

# Test Group Summary Report

## C73 Residual Solvents in Oil

### March 2026 PT Round

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**Issued: May 8, 2026**

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## 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 is 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 (SDPA). 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 - *Conformity assessment- General requirements for the competence of proficiency testing providers*, 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](http://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:

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

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 ( $Stdev_{rob}$ ) is calculated using reported results, obvious outliers removed;
- The regression equation standard deviation ( $Stdev_{reg}$ ) is estimated from regression equations derived from previous studies (see PROC11- *PT Regression Equations* for details);
- The SDPA is the higher of  $Stdev_{rob}$  and  $Stdev_{reg}$ ;
- 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.

$$RSZ = \frac{\sum z}{\sqrt{N}} \quad \text{where } \begin{array}{l} z = \text{the z- score} \\ N = \text{the number of samples} \end{array}$$

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

$$RSZ \geq -2 \text{ and } \leq 2 \text{ no flag assigned}$$

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.

### 4.5 BOX-AND-WHISKER PLOTS

Box-and-Whisker plots are another way to display the distribution of the data. The box denotes the first and third quartile and the whiskers are the 5<sup>th</sup> and 95<sup>th</sup> percentile.

### 4.6 HISTORIC COMPARISON PLOT

The Historic Comparison Plot is a plot of robust mean against robust standard deviation for the previous ten PT rounds as well as the current PT round. This plot can be used to identify possible changes in the sample formulation.

### 1-Butanol (n-Butanol)

#### Summary Statistics

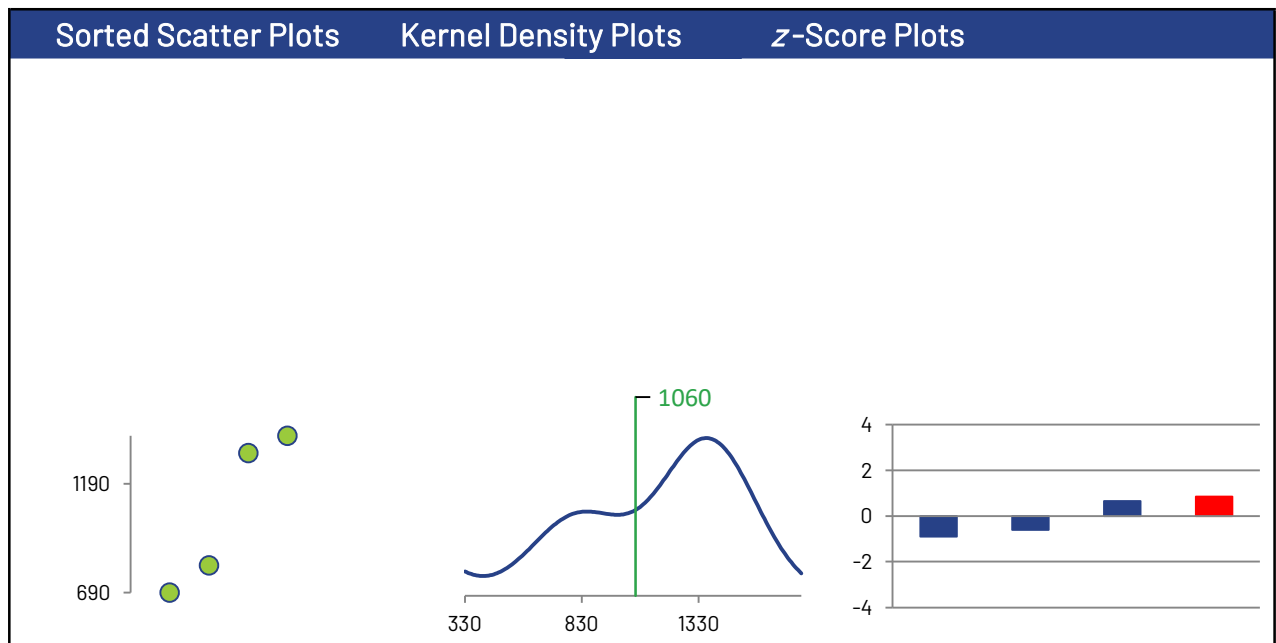
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	4	0	0
Median µg/g		1070		
Robust Mean µg/g		1060		
Uncertainty of the Assigned Value µg/g		256		
Robust Standard Deviation µg/g		410		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		410		
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

#### Methods Used

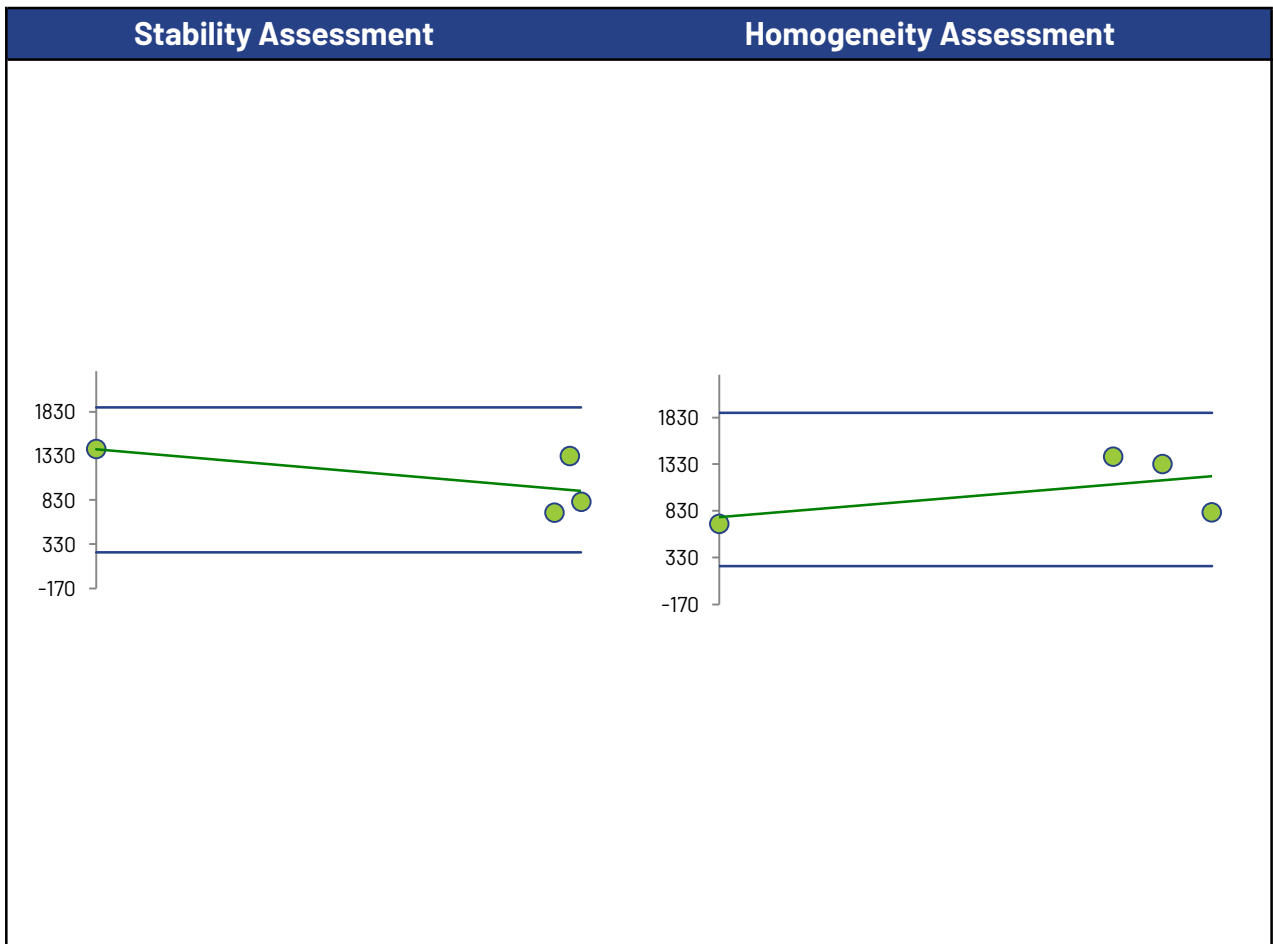
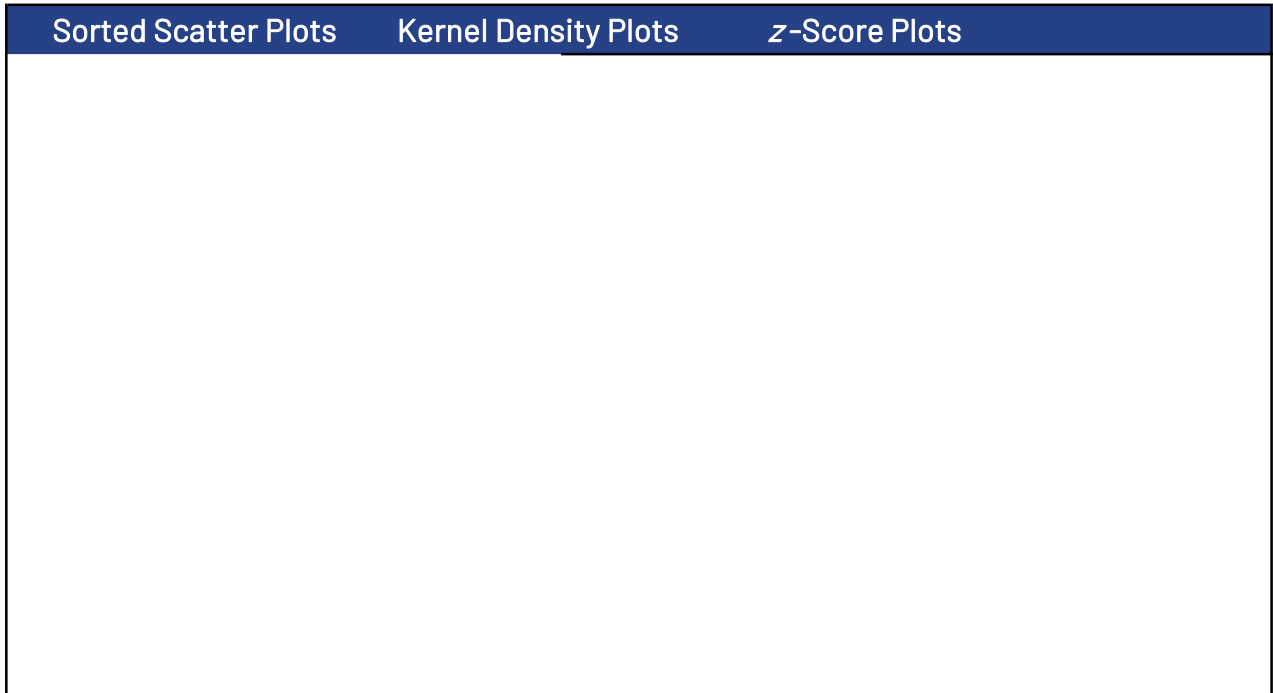
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	3	0	0
GC/FID (Red)	0	1	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

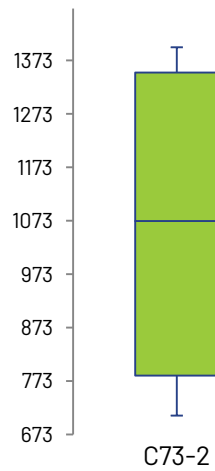
### 1-Butanol (n-Butanol)



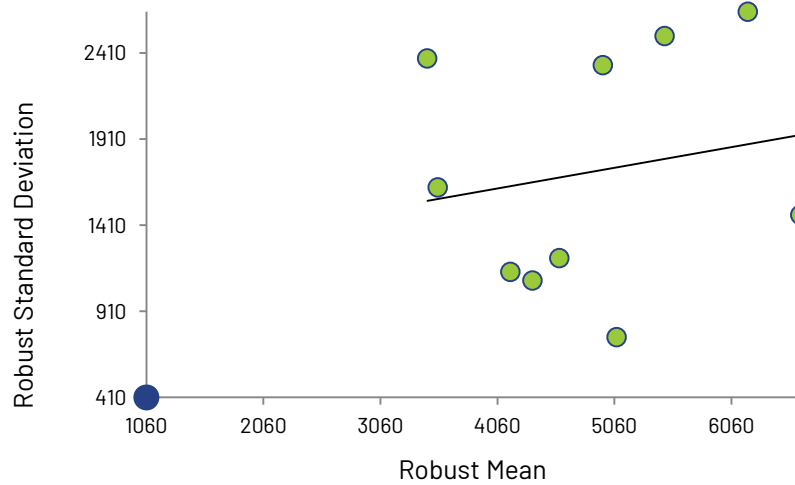
## 1-Butanol (n-Butanol)

Stability Assessment	Homogeneity Assessment
<p>C73-4</p> <p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	

### Box and Whisker Plots



### Current Round (blue) Compared to Historic Rounds (green)



# 1-Pentanol

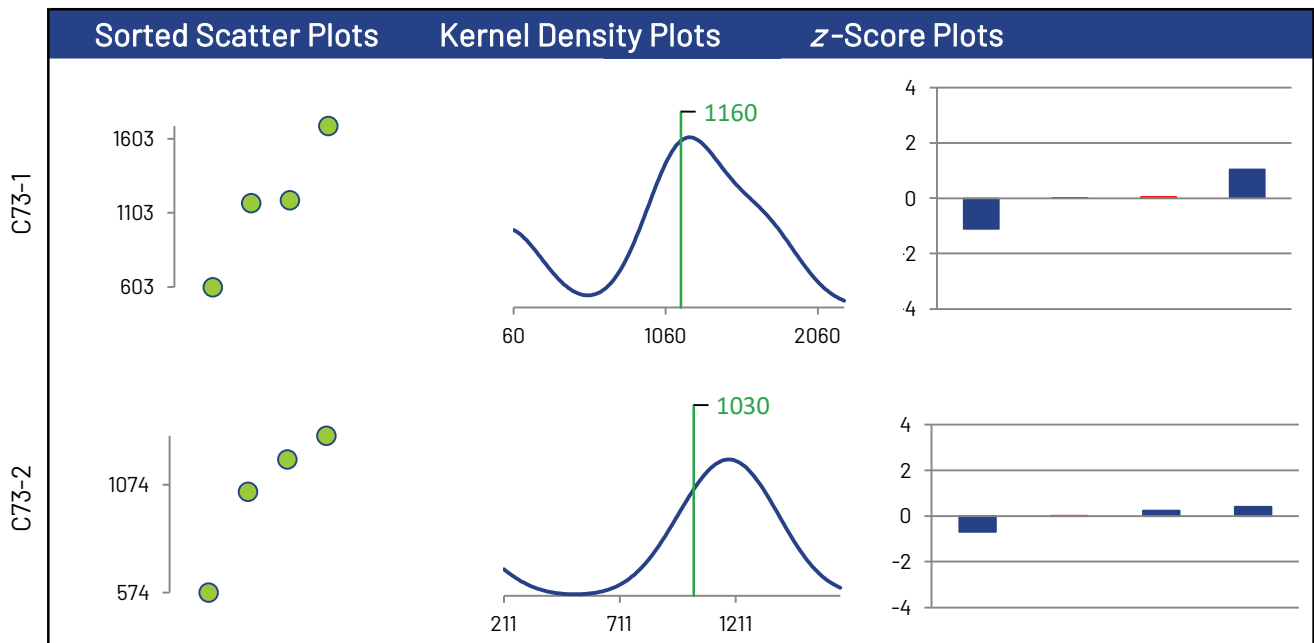
## Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	4	0	0
Median µg/g	1180	1120		
Robust Mean µg/g	1160	1030		
Uncertainty of the Assigned Value µg/g	315	226		
Robust Standard Deviation µg/g	504	362		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag		Homogeneity		
Standard Deviation Used (SDPA) µg/g	504	672		
Flagged Outliers	0	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0
Failure Rate %*	0.0			

## Methods Used

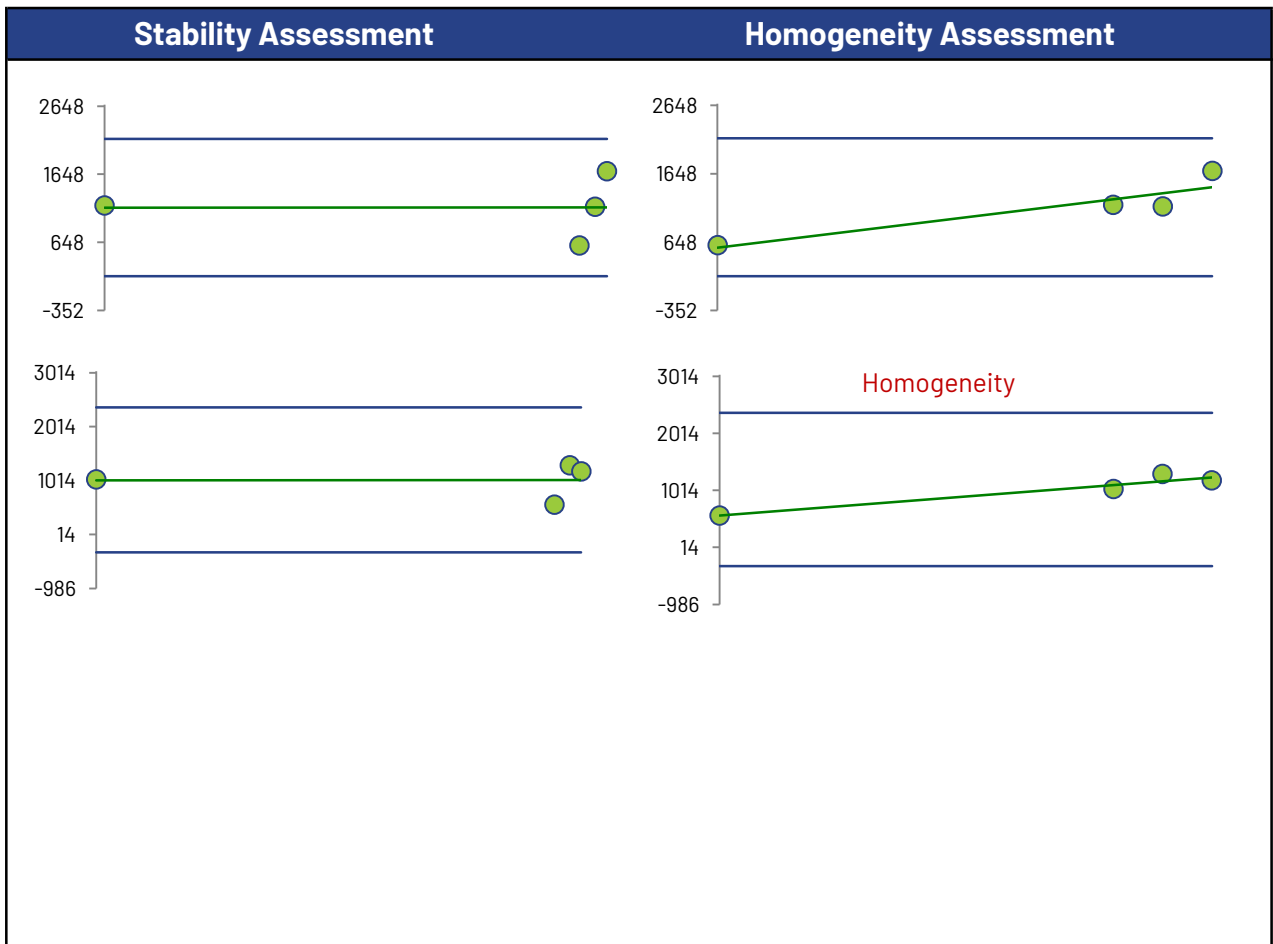
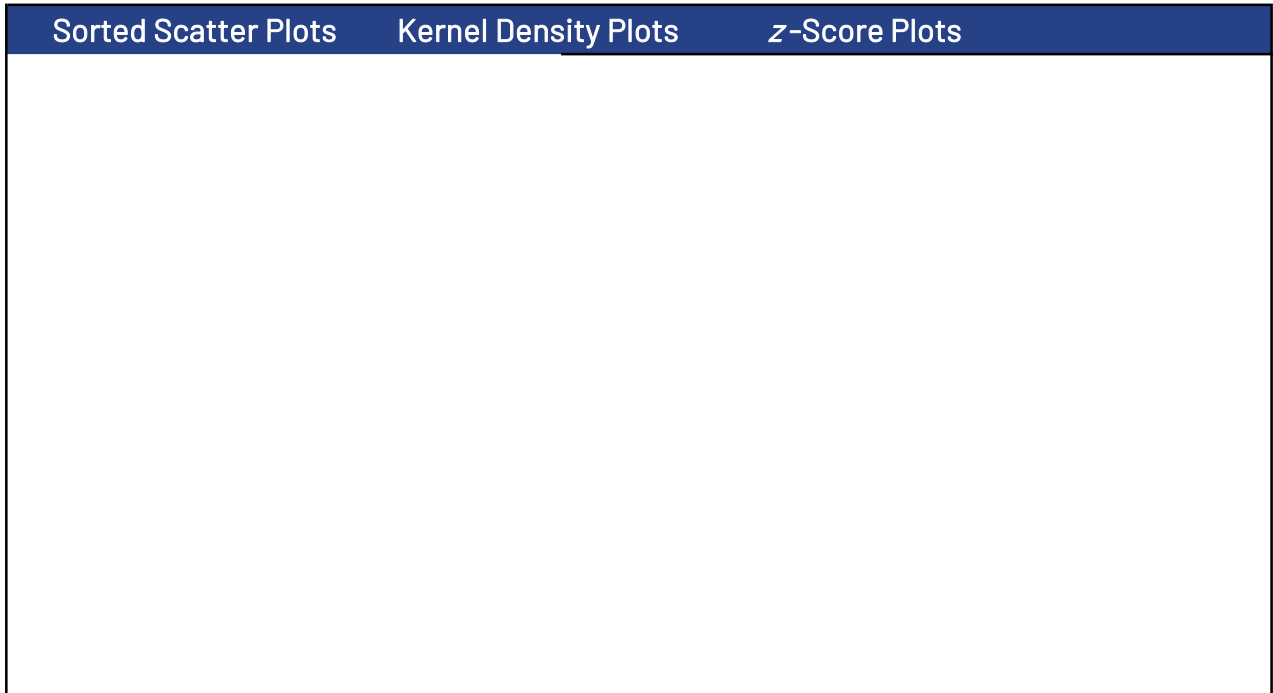
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	3	0	0
GC/FID (Red)	1	1	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



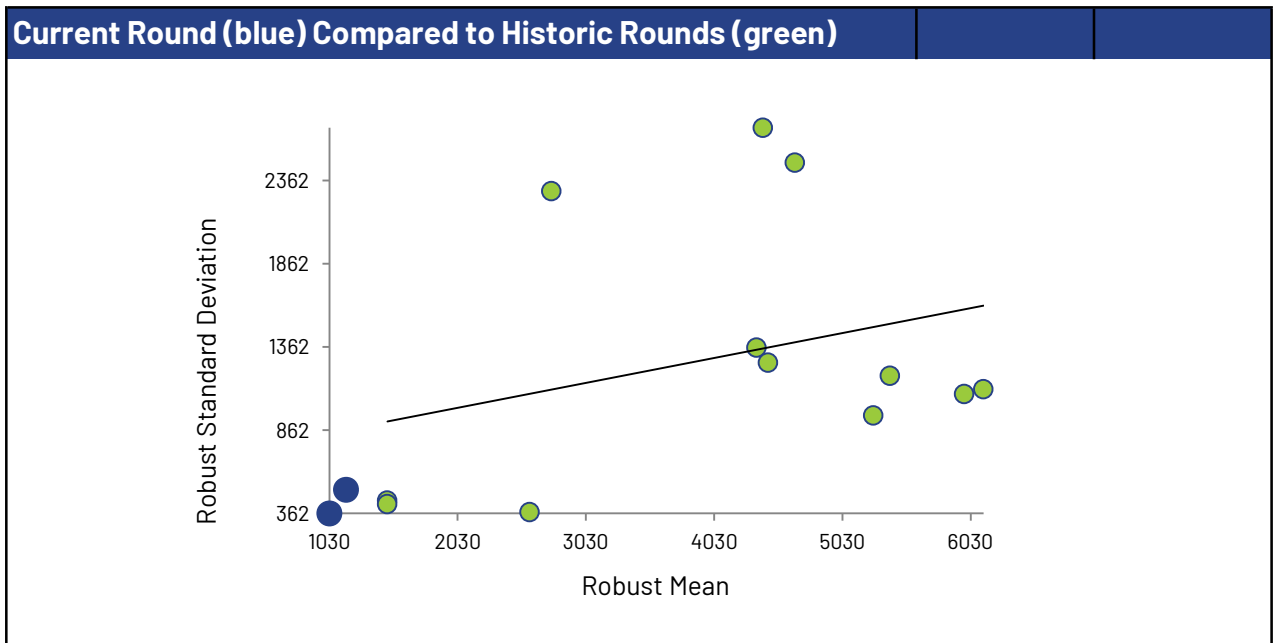
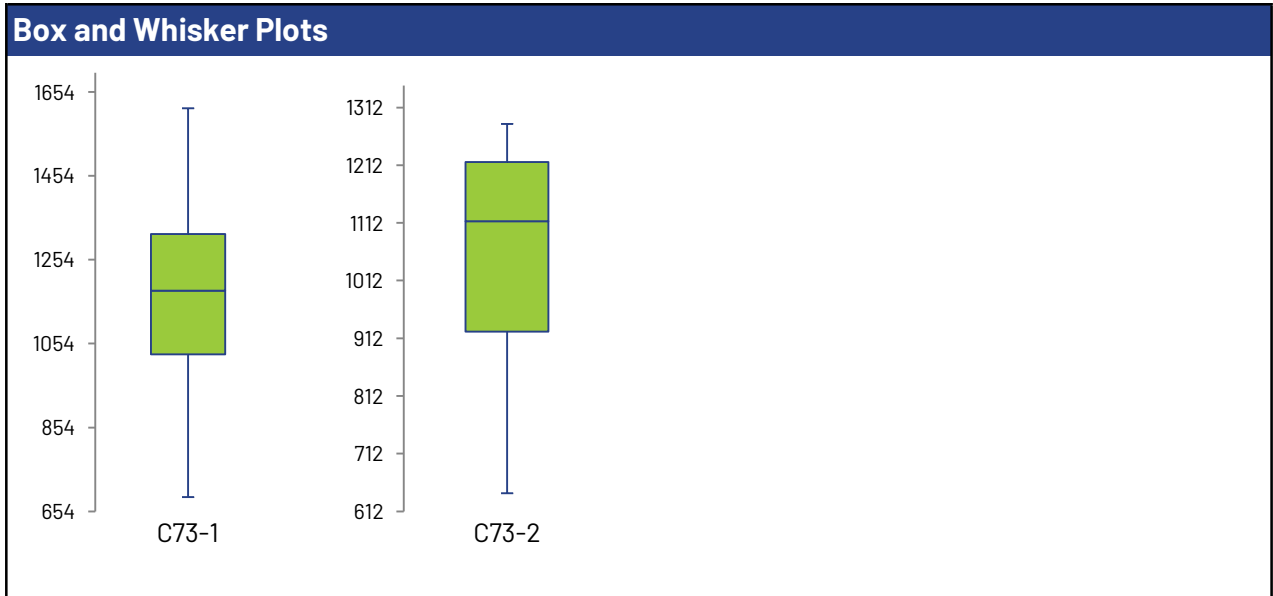
\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

# 1-Pentanol



# 1-Pentanol

	Stability Assessment	Homogeneity Assessment
C73-4		
	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	



### 1-Propanol (Propanol)

#### Summary Statistics

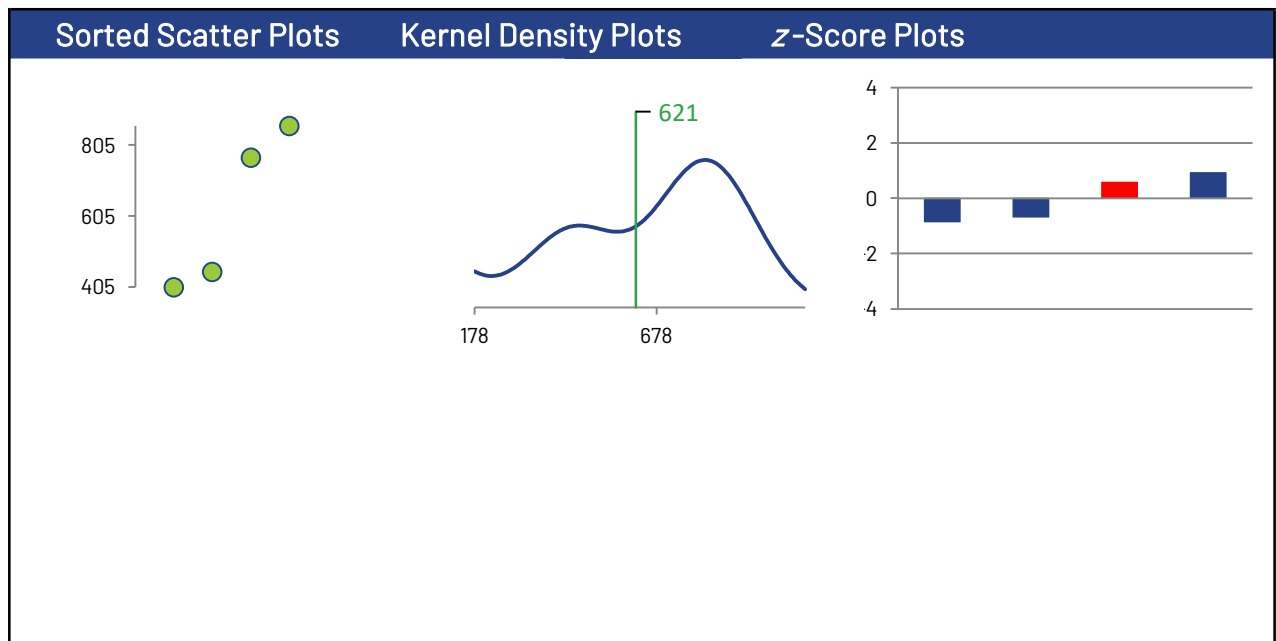
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	609			
Robust Mean µg/g	621			
Uncertainty of the Assigned Value µg/g	161			
Robust Standard Deviation µg/g	258			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	258			
Flagged Outliers	0	1	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

#### Methods Used

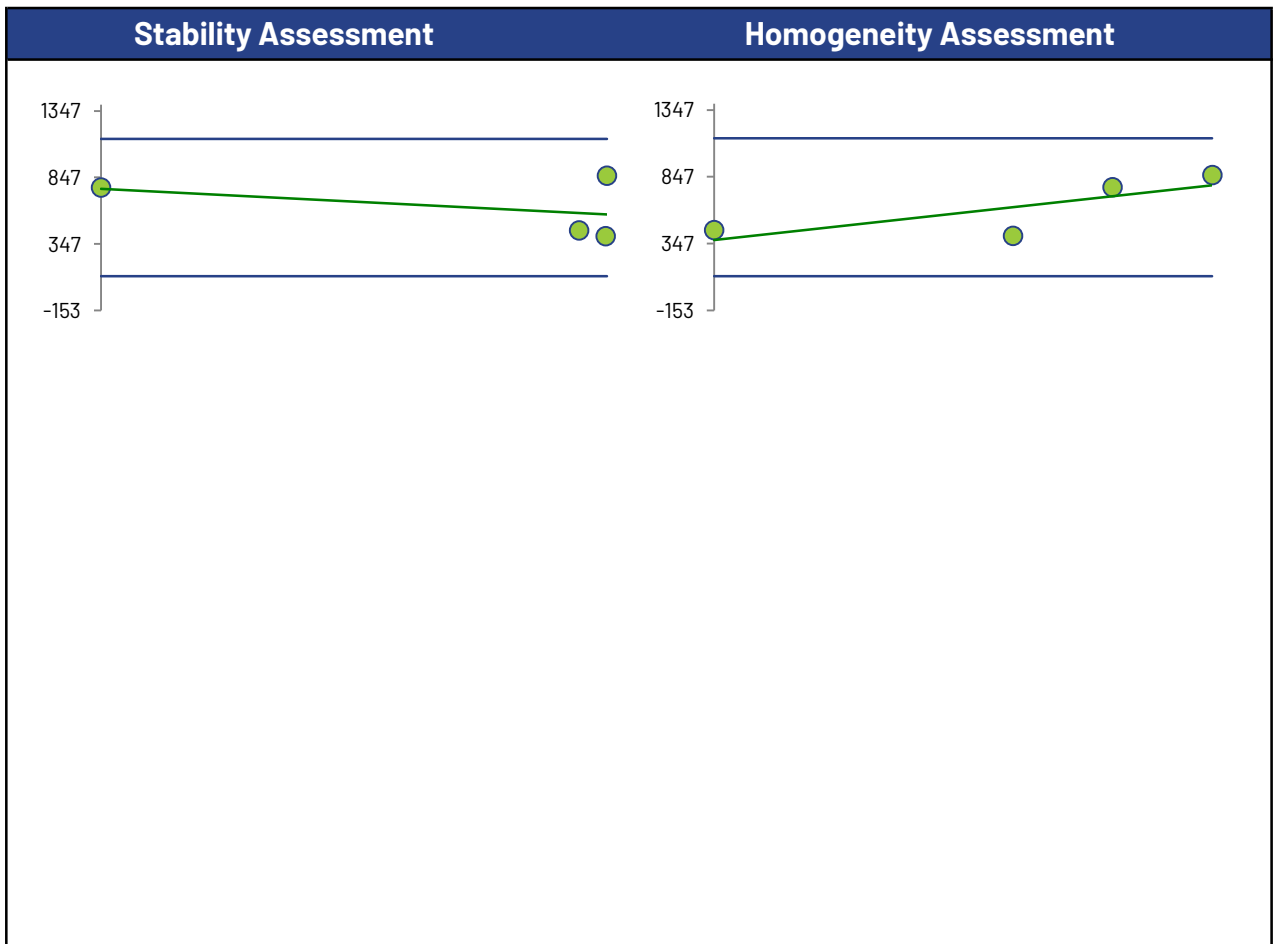
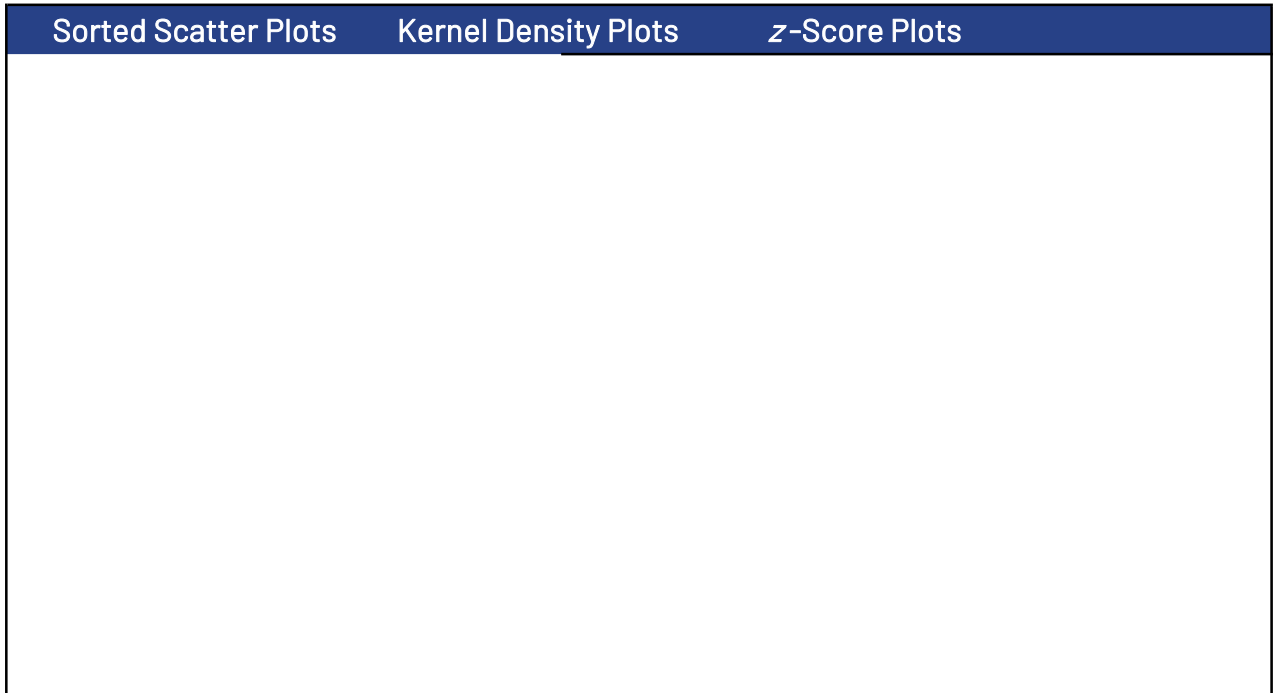
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

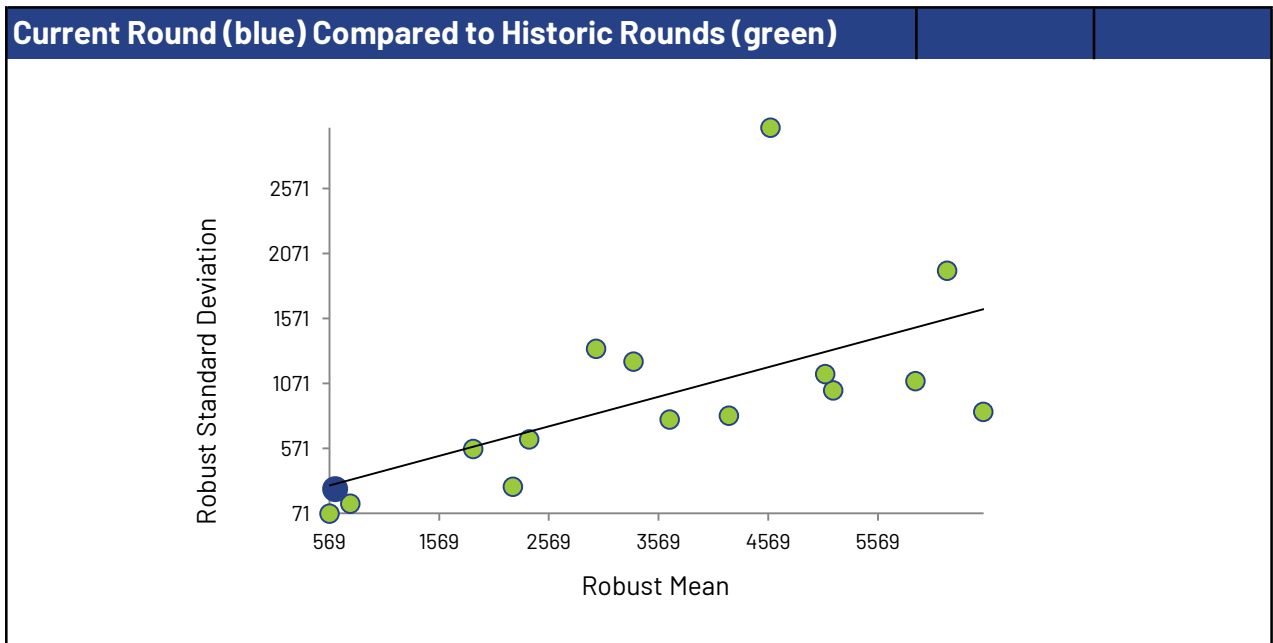
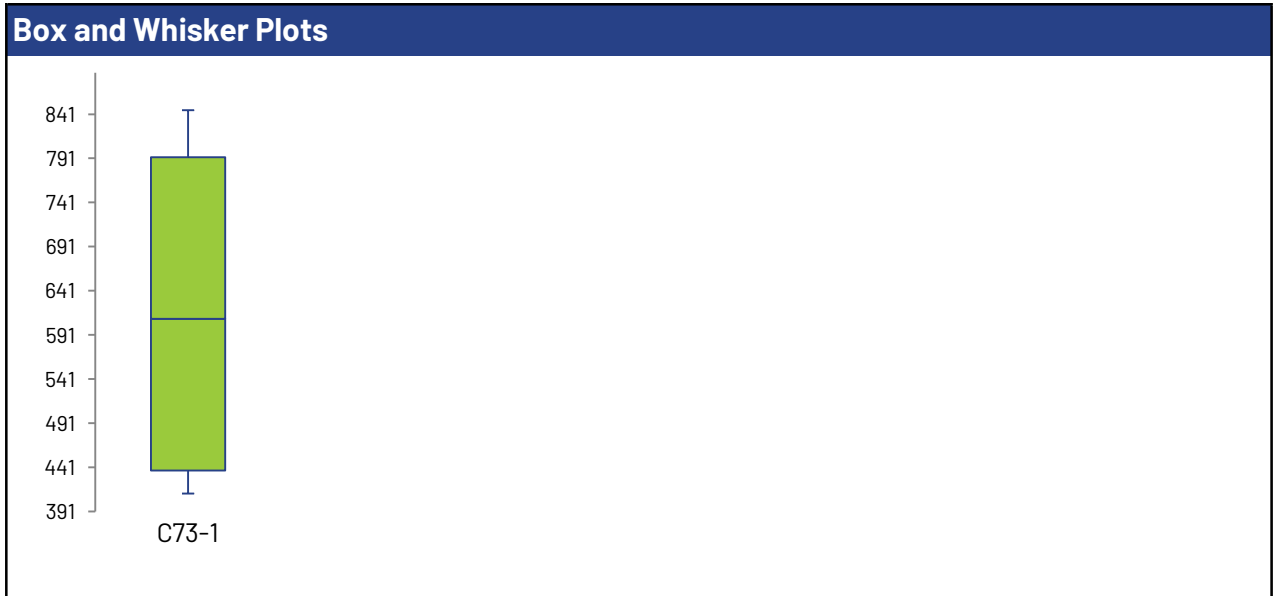
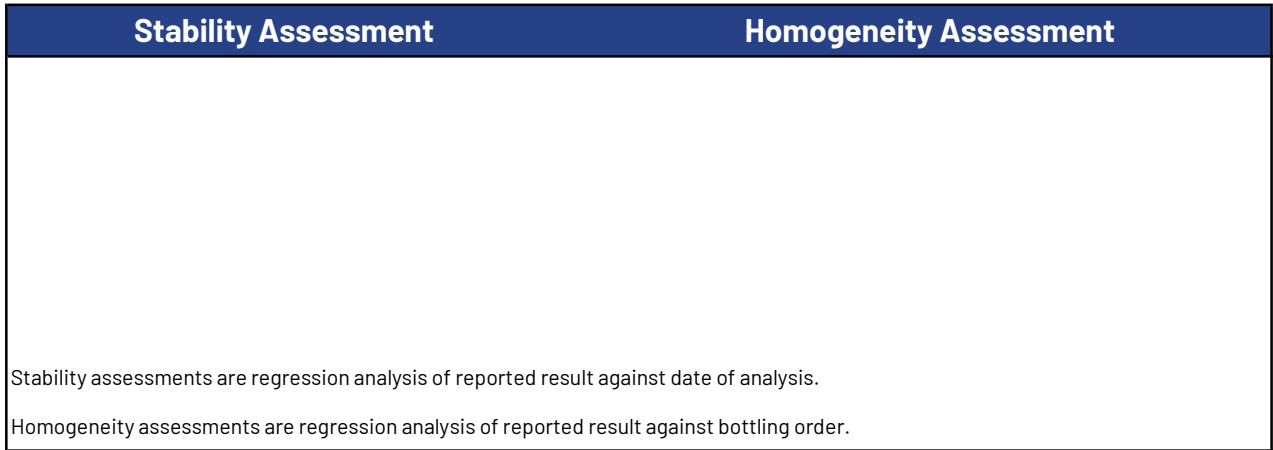


