

Test Group Summary Report

C16 VOCs in Water

June 2020 PT Round

Issued: October 1, 2020

Table of Contents

1.0	The Proficiency Testing Report	1
2.0	Definitions	1
3.0	Scoring System	1
3.1	Homogeneity and Stability Assessment	2
3.2	The z score	2
3.2	Composite (PT) Score	2
3.3	Identifying Bias	2
3.4	Deviations from Evaluation Procedure	3
4.0	PT Round Specific Data Summary	3
4.1	Summary Statistics	3
4.2	z - Score Plots	3
4.3	Kernel Density Plots	3
4.4	Stability and Homogeneity Plots	3
	Annex A Summary by Analyte	4

1.0 The Proficiency Testing Report

The Proficiency Testing Report consists of two parts.

- *PTC Proficiency Testing Report:* This report contains participant-specific data and other confidential information. This report is emailed to participants at the end of the PT round.
- *Test Group Summary Report:* A Test Group Summary Report is created for each quantified test group at the end of the PT round. These reports contain more detailed information on the round than are found in the participant-specific PTC Proficiency Testing Report. These reports do not contain any confidential information and are made available on the PTC web site.

2.0 Definitions

The participant-specific PTC Proficiency Testing Report contains some terms that new participants may not be familiar with.

<i>Code:</i>	The registration code that is unique to each analyte that a participant is registered for.
<i>App:</i>	If a participant is accredited by CALA, this three-digit number is the appendix number that the accredited method is assigned to.
<i>N:</i>	The number of participants results that were used to calculate the summary statistics. This excludes qualified data (e.g., <) and any results that were flagged as outliers.
<i>Assigned:</i>	The Assigned Value is the robust mean of the reported results, outliers excluded. This is often referred to as the “target” value.
<i>±u:</i>	The uncertainty of the assigned value.
<i>Reported:</i>	The result reported by the participant.
<i>s:</i>	The Standard Deviation of Proficiency Assessment. This value is used to determine the acceptance limits for the PT evaluation.
<i>z-Score:</i>	A value assigned to each reported result that is a measure of the degree to which it deviates from the Assigned Value.
<i>Score:</i>	The composite score of the four results reported for each analyte. It is normalized to a score out of 100.
<i>Bias:</i>	A flag assigned if bias is detected using the re-scaled z-score procedure.

3.0 Scoring System

Participant performance is evaluated for each proficiency testing sample by a quantitative method that is consistent with ISO/IEC 17043:2010 *Conformity assessment – General requirements for proficiency testing*, the *International Harmonized Protocol for Proficiency Testing of (Chemical) Analytical Laboratories* (2006), and ISO 13528:2015 *Statistical methods for use in proficiency testing by interlaboratory comparisons*.

The following is a brief description of the evaluation procedure used by PTC. The detailed evaluation procedure is described in PROC09 – PT Evaluation *Procedure*, which is available on the PTC website www.PTCCanada.org).

3.1 HOMOGENEITY AND STABILITY ASSESSMENT

Homogeneity and stability are assessed using participant data. Regression analysis is performed on reported result against order of sample production (Homogeneity) and reported result against date of analysis (Stability). If the slope is significantly different than zero for either then the Standard Deviation of Proficiency Assessment (s) is increased to minimize the impact.

3.2 THE Z SCORE

A "z-score" is calculated for each reported result as follows:

$$z = \frac{(x - \bar{X})}{s} \quad \text{where: } \begin{array}{l} x = \text{participant result;} \\ \bar{X} = \text{the Assigned Value;} \\ s = \text{the Standard Deviation for Proficiency Assessment.} \end{array}$$

The assigned value \bar{X} is generally estimated from the inter-laboratory Robust mean after outliers due to obvious gross errors (e.g., reported in wrong units) have been removed.

The Standard Deviation for Proficiency Assessment, s, is determined as follows:

- The inter-laboratory Robust standard deviation (stdev) is calculated using reported results, obvious outliers removed;
- The expected inter-laboratory standard deviation (s!) is estimated from regression equations derived from previous studies (see PROC11- *PT Regression Equations* for details);
- If s! is higher than stdev then s! is used in the z score equation;
- If s! is lower than stdev then stdev is used in the z score equation;
- When a laboratory reports its detection limit, s will be estimated using a pooled variance procedure that uses both the inter-laboratory data and the reported detection limit.

3.2 COMPOSITE (PT) SCORE

Since each PT round involves four or two separate samples of distinct concentration for each test, it is necessary to calculate a composite PT score for each test to determine overall performance. The composite score is calculated by first averaging the absolute z-scores for the four results and then calculating a final score as $100 + (-15 \times \text{avg } |z|)$.

Acceptable PT Scores equal or exceed 70.

3.3 IDENTIFYING BIAS

The proficiency testing report provides flags for bias. These are determined using the re-scaled z-score procedure.

$$RSZ = \frac{\sum z}{\sqrt{N}}$$

where z = the z -score
 N = the number of samples

Flags are assigned for each test group/parameter combination as follows:

$RSZ \geq -2$ and ≤ 2	no flag assigned
$RSZ > 2$	H (High)
$RSZ > 3$	VH (Very High)
$RSZ < -2$	L (LOW)
$RSZ < -3$	VL (Very Low)

3.4 DEVIATIONS FROM EVALUATION PROCEDURE

Other than changes to the Standard Deviation of Proficiency Assessment due to homogeneity or stability flags, any deviation from the published evaluation procedure is described on the cover page(s) of the final *PTC Proficiency Testing Report*.

4.0 PT Round Specific Data Summary

The following pages provide more detailed information about the PT round indicated in the cover page of this report than is found in the participant-specific PTC Proficiency Testing Report. The graphical representations and the statistical summaries are based upon the data after outliers have been removed.

4.1 SUMMARY STATISTICS

In addition to some of the statistics found in the customer reports, this table includes additional summary statistics such as Median, different measures of dispersion, the number of outliers removed, the number of results in the Questionable range ($|z|$ between 2 and 3) and the Unacceptable range ($z > 3$), and whether a data set was flagged for Homogeneity or Stability. This section also includes sorted scatter plots of the data for each sample.

4.2 z - SCORE PLOTS

The z -scores for each sample are ranked in increasing order and plotted. When the data is normally distributed, the plot should show a slight sigmoidal curve, with an equal number of points above zero as below. Each bar in these plots is colour-coded to indicate the analytical method used by the participant.

4.3 KERNEL DENSITY PLOTS

Kernel density plots are generated for each data set. These plots are a graphical way to represent the overall data distribution and are used to visualize possible deviations from normality and unimodality.

4.4 STABILITY AND HOMOGENEITY PLOTS

Plots of reported result against analysis date, and reported result against order of bottling are displayed, along with the regression line. These regression analyses are used to determine if the SDPA should be adjusted due to homogeneity or stability.

Annex A Summary by Analyte

1,1,1-TRICHLOROETHANE

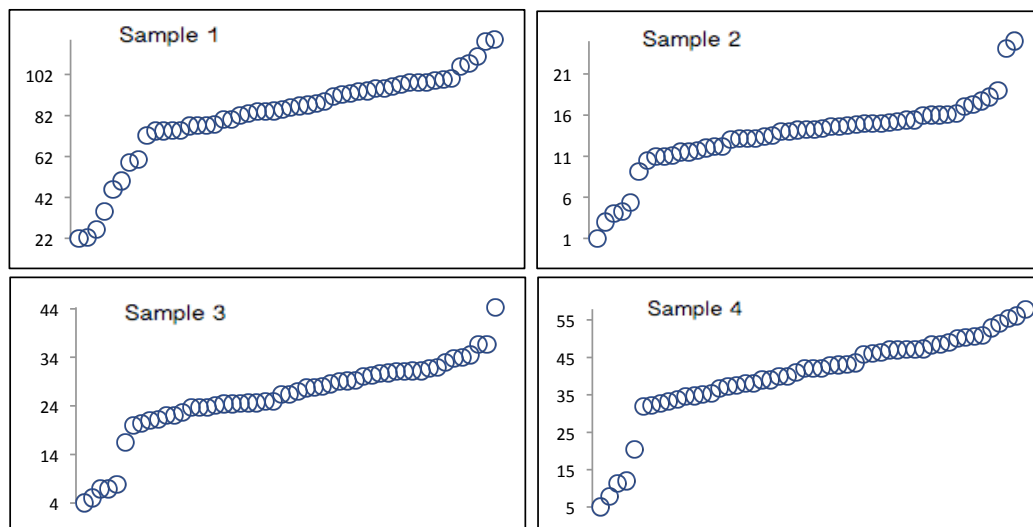
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	50	51	51	51
Median	85.4	14.3	26.4	42.0
Robust Mean	84.8	13.8	26.5	41.6
U	2.99	0.509	1.07	1.55
Robust Standard Deviation	16.9	2.91	6.12	8.85
Regression Standard Deviation	12.7	2.08	3.97	6.25
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used	25.5	2.91	6.12	8.85
Outliers	1	0	0	0
$ z > 3.0$	0	6	5	4
$2 < z < 3$	3	1	1	1

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	27	28	28	28
HS-GCMS	19	19	19	19
GC/MS1	1	1	1	1
P/T-FID	2	2	2	2
P/T-GCECD	1	1	1	1

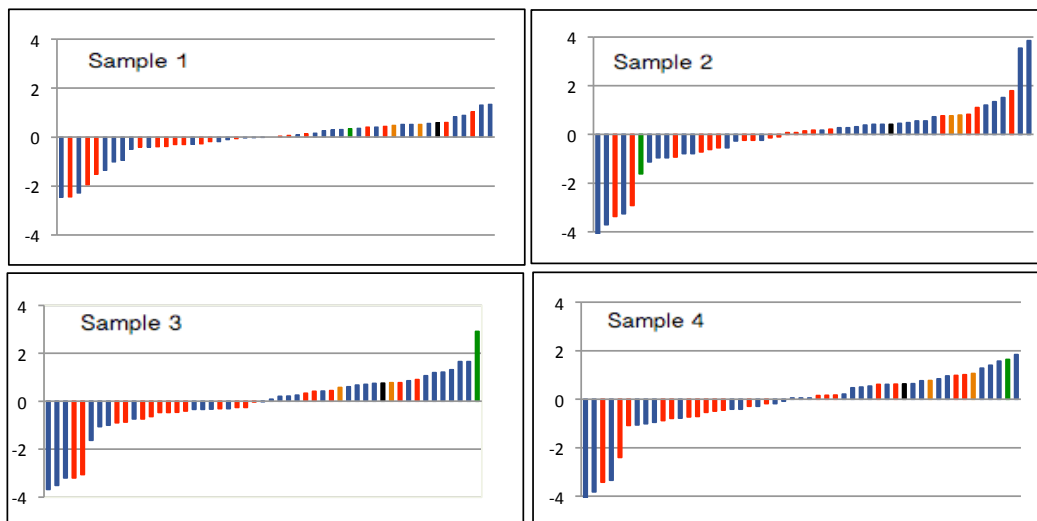
All summary stats and the plots below are based on the data excluding any flagged outliers



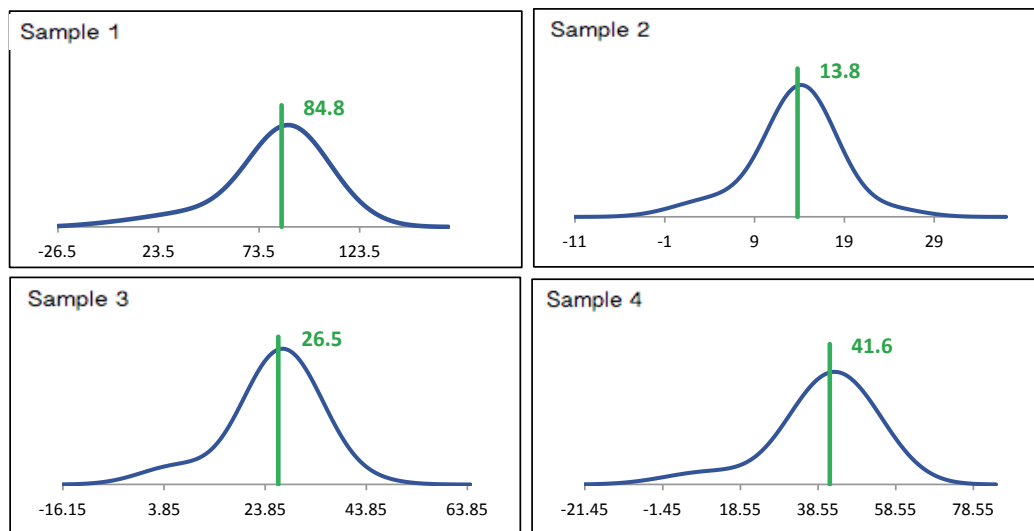
Annex A Summary by Analyte

1,1,1-TRICHLOROETHANE

z-Score Plots



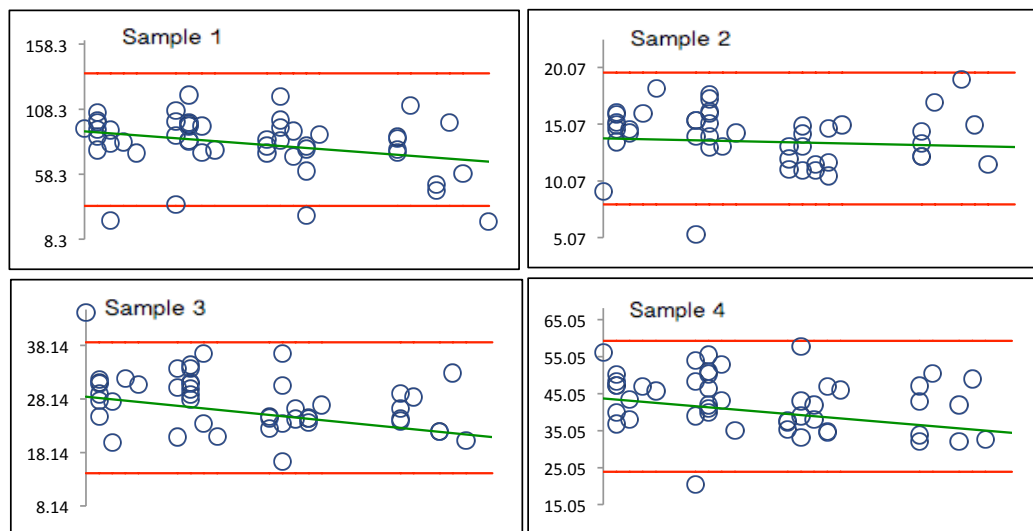
Kernel Density Plots



Annex A Summary by Analyte

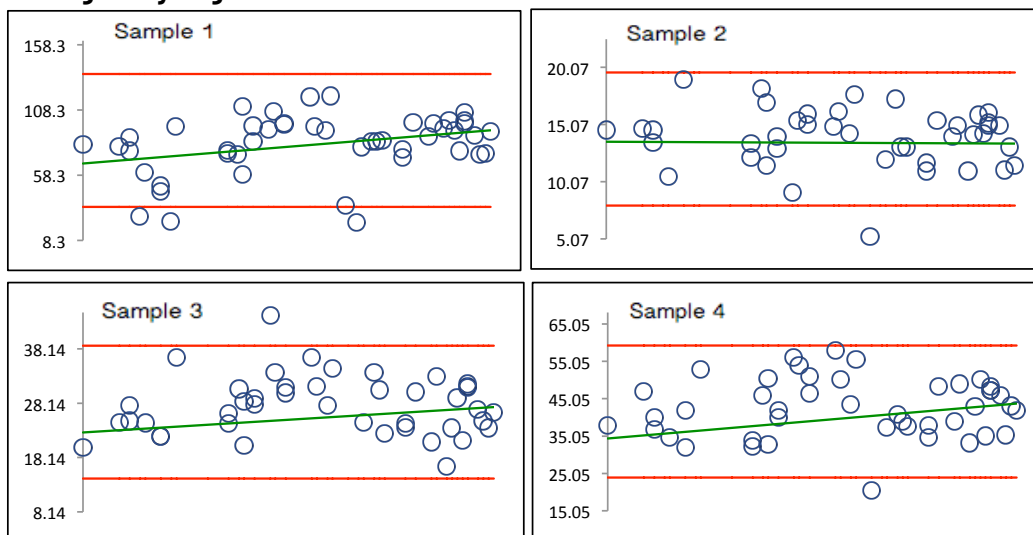
1,1,1-TRICHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,1,2,2-TETRACHLOROETHANE

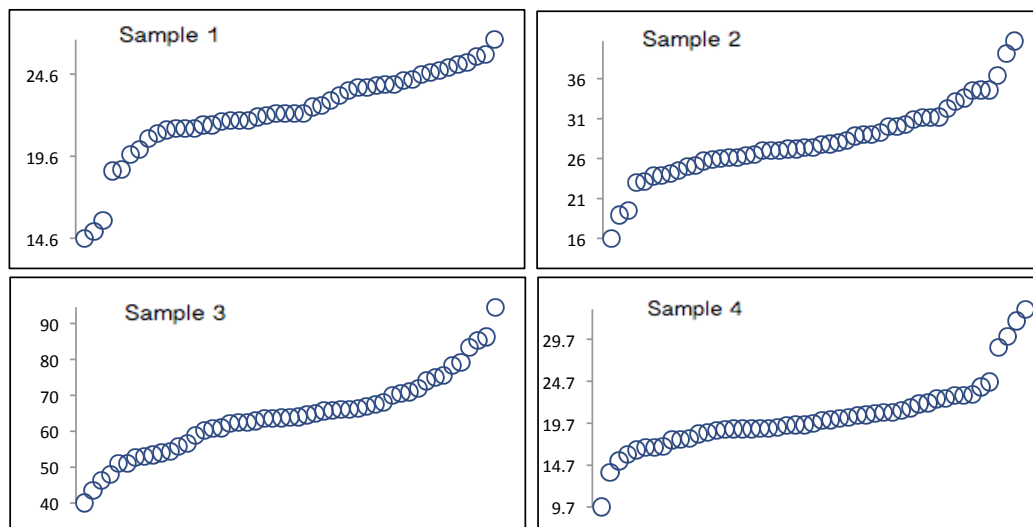
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	46	49	49	49
Median	22.2	27.4	63.9	19.7
Robust Mean	22.5	28.1	63.8	20.1
U	0.41	0.743	1.88	0.51
Robust Standard Deviation	2.21	4.16	10.50	2.88
Regression Standard Deviation	3.94	4.92	11.20	3.51
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	3.94	4.92	11.20	3.51
Outliers	3	0	0	0
$ z > 3.0$	0	0	0	2
$2 < z < 3$	1	3	2	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	27	29	29	29
HS-GCMS	14	15	15	15
P/T-GCECD	1	1	1	1
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1
GC/MS1	1	1	1	1

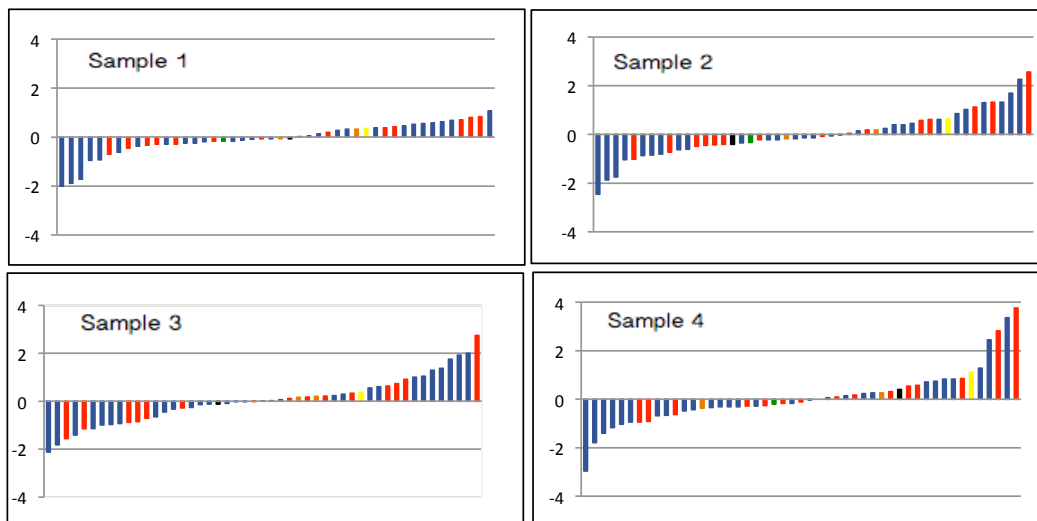
All summary stats and the plots below are based on the data excluding any flagged outliers



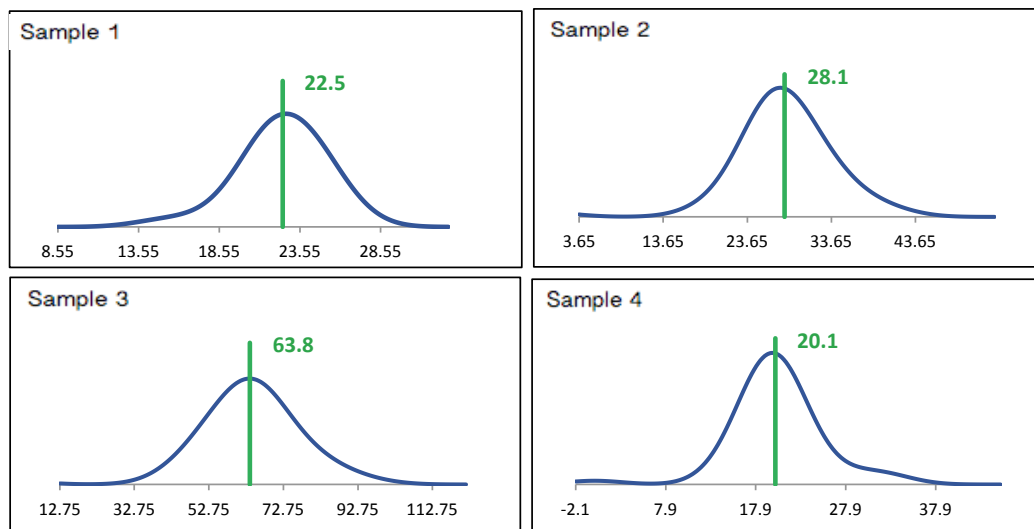
Annex A Summary by Analyte

1,1,2,2-TETRACHLOROETHANE

z-Score Plots



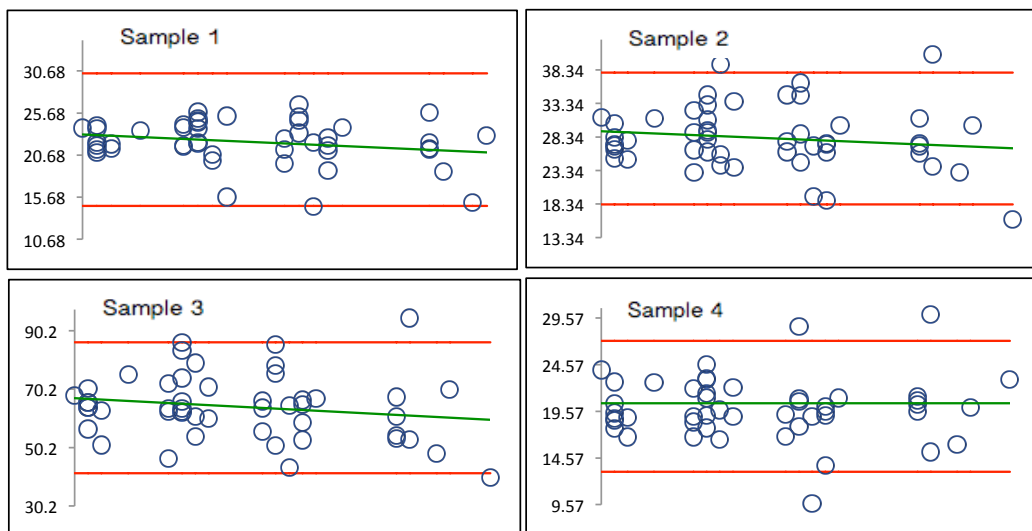
Kernel Density Plots



Annex A Summary by Analyte

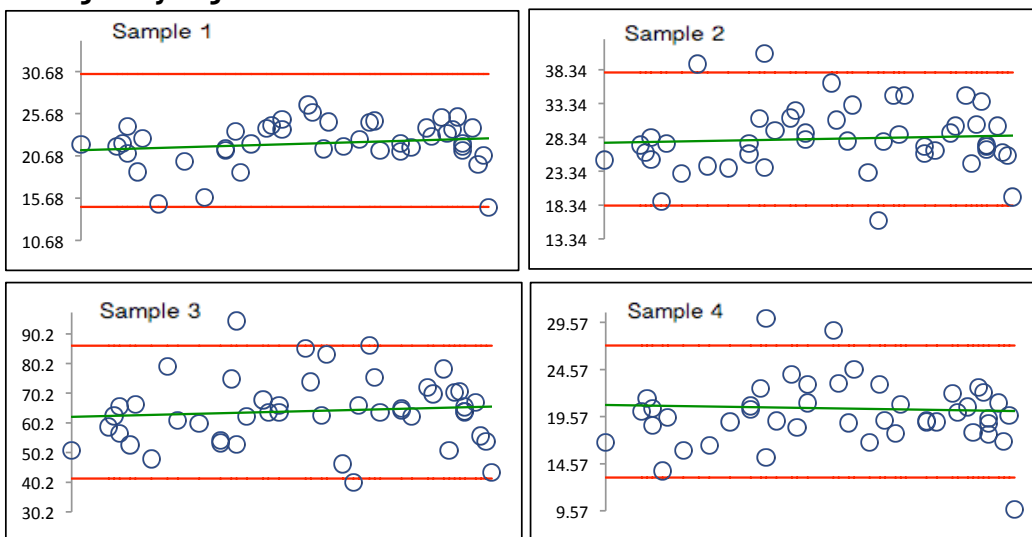
1,1,2,2-TETRACHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,1,2-TRICHLOROETHANE

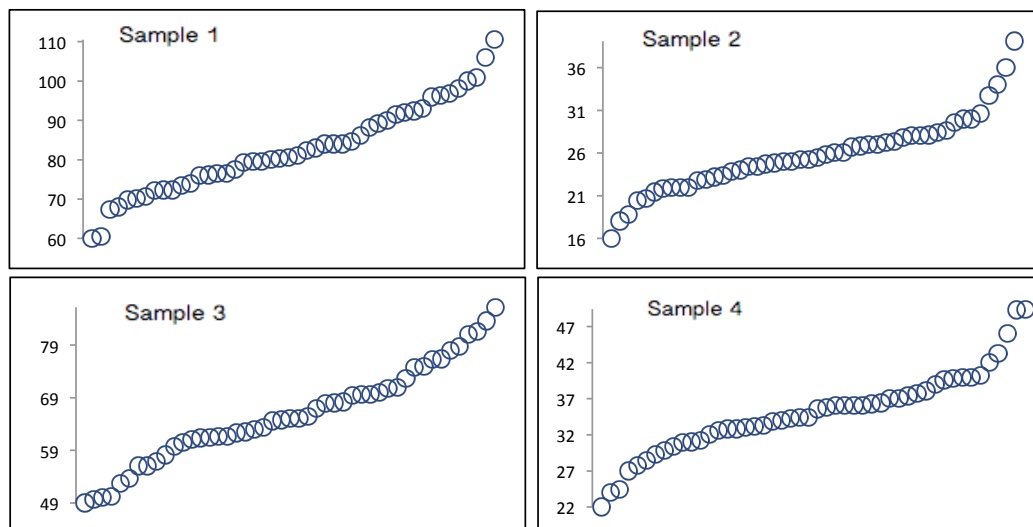
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	46	48	47	48
Median	80.8	25.4	65.0	35.0
Robust Mean	82.5	25.6	65.7	34.9
U	2.16	0.675	1.80	0.92
Robust Standard Deviation	11.7	3.74	9.85	5.12
Regression Standard Deviation	12.4	3.84	9.85	5.23
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	12.4	3.84	9.85	5.23
Outliers	2	0	1	0
$ z > 3.0$	0	1	0	0
$2 < z < 3$	1	3	1	6

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	26	28	27	28
HS-GCMS	18	18	18	18
P/T-FID	1	1	1	1
GC/MS1	1	1	1	1

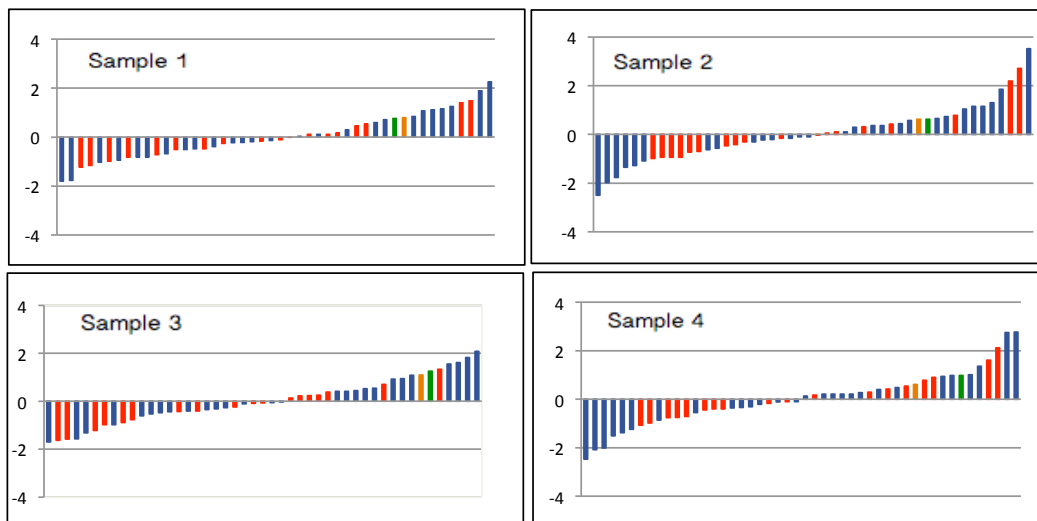
All summary stats and the plots below are based on the data excluding any flagged outliers



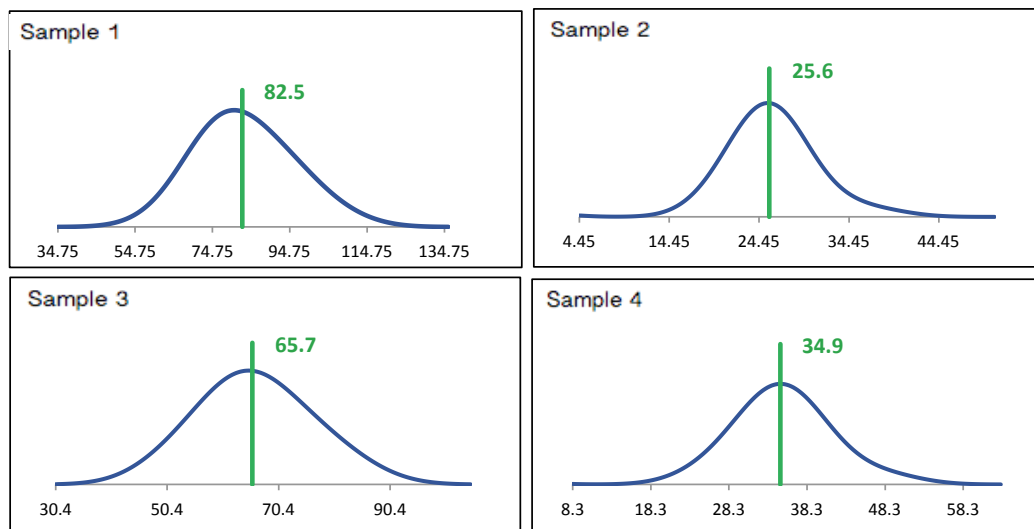
Annex A Summary by Analyte

1,1,2-TRICHLOROETHANE

z-Score Plots



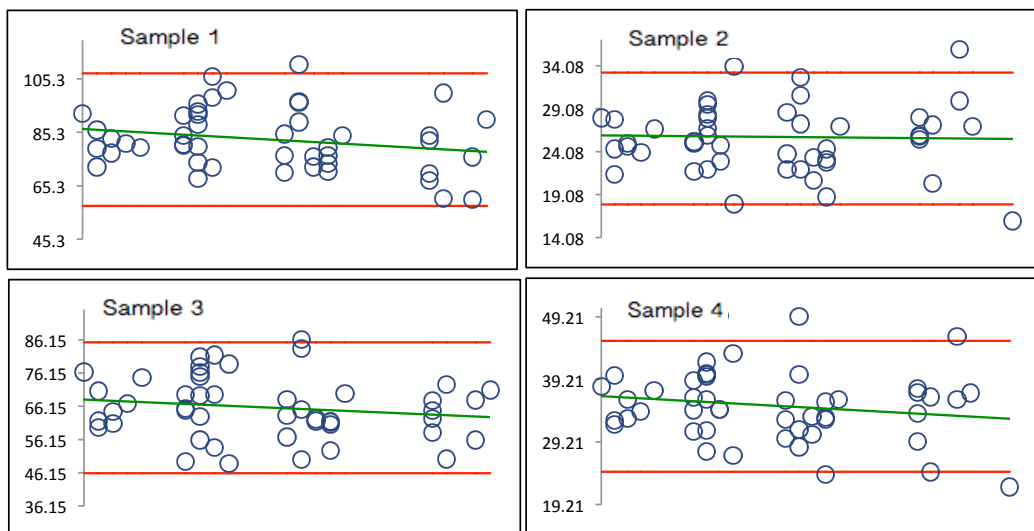
Kernel Density Plots



Annex A Summary by Analyte

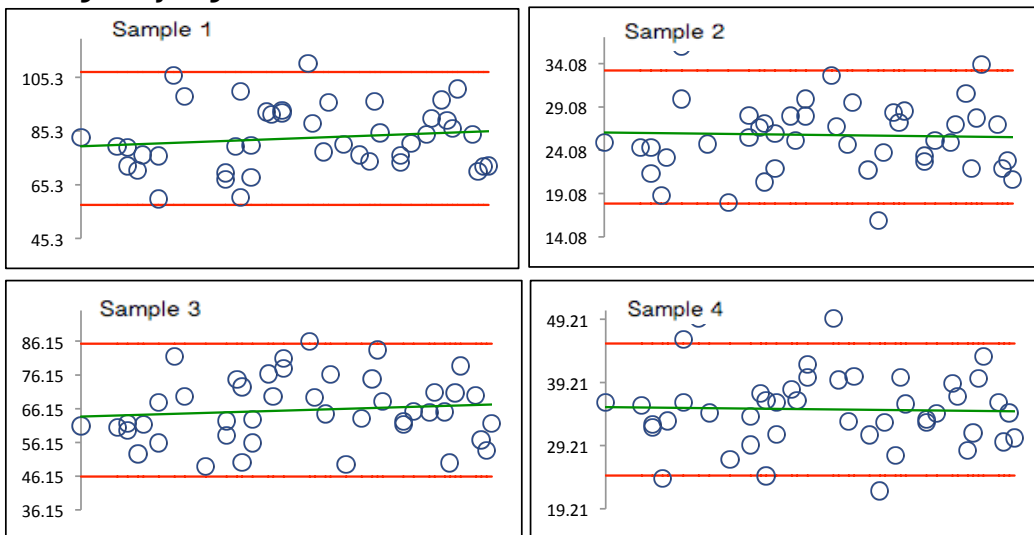
1,1,2-TRICHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,1-DICHLOROETHANE

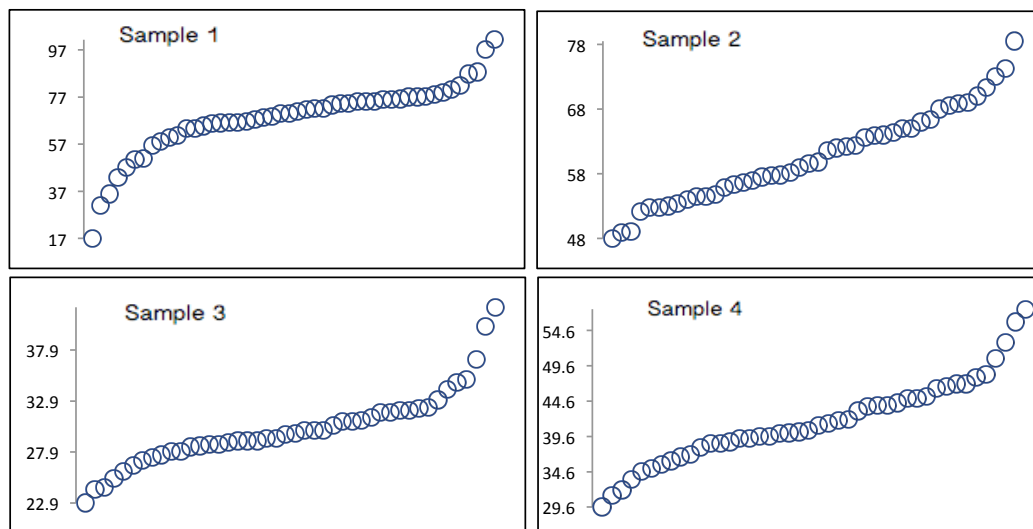
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	48	44	44	44
Median	70.6	59.7	29.7	40.9
Robust Mean	69.2	60.5	29.9	41.5
U	2.07	1.450	0.58	1.09
Robust Standard Deviation	11.5	7.68	3.07	5.78
Regression Standard Deviation	10.4	9.08	4.49	6.22
Stability Flag				Stability
Homogeneity Flag				
Standard Deviation Used	11.5	9.08	4.49	7.54
Outliers	0	4	5	4
$ z > 3.0$	2	0	0	0
$2 < z < 3$	4	0	2	1

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	28	25	25	25
HS-GCMS	18	17	17	17
GC/MSE	1	1	1	1
P/T-FID	1	1	1	1

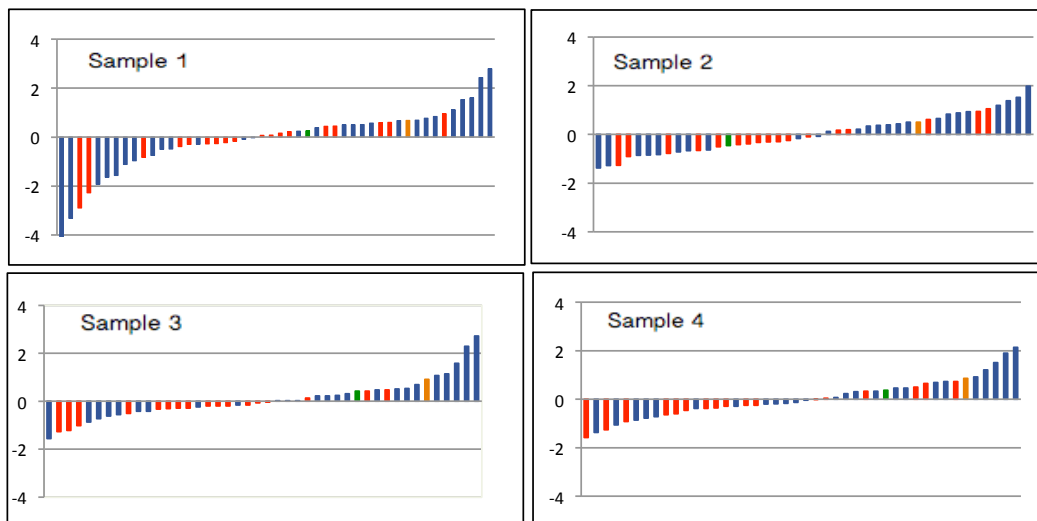
All summary stats and the plots below are based on the data excluding any flagged outliers



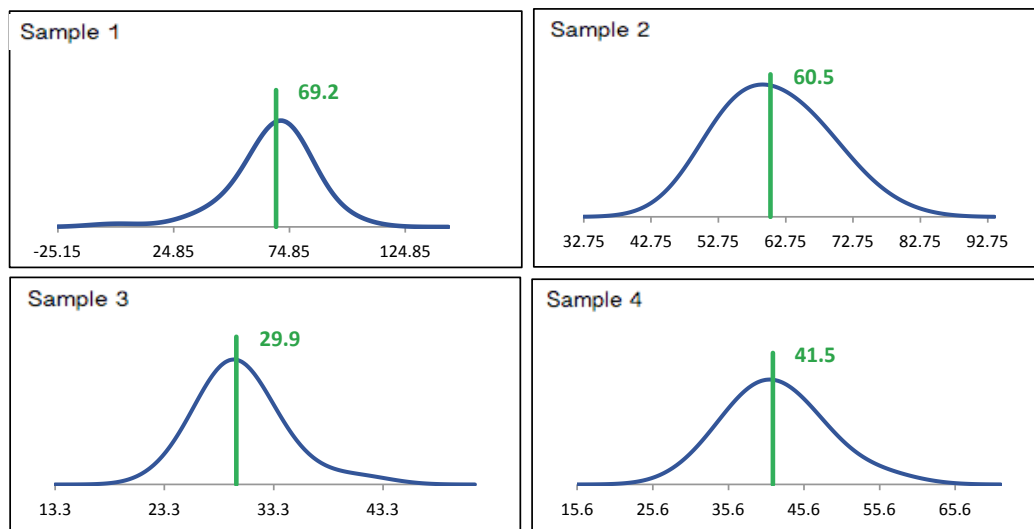
Annex A Summary by Analyte

1,1-DICHLOROETHANE

z-Score Plots



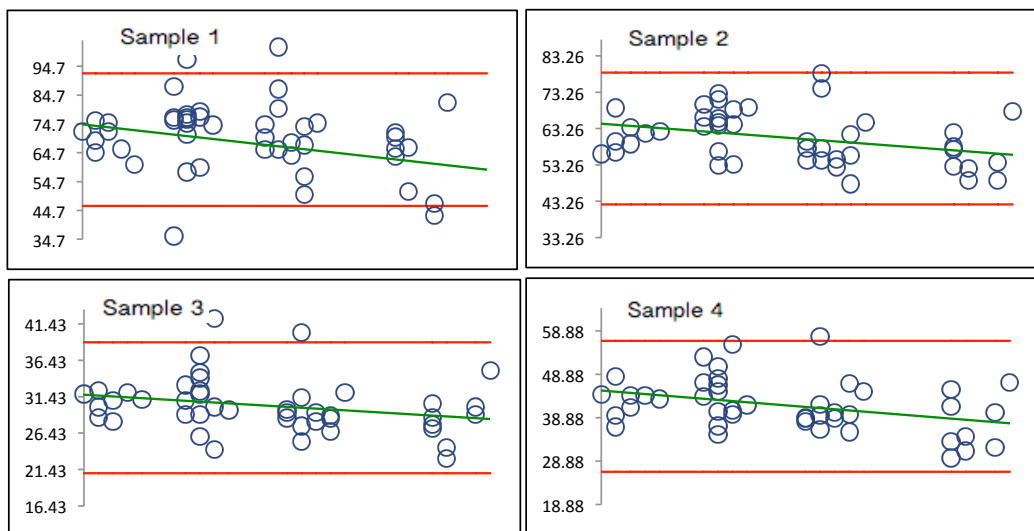
Kernel Density Plots



Annex A Summary by Analyte

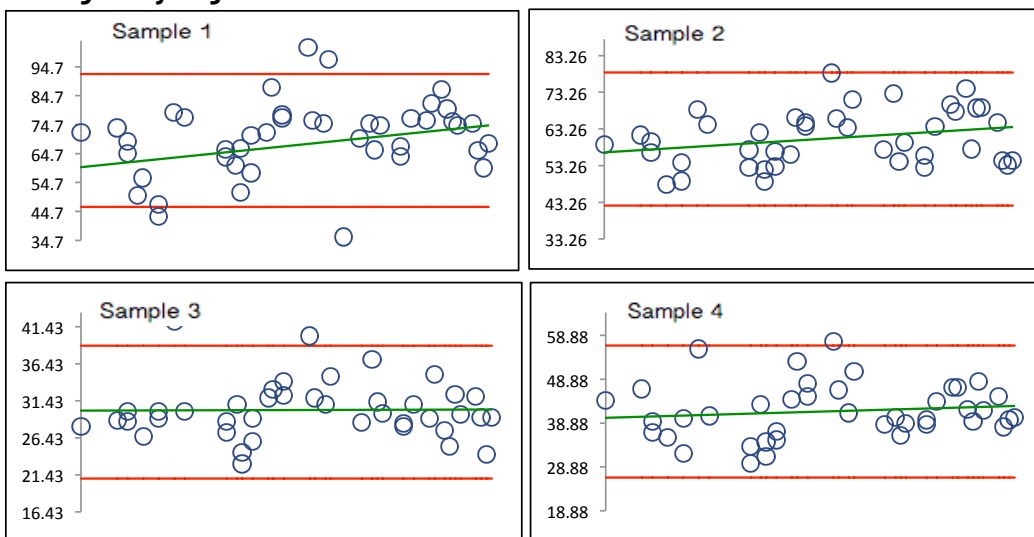
1,1-DICHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,1-DICHLOROETHYLENE

