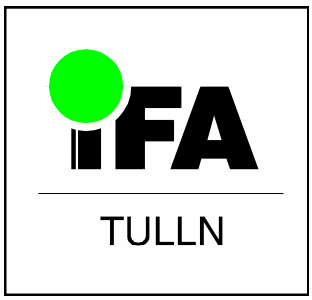
Proficiency Testing Scheme for Water Analysis

Round C56

Volatile Halogenated Hydrocarbons

Sample Dispatch: 4 April 2016



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This report summarises the results of round C56 “Volatile Halogenated Hydrocarbons” within the IFA-Test Proficiency Testing Scheme for Water Analysis. The samples C56A and C56B were distributed to the participants on Monday, 4 April 2016. Closing date for reporting results to the IFA-Tulln was Friday, 29 April 2016.

22 laboratories participated in this interlaboratory comparison. 20 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 with halogenated hydrocarbons and other interfering substances.

The samples were spiked with traces of the following compounds: 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 target concentrations of the compounds was based on the mass of standard added to the samples.

Dibromochloromethane was not added to sample C56A. Dichloromethane and trans-1,2-Dichloroethene were not added to sample C56B in order to check the analytical blank values.

Homogeneity, accuracy and stability tests at the IFA-Tulln

For verification of homogeneity ten 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 dispatch. Since our GC-MS is currently out of operation due to a technical issue we have not been able to carry out the stability test for this round. Please be informed that we will perform it within the frame of the next IFA-Test round CB02.

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.

The target concentrations of Dibromochloromethane, Dichloromethane and trans-1,2-Dichloroethene, which were not added to sample C56A or C56B, were set to < 0.1 µg/L Dibromochloromethane, < 0.04 µg/L trans-1,2-Dichloroethene and < 0.6 µg/L Dichloromethane, 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 in the IFA.

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 86.1 % (cis-1,2-Dichloroethene in sample C56A) and 106.3 % (Tribromomethane in sample C56A). The between-laboratory coefficients of variation ranged from 6.2 % (1,1-Dichloroethene in sample C56B) to 26.0 % (Tribromomethane in sample C56A).

All confidence intervals of the outlier-corrected laboratory mean values encompass the corresponding target values with their uncertainties. Thus, statistically, no difference could be detected between theoretical target concentrations and outlier corrected laboratory means.

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 2005 to 2015. 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. **Thus, no z-score was calculated for Tribromomethane in sample C56A.**

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	14	0.15
Dibromochloromethane	15	0.2
Dichloromethane	14	1
Tetrachloroethene	19	0.15
Tetrachloromethane	18	0.15
Tribromomethane	17	0.2
Trichloroethene	17	0.15
Trichloromethane	15	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 2005 to 2015.

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 2016

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

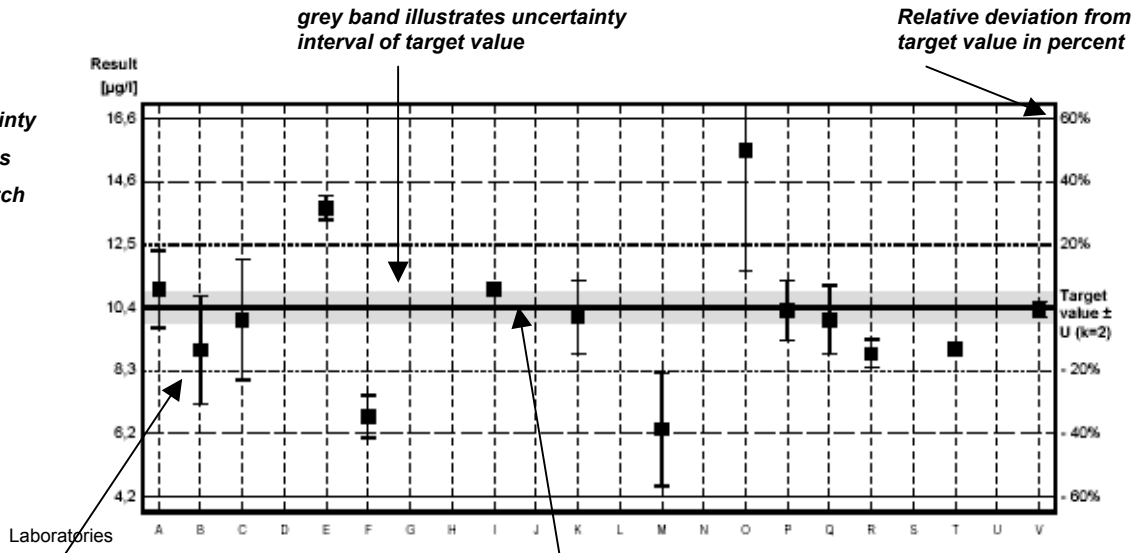


Diagram 1. Measurement results and corresponding uncertainty intervals

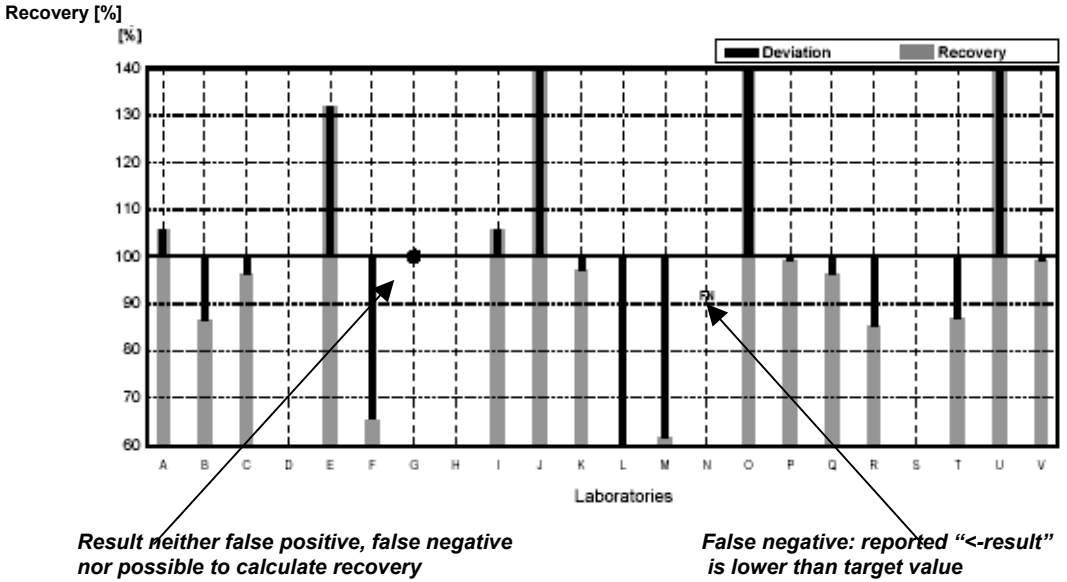


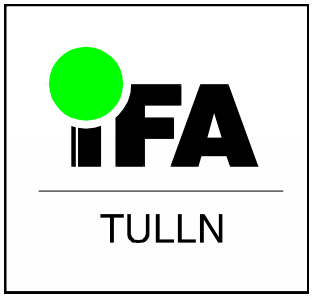
Diagram 2. Recoveries and deviations from target values

EXPLANATION

Illustration of Results
Tables and Parameter Oriented Part

Round C56
Volatile Halogenated Hydrocarbons

Sample Dispatch: 4 April 2016



Results Sample C56A

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	0.71	0.41	1.70	1.76	0.20	2.71	0.18
IFA Result	0.70	0.39	1.77	1.72	0.20	2.68	0.20
A	2.3						0.27
B	0.43	0.38	1.50	1.47	0.19	2.35	0.13
C	0.64	0.37	1.51	1.59	0.19	n.a.	0.19
D	0.7	<0.5	1.5	1.55	<0.5	2.62	<0.3
E							
F							
G	0.70	0.38	1.62	1.65	0.20	2.57	0.17
H	0.73	0.40	1.70	1.79	0.23		0.30
I	0.787	0.381	2.201	1.998	0.402	3.625	0.152
J	0.721	0.351	1.66	1.74	0.193	2.93	0.202
K	0.64	0.34	1.59	1.61	0.17	2.47	0.18
L	<1.0	<1.0	1.73	1.59	0.38	2.96	<2.0
M	0.71	0.46	1.37		0.13		0.19
N	0.70	0.34	1.60	1.35	0.17	2.67	0.34
O	0.679	0.394	1.63	1.60	0.216	2.71	0.223
P				2.77			0.19
Q	0.62	0.36	1.59	1.58	0.19	2.60	<0.20
R	0.61	<0.5	1.32	1.53	<0.5	2.92	<0.5
S	0.593	0.353	1.73	1.66	0.195	2.60	0.129
T	1.41478	1.37395		0.46074			
U	0.38	0.21	1.0	0.58	0.13		
V	0.604	0.339	1.562	1.467	0.185	2.621	0.162

All data in µg/L

Measurement Uncertainties Sample C56A

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value	0.04	0.02	0.09	0.09	0.01	0.14	0.01
IFA Result	0.11	0.06	0.27	0.26	0.03	0.40	0.03
A	0.5						0.05
B	0.09	0.08	0.30	0.30	0.04	0.47	0.03
C	0.10	0.10	0.15	0.15	0.10		0.10
D	0.2		0.2	0.2		0.1	
E							
F							
G	0.14	0.08	0.32	0.33	0.04	0.51	0.03
H							
I	0.078	0.038	0.220	0.199	0.040	0.363	0.015
J	0.034	0.028	0.05	0.04	0.002	0.14	0.020
K	0.10	0.05	0.24	0.24	0.03	0.37	0.03
L			0.26	0.24	0.06	0.44	
M	0.03	0.02	0.02		0.03		0.05
N	0.04	0.03	0.03	0.03	0.03	0.1	0.05
O	0.066	0.008	0.069	0.045	0.011	0.124	0.006
P				0.10			0.03
Q	0.39	0.23	0.10	0.16	0.10	0.16	
R	0.13		0.29	0.29		0.64	
S	0.160	0.095	0.456	0.448	0.053	0.702	0.035
T	0.092	0.096		0.030			
U	0.2	0.2	0.3	0.2	0.2		
V	0.181	0.102	0.469	0.440	0.056	0.786	0.049

All data in µg/L

Results Sample C56A

	Bromodichloro-methane	Dibromochloro-methane	Dichloro-methane	1,2-Dichloro-ethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
Target value	0.23	<0.1	3.12	1.10	0.65	1.18
IFA Result	0.24	<0.05	3.01	1.09	0.65	1.17
A	0.33	<0.1				
B	0.20	<0.05	2.75	0.96	0.60	1.24
C	0.21	<0.10	3.52	0.95	n.a.	n.a.
D	<0.3	<0.5	3.3	1.26	0.61	1.08
E						
F						
G	0.20	<0.02	3.00	1.07	0.62	1.10
H	0.34	<0.97	3.16	1.07		
I	0.194	n.n.	3.711	1.268	0.458	1.012
J	0.256	<0.02	3.37	1.23	0.583	1.27
K	0.22	<0.1	3.09	1.05	0.52	1.19
L	<0.7	<2.0	3.57	<0.6		
M	0.20	<0.1				
N	0.22	<0.5	3.69	<2.5	<2	<1
O	0.253	<0.04	3.02	0.997	0.649	1.30
P	0.45	<0.1				
Q	0.21	<0.20	2.94	0.91		
R	<0.5	<0.5	3.49	1.10	0.57	1.14
S	0.204	<0.020	3.33	1.11	0.555	1.08
T	0.52792	<0.021				
U			2.4		0.44	
V	0.208	<0.100	3.058	0.931	0.549	1.029

All data in µg/L

Measurement Uncertainties Sample C56A

	Bromodichloro-methane ±	Dibromochloro-methane ±	Dichloro-methane ±	1,2-Dichloro-ethane ±	cis-1,2-Dichloroethene ±	trans-1,2-Dichloroethene ±
Target value	0.01		0.16	0.06	0.03	0.06
IFA Result	0.04		0.45	0.16	0.10	0.18
A	0.03					
B	0.04		0.55	0.20	0.12	0.25
C	0.10		0.30	0.20		
D			1.5	0.7	0.02	0.03
E						
F						
G	0.04		0.60	0.21	0.12	0.22
H						
I	0.019		0.371	0.127	0.046	0.101
J	0.009		0.12	0.05	0.047	0.03
K	0.03		0.46	0.17	0.08	0.18
L			0.54			
M	0.01					
N	0.02	0.03	0.2	0.05	0.1	0.1
O	0.009		0.117	0.065	0.035	0.103
P	0.04					
Q	0.10		0.30	0.16		
R			0.77	0.18	0.13	0.25
S	0.055		0.899	0.298	0.150	0.290
T	0.025	0.001				
U			0.3		0.2	
V	0.062		0.917	0.279	0.165	0.309

All data in µg/L

Results Sample C56B

	Trichloro-ethene	Tetrachloro-ethene	1,1,1-Tri-chloroethane	Trichloro-methane	Tetrachloro-methane	1,1-Dichloro-ethene	Tribromo-methane
Target value	0.99	0.82	0.89	0.27	0.81	1.15	0.53
IFA Result	0.97	0.78	0.92	0.28	0.77	1.12	0.50
A	<0.2						0.77
B	0.63	0.72	0.87	0.38	0.80	1.06	0.38
C	0.88	0.66	0.84	0.26	0.74	n.a.	0.48
D	0.9	0.8	0.8	<0.5	0.8	1.14	0.7
E							
F							
G	0.91	0.73	0.88	0.26	0.73	1.11	0.49
H	0.99	0.77	0.94	0.37	0.77		0.62
I	1.090	0.752	1.133	0.325	1.218	1.488	0.476
J	0.978	0.698	0.913	0.309	0.767	1.27	0.538
K	0.87	0.68	0.82	0.27	0.67	1.16	0.51
L	1.08	<1.0	<1.0	<1.0	0.84	1.23	<2.0
M	1.01	0.80	0.80		0.56		0.49
N	0.91	0.62	0.89	0.25	0.69	1.13	0.78
O	0.976	0.876	0.853	0.240	0.912	1.11	0.432
P				0.74			0.41
Q	0.88	0.72	0.83	0.21	0.68	1.07	0.42
R	0.83	0.76	0.69	<0.5	0.54	1.24	<0.5
S	0.806	0.685	0.891	0.270	0.774	1.09	0.363
T	1.65599	2.17622		1.60736			
U	0.62	0.47	0.51	<0.1	0.68		
V	0.830	0.668	0.827	0.243	0.731	1.077	0.449

All data in µg/L

Measurement Uncertainties Sample C56B

	Trichloro-ethene ±	Tetrachloro-ethene ±	1,1,1-Tri-chloroethane ±	Trichloro-methane ±	Tetrachloro-methane ±	1,1-Dichloro-ethene ±	Tribromo-methane ±
Target value	0.05	0.04	0.04	0.01	0.04	0.06	0.03
IFA Result	0.15	0.12	0.14	0.04	0.12	0.17	0.08
A							0.05
B	0.13	0.14	0.17	0.08	0.16	0.21	0.08
C	0.10	0.10	0.10	0.10	0.10		0.10
D	0.2	0.2	0.2		0.1	0.07	0.10
E							
F							
G	0.18	0.15	0.18	0.05	0.15	0.22	0.10
H							
I	0.109	0.075	0.113	0.033	0.122	0.149	0.048
J	0.042	0.056	0.058	0.020	0.052	0.07	0.067
K	0.13	0.10	0.12	0.04	0.10	0.17	0.08
L	0.16				0.13	0.18	
M	0.06	0.024	0.10		0.05		0.03
N	0.08	0.03	0.05	0.03	0.05	0.1	0.04
O	0.062	0.012	0.067	0.005	0.030	0.122	0.093
P				0.02			0.04
Q	0.40	0.26	0.10	0.10	0.10	0.10	0.10
R	0.18	0.14	0.15		0.12	0.27	
S	0.218	0.185	0.241	0.073	0.209	0.293	0.098
T	0.108	0.152		0.105			
U	0.2	0.2	0.2		0.2		
V	0.249	0.200	0.248	0.073	0.219	0.323	0.135

All data in µg/L

Results Sample C56B

	Bromodichloro-methane	Dibromochloro-methane	Dichloro-methane	1,2-Dichloro-ethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
Target value	0.80	1.15	<0.6	3.42	1.36	<0.04
IFA Result	0.77	1.10	<0.3	3.33	1.35	<0.02
A	1.06	1.50				
B	0.71	0.87	<0.05	2.96	1.31	<0.05
C	0.74	1.07	<0.10	3.48	n.a.	n.a.
D	0.78	1.2	<2.0	3.98	1.36	<1.0
E						
F						
G	0.68	1.03	<0.06	3.27	1.21	<0.02
H	0.90	1.30	<0.23	2.82		
I	0.696	1.084	n.B.	3.839	0.894	n.n.
J	0.834	1.11	<0.10	3.67	1.20	<0.05
K	0.73	1.07	<0.5	3.46	1.19	<0.5
L	0.88	<2.0	<2.0	0.84		
M	0.69	1.05				
N	0.83	1.06	<1	4.28	<2	<1
O	0.753	1.10	<0.04	3.48	1.31	<0.04
P	1.04	0.94				
Q	0.73	1.06	<1.0	2.97		
R	0.72	0.95	<0.5	3.50	1.49	<0.5
S	0.674	0.904	0.040	3.40	1.12	0.028
T	1.64261	2.41902				
U			<0.1		1.1	
V	0.708	1.009	<0.100	2.896	1.138	<0.100

All data in µg/L

Measurement Uncertainties Sample C56B

	Bromodichloro-methane ±	Dibromochloro-methane ±	Dichloro-methane ±	1,2-Dichloro-ethane ±	cis-1,2-Dichloroethene ±	trans-1,2-Dichloroethene ±
Target value	0.04	0.06		0.17	0.07	
IFA Result	0.12	0.17		0.50	0.20	
A	0.13	0.03				
B	0.14	0.17		0.60	0.26	
C		0.15		0.30		
D	0.20	0.2		0.7	0.10	
E						
F						
G	0.14	0.21		0.65	0.24	
H						
I	0.07	0.108		0.384	0.089	
J	0.035	0.06		0.20	0.11	
K	0.11	0.16		0.52	0.18	
L	0.13			0.13		
M	0.05	0.05				
N	0.02	0.03	0.2	0.05	0.1	0.1
O	0.079	0.072		0.143	0.032	
P	0.02	0.03				
Q	0.10	0.10		0.49		
R	0.12	0.15		0.56	0.33	
S	0.182	0.244	0.011	0.917	0.302	0.007
T	0.078	0.116				
U					0.3	
V	0.212	0.303		0.869	0.342	

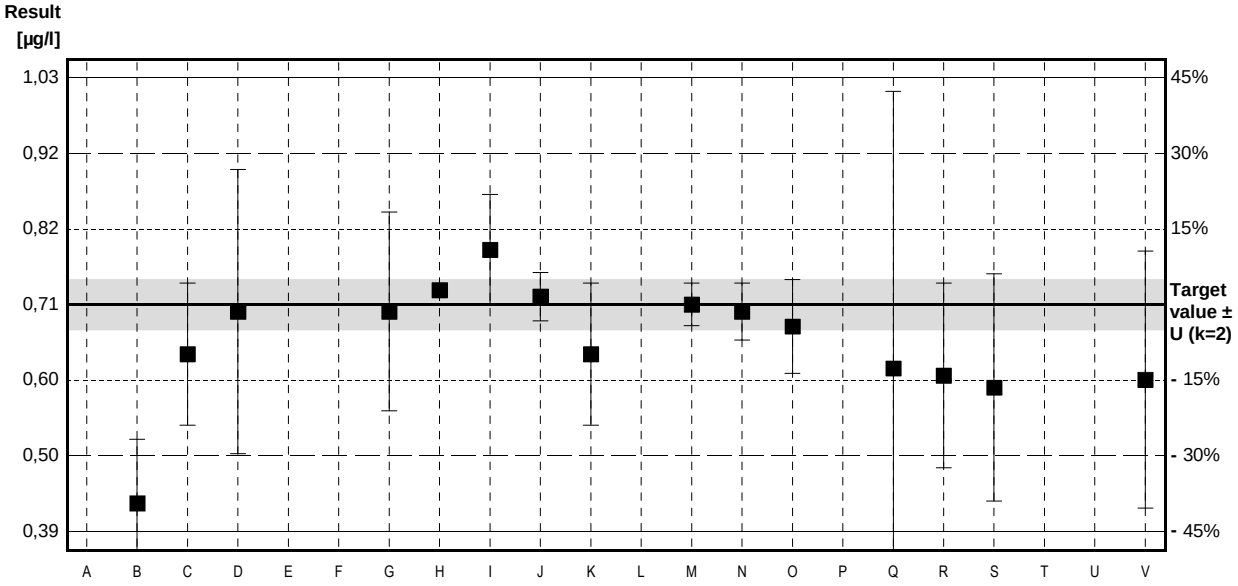
All data in µg/L

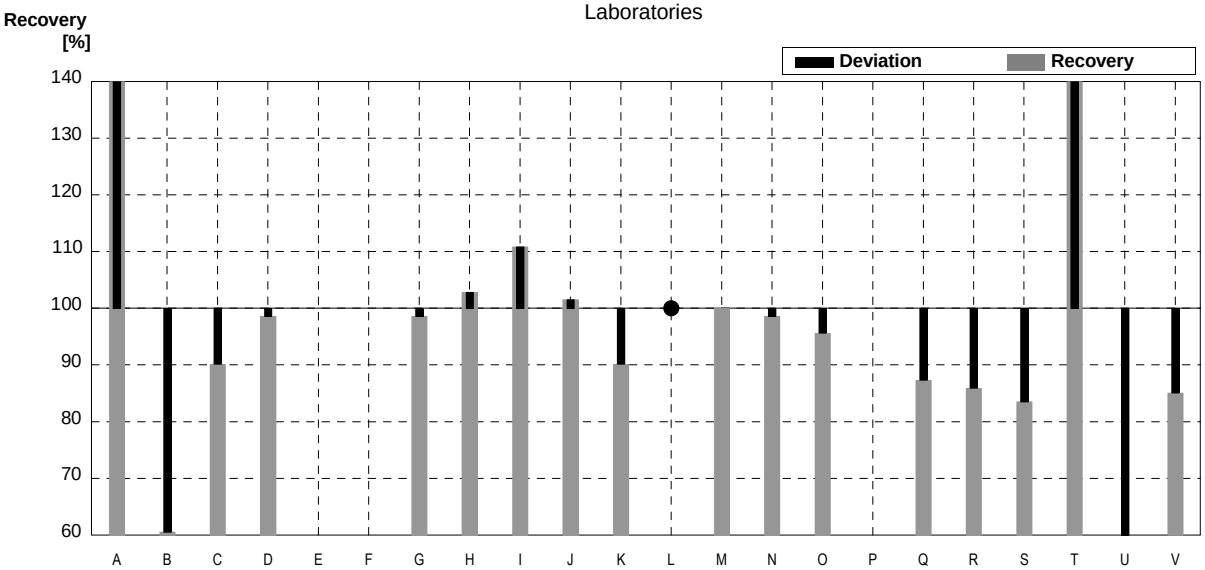
Sample C56A

Parameter Trichloroethene

Target value	± U (k=2)	0,71 µg/l	±	0,04 µg/l	
IFA result	± U (k=2)	0,70 µg/l	±	0,11 µg/l	
Stability test		µg/l			

Lab Code	Result	±	Unit	Recovery	z-Score
A	2,3 *	0,5	µg/l	324%	13,17
B	0,43	0,09	µg/l	61%	-2,32
C	0,64	0,10	µg/l	90%	-0,58
D	0,7	0,2	µg/l	99%	-0,08
E			µg/l		
F			µg/l		
G	0,70	0,14	µg/l	99%	-0,08
H	0,73		µg/l	103%	0,17
I	0,787	0,078	µg/l	111%	0,64
J	0,721	0,034	µg/l	102%	0,09
K	0,64	0,10	µg/l	90%	-0,58
L	<1,0		µg/l	•	
M	0,71	0,03	µg/l	100%	0,00
N	0,70	0,04	µg/l	99%	-0,08
O	0,679	0,066	µg/l	96%	-0,26
P			µg/l		
Q	0,62	0,39	µg/l	87%	-0,75
R	0,61	0,13	µg/l	86%	-0,83
S	0,593	0,160	µg/l	84%	-0,97
T	1,41478 *	0,092	µg/l	199%	5,84
U	0,38 *	0,2	µg/l	54%	-2,73
V	0,604	0,181	µg/l	85%	-0,88





	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,78 ± 0,30	0,66 ± 0,06	µg/l
Recov. ± CI(99%)	109,2 ± 41,7	92,6 ± 9,1	%
SD between labs	0,43	0,08	µg/l
RSD between labs	55,9	12,7	%
n for calculation	18	15	

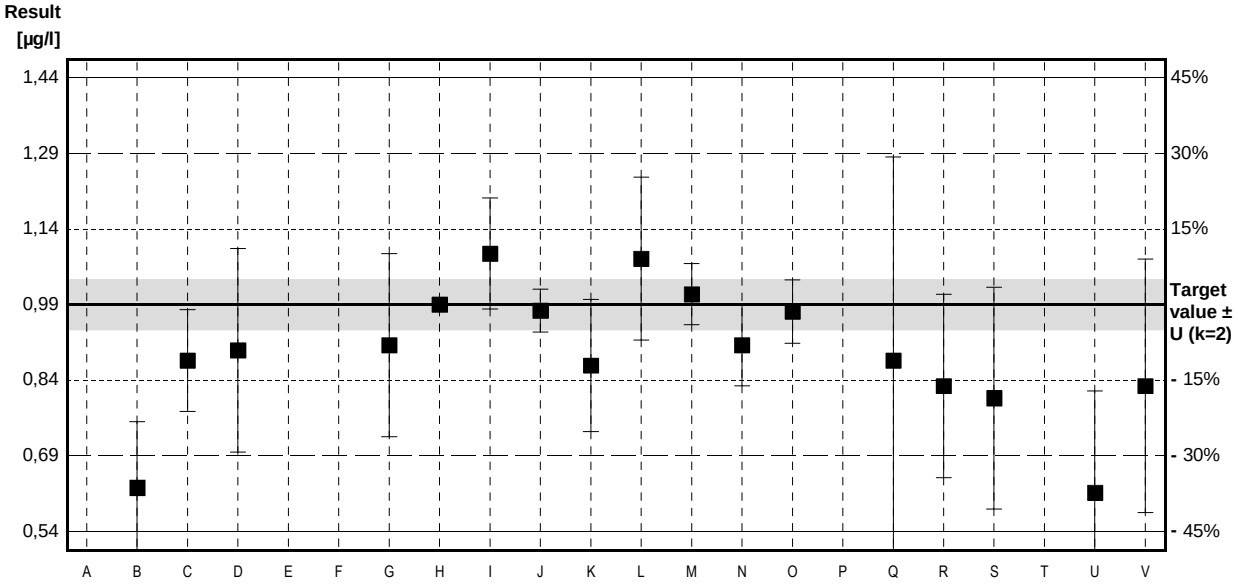
Sample C56B

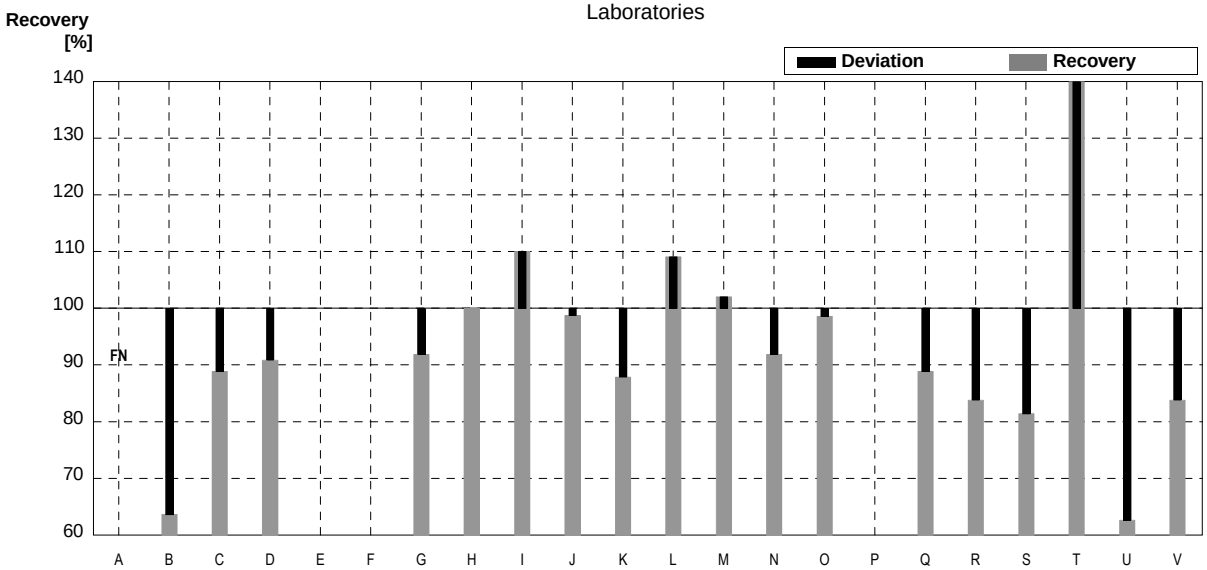
Parameter Trichloroethene

Target value ± U (k=2)	0,99	µg/l	±	0,05	µg/l
IFA result ± U (k=2)	0,97	µg/l	±	0,15	µg/l
Stability test		µg/l			

Lab Code	Result	±	Unit	Recovery	z-Score
A	<0,2		µg/l	FN	
B	0,63	0,13	µg/l	64%	-2,14
C	0,88	0,10	µg/l	89%	-0,65
D	0,9	0,2	µg/l	91%	-0,53
E			µg/l		
F			µg/l		
G	0,91	0,18	µg/l	92%	-0,48
H	0,99		µg/l	100%	0,00
I	1,090	0,109	µg/l	110%	0,59
J	0,978	0,042	µg/l	99%	-0,07
K	0,87	0,13	µg/l	88%	-0,71
L	1,08	0,16	µg/l	109%	0,53
M	1,01	0,06	µg/l	102%	0,12
N	0,91	0,08	µg/l	92%	-0,48
O	0,976	0,062	µg/l	99%	-0,08
P			µg/l		
Q	0,88	0,40	µg/l	89%	-0,65
R	0,83	0,18	µg/l	84%	-0,95
S	0,806	0,218	µg/l	81%	-1,09
T	1,65599 *	0,108	µg/l	167%	3,96
U	0,62	0,2	µg/l	63%	-2,20
V	0,830	0,249	µg/l	84%	-0,95

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,94 ± 0,15	0,89 ± 0,09	µg/l
Recov. ± CI(99%)	94,5 ± 15,2	90,3 ± 9,3	%
SD between labs	0,22	0,13	µg/l
RSD between labs	23,5	14,6	%
n for calculation	18	17	



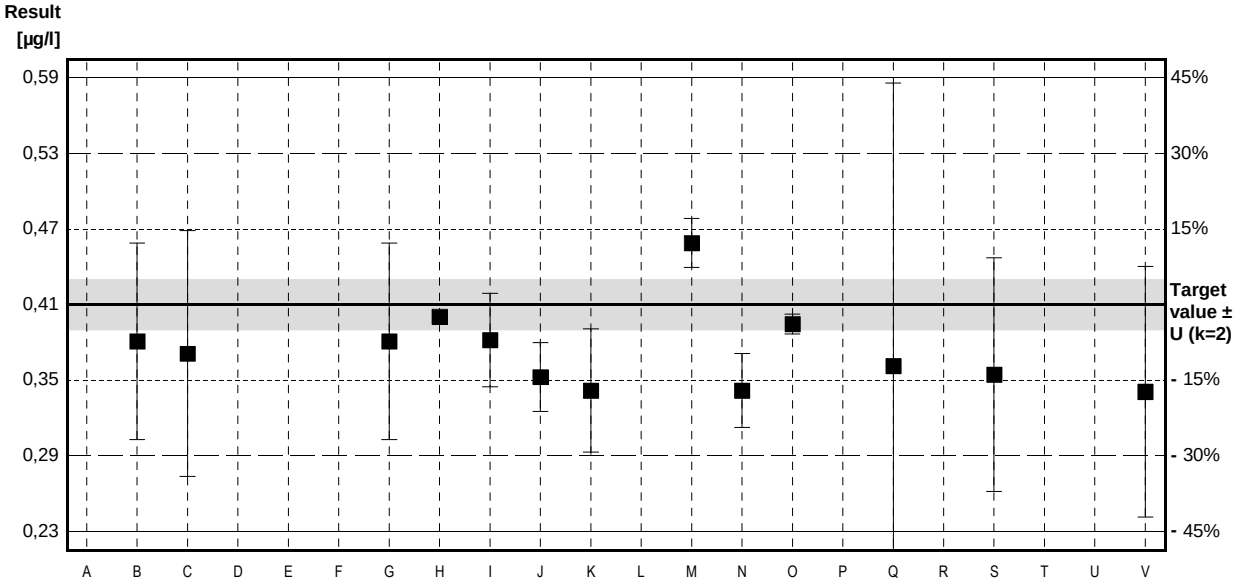


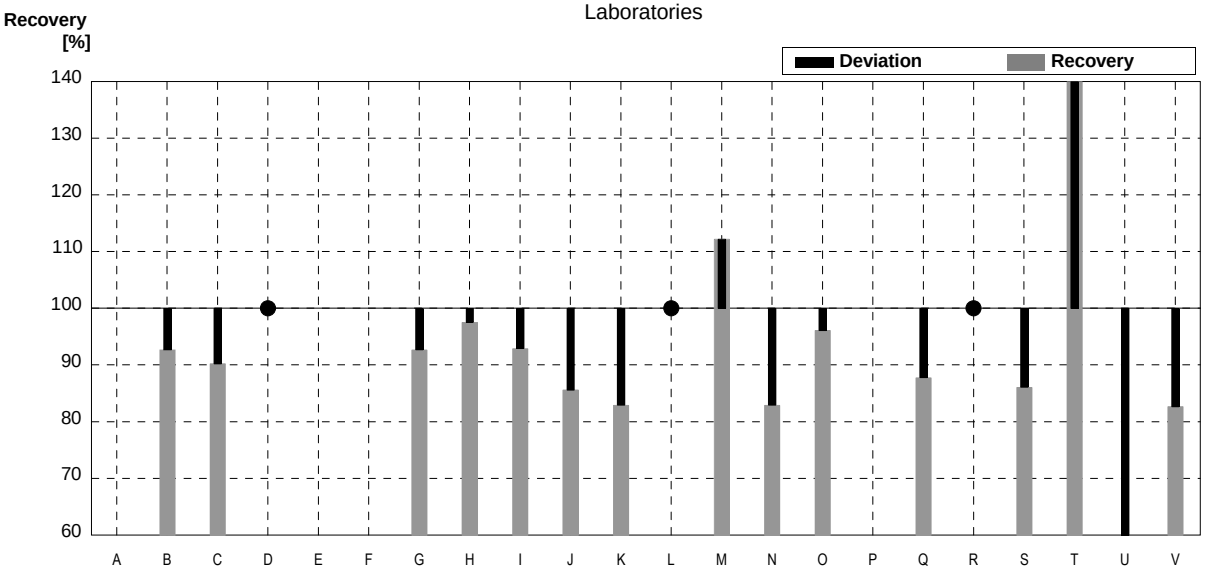
Sample C56A

Parameter Tetrachloroethene

Target value ± U (k=2)	0,41	µg/l	±	0,02	µg/l
IFA result ± U (k=2)	0,39	µg/l	±	0,06	µg/l
Stability test		µg/l			

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	0,38	0,08	µg/l	93%	-0,39
C	0,37	0,10	µg/l	90%	-0,51
D	<0,5		µg/l	•	
E			µg/l		
F			µg/l		
G	0,38	0,08	µg/l	93%	-0,39
H	0,40		µg/l	98%	-0,13
I	0,381	0,038	µg/l	93%	-0,37
J	0,351	0,028	µg/l	86%	-0,76
K	0,34	0,05	µg/l	83%	-0,90
L	<1,0		µg/l	•	
M	0,46	0,02	µg/l	112%	0,64
N	0,34	0,03	µg/l	83%	-0,90
O	0,394	0,008	µg/l	96%	-0,21
P			µg/l		
Q	0,36	0,23	µg/l	88%	-0,64
R	<0,5		µg/l	•	
S	0,353	0,095	µg/l	86%	-0,73
T	1,37395 *	0,096	µg/l	335%	12,37
U	0,21 *	0,2	µg/l	51%	-2,57
V	0,339	0,102	µg/l	83%	-0,91





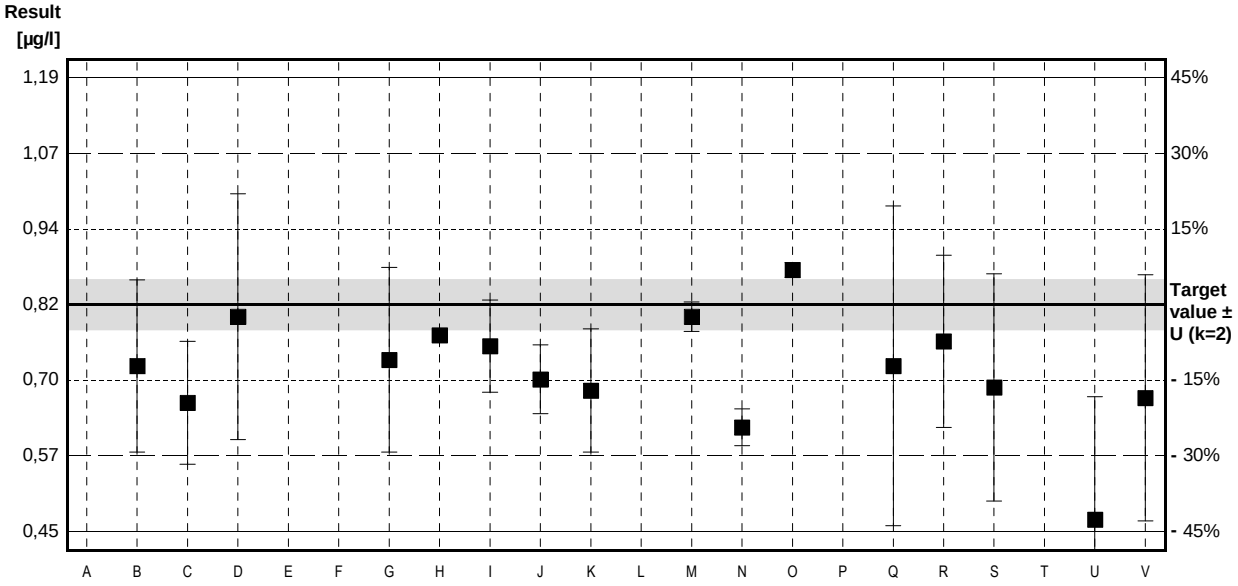
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,43 ± 0,21	0,37 ± 0,03	µg/l
Recov. ± CI(99%)	104,6 ± 50,0	91,0 ± 6,9	%
SD between labs	0,27	0,03	µg/l
RSD between labs	62,2	8,9	%
n for calculation	15	13	

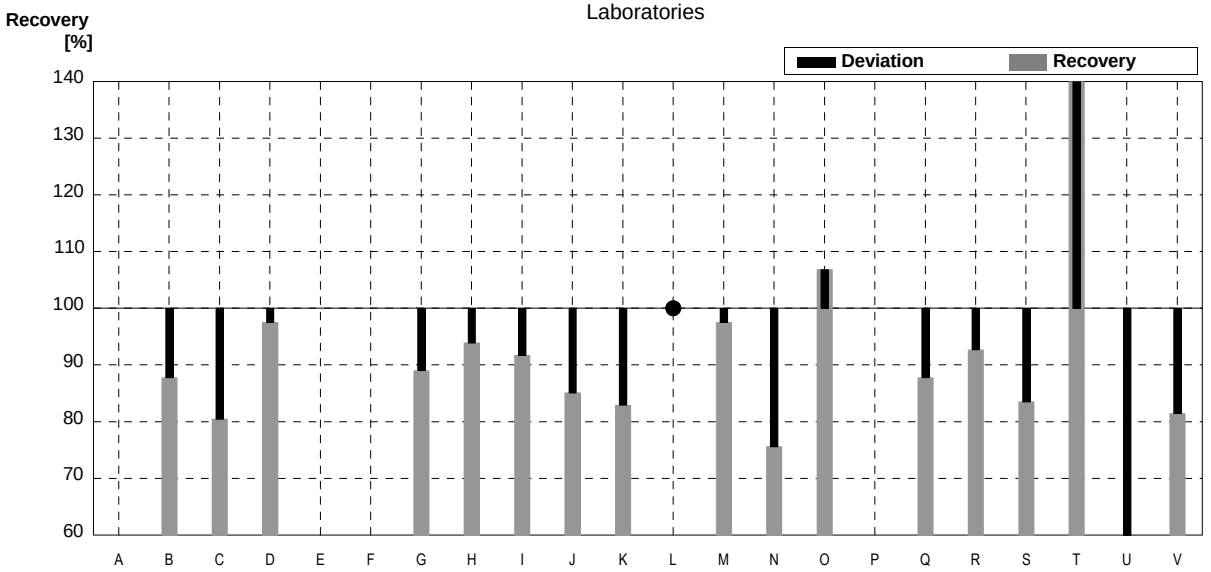
Sample C56B

Parameter Tetrachloroethene

Target value ± U (k=2)	0,82	µg/l	±	0,04	µg/l
IFA result ± U (k=2)	0,78	µg/l	±	0,12	µg/l
Stability test		µg/l			

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	0,72	0,14	µg/l	88%	-0,64
C	0,66	0,10	µg/l	80%	-1,03
D	0,8	0,2	µg/l	98%	-0,13
E			µg/l		
F			µg/l		
G	0,73	0,15	µg/l	89%	-0,58
H	0,77		µg/l	94%	-0,32
I	0,752	0,075	µg/l	92%	-0,44
J	0,698	0,056	µg/l	85%	-0,78
K	0,68	0,10	µg/l	83%	-0,90
L	<1,0		µg/l	•	
M	0,80	0,024	µg/l	98%	-0,13
N	0,62	0,03	µg/l	76%	-1,28
O	0,876	0,012	µg/l	107%	0,36
P			µg/l		
Q	0,72	0,26	µg/l	88%	-0,64
R	0,76	0,14	µg/l	93%	-0,39
S	0,685	0,185	µg/l	84%	-0,87
T	2,17622 *	0,152	µg/l	265%	8,70
U	0,47 *	0,2	µg/l	57%	-2,25
V	0,668	0,200	µg/l	81%	-0,98





	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,80 ± 0,26	0,73 ± 0,05	µg/l
Recov. ± CI(99%)	97,5 ± 31,6	88,9 ± 6,2	%
SD between labs	0,37	0,07	µg/l
RSD between labs	45,7	9,0	%
n for calculation	17	15	

Sample C56A

Parameter 1,1,1-Trichloroethane

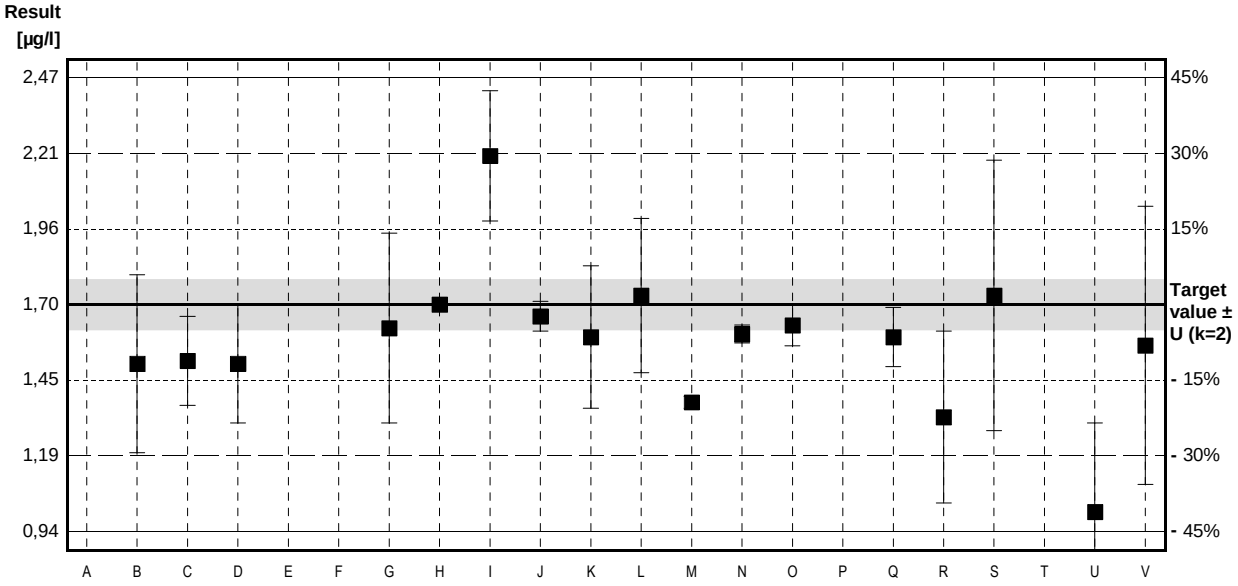
Target value ± U (k=2) 1,70 µg/l ± 0,09 µg/l

