Proficiency Testing Scheme for Water Analysis

Round C57

Volatile Halogenated Hydrocarbons

Sample Dispatch: 3 April 2017

IFA TULLN

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This report summarises the results of round C57 “Volatile Halogenated Hydrocarbons” within the IFA-Test Proficiency Testing Scheme for Water Analysis. The samples were distributed to the participants on Monday, 3 April 2017. Closing date for reporting results to the IFA-Tulln was Friday, 28 April 2017.

18 laboratories participated in this interlaboratory comparison. All laboratories submitted results.

Samples

For sample preparation, ultrapure water was spiked with concentrated solutions of inorganic salts in order to simulate the ionic composition of natural ground water. The following salts were added to the samples: $Mg(NO_3)_2$, $MgSO_4$, Na_2SO_4, $NaHCO_3$, $KHCO_3$, $CaCl_2$ and $Ca(NO_3)_2$. Prior to sample preparation, blank samples of ultrapure water and artificial water matrix were analysed by Purge&Trap-GC-MS to exclude contamination.

The samples C57A and C57B were spiked with traces of trichloroethene, trichloromethane, 1,1,1-trichloroethane, tetrachloromethane, tribromomethane, tetrachloroethene, bromodichloromethane, 1,2-dichloroethane, dibromochloromethane, 1,1-dichloroethene, dichloromethane, cis-1,2-dichloroethene and trans-1,2-dichloroethene.

The calculation of the mass concentrations of the compounds was based on the weights of standards added to the samples.

Homogeneity, accuracy and stability tests at the IFA-Tulln

For verification of homogeneity samples were analysed for the compounds of interest by Purge&Trap-GC-MS measurements prior to shipment to the participants. The results of the measurements are listed in the result tables and the parameter oriented part of the report (”IFA result”).

Usually we perform an additional check of PT-samples’ stability three weeks after sample preparation. The results of the measurements are listed in the result tables and the parameter oriented part of the report (”Stability test”).

Results

Data evaluation was based on target concentrations that were calculated from the weights of the standards used to prepare the samples. Their uncertainty intervals correspond to the expanded uncertainty (coverage factor k = 2) as described in the EURACHEM/CITAC Guide “Quantifying Uncertainty in Analytical Measurement, 3rd Edition (2012)”.

Recoveries for individual laboratory results and overall mean values were calculated from these target concentrations. The results were tested for outliers using the Hampel outlier test (level of significance 99 %). A minimum number of four results was required for the outlier test.

1,1-dichloroethene was not added to sample C57A, 1,1,1-trichloroethane and cis-1,2-dichloroethene were not added to sample C57B, in order to check analytical blank values. The target concentrations were set to < 0.2 µg/L 1,1-dichloroethene, < 0.08 µg/L 1,1,1-trichloroethane and < 0.06 µg/L cis-1,2-dichloroethene, which meets the minimum quantifiable values defined by the Austrian ground and river water monitoring program and the quantification limits of the analytical methods applied at the IFA-Tulln.

Standard deviations and coefficients of variation (CVs) were only calculated, when at least three results were available. The recoveries of the target concentrations, calculated from outlier-corrected data mean values ranged between 81.4 % (tetrachloroethene in sample C57A) and 100.2 % (1,1-dichloroethene in sample C57B). The between-laboratory coefficients of variation ranged from 8.2 % (tribromomethane in sample C57B) to 27.8 % (tetrachloromethane in sample C57B).

The confidence intervals of the outlier-corrected laboratory mean values encompass with one exception (tetrachloroethene in sample C57A, 81.4 ± 6.2 %) the corresponding target values with their uncertainties.

z-Scores

The most common approach is to form the z-score given by

$$z = \frac{x_i - \bar{x}}{\sigma}$$

z z-score
x_i result of laboratory
$\bar{x}$ target value or mean value („consensus value“)
σ standard deviation

Thus, the z-score is the ratio of the estimated bias (difference between result and target value) and a standard deviation. The z-score criteria were determined from relative standard deviations from all interlaboratory comparisons that were organised by the IFA-Tulln in the period from 2006 to 2016. They represent long-term performance data of all former participating laboratories. The z-scores are listed together with the recoveries in the tables of the parameter oriented part.

Additionally, each laboratory obtained for every sample a single sheet that summarises the z-scores of the laboratory in graphical and tabular form.

The following table lists the z-score criteria as relative standard deviation and their limits of applicability. Z-scores were only calculated, if the target values were higher than these limits.

Parameter	z-Score-criteria (%)	Lower limit [µg/L]
1,1,1-Trichloroethane	15	0.15
1,1-Dichloroethene	20	0.4
1,2-Dichloroethane	14	0.5
cis-1,2-Dichloroethene	14	0.15
trans-1,2-Dichloroethene	13	0.15
Bromodichloromethane	13	0.15
Dibromochloromethane	14	0.2
Dichloromethane	14	1
Tetrachloroethene	19	0.15
Tetrachloromethane	18	0.15
Tribromomethane	17	0.2
Trichloroethene	16	0.15
Trichloromethane	14	0.25

Normally, a classification based on z-scores is made this way:

|z-Score|	Classification
<2	satisfactory
2<|z|<3	questionable
>3	unsatisfactory

Please note that this evaluation is made on the background of the average performance of all participants of the IFA-Test-Systems proficiency testing scheme during the period from 2006 to 2016.

Illustration of results

An explanation to the illustration of the results is given on the following page.

The **laboratory oriented part** contains the measurement results and reported uncertainties of each individual laboratory for all parameters together with the achieved recoveries in graphical and tabular form. This part of the report also lists tables with the results originally reported by the laboratories.

In the **parameter oriented part** the reported results and corresponding uncertainties are illustrated together with recoveries of the target values and the z-scores for each parameter and all laboratories. This information is presented in graphical and tabular form. Results, which were identified as outliers by the Hampel test are marked with an asterisk in the column “out”. These values were not considered for the calculation of statistical parameters (mean values, standard deviations and confidence intervals). Moreover, the parameter oriented part contains the uncertainties of the target value. The uncertainty intervals correspond to the expanded uncertainty (coverage factor k = 2) as described in the EURACHEM / CITAC Guide “Quantifying Uncertainty in Analytical Measurement, 3rd Edition (2012)”. The uncertainty interval of the reference concentration is illustrated in the graphs as a grey band around the 100 % recovery line.

Results, for which no recoveries could be calculated, are illustrated by one of the following symbols: **FN** (false negative), **FP** (false positive) or • - symbol.

- “FN”: a result is considered false negative when the “< result” reported is lower than the corresponding target value
- “FP”: False positive results can be obtained for compounds not added to the samples: a result is termed FP if it is higher than the corresponding limit of quantification of the analytical procedure employed at the IFA-Tulln.
- “•”: All other results for which no recovery can be calculated are illustrated by this symbol

Tulln, 09 May 2017

Sample C10B
Parameter Dichloromethane

Target value ± U (k=2) 10,4 µg/l ± 0,5 µg/l ***Obtained from mass weighed out, U = uncertainty***

IFA result ± U (k=2) 10,2 µg/l ± 1,0 µg/l ***Determined at IFA prior to shipment of samples***

Stability test ± U (k=2) 10,2 µg/l ± 1,0 µg/l ***Determined at IFA 5 weeks after sample dispatch***

Lab code	Result	Out	+/-	Unit	Recovery	z-Score
A	11,0		1,28	µg/l	106 %	0,30
B	9,0		1,8	µg/l	87 %	-0,71
C	10		2	µg/l	96 %	-0,20
D				µg/l		
E	13,7		0,40	µg/l	132 %	1,67
F	6,8		0,7	µg/l	65 %	-1,82
G	< 20			µg/l		
H				µg/l	•	
I	11,0			µg/l	106%	0,30
J	24,1	*	1,51	µg/l	232 %	6,93
K	10,09		1,22	µg/l	97 %	-0,16
L	2,76	*		µg/l	27 %	-3,87
M	6,38		1,87	µg/l	61 %	-2,03
N	< 5		0,5	µg/l	FN	
O	15,6	*	4	µg/l	150 %	2,63
P	10,3		1,0	µg/l	99 %	-0,05
Q	10		1,14	µg/l	96 %	-0,20
R	8,88		0,46	µg/l	85 %	-0,77
S				µg/l		
T	9,03		0,08	µg/l	87 %	-0,69
U	22,5	*	0,5	µg/l	216 %	6,12
V	10,33		0,25	µg/l	99 %	-0,04

Recovery of target value in percent

z-Score of the laboratory

An asterisk indicates a result detected as outlier by Hampel test

Interval expected to encompass target value as stated by participant

	All results	Outliers excl.	Unit
Mean +/- CI (99%)	11,3 ± 3,8	9,7 ± 1,6	µg/l
Recov. +/- CI (99%)	108,3 ± 36,3	93,6 ± 15,1	%
SD between labs	5,3	1,9	µg/l
RSD between labs	47,3	19,1	%
n for calculation	17	13	

Between laboratory standard deviation

Overall laboratory mean and recovery with corresponding confidence intervals (p=99%)

Number of data used for calculation of statistic parameters

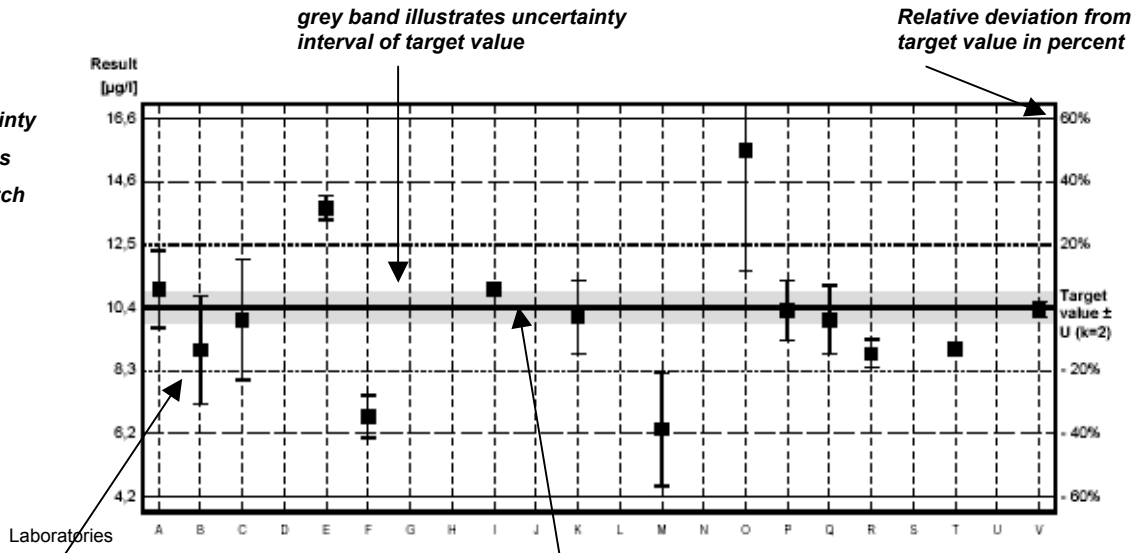


Diagram 1. Measurement results and corresponding uncertainty intervals

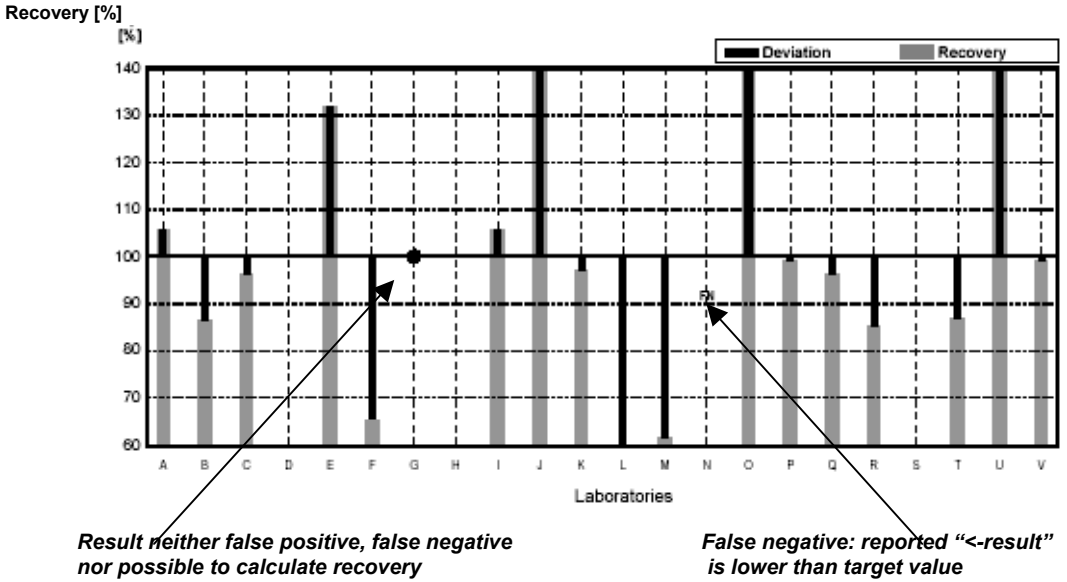


Diagram 2. Recoveries and deviations from target values

EXPLANATION

Illustration of Results
Tables and Parameter Oriented Part

Round C57
Volatile Halogenated Hydrocarbons

Sample Dispatch: 3 April 2017

Results Sample C57A

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	2.00	1.20	1.07	0.50	0.40	<0.2	1.08
IFA Result	1.97	1.18	1.04	0.50	0.40	<0.1	1.07
Stability test	1.91	1.14	1.02	0.51	0.40	<0.1	1.10
A	1.87	0.98	0.94	0.35	0.30	<0.2	0.91
B	2.5	2.1	1.8		0.7		1.2
C	1.89	0.96	1.11	0.44	0.35	<0.05	0.92
D	1.63	1.08	1.06	<0.5	0.392	<0.1	1.00
E	1.412	0.853	0.77	0.485	0.238	<0.1	0.93
F	1.82	1.01	0.969	0.418	0.377	<0.050	0.996
G	1.824	1.154	1.155	0.540	0.420	0.026	0.799
H	1.36	0.84		0.51			0.82
I	1.66	1.02	0.92	0.47	0.27	<0.03	0.92
J	1.55	1.01	1.31	0.54	0.45	<0.04	0.92
K	1.92	0.91	1.00	<1.0	0.27	<1.0	1.04
L	1.26	1.05	1.15	0.46	0.43	<0.05	0.77
M	1.91	0.84	1.04	0.55	0.38	<0.16	0.87
N	3.1	2.04	1.31	0.60	<0.86	<0.10	1.34
O	1.73	0.96	0.89	0.46	0.33	<0.2	0.97
P	1.630	1.096		1.259	0.526		1.481
Q	1.69	0.89	1.00	0.47	0.36	<0.3	0.94
R	0.75	0.39	0.59	0.33	0.20		

All data in µg/L

Measurement Uncertainties Sample C57A

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value	0.20	0.12	0.11	0.05	0.04		0.11
IFA Result	0.30	0.18	0.16	0.08	0.06		0.16
Stability test	0.29	0.17	0.15	0.08	0.06		0.17
A	0.4	0.2	0.2	0.1	0.1		0.2
B							
C	0.13	0.08	0.10	0.07	0.03		0.05
D	0.183	0.0824	0.207		0.0800		0.157
E	0.212	0.128	0.116	0.073	0.036		0.140
F	0.176	0.059	0.042	0.008	0.021		0.040
G	0.365	0.242	0.231	0.097	0.088	0.006	0.216
H	0.19	0.12		0.07			0.11
I	0.33	0.20	0.18	0.09	0.06		0.18
J	0.31	0.20	0.26	0.11	0.09		0.18
K	0.29	0.14	0.15		0.04		0.16
L	0.14	0.08	0.08	0.10	0.08		0.16
M	0.13	0.05	0.07	0.04	0.04		0.07
N	0.08	0.06	0.03	0.02			0.07
O	0.26	0.14	0.13	0.07	0.05		0.15
P							
Q	0.43	0.27	0.10	0.10	0.10		0.10
R	0.20	0.10	0.10	0.10	0.10		

All data in µg/L

Results Sample C57CKWA

	Bromodichloro-methane	Dibromochloro-methane	Dichloro-methane	1,2-Dichloro-ethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
Target value	1.58	1.87	2.68	0.89	0.65	0.29
IFA Result	1.55	1.88	2.64	0.88	0.61	0.28
Stability test	1.52	1.85	2.65	0.88	0.61	0.28
A	1.23	1.57	<3	<0.9		
B	1.7	2.3				
C	1.34	0.52	2.53	0.72	<0.05	0.19
D	1.55	1.79	2.65	0.729	0.568	<2
E	1.261	1.489	2.875	0.871	0.631	0.248
F	1.49	1.81	2.41	0.758	0.534	0.232
G	1.418	1.632	2.932	0.902	<0.020	0.309
H	1.31	1.52		2.76		
I	1.31	1.76	2.32	0.80	0.52	0.25
J	1.75	1.86	2.22	0.88	0.68	0.25
K	1.49	1.85	1.56	0.77	not analysed	not analysed
L	1.72	1.84	2.41	0.78	0.56	0.27
M	1.59	1.58	2.96	0.88	0.65	0.30
N	2.19	2.09	2.71	0.78	<0.75	<0.63
O	1.33	1.59	2.63	1.06	0.66	<0.5
P	1.349	2.539				
Q	1.48	1.74	2.61	0.93		
R			1.7		0.47	

All data in µg/L

Measurement Uncertainties Sample C57CKWA

	Bromodichloro-methane ±	Dibromochloro-methane ±	Dichloro-methane ±	1,2-Dichloro-ethane ±	cis-1,2-Dichloroethene ±	trans-1,2-Dichloroethene ±
Target value	0.16	0.19	0.27	0.09	0.07	0.03
IFA Result	0.23	0.28	0.40	0.13	0.09	0.04
Stability test	0.23	0.28	0.40	0.13	0.09	0.04
A	0.2	0.3				
B						
C	0.07	0.03	0.29	0.03		0.05
D	0.246	0.201	0.615	0.313	0.239	
E	0.189	0.223	0.431	0.131	0.095	0.037
F	0.091	0.052	0.087	0.091	0.090	0.011
G	0.284	0.441	0.557	0.208		0.062
H	0.18	0.21		0.39		
I	0.26	0.35	0.46	0.16	0.10	0.05
J	0.37	0.35	0.44	0.18	0.14	0.02
K	0.22	0.28	0.23	0.12		
L	0.08	0.04	0.60	0.12	0.06	0.06
M	0.14	0.11	0.20	0.07	0.06	0.03
N	0.09	0.09	0.08	0.07		
O	0.20	0.24	0.39	0.16	0.10	
P						
Q	0.63	0.13	0.25	0.30		
R			0.50		0.10	

All data in µg/L

Results Sample C57CKWB

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	0.80	0.27	<0.08	2.28	0.91	4.24	1.82
IFA Result	0.78	0.26	<0.04	2.25	0.87	4.13	1.74
Stability test	0.77	0.26	<0.04	2.21	0.86	4.08	1.75
A	0.71	0.21	<0.1	1.88	0.76	4.44	1.54
B	1.0	0.5		2.6	1.4		1.8
C	0.76	0.28	<0.05	2.09	0.76	6.36	1.54
D	0.626	0.219	<0.05	2.06	0.862	4.50	1.62
E	0.586	0.262	<0.1	1.821	0.545	2.713	1.548
F	0.656	0.229	[0.008]	1.97	0.918	3.92	1.64
G	0.738	0.258	<0.020	2.387	0.956	3.794	1.393
H	0.59	0.24		1.76			1.36
I	0.70	0.20	<0.02	1.90	0.69	3.30	1.54
J	0.63	0.24		2.53	1.06	5.03	1.55
K	0.74	0.21	<0.7	2.13	0.81	4.36	1.75
L	0.48	0.23	<0.05	2.09	0.95	3.66	1.38
M	0.74	0.19	<0.3	2.41	0.87	4.88	1.42
N	1.22	0.41	<0.83	2.32	1.1	4.35	2.05
O	0.68	0.22	<0.1	1.92	0.71	4.31	1.56
P	0.726	0.325		2.509	0.267		0.744
Q	0.67	0.21	<0.2	2.18	0.80	3.85	1.60
R	0.27	<0.15	<0.15	1.4	0.46		

All data in µg/L

Measurement Uncertainties Sample C57CKWB

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value	0.08	0.03		0.23	0.09	0.42	0.18
IFA Result	0.12	0.04		0.34	0.13	0.62	0.26
Stability test	0.12	0.04		0.33	0.13	0.61	0.26
A	0.1	0.04		0.5	0.2	1.1	0.4
B							
C	0.04	0.01		0.09	0.05	0.19	0.05
D	0.0701	0.0330		0.572	0.176	0.927	0.255
E	0.088	0.039		0.273	0.082	0.407	0.232
F	0.015	0.010		0.085	0.027	0.140	0.041
G	0.148	0.054		0.430	0.201	0.873	0.376
H	0.08	0.03		0.25			0.19
I	0.14	0.04		0.38	0.14	0.66	0.31
J	0.13	0.05		0.51	0.21	1.1	0.31
K	0.11	0.03		0.32	0.12	0.65	0.26
L	0.04	0.02		0.02	0.1	0.4	0.24
M	0.05	0.01		0.17	0.08	0.47	0.12
N	0.01	0.01		0.02	0.02	0.04	0.12
O	0.10	0.03		0.29	0.11	0.65	0.23
P							
Q	0.40	0.10		0.20	0.10	0.27	0.10
R	0.10	0.05	0.05	0.50	0.10		

All data in µg/L

Results Sample C57CKWB

	Bromodichloro-methane	Dibromochloro-methane	Dichloro-methane	1,2-Dichloro-ethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
Target value	0.87	1.39	6.44	2.17	<0.06	1.38
IFA Result	0.85	1.37	6.39	2.14	<0.03	1.33
Stability test	0.84	1.37	6.31	2.13	<0.03	1.30
A	0.65	1.15	5.1	2.04		
B	1.0	1.8				
C	0.73	0.39	6.40	1.92	<0.05	1.53
D	0.814	1.28	6.65	1.92	<0.5	<2
E	0.707	1.125	6.695	1.812	<0.4	1.22
F	0.849	1.36	5.53	1.99	[0.012]	1.19
G	0.799	1.231	7.724	2.275	<0.020	1.431
H	0.78	1.15		6.54		
I	0.69	1.32	5.50	1.90	<0.06	1.12
J	1.00	1.42	5.71	2.20		1.20
K	0.74	1.33	5.13	1.62	not analysed	not analysed
L	0.85	1.37	4.47	1.81	<0.05	1.28
M	0.84	1.12	7.01	2.12	<0.3	1.42
N	1.11	1.47	6.00	1.80	<0.75	1.43
O	0.72	1.17	6.19	2.34	<0.5	1.38
P	0.639	1.399				
Q	0.82	1.30	6.27	2.24		
R			4.5		<0.15	

All data in µg/L

Measurement Uncertainties Sample C57CKWB

	Bromodichloro-methane ±	Dibromochloro-methane ±	Dichloro-methane ±	1,2-Dichloro-ethane ±	cis-1,2-Dichloroethene ±	trans-1,2-Dichloroethene ±
Target value	0.09	0.14	0.64	0.22		0.14
IFA Result	0.13	0.21	0.96	0.32		0.20
Stability test	0.13	0.21	0.95	0.32		0.20
A	0.1	0.3	1.3	0.5		
B						
C	0.03	0.02	0.16	0.08		0.03
D	0.129	0.143	1.54	0.817		
E	0.106	0.169	1.004	0.272		0.183
F	0.098	0.054	0.202	0.117		0.045
G	0.160	0.332	1.468	0.523		0.286
H	0.11	0.16		0.92		
I	0.14	0.26	1.1	0.38		0.22
J	0.20	0.28	1.14	0.44		0.24
K	0.11	0.20	0.77	0.24		
L	0.12	0.12	0.6	0.2		0.12
M	0.07	0.08	0.46	0.17		0.14
N	0.04	0.06	0.07	0.17		0.03
O	0.11	0.18	0.93	0.35		0.21
P						
Q	0.57	0.11	0.89	0.37		
R			0.50		0.05	

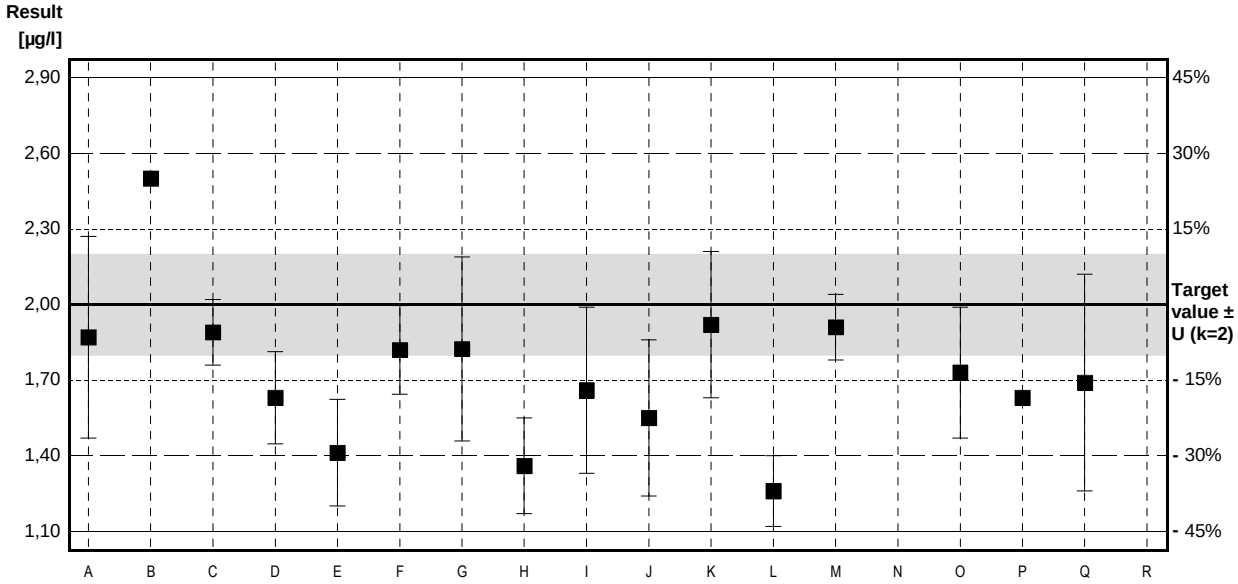
All data in µg/L

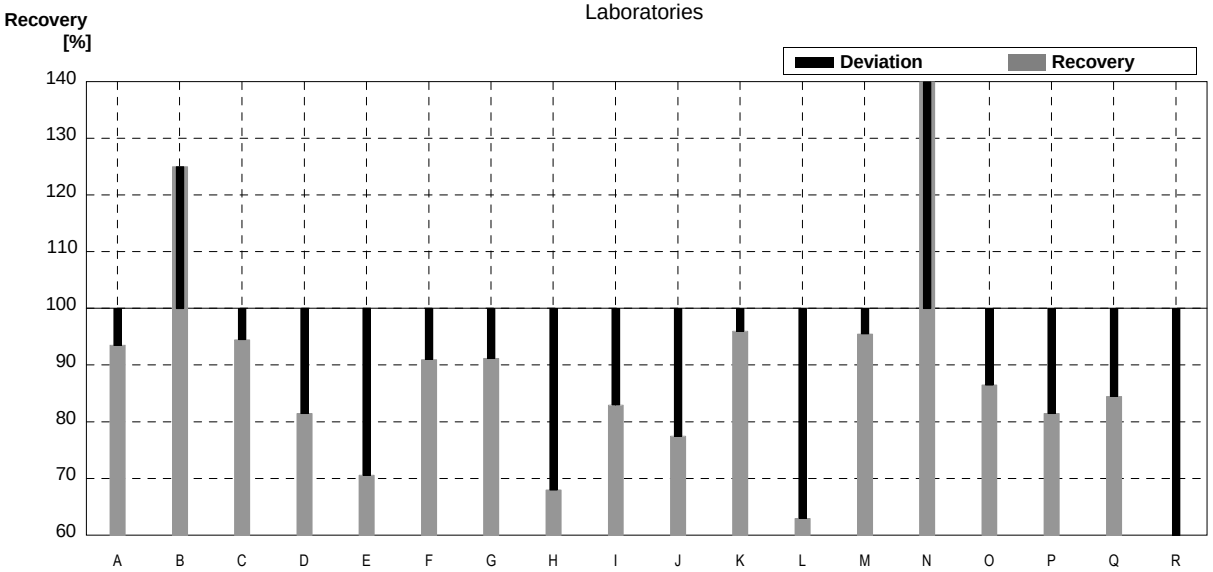
Sample C57A

Parameter Trichloroethene

Target value ± U (k=2)	2,00	µg/l	±	0,20	µg/l
IFA result ± U (k=2)	1,97	µg/l	±	0,30	µg/l
Stability test ± U (k=2)	1,91	µg/l	±	0,29	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,87	0,4	µg/l	94%	-0,41
B	2,5		µg/l	125%	1,56
C	1,89	0,13	µg/l	95%	-0,34
D	1,63	0,183	µg/l	82%	-1,16
E	1,412	0,212	µg/l	71%	-1,84
F	1,82	0,176	µg/l	91%	-0,56
G	1,824	0,365	µg/l	91%	-0,55
H	1,36	0,19	µg/l	68%	-2,00
I	1,66	0,33	µg/l	83%	-1,06
J	1,55	0,31	µg/l	78%	-1,41
K	1,92	0,29	µg/l	96%	-0,25
L	1,26	0,14	µg/l	63%	-2,31
M	1,91	0,13	µg/l	96%	-0,28
N	3,1 *	0,08	µg/l	155%	3,44
O	1,73	0,26	µg/l	87%	-0,84
P	1,630		µg/l	82%	-1,16
Q	1,69	0,43	µg/l	85%	-0,97
R	0,75 *	0,20	µg/l	38%	-3,91





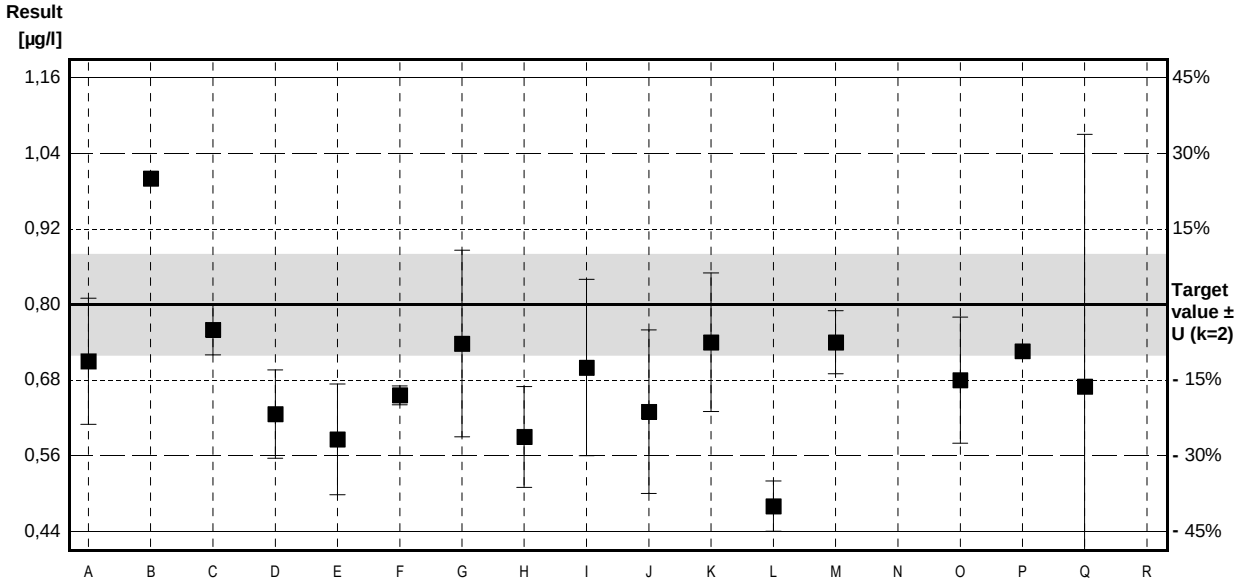
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,75 ± 0,33	1,73 ± 0,21	µg/l
Recov. ± CI(99%)	87,5 ± 16,7	86,4 ± 10,6	%
SD between labs	0,49	0,29	µg/l
RSD between labs	28,0	16,6	%
n for calculation	18	16	

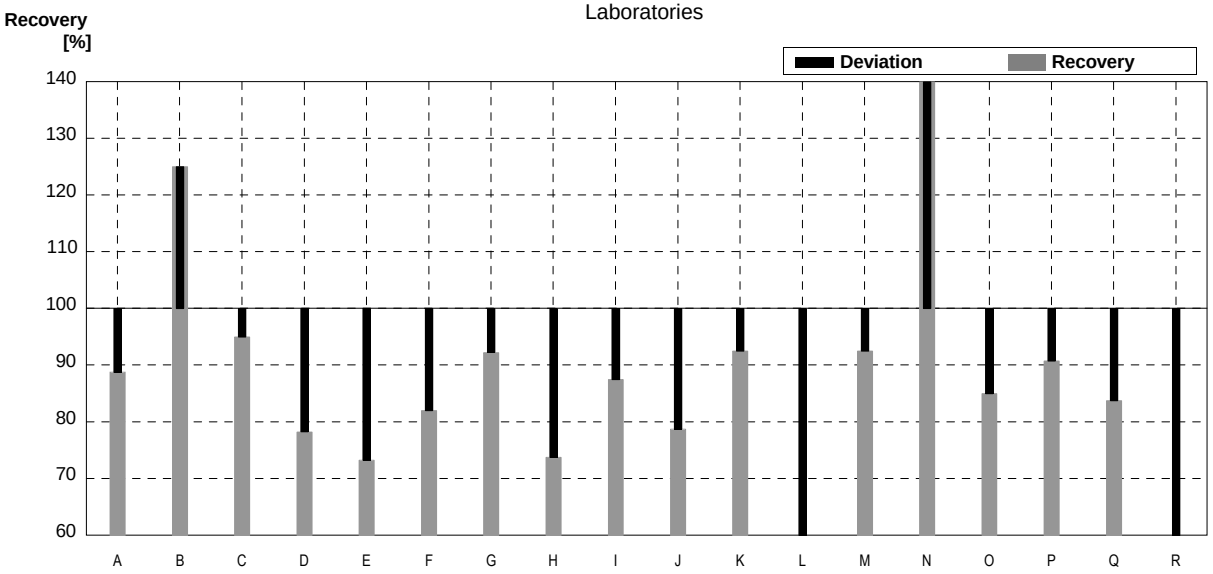
Sample C57B

Parameter Trichloroethene

Target value	± U (k=2)	0,80	µg/l	±	0,08 µg/l
IFA result	± U (k=2)	0,78	µg/l	±	0,12 µg/l
Stability test	± U (k=2)	0,77	µg/l	±	0,12 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,71	0,1	µg/l	89%	-0,70
B	1,0 *		µg/l	125%	1,56
C	0,76	0,04	µg/l	95%	-0,31
D	0,626	0,0701	µg/l	78%	-1,36
E	0,586	0,088	µg/l	73%	-1,67
F	0,656	0,015	µg/l	82%	-1,13
G	0,738	0,148	µg/l	92%	-0,48
H	0,59	0,08	µg/l	74%	-1,64
I	0,70	0,14	µg/l	88%	-0,78
J	0,63	0,13	µg/l	79%	-1,33
K	0,74	0,11	µg/l	93%	-0,47
L	0,48	0,04	µg/l	60%	-2,50
M	0,74	0,05	µg/l	93%	-0,47
N	1,22 *	0,01	µg/l	153%	3,28
O	0,68	0,10	µg/l	85%	-0,94
P	0,726		µg/l	91%	-0,58
Q	0,67	0,40	µg/l	84%	-1,02
R	0,27 *	0,10	µg/l	34%	-4,14





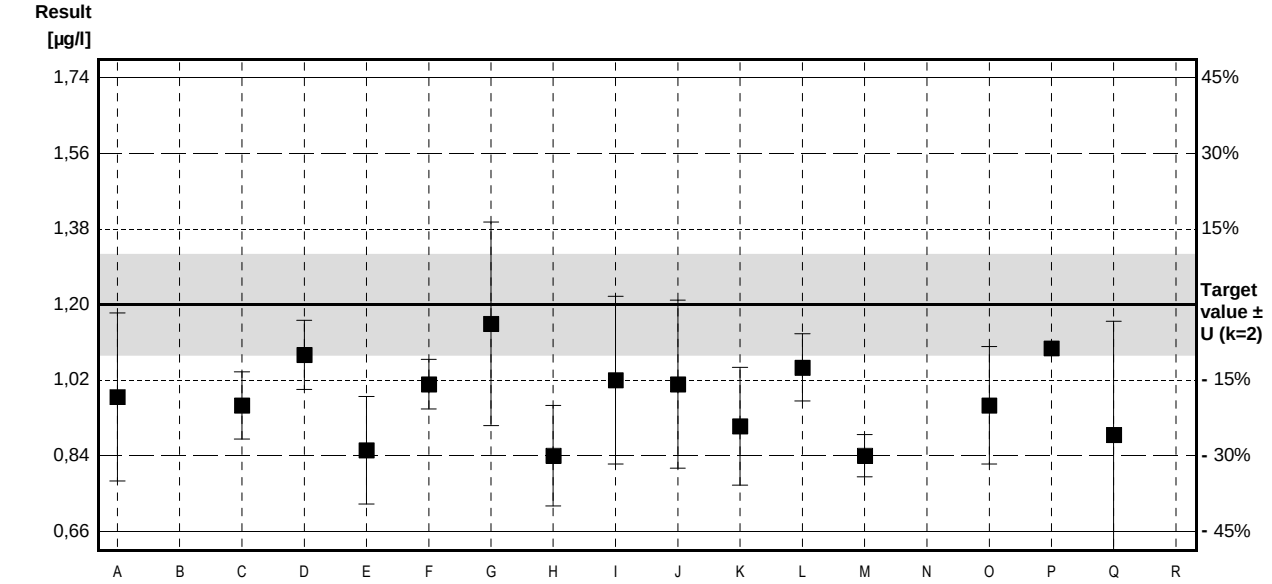
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,70 ± 0,13	0,67 ± 0,06	µg/l
Recov. ± CI(99%)	87,0 ± 16,6	83,6 ± 7,3	%
SD between labs	0,19	0,08	µg/l
RSD between labs	27,9	11,4	%
n for calculation	18	15	

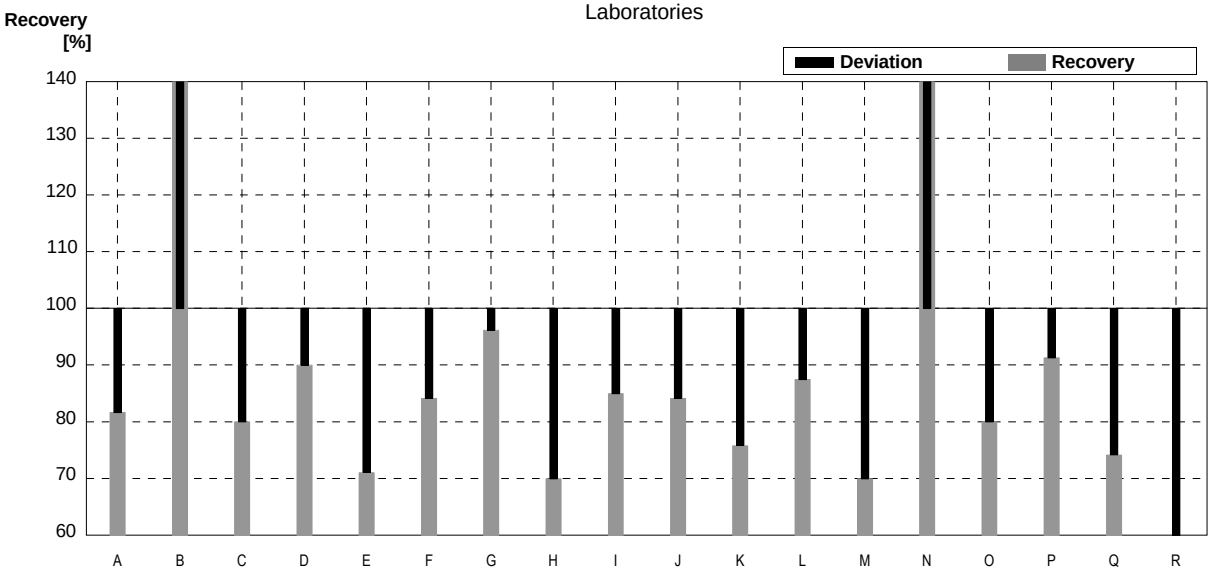
Sample C57A

Parameter Tetrachloroethene

Target value	± U (k=2)	1,20	µg/l	±	0,12 µg/l
IFA result	± U (k=2)	1,18	µg/l	±	0,18 µg/l
Stability test	± U (k=2)	1,14	µg/l	±	0,17 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,98	0,2	µg/l	82%	-0,96
B	2,1 *		µg/l	175%	3,95
C	0,96	0,08	µg/l	80%	-1,05
D	1,08	0,0824	µg/l	90%	-0,53
E	0,853	0,128	µg/l	71%	-1,52
F	1,01	0,059	µg/l	84%	-0,83
G	1,154	0,242	µg/l	96%	-0,20
H	0,84	0,12	µg/l	70%	-1,58
I	1,02	0,20	µg/l	85%	-0,79
J	1,01	0,20	µg/l	84%	-0,83
K	0,91	0,14	µg/l	76%	-1,27
L	1,05	0,08	µg/l	88%	-0,66
M	0,84	0,05	µg/l	70%	-1,58
N	2,04 *	0,06	µg/l	170%	3,68
O	0,96	0,14	µg/l	80%	-1,05
P	1,096		µg/l	91%	-0,46
Q	0,89	0,27	µg/l	74%	-1,36
R	0,39 *	0,10	µg/l	33%	-3,55





