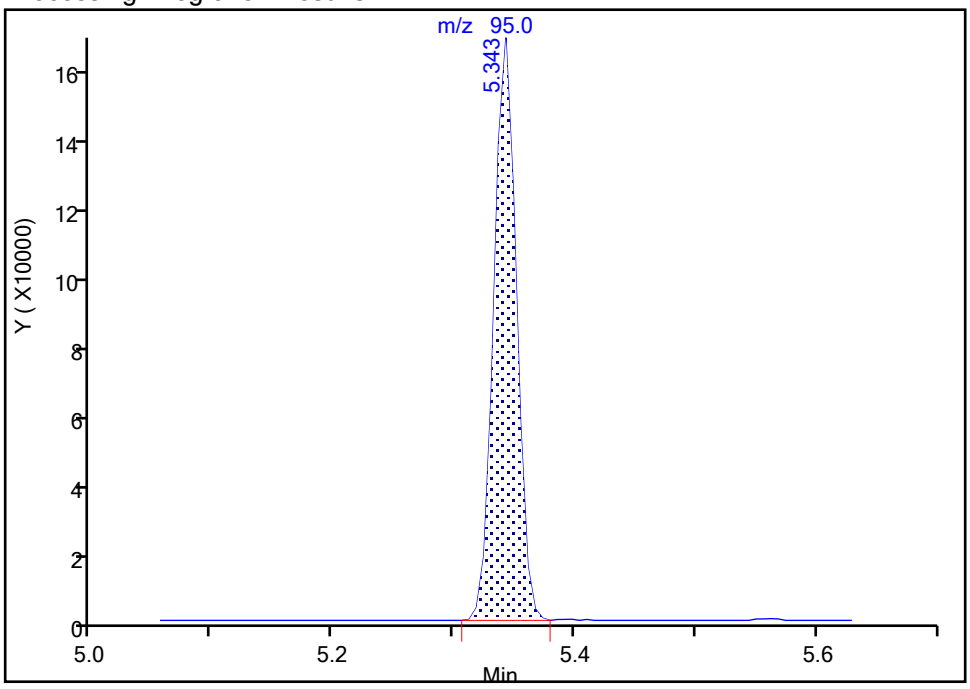
Data File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08T01.D				
Injection Date:	08-Feb-2021 14:59:30	Instrument ID:	19094		
Lims ID:	bfb				
Client ID:					
Operator ID:	SRK36897	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

$ 165 BFB, CAS: 460-00-4

Signal: 1

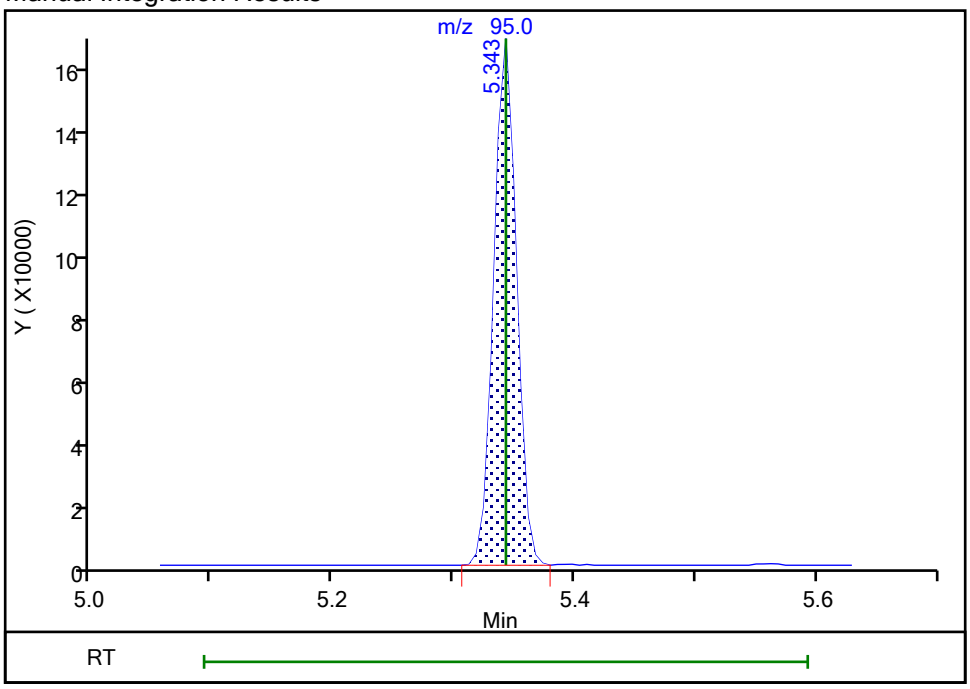
Processing Integration Results

RT: 5.34
Area: 218690
Amount: 0
Amount Units: ug/l



Manual Integration Results

RT: 5.34
Area: 218690
Amount: 0
Amount Units: ug/l



Reviewer: longj, 08-Feb-2021 15:11:43

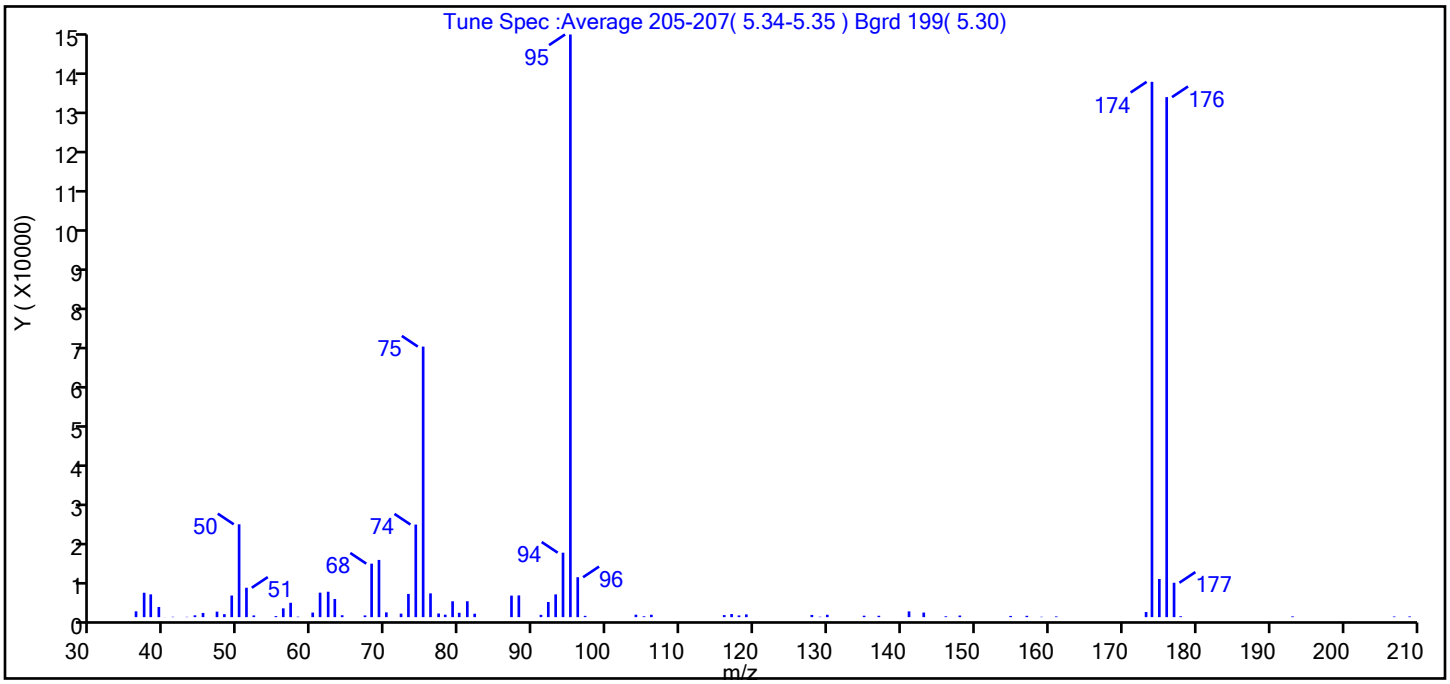
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08T01.D
Injection Date: 08-Feb-2021 14:59:30 Instrument ID: 19094
Lims ID: bfb
Client ID:
Operator ID: SRK36897 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	15.9
75	30 to 60% of m/z 95	46.4
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.9 (1.0)
174	50 to 120% of m/z 95	91.9
175	5 to 9% of m/z 174	6.5 (7.1)
176	Greater than 95% but less than 101% of m/z 174	89.2 (97.1)
177	5 to 9% of m/z 176	5.9 (6.6)

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08T01.D\MSV_19094_25mL.rslt\spectra.d
Injection Date: 08-Feb-2021 14:59:30
Spectrum: Tune Spec :Average 205-207(5.34-5.35) Bgrd 199(5.30)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 77

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1440	61.00	6055	88.00	5374	141.00	1422
37.00	6032	62.00	6287	91.00	576	143.00	1133
38.00	5631	63.00	4490	92.00	3740	146.00	214
39.00	2515	64.00	470	93.00	5627	148.00	395
40.00	23	67.00	425	94.00	15937	155.00	303
41.00	90	68.00	13226	95.00	144064	157.00	329
43.00	75	69.00	14146	96.00	9869	159.00	89
44.00	451	70.00	1181	97.00	325	161.00	181
45.00	1037	72.00	871	104.00	608	173.00	1277
47.00	1366	73.00	5742	105.00	211	174.00	132352
48.00	731	74.00	22888	106.00	591	175.00	9434
49.00	5342	75.00	66896	116.00	508	176.00	128576
50.00	22952	76.00	5880	117.00	765	177.00	8503
51.00	7266	77.00	905	118.00	426	178.00	217
52.00	426	78.00	608	119.00	677	193.00	185
55.00	261	79.00	3926	128.00	552	207.00	158
56.00	2173	80.00	1073	129.00	97	209.00	172
57.00	3552	81.00	3934	130.00	586		
58.00	115	82.00	851	135.00	356		
60.00	1134	87.00	5321	137.00	341		

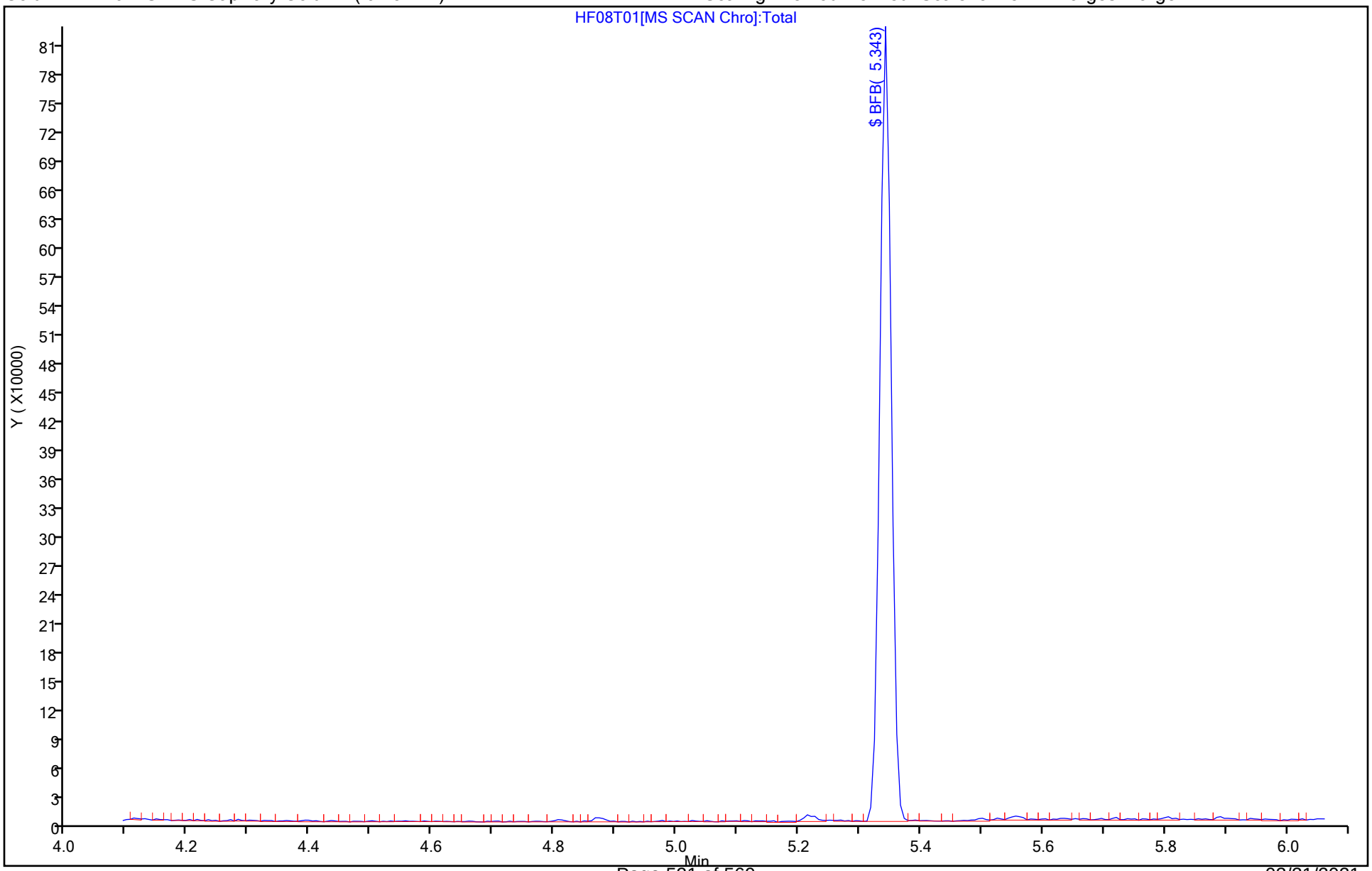
Report Date: 09-Feb-2021 15:41:44 Chrom Revision: 2.3 17-Jan-2021 00:24:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08T01.D

Injection Date:	08-Feb-2021 14:59:30	Instrument ID:	19094	Operator ID:	SRK36897
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\20210329-25331.b\HM29T31.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 29-Mar-2021 18:30:30 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: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Mar-2021 20:16:43 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: campbellme Date: 29-Mar-2021 18:44:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 165 BFB	95	5.318	5.318	0.000	96	161988	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