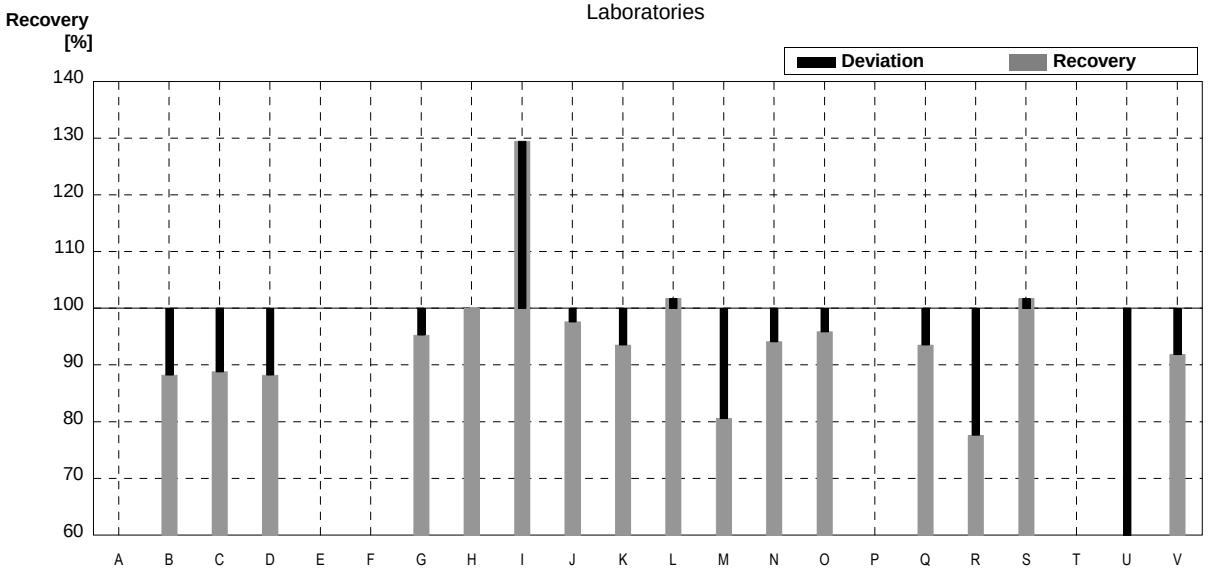
IFA result ± U (k=2) 1,77 µg/l ± 0,27 µg/l

Stability test µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	1,50	0,30	µg/l	88%	-0,78
C	1,51	0,15	µg/l	89%	-0,75
D	1,5	0,2	µg/l	88%	-0,78
E			µg/l		
F			µg/l		
G	1,62	0,32	µg/l	95%	-0,31
H	1,70		µg/l	100%	0,00
I	2,201 *	0,220	µg/l	129%	1,96
J	1,66	0,05	µg/l	98%	-0,16
K	1,59	0,24	µg/l	94%	-0,43
L	1,73	0,26	µg/l	102%	0,12
M	1,37	0,02	µg/l	81%	-1,29
N	1,60	0,03	µg/l	94%	-0,39
O	1,63	0,069	µg/l	96%	-0,27
P			µg/l		
Q	1,59	0,10	µg/l	94%	-0,43
R	1,32	0,29	µg/l	78%	-1,49
S	1,73	0,456	µg/l	102%	0,12
T			µg/l		
U	1,0 *	0,3	µg/l	59%	-2,75
V	1,562	0,469	µg/l	92%	-0,54

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,58 ± 0,17	1,57 ± 0,09	µg/l
Recov. ± CI(99%)	92,8 ± 10,0	92,6 ± 5,4	%
SD between labs	0,24	0,12	µg/l
RSD between labs	15,2	7,6	%
n for calculation	17	15	





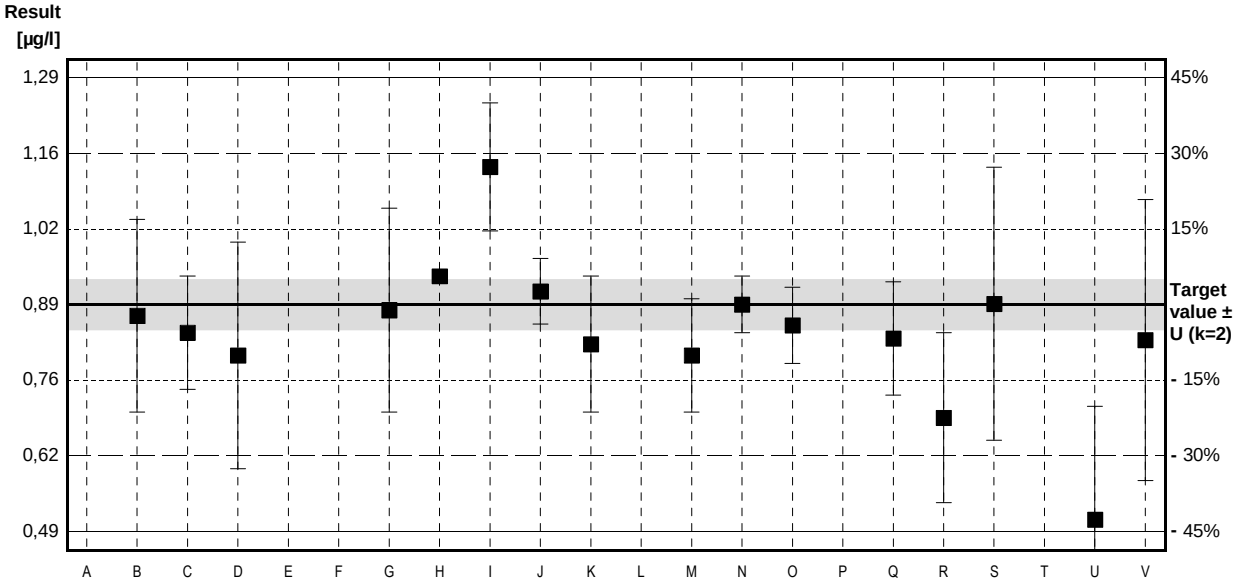
Sample C56B

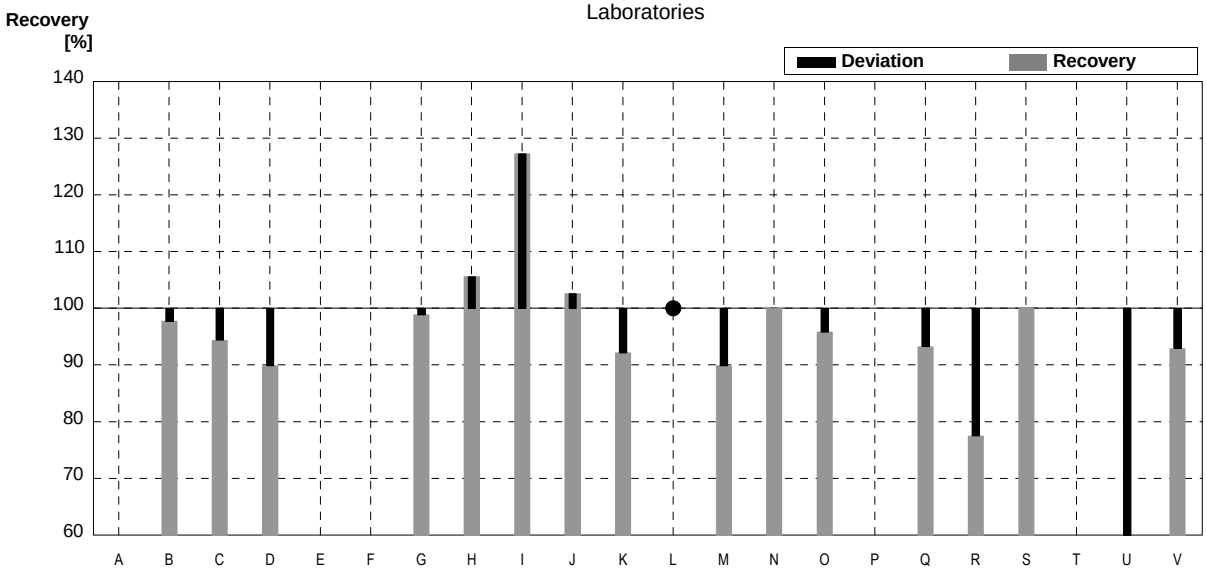
Parameter 1,1,1-Trichloroethane

Target value	± U (k=2)	0,89	µg/l	±	0,04 µg/l
IFA result	± U (k=2)	0,92	µg/l	±	0,14 µg/l
Stability test			µg/l		

Lab Code	Result		±	Unit	Recovery	z-Score
A				µg/l		
B	0,87		0,17	µg/l	98%	-0,15
C	0,84		0,10	µg/l	94%	-0,37
D	0,8		0,2	µg/l	90%	-0,67
E				µg/l		
F				µg/l		
G	0,88		0,18	µg/l	99%	-0,07
H	0,94			µg/l	106%	0,37
I	1,133	*	0,113	µg/l	127%	1,82
J	0,913		0,058	µg/l	103%	0,17
K	0,82		0,12	µg/l	92%	-0,52
L	<1,0			µg/l	•	
M	0,80		0,10	µg/l	90%	-0,67
N	0,89		0,05	µg/l	100%	0,00
O	0,853		0,067	µg/l	96%	-0,28
P				µg/l		
Q	0,83		0,10	µg/l	93%	-0,45
R	0,69		0,15	µg/l	78%	-1,50
S	0,891		0,241	µg/l	100%	0,01
T				µg/l		
U	0,51	*	0,2	µg/l	57%	-2,85
V	0,827		0,248	µg/l	93%	-0,47

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,84 ± 0,09	0,85 ± 0,05	µg/l
Recov. ± CI(99%)	94,7 ± 10,6	95,1 ± 5,5	%
SD between labs	0,13	0,06	µg/l
RSD between labs	15,1	7,3	%
n for calculation	16	14	





Sample C56A

Parameter Trichloromethane

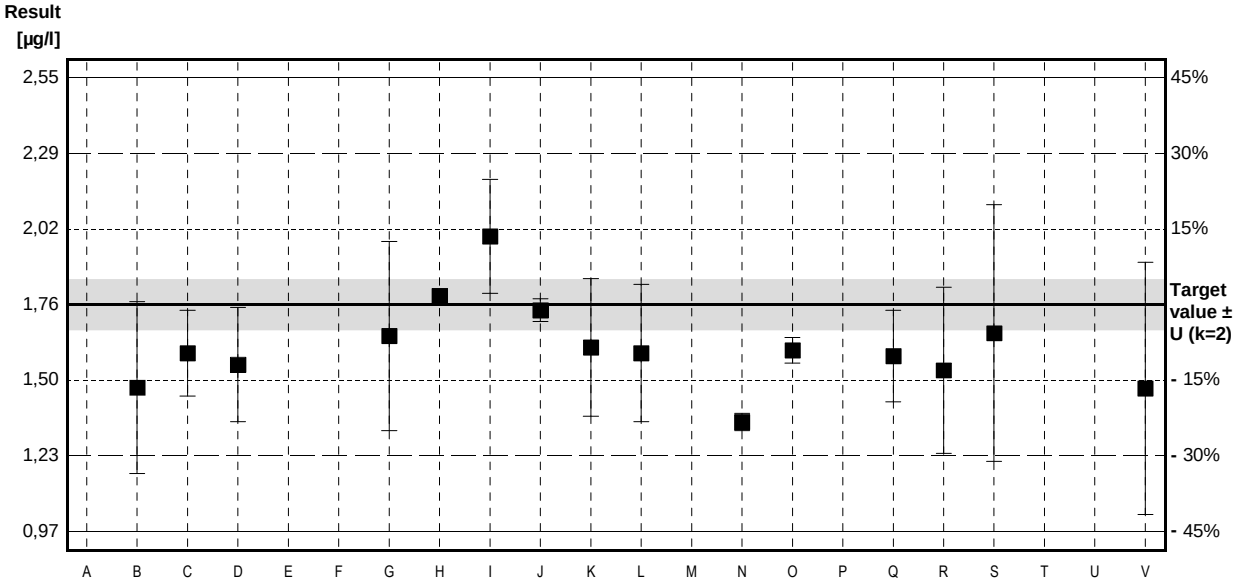
Target value ± U (k=2) 1,76 µg/l ± 0,09 µg/l

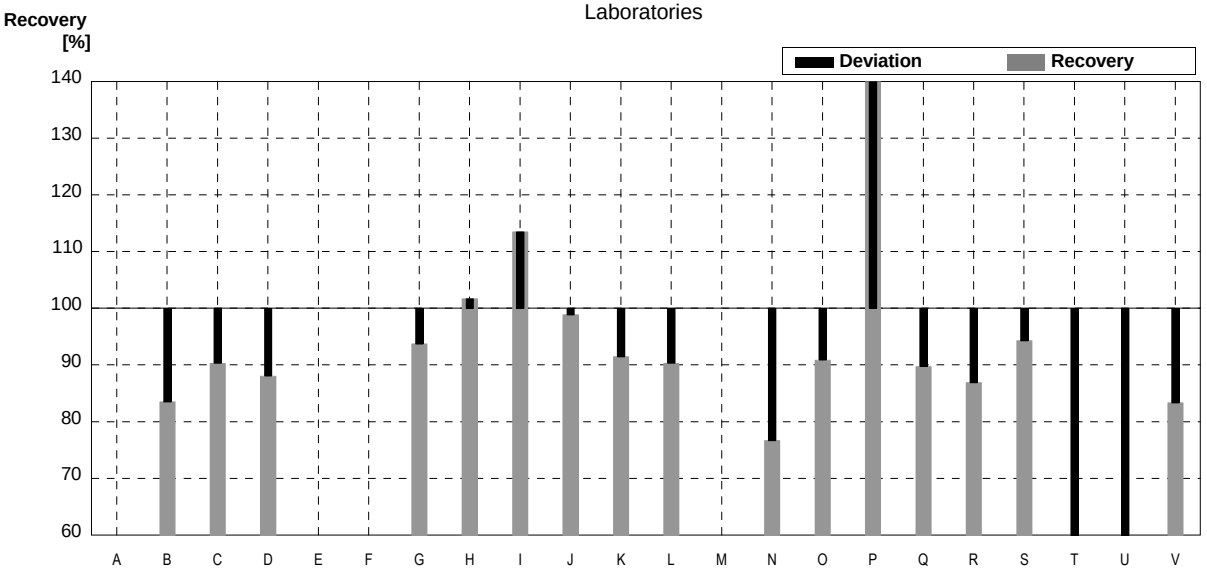
IFA result ± U (k=2) 1,72 µg/l ± 0,26 µg/l

Stability test µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	1,47	0,30	µg/l	84%	-1,10
C	1,59	0,15	µg/l	90%	-0,64
D	1,55	0,2	µg/l	88%	-0,80
E			µg/l		
F			µg/l		
G	1,65	0,33	µg/l	94%	-0,42
H	1,79		µg/l	102%	0,11
I	1,998	0,199	µg/l	114%	0,90
J	1,74	0,04	µg/l	99%	-0,08
K	1,61	0,24	µg/l	91%	-0,57
L	1,59	0,24	µg/l	90%	-0,64
M			µg/l		
N	1,35	0,03	µg/l	77%	-1,55
O	1,60	0,045	µg/l	91%	-0,61
P	2,77 *	0,10	µg/l	157%	3,83
Q	1,58	0,16	µg/l	90%	-0,68
R	1,53	0,29	µg/l	87%	-0,87
S	1,66	0,448	µg/l	94%	-0,38
T	0,46074 *	0,030	µg/l	26%	-4,92
U	0,58 *	0,2	µg/l	33%	-4,47
V	1,467	0,440	µg/l	83%	-1,11

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,55 ± 0,33	1,61 ± 0,12	µg/l
Recov. ± CI(99%)	88,3 ± 18,8	91,6 ± 6,6	%
SD between labs	0,48	0,15	µg/l
RSD between labs	31,2	9,4	%
n for calculation	18	15	





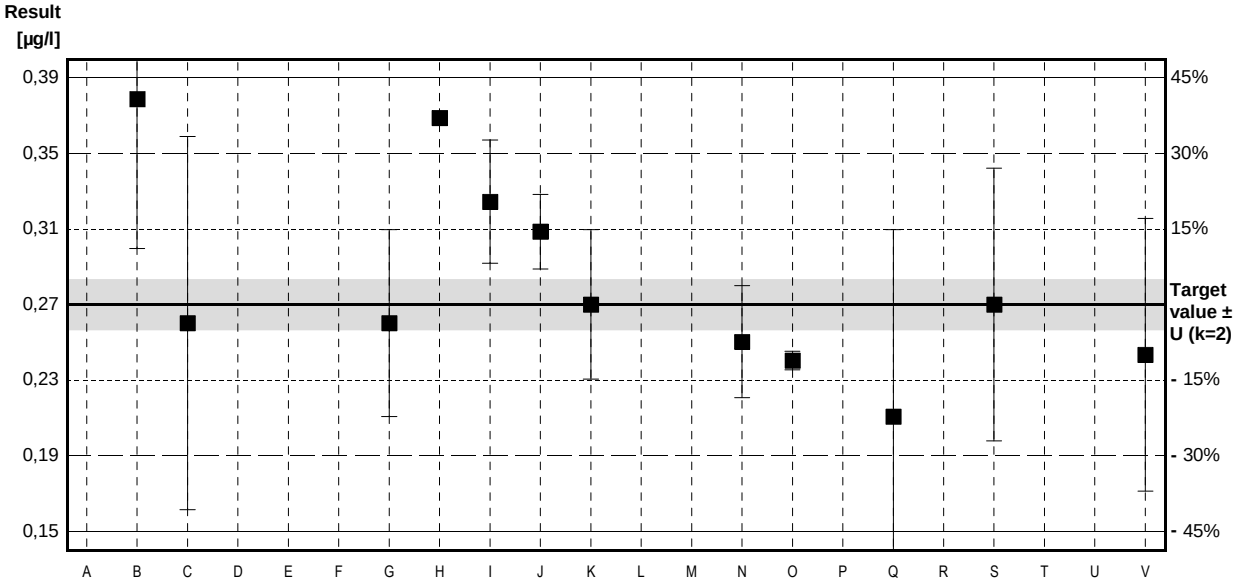
Sample C56B

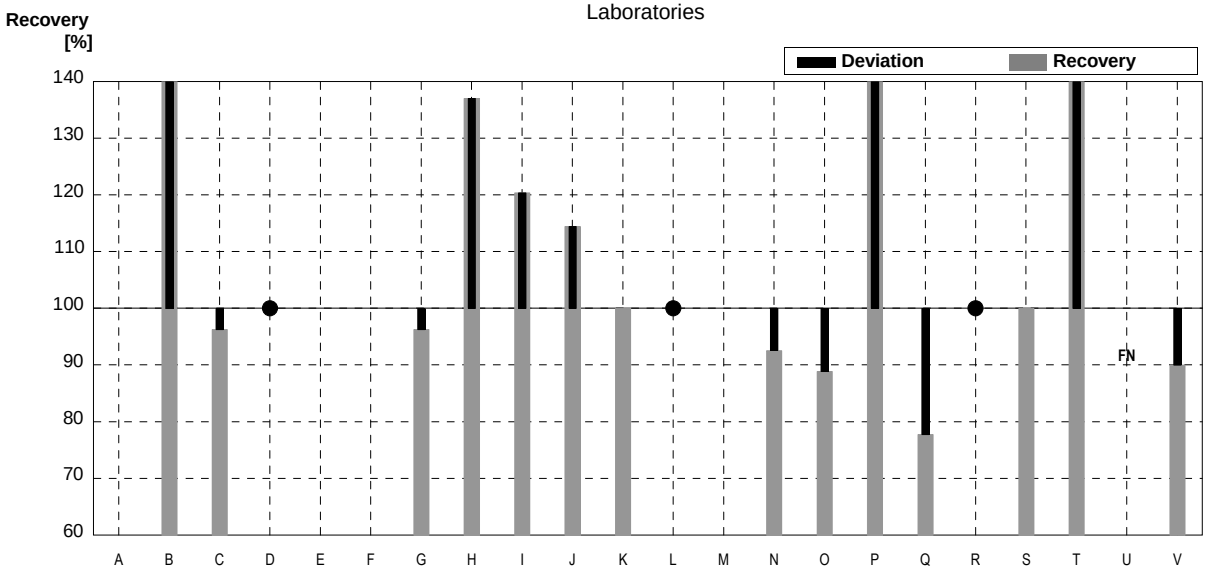
Parameter Trichloromethane

Target value	± U (k=2)	0,27 µg/l	±	0,01 µg/l	
IFA result	± U (k=2)	0,28 µg/l	±	0,04 µg/l	
Stability test		µg/l			

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	0,38	0,08	µg/l	141%	2,72
C	0,26	0,10	µg/l	96%	-0,25
D	<0,5		µg/l	•	
E			µg/l		
F			µg/l		
G	0,26	0,05	µg/l	96%	-0,25
H	0,37		µg/l	137%	2,47
I	0,325	0,033	µg/l	120%	1,36
J	0,309	0,020	µg/l	114%	0,96
K	0,27	0,04	µg/l	100%	0,00
L	<1,0		µg/l	•	
M			µg/l		
N	0,25	0,03	µg/l	93%	-0,49
O	0,240	0,005	µg/l	89%	-0,74
P	0,74 *	0,02	µg/l	274%	11,60
Q	0,21	0,10	µg/l	78%	-1,48
R	<0,5		µg/l	•	
S	0,270	0,073	µg/l	100%	0,00
T	1,60736 *	0,105	µg/l	595%	33,02
U	<0,1		µg/l	FN	
V	0,243	0,073	µg/l	90%	-0,67

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,41 ± 0,30	0,28 ± 0,05	µg/l
Recov. ± CI(99%)	151,7 ± 109,9	104,5 ± 17,6	%
SD between labs	0,37	0,05	µg/l
RSD between labs	90,1	18,7	%
n for calculation	14	12	





Sample C56A

Parameter Tetrachloromethane

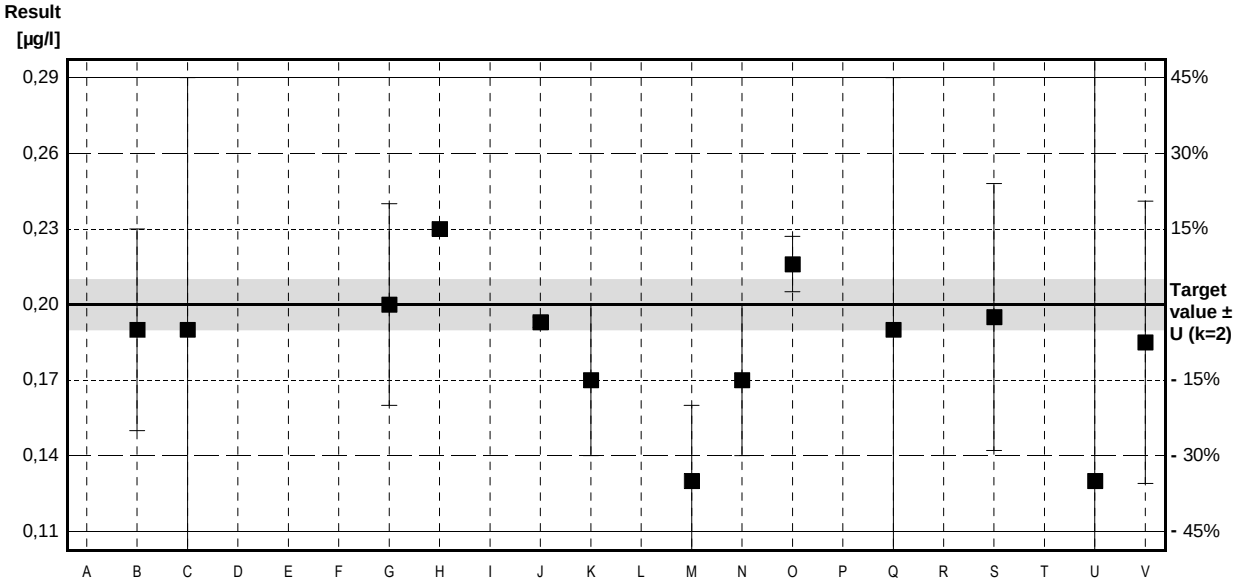
Target value ± U (k=2) 0,20 µg/l ± 0,01 µg/l

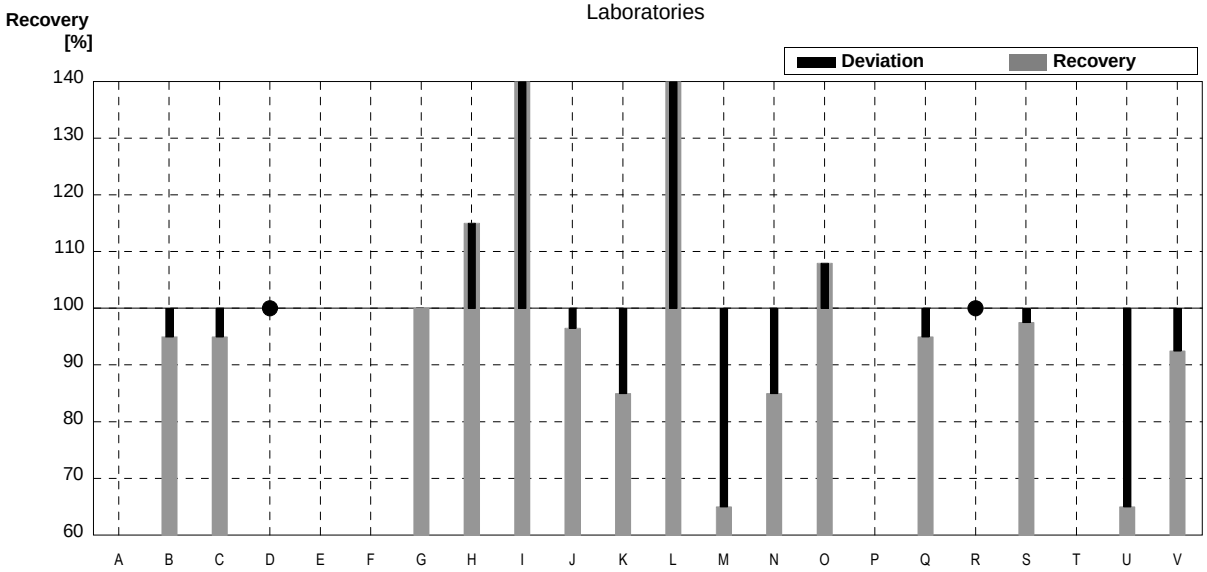
IFA result ± U (k=2) 0,20 µg/l ± 0,03 µg/l

Stability test µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	0,19	0,04	µg/l	95%	-0,28
C	0,19	0,10	µg/l	95%	-0,28
D	<0,5		µg/l	•	
E			µg/l		
F			µg/l		
G	0,20	0,04	µg/l	100%	0,00
H	0,23		µg/l	115%	0,83
I	0,402 *	0,040	µg/l	201%	5,61
J	0,193	0,002	µg/l	97%	-0,19
K	0,17	0,03	µg/l	85%	-0,83
L	0,38 *	0,06	µg/l	190%	5,00
M	0,13	0,03	µg/l	65%	-1,94
N	0,17	0,03	µg/l	85%	-0,83
O	0,216	0,011	µg/l	108%	0,44
P			µg/l		
Q	0,19	0,10	µg/l	95%	-0,28
R	<0,5		µg/l	•	
S	0,195	0,053	µg/l	98%	-0,14
T			µg/l		
U	0,13	0,2	µg/l	65%	-1,94
V	0,185	0,056	µg/l	93%	-0,42

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,21 ± 0,06	0,18 ± 0,02	µg/l
Recov. ± CI(99%)	105,7 ± 29,9	91,9 ± 12,2	%
SD between labs	0,08	0,03	µg/l
RSD between labs	36,8	15,7	%
n for calculation	15	13	





Sample C56B

Parameter Tetrachloromethane

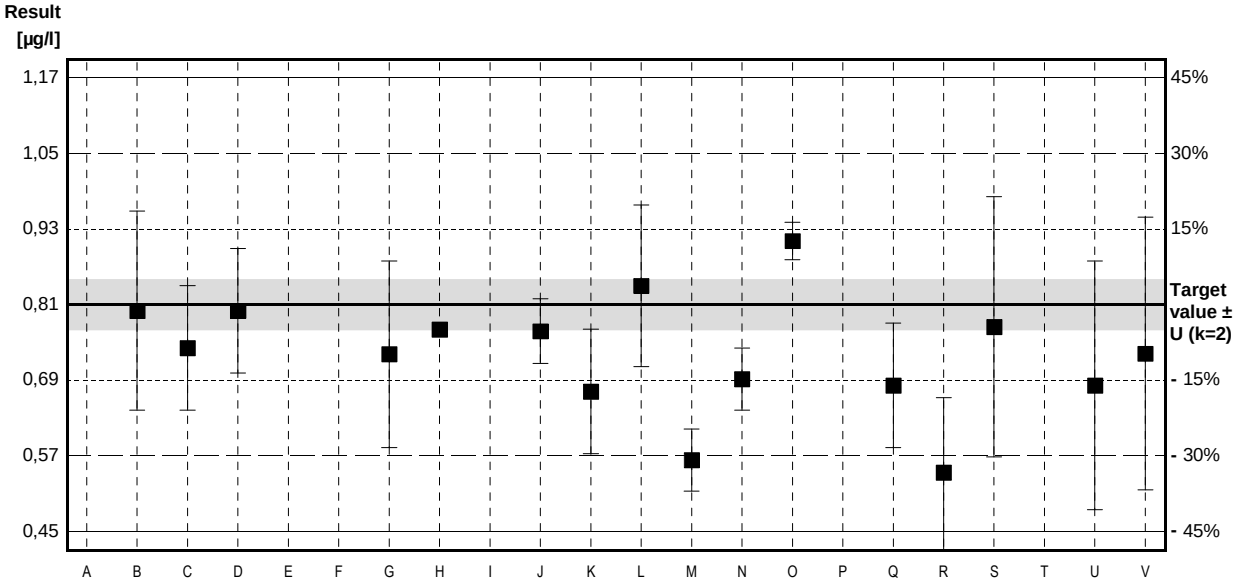
Target value ± U (k=2) 0,81 µg/l ± 0,04 µg/l

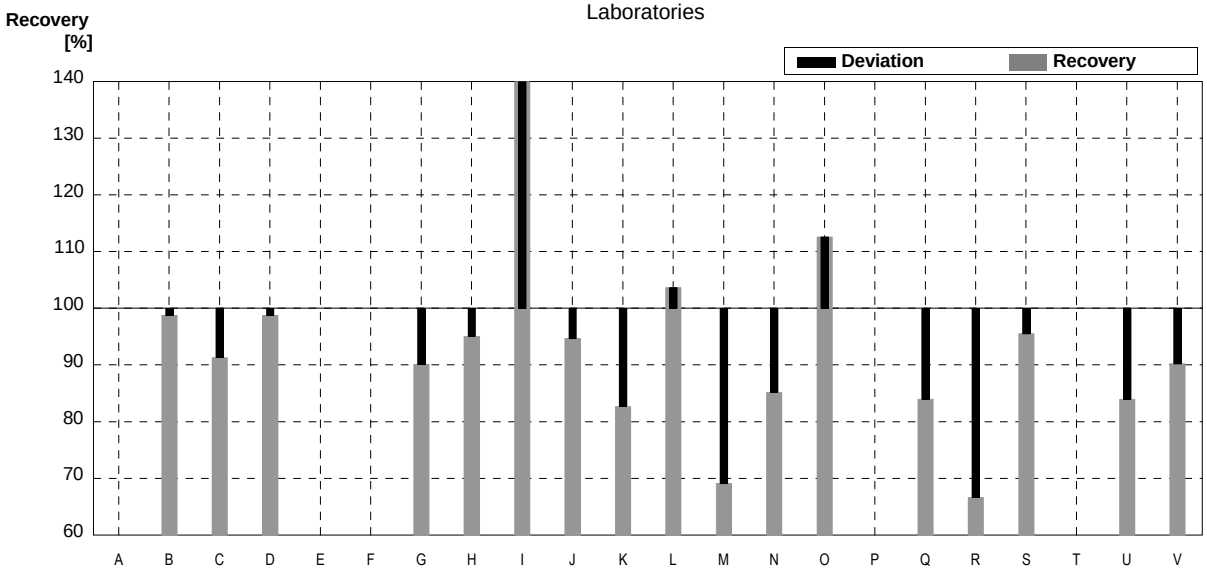
IFA result ± U (k=2) 0,77 µg/l ± 0,12 µg/l

Stability test µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	0,80	0,16	µg/l	99%	-0,07
C	0,74	0,10	µg/l	91%	-0,48
D	0,8	0,1	µg/l	99%	-0,07
E			µg/l		
F			µg/l		
G	0,73	0,15	µg/l	90%	-0,55
H	0,77		µg/l	95%	-0,27
I	1,218 *	0,122	µg/l	150%	2,80
J	0,767	0,052	µg/l	95%	-0,29
K	0,67	0,10	µg/l	83%	-0,96
L	0,84	0,13	µg/l	104%	0,21
M	0,56	0,05	µg/l	69%	-1,71
N	0,69	0,05	µg/l	85%	-0,82
O	0,912	0,030	µg/l	113%	0,70
P			µg/l		
Q	0,68	0,10	µg/l	84%	-0,89
R	0,54	0,12	µg/l	67%	-1,85
S	0,774	0,209	µg/l	96%	-0,25
T			µg/l		
U	0,68	0,2	µg/l	84%	-0,89
V	0,731	0,219	µg/l	90%	-0,54

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,76 ± 0,11	0,73 ± 0,07	µg/l
Recov. ± CI(99%)	93,7 ± 13,1	90,2 ± 8,6	%
SD between labs	0,15	0,09	µg/l
RSD between labs	19,7	13,0	%
n for calculation	17	16	





Sample C56A

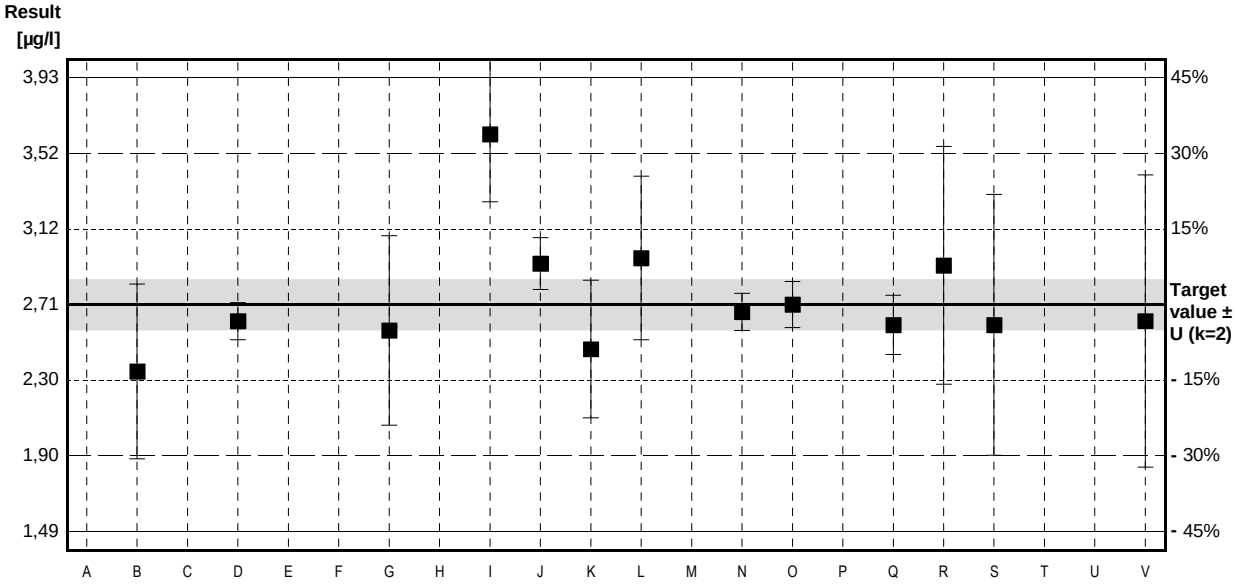
Parameter 1,1-Dichloroethene

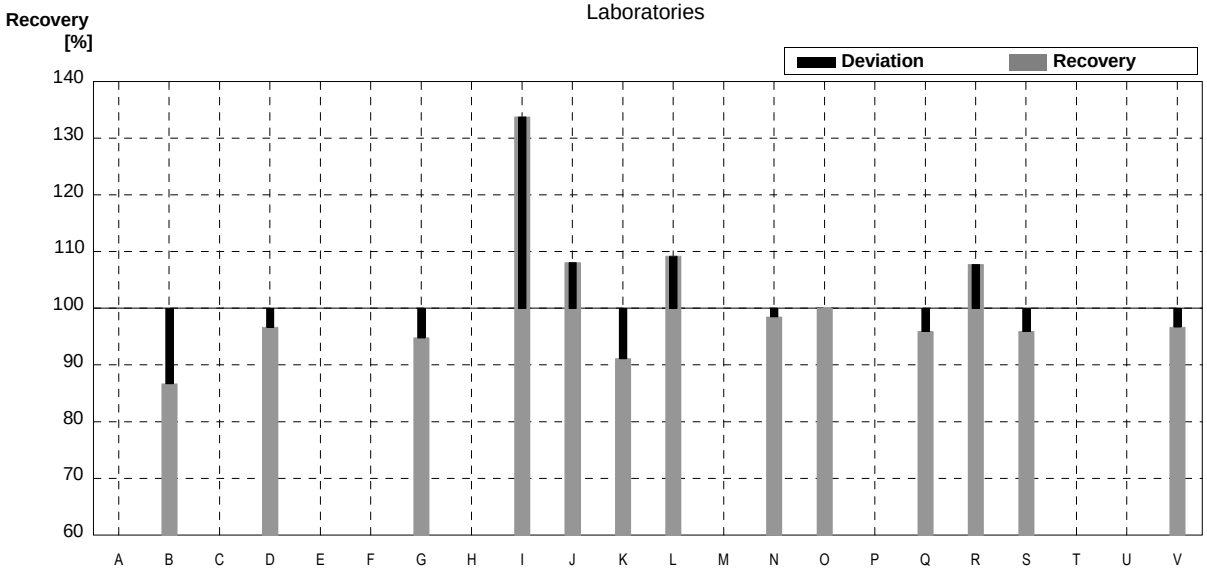
Target value ± U (k=2) 2,71 µg/l ± 0,14 µg/l

IFA result ± U (k=2) 2,68 µg/l ± 0,40 µg/l

Stability test µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	2,35	0,47	µg/l	87%	-0,66
C	n,a.		µg/l		
D	2,62	0,1	µg/l	97%	-0,17
E			µg/l		
F			µg/l		
G	2,57	0,51	µg/l	95%	-0,26
H			µg/l		
I	3,625 *	0,363	µg/l	134%	1,69
J	2,93	0,14	µg/l	108%	0,41
K	2,47	0,37	µg/l	91%	-0,44
L	2,96	0,44	µg/l	109%	0,46
M			µg/l		
N	2,67	0,1	µg/l	99%	-0,07
O	2,71	0,124	µg/l	100%	0,00
P			µg/l		
Q	2,60	0,16	µg/l	96%	-0,20
R	2,92	0,64	µg/l	108%	0,39
S	2,60	0,702	µg/l	96%	-0,20
T			µg/l		
U			µg/l		
V	2,621	0,786	µg/l	97%	-0,16





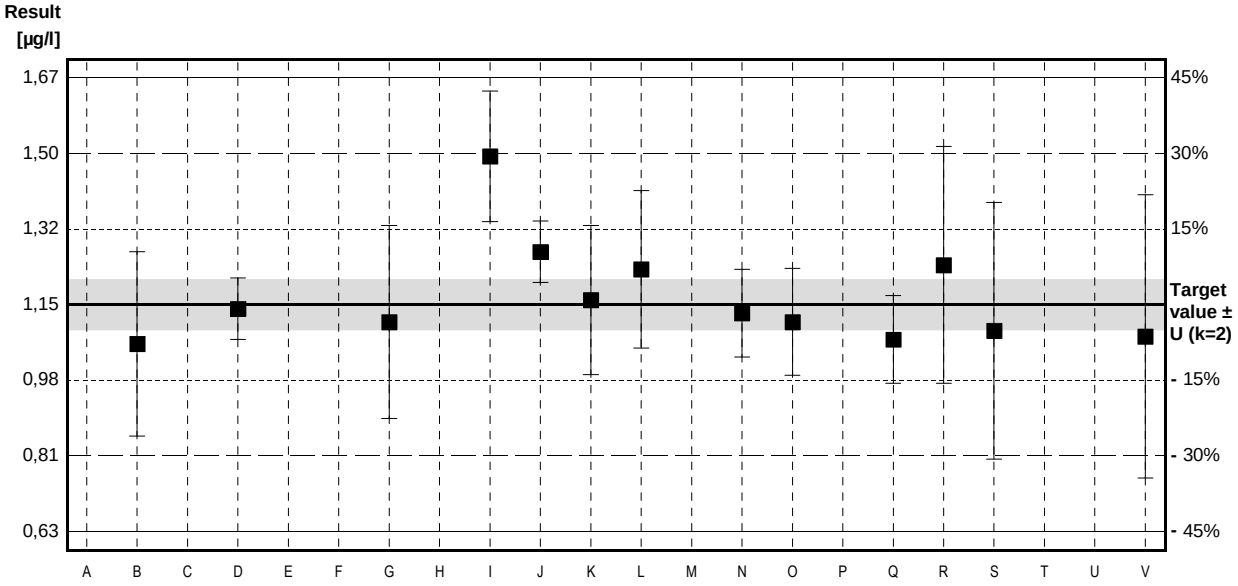
	All results	Outliers excl.	Unit
Mean ± CI(99%)	2,74 ± 0,27	2,67 ± 0,17	µg/l
Recov. ± CI(99%)	101,2 ± 10,0	98,5 ± 6,2	%
SD between labs	0,32	0,19	µg/l
RSD between labs	11,7	7,0	%
n for calculation	13	12	

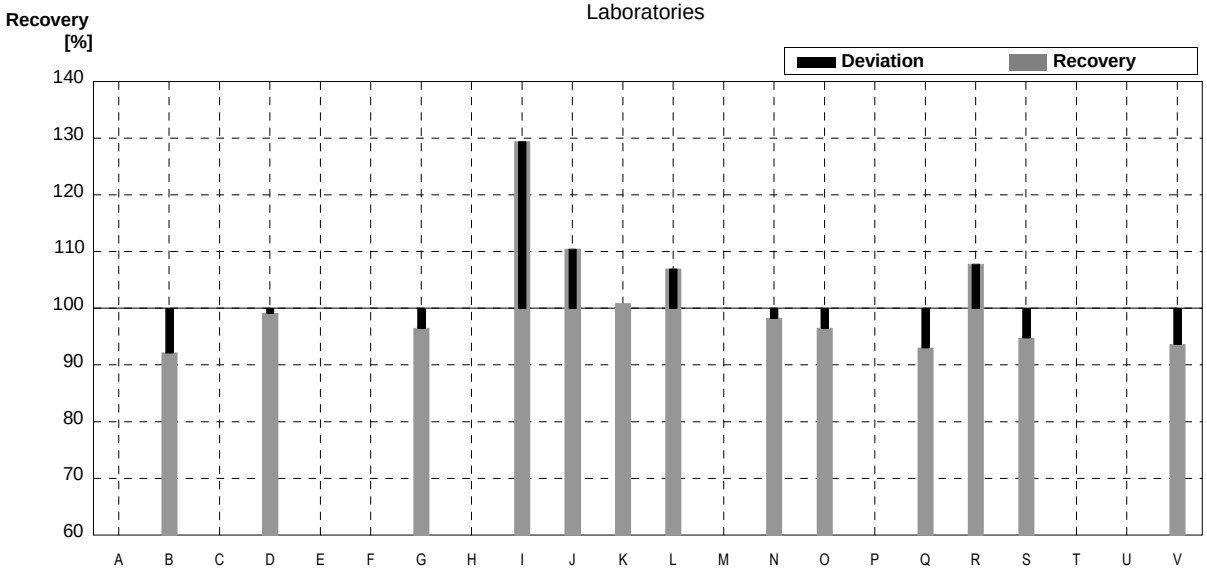
Sample C56B

Parameter 1,1-Dichloroethene

Target value	± U (k=2)	1,15	µg/l	±	0,06 µg/l
IFA result	± U (k=2)	1,12	µg/l	±	0,17 µg/l
Stability test			µg/l		