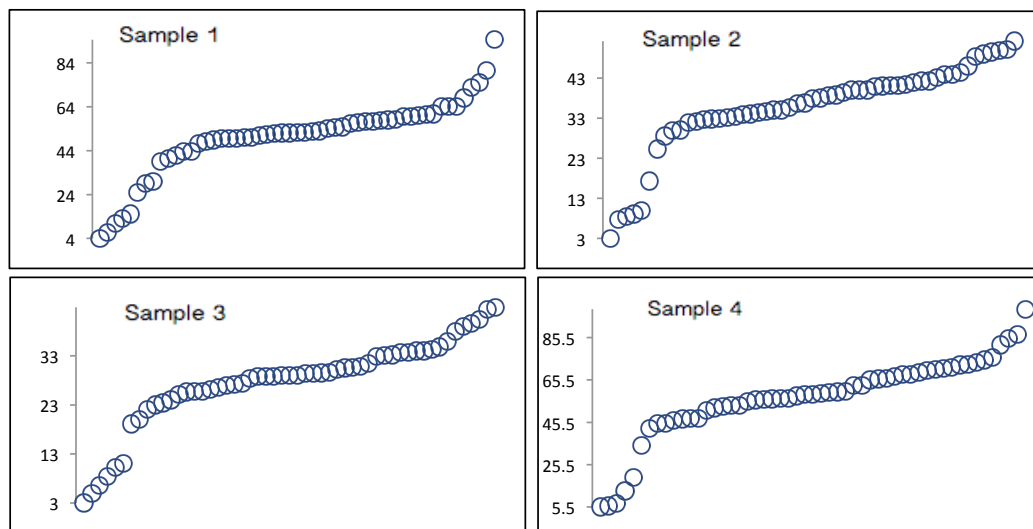
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	53	53	53	53
Median	52.2	37.8	29.0	58.6
Robust Mean	51.8	37.1	28.8	59.1
U	2.04	1.410	1.18	2.46
Robust Standard Deviation	11.9	8.24	6.88	14.3
Regression Standard Deviation	10.4	7.43	5.75	11.8
Stability Flag				
Homogeneity Flag	Homogeneity			Homogeneity
Standard Deviation Used	19.0	8.24	6.88	18.8
Outliers	0	0	0	0
$ z > 3.0$	0	5	3	0
$2 < z < 3$	5	1	4	6

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	30	30	30	30
HS-GCMS	19	19	19	19
GC/MS1	1	1	1	1
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1

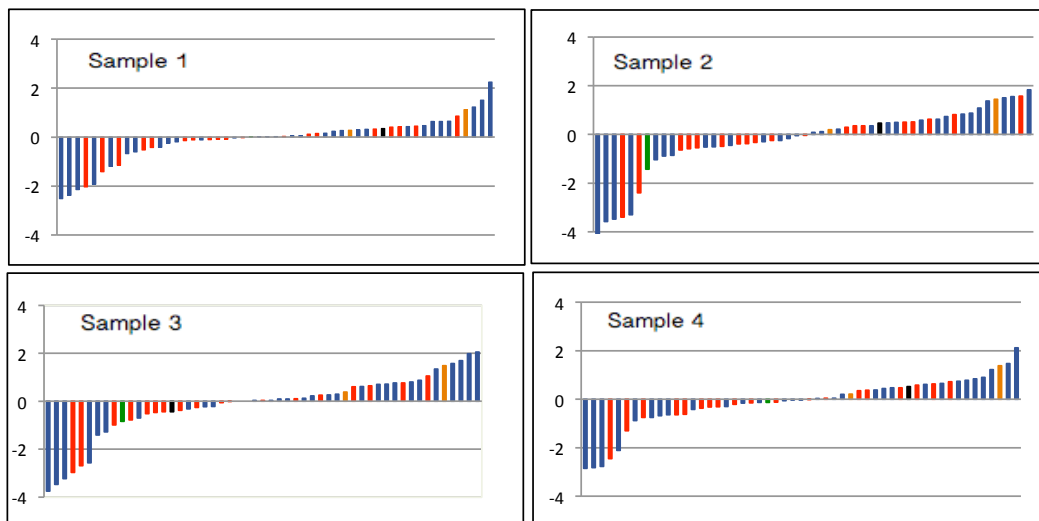
All summary stats and the plots below are based on the data excluding any flagged outliers



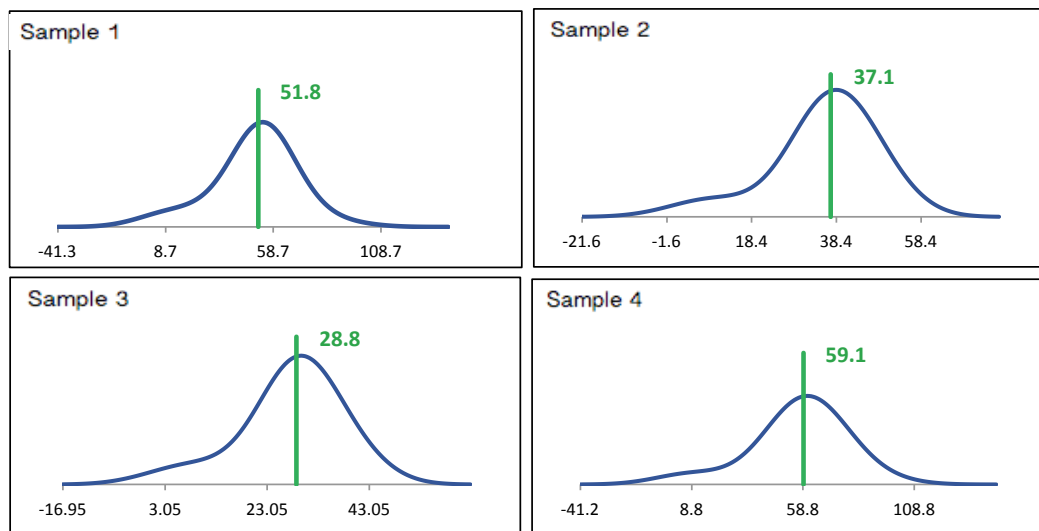
Annex A Summary by Analyte

1,1-DICHLOROETHYLENE

z-Score Plots



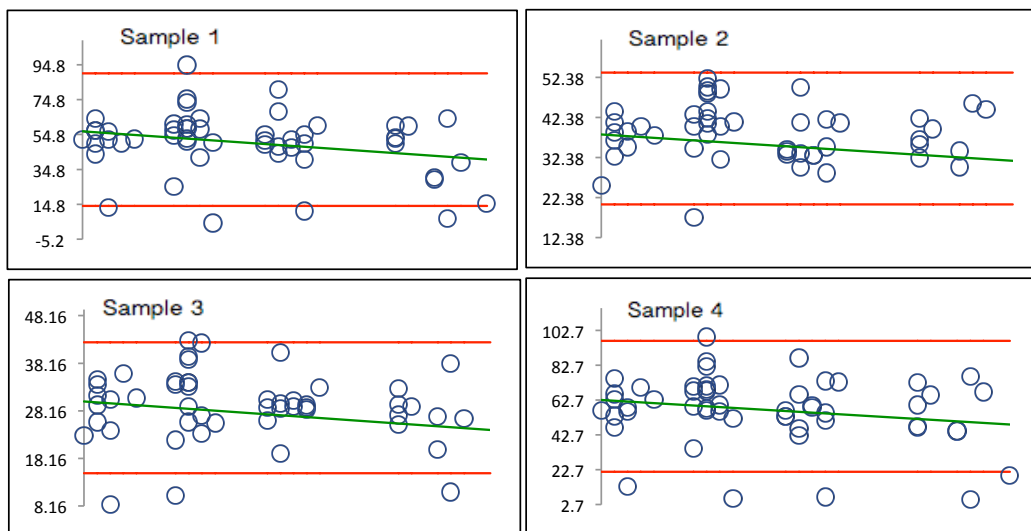
Kernel Density Plots



Annex A Summary by Analyte

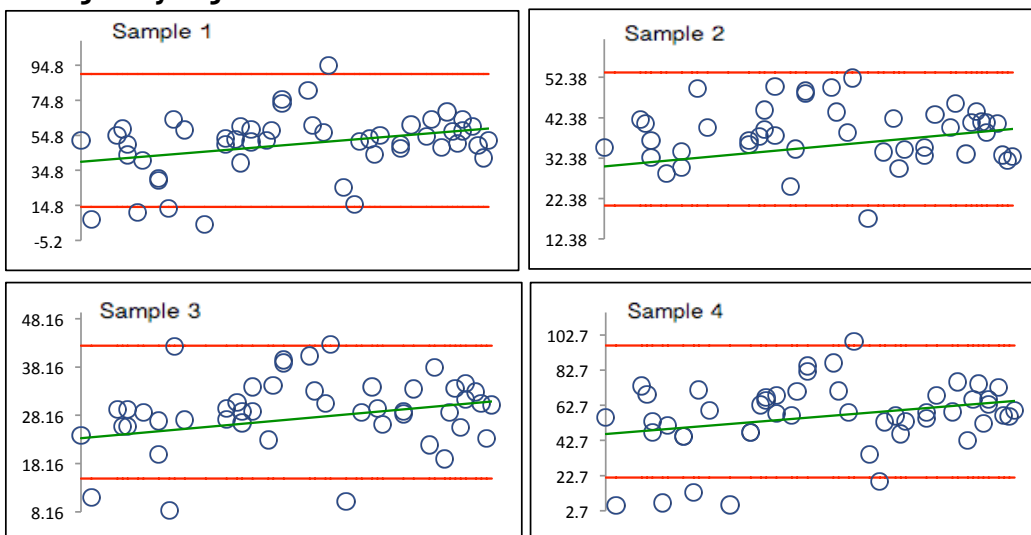
1,1-DICHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,2-DICHLOROBENZENE

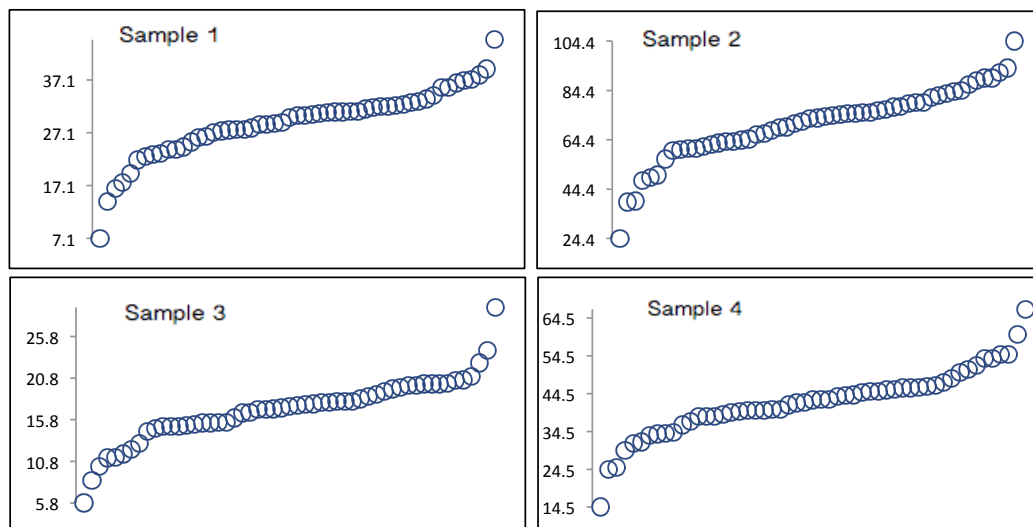
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	53	53	53	53
Median	30.3	73.2	17.4	42.8
Robust Mean	29.3	71.6	17.1	42.4
U	0.96	2.25	0.55	1.33
Robust Standard Deviation	5.59	13.1	3.20	7.77
Regression Standard Deviation	4.40	10.7	2.56	6.35
Stability Flag	Stability	Stability		Stability
Homogeneity Flag				
Standard Deviation Used	12.4	28.5	3.20	16.0
Outliers	0	0	0	0
$ z > 3.0$	0	0	2	0
$2 < z < 3$	0	0	3	0

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	31	31	31	31
HS-GCMS	18	18	18	18
GC/MS1	1	1	1	1
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1

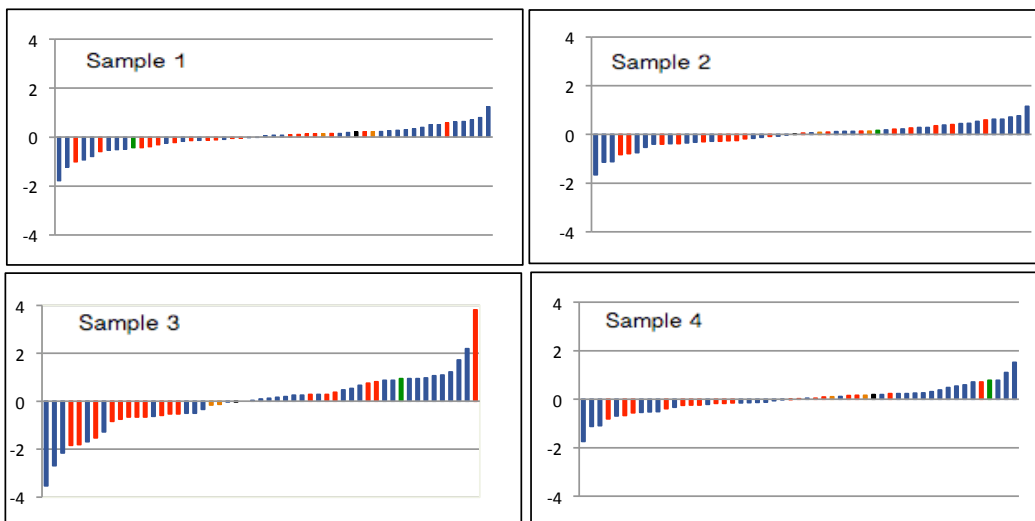
All summary stats and the plots below are based on the data excluding any flagged outliers



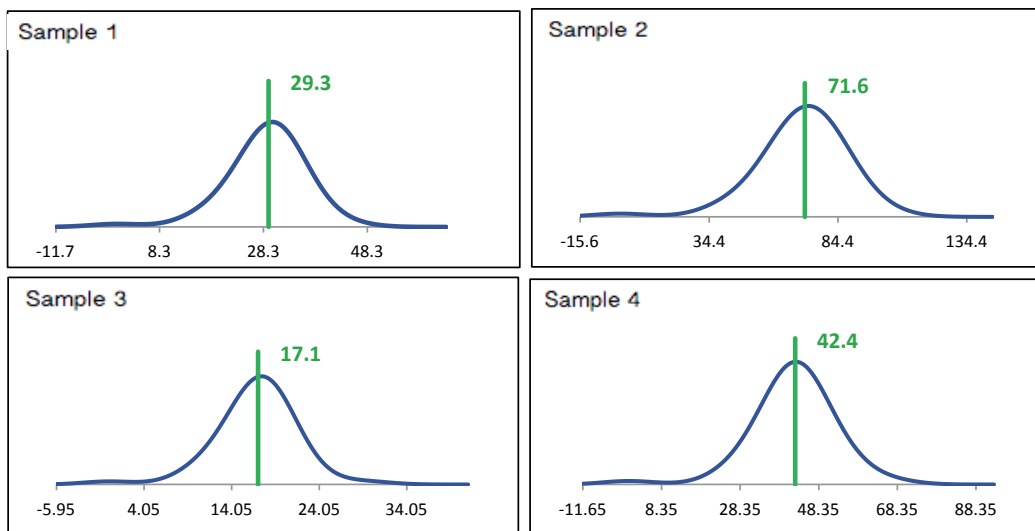
Annex A Summary by Analyte

1,2-DICHLOROBENZENE

z-Score Plots



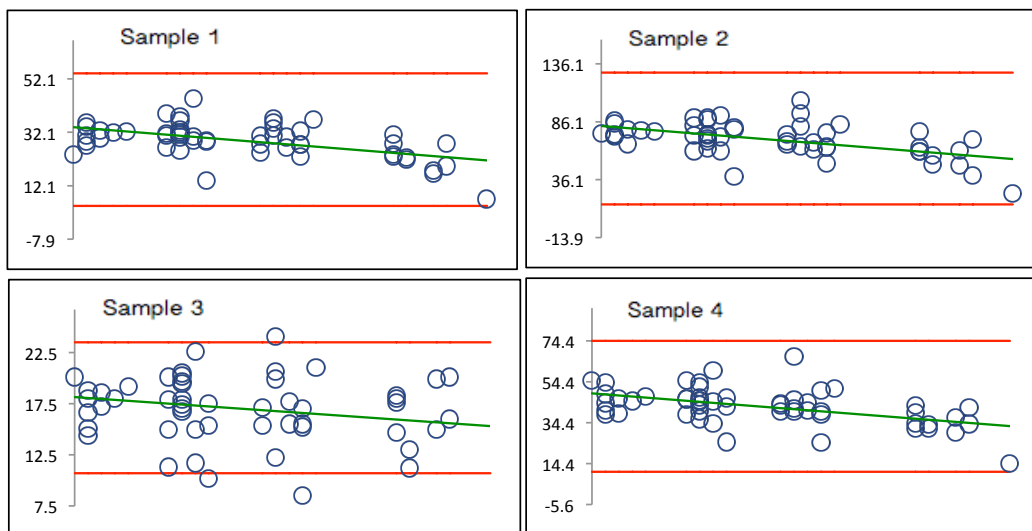
Kernel Density Plots



Annex A Summary by Analyte

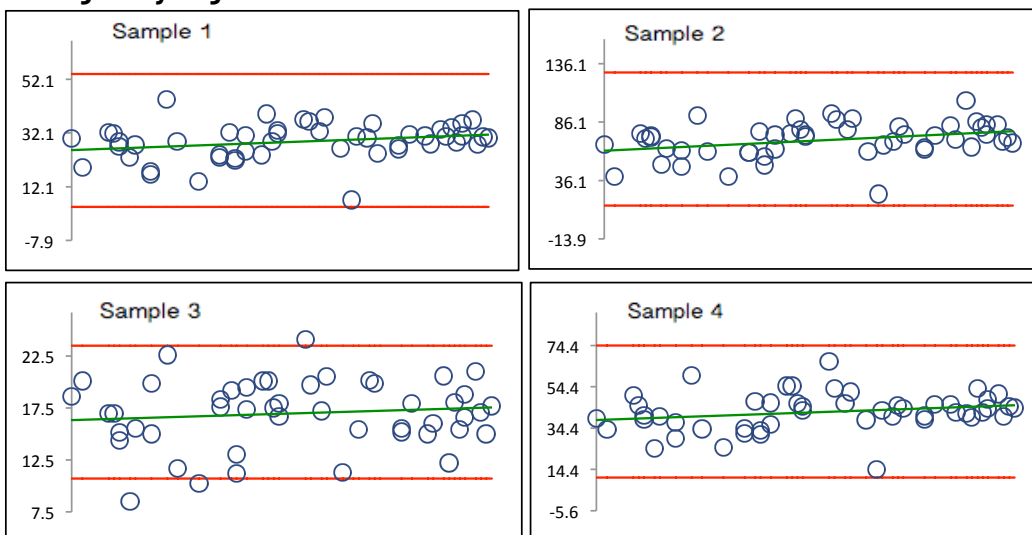
1,2-DICHLOROBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,2-DICHLOROETHANE

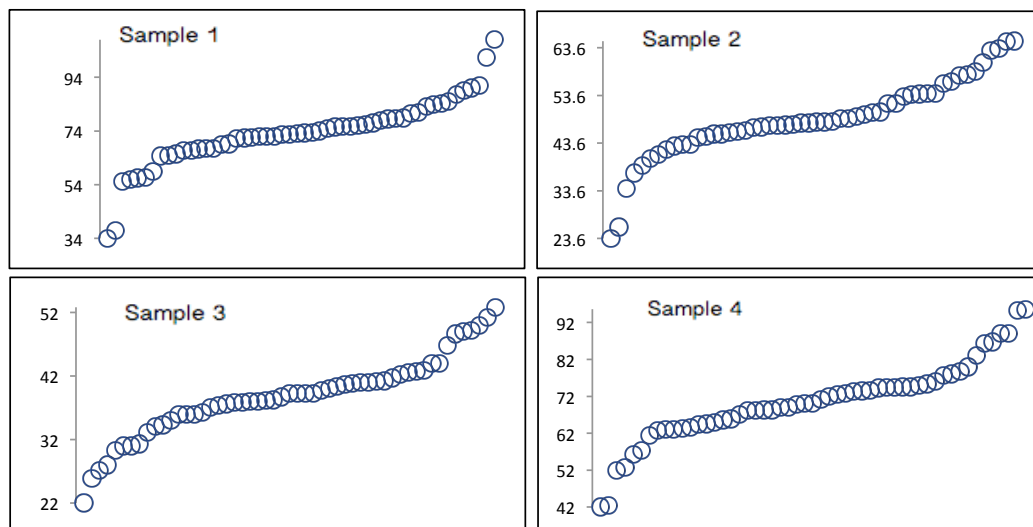
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	52	52	53	53
Median	73.2	47.9	39.2	70.0
Robust Mean	73.5	48.9	38.8	70.6
U	1.79	1.23	0.994	1.58
Robust Standard Deviation	10.3	7.1	5.79	9.21
Regression Standard Deviation	11.0	7.3	5.82	10.60
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	11.0	7.3	5.82	10.6
Outliers	1	1	0	0
$ z > 3.0$	3	2	0	0
$2 < z < 3$	1	3	5	4

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	29	29	30	30
HS-GCMS	20	20	20	20
GC/MSE	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	1	1	1	1

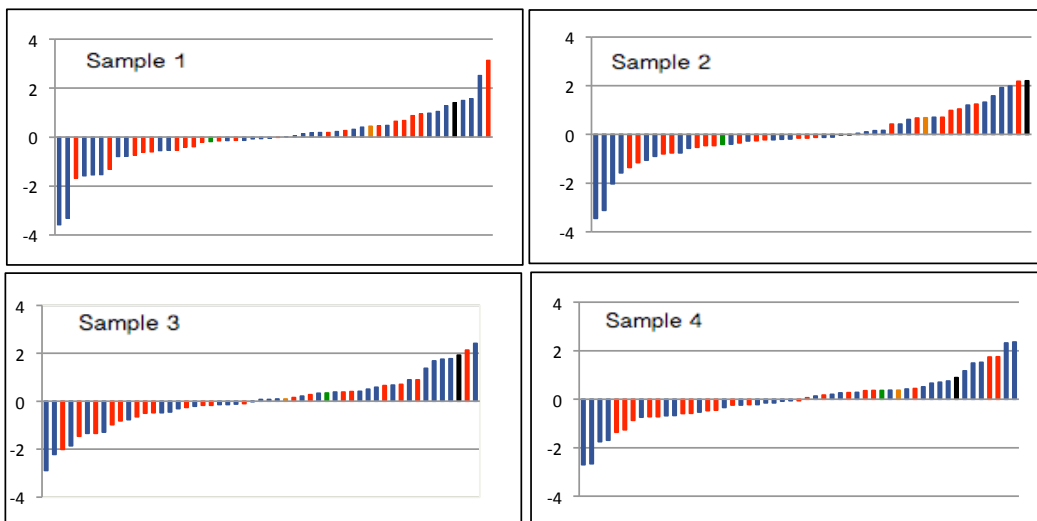
All summary stats and the plots below are based on the data excluding any flagged outliers



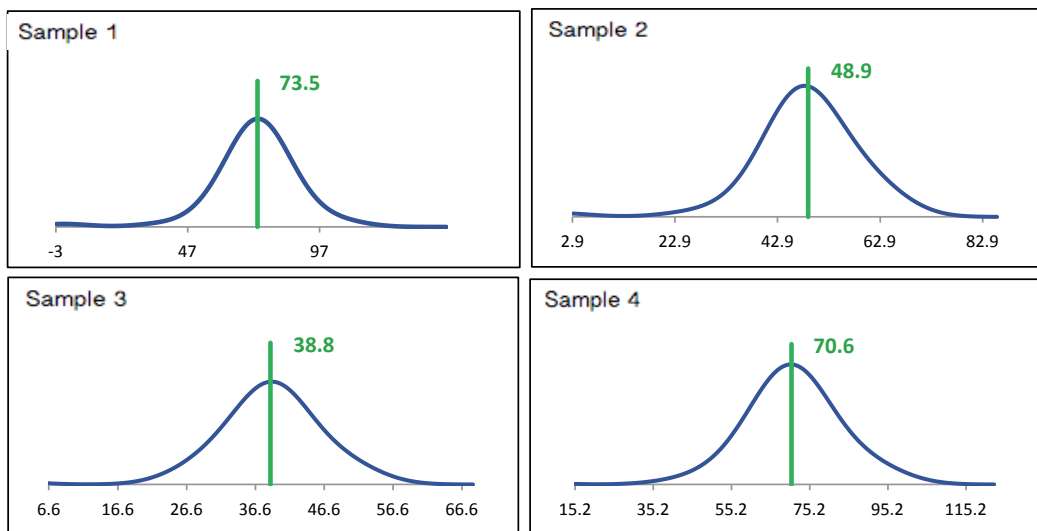
Annex A Summary by Analyte

1,2-DICHLOROETHANE

z-Score Plots



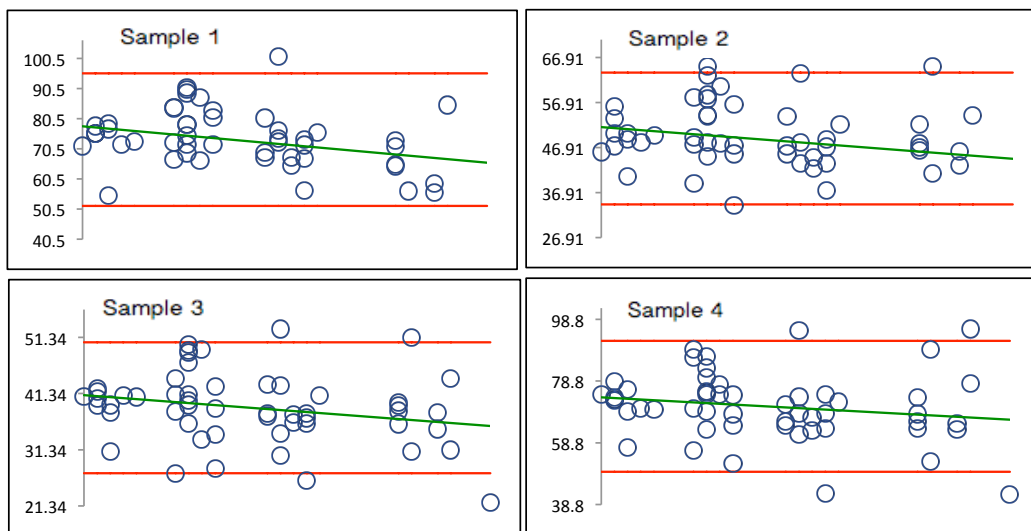
Kernel Density Plots



Annex A Summary by Analyte

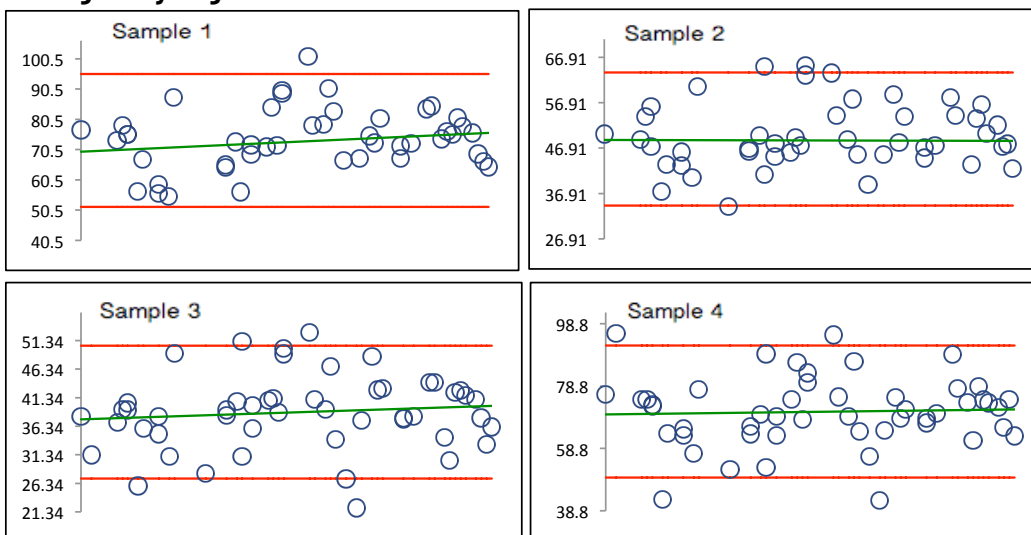
1,2-DICHLOROETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,2-DICHLOROPROPANE

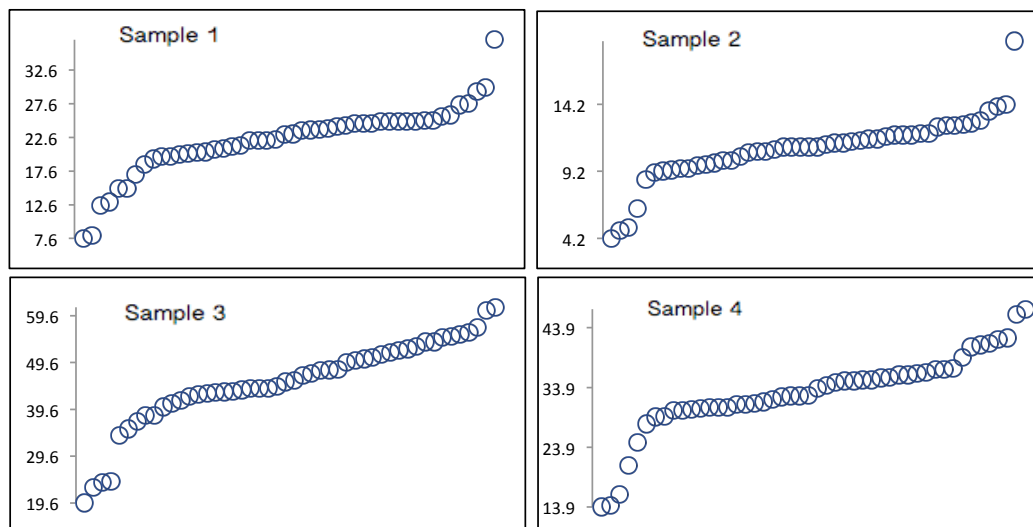
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	48	48	48	48
Median	23.1	11.0	45.6	33.2
Robust Mean	22.5	11.0	46.1	33.6
U	0.70	0.30	1.450	0.95
Robust Standard Deviation	3.86	1.68	8.04	5.28
Regression Standard Deviation	3.37	1.65	6.92	5.03
Stability Flag	Stability	Stability	Stability	Stability
Homogeneity Flag				
Standard Deviation Used	7.38	2.93	12.60	8.5
Outliers	0	0	0	0
z >3.0	0	0	0	0
2< z <3	1	4	1	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	28	28	28	28
HS-GCMS	17	17	17	17
GC/MS1	1	1	1	1
P/T-FID	2	2	2	2

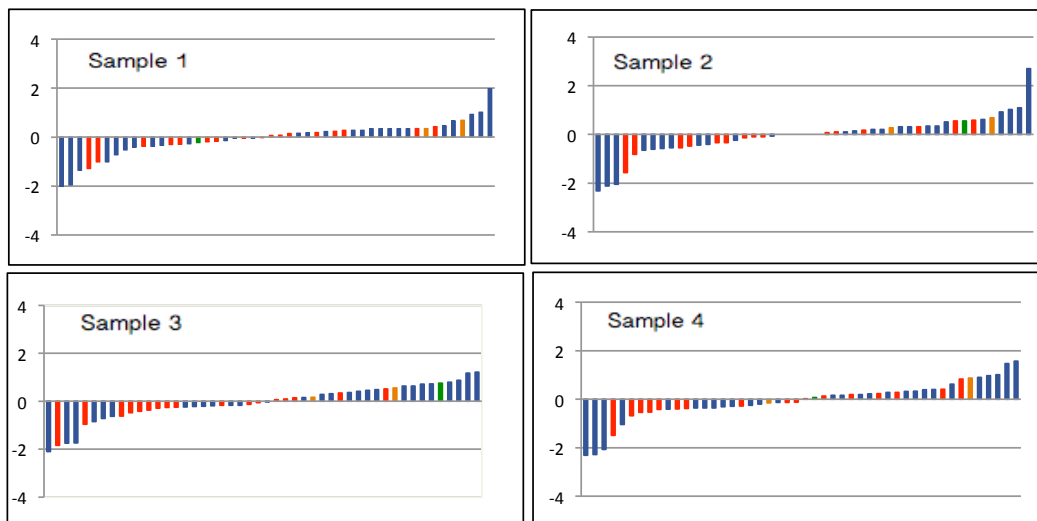
All summary stats and the plots below are based on the data excluding any flagged outliers



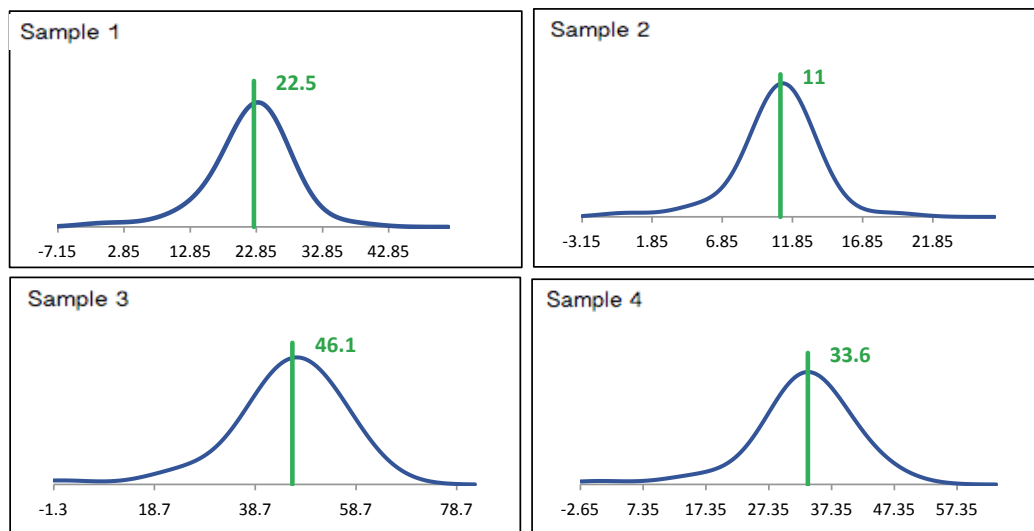
Annex A Summary by Analyte

1,2-DICHLOROPROPANE

z-Score Plots



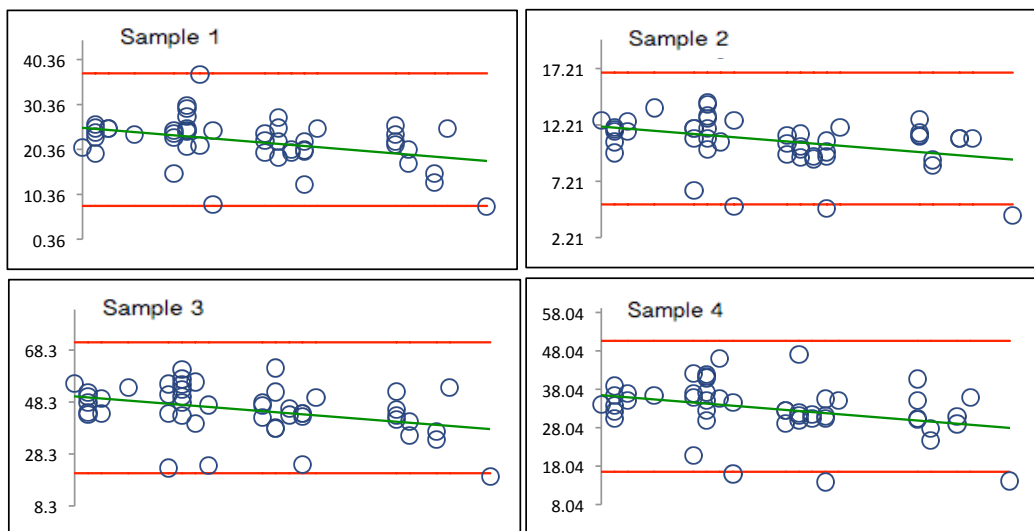
Kernel Density Plots



Annex A Summary by Analyte

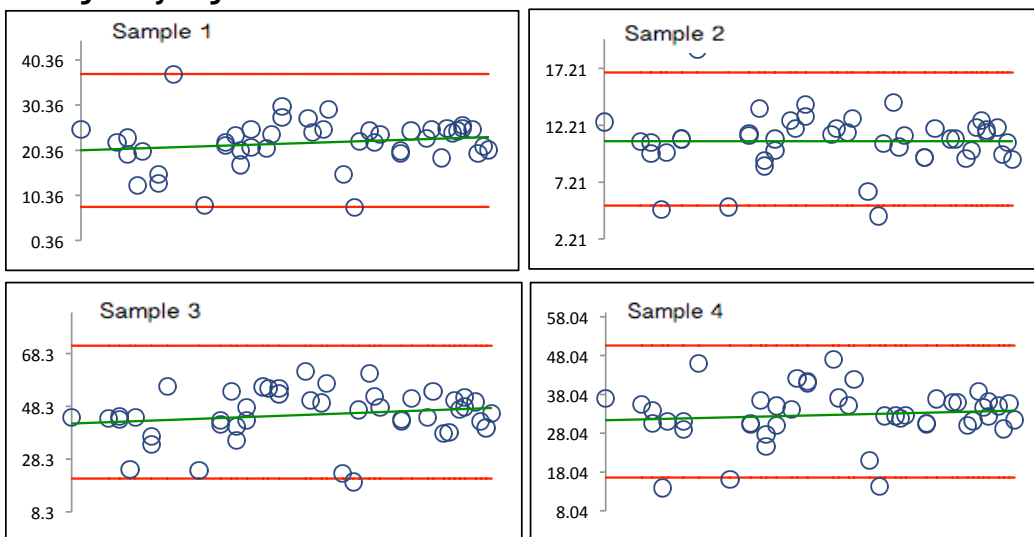
1,2-DICHLOROPROPANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,3-DICHLOROBENZENE

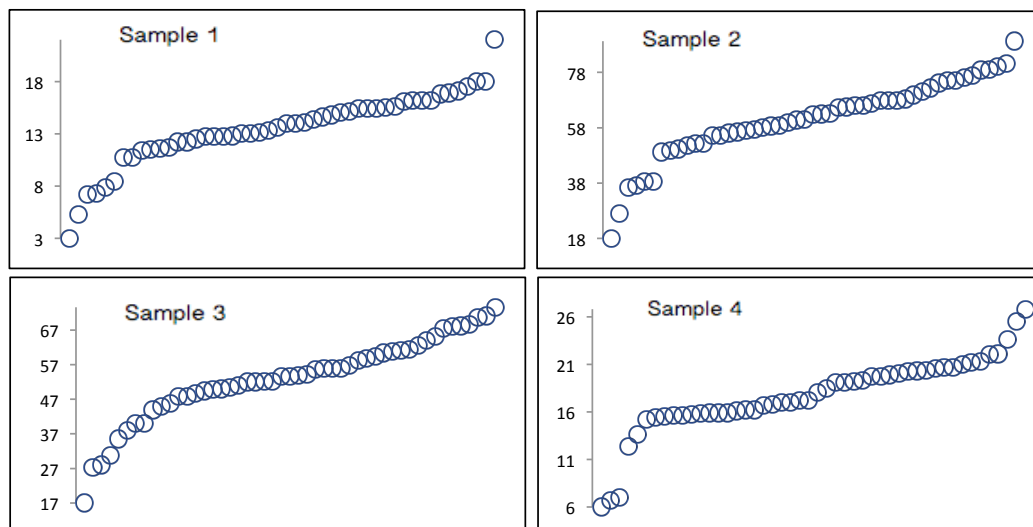
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	48	49	49	48
Median	13.8	62.8	53.6	17.6
Robust Mean	13.7	62.0	53.7	18.0
U	0.53	2.32	2.02	0.57
Robust Standard Deviation	2.92	13.0	11.3	3.18
Regression Standard Deviation	2.06	9.30	8.06	2.70
Stability Flag	Stability	Stability	Stability	Stability
Homogeneity Flag				
Standard Deviation Used	6.51	26.0	20.1	5.3
Outliers	1	0	0	1
$ z > 3.0$	0	0	0	0
$2 < z < 3$	0	0	0	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	26	27	27	26
HS-GCMS	17	17	17	17
P/T-FID	2	2	2	2
GC/MS1	2	2	2	2
GC/FID-1	1	1	1	1

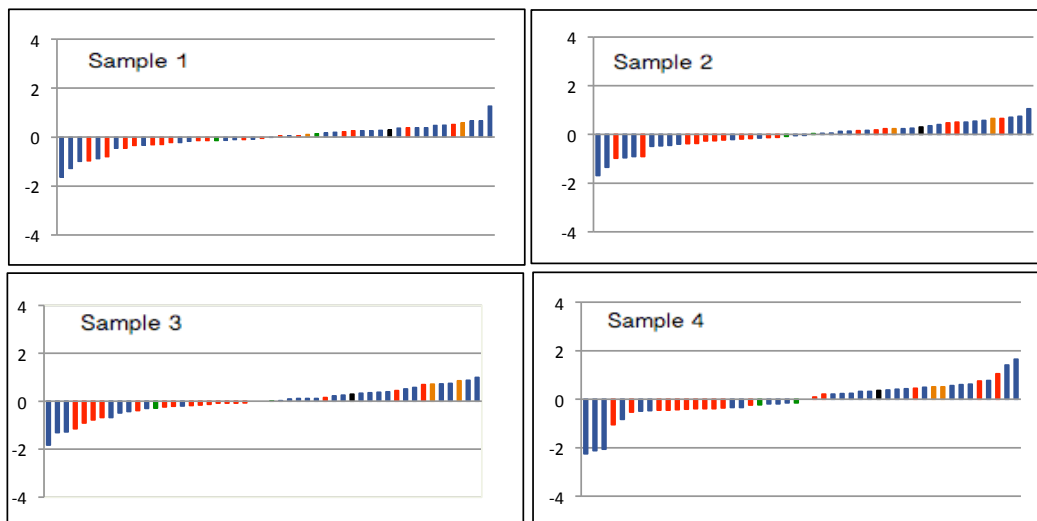
All summary stats and the plots below are based on the data excluding any flagged outliers