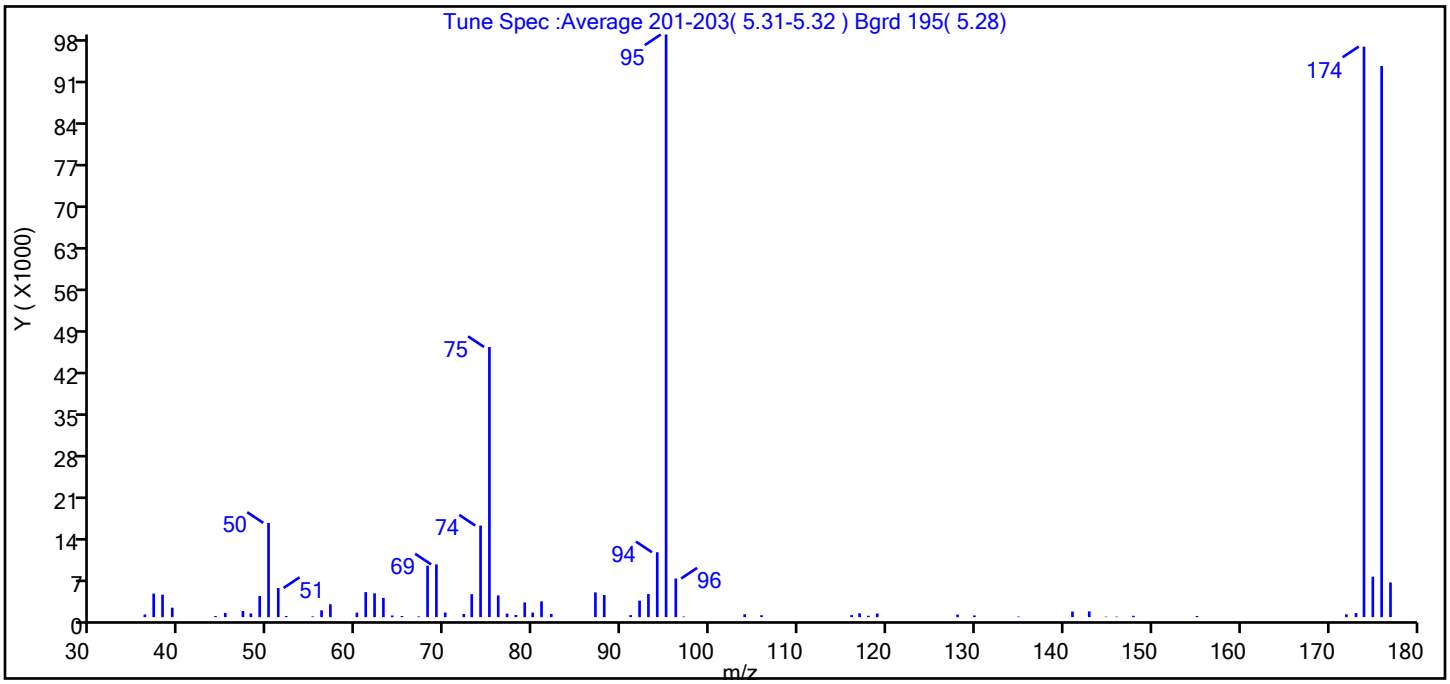
MSV_V_BFB_00004 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29T31.D
Injection Date: 29-Mar-2021 18:30:30 Instrument ID: 19094
Lims ID: BFB
Client ID:
Operator ID: MEC29284 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	16.2
75	30 to 60% of m/z 95	46.4
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.7 (0.7)
174	50 to 120% of m/z 95	97.9
175	5 to 9% of m/z 174	6.9 (7.1)
176	Greater than 95% but less than 101% of m/z 174	94.6 (96.6)
177	5 to 9% of m/z 176	6.0 (6.3)

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29T31.D\MSV_19094_25mL.rslt\spectra.d
Injection Date: 29-Mar-2021 18:30:30
Spectrum: Tune Spec :Average 201-203(5.31-5.32) Bgrd 195(5.28)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 66

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	445	62.00	4034	81.00	2672	128.00	423
37.00	3980	63.00	3260	82.00	548	130.00	293
38.00	3787	64.00	279	87.00	4186	135.00	99
39.00	1601	65.00	193	88.00	3733	141.00	947
44.00	193	67.00	126	91.00	346	143.00	972
45.00	704	68.00	8691	92.00	2783	145.00	84
47.00	1037	69.00	8913	93.00	3915	146.00	90
48.00	621	70.00	781	94.00	10964	148.00	228
49.00	3569	72.00	533	95.00	98416	155.00	196
50.00	15925	73.00	3883	96.00	6520	172.00	476
51.00	4930	74.00	15470	97.00	101	173.00	694
52.00	195	75.00	45624	104.00	479	174.00	96368
55.00	126	76.00	3669	106.00	322	175.00	6835
56.00	1150	77.00	591	116.00	348	176.00	93088
57.00	2178	78.00	363	117.00	662	177.00	5861
60.00	763	79.00	2481	118.00	236		
61.00	4230	80.00	772	119.00	614		

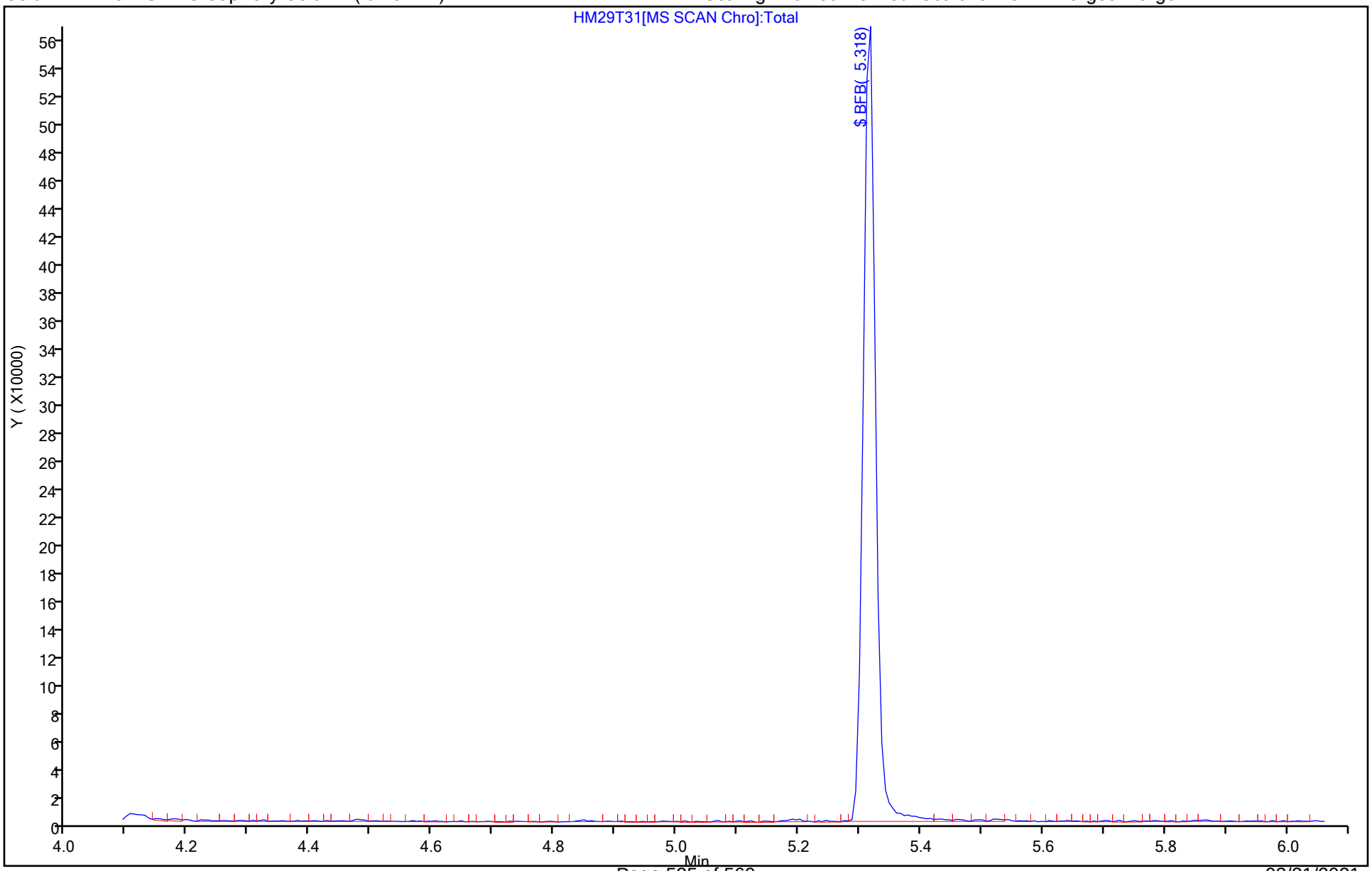
Report Date: 29-Mar-2021 20:16:43 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29T31.D

Injection Date:	29-Mar-2021 18:30:30	Instrument ID:	19094	Operator ID:	MEC29284
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



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-108546/6

Matrix: Water Lab File ID: HM29B31.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 20:11

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.: 108546 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	0.992	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	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.: 410-33727-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-108546/6

Matrix: Water Lab File ID: HM29B31.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 20:11

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.: 108546 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29B31.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-Mar-2021 20:11:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-006
Misc. Info.: MB
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 00:23:59 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: campbellme Date: 30-Mar-2021 00:23:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Chlorotrifluoroethene	116		1.885					ND	
3 Dichlorodifluoromethane	85		2.075					ND	
2 Chlorodifluoromethane	51		2.087					ND	
4 Dimethyl ether	45		2.160					ND	
5 2-Chloro-1,1,1-Trifluoroethane	118		2.233					ND	
6 Chloromethane	50		2.282					ND	7
8 Butadiene	39		2.404					ND	7
7 Vinyl chloride	62		2.410					ND	
9 Bromomethane	94		2.751					ND	
10 Chloroethane	64		2.849					ND	
11 Dichlorofluoromethane	67		3.093					ND	
12 Ethanol	45		3.111					ND	
13 Trichlorofluoromethane	101		3.172					ND	
15 Ethyl ether	59		3.434					ND	
16 1,2-Dichloro-1,1,2-trifluoroetha	67		3.519					ND	
17 Acrolein	56		3.623					ND	7
18 1,1-Dichloroethene	96		3.769					ND	
19 Acetone	43	3.788	3.788	0.000	67	6957		0.99	M
20 112TCTFE	101		3.806					ND	
21 Isopropyl alcohol	45		3.940					ND	
22 Iodomethane	142		3.977					ND	
23 Ethyl bromide	108		4.013					ND	
24 Carbon disulfide	76		4.092					ND	7
25 Acetonitrile	41		4.178					ND	
26 Methyl acetate	43		4.227					ND	
27 3-Chloro-1-propene	41		4.281					ND	
29 Methylene Chloride	84		4.477					ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.525	4.495	0.030	0	110110	50.0	50.0	
30 2-Methyl-2-propanol	59		4.647					ND	
31 Acrylonitrile	53		4.818					ND	
32 Methyl tert-butyl ether	73		4.891					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		4.909					ND	
34 Hexane	57		5.318					ND	
36 Vinyl acetate	43		5.519					ND	
35 1,1-Dichloroethane	63		5.562					ND	
37 Isopropyl ether	45		5.617					ND	
38 2-Chloro-1,3-butadiene	53		5.665					ND	
39 Tert-butyl ethyl ether	59		6.141					ND	
S 40 1,2-Dichloroethene, Total	100		6.155					ND	7
41 2-Butanone (MEK)	43		6.336					ND	7
42 cis-1,2-Dichloroethene	96		6.385					ND	
44 Ethyl acetate	43		6.391					ND	7
43 2,2-Dichloropropane	77		6.409					ND	
45 Propionitrile	54		6.427					ND	
46 Methyl acrylate	55		6.458					ND	
47 Methacrylonitrile	67		6.641					ND	
48 Chlorobromomethane	128		6.714					ND	
49 Tetrahydrofuran	71		6.714					ND	
50 Chloroform	83		6.860					ND	
$ 51 Dibromofluoromethane (Surr)	113	7.068	7.074	-0.006	94	623624	10.0	10.2	
52 1,1,1-Trichloroethane	97		7.092					ND	
53 Cyclohexane	56		7.196					ND	
54 1-Chlorobutane	56		7.232					ND	
55 1,1-Dichloropropene	75		7.299					ND	
56 Carbon tetrachloride	117		7.305					ND	
57 Isobutyl alcohol	41		7.421					ND	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.519	7.525	-0.006	0	120235	10.0	10.4	
59 Benzene	78		7.561					ND	
61 Isopropyl acetate	43		7.616					ND	
60 1,2-Dichloroethane	62	7.622	7.628	-0.006	1	1962		0.0304	
62 Tert-amyl methyl ether	73		7.744					ND	
63 t-Amyl alcohol	73		7.842					ND	
* 65 Fluorobenzene (IS)	96	7.952	7.958	-0.006	99	2383904	10.0	10.0	
64 n-Heptane	43		7.964					ND	7
66 n-Butanol	56		8.299					ND	7
67 Trichloroethene	95		8.433					ND	
68 Methylcyclohexane	83		8.750					ND	
69 2-ethoxy-2-methyl butane	87		8.762					ND	
70 1,2-Dichloropropane	63		8.768					ND	
71 Methyl methacrylate	69		8.835					ND	
72 1,4-Dioxane	88	8.854	8.848	0.006	1	1379		8.87	
73 Dibromomethane	93		8.878					ND	
74 n-Propyl acetate	61		8.915					ND	
75 Dichlorobromomethane	83		9.104					ND	
76 2-Nitropropane	41		9.360					ND	
77 Chloroacetonitrile	75		9.427					ND	
78 2-Chloroethyl vinyl ether	63		9.451					ND	
79 1-Bromo-2-chloroethane	63		9.488					ND	
80 cis-1,3-Dichloropropene	75		9.628					ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.786					ND	
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2364956	10.0	9.90	
83 Toluene	92		10.000					ND	
S 84 1,3-Dichloropropene, Total	100		10.060					ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 trans-1,3-Dichloropropene	75		10.244					ND	
86 Ethyl methacrylate	69		10.299					ND	
87 1,1,2-Trichloroethane	97		10.445					ND	
88 Tetrachloroethene	166		10.536					ND	
89 1,3-Dichloropropane	76		10.603					ND	
91 2-Hexanone	43		10.646					ND	
92 n-Butyl acetate	43	10.786	10.780	0.006	1	815		0.0151	
93 Chlorodibromomethane	129		10.817					ND	
94 Ethylene Dibromide	107		10.933					ND	
S 95 Xylenes, Total	106		11.245					ND	7
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1841050	10.0	10.0	
96 1-Chlorohexane	91		11.353					ND	7
98 Chlorobenzene	112		11.378					ND	
99 1,1,1,2-Tetrachloroethane	131		11.457					ND	
100 Ethylbenzene	91		11.457					ND	7
101 m-Xylene & p-Xylene	106		11.567					ND	
102 o-Xylene	106		11.896					ND	
103 Styrene	104		11.908					ND	7
104 Bromoform	173		12.073					ND	
105 Isopropylbenzene	105		12.188					ND	
106 cis-1,4-Dichloro-2-butene	88		12.255					ND	U
107 Cyclohexanone	55		12.292					ND	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	863441	10.0	9.72	
109 1,1,2,2-Tetrachloroethane	83		12.426					ND	7
111 Bromobenzene	156		12.451					ND	
110 trans-1,4-Dichloro-2-butene	53		12.451					ND	
112 1,2,3-Trichloropropane	110		12.475					ND	
113 N-Propylbenzene	91		12.512					ND	7
114 2-Chlorotoluene	126		12.591					ND	
115 1,3,5-Trimethylbenzene	105		12.646					ND	
116 4-Chlorotoluene	126		12.682					ND	
118 tert-Butylbenzene	134		12.890					ND	
119 Pentachloroethane	167		12.926					ND	
120 1,2,4-Trimethylbenzene	105		12.926					ND	7
121 sec-Butylbenzene	105		13.048					ND	7
122 1,3-Dichlorobenzene	146		13.152					ND	7
123 4-Isopropyltoluene	119		13.152					ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	94	1022879	10.0	10.0	
125 1,4-Dichlorobenzene	146		13.225					ND	7
126 1,2,3-Trimethylbenzene	120		13.231					ND	7
127 Benzyl chloride	126		13.298					ND	7
129 p-Diethylbenzene	119	13.438	13.426	0.012	1	729		0.003989	
130 n-Butylbenzene	92		13.444					ND	7
131 1,2-Dichlorobenzene	146		13.481					ND	
133 Hexachloroethane	201		13.719					ND	
134 1,2-Dibromo-3-Chloropropane	155		14.023					ND	
135 1,3,5-Trichlorobenzene	180		14.145					ND	7
136 1,2,4-Trichlorobenzene	180		14.566					ND	7
137 Hexachlorobutadiene	225	14.645	14.645	0.000	91	2616		0.0599	
138 Naphthalene	128		14.749					ND	7
139 1,2,3-Trichlorobenzene	180		14.895					ND	7
140 2-Methylnaphthalene	142	15.560	15.535	0.025	88	1587		0.0157	