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	1,06	0,21	µg/l	92%	-0,39
C	n,a.		µg/l		
D	1,14	0,07	µg/l	99%	-0,04
E			µg/l		
F			µg/l		
G	1,11	0,22	µg/l	97%	-0,17
H			µg/l		
I	1,488 *	0,149	µg/l	129%	1,47
J	1,27	0,07	µg/l	110%	0,52
K	1,16	0,17	µg/l	101%	0,04
L	1,23	0,18	µg/l	107%	0,35
M			µg/l		
N	1,13	0,1	µg/l	98%	-0,09
O	1,11	0,122	µg/l	97%	-0,17
P			µg/l		
Q	1,07	0,10	µg/l	93%	-0,35
R	1,24	0,27	µg/l	108%	0,39
S	1,09	0,293	µg/l	95%	-0,26
T			µg/l		
U			µg/l		
V	1,077	0,323	µg/l	94%	-0,32





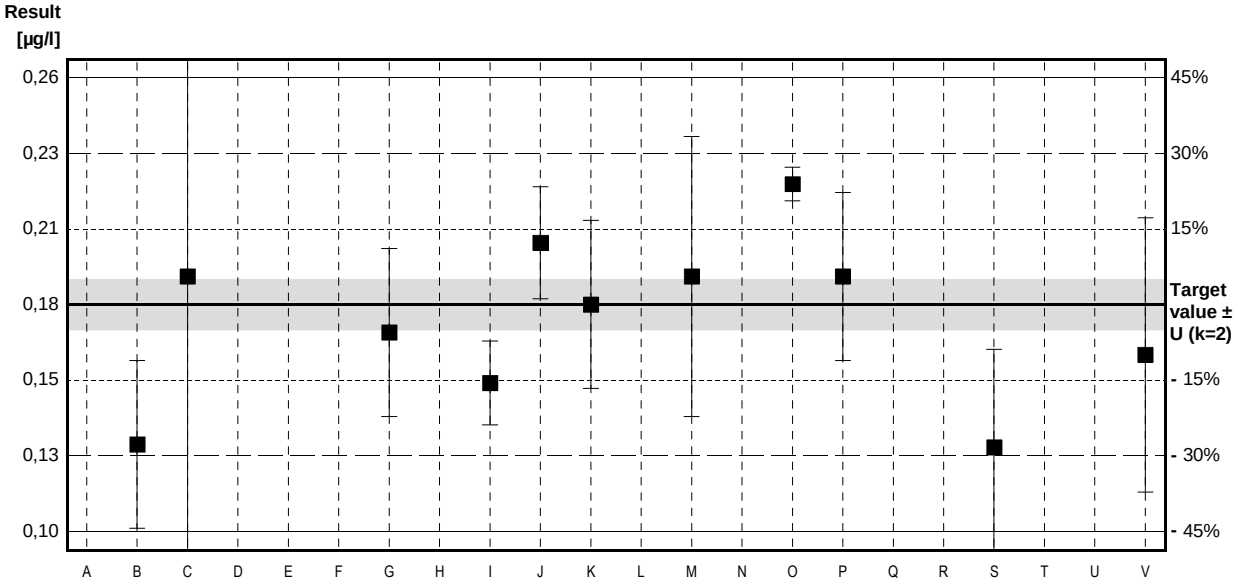
	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,17 ± 0,10	1,14 ± 0,06	µg/l
Recov. ± CI(99%)	101,5 ± 8,7	99,2 ± 5,5	%
SD between labs	0,12	0,07	µg/l
RSD between labs	10,1	6,2	%
n for calculation	13	12	

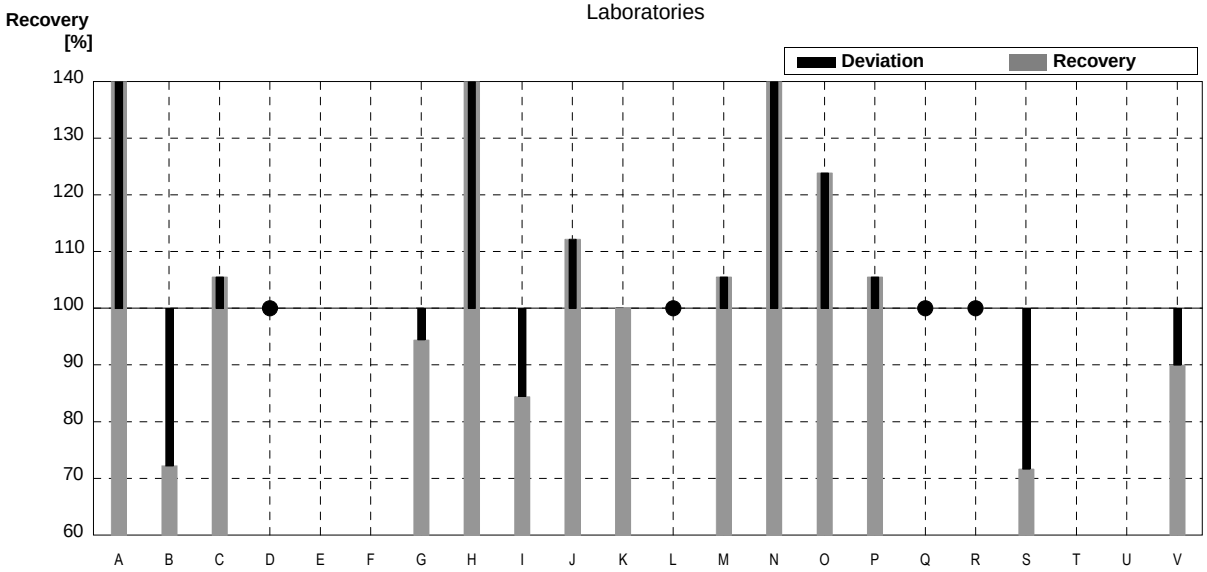
Sample C56A

Parameter Tribromomethane

Target value	± U (k=2)	0,18 µg/l	±	0,01 µg/l	
IFA result	± U (k=2)	0,20 µg/l	±	0,03 µg/l	
Stability test		µg/l			

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,27	0,05	µg/l	150%	
B	0,13	0,03	µg/l	72%	
C	0,19	0,10	µg/l	106%	
D	<0,3		µg/l	•	
E			µg/l		
F			µg/l		
G	0,17	0,03	µg/l	94%	
H	0,30		µg/l	167%	
I	0,152	0,015	µg/l	84%	
J	0,202	0,020	µg/l	112%	
K	0,18	0,03	µg/l	100%	
L	<2,0		µg/l	•	
M	0,19	0,05	µg/l	106%	
N	0,34 *	0,05	µg/l	189%	
O	0,223	0,006	µg/l	124%	
P	0,19	0,03	µg/l	106%	
Q	<0,20		µg/l	•	
R	<0,5		µg/l	•	
S	0,129	0,035	µg/l	72%	
T			µg/l		
U			µg/l		
V	0,162	0,049	µg/l	90%	





	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,20 ± 0,05	0,19 ± 0,04	µg/l
Recov. ± CI(99%)	112,2 ± 27,8	106,3 ± 23,4	%
SD between labs	0,06	0,05	µg/l
RSD between labs	30,8	26,0	%
n for calculation	14	13	

Sample C56B

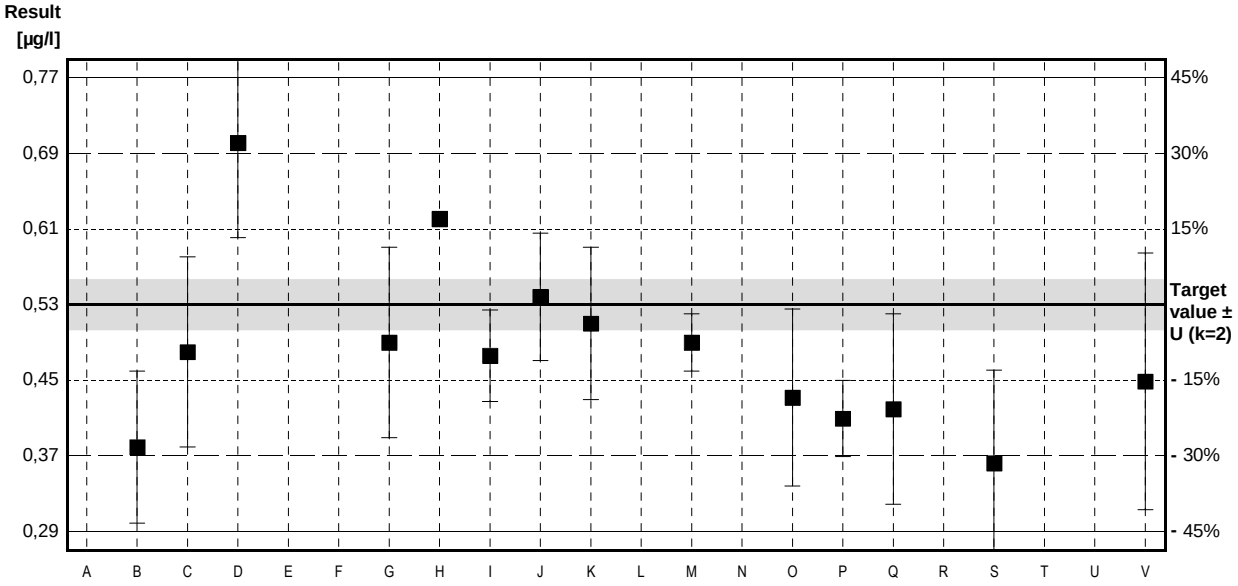
Parameter Tribromomethane

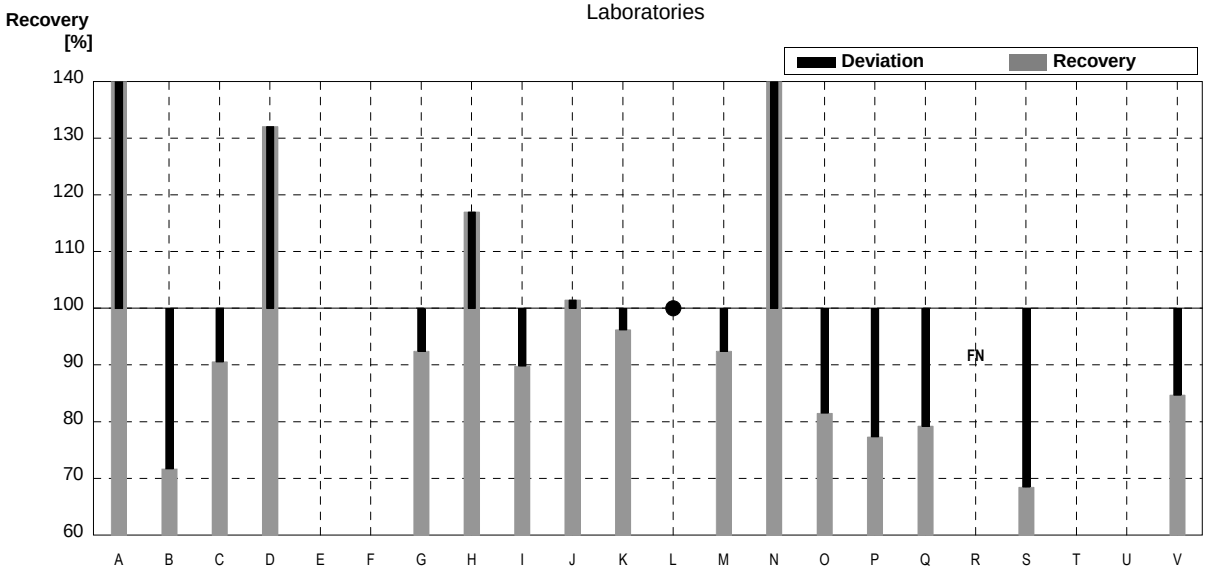
Target value ± U (k=2) 0,53 µg/l ± 0,03 µg/l

IFA result ± U (k=2) 0,50 µg/l ± 0,08 µg/l

Stability test µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,77 *	0,05	µg/l	145%	2,66
B	0,38	0,08	µg/l	72%	-1,66
C	0,48	0,10	µg/l	91%	-0,55
D	0,7	0,10	µg/l	132%	1,89
E			µg/l		
F			µg/l		
G	0,49	0,10	µg/l	92%	-0,44
H	0,62		µg/l	117%	1,00
I	0,476	0,048	µg/l	90%	-0,60
J	0,538	0,067	µg/l	102%	0,09
K	0,51	0,08	µg/l	96%	-0,22
L	<2,0		µg/l	•	
M	0,49	0,03	µg/l	92%	-0,44
N	0,78 *	0,04	µg/l	147%	2,77
O	0,432	0,093	µg/l	82%	-1,09
P	0,41	0,04	µg/l	77%	-1,33
Q	0,42	0,10	µg/l	79%	-1,22
R	<0,5		µg/l	FN	
S	0,363	0,098	µg/l	68%	-1,85
T			µg/l		
U			µg/l		
V	0,449	0,135	µg/l	85%	-0,90





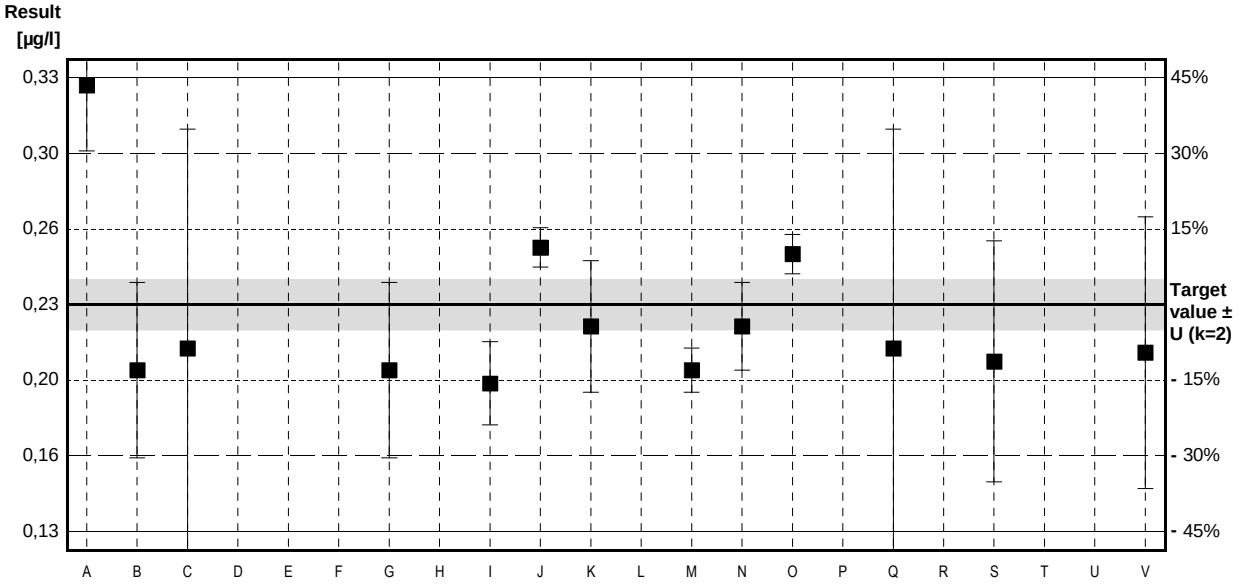
	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,52 ± 0,10	0,48 ± 0,07	µg/l
Recov. ± CI(99%)	98,0 ± 18,2	91,1 ± 13,8	%
SD between labs	0,13	0,09	µg/l
RSD between labs	25,2	18,9	%
n for calculation	16	14	

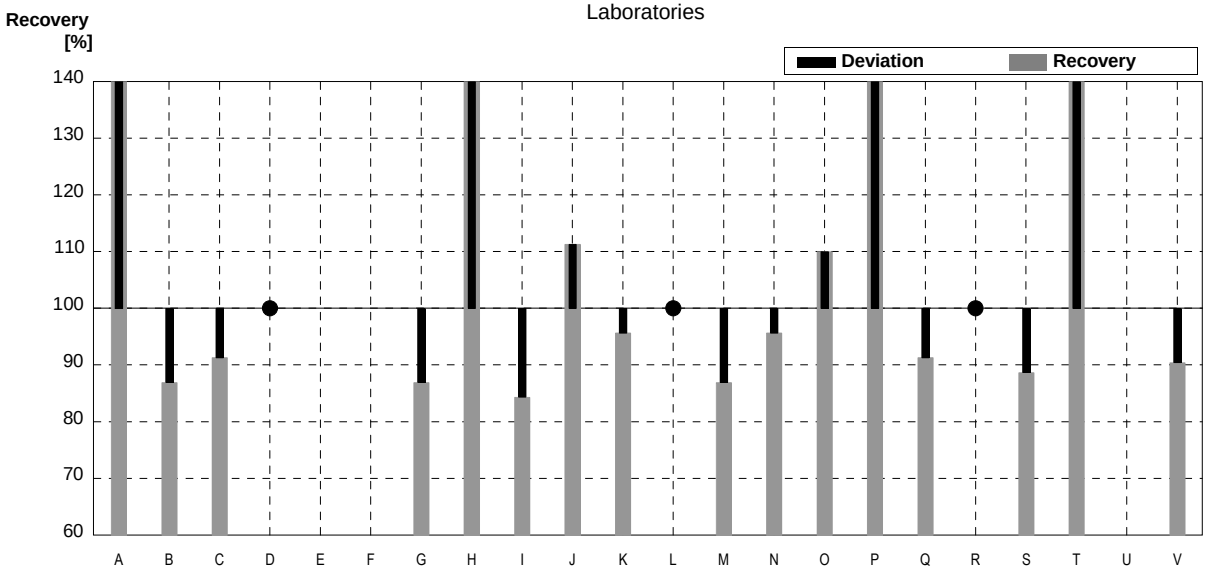
Sample C56A

Parameter Bromodichloromethane

Target value	± U (k=2)	0,23 µg/l	±	0,01 µg/l	
IFA result	± U (k=2)	0,24 µg/l	±	0,04 µg/l	
Stability test		µg/l			

Lab Code	Result	±	Unit	Recovery	z-Score
A	0,33 *	0,03	µg/l	143%	3,11
B	0,20	0,04	µg/l	87%	-0,93
C	0,21	0,10	µg/l	91%	-0,62
D	<0,3		µg/l	•	
E			µg/l		
F			µg/l		
G	0,20	0,04	µg/l	87%	-0,93
H	0,34 *		µg/l	148%	3,42
I	0,194	0,019	µg/l	84%	-1,12
J	0,256	0,009	µg/l	111%	0,81
K	0,22	0,03	µg/l	96%	-0,31
L	<0,7		µg/l	•	
M	0,20	0,01	µg/l	87%	-0,93
N	0,22	0,02	µg/l	96%	-0,31
O	0,253	0,009	µg/l	110%	0,71
P	0,45 *	0,04	µg/l	196%	6,83
Q	0,21	0,10	µg/l	91%	-0,62
R	<0,5		µg/l	•	
S	0,204	0,055	µg/l	89%	-0,81
T	0,52792 *	0,025	µg/l	230%	9,25
U			µg/l		
V	0,208	0,062	µg/l	90%	-0,68





	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,26 ± 0,07	0,21 ± 0,02	µg/l
Recov. ± CI(99%)	114,8 ± 31,9	93,3 ± 7,9	%
SD between labs	0,10	0,02	µg/l
RSD between labs	37,7	9,4	%
n for calculation	16	12	

Sample C56B

Parameter Bromodichloromethane

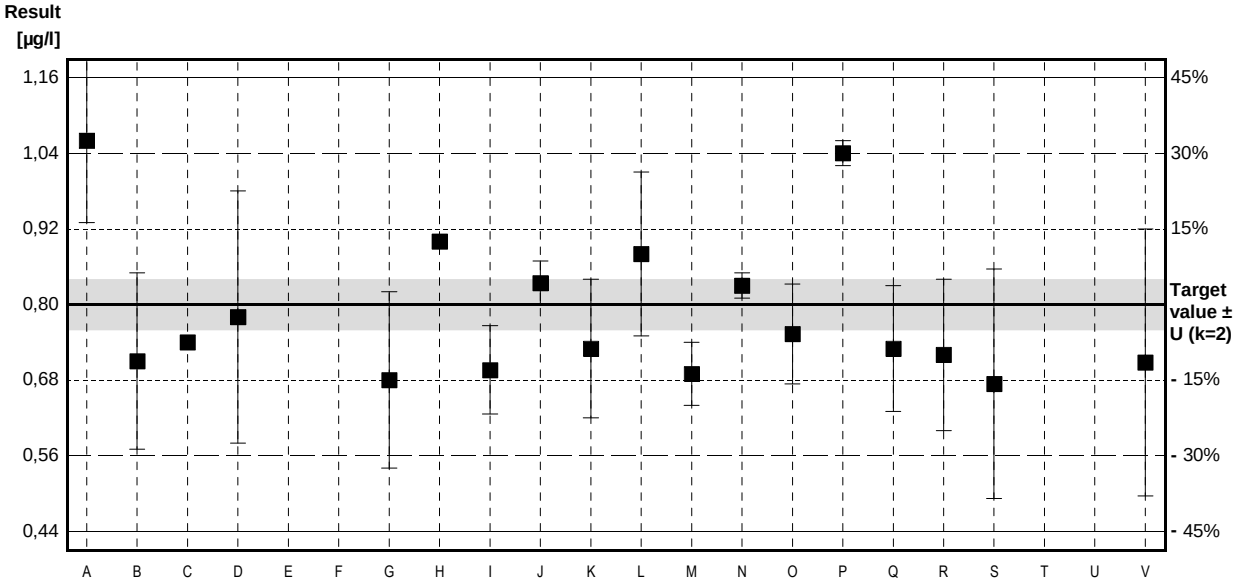
Target value ± U (k=2) 0,80 µg/l ± 0,04 µg/l

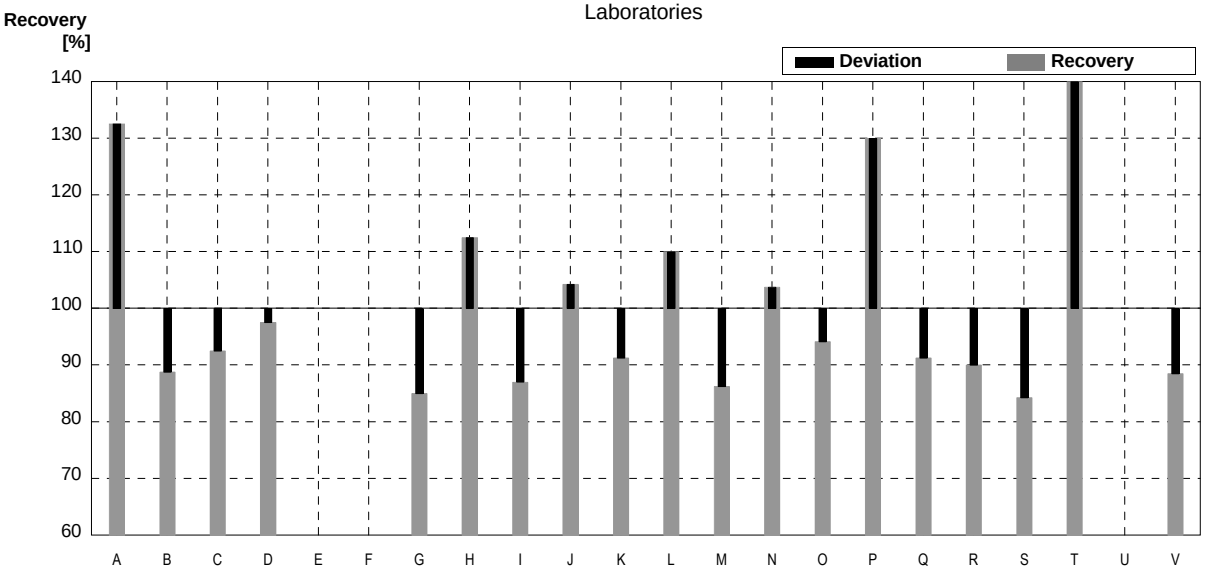
IFA result ± U (k=2) 0,77 µg/l ± 0,12 µg/l

Stability test µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,06 *	0,13	µg/l	133%	2,32
B	0,71	0,14	µg/l	89%	-0,80
C	0,74		µg/l	93%	-0,54
D	0,78	0,20	µg/l	98%	-0,18
E			µg/l		
F			µg/l		
G	0,68	0,14	µg/l	85%	-1,07
H	0,90		µg/l	113%	0,89
I	0,696	0,07	µg/l	87%	-0,93
J	0,834	0,035	µg/l	104%	0,30
K	0,73	0,11	µg/l	91%	-0,63
L	0,88	0,13	µg/l	110%	0,71
M	0,69	0,05	µg/l	86%	-0,98
N	0,83	0,02	µg/l	104%	0,27
O	0,753	0,079	µg/l	94%	-0,42
P	1,04 *	0,02	µg/l	130%	2,14
Q	0,73	0,10	µg/l	91%	-0,63
R	0,72	0,12	µg/l	90%	-0,71
S	0,674	0,182	µg/l	84%	-1,13
T	1,64261 *	0,078	µg/l	205%	7,52
U			µg/l		
V	0,708	0,212	µg/l	89%	-0,82

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,83 ± 0,15	0,75 ± 0,05	µg/l
Recov. ± CI(99%)	103,9 ± 18,7	94,2 ± 6,6	%
SD between labs	0,23	0,07	µg/l
RSD between labs	27,3	9,4	%
n for calculation	19	16	





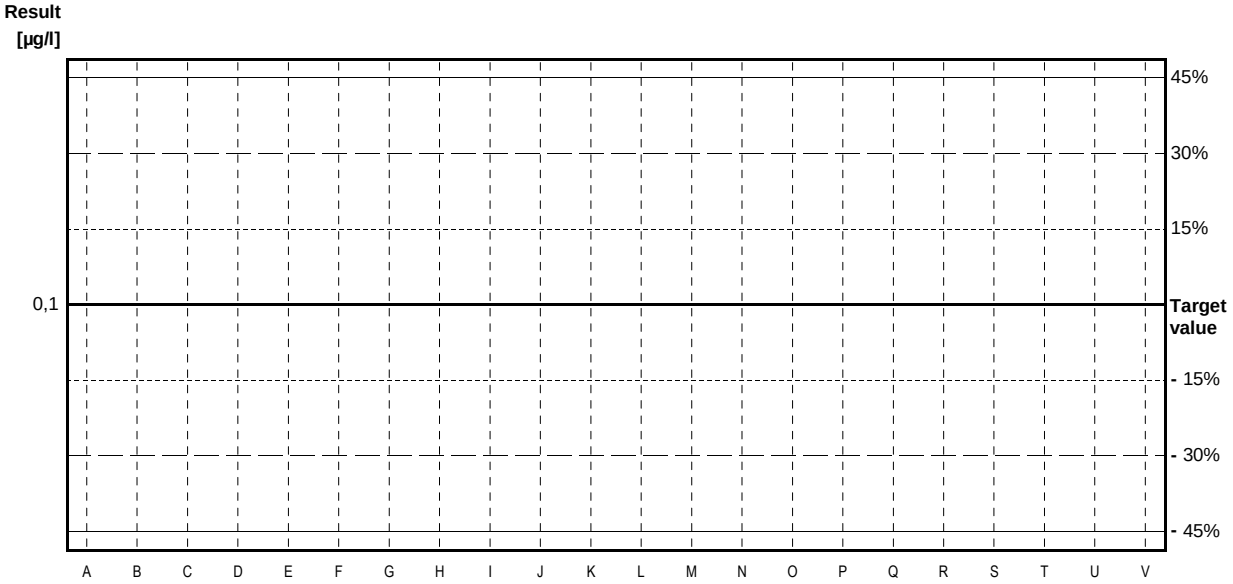
Sample C56A

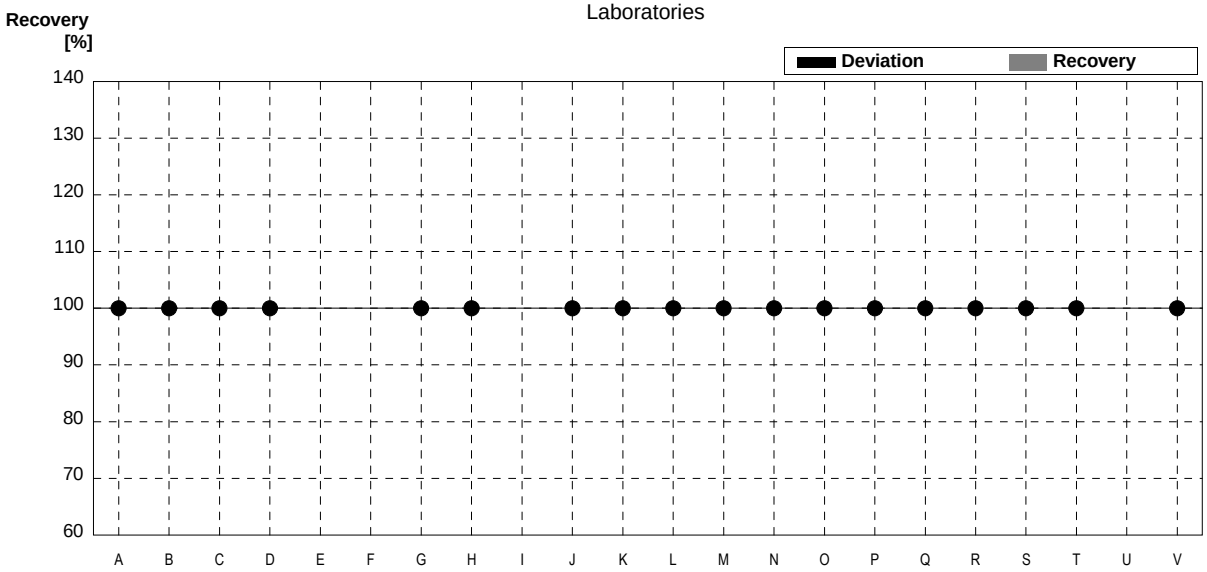
Parameter Dibromochloromethane

Target value	<0,1	µg/l
IFA result	<0,05	µg/l
Stability test		µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A	<0,1		µg/l	•	
B	<0,05		µg/l	•	
C	<0,10		µg/l	•	
D	<0,5		µg/l	•	
E			µg/l		
F			µg/l		
G	<0,02		µg/l	•	
H	<0,97		µg/l	•	
I	n,n.		µg/l		
J	<0,02		µg/l	•	
K	<0,1		µg/l	•	
L	<2,0		µg/l	•	
M	<0,1		µg/l	•	
N	<0,5	0,03	µg/l	•	
O	<0,04		µg/l	•	
P	<0,1		µg/l	•	
Q	<0,20		µg/l	•	
R	<0,5		µg/l	•	
S	<0,020		µg/l	•	
T	<0,021	0,001	µg/l	•	
U			µg/l		
V	<0,100		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			



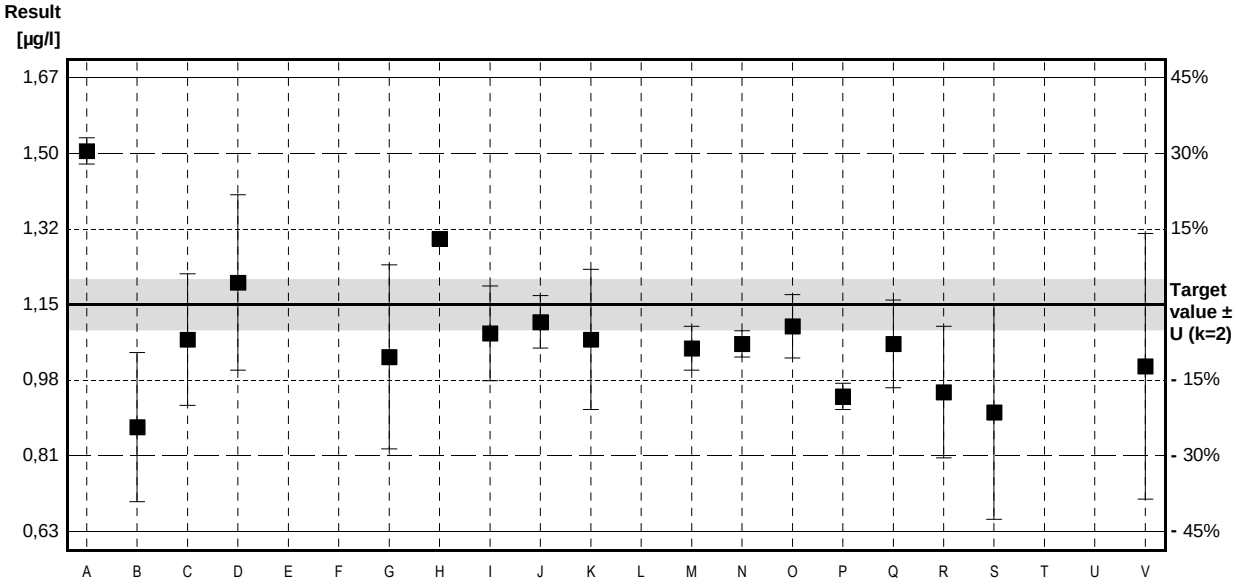


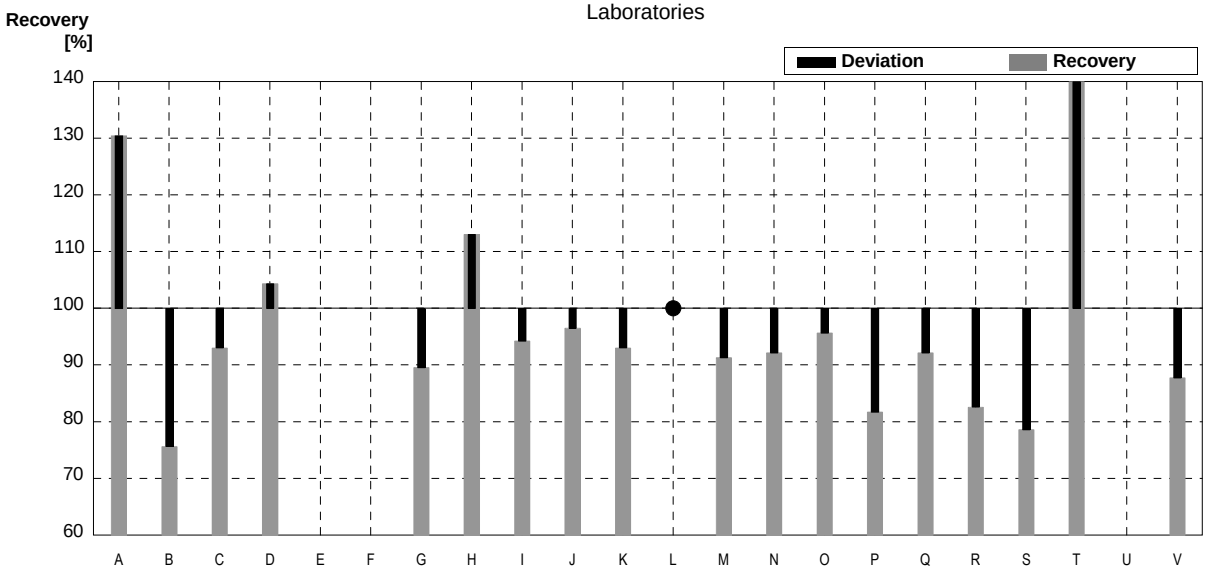
Sample C56B

Parameter Dibromochloromethane

Target value	± U (k=2)	1,15	µg/l	±	0,06 µg/l
IFA result	± U (k=2)	1,10	µg/l	±	0,17 µg/l
Stability test			µg/l		

Lab Code	Result	±	Unit	Recovery	z-Score
A	1,50 *	0,03	µg/l	130%	2,03
B	0,87	0,17	µg/l	76%	-1,62
C	1,07	0,15	µg/l	93%	-0,46
D	1,2	0,2	µg/l	104%	0,29
E			µg/l		
F			µg/l		
G	1,03	0,21	µg/l	90%	-0,70
H	1,30		µg/l	113%	0,87
I	1,084	0,108	µg/l	94%	-0,38
J	1,11	0,06	µg/l	97%	-0,23
K	1,07	0,16	µg/l	93%	-0,46
L	<2,0		µg/l	•	
M	1,05	0,05	µg/l	91%	-0,58
N	1,06	0,03	µg/l	92%	-0,52
O	1,10	0,072	µg/l	96%	-0,29
P	0,94	0,03	µg/l	82%	-1,22
Q	1,06	0,10	µg/l	92%	-0,52
R	0,95	0,15	µg/l	83%	-1,16
S	0,904	0,244	µg/l	79%	-1,43
T	2,41902 *	0,116	µg/l	210%	7,36
U			µg/l		
V	1,009	0,303	µg/l	88%	-0,82





	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,15 ± 0,24	1,05 ± 0,08	µg/l
Recov. ± CI(99%)	100,1 ± 20,7	91,3 ± 6,9	%
SD between labs	0,35	0,11	µg/l
RSD between labs	30,3	10,2	%
n for calculation	18	16	

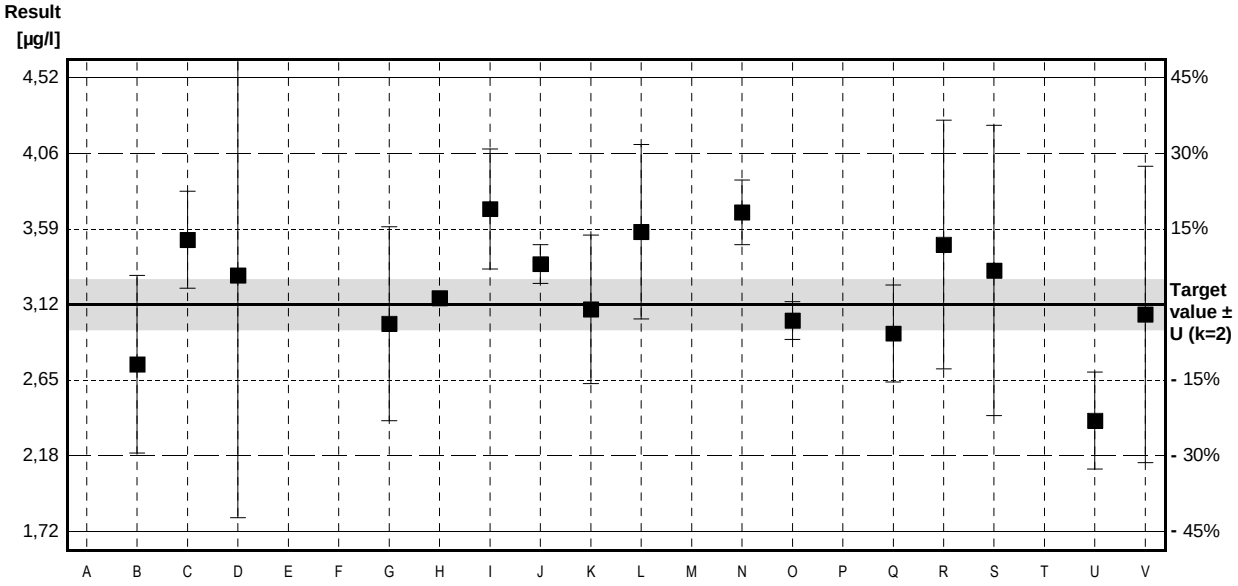
Sample C56A

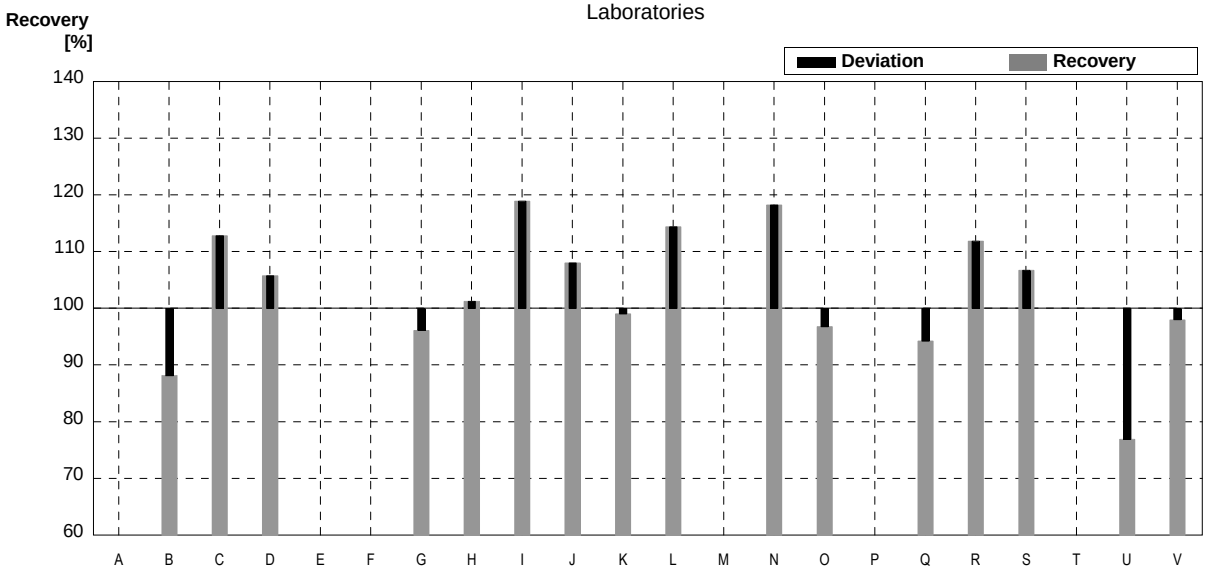
Parameter Dichloromethane

Target value	± U (k=2)	3,12	µg/l	±	0,16 µg/l
IFA result	± U (k=2)	3,01	µg/l	±	0,45 µg/l
Stability test			µg/l		

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	2,75	0,55	µg/l	88%	-0,85
C	3,52	0,30	µg/l	113%	0,92
D	3,3	1,5	µg/l	106%	0,41
E			µg/l		
F			µg/l		
G	3,00	0,60	µg/l	96%	-0,27
H	3,16		µg/l	101%	0,09
I	3,711	0,371	µg/l	119%	1,35
J	3,37	0,12	µg/l	108%	0,57
K	3,09	0,46	µg/l	99%	-0,07
L	3,57	0,54	µg/l	114%	1,03
M			µg/l		
N	3,69	0,2	µg/l	118%	1,30
O	3,02	0,117	µg/l	97%	-0,23
P			µg/l		
Q	2,94	0,30	µg/l	94%	-0,41
R	3,49	0,77	µg/l	112%	0,85
S	3,33	0,899	µg/l	107%	0,48
T			µg/l		
U	2,4	0,3	µg/l	77%	-1,65
V	3,058	0,917	µg/l	98%	-0,14

	All results	Outliers excl.	Unit
Mean ± CI(99%)	3,21 ± 0,26	3,21 ± 0,26	µg/l
Recov. ± CI(99%)	103,0 ± 8,4	103,0 ± 8,4	%
SD between labs	0,36	0,36	µg/l
RSD between labs	11,1	11,1	%
n for calculation	16	16	