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

### 1-Propanol (Propanol)



### 1-Propanol (Propanol)



## 2-Butanol

### Summary Statistics

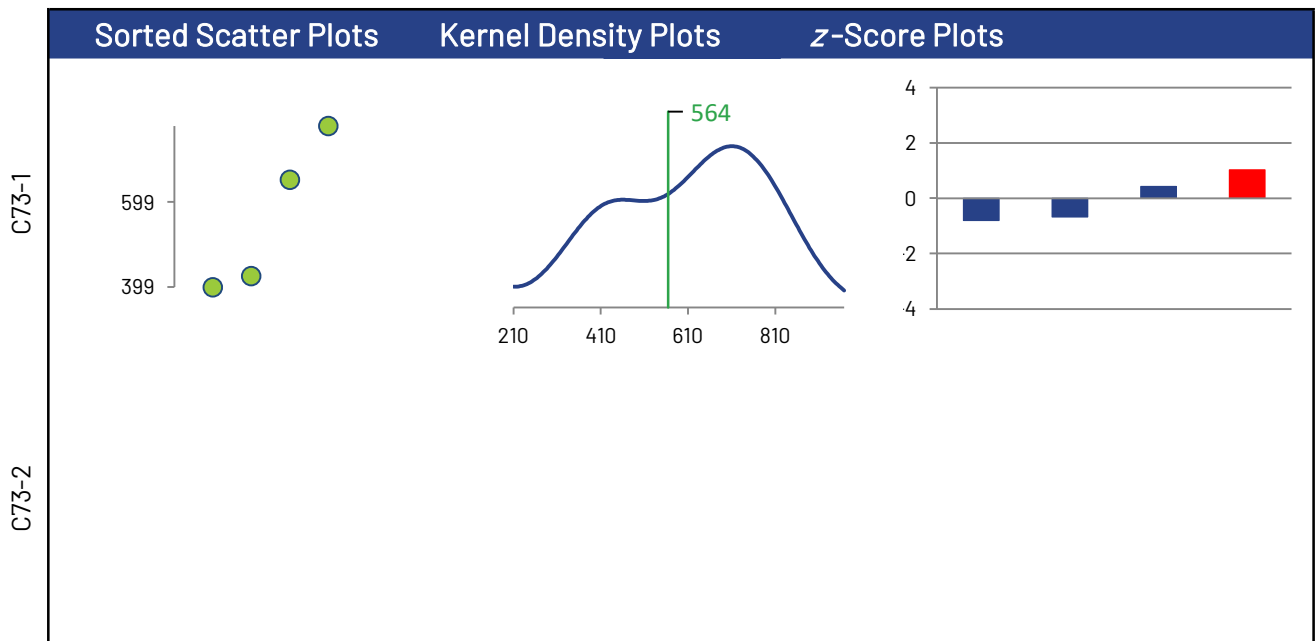
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	539			
Robust Mean µg/g	564			
Uncertainty of the Assigned Value µg/g	129			
Robust Standard Deviation µg/g	207			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	207			
Flagged Outliers	0	1	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

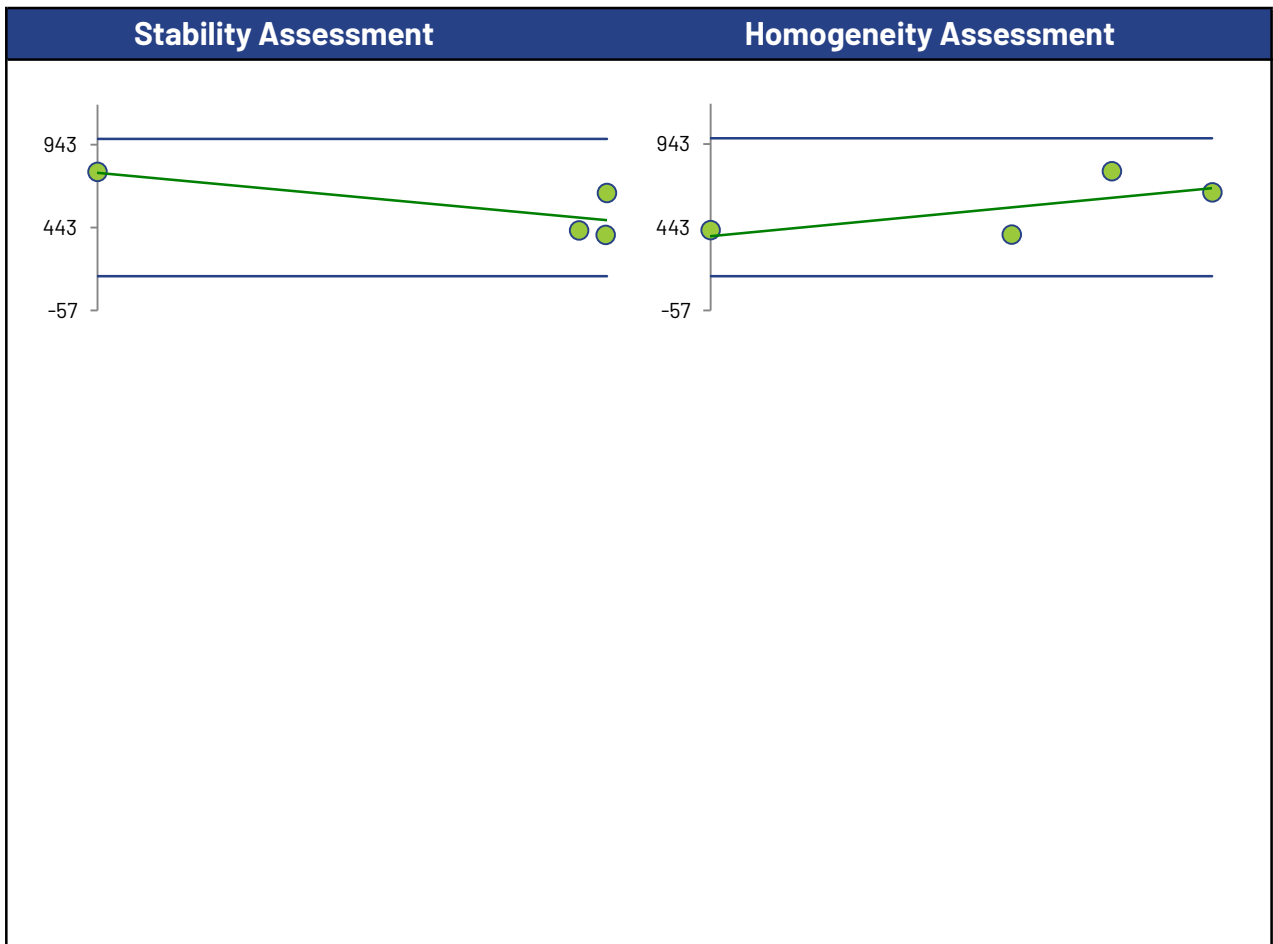
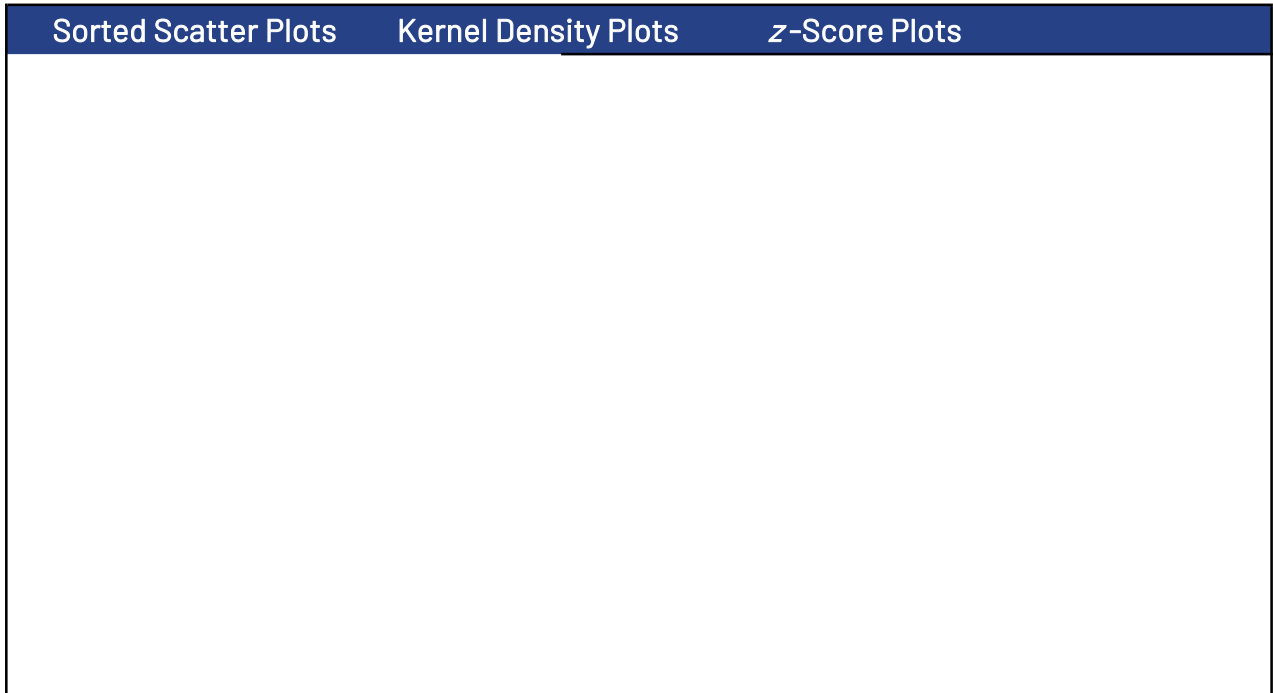
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

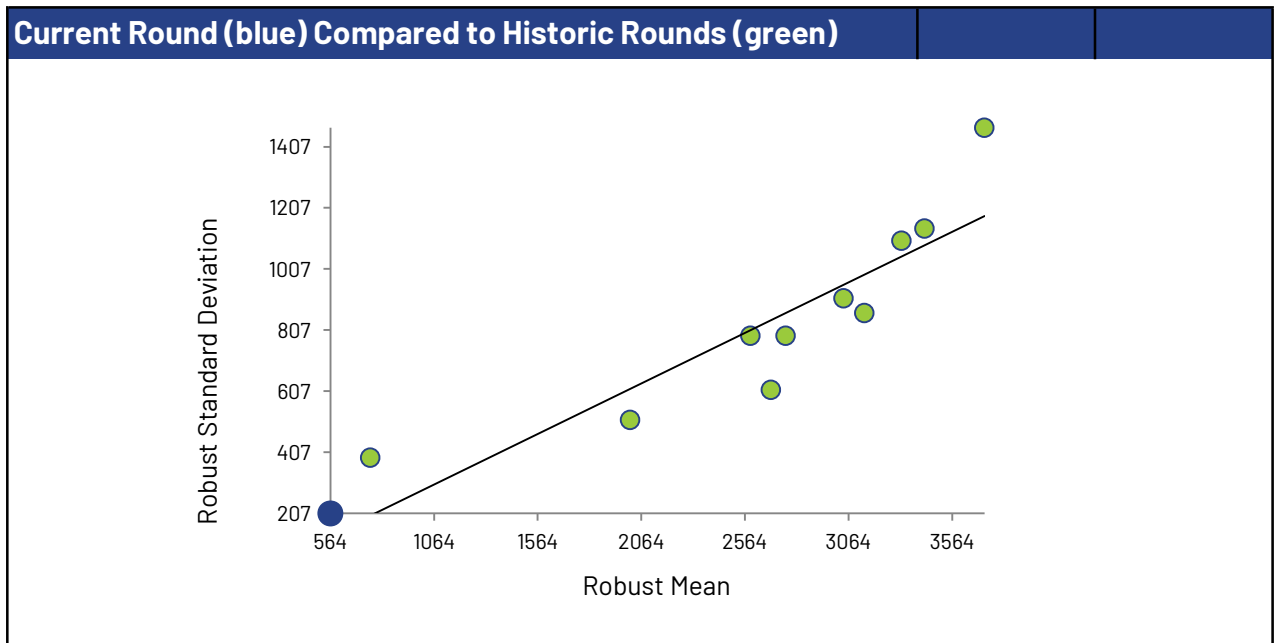
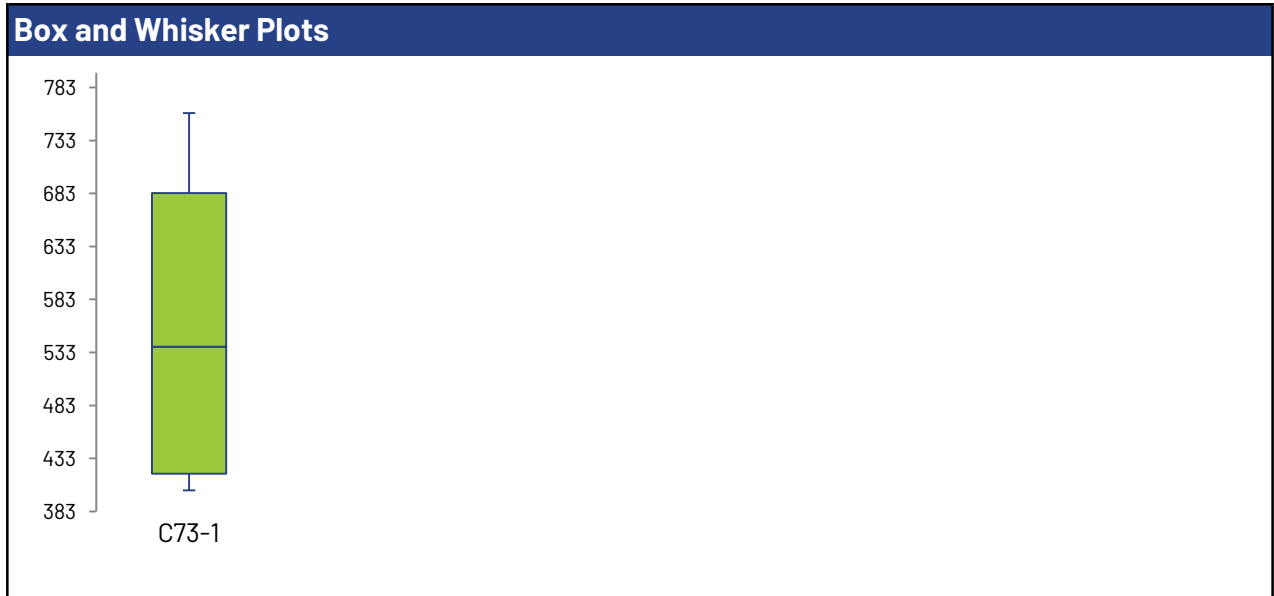
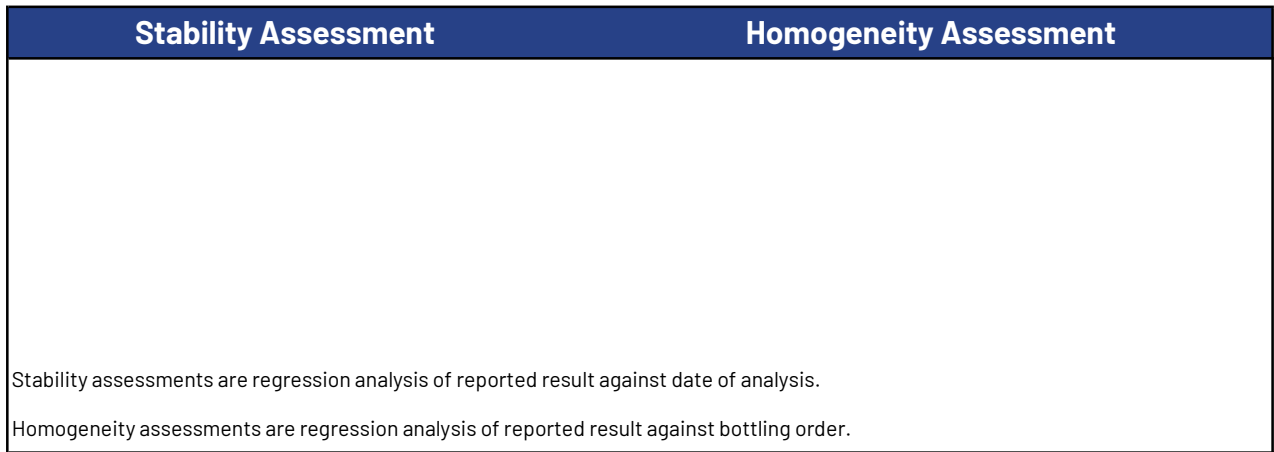


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

## 2-Butanol



## 2-Butanol



## 2-Butanone (Methyl ethyl ketone, MEK)

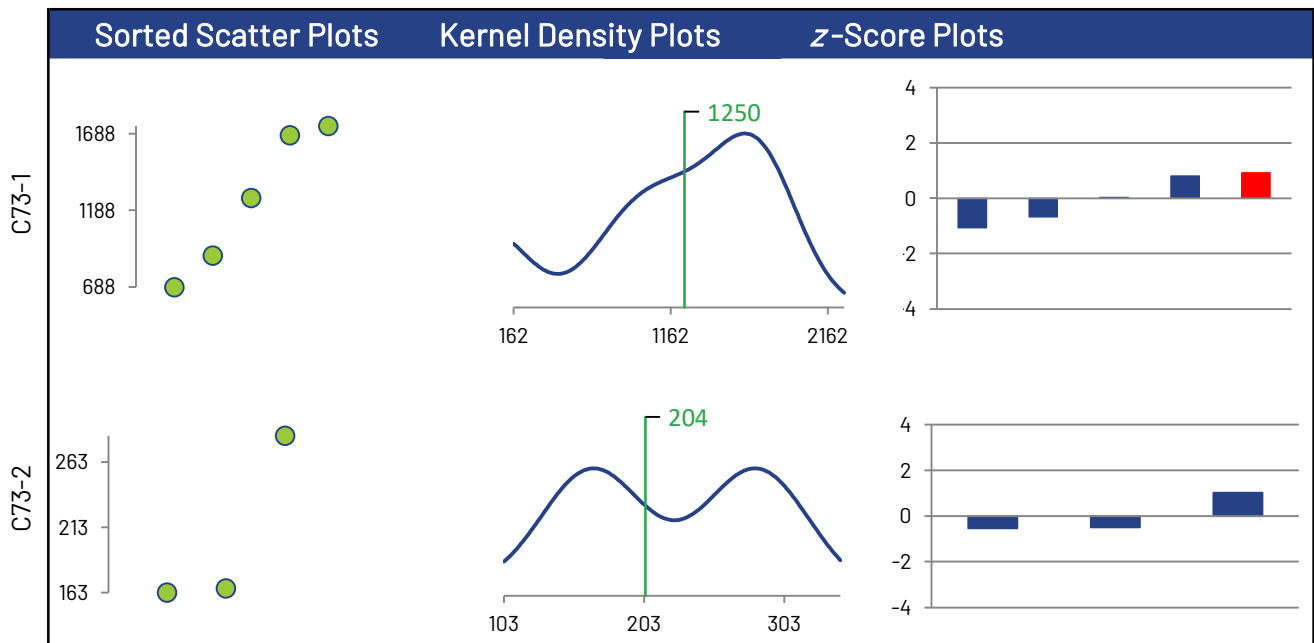
### Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	5	3	0	0
Median µg/g	1270	166		
Robust Mean µg/g	1250	204		
Uncertainty of the Assigned Value µg/g	295	56.0		
Robust Standard Deviation µg/g	528	77.6		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	528	77.6		
Flagged Outliers	0	0	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

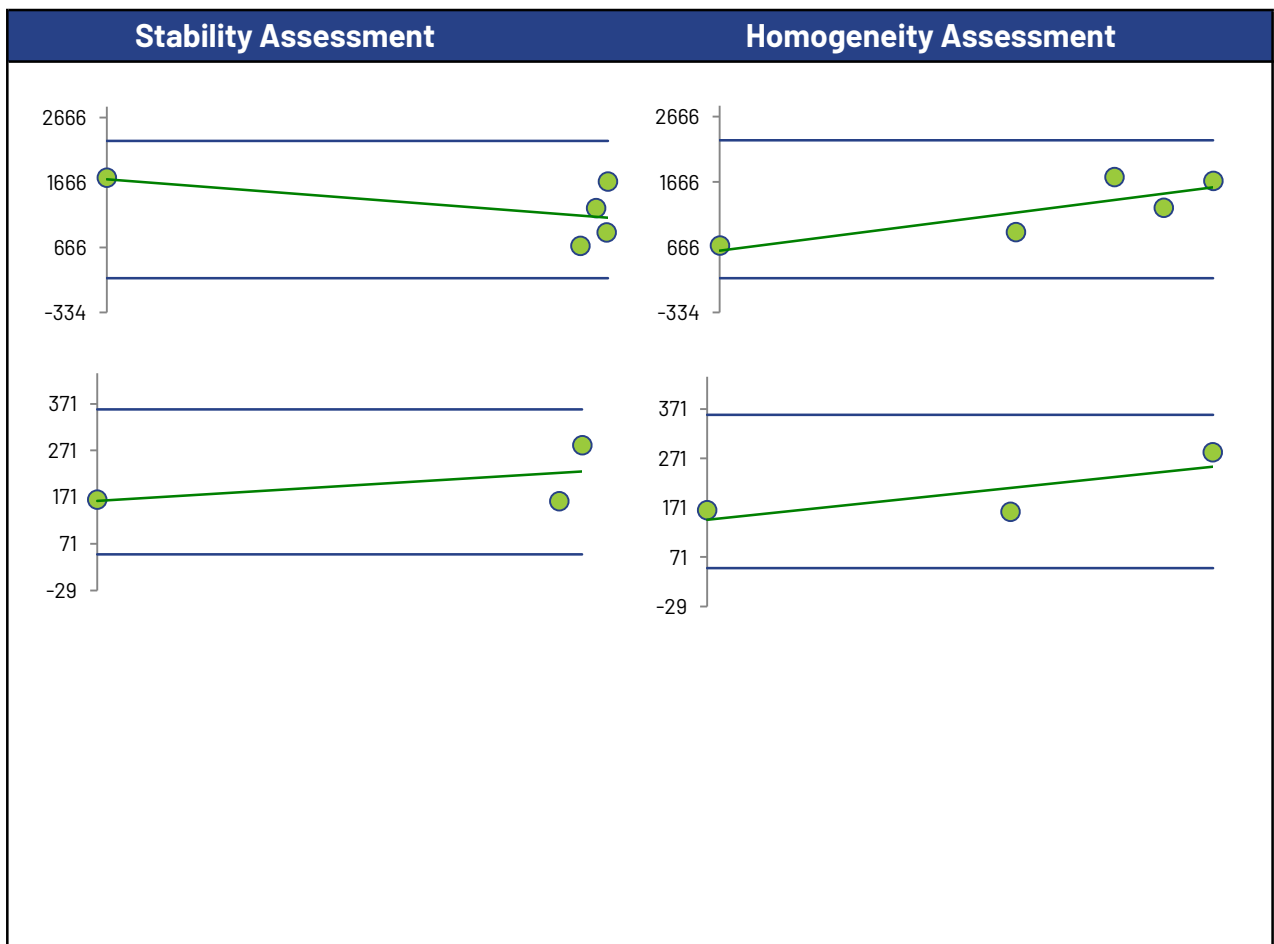
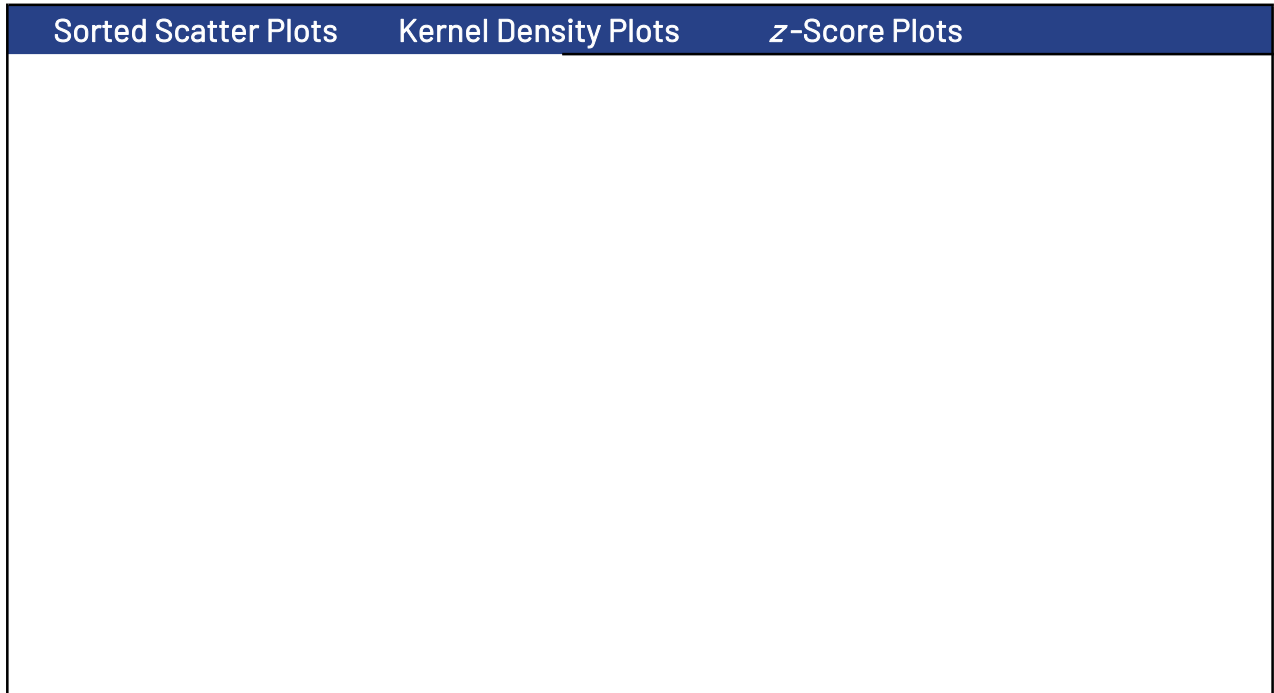
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	4	3	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

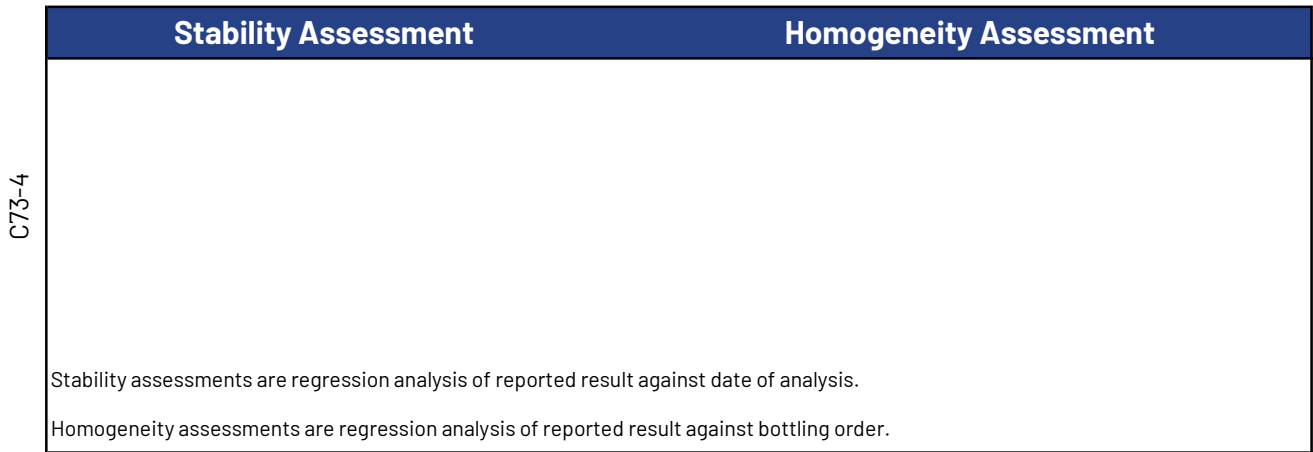


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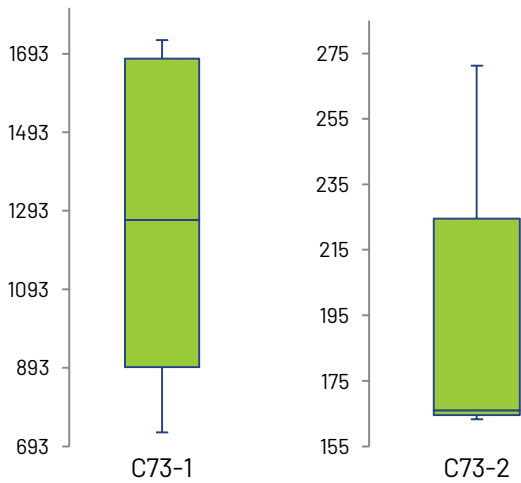
## 2-Butanone (Methyl ethyl ketone, MEK)



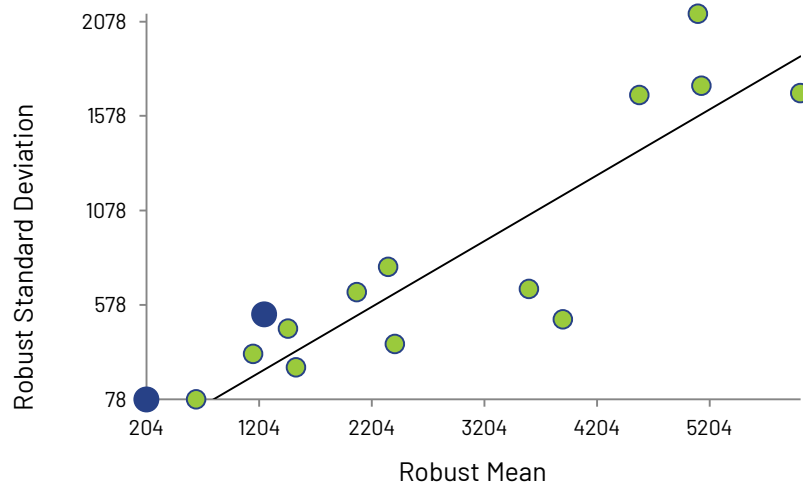
## 2-Butanone (Methyl ethyl ketone, MEK)



### Box and Whisker Plots



### Current Round (blue) Compared to Historic Rounds (green)



## 2-Propanol (Isopropyl alcohol)

### Summary Statistics

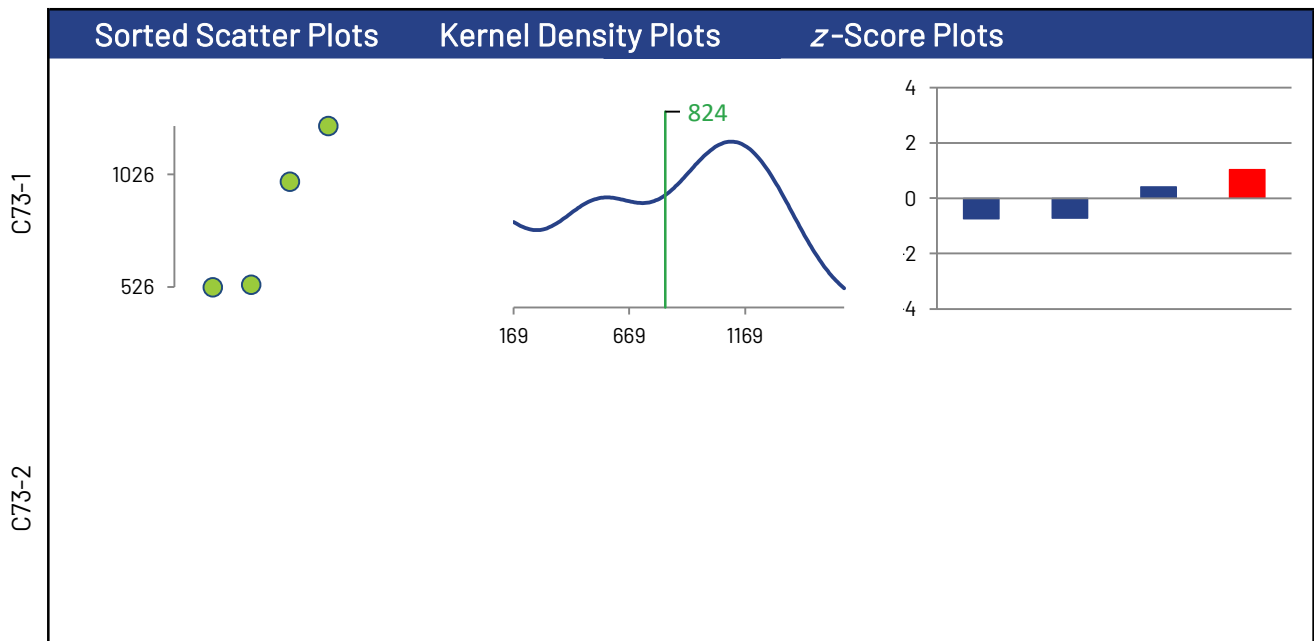
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	766			
Robust Mean µg/g	824			
Uncertainty of the Assigned Value µg/g	250			
Robust Standard Deviation µg/g	400			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	400			
Flagged Outliers	0	1	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

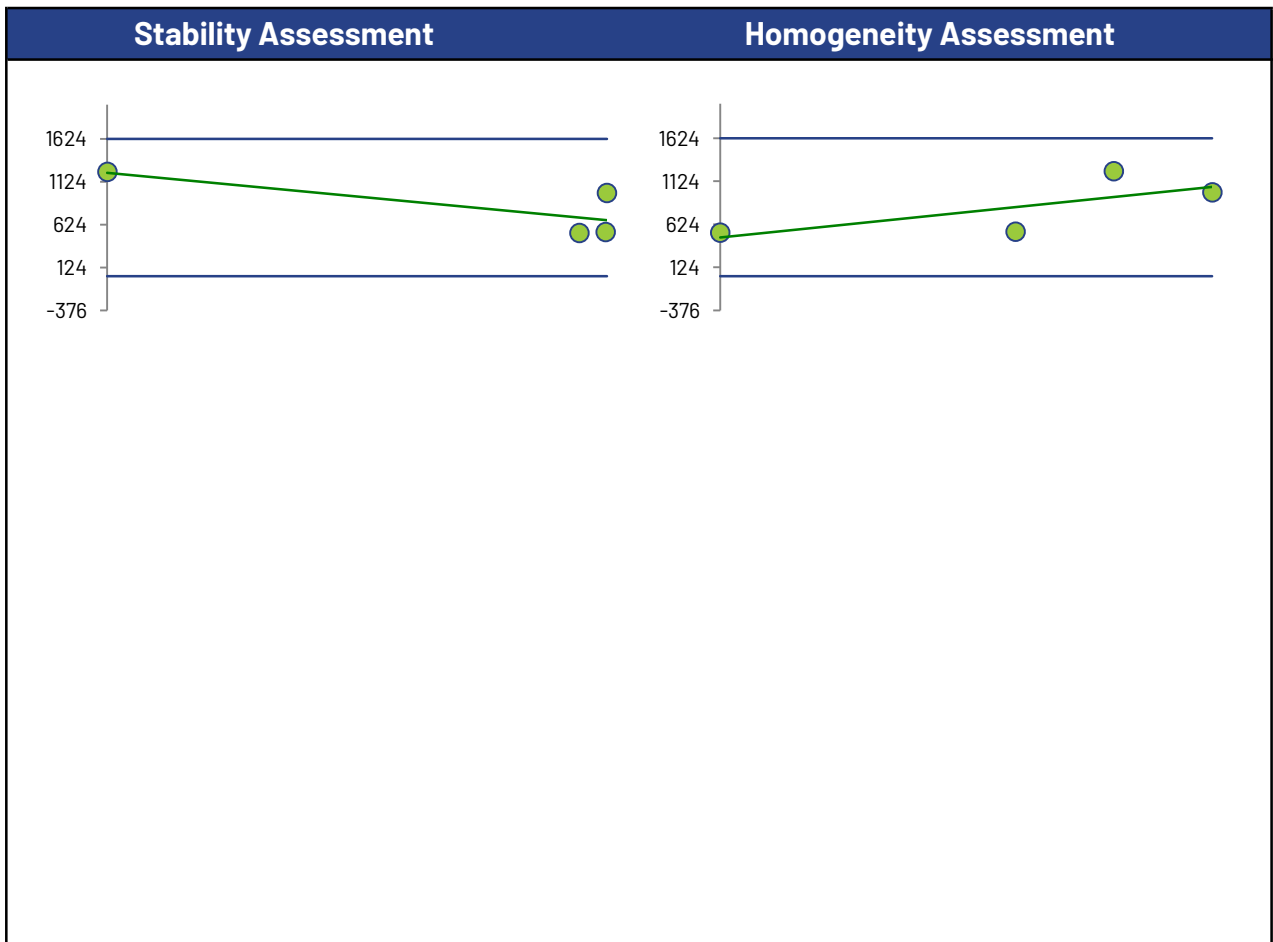
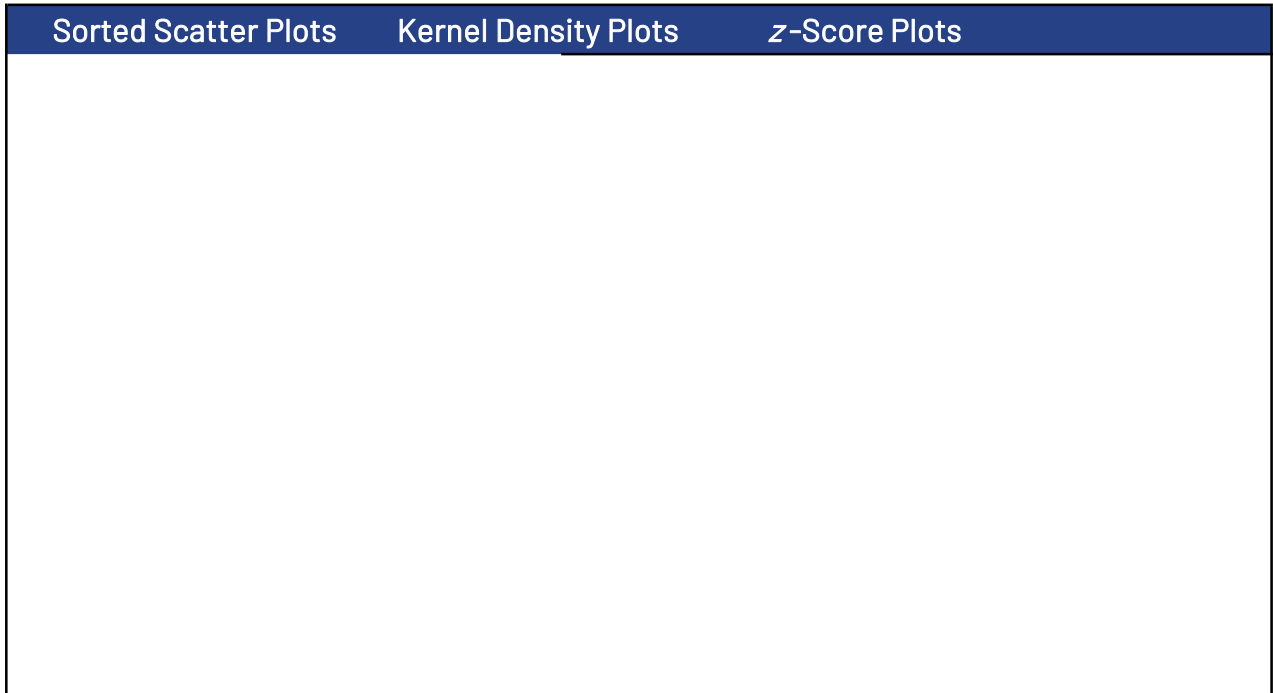
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