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	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

MSV_30_826ISS_00006 Amount Added: 5.00 Units: uL Run Reagent

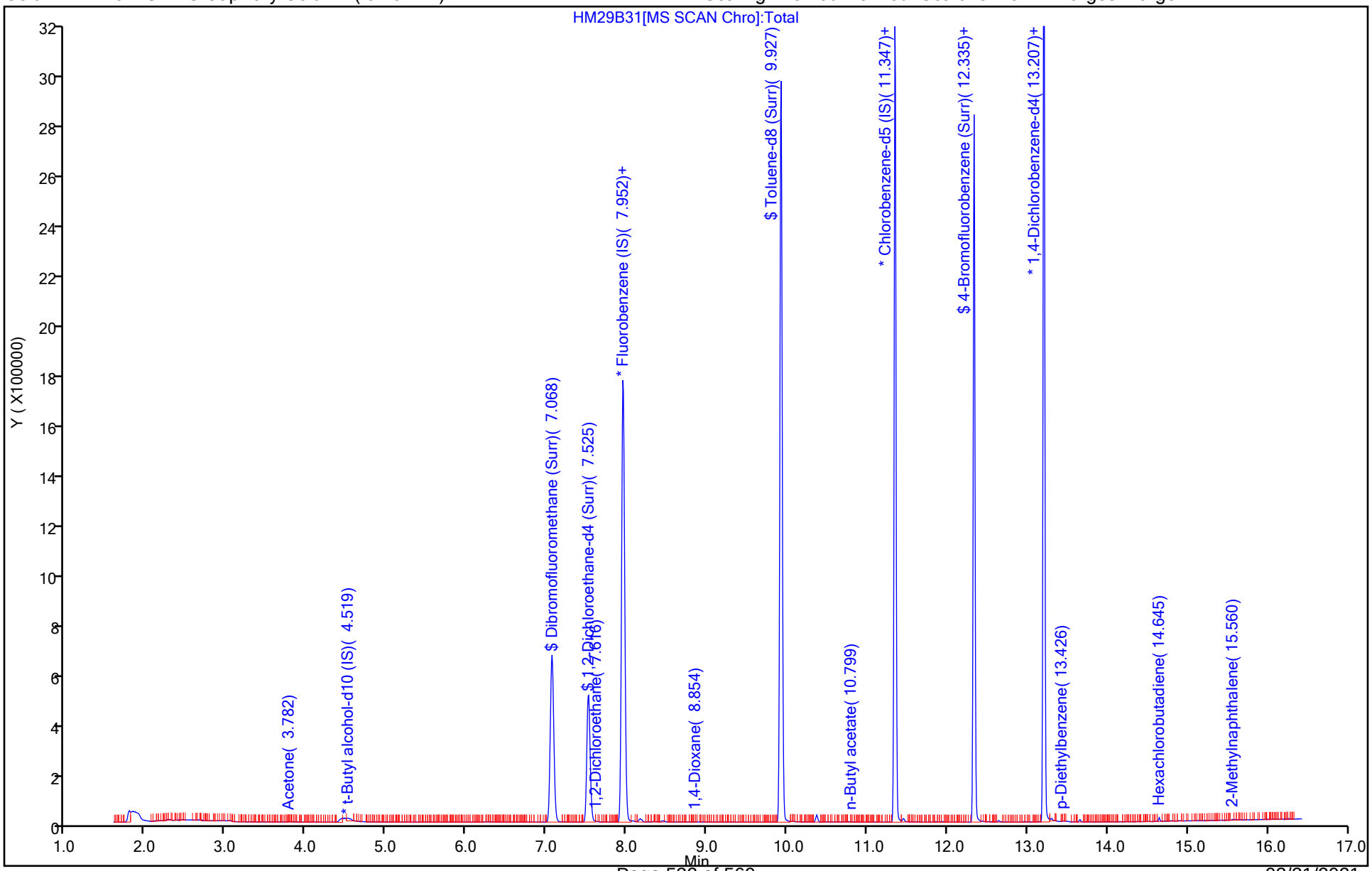
Report Date: 30-Mar-2021 00:24:10 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29B31.D

Injection Date:	29-Mar-2021 20:11:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
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\20210329-25331.b\HM29B31.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-Mar-2021 20:11:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-006
Misc. Info.: MB
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 00:23:59 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: campbellme Date: 30-Mar-2021 00:23:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.2	101.58
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.22
$ 82 Toluene-d8 (Surr)	10.0	9.90	98.97
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.72	97.17

Report Date: 30-Mar-2021 00:24:10 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29B31.D

Injection Date: 29-Mar-2021 20:11:30 Instrument ID: 19094

Lims ID: MB

Client ID:

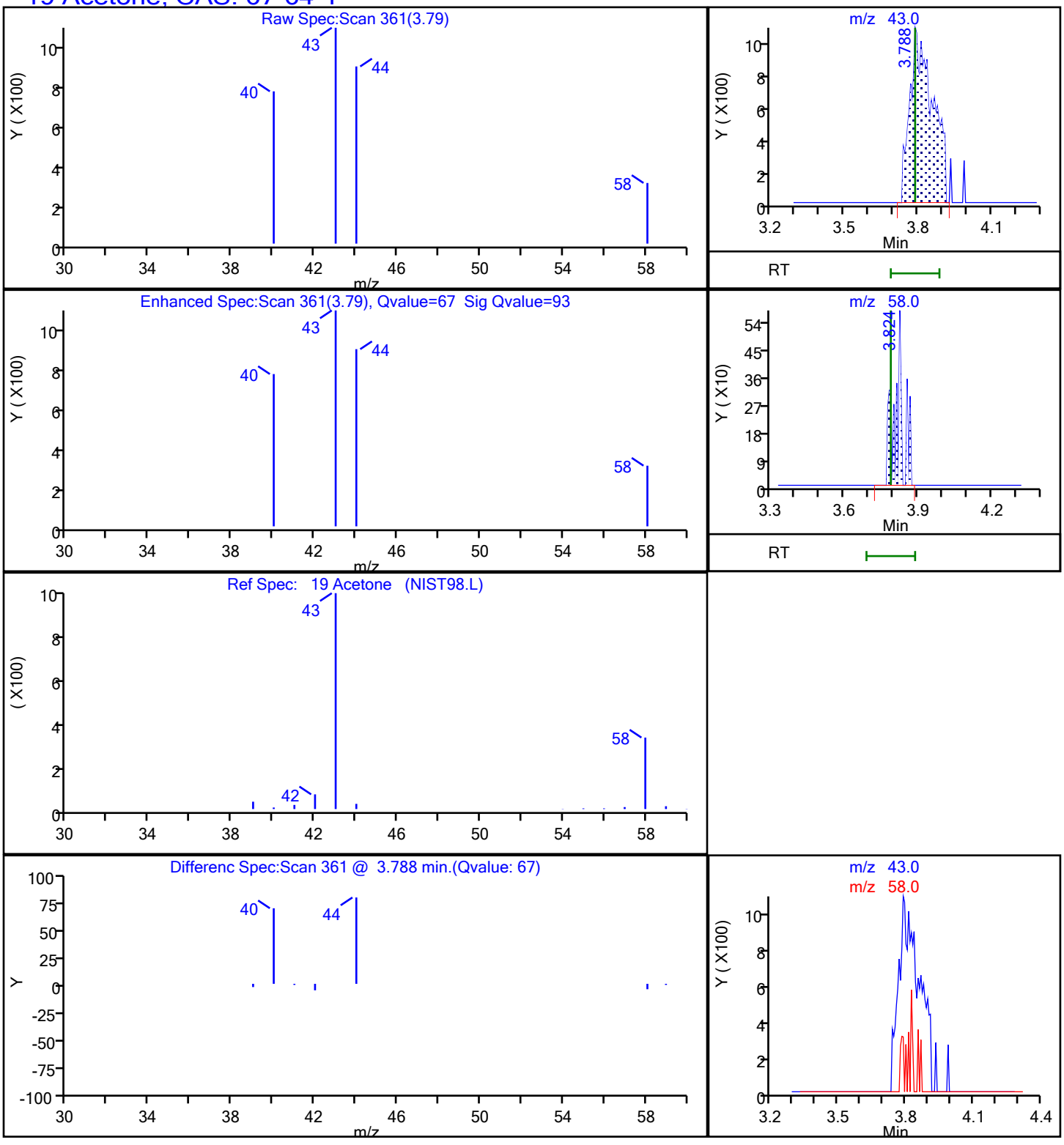
Operator ID: MEC29284 ALS Bottle#: 5 Worklist Smp#: 6

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



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

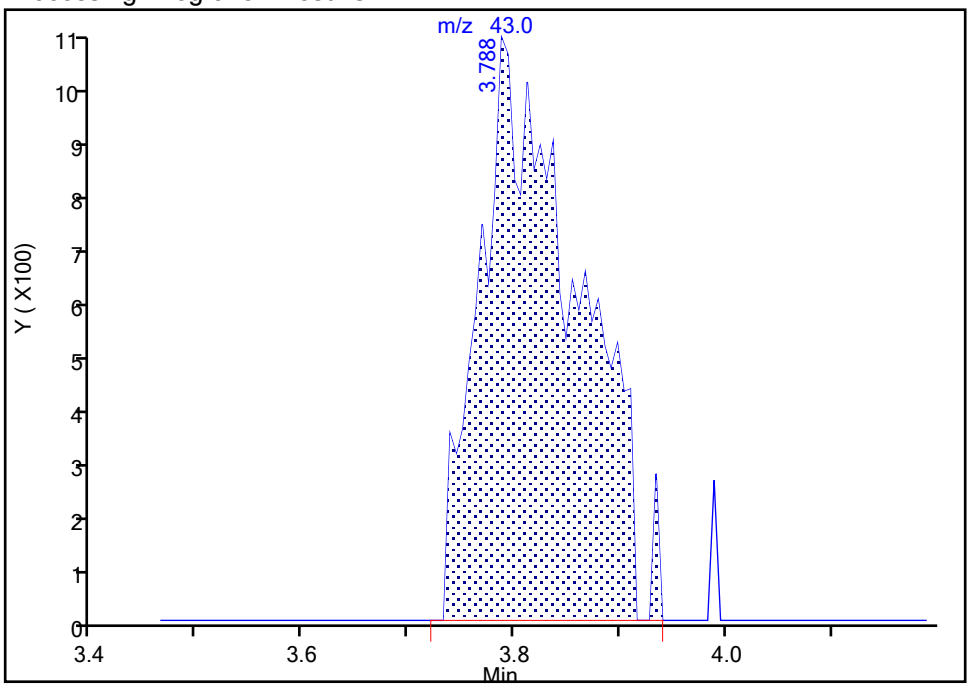
Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29B31.D				
Injection Date:	29-Mar-2021 20:11:30	Instrument ID:	19094		
Lims ID:	MB				
Client ID:					
Operator ID:	MEC29284	ALS Bottle#:	5	Worklist Smp#:	6
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 Acetone, CAS: 67-64-1

Signal: 1

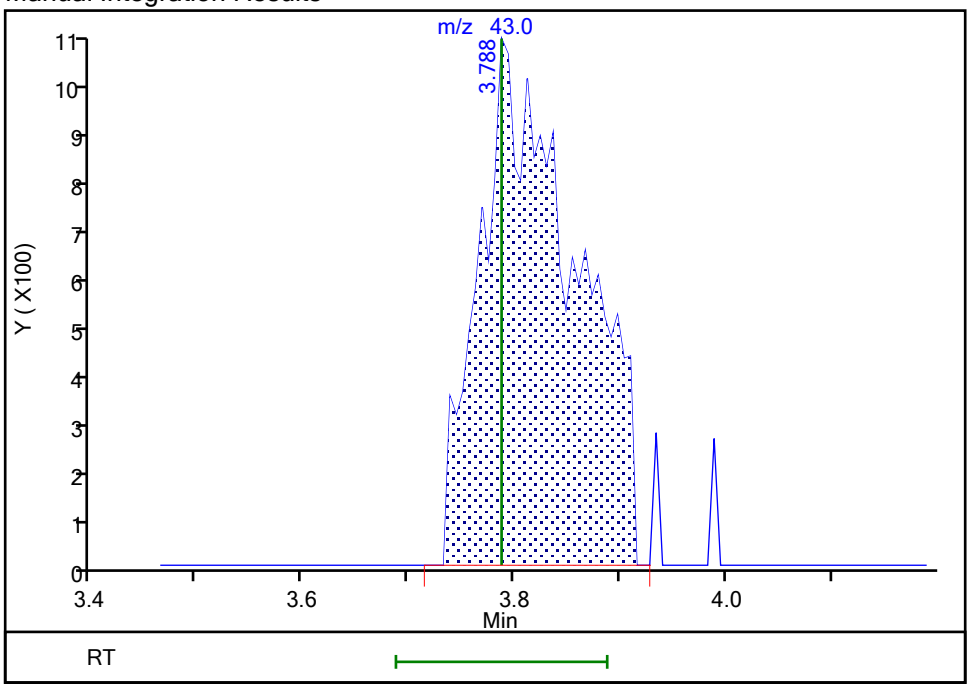
Processing Integration Results

RT: 3.79
Area: 7058
Amount: 1.005906
Amount Units: ug/l



Manual Integration Results

RT: 3.79
Area: 6957
Amount: 0.991511
Amount Units: ug/l



Reviewer: campbellme, 30-Mar-2021 00:23:54
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.: 410-33727-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-108546/4