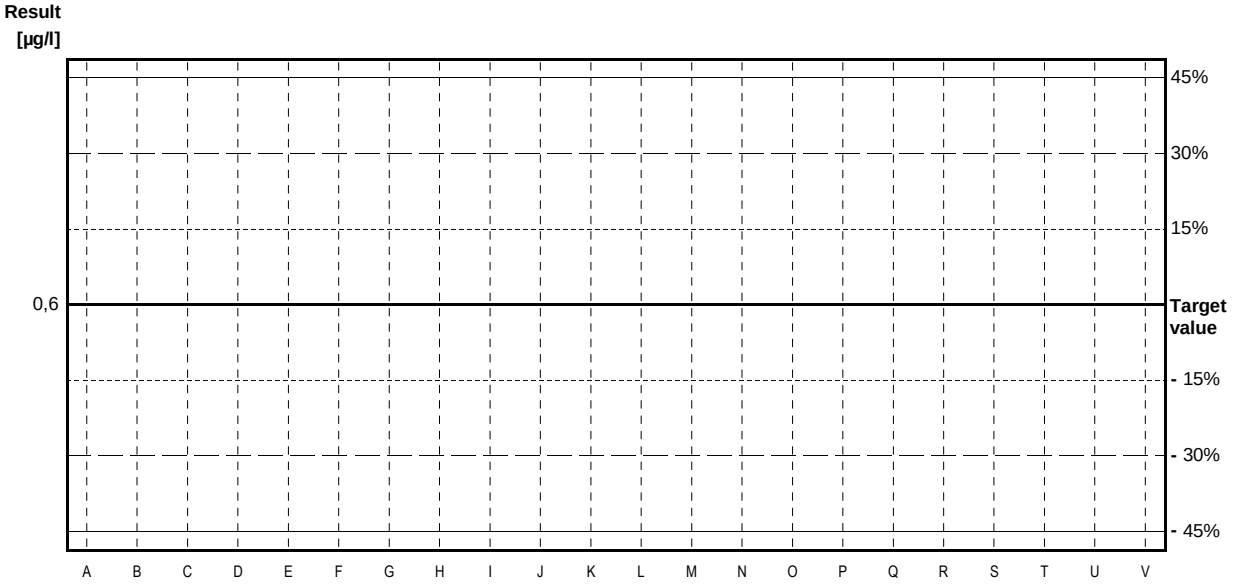
Sample C56B

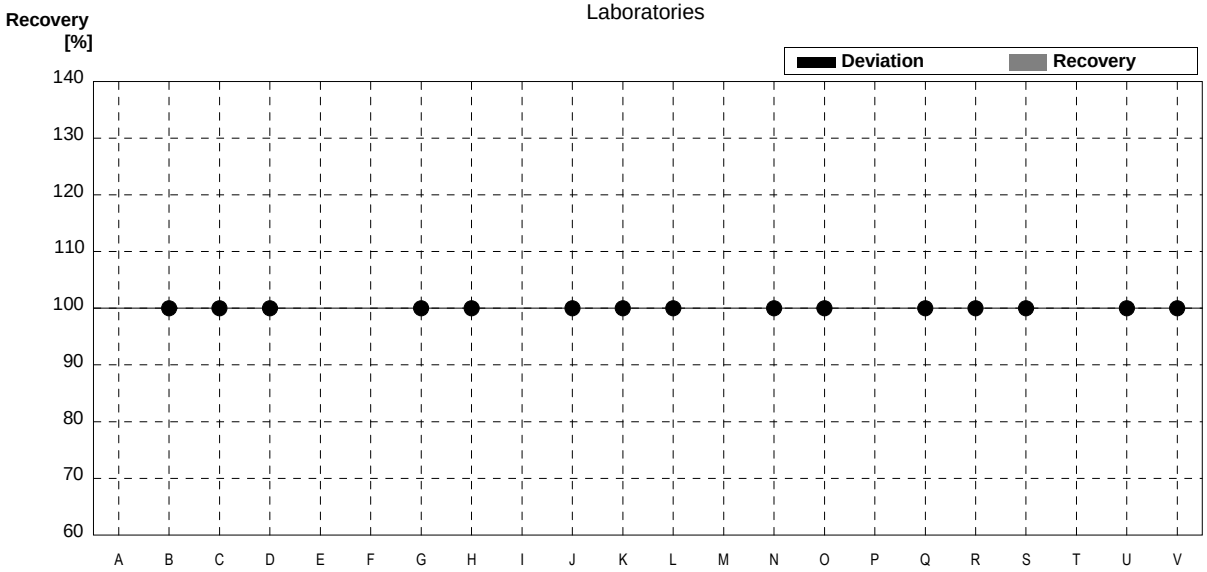
Parameter Dichloromethane

Target value	<0,6	µg/l
IFA result	<0,3	µg/l
Stability test		µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	<0,05		µg/l	•	
C	<0,10		µg/l	•	
D	<2,0		µg/l	•	
E			µg/l		
F			µg/l		
G	<0,06		µg/l	•	
H	<0,23		µg/l	•	
I	n,B.		µg/l		
J	<0,10		µg/l	•	
K	<0,5		µg/l	•	
L	<2,0		µg/l	•	
M			µg/l		
N	<1	0,2	µg/l	•	
O	<0,04		µg/l	•	
P			µg/l		
Q	<1,0		µg/l	•	
R	<0,5		µg/l	•	
S	0,040	0,011	µg/l	•	
T			µg/l		
U	<0,1		µg/l	•	
V	<0,100		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			





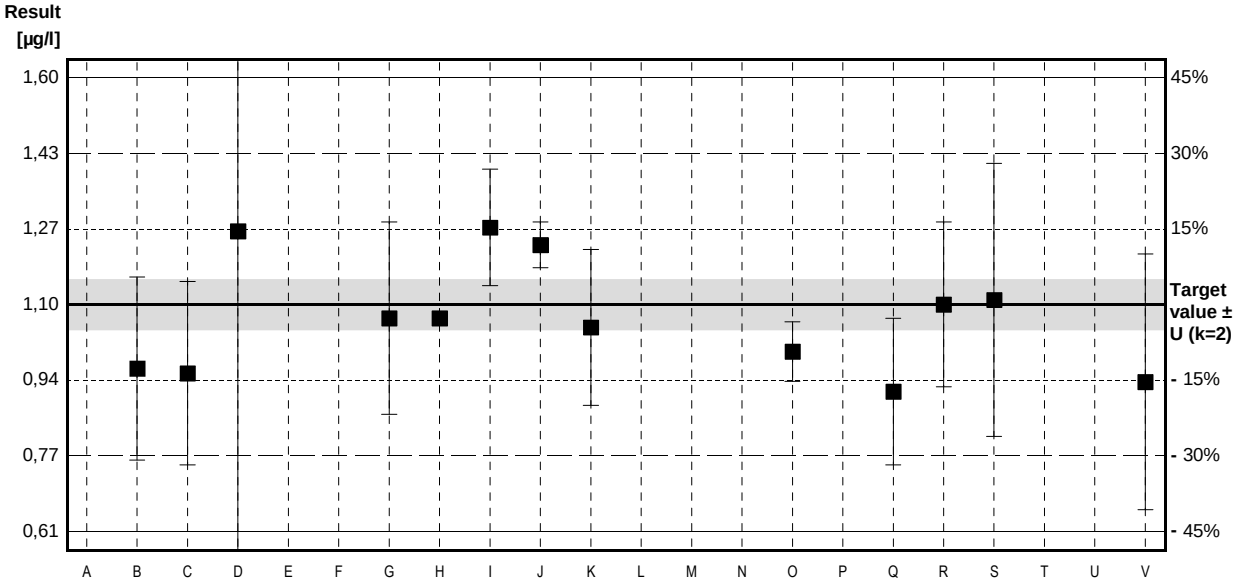
Sample C56A

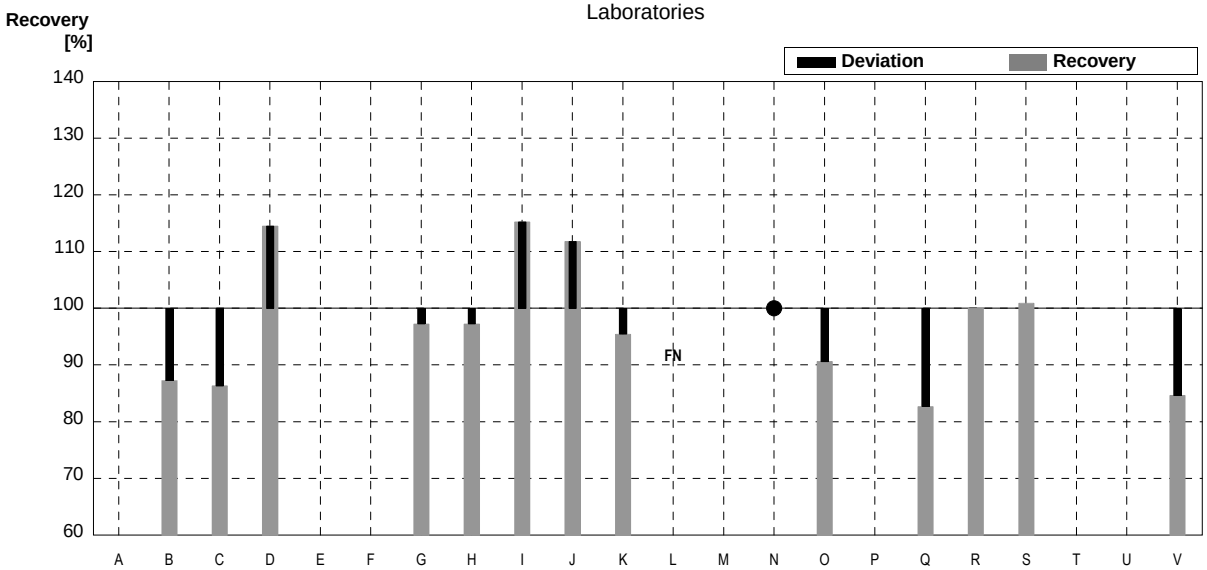
Parameter 1,2-Dichloroethane

Target value	± U (k=2)	1,10	µg/l	±	0,06 µg/l
IFA result	± U (k=2)	1,09	µg/l	±	0,16 µg/l
Stability test			µg/l		

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	0,96	0,20	µg/l	87%	-0,91
C	0,95	0,20	µg/l	86%	-0,97
D	1,26	0,7	µg/l	115%	1,04
E			µg/l		
F			µg/l		
G	1,07	0,21	µg/l	97%	-0,19
H	1,07		µg/l	97%	-0,19
I	1,268	0,127	µg/l	115%	1,09
J	1,23	0,05	µg/l	112%	0,84
K	1,05	0,17	µg/l	95%	-0,32
L	<0,6		µg/l	FN	
M			µg/l		
N	<2,5	0,05	µg/l	•	
O	0,997	0,065	µg/l	91%	-0,67
P			µg/l		
Q	0,91	0,16	µg/l	83%	-1,23
R	1,10	0,18	µg/l	100%	0,00
S	1,11	0,298	µg/l	101%	0,06
T			µg/l		
U			µg/l		
V	0,931	0,279	µg/l	85%	-1,10

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,07 ± 0,10	1,07 ± 0,10	µg/l
Recov. ± CI(99%)	97,2 ± 9,4	97,2 ± 9,4	%
SD between labs	0,12	0,12	µg/l
RSD between labs	11,5	11,5	%
n for calculation	13	13	



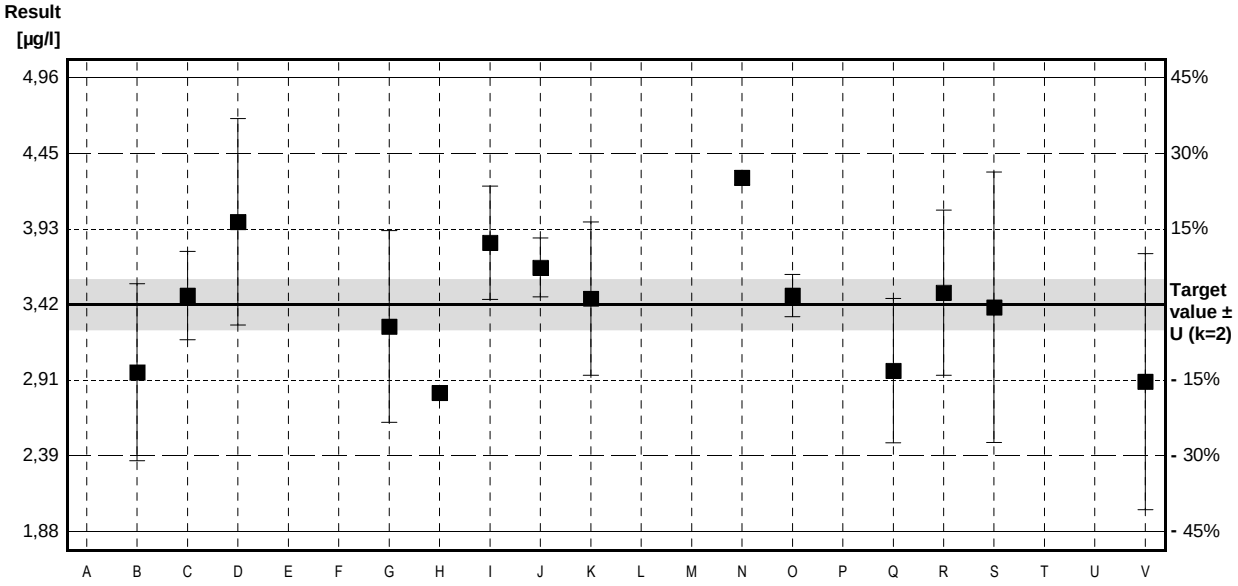


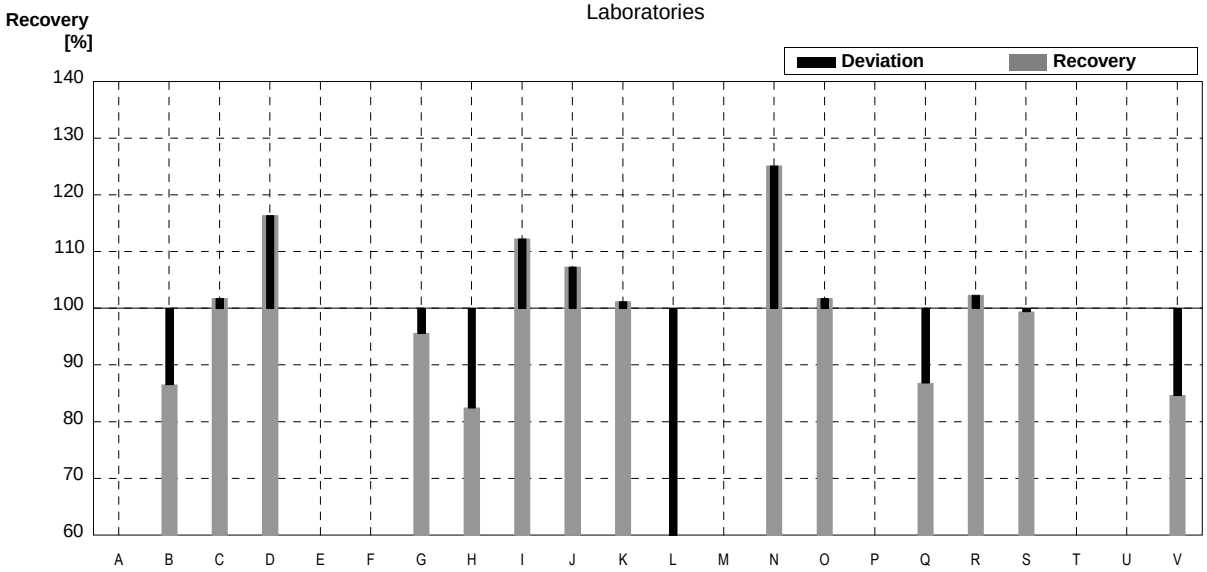
Sample C56B

Parameter 1,2-Dichloroethane

Target value	± U (k=2)	3,42	µg/l	±	0,17 µg/l
IFA result	± U (k=2)	3,33	µg/l	±	0,50 µg/l
Stability test			µg/l		

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	2,96	0,60	µg/l	87%	-0,96
C	3,48	0,30	µg/l	102%	0,13
D	3,98	0,7	µg/l	116%	1,17
E			µg/l		
F			µg/l		
G	3,27	0,65	µg/l	96%	-0,31
H	2,82		µg/l	82%	-1,25
I	3,839	0,384	µg/l	112%	0,88
J	3,67	0,20	µg/l	107%	0,52
K	3,46	0,52	µg/l	101%	0,08
L	0,84 *	0,13	µg/l	25%	-5,39
M			µg/l		
N	4,28	0,05	µg/l	125%	1,80
O	3,48	0,143	µg/l	102%	0,13
P			µg/l		
Q	2,97	0,49	µg/l	87%	-0,94
R	3,50	0,56	µg/l	102%	0,17
S	3,40	0,917	µg/l	99%	-0,04
T			µg/l		
U			µg/l		
V	2,896	0,869	µg/l	85%	-1,09





	All results	Outliers excl.	Unit
Mean ± CI(99%)	3,26 ± 0,60	3,43 ± 0,34	µg/l
Recov. ± CI(99%)	95,2 ± 17,7	100,3 ± 10,1	%
SD between labs	0,79	0,43	µg/l
RSD between labs	24,1	12,5	%
n for calculation	15	14	

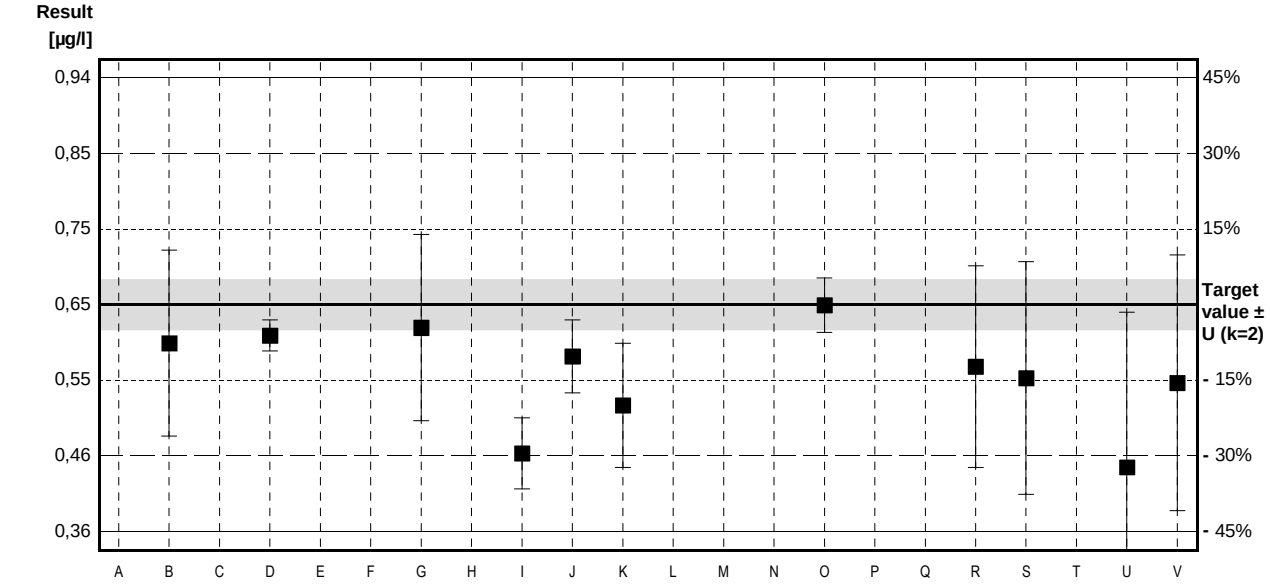
Sample C56A

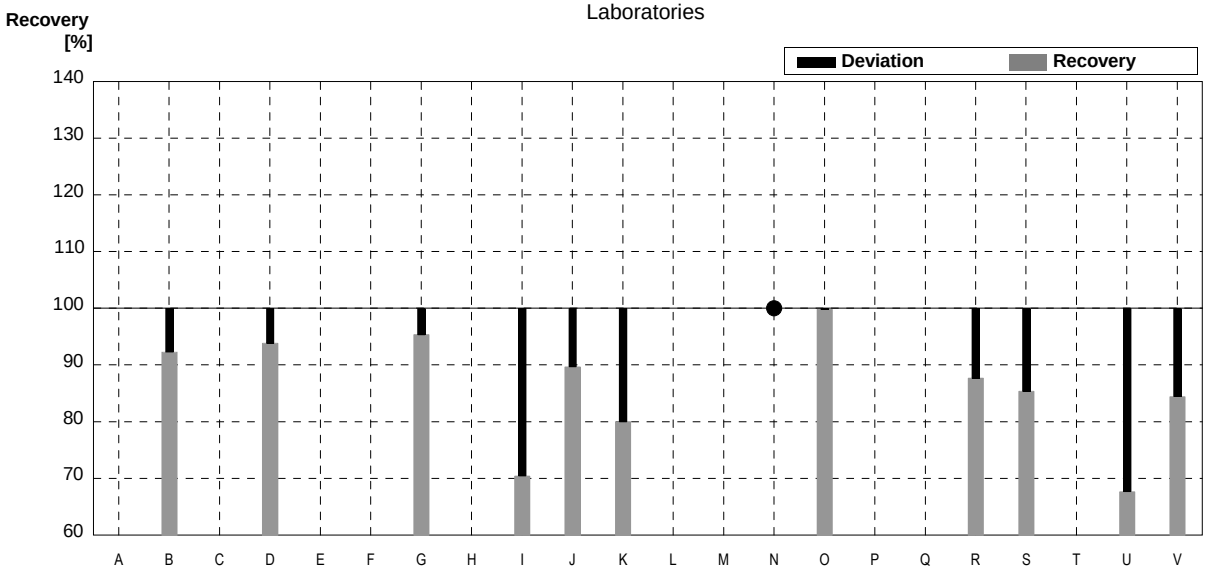
Parameter cis-1,2-Dichloroethene

Target value	± U (k=2)	0,65	µg/l	±	0,03 µg/l
IFA result	± U (k=2)	0,65	µg/l	±	0,10 µg/l
Stability test			µg/l		

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	0,60	0,12	µg/l	92%	-0,55
C	n,a.		µg/l		
D	0,61	0,02	µg/l	94%	-0,44
E			µg/l		
F			µg/l		
G	0,62	0,12	µg/l	95%	-0,33
H			µg/l		
I	0,458	0,046	µg/l	70%	-2,11
J	0,583	0,047	µg/l	90%	-0,74
K	0,52	0,08	µg/l	80%	-1,43
L			µg/l		
M			µg/l		
N	<2	0,1	µg/l	•	
O	0,649	0,035	µg/l	100%	-0,01
P			µg/l		
Q			µg/l		
R	0,57	0,13	µg/l	88%	-0,88
S	0,555	0,150	µg/l	85%	-1,04
T			µg/l		
U	0,44	0,2	µg/l	68%	-2,31
V	0,549	0,165	µg/l	84%	-1,11

	All results	Outliers excl.	Unit
Mean ± CI(99%)	0,56 ± 0,06	0,56 ± 0,06	µg/l
Recov. ± CI(99%)	86,1 ± 9,6	86,1 ± 9,6	%
SD between labs	0,07	0,07	µg/l
RSD between labs	11,7	11,7	%
n for calculation	11	11	





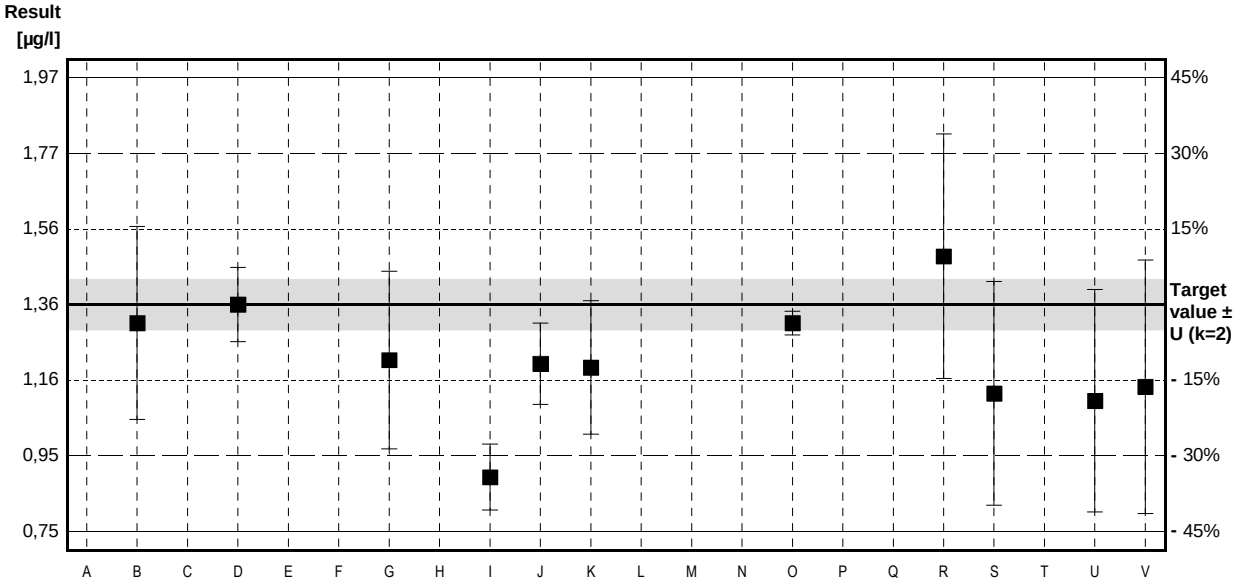
Sample C56B

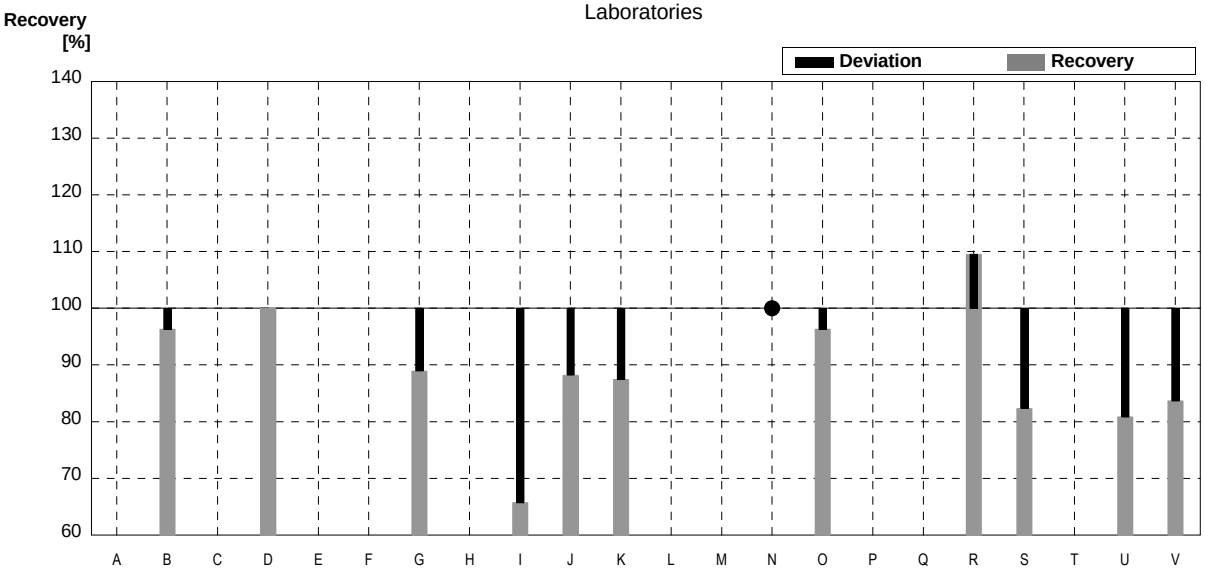
Parameter cis-1,2-Dichloroethene

Target value ± U (k=2)	1,36	µg/l	±	0,07	µg/l
IFA result ± U (k=2)	1,35	µg/l	±	0,20	µg/l
Stability test		µg/l			

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	1,31	0,26	µg/l	96%	-0,26
C	n,a.		µg/l		
D	1,36	0,10	µg/l	100%	0,00
E			µg/l		
F			µg/l		
G	1,21	0,24	µg/l	89%	-0,79
H			µg/l		
I	0,894	0,089	µg/l	66%	-2,45
J	1,20	0,11	µg/l	88%	-0,84
K	1,19	0,18	µg/l	88%	-0,89
L			µg/l		
M			µg/l		
N	<2	0,1	µg/l	•	
O	1,31	0,032	µg/l	96%	-0,26
P			µg/l		
Q			µg/l		
R	1,49	0,33	µg/l	110%	0,68
S	1,12	0,302	µg/l	82%	-1,26
T			µg/l		
U	1,1	0,3	µg/l	81%	-1,37
V	1,138	0,342	µg/l	84%	-1,17

	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,21 ± 0,15	1,21 ± 0,15	µg/l
Recov. ± CI(99%)	89,1 ± 11,0	89,1 ± 11,0	%
SD between labs	0,16	0,16	µg/l
RSD between labs	13,0	13,0	%
n for calculation	11	11	



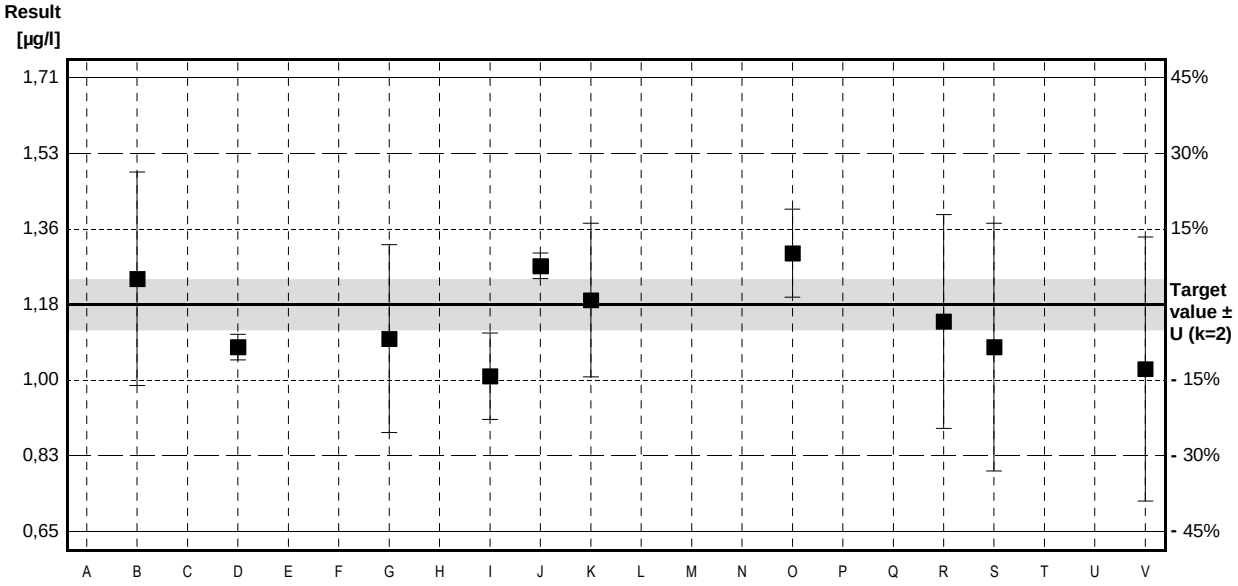


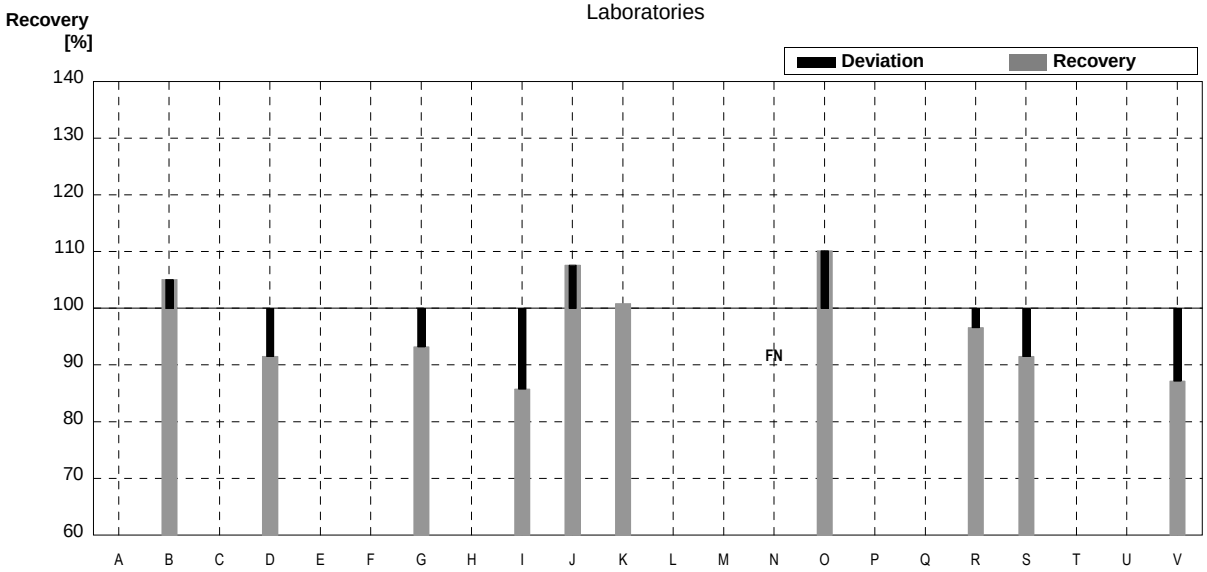
Sample C56A

Parameter trans-1,2-Dichloroethene

Target value	± U (k=2)	1,18	µg/l	±	0,06 µg/l
IFA result	± U (k=2)	1,17	µg/l	±	0,18 µg/l
Stability test			µg/l		

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	1,24	0,25	µg/l	105%	0,39
C	n,a.		µg/l		
D	1,08	0,03	µg/l	92%	-0,65
E			µg/l		
F			µg/l		
G	1,10	0,22	µg/l	93%	-0,52
H			µg/l		
I	1,012	0,101	µg/l	86%	-1,10
J	1,27	0,03	µg/l	108%	0,59
K	1,19	0,18	µg/l	101%	0,07
L			µg/l		
M			µg/l		
N	<1	0,1	µg/l	FN	
O	1,30	0,103	µg/l	110%	0,78
P			µg/l		
Q			µg/l		
R	1,14	0,25	µg/l	97%	-0,26
S	1,08	0,290	µg/l	92%	-0,65
T			µg/l		
U			µg/l		
V	1,029	0,309	µg/l	87%	-0,98





	All results	Outliers excl.	Unit
Mean ± CI(99%)	1,14 ± 0,11	1,14 ± 0,11	µg/l
Recov. ± CI(99%)	97,0 ± 8,9	97,0 ± 8,9	%
SD between labs	0,10	0,10	µg/l
RSD between labs	8,9	8,9	%
n for calculation	10	10	

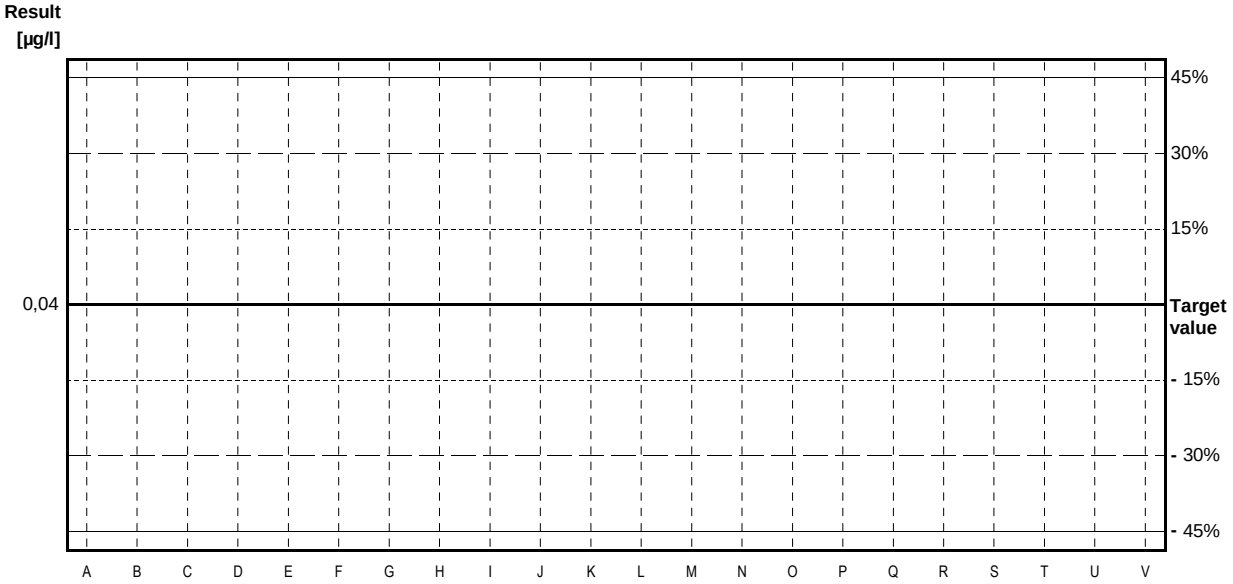
Sample C56B

Parameter trans-1,2-Dichloroethene

Target value	<0,04	µg/l
IFA result	<0,02	µg/l
Stability test		µg/l

Lab Code	Result	±	Unit	Recovery	z-Score
A			µg/l		
B	<0,05		µg/l	•	
C	n,a.		µg/l		
D	<1,0		µg/l	•	
E			µg/l		
F			µg/l		
G	<0,02		µg/l	•	
H			µg/l		
I	n,n.		µg/l		
J	<0,05		µg/l	•	
K	<0,5		µg/l	•	
L			µg/l		
M			µg/l		
N	<1	0,1	µg/l	•	
O	<0,04		µg/l	•	
P			µg/l		
Q			µg/l		
R	<0,5		µg/l	•	
S	0,028	0,007	µg/l	•	
T			µg/l		
U			µg/l		
V	<0,100		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			



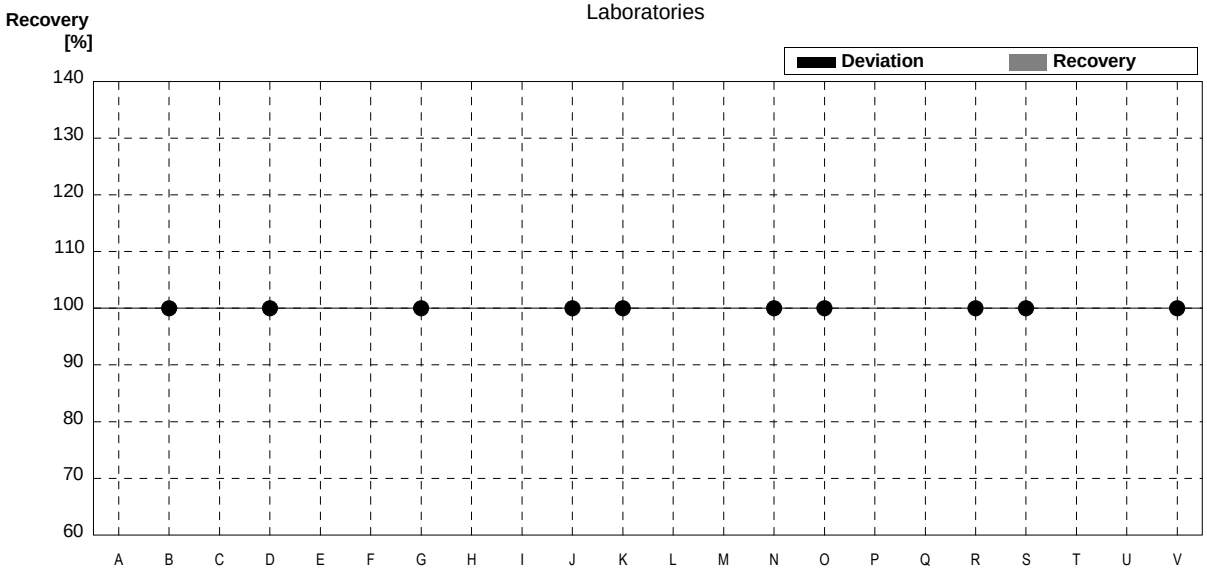
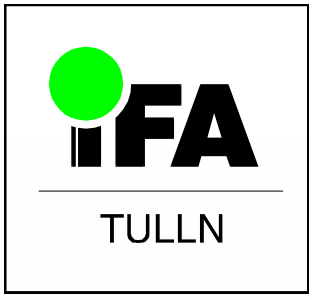


Illustration of Results
Laboratory Oriented Part

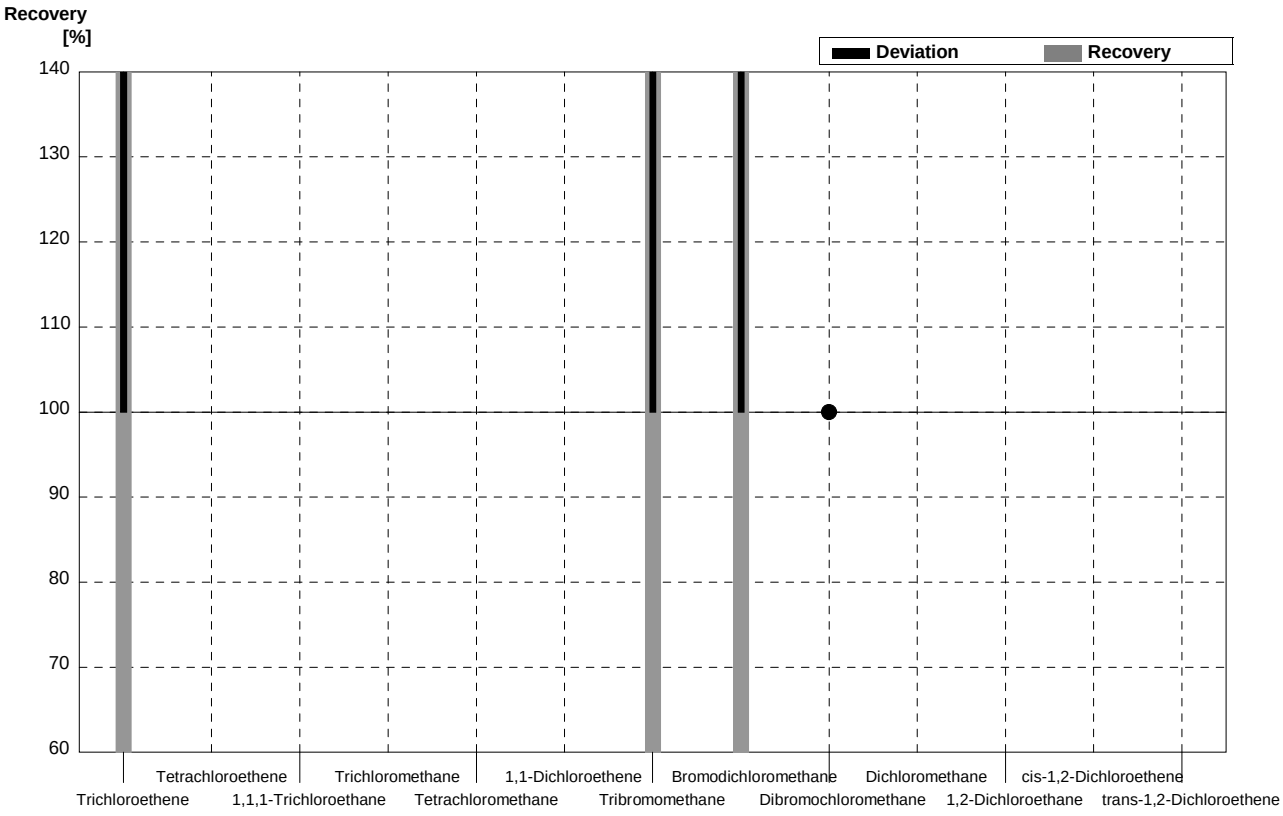
Round C56
Volatile Halogenated Hydrocarbons