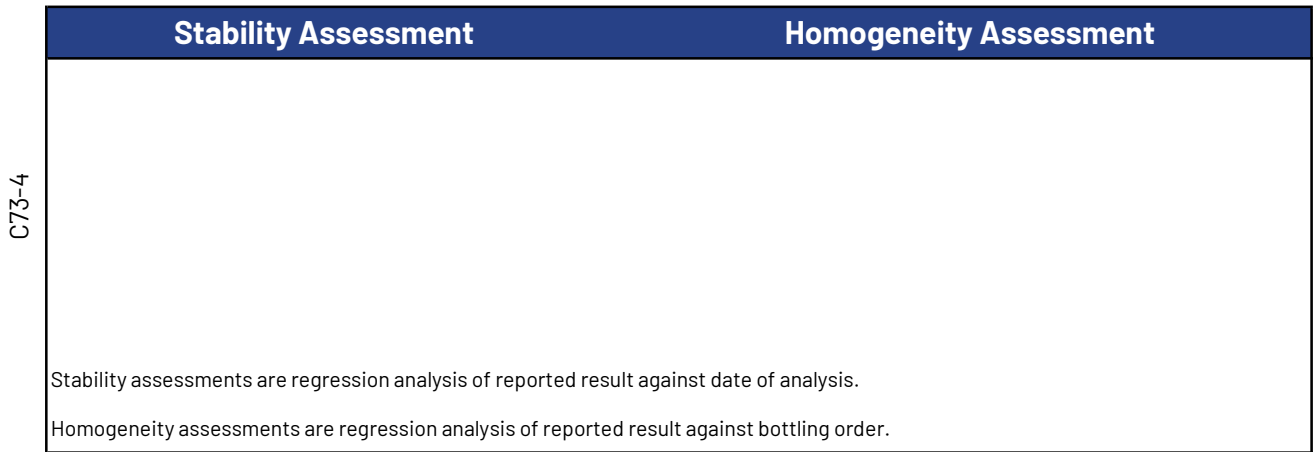


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

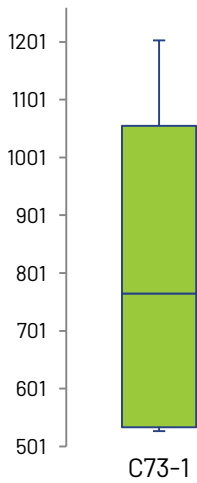
## 2-Propanol (Isopropyl alcohol)



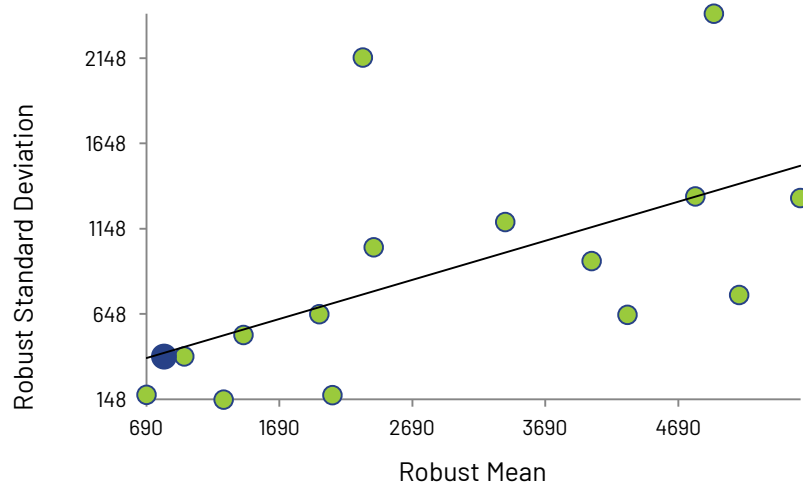
## 2-Propanol (Isopropyl alcohol)



### Box and Whisker Plots



### Current Round (blue) Compared to Historic Rounds (green)



### 3-Methyl-1-butanol

#### Summary Statistics

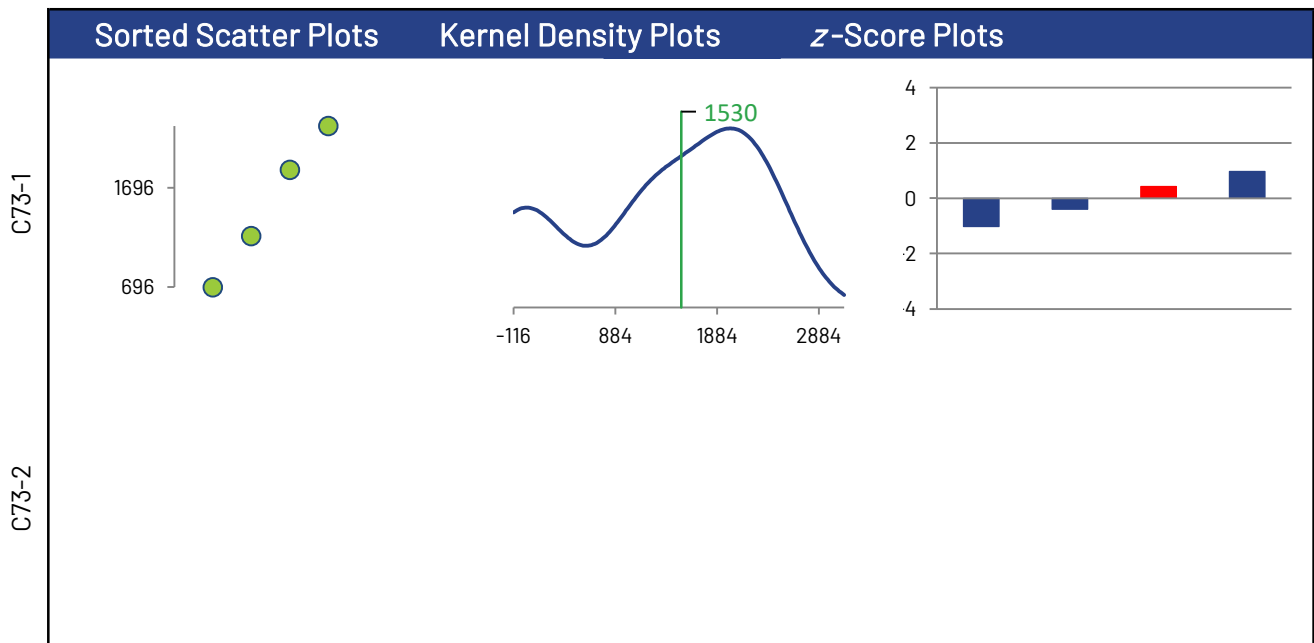
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	1550			
Robust Mean µg/g	1530			
Uncertainty of the Assigned Value µg/g	509			
Robust Standard Deviation µg/g	814			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	814			
Flagged Outliers	0	1	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

#### Methods Used

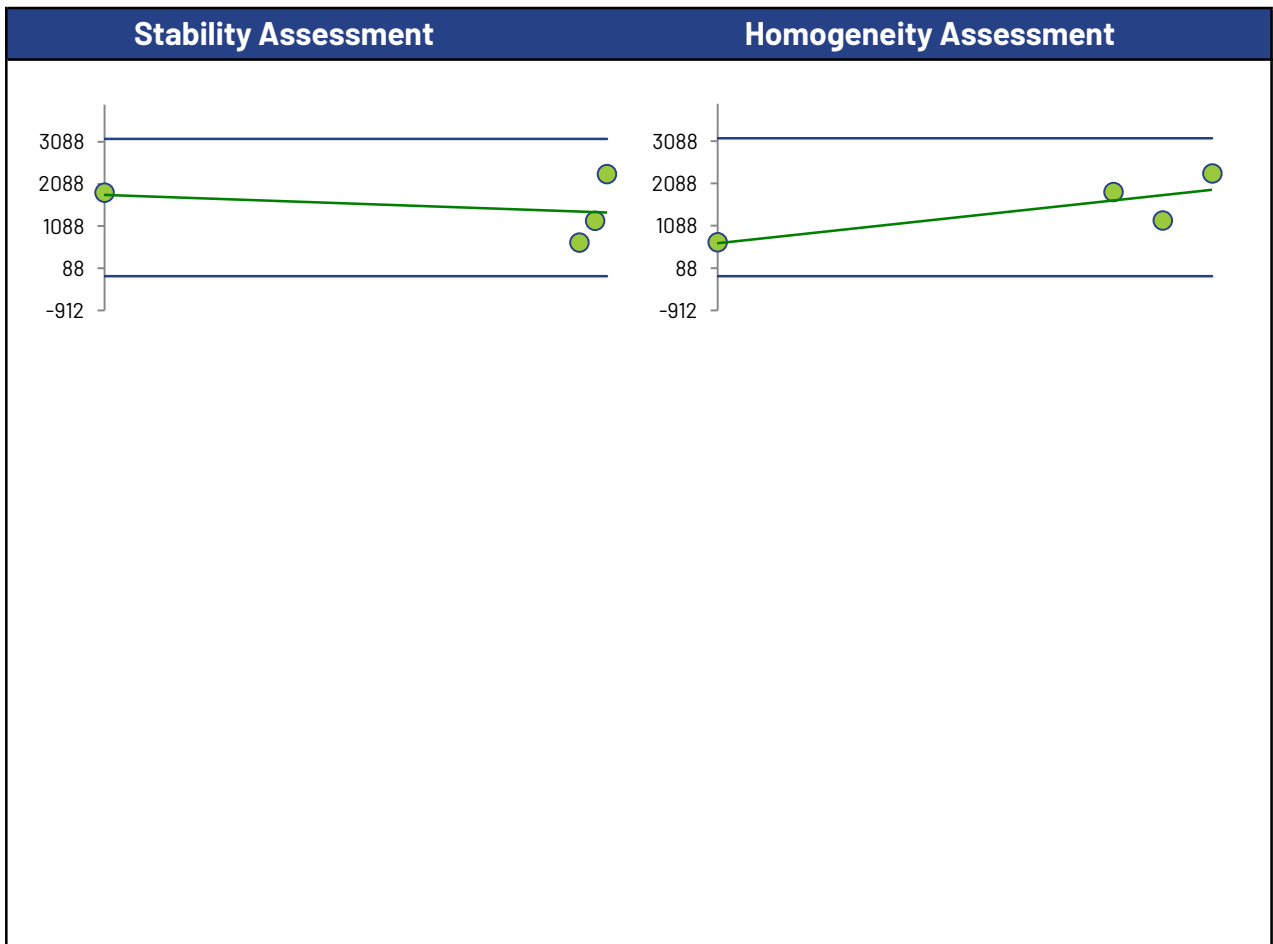
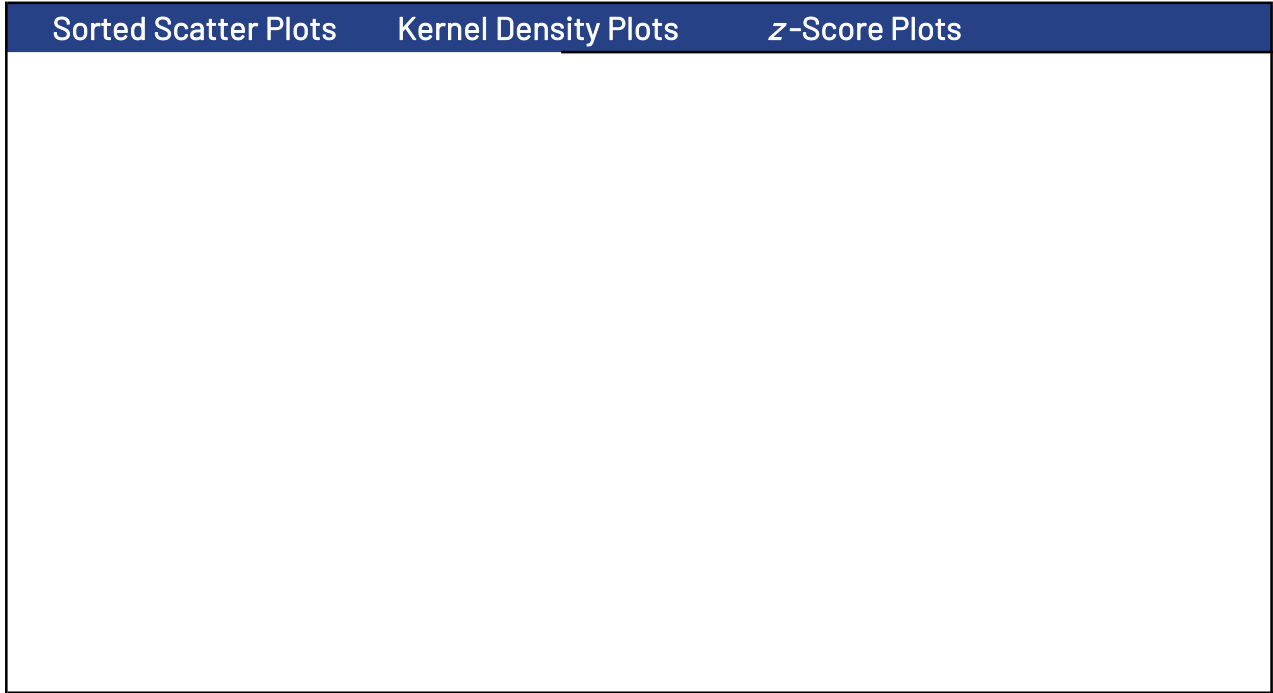
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

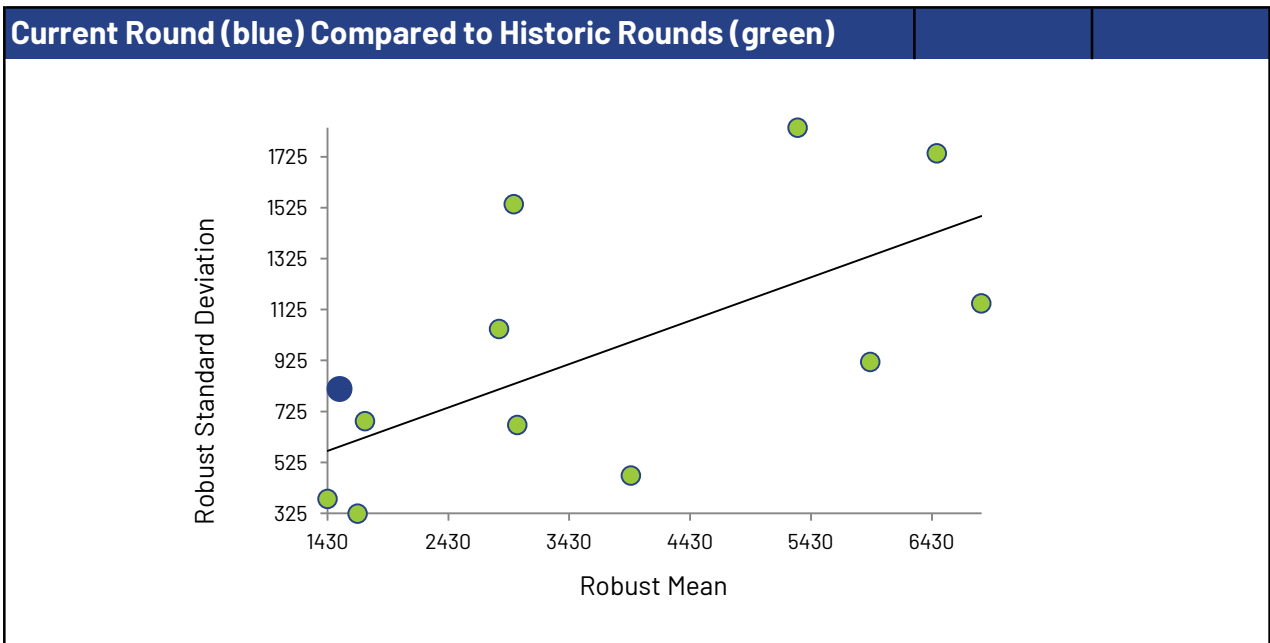
### 3-Methyl-1-butanol



### 3-Methyl-1-butanol

	Stability Assessment	Homogeneity Assessment
C73-4		

Stability assessments are regression analysis of reported result against date of analysis.  
Homogeneity assessments are regression analysis of reported result against bottling order.



## Acetone (2-Propanone)

### Summary Statistics

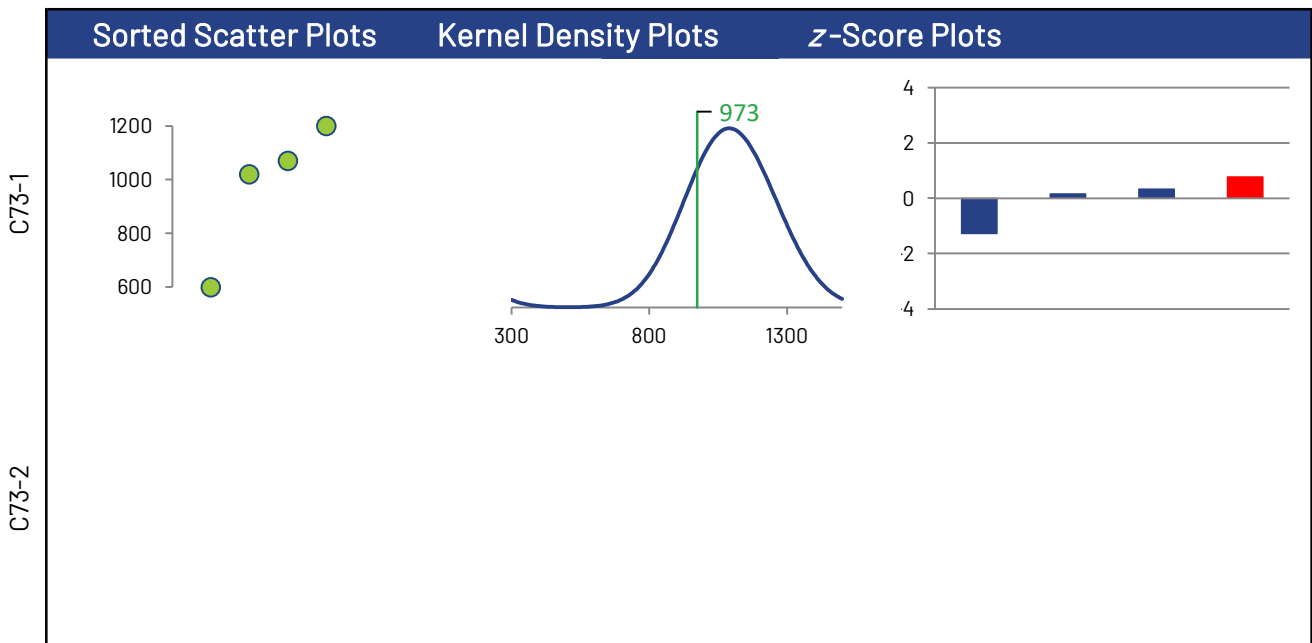
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	1050			
Robust Mean µg/g	973			
Uncertainty of the Assigned Value µg/g	184			
Robust Standard Deviation µg/g	294			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	294			
Flagged Outliers	0	1	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

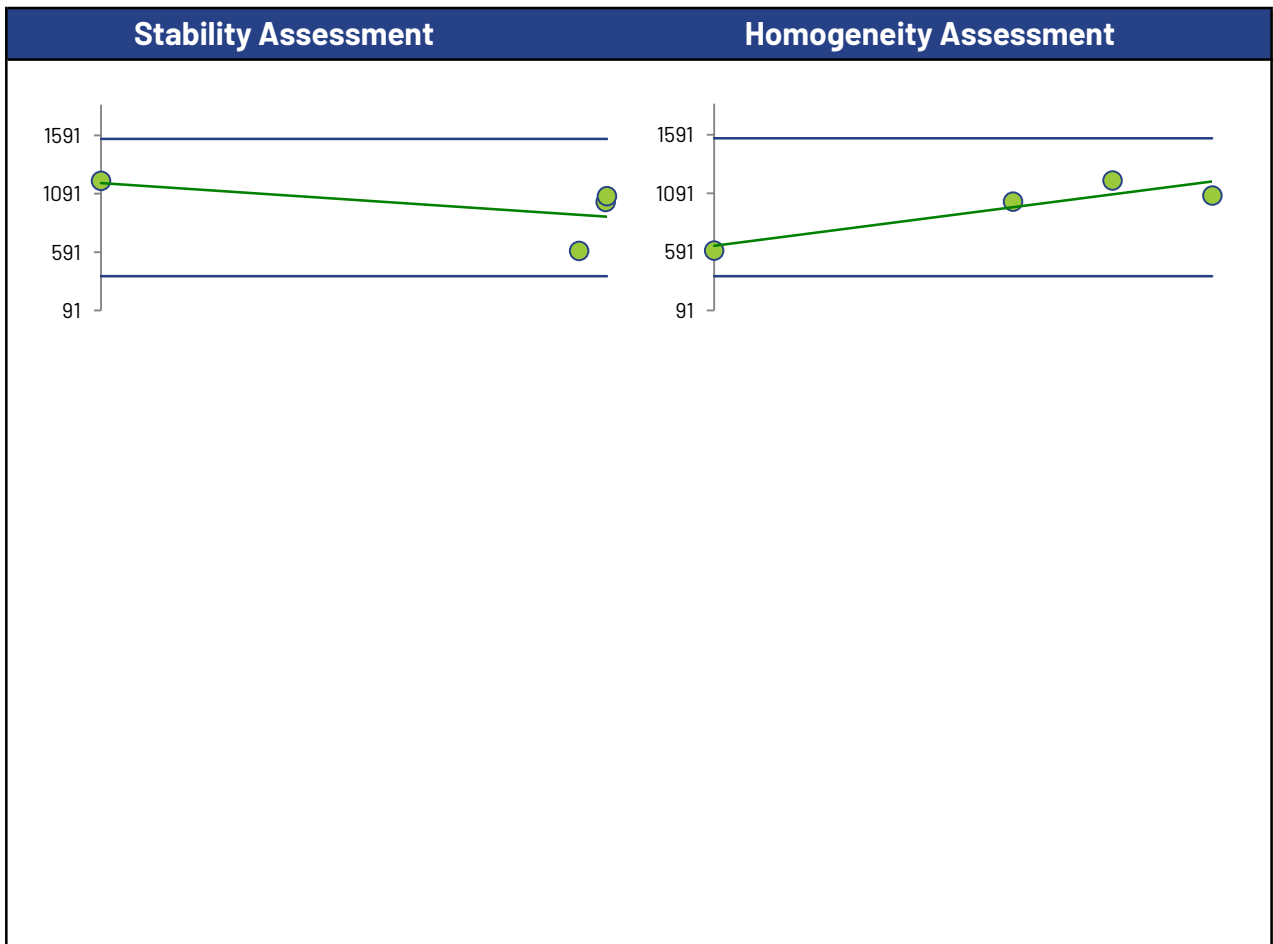
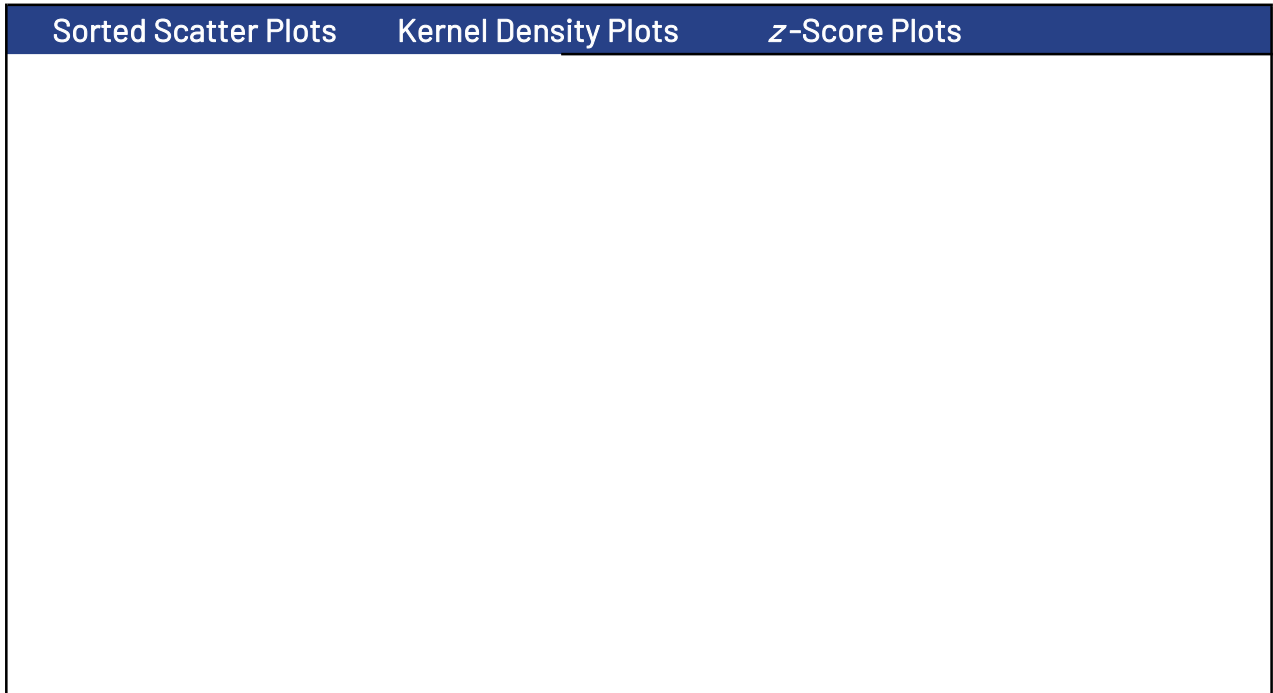
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

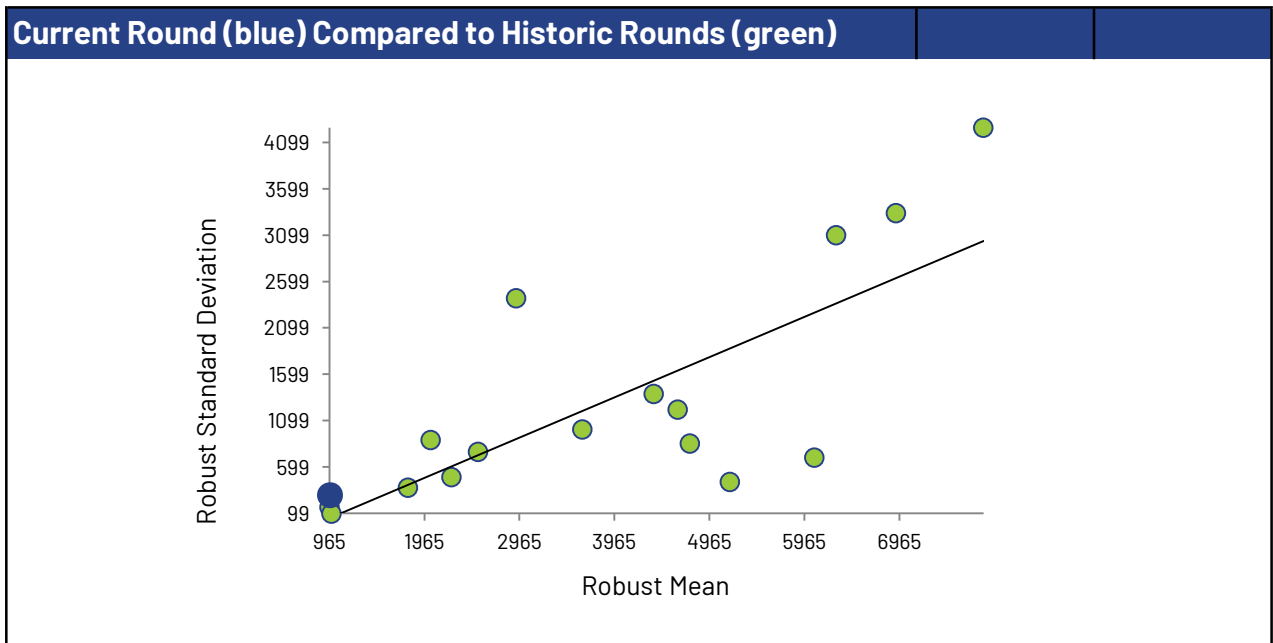
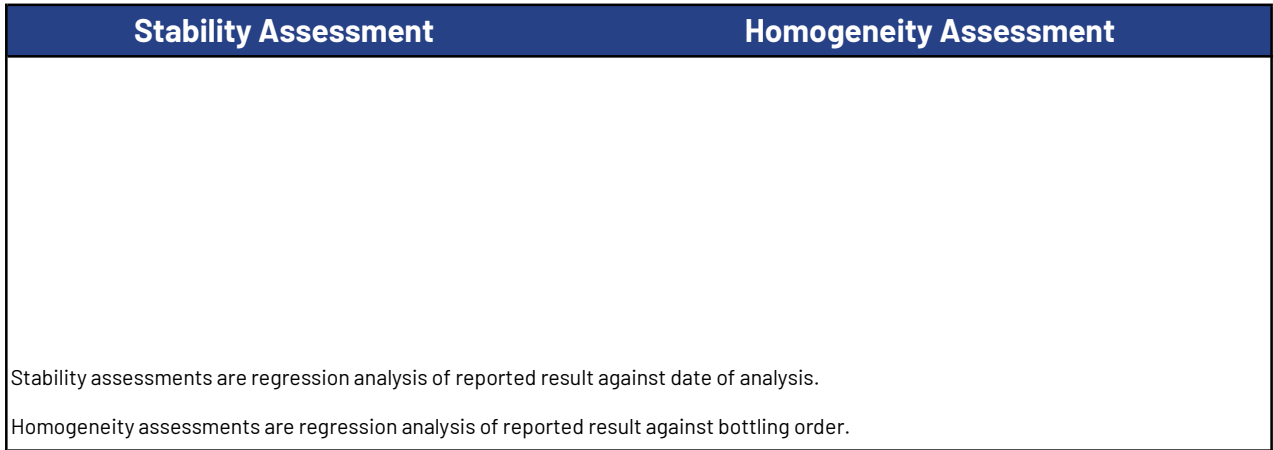


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

## Acetone (2-Propanone)



## Acetone (2-Propanone)



### Anisole

#### Summary Statistics

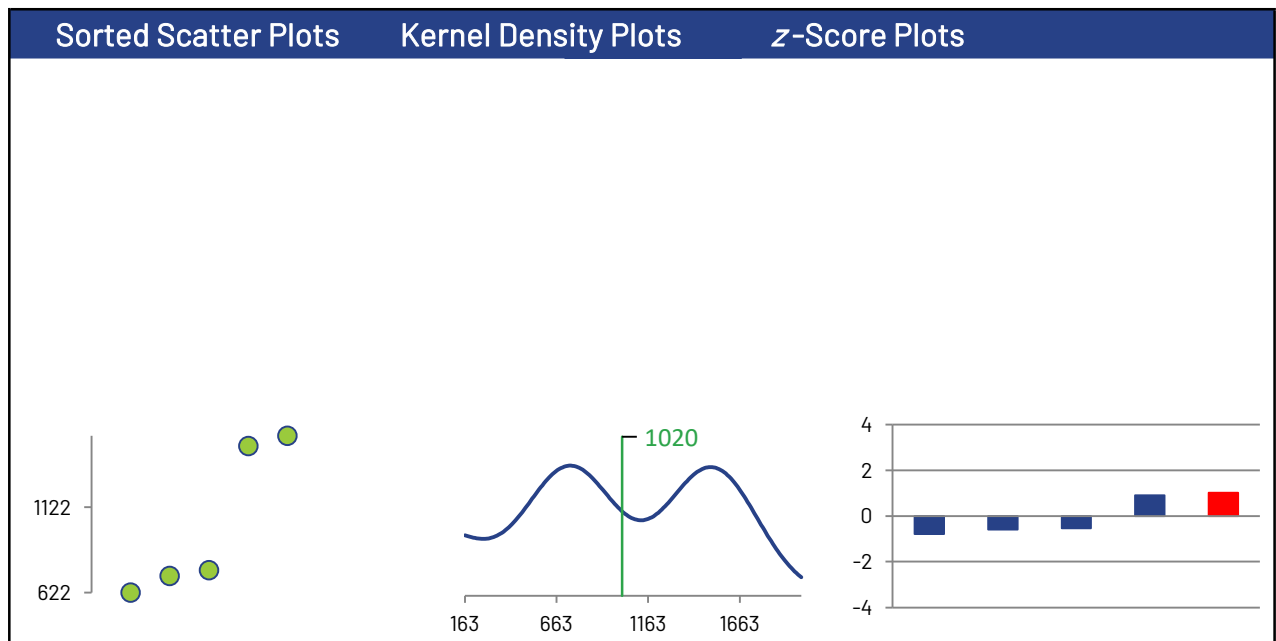
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	5	0	0
Median µg/g		753		
Robust Mean µg/g		1020		
Uncertainty of the Assigned Value µg/g		284		
Robust Standard Deviation µg/g		508		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		508		
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

#### Methods Used

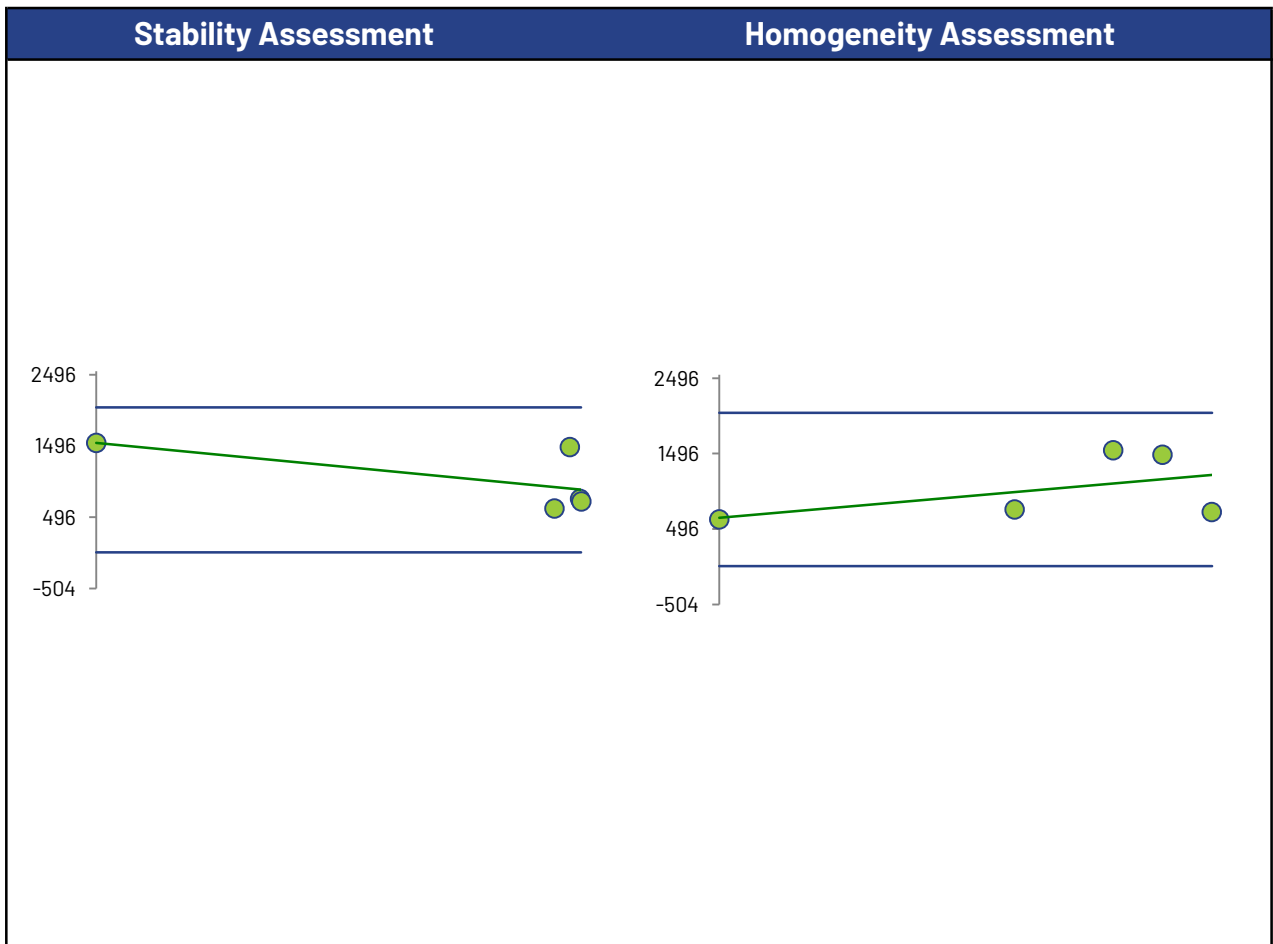
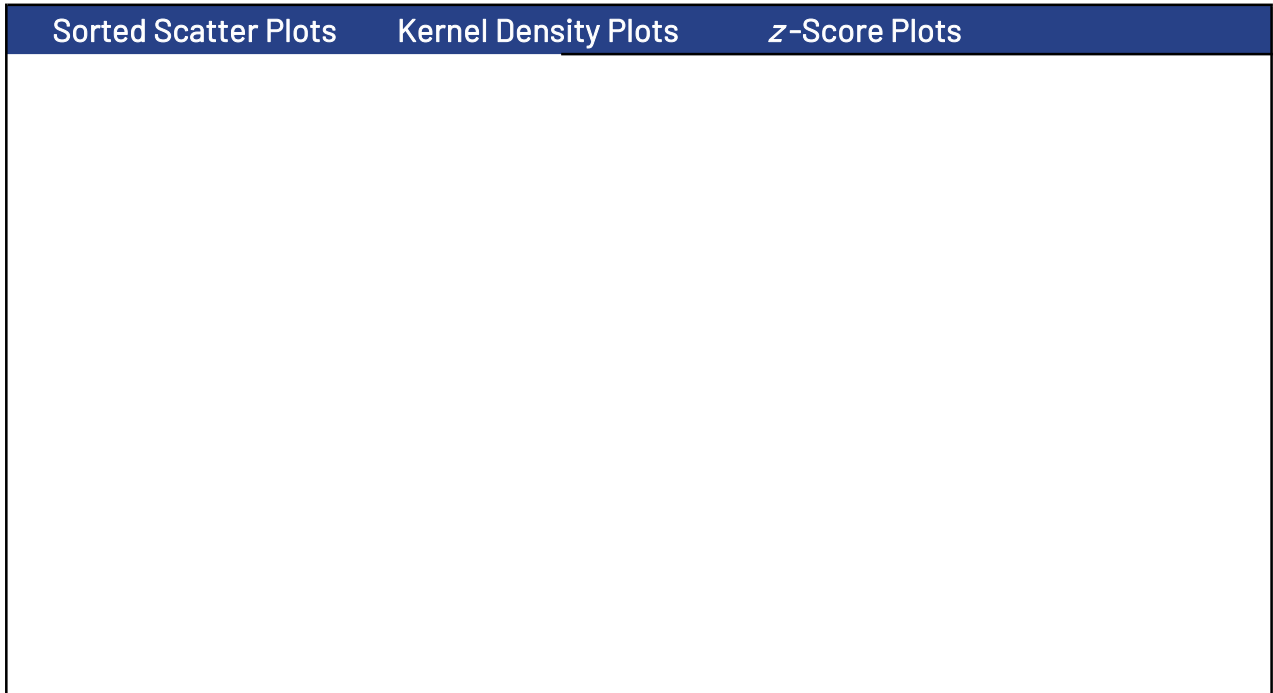
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	4	0	0
GC/FID (Red)	0	1	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



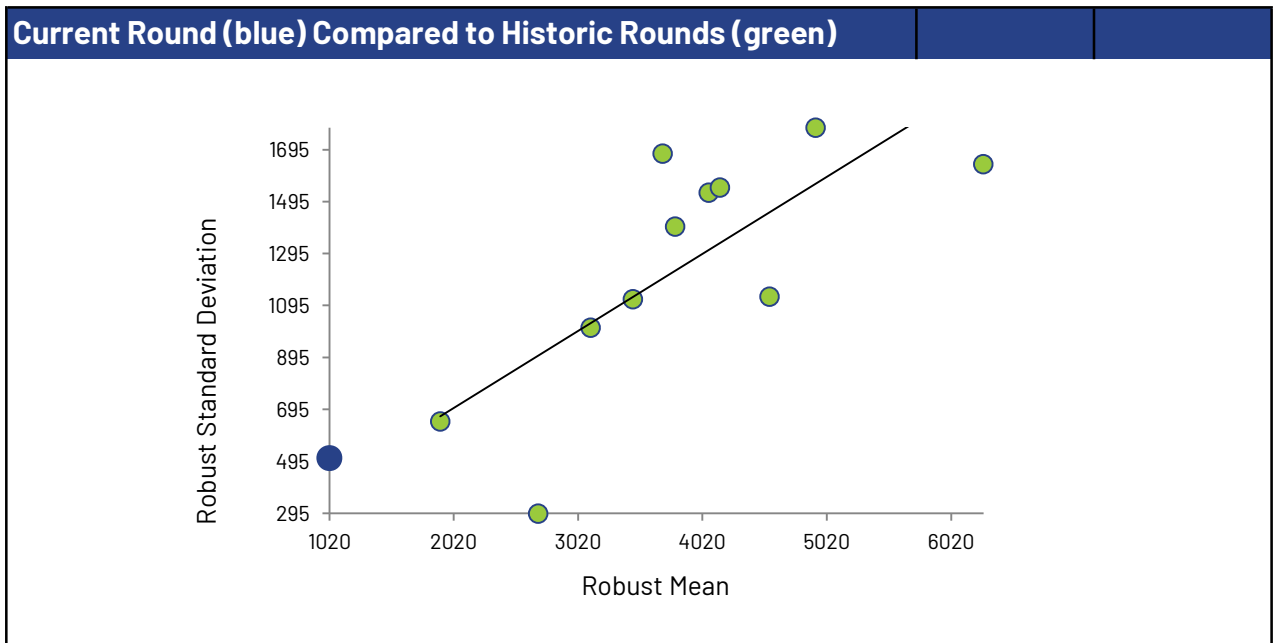
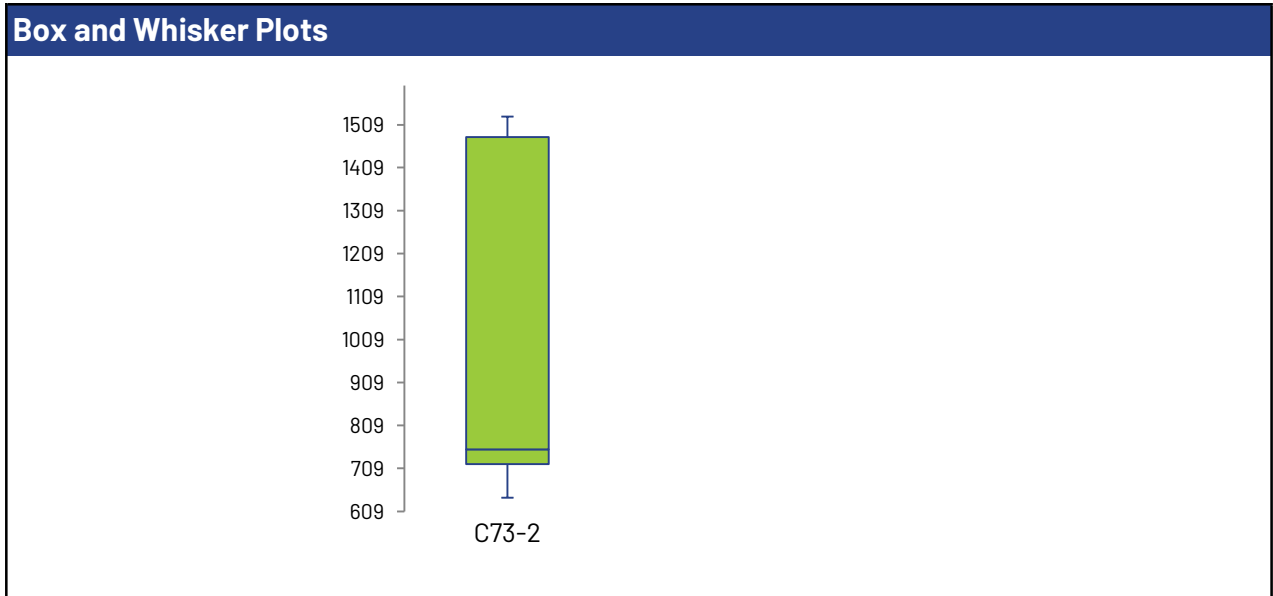
\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

## Anisole



## Anisole

	Stability Assessment	Homogeneity Assessment
C73-4		
	Stability assessments are regression analysis of reported result against date of analysis.	Homogeneity assessments are regression analysis of reported result against bottling order.