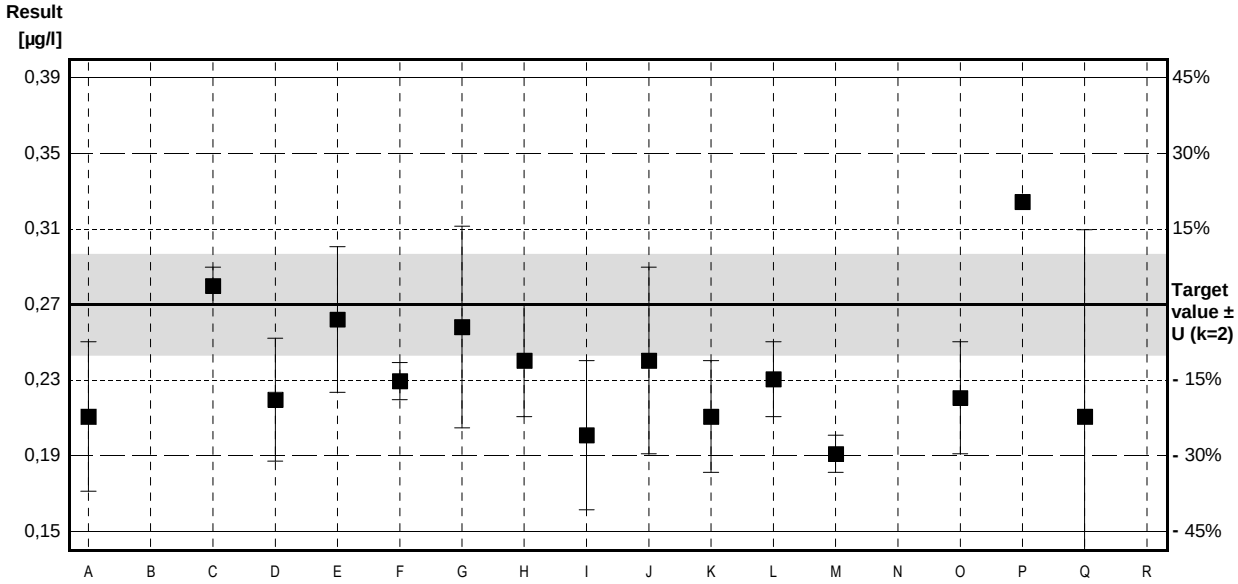
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,07 ± 0,27	0,98 ± 0,07	µg/l
Recov. ± CI(99%)	88,8 ± 22,8	81,4 ± 6,2	%
SD between labs	0,40	0,10	µg/l
RSD between labs	37,6	9,9	%
n for calculation	18	15	

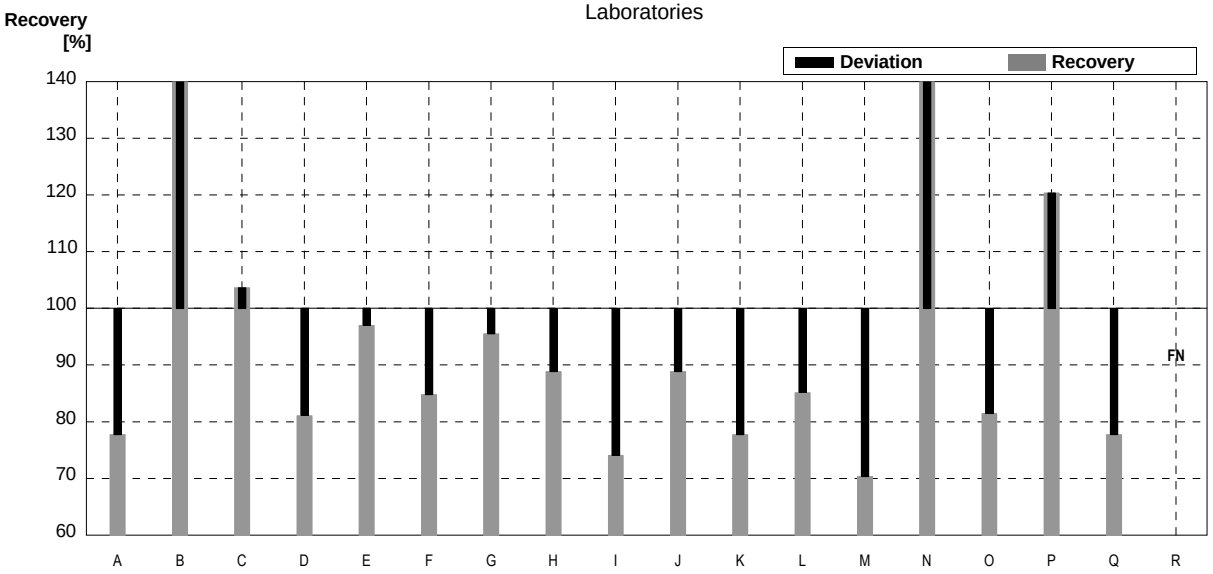
Sample C57B

Parameter Tetrachloroethene

Target value ± U (k=2)	0,27	µg/l	±	0,03	µg/l
IFA result ± U (k=2)	0,26	µg/l	±	0,04	µg/l
Stability test ± U (k=2)	0,26	µg/l	±	0,04	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,21	0,04	µg/l	78%	-1,17
B	0,5 *		µg/l	185%	4,48
C	0,28	0,01	µg/l	104%	0,19
D	0,219	0,0330	µg/l	81%	-0,99
E	0,262	0,039	µg/l	97%	-0,16
F	0,229	0,010	µg/l	85%	-0,80
G	0,258	0,054	µg/l	96%	-0,23
H	0,24	0,03	µg/l	89%	-0,58
I	0,20	0,04	µg/l	74%	-1,36
J	0,24	0,05	µg/l	89%	-0,58
K	0,21	0,03	µg/l	78%	-1,17
L	0,23	0,02	µg/l	85%	-0,78
M	0,19	0,01	µg/l	70%	-1,56
N	0,41 *	0,01	µg/l	152%	2,73
O	0,22	0,03	µg/l	81%	-0,97
P	0,325 *		µg/l	120%	1,07
Q	0,21	0,10	µg/l	78%	-1,17
R	<0,15	0,05	µg/l	FN	





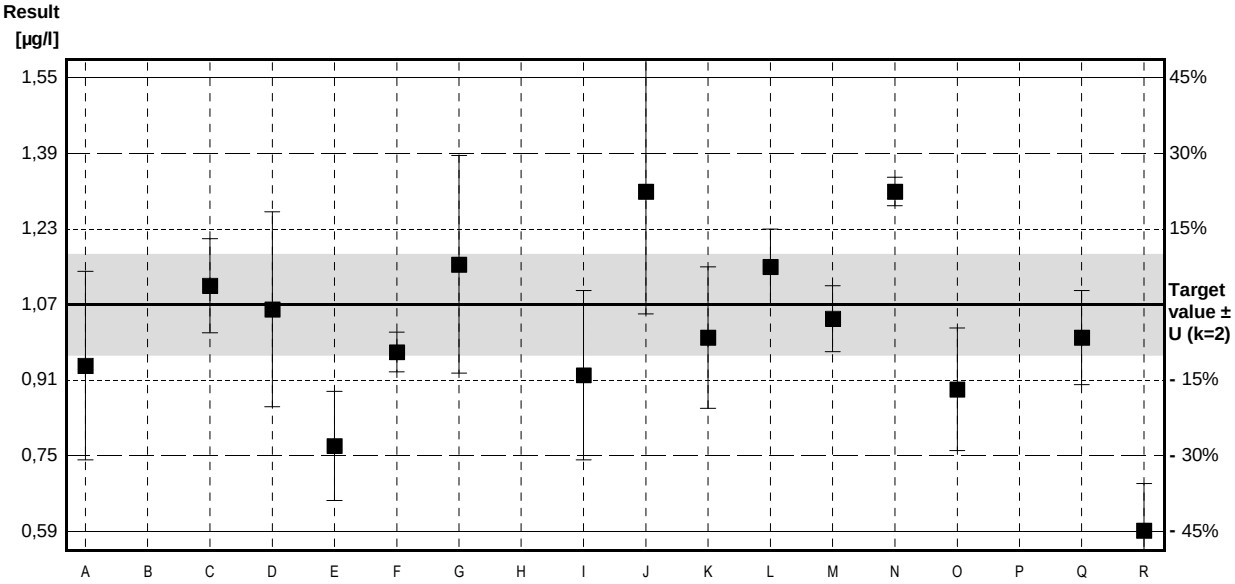
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,26 ± 0,06	0,23 ± 0,02	µg/l
Recov. ± CI(99%)	96,6 ± 21,4	84,6 ± 7,6	%
SD between labs	0,08	0,03	µg/l
RSD between labs	31,3	11,1	%
n for calculation	17	14	

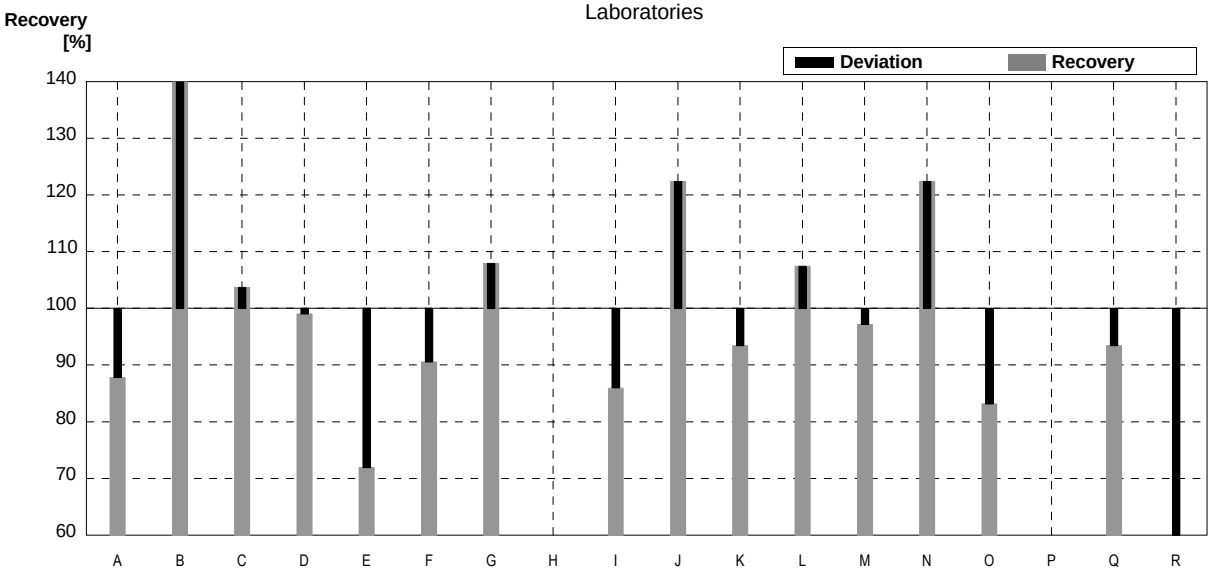
Sample C57A

Parameter 1,1,1-Trichloroethane

Target value ± U (k=2)	1,07	µg/l	±	0,11	µg/l
IFA result ± U (k=2)	1,04	µg/l	±	0,16	µg/l
Stability test ± U (k=2)	1,02	µg/l	±	0,15	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,94	0,2	µg/l	88%	-0,81
B	1,8 *		µg/l	168%	4,55
C	1,11	0,10	µg/l	104%	0,25
D	1,06	0,207	µg/l	99%	-0,06
E	0,77	0,116	µg/l	72%	-1,87
F	0,969	0,042	µg/l	91%	-0,63
G	1,155	0,231	µg/l	108%	0,53
H			µg/l		
I	0,92	0,18	µg/l	86%	-0,93
J	1,31	0,26	µg/l	122%	1,50
K	1,00	0,15	µg/l	93%	-0,44
L	1,15	0,08	µg/l	107%	0,50
M	1,04	0,07	µg/l	97%	-0,19
N	1,31	0,03	µg/l	122%	1,50
O	0,89	0,13	µg/l	83%	-1,12
P			µg/l		
Q	1,00	0,10	µg/l	93%	-0,44
R	0,59	0,10	µg/l	55%	-2,99





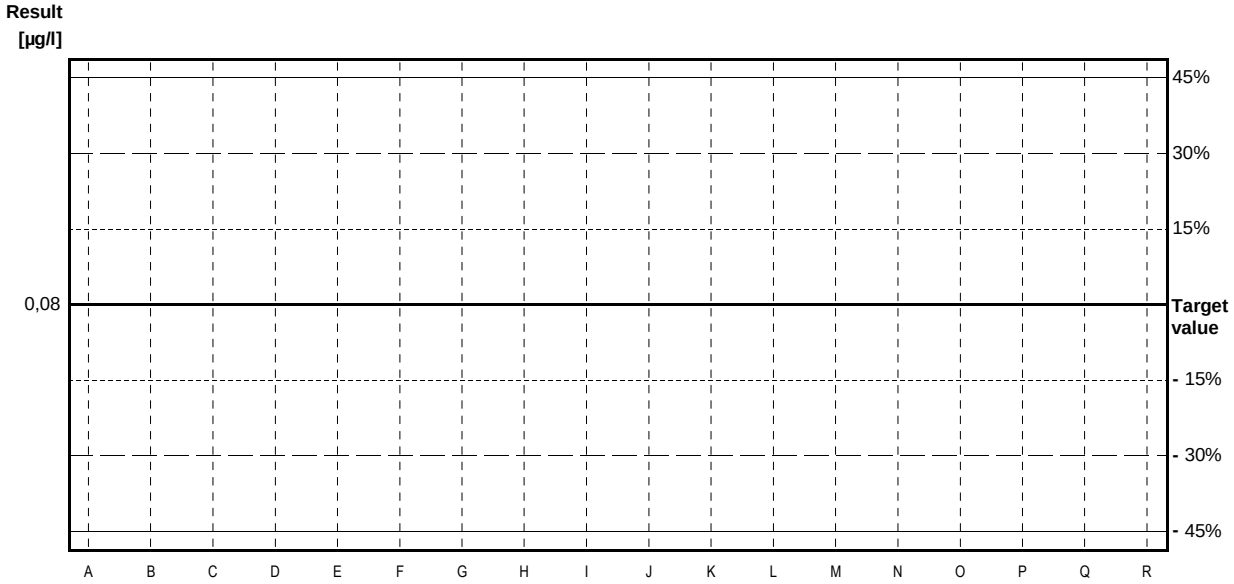
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,06 ± 0,20	1,01 ± 0,14	µg/l
Recov. ± CI(99%)	99,4 ± 18,5	94,8 ± 13,5	%
SD between labs	0,27	0,19	µg/l
RSD between labs	25,2	18,6	%
n for calculation	16	15	

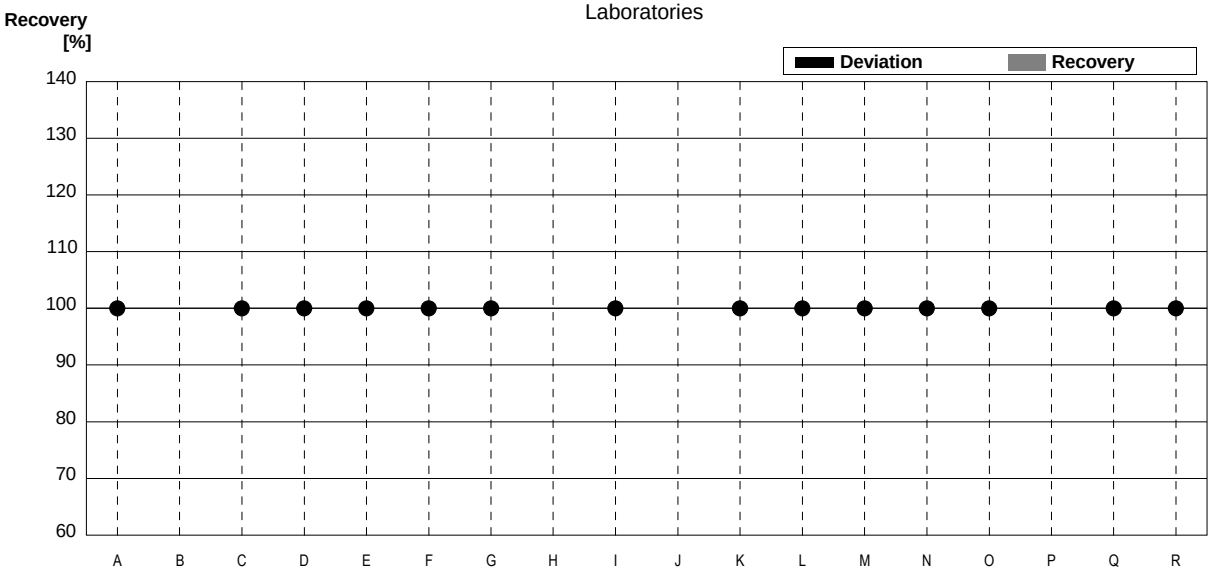
Sample C57B

Parameter 1,1,1-Trichloroethane

Target value	<0,08	µg/l
IFA result	<0,04	µg/l
Stability test	<0,04	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<0,1		µg/l	•	
B			µg/l		
C	<0,05		µg/l	•	
D	<0,05		µg/l	•	
E	<0,1		µg/l	•	
F	[0,008]		µg/l	•	
G	<0,020		µg/l	•	
H			µg/l		
I	<0,02		µg/l	•	
J			µg/l		
K	<0,7		µg/l	•	
L	<0,05		µg/l	•	
M	<0,3		µg/l	•	
N	<0,83		µg/l	•	
O	<0,1		µg/l	•	
P			µg/l		
Q	<0,2		µg/l	•	
R	<0,15	0,05	µg/l	•	





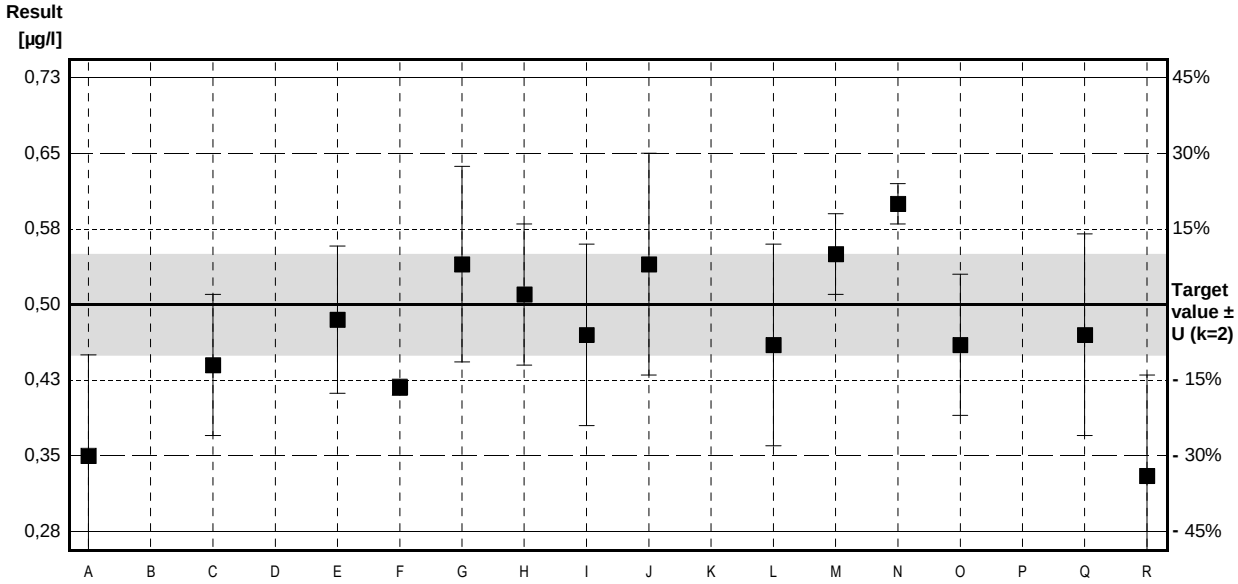
	All results	Outliers excl.	Unit
Mean ± CI(99%)			µg/l
Recov. ± CI(99%)			%
SD between labs			µg/l
RSD between labs			%
n for calculation			

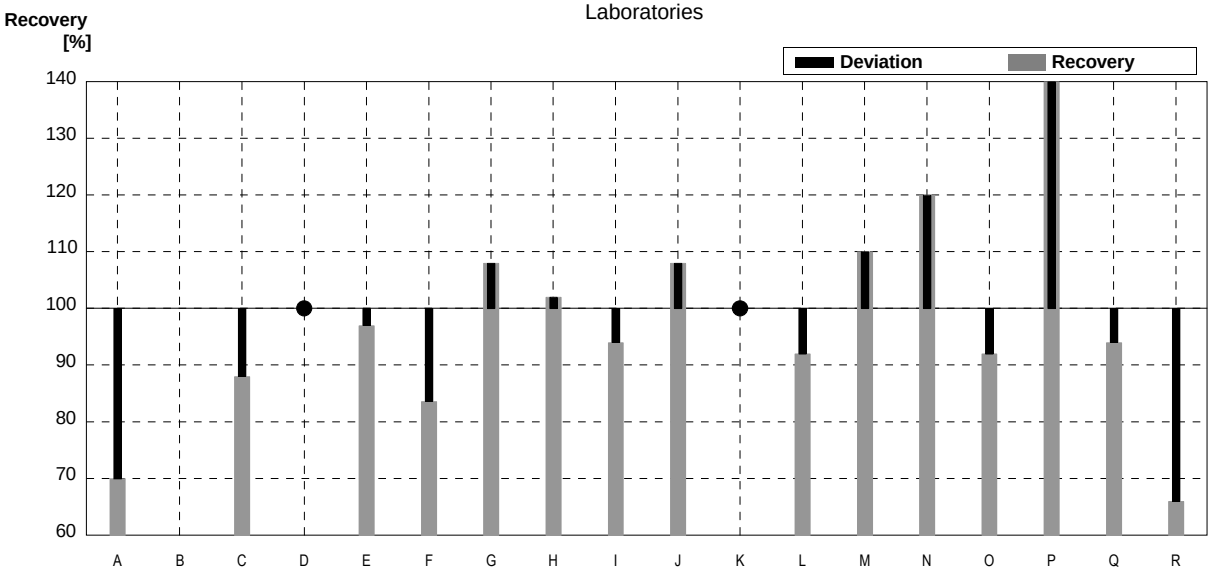
Sample C57A

Parameter Trichloromethane

Target value	± U (k=2)	0,50	µg/l	±	0,05 µg/l
IFA result	± U (k=2)	0,50	µg/l	±	0,08 µg/l
Stability test	± U (k=2)	0,51	µg/l	±	0,08 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,35	0,1	µg/l	70%	-2,14
B			µg/l		
C	0,44	0,07	µg/l	88%	-0,86
D	<0,5		µg/l	•	
E	0,485	0,073	µg/l	97%	-0,21
F	0,418	0,008	µg/l	84%	-1,17
G	0,540	0,097	µg/l	108%	0,57
H	0,51	0,07	µg/l	102%	0,14
I	0,47	0,09	µg/l	94%	-0,43
J	0,54	0,11	µg/l	108%	0,57
K	<1,0		µg/l	•	
L	0,46	0,10	µg/l	92%	-0,57
M	0,55	0,04	µg/l	110%	0,71
N	0,60	0,02	µg/l	120%	1,43
O	0,46	0,07	µg/l	92%	-0,57
P	1,259 *		µg/l	252%	10,84
Q	0,47	0,10	µg/l	94%	-0,43
R	0,33	0,10	µg/l	66%	-2,43





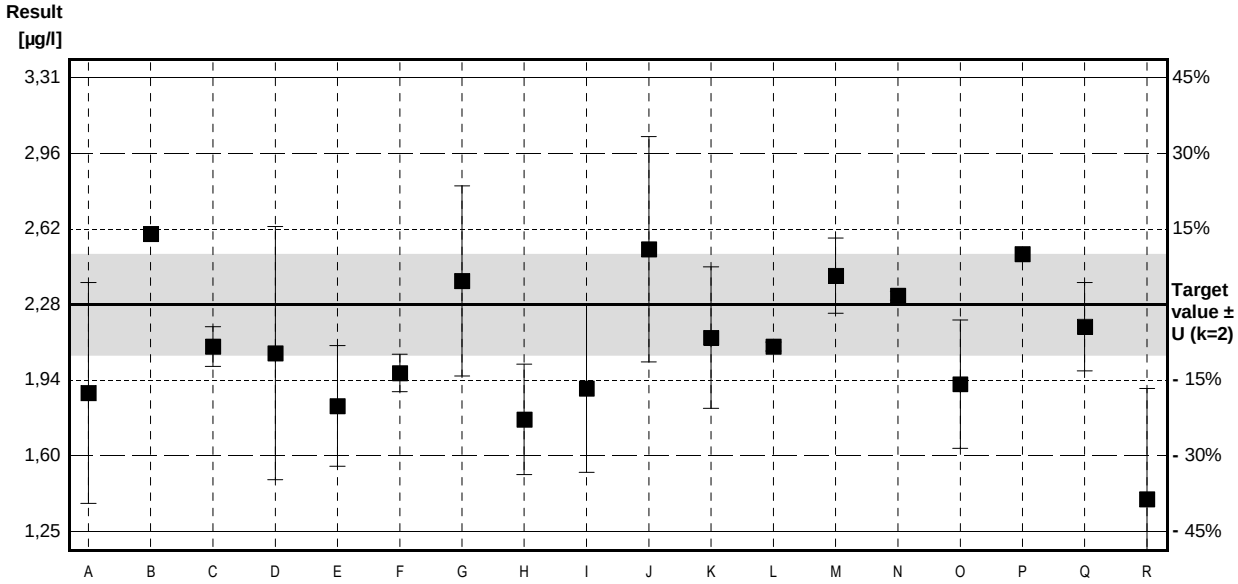
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,53 ± 0,17	0,47 ± 0,06	µg/l
Recov. ± CI(99%)	105,1 ± 33,1	94,6 ± 12,0	%
SD between labs	0,22	0,07	µg/l
RSD between labs	41,0	15,8	%
n for calculation	15	14	

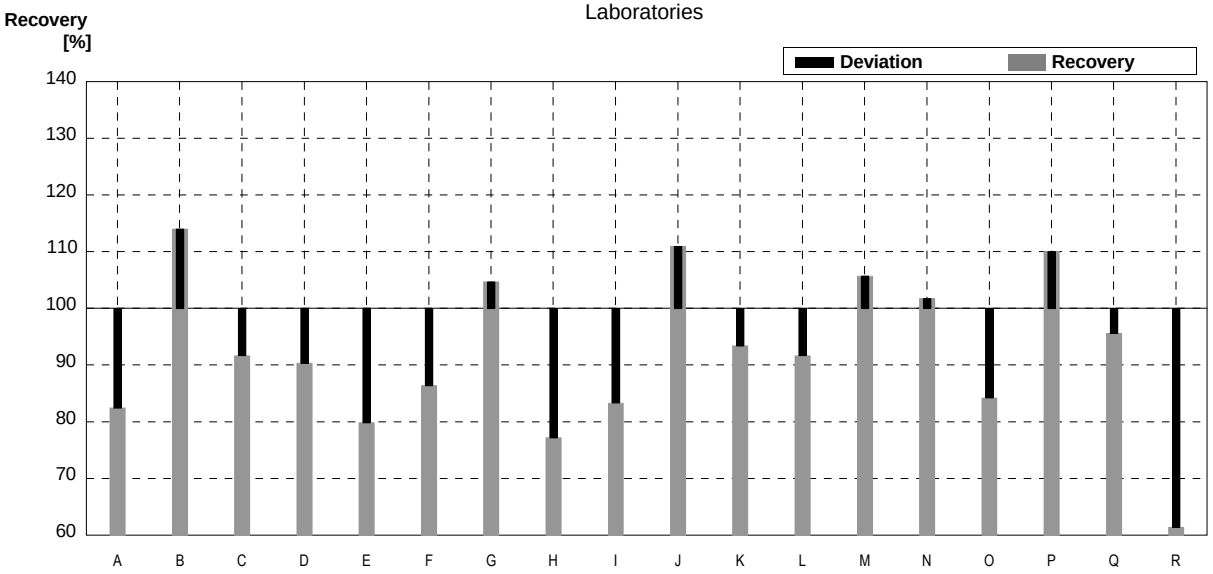
Sample C57B

Parameter Trichloromethane

Target value ± U (k=2)	2,28	µg/l	±	0,23	µg/l
IFA result ± U (k=2)	2,25	µg/l	±	0,34	µg/l
Stability test ± U (k=2)	2,21	µg/l	±	0,33	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,88	0,5	µg/l	82%	-1,25
B	2,6		µg/l	114%	1,00
C	2,09	0,09	µg/l	92%	-0,60
D	2,06	0,572	µg/l	90%	-0,69
E	1,821	0,273	µg/l	80%	-1,44
F	1,97	0,085	µg/l	86%	-0,97
G	2,387	0,430	µg/l	105%	0,34
H	1,76	0,25	µg/l	77%	-1,63
I	1,90	0,38	µg/l	83%	-1,19
J	2,53	0,51	µg/l	111%	0,78
K	2,13	0,32	µg/l	93%	-0,47
L	2,09	0,02	µg/l	92%	-0,60
M	2,41	0,17	µg/l	106%	0,41
N	2,32	0,02	µg/l	102%	0,13
O	1,92	0,29	µg/l	84%	-1,13
P	2,509		µg/l	110%	0,72
Q	2,18	0,20	µg/l	96%	-0,31
R	1,4	0,50	µg/l	61%	-2,76





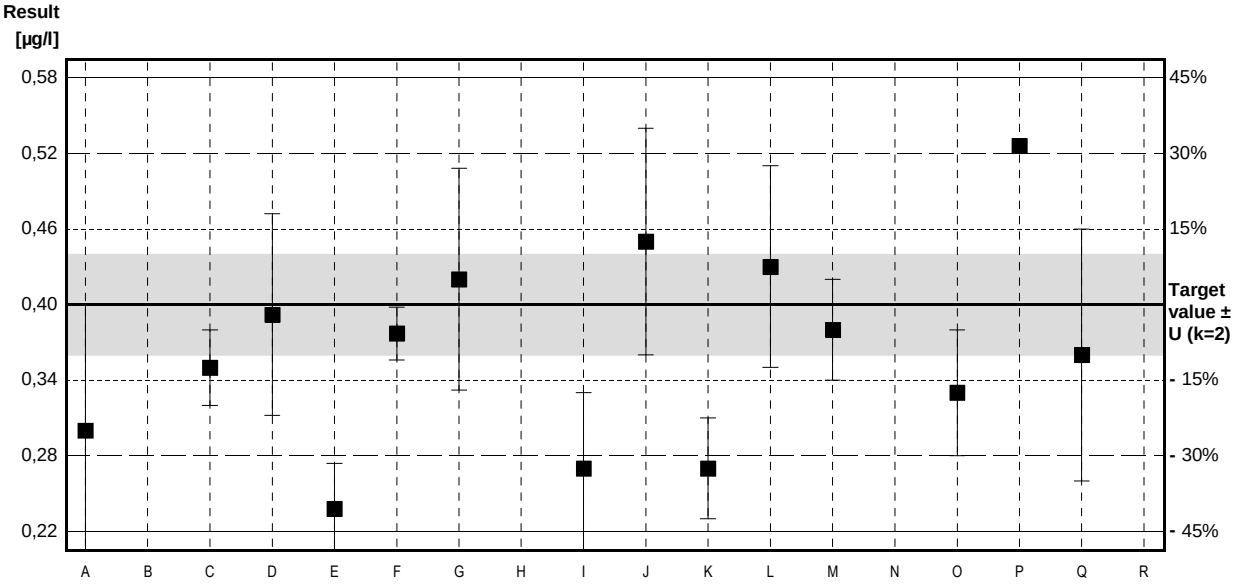
	All results	Outliers excl.	Unit
Mean ± CI(99%)	2,11 ± 0,21	2,11 ± 0,21	µg/l
Recov. ± CI(99%)	92,5 ± 9,4	92,5 ± 9,4	%
SD between labs	0,31	0,31	µg/l
RSD between labs	14,8	14,8	%
n for calculation	18	18	

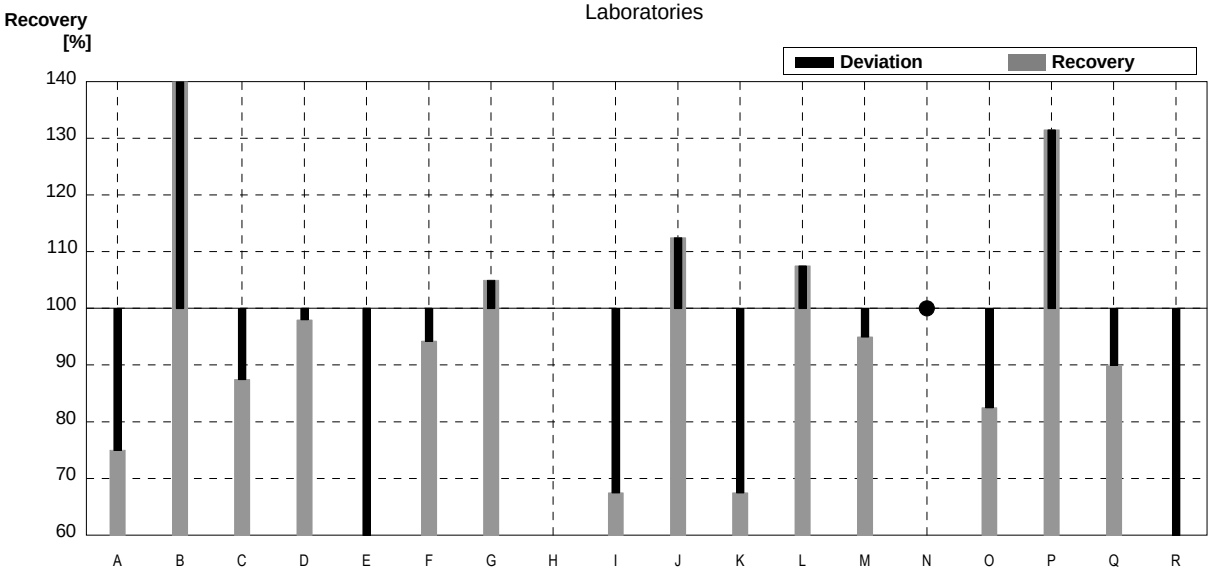
Sample C57A

Parameter Tetrachloromethane

Target value	± U (k=2)	0,40	µg/l	±	0,04 µg/l
IFA result	± U (k=2)	0,40	µg/l	±	0,06 µg/l
Stability test	± U (k=2)	0,40	µg/l	±	0,06 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,30	0,1	µg/l	75%	-1,39
B	0,7 *		µg/l	175%	4,17
C	0,35	0,03	µg/l	88%	-0,69
D	0,392	0,0800	µg/l	98%	-0,11
E	0,238	0,036	µg/l	60%	-2,25
F	0,377	0,021	µg/l	94%	-0,32
G	0,420	0,088	µg/l	105%	0,28
H			µg/l		
I	0,27	0,06	µg/l	68%	-1,81
J	0,45	0,09	µg/l	113%	0,69
K	0,27	0,04	µg/l	68%	-1,81
L	0,43	0,08	µg/l	108%	0,42
M	0,38	0,04	µg/l	95%	-0,28
N	<0,86		µg/l	•	
O	0,33	0,05	µg/l	83%	-0,97
P	0,526		µg/l	132%	1,75
Q	0,36	0,10	µg/l	90%	-0,56
R	0,20	0,10	µg/l	50%	-2,78





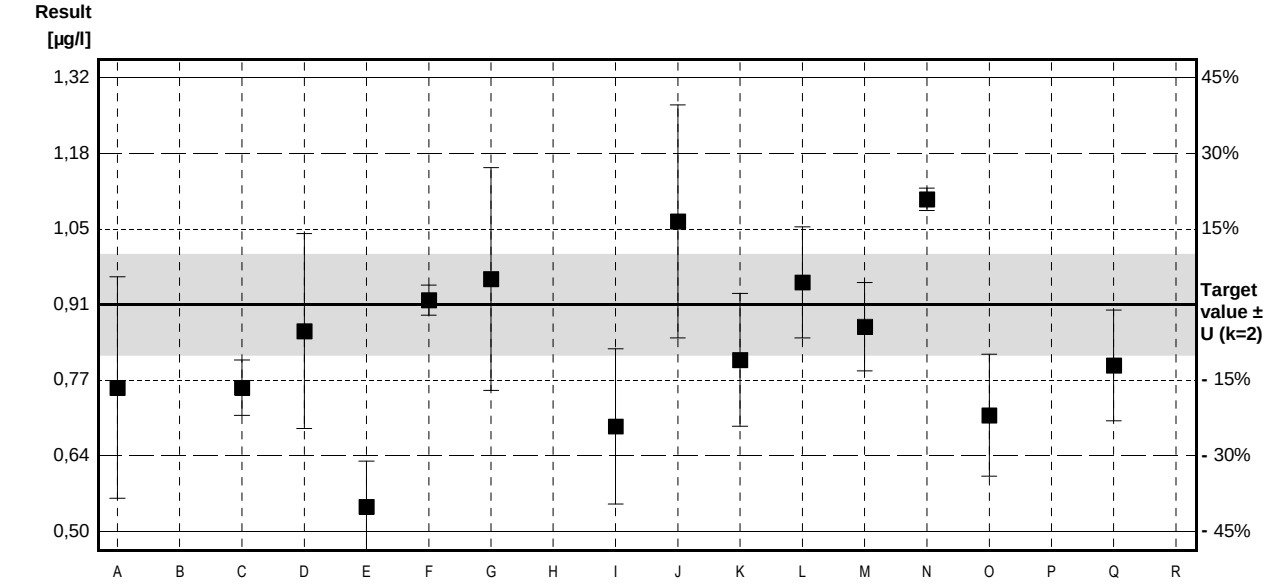
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,37 ± 0,09	0,35 ± 0,07	µg/l
Recov. ± CI(99%)	93,6 ± 22,3	88,2 ± 16,8	%
SD between labs	0,12	0,09	µg/l
RSD between labs	32,3	24,7	%
n for calculation	16	15	

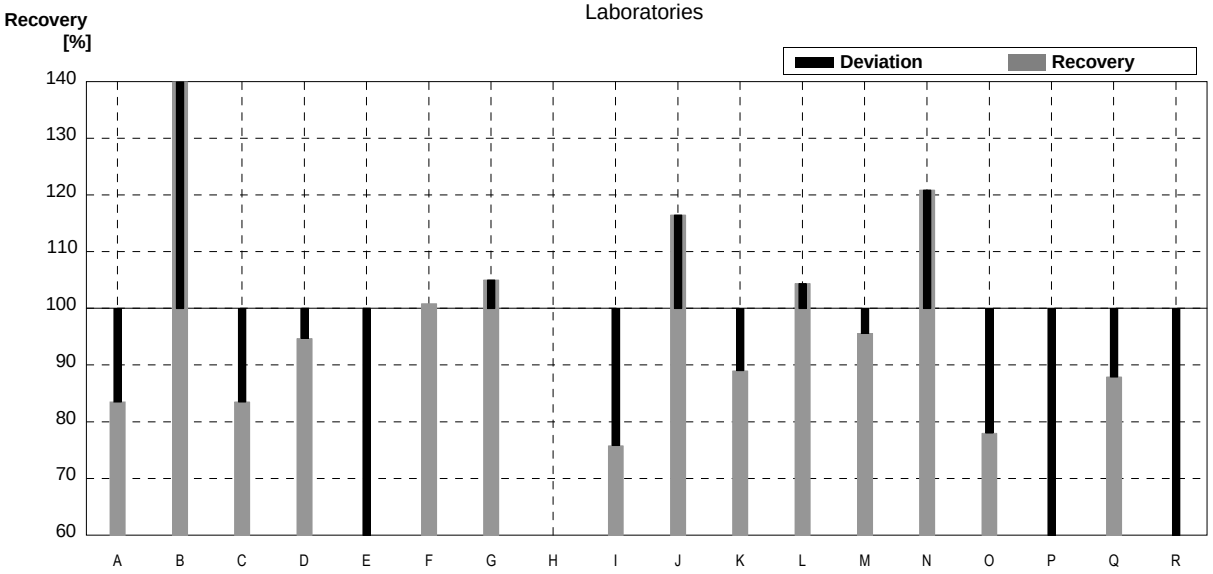
Sample C57B

Parameter Tetrachloromethane

Target value ± U (k=2)	0,91 µg/l	±	0,09 µg/l	
IFA result ± U (k=2)	0,87 µg/l	±	0,13 µg/l	
Stability test ± U (k=2)	0,86 µg/l	±	0,13 µg/l	