Sample Dispatch: 4 April 2016



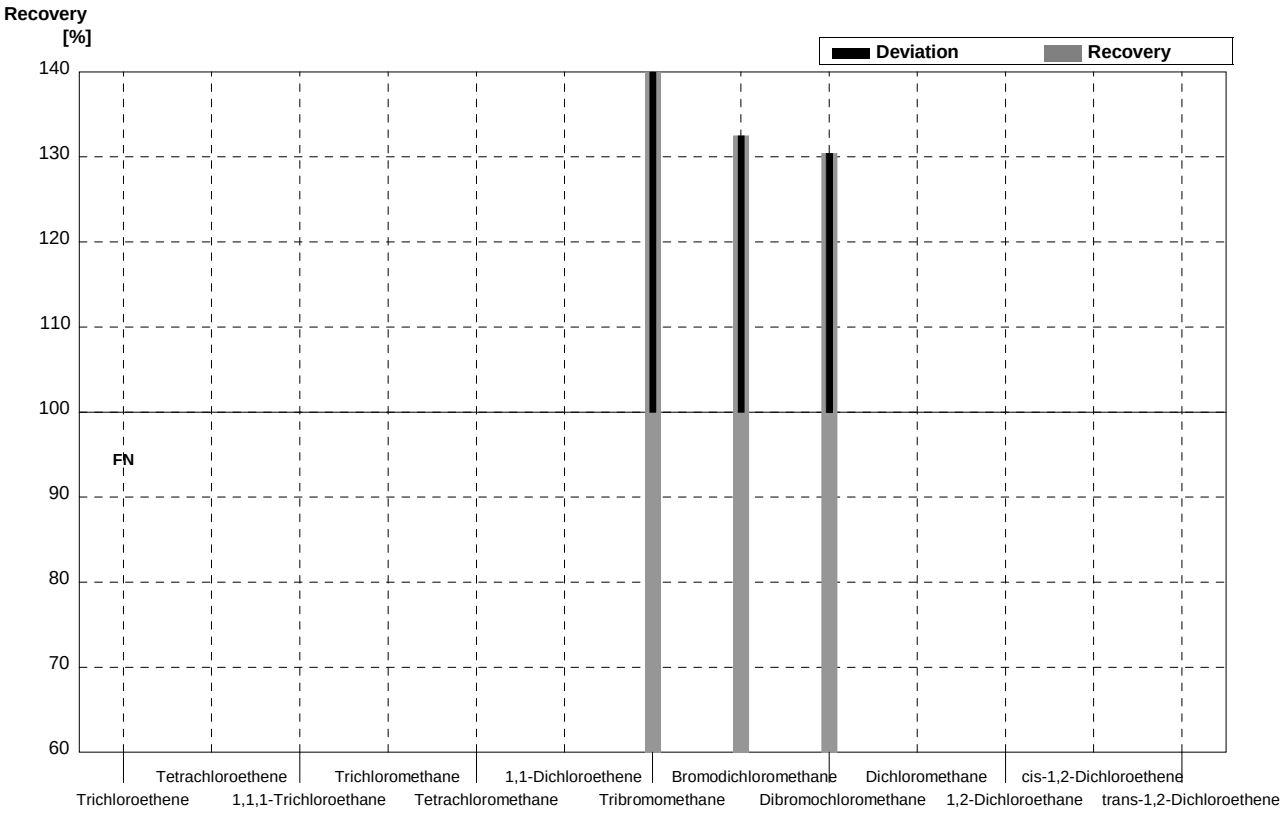
Sample C56A
Laboratory A

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	2,3	0,5	µg/l	324%
Tetrachloroethene	0,41	0,02			µg/l	
1,1,1-Trichloroethane	1,70	0,09			µg/l	
Trichloromethane	1,76	0,09			µg/l	
Tetrachloromethane	0,20	0,01			µg/l	
1,1-Dichloroethene	2,71	0,14			µg/l	
Tribromomethane	0,18	0,01	0,27	0,05	µg/l	150%
Bromodichloromethane	0,23	0,01	0,33	0,03	µg/l	143%
Dibromochloromethane	<0,1		<0,1		µg/l	•
Dichloromethane	3,12	0,16			µg/l	
1,2-Dichloroethane	1,10	0,06			µg/l	
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



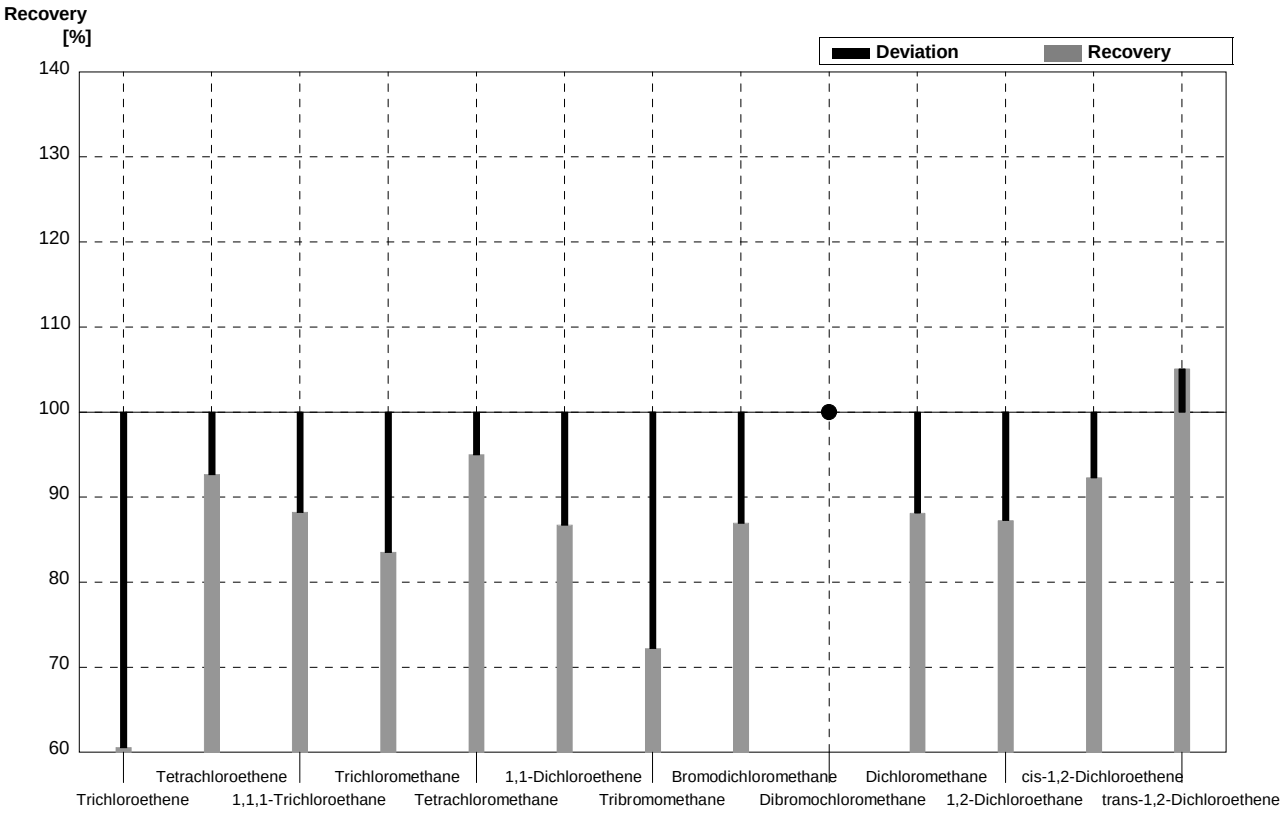
Sample C56B
Laboratory A

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	<0,2		µg/l	FN
Tetrachloroethene	0,82	0,04			µg/l	
1,1,1-Trichloroethane	0,89	0,04			µg/l	
Trichloromethane	0,27	0,01			µg/l	
Tetrachloromethane	0,81	0,04			µg/l	
1,1-Dichloroethene	1,15	0,06			µg/l	
Tribromomethane	0,53	0,03	0,77	0,05	µg/l	145%
Bromodichloromethane	0,80	0,04	1,06	0,13	µg/l	133%
Dibromochloromethane	1,15	0,06	1,50	0,03	µg/l	130%
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	3,42	0,17			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



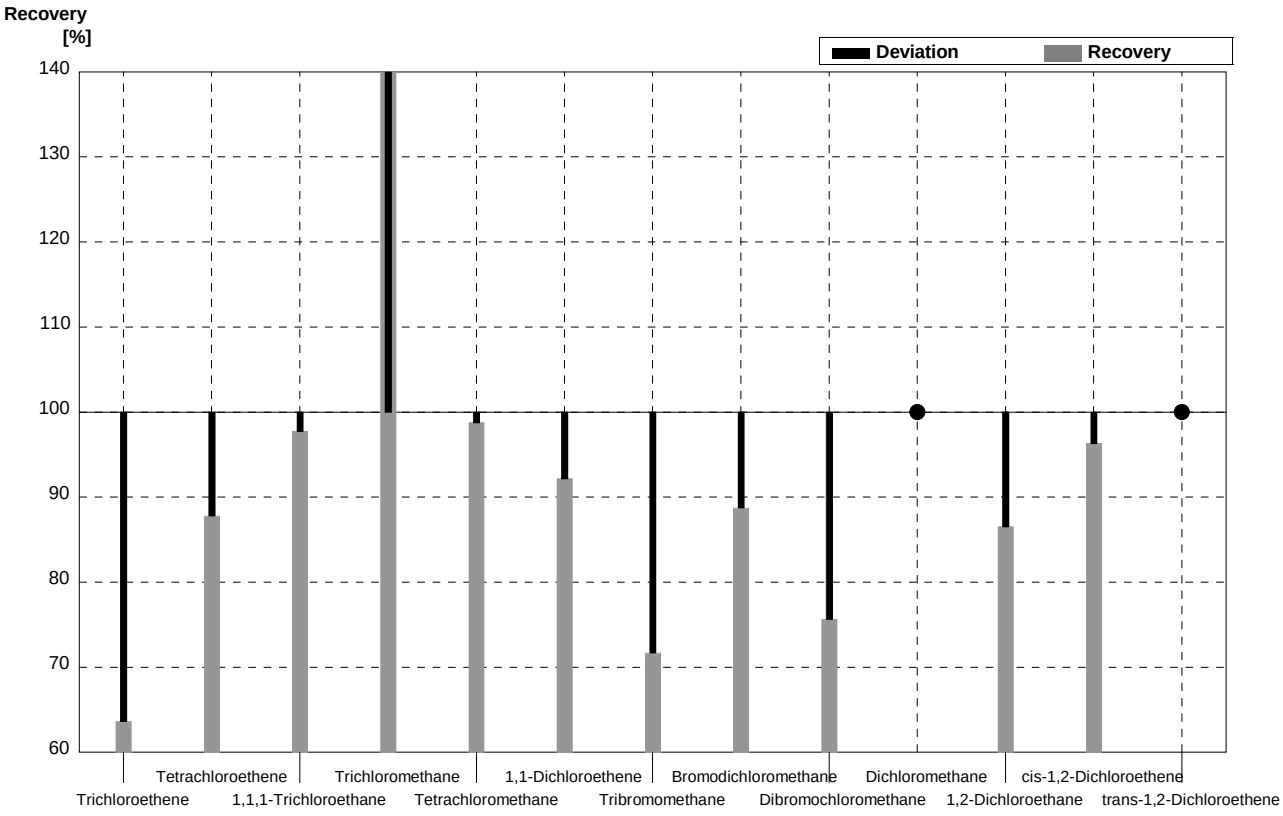
Sample C56A
Laboratory B

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,43	0,09	µg/l	61%
Tetrachloroethene	0,41	0,02	0,38	0,08	µg/l	93%
1,1,1-Trichloroethane	1,70	0,09	1,50	0,30	µg/l	88%
Trichloromethane	1,76	0,09	1,47	0,30	µg/l	84%
Tetrachloromethane	0,20	0,01	0,19	0,04	µg/l	95%
1,1-Dichloroethene	2,71	0,14	2,35	0,47	µg/l	87%
Tribromomethane	0,18	0,01	0,13	0,03	µg/l	72%
Bromodichloromethane	0,23	0,01	0,20	0,04	µg/l	87%
Dibromochloromethane	<0,1		<0,05		µg/l	•
Dichloromethane	3,12	0,16	2,75	0,55	µg/l	88%
1,2-Dichloroethane	1,10	0,06	0,96	0,20	µg/l	87%
cis-1,2-Dichloroethene	0,65	0,03	0,60	0,12	µg/l	92%
trans-1,2-Dichloroethene	1,18	0,06	1,24	0,25	µg/l	105%



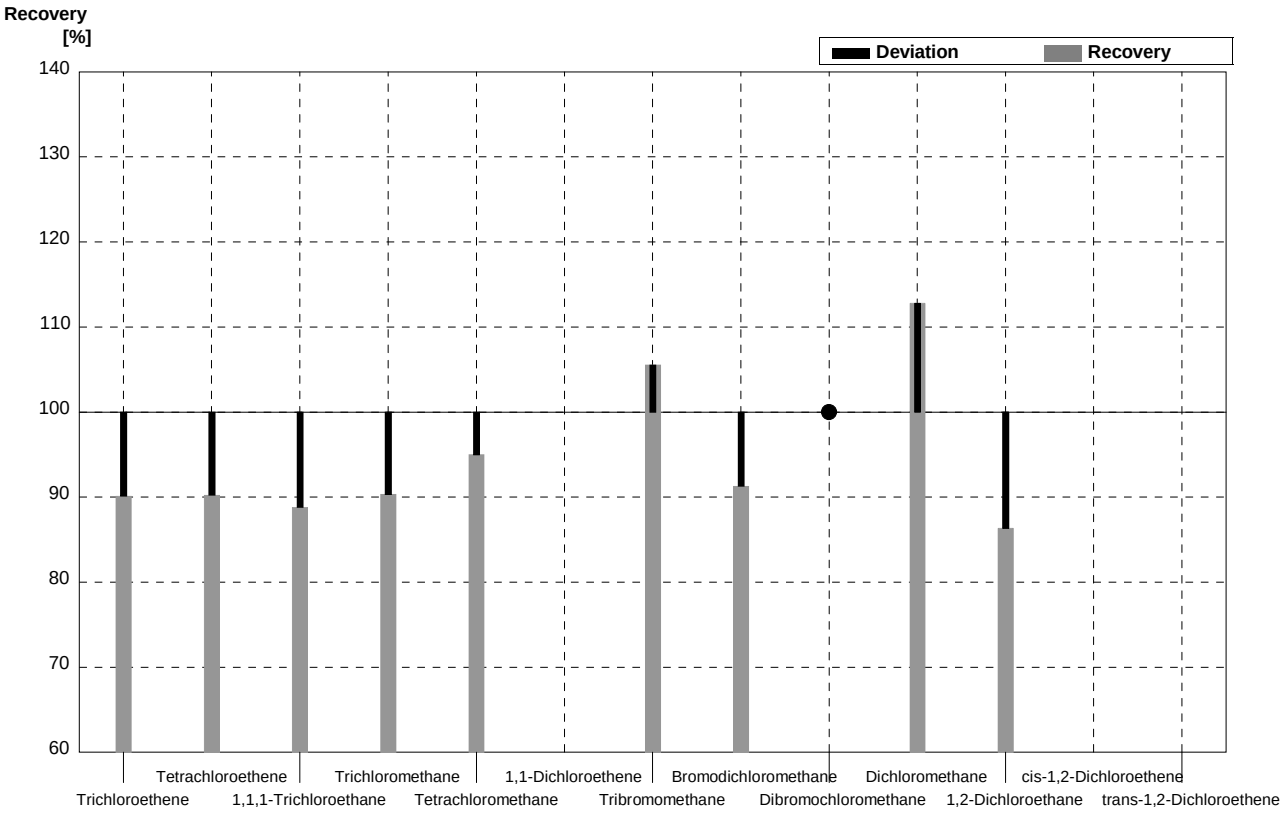
Sample C56B
Laboratory B

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,63	0,13	µg/l	64%
Tetrachloroethene	0,82	0,04	0,72	0,14	µg/l	88%
1,1,1-Trichloroethane	0,89	0,04	0,87	0,17	µg/l	98%
Trichloromethane	0,27	0,01	0,38	0,08	µg/l	141%
Tetrachloromethane	0,81	0,04	0,80	0,16	µg/l	99%
1,1-Dichloroethene	1,15	0,06	1,06	0,21	µg/l	92%
Tribromomethane	0,53	0,03	0,38	0,08	µg/l	72%
Bromodichloromethane	0,80	0,04	0,71	0,14	µg/l	89%
Dibromochloromethane	1,15	0,06	0,87	0,17	µg/l	76%
Dichloromethane	<0,6		<0,05		µg/l	•
1,2-Dichloroethane	3,42	0,17	2,96	0,60	µg/l	87%
cis-1,2-Dichloroethene	1,36	0,07	1,31	0,26	µg/l	96%
trans-1,2-Dichloroethene	<0,04		<0,05		µg/l	•



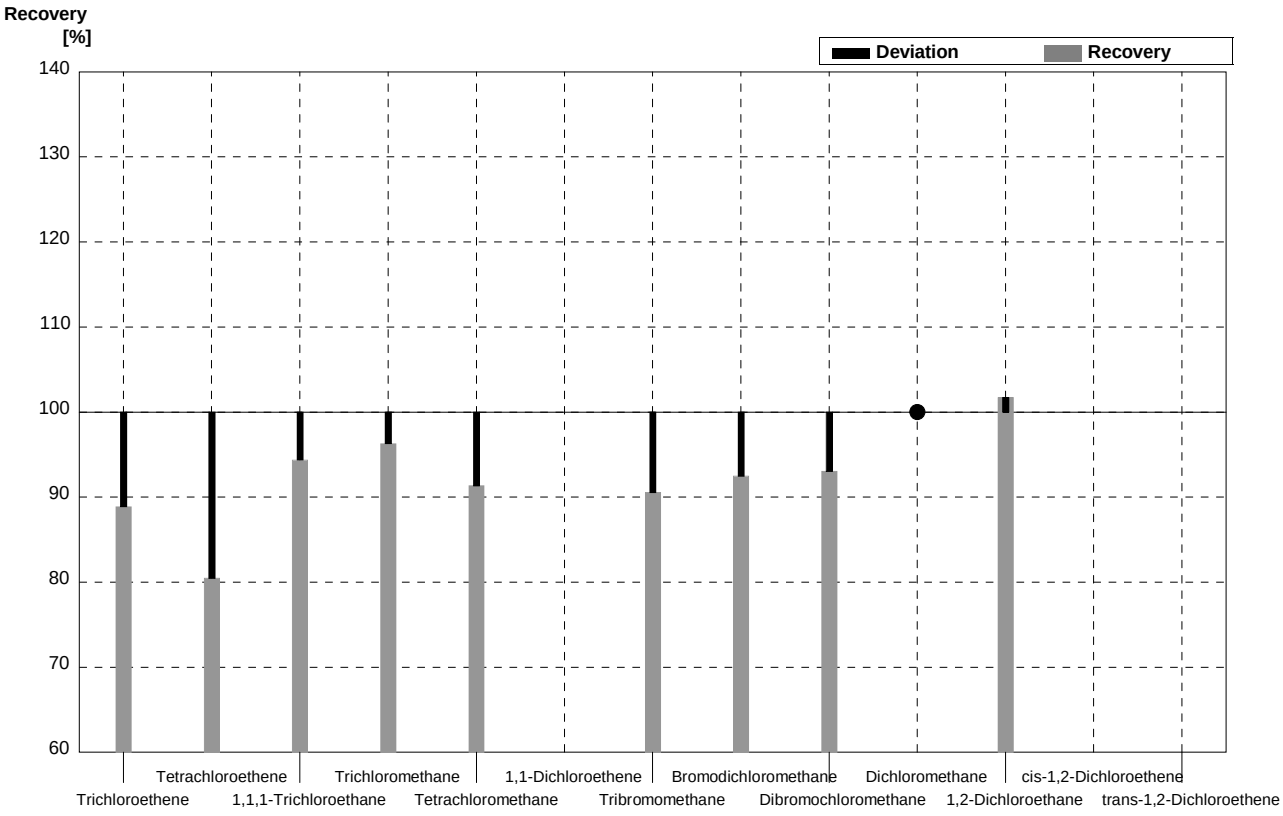
Sample C56A
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,64	0,10	µg/l	90%
Tetrachloroethene	0,41	0,02	0,37	0,10	µg/l	90%
1,1,1-Trichloroethane	1,70	0,09	1,51	0,15	µg/l	89%
Trichloromethane	1,76	0,09	1,59	0,15	µg/l	90%
Tetrachloromethane	0,20	0,01	0,19	0,10	µg/l	95%
1,1-Dichloroethene	2,71	0,14	n,a.		µg/l	
Tribromomethane	0,18	0,01	0,19	0,10	µg/l	106%
Bromodichloromethane	0,23	0,01	0,21	0,10	µg/l	91%
Dibromochloromethane	<0,1		<0,10		µg/l	•
Dichloromethane	3,12	0,16	3,52	0,30	µg/l	113%
1,2-Dichloroethane	1,10	0,06	0,95	0,20	µg/l	86%
cis-1,2-Dichloroethene	0,65	0,03	n,a.		µg/l	
trans-1,2-Dichloroethene	1,18	0,06	n,a.		µg/l	



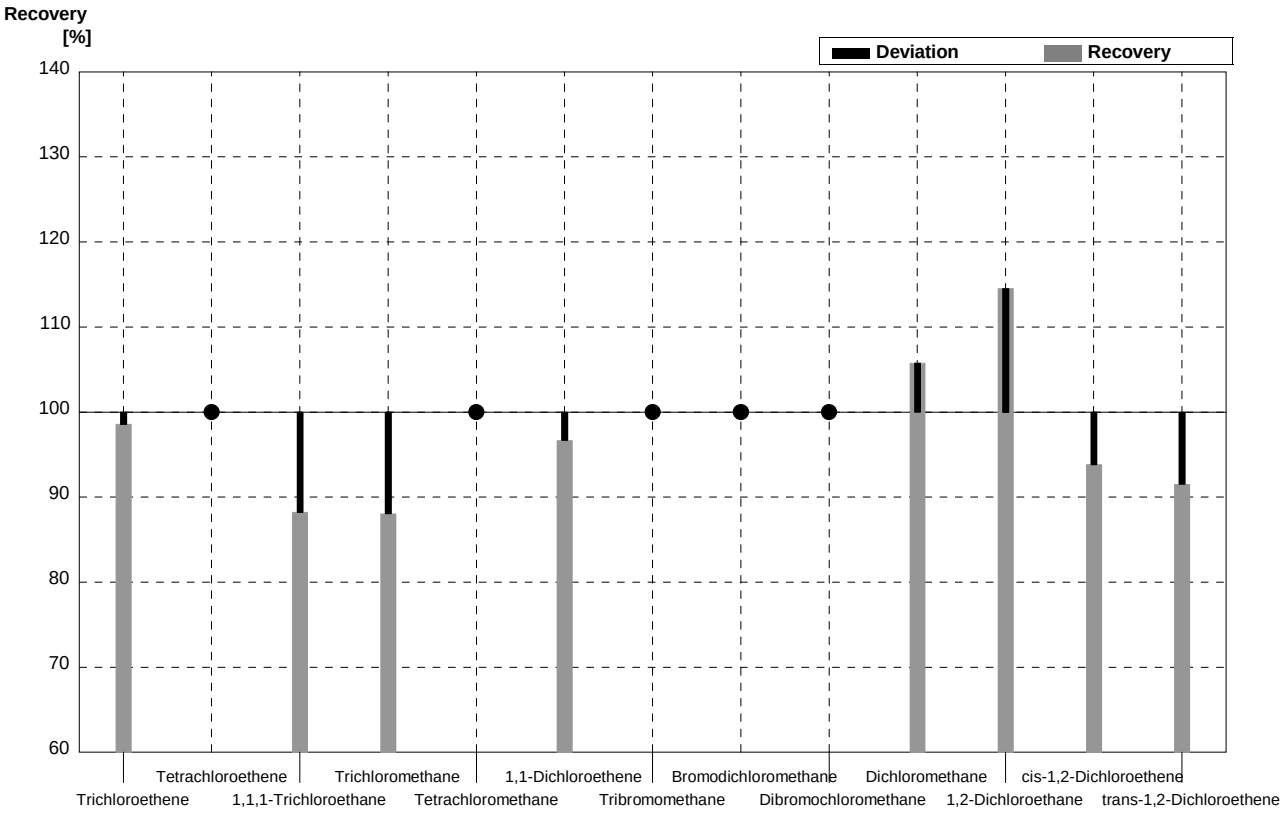
Sample C56B
Laboratory C

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,88	0,10	µg/l	89%
Tetrachloroethene	0,82	0,04	0,66	0,10	µg/l	80%
1,1,1-Trichloroethane	0,89	0,04	0,84	0,10	µg/l	94%
Trichloromethane	0,27	0,01	0,26	0,10	µg/l	96%
Tetrachloromethane	0,81	0,04	0,74	0,10	µg/l	91%
1,1-Dichloroethene	1,15	0,06	n,a.		µg/l	
Tribromomethane	0,53	0,03	0,48	0,10	µg/l	91%
Bromodichloromethane	0,80	0,04	0,74		µg/l	93%
Dibromochloromethane	1,15	0,06	1,07	0,15	µg/l	93%
Dichloromethane	<0,6		<0,10		µg/l	•
1,2-Dichloroethane	3,42	0,17	3,48	0,30	µg/l	102%
cis-1,2-Dichloroethene	1,36	0,07	n,a.		µg/l	
trans-1,2-Dichloroethene	<0,04		n,a.		µg/l	



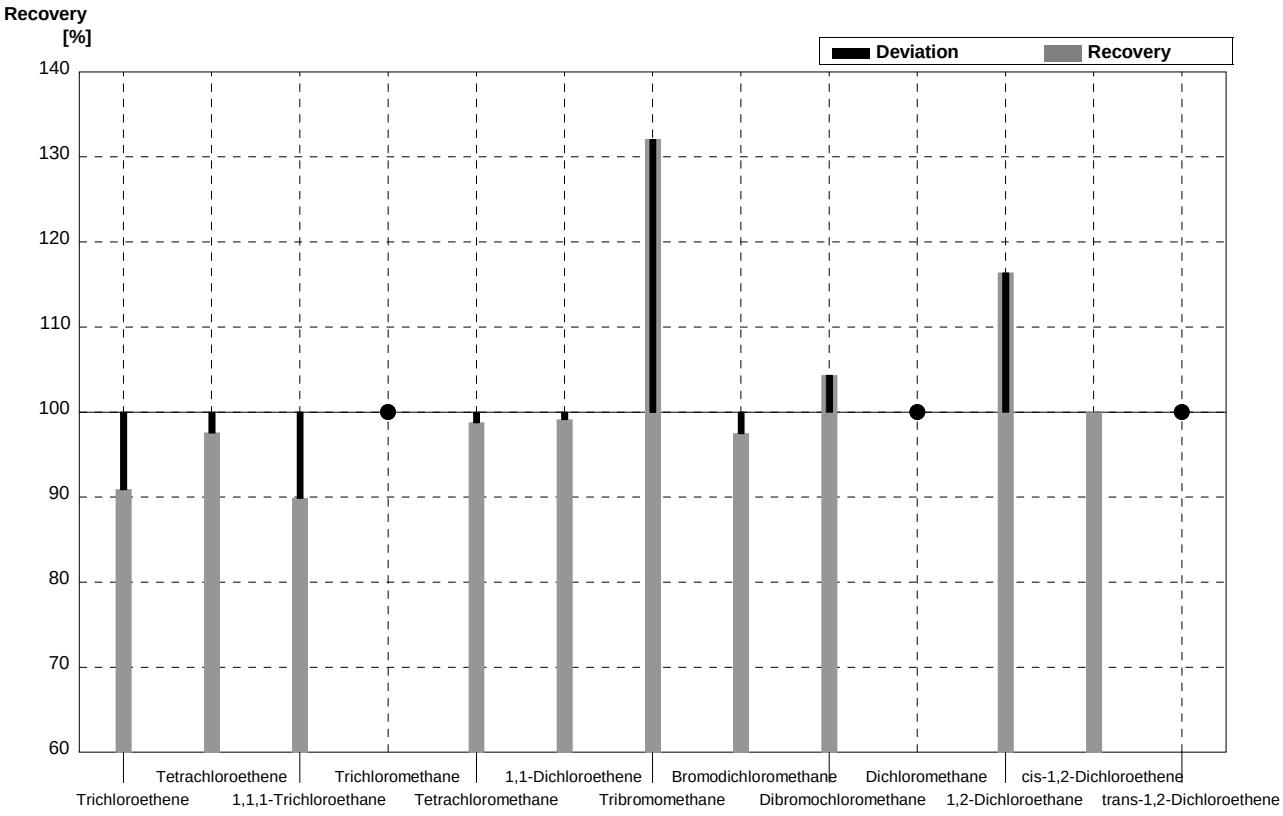
Sample C56A
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,7	0,2	µg/l	99%
Tetrachloroethene	0,41	0,02	<0,5		µg/l	•
1,1,1-Trichloroethane	1,70	0,09	1,5	0,2	µg/l	88%
Trichloromethane	1,76	0,09	1,55	0,2	µg/l	88%
Tetrachloromethane	0,20	0,01	<0,5		µg/l	•
1,1-Dichloroethene	2,71	0,14	2,62	0,1	µg/l	97%
Tribromomethane	0,18	0,01	<0,3		µg/l	•
Bromodichloromethane	0,23	0,01	<0,3		µg/l	•
Dibromochloromethane	<0,1		<0,5		µg/l	•
Dichloromethane	3,12	0,16	3,3	1,5	µg/l	106%
1,2-Dichloroethane	1,10	0,06	1,26	0,7	µg/l	115%
cis-1,2-Dichloroethene	0,65	0,03	0,61	0,02	µg/l	94%
trans-1,2-Dichloroethene	1,18	0,06	1,08	0,03	µg/l	92%



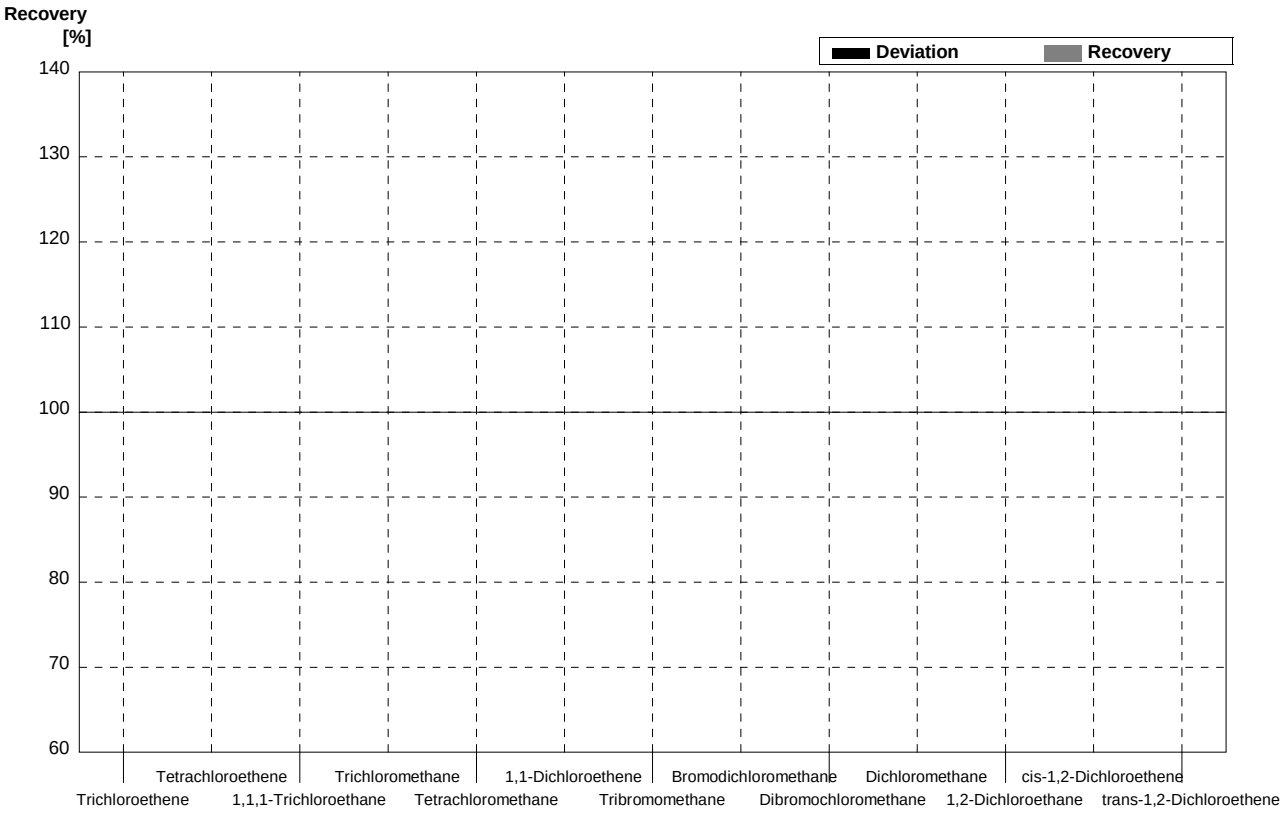
Sample C56B
Laboratory D

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,9	0,2	µg/l	91%
Tetrachloroethene	0,82	0,04	0,8	0,2	µg/l	98%
1,1,1-Trichloroethane	0,89	0,04	0,8	0,2	µg/l	90%
Trichloromethane	0,27	0,01	<0,5		µg/l	•
Tetrachloromethane	0,81	0,04	0,8	0,1	µg/l	99%
1,1-Dichloroethene	1,15	0,06	1,14	0,07	µg/l	99%
Tribromomethane	0,53	0,03	0,7	0,10	µg/l	132%
Bromodichloromethane	0,80	0,04	0,78	0,20	µg/l	98%
Dibromochloromethane	1,15	0,06	1,2	0,2	µg/l	104%
Dichloromethane	<0,6		<2,0		µg/l	•
1,2-Dichloroethane	3,42	0,17	3,98	0,7	µg/l	116%
cis-1,2-Dichloroethene	1,36	0,07	1,36	0,10	µg/l	100%
trans-1,2-Dichloroethene	<0,04		<1,0		µg/l	•



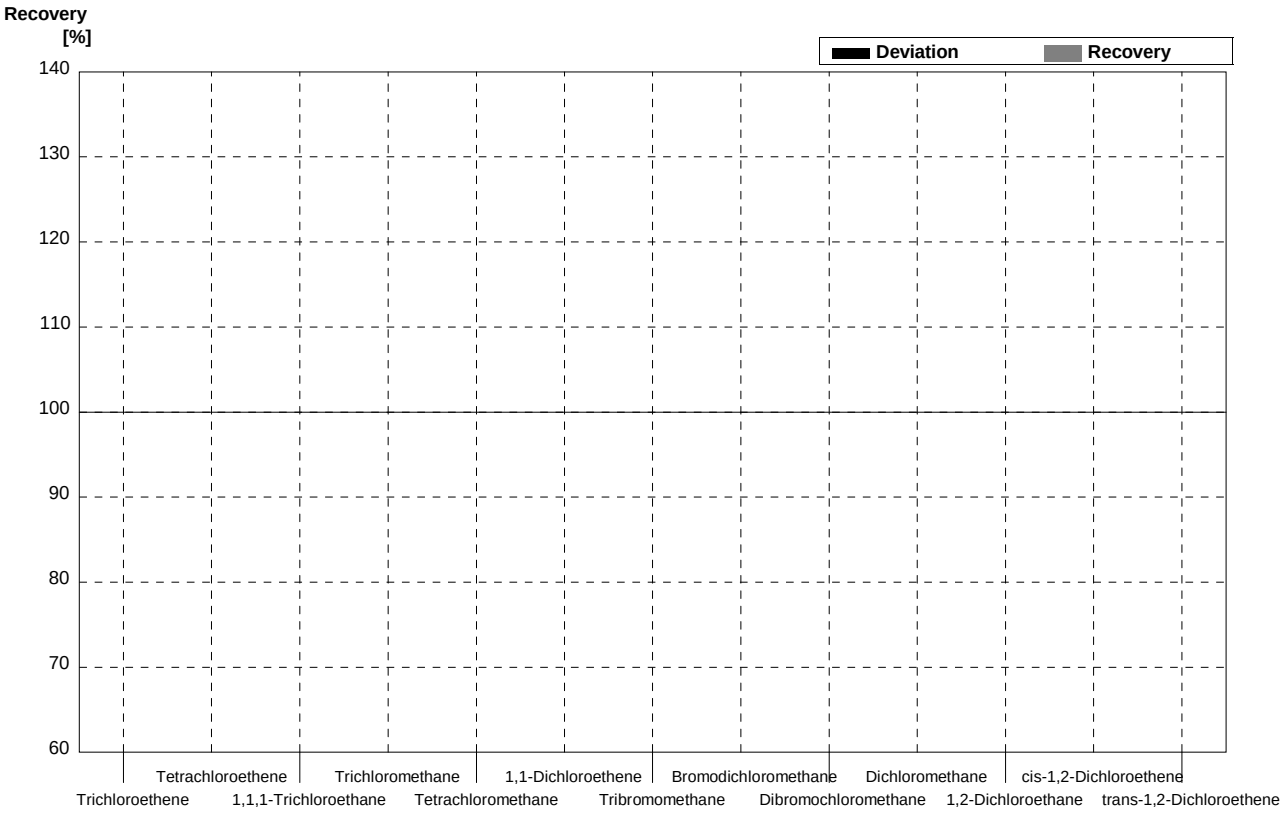
Sample C56A
Laboratory E

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04			µg/l	
Tetrachloroethene	0,41	0,02			µg/l	
1,1,1-Trichloroethane	1,70	0,09			µg/l	
Trichloromethane	1,76	0,09			µg/l	
Tetrachloromethane	0,20	0,01			µg/l	
1,1-Dichloroethene	2,71	0,14			µg/l	
Tribromomethane	0,18	0,01			µg/l	
Bromodichloromethane	0,23	0,01			µg/l	
Dibromochloromethane	<0,1				µg/l	
Dichloromethane	3,12	0,16			µg/l	
1,2-Dichloroethane	1,10	0,06			µg/l	
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



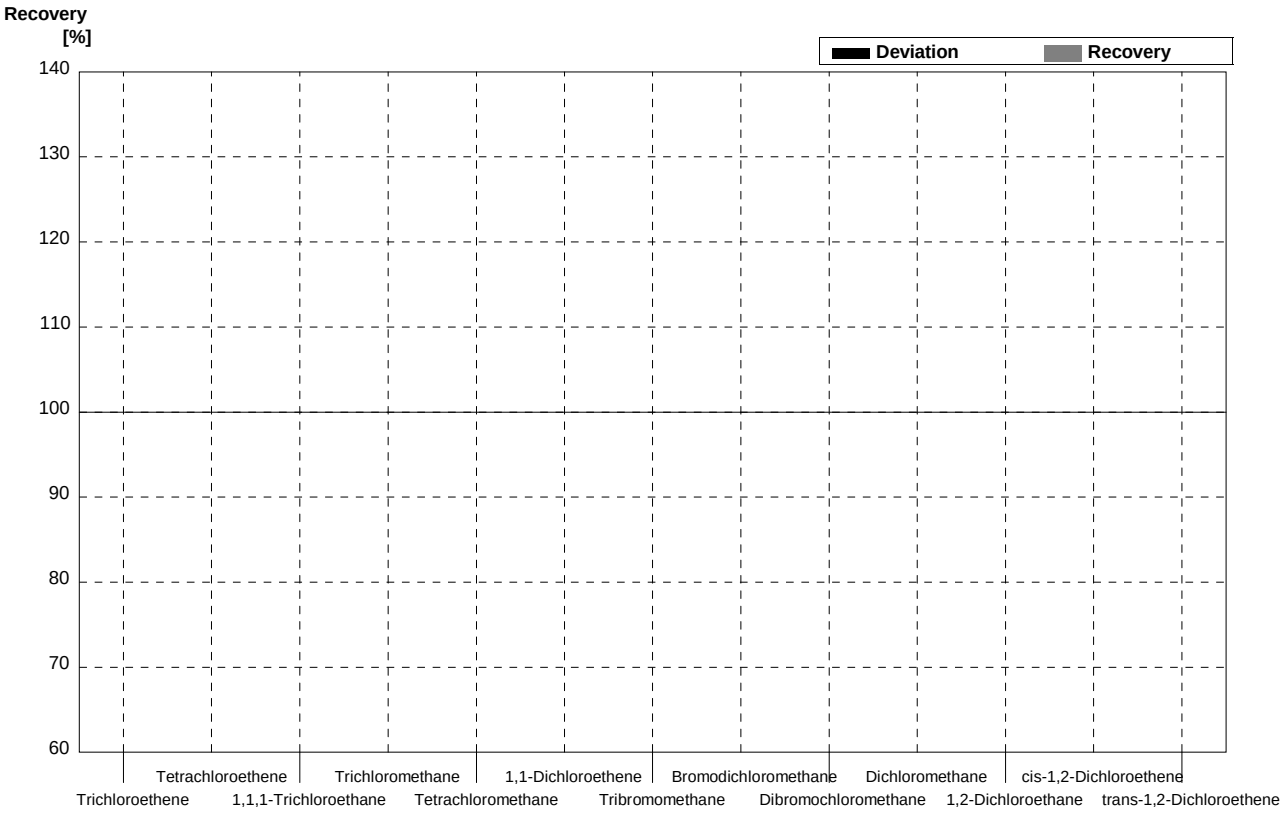
Sample C56B
Laboratory E

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05			µg/l	
Tetrachloroethene	0,82	0,04			µg/l	
1,1,1-Trichloroethane	0,89	0,04			µg/l	
Trichloromethane	0,27	0,01			µg/l	
Tetrachloromethane	0,81	0,04			µg/l	
1,1-Dichloroethene	1,15	0,06			µg/l	
Tribromomethane	0,53	0,03			µg/l	
Bromodichloromethane	0,80	0,04			µg/l	
Dibromochloromethane	1,15	0,06			µg/l	
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	3,42	0,17			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



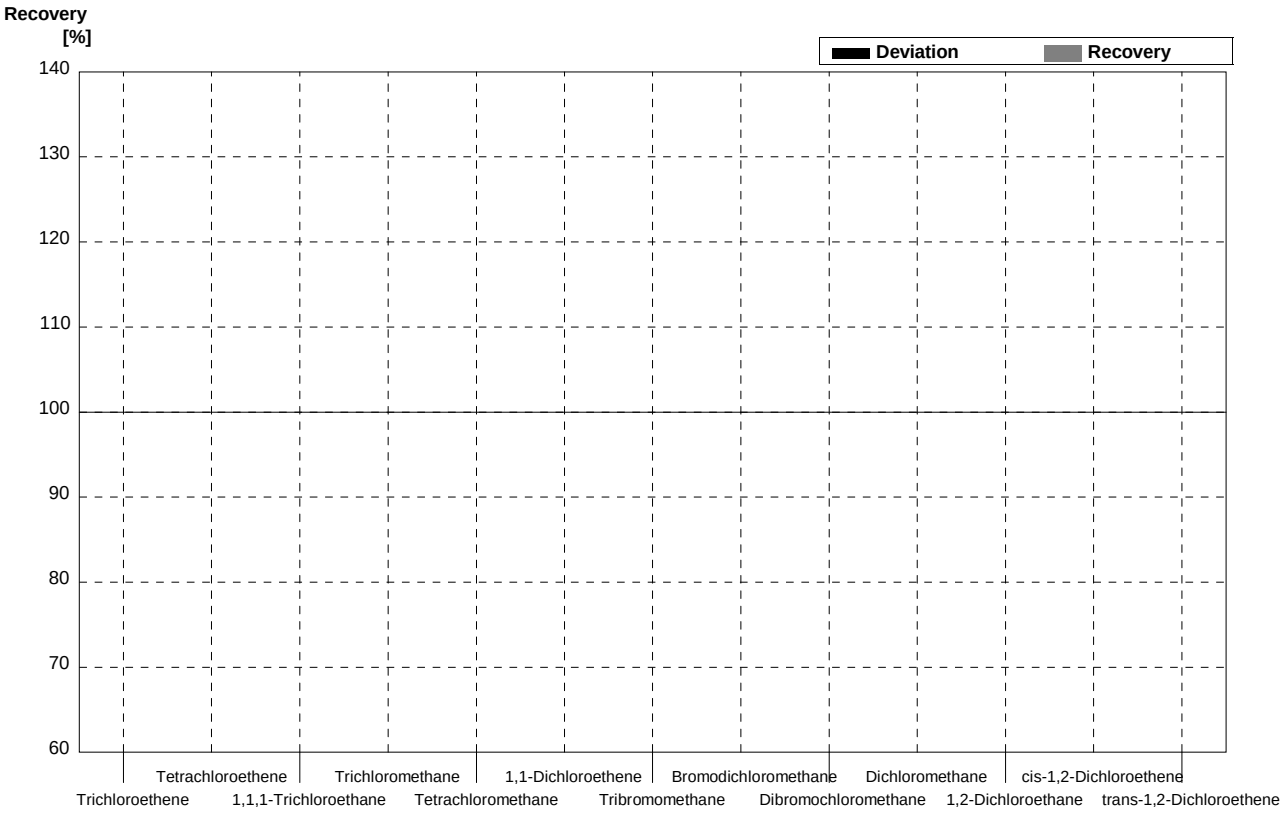
Sample C56A
Laboratory F

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04			µg/l	
Tetrachloroethene	0,41	0,02			µg/l	
1,1,1-Trichloroethane	1,70	0,09			µg/l	
Trichloromethane	1,76	0,09			µg/l	
Tetrachloromethane	0,20	0,01			µg/l	
1,1-Dichloroethene	2,71	0,14			µg/l	
Tribromomethane	0,18	0,01			µg/l	
Bromodichloromethane	0,23	0,01			µg/l	
Dibromochloromethane	<0,1				µg/l	
Dichloromethane	3,12	0,16			µg/l	
1,2-Dichloroethane	1,10	0,06			µg/l	
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