Matrix: Water Lab File ID: HM29L31.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 19:28

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.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.06		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	5.61		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.44		0.50	0.060
75-34-3	1,1-Dichloroethane	5.22		0.50	0.070
75-35-4	1,1-Dichloroethene	5.40		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.18		0.50	0.060
107-06-2	1,2-Dichloroethane	5.00		0.50	0.050
78-87-5	1,2-Dichloropropane	5.47		0.50	0.060
78-93-3	2-Butanone (MEK)	45.2		5.0	0.60
591-78-6	2-Hexanone	29.7		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	29.8		5.0	0.70
67-64-1	Acetone	42.4		5.0	0.90
71-43-2	Benzene	5.20		0.50	0.050
74-97-5	Bromochloromethane	4.99		0.50	0.050
75-27-4	Bromodichloromethane	5.23		0.50	0.050
75-25-2	Bromoform	5.24		1.0	0.30
74-83-9	Bromomethane	5.33		0.50	0.070
75-15-0	Carbon disulfide	5.25		1.0	0.060
56-23-5	Carbon tetrachloride	4.90		0.50	0.070
108-90-7	Chlorobenzene	5.18		0.50	0.060
75-00-3	Chloroethane	5.28		0.50	0.070
67-66-3	Chloroform	5.06		0.50	0.090
74-87-3	Chloromethane	5.65		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.09		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.21		0.50	0.050
124-48-1	Dibromochloromethane	5.29		0.50	0.070
100-41-4	Ethylbenzene	5.14		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.84		0.50	0.050
75-09-2	Methylene Chloride	5.42		0.50	0.070
100-42-5	Styrene	5.18		0.50	0.050
127-18-4	Tetrachloroethene	5.18		0.50	0.060
108-88-3	Toluene	5.10		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.15		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.29		0.50	0.060
79-01-6	Trichloroethene	5.11		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-108546/4

Matrix: Water Lab File ID: HM29L31.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 19:28

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.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	5.70		0.50	0.10
1330-20-7	Xylenes, Total	15.4		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29L31.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 29-Mar-2021 19:28:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-004
Misc. Info.: LCS
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Mar-2021 20:16:16 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: campbellme Date: 29-Mar-2021 20:02:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.062	2.075	-0.013	99	369237	5.00	4.98	
6 Chloromethane	50	2.270	2.282	-0.012	99	430632	5.00	5.65	
8 Butadiene	39	2.392	2.404	-0.012	93	317701	5.00	4.81	
7 Vinyl chloride	62	2.398	2.410	-0.012	98	413321	5.00	5.70	
9 Bromomethane	94	2.733	2.751	-0.018	90	306952	5.00	5.33	
10 Chloroethane	64	2.831	2.849	-0.018	100	247856	5.00	5.28	
11 Dichlorofluoromethane	67	3.081	3.093	-0.012	97	369683	5.00	3.48	
13 Trichlorofluoromethane	101	3.148	3.172	-0.024	98	560196	5.00	5.13	
15 Ethyl ether	59	3.422	3.434	-0.012	89	229217	5.00	6.33	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.507	3.519	-0.012	91	373250	5.00	5.42	
17 Acrolein	56	3.617	3.623	-0.006	98	200655	37.5	41.3	
18 1,1-Dichloroethene	96	3.757	3.769	-0.012	98	298393	5.00	5.40	
19 Acetone	43	3.782	3.788	-0.006	61	286839	37.5	42.4	
20 112TCTFE	101	3.794	3.806	-0.012	92	309375	5.00	5.03	
21 Isopropyl alcohol	45	3.946	3.940	0.006	96	32825	37.5	24.9	
22 Iodomethane	142	3.965	3.977	-0.012	99	556094	5.00	4.77	
23 Ethyl bromide	108	4.001	4.013	-0.012	98	252719	5.03	4.98	
24 Carbon disulfide	76	4.080	4.092	-0.012	99	808015	5.00	5.25	
26 Methyl acetate	43	4.221	4.227	-0.006	98	101219	5.00	5.59	
27 3-Chloro-1-propene	41	4.269	4.281	-0.012	93	413872	5.00	4.76	
29 Methylene Chloride	84	4.464	4.477	-0.013	90	307107	5.00	5.42	
* 28 t-Butyl alcohol-d10 (IS)	65	4.556	4.495	0.061	0	106189	50.0	50.0	
30 2-Methyl-2-propanol	59	4.678	4.647	0.031	99	142930	50.0	64.0	
31 Acrylonitrile	53	4.800	4.818	-0.018	99	256885	25.0	31.9	
32 Methyl tert-butyl ether	73	4.885	4.891	-0.006	95	639179	5.00	4.84	
33 trans-1,2-Dichloroethene	96	4.897	4.909	-0.012	99	318550	5.00	5.15	
34 Hexane	57	5.306	5.318	-0.012	92	432308	5.00	5.47	
35 1,1-Dichloroethane	63	5.550	5.562	-0.012	96	553857	5.00	5.22	
37 Isopropyl ether	45	5.604	5.617	-0.013	92	847623	5.00	5.06	
38 2-Chloro-1,3-butadiene	53	5.659	5.665	-0.006	90	458615	5.00	4.95	
39 Tert-butyl ethyl ether	59	6.135	6.141	-0.006	97	788969	5.00	4.78	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 2-Butanone (MEK)	43	6.336	6.336	0.000	99	456091	37.5	45.2	
42 cis-1,2-Dichloroethene	96	6.373	6.385	-0.012	81	351750	5.00	5.09	
43 2,2-Dichloropropane	77	6.397	6.409	-0.012	88	457643	5.00	4.68	
45 Propionitrile	54	6.421	6.427	-0.006	98	132193	37.5	48.5	
47 Methacrylonitrile	67	6.641	6.641	0.000	90	522519	37.5	46.8	
48 Chlorobromomethane	128	6.708	6.714	-0.006	89	155436	5.00	4.99	
49 Tetrahydrofuran	71	6.714	6.714	0.000	81	93591	25.0	30.8	
50 Chloroform	83	6.854	6.860	-0.006	93	557793	5.00	5.06	
$ 51 Dibromofluoromethane (Surr)	113	7.068	7.074	-0.006	94	632925	10.0	9.98	
52 1,1,1-Trichloroethane	97	7.086	7.092	-0.006	98	527336	5.00	4.99	
53 Cyclohexane	56	7.183	7.196	-0.013	89	527117	5.00	5.26	
55 1,1-Dichloropropene	75	7.293	7.299	-0.006	97	437181	5.00	5.07	
56 Carbon tetrachloride	117	7.299	7.305	-0.006	96	461378	5.00	4.90	
57 Isobutyl alcohol	41	7.421	7.421	0.000	93	113984	125.0	150.8	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.519	7.525	-0.006	0	121888	10.0	10.2	
59 Benzene	78	7.555	7.561	-0.006	96	1276415	5.00	5.20	
60 1,2-Dichloroethane	62	7.622	7.628	-0.006	97	333364	5.00	5.00	
62 Tert-amyl methyl ether	73	7.738	7.744	-0.006	99	711944	5.00	4.80	
* 65 Fluorobenzene (IS)	96	7.952	7.958	-0.006	99	2462196	10.0	10.0	
64 n-Heptane	43	7.958	7.964	-0.006	90	425713	5.00	5.25	
66 n-Butanol	56	8.299	8.299	0.000	88	222357	250.0	350.2	
67 Trichloroethene	95	8.427	8.433	-0.006	97	350470	5.00	5.11	
68 Methylcyclohexane	83	8.744	8.750	-0.006	94	584011	5.00	5.13	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	93	436654	5.00	4.62	
70 1,2-Dichloropropane	63	8.762	8.768	-0.006	85	319440	5.00	5.47	
71 Methyl methacrylate	69	8.836	8.835	0.001	87	128434	5.00	5.88	
72 1,4-Dioxane	88	8.860	8.848	0.012	35	39551	125.0	150.6	
73 Dibromomethane	93	8.872	8.878	-0.006	93	157444	5.00	5.29	
75 Dichlorobromomethane	83	9.104	9.104	0.000	99	402853	5.00	5.23	
76 2-Nitropropane	41	9.354	9.360	-0.006	99	36509	5.00	5.21	
78 2-Chloroethyl vinyl ether	63		9.451				ND	ND	
79 1-Bromo-2-chloroethane	63	9.482	9.488	-0.006	98	292335	5.00	5.60	
80 cis-1,3-Dichloropropene	75	9.628	9.628	0.000	97	466987	5.00	5.21	
81 4-Methyl-2-pentanone (MIBK)	43	9.787	9.786	0.001	96	788976	25.0	29.8	
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2445137	10.0	10.0	
83 Toluene	92	10.000	10.000	0.000	98	829573	5.00	5.10	
85 trans-1,3-Dichloropropene	75	10.244	10.244	0.000	91	377443	5.00	5.29	
86 Ethyl methacrylate	69	10.299	10.299	0.000	89	268648	5.00	5.01	
87 1,1,2-Trichloroethane	97	10.445	10.445	0.000	90	222403	5.00	5.44	
88 Tetrachloroethene	166	10.536	10.536	0.000	98	420598	5.00	5.18	
89 1,3-Dichloropropane	76	10.603	10.603	0.000	89	372306	5.00	5.40	
91 2-Hexanone	43	10.646	10.646	0.000	96	534740	25.0	29.7	
93 Chlorodibromomethane	129	10.817	10.817	0.000	90	285951	5.00	5.29	
94 Ethylene Dibromide	107	10.933	10.933	0.000	99	213869	5.00	5.18	
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	86	1878047	10.0	10.0	
96 1-Chlorohexane	91	11.353	11.353	0.000	96	465448	5.00	4.81	
98 Chlorobenzene	112	11.378	11.378	0.000	96	942413	5.00	5.18	
99 1,1,1,2-Tetrachloroethane	131	11.457	11.457	0.000	96	332129	5.00	5.06	
100 Ethylbenzene	91	11.457	11.457	0.000	98	1627634	5.00	5.14	
101 m-Xylene & p-Xylene	106	11.567	11.567	0.000	98	1279578	10.0	10.3	
102 o-Xylene	106	11.896	11.896	0.000	96	621643	5.00	5.11	
103 Styrene	104	11.908	11.908	0.000	94	1023419	5.00	5.18	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	12.067	12.073	-0.006	98	166345	5.00	5.24	
105 Isopropylbenzene	105	12.189	12.188	0.001	95	1628599	5.00	4.95	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	93	899806	10.0	9.93	
109 1,1,2,2-Tetrachloroethane	83	12.426	12.426	0.000	94	265923	5.00	5.61	
111 Bromobenzene	156	12.451	12.451	0.000	95	398023	5.00	5.10	
110 trans-1,4-Dichloro-2-butene	53	12.451	12.451	0.000	84	257801	25.0	23.5	
112 1,2,3-Trichloropropane	110	12.475	12.475	0.000	82	72808	5.00	5.17	
113 N-Propylbenzene	91	12.512	12.512	0.000	99	1913681	5.00	5.16	
114 2-Chlorotoluene	126	12.591	12.591	0.000	97	390775	5.00	5.02	
115 1,3,5-Trimethylbenzene	105	12.646	12.646	0.000	94	1388739	5.00	5.05	
116 4-Chlorotoluene	126	12.682	12.682	0.000	97	399678	5.00	5.11	
118 tert-Butylbenzene	134	12.890	12.890	0.000	93	307790	5.00	5.08	
119 Pentachloroethane	167	12.926	12.926	0.000	88	235100	5.00	4.88	
120 1,2,4-Trimethylbenzene	105	12.926	12.926	0.000	97	1432967	5.00	5.10	
121 sec-Butylbenzene	105	13.048	13.048	0.000	94	1802673	5.00	5.14	
122 1,3-Dichlorobenzene	146	13.152	13.152	0.000	97	788936	5.00	5.10	
123 4-Isopropyltoluene	119	13.152	13.152	0.000	97	1562497	5.00	5.16	
* 124 1,4-Dichlorobenzene-d4	152	13.207	13.207	0.000	94	1050584	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.225	13.225	0.000	95	785649	5.00	5.11	
126 1,2,3-Trimethylbenzene	120	13.231	13.231	0.000	98	641101	5.00	5.21	
127 Benzyl chloride	126	13.298	13.298	0.000	98	85105	5.00	4.23	
129 p-Diethylbenzene	119	13.426	13.426	0.000	94	968501	5.00	5.16	
130 n-Butylbenzene	92	13.444	13.444	0.000	97	733612	5.00	5.18	
131 1,2-Dichlorobenzene	146	13.481	13.481	0.000	99	721029	5.00	5.17	
134 1,2-Dibromo-3-Chloropropane	155	14.024	14.023	0.001	89	38370	5.00	5.12	
135 1,3,5-Trichlorobenzene	180	14.145	14.145	0.000	98	593484	5.00	5.08	
136 1,2,4-Trichlorobenzene	180	14.566	14.566	0.000	94	503906	5.00	5.10	
137 Hexachlorobutadiene	225	14.645	14.645	0.000	96	213957	5.00	4.77	
138 Naphthalene	128	14.749	14.749	0.000	96	842017	5.00	4.94	
139 1,2,3-Trichlorobenzene	180	14.895	14.895	0.000	95	447762	5.00	5.22	
140 2-Methylnaphthalene	142	15.535	15.535	0.000	92	448549	5.00	4.33	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

MSV_Q_QVOA1_00074	Amount Added:	12.50	Units: uL	
MSV_Q_QARC_00074	Amount Added:	12.50	Units: uL	
MSV_Q_EE_00003	Amount Added:	12.50	Units: uL	
MSV_Q_ETBR_00006	Amount Added:	12.50	Units: uL	
MSV_QGAS_826_00118	Amount Added:	12.50	Units: uL	
MSV_Q_QVOA6_00072	Amount Added:	12.50	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 29-Mar-2021 20:16:28 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29L31.D