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,76	0,2	µg/l	84%	-0,92
B	1,4 *		µg/l	154%	2,99
C	0,76	0,05	µg/l	84%	-0,92
D	0,862	0,176	µg/l	95%	-0,29
E	0,545	0,082	µg/l	60%	-2,23
F	0,918	0,027	µg/l	101%	0,05
G	0,956	0,201	µg/l	105%	0,28
H			µg/l		
I	0,69	0,14	µg/l	76%	-1,34
J	1,06	0,21	µg/l	116%	0,92
K	0,81	0,12	µg/l	89%	-0,61
L	0,95	0,1	µg/l	104%	0,24
M	0,87	0,08	µg/l	96%	-0,24
N	1,1	0,02	µg/l	121%	1,16
O	0,71	0,11	µg/l	78%	-1,22
P	0,267		µg/l	29%	-3,93
Q	0,80	0,10	µg/l	88%	-0,67
R	0,46	0,10	µg/l	51%	-2,75





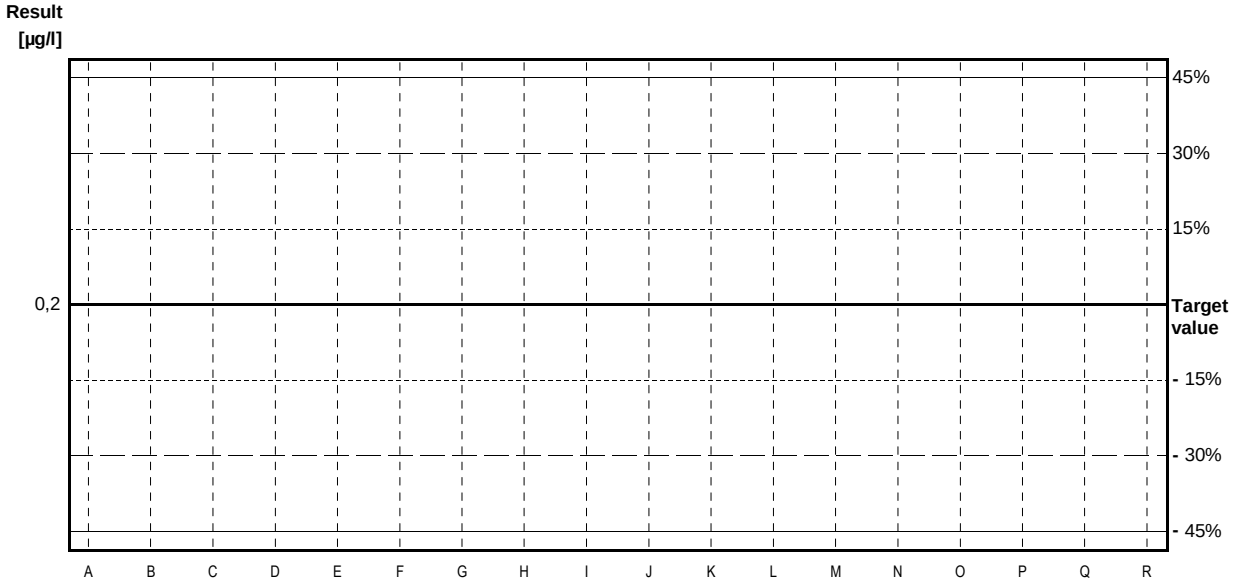
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,82 ± 0,18	0,78 ± 0,16	µg/l
Recov. ± CI(99%)	90,0 ± 20,1	86,0 ± 17,6	%
SD between labs	0,26	0,22	µg/l
RSD between labs	31,6	27,8	%
n for calculation	17	16	

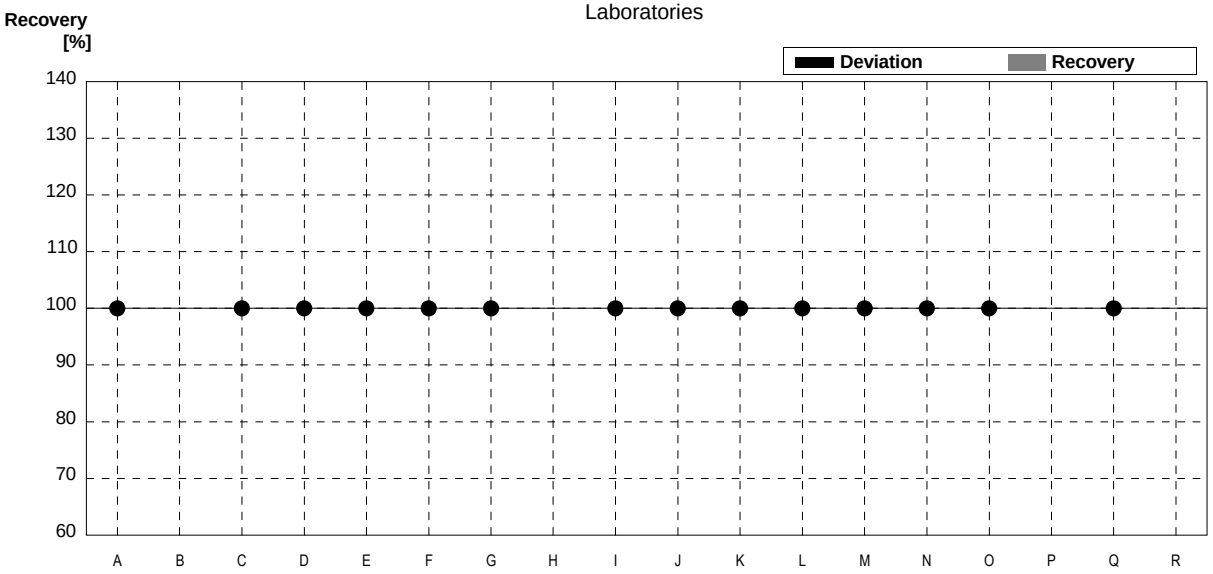
Sample C57A

Parameter 1,1-Dichloroethene

Target value	<0,2 µg/l
IFA result	<0,1 µg/l
Stability test	<0,1 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<0,2		µg/l	•	
B			µg/l		
C	<0,05		µg/l	•	
D	<0,1		µg/l	•	
E	<0,1		µg/l	•	
F	<0,050		µg/l	•	
G	0,026	0,006	µg/l	•	
H			µg/l		
I	<0,03		µg/l	•	
J	<0,04		µg/l	•	
K	<1,0		µg/l	•	
L	<0,05		µg/l	•	
M	<0,16		µg/l	•	
N	<0,10		µg/l	•	
O	<0,2		µg/l	•	
P			µg/l		
Q	<0,3		µg/l	•	
R			µg/l		





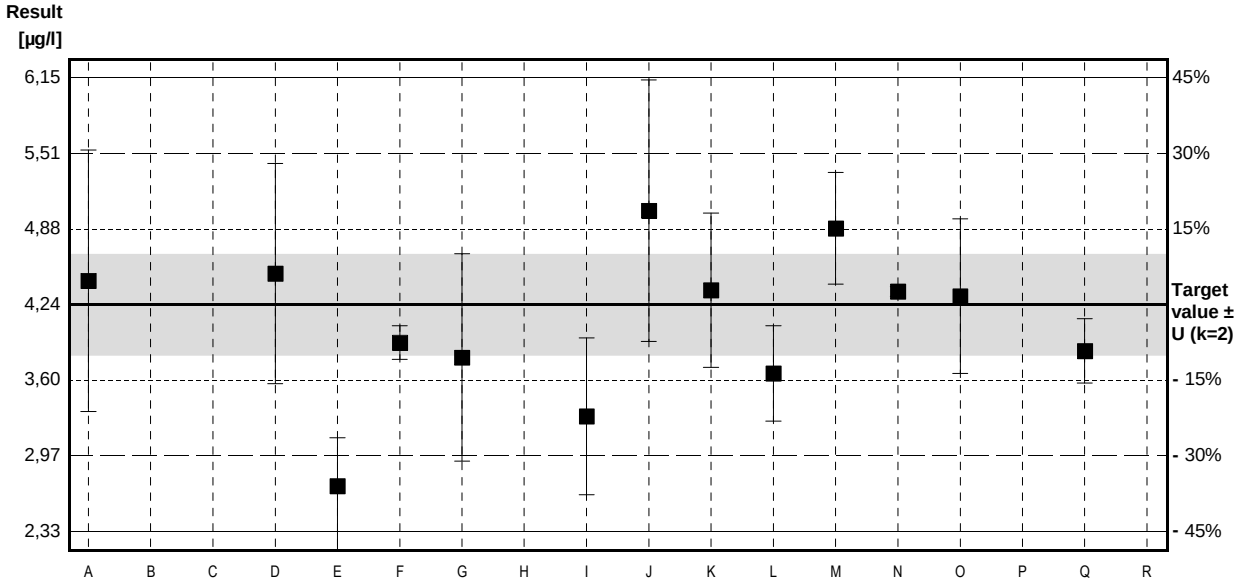
	All results	Outliers excl.	Unit
Mean ± CI(99%)			µg/l
Recov. ± CI(99%)			%
SD between labs			µg/l
RSD between labs			%
n for calculation			

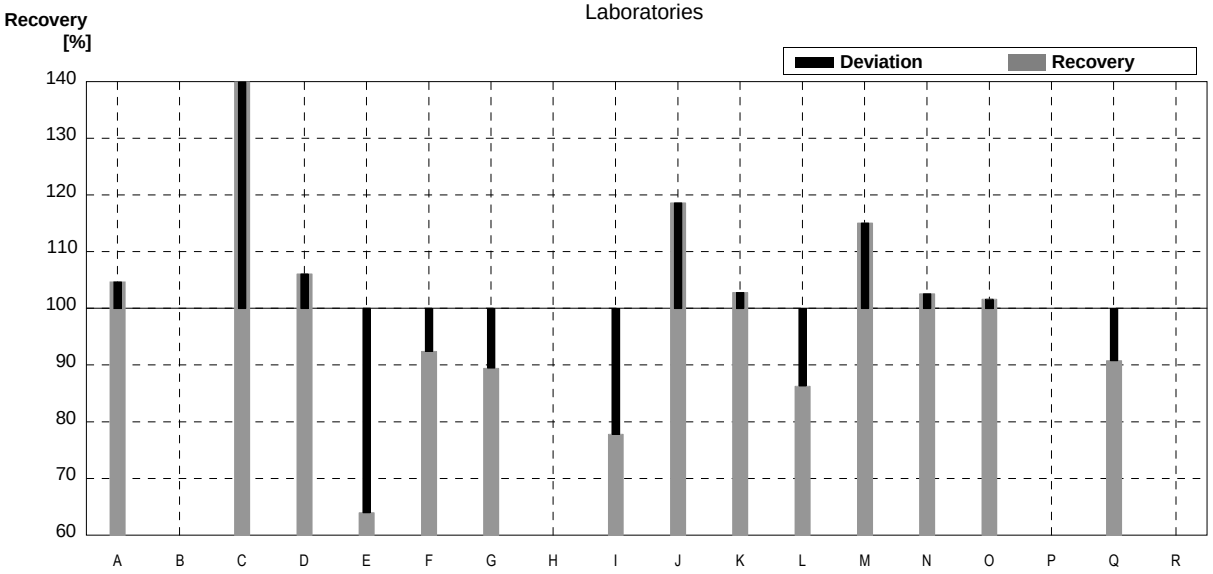
Sample C57B

Parameter 1,1-Dichloroethene

Target value	± U (k=2)	4,24	µg/l	±	0,42 µg/l
IFA result	± U (k=2)	4,13	µg/l	±	0,62 µg/l
Stability test	± U (k=2)	4,08	µg/l	±	0,61 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	4,44	1,1	µg/l	105%	0,24
B			µg/l		
C	6,36	0,19	µg/l	150%	2,50
D	4,50	0,927	µg/l	106%	0,31
E	2,713	0,407	µg/l	64%	-1,80
F	3,92	0,140	µg/l	92%	-0,38
G	3,794	0,873	µg/l	89%	-0,53
H			µg/l		
I	3,30	0,66	µg/l	78%	-1,11
J	5,03	1,1	µg/l	119%	0,93
K	4,36	0,65	µg/l	103%	0,14
L	3,66	0,4	µg/l	86%	-0,68
M	4,88	0,47	µg/l	115%	0,75
N	4,35	0,04	µg/l	103%	0,13
O	4,31	0,65	µg/l	102%	0,08
P			µg/l		
Q	3,85	0,27	µg/l	91%	-0,46
R			µg/l		





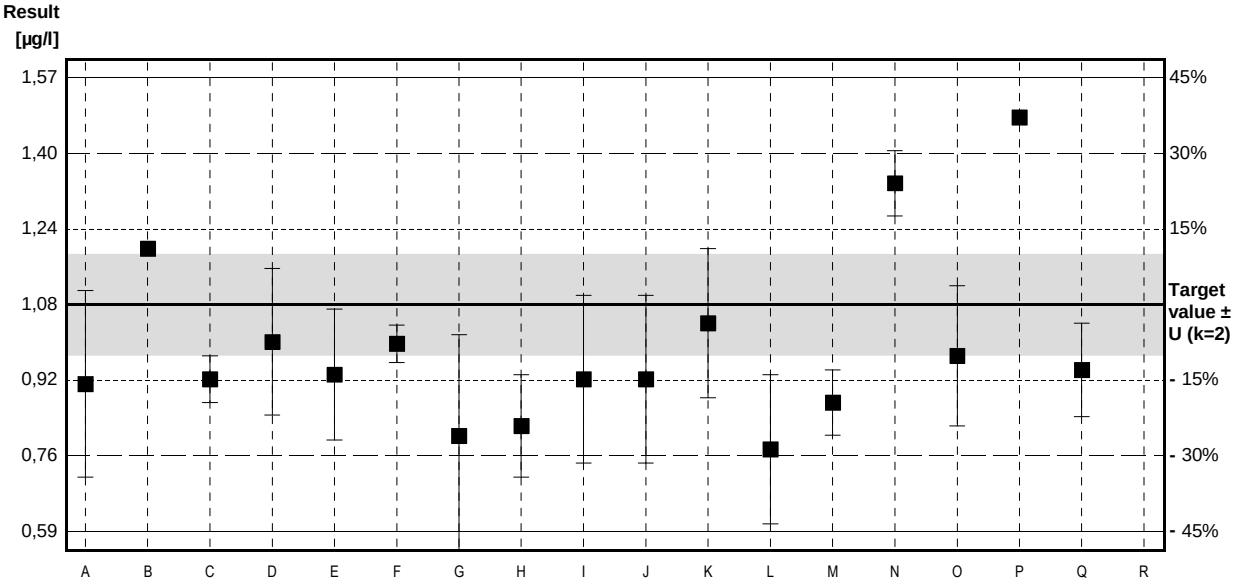
	All results	Outliers excl.	Unit
Mean ± CI(99%)	4,25 ± 0,69	4,25 ± 0,69	µg/l
Recov. ± CI(99%)	100,2 ± 16,4	100,2 ± 16,4	%
SD between labs	0,86	0,86	µg/l
RSD between labs	20,3	20,3	%
n for calculation	14	14	

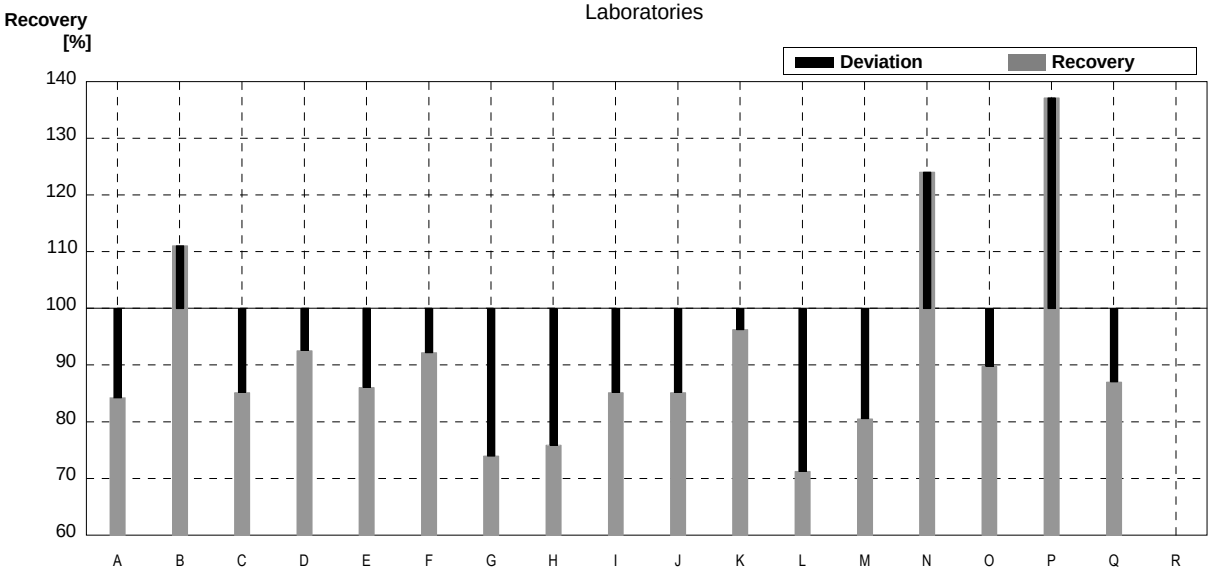
Sample C57A

Parameter Tribromomethane

Target value	± U (k=2)	1,08	µg/l	±	0,11 µg/l
IFA result	± U (k=2)	1,07	µg/l	±	0,16 µg/l
Stability test	± U (k=2)	1,10	µg/l	±	0,17 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,91	0,2	µg/l	84%	-0,93
B	1,2		µg/l	111%	0,65
C	0,92	0,05	µg/l	85%	-0,87
D	1,00	0,157	µg/l	93%	-0,44
E	0,93	0,140	µg/l	86%	-0,82
F	0,996	0,040	µg/l	92%	-0,46
G	0,799	0,216	µg/l	74%	-1,53
H	0,82	0,11	µg/l	76%	-1,42
I	0,92	0,18	µg/l	85%	-0,87
J	0,92	0,18	µg/l	85%	-0,87
K	1,04	0,16	µg/l	96%	-0,22
L	0,77	0,16	µg/l	71%	-1,69
M	0,87	0,07	µg/l	81%	-1,14
N	1,34 *	0,07	µg/l	124%	1,42
O	0,97	0,15	µg/l	90%	-0,60
P	1,481 *		µg/l	137%	2,18
Q	0,94	0,10	µg/l	87%	-0,76
R			µg/l		





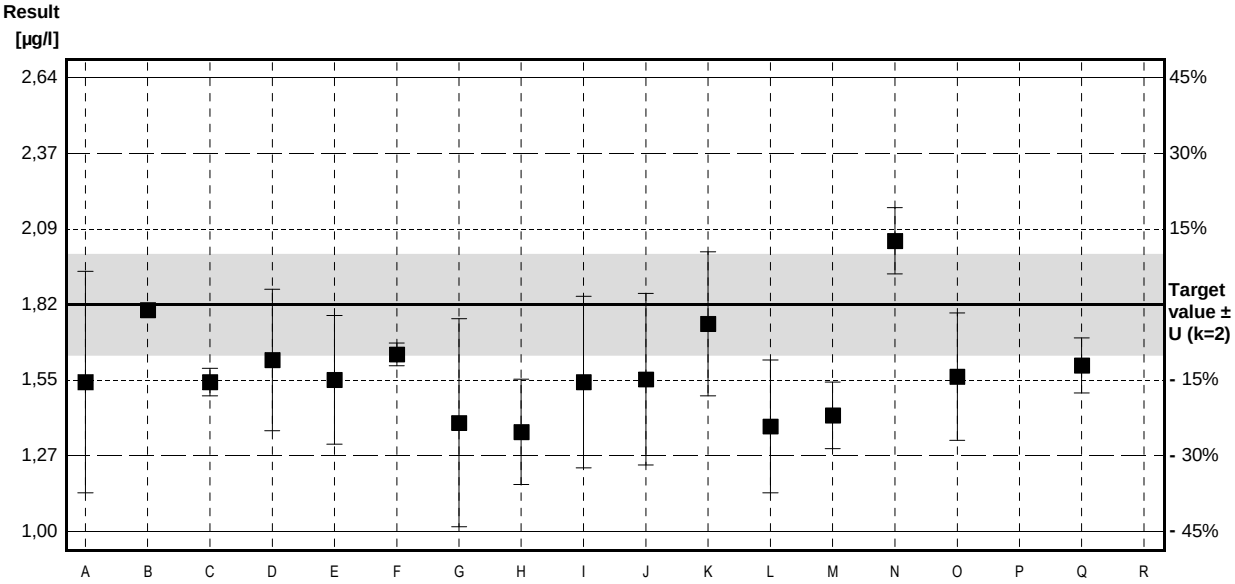
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,99 ± 0,13	0,93 ± 0,08	µg/l
Recov. ± CI(99%)	91,6 ± 12,3	86,5 ± 7,5	%
SD between labs	0,19	0,11	µg/l
RSD between labs	19,0	11,3	%
n for calculation	17	15	

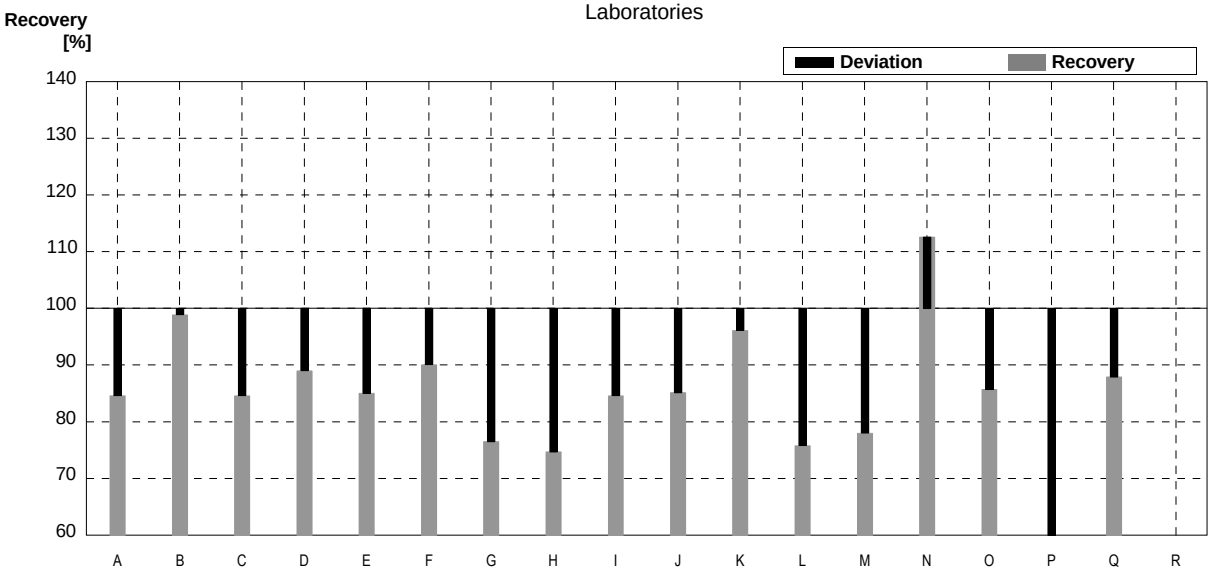
Sample C57B

Parameter Tribromomethane

Target value ± U (k=2)	1,82	µg/l	±	0,18	µg/l
IFA result ± U (k=2)	1,74	µg/l	±	0,26	µg/l
Stability test ± U (k=2)	1,75	µg/l	±	0,26	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,54	0,4	µg/l	85%	-0,90
B	1,8		µg/l	99%	-0,06
C	1,54	0,05	µg/l	85%	-0,90
D	1,62	0,255	µg/l	89%	-0,65
E	1,548	0,232	µg/l	85%	-0,88
F	1,64	0,041	µg/l	90%	-0,58
G	1,393	0,376	µg/l	77%	-1,38
H	1,36	0,19	µg/l	75%	-1,49
I	1,54	0,31	µg/l	85%	-0,90
J	1,55	0,31	µg/l	85%	-0,87
K	1,75	0,26	µg/l	96%	-0,23
L	1,38	0,24	µg/l	76%	-1,42
M	1,42	0,12	µg/l	78%	-1,29
N	2,05 *	0,12	µg/l	113%	0,74
O	1,56	0,23	µg/l	86%	-0,84
P	0,744 *		µg/l	41%	-3,48
Q	1,60	0,10	µg/l	88%	-0,71
R			µg/l		





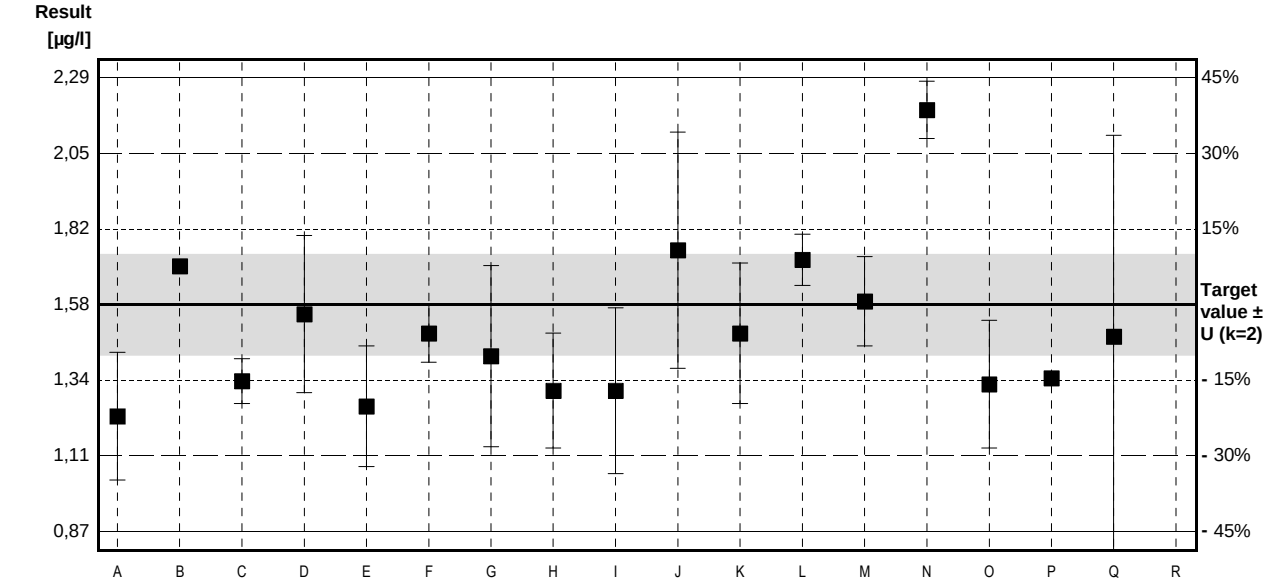
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,53 ± 0,19	1,55 ± 0,10	µg/l
Recov. ± CI(99%)	84,1 ± 10,3	85,1 ± 5,4	%
SD between labs	0,26	0,13	µg/l
RSD between labs	17,3	8,2	%
n for calculation	17	15	

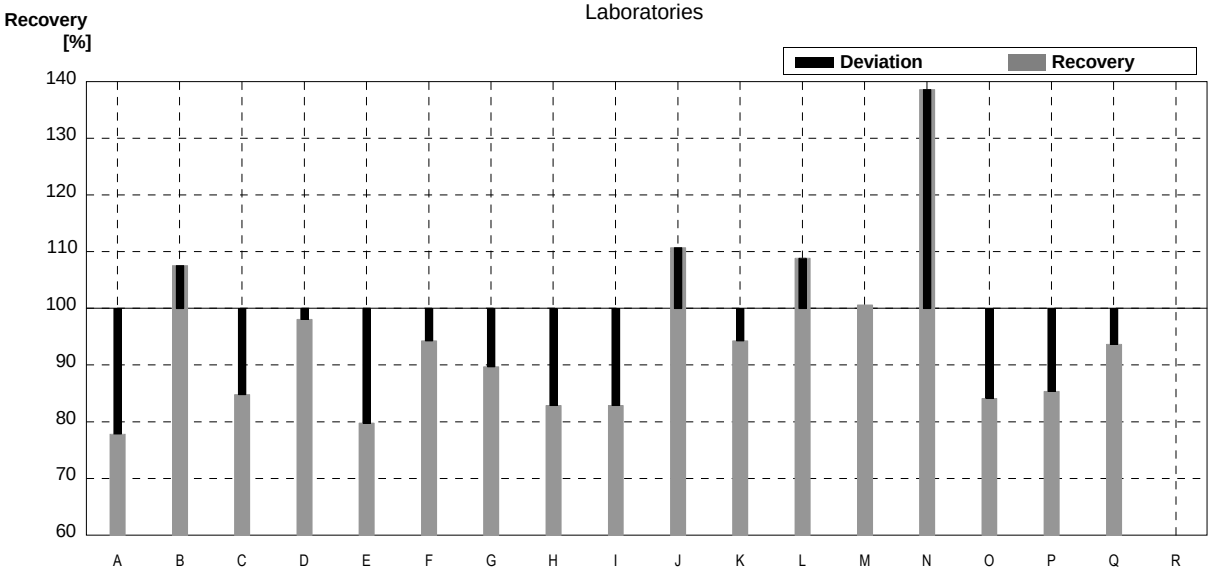
Sample C57A

Parameter Bromodichloromethane

Target value ± U (k=2)	1,58	µg/l	±	0,16	µg/l
IFA result ± U (k=2)	1,55	µg/l	±	0,23	µg/l
Stability test ± U (k=2)	1,52	µg/l	±	0,23	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,23	0,2	µg/l	78%	-1,70
B	1,7		µg/l	108%	0,58
C	1,34	0,07	µg/l	85%	-1,17
D	1,55	0,246	µg/l	98%	-0,15
E	1,261	0,189	µg/l	80%	-1,55
F	1,49	0,091	µg/l	94%	-0,44
G	1,418	0,284	µg/l	90%	-0,79
H	1,31	0,18	µg/l	83%	-1,31
I	1,31	0,26	µg/l	83%	-1,31
J	1,75	0,37	µg/l	111%	0,83
K	1,49	0,22	µg/l	94%	-0,44
L	1,72	0,08	µg/l	109%	0,68
M	1,59	0,14	µg/l	101%	0,05
N	2,19	0,09	µg/l	139%	2,97
O	1,33	0,20	µg/l	84%	-1,22
P	1,349		µg/l	85%	-1,12
Q	1,48	0,63	µg/l	94%	-0,49
R			µg/l		





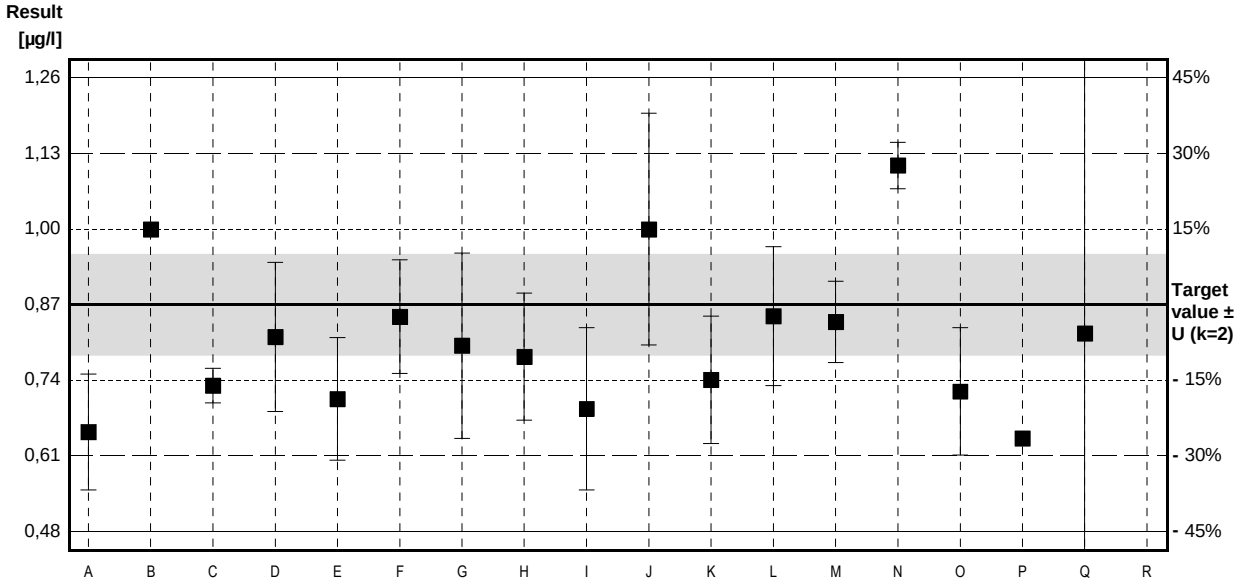
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,50 ± 0,17	1,50 ± 0,17	µg/l
Recov. ± CI(99%)	95,0 ± 10,8	95,0 ± 10,8	%
SD between labs	0,24	0,24	µg/l
RSD between labs	16,0	16,0	%
n for calculation	17	17	

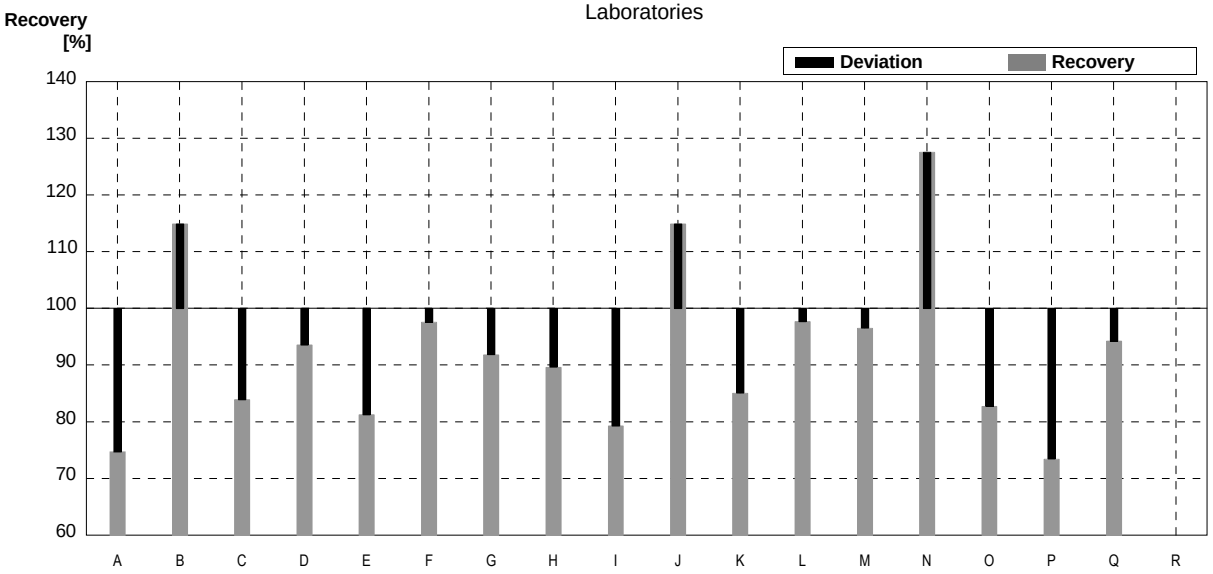
Sample C57B

Parameter Bromodichloromethane

Target value ± U (k=2)	0,87	µg/l	±	0,09	µg/l
IFA result ± U (k=2)	0,85	µg/l	±	0,13	µg/l
Stability test ± U (k=2)	0,84	µg/l	±	0,13	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,65	0,1	µg/l	75%	-1,95
B	1,0		µg/l	115%	1,15
C	0,73	0,03	µg/l	84%	-1,24
D	0,814	0,129	µg/l	94%	-0,50
E	0,707	0,106	µg/l	81%	-1,44
F	0,849	0,098	µg/l	98%	-0,19
G	0,799	0,160	µg/l	92%	-0,63
H	0,78	0,11	µg/l	90%	-0,80
I	0,69	0,14	µg/l	79%	-1,59
J	1,00	0,20	µg/l	115%	1,15
K	0,74	0,11	µg/l	85%	-1,15
L	0,85	0,12	µg/l	98%	-0,18
M	0,84	0,07	µg/l	97%	-0,27
N	1,11	0,04	µg/l	128%	2,12
O	0,72	0,11	µg/l	83%	-1,33
P	0,639		µg/l	73%	-2,04
Q	0,82	0,57	µg/l	94%	-0,44
R			µg/l		





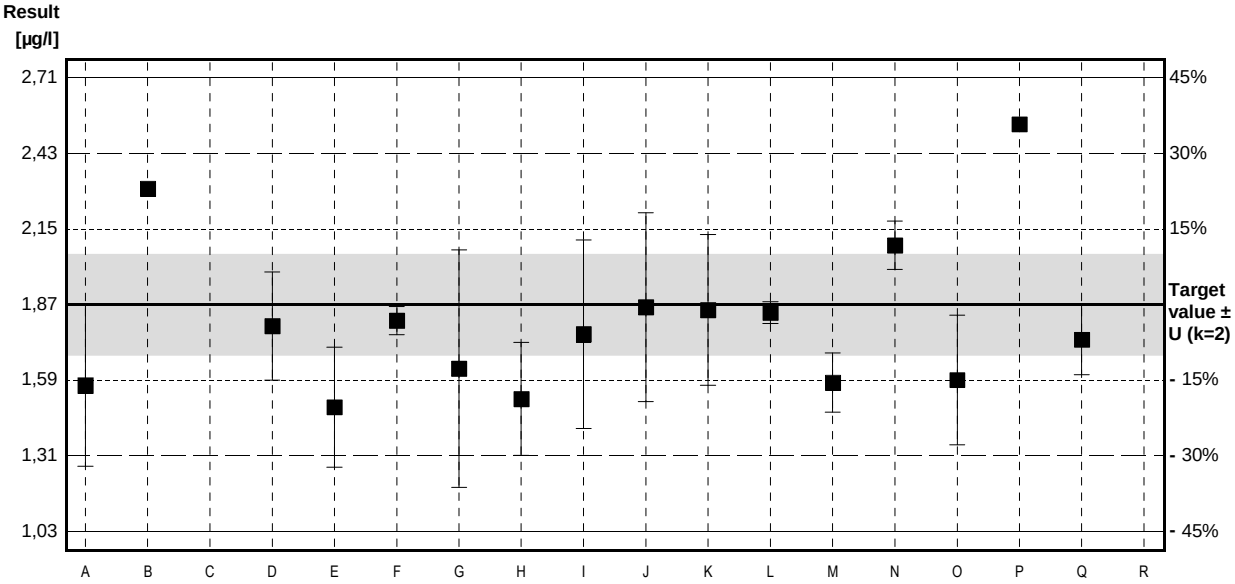
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,81 ± 0,09	0,81 ± 0,09	µg/l
Recov. ± CI(99%)	92,9 ± 10,5	92,9 ± 10,5	%
SD between labs	0,13	0,13	µg/l
RSD between labs	16,0	16,0	%
n for calculation	17	17	

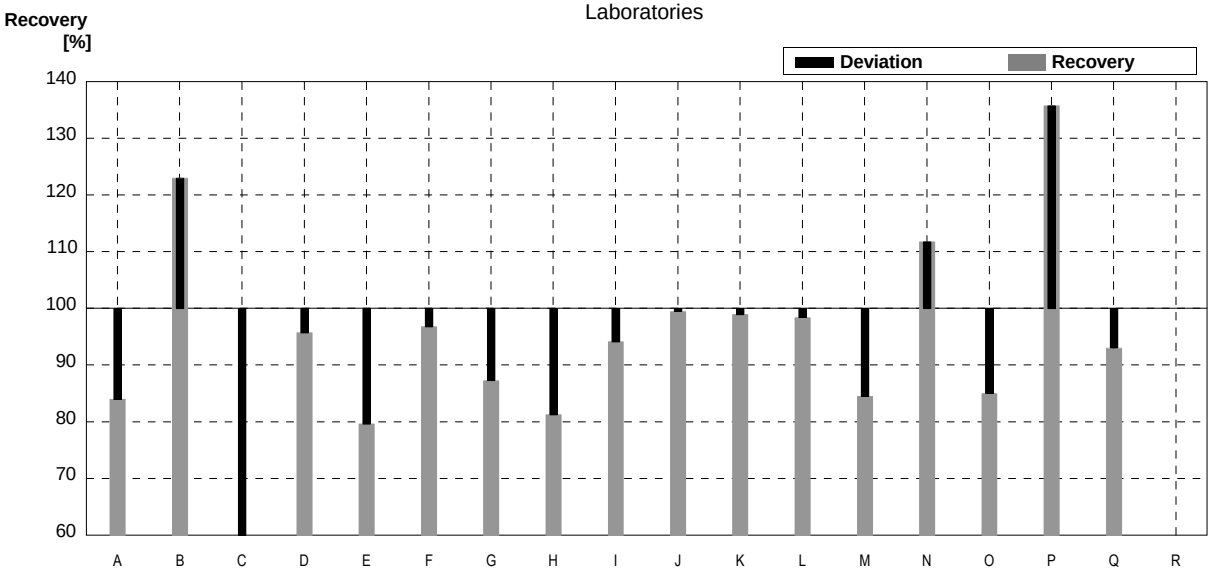
Sample C57A

Parameter Dibromochloromethane

Target value ± U (k=2)	1,87	µg/l	±	0,19	µg/l
IFA result ± U (k=2)	1,88	µg/l	±	0,28	µg/l
Stability test ± U (k=2)	1,85	µg/l	±	0,28	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,57	0,3	µg/l	84%	-1,15
B	2,3		µg/l	123%	1,64
C	0,52 *	0,03	µg/l	28%	-5,16
D	1,79	0,201	µg/l	96%	-0,31
E	1,489	0,223	µg/l	80%	-1,46
F	1,81	0,052	µg/l	97%	-0,23
G	1,632	0,441	µg/l	87%	-0,91
H	1,52	0,21	µg/l	81%	-1,34
I	1,76	0,35	µg/l	94%	-0,42
J	1,86	0,35	µg/l	99%	-0,04
K	1,85	0,28	µg/l	99%	-0,08
L	1,84	0,04	µg/l	98%	-0,11
M	1,58	0,11	µg/l	84%	-1,11
N	2,09	0,09	µg/l	112%	0,84
O	1,59	0,24	µg/l	85%	-1,07
P	2,539		µg/l	136%	2,56
Q	1,74	0,13	µg/l	93%	-0,50
R			µg/l		