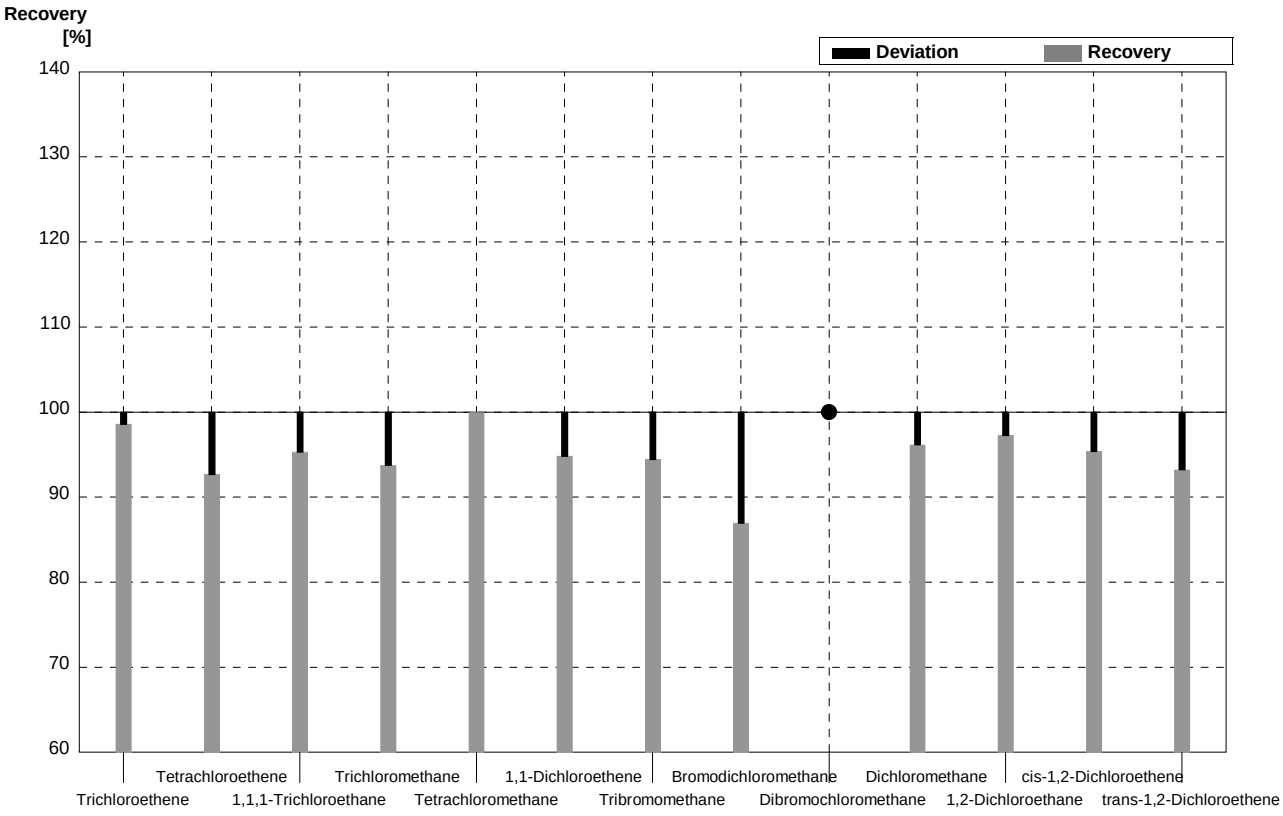
Sample C56B
Laboratory F

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05			µg/l	
Tetrachloroethene	0,82	0,04			µg/l	
1,1,1-Trichloroethane	0,89	0,04			µg/l	
Trichloromethane	0,27	0,01			µg/l	
Tetrachloromethane	0,81	0,04			µg/l	
1,1-Dichloroethene	1,15	0,06			µg/l	
Tribromomethane	0,53	0,03			µg/l	
Bromodichloromethane	0,80	0,04			µg/l	
Dibromochloromethane	1,15	0,06			µg/l	
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	3,42	0,17			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



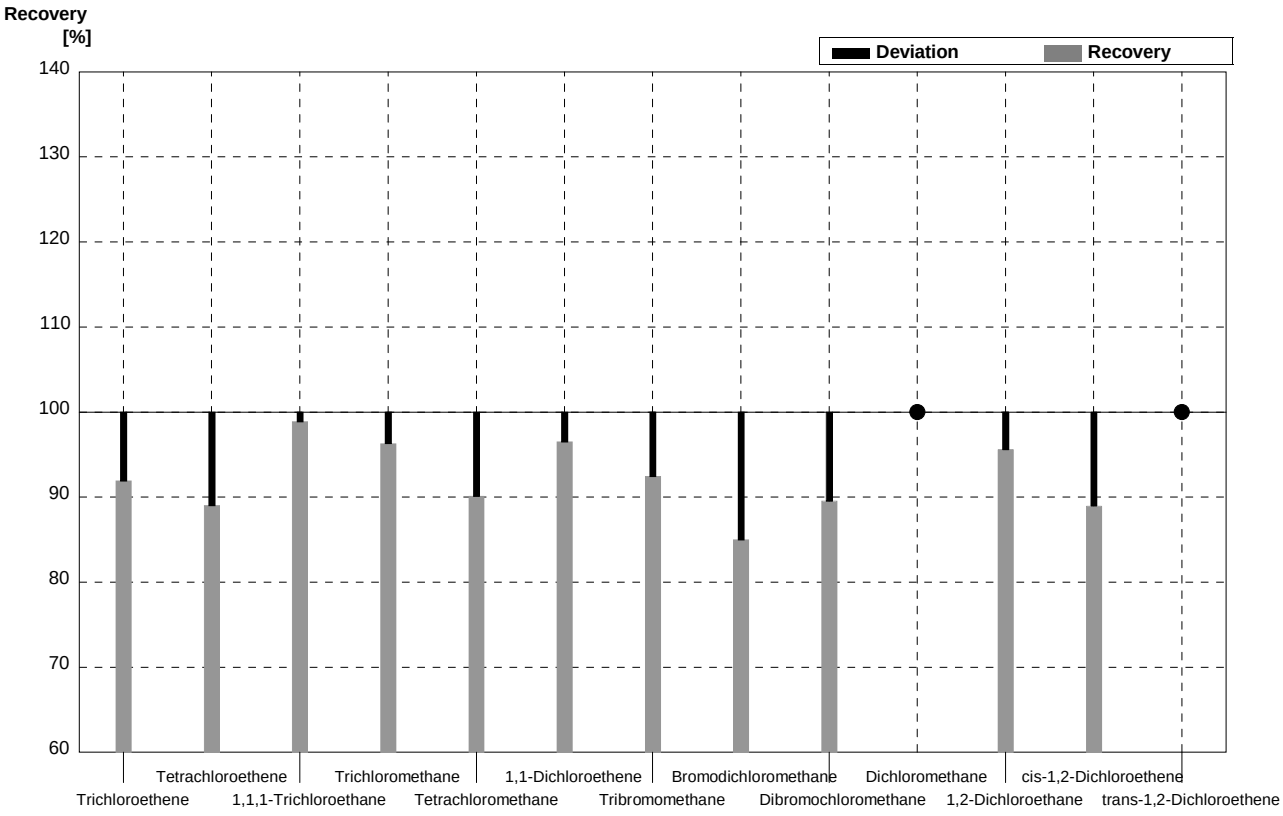
Sample C56A
Laboratory G

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,70	0,14	µg/l	99%
Tetrachloroethene	0,41	0,02	0,38	0,08	µg/l	93%
1,1,1-Trichloroethane	1,70	0,09	1,62	0,32	µg/l	95%
Trichloromethane	1,76	0,09	1,65	0,33	µg/l	94%
Tetrachloromethane	0,20	0,01	0,20	0,04	µg/l	100%
1,1-Dichloroethene	2,71	0,14	2,57	0,51	µg/l	95%
Tribromomethane	0,18	0,01	0,17	0,03	µg/l	94%
Bromodichloromethane	0,23	0,01	0,20	0,04	µg/l	87%
Dibromochloromethane	<0,1		<0,02		µg/l	•
Dichloromethane	3,12	0,16	3,00	0,60	µg/l	96%
1,2-Dichloroethane	1,10	0,06	1,07	0,21	µg/l	97%
cis-1,2-Dichloroethene	0,65	0,03	0,62	0,12	µg/l	95%
trans-1,2-Dichloroethene	1,18	0,06	1,10	0,22	µg/l	93%



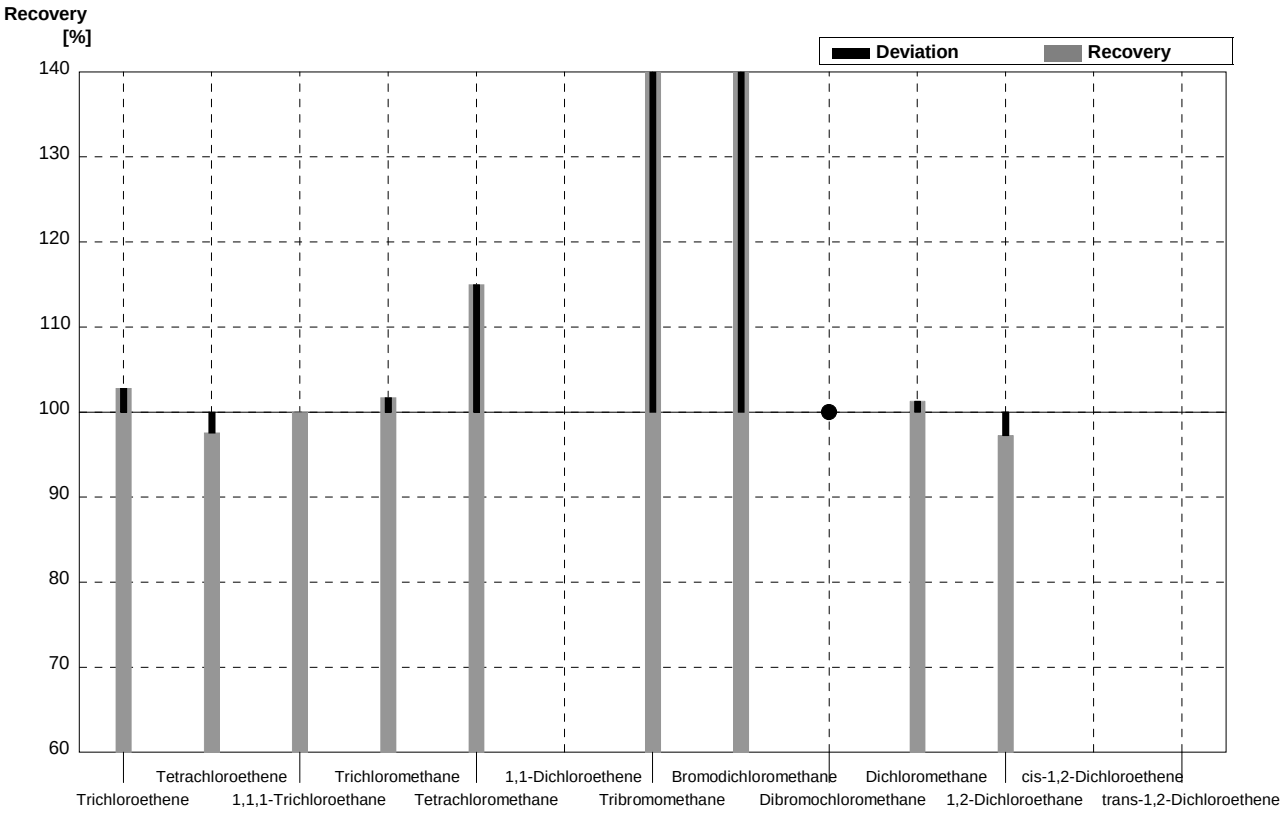
Sample C56B
Laboratory G

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,91	0,18	µg/l	92%
Tetrachloroethene	0,82	0,04	0,73	0,15	µg/l	89%
1,1,1-Trichloroethane	0,89	0,04	0,88	0,18	µg/l	99%
Trichloromethane	0,27	0,01	0,26	0,05	µg/l	96%
Tetrachloromethane	0,81	0,04	0,73	0,15	µg/l	90%
1,1-Dichloroethene	1,15	0,06	1,11	0,22	µg/l	97%
Tribromomethane	0,53	0,03	0,49	0,10	µg/l	92%
Bromodichloromethane	0,80	0,04	0,68	0,14	µg/l	85%
Dibromochloromethane	1,15	0,06	1,03	0,21	µg/l	90%
Dichloromethane	<0,6		<0,06		µg/l	•
1,2-Dichloroethane	3,42	0,17	3,27	0,65	µg/l	96%
cis-1,2-Dichloroethene	1,36	0,07	1,21	0,24	µg/l	89%
trans-1,2-Dichloroethene	<0,04		<0,02		µg/l	•



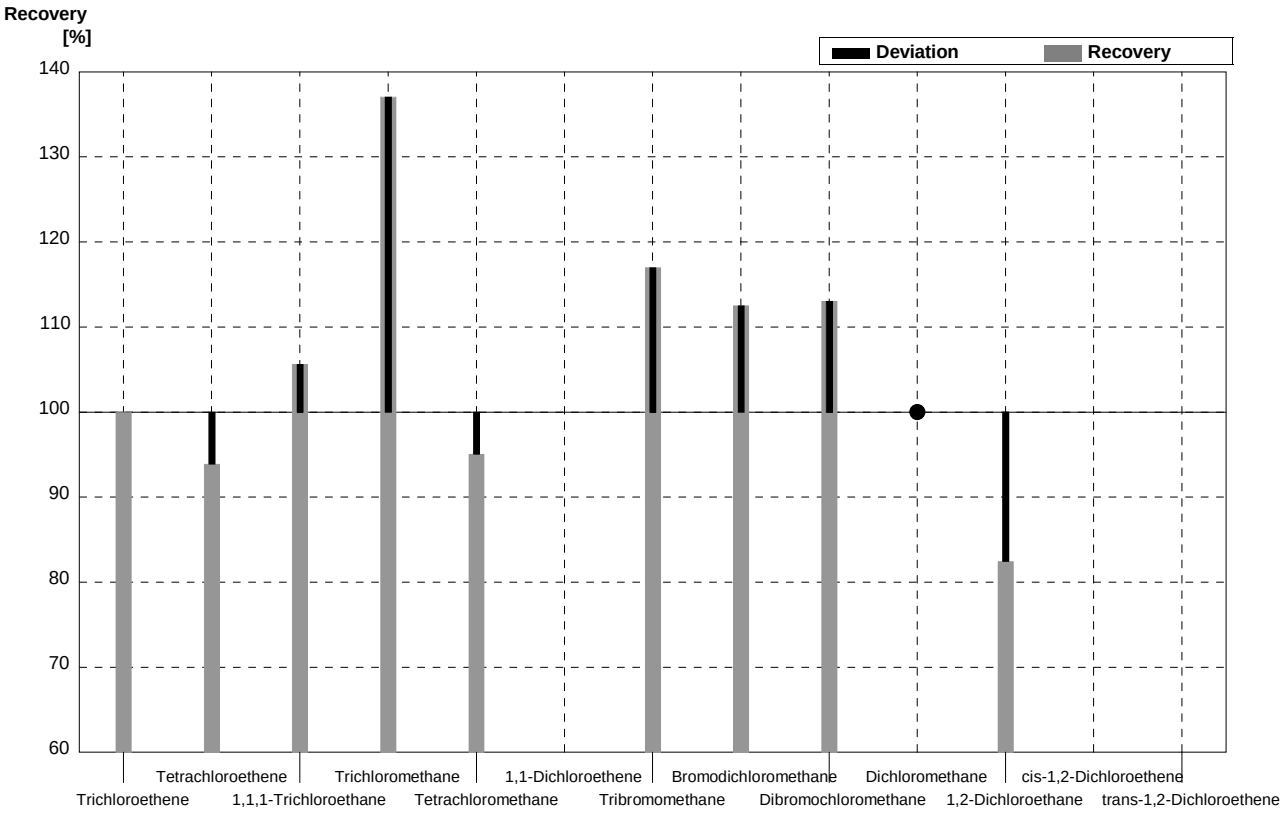
Sample C56A
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,73		µg/l	103%
Tetrachloroethene	0,41	0,02	0,40		µg/l	98%
1,1,1-Trichloroethane	1,70	0,09	1,70		µg/l	100%
Trichloromethane	1,76	0,09	1,79		µg/l	102%
Tetrachloromethane	0,20	0,01	0,23		µg/l	115%
1,1-Dichloroethene	2,71	0,14			µg/l	
Tribromomethane	0,18	0,01	0,30		µg/l	167%
Bromodichloromethane	0,23	0,01	0,34		µg/l	148%
Dibromochloromethane	<0,1		<0,97		µg/l	•
Dichloromethane	3,12	0,16	3,16		µg/l	101%
1,2-Dichloroethane	1,10	0,06	1,07		µg/l	97%
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



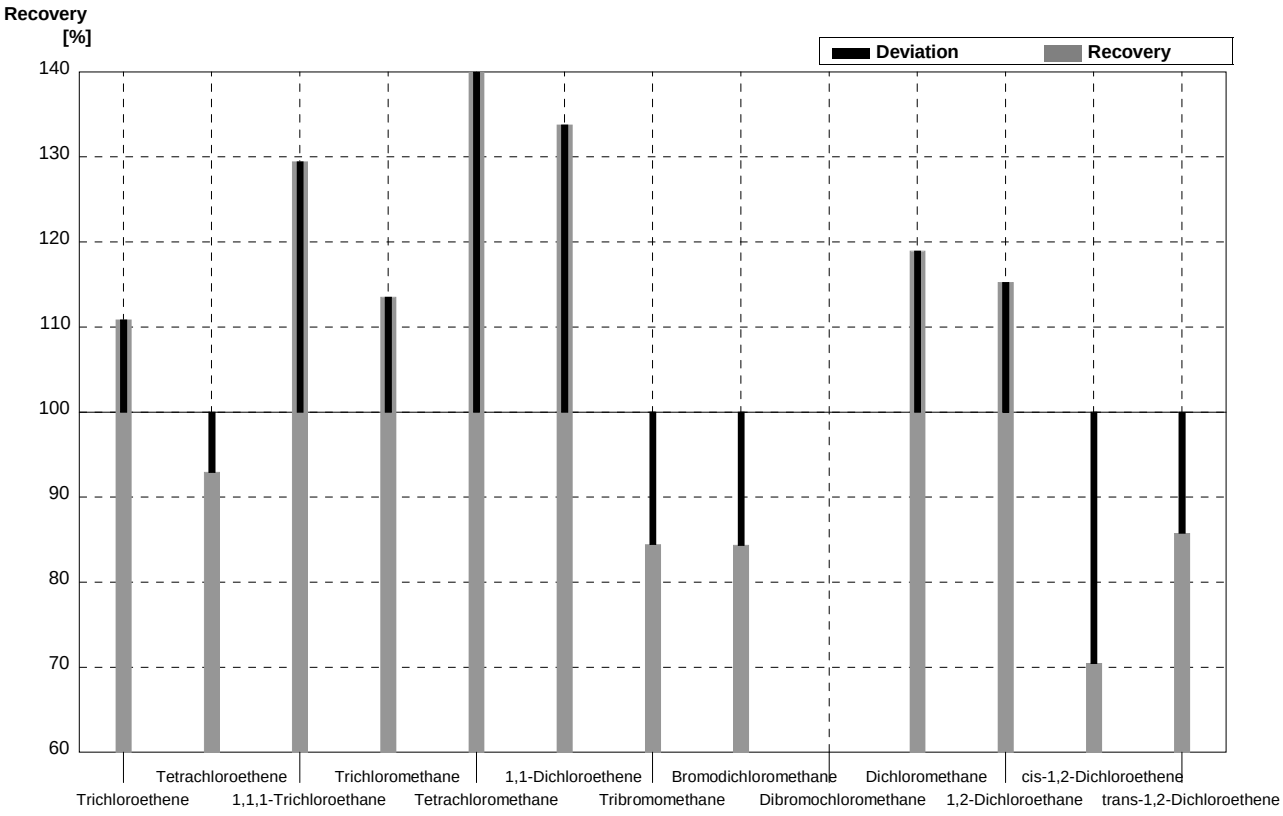
Sample C56B
Laboratory H

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,99		µg/l	100%
Tetrachloroethene	0,82	0,04	0,77		µg/l	94%
1,1,1-Trichloroethane	0,89	0,04	0,94		µg/l	106%
Trichloromethane	0,27	0,01	0,37		µg/l	137%
Tetrachloromethane	0,81	0,04	0,77		µg/l	95%
1,1-Dichloroethene	1,15	0,06			µg/l	
Tribromomethane	0,53	0,03	0,62		µg/l	117%
Bromodichloromethane	0,80	0,04	0,90		µg/l	113%
Dibromochloromethane	1,15	0,06	1,30		µg/l	113%
Dichloromethane	<0,6		<0,23		µg/l	•
1,2-Dichloroethane	3,42	0,17	2,82		µg/l	82%
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



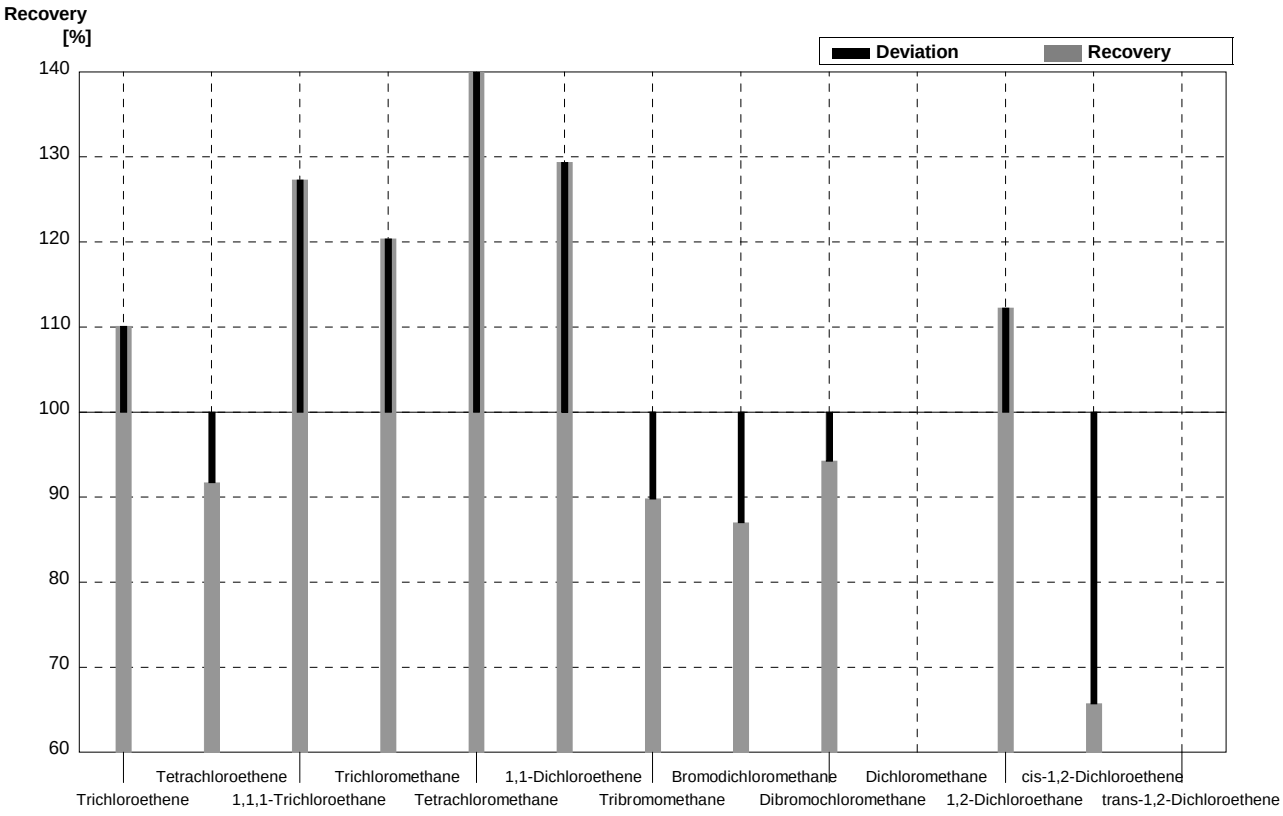
Sample C56A
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,787	0,078	µg/l	111%
Tetrachloroethene	0,41	0,02	0,381	0,038	µg/l	93%
1,1,1-Trichloroethane	1,70	0,09	2,201	0,220	µg/l	129%
Trichloromethane	1,76	0,09	1,998	0,199	µg/l	114%
Tetrachloromethane	0,20	0,01	0,402	0,040	µg/l	201%
1,1-Dichloroethene	2,71	0,14	3,625	0,363	µg/l	134%
Tribromomethane	0,18	0,01	0,152	0,015	µg/l	84%
Bromodichloromethane	0,23	0,01	0,194	0,019	µg/l	84%
Dibromochloromethane	<0,1		n,n.		µg/l	
Dichloromethane	3,12	0,16	3,711	0,371	µg/l	119%
1,2-Dichloroethane	1,10	0,06	1,268	0,127	µg/l	115%
cis-1,2-Dichloroethene	0,65	0,03	0,458	0,046	µg/l	70%
trans-1,2-Dichloroethene	1,18	0,06	1,012	0,101	µg/l	86%



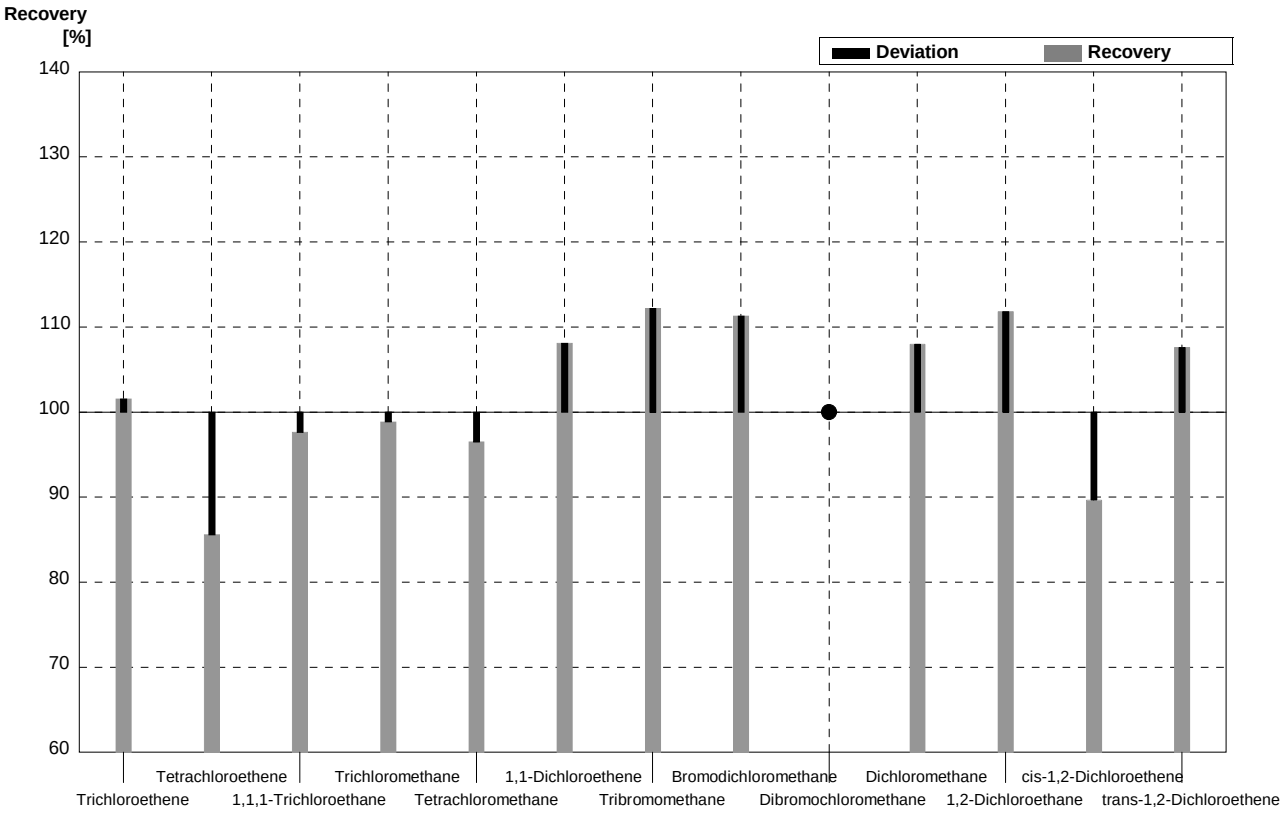
Sample C56B
Laboratory I

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	1,090	0,109	µg/l	110%
Tetrachloroethene	0,82	0,04	0,752	0,075	µg/l	92%
1,1,1-Trichloroethane	0,89	0,04	1,133	0,113	µg/l	127%
Trichloromethane	0,27	0,01	0,325	0,033	µg/l	120%
Tetrachloromethane	0,81	0,04	1,218	0,122	µg/l	150%
1,1-Dichloroethene	1,15	0,06	1,488	0,149	µg/l	129%
Tribromomethane	0,53	0,03	0,476	0,048	µg/l	90%
Bromodichloromethane	0,80	0,04	0,696	0,07	µg/l	87%
Dibromochloromethane	1,15	0,06	1,084	0,108	µg/l	94%
Dichloromethane	<0,6		n,B.		µg/l	
1,2-Dichloroethane	3,42	0,17	3,839	0,384	µg/l	112%
cis-1,2-Dichloroethene	1,36	0,07	0,894	0,089	µg/l	66%
trans-1,2-Dichloroethene	<0,04		n,n.		µg/l	



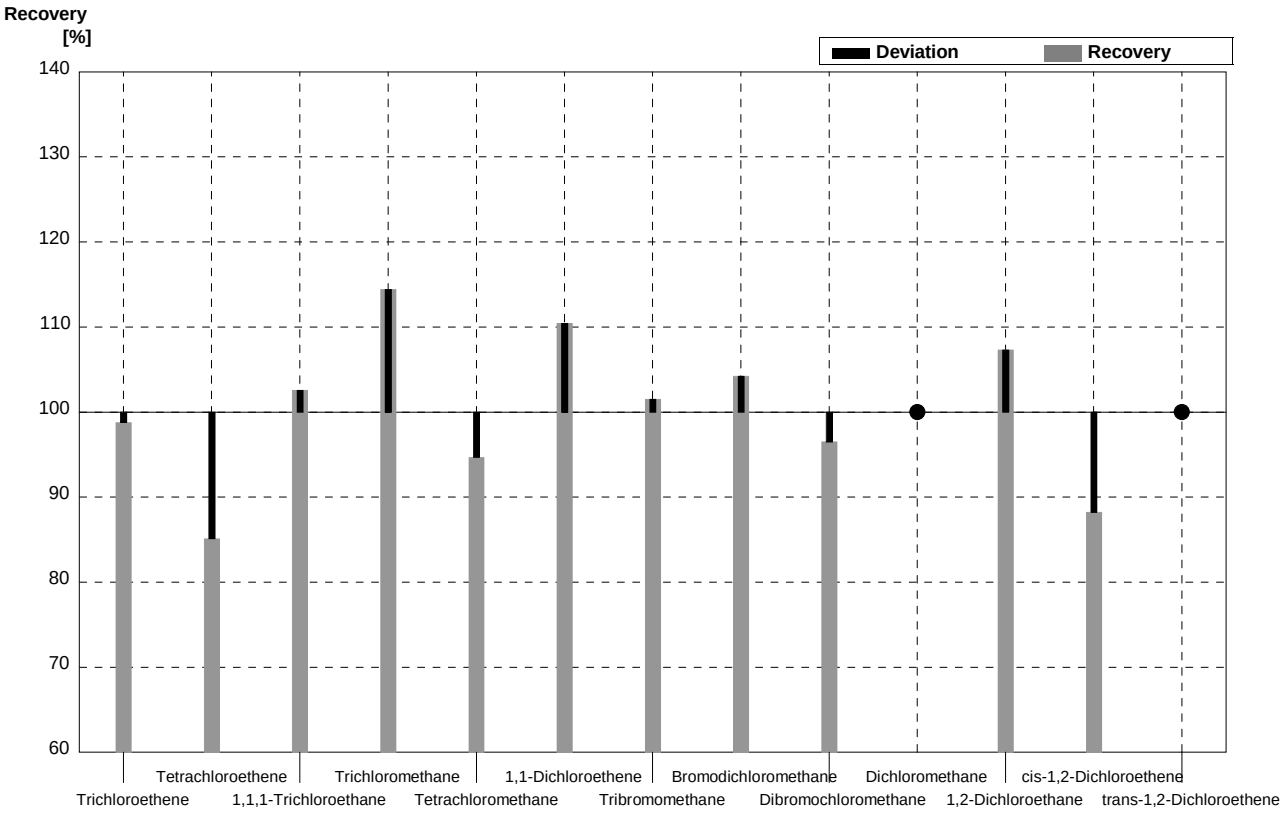
Sample C56A
Laboratory J

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,721	0,034	µg/l	102%
Tetrachloroethene	0,41	0,02	0,351	0,028	µg/l	86%
1,1,1-Trichloroethane	1,70	0,09	1,66	0,05	µg/l	98%
Trichloromethane	1,76	0,09	1,74	0,04	µg/l	99%
Tetrachloromethane	0,20	0,01	0,193	0,002	µg/l	97%
1,1-Dichloroethene	2,71	0,14	2,93	0,14	µg/l	108%
Tribromomethane	0,18	0,01	0,202	0,020	µg/l	112%
Bromodichloromethane	0,23	0,01	0,256	0,009	µg/l	111%
Dibromochloromethane	<0,1		<0,02		µg/l	•
Dichloromethane	3,12	0,16	3,37	0,12	µg/l	108%
1,2-Dichloroethane	1,10	0,06	1,23	0,05	µg/l	112%
cis-1,2-Dichloroethene	0,65	0,03	0,583	0,047	µg/l	90%
trans-1,2-Dichloroethene	1,18	0,06	1,27	0,03	µg/l	108%



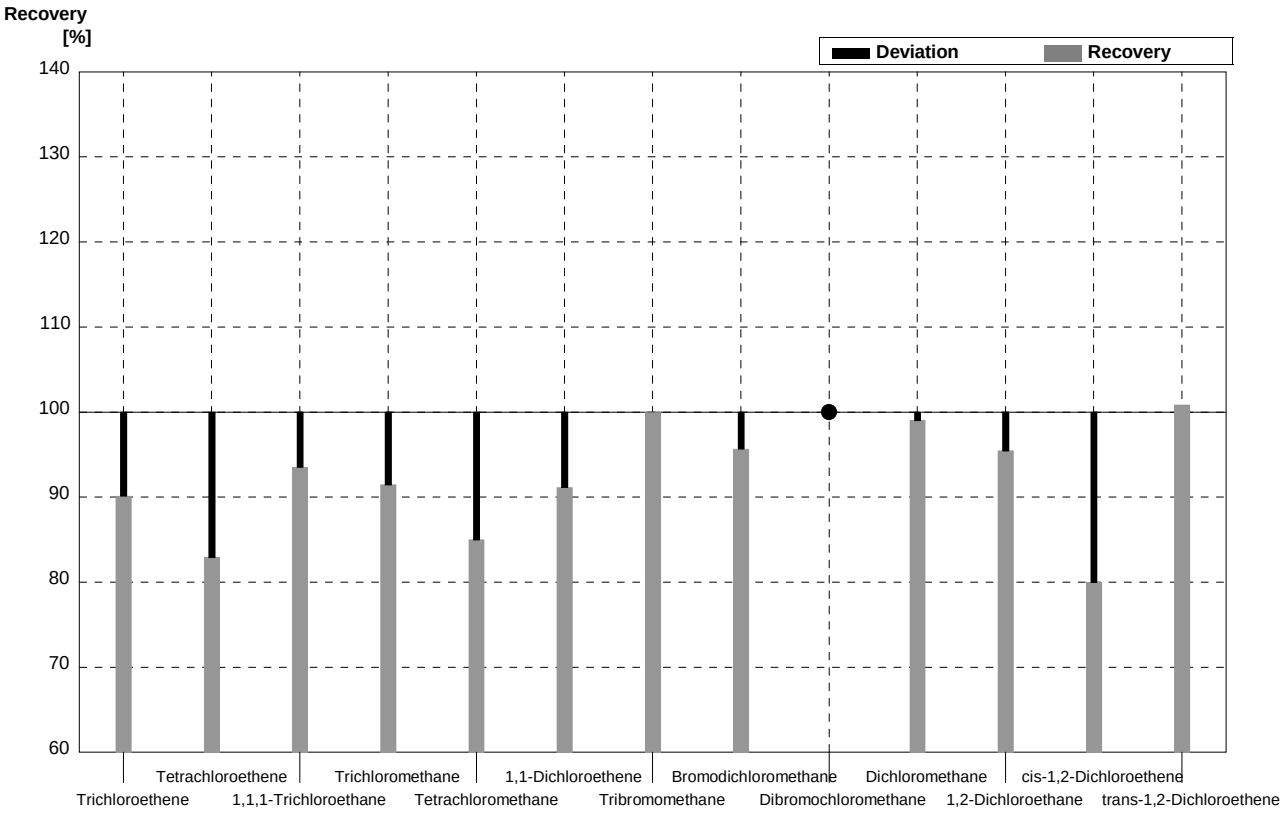
Sample C56B
Laboratory J

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,978	0,042	µg/l	99%
Tetrachloroethene	0,82	0,04	0,698	0,056	µg/l	85%
1,1,1-Trichloroethane	0,89	0,04	0,913	0,058	µg/l	103%
Trichloromethane	0,27	0,01	0,309	0,020	µg/l	114%
Tetrachloromethane	0,81	0,04	0,767	0,052	µg/l	95%
1,1-Dichloroethene	1,15	0,06	1,27	0,07	µg/l	110%
Tribromomethane	0,53	0,03	0,538	0,067	µg/l	102%
Bromodichloromethane	0,80	0,04	0,834	0,035	µg/l	104%
Dibromochloromethane	1,15	0,06	1,11	0,06	µg/l	97%
Dichloromethane	<0,6		<0,10		µg/l	•
1,2-Dichloroethane	3,42	0,17	3,67	0,20	µg/l	107%
cis-1,2-Dichloroethene	1,36	0,07	1,20	0,11	µg/l	88%
trans-1,2-Dichloroethene	<0,04		<0,05		µg/l	•



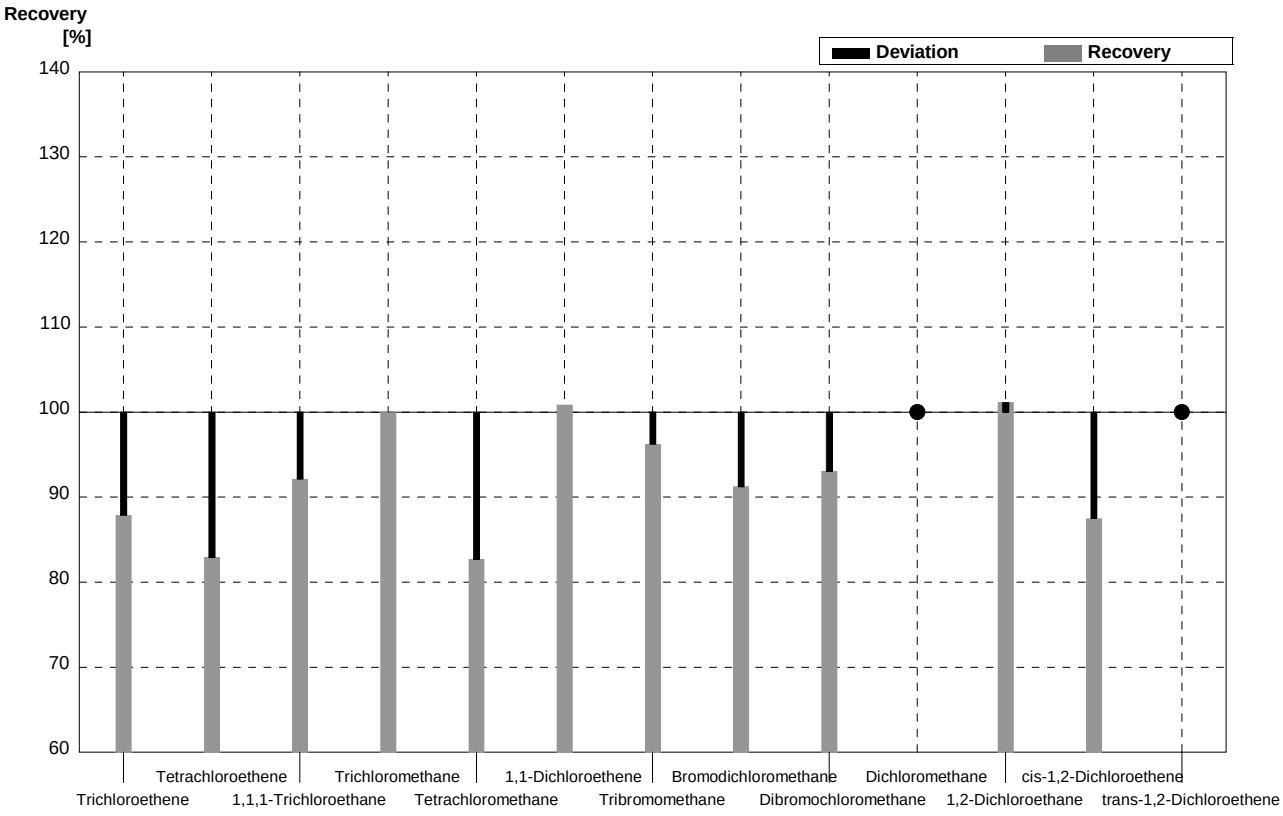
Sample C56A
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,64	0,10	µg/l	90%
Tetrachloroethene	0,41	0,02	0,34	0,05	µg/l	83%
1,1,1-Trichloroethane	1,70	0,09	1,59	0,24	µg/l	94%
Trichloromethane	1,76	0,09	1,61	0,24	µg/l	91%
Tetrachloromethane	0,20	0,01	0,17	0,03	µg/l	85%
1,1-Dichloroethene	2,71	0,14	2,47	0,37	µg/l	91%
Tribromomethane	0,18	0,01	0,18	0,03	µg/l	100%
Bromodichloromethane	0,23	0,01	0,22	0,03	µg/l	96%
Dibromochloromethane	<0,1		<0,1		µg/l	•
Dichloromethane	3,12	0,16	3,09	0,46	µg/l	99%
1,2-Dichloroethane	1,10	0,06	1,05	0,17	µg/l	95%
cis-1,2-Dichloroethene	0,65	0,03	0,52	0,08	µg/l	80%
trans-1,2-Dichloroethene	1,18	0,06	1,19	0,18	µg/l	101%



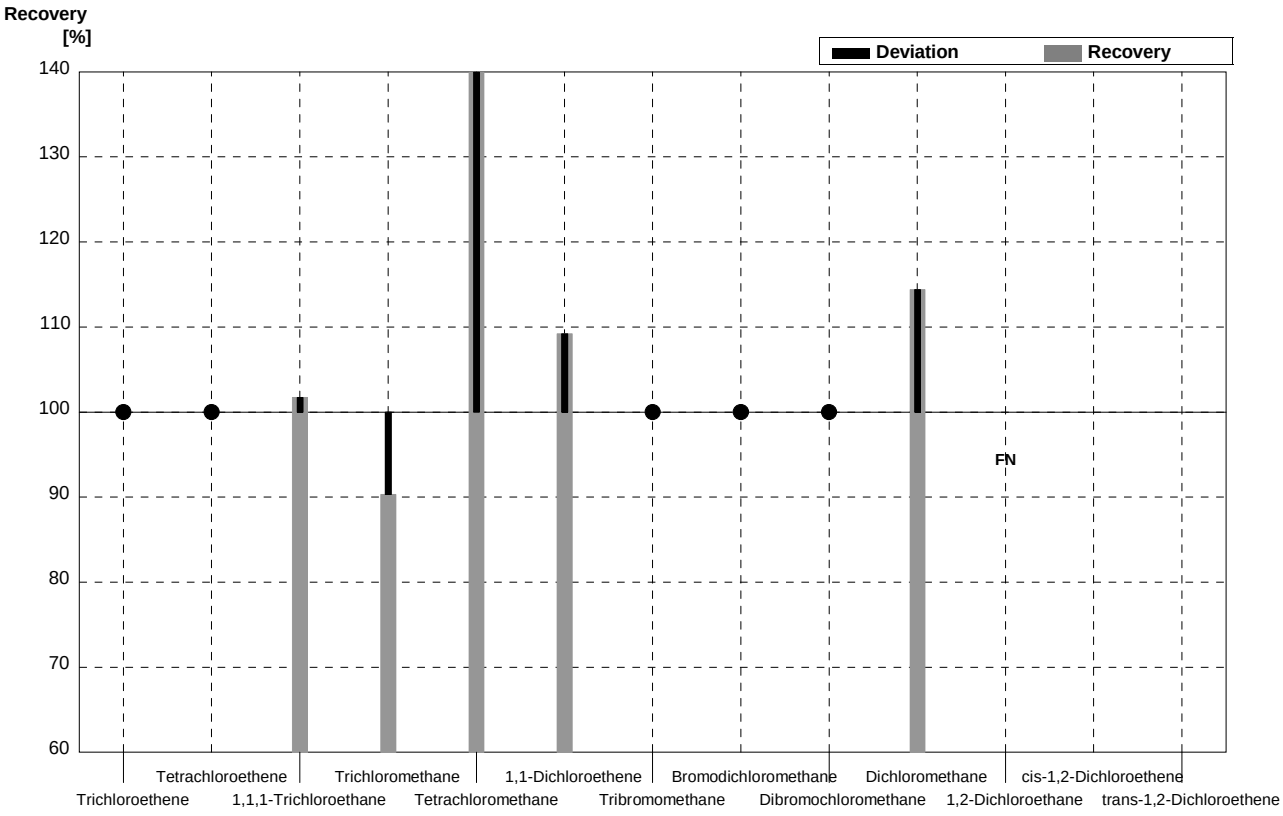
Sample C56B
Laboratory K

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,87	0,13	µg/l	88%
Tetrachloroethene	0,82	0,04	0,68	0,10	µg/l	83%
1,1,1-Trichloroethane	0,89	0,04	0,82	0,12	µg/l	92%
Trichloromethane	0,27	0,01	0,27	0,04	µg/l	100%
Tetrachloromethane	0,81	0,04	0,67	0,10	µg/l	83%
1,1-Dichloroethene	1,15	0,06	1,16	0,17	µg/l	101%
Tribromomethane	0,53	0,03	0,51	0,08	µg/l	96%
Bromodichloromethane	0,80	0,04	0,73	0,11	µg/l	91%
Dibromochloromethane	1,15	0,06	1,07	0,16	µg/l	93%
Dichloromethane	<0,6		<0,5		µg/l	•
1,2-Dichloroethane	3,42	0,17	3,46	0,52	µg/l	101%
cis-1,2-Dichloroethene	1,36	0,07	1,19	0,18	µg/l	88%
trans-1,2-Dichloroethene	<0,04		<0,5		µg/l	•