## Butane

### Summary Statistics

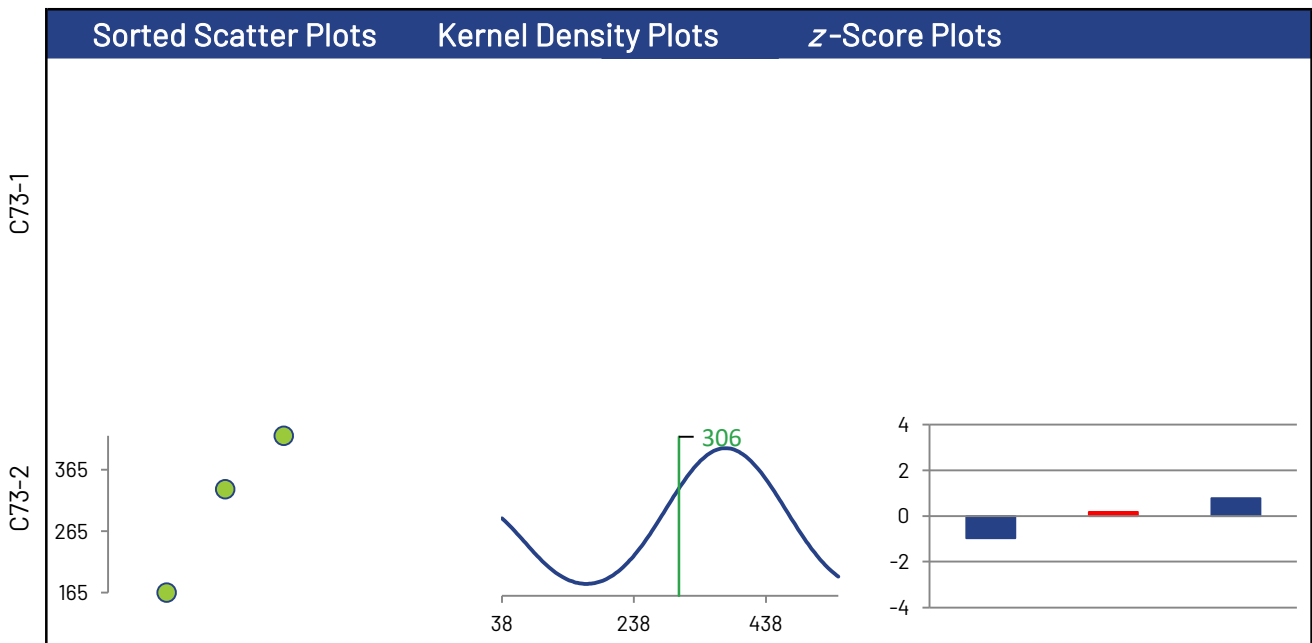
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	3	0	0
Median µg/g		333		
Robust Mean µg/g		306		
Uncertainty of the Assigned Value µg/g		106		
Robust Standard Deviation µg/g		147		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		147		
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

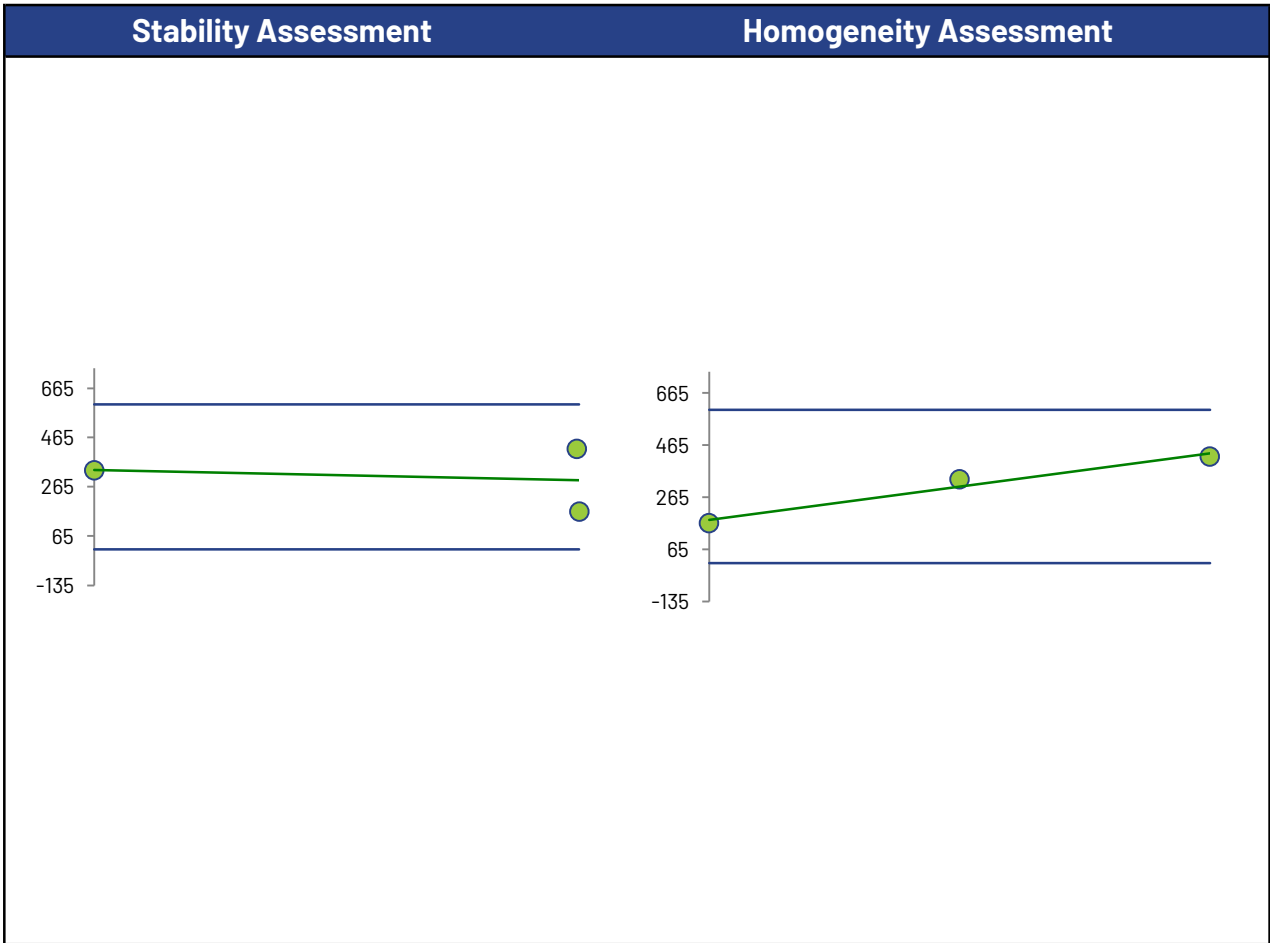
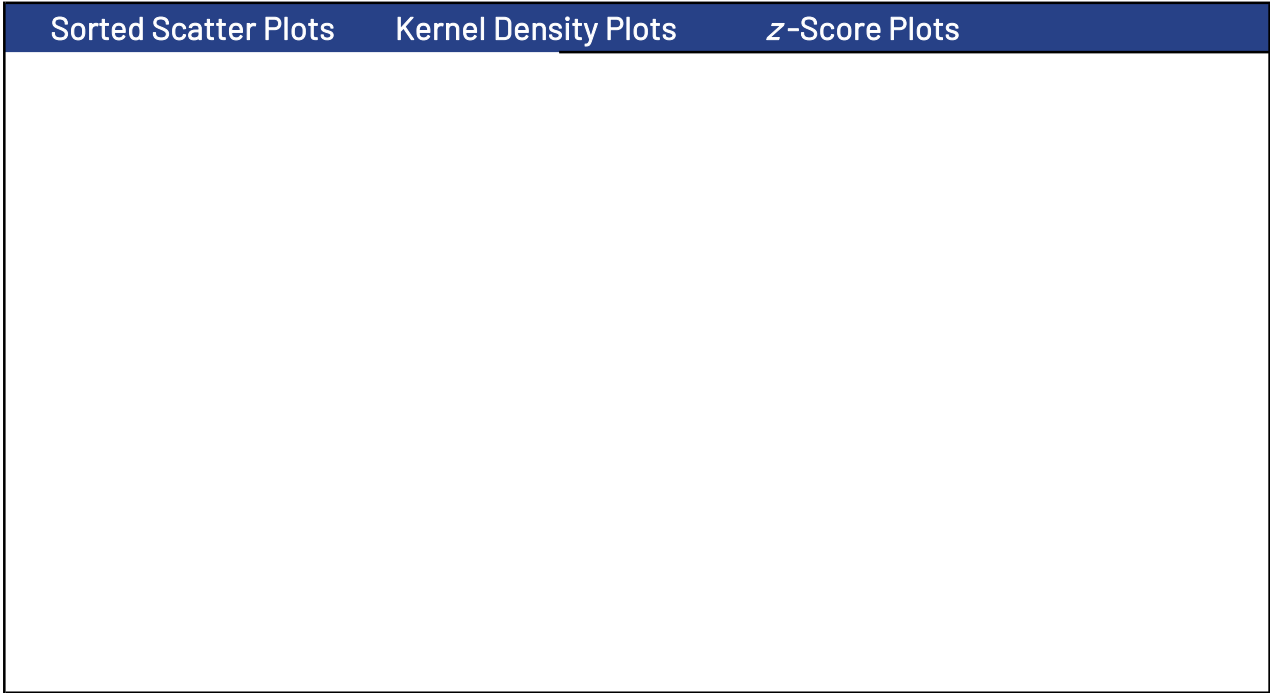
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	2	0	0
GC/FID (Red)	0	1	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

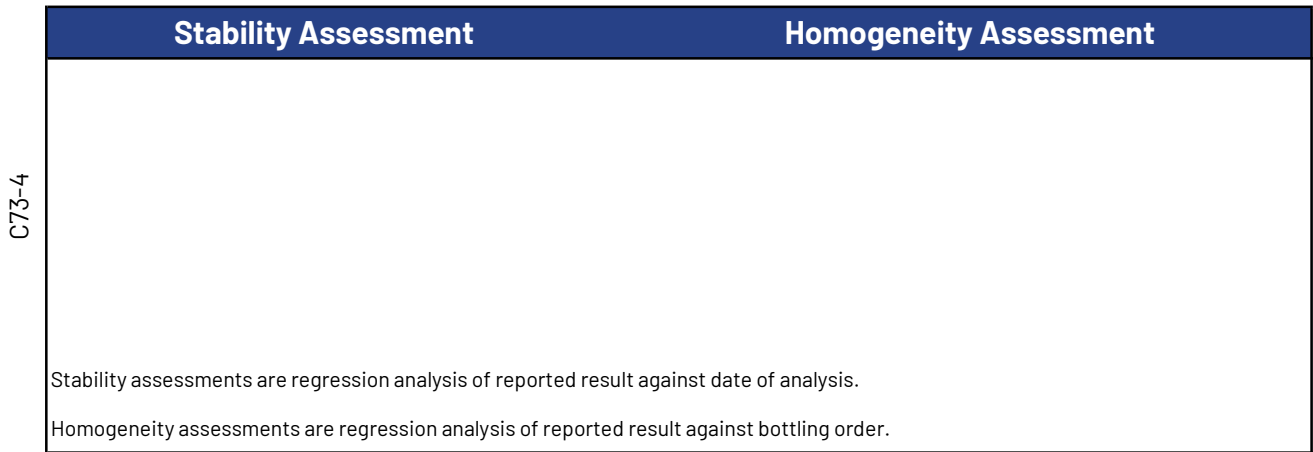


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

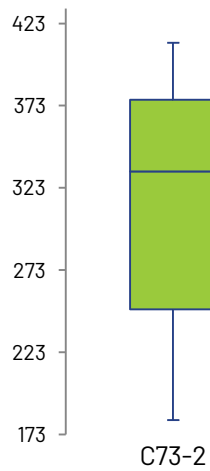
# Butane



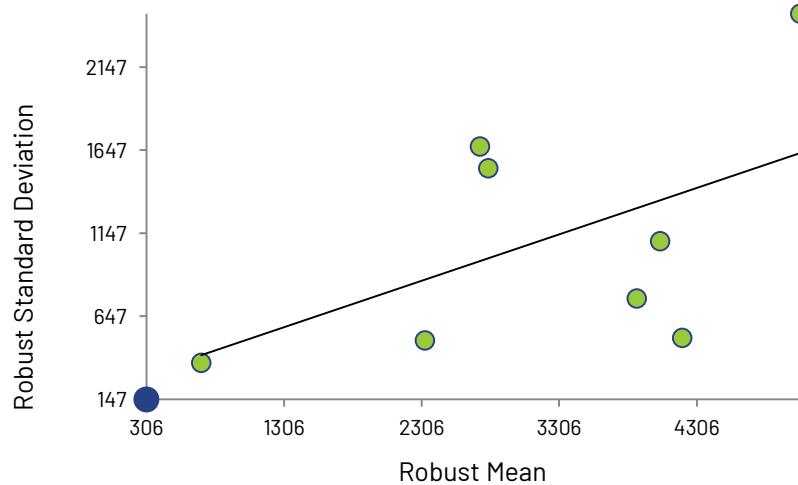
## Butane



### Box and Whisker Plots



### Current Round (blue) Compared to Historic Rounds (green)



## Butyl acetate

### Summary Statistics

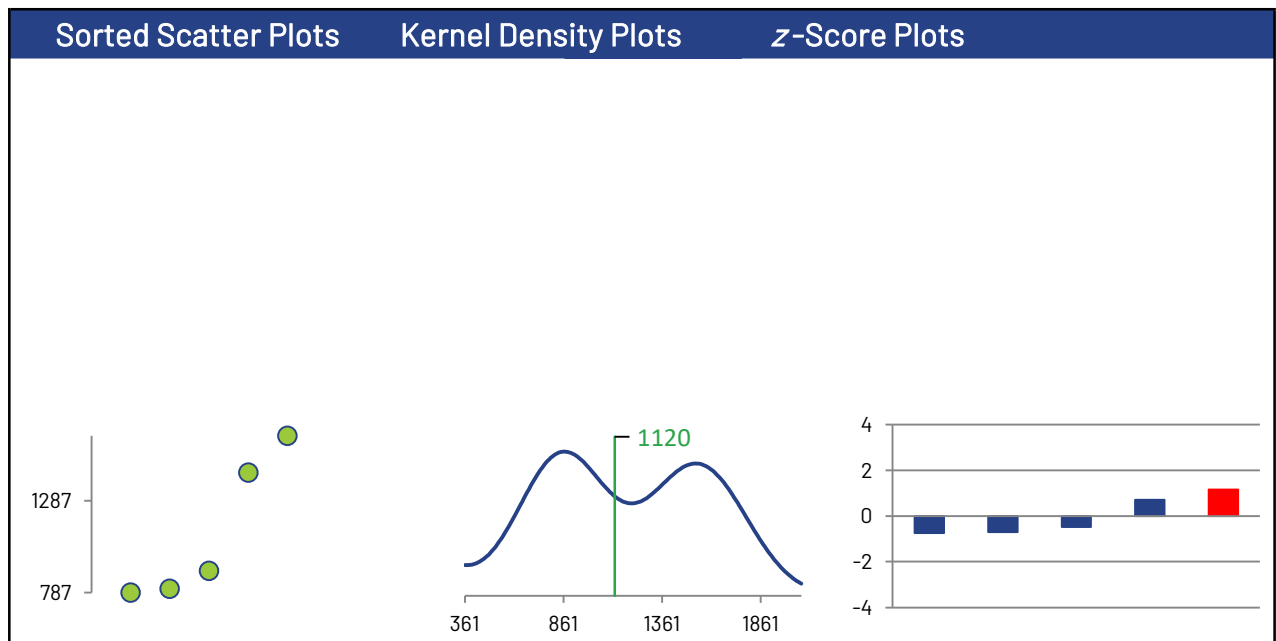
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	5	0	0
Median µg/g		904		
Robust Mean µg/g		1120		
Uncertainty of the Assigned Value µg/g		251		
Robust Standard Deviation µg/g		449		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		449		
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

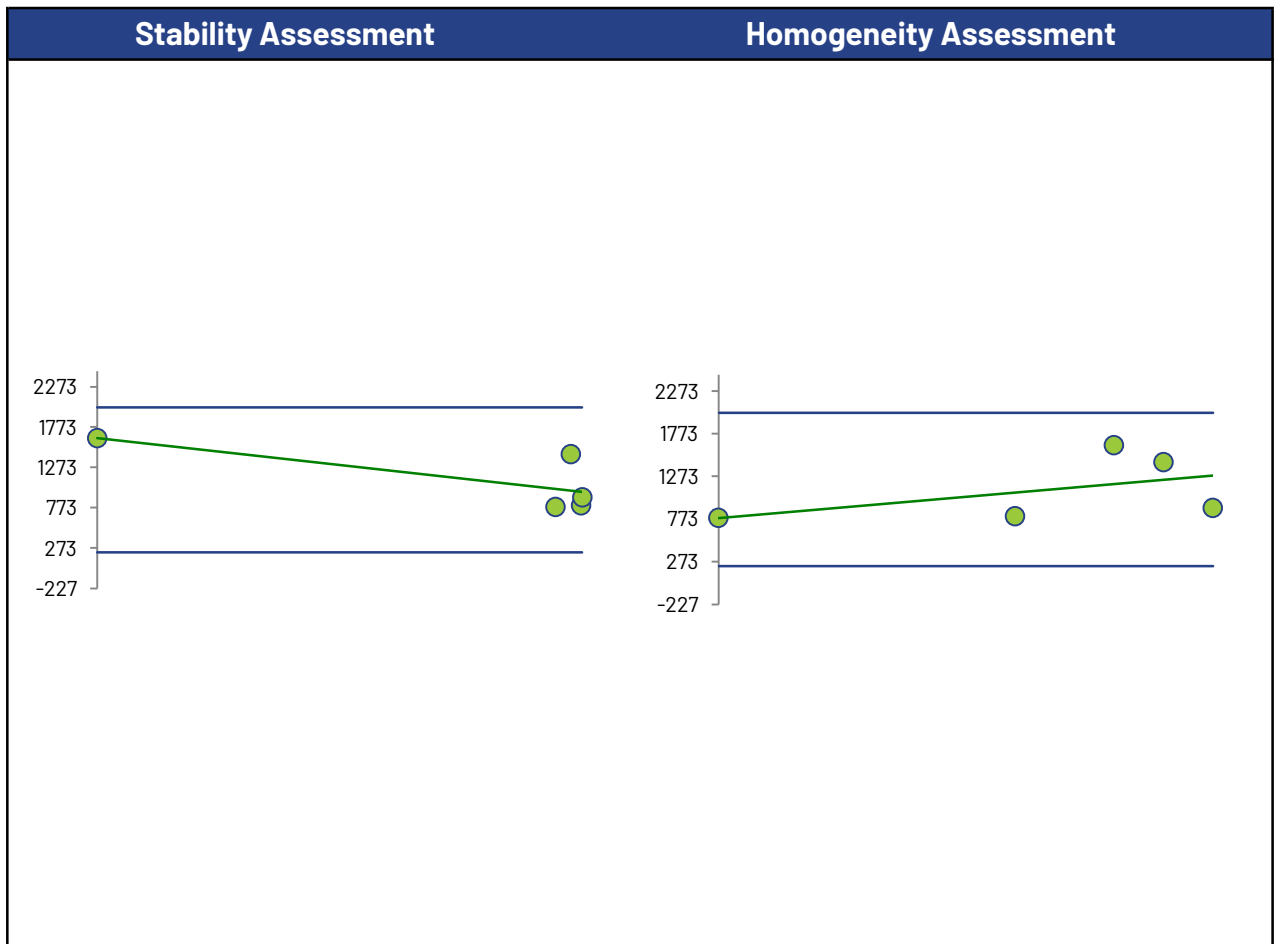
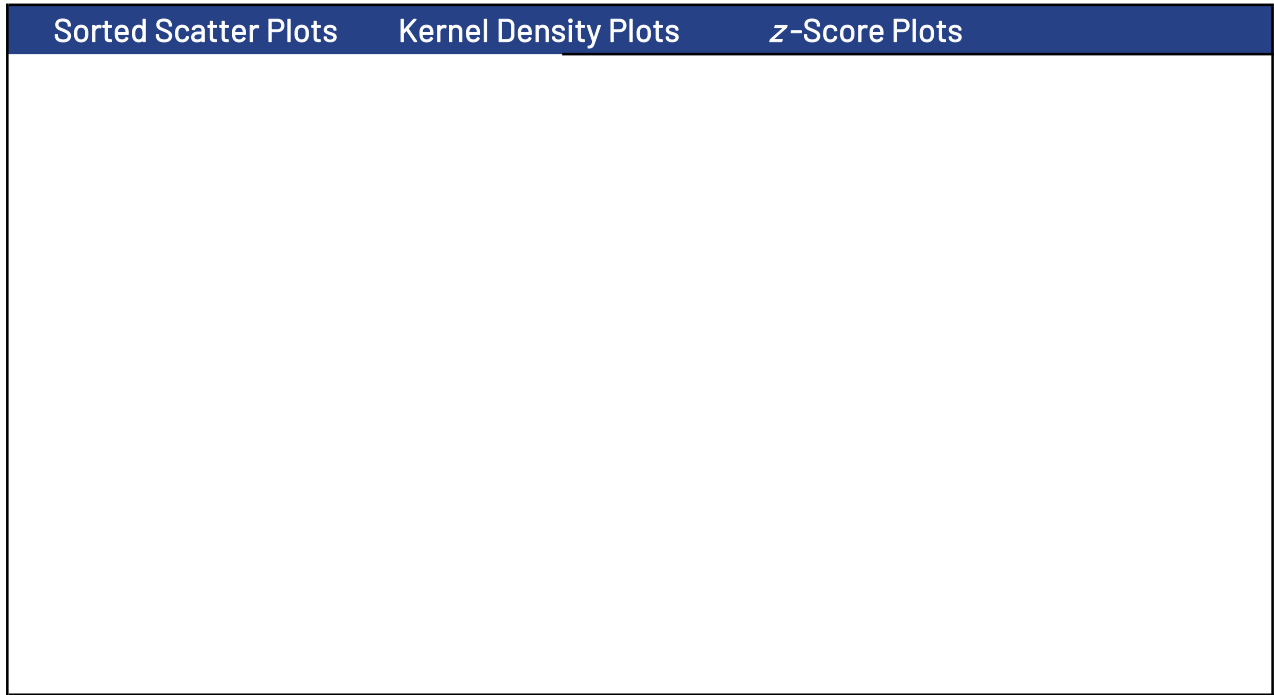
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	4	0	0
GC/FID (Red)	0	1	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

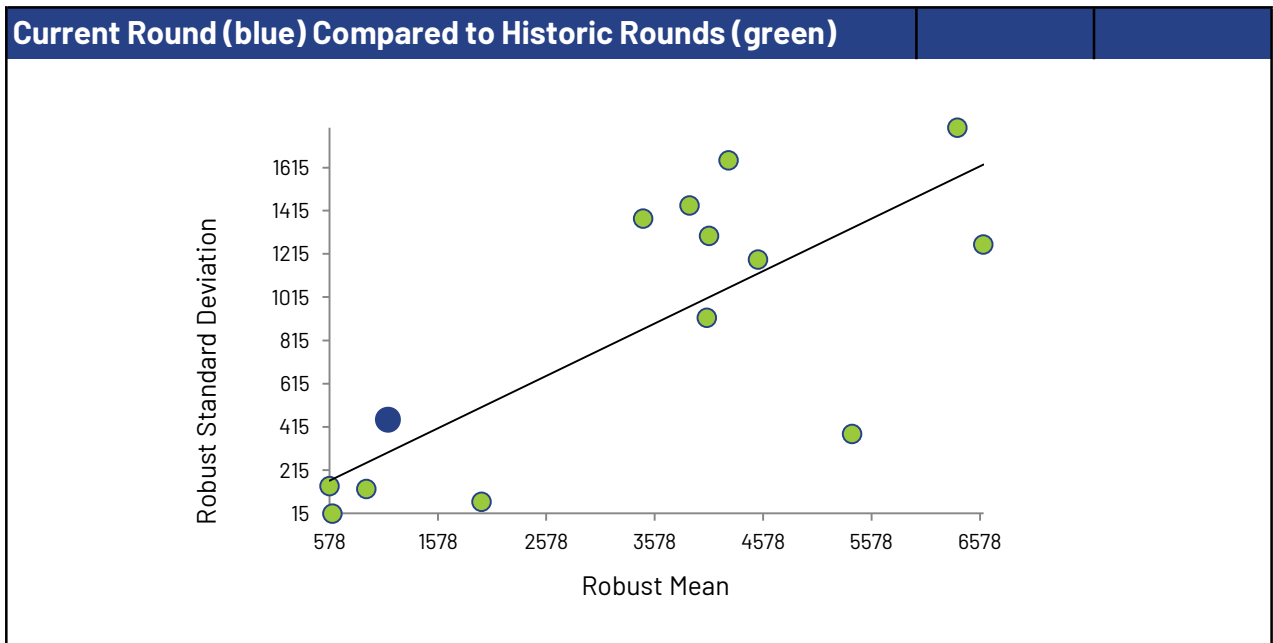
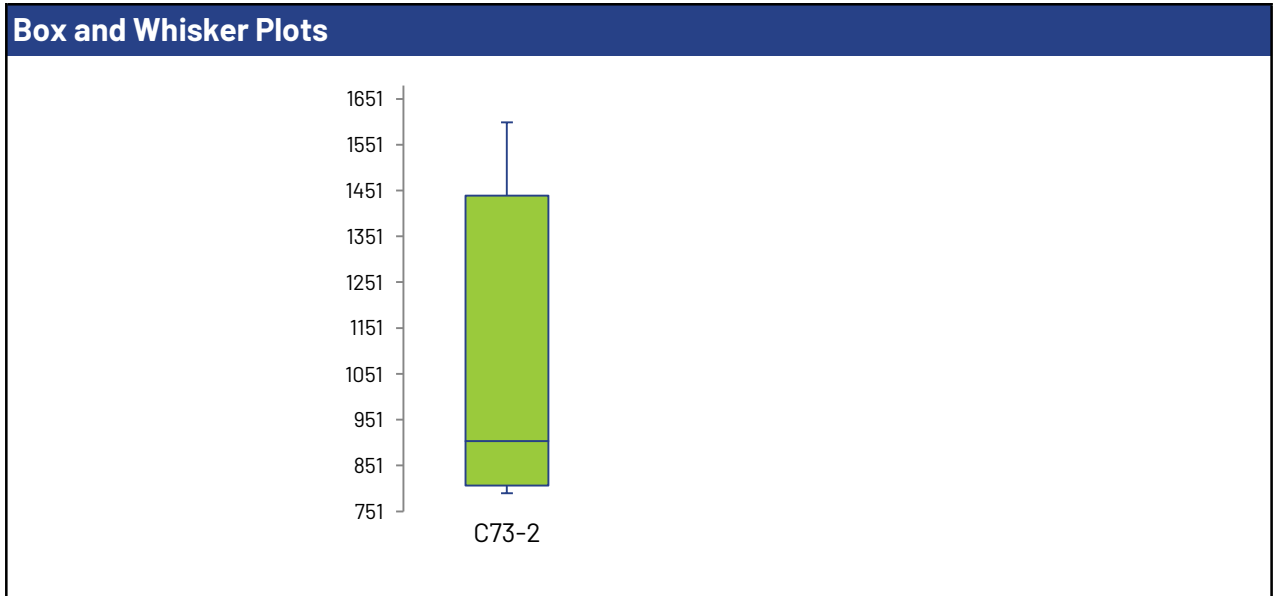
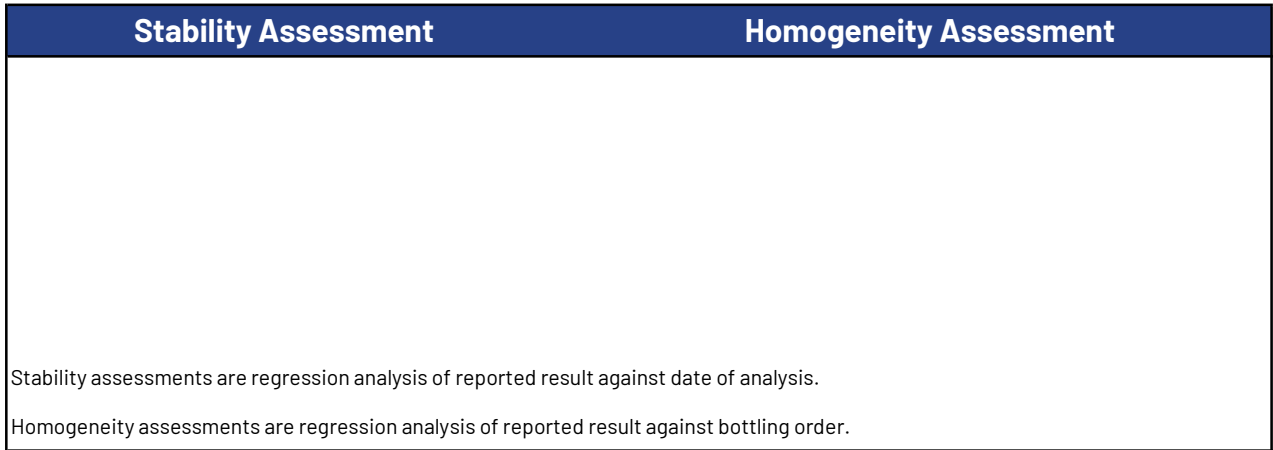


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

## Butyl acetate



## Butyl acetate



## Dimethyl sulfoxide

### Summary Statistics

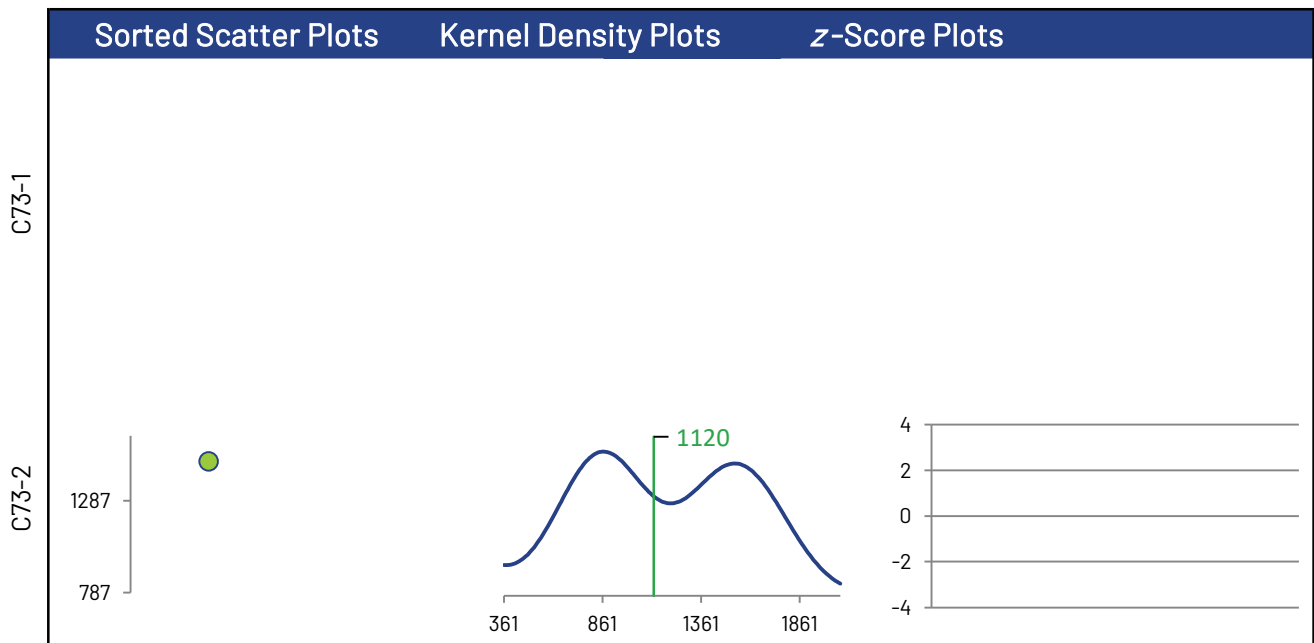
**Not Spiked**      **Excluded**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	2	0	0
Median µg/g		939		
Robust Mean µg/g		939		
Uncertainty of the Assigned Value µg/g		795		
Robust Standard Deviation µg/g		900		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g				
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*				

### Methods Used

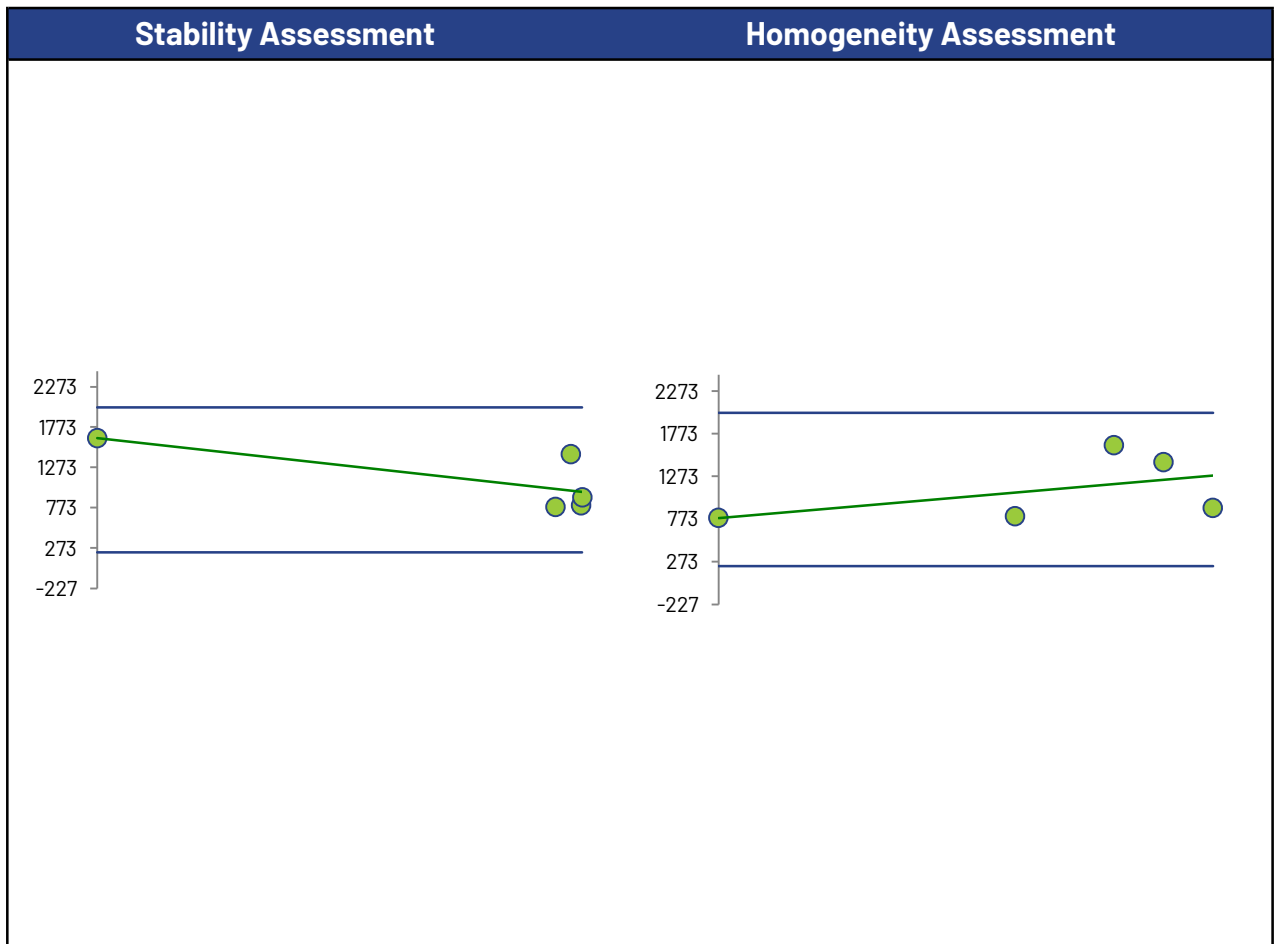
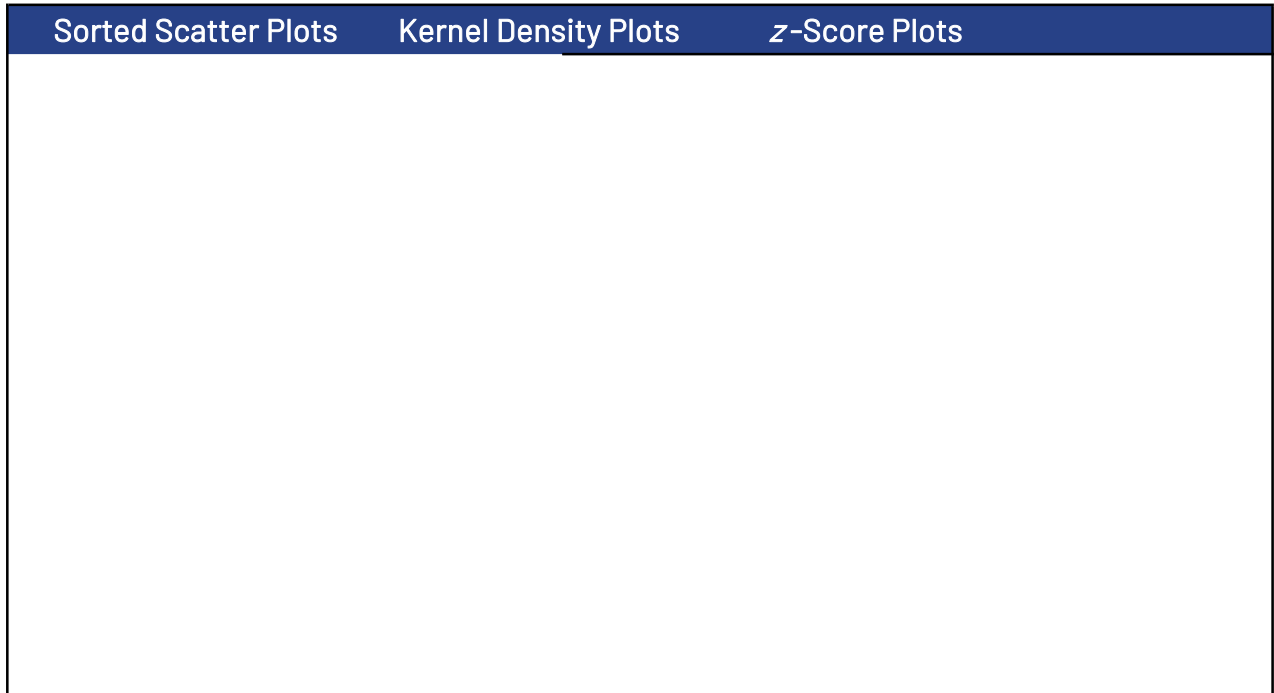
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	2	0	0
GC/FID (Red)	0	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