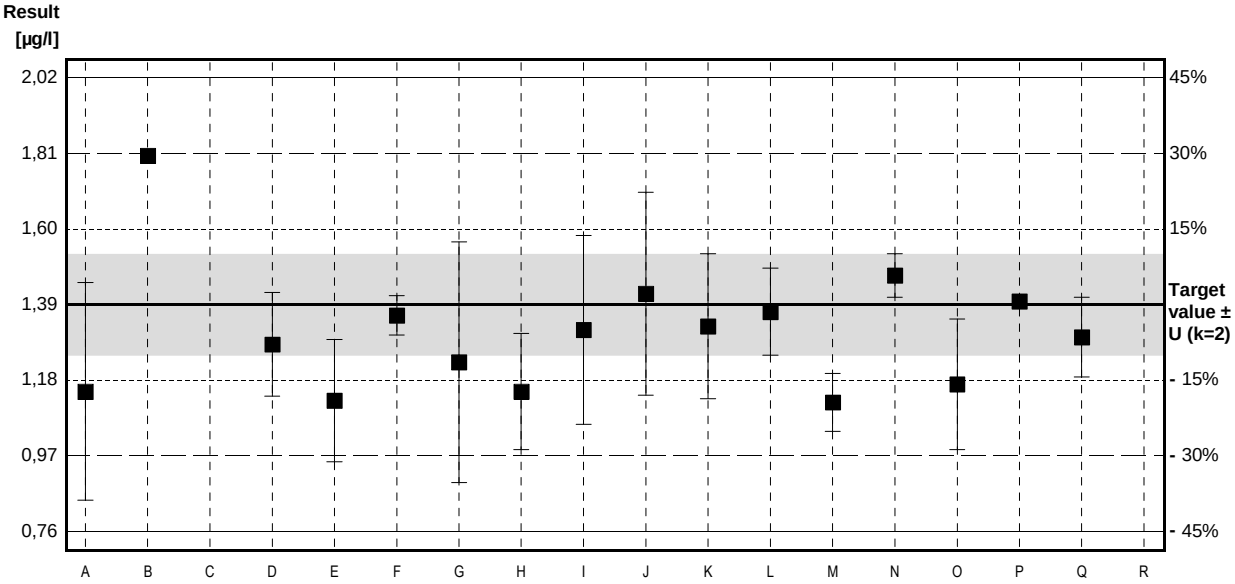
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,73 ± 0,30	1,81 ± 0,21	µg/l
Recov. ± CI(99%)	92,7 ± 15,9	96,8 ± 11,3	%
SD between labs	0,42	0,29	µg/l
RSD between labs	24,2	15,9	%
n for calculation	17	16	

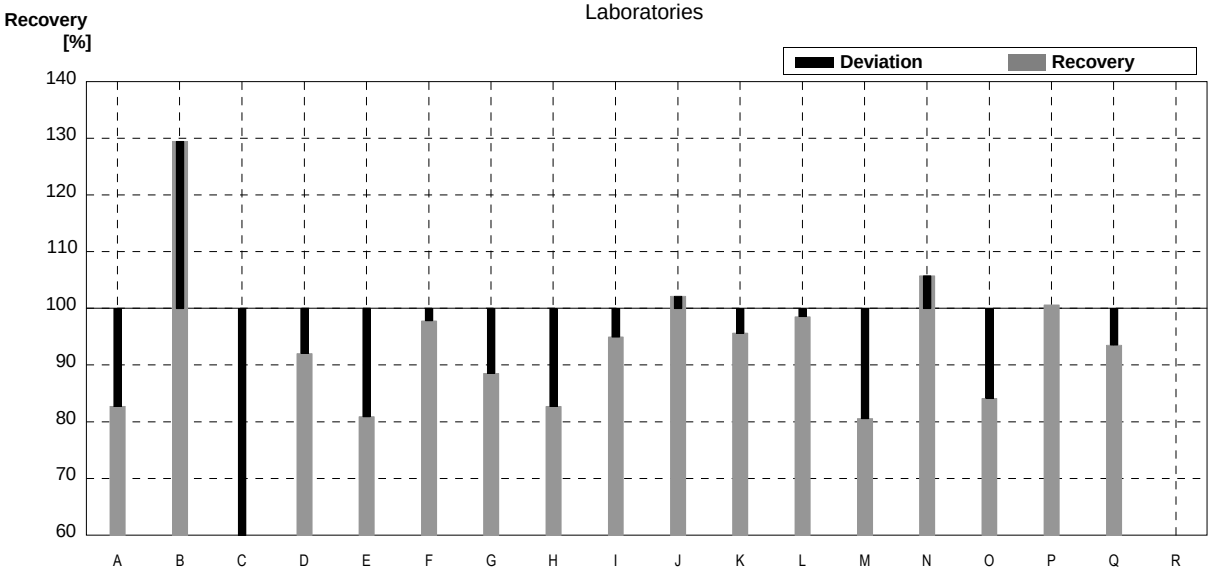
Sample C57B

Parameter Dibromochloromethane

Target value ± U (k=2)	1,39	µg/l	±	0,14	µg/l
IFA result ± U (k=2)	1,37	µg/l	±	0,21	µg/l
Stability test ± U (k=2)	1,37	µg/l	±	0,21	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,15	0,3	µg/l	83%	-1,23
B	1,8		µg/l	129%	2,11
C	0,39 *	0,02	µg/l	28%	-5,14
D	1,28	0,143	µg/l	92%	-0,57
E	1,125	0,169	µg/l	81%	-1,36
F	1,36	0,054	µg/l	98%	-0,15
G	1,231	0,332	µg/l	89%	-0,82
H	1,15	0,16	µg/l	83%	-1,23
I	1,32	0,26	µg/l	95%	-0,36
J	1,42	0,28	µg/l	102%	0,15
K	1,33	0,20	µg/l	96%	-0,31
L	1,37	0,12	µg/l	99%	-0,10
M	1,12	0,08	µg/l	81%	-1,39
N	1,47	0,06	µg/l	106%	0,41
O	1,17	0,18	µg/l	84%	-1,13
P	1,399		µg/l	101%	0,05
Q	1,30	0,11	µg/l	94%	-0,46
R			µg/l		





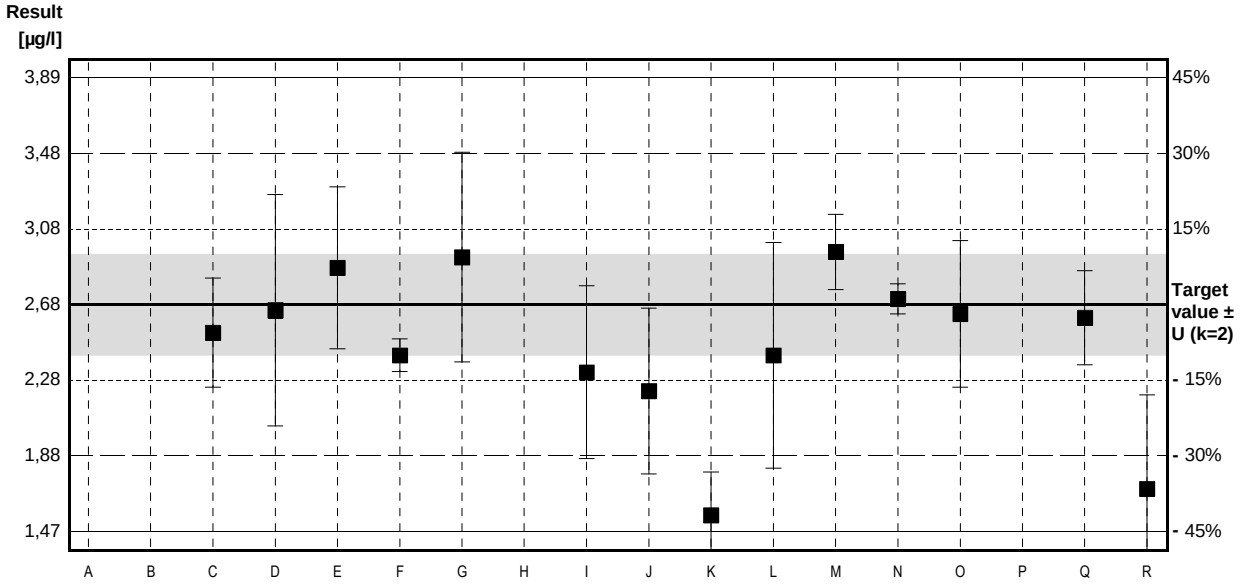
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,26 ± 0,20	1,31 ± 0,13	µg/l
Recov. ± CI(99%)	90,5 ± 14,2	94,4 ± 9,1	%
SD between labs	0,28	0,17	µg/l
RSD between labs	22,1	13,1	%
n for calculation	17	16	

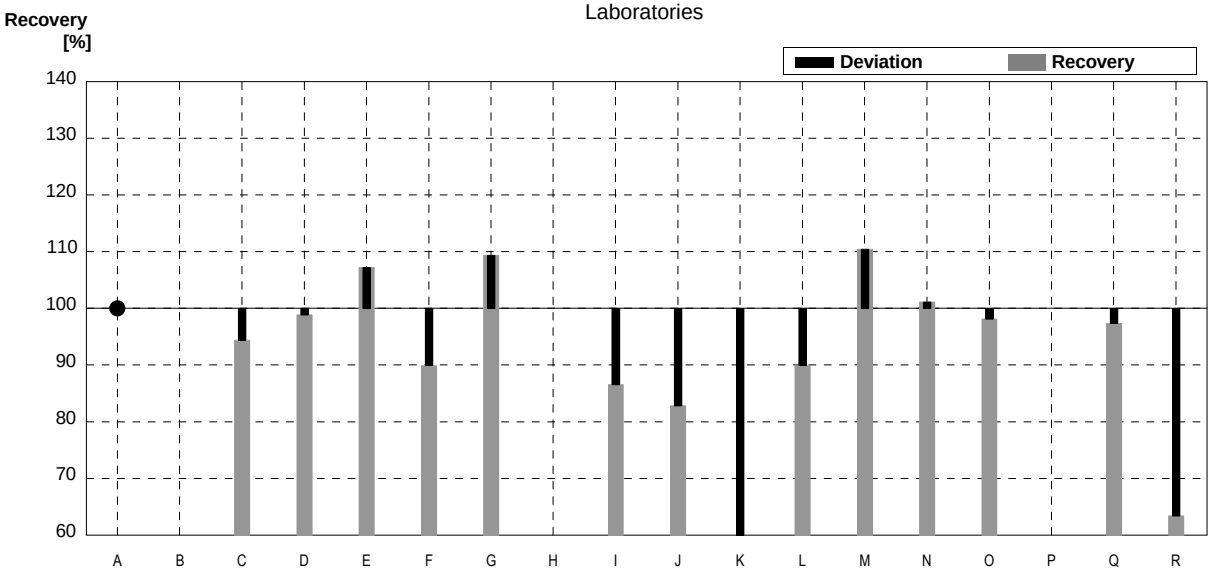
Sample C57A

Parameter Dichloromethane

Target value ± U (k=2)	2,68	µg/l	±	0,27	µg/l
IFA result ± U (k=2)	2,64	µg/l	±	0,40	µg/l
Stability test ± U (k=2)	2,65	µg/l	±	0,40	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<3		µg/l	•	
B			µg/l		
C	2,53	0,29	µg/l	94%	-0,40
D	2,65	0,615	µg/l	99%	-0,08
E	2,875	0,431	µg/l	107%	0,52
F	2,41	0,087	µg/l	90%	-0,72
G	2,932	0,557	µg/l	109%	0,67
H			µg/l		
I	2,32	0,46	µg/l	87%	-0,96
J	2,22	0,44	µg/l	83%	-1,23
K	1,56 *	0,23	µg/l	58%	-2,99
L	2,41	0,60	µg/l	90%	-0,72
M	2,96	0,20	µg/l	110%	0,75
N	2,71	0,08	µg/l	101%	0,08
O	2,63	0,39	µg/l	98%	-0,13
P			µg/l		
Q	2,61	0,25	µg/l	97%	-0,19
R	1,7	0,50	µg/l	63%	-2,61





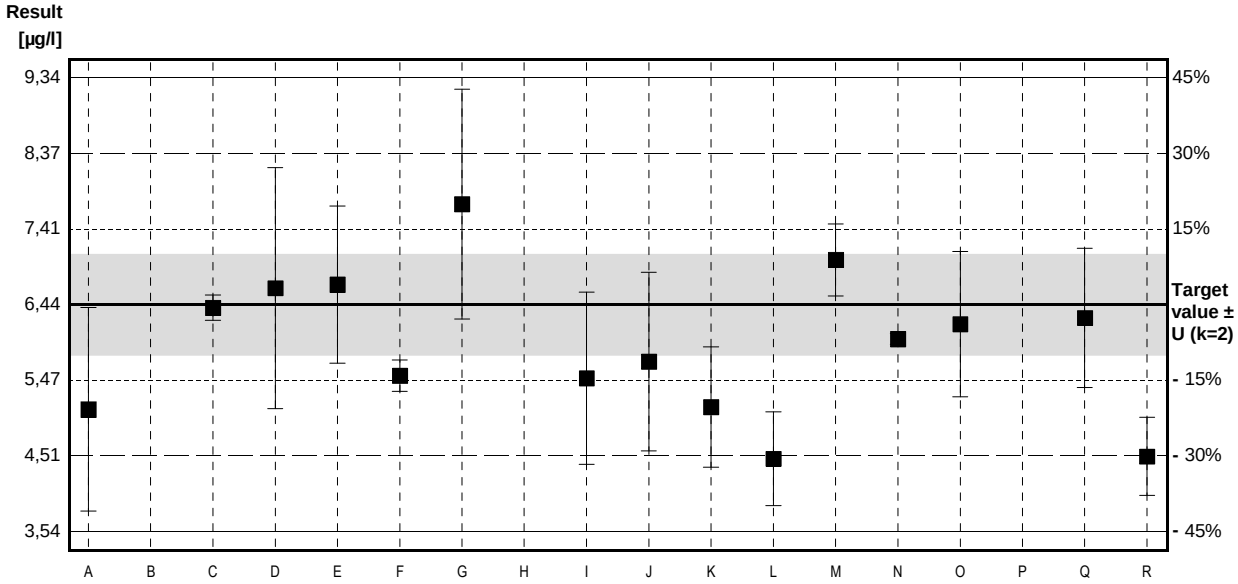
	All results	Outliers excl.	Unit
Mean ± CI(99%)	2,47 ± 0,34	2,54 ± 0,29	µg/l
Recov. ± CI(99%)	92,0 ± 12,5	94,6 ± 10,7	%
SD between labs	0,42	0,34	µg/l
RSD between labs	16,9	13,4	%
n for calculation	14	13	

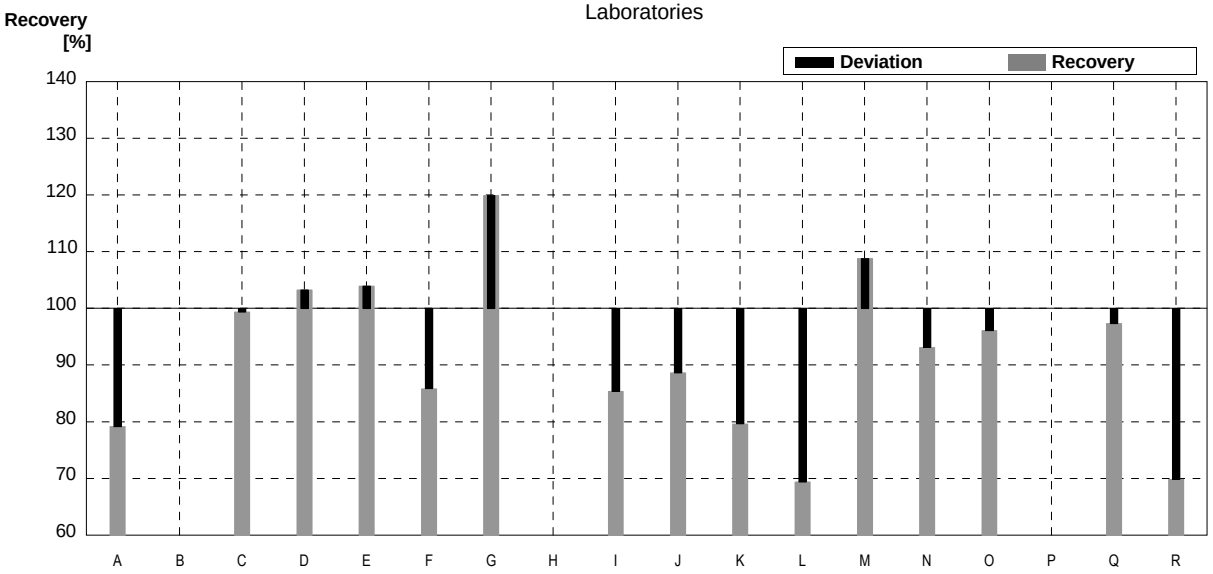
Sample C57B

Parameter Dichloromethane

Target value ± U (k=2)	6,44	µg/l	±	0,64	µg/l
IFA result ± U (k=2)	6,39	µg/l	±	0,96	µg/l
Stability test ± U (k=2)	6,31	µg/l	±	0,95	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	5,1	1,3	µg/l	79%	-1,49
B			µg/l		
C	6,40	0,16	µg/l	99%	-0,04
D	6,65	1,54	µg/l	103%	0,23
E	6,695	1,004	µg/l	104%	0,28
F	5,53	0,202	µg/l	86%	-1,01
G	7,724	1,468	µg/l	120%	1,42
H			µg/l		
I	5,50	1,1	µg/l	85%	-1,04
J	5,71	1,14	µg/l	89%	-0,81
K	5,13	0,77	µg/l	80%	-1,45
L	4,47	0,6	µg/l	69%	-2,19
M	7,01	0,46	µg/l	109%	0,63
N	6,00	0,07	µg/l	93%	-0,49
O	6,19	0,93	µg/l	96%	-0,28
P			µg/l		
Q	6,27	0,89	µg/l	97%	-0,19
R	4,5	0,50	µg/l	70%	-2,15





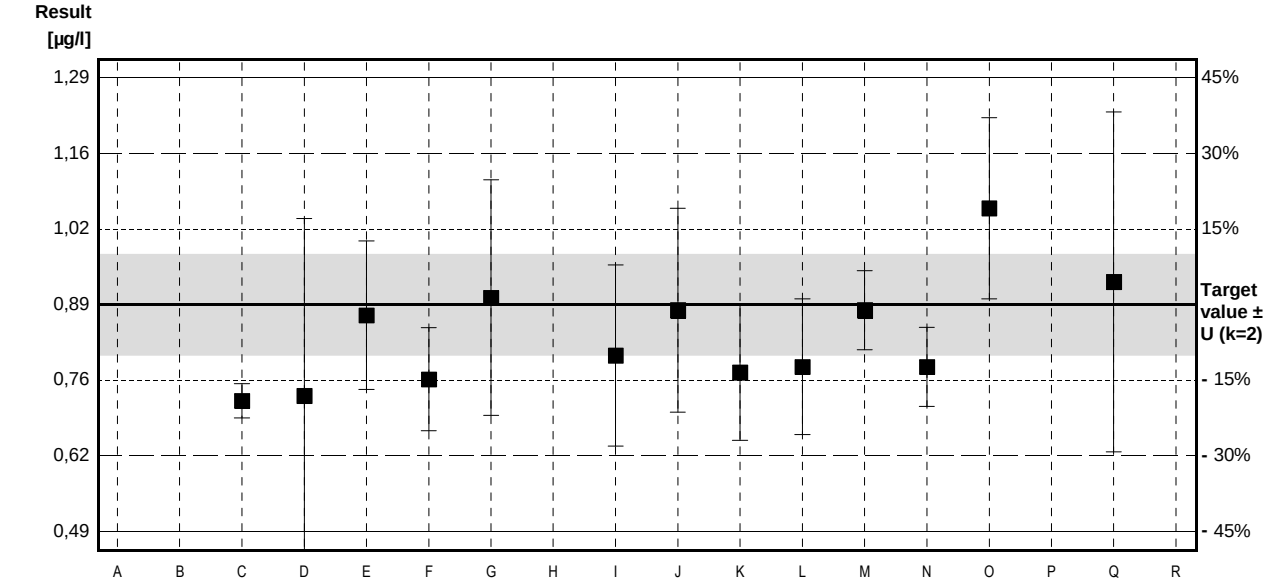
	All results	Outliers excl.	Unit
Mean ± CI(99%)	5,93 ± 0,71	5,93 ± 0,71	µg/l
Recov. ± CI(99%)	92,0 ± 11,0	92,0 ± 11,0	%
SD between labs	0,92	0,92	µg/l
RSD between labs	15,5	15,5	%
n for calculation	15	15	

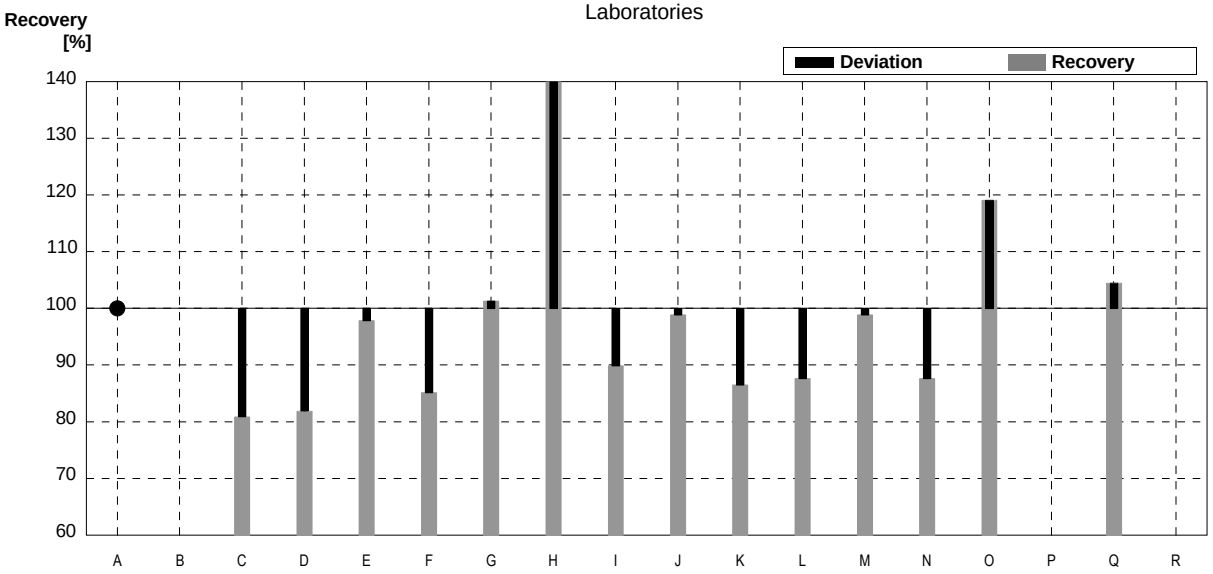
Sample C57A

Parameter 1,2-Dichloroethane

Target value ± U (k=2)	0,89	µg/l	±	0,09	µg/l
IFA result ± U (k=2)	0,88	µg/l	±	0,13	µg/l
Stability test ± U (k=2)	0,88	µg/l	±	0,13	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<0,9		µg/l	•	
B			µg/l		
C	0,72	0,03	µg/l	81%	-1,36
D	0,729	0,313	µg/l	82%	-1,29
E	0,871	0,131	µg/l	98%	-0,15
F	0,758	0,091	µg/l	85%	-1,06
G	0,902	0,208	µg/l	101%	0,10
H	2,76 *	0,39	µg/l	310%	15,01
I	0,80	0,16	µg/l	90%	-0,72
J	0,88	0,18	µg/l	99%	-0,08
K	0,77	0,12	µg/l	87%	-0,96
L	0,78	0,12	µg/l	88%	-0,88
M	0,88	0,07	µg/l	99%	-0,08
N	0,78	0,07	µg/l	88%	-0,88
O	1,06	0,16	µg/l	119%	1,36
P			µg/l		
Q	0,93	0,30	µg/l	104%	0,32
R			µg/l		





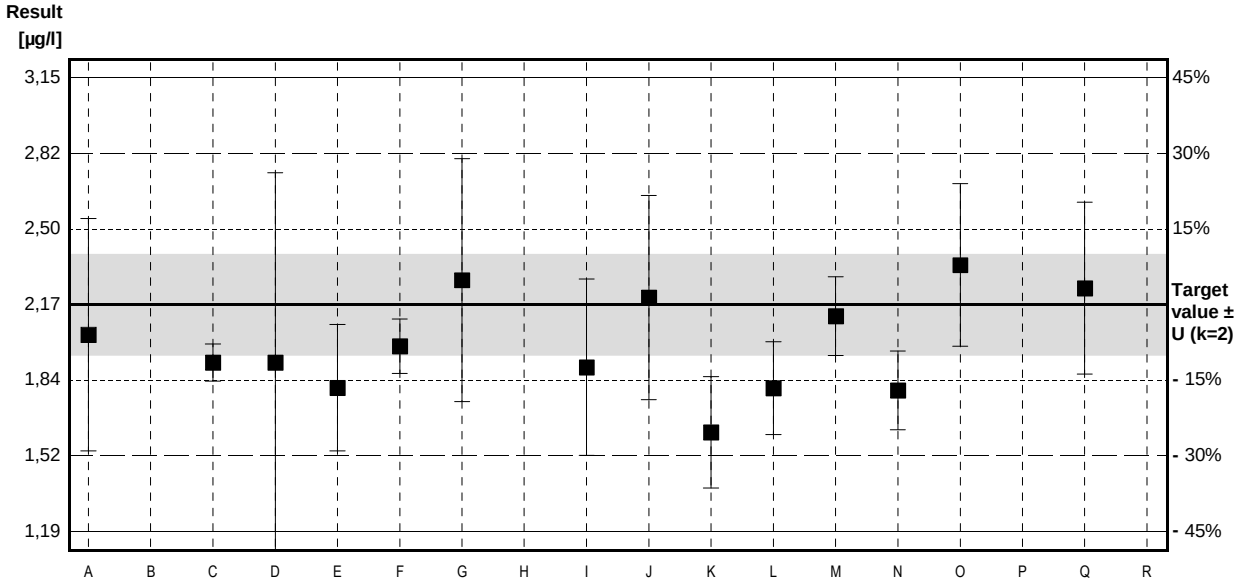
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,97 ± 0,42	0,84 ± 0,08	µg/l
Recov. ± CI(99%)	109,3 ± 47,2	93,9 ± 9,2	%
SD between labs	0,52	0,10	µg/l
RSD between labs	53,7	11,5	%
n for calculation	14	13	

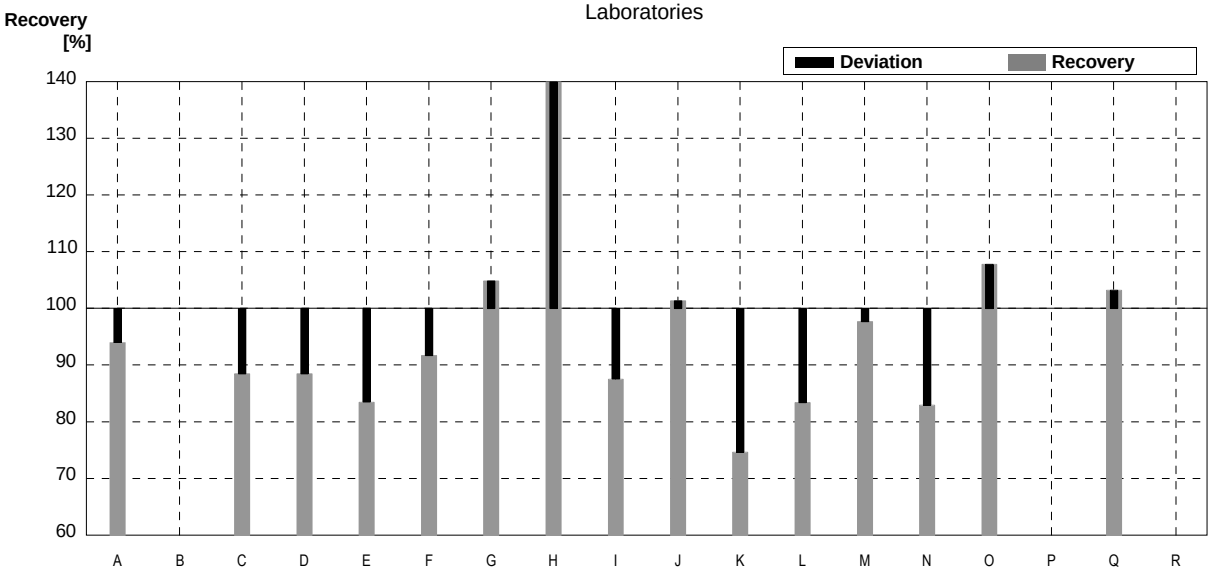
Sample C57B

Parameter 1,2-Dichloroethane

Target value ± U (k=2)	2,17	µg/l	±	0,22	µg/l
IFA result ± U (k=2)	2,14	µg/l	±	0,32	µg/l
Stability test ± U (k=2)	2,13	µg/l	±	0,32	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	2,04	0,5	µg/l	94%	-0,43
B			µg/l		
C	1,92	0,08	µg/l	88%	-0,82
D	1,92	0,817	µg/l	88%	-0,82
E	1,812	0,272	µg/l	84%	-1,18
F	1,99	0,117	µg/l	92%	-0,59
G	2,275	0,523	µg/l	105%	0,35
H	6,54 *	0,92	µg/l	301%	14,38
I	1,90	0,38	µg/l	88%	-0,89
J	2,20	0,44	µg/l	101%	0,10
K	1,62	0,24	µg/l	75%	-1,81
L	1,81	0,2	µg/l	83%	-1,18
M	2,12	0,17	µg/l	98%	-0,16
N	1,80	0,17	µg/l	83%	-1,22
O	2,34	0,35	µg/l	108%	0,56
P			µg/l		
Q	2,24	0,37	µg/l	103%	0,23
R			µg/l		





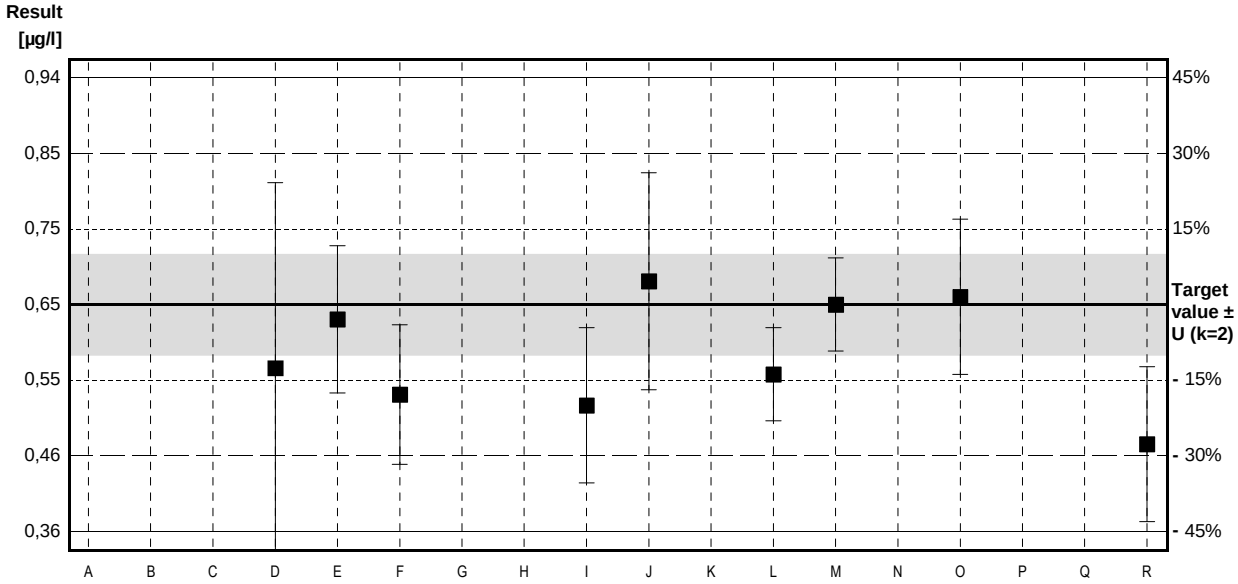
	All results	Outliers excl.	Unit
Mean ± CI(99%)	2,30 ± 0,92	2,00 ± 0,17	µg/l
Recov. ± CI(99%)	106,1 ± 42,2	92,1 ± 7,9	%
SD between labs	1,19	0,21	µg/l
RSD between labs	51,7	10,6	%
n for calculation	15	14	

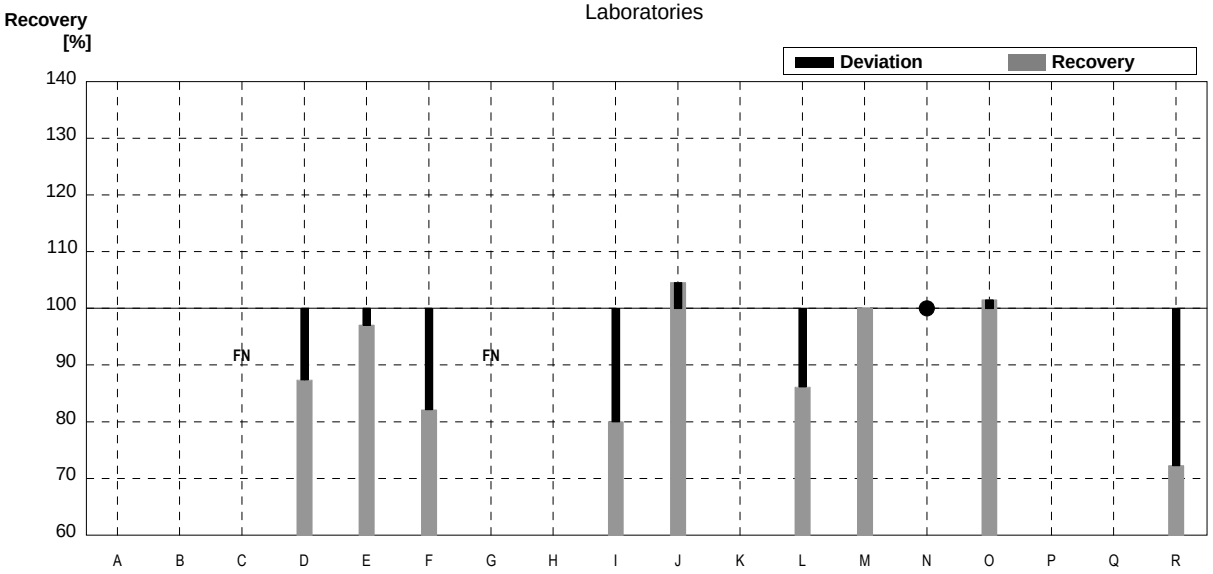
Sample C57A

Parameter cis-1,2-Dichloroethene

Target value	± U (k=2)	0,65	µg/l	±	0,07 µg/l
IFA result	± U (k=2)	0,61	µg/l	±	0,09 µg/l
Stability test	± U (k=2)	0,61	µg/l	±	0,09 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B			µg/l		
C	<0,05		µg/l	FN	
D	0,568	0,239	µg/l	87%	-0,90
E	0,631	0,095	µg/l	97%	-0,21
F	0,534	0,090	µg/l	82%	-1,27
G	<0,020		µg/l	FN	
H			µg/l		
I	0,52	0,10	µg/l	80%	-1,43
J	0,68	0,14	µg/l	105%	0,33
K	not analyse		µg/l		
L	0,56	0,06	µg/l	86%	-0,99
M	0,65	0,06	µg/l	100%	0,00
N	<0,75		µg/l	•	
O	0,66	0,10	µg/l	102%	0,11
P			µg/l		
Q			µg/l		
R	0,47	0,10	µg/l	72%	-1,98





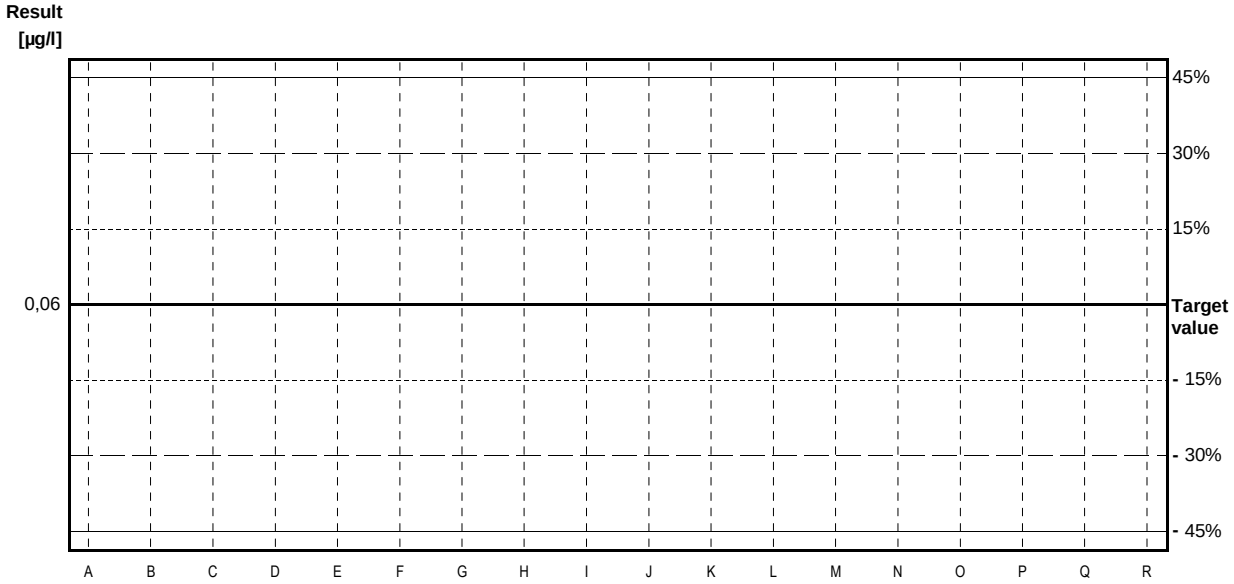
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,59 ± 0,08	0,59 ± 0,08	µg/l
Recov. ± CI(99%)	90,1 ± 12,5	90,1 ± 12,5	%
SD between labs	0,07	0,07	µg/l
RSD between labs	12,4	12,4	%
n for calculation	9	9	

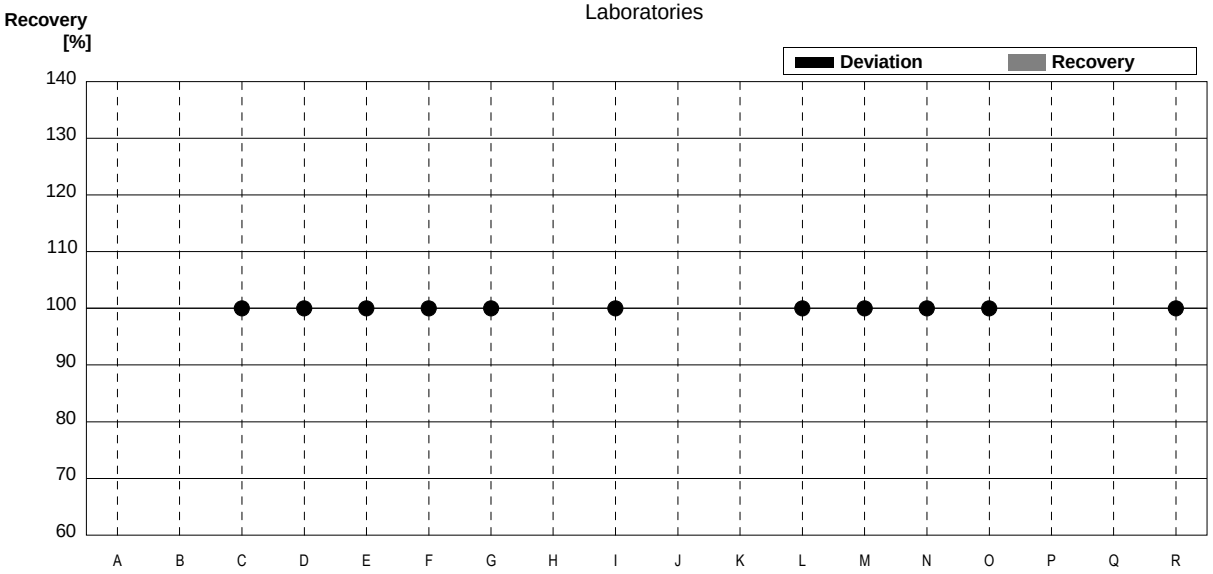
Sample C57B

Parameter cis-1,2-Dichloroethene

Target value	<0,06	µg/l
IFA result	<0,03	µg/l
Stability test	<0,03	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B			µg/l		
C	<0,05		µg/l	•	
D	<0,5		µg/l	•	
E	<0,4		µg/l	•	
F	[0,012]		µg/l	•	
G	<0,020		µg/l	•	
H			µg/l		
I	<0,06		µg/l	•	
J			µg/l		
K	not analyse		µg/l		
L	<0,05		µg/l	•	
M	<0,3		µg/l	•	
N	<0,75		µg/l	•	
O	<0,5		µg/l	•	
P			µg/l		
Q			µg/l		
R	<0,15	0,05	µg/l	•	