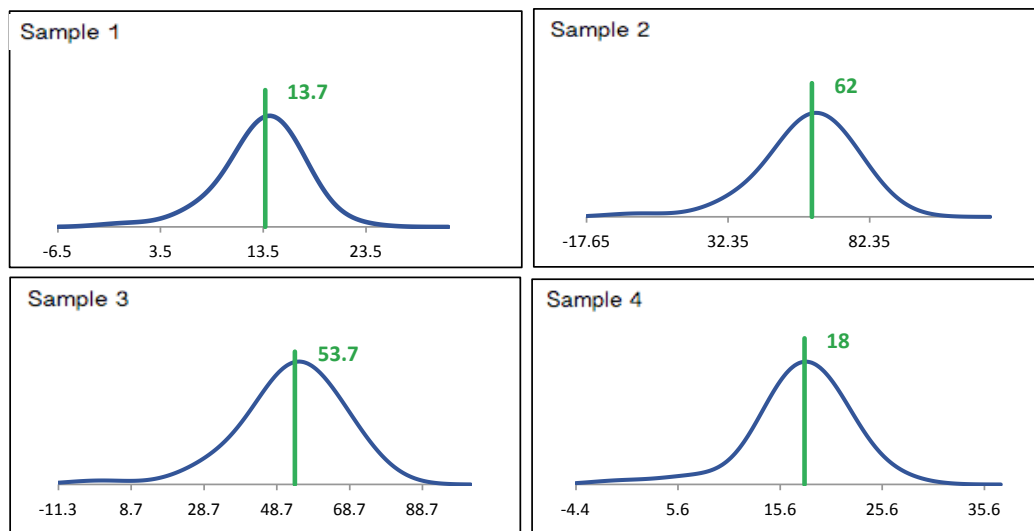
Annex A Summary by Analyte

1,3-DICHLOROBENZENE

z-Score Plots



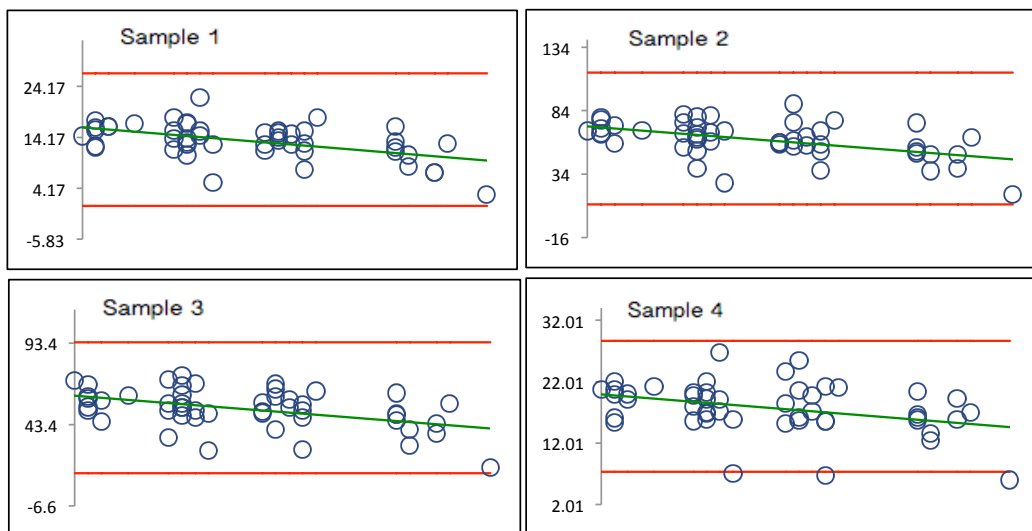
Kernel Density Plots



Annex A Summary by Analyte

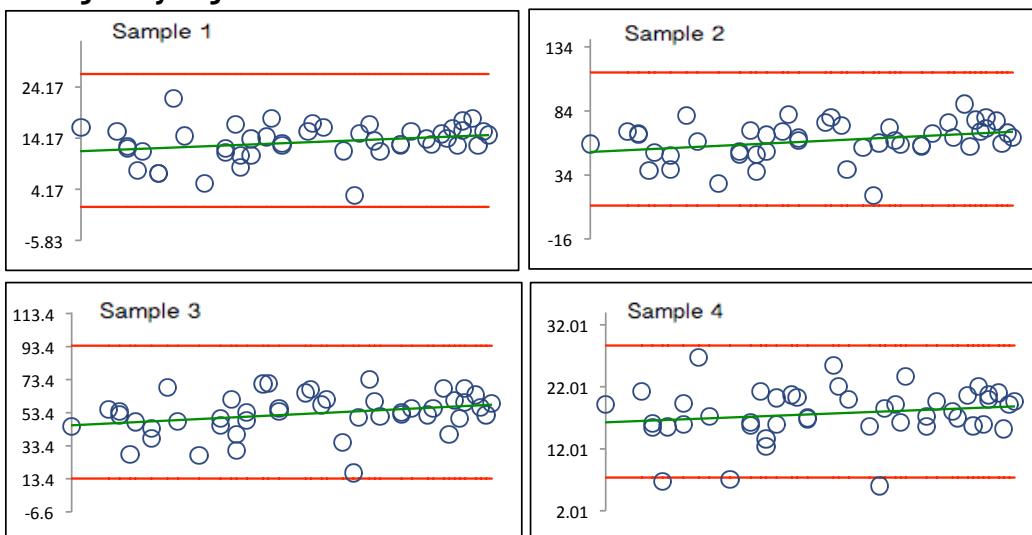
1,3-DICHLOROBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

1,4-DICHLOROBENZENE

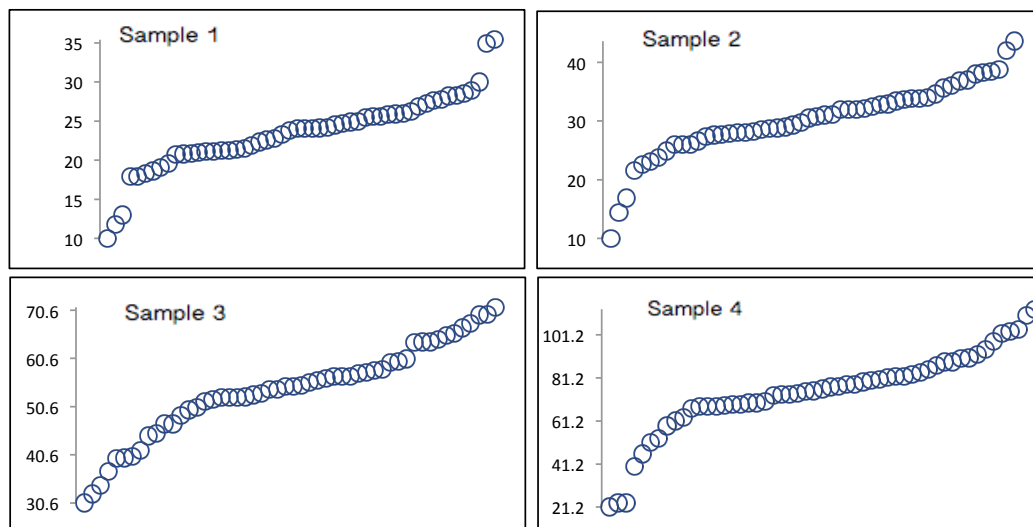
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	52	52	52	53
Median	24.0	30.7	54.7	76.0
Robust Mean	23.5	30.5	54.3	76.0
U	0.69	0.97	1.71	2.76
Robust Standard Deviation	3.99	5.59	9.87	16.1
Regression Standard Deviation	3.53	4.57	8.15	11.4
Stability Flag	Stability	Stability	Stability	
Homogeneity Flag				
Standard Deviation Used	6.15	10.5	10.4	16.1
Outliers	1	1	1	0
$ z > 3.0$	0	0	0	3
$2 < z < 3$	1	0	2	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	29	29	29	30
HS-GCMS	19	19	19	19
P/T-FID	2	2	2	2
GC/MS1	1	1	1	1
GC/MS/MSHEAD	1	1	1	1

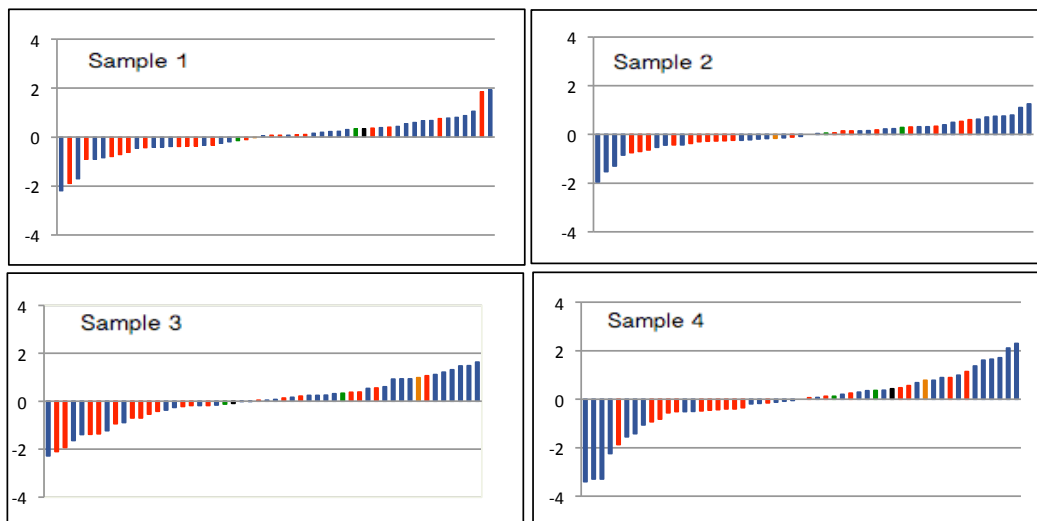
All summary stats and the plots below are based on the data excluding any flagged outliers



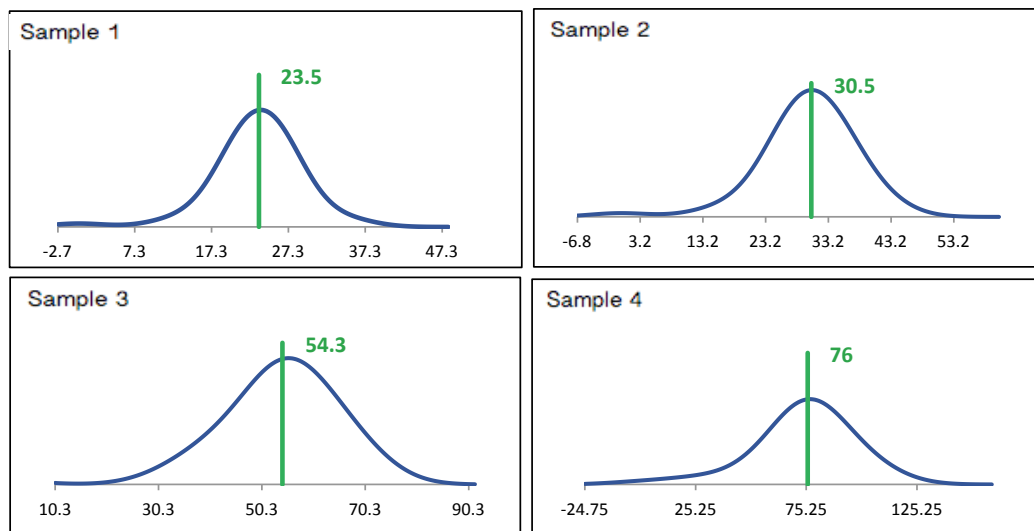
Annex A Summary by Analyte

1,4-DICHLOROBENZENE

z-Score Plots



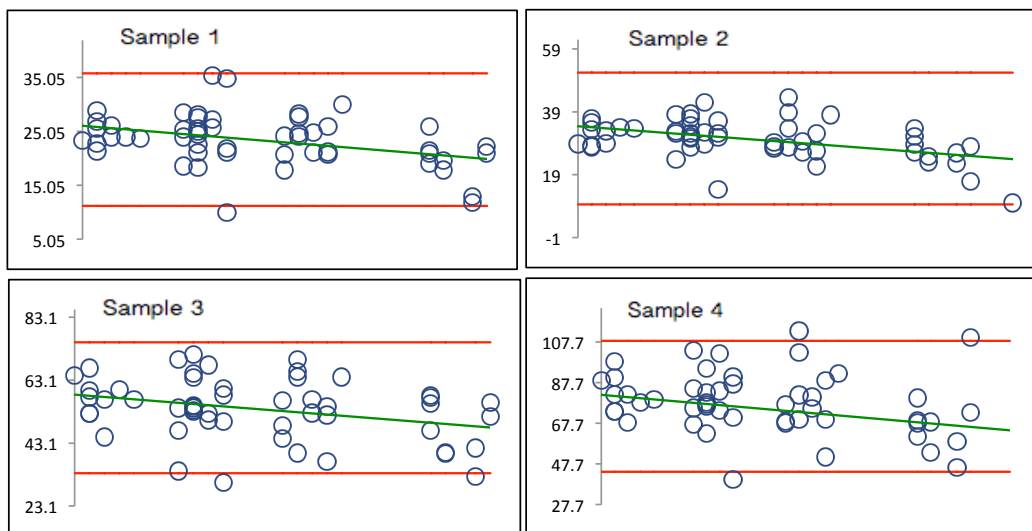
Kernel Density Plots



Annex A Summary by Analyte

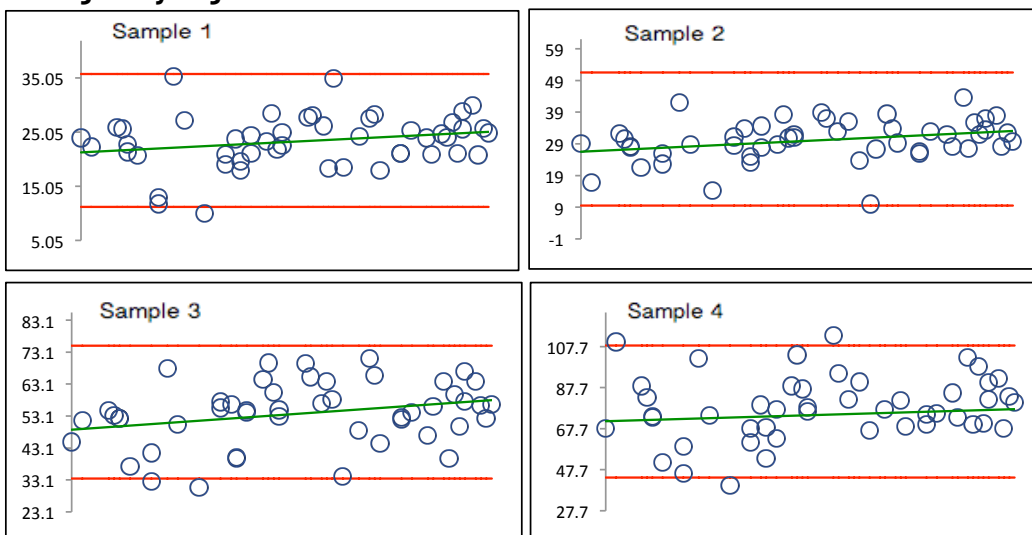
1,4-DICHLOROBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

ACETONE (2-PROPANONE)

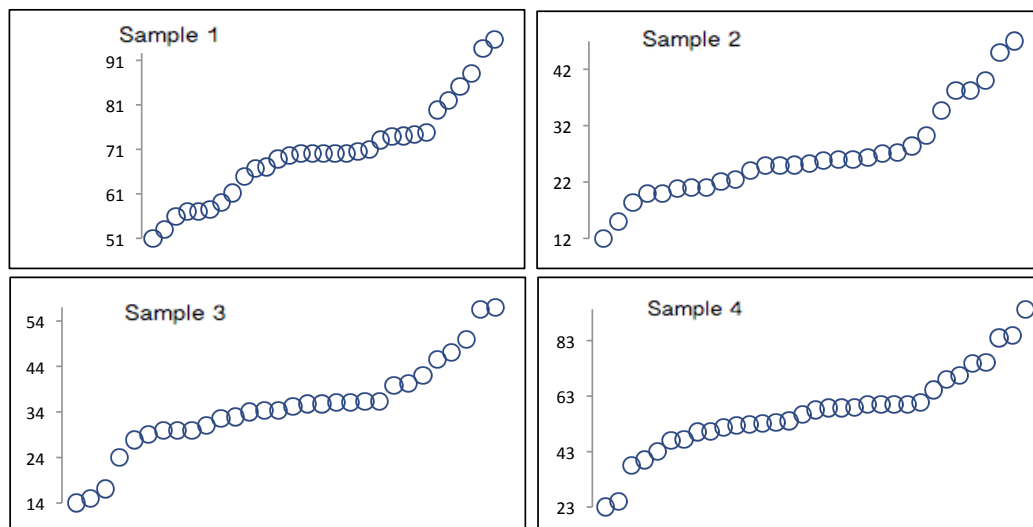
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	31	29	30	33
Median	70.0	25.3	34.9	58.0
Robust Mean	69.6	26.2	34.8	57.1
U	2.47	1.77	1.97	2.85
Robust Standard Deviation	11.0	7.63	8.63	13.1
Regression Standard Deviation	18.3	8.15	10.2	15.4
Stability Flag			Stability	
Homogeneity Flag				
Standard Deviation Used	18.3	8.2	17.2	15.4
Outliers	2	0	0	0
$ z > 3.0$	0	0	0	0
$2 < z < 3$	0	2	0	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	20	20	21	22
HS-GCMS	10	8	8	10
P/T-FID	1	1	1	1

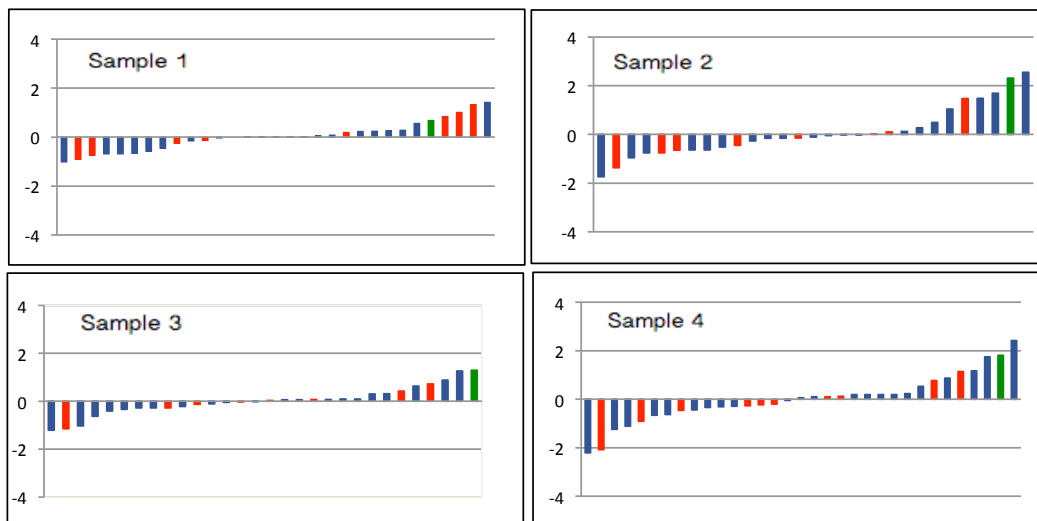
All summary stats and the plots below are based on the data excluding any flagged outliers



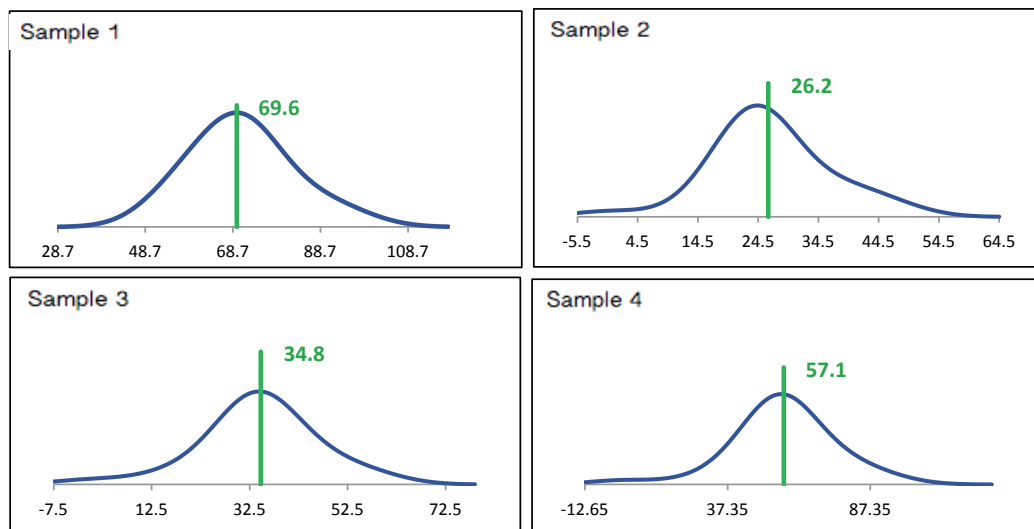
Annex A Summary by Analyte

ACETONE (2-PROPANONE)

z-Score Plots



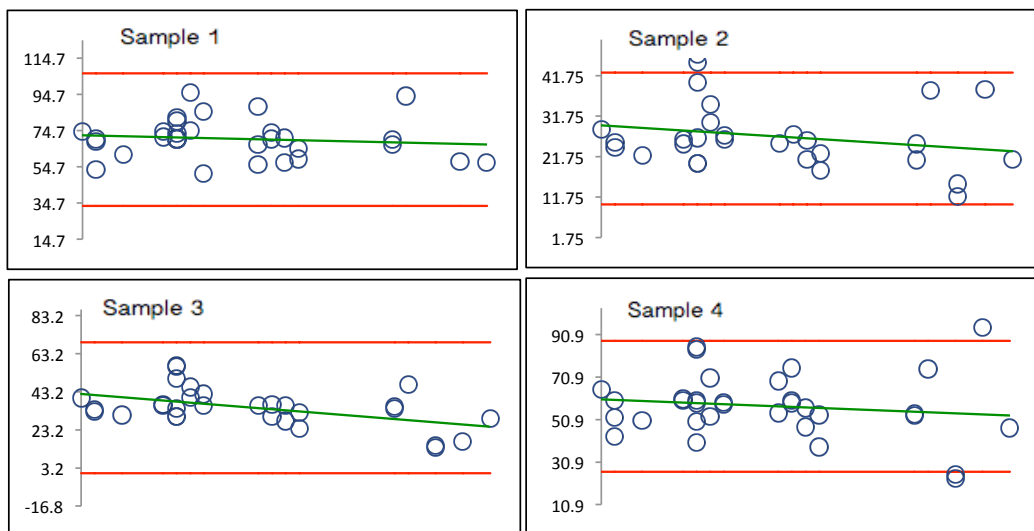
Kernel Density Plots



Annex A Summary by Analyte

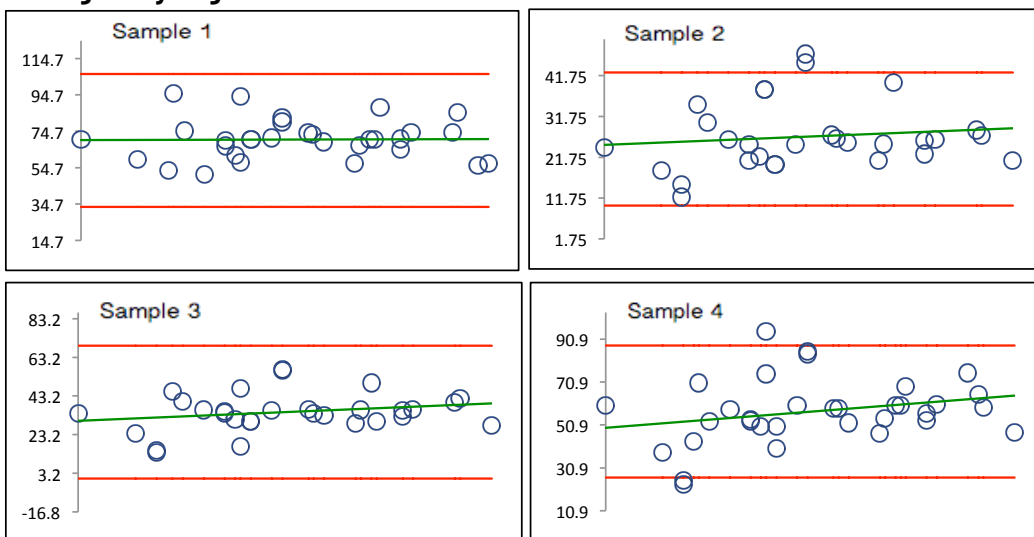
ACETONE (2-PROPANONE)

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

BENZENE

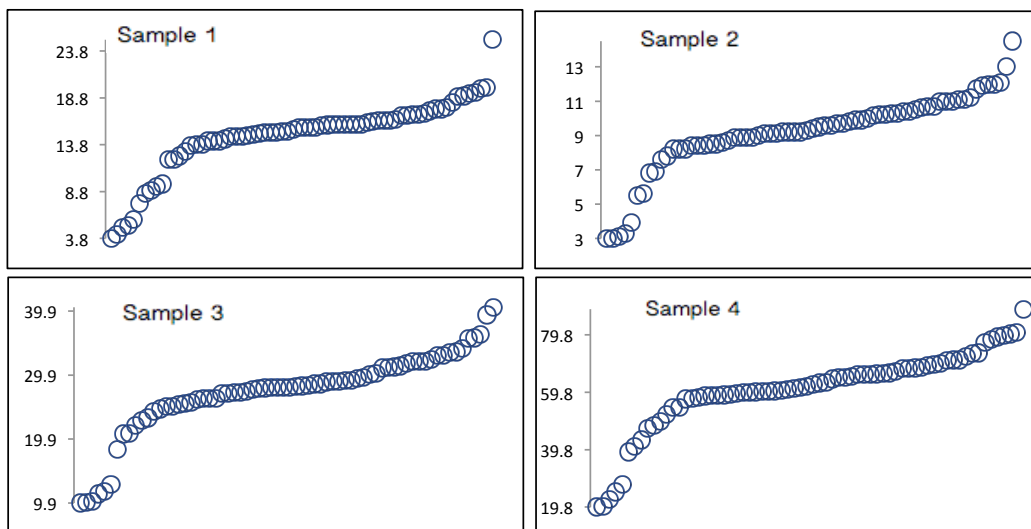
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	68	68	68	68
Median	15.6	9.35	28.0	62.3
Robust Mean	15.3	9.43	27.9	62.4
U	0.40	0.26	0.71	1.58
Robust Standard Deviation	2.64	1.68	4.70	10.4
Regression Standard Deviation	2.29	1.41	4.19	9.4
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	2.64	1.68	4.70	10.4
Outliers	0	0	0	0
$ z > 3.0$	6	6	6	5
$2 < z < 3$	5	3	3	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	34	34	34	34
HS-GCMS	24	24	24	24
GC/MS1	5	5	5	5
P/T-FID	3	3	3	3
GC/MS/MSHEAD	1	1	1	1
HS-GCF	1	1	1	1

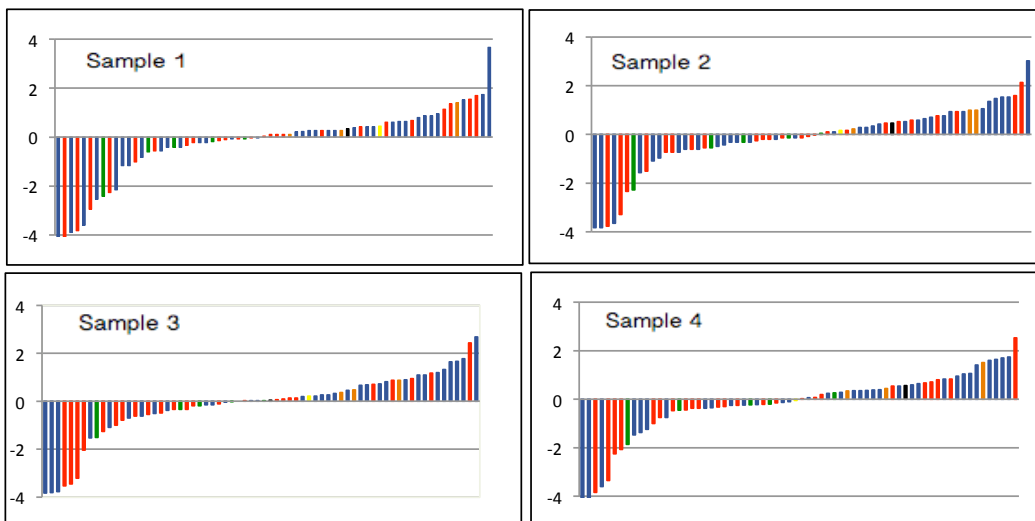
All summary stats and the plots below are based on the data excluding any flagged outliers



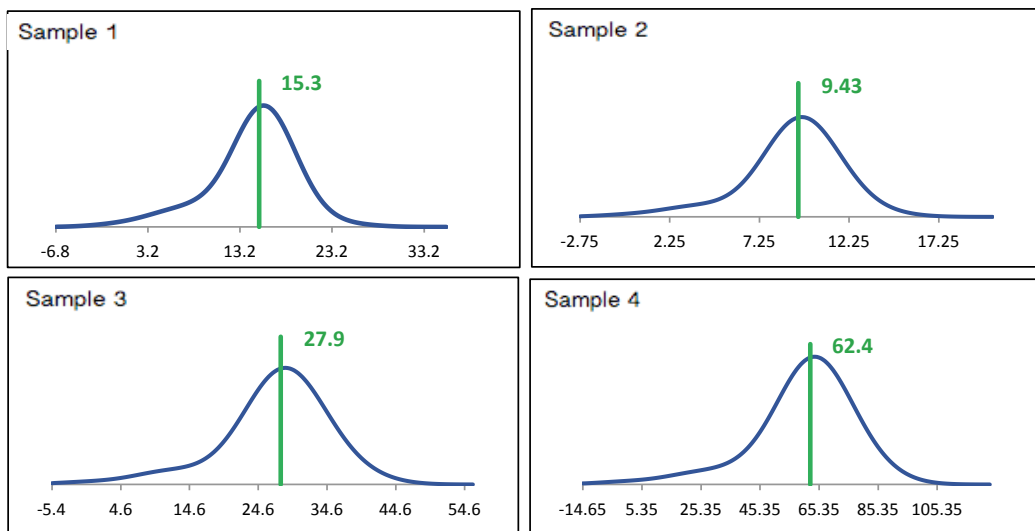
Annex A Summary by Analyte

BENZENE

z-Score Plots



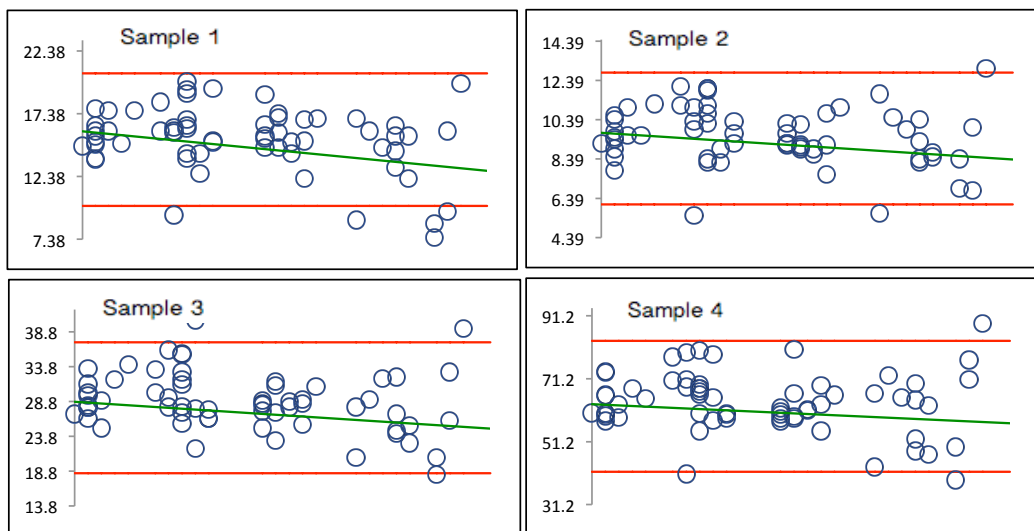
Kernel Density Plots



Annex A Summary by Analyte

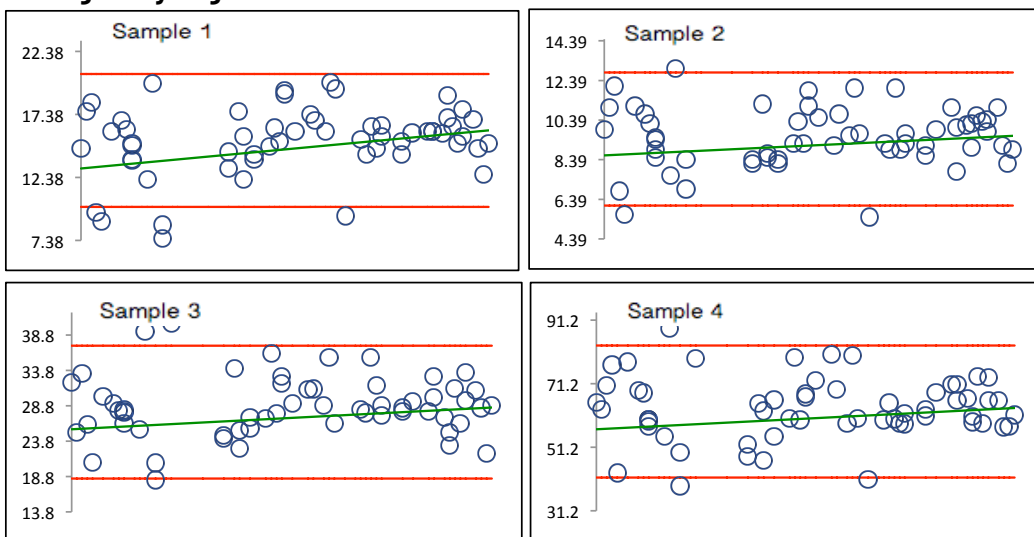
BENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

BROMODICHLOROMETHANE

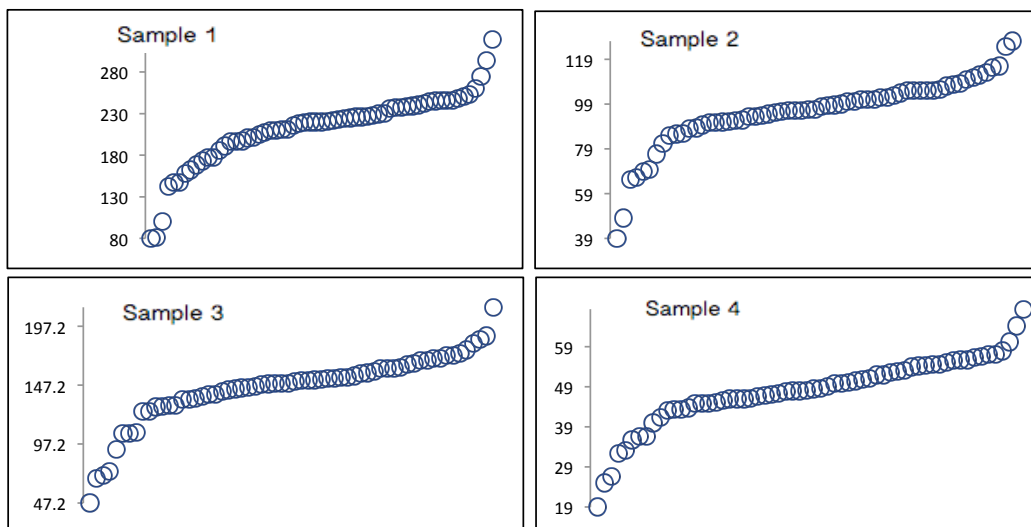
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	61	61	62	62
Median	220	96.7	150	48.3
Robust Mean	215	97.1	148	48.6
U	5.46	1.84	3.41	1.13
Robust Standard Deviation	34.1	11.5	21.5	7.10
Regression Standard Deviation	32.3	14.6	22.2	7.30
Stability Flag	Stability		Stability	Stability
Homogeneity Flag				
Standard Deviation Used	62.9	14.6	36.8	8.94
Outliers	1	1	0	0
$ z > 3.0$	0	2	0	1
$2 < z < 3$	2	3	4	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	31	31	32	32
HS-GCMS	21	21	21	21
GC/MS1	4	4	4	4
GC/MS/MSHEAD	1	1	1	1
P/T-GCECD	2	2	2	2
P/T-FID	2	2	2	2

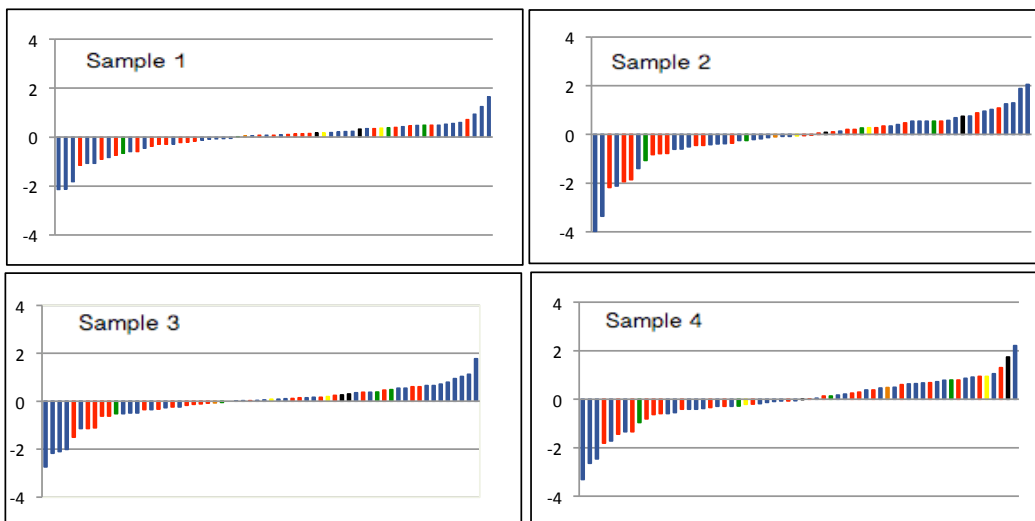
All summary stats and the plots below are based on the data excluding any flagged outliers



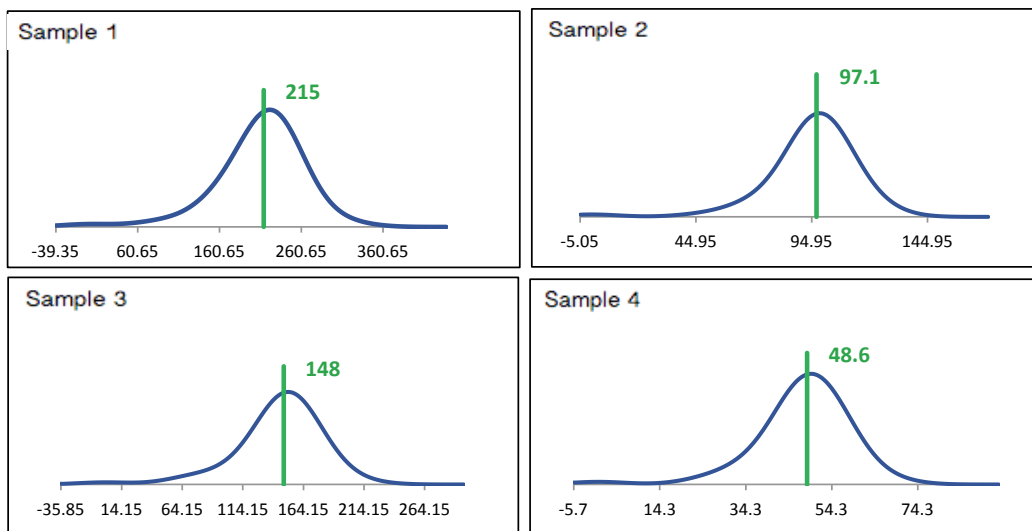
Annex A Summary by Analyte

BROMODICHLOROMETHANE

z-Score Plots



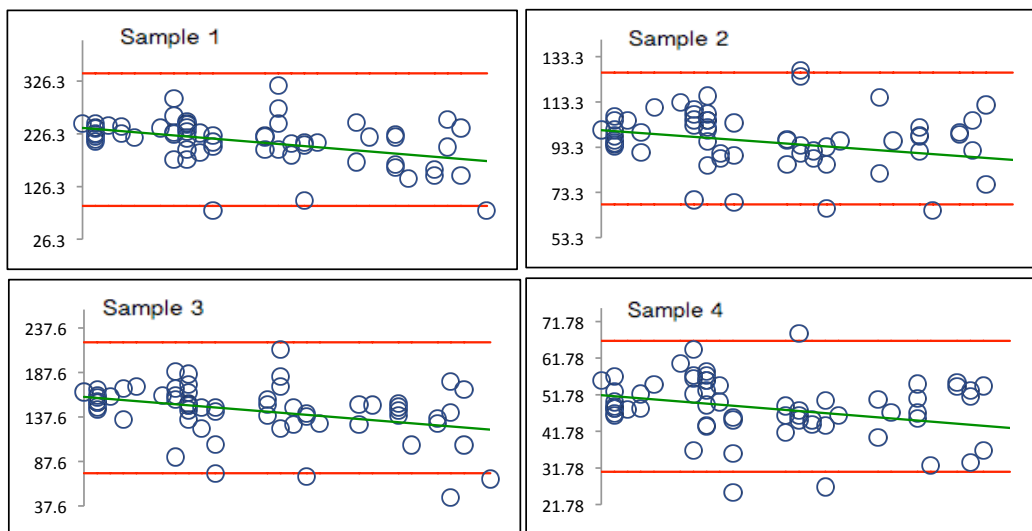
Kernel Density Plots



Annex A Summary by Analyte

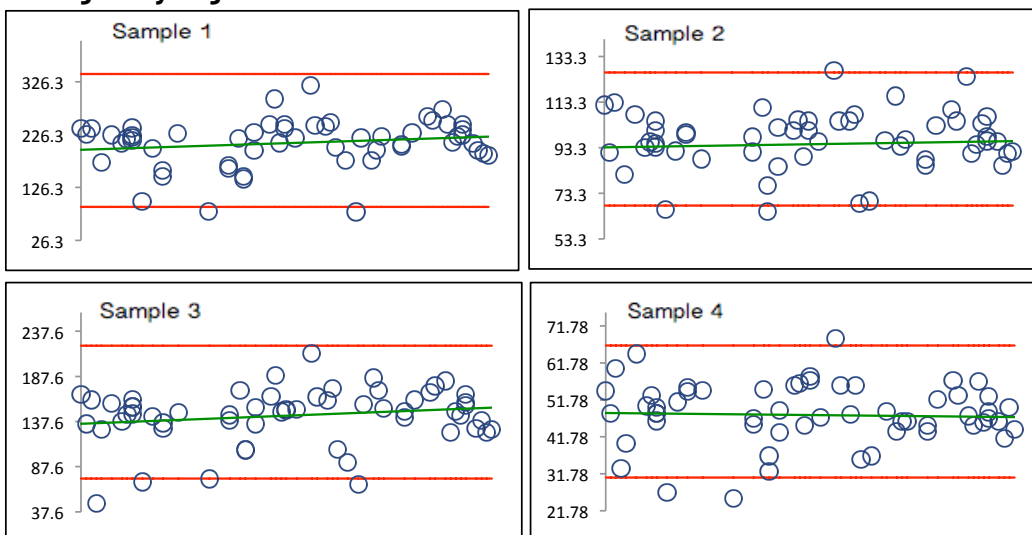
BROMODICHLOROMETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