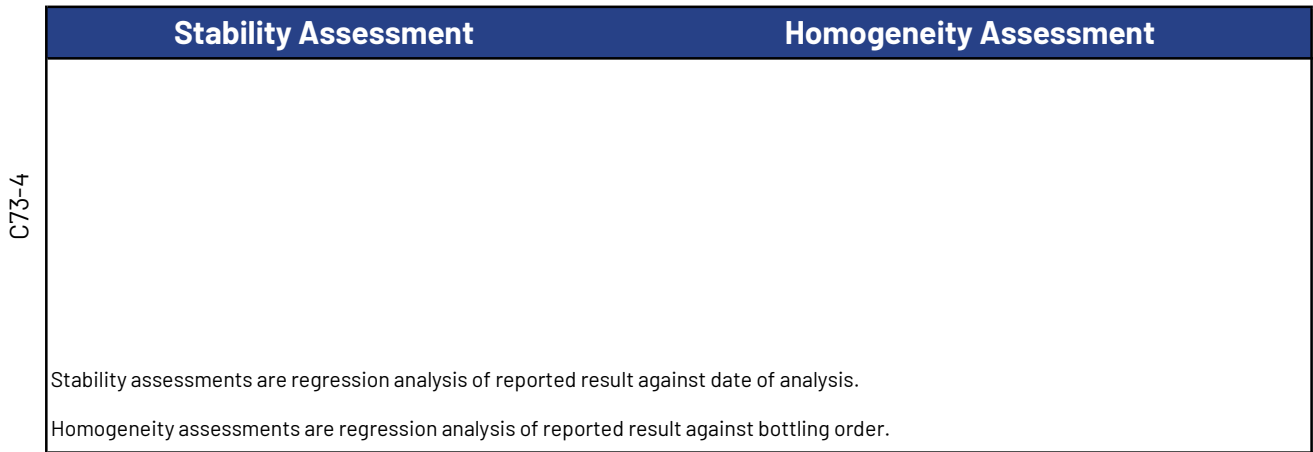


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

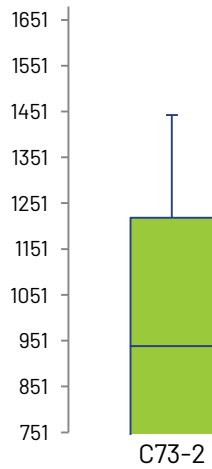
## Dimethyl sulfoxide



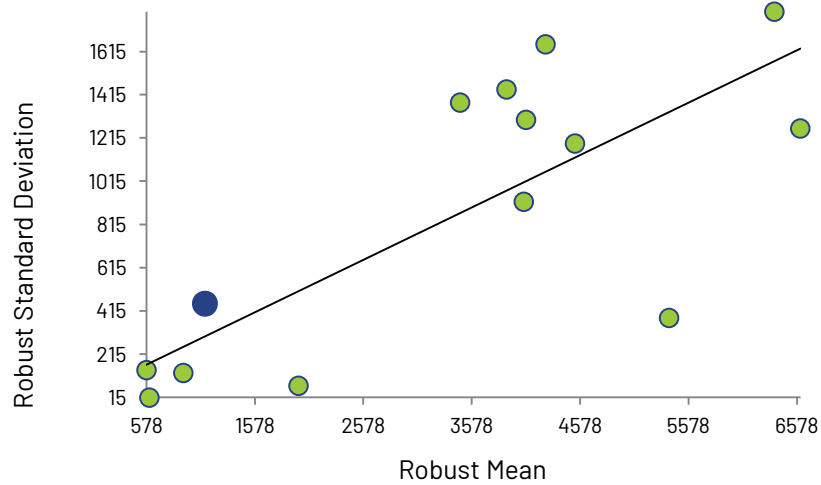
## Dimethyl sulfoxide



### Box and Whisker Plots



### Current Round (blue) Compared to Historic Rounds (green)



## Ethanol

### Summary Statistics

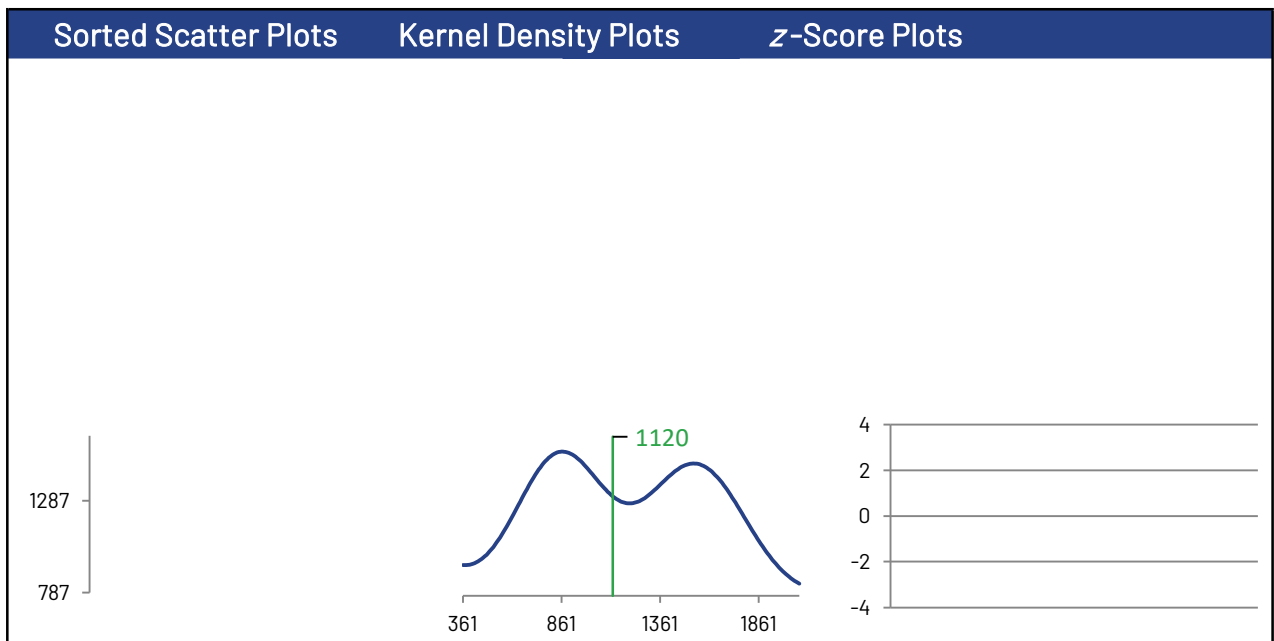
**Not Spiked**      **Excluded**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	1	0	0	0
Median µg/g	142			
Robust Mean µg/g	142			
Uncertainty of the Assigned Value µg/g				
Robust Standard Deviation µg/g				
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g				
Flagged Outliers	0	1	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*				

### Methods Used

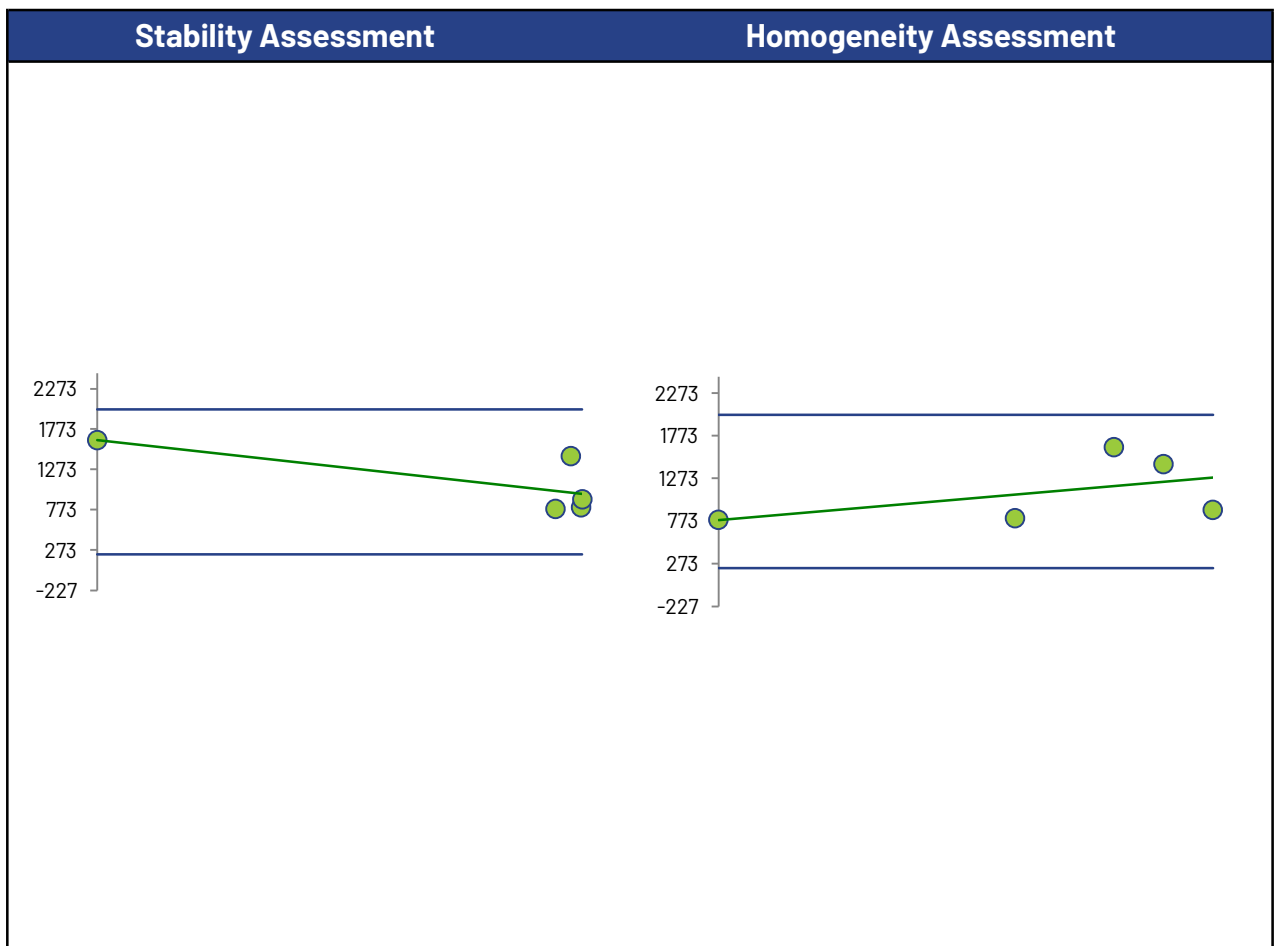
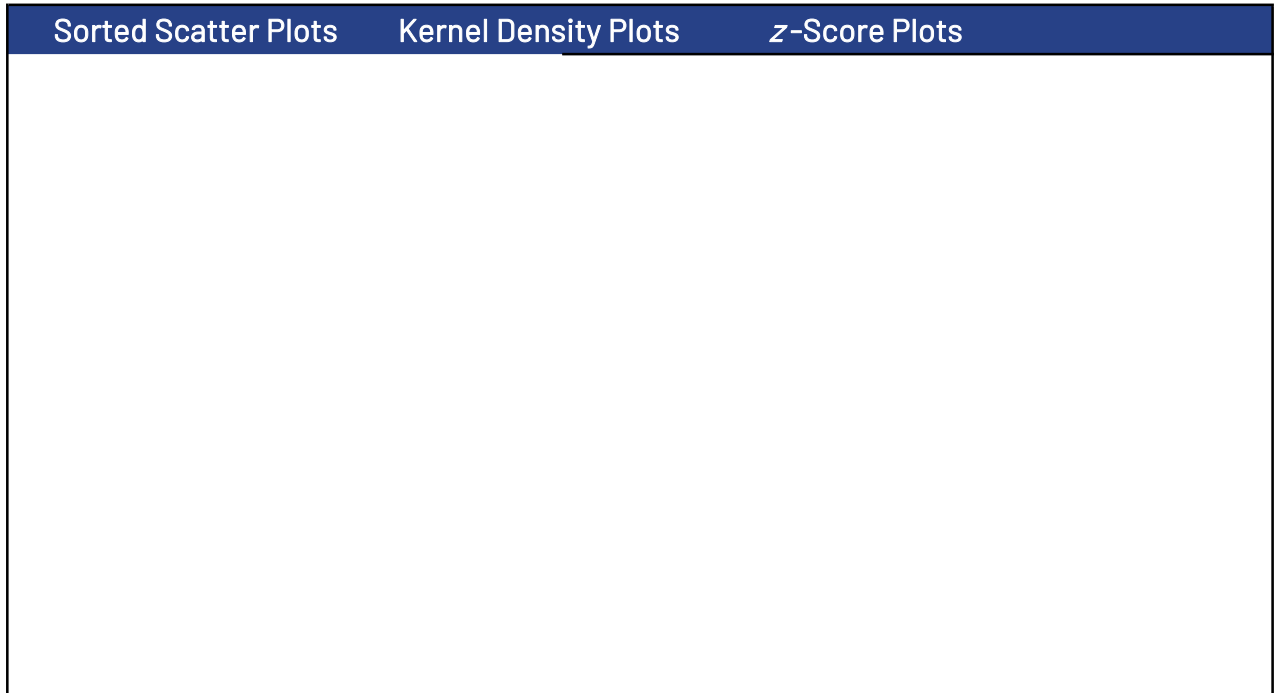
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	1	0	0	0
GC/FID (Red)	0	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

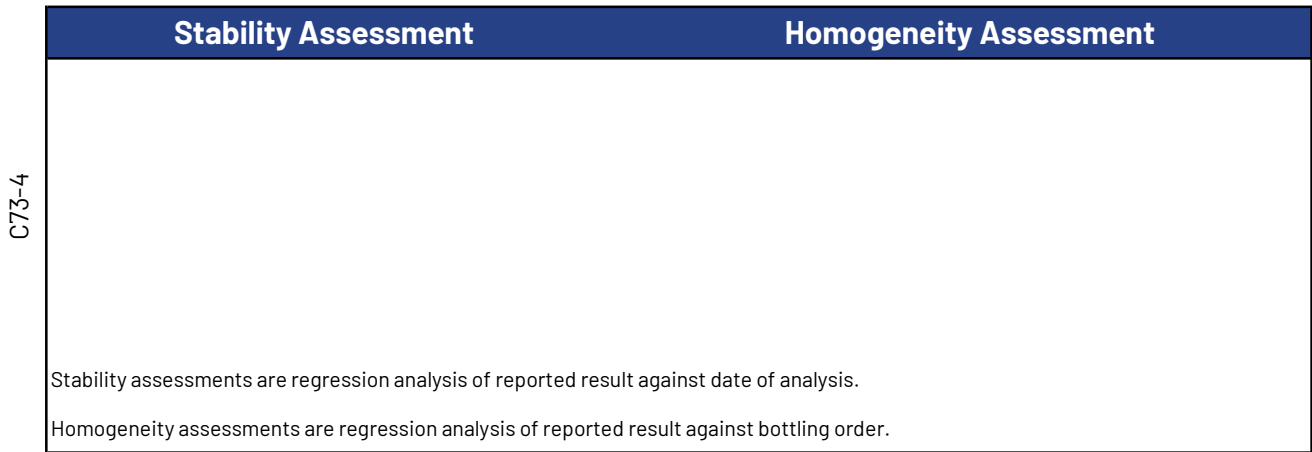


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

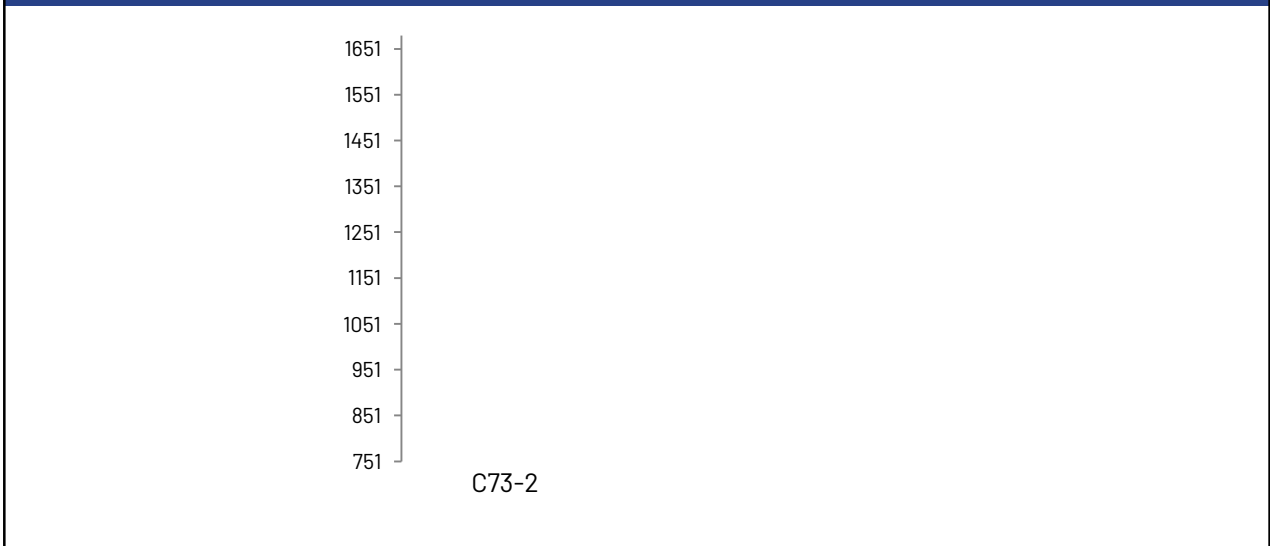
# Ethanol



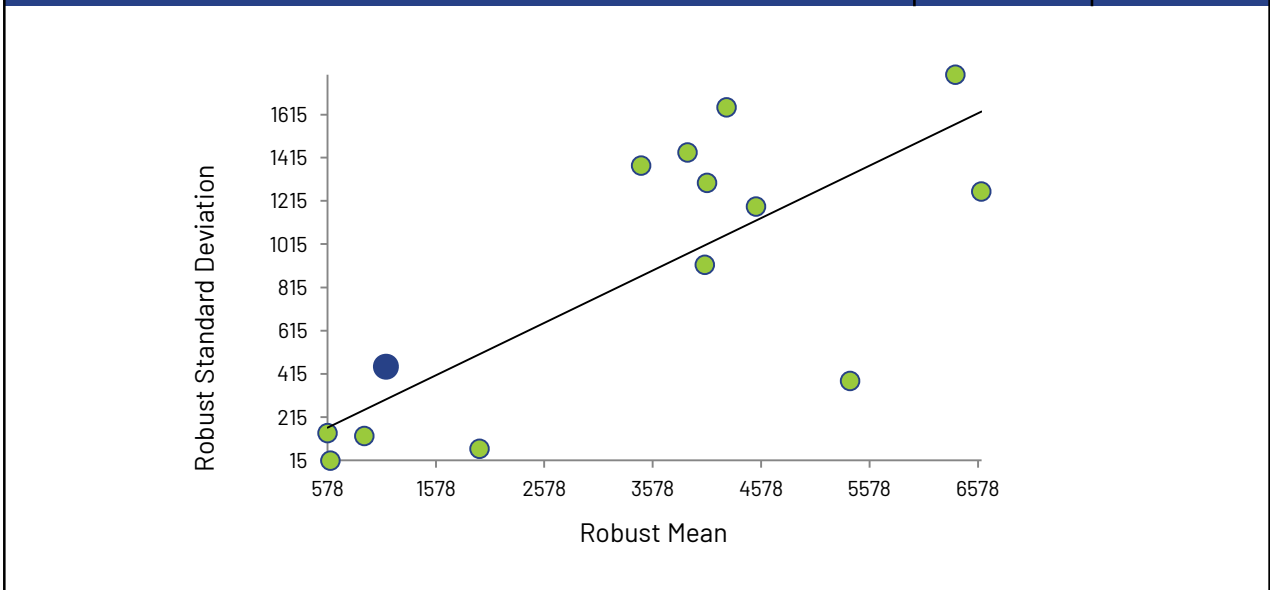
## Ethanol



### Box and Whisker Plots



### Current Round (blue) Compared to Historic Rounds (green)



## Ethyl acetate

### Summary Statistics

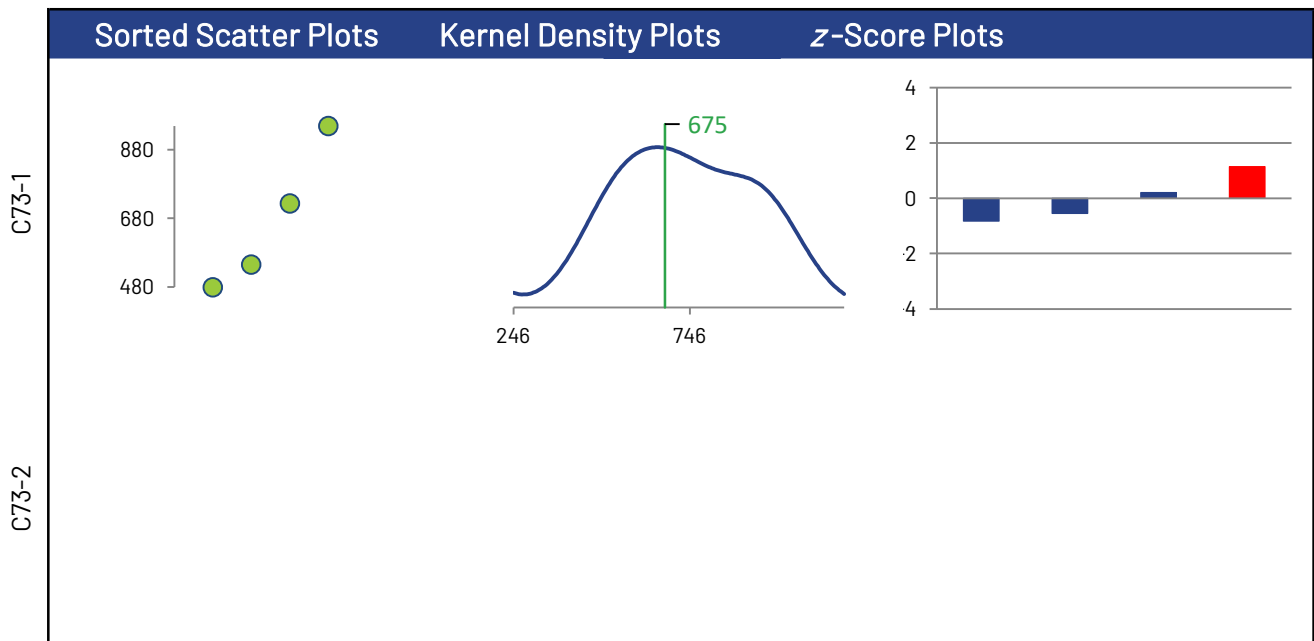
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	0	0	0
Median µg/g	635			
Robust Mean µg/g	675			
Uncertainty of the Assigned Value µg/g	149			
Robust Standard Deviation µg/g	238			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	238			
Flagged Outliers	0	1	0	0
$ z  > 3.0$	0	0	0	0
$2 <  z  < 3$	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

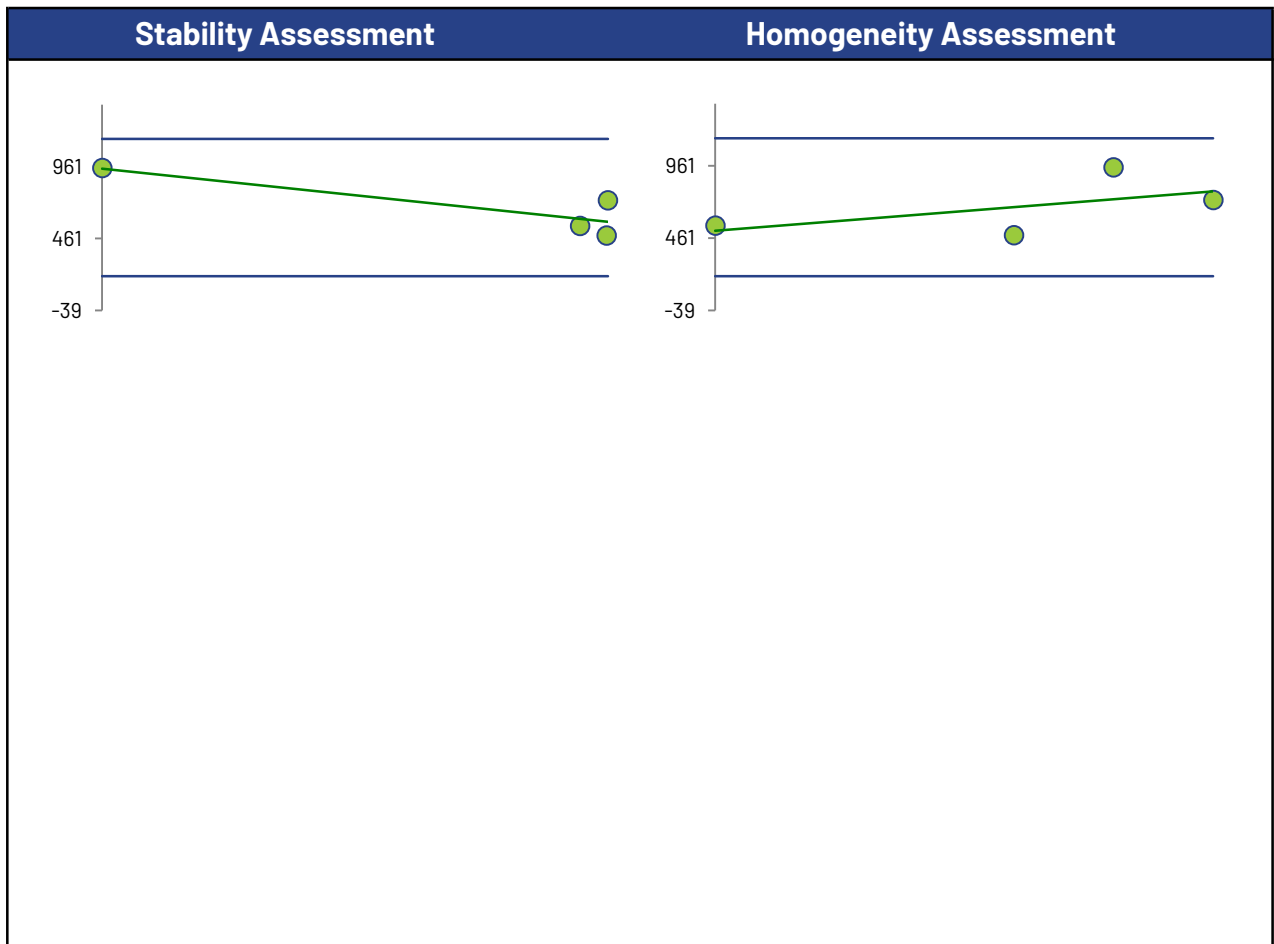
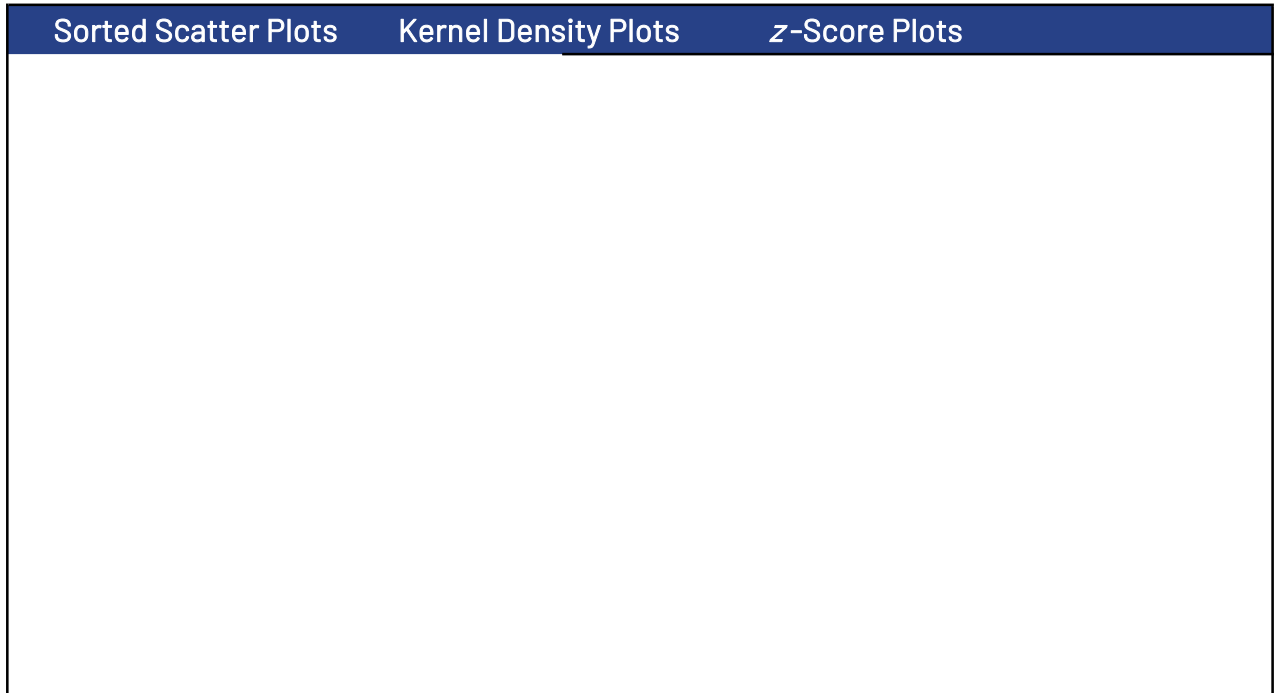
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

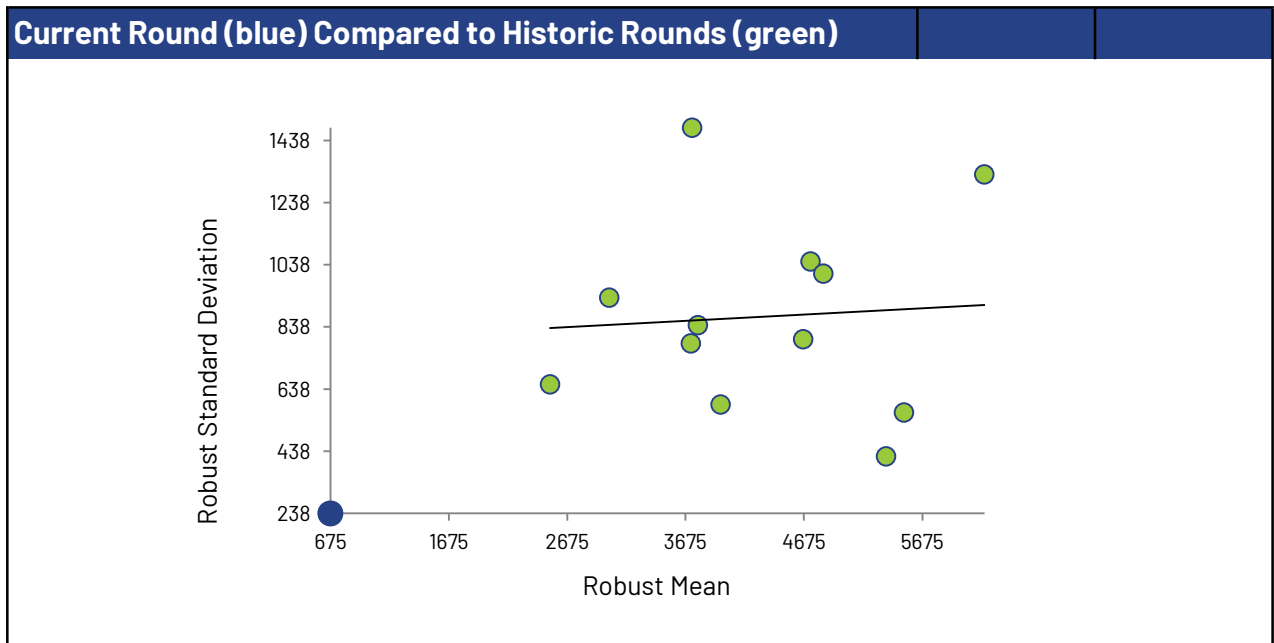
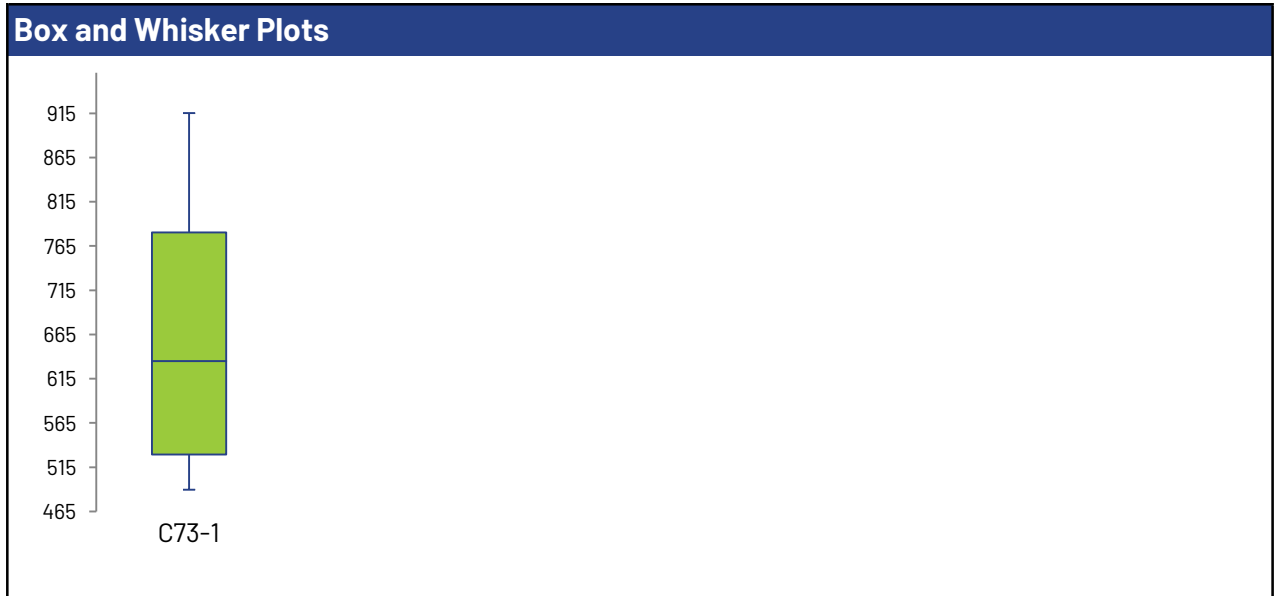
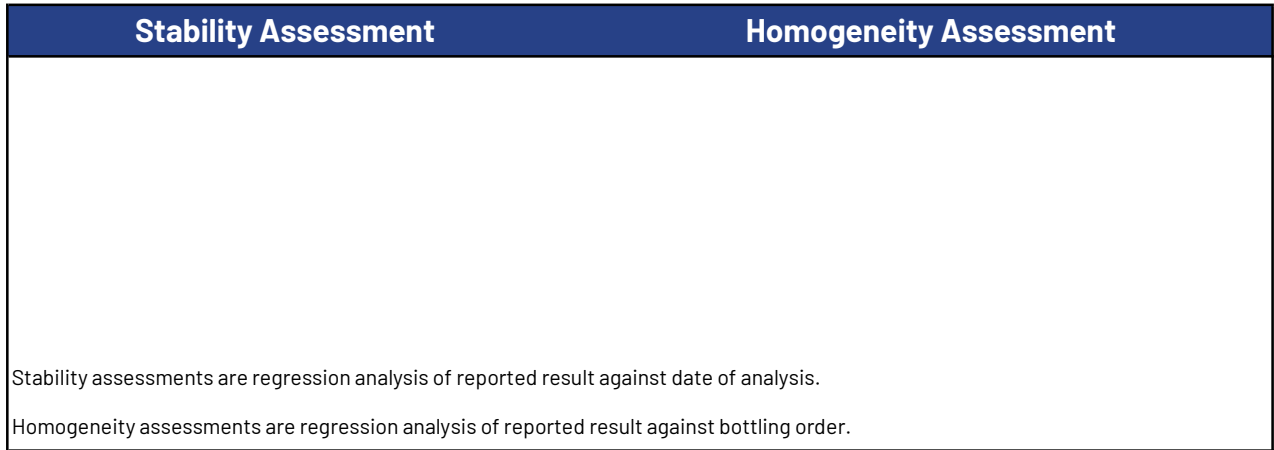


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

## Ethyl acetate



## Ethyl acetate



## Ethyl ether

### Summary Statistics

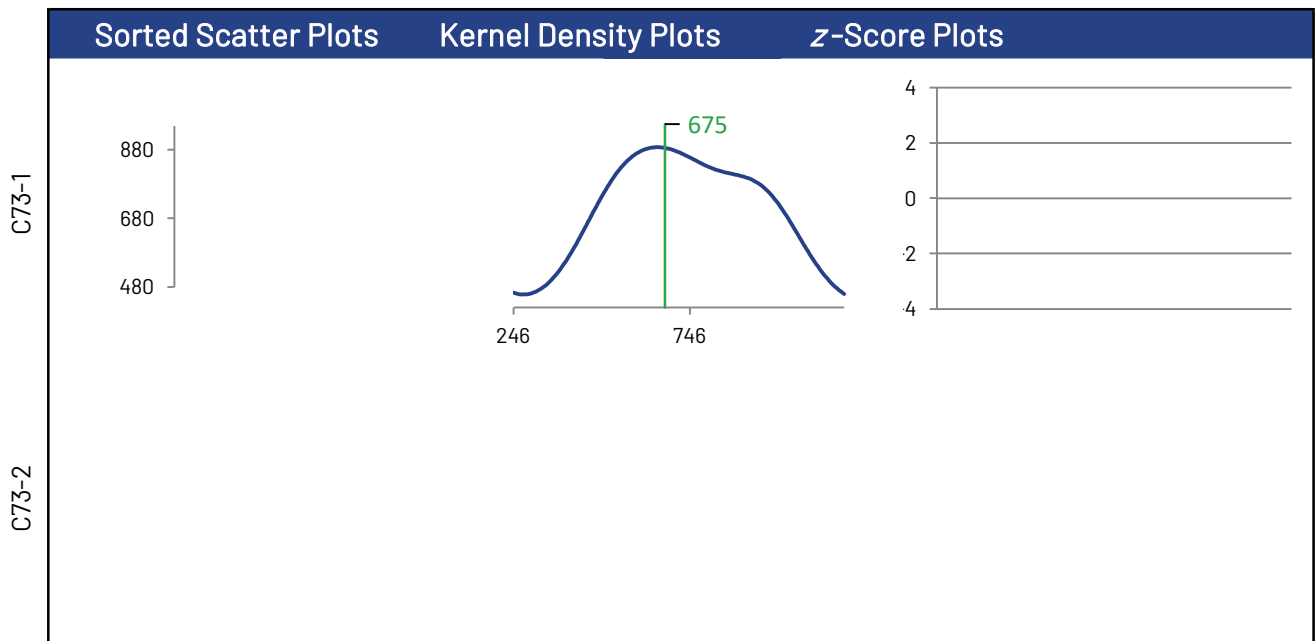
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	2	0	0
Median µg/g		200		
Robust Mean µg/g		200		
Uncertainty of the Assigned Value µg/g		38		
Robust Standard Deviation µg/g		43		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g				
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*				