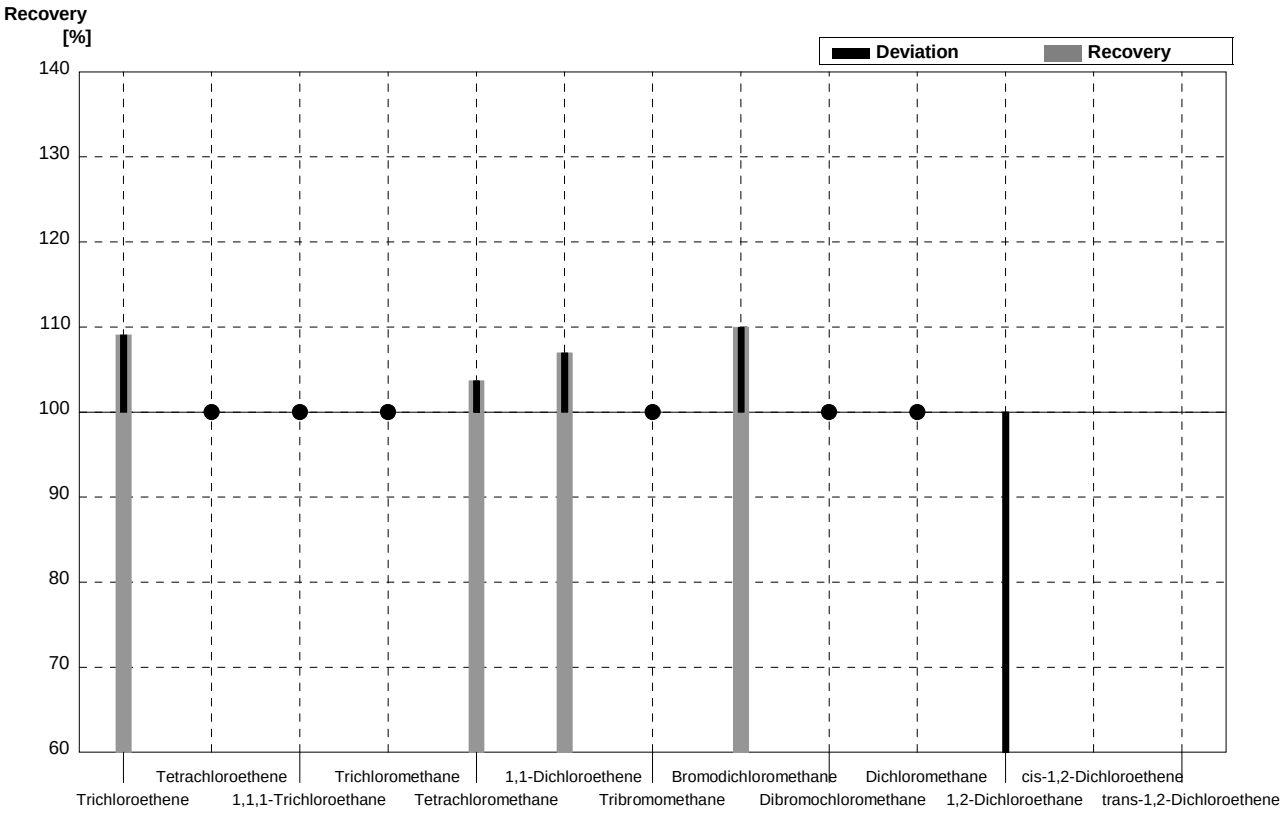
Sample C56A
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	<1,0		µg/l	•
Tetrachloroethene	0,41	0,02	<1,0		µg/l	•
1,1,1-Trichloroethane	1,70	0,09	1,73	0,26	µg/l	102%
Trichloromethane	1,76	0,09	1,59	0,24	µg/l	90%
Tetrachloromethane	0,20	0,01	0,38	0,06	µg/l	190%
1,1-Dichloroethene	2,71	0,14	2,96	0,44	µg/l	109%
Tribromomethane	0,18	0,01	<2,0		µg/l	•
Bromodichloromethane	0,23	0,01	<0,7		µg/l	•
Dibromochloromethane	<0,1		<2,0		µg/l	•
Dichloromethane	3,12	0,16	3,57	0,54	µg/l	114%
1,2-Dichloroethane	1,10	0,06	<0,6		µg/l	FN
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



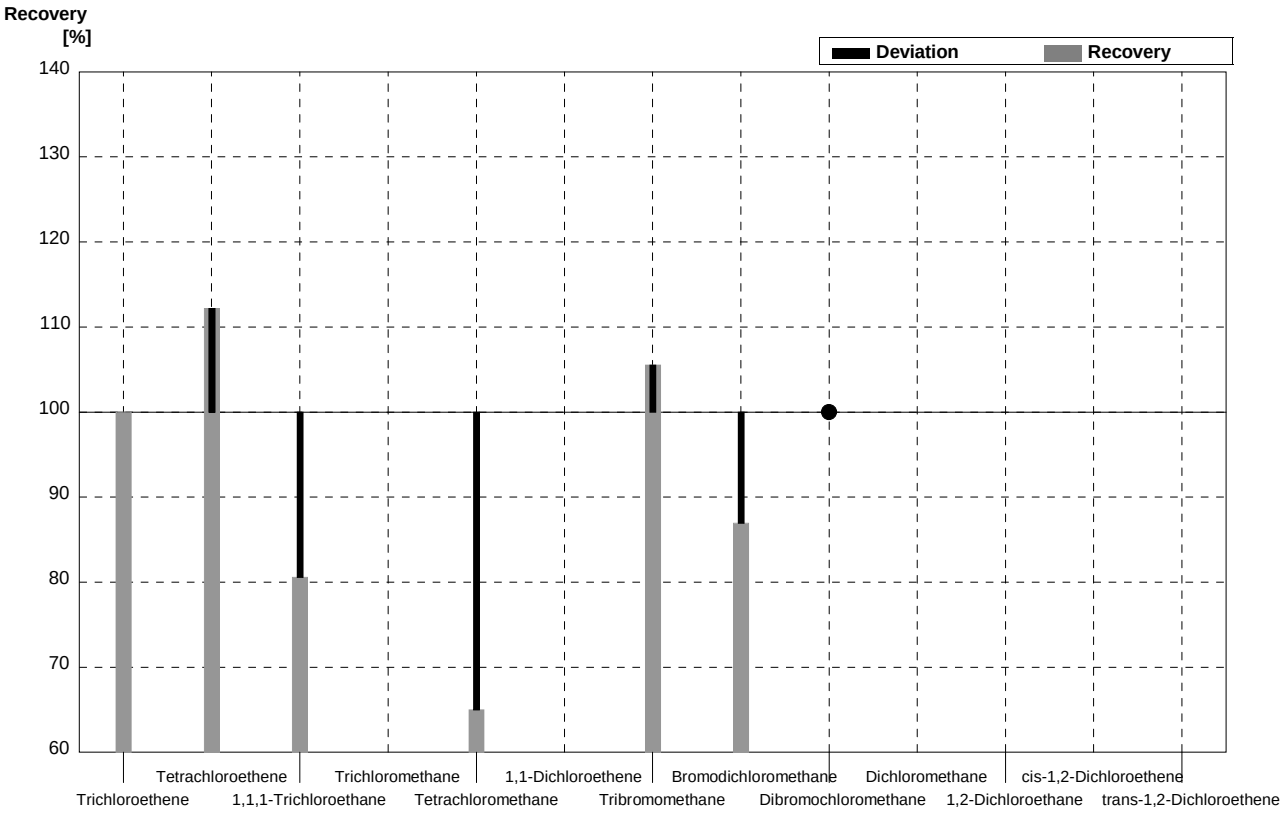
Sample C56B
Laboratory L

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	1,08	0,16	µg/l	109%
Tetrachloroethene	0,82	0,04	<1,0		µg/l	•
1,1,1-Trichloroethane	0,89	0,04	<1,0		µg/l	•
Trichloromethane	0,27	0,01	<1,0		µg/l	•
Tetrachloromethane	0,81	0,04	0,84	0,13	µg/l	104%
1,1-Dichloroethene	1,15	0,06	1,23	0,18	µg/l	107%
Tribromomethane	0,53	0,03	<2,0		µg/l	•
Bromodichloromethane	0,80	0,04	0,88	0,13	µg/l	110%
Dibromochloromethane	1,15	0,06	<2,0		µg/l	•
Dichloromethane	<0,6		<2,0		µg/l	•
1,2-Dichloroethane	3,42	0,17	0,84	0,13	µg/l	25%
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



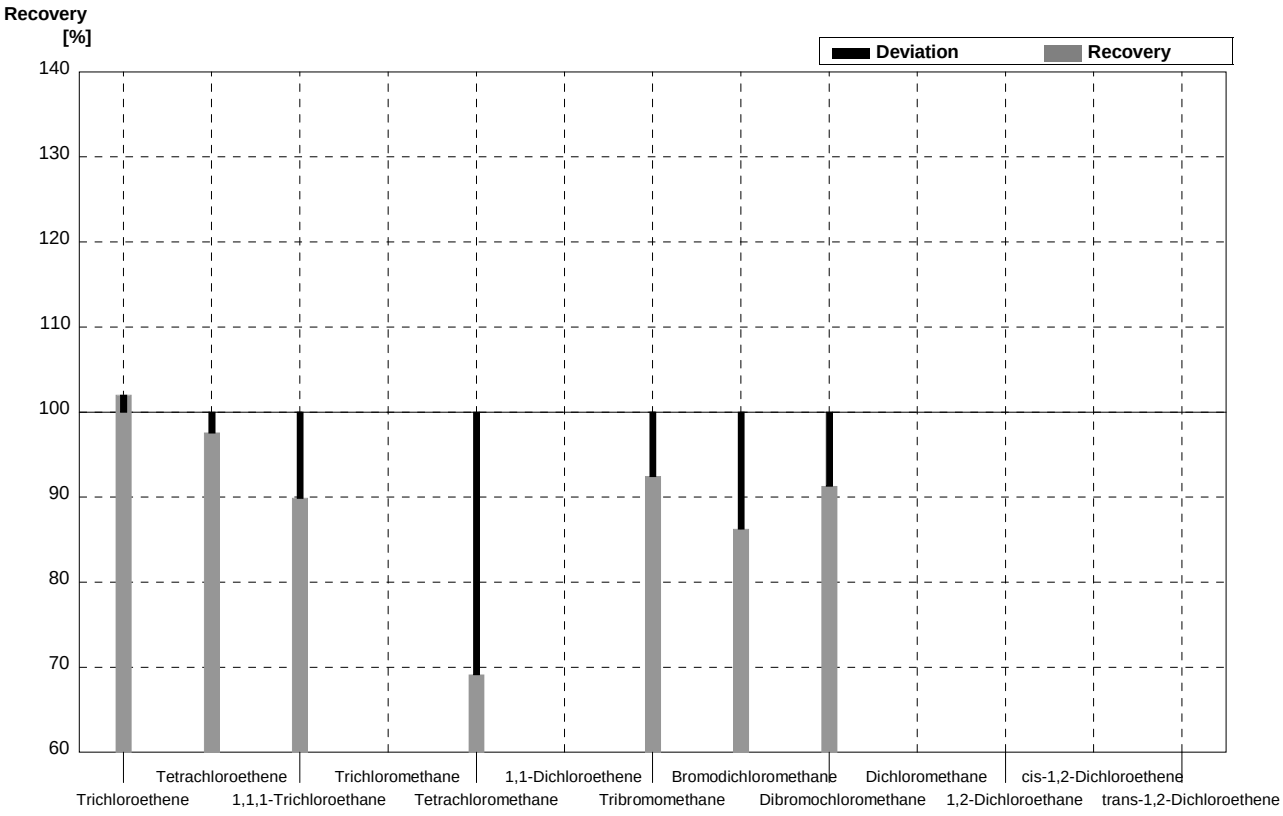
Sample C56A
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,71	0,03	µg/l	100%
Tetrachloroethene	0,41	0,02	0,46	0,02	µg/l	112%
1,1,1-Trichloroethane	1,70	0,09	1,37	0,02	µg/l	81%
Trichloromethane	1,76	0,09			µg/l	
Tetrachloromethane	0,20	0,01	0,13	0,03	µg/l	65%
1,1-Dichloroethene	2,71	0,14			µg/l	
Tribromomethane	0,18	0,01	0,19	0,05	µg/l	106%
Bromodichloromethane	0,23	0,01	0,20	0,01	µg/l	87%
Dibromochloromethane	<0,1		<0,1		µg/l	•
Dichloromethane	3,12	0,16			µg/l	
1,2-Dichloroethane	1,10	0,06			µg/l	
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



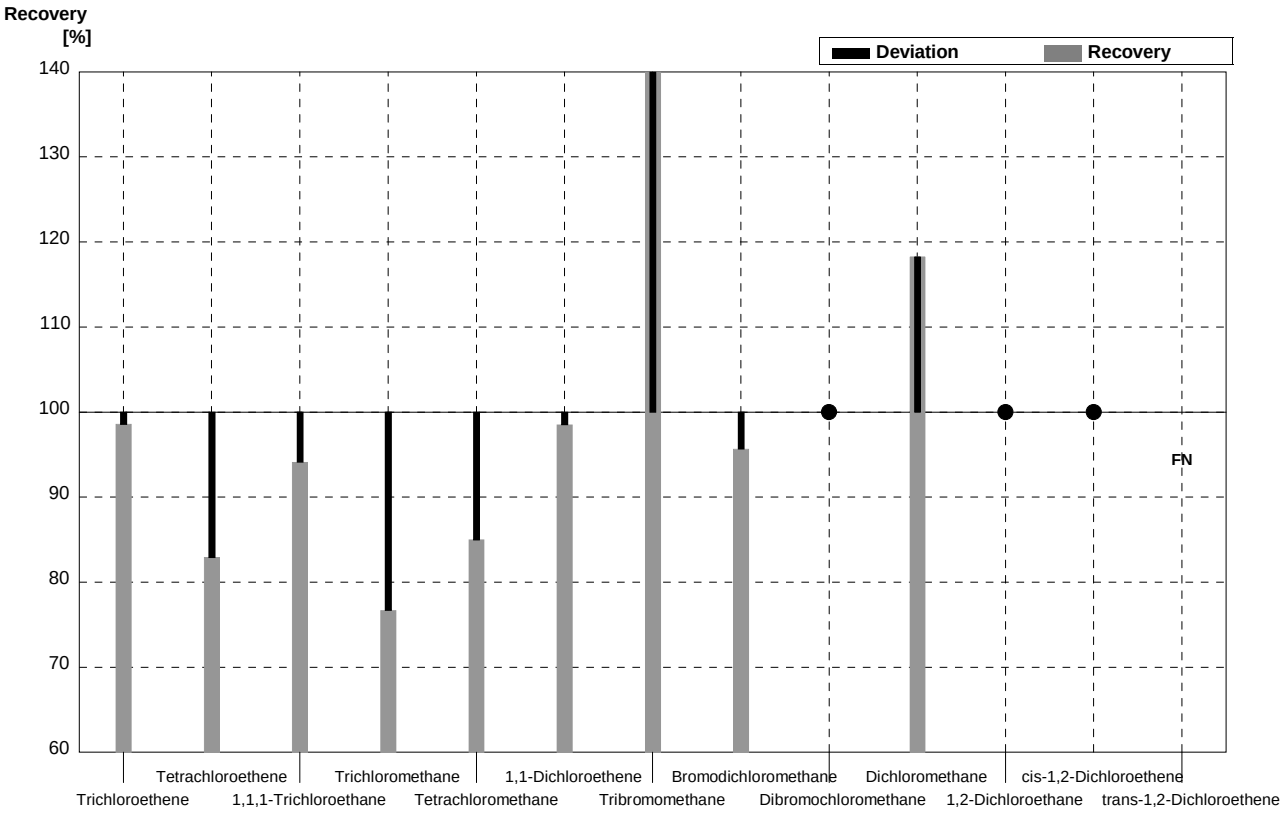
Sample C56B
Laboratory M

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	1,01	0,06	µg/l	102%
Tetrachloroethene	0,82	0,04	0,80	0,024	µg/l	98%
1,1,1-Trichloroethane	0,89	0,04	0,80	0,10	µg/l	90%
Trichloromethane	0,27	0,01			µg/l	
Tetrachloromethane	0,81	0,04	0,56	0,05	µg/l	69%
1,1-Dichloroethene	1,15	0,06			µg/l	
Tribromomethane	0,53	0,03	0,49	0,03	µg/l	92%
Bromodichloromethane	0,80	0,04	0,69	0,05	µg/l	86%
Dibromochloromethane	1,15	0,06	1,05	0,05	µg/l	91%
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	3,42	0,17			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



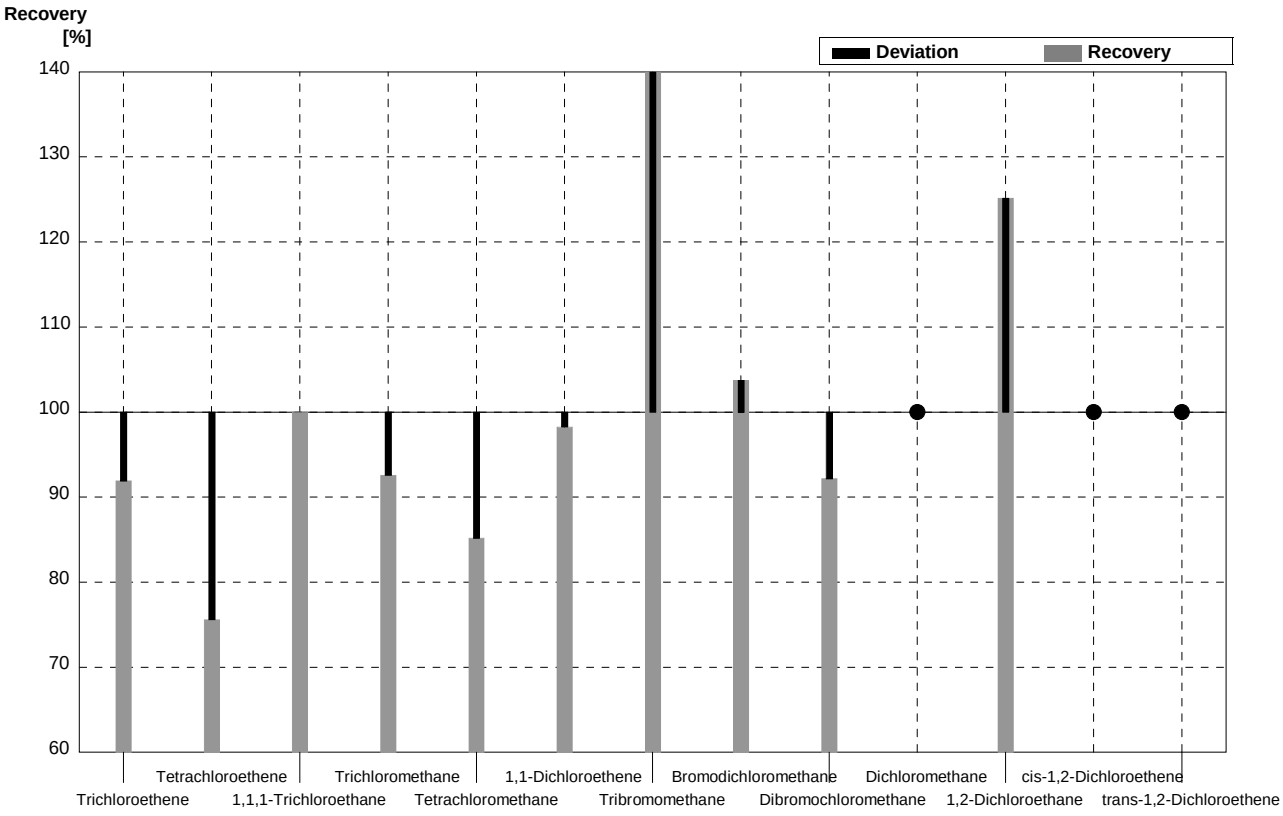
Sample C56A
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,70	0,04	µg/l	99%
Tetrachloroethene	0,41	0,02	0,34	0,03	µg/l	83%
1,1,1-Trichloroethane	1,70	0,09	1,60	0,03	µg/l	94%
Trichloromethane	1,76	0,09	1,35	0,03	µg/l	77%
Tetrachloromethane	0,20	0,01	0,17	0,03	µg/l	85%
1,1-Dichloroethene	2,71	0,14	2,67	0,1	µg/l	99%
Tribromomethane	0,18	0,01	0,34	0,05	µg/l	189%
Bromodichloromethane	0,23	0,01	0,22	0,02	µg/l	96%
Dibromochloromethane	<0,1		<0,5	0,03	µg/l	•
Dichloromethane	3,12	0,16	3,69	0,2	µg/l	118%
1,2-Dichloroethane	1,10	0,06	<2,5	0,05	µg/l	•
cis-1,2-Dichloroethene	0,65	0,03	<2	0,1	µg/l	•
trans-1,2-Dichloroethene	1,18	0,06	<1	0,1	µg/l	FN



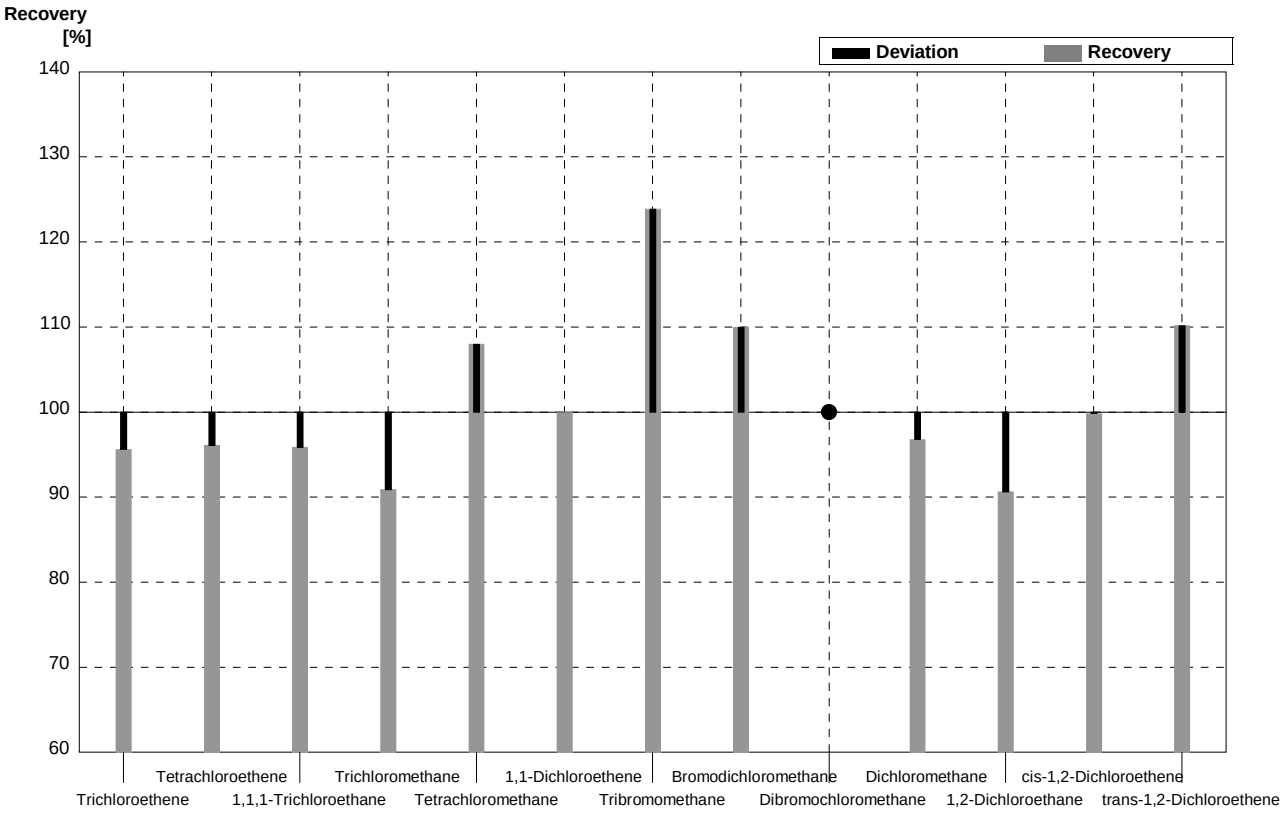
Sample C56B
Laboratory N

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,91	0,08	µg/l	92%
Tetrachloroethene	0,82	0,04	0,62	0,03	µg/l	76%
1,1,1-Trichloroethane	0,89	0,04	0,89	0,05	µg/l	100%
Trichloromethane	0,27	0,01	0,25	0,03	µg/l	93%
Tetrachloromethane	0,81	0,04	0,69	0,05	µg/l	85%
1,1-Dichloroethene	1,15	0,06	1,13	0,1	µg/l	98%
Tribromomethane	0,53	0,03	0,78	0,04	µg/l	147%
Bromodichloromethane	0,80	0,04	0,83	0,02	µg/l	104%
Dibromochloromethane	1,15	0,06	1,06	0,03	µg/l	92%
Dichloromethane	<0,6		<1	0,2	µg/l	•
1,2-Dichloroethane	3,42	0,17	4,28	0,05	µg/l	125%
cis-1,2-Dichloroethene	1,36	0,07	<2	0,1	µg/l	•
trans-1,2-Dichloroethene	<0,04		<1	0,1	µg/l	•



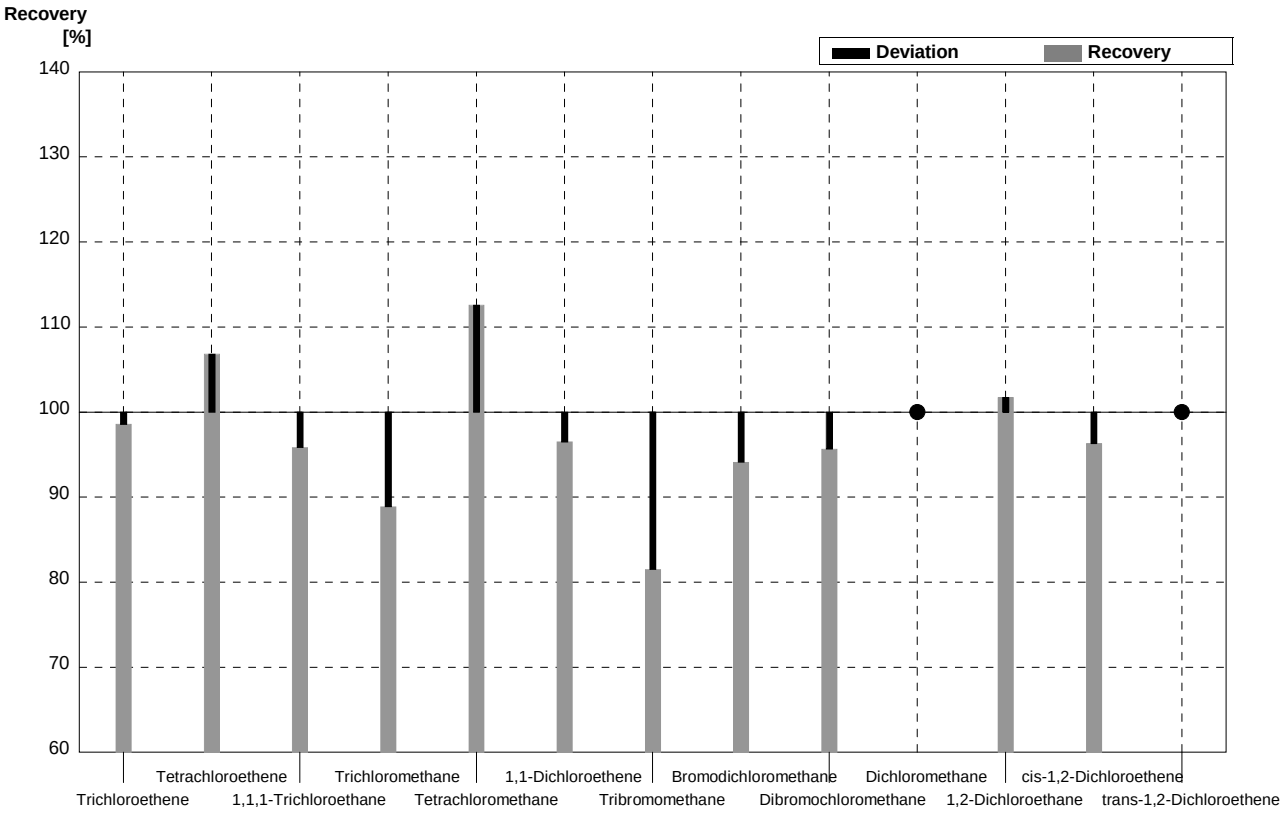
Sample C56A
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,679	0,066	µg/l	96%
Tetrachloroethene	0,41	0,02	0,394	0,008	µg/l	96%
1,1,1-Trichloroethane	1,70	0,09	1,63	0,069	µg/l	96%
Trichloromethane	1,76	0,09	1,60	0,045	µg/l	91%
Tetrachloromethane	0,20	0,01	0,216	0,011	µg/l	108%
1,1-Dichloroethene	2,71	0,14	2,71	0,124	µg/l	100%
Tribromomethane	0,18	0,01	0,223	0,006	µg/l	124%
Bromodichloromethane	0,23	0,01	0,253	0,009	µg/l	110%
Dibromochloromethane	<0,1		<0,04		µg/l	•
Dichloromethane	3,12	0,16	3,02	0,117	µg/l	97%
1,2-Dichloroethane	1,10	0,06	0,997	0,065	µg/l	91%
cis-1,2-Dichloroethene	0,65	0,03	0,649	0,035	µg/l	100%
trans-1,2-Dichloroethene	1,18	0,06	1,30	0,103	µg/l	110%



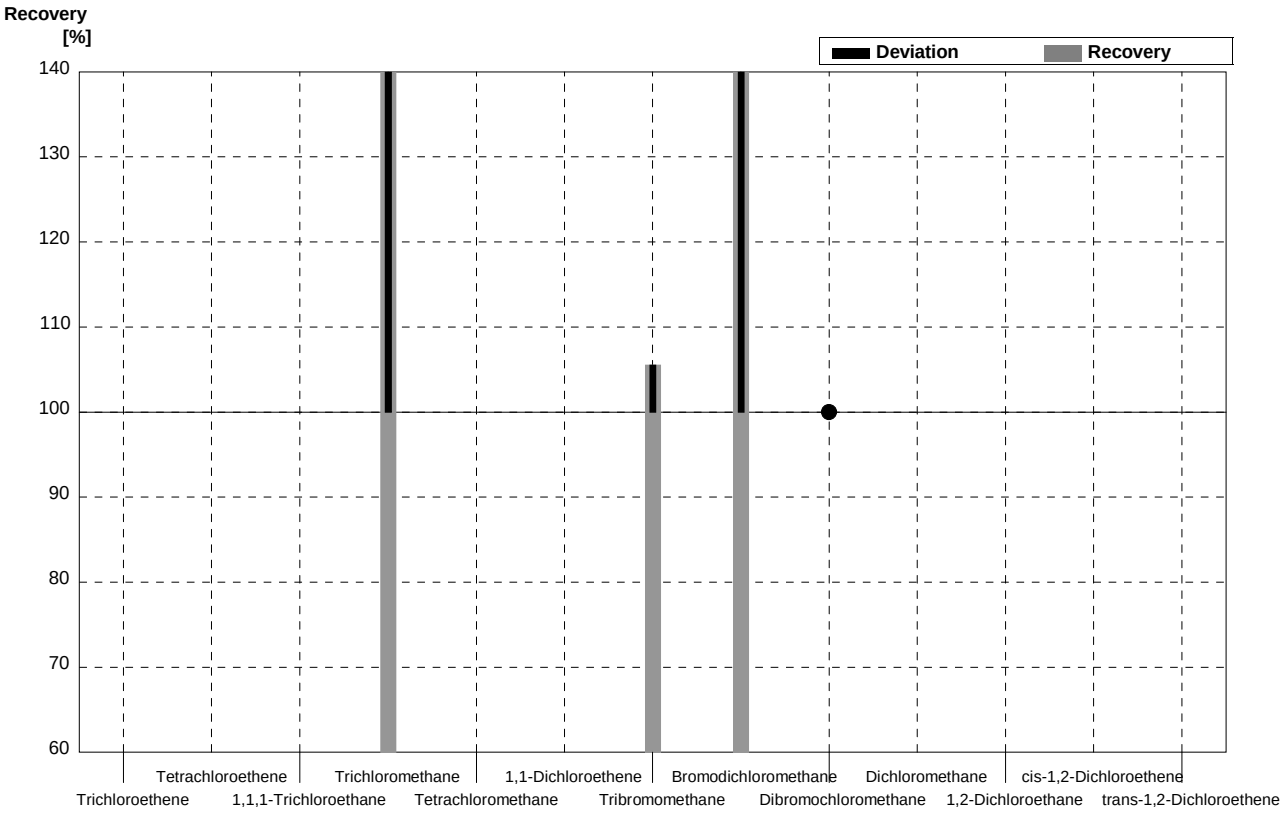
Sample C56B
Laboratory O

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,976	0,062	µg/l	99%
Tetrachloroethene	0,82	0,04	0,876	0,012	µg/l	107%
1,1,1-Trichloroethane	0,89	0,04	0,853	0,067	µg/l	96%
Trichloromethane	0,27	0,01	0,240	0,005	µg/l	89%
Tetrachloromethane	0,81	0,04	0,912	0,030	µg/l	113%
1,1-Dichloroethene	1,15	0,06	1,11	0,122	µg/l	97%
Tribromomethane	0,53	0,03	0,432	0,093	µg/l	82%
Bromodichloromethane	0,80	0,04	0,753	0,079	µg/l	94%
Dibromochloromethane	1,15	0,06	1,10	0,072	µg/l	96%
Dichloromethane	<0,6		<0,04		µg/l	•
1,2-Dichloroethane	3,42	0,17	3,48	0,143	µg/l	102%
cis-1,2-Dichloroethene	1,36	0,07	1,31	0,032	µg/l	96%
trans-1,2-Dichloroethene	<0,04		<0,04		µg/l	•



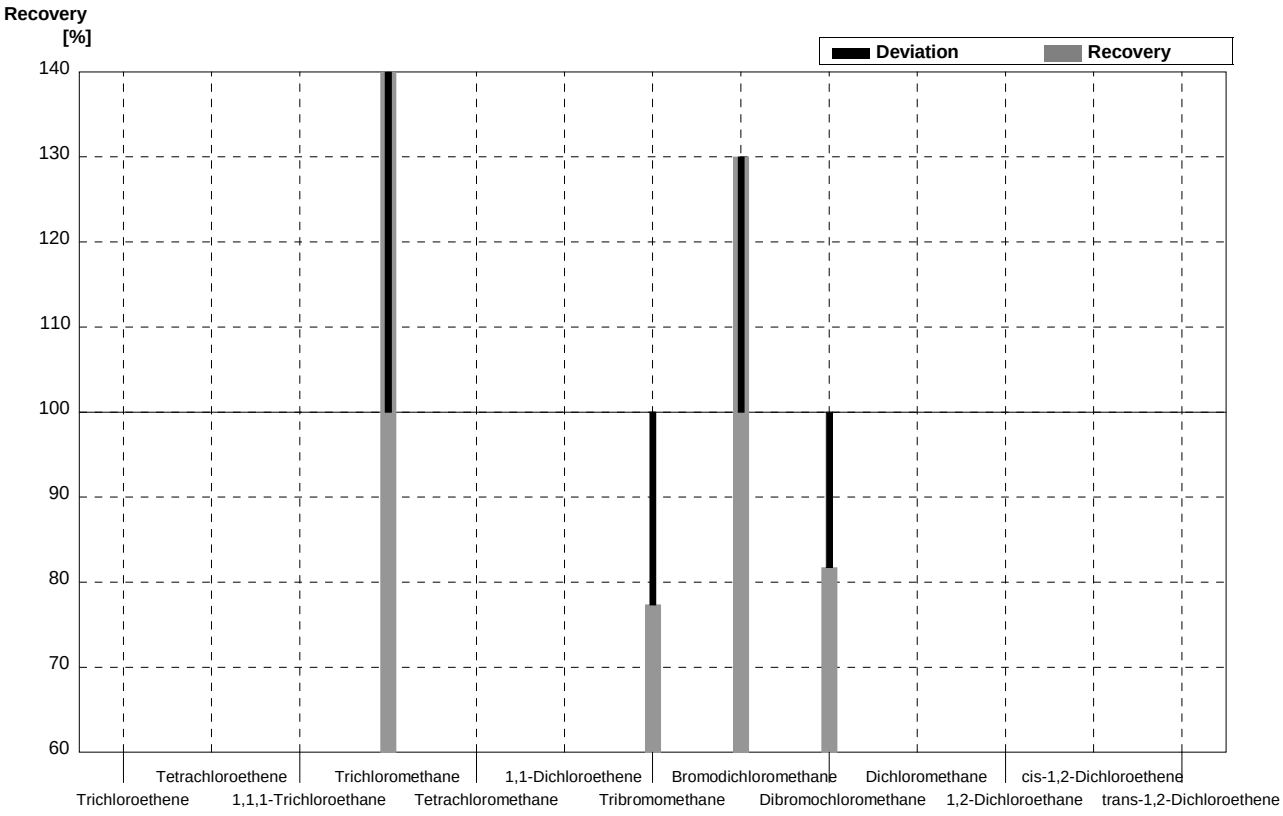
Sample C56A
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04			µg/l	
Tetrachloroethene	0,41	0,02			µg/l	
1,1,1-Trichloroethane	1,70	0,09			µg/l	
Trichloromethane	1,76	0,09	2,77	0,10	µg/l	157%
Tetrachloromethane	0,20	0,01			µg/l	
1,1-Dichloroethene	2,71	0,14			µg/l	
Tribromomethane	0,18	0,01	0,19	0,03	µg/l	106%
Bromodichloromethane	0,23	0,01	0,45	0,04	µg/l	196%
Dibromochloromethane	<0,1		<0,1		µg/l	•
Dichloromethane	3,12	0,16			µg/l	
1,2-Dichloroethane	1,10	0,06			µg/l	
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



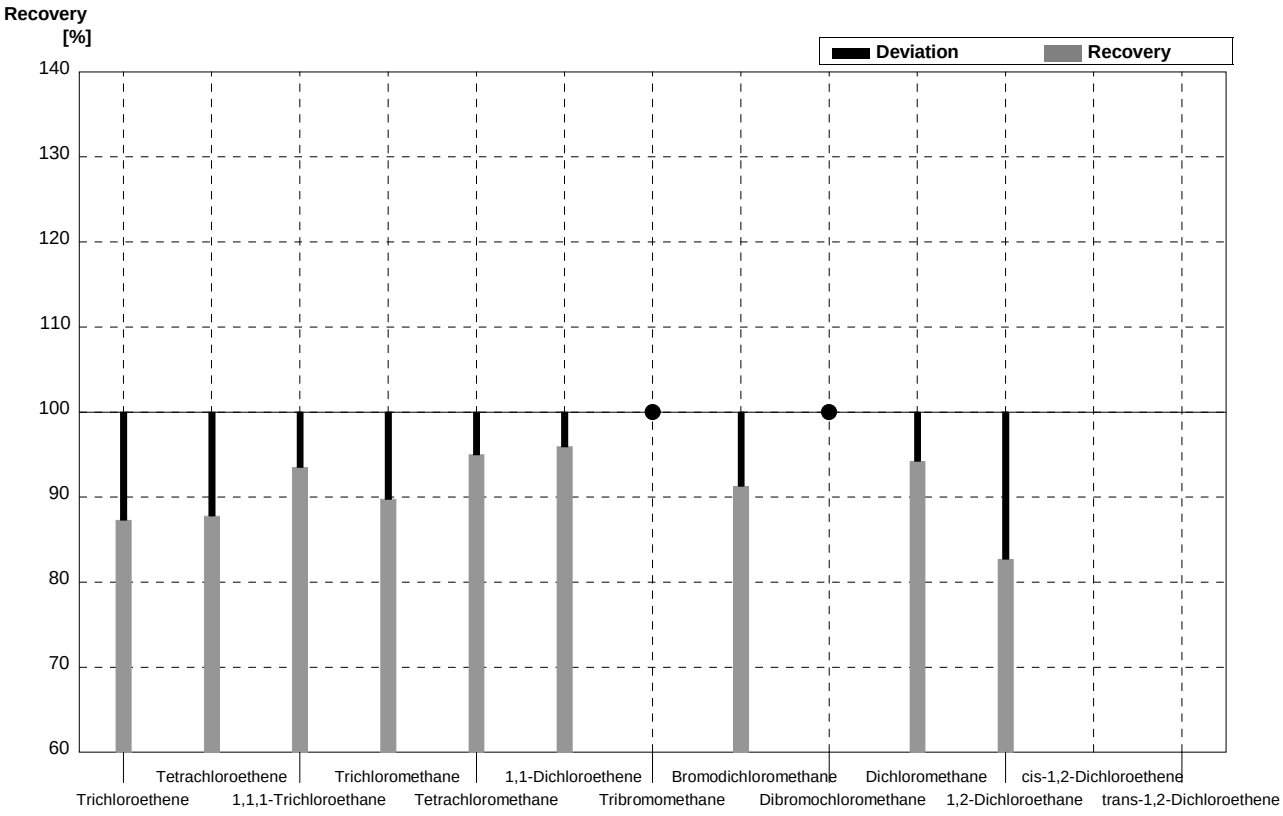
Sample C56B
Laboratory P

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05			µg/l	
Tetrachloroethene	0,82	0,04			µg/l	
1,1,1-Trichloroethane	0,89	0,04			µg/l	
Trichloromethane	0,27	0,01	0,74	0,02	µg/l	274%
Tetrachloromethane	0,81	0,04			µg/l	
1,1-Dichloroethene	1,15	0,06			µg/l	
Tribromomethane	0,53	0,03	0,41	0,04	µg/l	77%
Bromodichloromethane	0,80	0,04	1,04	0,02	µg/l	130%
Dibromochloromethane	1,15	0,06	0,94	0,03	µg/l	82%
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	3,42	0,17			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