BROMOFORM

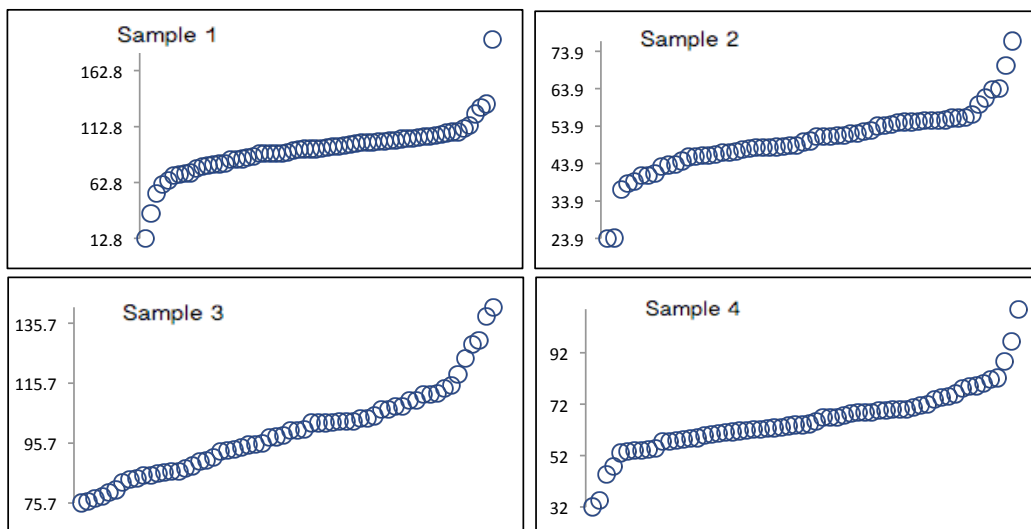
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	62	61	60	62
Median	93.0	49.9	99.0	64.2
Robust Mean	92.0	50.1	98.2	65.5
U	2.46	1.08	2.29	1.57
Robust Standard Deviation	15.5	6.7	14.2	9.92
Regression Standard Deviation	13.8	7.5	14.7	9.82
Stability Flag				
Homogeneity Flag	Homogeneity			
Standard Deviation Used	19.4	7.51	14.7	9.92
Outliers	0	1	2	0
$ z > 3.0$	2	3	0	4
$2 < z < 3$	3	1	4	2

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	32	31	30	32
HS-GCMS	21	21	21	21
GC/MS1	4	4	4	4
P/T-GCECD	2	2	2	2
GC/MS/MSHEAD	1	1	1	1
P/T-FID	2	2	2	2

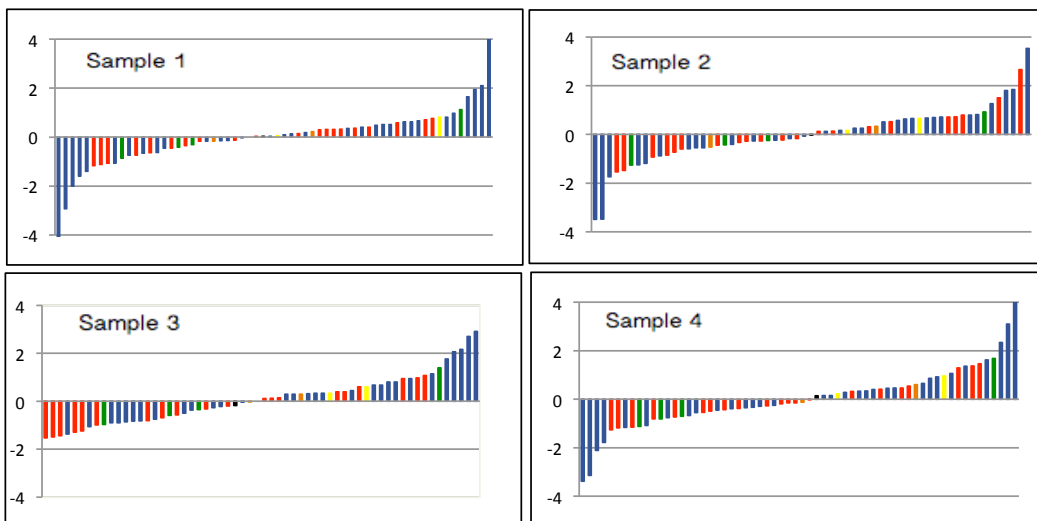
All summary stats and the plots below are based on the data excluding any flagged outliers



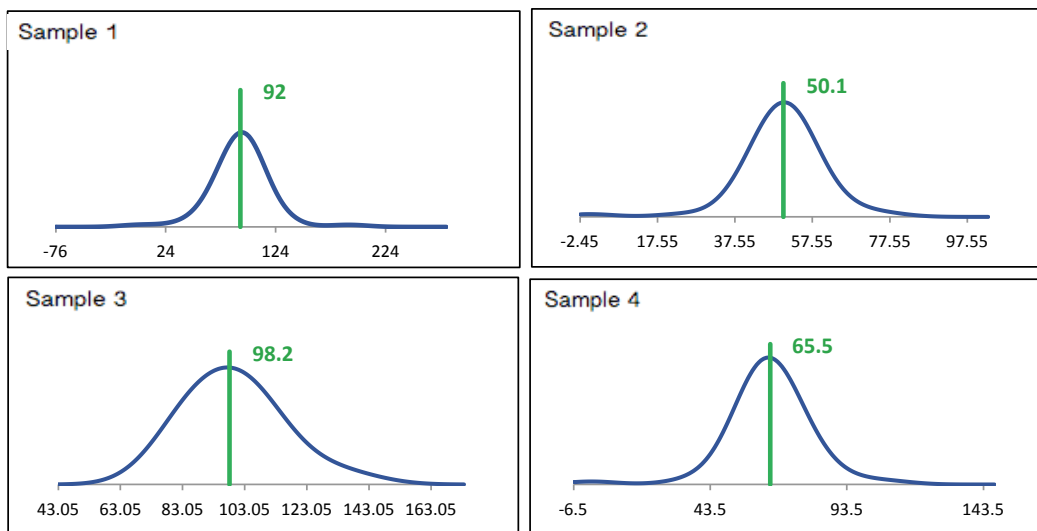
Annex A Summary by Analyte

BROMOFORM

z-Score Plots



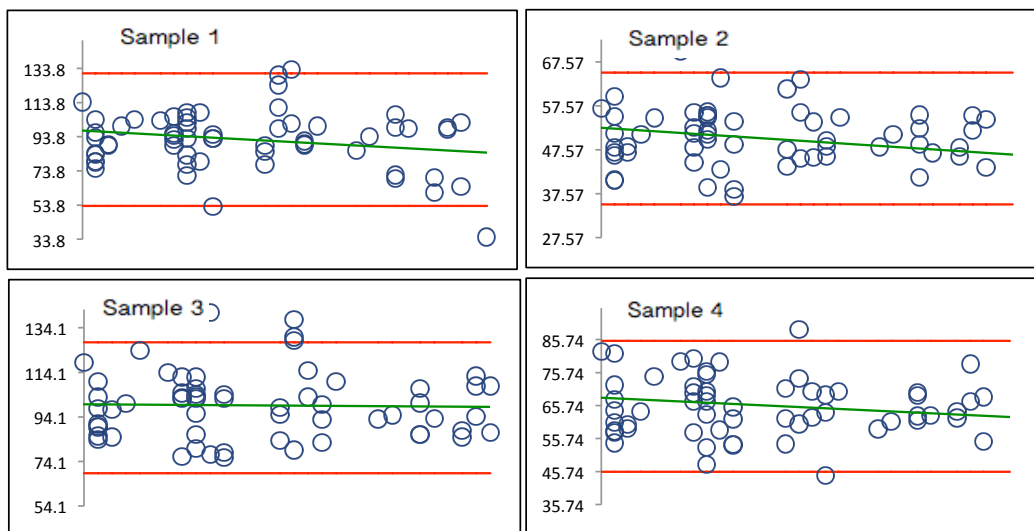
Kernel Density Plots



Annex A Summary by Analyte

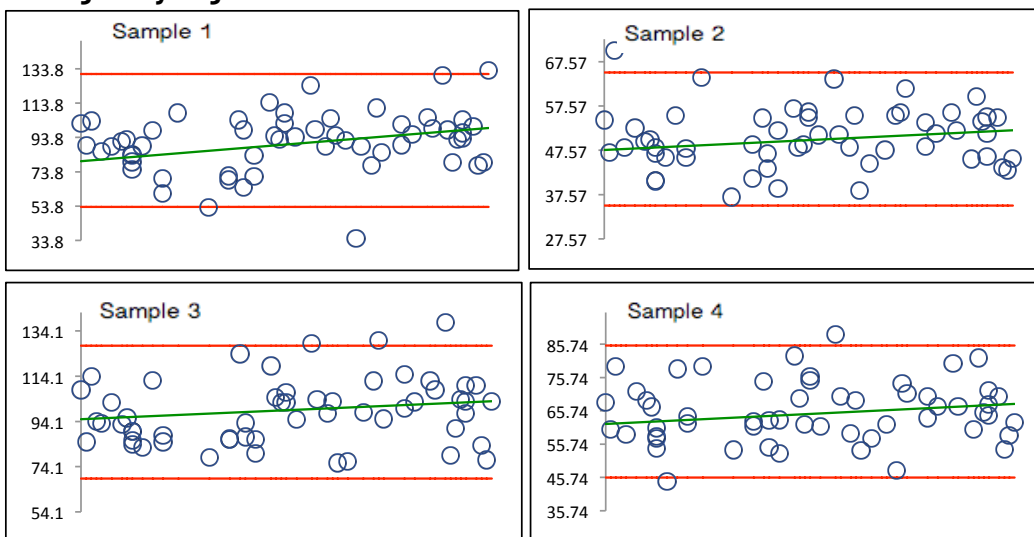
BROMOFORM

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

CARBON TETRACHLORIDE

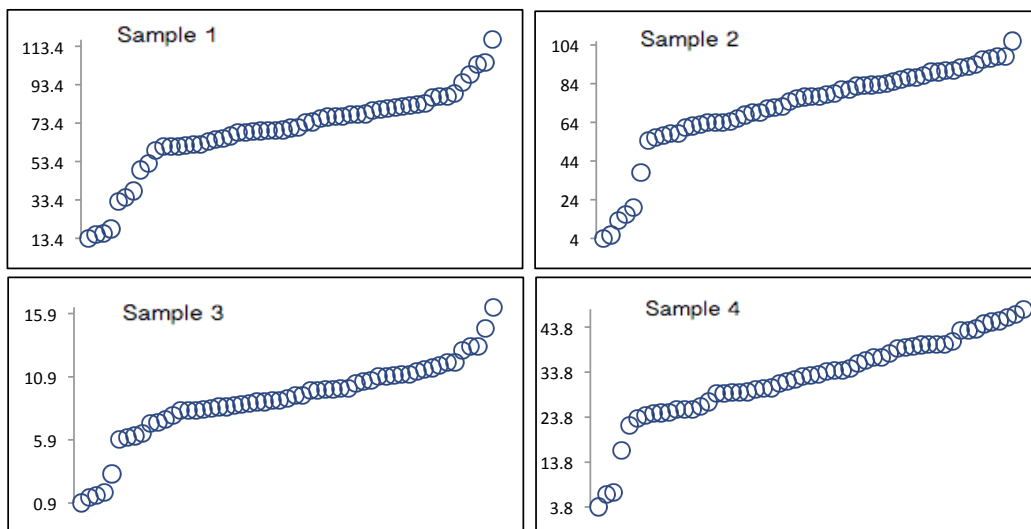
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	55	56	55	55
Median	70.8	77.2	9.20	33.1
Robust Mean	71.2	74.8	9.30	33.2
U	2.73	2.87	0.42	1.48
Robust Standard Deviation	16.2	17.2	2.46	8.76
Regression Standard Deviation	10.7	11.2	1.40	4.98
Stability Flag	Stability	Stability		Stability
Homogeneity Flag				
Standard Deviation Used	30.7	30.4	2.46	12.8
Outliers	1	0	0	1
$ z > 3.0$	0	0	4	0
$2 < z < 3$	0	3	3	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	30	31	30	30
HS-GCMS	20	20	20	20
GC/MS1	1	1	1	1
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1
P/T-GCECD	1	1	1	1

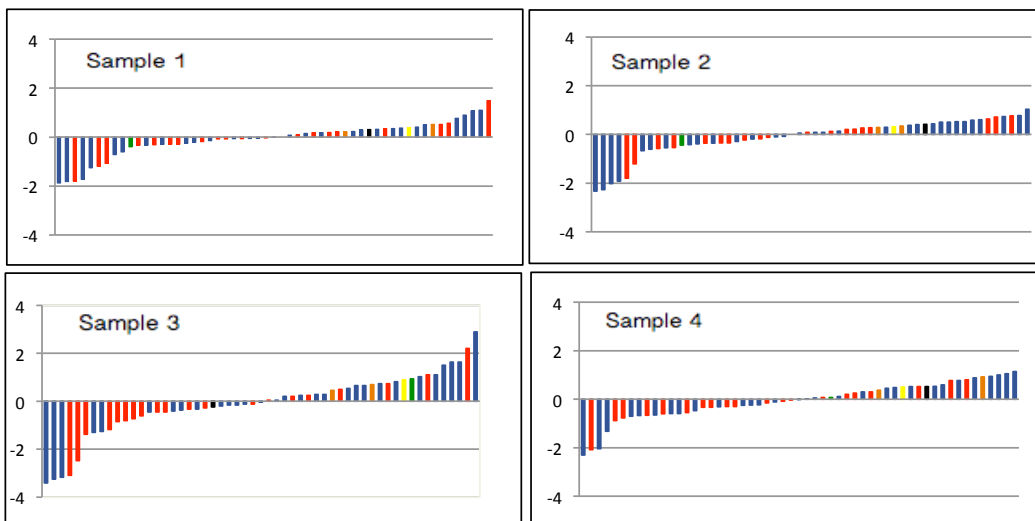
All summary stats and the plots below are based on the data excluding any flagged outliers



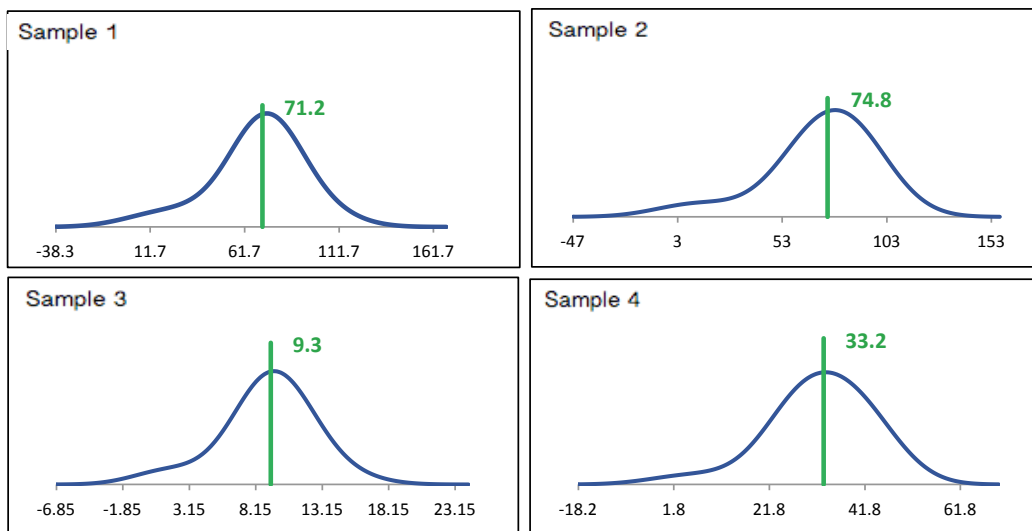
Annex A Summary by Analyte

CARBON TETRACHLORIDE

z-Score Plots



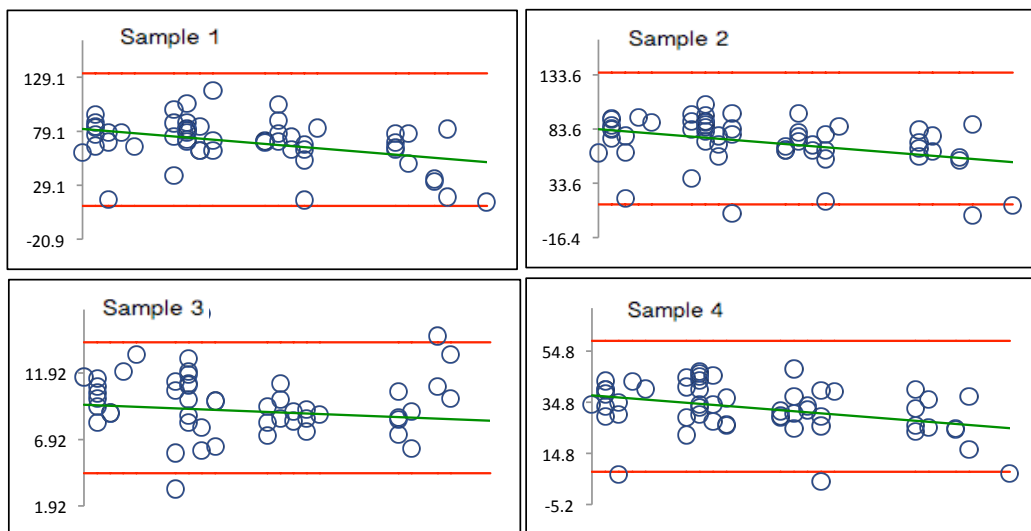
Kernel Density Plots



Annex A Summary by Analyte

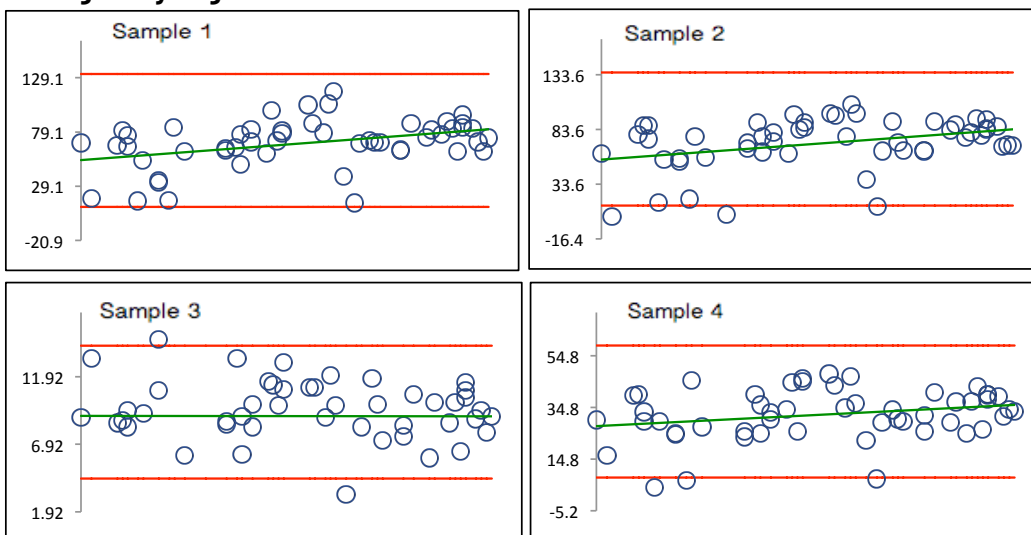
CARBON TETRACHLORIDE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

CHLOROBENZENE

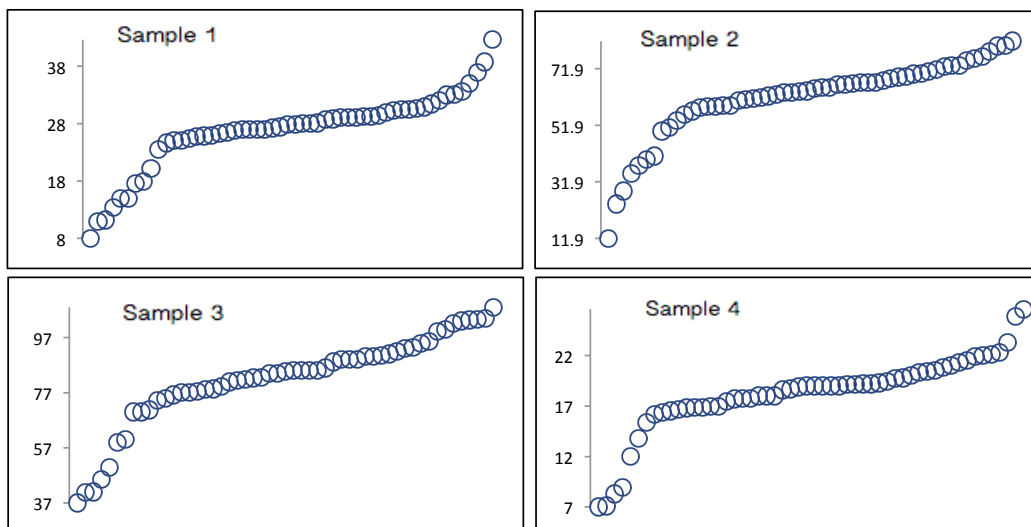
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	54	54	53	54
Median	27.9	64.4	84.6	19.0
Robust Mean	27.5	63.6	83.8	18.6
U	0.80	1.75	2.35	0.44
Robust Standard Deviation	4.70	10.3	13.7	2.57
Regression Standard Deviation	4.12	9.5	12.6	2.80
Stability Flag	Stability	Stability		
Homogeneity Flag			Homogeneity	
Standard Deviation Used	8.49	20.7	16.3	2.80
Outliers	0	0	1	0
$ z > 3.0$	0	0	0	4
$2 < z < 3$	1	1	5	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	30	30	29	30
HS-GCMS	20	20	20	20
GC/MS1	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	2	2	2	2

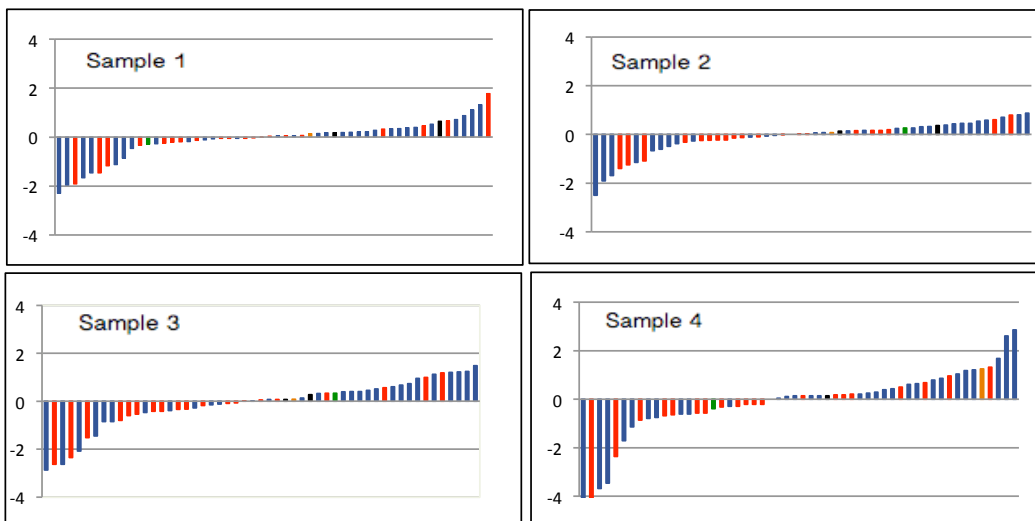
All summary stats and the plots below are based on the data excluding any flagged outliers



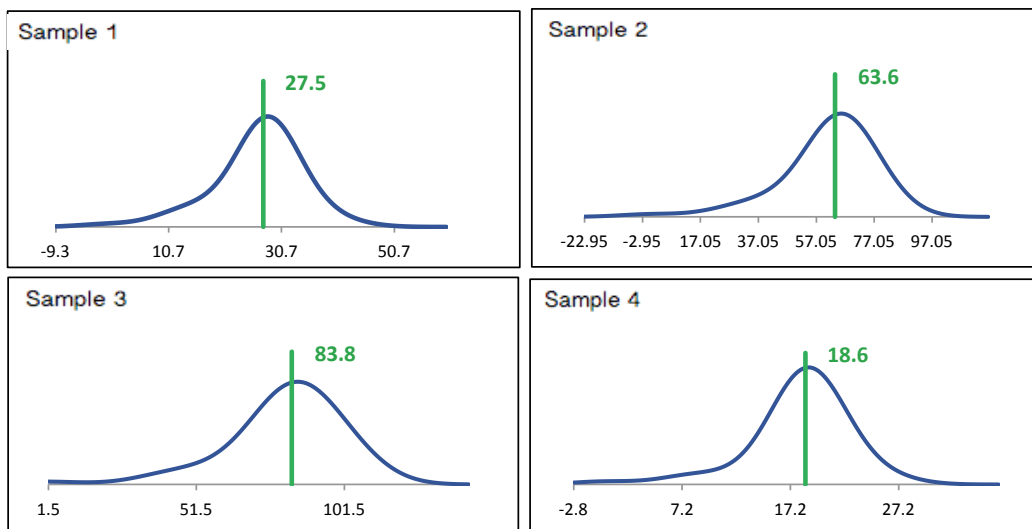
Annex A Summary by Analyte

CHLOROBENZENE

z-Score Plots



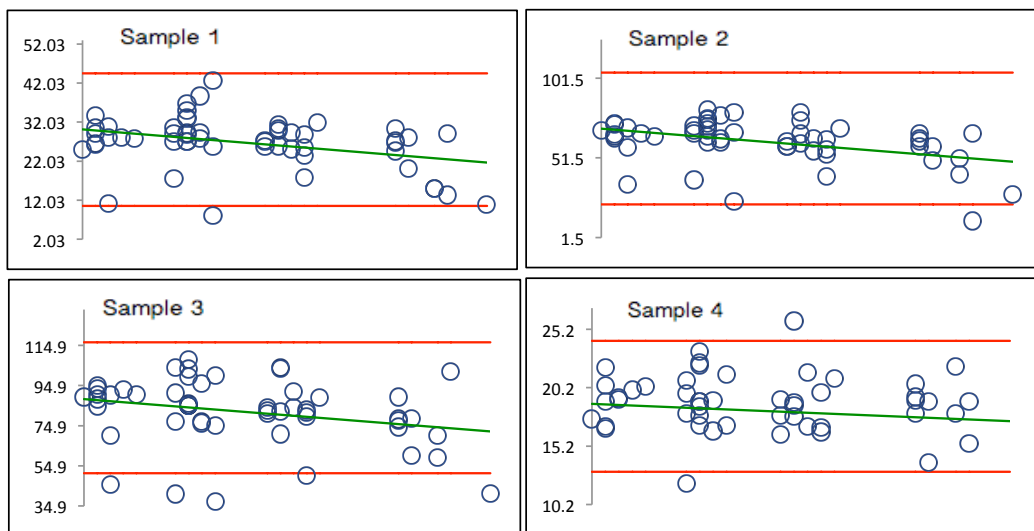
Kernel Density Plots



Annex A Summary by Analyte

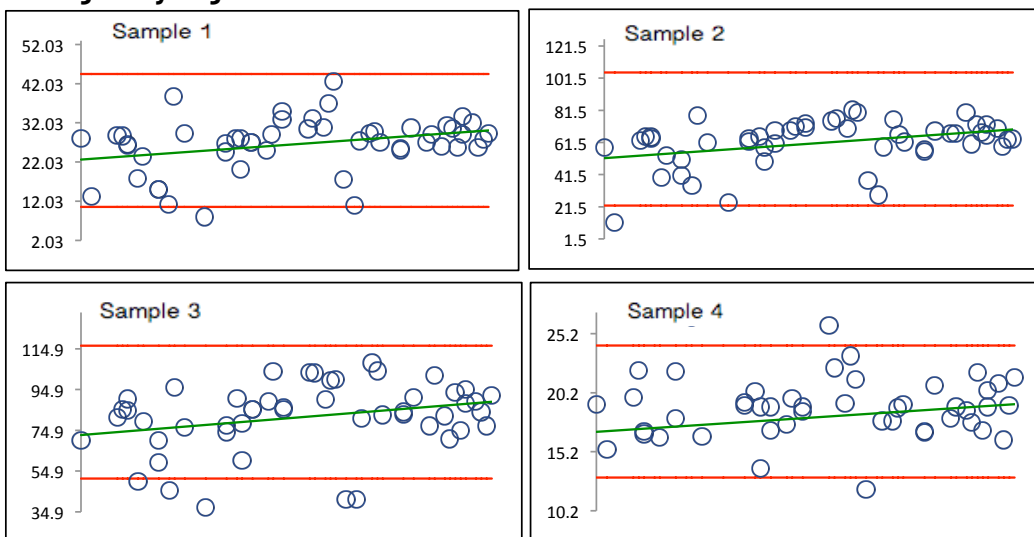
CHLOROBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

CHLORODIBROMOMETHANE

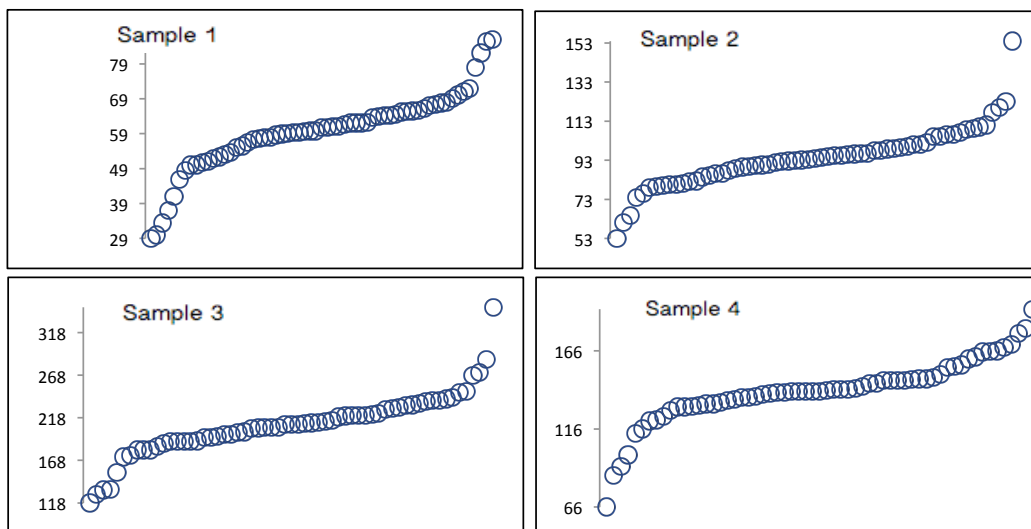
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	61	61	61	61
Median	60.8	94.0	210	140
Robust Mean	60.0	93.8	210	142
U	1.36	1.95	4.47	2.62
Robust Standard Deviation	8.47	12.2	27.9	16.4
Regression Standard Deviation	9.00	14.1	31.5	21.2
Stability Flag	Stability			
Homogeneity Flag				
Standard Deviation Used	10.7	14.1	31.5	21.2
Outliers	0	0	0	0
$ z > 3.0$	0	1	1	1
$2 < z < 3$	7	4	5	4

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	31	31	31	31
HS-GCMS	21	21	21	21
GC/MS1	4	4	4	4
P/T-FID	2	2	2	2
P/T-GCECD	2	2	2	2
GC/MS/MSHEAD	1	1	1	1

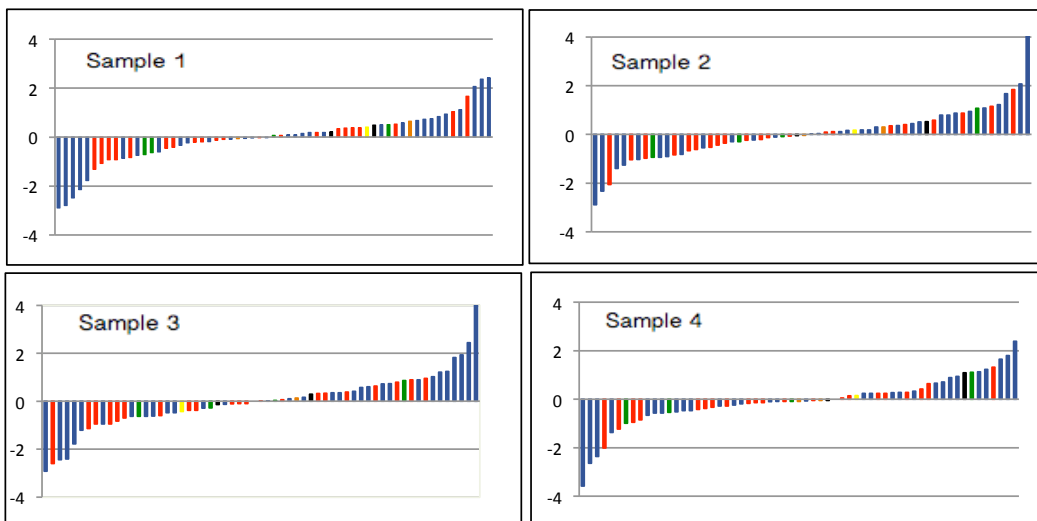
All summary stats and the plots below are based on the data excluding any flagged outliers



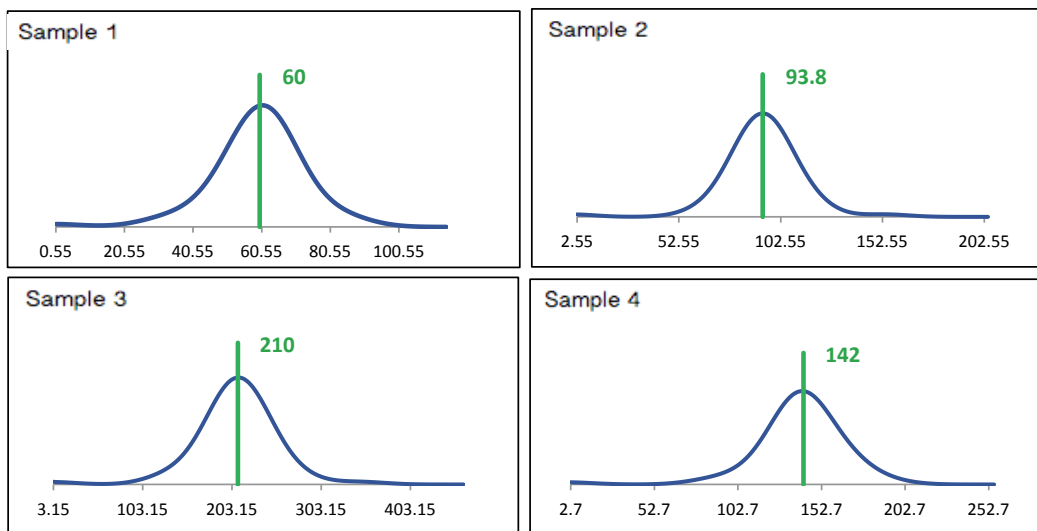
Annex A Summary by Analyte

CHLORODIBROMOMETHANE

z-Score Plots



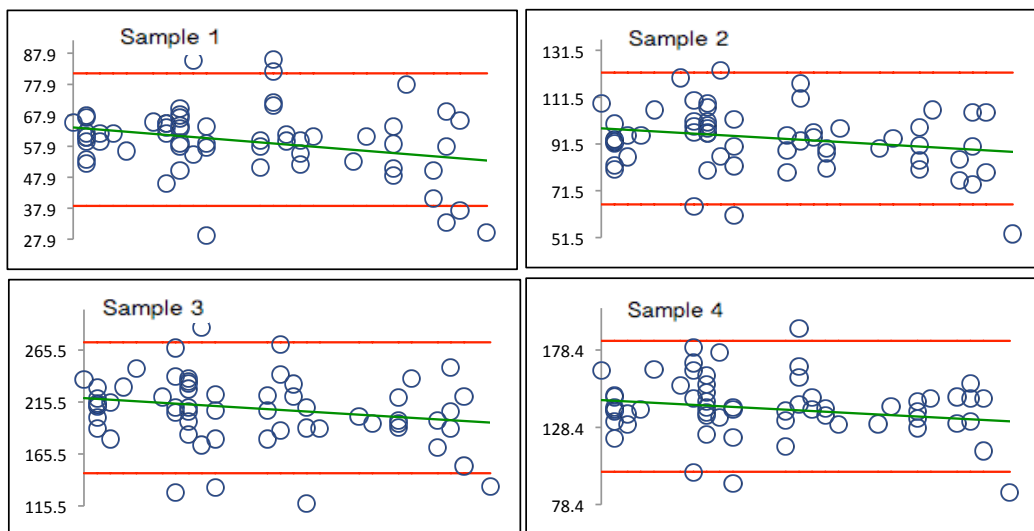
Kernel Density Plots



Annex A Summary by Analyte

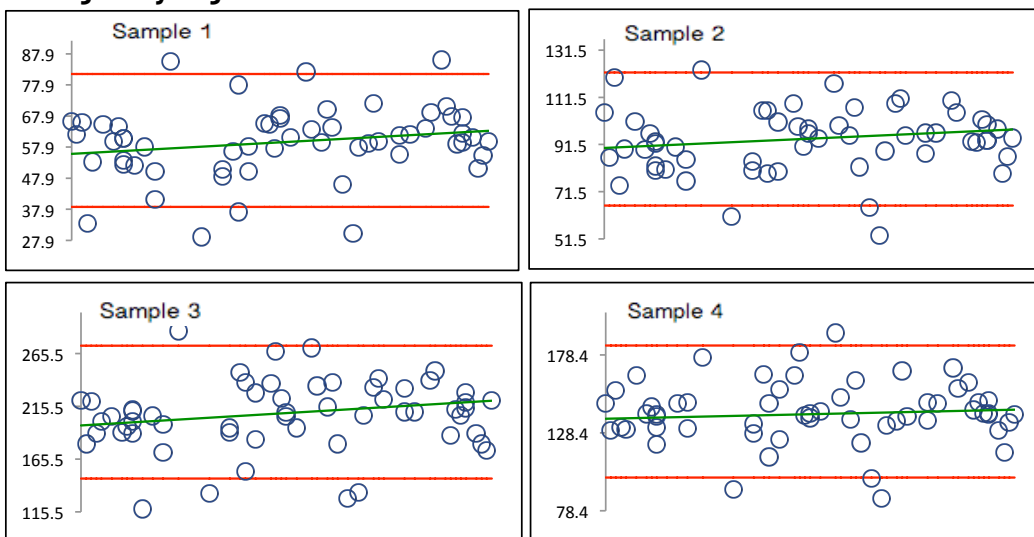
CHLORODIBROMOMETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

CHLOROFORM

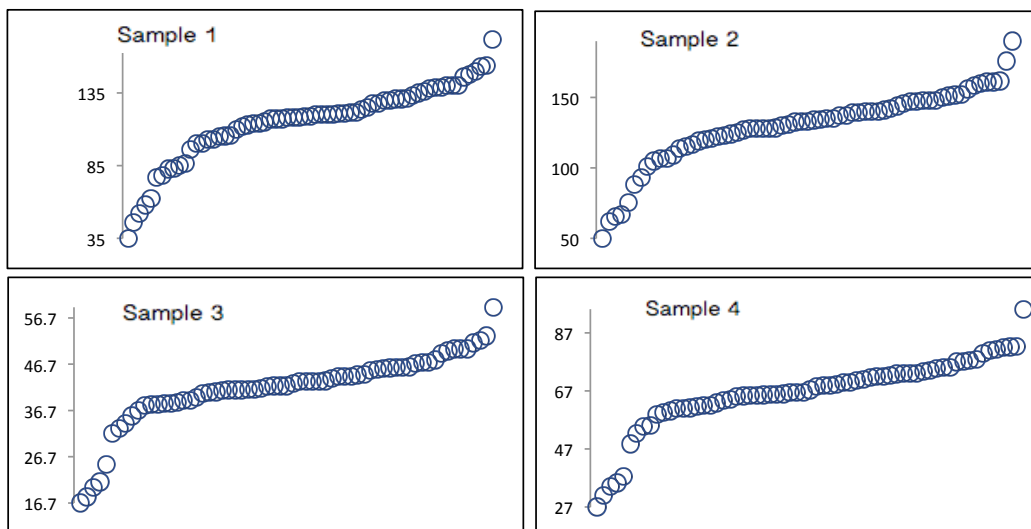
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	65	65	65	65
Median	119	133	42.0	67.3
Robust Mean	117	132	42.3	67.7
U	3.55	3.30	0.87	1.45
Robust Standard Deviation	22.9	21.3	5.59	9.36
Regression Standard Deviation	17.6	19.8	6.35	10.2
Stability Flag	Stability			
Homogeneity Flag				
Standard Deviation Used	25.3	21.3	6.35	10.2
Outliers	0	0	0	0
$ z > 3.0$	1	4	4	4
$2 < z < 3$	5	4	2	2

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	34	34	34	34
HS-GCMS	22	22	22	22
GC/MS1	4	4	4	4
P/T-GCECD	2	2	2	2
GC/MS/MSHEAD	1	1	1	1
P/T-FID	2	2	2	2

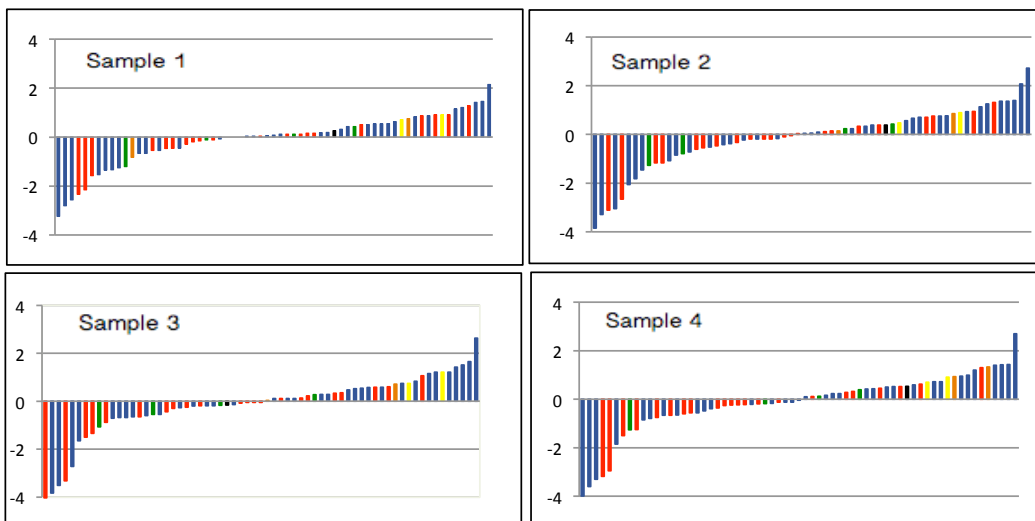
All summary stats and the plots below are based on the data excluding any flagged outliers