### Methods Used

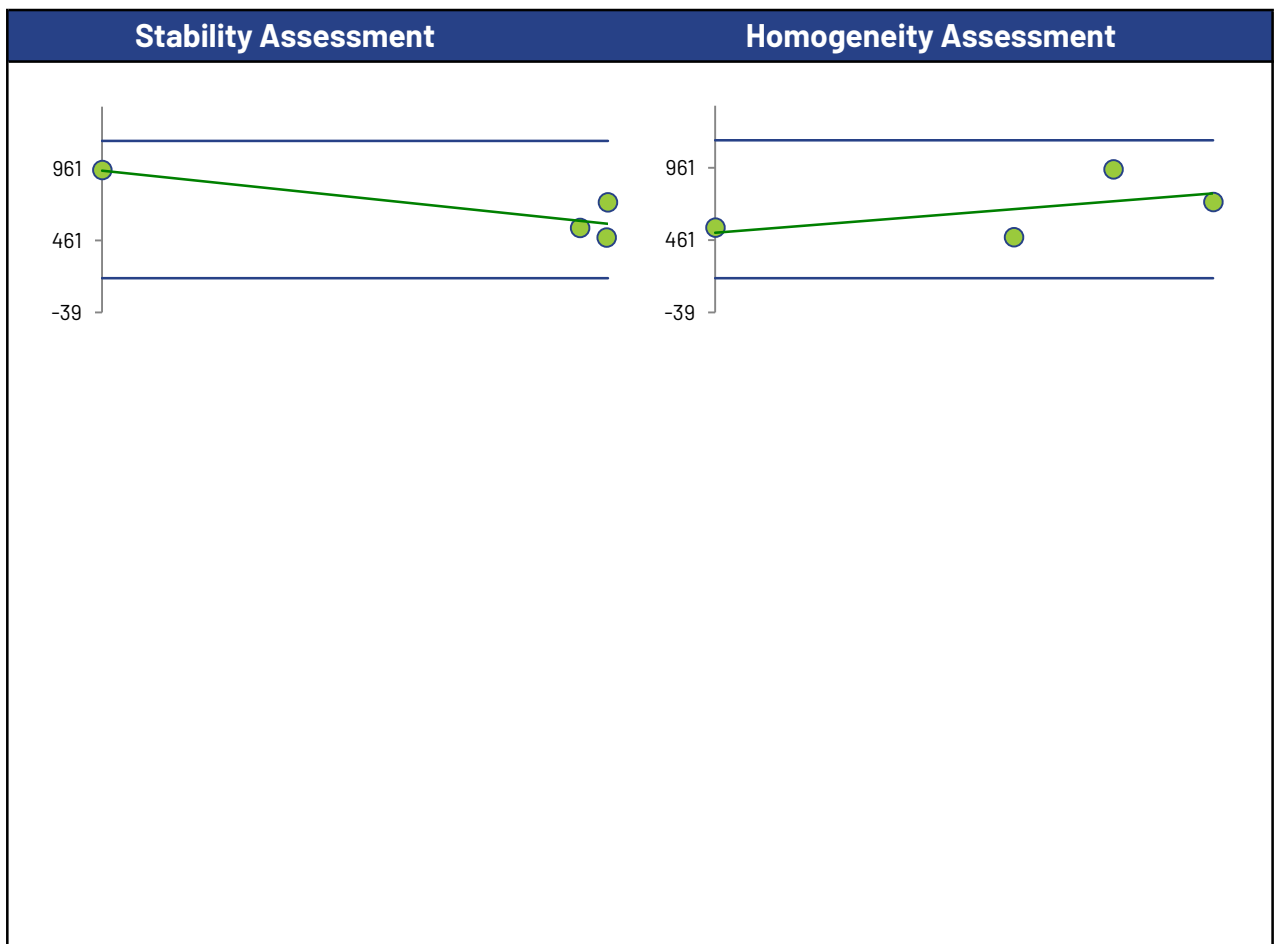
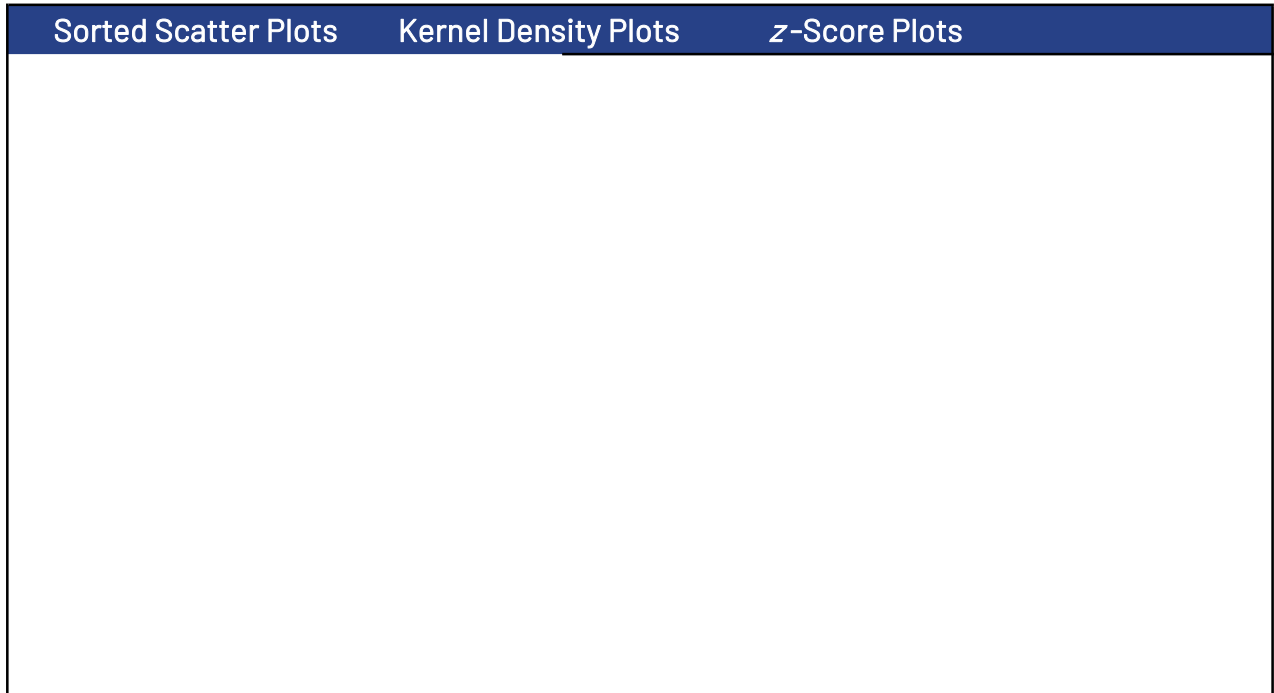
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	2	0	0
GC/FID (Red)	0	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

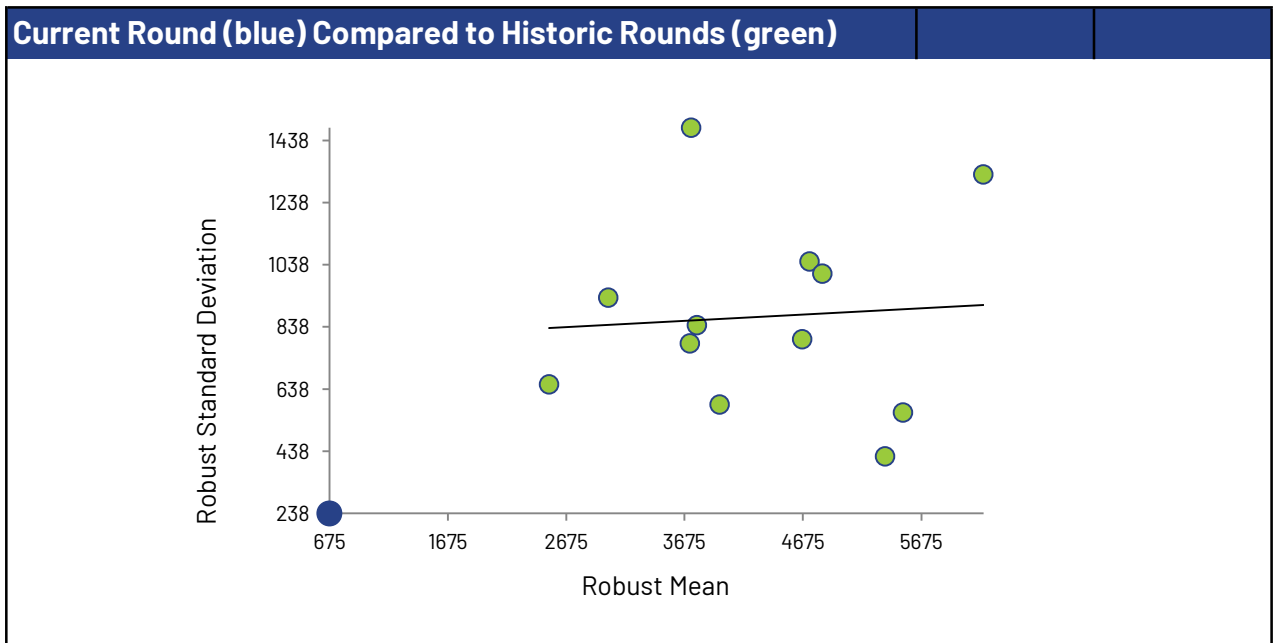
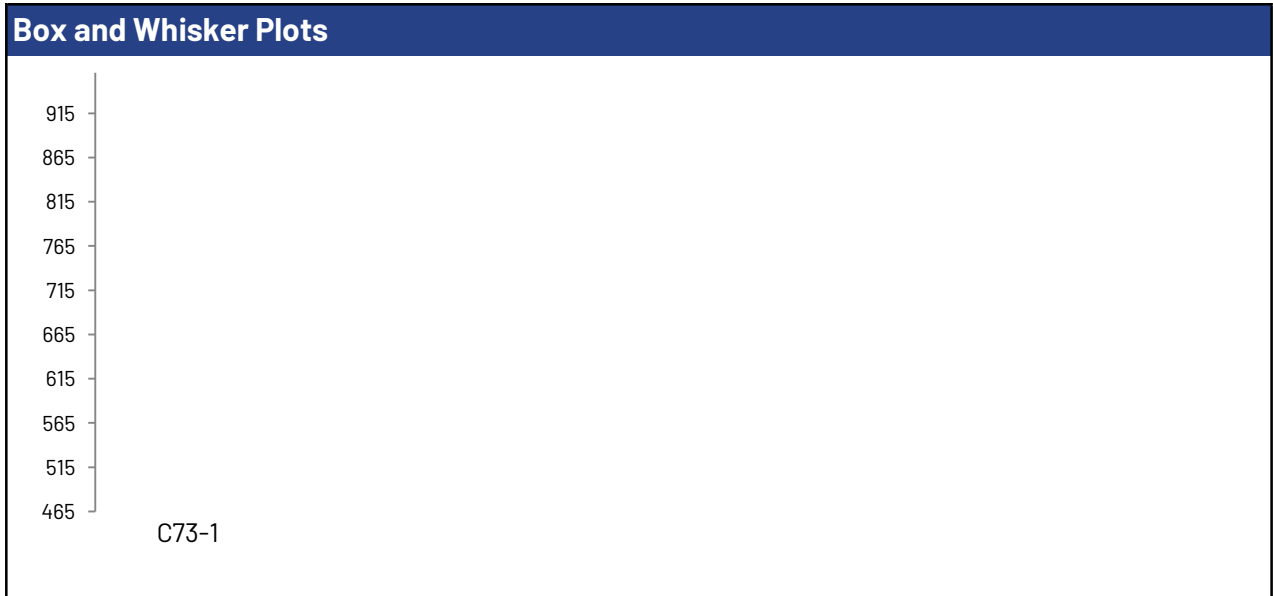
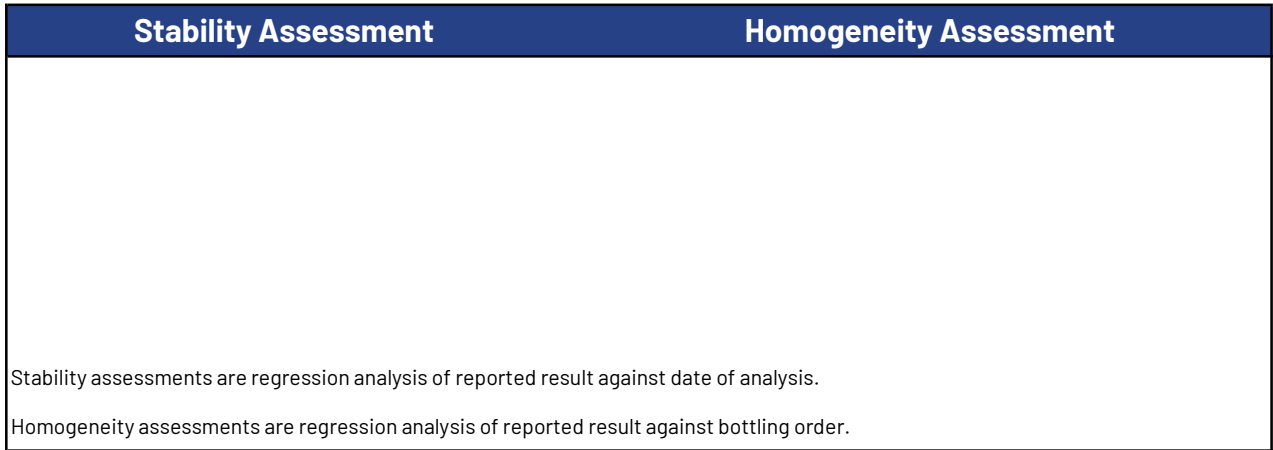


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

## Ethyl ether



## Ethyl ether



## Heptane

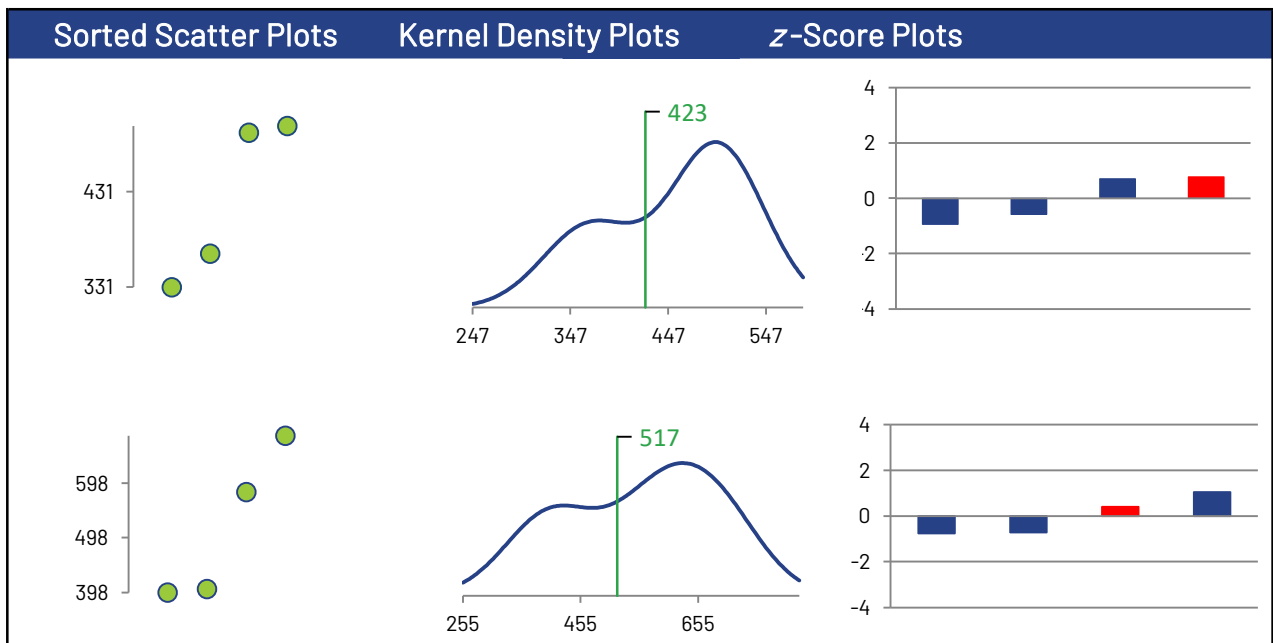
### Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	4	4	0	0
Median µg/g	430	493		
Robust Mean µg/g	423	517		
Uncertainty of the Assigned Value µg/g	61.4	99.4		
Robust Standard Deviation µg/g	98.3	159		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	98.3	159		
Flagged Outliers	0	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

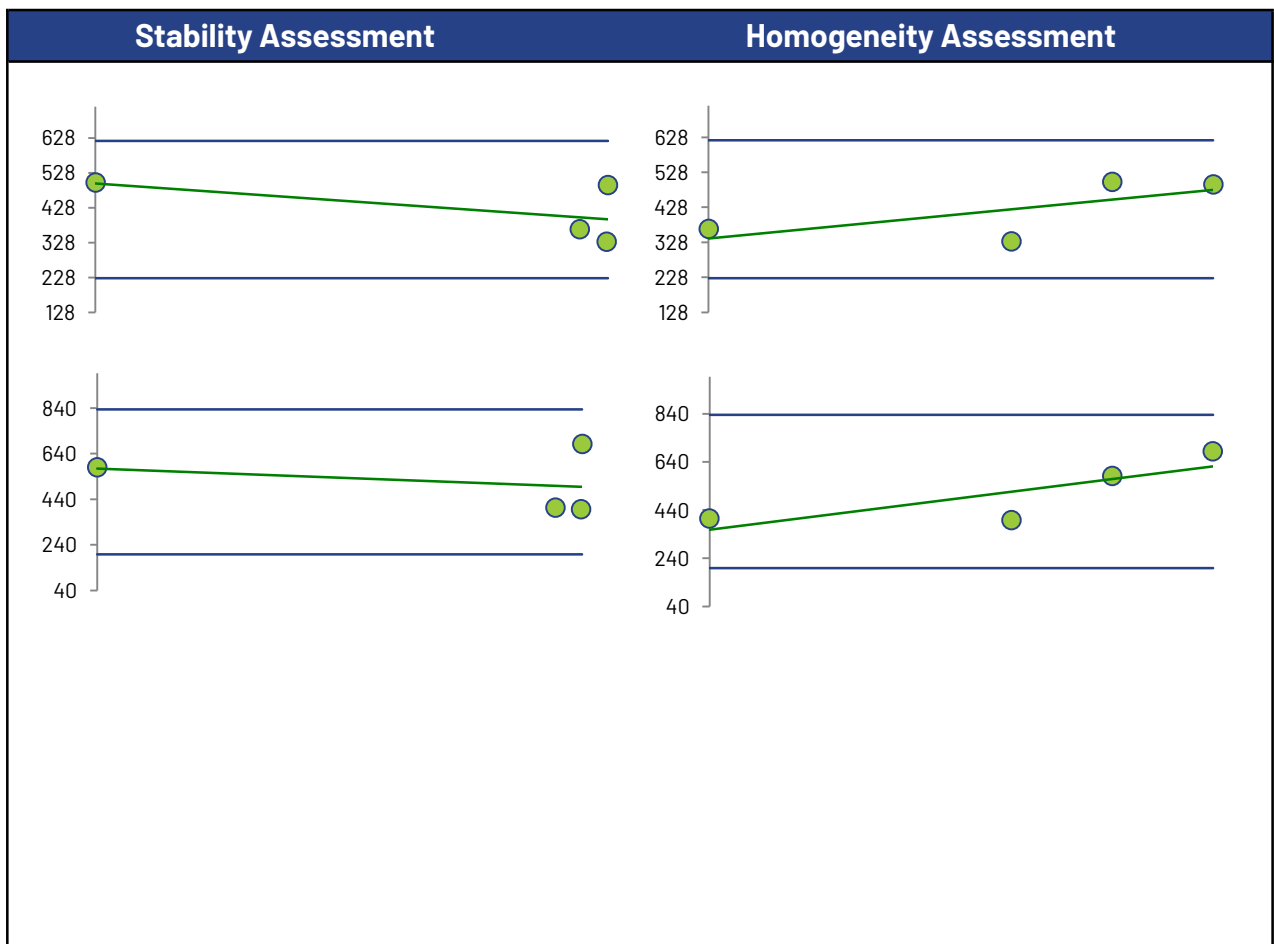
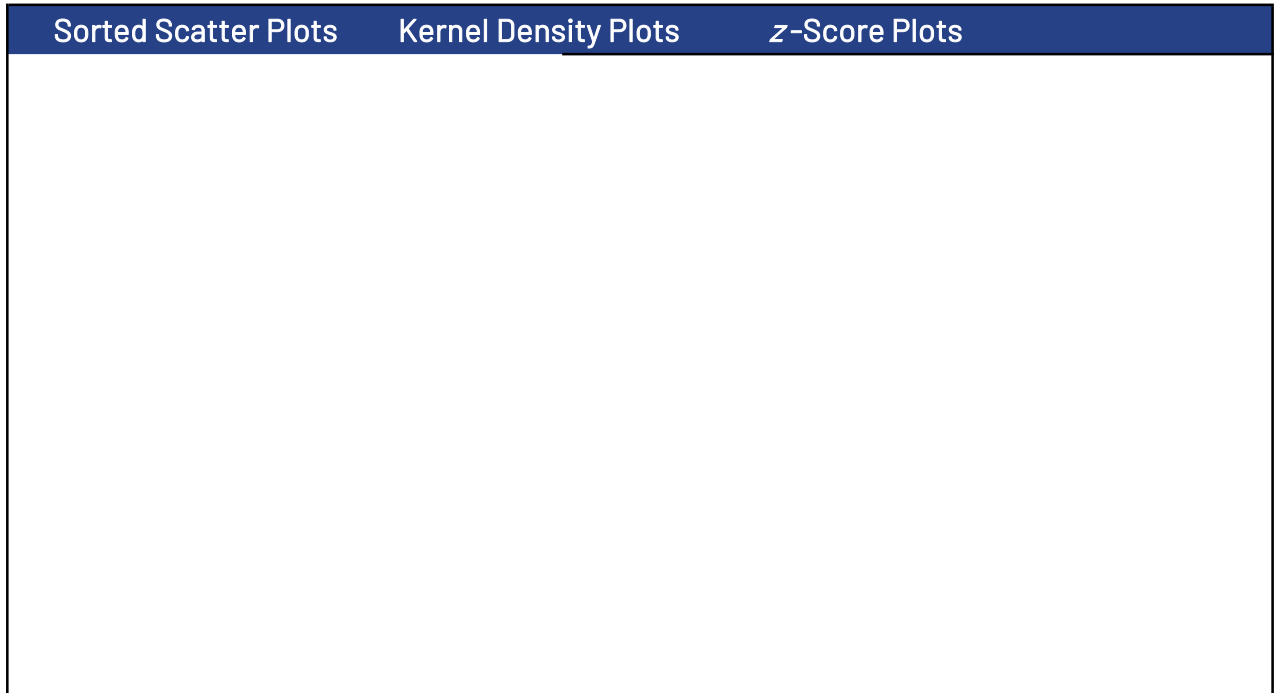
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	3	3	0	0
GC/FID (Red)	1	1	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



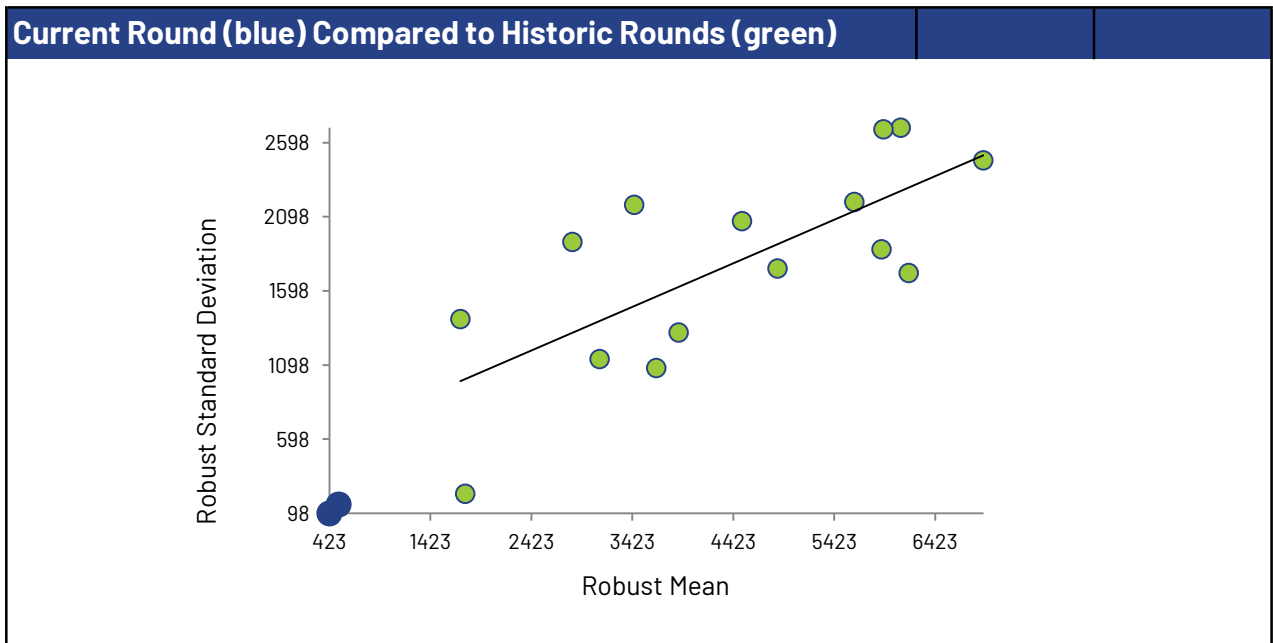
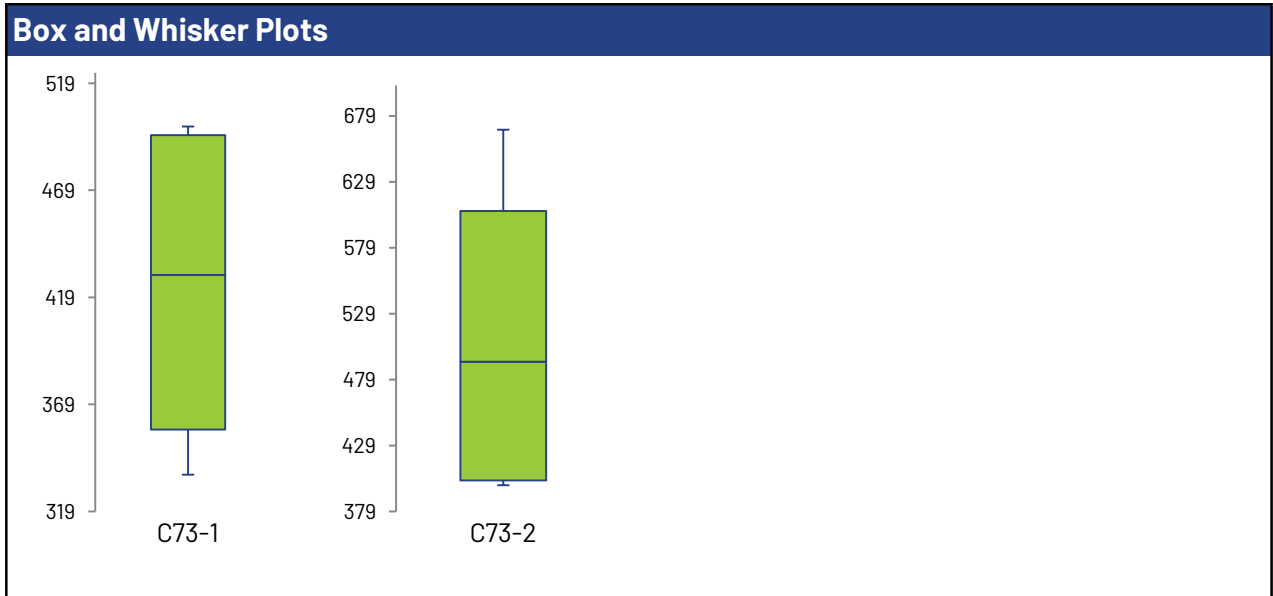
\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

# Heptane



# Heptane

	Stability Assessment	Homogeneity Assessment
C73-4		
	<p>Stability assessments are regression analysis of reported result against date of analysis.</p> <p>Homogeneity assessments are regression analysis of reported result against bottling order.</p>	



### Isobutanol (2-Methyl-1-propanol)

#### Summary Statistics

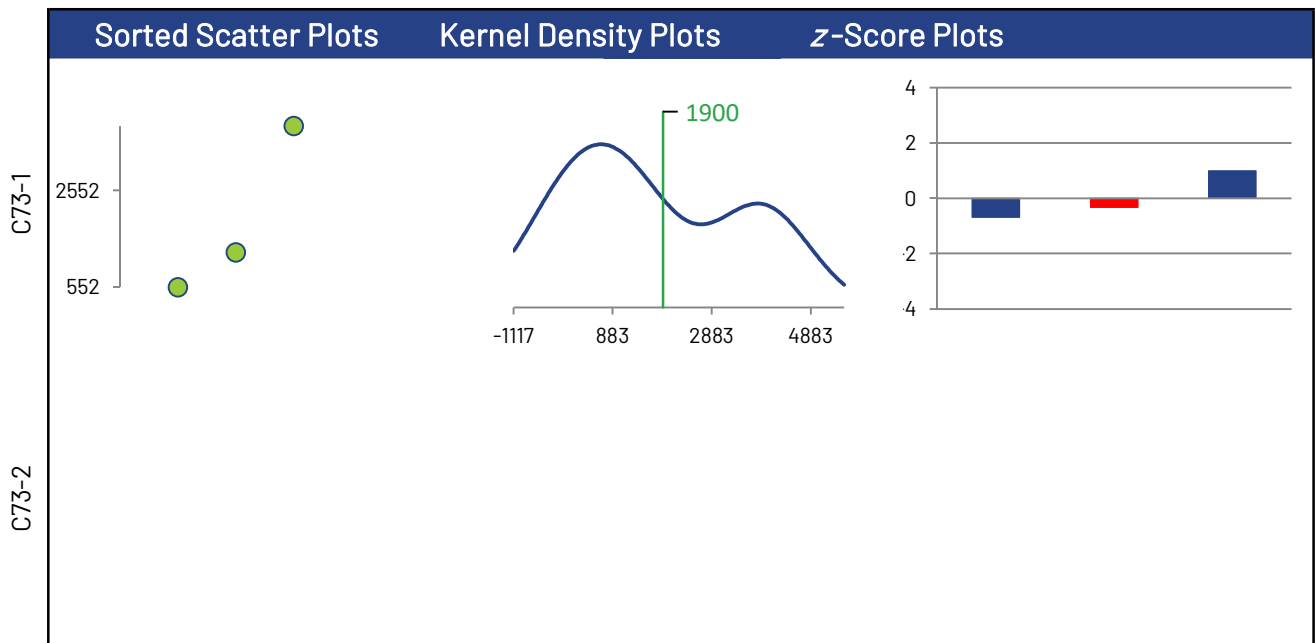
**Excluded**   **Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	3	0	0	0
Median µg/g	1270			
Robust Mean µg/g	1900			
Uncertainty of the Assigned Value µg/g	1440			
Robust Standard Deviation µg/g	1990			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	1990			
Flagged Outliers	0	1	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

#### Methods Used

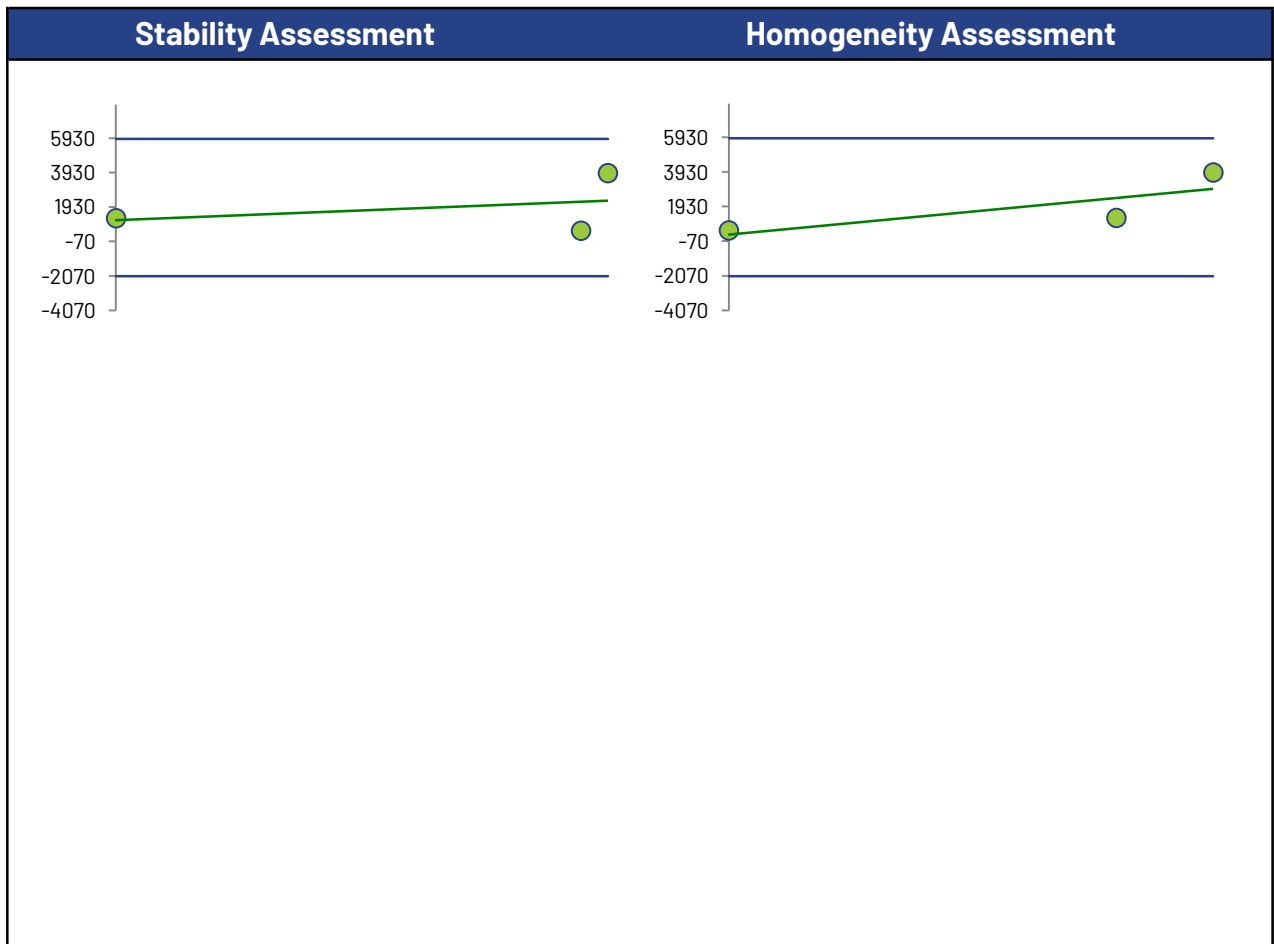
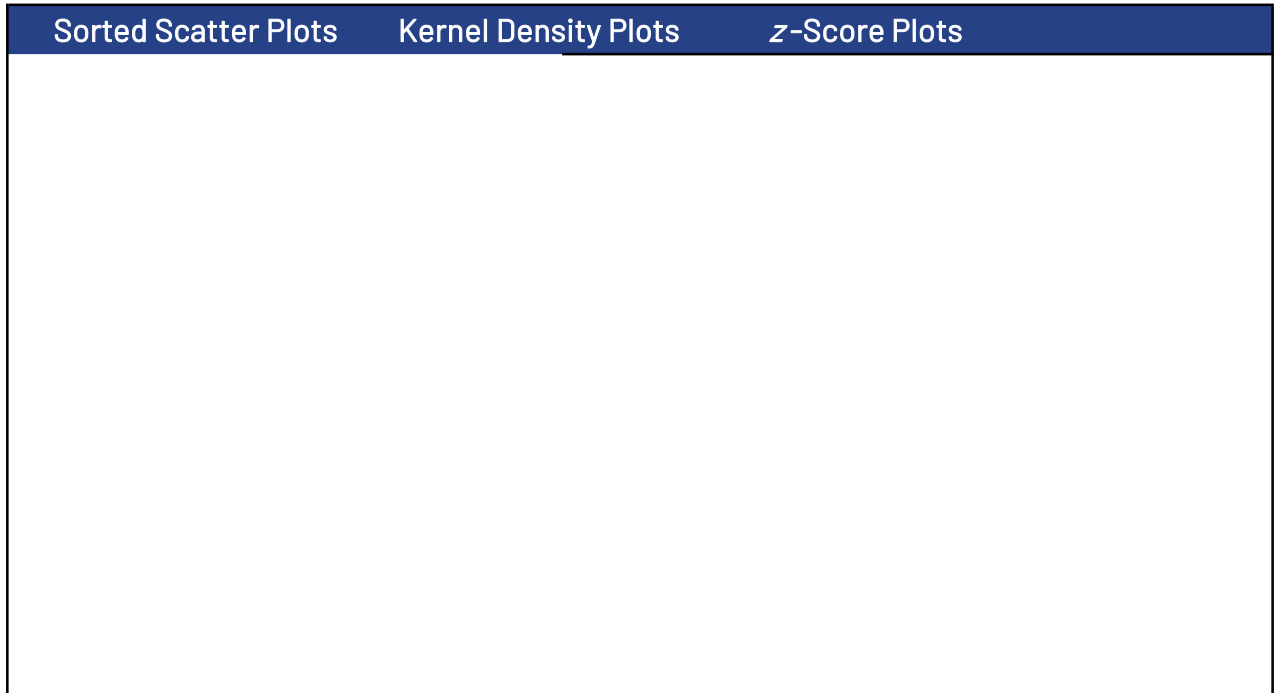
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	2	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