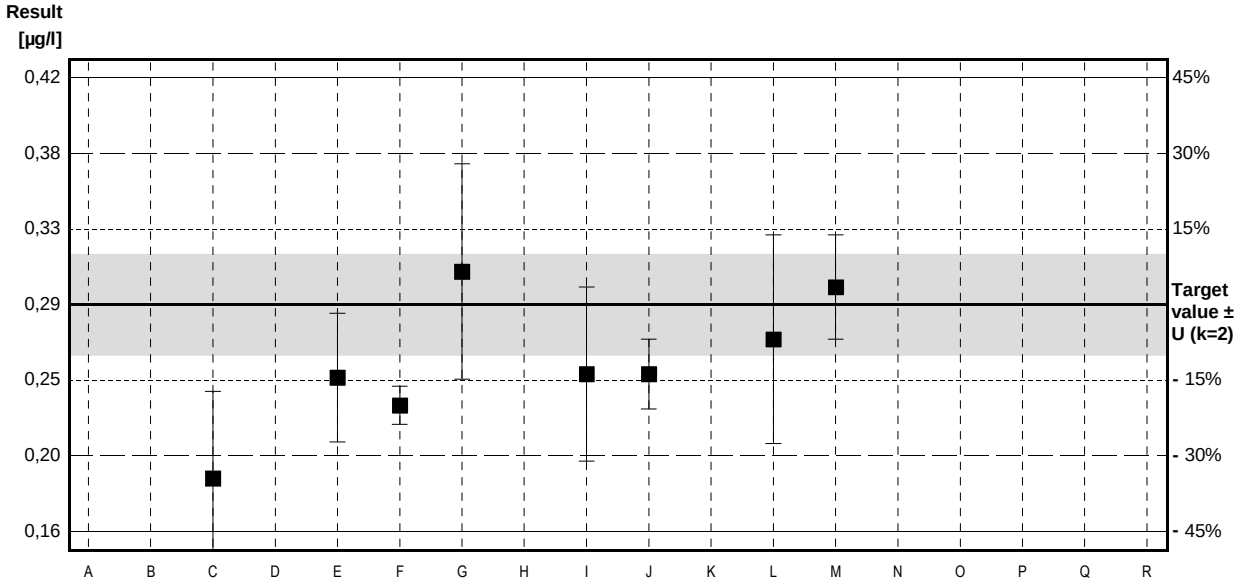
	All results	Outliers excl.	Unit
Mean ± CI(99%)			µg/l
Recov. ± CI(99%)			%
SD between labs			µg/l
RSD between labs			%
n for calculation			

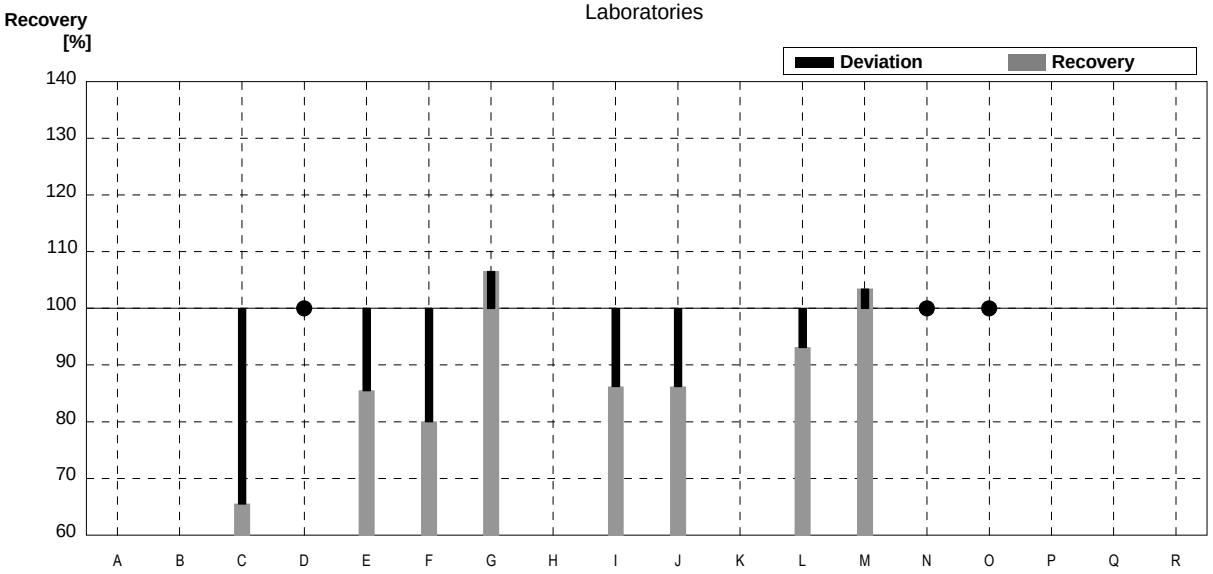
Sample C57A

Parameter trans-1,2-Dichloroethene

Target value	± U (k=2)	0,29	µg/l	±	0,03 µg/l
IFA result	± U (k=2)	0,28	µg/l	±	0,04 µg/l
Stability test	± U (k=2)	0,28	µg/l	±	0,04 µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B			µg/l		
C	0,19	0,05	µg/l	66%	-2,65
D	<2		µg/l	•	
E	0,248	0,037	µg/l	86%	-1,11
F	0,232	0,011	µg/l	80%	-1,54
G	0,309	0,062	µg/l	107%	0,50
H			µg/l		
I	0,25	0,05	µg/l	86%	-1,06
J	0,25	0,02	µg/l	86%	-1,06
K	not analyse		µg/l		
L	0,27	0,06	µg/l	93%	-0,53
M	0,30	0,03	µg/l	103%	0,27
N	<0,63		µg/l	•	
O	<0,5		µg/l	•	
P			µg/l		
Q			µg/l		
R			µg/l		





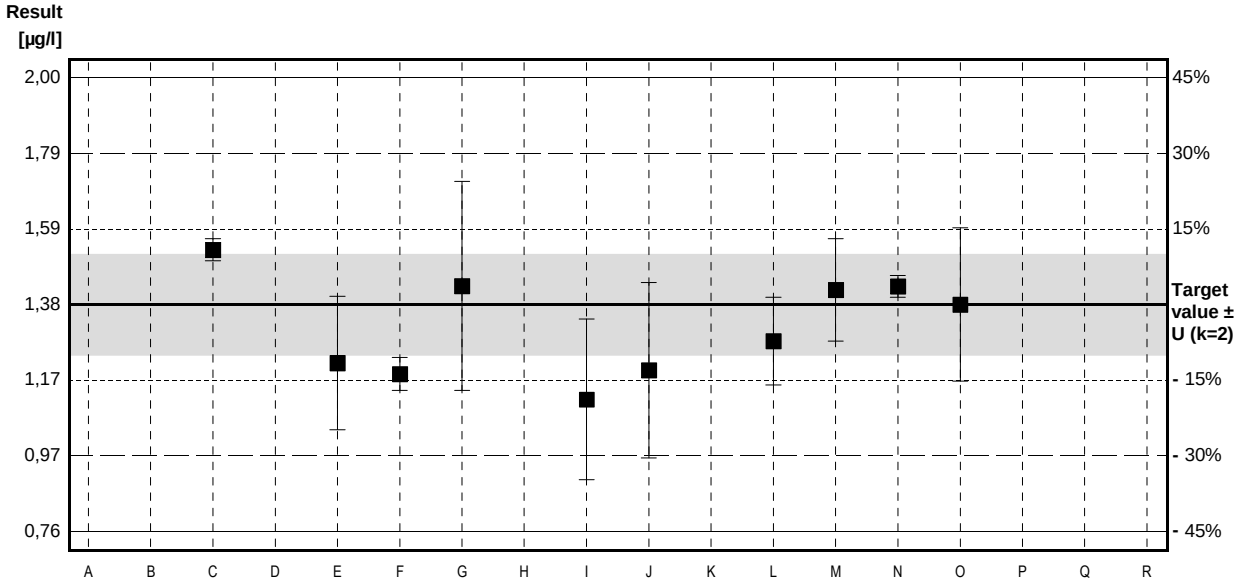
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,26 ± 0,05	0,26 ± 0,05	µg/l
Recov. ± CI(99%)	88,3 ± 16,1	88,3 ± 16,1	%
SD between labs	0,04	0,04	µg/l
RSD between labs	14,8	14,8	%
n for calculation	8	8	

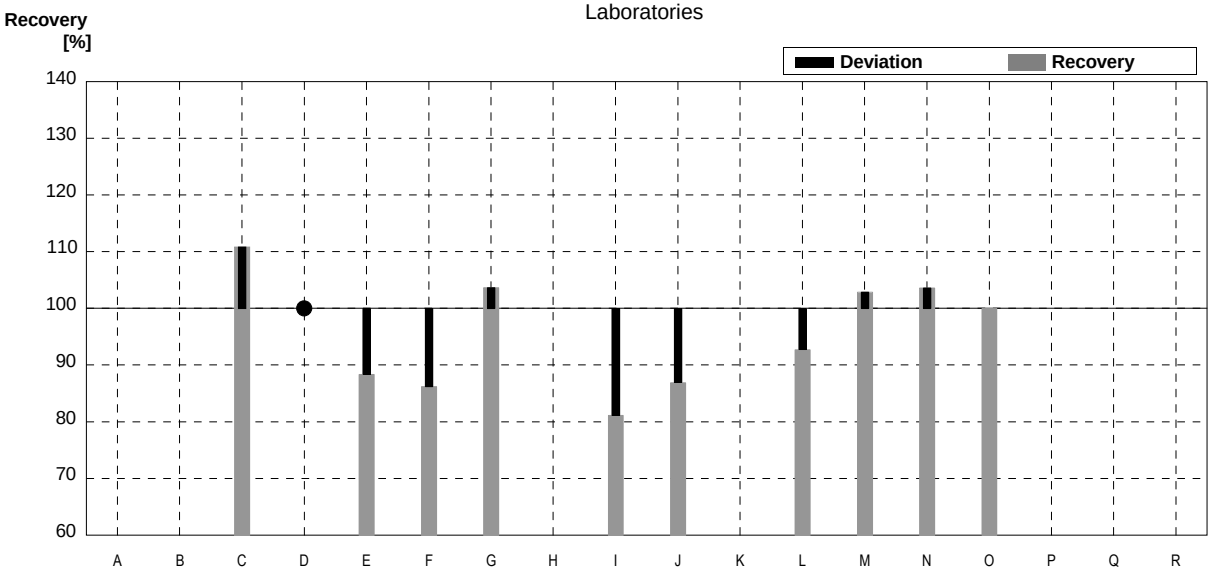
Sample C57B

Parameter trans-1,2-Dichloroethene

Target value ± U (k=2)	1,38	µg/l	±	0,14	µg/l
IFA result ± U (k=2)	1,33	µg/l	±	0,20	µg/l
Stability test ± U (k=2)	1,30	µg/l	±	0,20	µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B			µg/l		
C	1,53	0,03	µg/l	111%	0,84
D	<2		µg/l	•	
E	1,22	0,183	µg/l	88%	-0,89
F	1,19	0,045	µg/l	86%	-1,06
G	1,431	0,286	µg/l	104%	0,28
H			µg/l		
I	1,12	0,22	µg/l	81%	-1,45
J	1,20	0,24	µg/l	87%	-1,00
K	not analyse		µg/l		
L	1,28	0,12	µg/l	93%	-0,56
M	1,42	0,14	µg/l	103%	0,22
N	1,43	0,03	µg/l	104%	0,28
O	1,38	0,21	µg/l	100%	0,00
P			µg/l		
Q			µg/l		
R			µg/l		





	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,32 ± 0,14	1,32 ± 0,14	µg/l
Recov. ± CI(99%)	95,7 ± 10,2	95,7 ± 10,2	%
SD between labs	0,14	0,14	µg/l
RSD between labs	10,3	10,3	%
n for calculation	10	10	

Illustration of Results
Laboratory Oriented Part

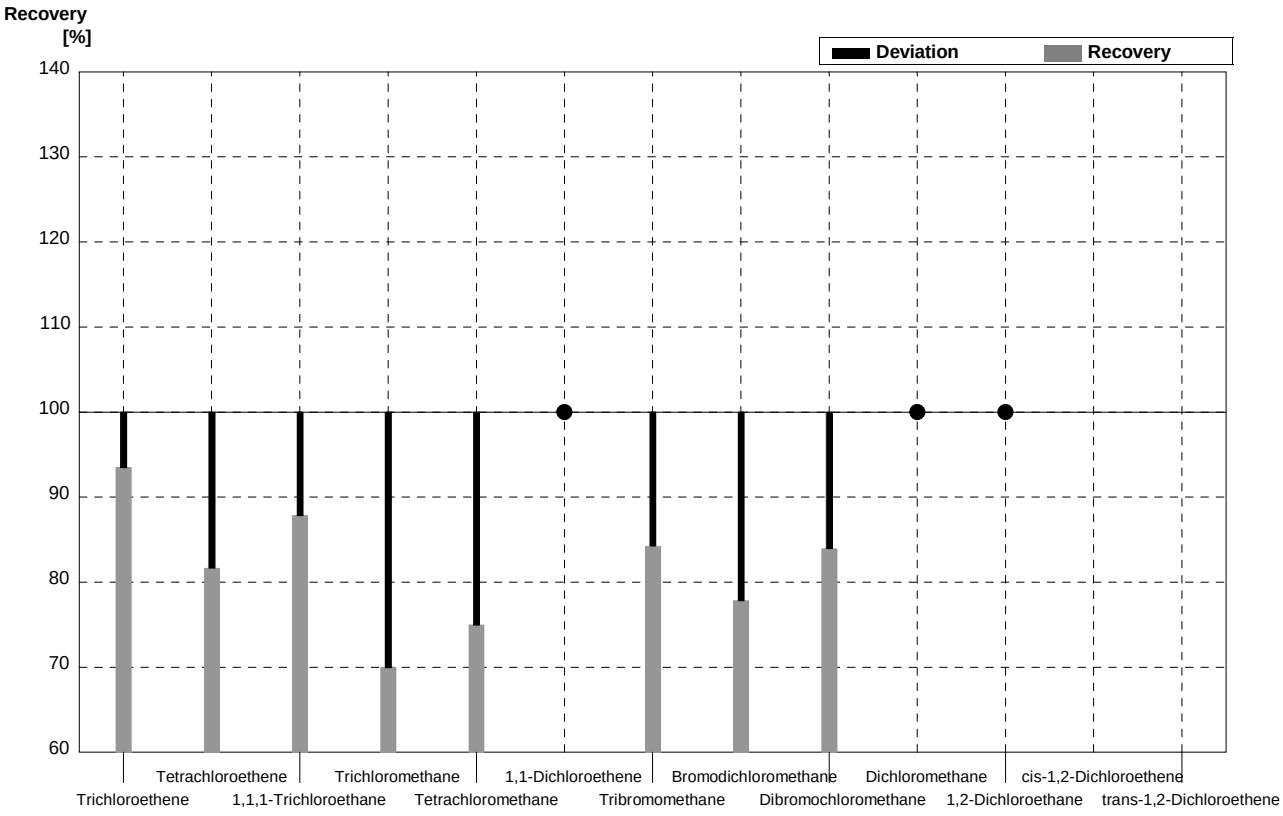
Round C57
Volatile Halogenated Hydrocarbons

Sample Dispatch: 3 April 2017

IFA
TULLN

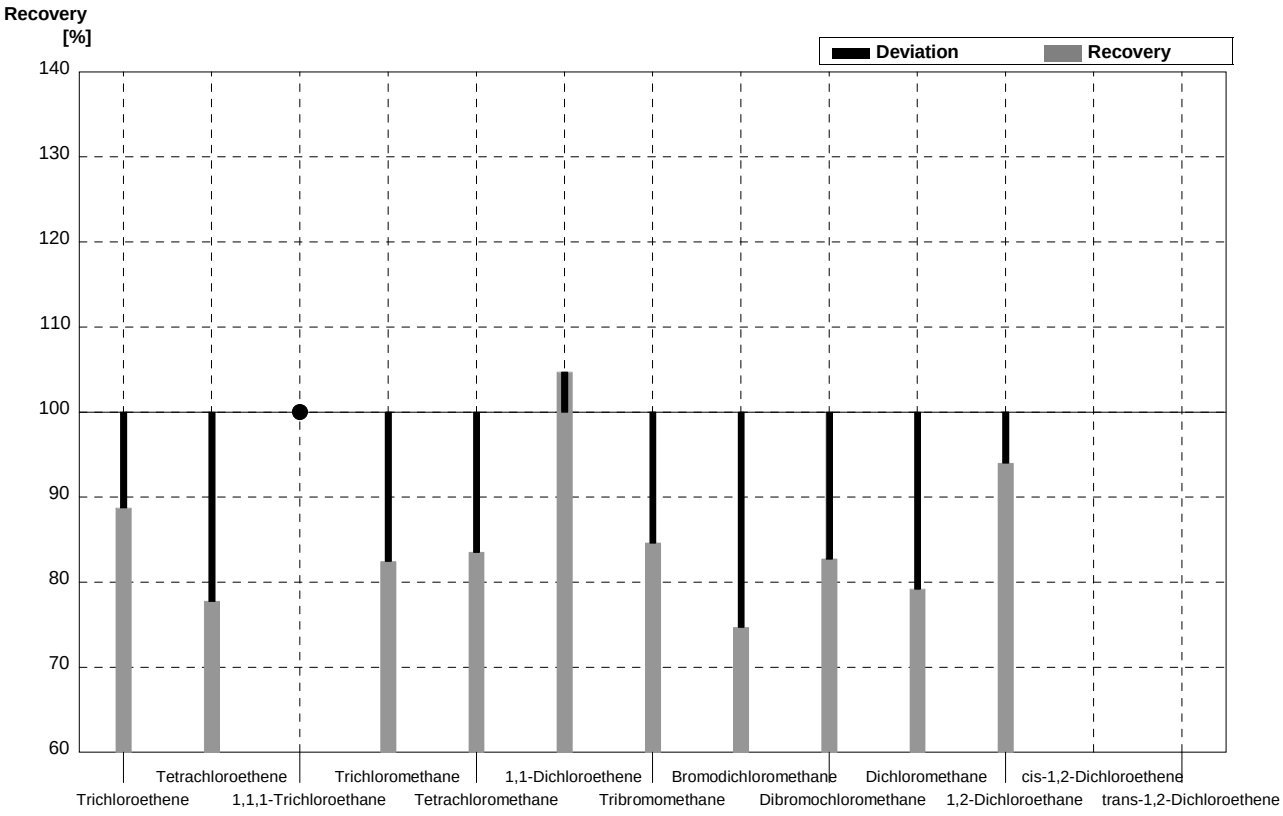
Sample C57A
Laboratory A

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,87	0,4	µg/l	94%
Tetrachloroethene	1,20	0,12	0,98	0,2	µg/l	82%
1,1,1-Trichloroethane	1,07	0,11	0,94	0,2	µg/l	88%
Trichloromethane	0,50	0,05	0,35	0,1	µg/l	70%
Tetrachloromethane	0,40	0,04	0,30	0,1	µg/l	75%
1,1-Dichloroethene	<0,2		<0,2		µg/l	•
Tribromomethane	1,08	0,11	0,91	0,2	µg/l	84%
Bromodichloromethane	1,58	0,16	1,23	0,2	µg/l	78%
Dibromochloromethane	1,87	0,19	1,57	0,3	µg/l	84%
Dichloromethane	2,68	0,27	<3		µg/l	•
1,2-Dichloroethane	0,89	0,09	<0,9		µg/l	•
cis-1,2-Dichloroethene	0,65	0,07			µg/l	
trans-1,2-Dichloroethene	0,29	0,03			µg/l	



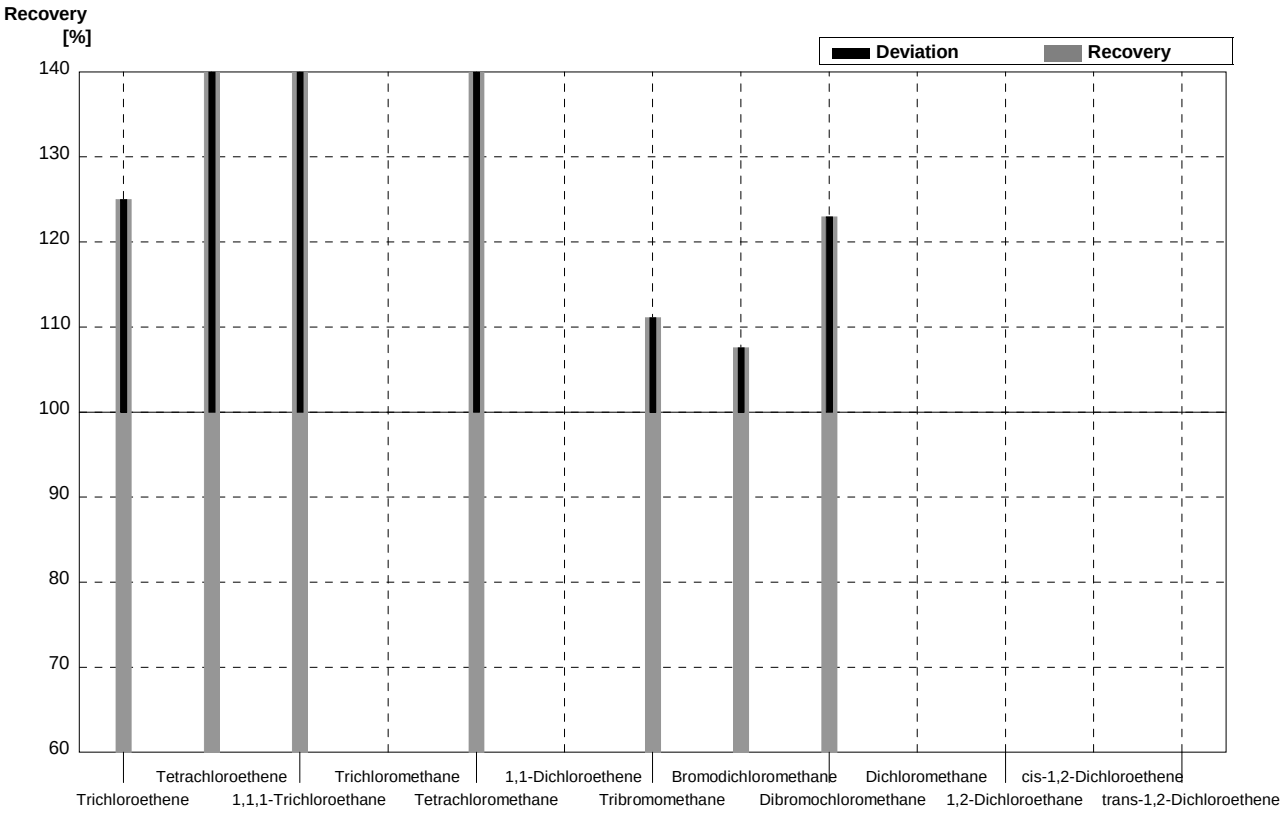
Sample C57B
Laboratory A

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,71	0,1	µg/l	89%
Tetrachloroethene	0,27	0,03	0,21	0,04	µg/l	78%
1,1,1-Trichloroethane	<0,08		<0,1		µg/l	•
Trichloromethane	2,28	0,23	1,88	0,5	µg/l	82%
Tetrachloromethane	0,91	0,09	0,76	0,2	µg/l	84%
1,1-Dichloroethene	4,24	0,42	4,44	1,1	µg/l	105%
Tribromomethane	1,82	0,18	1,54	0,4	µg/l	85%
Bromodichloromethane	0,87	0,09	0,65	0,1	µg/l	75%
Dibromochloromethane	1,39	0,14	1,15	0,3	µg/l	83%
Dichloromethane	6,44	0,64	5,1	1,3	µg/l	79%
1,2-Dichloroethane	2,17	0,22	2,04	0,5	µg/l	94%
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	1,38	0,14			µg/l	



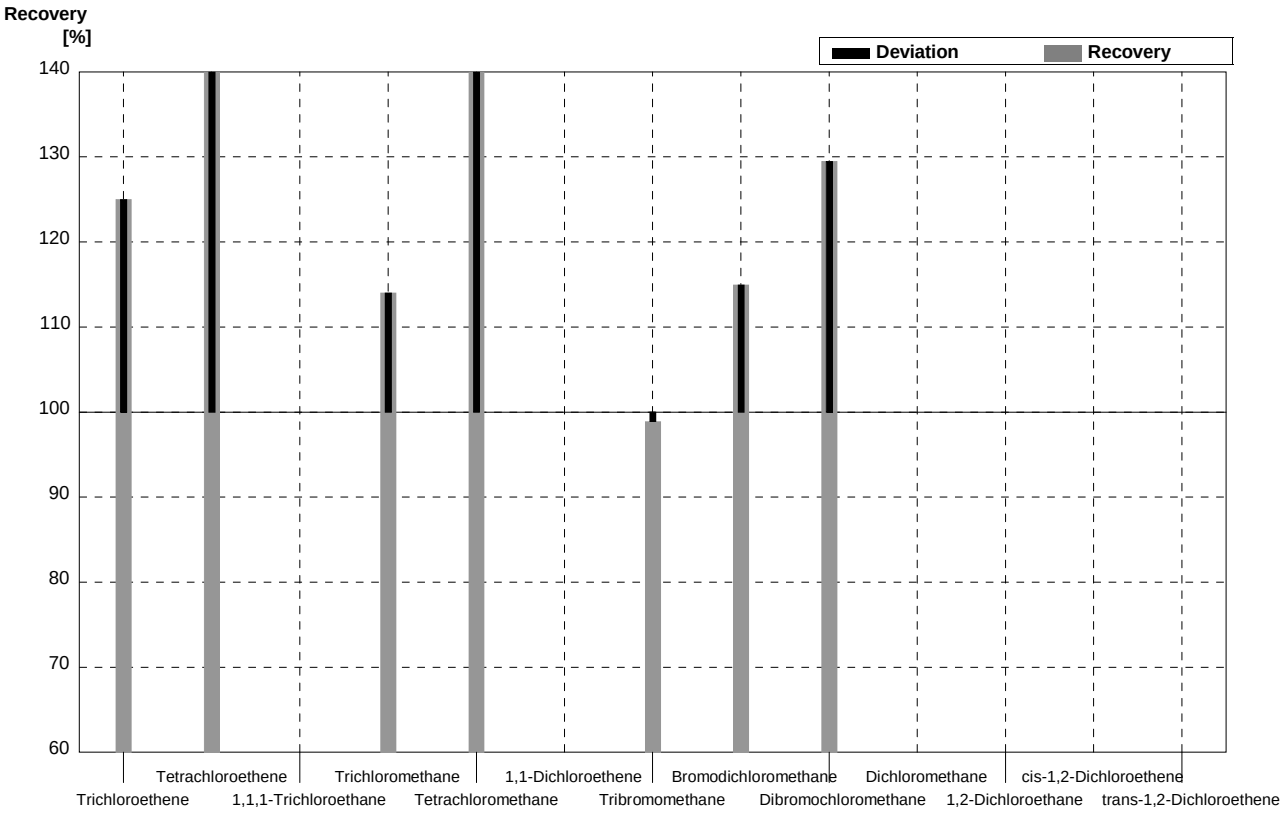
Sample C57A
Laboratory B

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	2,5		µg/l	125%
Tetrachloroethene	1,20	0,12	2,1		µg/l	175%
1,1,1-Trichloroethane	1,07	0,11	1,8		µg/l	168%
Trichloromethane	0,50	0,05			µg/l	
Tetrachloromethane	0,40	0,04	0,7		µg/l	175%
1,1-Dichloroethene	<0,2				µg/l	
Tribromomethane	1,08	0,11	1,2		µg/l	111%
Bromodichloromethane	1,58	0,16	1,7		µg/l	108%
Dibromochloromethane	1,87	0,19	2,3		µg/l	123%
Dichloromethane	2,68	0,27			µg/l	
1,2-Dichloroethane	0,89	0,09			µg/l	
cis-1,2-Dichloroethene	0,65	0,07			µg/l	
trans-1,2-Dichloroethene	0,29	0,03			µg/l	



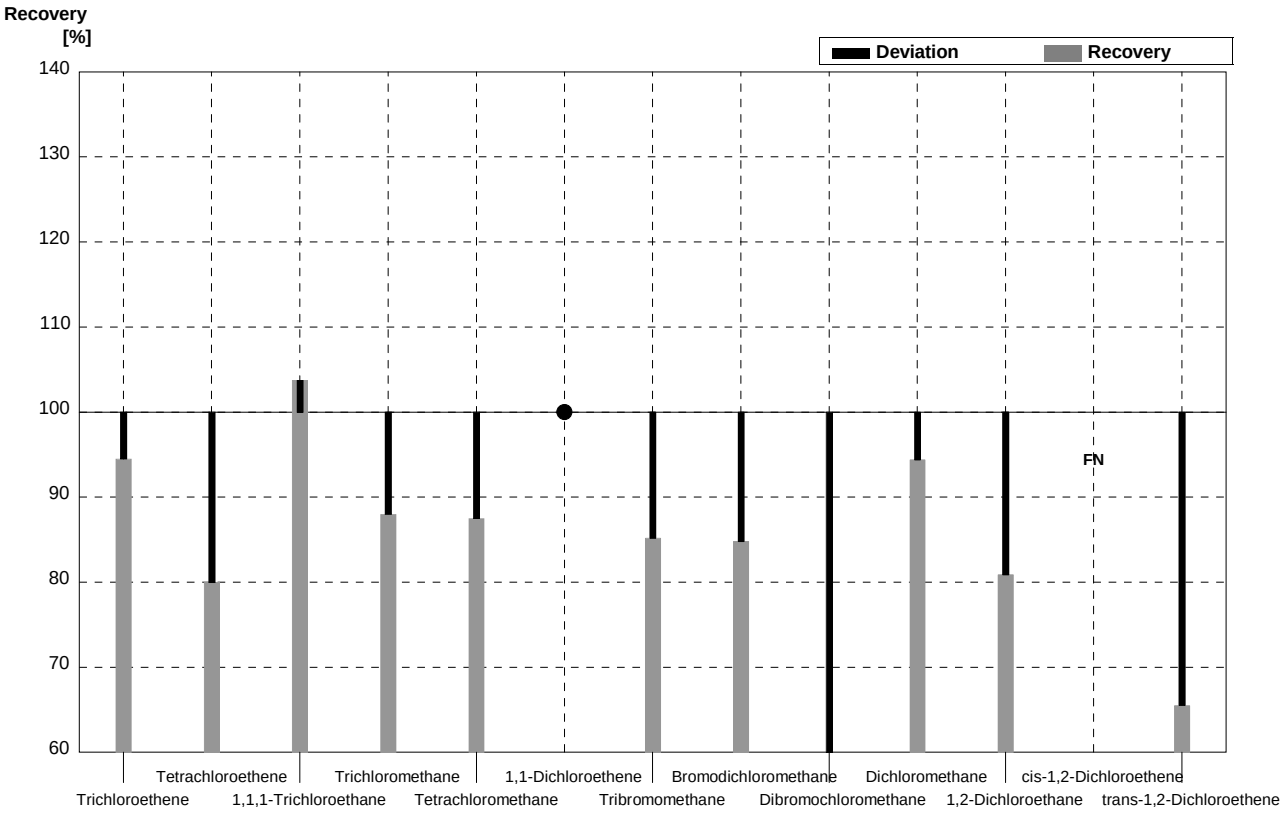
Sample C57B
Laboratory B

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	1,0		µg/l	125%
Tetrachloroethene	0,27	0,03	0,5		µg/l	185%
1,1,1-Trichloroethane	<0,08				µg/l	
Trichloromethane	2,28	0,23	2,6		µg/l	114%
Tetrachloromethane	0,91	0,09	1,4		µg/l	154%
1,1-Dichloroethene	4,24	0,42			µg/l	
Tribromomethane	1,82	0,18	1,8		µg/l	99%
Bromodichloromethane	0,87	0,09	1,0		µg/l	115%
Dibromochloromethane	1,39	0,14	1,8		µg/l	129%
Dichloromethane	6,44	0,64			µg/l	
1,2-Dichloroethane	2,17	0,22			µg/l	
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	1,38	0,14			µg/l	



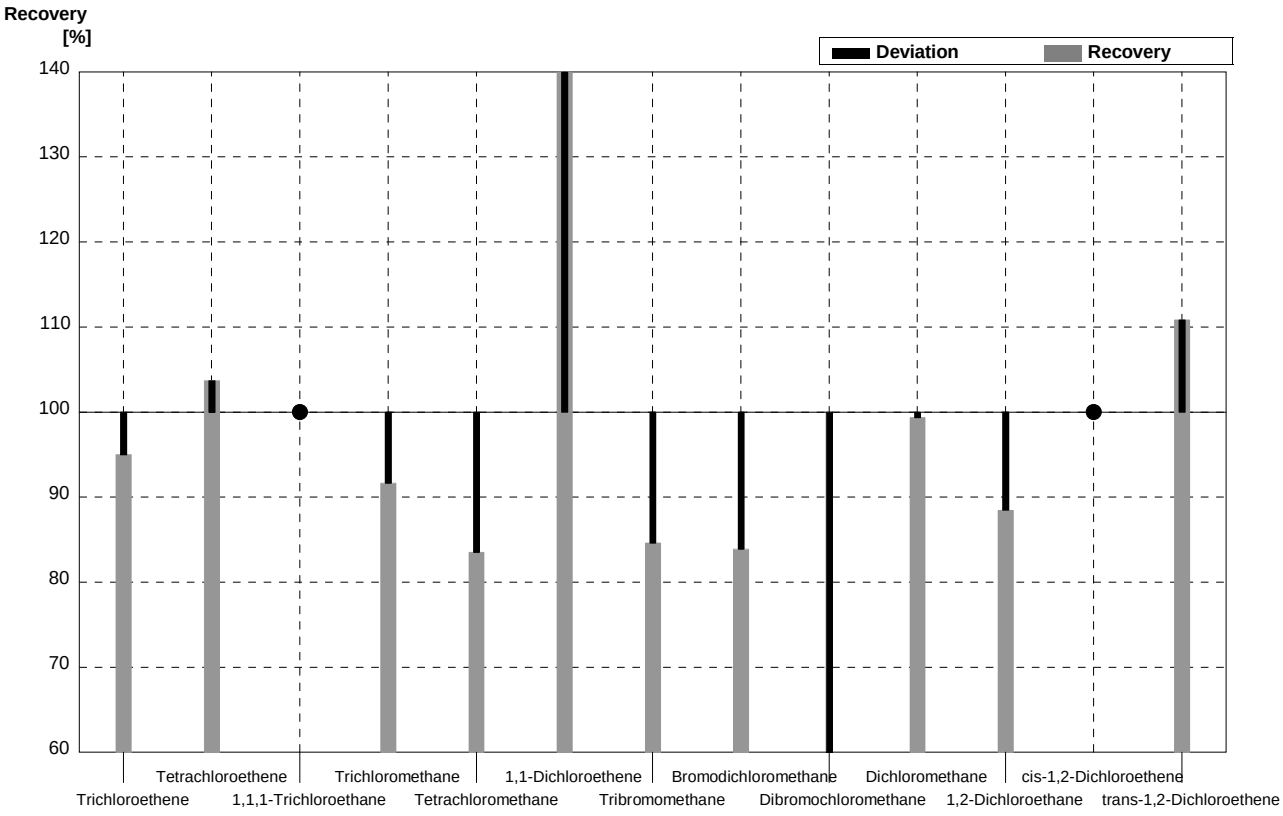
Sample C57A
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,89	0,13	µg/l	95%
Tetrachloroethene	1,20	0,12	0,96	0,08	µg/l	80%
1,1,1-Trichloroethane	1,07	0,11	1,11	0,10	µg/l	104%
Trichloromethane	0,50	0,05	0,44	0,07	µg/l	88%
Tetrachloromethane	0,40	0,04	0,35	0,03	µg/l	88%
1,1-Dichloroethene	<0,2		<0,05		µg/l	•
Tribromomethane	1,08	0,11	0,92	0,05	µg/l	85%
Bromodichloromethane	1,58	0,16	1,34	0,07	µg/l	85%
Dibromochloromethane	1,87	0,19	0,52	0,03	µg/l	28%
Dichloromethane	2,68	0,27	2,53	0,29	µg/l	94%
1,2-Dichloroethane	0,89	0,09	0,72	0,03	µg/l	81%
cis-1,2-Dichloroethene	0,65	0,07	<0,05		µg/l	FN
trans-1,2-Dichloroethene	0,29	0,03	0,19	0,05	µg/l	66%



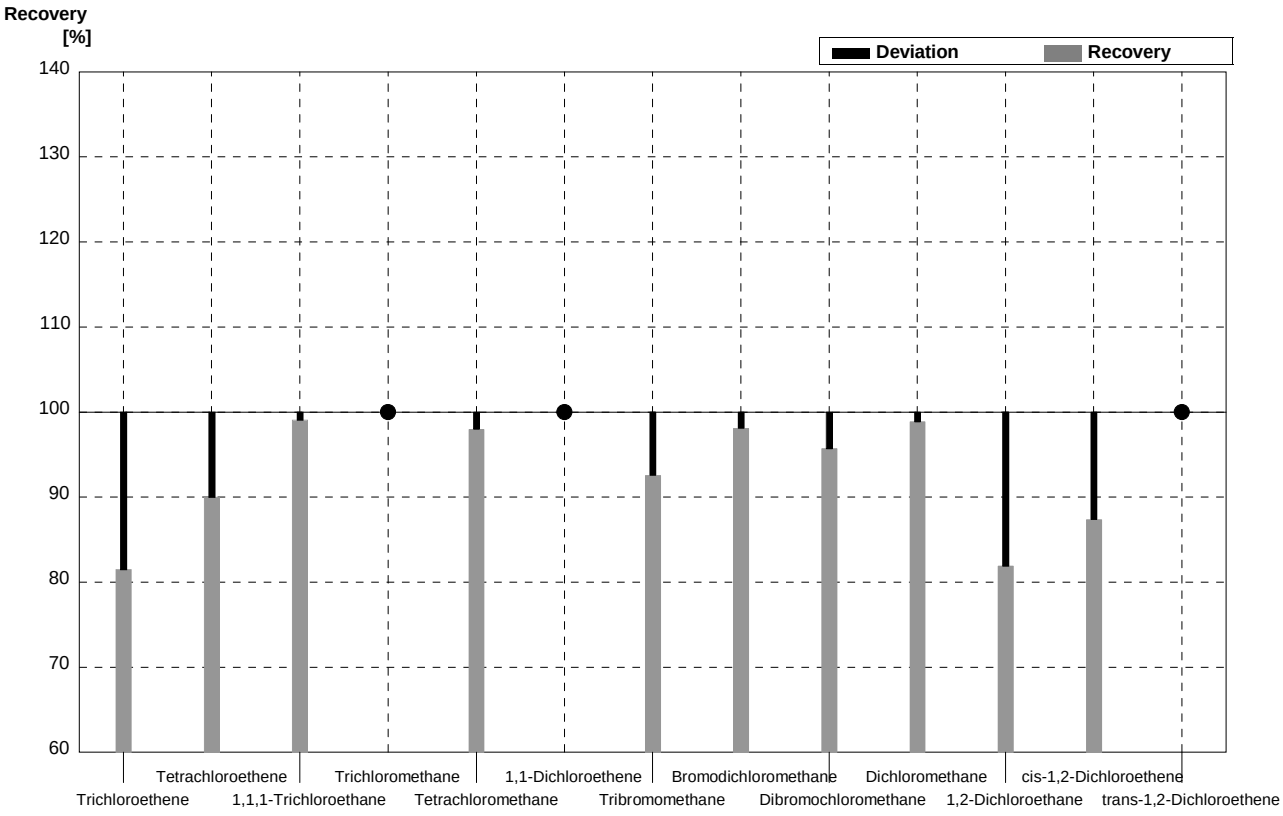
Sample C57B
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,76	0,04	µg/l	95%
Tetrachloroethene	0,27	0,03	0,28	0,01	µg/l	104%
1,1,1-Trichloroethane	<0,08		<0,05		µg/l	•
Trichloromethane	2,28	0,23	2,09	0,09	µg/l	92%
Tetrachloromethane	0,91	0,09	0,76	0,05	µg/l	84%
1,1-Dichloroethene	4,24	0,42	6,36	0,19	µg/l	150%
Tribromomethane	1,82	0,18	1,54	0,05	µg/l	85%
Bromodichloromethane	0,87	0,09	0,73	0,03	µg/l	84%
Dibromochloromethane	1,39	0,14	0,39	0,02	µg/l	28%
Dichloromethane	6,44	0,64	6,40	0,16	µg/l	99%
1,2-Dichloroethane	2,17	0,22	1,92	0,08	µg/l	88%
cis-1,2-Dichloroethene	<0,06		<0,05		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,53	0,03	µg/l	111%