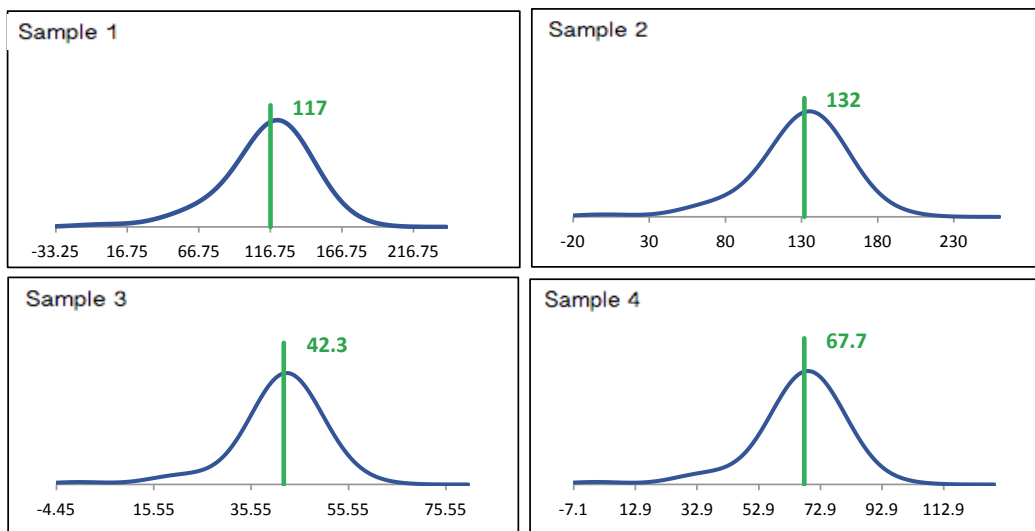
Annex A Summary by Analyte

CHLOROFORM

z-Score Plots



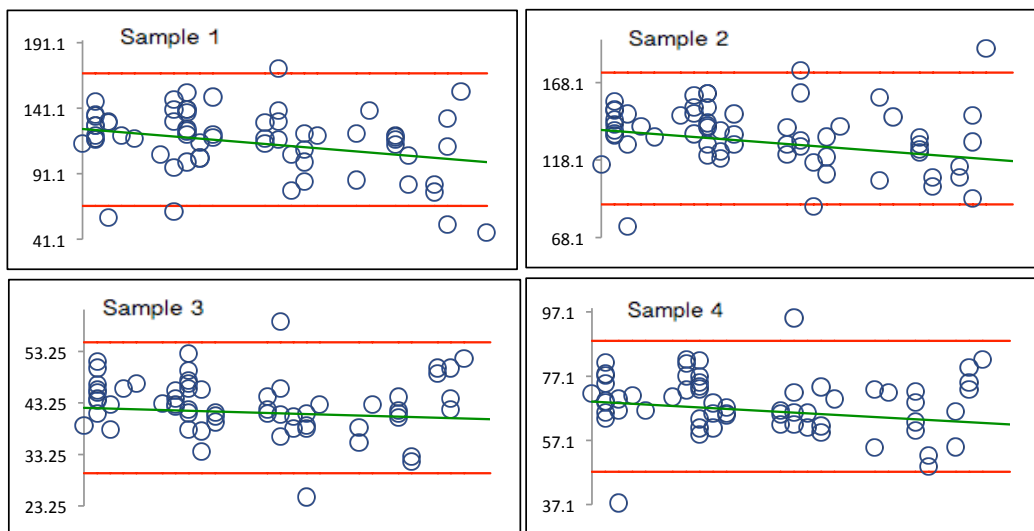
Kernel Density Plots



Annex A Summary by Analyte

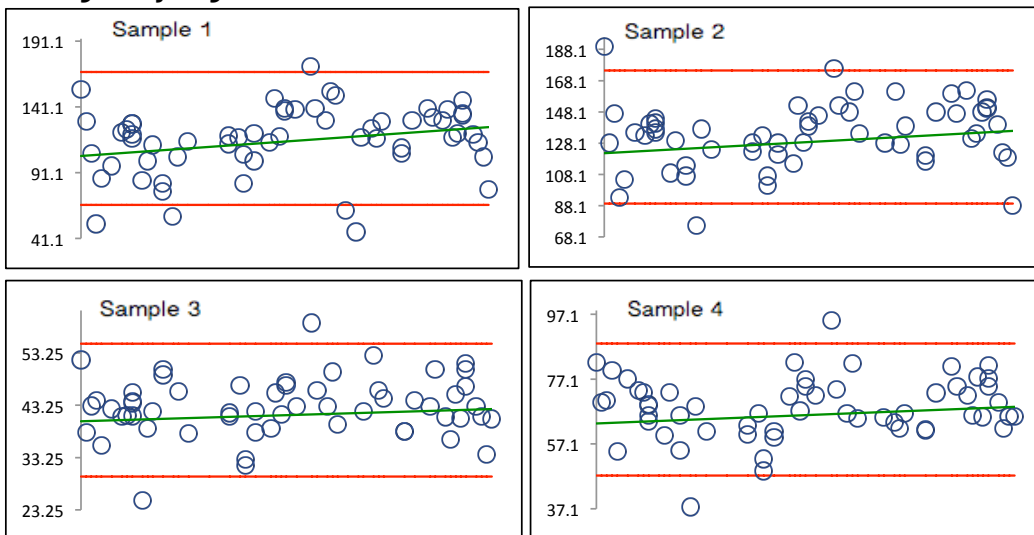
CHLOROFORM

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

CIS-1,2-DICHLOROETHYLENE

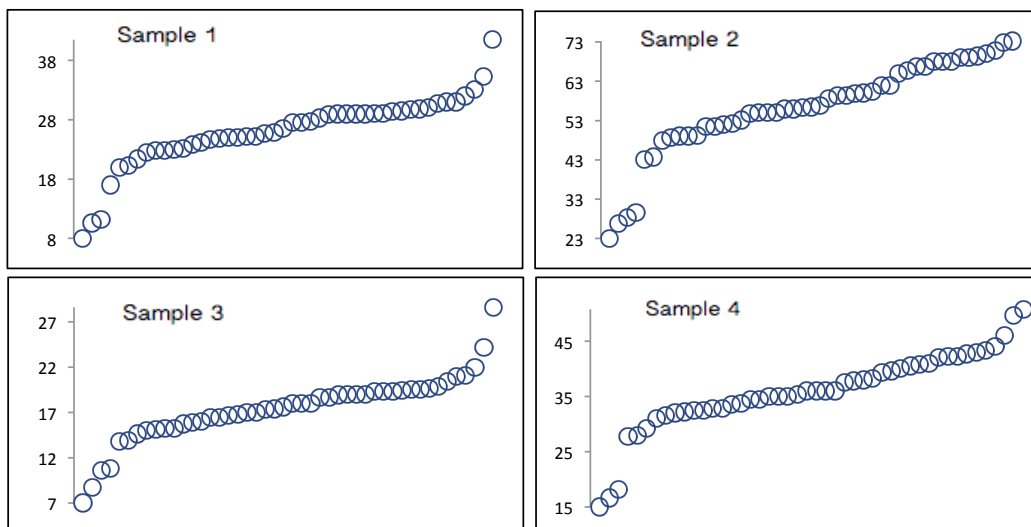
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	46	47	46	46
Median	27.0	56.4	17.8	36.0
Robust Mean	26.5	57.5	17.5	36.4
U	0.83	1.90	0.51	1.10
Robust Standard Deviation	4.51	10.4	2.76	5.95
Regression Standard Deviation	3.97	8.63	2.63	5.46
Stability Flag				Stability
Homogeneity Flag		Homogeneity		
Standard Deviation Used	4.51	13.1	2.76	7.82
Outliers	0	0	0	0
$ z > 3.0$	4	0	3	0
$2 < z < 3$	1	4	3	3

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	26	26	26	26
HS-GCMS	17	18	17	17
GC/MS1	1	1	1	1
P/T-FID	2	2	2	2

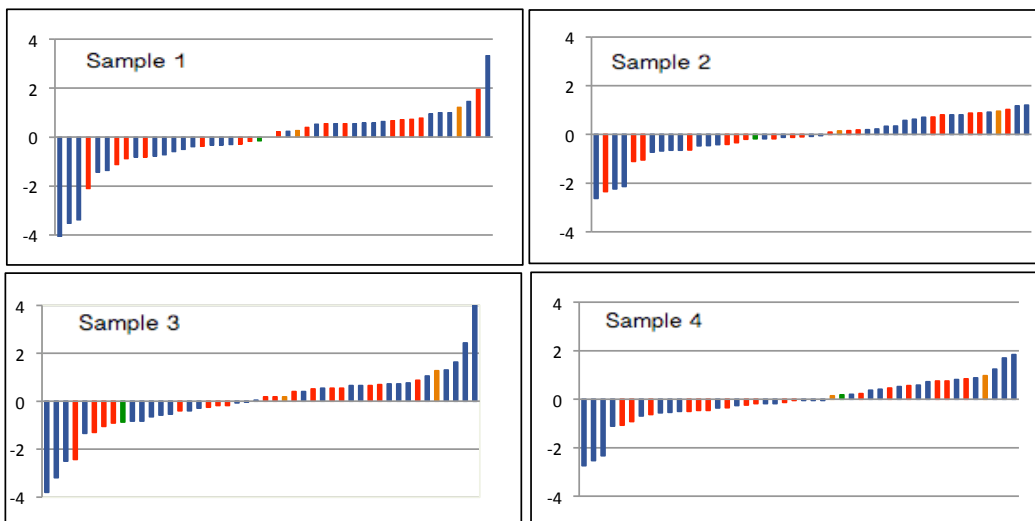
All summary stats and the plots below are based on the data excluding any flagged outliers



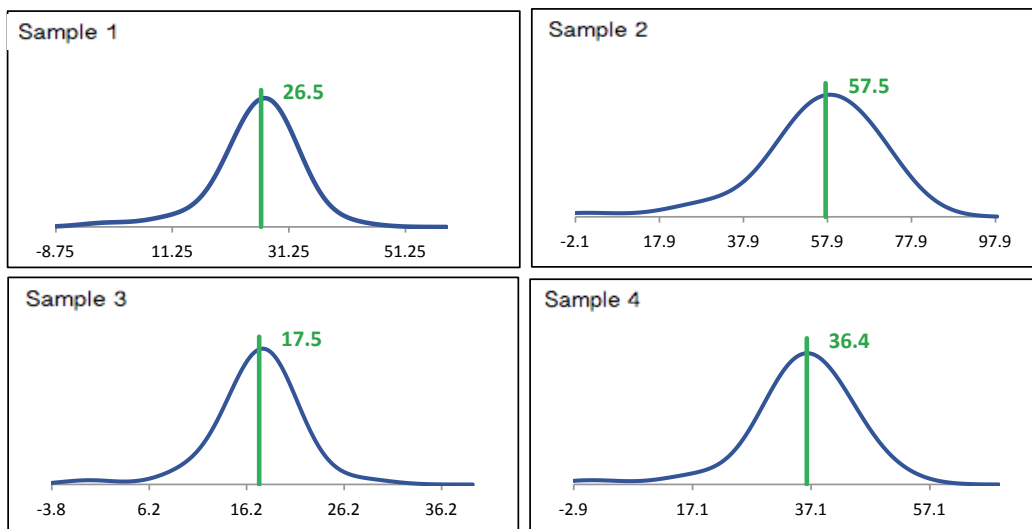
Annex A Summary by Analyte

CIS-1,2-DICHLOROETHYLENE

z-Score Plots



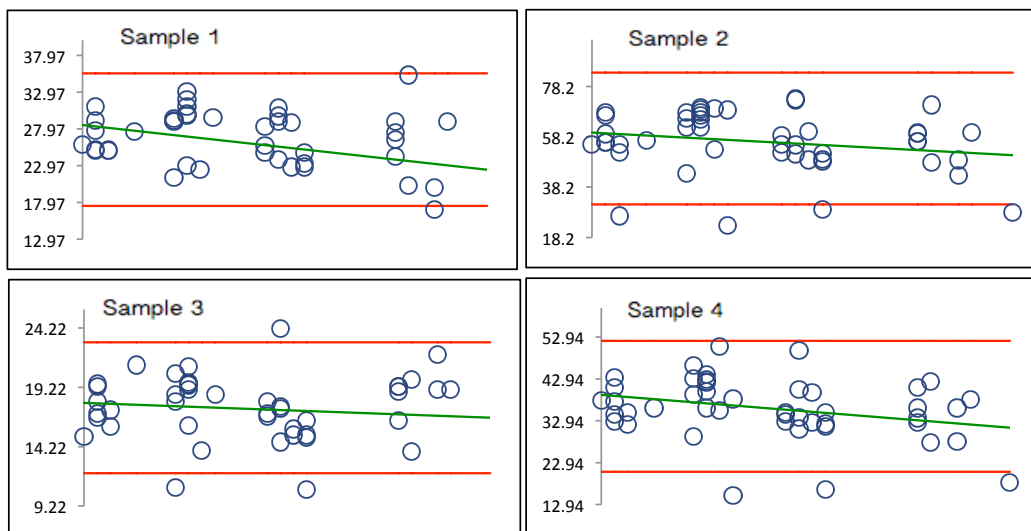
Kernel Density Plots



Annex A Summary by Analyte

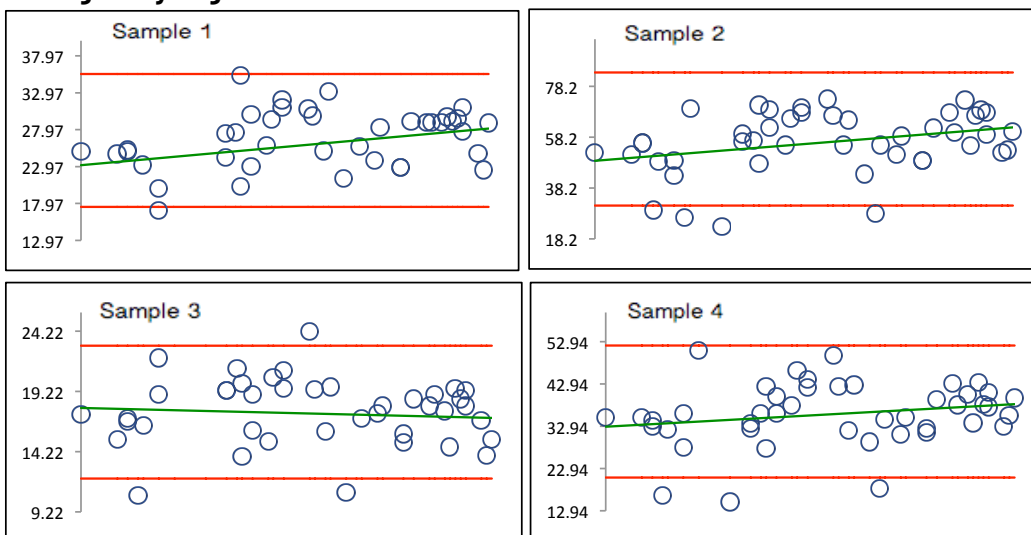
CIS-1,2-DICHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

CIS-1,3-DICHLOROPROPENE

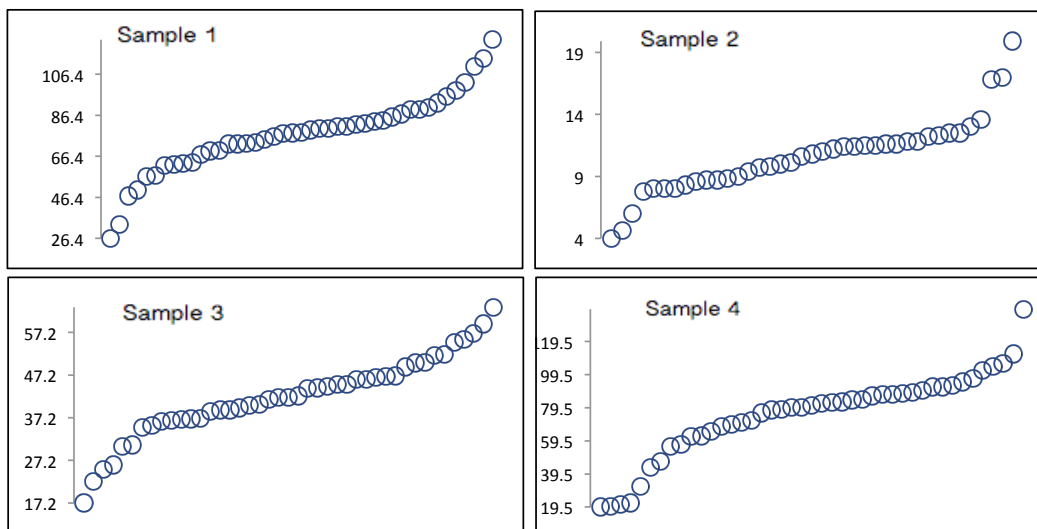
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	43	39	43	43
Median	78.0	10.8	42.0	81.0
Robust Mean	77.3	10.5	42.4	77.1
U	3.07	0.47	1.73	4.19
Robust Standard Deviation	16.1	2.36	9.07	22.0
Regression Standard Deviation	11.6	1.57	6.36	11.6
Stability Flag	Stability	Stability		
Homogeneity Flag				Homogeneity
Standard Deviation Used	23.8	4.25	9.07	35.0
Outliers	0	4	0	0
$ z > 3.0$	0	0	0	0
$2 < z < 3$	1	1	3	0

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	25	23	25	25
HS-GCMS	17	15	17	17
GC/MS1	1	1	1	1

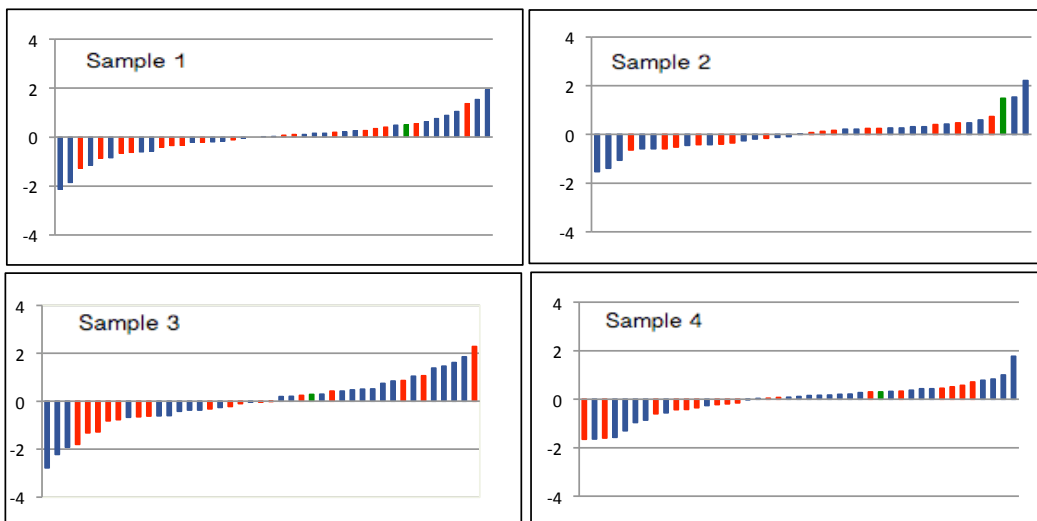
All summary stats and the plots below are based on the data excluding any flagged outliers



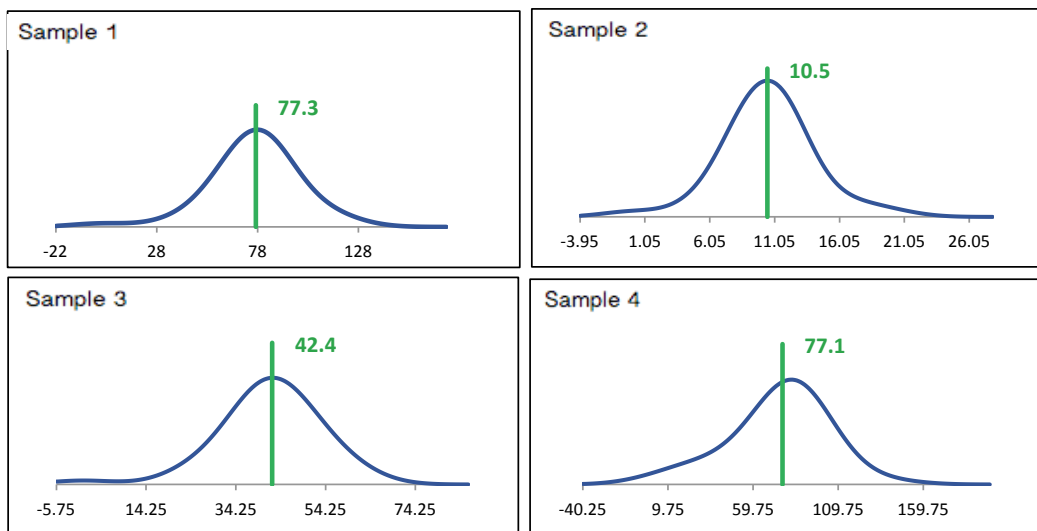
Annex A Summary by Analyte

CIS-1,3-DICHLOROPROPENE

z-Score Plots



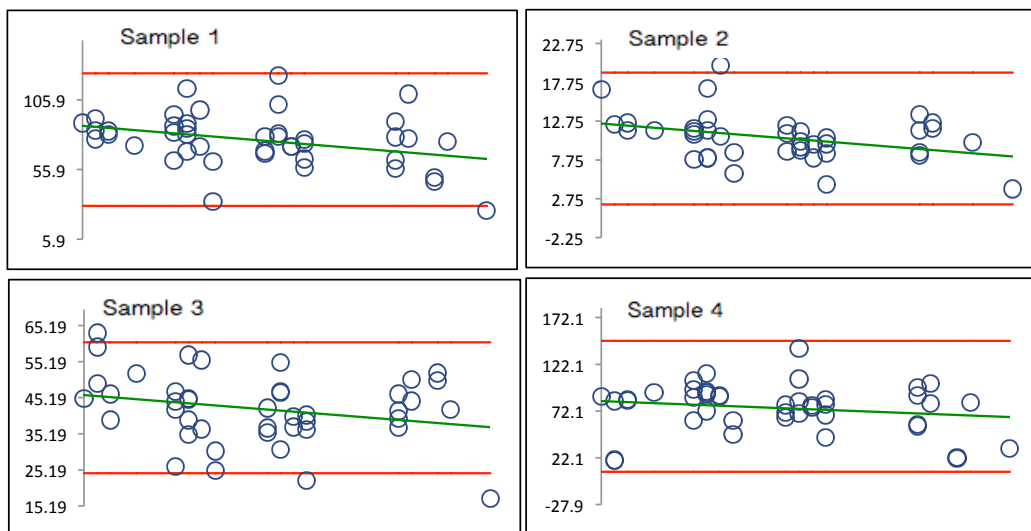
Kernel Density Plots



Annex A Summary by Analyte

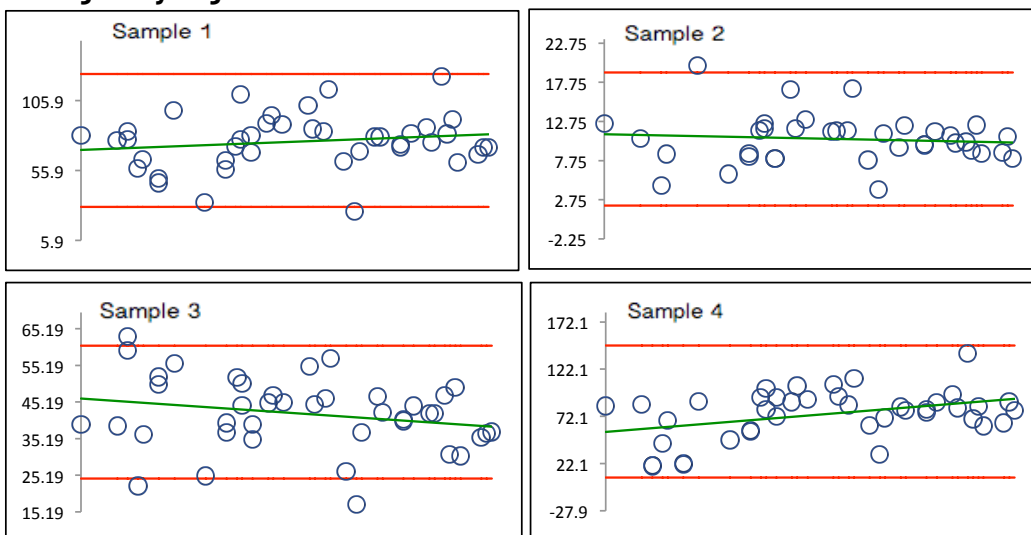
CIS-1,3-DICHLOROPROPENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

DICHLOROMETHANE

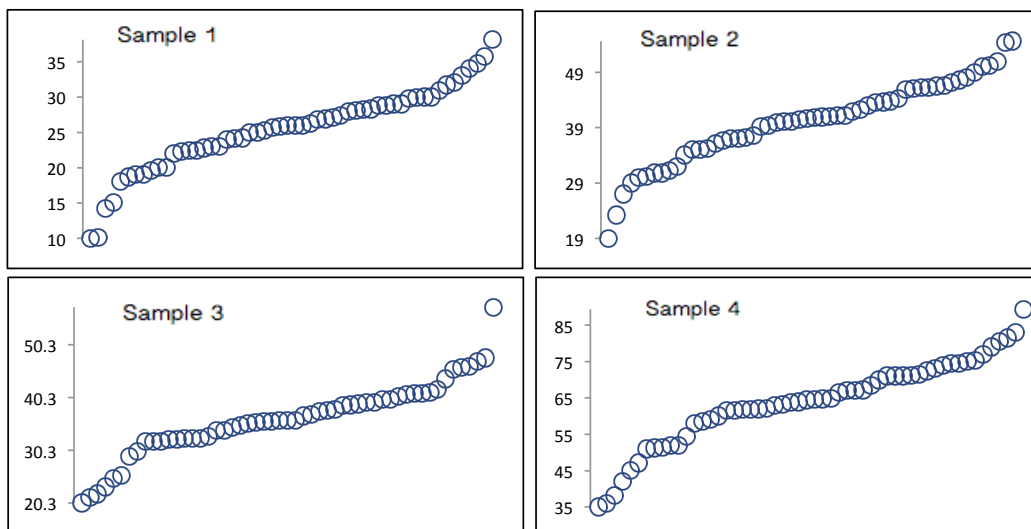
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	54	54	53	54
Median	26.0	40.7	36.0	64.5
Robust Mean	25.6	40.2	36.4	64.4
U	0.92	1.27	1.06	1.92
Robust Standard Deviation	5.40	7.49	6.18	11.3
Regression Standard Deviation	4.49	7.04	6.36	11.3
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	5.40	7.49	6.36	11.3
Outliers	0	0	1	0
$ z > 3.0$	0	0	1	0
$2 < z < 3$	4	2	4	4

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	30	30	29	30
HS-GCMS	20	20	20	20
GC/MSE	1	1	1	1
P/T-FID	2	2	2	2
GC/MS/MSHEAD	1	1	1	1

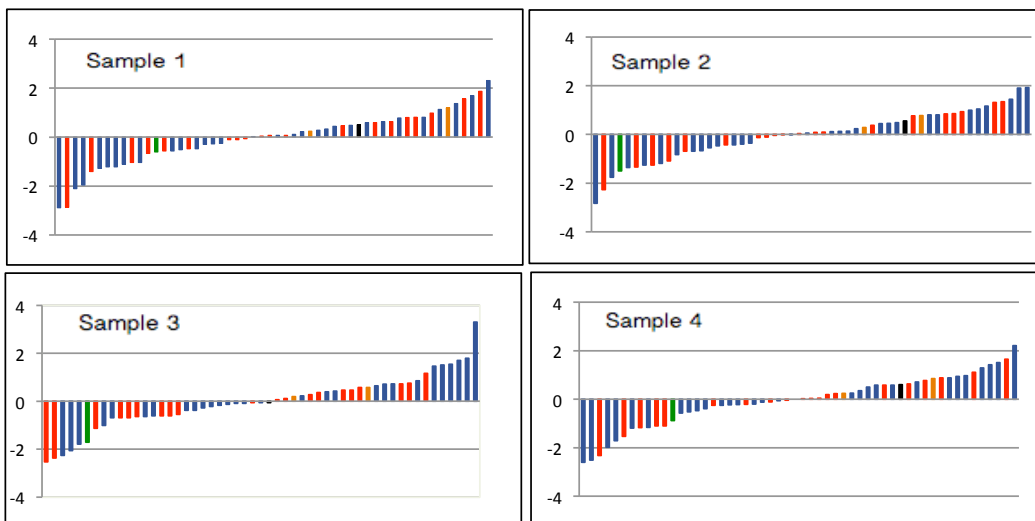
All summary stats and the plots below are based on the data excluding any flagged outliers



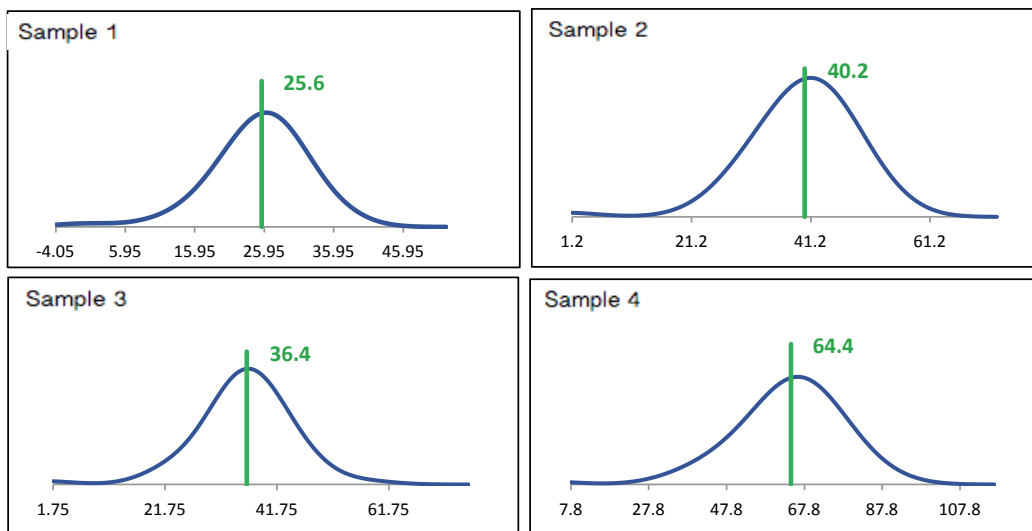
Annex A Summary by Analyte

DICHLOROMETHANE

z-Score Plots



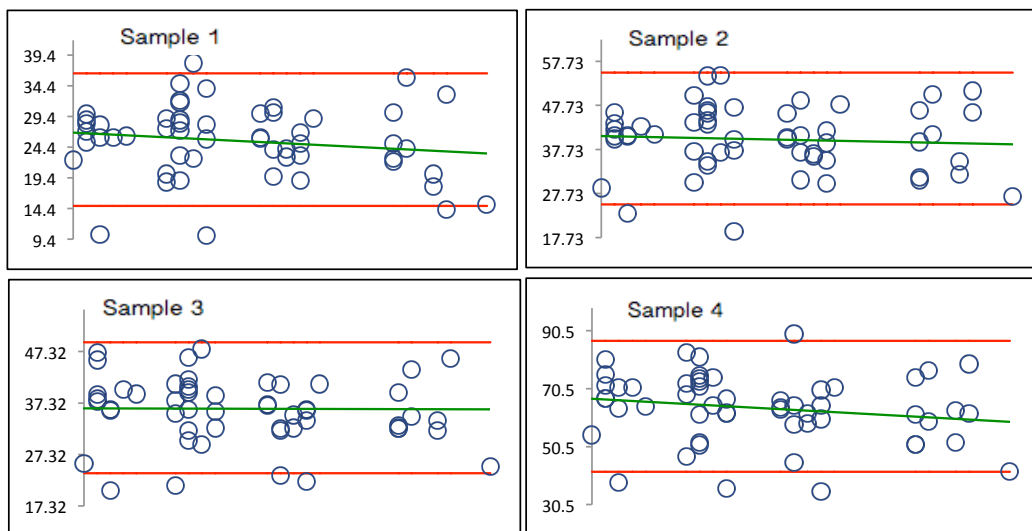
Kernel Density Plots



Annex A Summary by Analyte

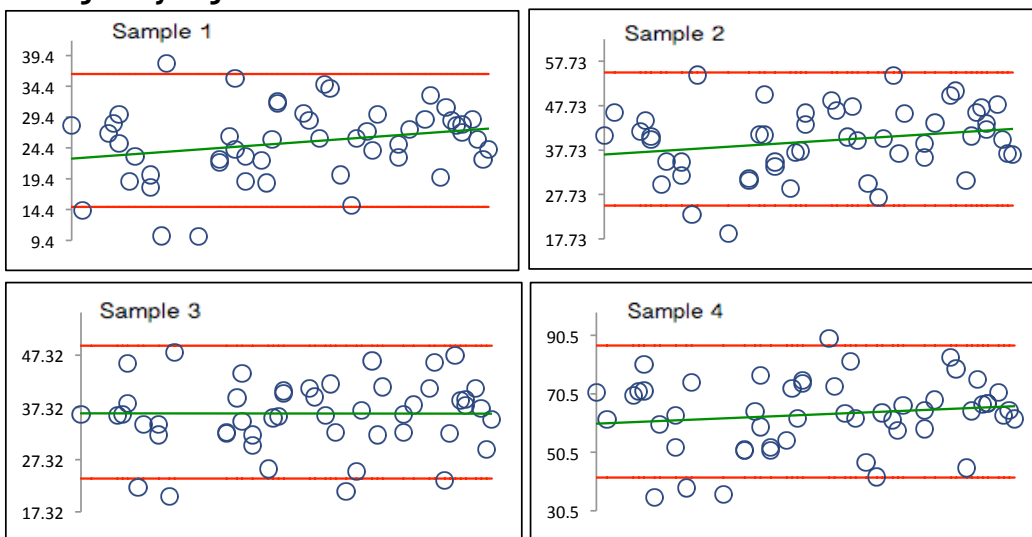
DICHLOROMETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

ETHYLBENZENE

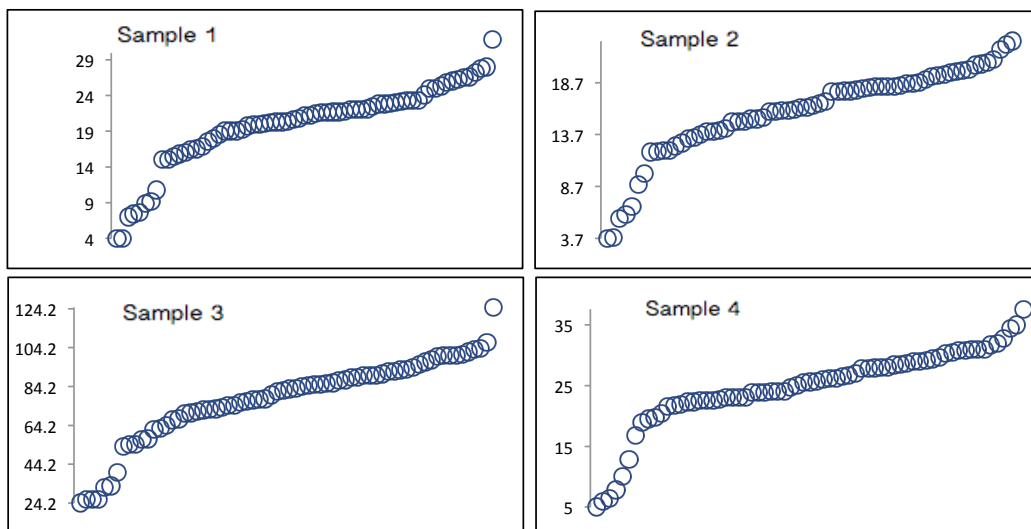
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	67	66	68	67
Median	21.2	16.4	82.5	25.6
Robust Mean	20.5	16.3	79.5	25.5
U	0.70	0.55	2.83	0.77
Robust Standard Deviation	4.60	3.60	18.7	5.1
Regression Standard Deviation	3.08	2.45	11.9	3.8
Stability Flag	Stability	Stability		
Homogeneity Flag				
Standard Deviation Used	5.03	4.30	18.7	5.1
Outliers	0	1	0	1
z >3.0	2	0	0	5
2< z <3	6	5	8	2

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	23	23	24	24
P/T-GCMS	34	33	34	33
GC/MS1	5	5	5	5
HS-GCF	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	3	3	3	3

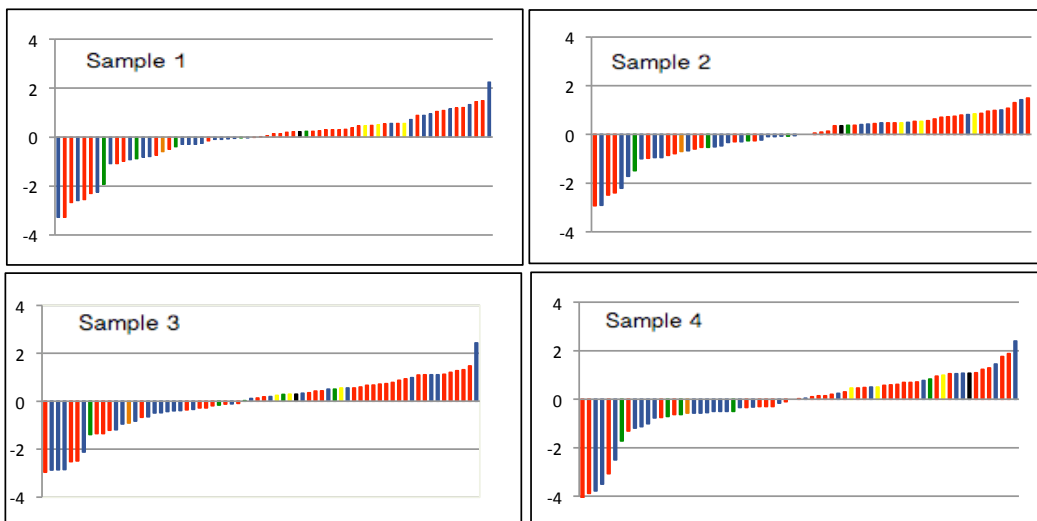
All summary stats and the plots below are based on the data excluding any flagged outliers



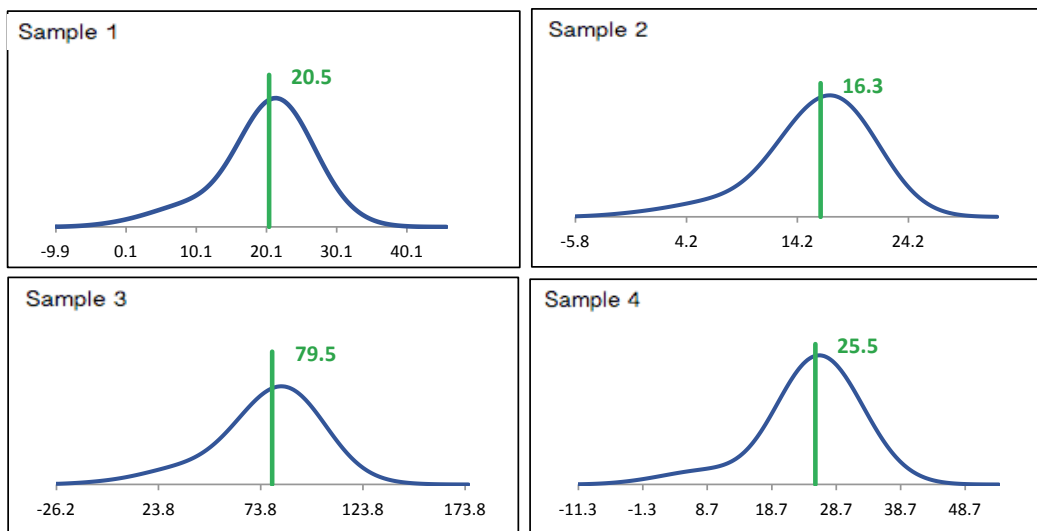
Annex A Summary by Analyte

ETHYLBENZENE

z-Score Plots



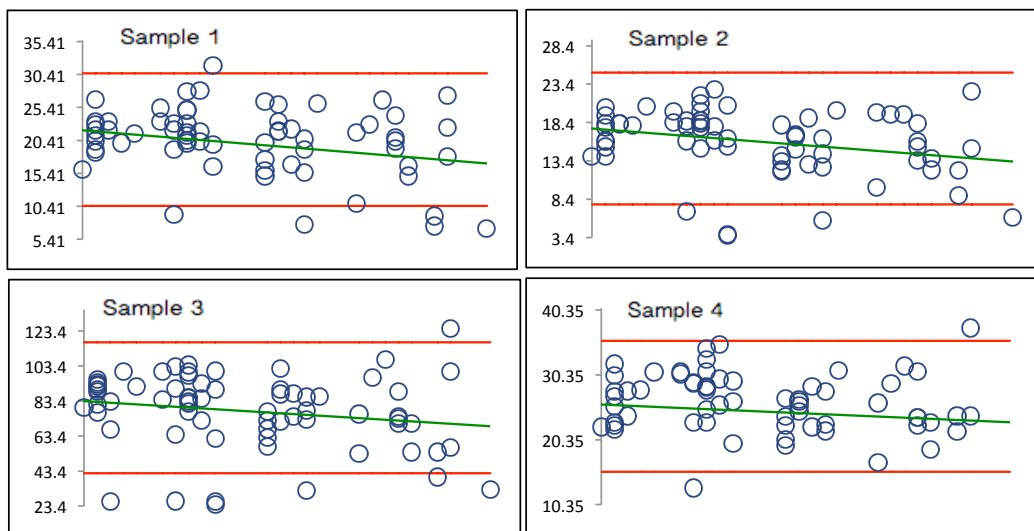
Kernel Density Plots



Annex A Summary by Analyte

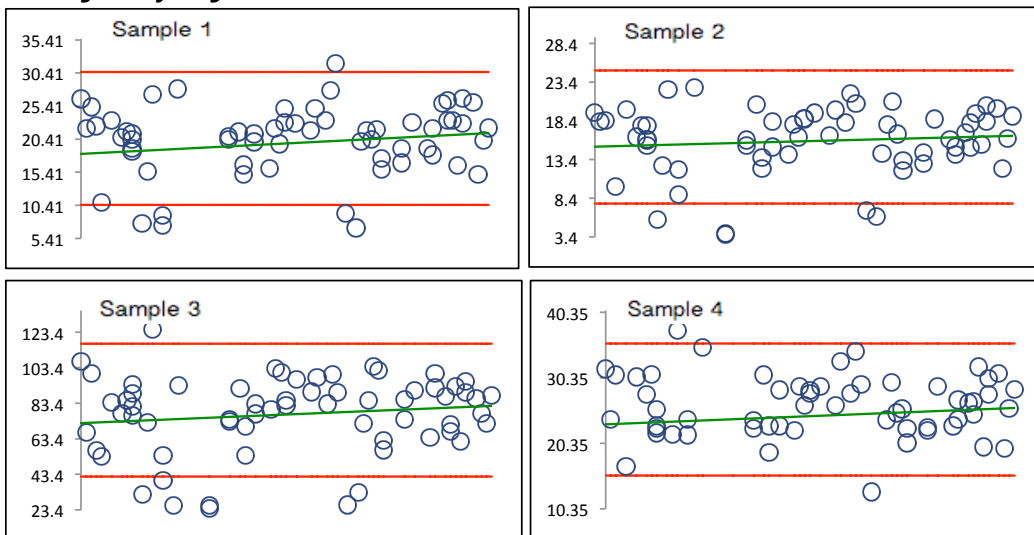
ETHYLBENZENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

ETHYLENE DIBROMIDE

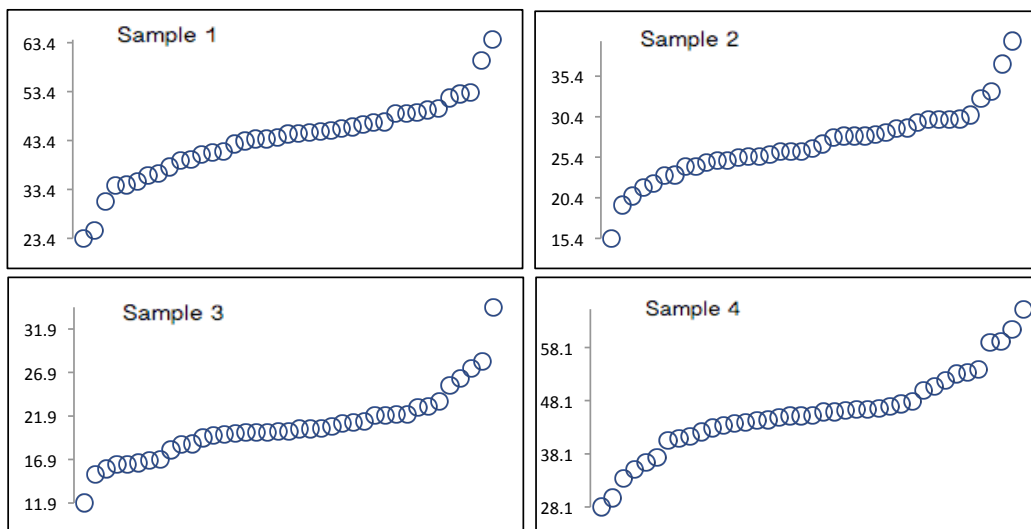
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	39	39	39	39
Median	44.7	26.5	20.1	45.3
Robust Mean	43.7	26.9	20.3	45.7
U	1.41	0.75	0.65	1.35
Robust Standard Deviation	7.06	3.72	3.23	6.75
Regression Standard Deviation	6.55	4.03	3.05	6.85
Stability Flag	Stability	Stability		Stability
Homogeneity Flag				
Standard Deviation Used	11.3	6.21	3.23	12.90
Outliers	0	0	0	0
$ z > 3.0$	0	0	1	0
$2 < z < 3$	0	1	3	0

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	24	24	24	24
HS-GCMS	14	14	14	14
GC/MSE	1	1	1	1