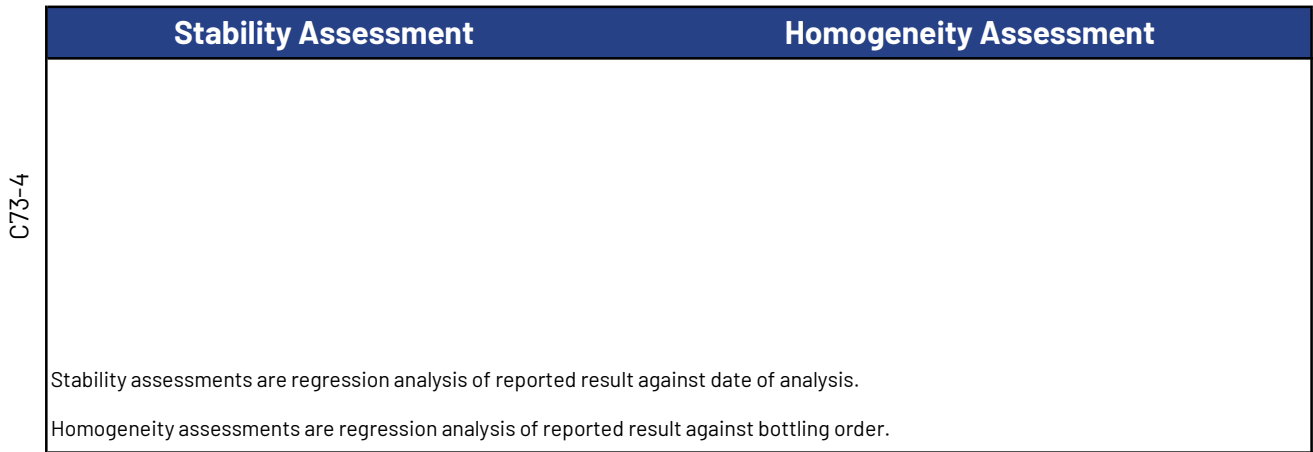


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

### Isobutanol (2-Methyl-1-propanol)



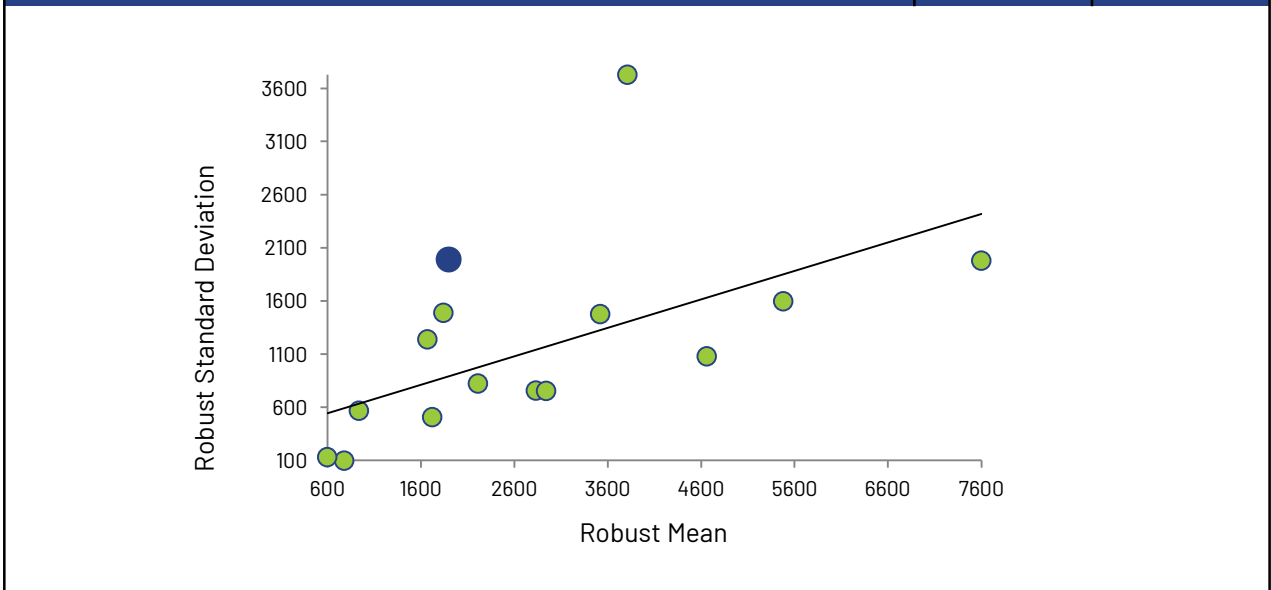
## Isobutanol (2-Methyl-1-propanol)



### Box and Whisker Plots



### Current Round (blue) Compared to Historic Rounds (green)



### Isobutyl acetate

#### Summary Statistics

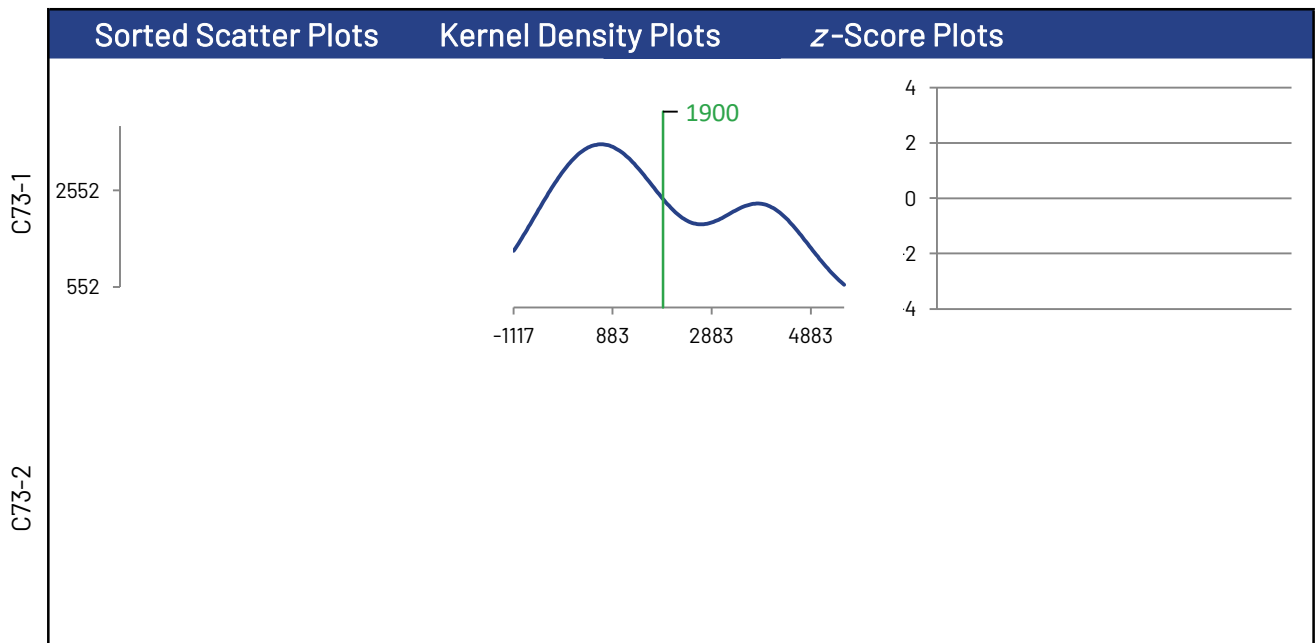
**Excluded**    **Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	2	0	0
Median µg/g		146		
Robust Mean µg/g		146		
Uncertainty of the Assigned Value µg/g		17.0		
Robust Standard Deviation µg/g		19		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g				
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*				

#### Methods Used

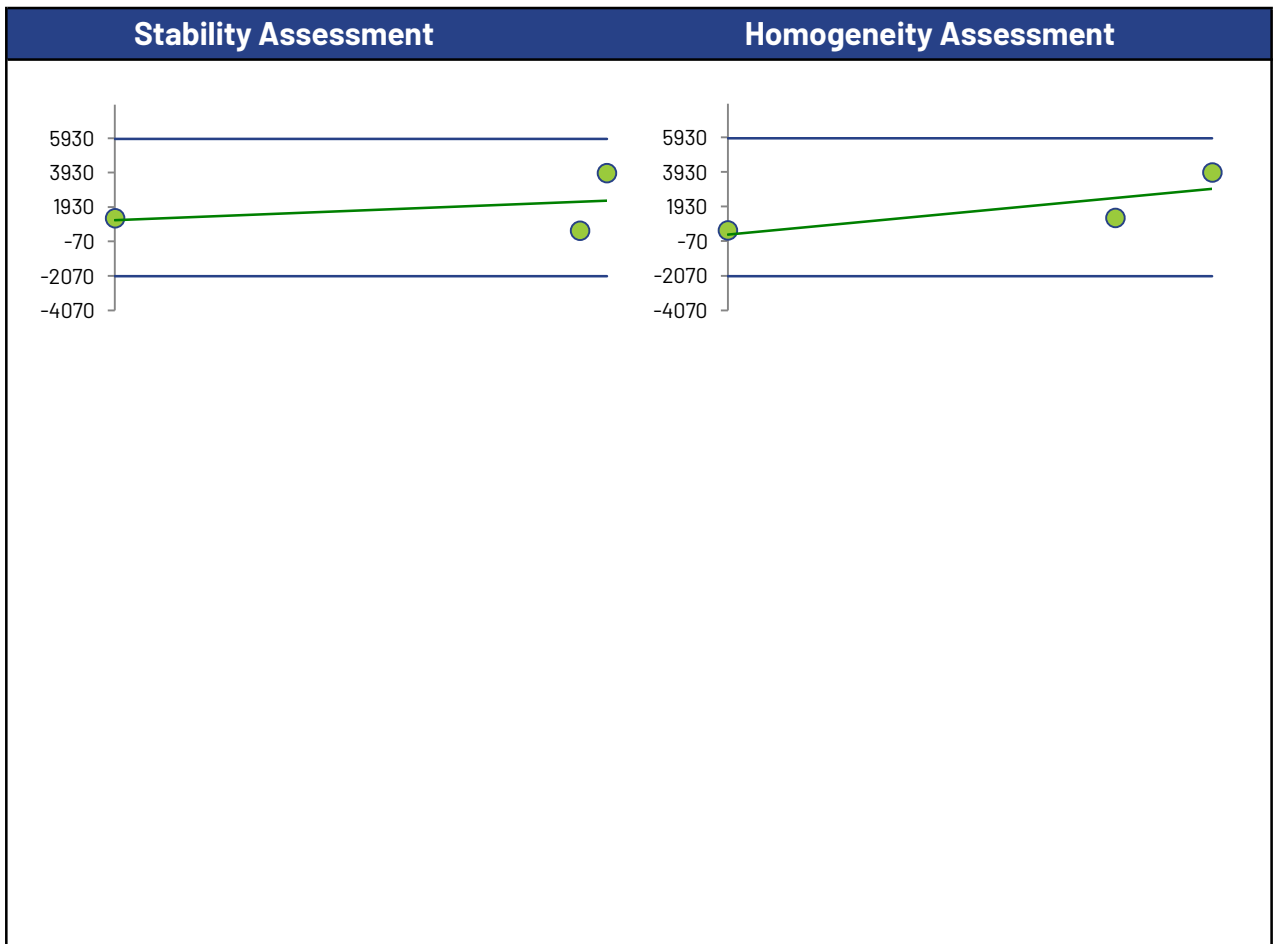
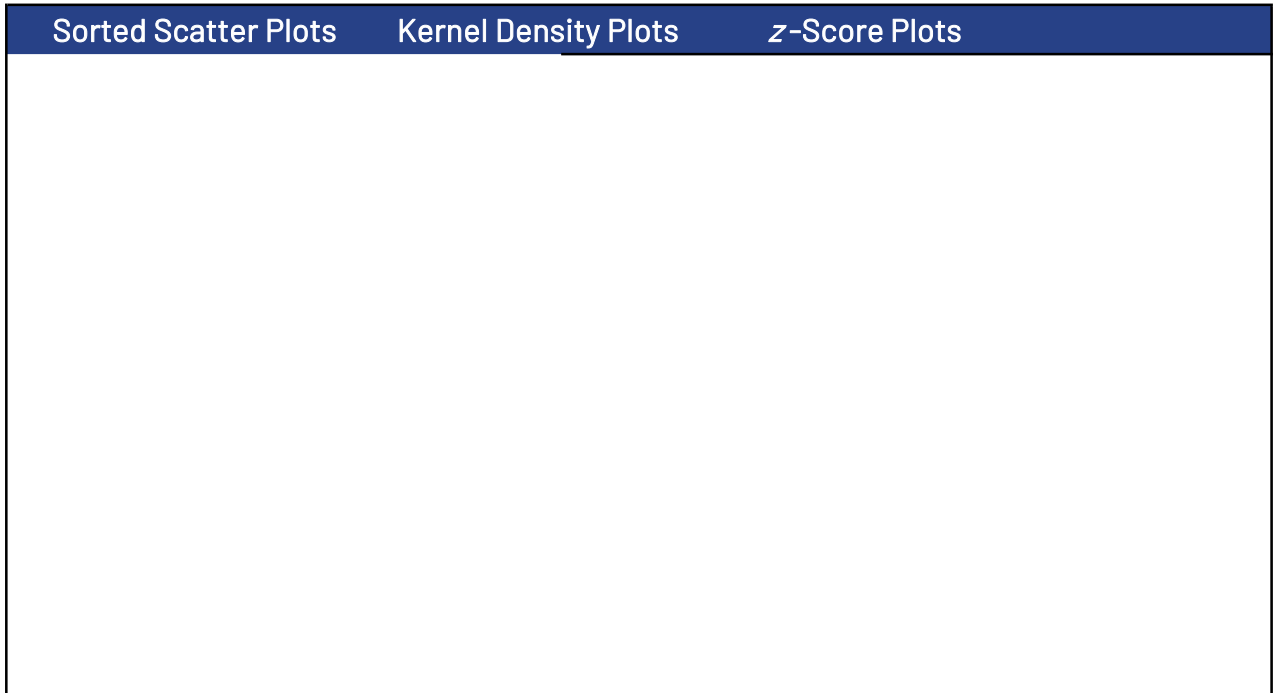
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	2	0	0
GC/FID (Red)	0	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

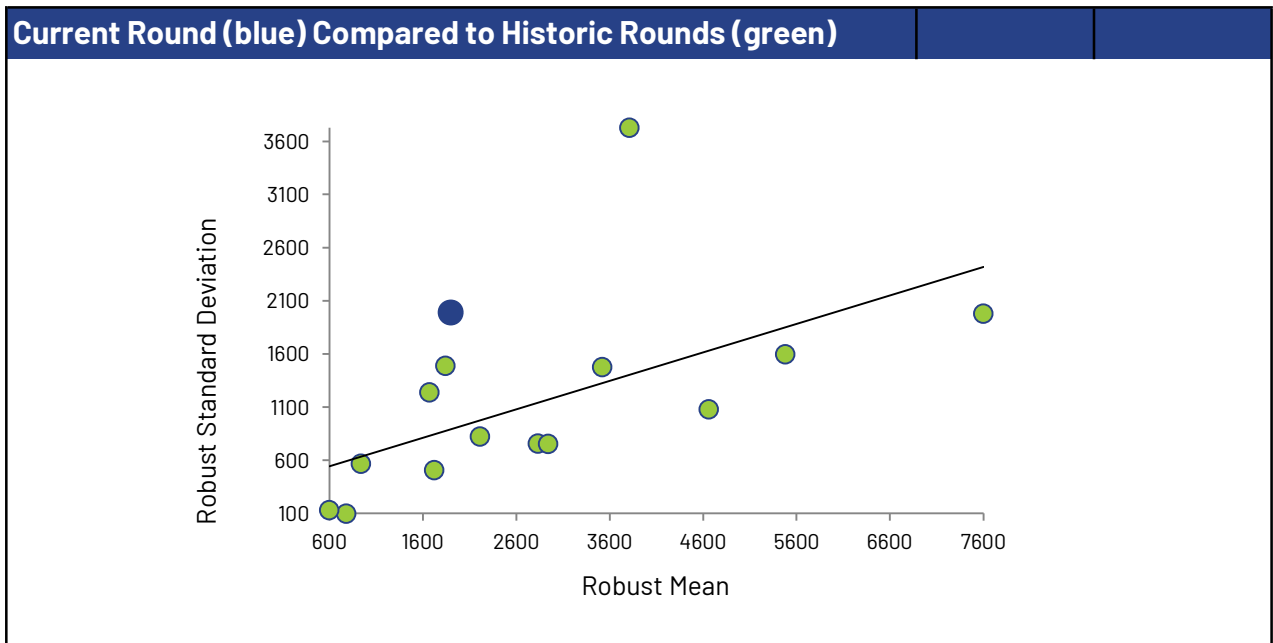
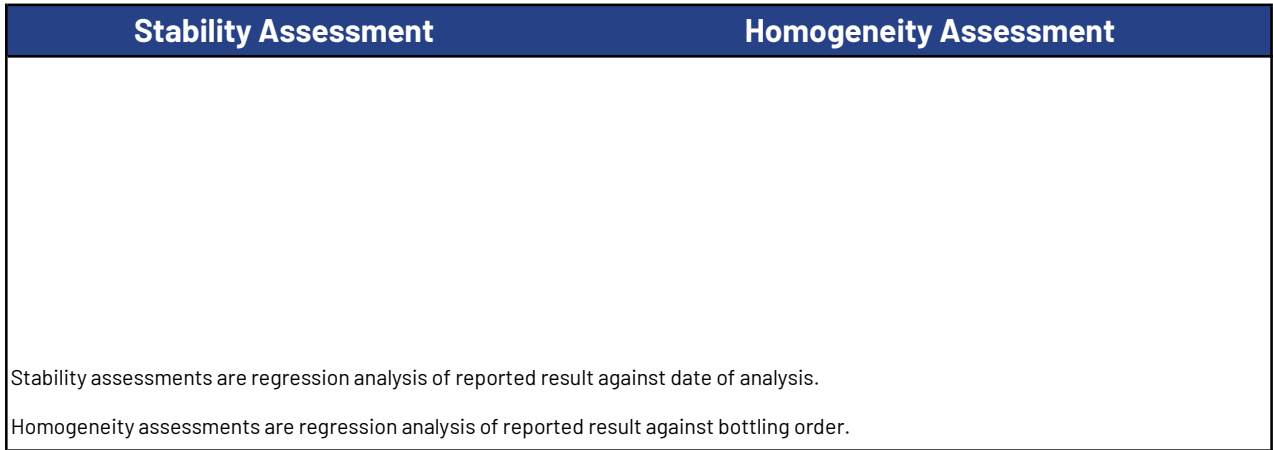


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

### Isobutyl acetate



### Isobutyl acetate



### Isopropyl acetate

#### Summary Statistics

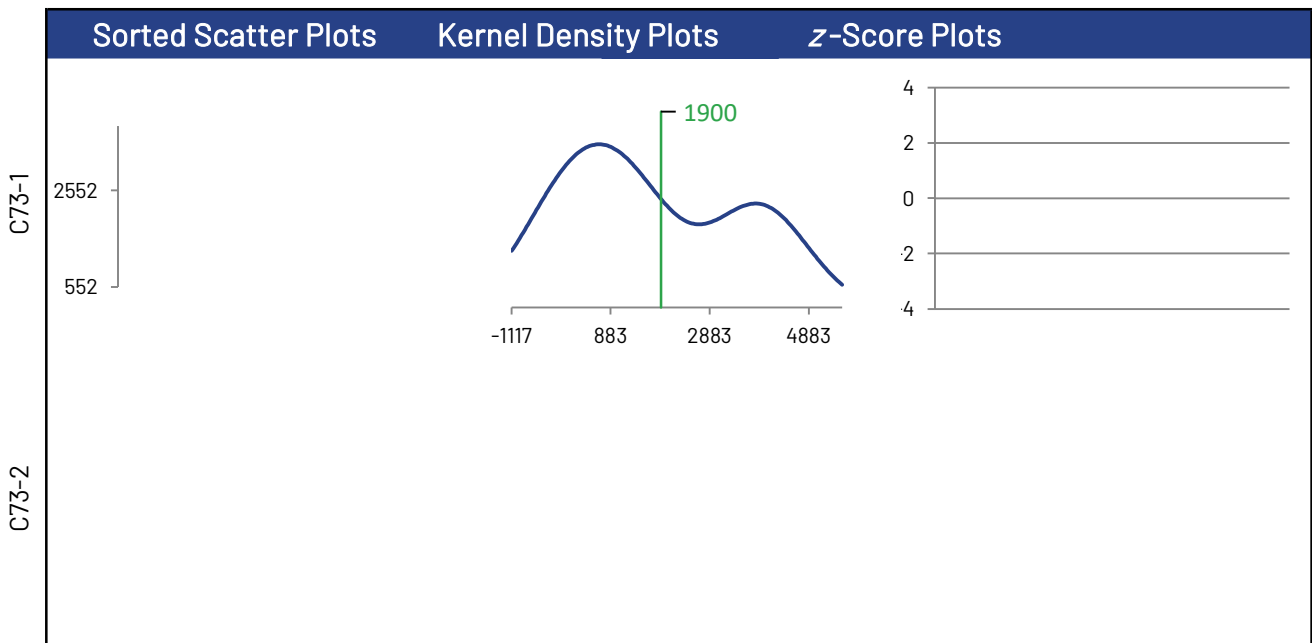
**Not Spiked Excluded**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	2	0	0
Median µg/g		139		
Robust Mean µg/g		139		
Uncertainty of the Assigned Value µg/g		16.3		
Robust Standard Deviation µg/g		18		
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g				
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*				

#### Methods Used

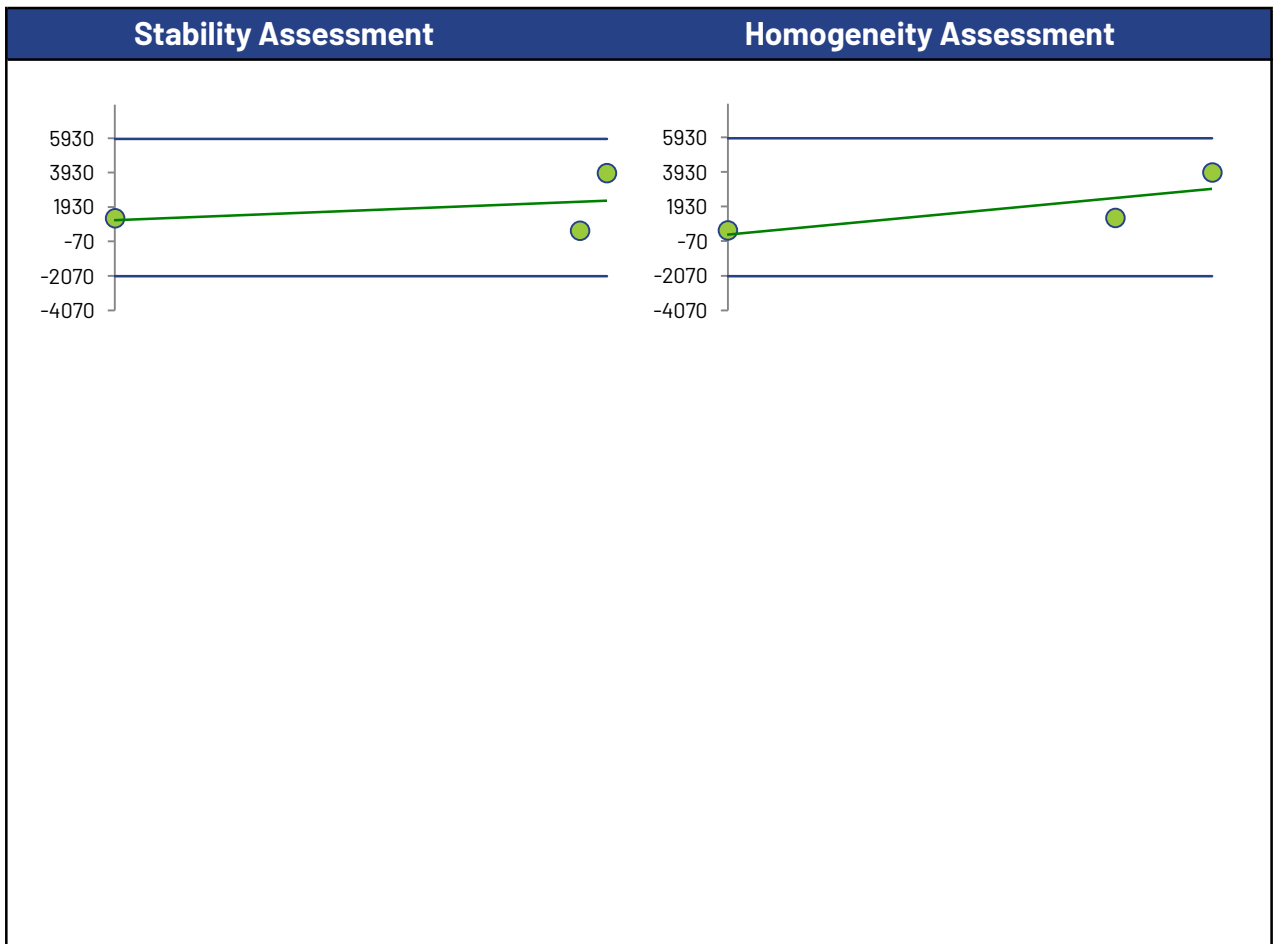
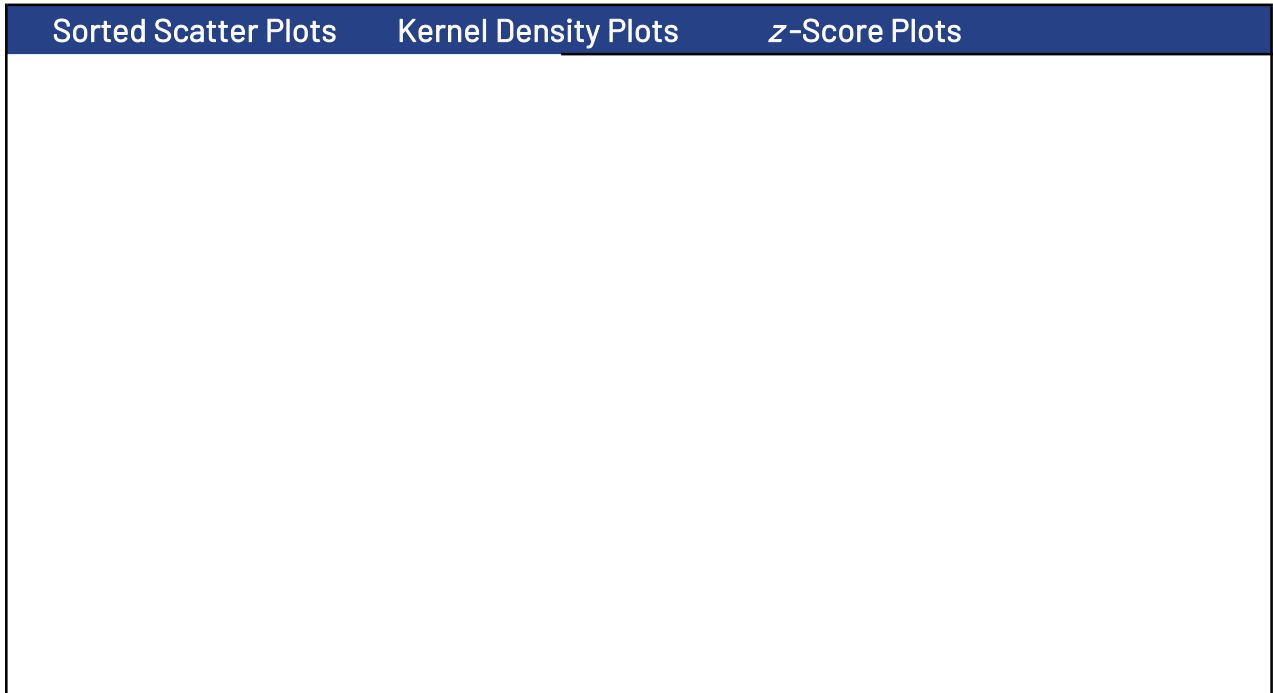
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	2	0	0
GC/FID (Red)	0	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

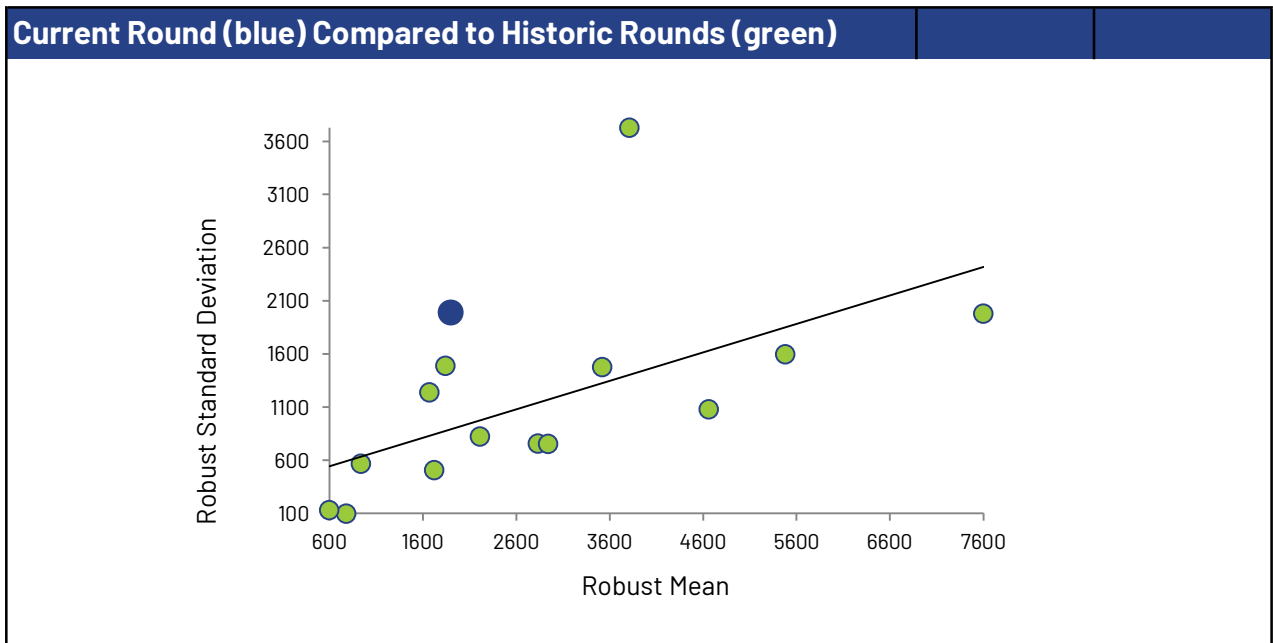
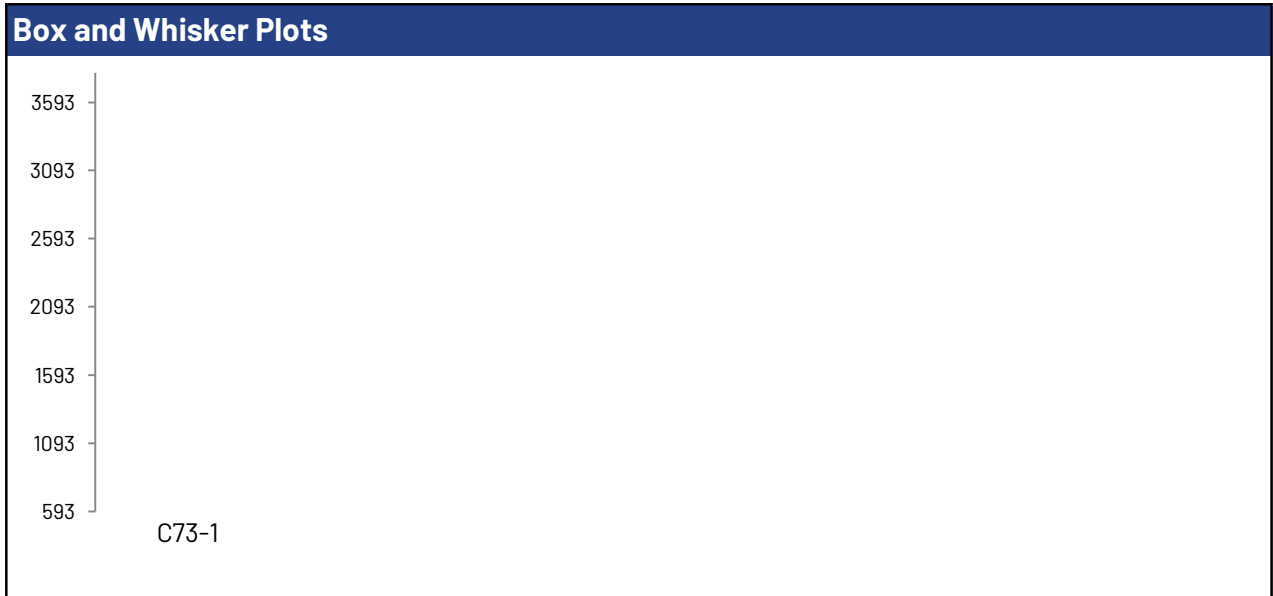
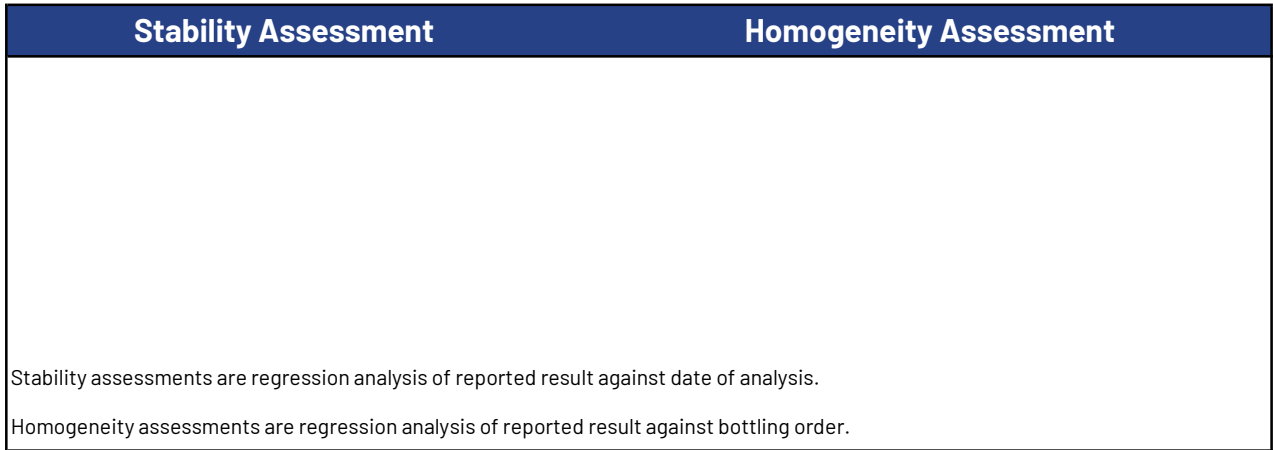


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

# Isopropyl acetate



### Isopropyl acetate



### Methyl acetate

#### Summary Statistics

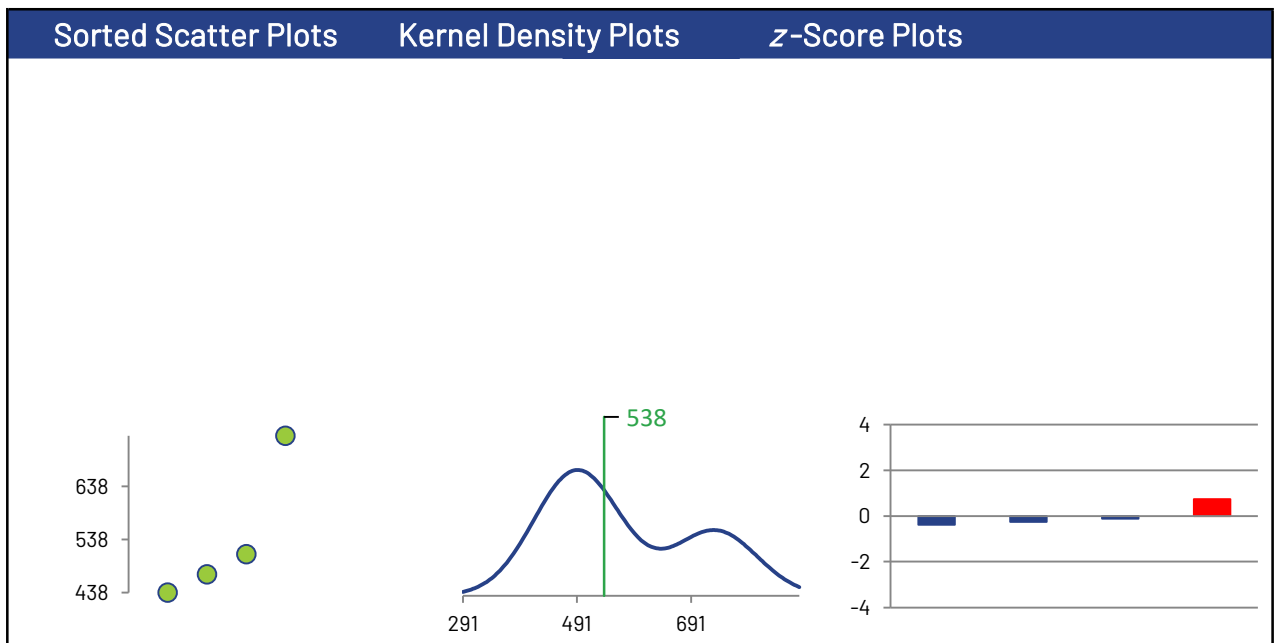
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	4	0	0
Median µg/g		491		
Robust Mean µg/g		538		
Uncertainty of the Assigned Value µg/g		94.4		
Robust Standard Deviation µg/g		151		
Regression Standard Deviation µg/g				
Stability Flag		<b>Stability</b>		
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g		264		
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

#### Methods Used

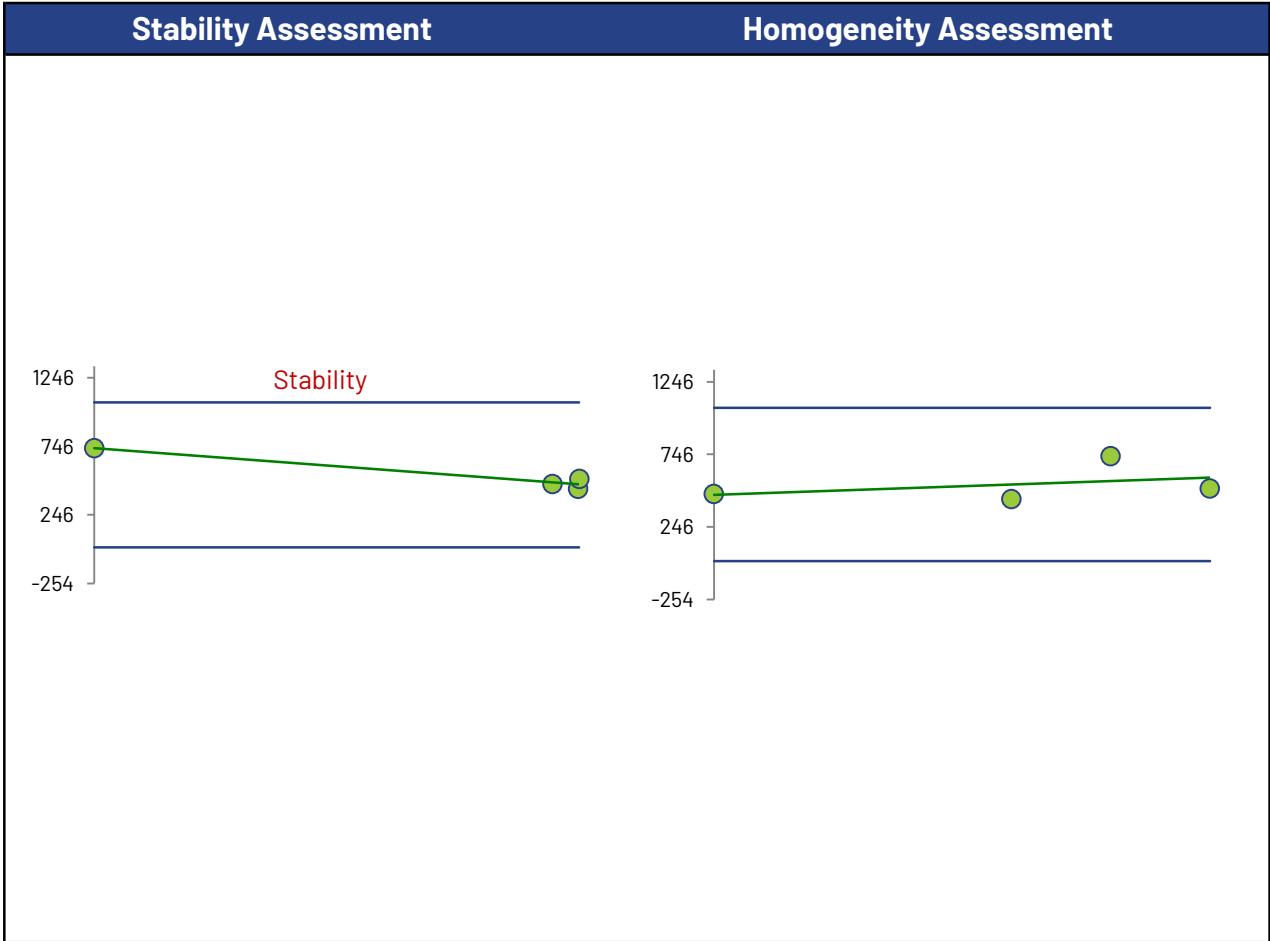
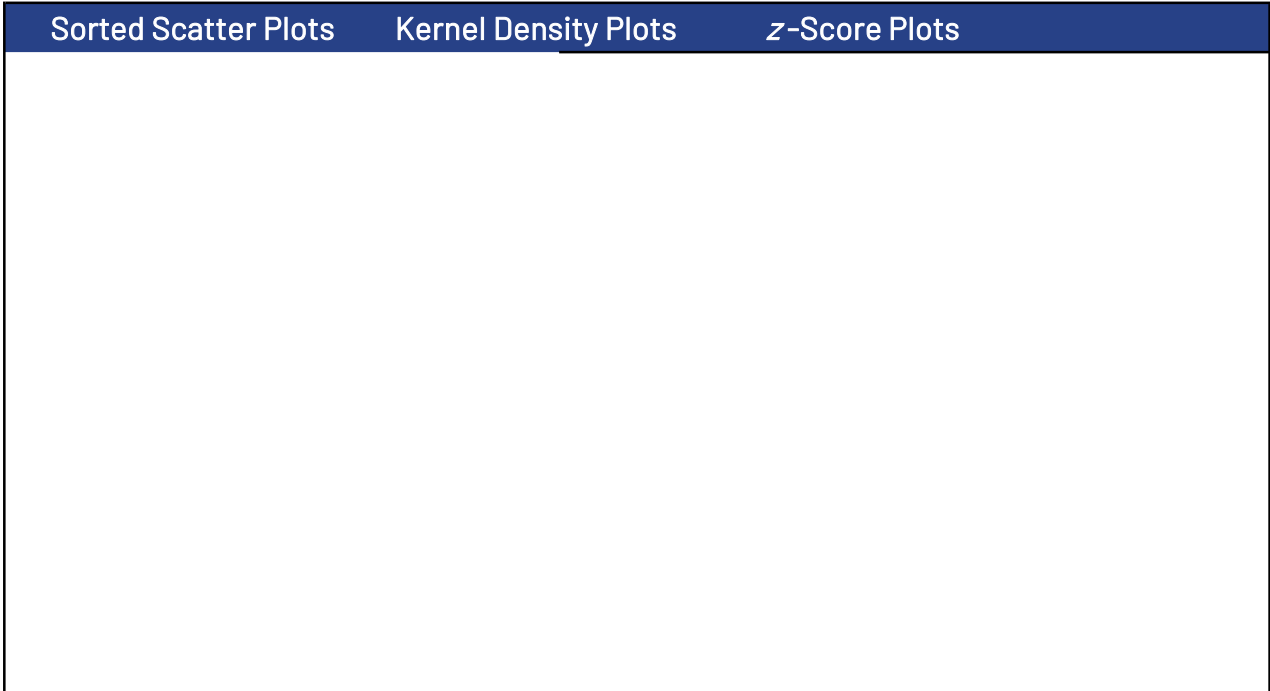
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	3	0	0
GC/FID (Red)	0	1	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