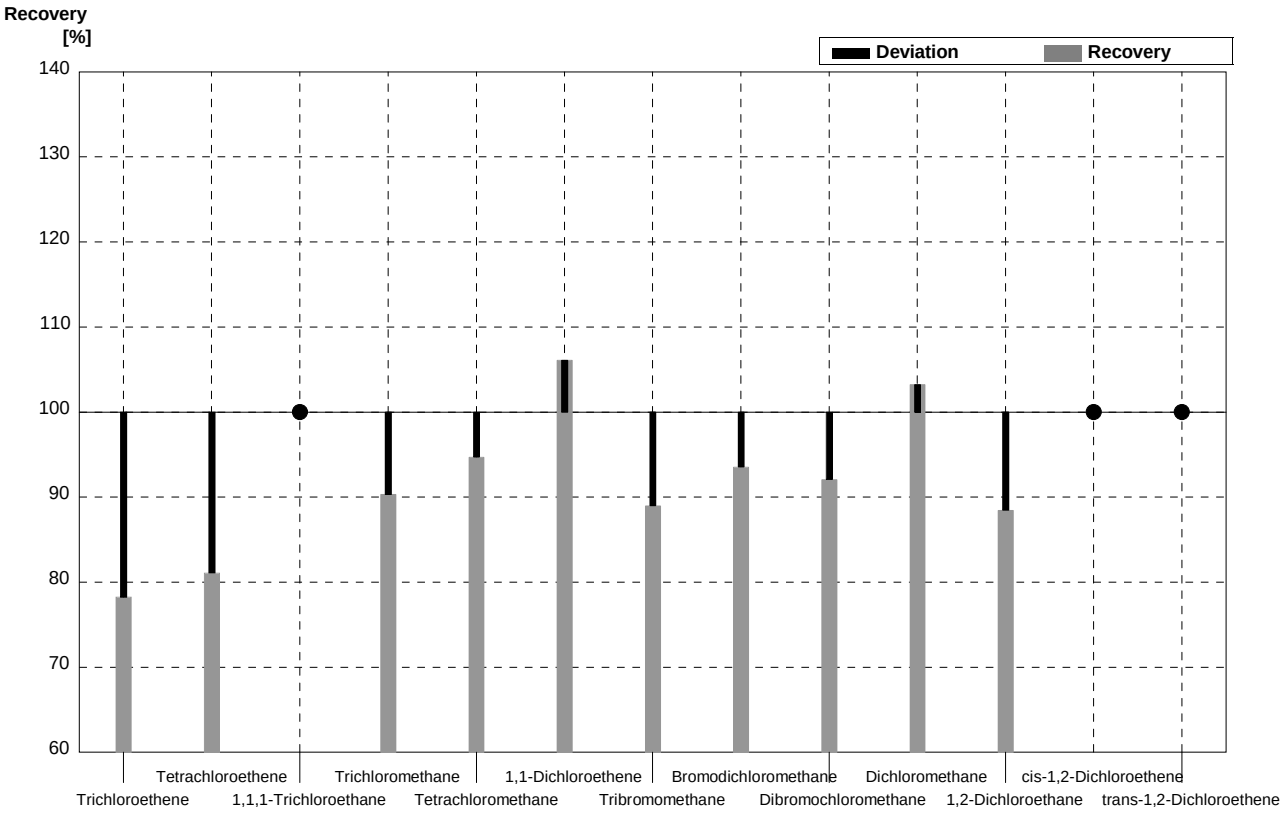
Sample C57A
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,63	0,183	µg/l	82%
Tetrachloroethene	1,20	0,12	1,08	0,0824	µg/l	90%
1,1,1-Trichloroethane	1,07	0,11	1,06	0,207	µg/l	99%
Trichloromethane	0,50	0,05	<0,5		µg/l	•
Tetrachloromethane	0,40	0,04	0,392	0,0800	µg/l	98%
1,1-Dichloroethene	<0,2		<0,1		µg/l	•
Tribromomethane	1,08	0,11	1,00	0,157	µg/l	93%
Bromodichloromethane	1,58	0,16	1,55	0,246	µg/l	98%
Dibromochloromethane	1,87	0,19	1,79	0,201	µg/l	96%
Dichloromethane	2,68	0,27	2,65	0,615	µg/l	99%
1,2-Dichloroethane	0,89	0,09	0,729	0,313	µg/l	82%
cis-1,2-Dichloroethene	0,65	0,07	0,568	0,239	µg/l	87%
trans-1,2-Dichloroethene	0,29	0,03	<2		µg/l	•



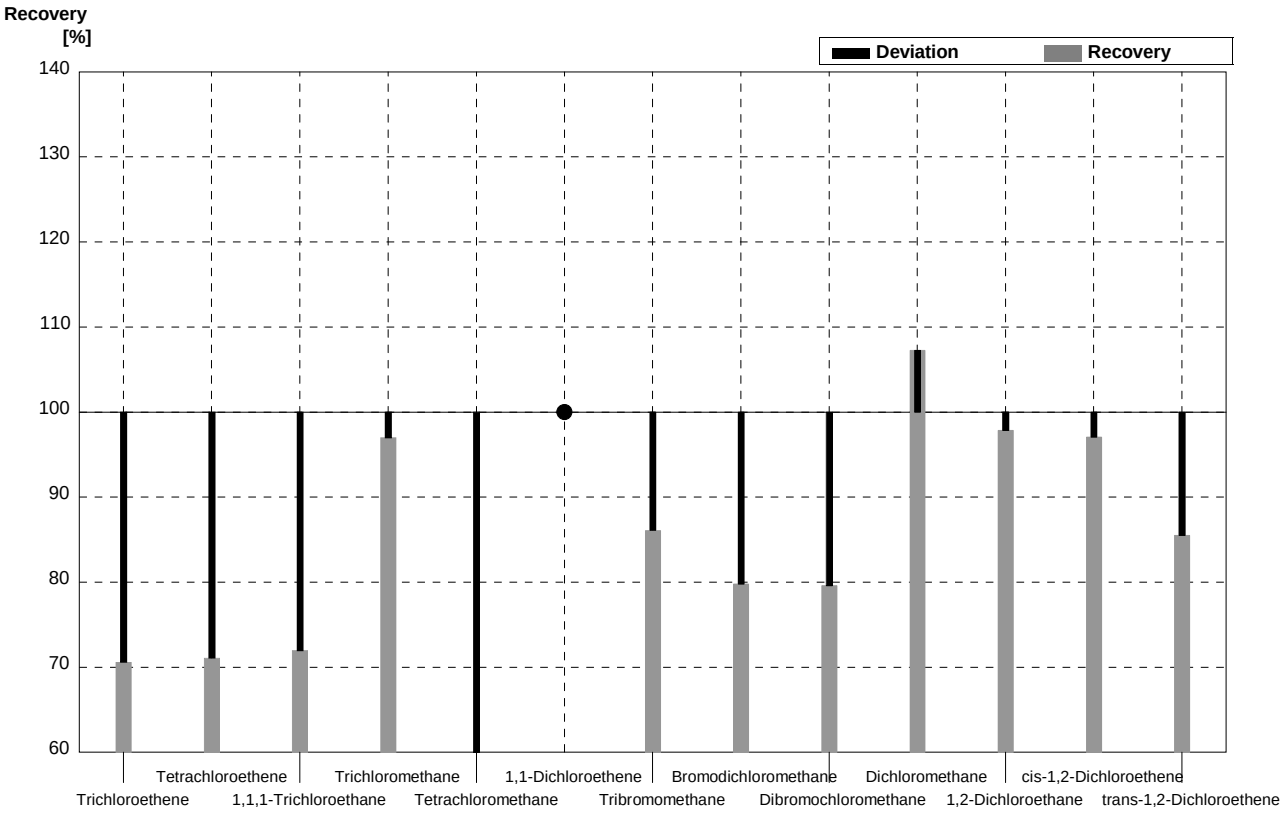
Sample C57B
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,626	0,0701	µg/l	78%
Tetrachloroethene	0,27	0,03	0,219	0,0330	µg/l	81%
1,1,1-Trichloroethane	<0,08		<0,05		µg/l	•
Trichloromethane	2,28	0,23	2,06	0,572	µg/l	90%
Tetrachloromethane	0,91	0,09	0,862	0,176	µg/l	95%
1,1-Dichloroethene	4,24	0,42	4,50	0,927	µg/l	106%
Tribromomethane	1,82	0,18	1,62	0,255	µg/l	89%
Bromodichloromethane	0,87	0,09	0,814	0,129	µg/l	94%
Dibromochloromethane	1,39	0,14	1,28	0,143	µg/l	92%
Dichloromethane	6,44	0,64	6,65	1,54	µg/l	103%
1,2-Dichloroethane	2,17	0,22	1,92	0,817	µg/l	88%
cis-1,2-Dichloroethene	<0,06		<0,5		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	<2		µg/l	•



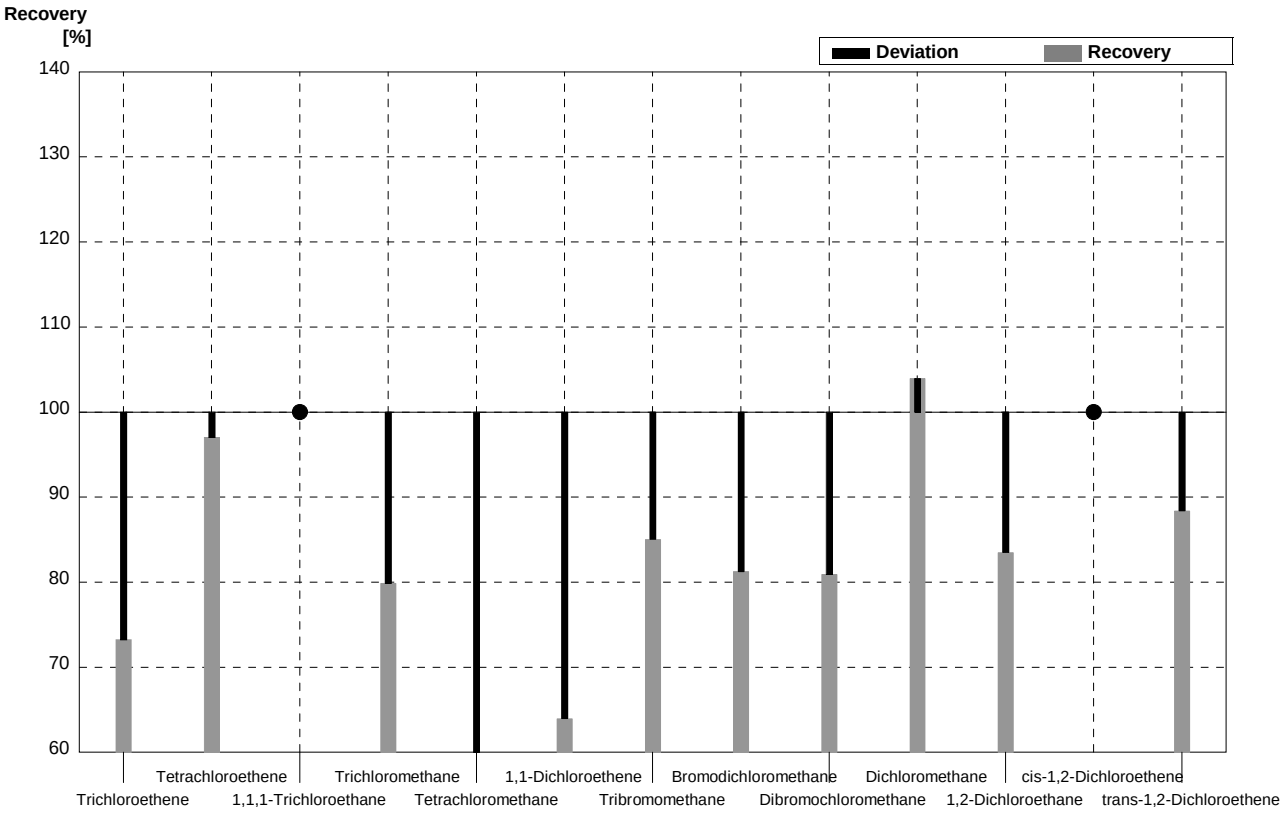
Sample C57A
Laboratory E

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,412	0,212	µg/l	71%
Tetrachloroethene	1,20	0,12	0,853	0,128	µg/l	71%
1,1,1-Trichloroethane	1,07	0,11	0,77	0,116	µg/l	72%
Trichloromethane	0,50	0,05	0,485	0,073	µg/l	97%
Tetrachloromethane	0,40	0,04	0,238	0,036	µg/l	60%
1,1-Dichloroethene	<0,2		<0,1		µg/l	•
Tribromomethane	1,08	0,11	0,93	0,140	µg/l	86%
Bromodichloromethane	1,58	0,16	1,261	0,189	µg/l	80%
Dibromochloromethane	1,87	0,19	1,489	0,223	µg/l	80%
Dichloromethane	2,68	0,27	2,875	0,431	µg/l	107%
1,2-Dichloroethane	0,89	0,09	0,871	0,131	µg/l	98%
cis-1,2-Dichloroethene	0,65	0,07	0,631	0,095	µg/l	97%
trans-1,2-Dichloroethene	0,29	0,03	0,248	0,037	µg/l	86%



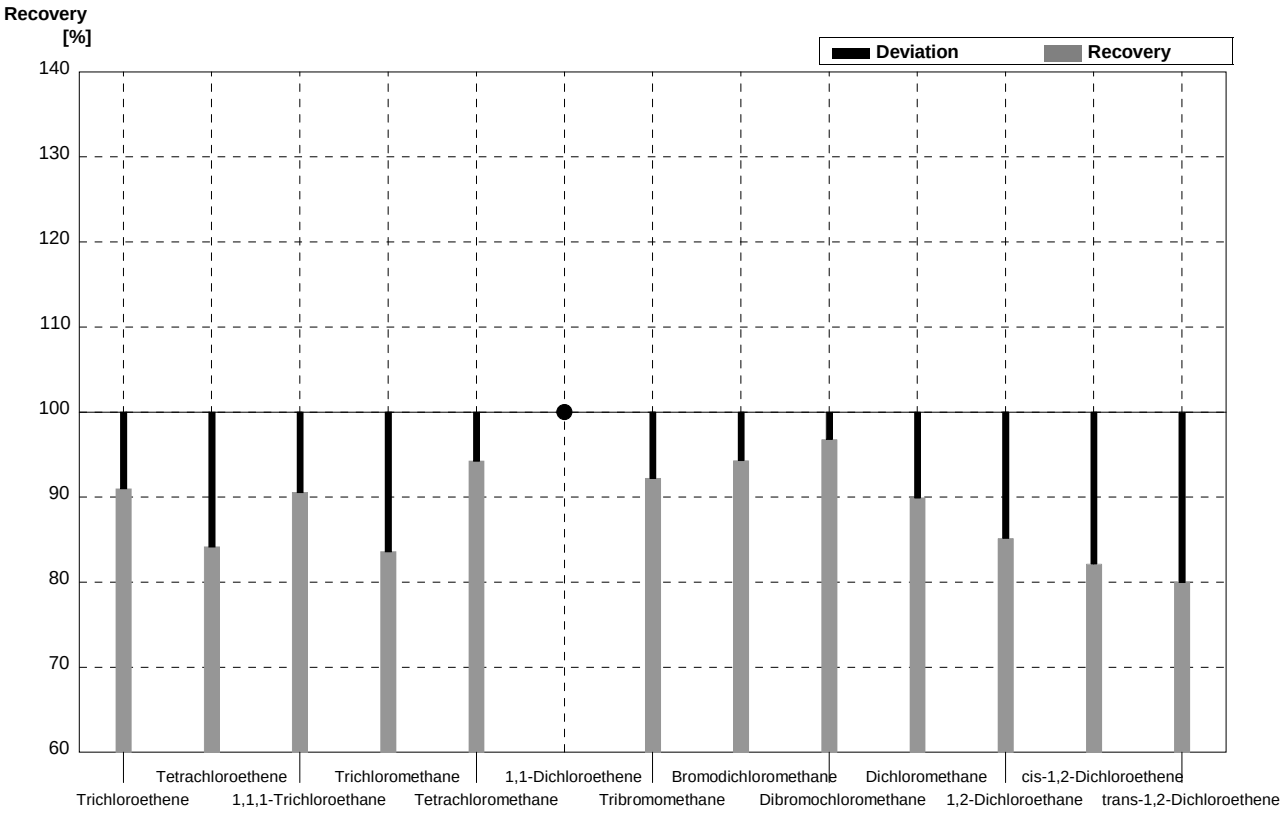
Sample C57B
Laboratory E

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,586	0,088	µg/l	73%
Tetrachloroethene	0,27	0,03	0,262	0,039	µg/l	97%
1,1,1-Trichloroethane	<0,08		<0,1		µg/l	•
Trichloromethane	2,28	0,23	1,821	0,273	µg/l	80%
Tetrachloromethane	0,91	0,09	0,545	0,082	µg/l	60%
1,1-Dichloroethene	4,24	0,42	2,713	0,407	µg/l	64%
Tribromomethane	1,82	0,18	1,548	0,232	µg/l	85%
Bromodichloromethane	0,87	0,09	0,707	0,106	µg/l	81%
Dibromochloromethane	1,39	0,14	1,125	0,169	µg/l	81%
Dichloromethane	6,44	0,64	6,695	1,004	µg/l	104%
1,2-Dichloroethane	2,17	0,22	1,812	0,272	µg/l	84%
cis-1,2-Dichloroethene	<0,06		<0,4		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,22	0,183	µg/l	88%



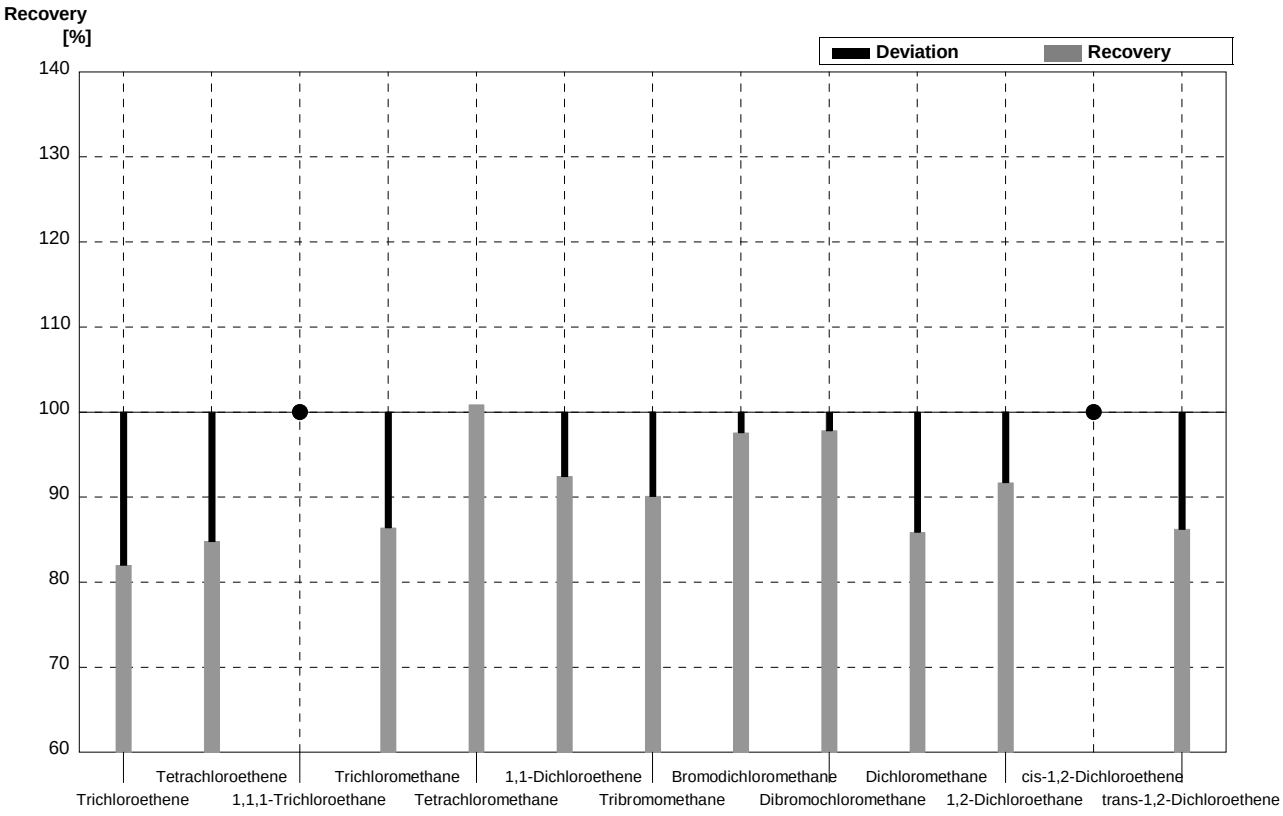
Sample C57A
Laboratory F

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,82	0,176	µg/l	91%
Tetrachloroethene	1,20	0,12	1,01	0,059	µg/l	84%
1,1,1-Trichloroethane	1,07	0,11	0,969	0,042	µg/l	91%
Trichloromethane	0,50	0,05	0,418	0,008	µg/l	84%
Tetrachloromethane	0,40	0,04	0,377	0,021	µg/l	94%
1,1-Dichloroethene	<0,2		<0,050		µg/l	•
Tribromomethane	1,08	0,11	0,996	0,040	µg/l	92%
Bromodichloromethane	1,58	0,16	1,49	0,091	µg/l	94%
Dibromochloromethane	1,87	0,19	1,81	0,052	µg/l	97%
Dichloromethane	2,68	0,27	2,41	0,087	µg/l	90%
1,2-Dichloroethane	0,89	0,09	0,758	0,091	µg/l	85%
cis-1,2-Dichloroethene	0,65	0,07	0,534	0,090	µg/l	82%
trans-1,2-Dichloroethene	0,29	0,03	0,232	0,011	µg/l	80%



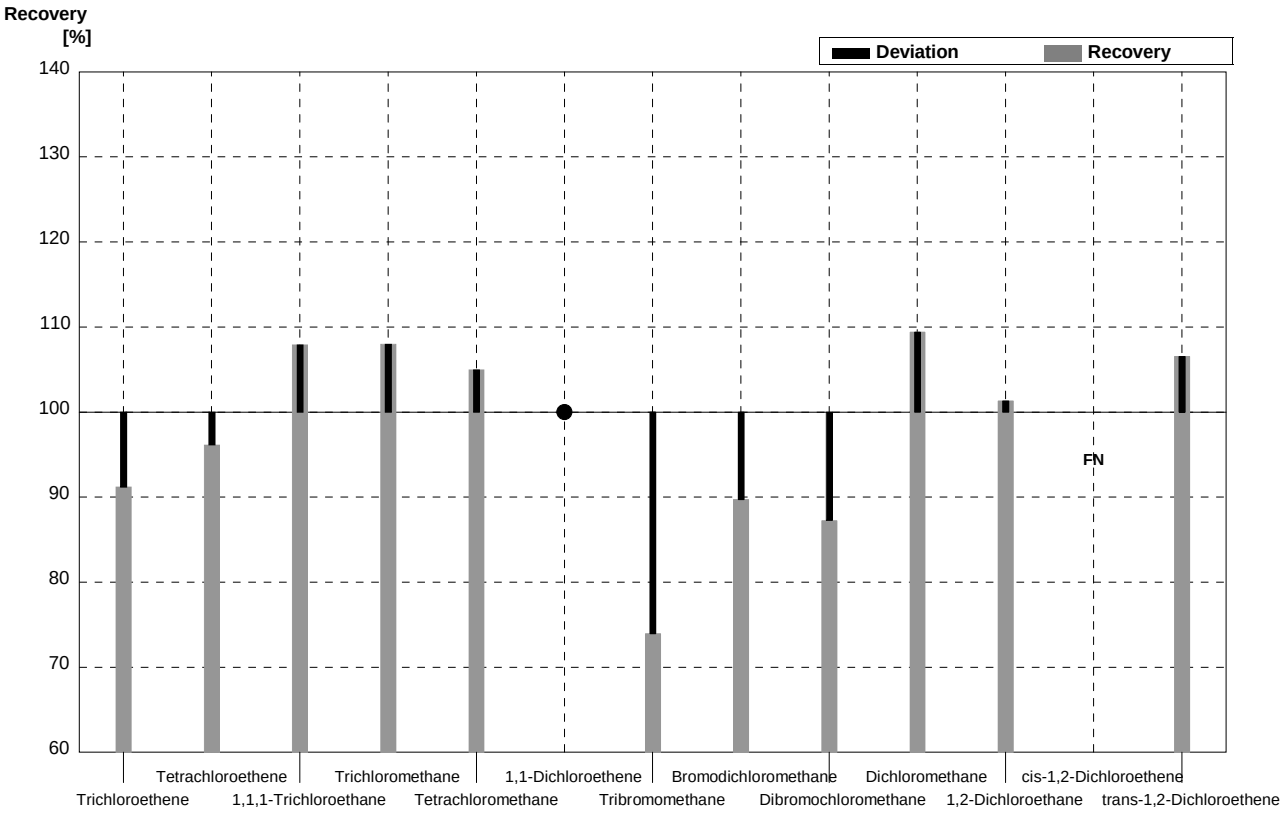
Sample C57B
Laboratory F

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,656	0,015	µg/l	82%
Tetrachloroethene	0,27	0,03	0,229	0,010	µg/l	85%
1,1,1-Trichloroethane	<0,08		[0,008]		µg/l	•
Trichloromethane	2,28	0,23	1,97	0,085	µg/l	86%
Tetrachloromethane	0,91	0,09	0,918	0,027	µg/l	101%
1,1-Dichloroethene	4,24	0,42	3,92	0,140	µg/l	92%
Tribromomethane	1,82	0,18	1,64	0,041	µg/l	90%
Bromodichloromethane	0,87	0,09	0,849	0,098	µg/l	98%
Dibromochloromethane	1,39	0,14	1,36	0,054	µg/l	98%
Dichloromethane	6,44	0,64	5,53	0,202	µg/l	86%
1,2-Dichloroethane	2,17	0,22	1,99	0,117	µg/l	92%
cis-1,2-Dichloroethene	<0,06		[0,012]		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,19	0,045	µg/l	86%



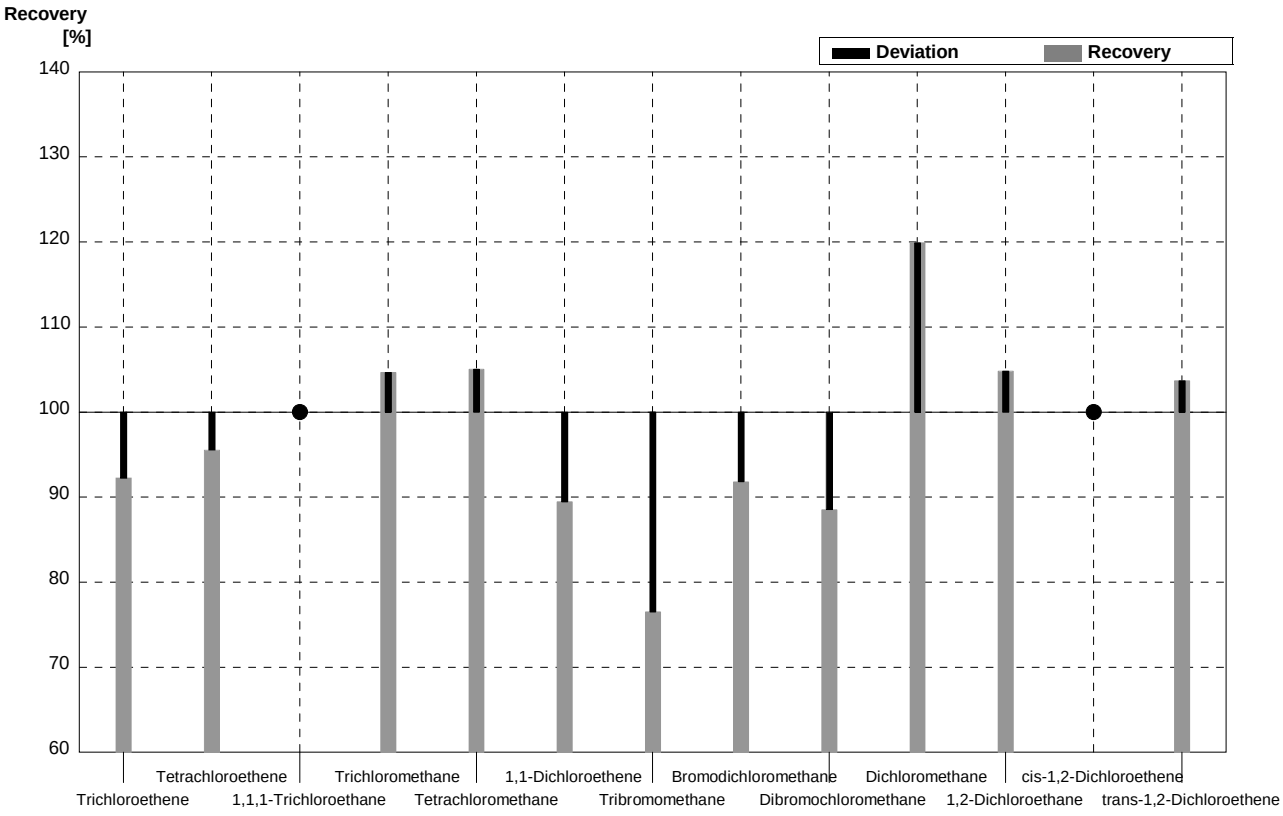
Sample C57A
Laboratory G

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,824	0,365	µg/l	91%
Tetrachloroethene	1,20	0,12	1,154	0,242	µg/l	96%
1,1,1-Trichloroethane	1,07	0,11	1,155	0,231	µg/l	108%
Trichloromethane	0,50	0,05	0,540	0,097	µg/l	108%
Tetrachloromethane	0,40	0,04	0,420	0,088	µg/l	105%
1,1-Dichloroethene	<0,2		0,026	0,006	µg/l	•
Tribromomethane	1,08	0,11	0,799	0,216	µg/l	74%
Bromodichloromethane	1,58	0,16	1,418	0,284	µg/l	90%
Dibromochloromethane	1,87	0,19	1,632	0,441	µg/l	87%
Dichloromethane	2,68	0,27	2,932	0,557	µg/l	109%
1,2-Dichloroethane	0,89	0,09	0,902	0,208	µg/l	101%
cis-1,2-Dichloroethene	0,65	0,07	<0,020		µg/l	FN
trans-1,2-Dichloroethene	0,29	0,03	0,309	0,062	µg/l	107%



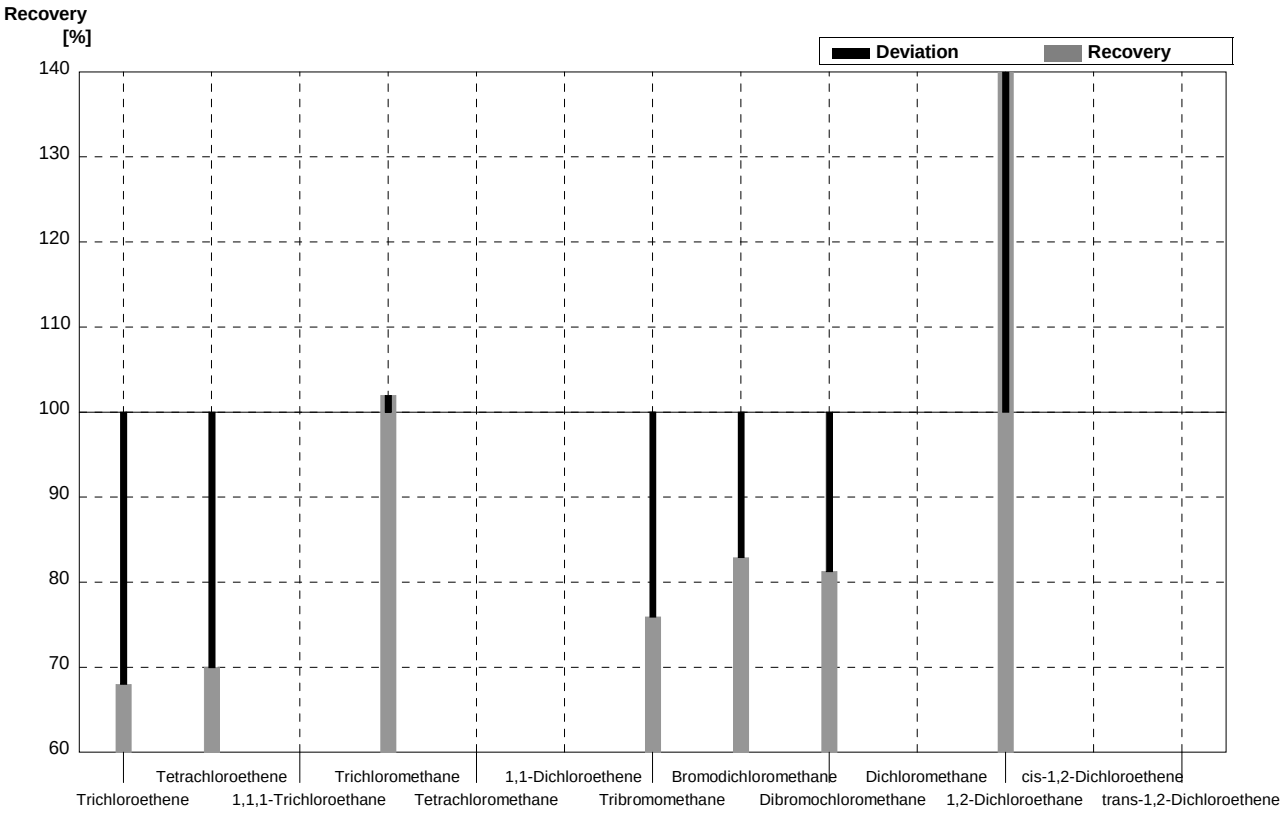
Sample C57B
Laboratory G

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,738	0,148	µg/l	92%
Tetrachloroethene	0,27	0,03	0,258	0,054	µg/l	96%
1,1,1-Trichloroethane	<0,08		<0,020		µg/l	•
Trichloromethane	2,28	0,23	2,387	0,430	µg/l	105%
Tetrachloromethane	0,91	0,09	0,956	0,201	µg/l	105%
1,1-Dichloroethene	4,24	0,42	3,794	0,873	µg/l	89%
Tribromomethane	1,82	0,18	1,393	0,376	µg/l	77%
Bromodichloromethane	0,87	0,09	0,799	0,160	µg/l	92%
Dibromochloromethane	1,39	0,14	1,231	0,332	µg/l	89%
Dichloromethane	6,44	0,64	7,724	1,468	µg/l	120%
1,2-Dichloroethane	2,17	0,22	2,275	0,523	µg/l	105%
cis-1,2-Dichloroethene	<0,06		<0,020		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,431	0,286	µg/l	104%



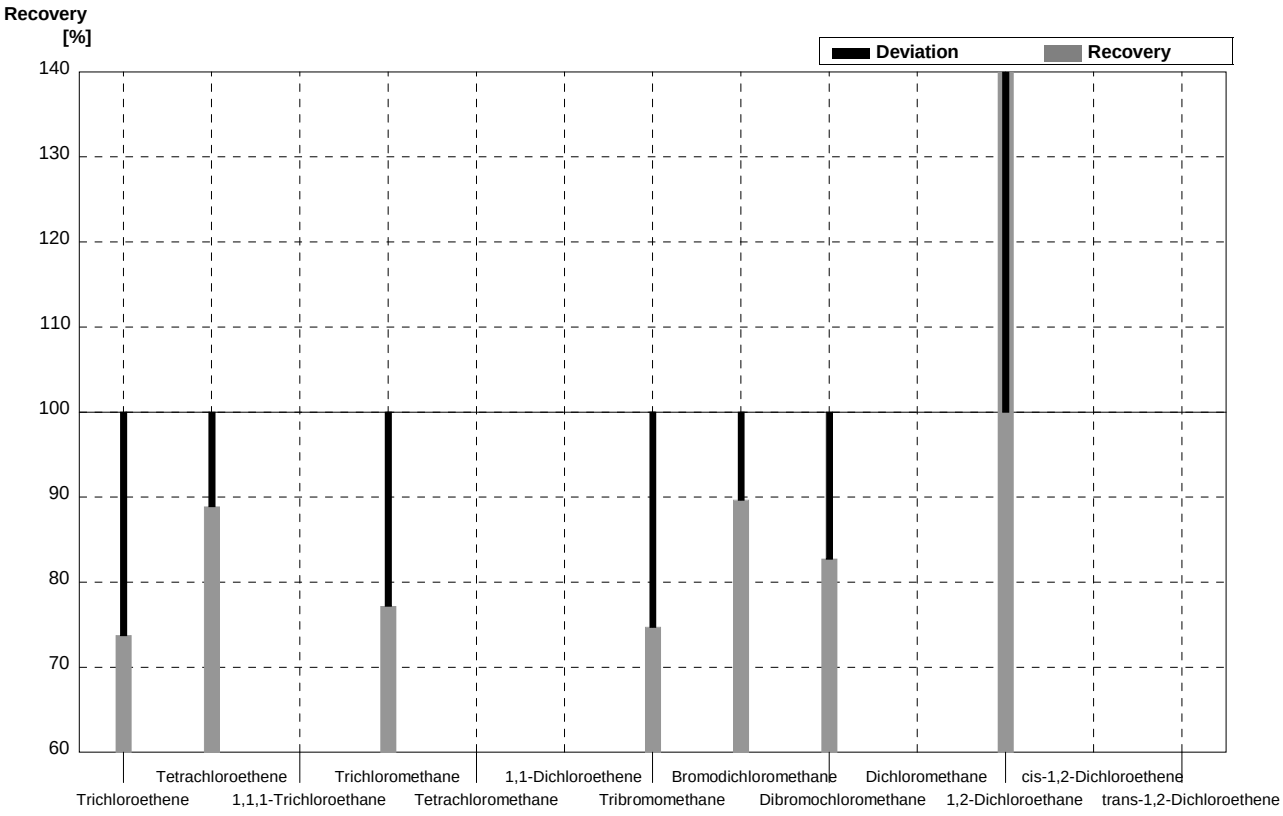
Sample C57A
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,36	0,19	µg/l	68%
Tetrachloroethene	1,20	0,12	0,84	0,12	µg/l	70%
1,1,1-Trichloroethane	1,07	0,11			µg/l	
Trichloromethane	0,50	0,05	0,51	0,07	µg/l	102%
Tetrachloromethane	0,40	0,04			µg/l	
1,1-Dichloroethene	<0,2				µg/l	
Tribromomethane	1,08	0,11	0,82	0,11	µg/l	76%
Bromodichloromethane	1,58	0,16	1,31	0,18	µg/l	83%
Dibromochloromethane	1,87	0,19	1,52	0,21	µg/l	81%
Dichloromethane	2,68	0,27			µg/l	
1,2-Dichloroethane	0,89	0,09	2,76	0,39	µg/l	310%
cis-1,2-Dichloroethene	0,65	0,07			µg/l	
trans-1,2-Dichloroethene	0,29	0,03			µg/l	