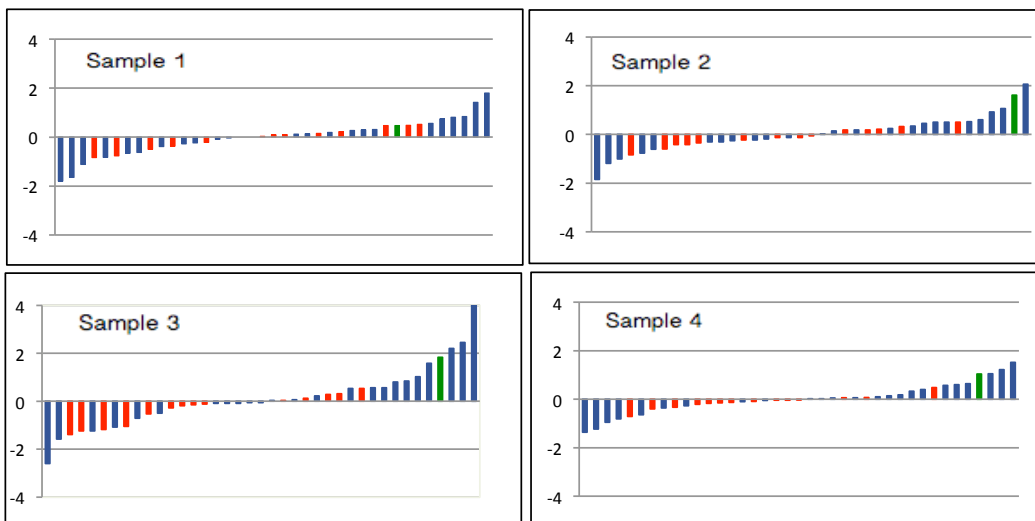
All summary stats and the plots below are based on the data excluding any flagged outliers



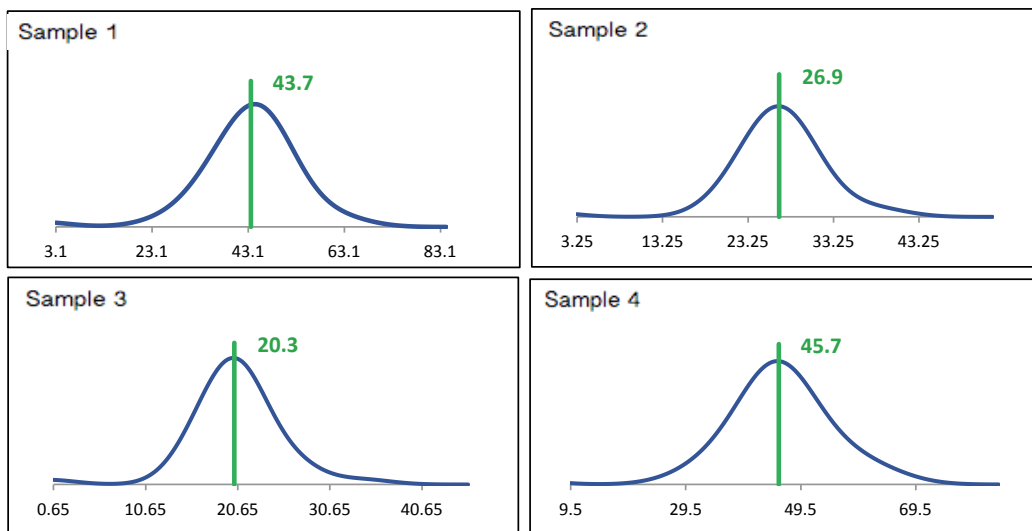
Annex A Summary by Analyte

ETHYLENE DIBROMIDE

z-Score Plots



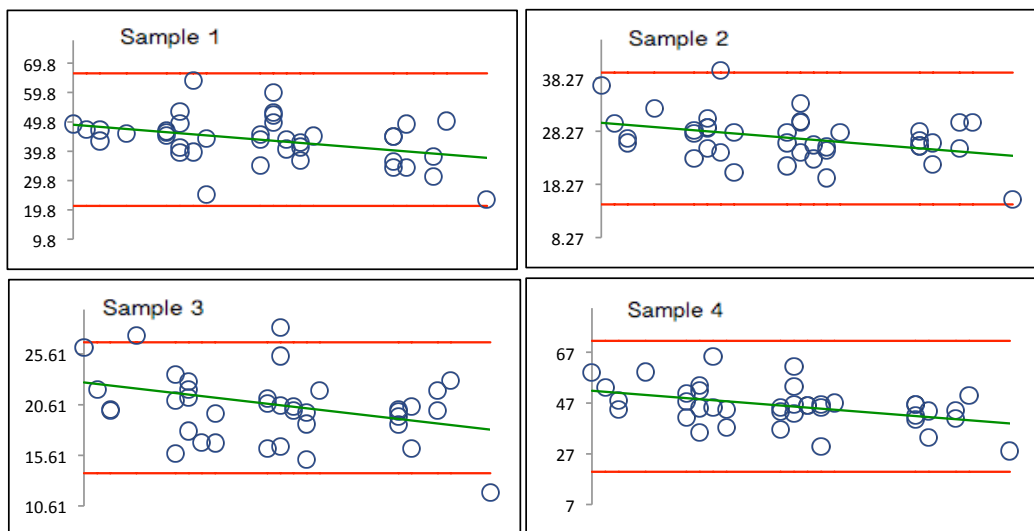
Kernel Density Plots



Annex A Summary by Analyte

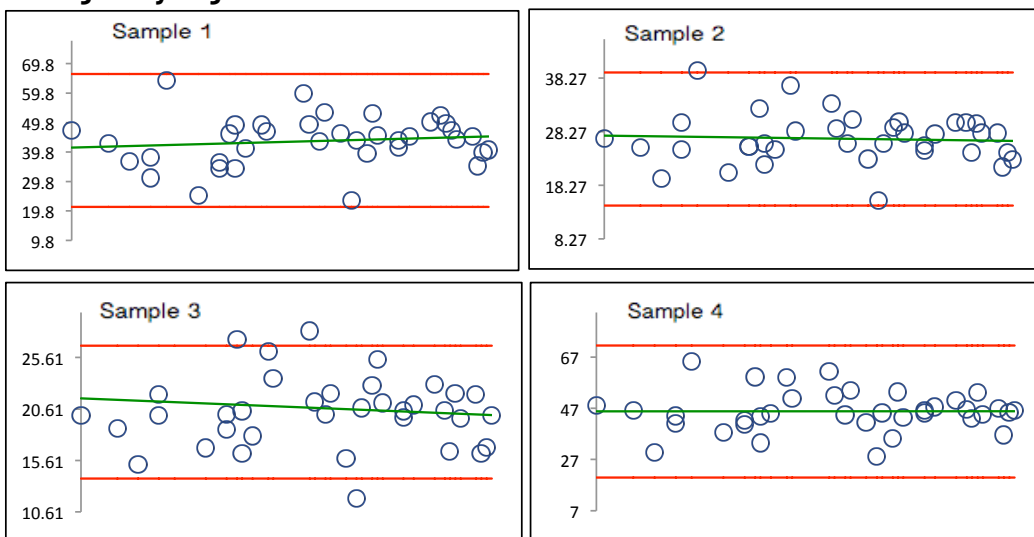
ETHYLENE DIBROMIDE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

M,P-XYLENE

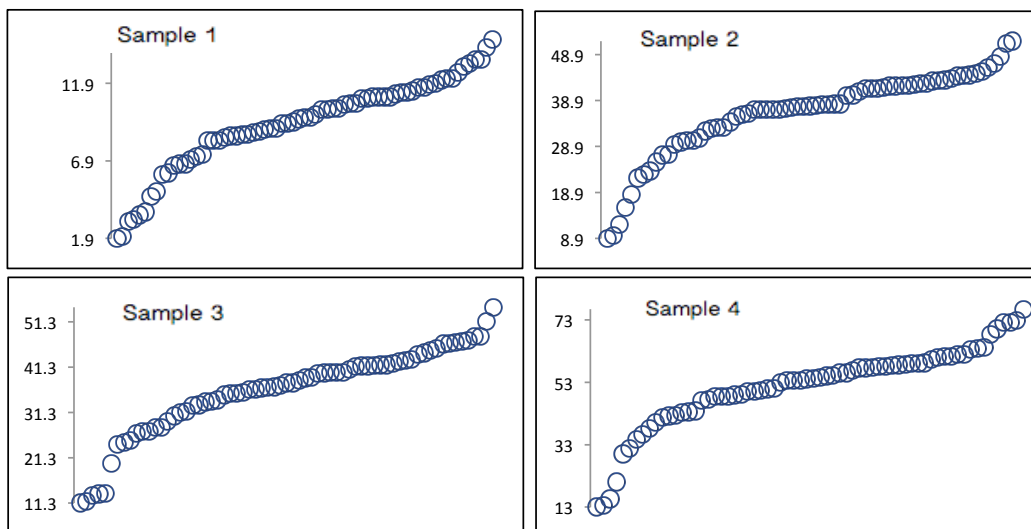
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	67	67	67	66
Median	9.69	37.7	37.8	54.1
Robust Mean	9.48	37.1	36.8	52.8
U	0.42	1.18	1.31	1.69
Robust Standard Deviation	2.74	7.72	8.60	11.0
Regression Standard Deviation	1.42	5.57	5.52	7.93
Stability Flag	Stability	Stability		Stability
Homogeneity Flag				
Standard Deviation Used	3.39	11.1	8.60	14.8
Outliers	0	0	0	1
$ z > 3.0$	0	0	0	0
$2 < z < 3$	2	3	6	4

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	34	34	34	33
HS-GCMS	23	23	23	23
GC/MS1	4	4	4	4
HS-GCF	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
GC/MSE	1	1	1	1
P/T-FID	3	3	3	3

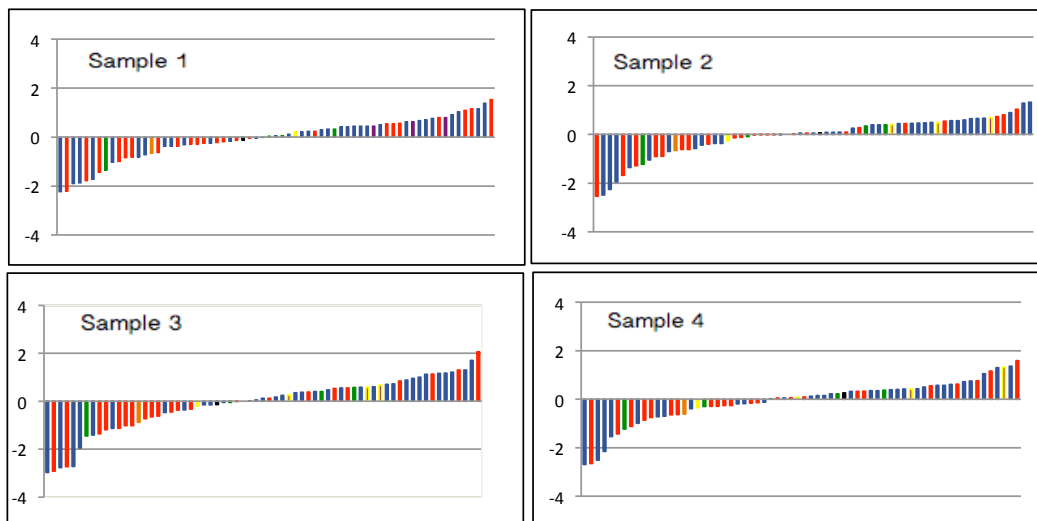
All summary stats and the plots below are based on the data excluding any flagged outliers



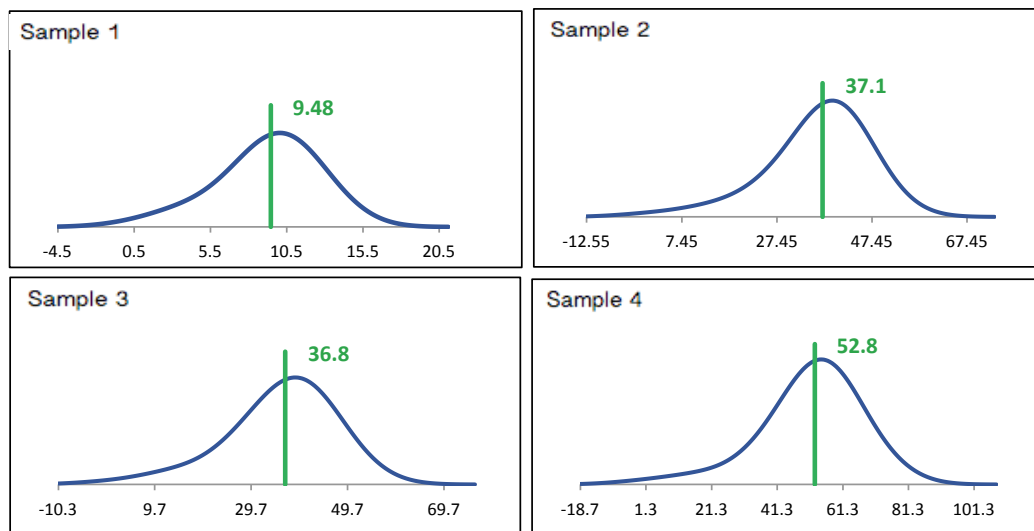
Annex A Summary by Analyte

M,P-XYLENE

z-Score Plots



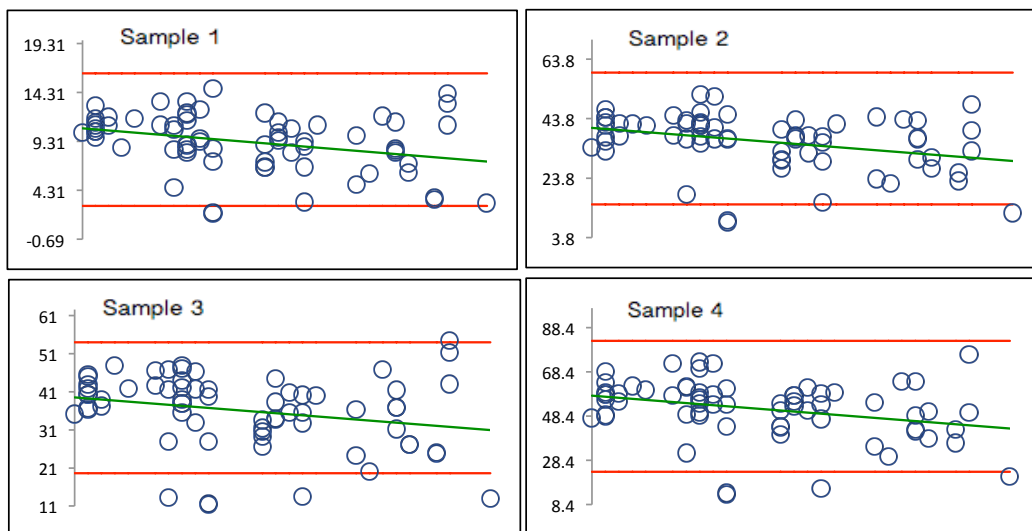
Kernel Density Plots



Annex A Summary by Analyte

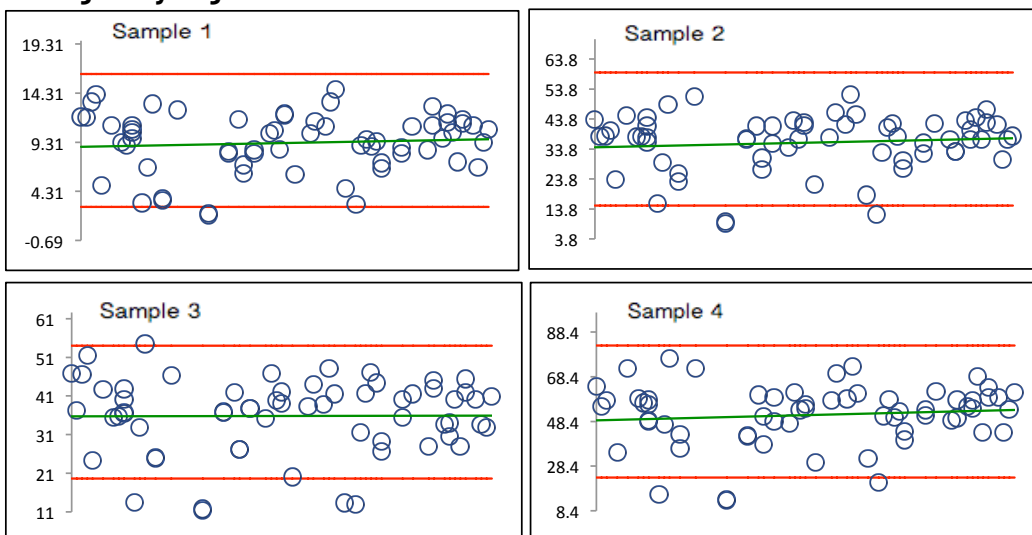
M,P-XYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

METHYL ETHYL KETONE

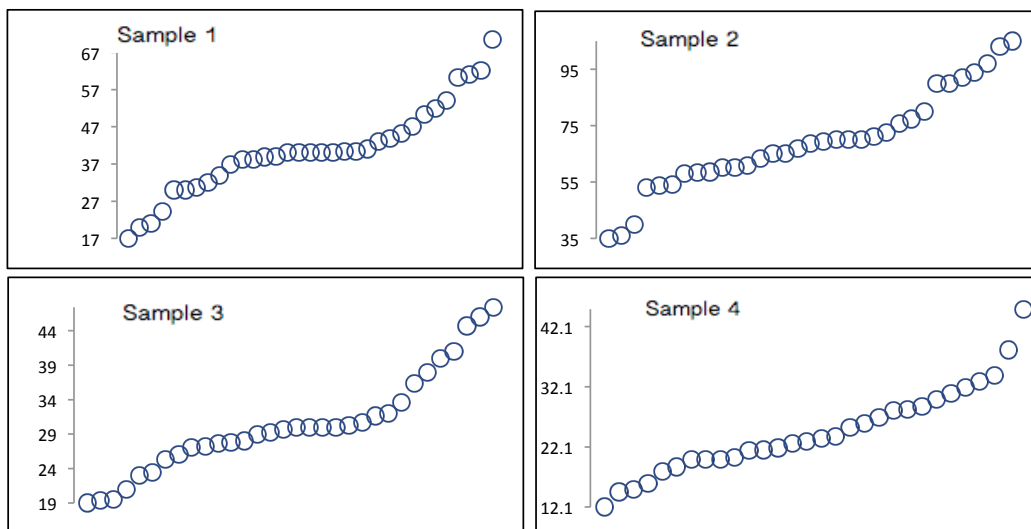
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	33	33	32	30
Median	40.0	68.8	29.9	23.3
Robust Mean	40.2	69.2	29.9	24.3
U	2.50	3.89	1.62	1.61
Robust Standard Deviation	11.5	17.9	7.32	7.05
Regression Standard Deviation	9.05	15.6	6.74	5.46
Stability Flag				Stability
Homogeneity Flag				
Standard Deviation Used	11.5	17.9	7.32	9.8
Outliers	0	0	0	0
$ z > 3.0$	0	0	0	0
$2 < z < 3$	2	0	3	1

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	21	21	21	20
HS-GCMS	11	11	10	9
P/T-FID	1	1	1	1

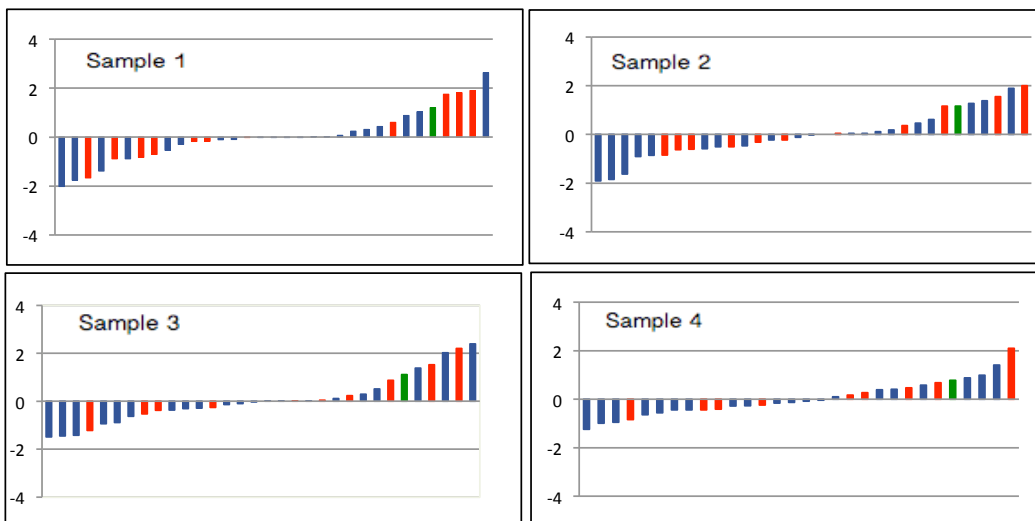
All summary stats and the plots below are based on the data excluding any flagged outliers



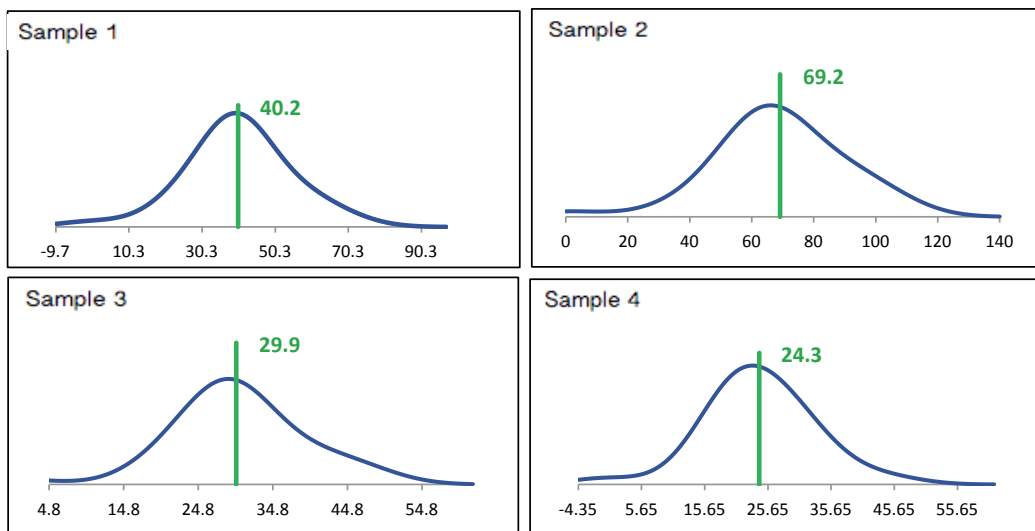
Annex A Summary by Analyte

METHYL ETHYL KETONE

z-Score Plots



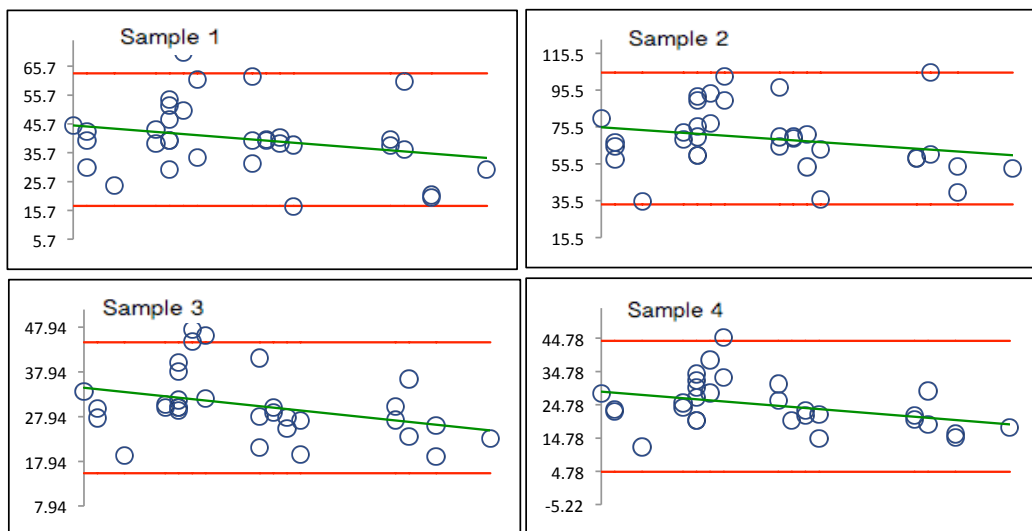
Kernel Density Plots



Annex A Summary by Analyte

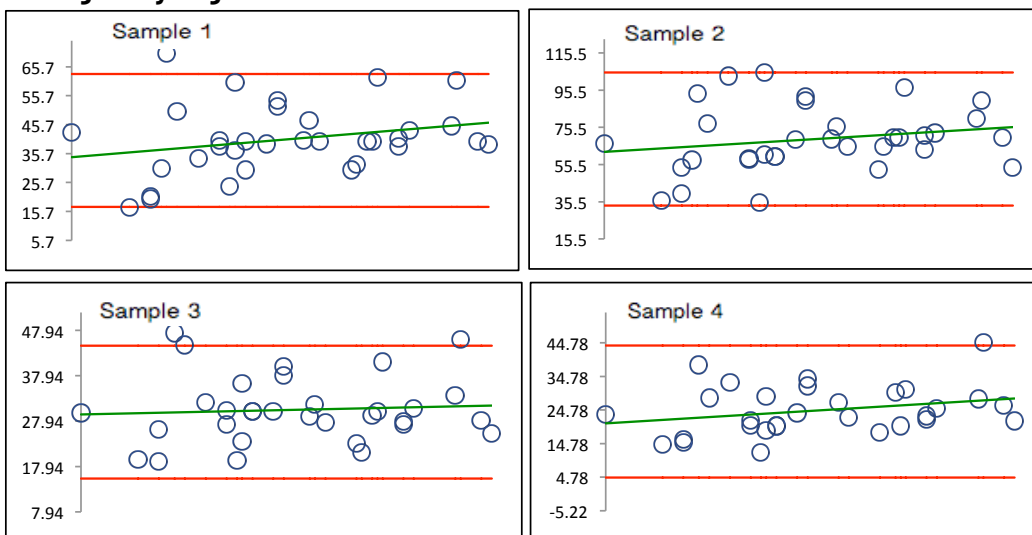
METHYL ETHYL KETONE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

METHYL ISOBUTYL KETONE (MIBK)

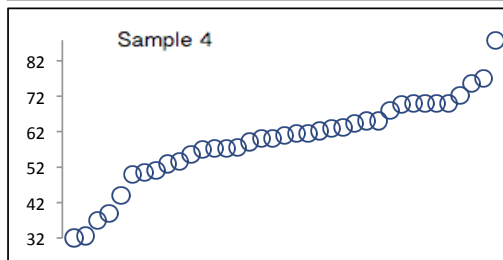
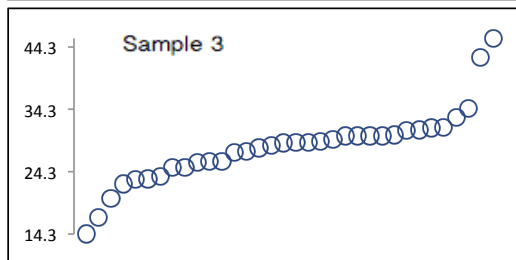
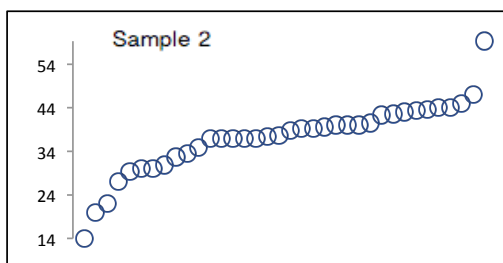
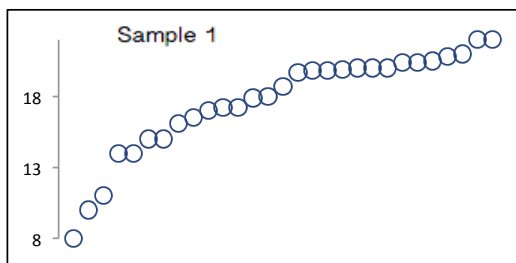
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	29	36	34	37
Median	18.7	38.2	29.0	61.0
Robust Mean	18.0	37.5	28.0	60.2
U	0.72	1.37	0.92	2.22
Robust Standard Deviation	3.15	6.58	4.30	10.8
Regression Standard Deviation	2.70	5.63	4.20	9.02
Stability Flag		Stability	Stability	
Homogeneity Flag				
Standard Deviation Used	3.15	10.6	6.97	10.8
Outliers	1	0	0	0
$ z > 3.0$	1	0	0	0
$2 < z < 3$	2	2	2	4

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	8	11	10	12
P/T-GCMS	19	23	22	23
GC/FID-1	1	1	1	1
GC/MS1	1	1	1	1

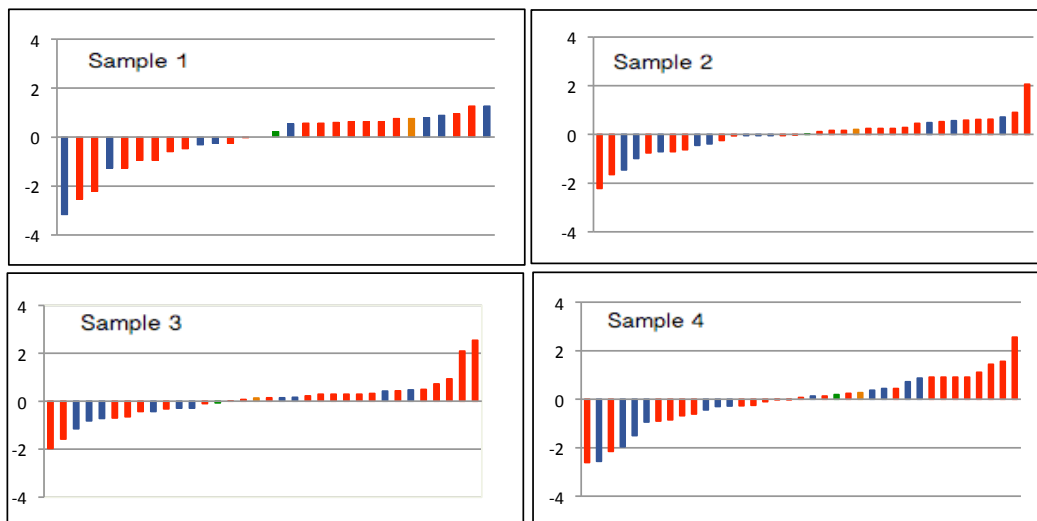
All summary stats and the plots below are based on the data excluding any flagged outliers



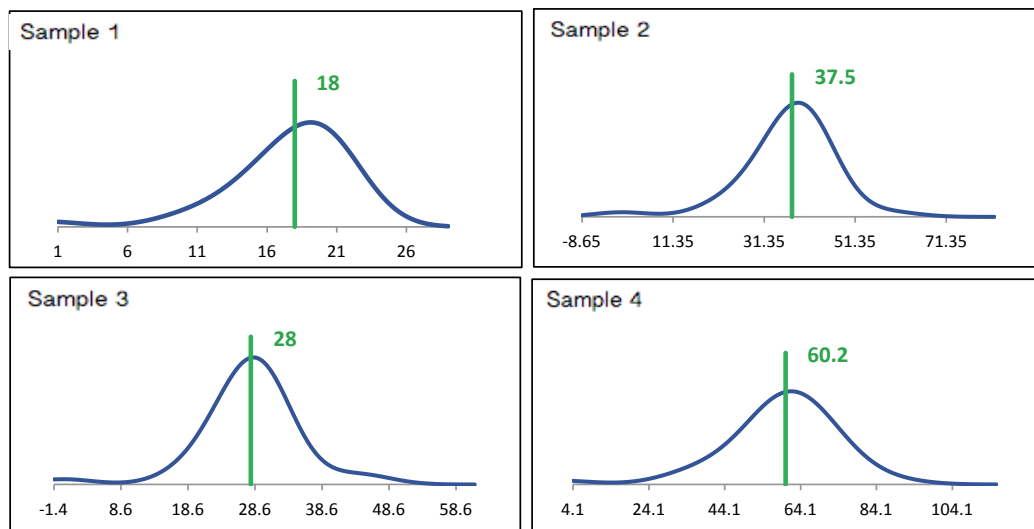
Annex A Summary by Analyte

METHYL ISOBUTYL KETONE (MIBK)

z-Score Plots



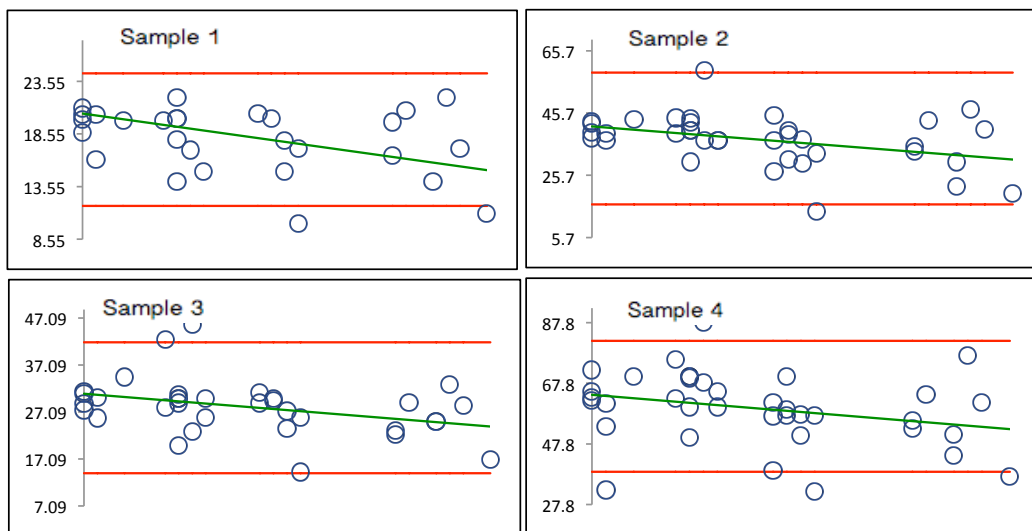
Kernel Density Plots



Annex A Summary by Analyte

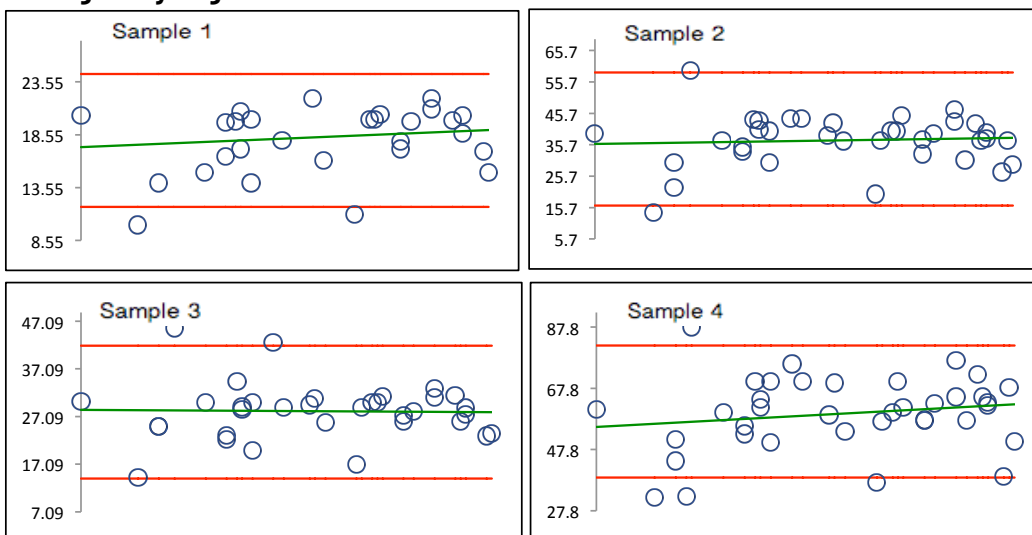
METHYL ISOBUTYL KETONE (MIBK)

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

METHYL T-BUTYL ETHER

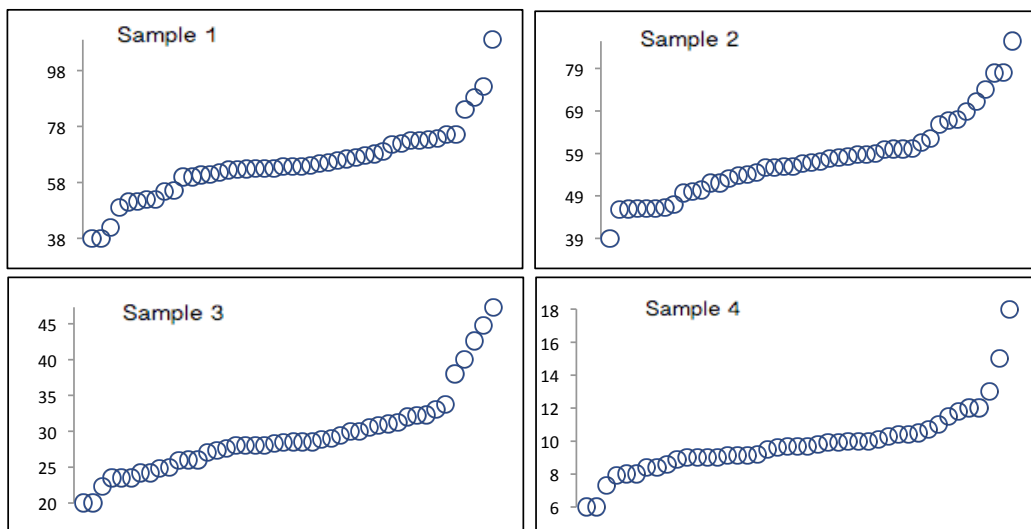
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	45	45	44	43
Median	63.6	56.8	28.5	9.7
Robust Mean	64.1	56.9	28.6	9.7
U	1.88	1.63	0.81	0.27
Robust Standard Deviation	10.1	8.73	4.27	1.44
Regression Standard Deviation	12.8	11.4	5.72	1.94
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	12.8	11.4	5.72	1.94
Outliers	0	0	0	0
$ z > 3.0$	1	0	1	1
$2 < z < 3$	3	1	2	1

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	24	24	24	23
HS-GCMS	19	19	18	18
HS-GCF	1	1	1	1
GC/MS1	1	1	1	1

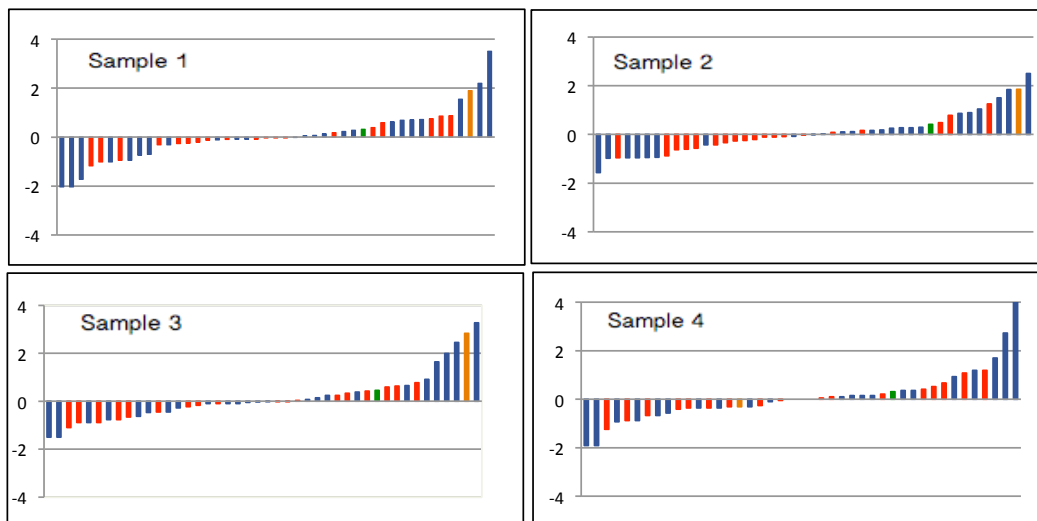
All summary stats and the plots below are based on the data excluding any flagged outliers



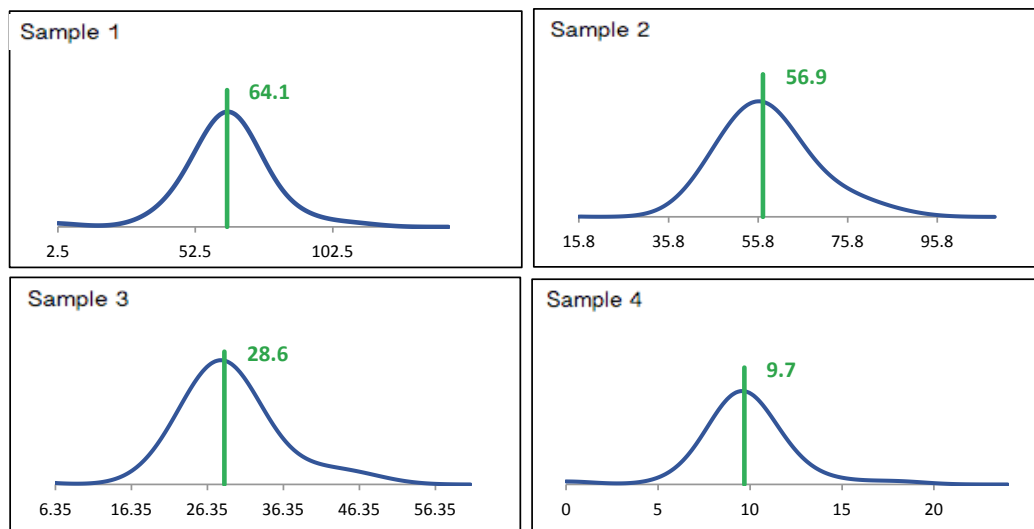
Annex A Summary by Analyte

METHYL T-BUTYL ETHER

z-Score Plots



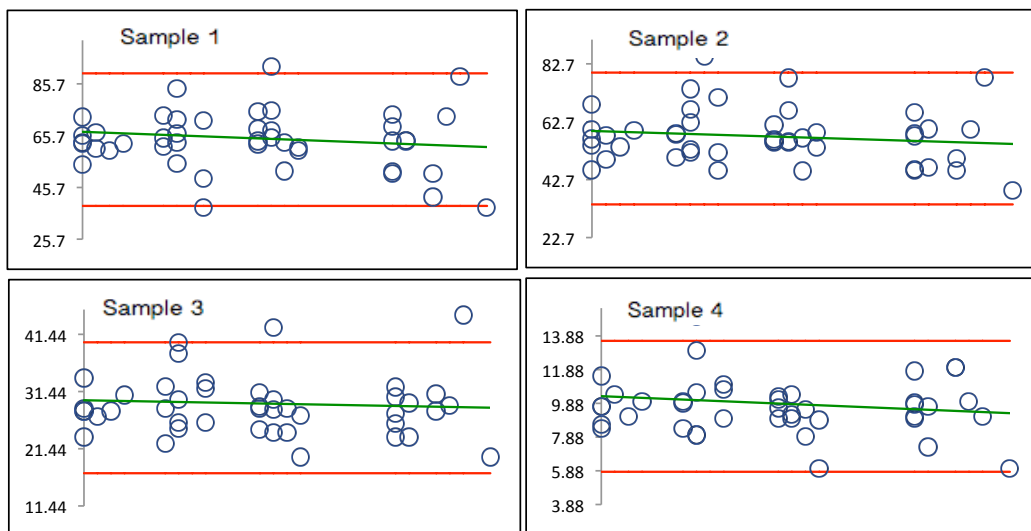
Kernel Density Plots



Annex A Summary by Analyte

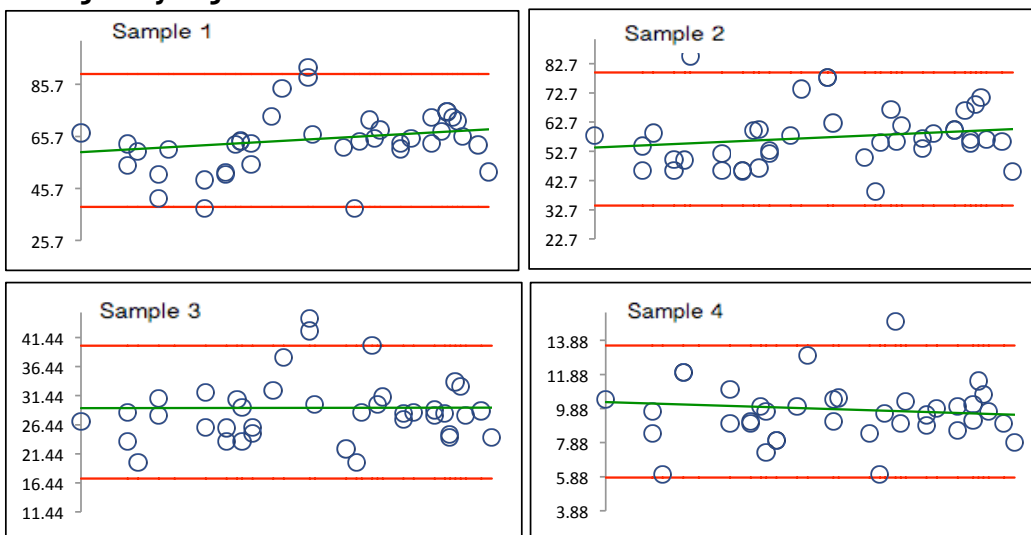
METHYL T-BUTYL ETHER

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

O-XYLENE

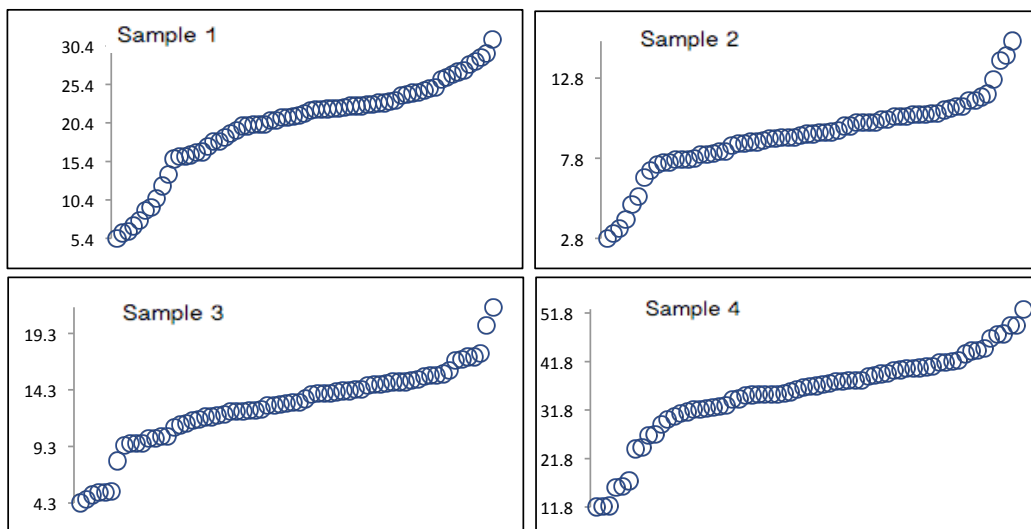
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	67	66	67	67
Median	21.6	9.30	13.1	36.6
Robust Mean	20.8	9.27	13.0	36.2
U	0.79	0.27	0.45	1.09
Robust Standard Deviation	5.17	1.78	2.94	7.14
Regression Standard Deviation	3.12	1.39	1.95	5.43
Stability Flag	Stability			
Homogeneity Flag				
Standard Deviation Used	5.72	1.78	2.94	7.14
Outliers	0	0	0	0
$ z > 3.0$	0	4	0	3
$2 < z < 3$	6	5	8	4