Injection Date: 29-Mar-2021 19:28:30 Instrument ID: 19094 Operator ID: MEC29284

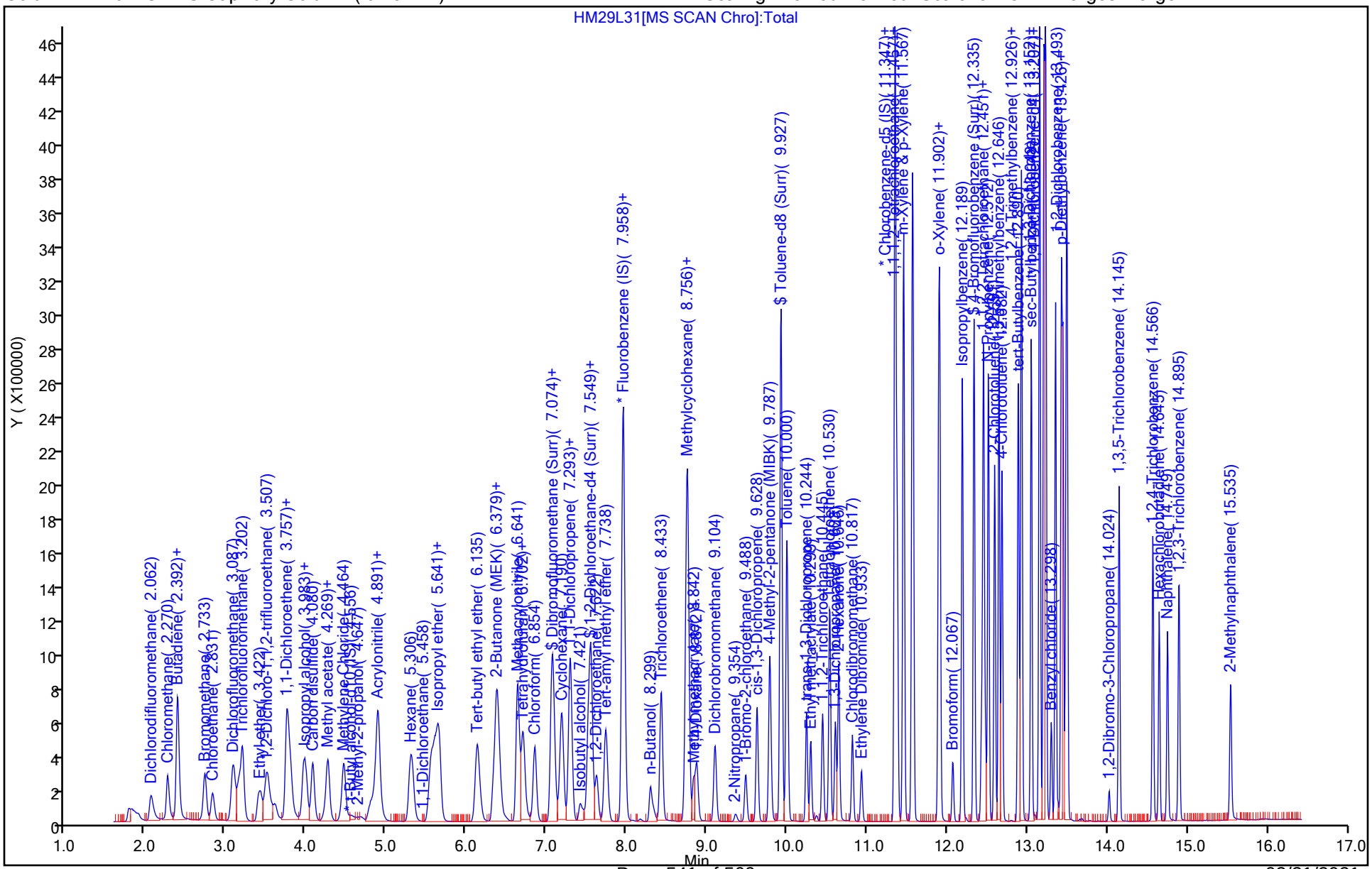
Lims ID: LCS Worklist Smp#: 4

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\20210329-25331.b\HM29L31.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 29-Mar-2021 19:28:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-004
Misc. Info.: LCS
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 29-Mar-2021 20:16:16 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: campbellme Date: 29-Mar-2021 20:02:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	9.98	99.82
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.29
$ 82 Toluene-d8 (Surr)	10.0	10.0	100.31
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.93	99.27

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-33727-6 MS

Matrix: Water Lab File ID: HM29S36.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:20

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 22:19

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.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.91		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	5.42		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.35		0.50	0.060
75-34-3	1,1-Dichloroethane	5.38		0.50	0.070
75-35-4	1,1-Dichloroethene	5.79		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.07		0.50	0.060
107-06-2	1,2-Dichloroethane	4.84		0.50	0.050
78-87-5	1,2-Dichloropropane	5.45		0.50	0.060
78-93-3	2-Butanone (MEK)	45.1		5.0	0.60
591-78-6	2-Hexanone	30.9		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	29.5		5.0	0.70
67-64-1	Acetone	35.2		5.0	0.90
71-43-2	Benzene	5.29		0.50	0.050
74-97-5	Bromochloromethane	5.02		0.50	0.050
75-27-4	Bromodichloromethane	5.18		0.50	0.050
75-25-2	Bromoform	4.79		1.0	0.30
74-83-9	Bromomethane	5.56		0.50	0.070
75-15-0	Carbon disulfide	5.40		1.0	0.060
56-23-5	Carbon tetrachloride	5.12		0.50	0.070
108-90-7	Chlorobenzene	5.27		0.50	0.060
75-00-3	Chloroethane	5.70		0.50	0.070
67-66-3	Chloroform	5.49		0.50	0.090
74-87-3	Chloromethane	5.94		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.02		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.08		0.50	0.050
124-48-1	Dibromochloromethane	5.08		0.50	0.070
100-41-4	Ethylbenzene	5.29		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.58		0.50	0.050
75-09-2	Methylene Chloride	5.49		0.50	0.070
100-42-5	Styrene	5.13		0.50	0.050
127-18-4	Tetrachloroethene	8.29		0.50	0.060
108-88-3	Toluene	5.23		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.29		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.05		0.50	0.060
79-01-6	Trichloroethene	6.34		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-33727-6 MS

Matrix: Water Lab File ID: HM29S36.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:20

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 22:19

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.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	6.46		0.50	0.10
1330-20-7	Xylenes, Total	15.7		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		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)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S36.D
Lims ID: 410-33727-A-6 MS
Client ID: HD-COD-SW-15-0/1-0 MS
Sample Type: MS
Inject. Date: 29-Mar-2021 22:19:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-012
Misc. Info.: 410-33727-A-6 MS
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 16:59:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.074	2.075	-0.001	99	410491	5.00	5.61	
6 Chloromethane	50	2.282	2.282	0.000	99	446823	5.00	5.94	
8 Butadiene	39	2.404	2.404	0.000	90	426289	5.00	6.54	
7 Vinyl chloride	62	2.404	2.410	-0.006	93	462384	5.00	6.46	
9 Bromomethane	94	2.745	2.751	-0.006	91	315876	5.00	5.56	
10 Chloroethane	64	2.843	2.849	-0.006	100	263950	5.00	5.70	
11 Dichlorofluoromethane	67	3.093	3.093	0.000	97	389558	5.00	3.71	
13 Trichlorofluoromethane	101	3.160	3.172	-0.012	97	604868	5.00	5.62	
15 Ethyl ether	59	3.428	3.434	-0.006	89	224749	5.01	6.29	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.525	3.519	0.006	91	398588	5.00	5.86	
17 Acrolein	56	3.623	3.623	0.000	95	151578	37.5	34.9	
18 1,1-Dichloroethene	96	3.769	3.769	0.000	98	315528	5.00	5.79	
19 Acetone	43	3.788	3.788	0.000	43	213061	37.5	35.2	
20 112TCTFE	101	3.806	3.806	0.000	92	329701	5.00	5.43	
21 Isopropyl alcohol	45	3.940	3.940	0.000	96	29868	37.5	23.0	
22 Iodomethane	142	3.983	3.977	0.006	99	549416	5.00	4.78	
23 Ethyl bromide	108	4.013	4.013	0.000	98	261580	5.04	5.22	
24 Carbon disulfide	76	4.092	4.092	0.000	99	819675	5.00	5.40	
26 Methyl acetate	43	4.226	4.227	-0.001	98	93123	5.00	5.76	
27 3-Chloro-1-propene	41	4.281	4.281	0.000	90	403363	5.00	4.70	
29 Methylene Chloride	84	4.483	4.477	0.006	89	307283	5.00	5.49	
* 28 t-Butyl alcohol-d10 (IS)	65	4.446	4.495	-0.049	0	94903	50.0	50.0	
30 2-Methyl-2-propanol	59	4.641	4.647	-0.006	97	76497	50.0	38.3	
31 Acrylonitrile	53	4.818	4.818	0.000	99	208986	25.0	29.0	
32 Methyl tert-butyl ether	73	4.897	4.891	0.006	95	596139	5.00	4.58	
33 trans-1,2-Dichloroethene	96	4.903	4.909	-0.006	99	323266	5.00	5.29	
34 Hexane	57	5.318	5.318	0.000	93	437276	5.00	5.60	
35 1,1-Dichloroethane	63	5.555	5.562	-0.007	96	563078	5.00	5.38	
37 Isopropyl ether	45	5.616	5.617	-0.001	92	821176	5.00	4.97	
38 2-Chloro-1,3-butadiene	53	5.665	5.665	0.000	90	473346	5.00	5.18	
39 Tert-butyl ethyl ether	59	6.147	6.141	0.006	97	757501	5.00	4.65	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 2-Butanone (MEK)	43	6.342	6.336	0.006	99	407173	37.5	45.1	
42 cis-1,2-Dichloroethene	96	6.385	6.385	0.000	81	410129	5.00	6.02	
43 2,2-Dichloropropane	77	6.403	6.409	-0.006	89	474490	5.00	4.91	
45 Propionitrile	54	6.433	6.427	0.006	98	101478	37.5	41.6	
47 Methacrylonitrile	67	6.647	6.641	0.006	91	478152	37.5	47.9	
48 Chlorobromomethane	128	6.714	6.714	0.000	89	154172	5.00	5.02	
49 Tetrahydrofuran	71	6.720	6.714	0.006	80	83171	25.0	30.6	
50 Chloroform	83	6.860	6.860	0.000	93	598096	5.00	5.49	
$ 51 Dibromofluoromethane (Surr)	113	7.067	7.074	-0.007	94	629603	10.0	10.1	
52 1,1,1-Trichloroethane	97	7.098	7.092	0.006	98	555751	5.00	5.32	
53 Cyclohexane	56	7.195	7.196	-0.001	89	548673	5.00	5.55	
55 1,1-Dichloropropene	75	7.299	7.299	0.000	98	464839	5.00	5.47	
56 Carbon tetrachloride	117	7.305	7.305	0.000	97	475561	5.00	5.12	
57 Isobutyl alcohol	41	7.427	7.421	0.006	93	67837	125.1	100.4	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.531	7.525	0.006	0	121801	10.0	10.4	
59 Benzene	78	7.561	7.561	0.000	96	1280475	5.00	5.29	
60 1,2-Dichloroethane	62	7.628	7.628	0.000	98	318749	5.00	4.84	
62 Tert-amyl methyl ether	73	7.744	7.744	0.000	99	681399	5.00	4.66	
* 65 Fluorobenzene (IS)	96	7.957	7.958	-0.001	99	2429867	10.0	10.0	
64 n-Heptane	43	7.964	7.964	0.000	89	430965	5.00	5.38	
66 n-Butanol	56	8.305	8.299	0.006	89	125391	250.2	221.0	
67 Trichloroethene	95	8.433	8.433	0.000	97	429404	5.00	6.34	
68 Methylcyclohexane	83	8.750	8.750	0.000	93	611804	5.00	5.45	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	89	429344	5.00	4.60	
70 1,2-Dichloropropane	63	8.768	8.768	0.000	83	314518	5.00	5.45	
71 Methyl methacrylate	69	8.841	8.835	0.006	87	123718	5.00	6.34	
72 1,4-Dioxane	88	8.854	8.848	0.006	81	13536	125.1	57.7	
73 Dibromomethane	93	8.878	8.878	0.000	97	152318	5.00	5.19	
75 Dichlorobromomethane	83	9.110	9.104	0.006	99	393996	5.00	5.18	
76 2-Nitropropane	41	9.366	9.360	0.006	95	29416	5.00	4.70	
78 2-Chloroethyl vinyl ether	63		9.451				ND	ND	
79 1-Bromo-2-chloroethane	63	9.488	9.488	0.000	99	283808	5.00	5.51	
80 cis-1,3-Dichloropropene	75	9.628	9.628	0.000	97	449272	5.00	5.08	
81 4-Methyl-2-pentanone (MIBK)	43	9.786	9.786	0.000	96	696115	25.0	29.5	
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2401116	10.0	9.93	
83 Toluene	92	10.000	10.000	0.000	98	845011	5.00	5.23	
85 trans-1,3-Dichloropropene	75	10.244	10.244	0.000	91	357980	5.00	5.05	
86 Ethyl methacrylate	69	10.298	10.299	-0.001	88	255821	5.00	4.80	
87 1,1,2-Trichloroethane	97	10.445	10.445	0.000	91	217222	5.00	5.35	
88 Tetrachloroethene	166	10.536	10.536	0.000	97	667708	5.00	8.29	
89 1,3-Dichloropropane	76	10.603	10.603	0.000	88	365660	5.00	5.34	
91 2-Hexanone	43	10.646	10.646	0.000	96	497289	25.0	30.9	
93 Chlorodibromomethane	129	10.817	10.817	0.000	89	272760	5.00	5.08	
94 Ethylene Dibromide	107	10.932	10.933	-0.001	98	207647	5.00	5.07	
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1863588	10.0	10.0	
96 1-Chlorohexane	91	11.353	11.353	0.000	51	488285	5.00	5.08	
98 Chlorobenzene	112	11.378	11.378	0.000	96	952751	5.00	5.27	
99 1,1,1,2-Tetrachloroethane	131	11.457	11.457	0.000	96	319848	5.00	4.91	
100 Ethylbenzene	91	11.457	11.457	0.000	98	1661869	5.00	5.29	
101 m-Xylene & p-Xylene	106	11.567	11.567	-0.001	98	1298139	10.0	10.5	
102 o-Xylene	106	11.896	11.896	0.000	96	621738	5.00	5.15	
103 Styrene	104	11.908	11.908	0.000	95	1005817	5.00	5.13	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	12.073	12.073	-0.001	98	150667	5.00	4.79	
105 Isopropylbenzene	105	12.188	12.188	0.000	95	1653338	5.00	5.07	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	882471	10.0	9.81	
109 1,1,2,2-Tetrachloroethane	83	12.426	12.426	0.000	94	251209	5.00	5.42	
111 Bromobenzene	156	12.450	12.451	-0.001	94	398973	5.00	5.24	
110 trans-1,4-Dichloro-2-butene	53	12.457	12.451	0.006	85	192380	25.0	19.6	
112 1,2,3-Trichloropropane	110	12.481	12.475	0.006	83	68752	5.00	5.00	
113 N-Propylbenzene	91	12.511	12.512	-0.001	99	1968112	5.00	5.43	
114 2-Chlorotoluene	126	12.591	12.591	0.000	97	396607	5.00	5.21	
115 1,3,5-Trimethylbenzene	105	12.646	12.646	0.000	94	1391768	5.00	5.18	
116 4-Chlorotoluene	126	12.682	12.682	0.000	97	403037	5.00	5.28	
118 tert-Butylbenzene	134	12.889	12.890	-0.001	93	309956	5.00	5.24	
119 Pentachloroethane	167	12.926	12.926	0.000	87	226552	5.00	4.82	
120 1,2,4-Trimethylbenzene	105	12.926	12.926	0.000	97	1415630	5.00	5.16	
121 sec-Butylbenzene	105	13.048	13.048	0.000	94	1841619	5.00	5.38	
122 1,3-Dichlorobenzene	146	13.152	13.152	0.000	97	780259	5.00	5.17	
123 4-Isopropyltoluene	119	13.158	13.152	0.006	97	1593518	5.00	5.39	
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1025859	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.225	13.225	0.000	96	785051	5.00	5.23	
126 1,2,3-Trimethylbenzene	120	13.231	13.231	0.000	98	638725	5.00	5.32	
127 Benzyl chloride	126	13.298	13.298	0.000	98	79348	5.00	4.04	
129 p-Diethylbenzene	119	13.426	13.426	0.000	94	967331	5.00	5.28	
130 n-Butylbenzene	92	13.444	13.444	0.000	97	743901	5.00	5.38	
131 1,2-Dichlorobenzene	146	13.487	13.481	0.006	99	708280	5.00	5.20	
134 1,2-Dibromo-3-Chloropropane	155	14.023	14.023	0.000	89	33530	5.00	4.58	
135 1,3,5-Trichlorobenzene	180	14.145	14.145	0.000	98	575739	5.00	5.05	
136 1,2,4-Trichlorobenzene	180	14.566	14.566	0.000	94	476584	5.00	4.94	
137 Hexachlorobutadiene	225	14.645	14.645	0.000	96	207034	5.00	4.73	
138 Naphthalene	128	14.749	14.749	0.000	97	746484	5.00	4.49	
139 1,2,3-Trichlorobenzene	180	14.895	14.895	0.000	96	413390	5.00	4.94	
140 2-Methylnaphthalene	142	15.535	15.535	0.000	92	366776	5.00	3.63	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