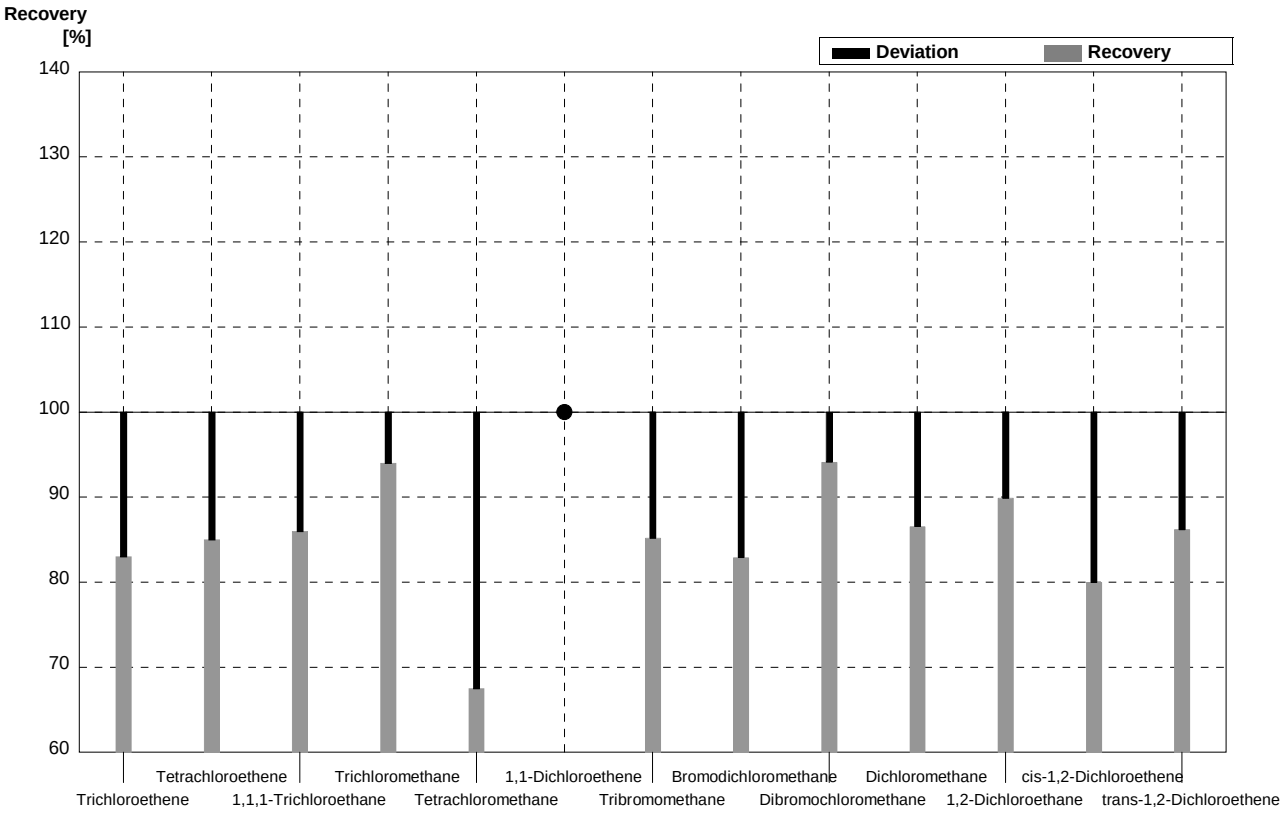
Sample C57B
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,59	0,08	µg/l	74%
Tetrachloroethene	0,27	0,03	0,24	0,03	µg/l	89%
1,1,1-Trichloroethane	<0,08				µg/l	
Trichloromethane	2,28	0,23	1,76	0,25	µg/l	77%
Tetrachloromethane	0,91	0,09			µg/l	
1,1-Dichloroethene	4,24	0,42			µg/l	
Tribromomethane	1,82	0,18	1,36	0,19	µg/l	75%
Bromodichloromethane	0,87	0,09	0,78	0,11	µg/l	90%
Dibromochloromethane	1,39	0,14	1,15	0,16	µg/l	83%
Dichloromethane	6,44	0,64			µg/l	
1,2-Dichloroethane	2,17	0,22	6,54	0,92	µg/l	301%
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	1,38	0,14			µg/l	



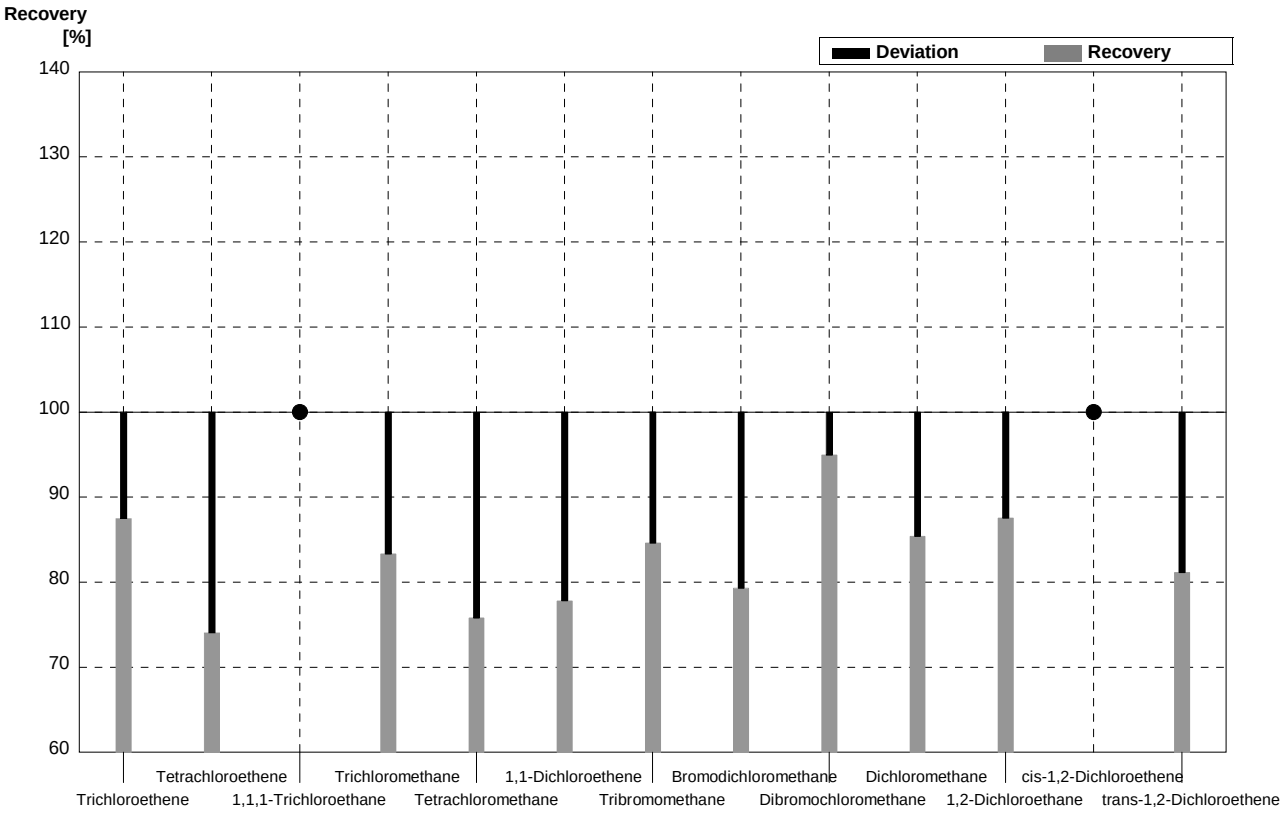
Sample C57A
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,66	0,33	µg/l	83%
Tetrachloroethene	1,20	0,12	1,02	0,20	µg/l	85%
1,1,1-Trichloroethane	1,07	0,11	0,92	0,18	µg/l	86%
Trichloromethane	0,50	0,05	0,47	0,09	µg/l	94%
Tetrachloromethane	0,40	0,04	0,27	0,06	µg/l	68%
1,1-Dichloroethene	<0,2		<0,03		µg/l	•
Tribromomethane	1,08	0,11	0,92	0,18	µg/l	85%
Bromodichloromethane	1,58	0,16	1,31	0,26	µg/l	83%
Dibromochloromethane	1,87	0,19	1,76	0,35	µg/l	94%
Dichloromethane	2,68	0,27	2,32	0,46	µg/l	87%
1,2-Dichloroethane	0,89	0,09	0,80	0,16	µg/l	90%
cis-1,2-Dichloroethene	0,65	0,07	0,52	0,10	µg/l	80%
trans-1,2-Dichloroethene	0,29	0,03	0,25	0,05	µg/l	86%



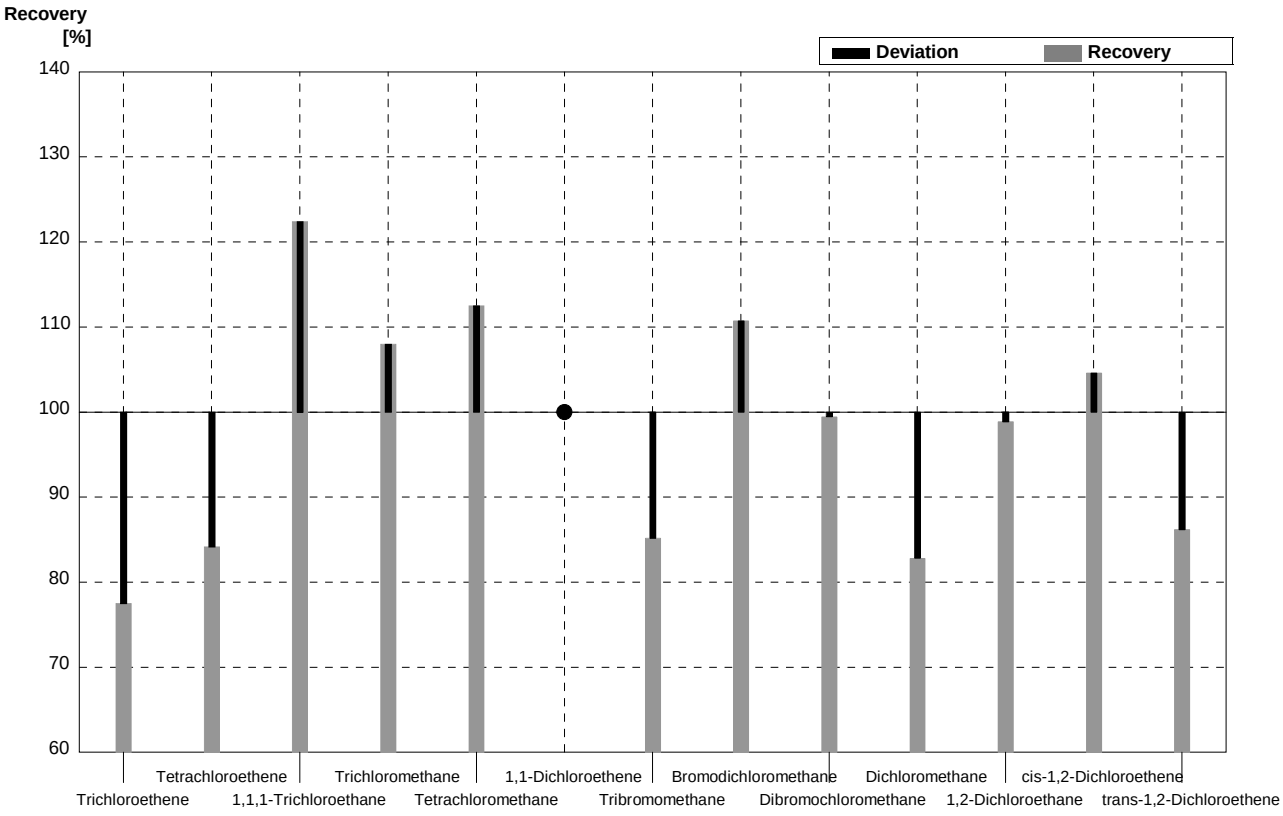
Sample C57B
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,70	0,14	µg/l	88%
Tetrachloroethene	0,27	0,03	0,20	0,04	µg/l	74%
1,1,1-Trichloroethane	<0,08		<0,02		µg/l	•
Trichloromethane	2,28	0,23	1,90	0,38	µg/l	83%
Tetrachloromethane	0,91	0,09	0,69	0,14	µg/l	76%
1,1-Dichloroethene	4,24	0,42	3,30	0,66	µg/l	78%
Tribromomethane	1,82	0,18	1,54	0,31	µg/l	85%
Bromodichloromethane	0,87	0,09	0,69	0,14	µg/l	79%
Dibromochloromethane	1,39	0,14	1,32	0,26	µg/l	95%
Dichloromethane	6,44	0,64	5,50	1,1	µg/l	85%
1,2-Dichloroethane	2,17	0,22	1,90	0,38	µg/l	88%
cis-1,2-Dichloroethene	<0,06		<0,06		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,12	0,22	µg/l	81%



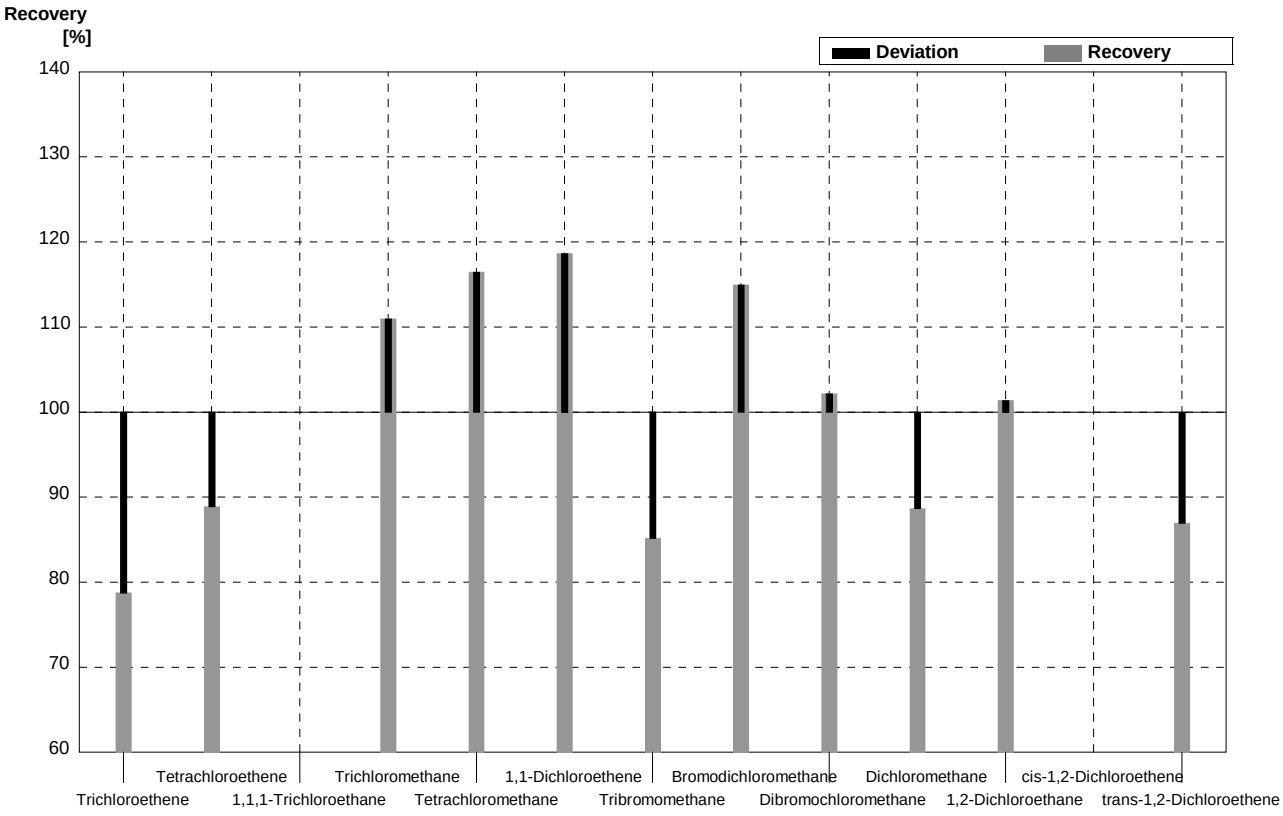
Sample C57A
Laboratory J

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,55	0,31	µg/l	78%
Tetrachloroethene	1,20	0,12	1,01	0,20	µg/l	84%
1,1,1-Trichloroethane	1,07	0,11	1,31	0,26	µg/l	122%
Trichloromethane	0,50	0,05	0,54	0,11	µg/l	108%
Tetrachloromethane	0,40	0,04	0,45	0,09	µg/l	113%
1,1-Dichloroethene	<0,2		<0,04		µg/l	•
Tribromomethane	1,08	0,11	0,92	0,18	µg/l	85%
Bromodichloromethane	1,58	0,16	1,75	0,37	µg/l	111%
Dibromochloromethane	1,87	0,19	1,86	0,35	µg/l	99%
Dichloromethane	2,68	0,27	2,22	0,44	µg/l	83%
1,2-Dichloroethane	0,89	0,09	0,88	0,18	µg/l	99%
cis-1,2-Dichloroethene	0,65	0,07	0,68	0,14	µg/l	105%
trans-1,2-Dichloroethene	0,29	0,03	0,25	0,02	µg/l	86%



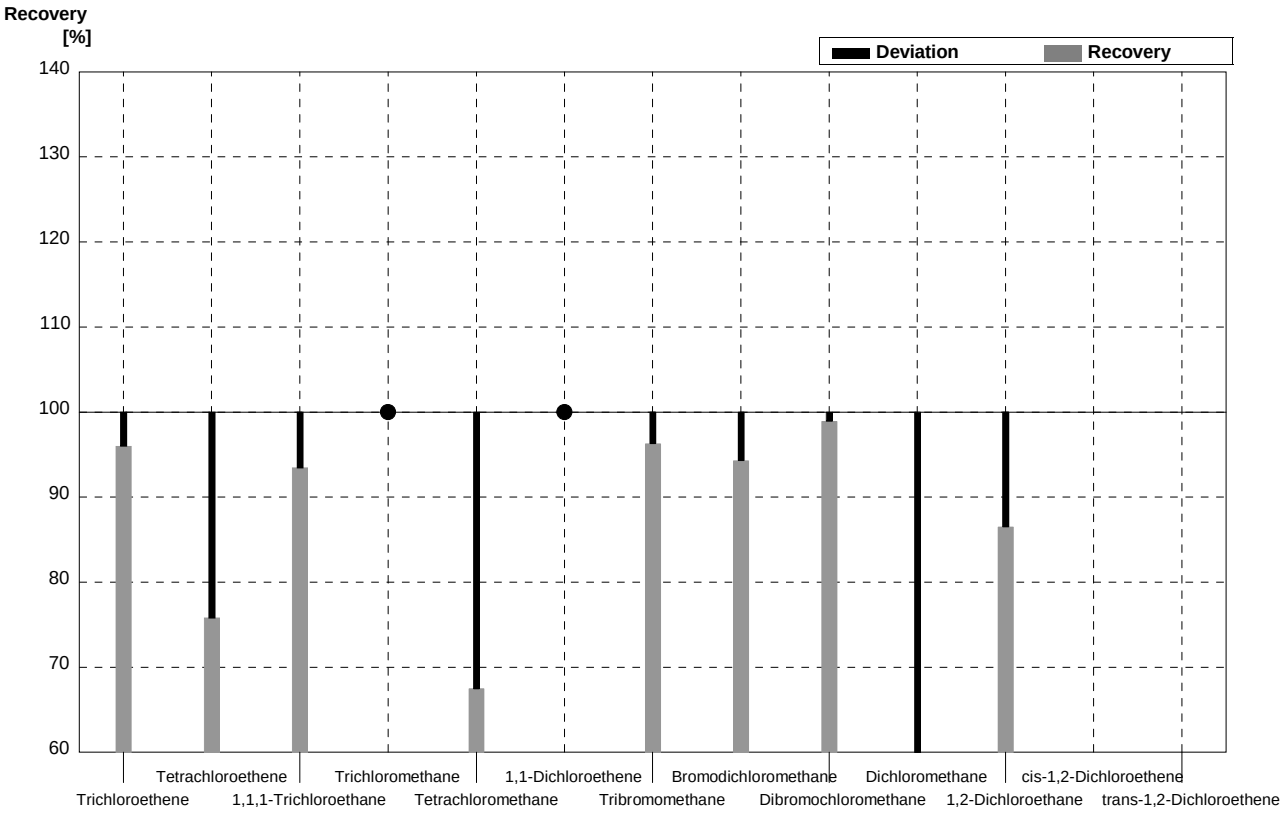
Sample C57B
Laboratory J

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,63	0,13	µg/l	79%
Tetrachloroethene	0,27	0,03	0,24	0,05	µg/l	89%
1,1,1-Trichloroethane	<0,08				µg/l	
Trichloromethane	2,28	0,23	2,53	0,51	µg/l	111%
Tetrachloromethane	0,91	0,09	1,06	0,21	µg/l	116%
1,1-Dichloroethene	4,24	0,42	5,03	1,1	µg/l	119%
Tribromomethane	1,82	0,18	1,55	0,31	µg/l	85%
Bromodichloromethane	0,87	0,09	1,00	0,20	µg/l	115%
Dibromochloromethane	1,39	0,14	1,42	0,28	µg/l	102%
Dichloromethane	6,44	0,64	5,71	1,14	µg/l	89%
1,2-Dichloroethane	2,17	0,22	2,20	0,44	µg/l	101%
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	1,38	0,14	1,20	0,24	µg/l	87%



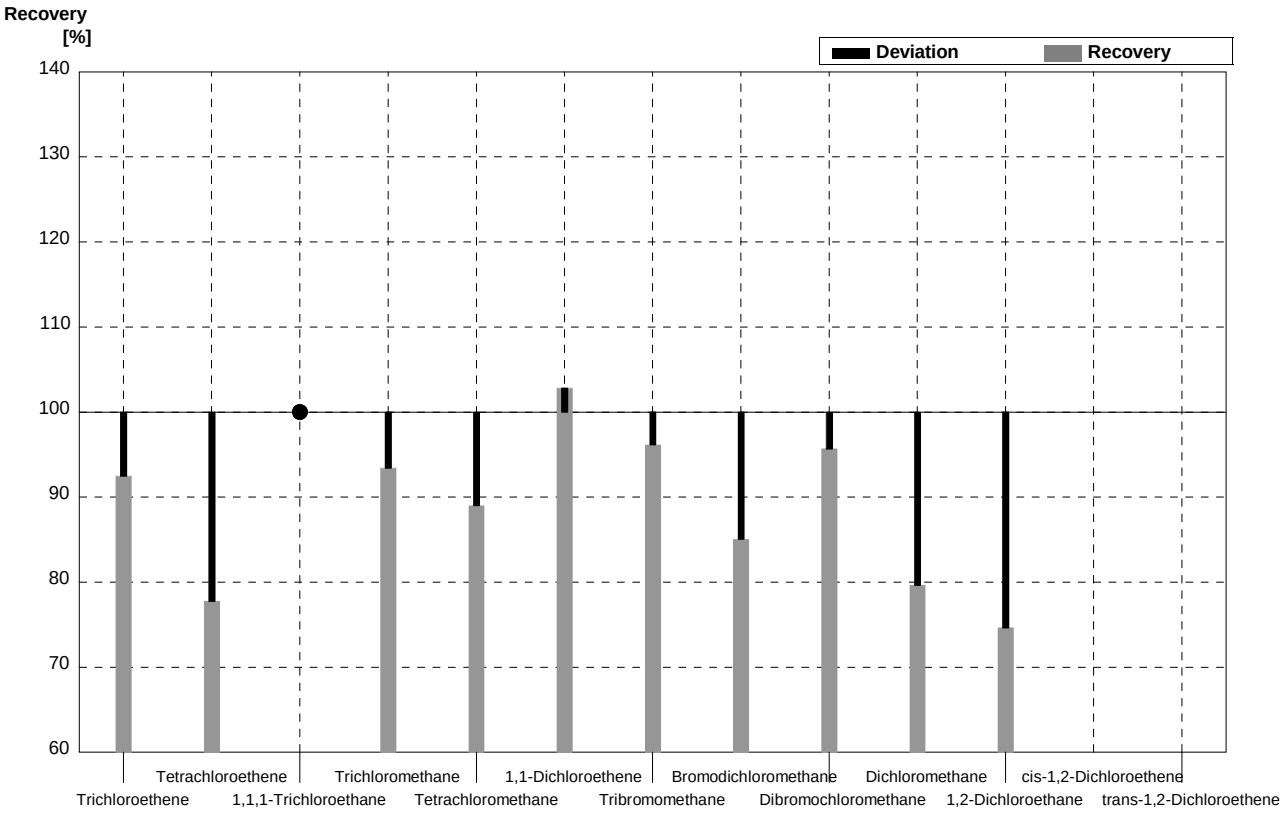
Sample C57A
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,92	0,29	µg/l	96%
Tetrachloroethene	1,20	0,12	0,91	0,14	µg/l	76%
1,1,1-Trichloroethane	1,07	0,11	1,00	0,15	µg/l	93%
Trichloromethane	0,50	0,05	<1,0		µg/l	•
Tetrachloromethane	0,40	0,04	0,27	0,04	µg/l	68%
1,1-Dichloroethene	<0,2		<1,0		µg/l	•
Tribromomethane	1,08	0,11	1,04	0,16	µg/l	96%
Bromodichloromethane	1,58	0,16	1,49	0,22	µg/l	94%
Dibromochloromethane	1,87	0,19	1,85	0,28	µg/l	99%
Dichloromethane	2,68	0,27	1,56	0,23	µg/l	58%
1,2-Dichloroethane	0,89	0,09	0,77	0,12	µg/l	87%
cis-1,2-Dichloroethene	0,65	0,07	not analysed		µg/l	
trans-1,2-Dichloroethene	0,29	0,03	not analysed		µg/l	



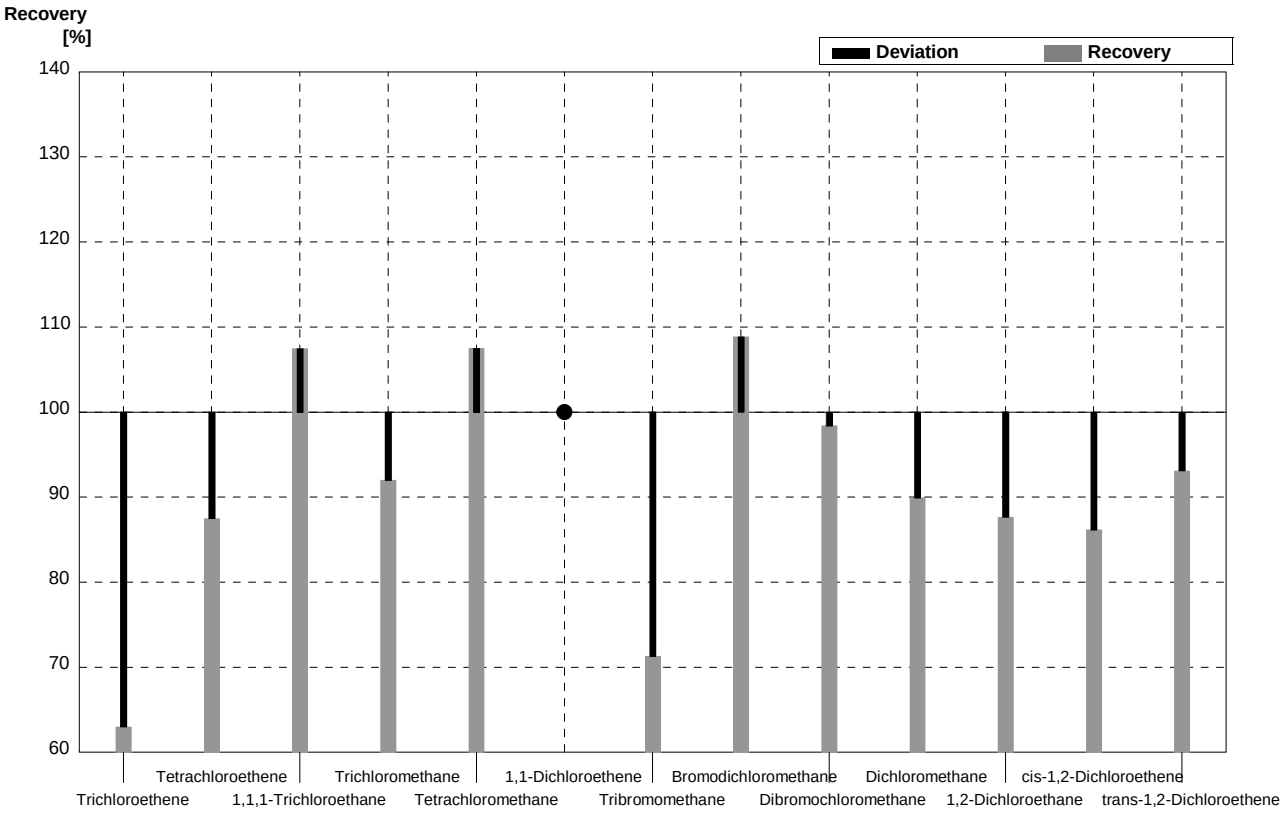
Sample C57B
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,74	0,11	µg/l	93%
Tetrachloroethene	0,27	0,03	0,21	0,03	µg/l	78%
1,1,1-Trichloroethane	<0,08		<0,7		µg/l	•
Trichloromethane	2,28	0,23	2,13	0,32	µg/l	93%
Tetrachloromethane	0,91	0,09	0,81	0,12	µg/l	89%
1,1-Dichloroethene	4,24	0,42	4,36	0,65	µg/l	103%
Tribromomethane	1,82	0,18	1,75	0,26	µg/l	96%
Bromodichloromethane	0,87	0,09	0,74	0,11	µg/l	85%
Dibromochloromethane	1,39	0,14	1,33	0,20	µg/l	96%
Dichloromethane	6,44	0,64	5,13	0,77	µg/l	80%
1,2-Dichloroethane	2,17	0,22	1,62	0,24	µg/l	75%
cis-1,2-Dichloroethene	<0,06		not analysed		µg/l	
trans-1,2-Dichloroethene	1,38	0,14	not analysed		µg/l	



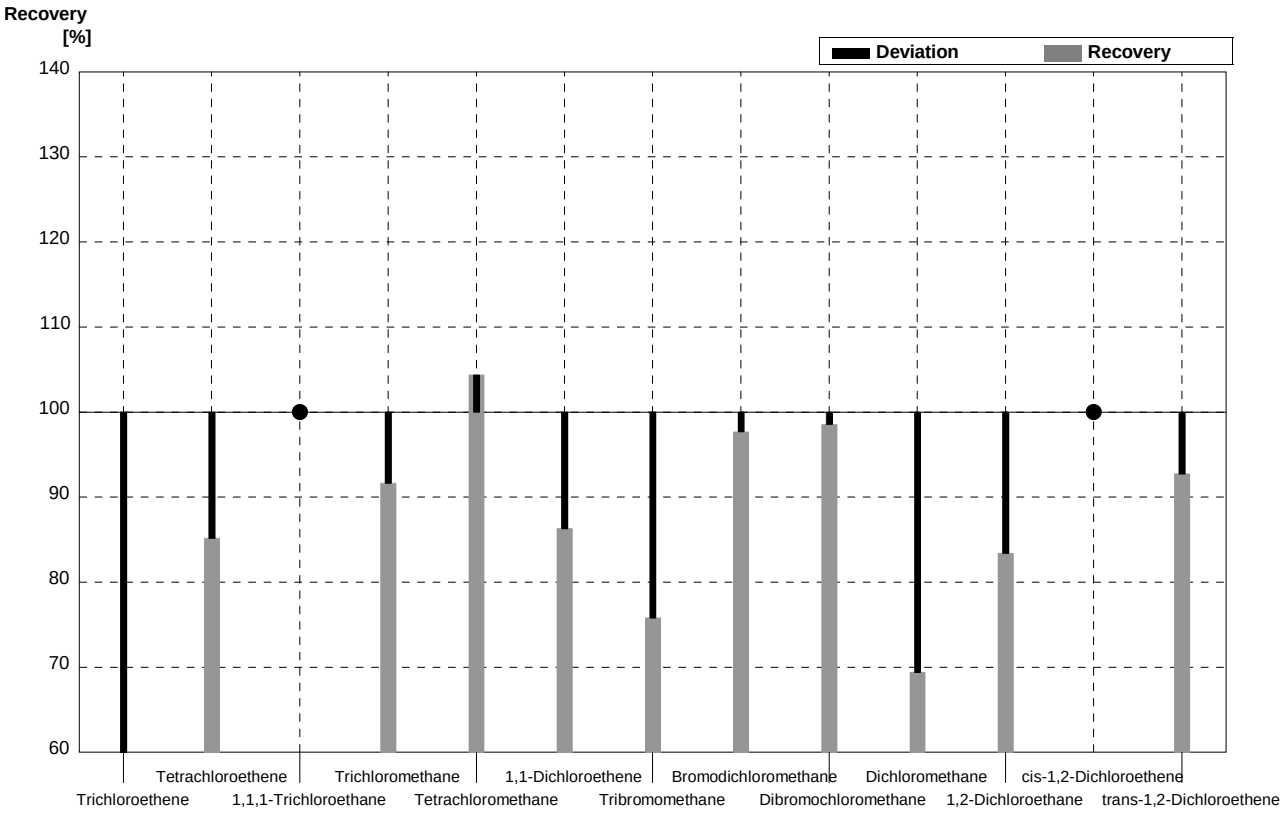
Sample C57A
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,26	0,14	µg/l	63%
Tetrachloroethene	1,20	0,12	1,05	0,08	µg/l	88%
1,1,1-Trichloroethane	1,07	0,11	1,15	0,08	µg/l	107%
Trichloromethane	0,50	0,05	0,46	0,10	µg/l	92%
Tetrachloromethane	0,40	0,04	0,43	0,08	µg/l	108%
1,1-Dichloroethene	<0,2		<0,05		µg/l	•
Tribromomethane	1,08	0,11	0,77	0,16	µg/l	71%
Bromodichloromethane	1,58	0,16	1,72	0,08	µg/l	109%
Dibromochloromethane	1,87	0,19	1,84	0,04	µg/l	98%
Dichloromethane	2,68	0,27	2,41	0,60	µg/l	90%
1,2-Dichloroethane	0,89	0,09	0,78	0,12	µg/l	88%
cis-1,2-Dichloroethene	0,65	0,07	0,56	0,06	µg/l	86%
trans-1,2-Dichloroethene	0,29	0,03	0,27	0,06	µg/l	93%



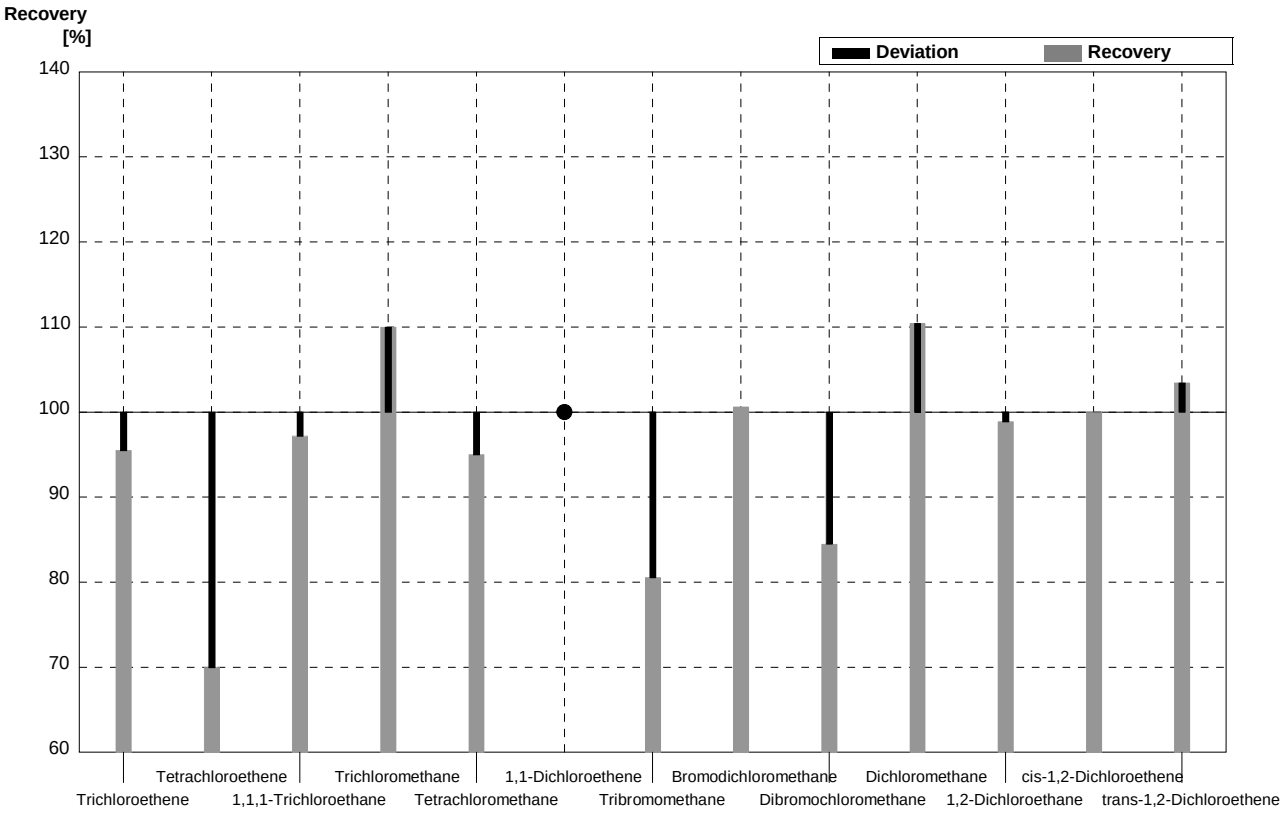
Sample C57B
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,48	0,04	µg/l	60%
Tetrachloroethene	0,27	0,03	0,23	0,02	µg/l	85%
1,1,1-Trichloroethane	<0,08		<0,05		µg/l	•
Trichloromethane	2,28	0,23	2,09	0,02	µg/l	92%
Tetrachloromethane	0,91	0,09	0,95	0,1	µg/l	104%
1,1-Dichloroethene	4,24	0,42	3,66	0,4	µg/l	86%
Tribromomethane	1,82	0,18	1,38	0,24	µg/l	76%
Bromodichloromethane	0,87	0,09	0,85	0,12	µg/l	98%
Dibromochloromethane	1,39	0,14	1,37	0,12	µg/l	99%
Dichloromethane	6,44	0,64	4,47	0,6	µg/l	69%
1,2-Dichloroethane	2,17	0,22	1,81	0,2	µg/l	83%
cis-1,2-Dichloroethene	<0,06		<0,05		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,28	0,12	µg/l	93%



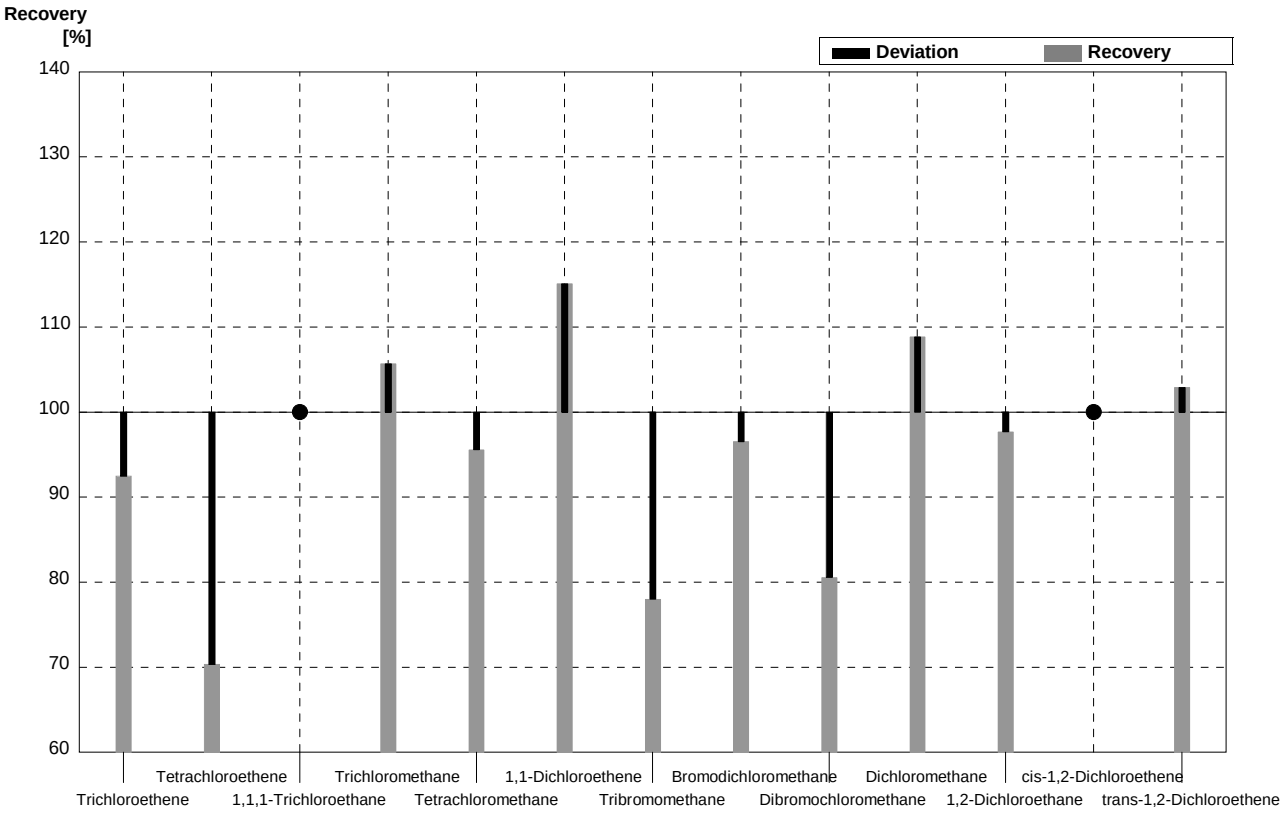
Sample C57A
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,91	0,13	µg/l	96%
Tetrachloroethene	1,20	0,12	0,84	0,05	µg/l	70%
1,1,1-Trichloroethane	1,07	0,11	1,04	0,07	µg/l	97%
Trichloromethane	0,50	0,05	0,55	0,04	µg/l	110%
Tetrachloromethane	0,40	0,04	0,38	0,04	µg/l	95%
1,1-Dichloroethene	<0,2		<0,16		µg/l	•
Tribromomethane	1,08	0,11	0,87	0,07	µg/l	81%
Bromodichloromethane	1,58	0,16	1,59	0,14	µg/l	101%
Dibromochloromethane	1,87	0,19	1,58	0,11	µg/l	84%
Dichloromethane	2,68	0,27	2,96	0,20	µg/l	110%
1,2-Dichloroethane	0,89	0,09	0,88	0,07	µg/l	99%
cis-1,2-Dichloroethene	0,65	0,07	0,65	0,06	µg/l	100%
trans-1,2-Dichloroethene	0,29	0,03	0,30	0,03	µg/l	103%