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
HS-GCMS	24	23	24	24
P/T-GCMS	34	34	34	34
GC/MS1	5	5	5	5
HS-GCF	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	2	2	2	2

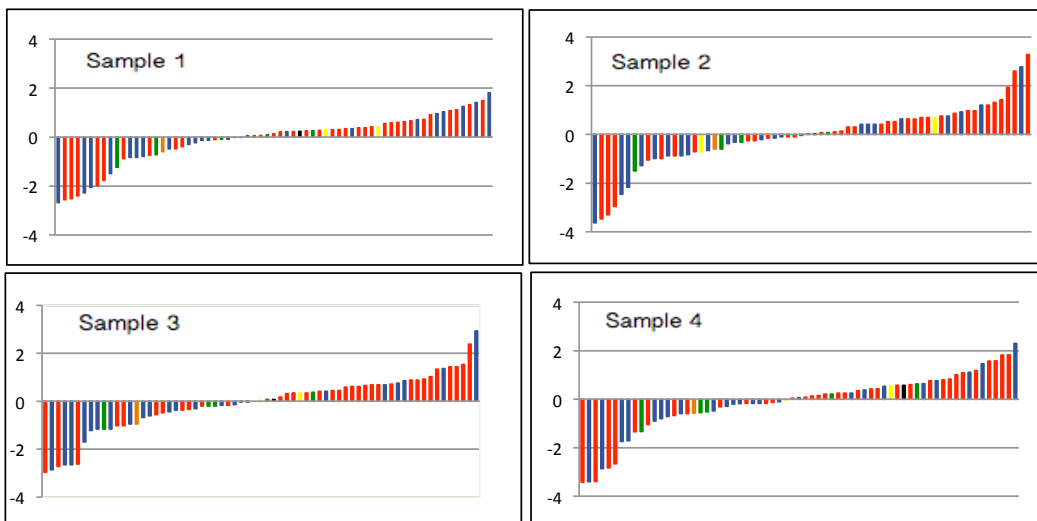
All summary stats and the plots below are based on the data excluding any flagged outliers



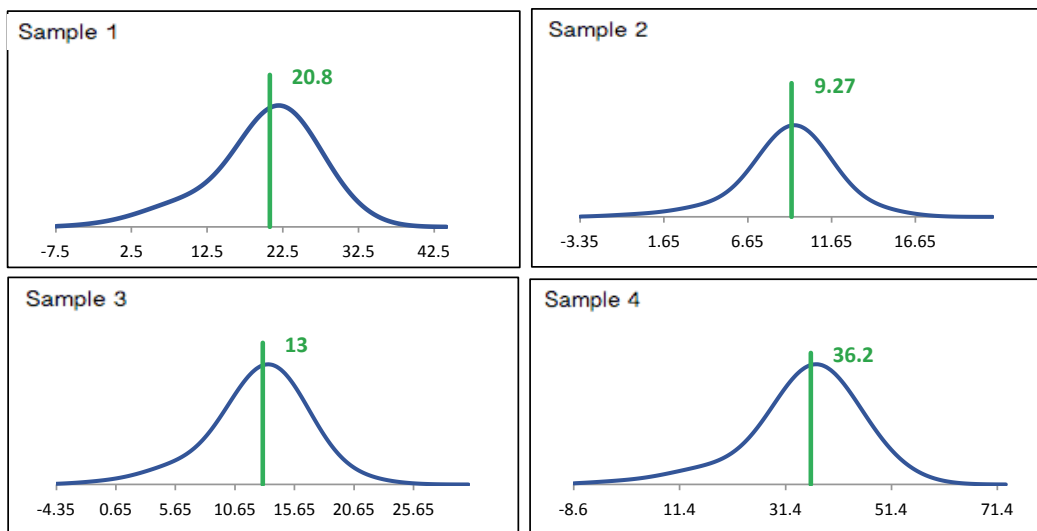
Annex A Summary by Analyte

O-XYLENE

z-Score Plots



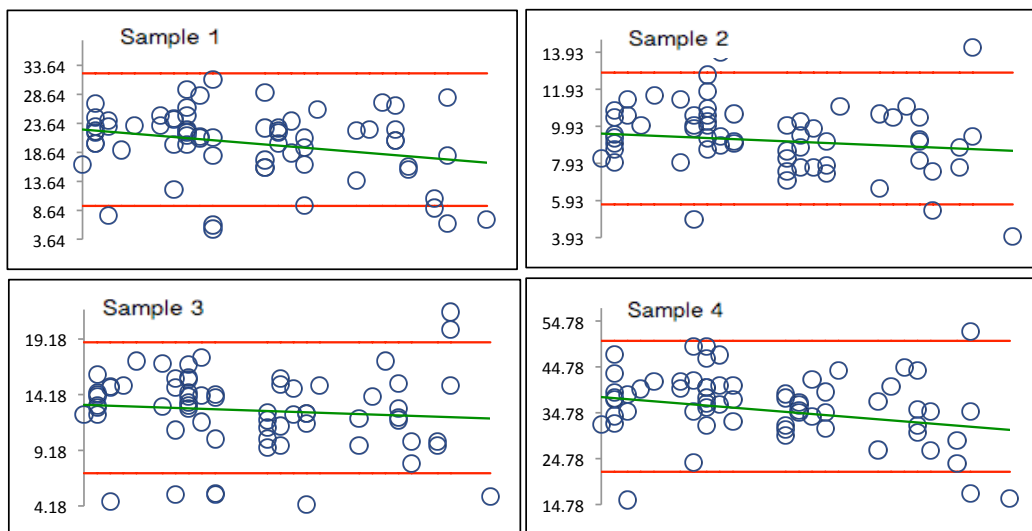
Kernel Density Plots



Annex A Summary by Analyte

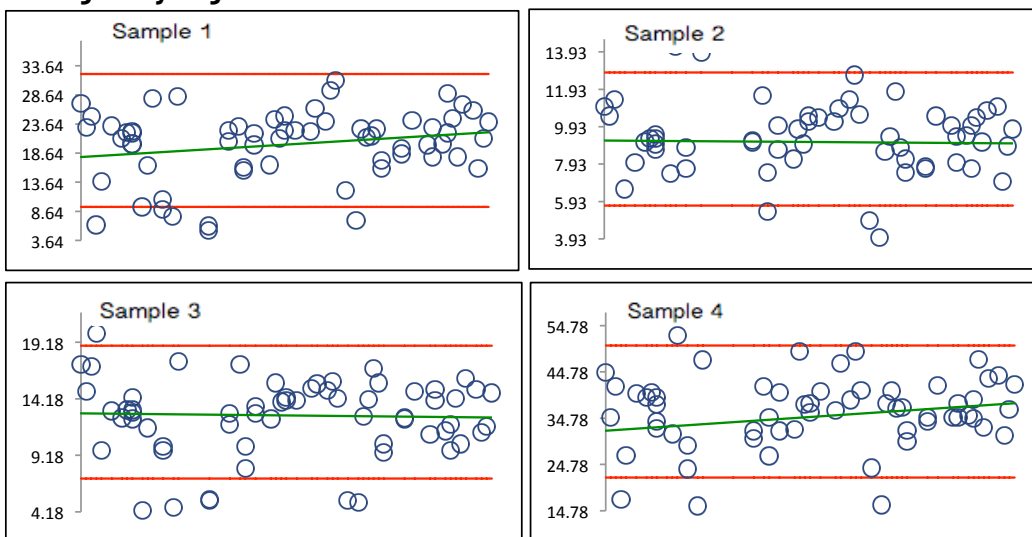
O-XYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

STYRENE

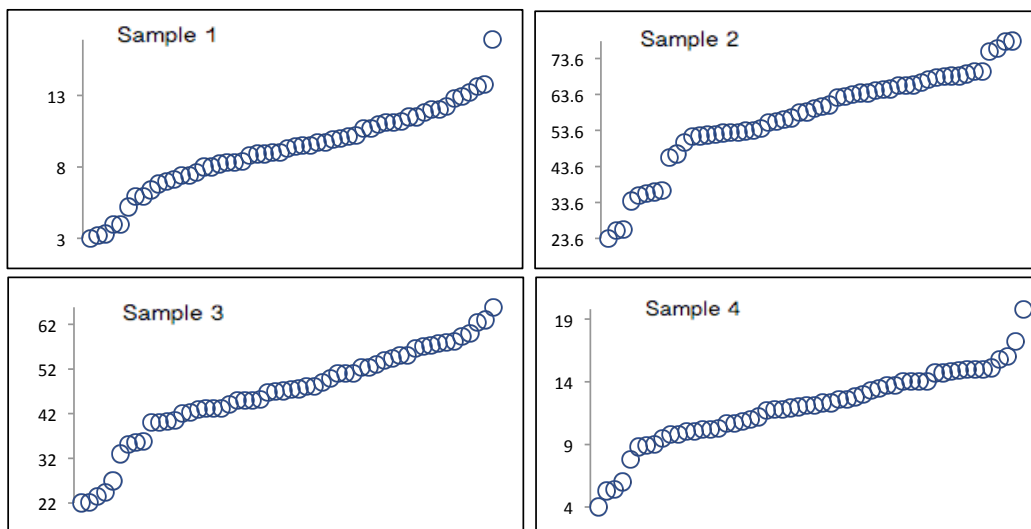
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	54	54	54	54
Median	9.35	59.20	47.3	12.1
Robust Mean	9.24	58.30	47.3	12.1
U	0.48	2.04	1.68	0.47
Robust Standard Deviation	2.81	12.00	9.86	2.75
Regression Standard Deviation	1.39	8.75	7.09	1.82
Stability Flag	Stability	Stability	Stability	
Homogeneity Flag				
Standard Deviation Used	3.69	20.9	10.4	2.75
Outliers	0	0	0	0
$ z > 3.0$	0	0	0	0
$2 < z < 3$	1	0	4	5

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	28	28	28	28
HS-GCMS	21	21	21	21
GC/PID	1	1	1	1
GC/MS1	3	3	3	3
HS-GCF	1	1	1	1

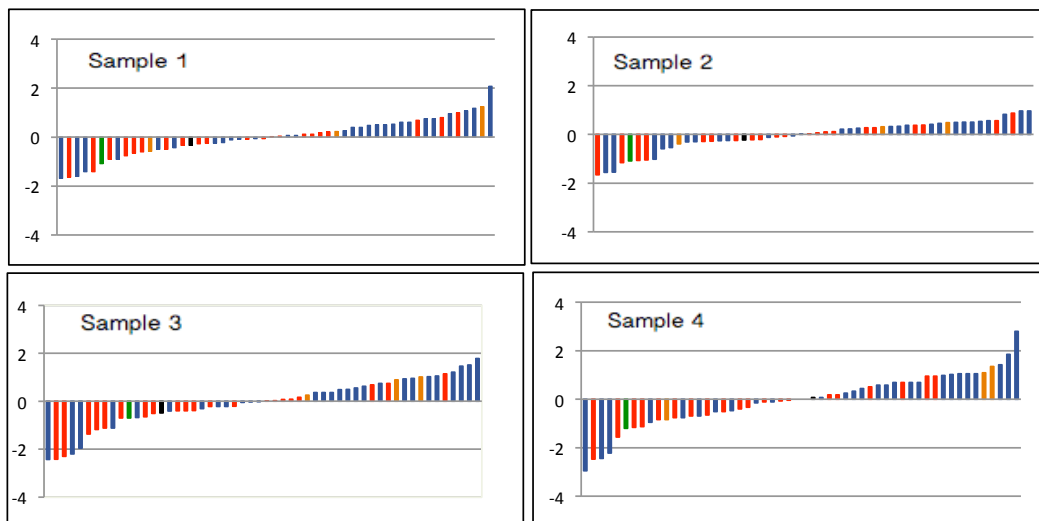
All summary stats and the plots below are based on the data excluding any flagged outliers



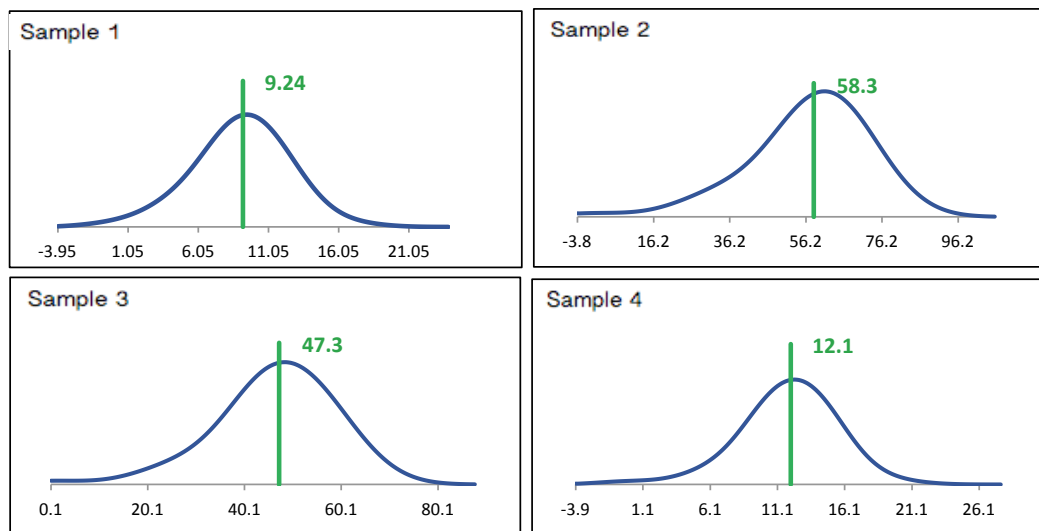
Annex A Summary by Analyte

STYRENE

z-Score Plots



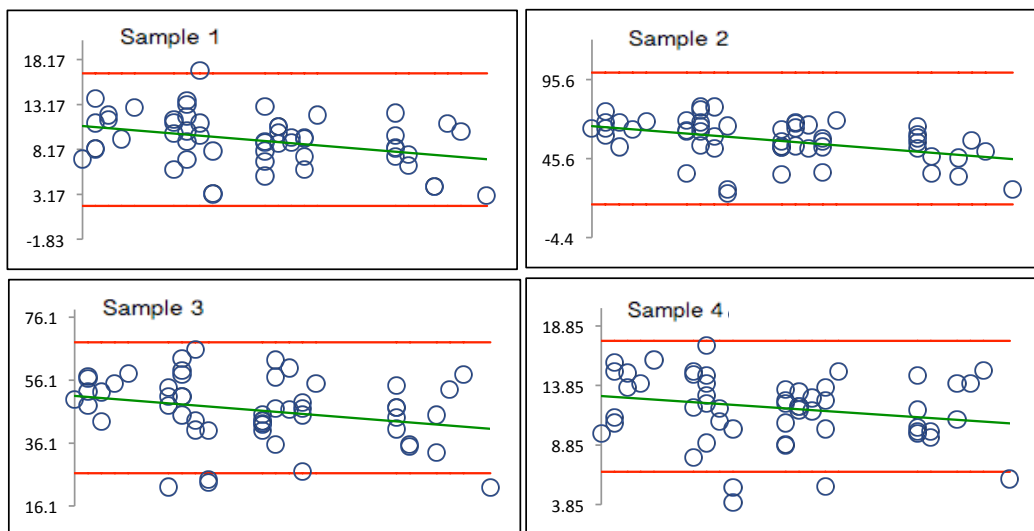
Kernel Density Plots



Annex A Summary by Analyte

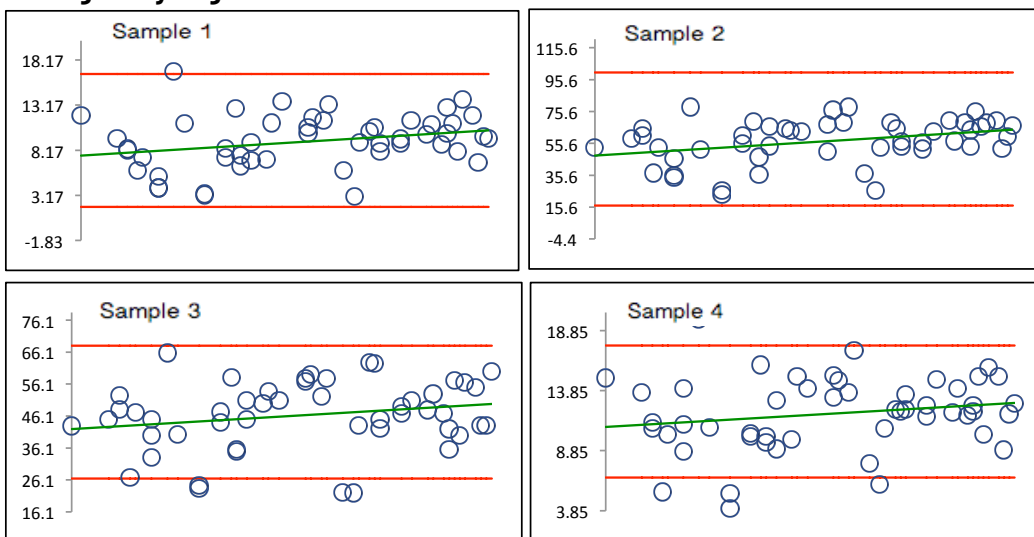
STYRENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

TETRACHLOROETHYLENE

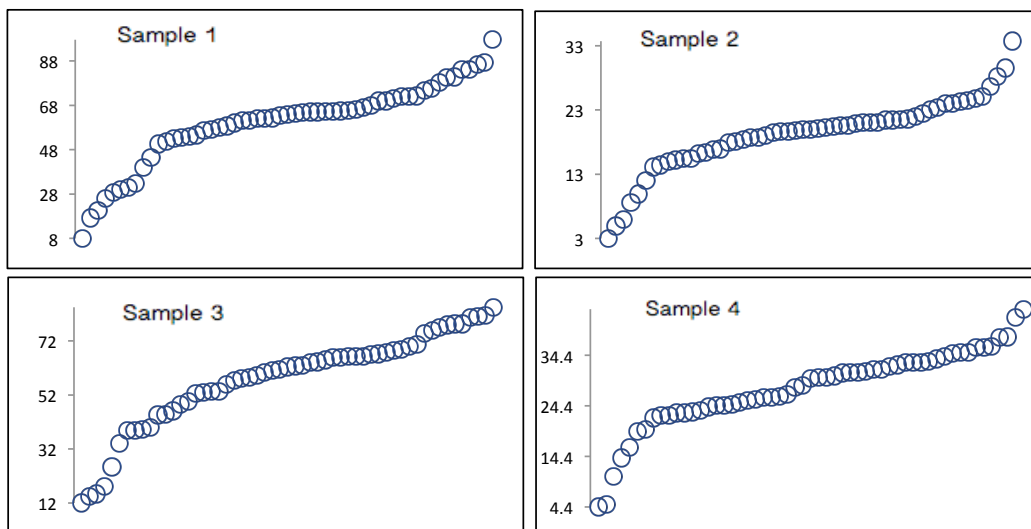
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	55	55	55	55
Median	64.0	20.0	62.4	29.8
Robust Mean	61.7	19.6	59.4	28.4
U	2.70	0.750	2.73	1.14
Robust Standard Deviation	16.0	4.45	16.2	6.78
Regression Standard Deviation	9.26	2.94	8.91	4.26
Stability Flag	Stability	Stability	Stability	Stability
Homogeneity Flag				
Standard Deviation Used	29.5	7.98	28.0	11.1
Outliers	0	0	0	0
$ z > 3.0$	0	0	0	0
$2 < z < 3$	0	1	0	2

Methods Used

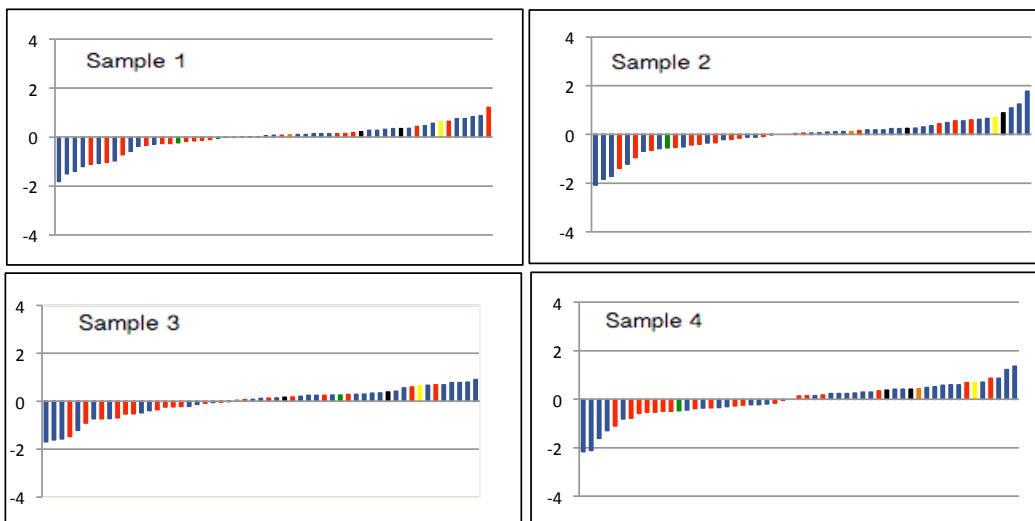
Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	31	31	31	31
HS-GCMS	19	19	19	19
GC/MSE	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	2	2	2	2
P/T-GCECD	1	1	1	1

All summary stats and the plots below are based on the data excluding any flagged outliers

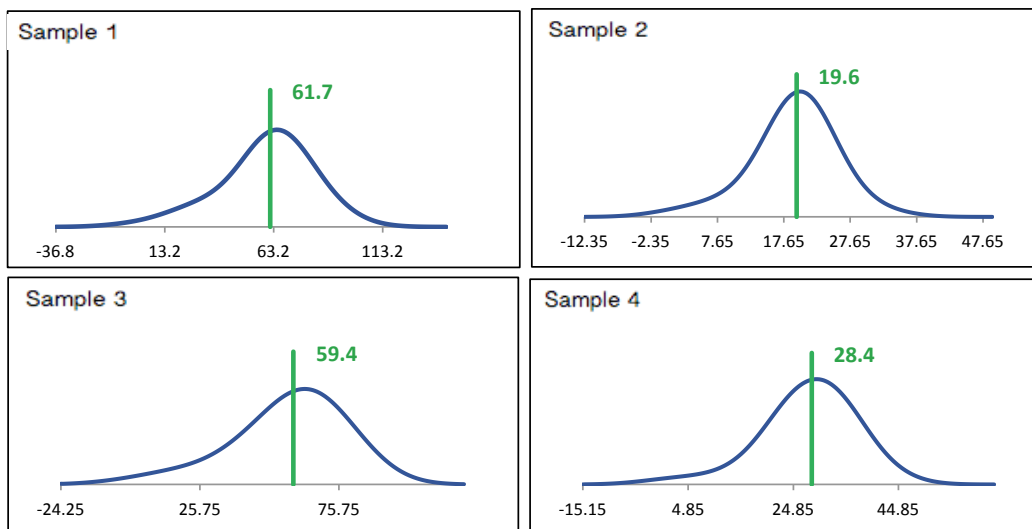


TETRACHLOROETHYLENE

z-Score Plots



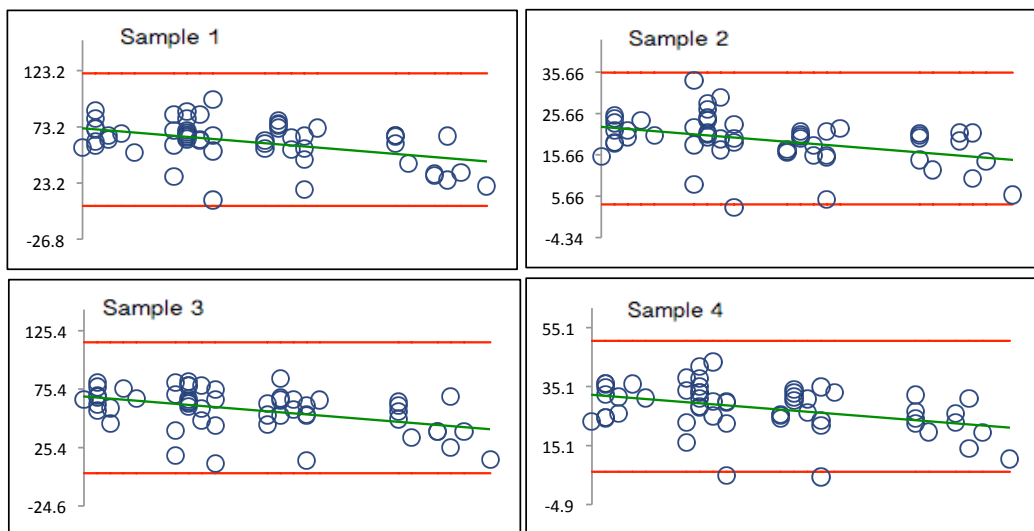
Kernel Density Plots



Annex A Summary by Analyte

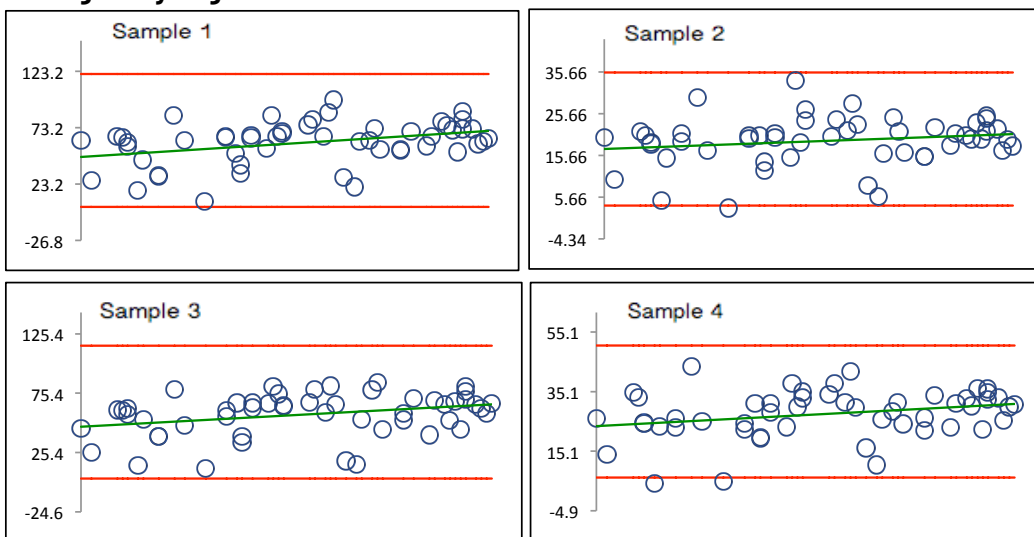
TETRACHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

TOLUENE

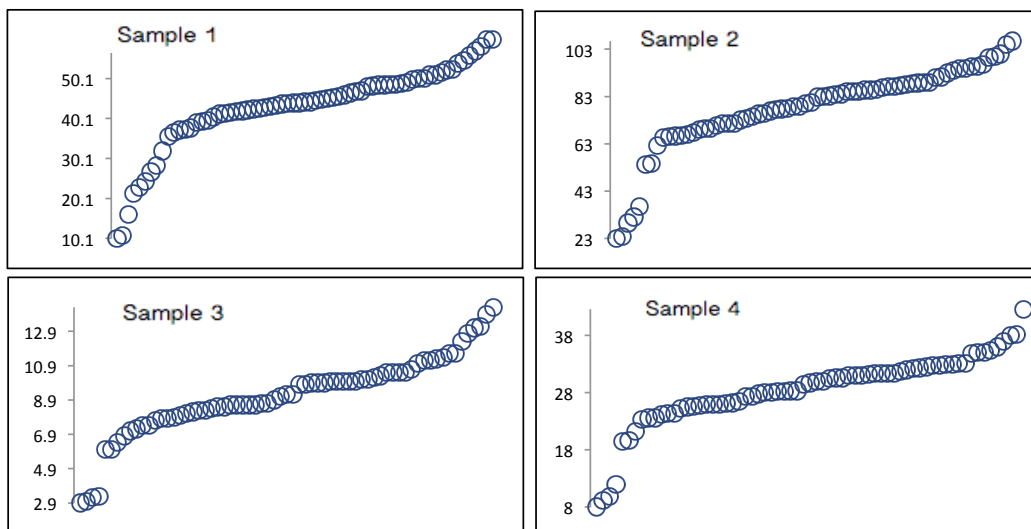
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	67	68	67	67
Median	44.2	81.6	9.20	29.7
Robust Mean	44.2	80.0	9.25	29.0
U	1.17	2.09	0.30	0.76
Robust Standard Deviation	7.7	13.8	1.98	4.96
Regression Standard Deviation	6.63	12.0	1.39	4.36
Stability Flag	Stability			
Homogeneity Flag				
Standard Deviation Used	10.5	13.8	1.98	4.96
Outliers	0	0	0	0
$ z > 3.0$	2	5	4	4
$2 < z < 3$	3	0	2	1

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	34	34	34	34
HS-GCMS	23	24	23	23
GC/MS1	5	5	5	5
HS-GCF	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-FID	3	3	3	3

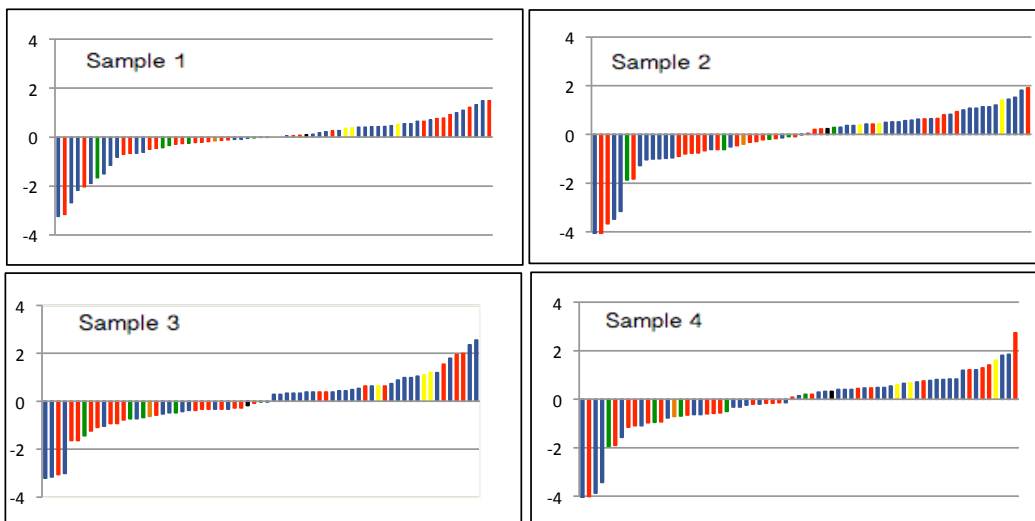
All summary stats and the plots below are based on the data excluding any flagged outliers



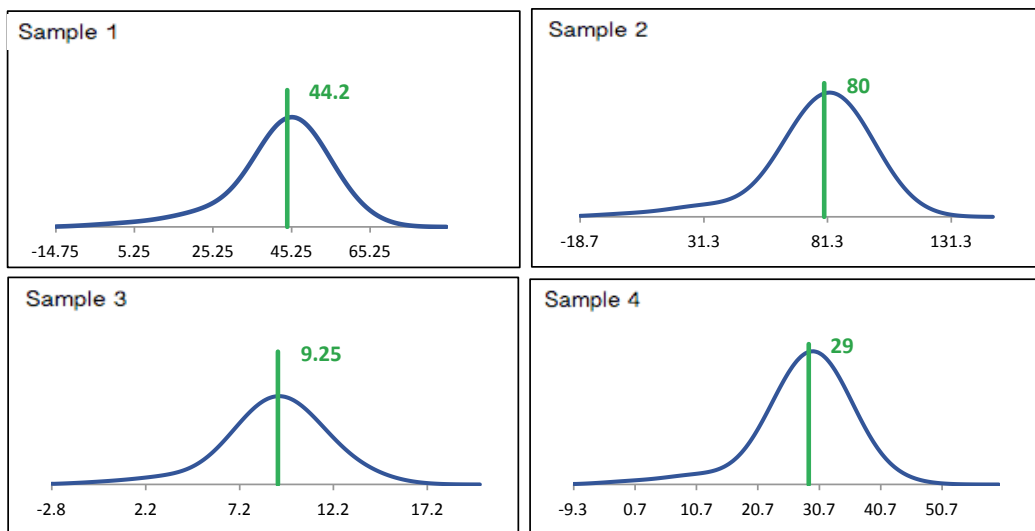
Annex A Summary by Analyte

TOLUENE

z-Score Plots



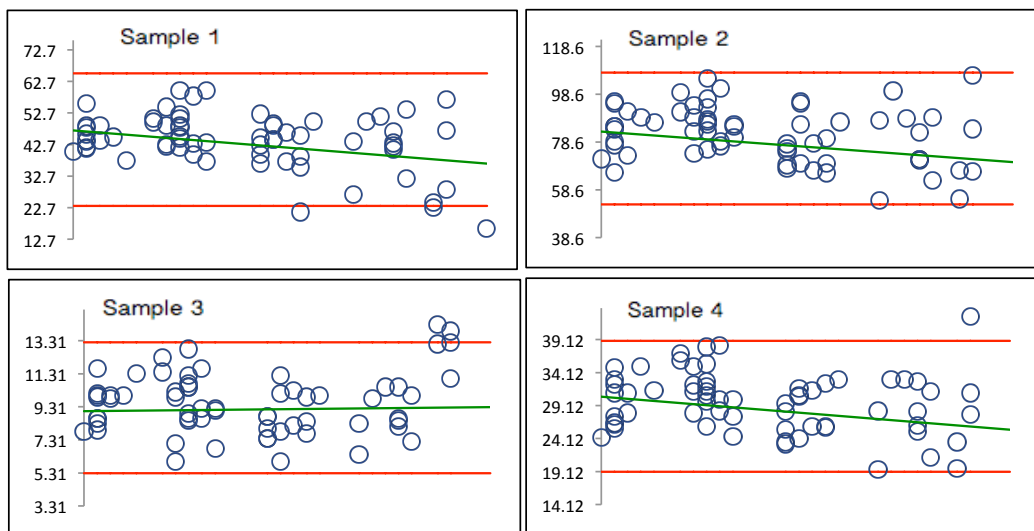
Kernel Density Plots



Annex A Summary by Analyte

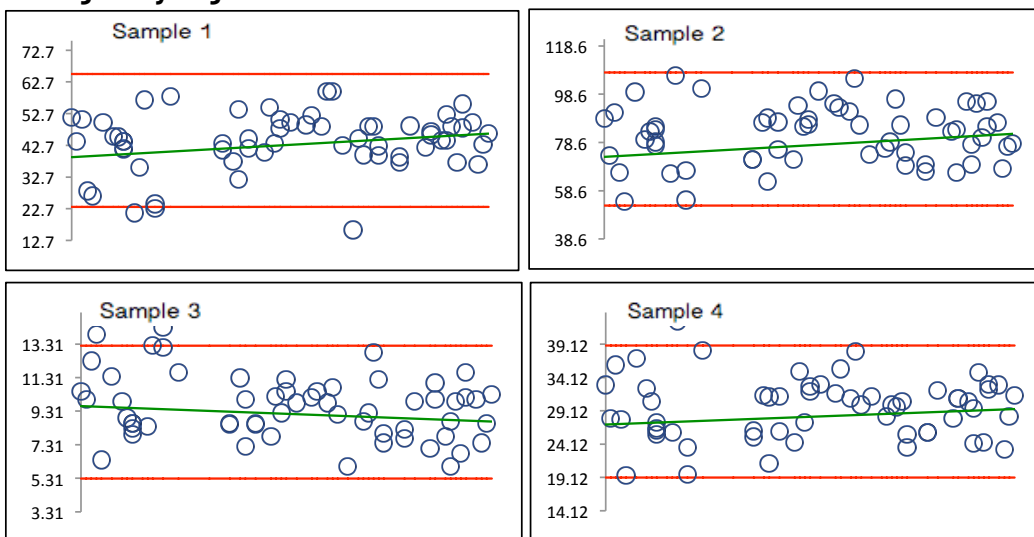
TOLUENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

TRANS-1,2-DICHLOROETHYLENE

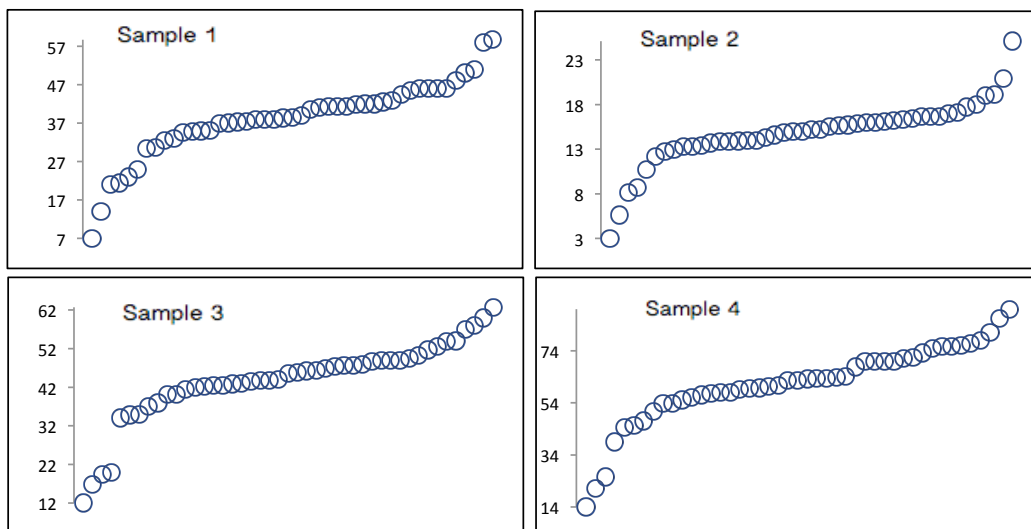
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	45	45	45	45
Median	38.5	15.2	45.6	62.7
Robust Mean	38.8	15.0	44.8	62.7
U	1.47	0.44	1.42	2.37
Robust Standard Deviation	7.88	2.36	7.64	12.7
Regression Standard Deviation	5.82	2.26	6.73	9.40
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	7.88	2.36	7.64	12.7
Outliers	0	0	0	0
$ z > 3.0$	2	3	4	2
$2 < z < 3$	5	3	1	2

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	26	26	26	26
HS-GCMS	17	17	17	17
GC/MS1	1	1	1	1
P/T-FID	1	1	1	1

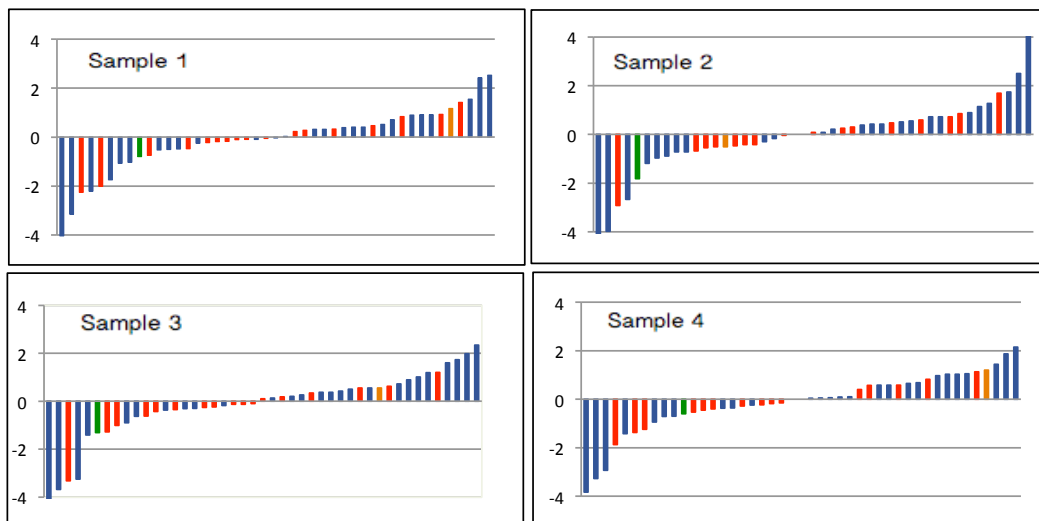
All summary stats and the plots below are based on the data excluding any flagged outliers