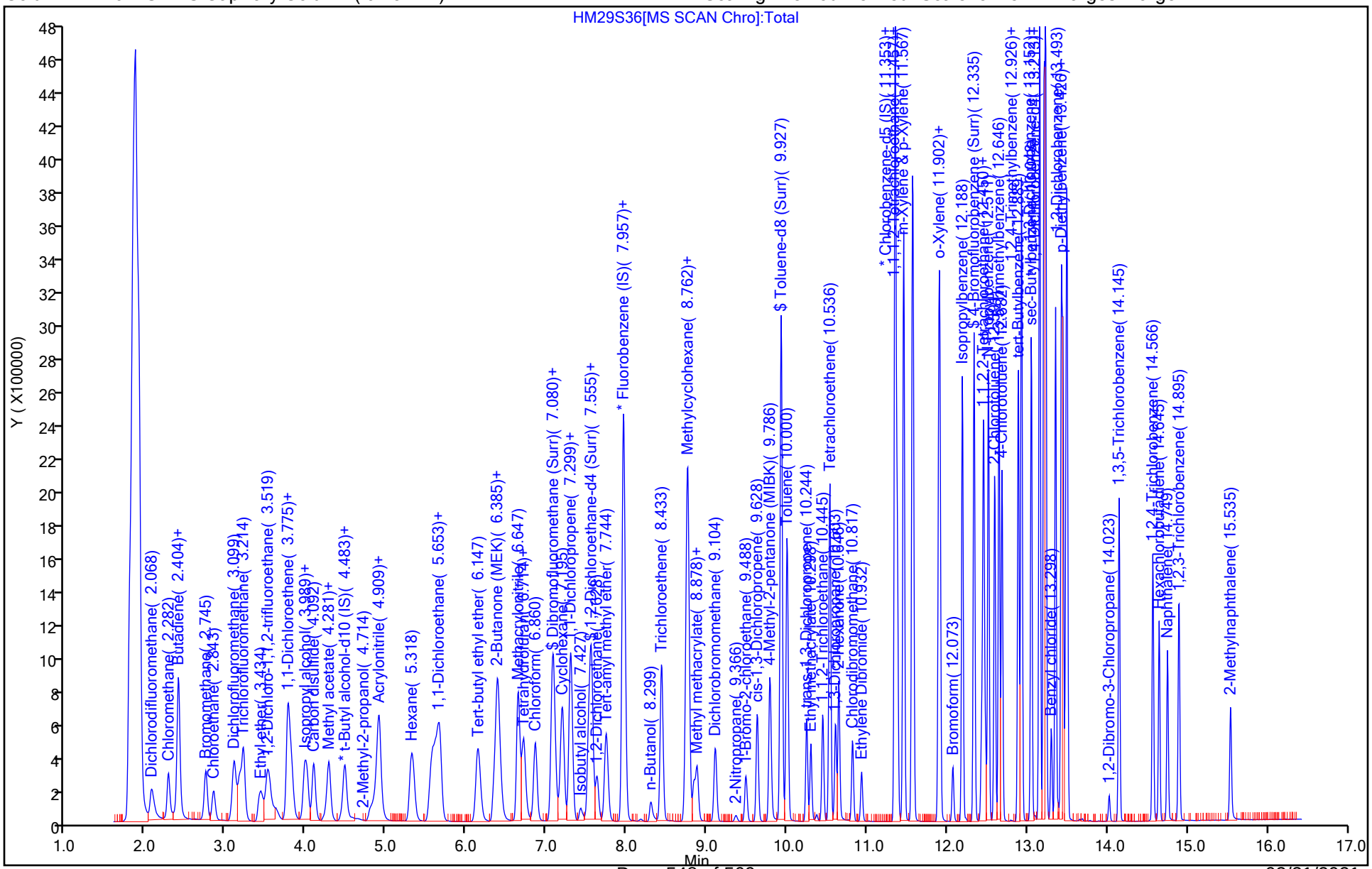
MSV_Q_QVOA1_00074	Amount Added:	5.38	Units: uL	
MSV_Q_QARC_00074	Amount Added:	5.38	Units: uL	
MSV_Q_QVOA6_00072	Amount Added:	5.38	Units: uL	
MSV_Q_EE_00003	Amount Added:	5.38	Units: uL	
MSV_Q_ETBR_00006	Amount Added:	5.38	Units: uL	
MSV_QGAS_826_00118	Amount Added:	5.38	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 30-Mar-2021 17:46:22 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S36.D				
Injection Date:	29-Mar-2021 22:19:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-6 MS			Worklist Smp#:	12
Client ID:	HD-COD-SW-15-0/1-0 MS				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
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\20210329-25331.b\HM29S36.D				
Lims ID:	410-33727-A-6 MS				
Client ID:	HD-COD-SW-15-0/1-0 MS				
Sample Type:	MS				
Inject. Date:	29-Mar-2021 22:19:30	ALS Bottle#:	11	Worklist Smp#:	12
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0025331-012				
Misc. Info.:	410-33727-A-6 MS				
Operator ID:	MEC29284	Instrument ID:	19094		
Method:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m				
Limit Group:	MSV - 8260C_D				
Last Update:	30-Mar-2021 17:44:24	Calib Date:	08-Feb-2021 21:34:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1609				

First Level Reviewer: beckerk Date: 30-Mar-2021 16:59:41

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	10.1	100.62
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.58
$ 82 Toluene-d8 (Surr)	10.0	9.93	99.27
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.81	98.11

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSD Lab Sample ID: 410-33727-6 MSD

Matrix: Water Lab File ID: HM29S37.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:20

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 22:40

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.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.96		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.36		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.50		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.52		0.50	0.060
75-34-3	1,1-Dichloroethane	5.41		0.50	0.070
75-35-4	1,1-Dichloroethene	5.80		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.10		0.50	0.060
107-06-2	1,2-Dichloroethane	4.84		0.50	0.050
78-87-5	1,2-Dichloropropane	5.45		0.50	0.060
78-93-3	2-Butanone (MEK)	42.8		5.0	0.60
591-78-6	2-Hexanone	28.8		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	28.0		5.0	0.70
67-64-1	Acetone	34.5		5.0	0.90
71-43-2	Benzene	5.32		0.50	0.050
74-97-5	Bromochloromethane	5.04		0.50	0.050
75-27-4	Bromodichloromethane	5.18		0.50	0.050
75-25-2	Bromoform	4.84		1.0	0.30
74-83-9	Bromomethane	5.78		0.50	0.070
75-15-0	Carbon disulfide	5.49		1.0	0.060
56-23-5	Carbon tetrachloride	5.12		0.50	0.070
108-90-7	Chlorobenzene	5.25		0.50	0.060
75-00-3	Chloroethane	5.81		0.50	0.070
67-66-3	Chloroform	5.48		0.50	0.090
74-87-3	Chloromethane	6.22		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.01		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.06		0.50	0.050
124-48-1	Dibromochloromethane	5.06		0.50	0.070
100-41-4	Ethylbenzene	5.30		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.71		0.50	0.050
75-09-2	Methylene Chloride	5.52		0.50	0.070
100-42-5	Styrene	5.14		0.50	0.050
127-18-4	Tetrachloroethene	8.29		0.50	0.060
108-88-3	Toluene	5.23		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.30		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.11		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-33727-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSD Lab Sample ID: 410-33727-6 MSD