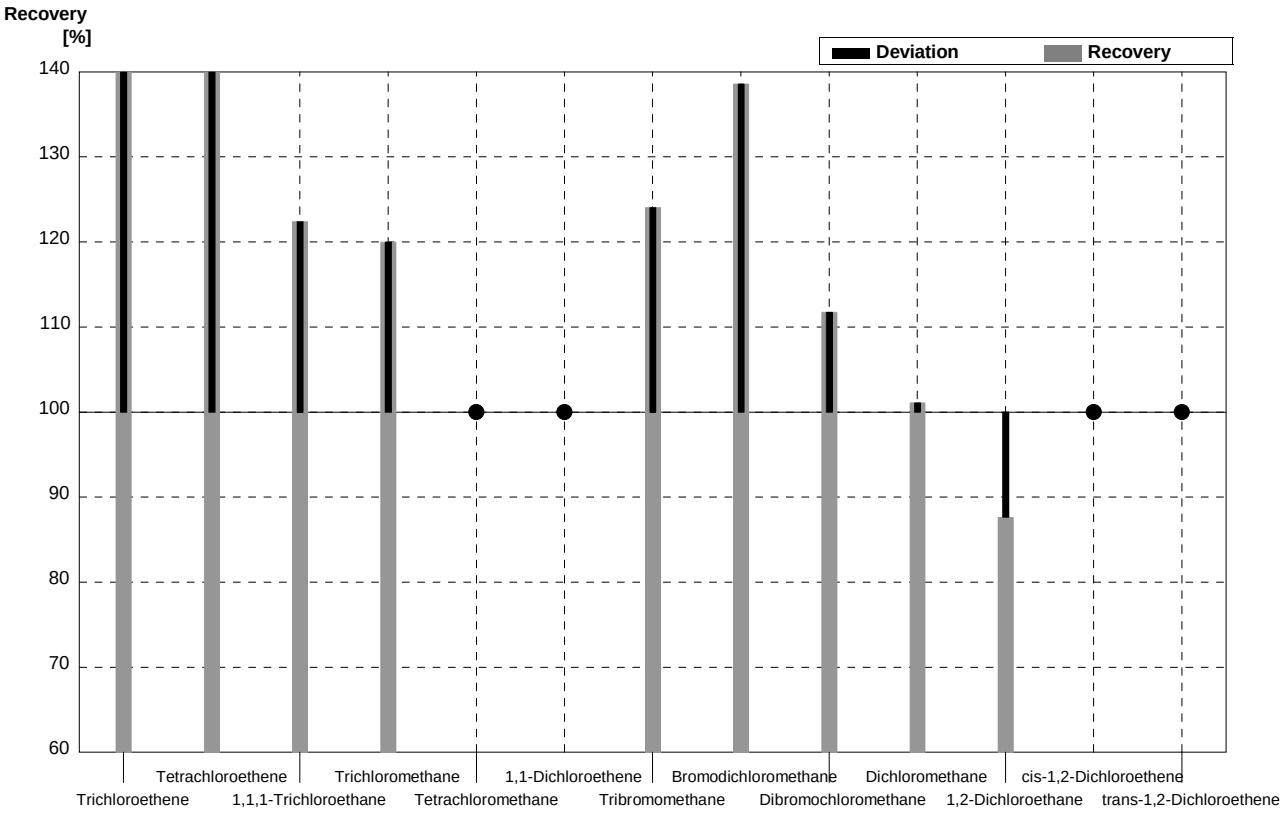
Sample C57B
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,74	0,05	µg/l	93%
Tetrachloroethene	0,27	0,03	0,19	0,01	µg/l	70%
1,1,1-Trichloroethane	<0,08		<0,3		µg/l	•
Trichloromethane	2,28	0,23	2,41	0,17	µg/l	106%
Tetrachloromethane	0,91	0,09	0,87	0,08	µg/l	96%
1,1-Dichloroethene	4,24	0,42	4,88	0,47	µg/l	115%
Tribromomethane	1,82	0,18	1,42	0,12	µg/l	78%
Bromodichloromethane	0,87	0,09	0,84	0,07	µg/l	97%
Dibromochloromethane	1,39	0,14	1,12	0,08	µg/l	81%
Dichloromethane	6,44	0,64	7,01	0,46	µg/l	109%
1,2-Dichloroethane	2,17	0,22	2,12	0,17	µg/l	98%
cis-1,2-Dichloroethene	<0,06		<0,3		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,42	0,14	µg/l	103%



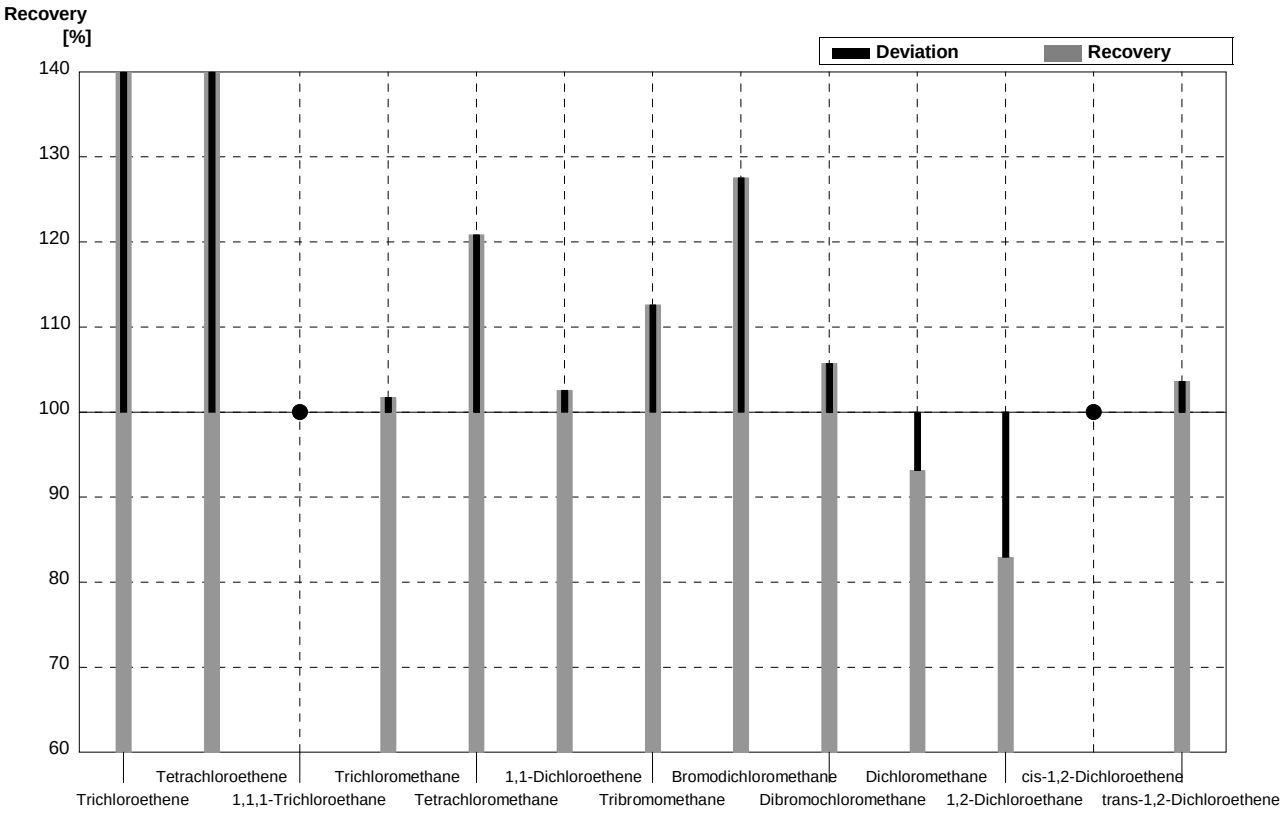
Sample C57A
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	3,1	0,08	µg/l	155%
Tetrachloroethene	1,20	0,12	2,04	0,06	µg/l	170%
1,1,1-Trichloroethane	1,07	0,11	1,31	0,03	µg/l	122%
Trichloromethane	0,50	0,05	0,60	0,02	µg/l	120%
Tetrachloromethane	0,40	0,04	<0,86		µg/l	•
1,1-Dichloroethene	<0,2		<0,10		µg/l	•
Tribromomethane	1,08	0,11	1,34	0,07	µg/l	124%
Bromodichloromethane	1,58	0,16	2,19	0,09	µg/l	139%
Dibromochloromethane	1,87	0,19	2,09	0,09	µg/l	112%
Dichloromethane	2,68	0,27	2,71	0,08	µg/l	101%
1,2-Dichloroethane	0,89	0,09	0,78	0,07	µg/l	88%
cis-1,2-Dichloroethene	0,65	0,07	<0,75		µg/l	•
trans-1,2-Dichloroethene	0,29	0,03	<0,63		µg/l	•



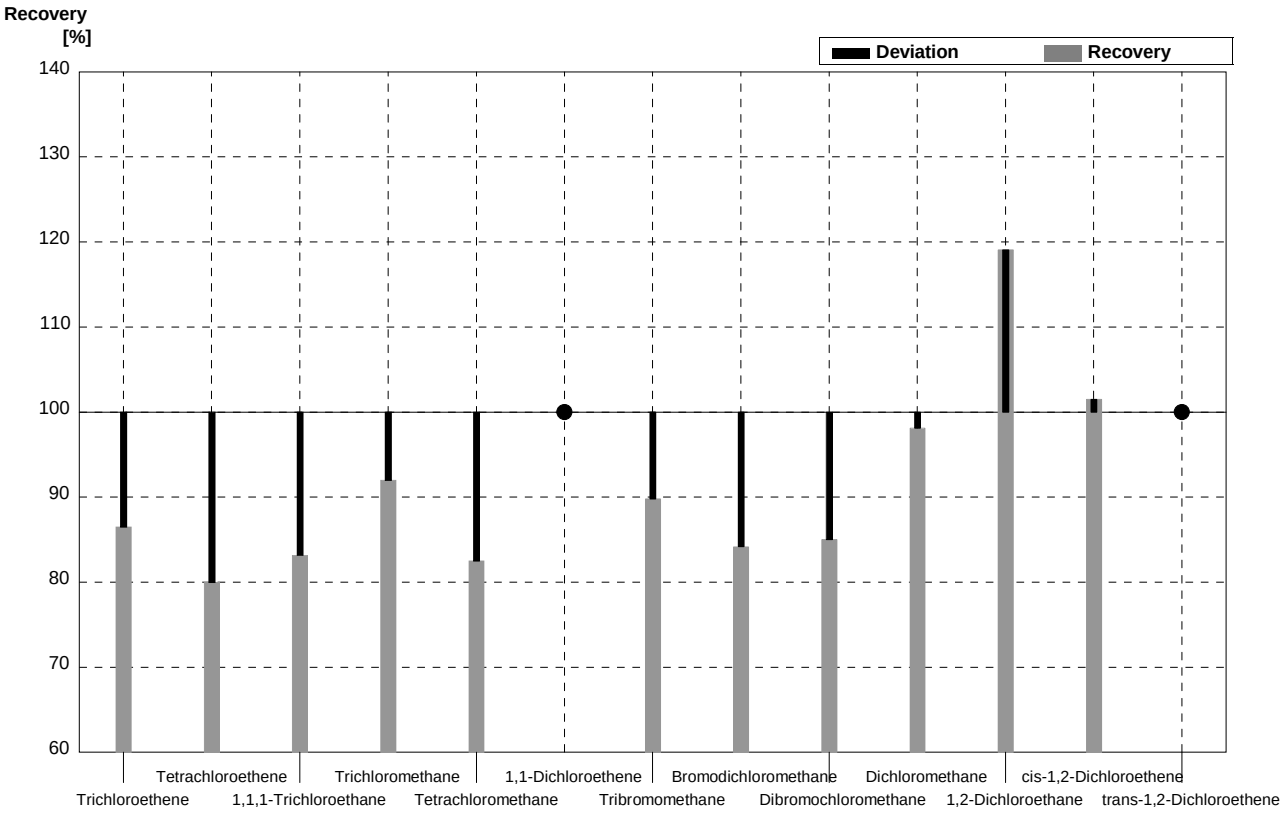
Sample C57B
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	1,22	0,01	µg/l	153%
Tetrachloroethene	0,27	0,03	0,41	0,01	µg/l	152%
1,1,1-Trichloroethane	<0,08		<0,83		µg/l	•
Trichloromethane	2,28	0,23	2,32	0,02	µg/l	102%
Tetrachloromethane	0,91	0,09	1,1	0,02	µg/l	121%
1,1-Dichloroethene	4,24	0,42	4,35	0,04	µg/l	103%
Tribromomethane	1,82	0,18	2,05	0,12	µg/l	113%
Bromodichloromethane	0,87	0,09	1,11	0,04	µg/l	128%
Dibromochloromethane	1,39	0,14	1,47	0,06	µg/l	106%
Dichloromethane	6,44	0,64	6,00	0,07	µg/l	93%
1,2-Dichloroethane	2,17	0,22	1,80	0,17	µg/l	83%
cis-1,2-Dichloroethene	<0,06		<0,75		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,43	0,03	µg/l	104%



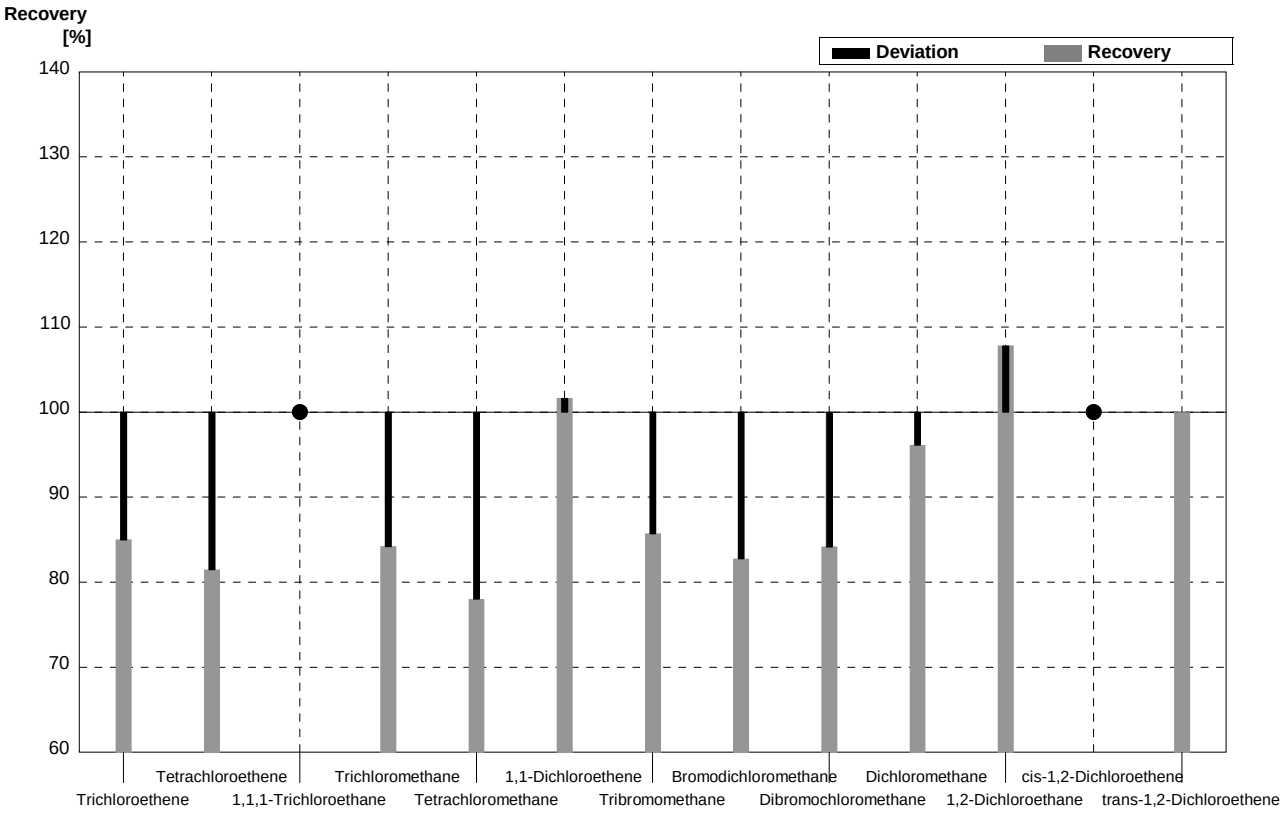
Sample C57A
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,73	0,26	µg/l	87%
Tetrachloroethene	1,20	0,12	0,96	0,14	µg/l	80%
1,1,1-Trichloroethane	1,07	0,11	0,89	0,13	µg/l	83%
Trichloromethane	0,50	0,05	0,46	0,07	µg/l	92%
Tetrachloromethane	0,40	0,04	0,33	0,05	µg/l	83%
1,1-Dichloroethene	<0,2		<0,2		µg/l	•
Tribromomethane	1,08	0,11	0,97	0,15	µg/l	90%
Bromodichloromethane	1,58	0,16	1,33	0,20	µg/l	84%
Dibromochloromethane	1,87	0,19	1,59	0,24	µg/l	85%
Dichloromethane	2,68	0,27	2,63	0,39	µg/l	98%
1,2-Dichloroethane	0,89	0,09	1,06	0,16	µg/l	119%
cis-1,2-Dichloroethene	0,65	0,07	0,66	0,10	µg/l	102%
trans-1,2-Dichloroethene	0,29	0,03	<0,5		µg/l	•



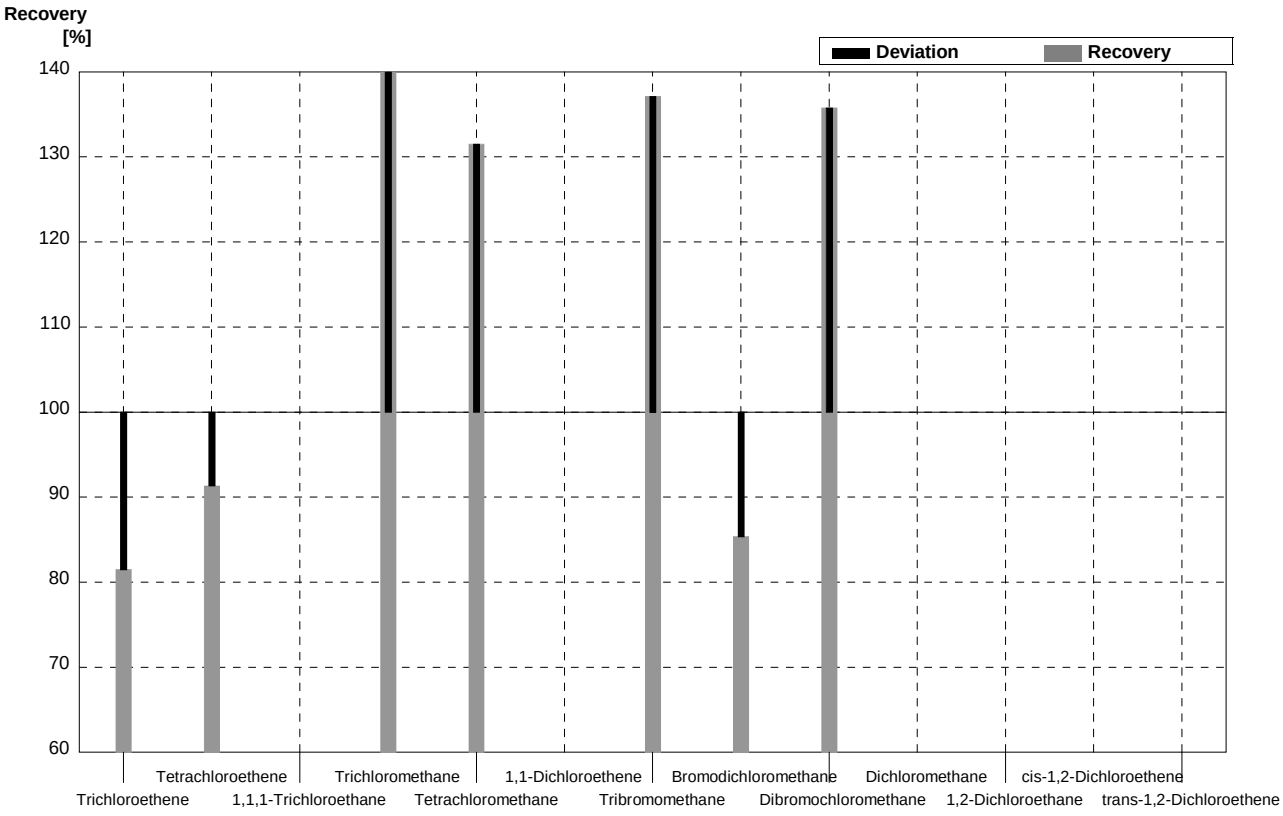
Sample C57B
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,68	0,10	µg/l	85%
Tetrachloroethene	0,27	0,03	0,22	0,03	µg/l	81%
1,1,1-Trichloroethane	<0,08		<0,1		µg/l	•
Trichloromethane	2,28	0,23	1,92	0,29	µg/l	84%
Tetrachloromethane	0,91	0,09	0,71	0,11	µg/l	78%
1,1-Dichloroethene	4,24	0,42	4,31	0,65	µg/l	102%
Tribromomethane	1,82	0,18	1,56	0,23	µg/l	86%
Bromodichloromethane	0,87	0,09	0,72	0,11	µg/l	83%
Dibromochloromethane	1,39	0,14	1,17	0,18	µg/l	84%
Dichloromethane	6,44	0,64	6,19	0,93	µg/l	96%
1,2-Dichloroethane	2,17	0,22	2,34	0,35	µg/l	108%
cis-1,2-Dichloroethene	<0,06		<0,5		µg/l	•
trans-1,2-Dichloroethene	1,38	0,14	1,38	0,21	µg/l	100%



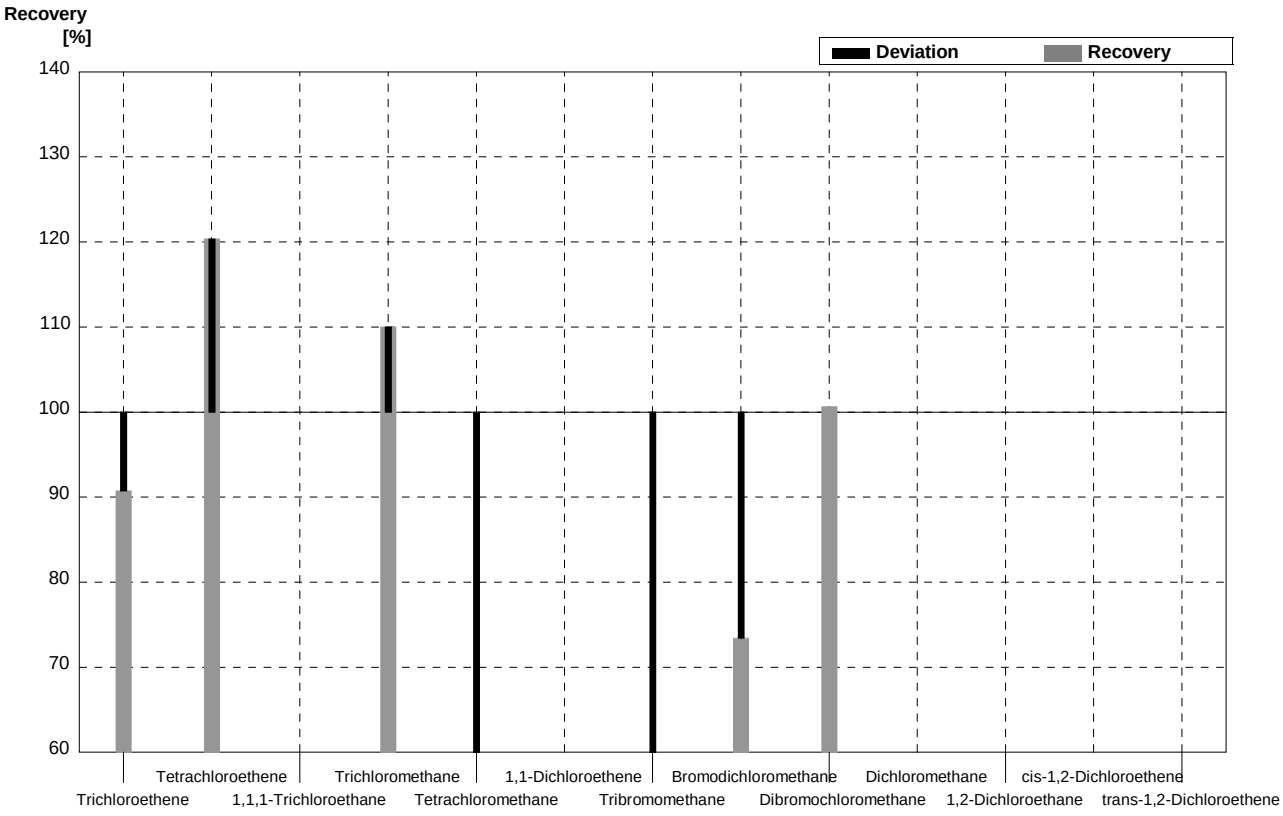
Sample C57A
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,630		µg/l	82%
Tetrachloroethene	1,20	0,12	1,096		µg/l	91%
1,1,1-Trichloroethane	1,07	0,11			µg/l	
Trichloromethane	0,50	0,05	1,259		µg/l	252%
Tetrachloromethane	0,40	0,04	0,526		µg/l	132%
1,1-Dichloroethene	<0,2				µg/l	
Tribromomethane	1,08	0,11	1,481		µg/l	137%
Bromodichloromethane	1,58	0,16	1,349		µg/l	85%
Dibromochloromethane	1,87	0,19	2,539		µg/l	136%
Dichloromethane	2,68	0,27			µg/l	
1,2-Dichloroethane	0,89	0,09			µg/l	
cis-1,2-Dichloroethene	0,65	0,07			µg/l	
trans-1,2-Dichloroethene	0,29	0,03			µg/l	



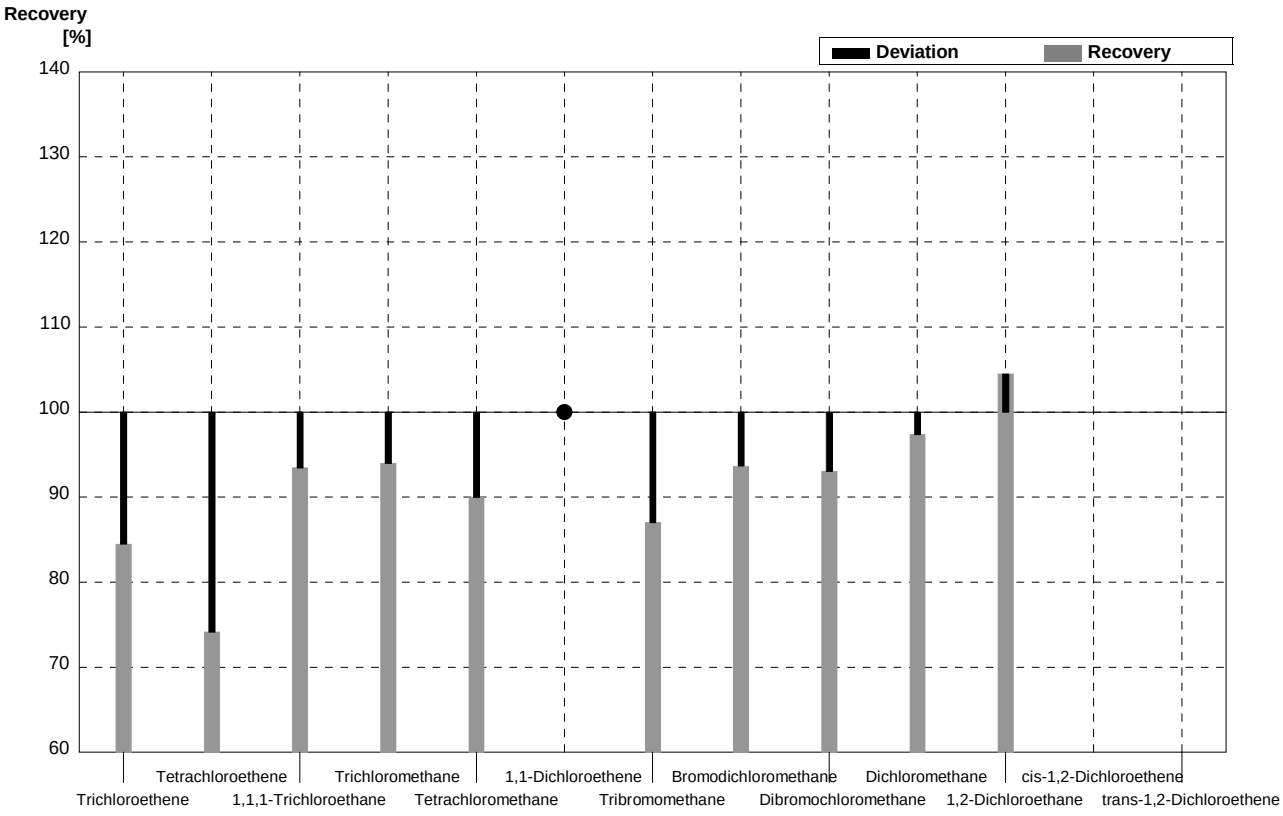
Sample C57B
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,726		µg/l	91%
Tetrachloroethene	0,27	0,03	0,325		µg/l	120%
1,1,1-Trichloroethane	<0,08				µg/l	
Trichloromethane	2,28	0,23	2,509		µg/l	110%
Tetrachloromethane	0,91	0,09	0,267		µg/l	29%
1,1-Dichloroethene	4,24	0,42			µg/l	
Tribromomethane	1,82	0,18	0,744		µg/l	41%
Bromodichloromethane	0,87	0,09	0,639		µg/l	73%
Dibromochloromethane	1,39	0,14	1,399		µg/l	101%
Dichloromethane	6,44	0,64			µg/l	
1,2-Dichloroethane	2,17	0,22			µg/l	
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	1,38	0,14			µg/l	



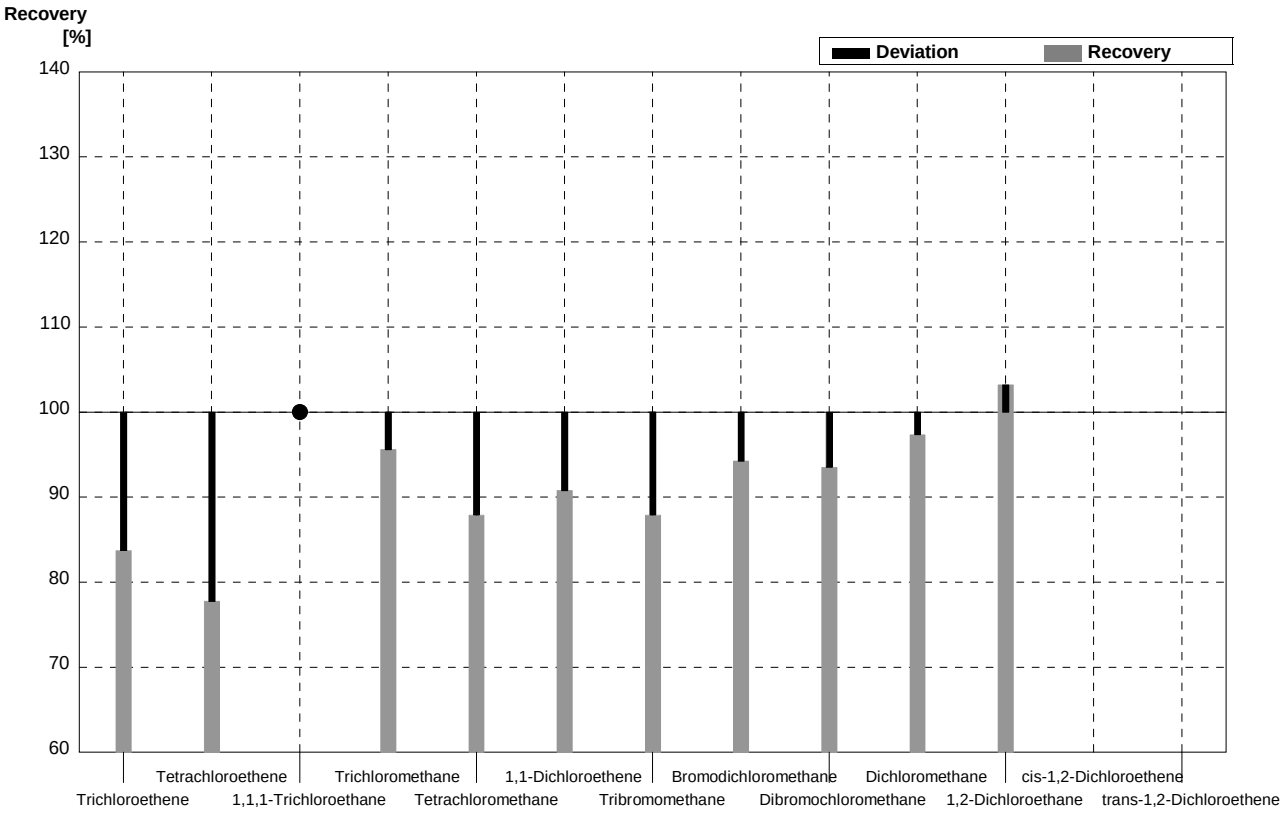
Sample C57A
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	1,69	0,43	µg/l	85%
Tetrachloroethene	1,20	0,12	0,89	0,27	µg/l	74%
1,1,1-Trichloroethane	1,07	0,11	1,00	0,10	µg/l	93%
Trichloromethane	0,50	0,05	0,47	0,10	µg/l	94%
Tetrachloromethane	0,40	0,04	0,36	0,10	µg/l	90%
1,1-Dichloroethene	<0,2		<0,3		µg/l	•
Tribromomethane	1,08	0,11	0,94	0,10	µg/l	87%
Bromodichloromethane	1,58	0,16	1,48	0,63	µg/l	94%
Dibromochloromethane	1,87	0,19	1,74	0,13	µg/l	93%
Dichloromethane	2,68	0,27	2,61	0,25	µg/l	97%
1,2-Dichloroethane	0,89	0,09	0,93	0,30	µg/l	104%
cis-1,2-Dichloroethene	0,65	0,07			µg/l	
trans-1,2-Dichloroethene	0,29	0,03			µg/l	



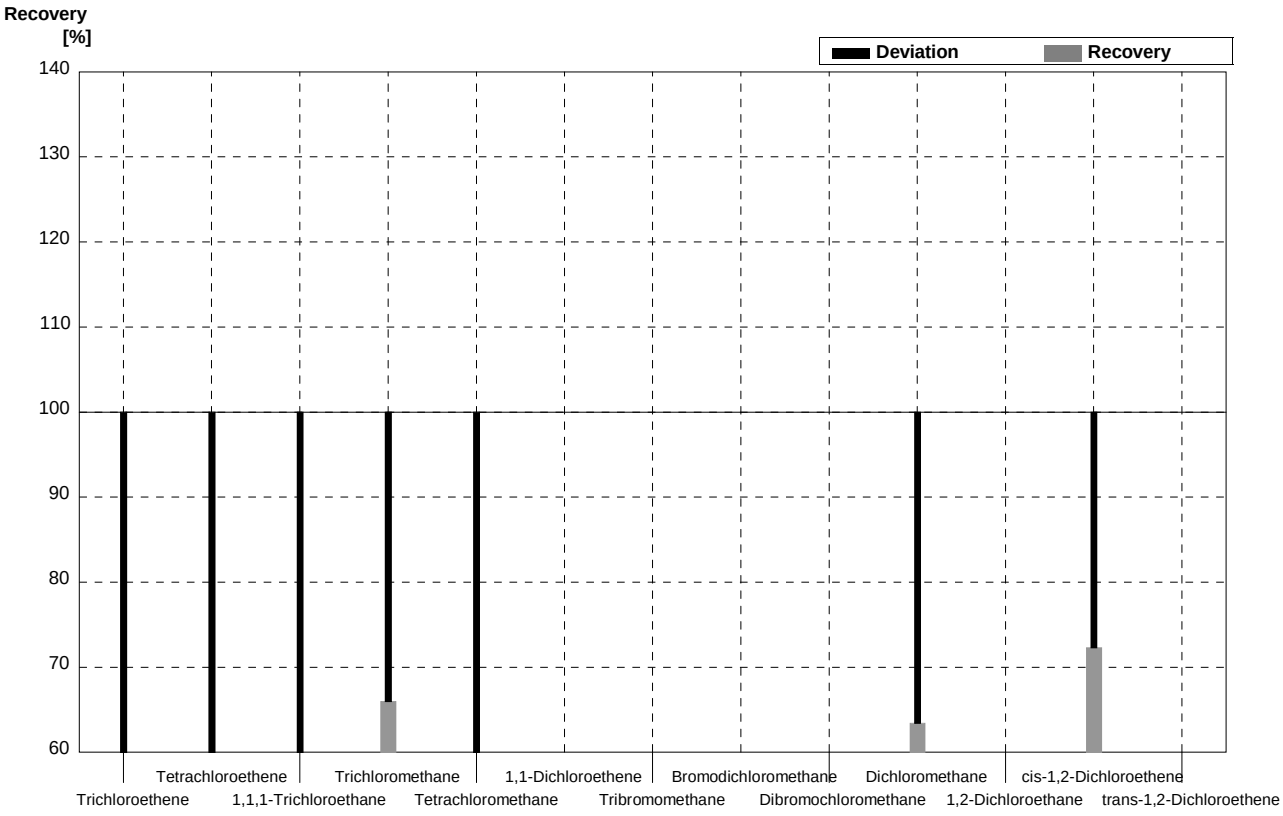
Sample C57B
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,67	0,40	µg/l	84%
Tetrachloroethene	0,27	0,03	0,21	0,10	µg/l	78%
1,1,1-Trichloroethane	<0,08		<0,2		µg/l	•
Trichloromethane	2,28	0,23	2,18	0,20	µg/l	96%
Tetrachloromethane	0,91	0,09	0,80	0,10	µg/l	88%
1,1-Dichloroethene	4,24	0,42	3,85	0,27	µg/l	91%
Tribromomethane	1,82	0,18	1,60	0,10	µg/l	88%
Bromodichloromethane	0,87	0,09	0,82	0,57	µg/l	94%
Dibromochloromethane	1,39	0,14	1,30	0,11	µg/l	94%
Dichloromethane	6,44	0,64	6,27	0,89	µg/l	97%
1,2-Dichloroethane	2,17	0,22	2,24	0,37	µg/l	103%
cis-1,2-Dichloroethene	<0,06				µg/l	
trans-1,2-Dichloroethene	1,38	0,14			µg/l	



Sample C57A
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	2,00	0,20	0,75	0,20	µg/l	38%
Tetrachloroethene	1,20	0,12	0,39	0,10	µg/l	33%
1,1,1-Trichloroethane	1,07	0,11	0,59	0,10	µg/l	55%
Trichloromethane	0,50	0,05	0,33	0,10	µg/l	66%
Tetrachloromethane	0,40	0,04	0,20	0,10	µg/l	50%
1,1-Dichloroethene	<0,2				µg/l	
Tribromomethane	1,08	0,11			µg/l	
Bromodichloromethane	1,58	0,16			µg/l	
Dibromochloromethane	1,87	0,19			µg/l	
Dichloromethane	2,68	0,27	1,7	0,50	µg/l	63%
1,2-Dichloroethane	0,89	0,09			µg/l	
cis-1,2-Dichloroethene	0,65	0,07	0,47	0,10	µg/l	72%
trans-1,2-Dichloroethene	0,29	0,03			µg/l	



Sample C57B
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,80	0,08	0,27	0,10	µg/l	34%
Tetrachloroethene	0,27	0,03	<0,15	0,05	µg/l	FN
1,1,1-Trichloroethane	<0,08		<0,15	0,05	µg/l	•
Trichloromethane	2,28	0,23	1,4	0,50	µg/l	61%
Tetrachloromethane	0,91	0,09	0,46	0,10	µg/l	51%
1,1-Dichloroethene	4,24	0,42			µg/l	
Tribromomethane	1,82	0,18			µg/l	
Bromodichloromethane	0,87	0,09			µg/l	
Dibromochloromethane	1,39	0,14			µg/l	
Dichloromethane	6,44	0,64	4,5	0,50	µg/l	70%
1,2-Dichloroethane	2,17	0,22			µg/l	
cis-1,2-Dichloroethene	<0,06		<0,15	0,05	µg/l	•
trans-1,2-Dichloroethene	1,38	0,14			µg/l