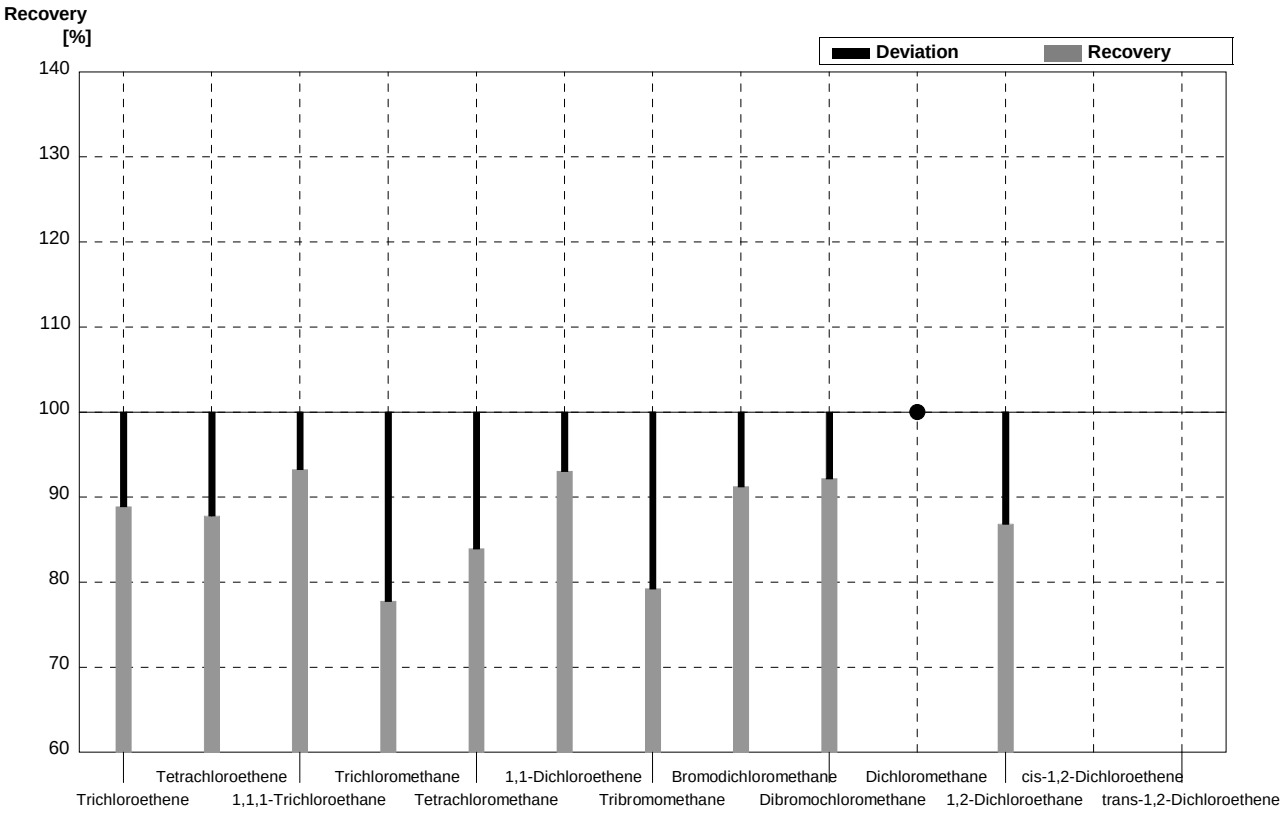
Sample C56A
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,62	0,39	µg/l	87%
Tetrachloroethene	0,41	0,02	0,36	0,23	µg/l	88%
1,1,1-Trichloroethane	1,70	0,09	1,59	0,10	µg/l	94%
Trichloromethane	1,76	0,09	1,58	0,16	µg/l	90%
Tetrachloromethane	0,20	0,01	0,19	0,10	µg/l	95%
1,1-Dichloroethene	2,71	0,14	2,60	0,16	µg/l	96%
Tribromomethane	0,18	0,01	<0,20		µg/l	•
Bromodichloromethane	0,23	0,01	0,21	0,10	µg/l	91%
Dibromochloromethane	<0,1		<0,20		µg/l	•
Dichloromethane	3,12	0,16	2,94	0,30	µg/l	94%
1,2-Dichloroethane	1,10	0,06	0,91	0,16	µg/l	83%
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



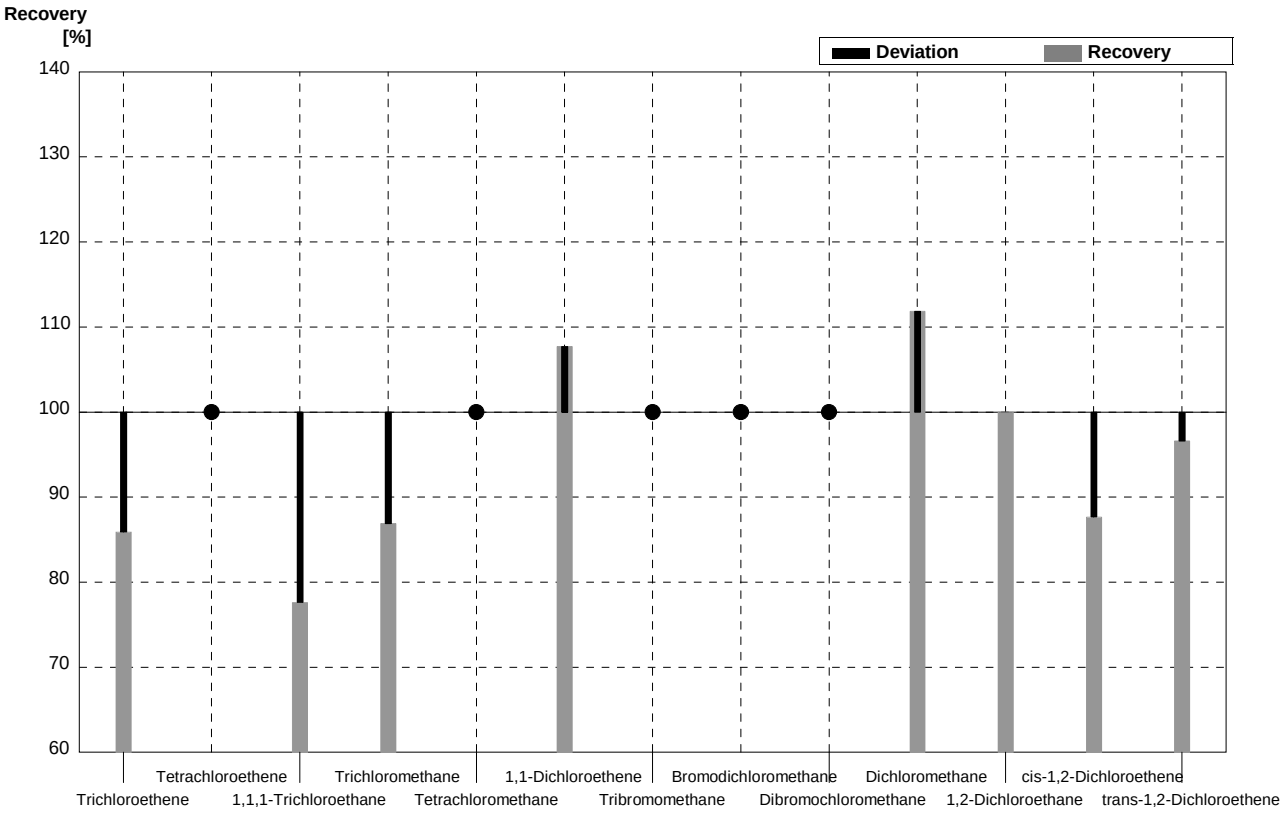
Sample C56B
Laboratory Q

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,88	0,40	µg/l	89%
Tetrachloroethene	0,82	0,04	0,72	0,26	µg/l	88%
1,1,1-Trichloroethane	0,89	0,04	0,83	0,10	µg/l	93%
Trichloromethane	0,27	0,01	0,21	0,10	µg/l	78%
Tetrachloromethane	0,81	0,04	0,68	0,10	µg/l	84%
1,1-Dichloroethene	1,15	0,06	1,07	0,10	µg/l	93%
Tribromomethane	0,53	0,03	0,42	0,10	µg/l	79%
Bromodichloromethane	0,80	0,04	0,73	0,10	µg/l	91%
Dibromochloromethane	1,15	0,06	1,06	0,10	µg/l	92%
Dichloromethane	<0,6		<1,0		µg/l	•
1,2-Dichloroethane	3,42	0,17	2,97	0,49	µg/l	87%
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



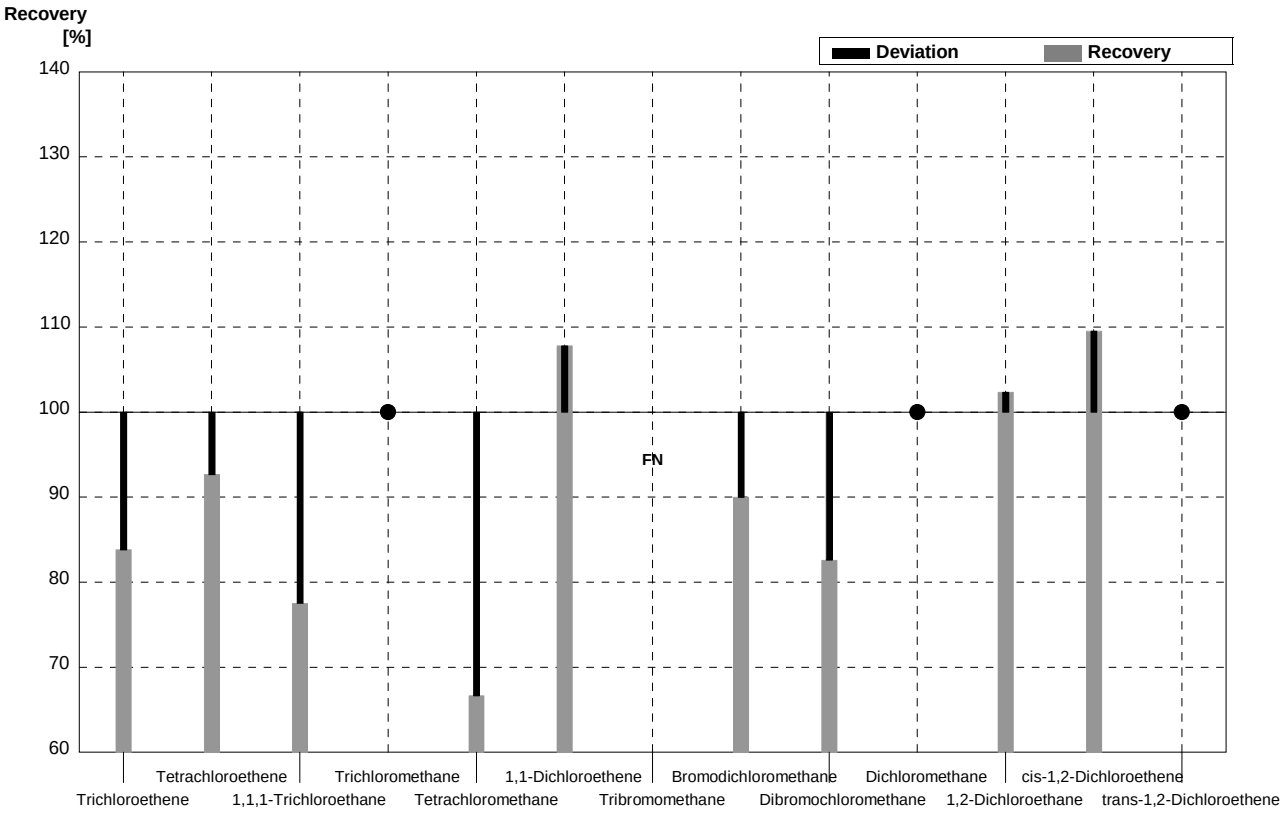
Sample C56A
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,61	0,13	µg/l	86%
Tetrachloroethene	0,41	0,02	<0,5		µg/l	•
1,1,1-Trichloroethane	1,70	0,09	1,32	0,29	µg/l	78%
Trichloromethane	1,76	0,09	1,53	0,29	µg/l	87%
Tetrachloromethane	0,20	0,01	<0,5		µg/l	•
1,1-Dichloroethene	2,71	0,14	2,92	0,64	µg/l	108%
Tribromomethane	0,18	0,01	<0,5		µg/l	•
Bromodichloromethane	0,23	0,01	<0,5		µg/l	•
Dibromochloromethane	<0,1		<0,5		µg/l	•
Dichloromethane	3,12	0,16	3,49	0,77	µg/l	112%
1,2-Dichloroethane	1,10	0,06	1,10	0,18	µg/l	100%
cis-1,2-Dichloroethene	0,65	0,03	0,57	0,13	µg/l	88%
trans-1,2-Dichloroethene	1,18	0,06	1,14	0,25	µg/l	97%



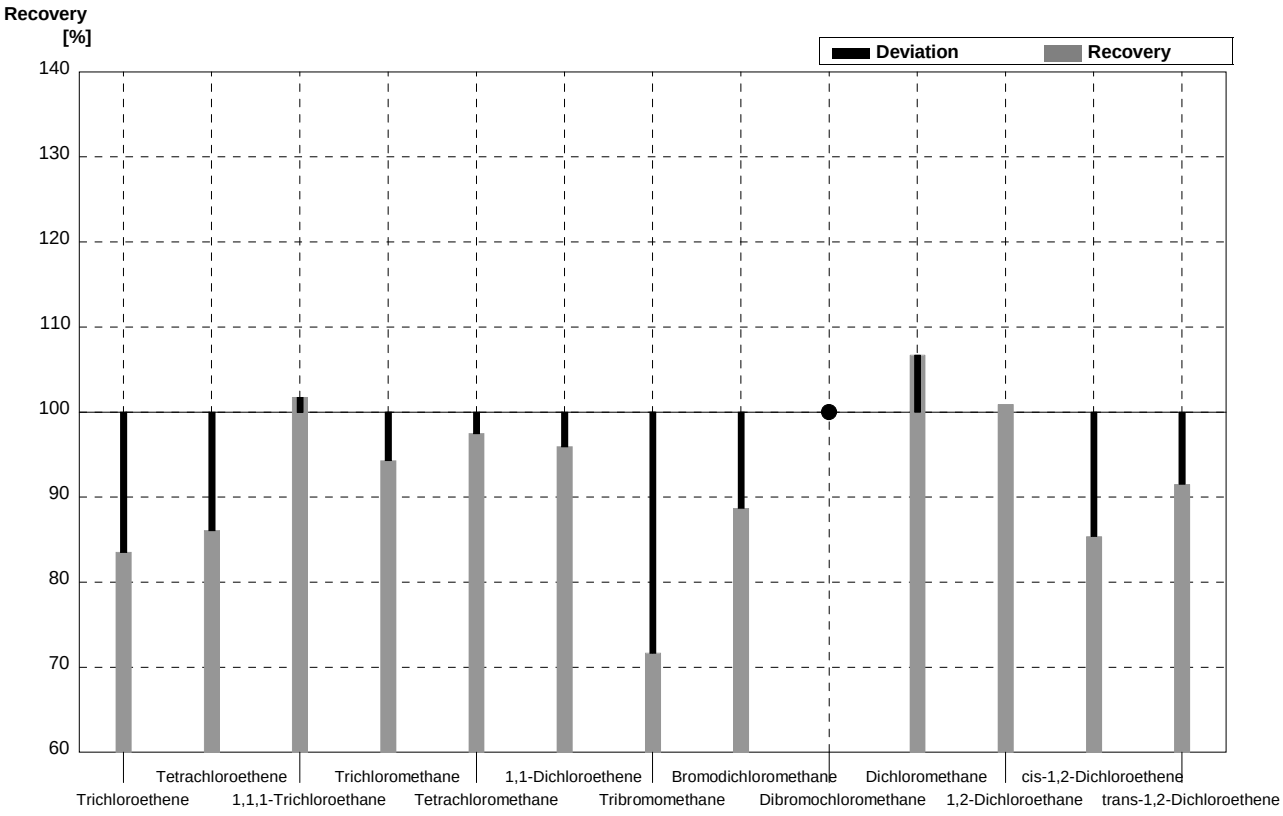
Sample C56B
Laboratory R

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,83	0,18	µg/l	84%
Tetrachloroethene	0,82	0,04	0,76	0,14	µg/l	93%
1,1,1-Trichloroethane	0,89	0,04	0,69	0,15	µg/l	78%
Trichloromethane	0,27	0,01	<0,5		µg/l	•
Tetrachloromethane	0,81	0,04	0,54	0,12	µg/l	67%
1,1-Dichloroethene	1,15	0,06	1,24	0,27	µg/l	108%
Tribromomethane	0,53	0,03	<0,5		µg/l	FN
Bromodichloromethane	0,80	0,04	0,72	0,12	µg/l	90%
Dibromochloromethane	1,15	0,06	0,95	0,15	µg/l	83%
Dichloromethane	<0,6		<0,5		µg/l	•
1,2-Dichloroethane	3,42	0,17	3,50	0,56	µg/l	102%
cis-1,2-Dichloroethene	1,36	0,07	1,49	0,33	µg/l	110%
trans-1,2-Dichloroethene	<0,04		<0,5		µg/l	•



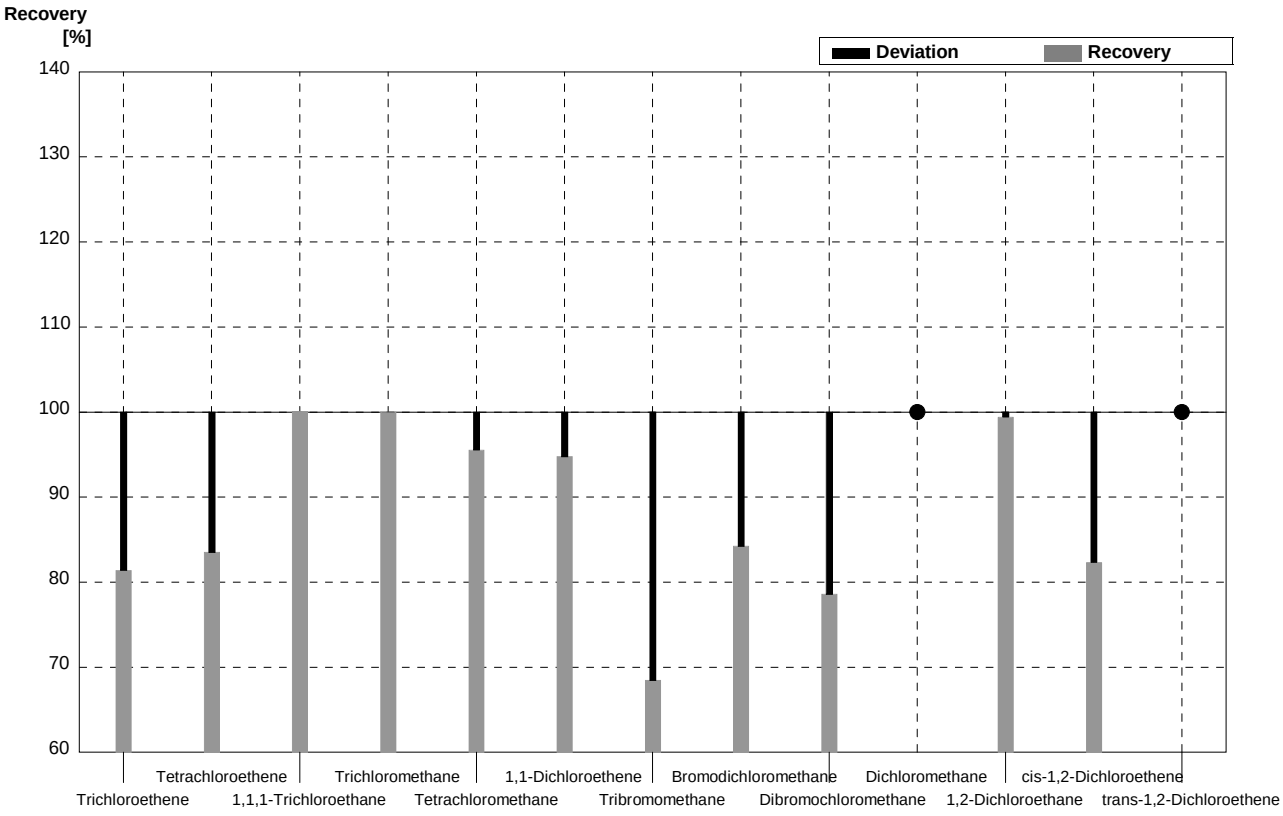
Sample C56A
Laboratory S

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,593	0,160	µg/l	84%
Tetrachloroethene	0,41	0,02	0,353	0,095	µg/l	86%
1,1,1-Trichloroethane	1,70	0,09	1,73	0,456	µg/l	102%
Trichloromethane	1,76	0,09	1,66	0,448	µg/l	94%
Tetrachloromethane	0,20	0,01	0,195	0,053	µg/l	98%
1,1-Dichloroethene	2,71	0,14	2,60	0,702	µg/l	96%
Tribromomethane	0,18	0,01	0,129	0,035	µg/l	72%
Bromodichloromethane	0,23	0,01	0,204	0,055	µg/l	89%
Dibromochloromethane	<0,1		<0,020		µg/l	•
Dichloromethane	3,12	0,16	3,33	0,899	µg/l	107%
1,2-Dichloroethane	1,10	0,06	1,11	0,298	µg/l	101%
cis-1,2-Dichloroethene	0,65	0,03	0,555	0,150	µg/l	85%
trans-1,2-Dichloroethene	1,18	0,06	1,08	0,290	µg/l	92%



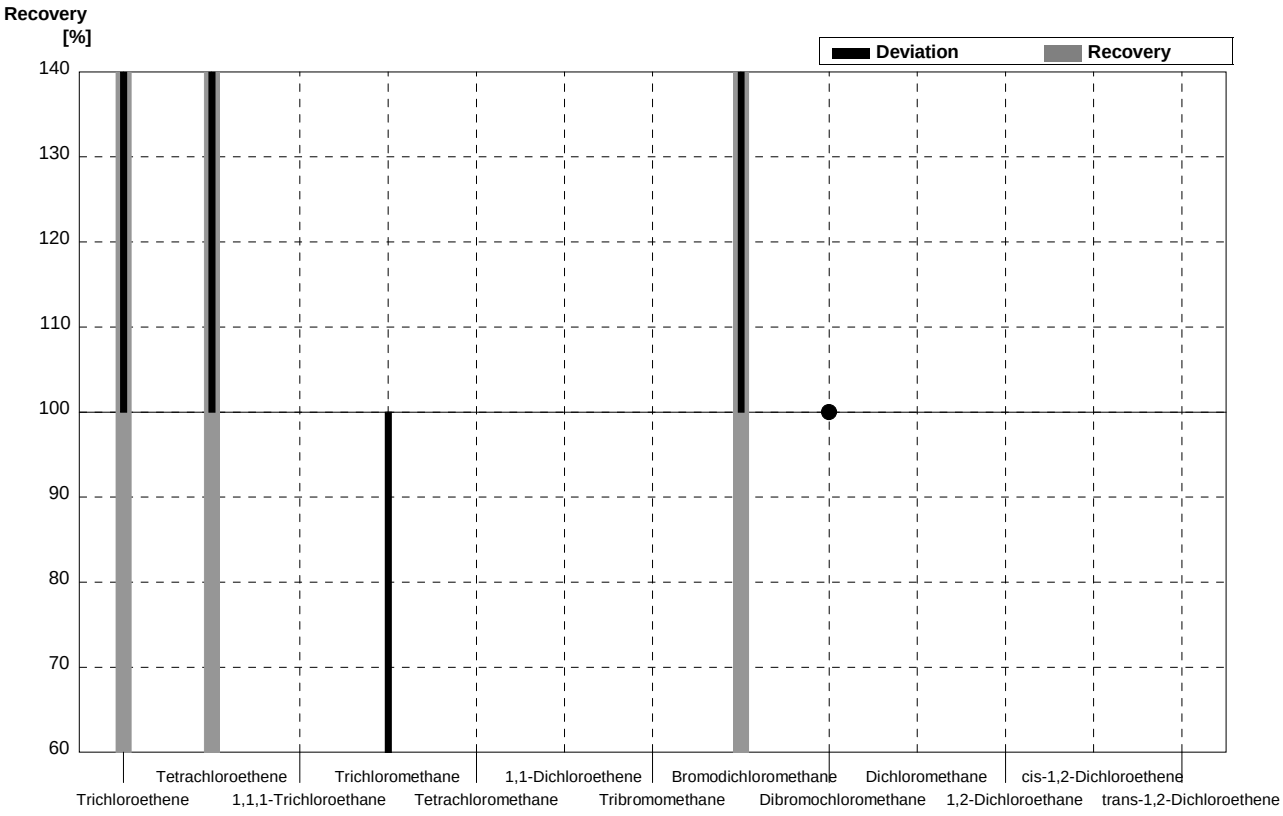
Sample C56B
Laboratory S

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,806	0,218	µg/l	81%
Tetrachloroethene	0,82	0,04	0,685	0,185	µg/l	84%
1,1,1-Trichloroethane	0,89	0,04	0,891	0,241	µg/l	100%
Trichloromethane	0,27	0,01	0,270	0,073	µg/l	100%
Tetrachloromethane	0,81	0,04	0,774	0,209	µg/l	96%
1,1-Dichloroethene	1,15	0,06	1,09	0,293	µg/l	95%
Tribromomethane	0,53	0,03	0,363	0,098	µg/l	68%
Bromodichloromethane	0,80	0,04	0,674	0,182	µg/l	84%
Dibromochloromethane	1,15	0,06	0,904	0,244	µg/l	79%
Dichloromethane	<0,6		0,040	0,011	µg/l	•
1,2-Dichloroethane	3,42	0,17	3,40	0,917	µg/l	99%
cis-1,2-Dichloroethene	1,36	0,07	1,12	0,302	µg/l	82%
trans-1,2-Dichloroethene	<0,04		0,028	0,007	µg/l	•



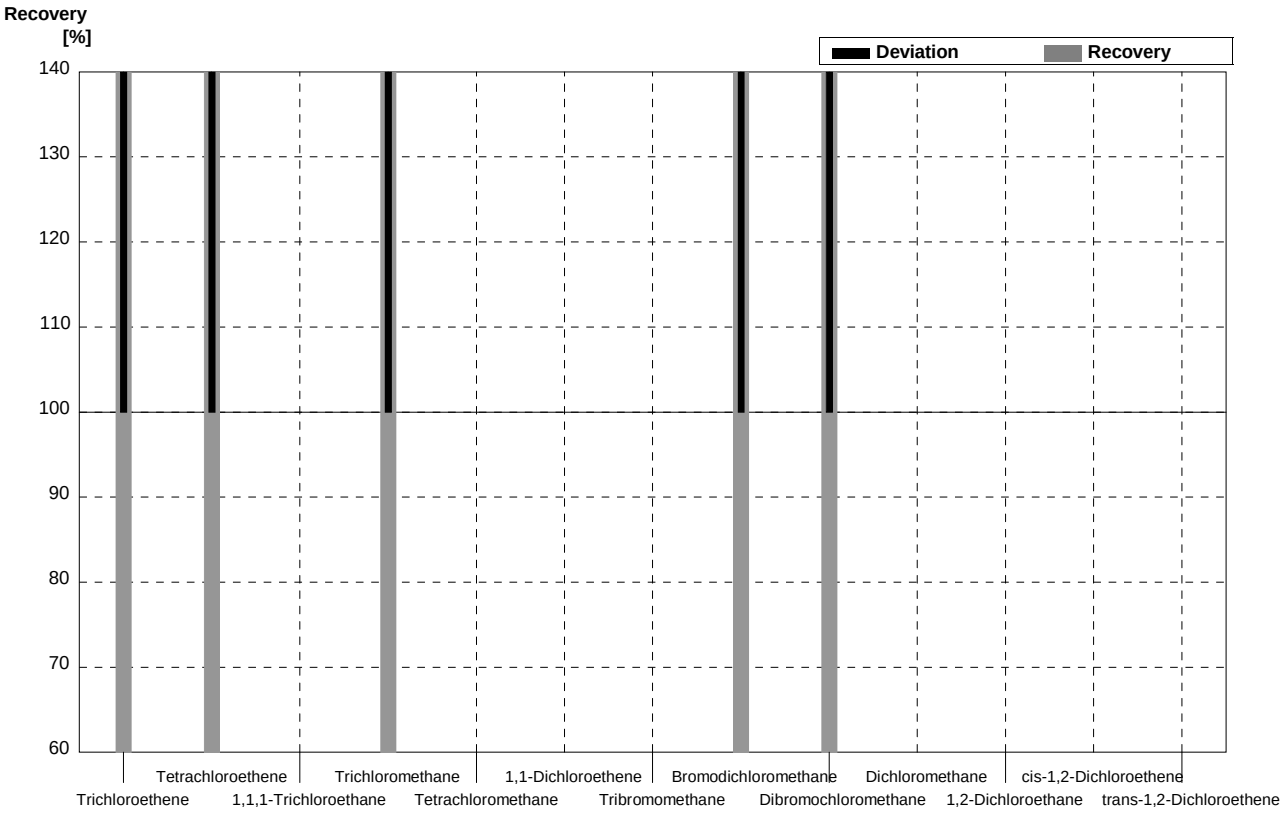
Sample C56A
Laboratory T

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	1,41478	0,092	µg/l	199%
Tetrachloroethene	0,41	0,02	1,37395	0,096	µg/l	335%
1,1,1-Trichloroethane	1,70	0,09			µg/l	
Trichloromethane	1,76	0,09	0,46074	0,030	µg/l	26%
Tetrachloromethane	0,20	0,01			µg/l	
1,1-Dichloroethene	2,71	0,14			µg/l	
Tribromomethane	0,18	0,01			µg/l	
Bromodichloromethane	0,23	0,01	0,52792	0,025	µg/l	230%
Dibromochloromethane	<0,1		<0,021	0,001	µg/l	•
Dichloromethane	3,12	0,16			µg/l	
1,2-Dichloroethane	1,10	0,06			µg/l	
cis-1,2-Dichloroethene	0,65	0,03			µg/l	
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



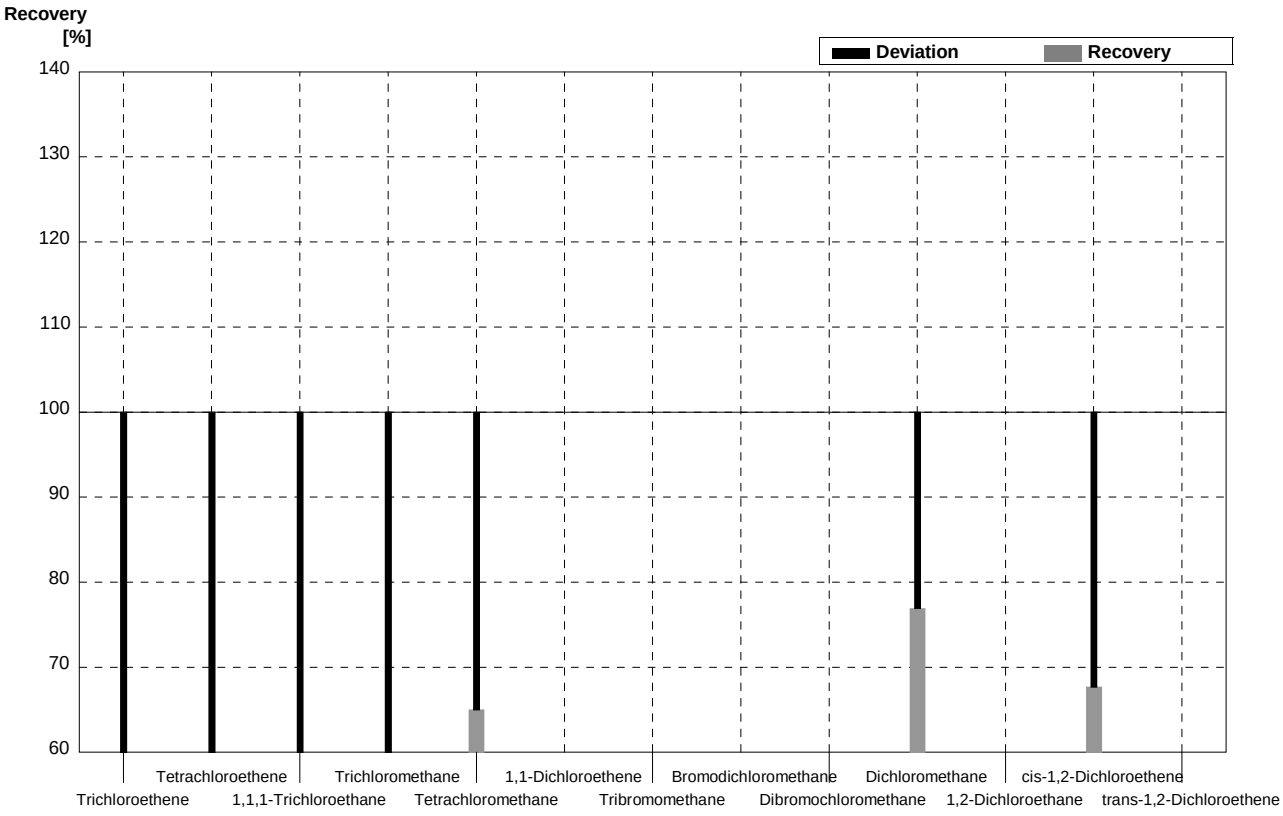
Sample C56B
Laboratory T

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	1,65599	0,108	µg/l	167%
Tetrachloroethene	0,82	0,04	2,17622	0,152	µg/l	265%
1,1,1-Trichloroethane	0,89	0,04			µg/l	
Trichloromethane	0,27	0,01	1,60736	0,105	µg/l	595%
Tetrachloromethane	0,81	0,04			µg/l	
1,1-Dichloroethene	1,15	0,06			µg/l	
Tribromomethane	0,53	0,03			µg/l	
Bromodichloromethane	0,80	0,04	1,64261	0,078	µg/l	205%
Dibromochloromethane	1,15	0,06	2,41902	0,116	µg/l	210%
Dichloromethane	<0,6				µg/l	
1,2-Dichloroethane	3,42	0,17			µg/l	
cis-1,2-Dichloroethene	1,36	0,07			µg/l	
trans-1,2-Dichloroethene	<0,04				µg/l	



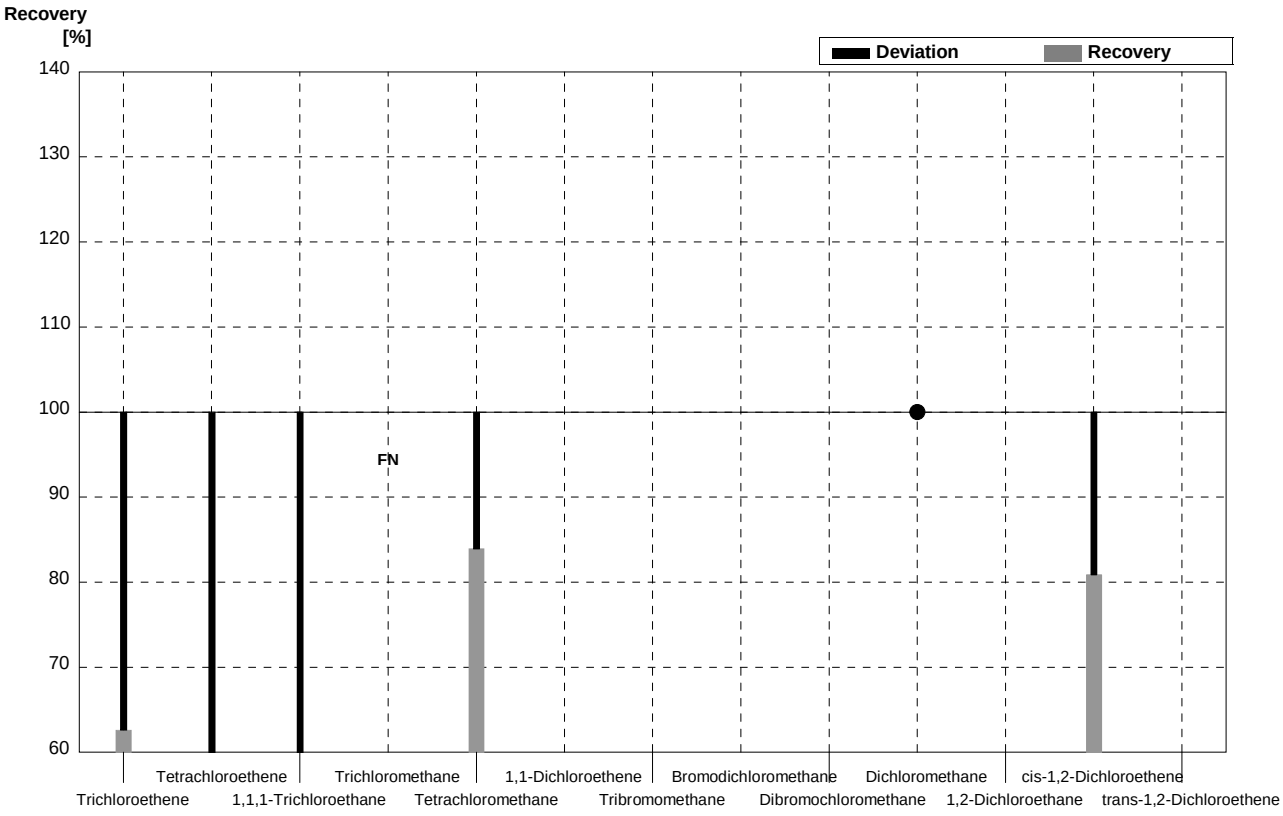
Sample C56A
Laboratory U

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,38	0,2	µg/l	54%
Tetrachloroethene	0,41	0,02	0,21	0,2	µg/l	51%
1,1,1-Trichloroethane	1,70	0,09	1,0	0,3	µg/l	59%
Trichloromethane	1,76	0,09	0,58	0,2	µg/l	33%
Tetrachloromethane	0,20	0,01	0,13	0,2	µg/l	65%
1,1-Dichloroethene	2,71	0,14			µg/l	
Tribromomethane	0,18	0,01			µg/l	
Bromodichloromethane	0,23	0,01			µg/l	
Dibromochloromethane	<0,1				µg/l	
Dichloromethane	3,12	0,16	2,4	0,3	µg/l	77%
1,2-Dichloroethane	1,10	0,06			µg/l	
cis-1,2-Dichloroethene	0,65	0,03	0,44	0,2	µg/l	68%
trans-1,2-Dichloroethene	1,18	0,06			µg/l	



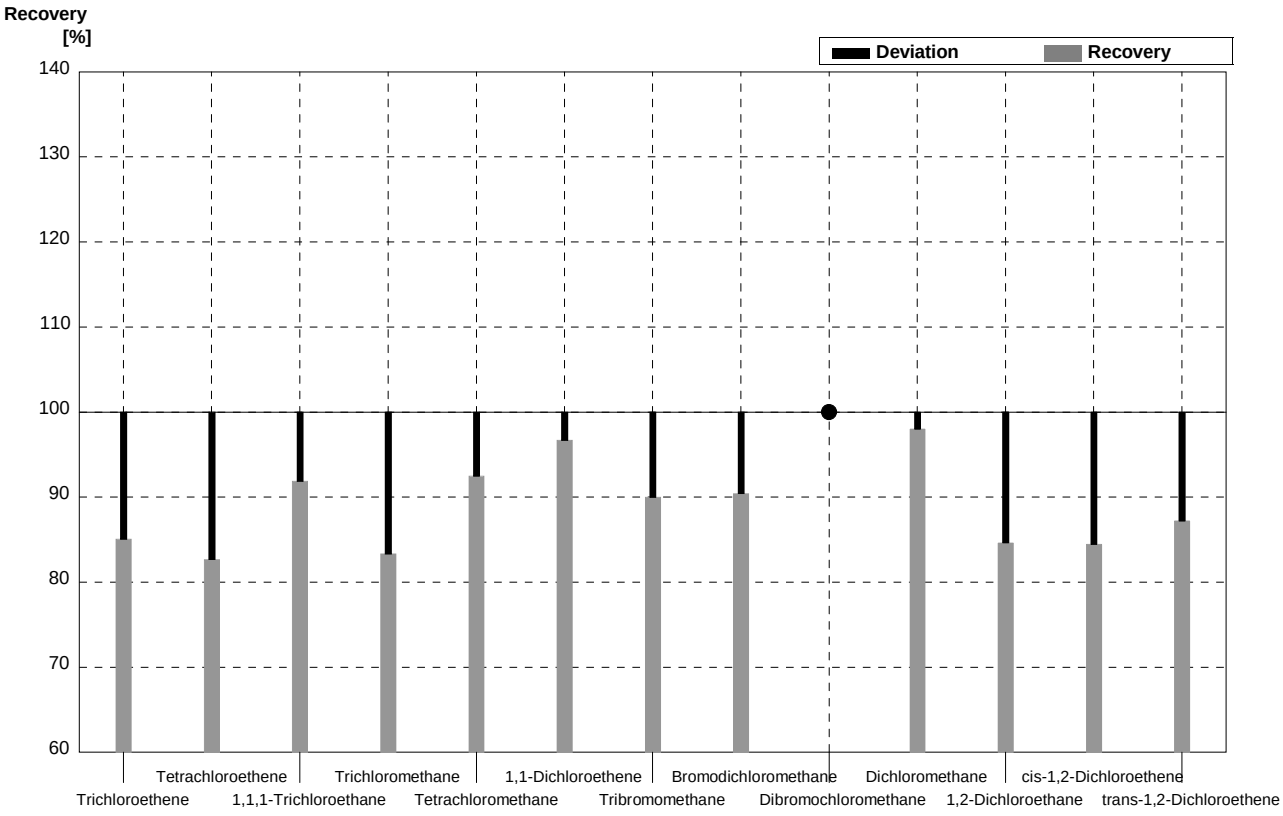
Sample C56B
Laboratory U

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,62	0,2	µg/l	63%
Tetrachloroethene	0,82	0,04	0,47	0,2	µg/l	57%
1,1,1-Trichloroethane	0,89	0,04	0,51	0,2	µg/l	57%
Trichloromethane	0,27	0,01	<0,1		µg/l	FN
Tetrachloromethane	0,81	0,04	0,68	0,2	µg/l	84%
1,1-Dichloroethene	1,15	0,06			µg/l	
Tribromomethane	0,53	0,03			µg/l	
Bromodichloromethane	0,80	0,04			µg/l	
Dibromochloromethane	1,15	0,06			µg/l	
Dichloromethane	<0,6		<0,1		µg/l	•
1,2-Dichloroethane	3,42	0,17			µg/l	
cis-1,2-Dichloroethene	1,36	0,07	1,1	0,3	µg/l	81%
trans-1,2-Dichloroethene	<0,04				µg/l	



Sample C56A
Laboratory V

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,71	0,04	0,604	0,181	µg/l	85%
Tetrachloroethene	0,41	0,02	0,339	0,102	µg/l	83%
1,1,1-Trichloroethane	1,70	0,09	1,562	0,469	µg/l	92%
Trichloromethane	1,76	0,09	1,467	0,440	µg/l	83%
Tetrachloromethane	0,20	0,01	0,185	0,056	µg/l	93%
1,1-Dichloroethene	2,71	0,14	2,621	0,786	µg/l	97%
Tribromomethane	0,18	0,01	0,162	0,049	µg/l	90%
Bromodichloromethane	0,23	0,01	0,208	0,062	µg/l	90%
Dibromochloromethane	<0,1		<0,100		µg/l	•
Dichloromethane	3,12	0,16	3,058	0,917	µg/l	98%
1,2-Dichloroethane	1,10	0,06	0,931	0,279	µg/l	85%
cis-1,2-Dichloroethene	0,65	0,03	0,549	0,165	µg/l	84%
trans-1,2-Dichloroethene	1,18	0,06	1,029	0,309	µg/l	87%



Sample C56B
Laboratory V

Parameter	Target value	± U (k=2)	Result	±	Unit	Recovery
Trichloroethene	0,99	0,05	0,830	0,249	µg/l	84%
Tetrachloroethene	0,82	0,04	0,668	0,200	µg/l	81%
1,1,1-Trichloroethane	0,89	0,04	0,827	0,248	µg/l	93%
Trichloromethane	0,27	0,01	0,243	0,073	µg/l	90%
Tetrachloromethane	0,81	0,04	0,731	0,219	µg/l	90%
1,1-Dichloroethene	1,15	0,06	1,077	0,323	µg/l	94%
Tribromomethane	0,53	0,03	0,449	0,135	µg/l	85%
Bromodichloromethane	0,80	0,04	0,708	0,212	µg/l	89%
Dibromochloromethane	1,15	0,06	1,009	0,303	µg/l	88%
Dichloromethane	<0,6		<0,100		µg/l	•
1,2-Dichloroethane	3,42	0,17	2,896	0,869	µg/l	85%
cis-1,2-Dichloroethene	1,36	0,07	1,138	0,342	µg/l	84%
trans-1,2-Dichloroethene	<0,04		<0,100		µg/l	•