Matrix: Water Lab File ID: HM29S37.D

Analysis Method: 8260D Date Collected: 03/24/2021 12:20

Sample wt/vol: 25(mL) Date Analyzed: 03/29/2021 22:40

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.: 108546 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	6.37		0.50	0.060
75-01-4	Vinyl chloride	6.57		0.50	0.10
1330-20-7	Xylenes, Total	15.8		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S37.D
Lims ID: 410-33727-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0 MSD
Sample Type: MSD
Inject. Date: 29-Mar-2021 22:40:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-013
Misc. Info.: 410-33727-A-6 MSD
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:00:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	2.062	2.075	-0.013	99	425205	5.00	5.76	
6 Chloromethane	50	2.270	2.282	-0.012	99	472604	5.00	6.22	
8 Butadiene	39	2.398	2.404	-0.006	91	449881	5.00	6.83	
7 Vinyl chloride	62	2.398	2.410	-0.012	98	475079	5.00	6.57	
9 Bromomethane	94	2.739	2.751	-0.012	90	331637	5.00	5.78	
10 Chloroethane	64	2.837	2.849	-0.012	100	271780	5.00	5.81	
11 Dichlorofluoromethane	67	3.093	3.093	0.000	97	405654	5.00	3.83	
13 Trichlorofluoromethane	101	3.160	3.172	-0.012	97	620370	5.00	5.70	
15 Ethyl ether	59	3.422	3.434	-0.012	90	232661	5.01	6.45	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.507	3.519	-0.012	93	404449	5.00	5.89	
17 Acrolein	56	3.617	3.623	-0.006	93	165461	37.5	34.4	
18 1,1-Dichloroethene	96	3.763	3.769	-0.006	98	319455	5.00	5.80	
19 Acetone	43	3.769	3.788	-0.019	49	231100	37.5	34.5	
20 112TCTFE	101	3.794	3.806	-0.012	92	326720	5.00	5.33	
21 Isopropyl alcohol	45	3.934	3.940	-0.006	96	25006	37.5	19.1	
22 Iodomethane	142	3.970	3.977	-0.007	99	559942	5.00	4.82	
23 Ethyl bromide	108	4.001	4.013	-0.012	98	282119	5.04	5.58	
24 Carbon disulfide	76	4.086	4.092	-0.006	99	841558	5.00	5.49	
26 Methyl acetate	43	4.227	4.227	0.000	98	89747	5.00	5.01	
27 3-Chloro-1-propene	41	4.275	4.281	-0.006	91	418255	5.00	4.82	
29 Methylene Chloride	84	4.470	4.477	-0.007	90	311811	5.00	5.52	
* 28 t-Butyl alcohol-d10 (IS)	65	4.440	4.495	-0.055	0	105019	50.0	50.0	
30 2-Methyl-2-propanol	59	4.629	4.647	-0.018	98	90190	50.0	40.8	
31 Acrylonitrile	53	4.806	4.818	-0.012	100	230387	25.0	28.9	
32 Methyl tert-butyl ether	73	4.885	4.891	-0.006	95	619776	5.00	4.71	
33 trans-1,2-Dichloroethene	96	4.903	4.909	-0.006	99	326954	5.00	5.30	
34 Hexane	57	5.312	5.318	-0.006	92	444617	5.00	5.64	
35 1,1-Dichloroethane	63	5.556	5.562	-0.006	96	572081	5.00	5.41	
37 Isopropyl ether	45	5.617	5.617	-0.001	93	838524	5.00	5.02	
38 2-Chloro-1,3-butadiene	53	5.659	5.665	-0.006	90	482957	5.00	5.23	
39 Tert-butyl ethyl ether	59	6.141	6.141	0.000	97	773916	5.00	4.71	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 2-Butanone (MEK)	43	6.342	6.336	0.006	99	427163	37.5	42.8	
42 cis-1,2-Dichloroethene	96	6.379	6.385	-0.006	81	413831	5.00	6.01	
43 2,2-Dichloropropane	77	6.397	6.409	-0.012	88	481460	5.00	4.94	
45 Propionitrile	54	6.427	6.427	0.000	98	109710	37.5	40.7	
47 Methacrylonitrile	67	6.641	6.641	0.000	91	494735	37.5	44.8	
48 Chlorobromomethane	128	6.708	6.714	-0.006	89	156313	5.00	5.04	
49 Tetrahydrofuran	71	6.720	6.714	0.006	80	88081	25.0	29.3	
50 Chloroform	83	6.860	6.860	0.000	93	602234	5.00	5.48	
$ 51 Dibromofluoromethane (Surr)	113	7.067	7.074	-0.007	94	626450	10.0	9.91	
52 1,1,1-Trichloroethane	97	7.092	7.092	0.000	98	565266	5.00	5.36	
53 Cyclohexane	56	7.195	7.196	-0.001	89	554128	5.00	5.55	
55 1,1-Dichloropropene	75	7.293	7.299	-0.006	98	471596	5.00	5.49	
56 Carbon tetrachloride	117	7.305	7.305	0.000	97	480477	5.00	5.12	
57 Isobutyl alcohol	41	7.421	7.421	0.000	93	83199	125.1	111.3	
$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.519	7.525	-0.006	0	122335	10.0	10.3	
59 Benzene	78	7.555	7.561	-0.006	96	1301019	5.00	5.32	
60 1,2-Dichloroethane	62	7.628	7.628	0.000	98	322061	5.00	4.84	
62 Tert-amyl methyl ether	73	7.744	7.744	0.000	99	697684	5.00	4.72	
* 65 Fluorobenzene (IS)	96	7.958	7.958	0.000	99	2453884	10.0	10.0	
64 n-Heptane	43	7.964	7.964	0.000	89	429581	5.00	5.31	
66 n-Butanol	56	8.299	8.299	0.000	88	140565	250.2	223.9	
67 Trichloroethene	95	8.433	8.433	0.000	97	435665	5.00	6.37	
68 Methylcyclohexane	83	8.744	8.750	-0.006	94	634936	5.00	5.60	
69 2-ethoxy-2-methyl butane	87	8.762	8.762	0.000	90	437852	5.00	4.65	
70 1,2-Dichloropropane	63	8.768	8.768	0.000	83	317337	5.00	5.45	
71 Methyl methacrylate	69	8.835	8.835	0.000	89	122936	5.00	5.69	
72 1,4-Dioxane	88	8.848	8.848	0.000	85	21051	125.1	80.3	
73 Dibromomethane	93	8.872	8.878	-0.006	93	154140	5.00	5.20	
75 Dichlorobromomethane	83	9.104	9.104	0.000	99	397518	5.00	5.18	
76 2-Nitropropane	41	9.360	9.360	0.000	99	30160	5.00	4.35	
78 2-Chloroethyl vinyl ether	63		9.451				ND	ND	
79 1-Bromo-2-chloroethane	63	9.488	9.488	0.000	98	299119	5.00	5.75	
80 cis-1,3-Dichloropropene	75	9.628	9.628	0.000	97	451608	5.00	5.06	
81 4-Methyl-2-pentanone (MIBK)	43	9.786	9.786	0.000	96	732747	25.0	28.0	
$ 82 Toluene-d8 (Surr)	98	9.927	9.927	0.000	93	2421802	10.0	9.94	
83 Toluene	92	10.000	10.000	0.000	98	850870	5.00	5.23	
85 trans-1,3-Dichloropropene	75	10.244	10.244	0.000	91	364129	5.00	5.11	
86 Ethyl methacrylate	69	10.299	10.299	-0.001	89	258413	5.00	4.82	
87 1,1,2-Trichloroethane	97	10.445	10.445	0.000	89	225626	5.00	5.52	
88 Tetrachloroethene	166	10.536	10.536	0.000	98	672455	5.00	8.29	
89 1,3-Dichloropropane	76	10.603	10.603	0.000	89	367167	5.00	5.33	
91 2-Hexanone	43	10.646	10.646	0.000	96	513520	25.0	28.8	
93 Chlorodibromomethane	129	10.817	10.817	0.000	90	273333	5.00	5.06	
94 Ethylene Dibromide	107	10.933	10.933	0.000	98	210027	5.00	5.10	
* 97 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	85	1876423	10.0	10.0	
96 1-Chlorohexane	91	11.353	11.353	0.000	51	491536	5.00	5.08	
98 Chlorobenzene	112	11.378	11.378	0.000	96	955651	5.00	5.25	
99 1,1,1,2-Tetrachloroethane	131	11.457	11.457	0.000	95	325077	5.00	4.96	
100 Ethylbenzene	91	11.457	11.457	0.000	98	1675893	5.00	5.30	
101 m-Xylene & p-Xylene	106	11.573	11.567	0.006	98	1315185	10.0	10.6	
102 o-Xylene	106	11.896	11.896	0.000	95	629485	5.00	5.18	
103 Styrene	104	11.908	11.908	0.000	94	1015620	5.00	5.14	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	12.073	12.073	0.000	98	153408	5.00	4.84	
105 Isopropylbenzene	105	12.188	12.188	0.000	95	1682114	5.00	5.12	
$ 108 4-Bromofluorobenzene (Surr)	95	12.335	12.335	0.000	94	885303	10.0	9.78	
109 1,1,2,2-Tetrachloroethane	83	12.426	12.426	0.000	94	256831	5.00	5.50	
111 Bromobenzene	156	12.451	12.451	0.000	94	405368	5.00	5.27	
110 trans-1,4-Dichloro-2-butene	53	12.451	12.451	0.000	80	179221	25.0	16.5	
112 1,2,3-Trichloropropane	110	12.475	12.475	0.000	82	68316	5.00	4.93	
113 N-Propylbenzene	91	12.511	12.512	-0.001	99	1992928	5.00	5.45	
114 2-Chlorotoluene	126	12.591	12.591	0.000	97	398954	5.00	5.20	
115 1,3,5-Trimethylbenzene	105	12.646	12.646	0.000	94	1407277	5.00	5.19	
116 4-Chlorotoluene	126	12.682	12.682	0.000	97	405933	5.00	5.27	
118 tert-Butylbenzene	134	12.889	12.890	-0.001	93	310293	5.00	5.20	
119 Pentachloroethane	167	12.926	12.926	0.000	89	229176	5.00	4.83	
120 1,2,4-Trimethylbenzene	105	12.926	12.926	0.000	97	1433489	5.00	5.18	
121 sec-Butylbenzene	105	13.048	13.048	0.000	94	1860277	5.00	5.39	
122 1,3-Dichlorobenzene	146	13.152	13.152	0.000	98	794536	5.00	5.22	
123 4-Isopropyltoluene	119	13.152	13.152	0.000	97	1604400	5.00	5.38	
* 124 1,4-Dichlorobenzene-d4	152	13.206	13.207	-0.001	94	1035023	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.225	13.225	0.000	96	795792	5.00	5.26	
126 1,2,3-Trimethylbenzene	120	13.231	13.231	0.000	98	647880	5.00	5.35	
127 Benzyl chloride	126	13.298	13.298	0.000	98	80551	5.00	4.07	
129 p-Diethylbenzene	119	13.426	13.426	0.000	94	1000903	5.00	5.41	
130 n-Butylbenzene	92	13.444	13.444	0.000	97	747385	5.00	5.36	
131 1,2-Dichlorobenzene	146	13.481	13.481	0.000	99	715170	5.00	5.20	
134 1,2-Dibromo-3-Chloropropane	155	14.023	14.023	0.000	90	36364	5.00	4.92	
135 1,3,5-Trichlorobenzene	180	14.145	14.145	0.000	98	578904	5.00	5.03	
136 1,2,4-Trichlorobenzene	180	14.566	14.566	0.000	94	485635	5.00	4.99	
137 Hexachlorobutadiene	225	14.645	14.645	0.000	96	206418	5.00	4.67	
138 Naphthalene	128	14.749	14.749	0.000	96	779273	5.00	4.64	
139 1,2,3-Trichlorobenzene	180	14.895	14.895	0.000	96	430353	5.00	5.09	
140 2-Methylnaphthalene	142	15.535	15.535	0.000	92	403588	5.00	3.95	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

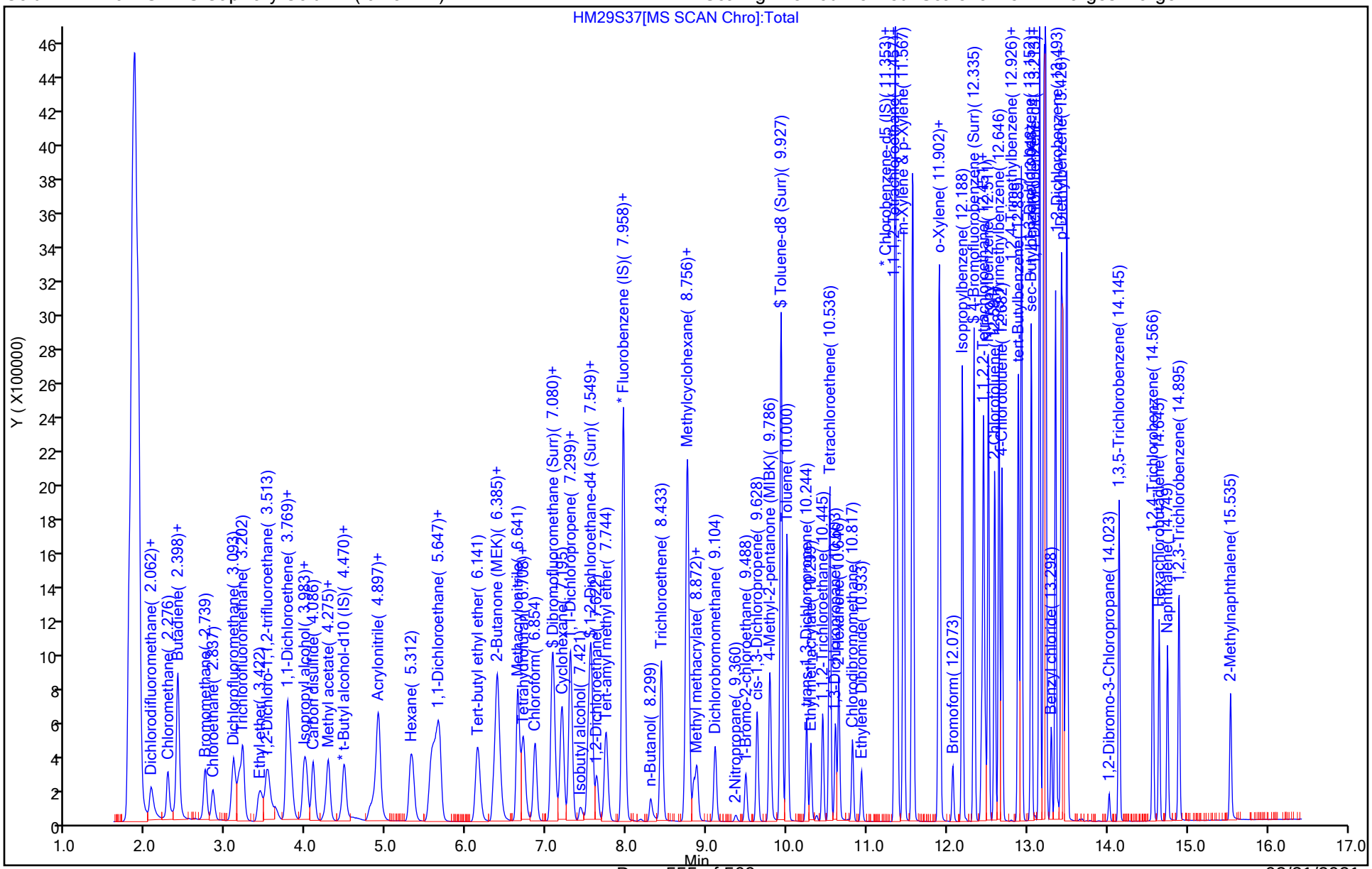
MSV_Q_QVOA1_00074	Amount Added:	5.38	Units: uL	
MSV_Q_QARC_00074	Amount Added:	5.38	Units: uL	
MSV_Q_QVOA6_00072	Amount Added:	5.38	Units: uL	
MSV_Q_EE_00003	Amount Added:	5.38	Units: uL	
MSV_Q_ETBR_00006	Amount Added:	5.38	Units: uL	
MSV_QGAS_826_00118	Amount Added:	5.38	Units: uL	
MSV_30_826ISS_00006	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 30-Mar-2021 17:46:27 Chrom Revision: 2.3 19-Mar-2021 08:24:58

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19094\20210329-25331.b\HM29S37.D				
Injection Date:	29-Mar-2021 22:40:30	Instrument ID:	19094	Operator ID:	MEC29284
Lims ID:	410-33727-A-6 MSD			Worklist Smp#:	13
Client ID:	HD-COD-SW-15-0/1-0 MSD				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
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\20210329-25331.b\HM29S37.D
Lims ID: 410-33727-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0 MSD
Sample Type: MSD
Inject. Date: 29-Mar-2021 22:40:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0025331-013
Misc. Info.: 410-33727-A-6 MSD
Operator ID: MEC29284 Instrument ID: 19094

Method: \\chromfs\Lancaster\ChromData\19094\20210329-25331.b\MSV_19094_25mL.m
Limit Group: MSV - 8260C_D
Last Update: 30-Mar-2021 17:44:24 Calib Date: 08-Feb-2021 21:34:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19094\20210208-21577.b\HF08I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1609

First Level Reviewer: beckerk Date: 30-Mar-2021 17:00:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 51 Dibromofluoromethane (Surr)	10.0	9.91	99.13
$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	103.01
$ 82 Toluene-d8 (Surr)	10.0	9.94	99.44
$ 108 4-Bromofluorobenzene (Surr)	10.0	9.78	97.75

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Instrument ID: 19094 Start Date: 02/08/2021 14:59

Analysis Batch Number: 92110 End Date: 02/08/2021 21:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-92110/1		02/08/2021 14:59	1	HF08T01.D	R-624SilMS 30m 0.25(mm)
IC 410-92110/3		02/08/2021 16:15	1		R-624SilMS 30m 0.25(mm)
IC 410-92110/4		02/08/2021 16:36	1		R-624SilMS 30m 0.25(mm)
IC 410-92110/5		02/08/2021 16:58	1		R-624SilMS 30m 0.25(mm)
IC 410-92110/6		02/08/2021 17:19	1		R-624SilMS 30m 0.25(mm)
IC 410-92110/7		02/08/2021 17:40	1		R-624SilMS 30m 0.25(mm)
IC 410-92110/8		02/08/2021 18:01	1		R-624SilMS 30m 0.25(mm)
IC 410-92110/9		02/08/2021 18:23	1		R-624SilMS 30m 0.25(mm)
ICV 410-92110/10		02/08/2021 18:44	1		R-624SilMS 30m 0.25(mm)
IC 410-92110/12		02/08/2021 19:27	1	HF08I11.D	R-624SilMS 30m 0.25(mm)
ICIS 410-92110/13		02/08/2021 19:48	1	HF08I12.D	R-624SilMS 30m 0.25(mm)
IC 410-92110/14		02/08/2021 20:09	1	HF08I13.D	R-624SilMS 30m 0.25(mm)
IC 410-92110/15		02/08/2021 20:30	1	HF08I14.D	R-624SilMS 30m 0.25(mm)
IC 410-92110/16		02/08/2021 20:51	1	HF08I15.D	R-624SilMS 30m 0.25(mm)
IC 410-92110/17		02/08/2021 21:13	1	HF08I16.D	R-624SilMS 30m 0.25(mm)
IC 410-92110/18		02/08/2021 21:34	1	HF08I17.D	R-624SilMS 30m 0.25(mm)
ICV 410-92110/19		02/08/2021 21:55	1	HF08V11.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-33727-1

SDG No.:

Instrument ID: 19094 Start Date: 03/29/2021 18:30

Analysis Batch Number: 108546 End Date: 03/30/2021 06:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-108546/1		03/29/2021 18:30	1	HM29T31.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-108546/3		03/29/2021 19:07	1	HM29C31.D	R-624SilMS 30m 0.25(mm)
LCS 410-108546/4		03/29/2021 19:28	1	HM29L31.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		03/29/2021 19:50	1		R-624SilMS 30m 0.25(mm)
MB 410-108546/6		03/29/2021 20:11	1	HM29B31.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		03/29/2021 20:32	1		R-624SilMS 30m 0.25(mm)
410-33727-14	HD-QC1-0/1-2	03/29/2021 20:53	1	HM29S32.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		03/29/2021 21:15	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/29/2021 21:36	1		R-624SilMS 30m 0.25(mm)
410-33727-6	HD-COD-SW-15-0/1-0	03/29/2021 21:58	1	HM29S35.D	R-624SilMS 30m 0.25(mm)
410-33727-6 MS	HD-COD-SW-15-0/1-0 MS MS	03/29/2021 22:19	1	HM29S36.D	R-624SilMS 30m 0.25(mm)
410-33727-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	03/29/2021 22:40	1	HM29S37.D	R-624SilMS 30m 0.25(mm)
410-33727-1	HD-COD-SW-6-0/1-0	03/29/2021 23:22	1	HM29S39.D	R-624SilMS 30m 0.25(mm)
410-33727-2	HD-COD-SW-7-0/1-0	03/29/2021 23:43	1	HM29S40.D	R-624SilMS 30m 0.25(mm)
410-33727-3	HD-COD-SW-8-0/1-0	03/30/2021 00:05	1	HM29S41.D	R-624SilMS 30m 0.25(mm)
410-33727-4	HD-COD-SW-9-0/1-0	03/30/2021 00:26	1	HM29S42.D	R-624SilMS 30m 0.25(mm)
410-33727-5	HD-COD-SW-13-0/1-0	03/30/2021 00:47	1	HM29S43.D	R-624SilMS 30m 0.25(mm)
410-33727-7	HD-COD-SW-16-0/1-0	03/30/2021 01:09	1	HM29S44.D	R-624SilMS 30m 0.25(mm)
410-33727-8	HD-COD-SW-17-0/1-0	03/30/2021 01:30	1	HM29S45.D	R-624SilMS 30m 0.25(mm)
410-33727-9	HD-COD-SW-26-0/1-0	03/30/2021 01:51	1	HM29S46.D	R-624SilMS 30m 0.25(mm)
410-33727-10	HD-COD-SW-27-0/1-0	03/30/2021 02:12	1	HM29S47.D	R-624SilMS 30m 0.25(mm)
410-33727-11	HD-COD-SW-28-0/1-0	03/30/2021 02:34	1	HM29S48.D	R-624SilMS 30m 0.25(mm)
410-33727-12	HD-COD-SW-29-0/1-0	03/30/2021 02:55	1	HM29S49.D	R-624SilMS 30m 0.25(mm)
410-33727-13	HD-QC1-0/1-1	03/30/2021 03:16	1	HM29S50.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		03/30/2021 03:37	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/30/2021 03:59	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/30/2021 04:20	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/30/2021 04:41	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/30/2021 05:03	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/30/2021 05:24	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/30/2021 05:45	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		03/30/2021 06:06	10		R-624SilMS 30m 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33727-1

SDG No.:

Batch Number: 92110 Batch Start Date: 02/08/21 14:59 Batch Analyst: Long, Jason M

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_30_826ISS 00006	MSV_Q_EE 00003	MSV_Q_ETBR 00006	MSV_Q_QARC 00066
BFB 410-92110/1		8260D		1 uL	1 uL				
IC 410-92110/12		8260D		25 mL	25 mL	5 uL			
ICIS 410-92110/13		8260D		25 mL	25 mL	5 uL			
IC 410-92110/14		8260D		25 mL	25 mL	5 uL			
IC 410-92110/15		8260D		25 mL	25 mL	5 uL			
IC 410-92110/16		8260D		25 mL	25 mL	5 uL			
IC 410-92110/17		8260D		25 mL	25 mL	5 uL			
IC 410-92110/18		8260D		25 mL	25 mL	5 uL			
ICV 410-92110/19		8260D		25 mL	25 mL	5 uL	12.5 uL	12.5 uL	12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_QVOA1 00067	MSV_Q_QVOA6 00065	MSV_QGAS_826 00109	MSV_RV1_826 00037	MSV_RV4_826 00044	MSV_RV4GAS826 00112
BFB 410-92110/1		8260D							
IC 410-92110/12		8260D					25 uL	25 uL	25 uL
ICIS 410-92110/13		8260D					10 uL	10 uL	10 uL
IC 410-92110/14		8260D					5 uL	5 uL	5 uL
IC 410-92110/15		8260D					2 uL	2 uL	2 uL
IC 410-92110/16		8260D					2 uL	2 uL	2 uL
IC 410-92110/17		8260D					2 uL	2 uL	2 uL
IC 410-92110/18		8260D					2 uL	2 uL	2 uL
ICV 410-92110/19		8260D		12.5 uL	12.5 uL	12.5 uL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00004	AnalysisComment				
BFB 410-92110/1		8260D		1 uL					
IC 410-92110/12		8260D			0126201F				
ICIS 410-92110/13		8260D			0126201F				
IC 410-92110/14		8260D			0126201F				
IC 410-92110/15		8260D			0126201F				

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.: 410-33727-1

SDG No.:

Batch Number: 92110 Batch Start Date: 02/08/21 14:59 Batch Analyst: Long, Jason M

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00004	AnalysisComment				
IC 410-92110/16		8260D			0126201F				
IC 410-92110/17		8260D			0126201F				
IC 410-92110/18		8260D			0126201F				
ICV 410-92110/19		8260D			0126201F				

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.: 410-33727-1

SDG No.:

Batch Number: 108546 Batch Start Date: 03/29/21 18:30 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-108546/1		8260D		1 uL	1 uL				
CCVIS 410-108546/3		8260D		25 mL	25 mL				0126201F
LCS 410-108546/4		8260D		25 mL	25 mL				0126201F
MB 410-108546/6		8260D		25 mL	25 mL				0126201F
410-33727-A-14	HD-QC1-0/1-2	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-6	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-1	HD-COD-SW-6-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-2	HD-COD-SW-7-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-3	HD-COD-SW-8-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-4	HD-COD-SW-9-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-5	HD-COD-SW-13-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-7	HD-COD-SW-16-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-9	HD-COD-SW-26-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-10	HD-COD-SW-27-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-11	HD-COD-SW-28-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-12	HD-COD-SW-29-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-33727-A-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_30_826ISS 00006	MSV_Q_EE 00003	MSV_Q_ETBR 00006	MSV_Q_QARC 00074	MSV_Q_QVOA1 00074	MSV_Q_QVOA6 00072

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.: 410-33727-1

SDG No.:

Batch Number: 108546 Batch Start Date: 03/29/21 18:30 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_30_826ISS 00006	MSV_Q_EE 00003	MSV_Q_ETBR 00006	MSV_Q_QARC 00074	MSV_Q_QVOA1 00074	MSV_Q_QVOA6 00072
BFB 410-108546/1		8260D							
CCVIS 410-108546/3		8260D		5 uL					
LCS 410-108546/4		8260D		5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL
MB 410-108546/6		8260D		5 uL					
410-33727-A-14	HD-QC1-0/1-2	8260D	T	5 uL					
410-33727-A-6	HD-COD-SW-15-0/1-0	8260D	T	5 uL					
410-33727-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	5 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL
410-33727-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	5 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL
410-33727-A-1	HD-COD-SW-6-0/1-0	8260D	T	5 uL					
410-33727-A-2	HD-COD-SW-7-0/1-0	8260D	T	5 uL					
410-33727-A-3	HD-COD-SW-8-0/1-0	8260D	T	5 uL					
410-33727-A-4	HD-COD-SW-9-0/1-0	8260D	T	5 uL					
410-33727-A-5	HD-COD-SW-13-0/1-0	8260D	T	5 uL					
410-33727-A-7	HD-COD-SW-16-0/1-0	8260D	T	5 uL					
410-33727-A-8	HD-COD-SW-17-0/1-0	8260D	T	5 uL					
410-33727-A-9	HD-COD-SW-26-0/1-0	8260D	T	5 uL					
410-33727-A-10	HD-COD-SW-27-0/1-0	8260D	T	5 uL					
410-33727-A-11	HD-COD-SW-28-0/1-0	8260D	T	5 uL					
410-33727-A-12	HD-COD-SW-29-0/1-0	8260D	T	5 uL					
410-33727-A-13	HD-QC1-0/1-1	8260D	T	5 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QGAS_826 00118	MSV_RV1_826 00042	MSV_RV4_826 00048	MSV_RV4GAS826 00121	MSV_V_BFB 00004	AnalysisComment

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.: 410-33727-1

SDG No.:

Batch Number: 108546 Batch Start Date: 03/29/21 18:30 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QGAS_826 00118	MSV_RV1_826 00042	MSV_RV4_826 00048	MSV_RV4GAS826 00121	MSV_V_BFB 00004	AnalysisComment
BFB 410-108546/1		8260D						1 uL	
CCVIS 410-108546/3		8260D			10 uL	10 uL	10 uL		
LCS 410-108546/4		8260D		12.5 uL					
MB 410-108546/6		8260D							J hit of Acetone. ok, common lab contaminant
410-33727-A-14	HD-QC1-0/1-2	8260D	T						
410-33727-A-6	HD-COD-SW-15-0/1-0	8260D	T						
410-33727-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	5.38 uL					
410-33727-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	5.38 uL					
410-33727-A-1	HD-COD-SW-6-0/1-0	8260D	T						
410-33727-A-2	HD-COD-SW-7-0/1-0	8260D	T						
410-33727-A-3	HD-COD-SW-8-0/1-0	8260D	T						
410-33727-A-4	HD-COD-SW-9-0/1-0	8260D	T						
410-33727-A-5	HD-COD-SW-13-0/1-0	8260D	T						
410-33727-A-7	HD-COD-SW-16-0/1-0	8260D	T						
410-33727-A-8	HD-COD-SW-17-0/1-0	8260D	T						
410-33727-A-9	HD-COD-SW-26-0/1-0	8260D	T						
410-33727-A-10	HD-COD-SW-27-0/1-0	8260D	T						
410-33727-A-11	HD-COD-SW-28-0/1-0	8260D	T						
410-33727-A-12	HD-COD-SW-29-0/1-0	8260D	T						
410-33727-A-13	HD-QC1-0/1-1	8260D	T						

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

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-33727-1

SDG No.:

Batch Number: 108546 Batch Start Date: 03/29/21 18:30 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

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

Shipping and Receiving Documents

Environme[barcode]est/Chain of Custody

410-33727 Chain of Custody

eurofins

Lancaster Laboratories Environmental

Acct. # _____ # _____

Client: **Groundwater Sciences Corporation**			
Project Name/#: fYNOP Monthly Surface Water	Site ID #: fYNOP, York PA		
Project Manager: Chris O'Neil	P.O. #: 10012.42		
Sampler: Casey Littlefield / ~~Erin Peeling~~ KELLY MORGANO	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	Tissue	Sediment	Water: Potable	Ground	Surface	NPDES	Other:	Total # of Containers	Analyses Requested: Aqueous VOCs via 8260D (low level - 25 ml purge)
HD-COD-SW-6-0/1-0	3/24/21	1100	X					X					3	X
HD-COD-SW-7-0/1-0		1145	X					X					3	X
HD-COD-SW-8-0/1-0		0915	X					X					3	X
HD-COD-SW-9-0/1-0		1240	X					X					3	X
HD-COD-SW-13-0/1-0		0940	X					X					3	X
HD-COD-SW-15-0/1-0		1220	X					X					3	X
HD-COD-SW-15-0/1-0 MS		1220	X					X					3	X
HD-COD-SW-15-0/1-0 MSD		1220	X					X					3	X
HD-COD-SW-16-0/1-0		1000	X					X					3	X
HD-COD-SW-17-0/1-0		1020	X					X					3	X

Preservation Codes: H

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other

Remarks

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address:

Phone:

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type VI (Raw Data Only) ☐ TX TRRP-13 ☐

NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☑ No ☐ If yes, format: CLP Like Deliverables, Project Specific Analyte List

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	3/24/21	1600	Christopher D. Orwig	3/24/21	1600
Christopher D. Orwig	3/25/21	1106	[signature]	3/25/21	1106
[signature]	3/25/21	1300			
			[signature]	3-25-21	2116

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other X

Temperature upon receipt 1.4 °C

(5) signed after original I received time of 1300

ES

MF

Environmental Analysis Request/Chain of Custody

eurofins

Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

Client: **Groundwater Sciences Corporation**			
Project Name/#: fYNOP Monthly Surface Water	Site ID #: fYNOP, York PA		
Project Manager: Chris O'Neil	P.O. #: 10012.42		
Sampler: Casey Littlefield / ~~Erin Peeling~~ Kelly Morgano	PWSID #: N/A		
Phone #: (717) 901-8176 / (717) 756-1246	Quote #:		
State where samples were collected: York, PA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil ☐ Sediment ☐ Tissue ☐	Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☑	Other: Trip Blank	Total # of Containers	Analyses Requested: Aqueous VOCs via 8260D (low level - 25 ml purge)	Preservation Codes: H	Remarks
HD-COD-SW-26-0/1-0	3/24/21	1130	X			X		3	X		
HD-COD-SW-27-0/1-0		1210	X			X		3	X		
HD-COD-SW-28-0/1-0		1245	X			X		3	X		
HD-COD-SW-29-0/1-0		0900	X			X		3	X		
HD-QC1-0/1-1		1200	X			X		3	X		DUPLICATE
HD-QC1-0/1-2	↓	—	X				X	2	X		TRIP BLANK

For Lab Use Only

SF #: _____

SCR #: _____

Preservation Codes

H = HCl T = Thiosulfate

N = HNO_3 B = NaOH

S = H_2SO_4 P = H_3PO_4

O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address:

Phone:

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type VI (Raw Data Only) ☐ TX TRRP-13 ☐

NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☑ No ☐ If yes, format: _ CLP Like Deliverables, Project Specific Analyte List

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	3/24/21	1600	Christopher D. O'Neil	3/24/21	1600
Christopher D. O'Neil	3/25/21	1106	[signature]	3/25/21	1106
[signature]	3/25/21	1300			
			[signature]	3-25-21	2116

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other X

Temperature upon receipt 1.4 °C

25 @ signed after original / received time of 1300

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-33727-1

Login Number: 33727
List Number: 1
Creator: Sanchez, Melvin E

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-33727-1

Login Number: 33727
List Number: 2
Creator: Reiff, Nicole L

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		