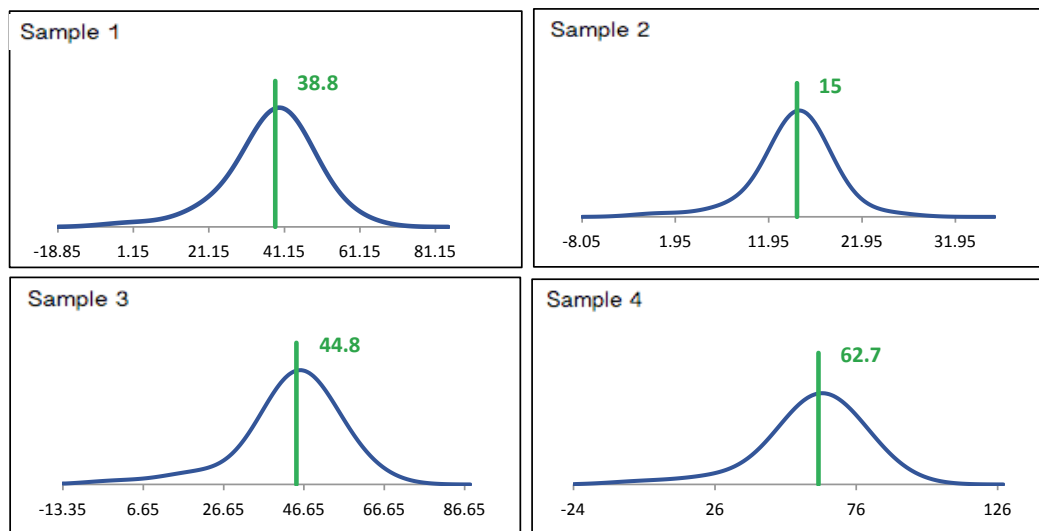
Annex A Summary by Analyte

TRANS-1,2-DICHLOROETHYLENE

z-Score Plots



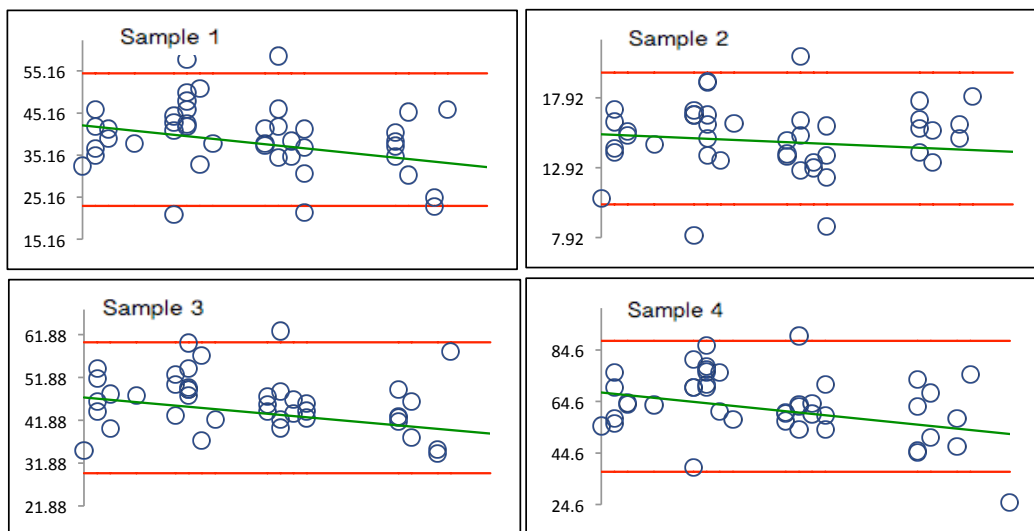
Kernel Density Plots



Annex A Summary by Analyte

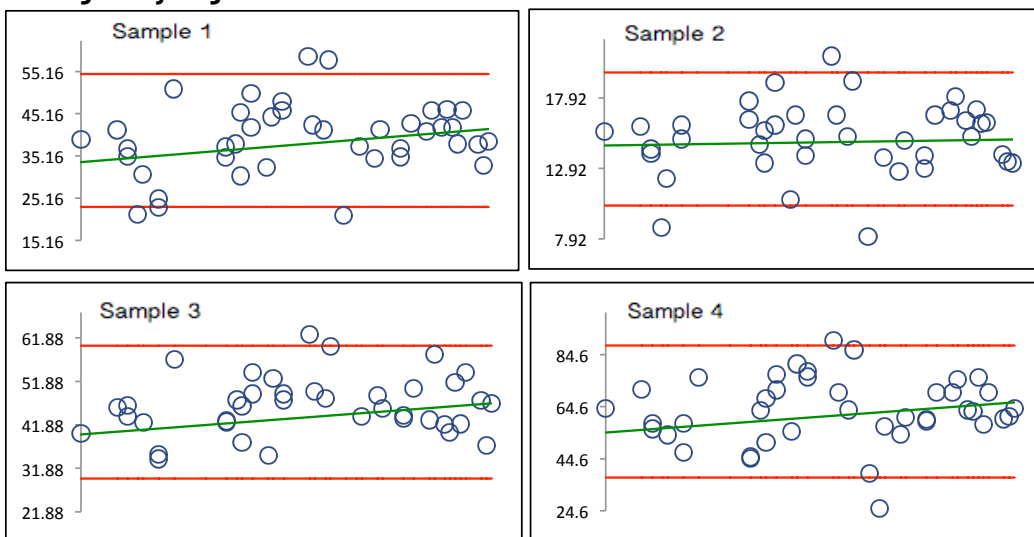
TRANS-1,2-DICHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

TRANS-1,3-DICHLOROPROPENE

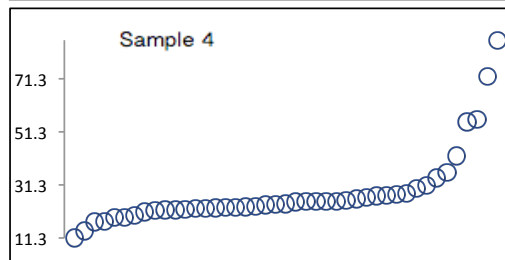
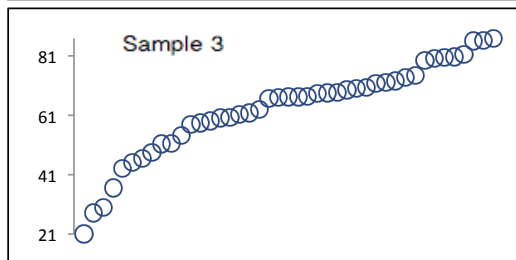
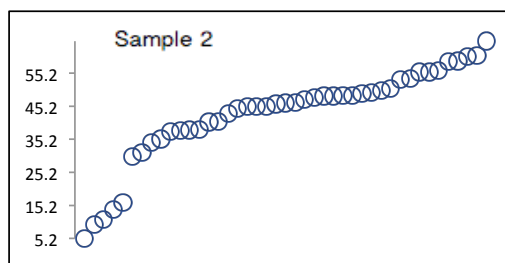
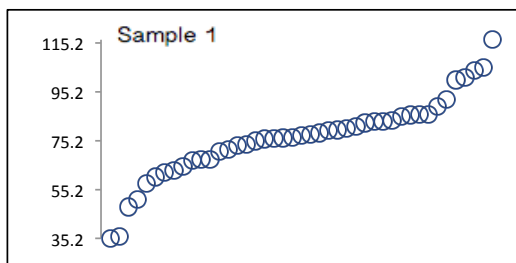
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	43	43	43	43
Median	77.2	46.2	67.1	24.1
Robust Mean	76.7	44.8	64.3	25.0
U	2.67	2.13	2.84	1.08
Robust Standard Deviation	14.0	11.2	14.9	5.64
Regression Standard Deviation	11.5	6.72	9.65	3.75
Stability Flag	Stability			
Homogeneity Flag		Homogeneity	Homogeneity	Homogeneity
Standard Deviation Used	19.3	15.7	17.2	18.9
Outliers	0	0	0	0
z >3.0	0	0	0	1
2< z <3	3	3	2	1

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	25	25	25	25
HS-GCMS	17	17	17	17
GC/MS1	1	1	1	1

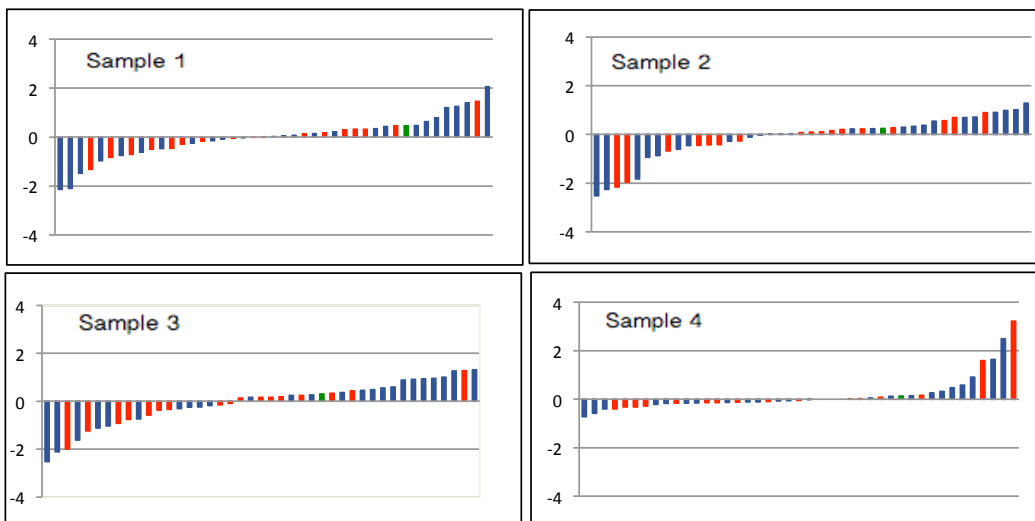
All summary stats and the plots below are based on the data excluding any flagged outliers



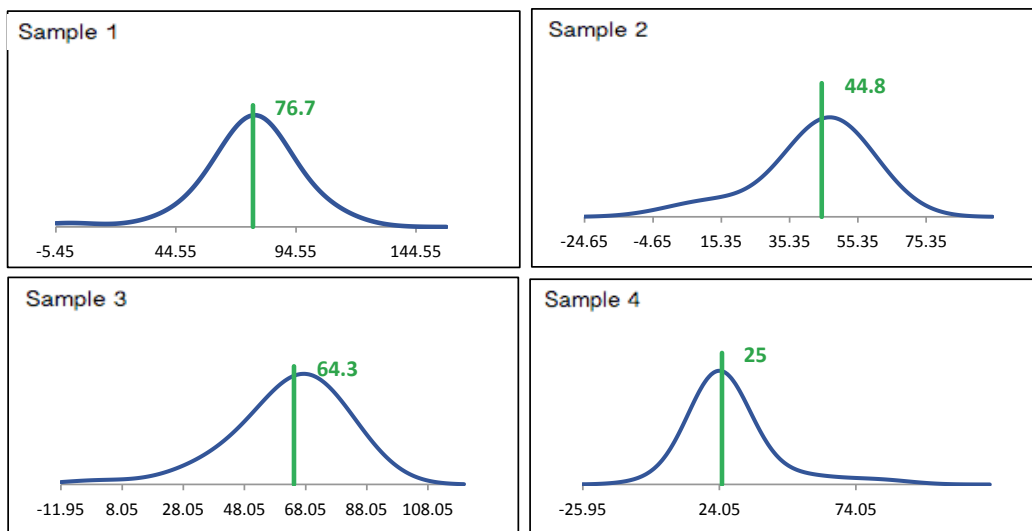
Annex A Summary by Analyte

TRANS-1,3-DICHLOROPROPENE

z-Score Plots



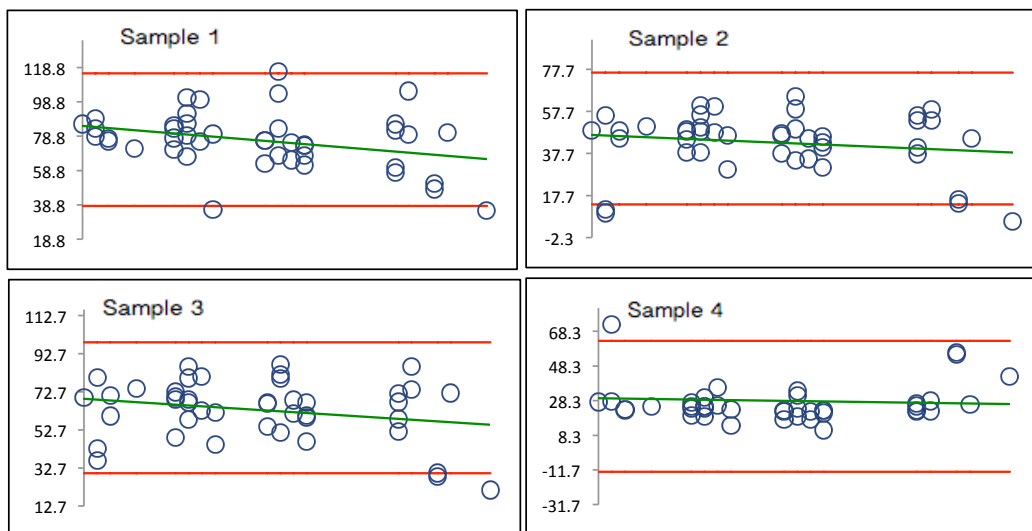
Kernel Density Plots



Annex A Summary by Analyte

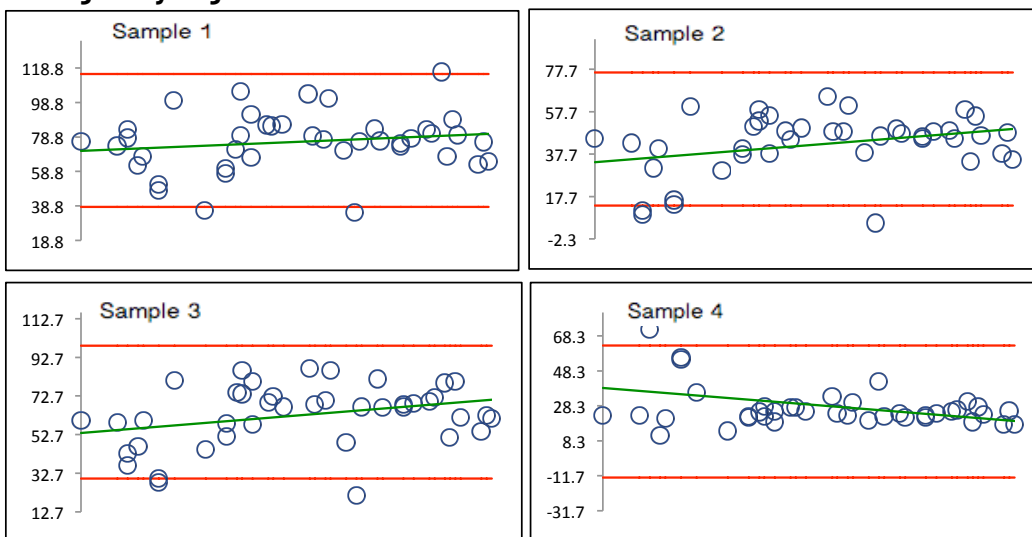
TRANS-1,3-DICHLOROPROPENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

TRICHLOROETHYLENE

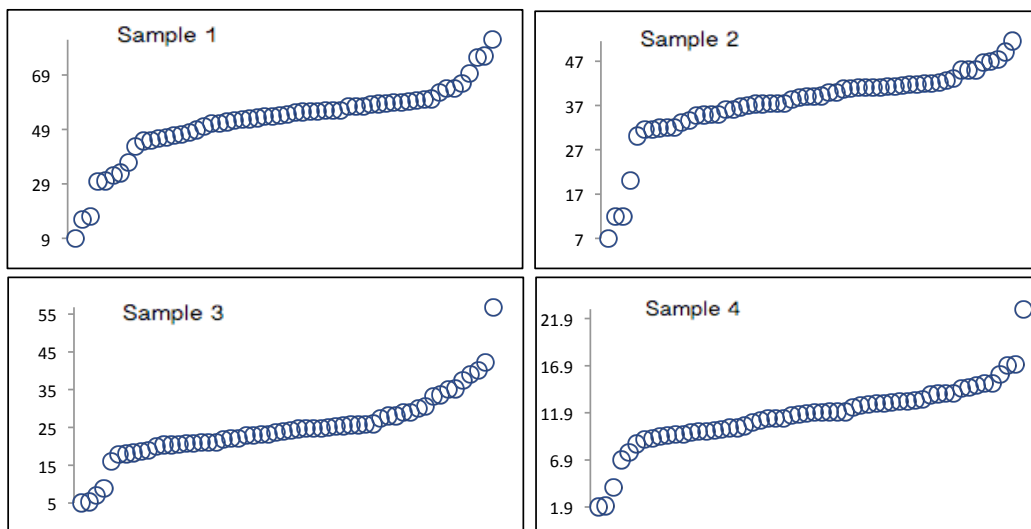
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	56	56	56	56
Median	54.3	39.0	24.1	11.9
Robust Mean	53.2	38.5	24.4	11.7
U	1.58	0.94	1.07	0.43
Robust Standard Deviation	9.44	5.62	6.39	2.56
Regression Standard Deviation	9.31	6.74	4.27	2.05
Stability Flag			Stability	
Homogeneity Flag	Homogeneity			
Standard Deviation Used	12.7	6.74	9.81	2.56
Outliers	0	0	0	0
$ z > 3.0$	1	3	1	4
$2 < z < 3$	3	1	0	2

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	31	31	31	31
HS-GCMS	20	20	20	20
GC/MSE	1	1	1	1
GC/MS/MSHEAD	1	1	1	1
P/T-GCECD	1	1	1	1
P/T-FID	2	2	2	2

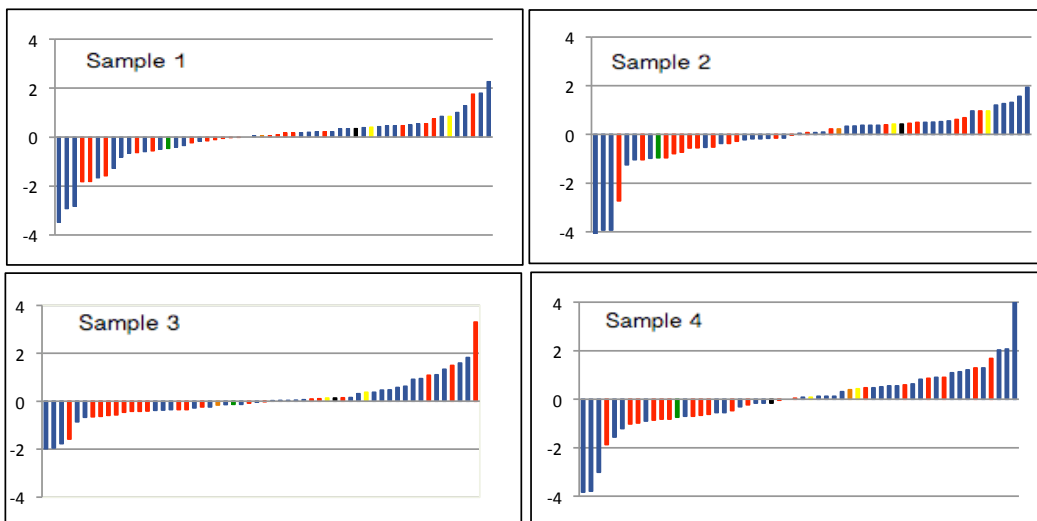
All summary stats and the plots below are based on the data excluding any flagged outliers



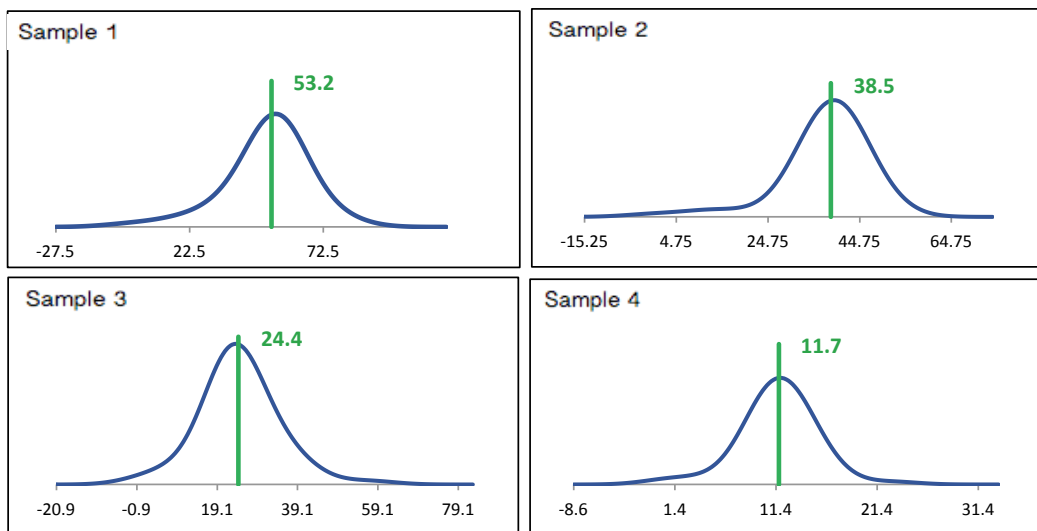
Annex A Summary by Analyte

TRICHLOROETHYLENE

z-Score Plots



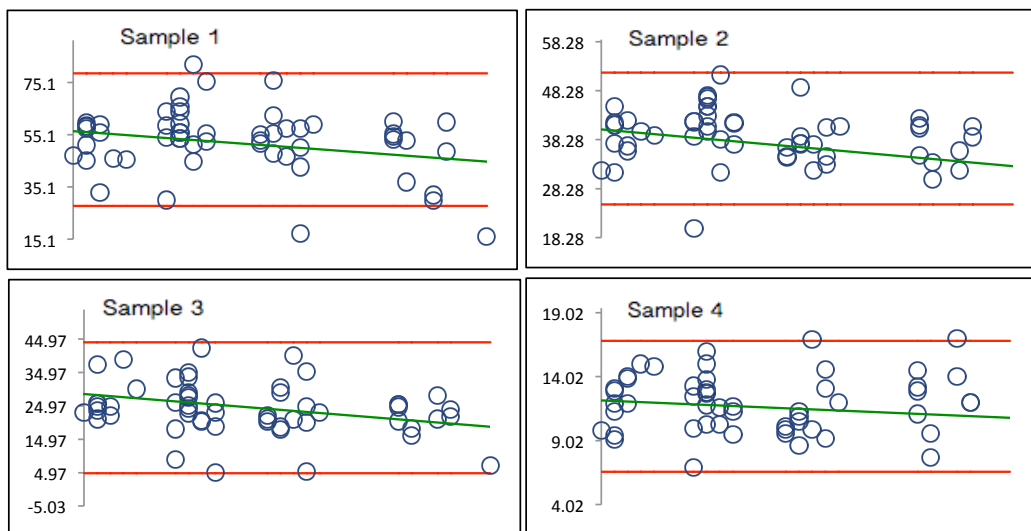
Kernel Density Plots



Annex A Summary by Analyte

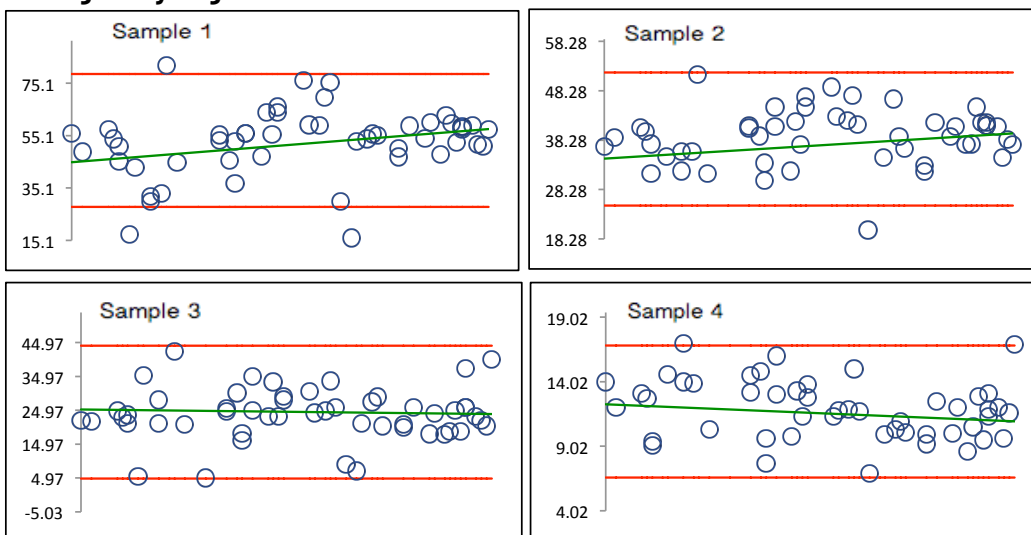
TRICHLOROETHYLENE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

TRICHLOROFLUOROMETHANE

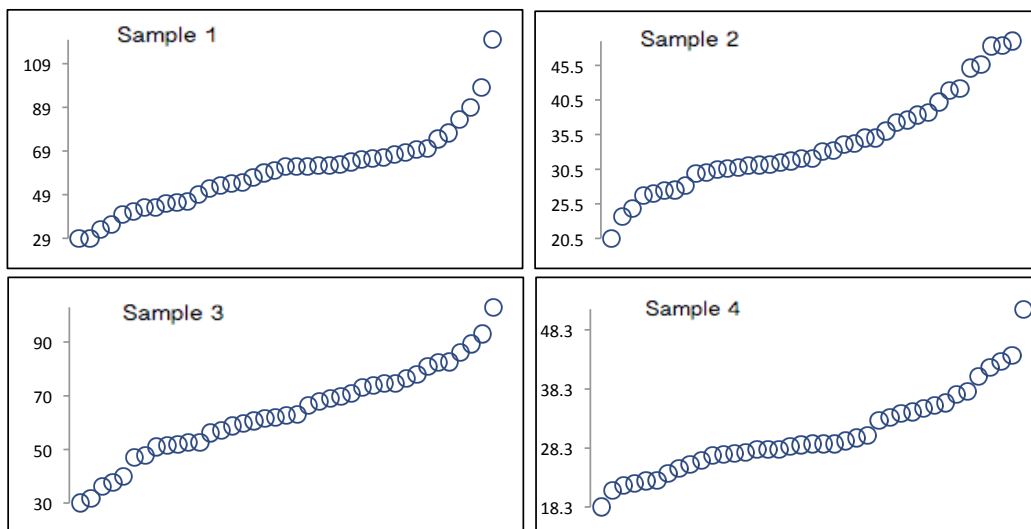
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	39	39	39	39
Median	62.0	32.0	62.6	29.0
Robust Mean	58.2	33.8	63.6	30.2
U	3.26	1.37	3.54	1.35
Robust Standard Deviation	16.3	6.82	17.7	6.75
Regression Standard Deviation	11.6	6.75	12.7	6.04
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	16.3	6.82	17.7	6.75
Outliers	3	2	3	3
$ z > 3.0$	1	0	0	1
$2 < z < 3$	1	3	1	1

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	21	21	21	21
HS-GCMS	17	17	17	17
GC/MS1	1	1	1	1

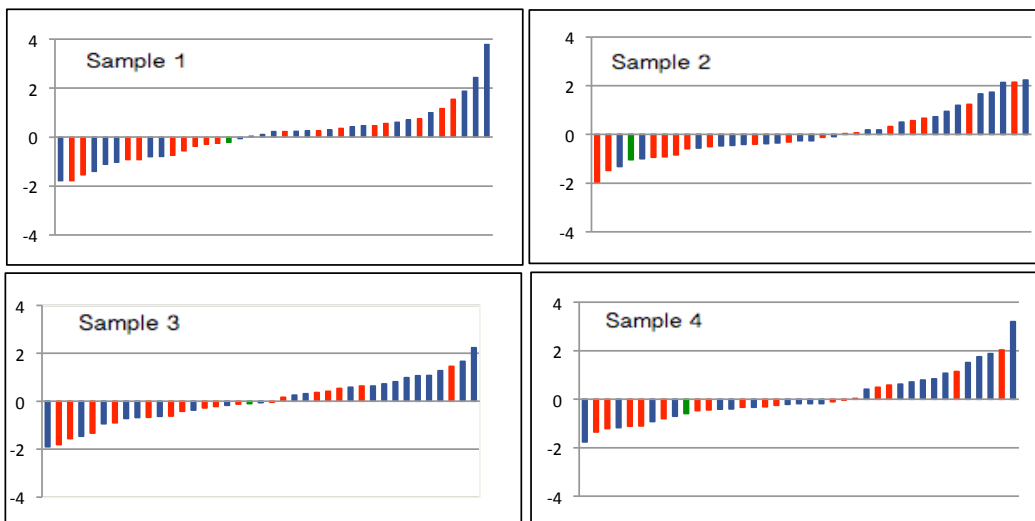
All summary stats and the plots below are based on the data excluding any flagged outliers



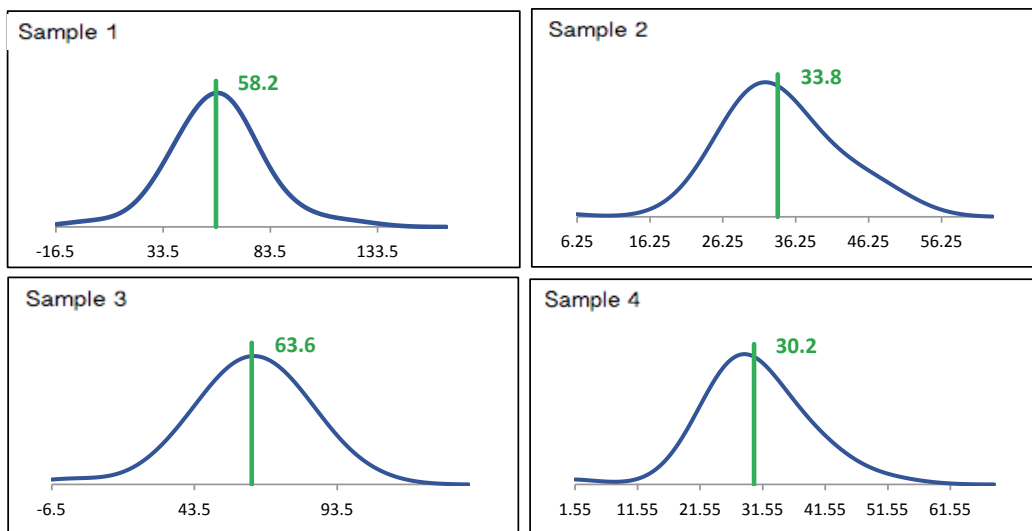
Annex A Summary by Analyte

TRICHLOROFLUOROMETHANE

z-Score Plots



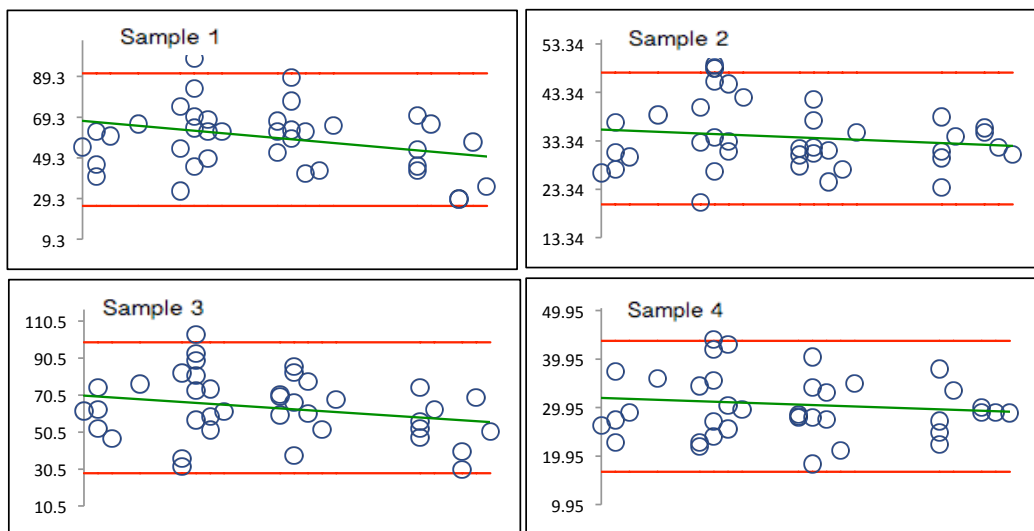
Kernel Density Plots



Annex A Summary by Analyte

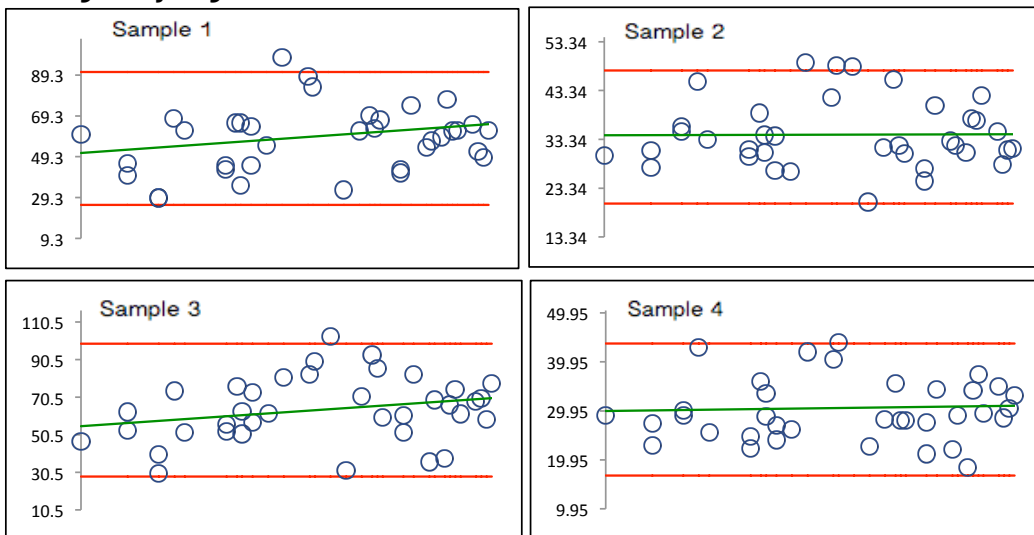
TRICHLOROFLUOROMETHANE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).

Annex A Summary by Analyte

VINYL CHLORIDE

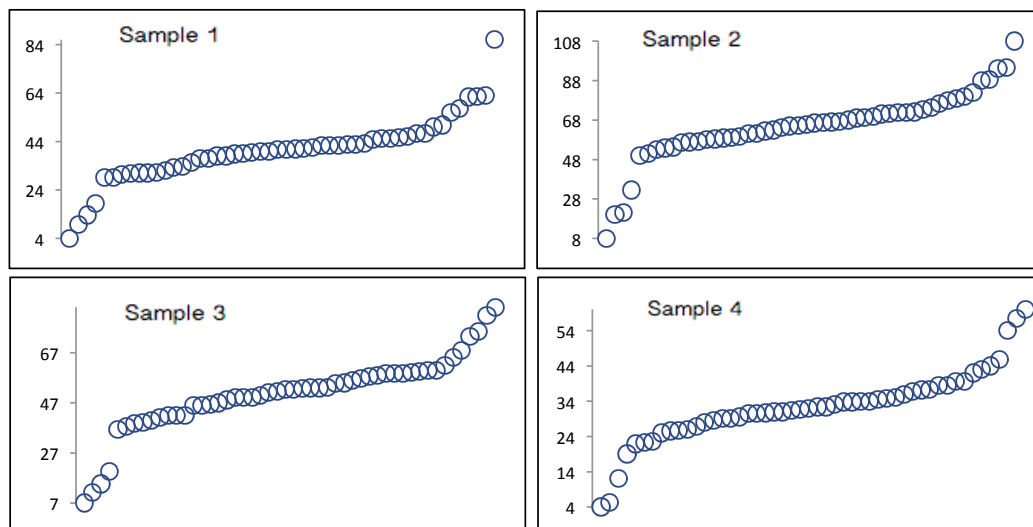
Summary Statistics

Statistic	C16-1	C16-2	C16-3	C16-4
N	50	50	50	50
Median	40.6	66.2	52.3	32.2
Robust Mean	40.1	65.8	51.3	32.4
U	1.66	2.17	2.00	1.38
Robust Standard Deviation	9.38	12.3	11.3	7.82
Regression Standard Deviation	9.02	14.8	11.6	7.28
Stability Flag				
Homogeneity Flag				
Standard Deviation Used	9.38	14.8	11.6	7.82
Outliers	0	0	0	0
$ z > 3.0$	3	3	3	4
$2 < z < 3$	5	2	4	2

Methods Used

Method	C16-1	C16-2	C16-3	C16-4
P/T-GCMS	30	30	30	30
HS-GCMS	18	18	18	18
GC/MS/MSHEAD	1	1	1	1
GC/MS1	1	1	1	1

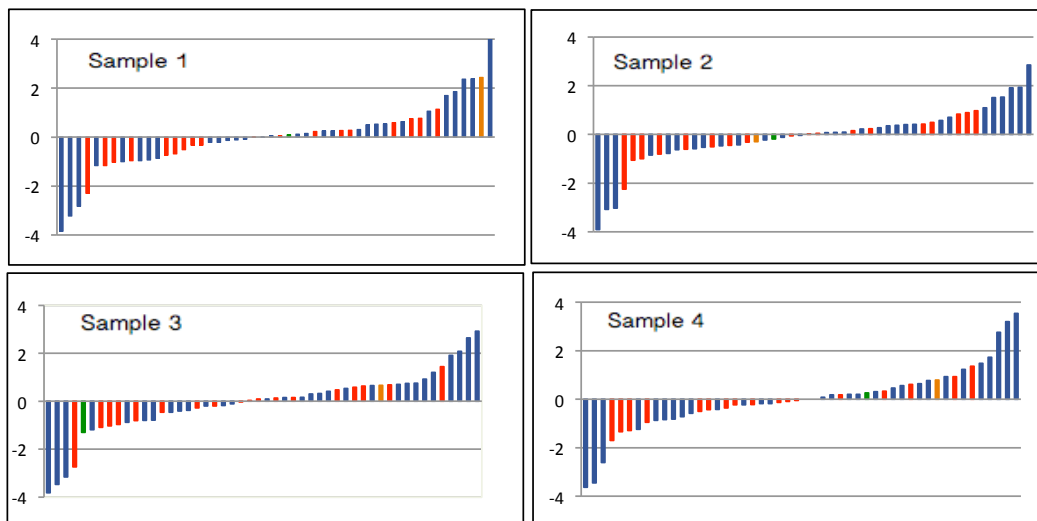
All summary stats and the plots below are based on the data excluding any flagged outliers



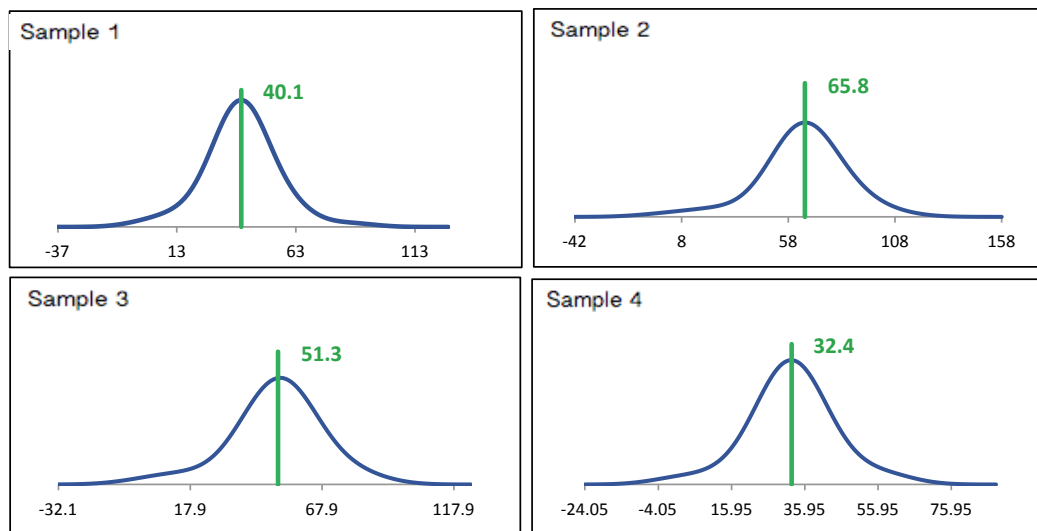
Annex A Summary by Analyte

VINYL CHLORIDE

z-Score Plots



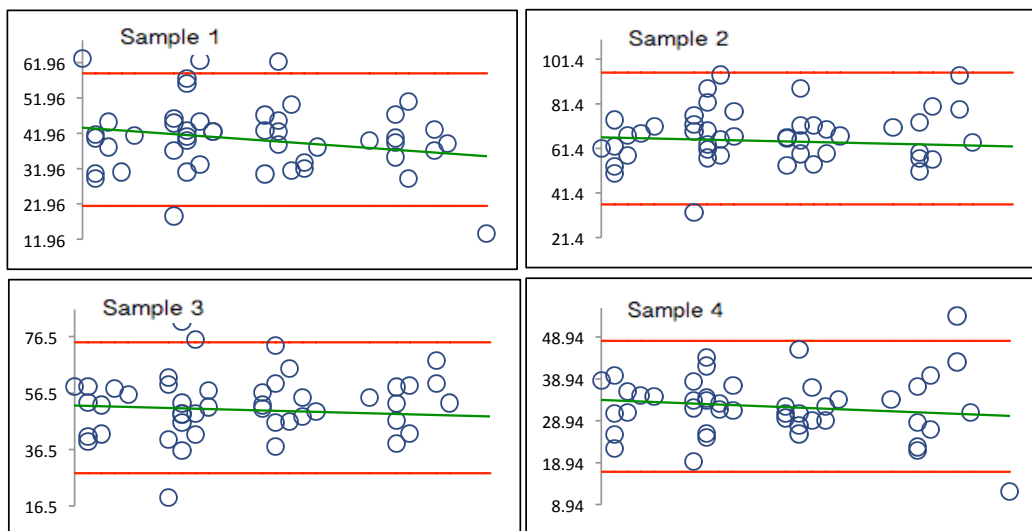
Kernel Density Plots



Annex A Summary by Analyte

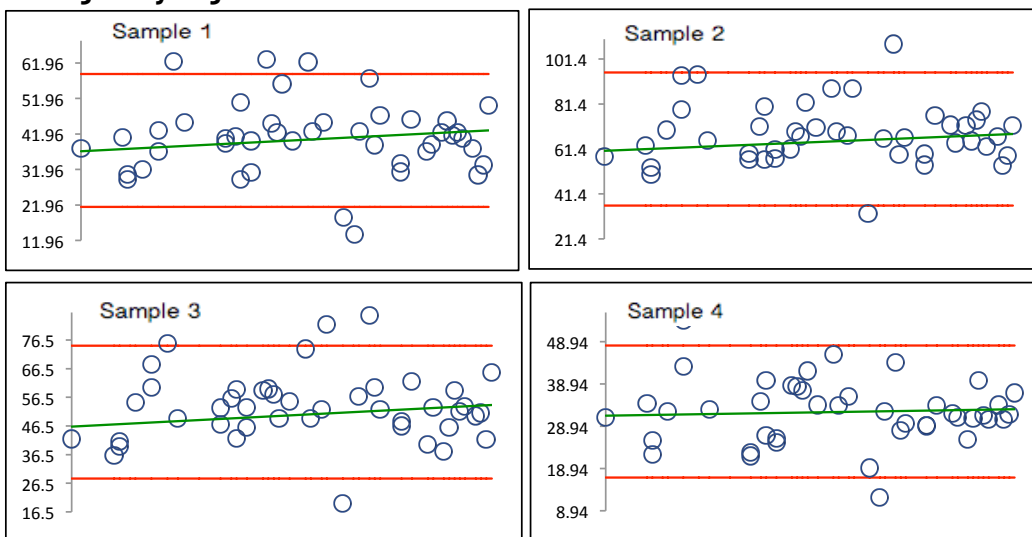
VINYL CHLORIDE

Stability Regression



Reported results (Y-axis) plotted against reported analysis date (X-axis)

Homogeneity Regression



Reported results (Y-axis) plotted against bottling order (X-axis).