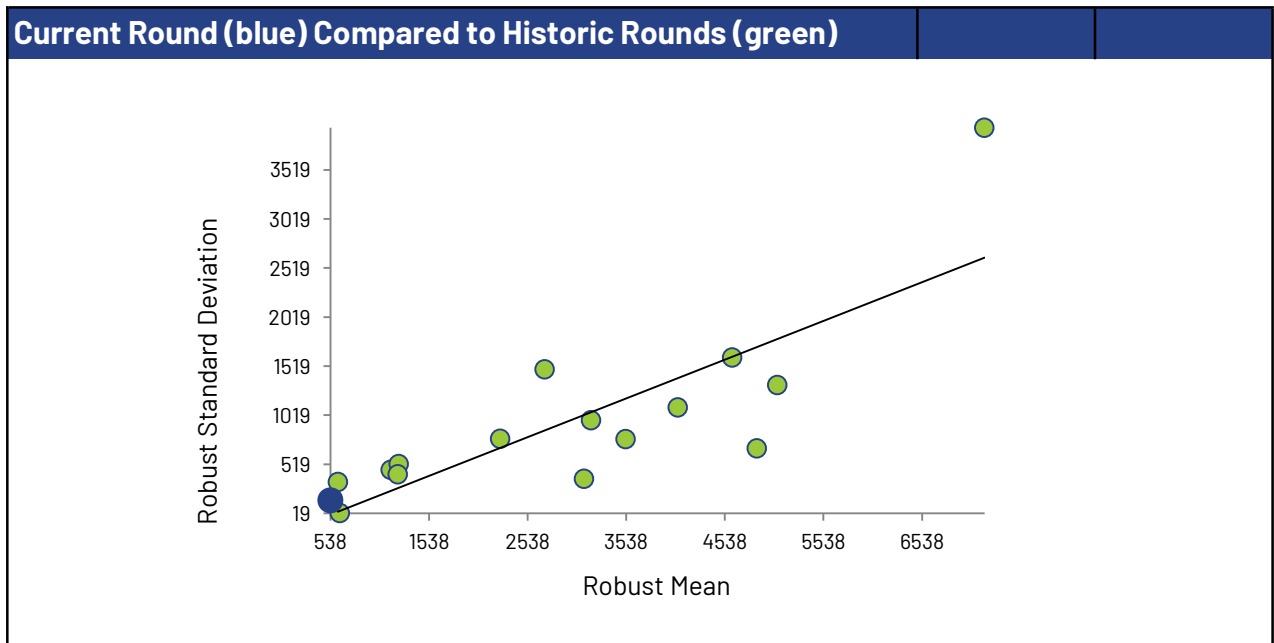
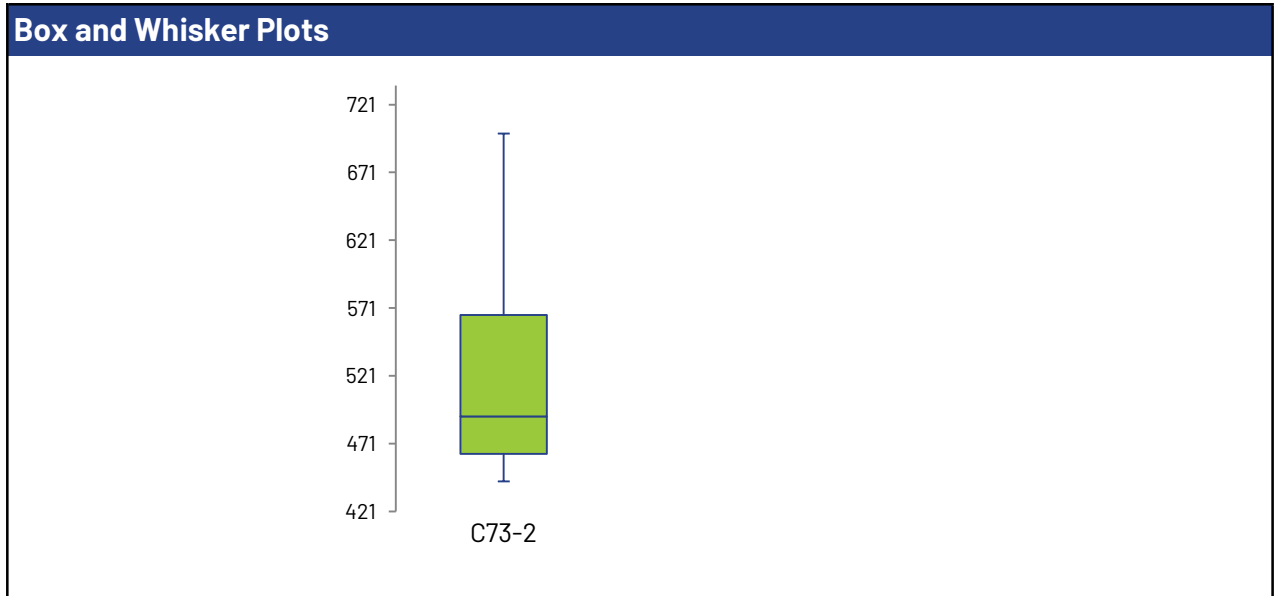
\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

# Methyl acetate



## Methyl acetate

	Stability Assessment	Homogeneity Assessment
C73-4		
	Stability assessments are regression analysis of reported result against date of analysis.	Homogeneity assessments are regression analysis of reported result against bottling order.



## Pentane

### Summary Statistics

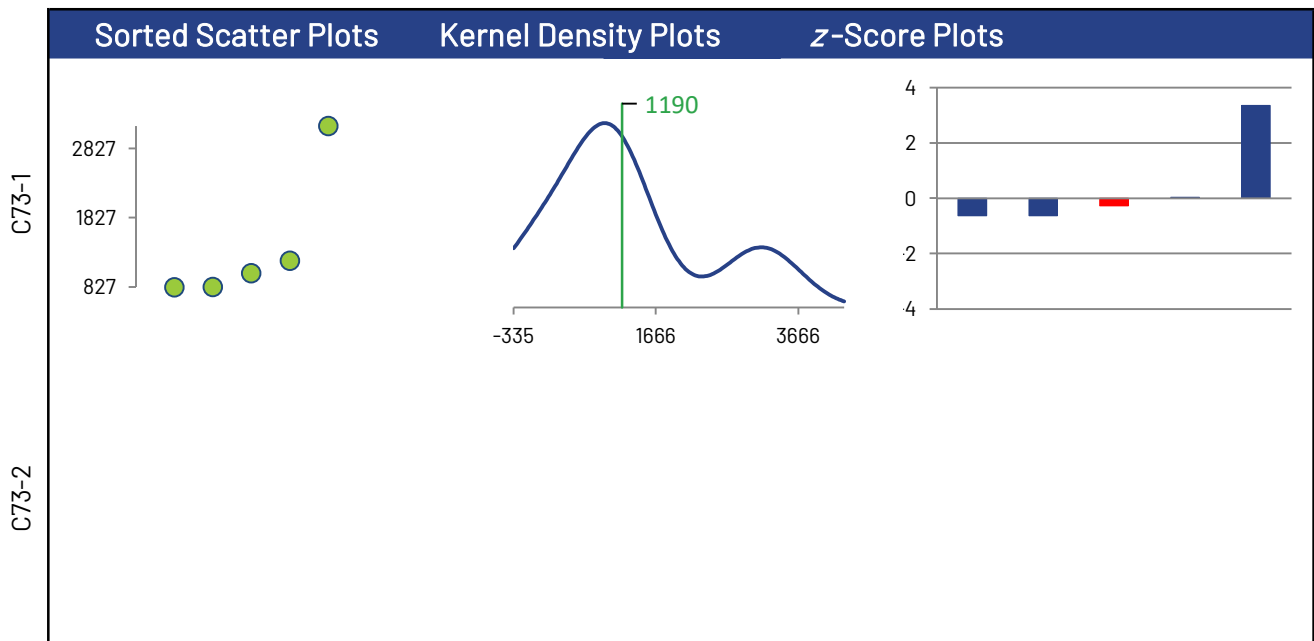
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	5	0	0	0
Median µg/g	1030			
Robust Mean µg/g	1190			
Uncertainty of the Assigned Value µg/g	326			
Robust Standard Deviation µg/g	583			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	583			
Flagged Outliers	0	1	0	0
z >3.0	1	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	20.0			

### Methods Used

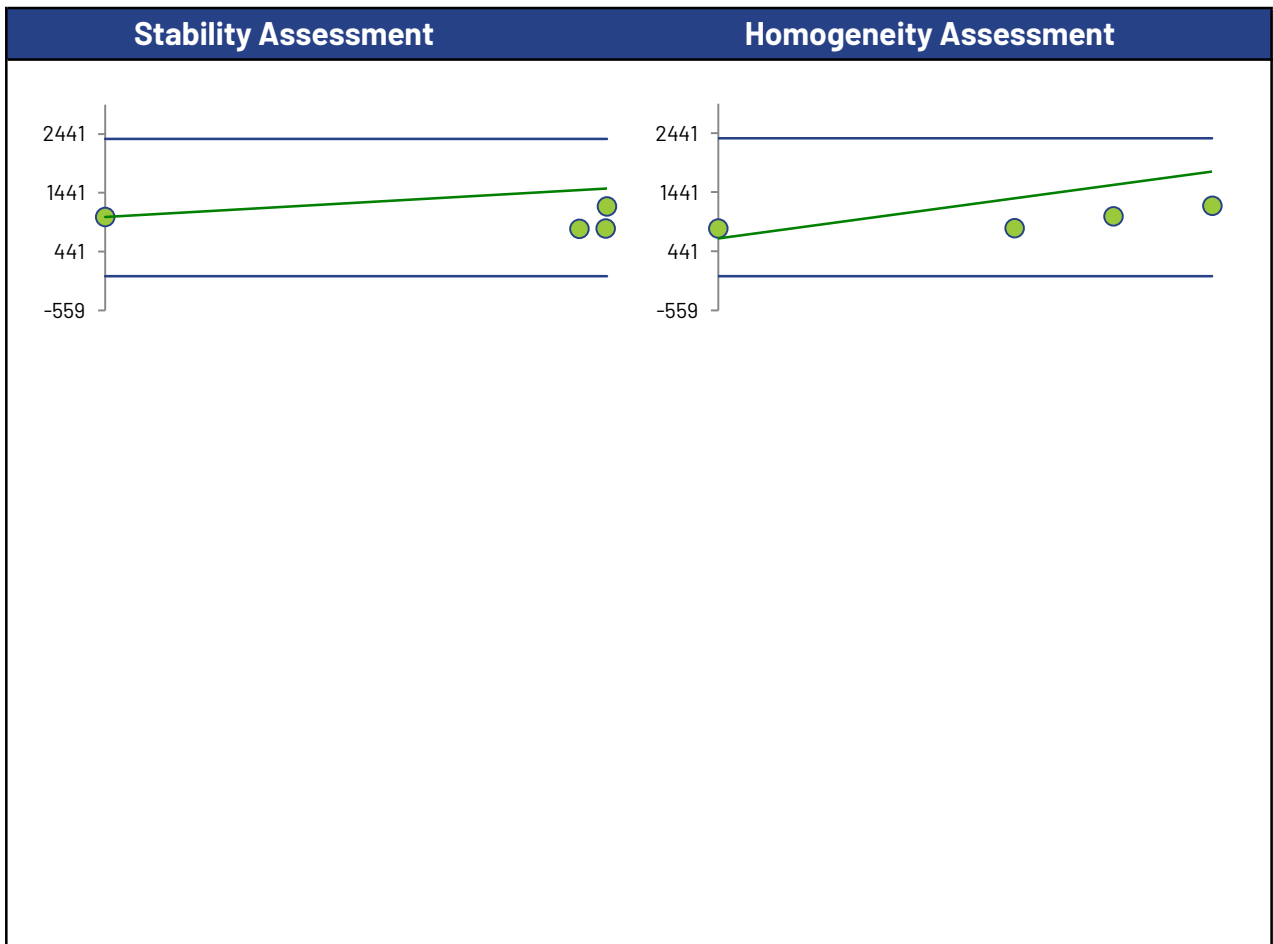
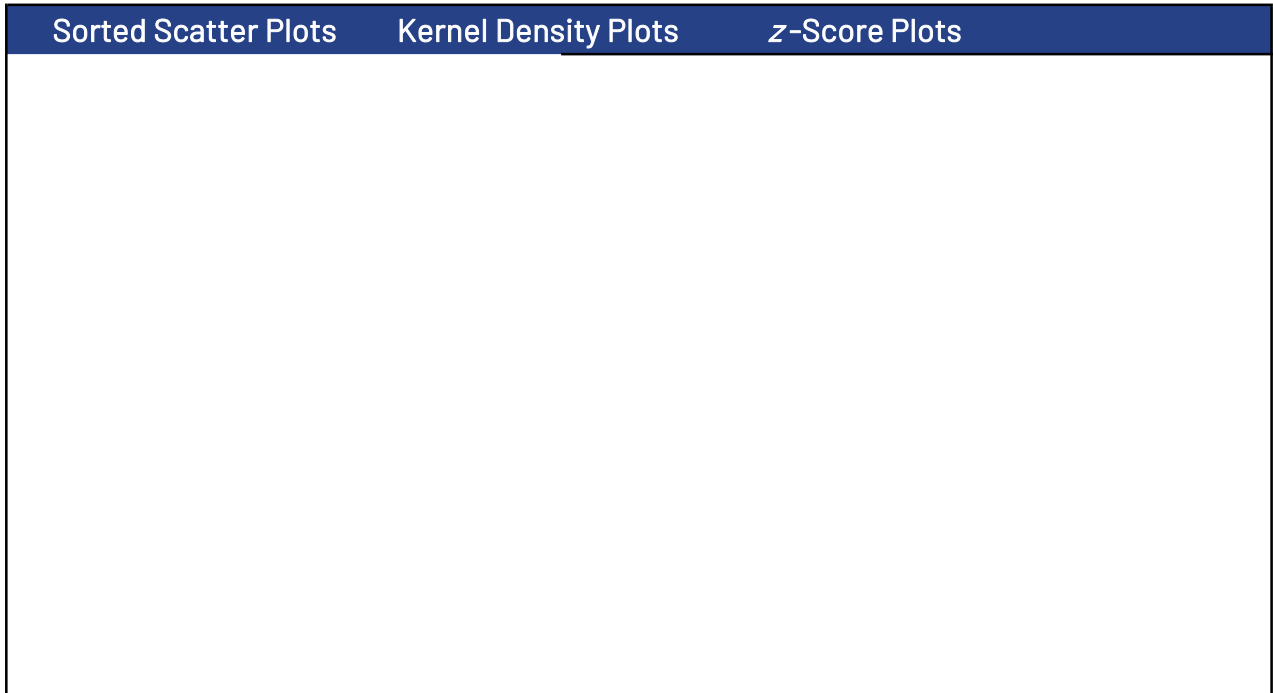
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	4	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

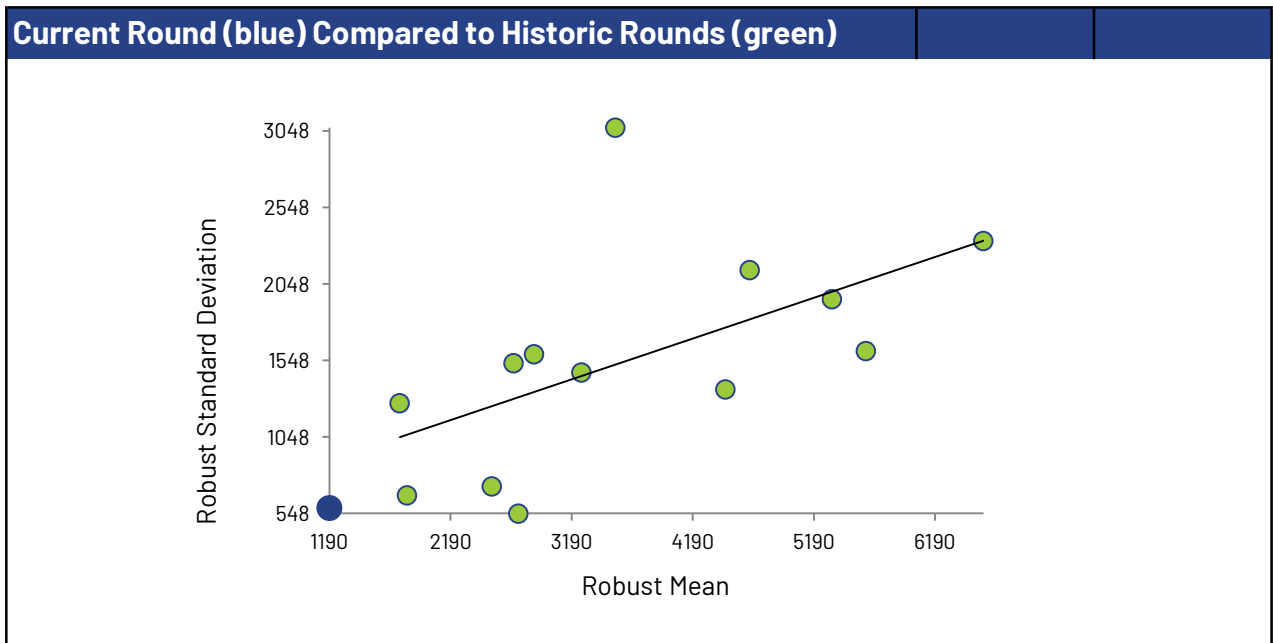
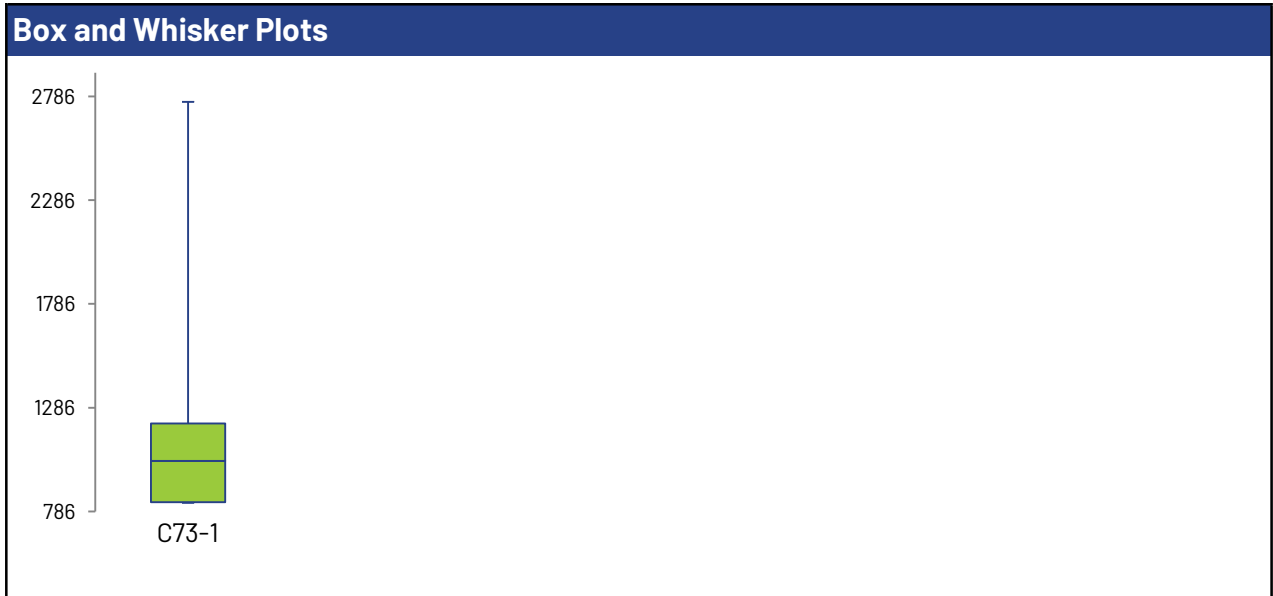
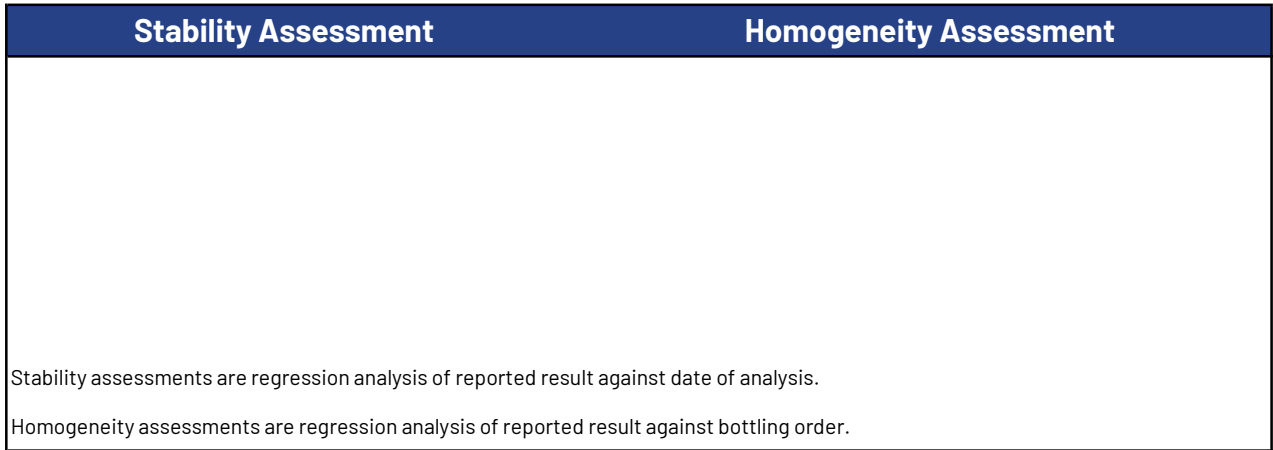


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

# Pentane



## Pentane



## Propane

### Summary Statistics

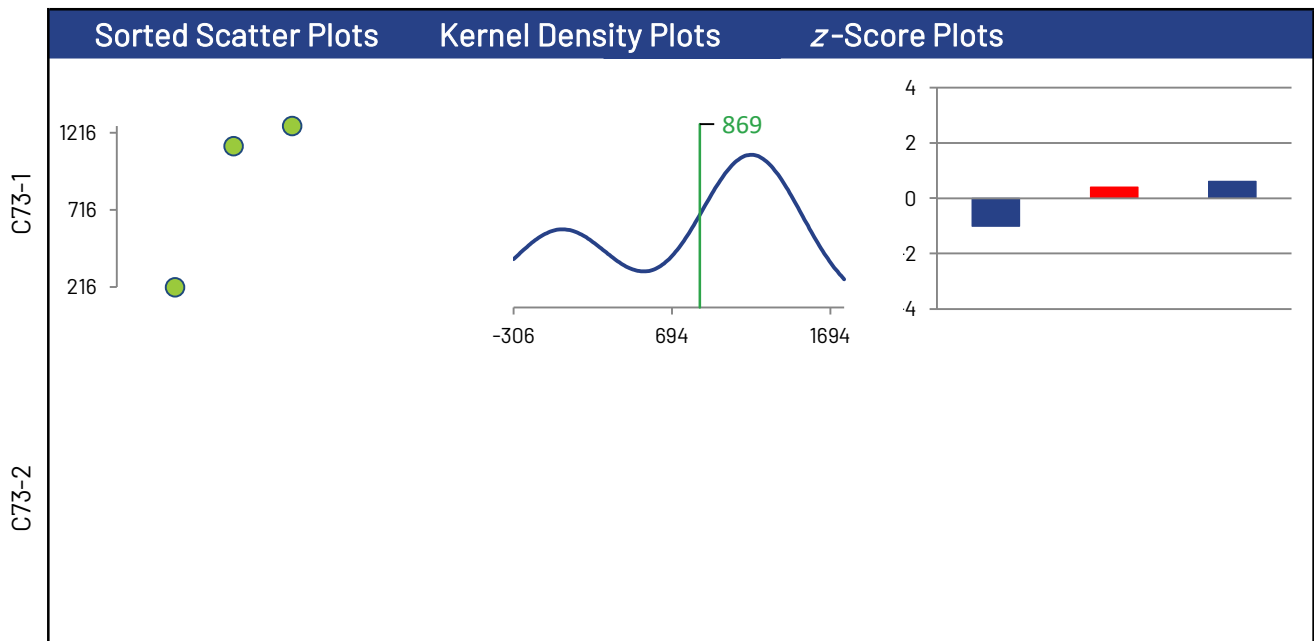
**Not Spiked**

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	3	0	0	0
Median µg/g	1130			
Robust Mean µg/g	869			
Uncertainty of the Assigned Value µg/g	465			
Robust Standard Deviation µg/g	645			
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	645			
Flagged Outliers	0	1	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

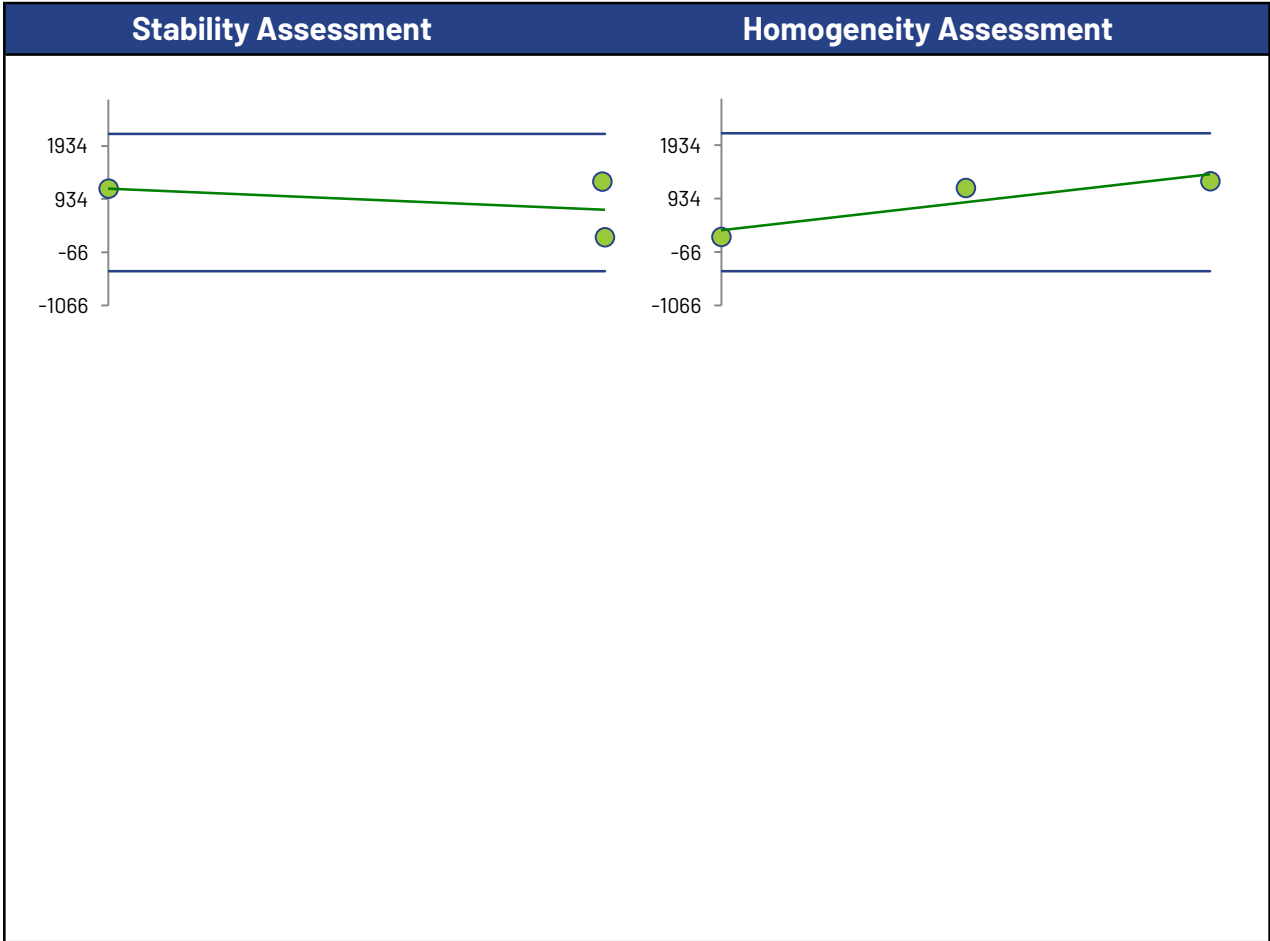
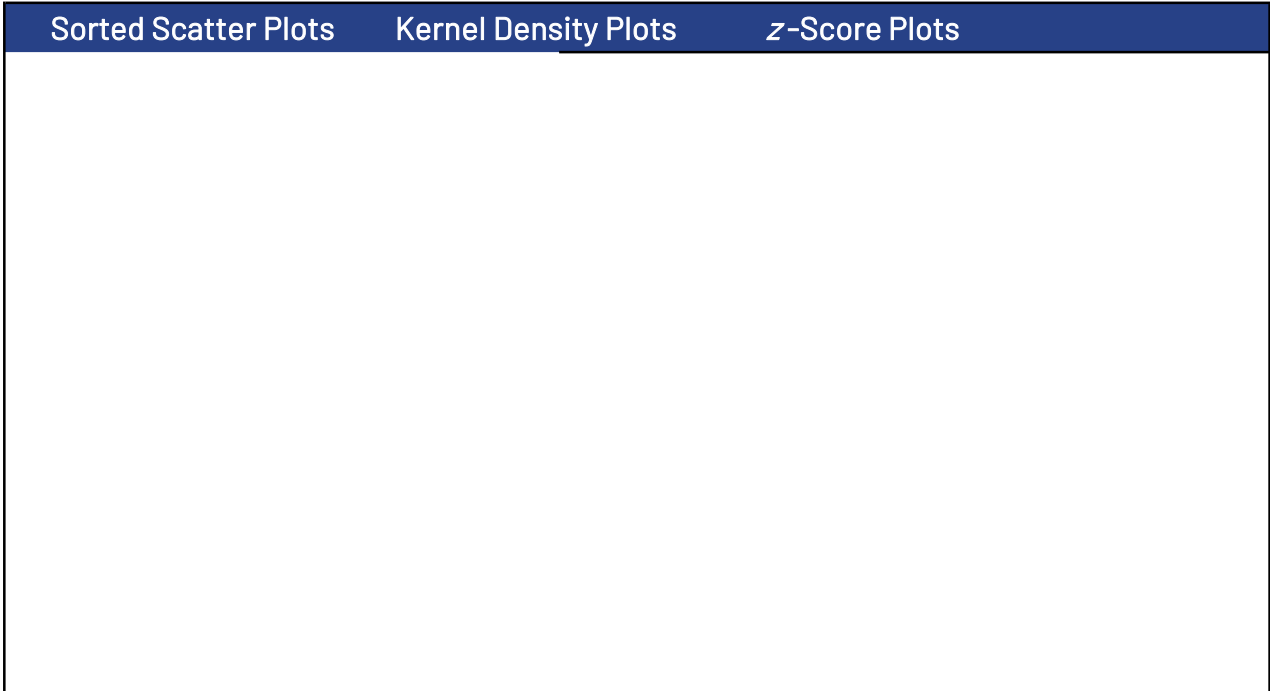
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	2	0	0	0
GC/FID (Red)	1	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



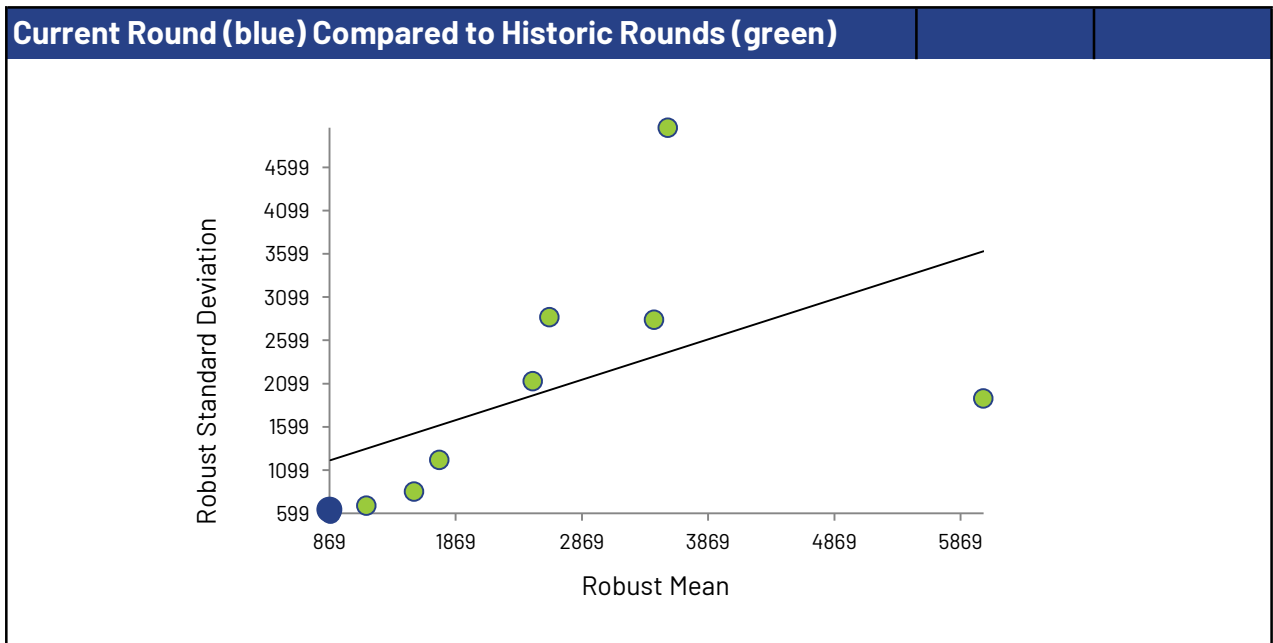
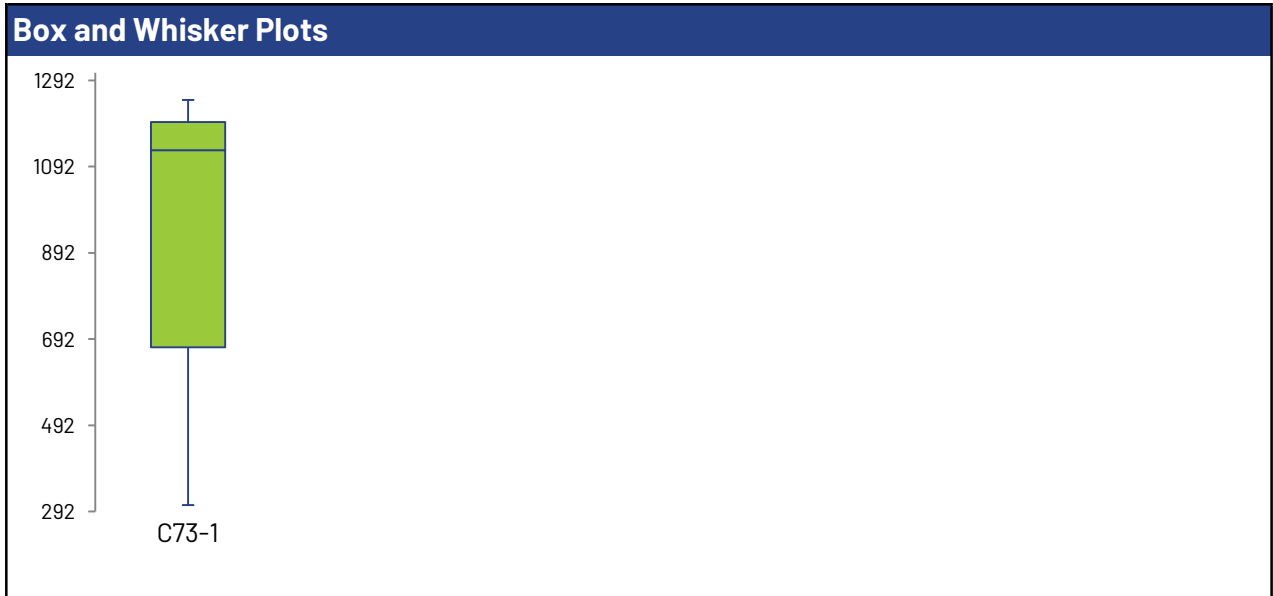
\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

# Propane



# Propane

Stability Assessment	Homogeneity Assessment
<p style="margin: 0;">C73-4</p> <p style="margin: 0;">Stability assessments are regression analysis of reported result against date of analysis.</p> <p style="margin: 0;">Homogeneity assessments are regression analysis of reported result against bottling order.</p>	



## Propyl acetate

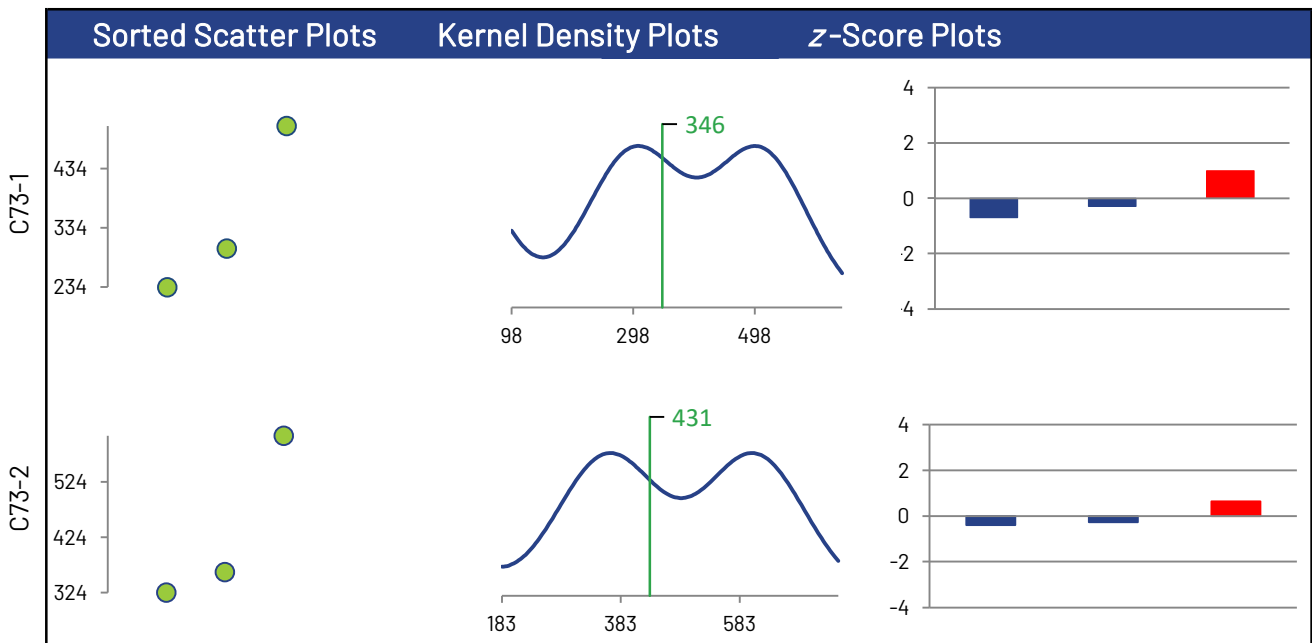
### Summary Statistics

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	3	3	0	0
Median µg/g	299	361		
Robust Mean µg/g	346	431		
Uncertainty of the Assigned Value µg/g	116	126		
Robust Standard Deviation µg/g	161	174		
Regression Standard Deviation µg/g				
Stability Flag		Stability		
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g	161	273		
Flagged Outliers	0	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*	0.0			

### Methods Used

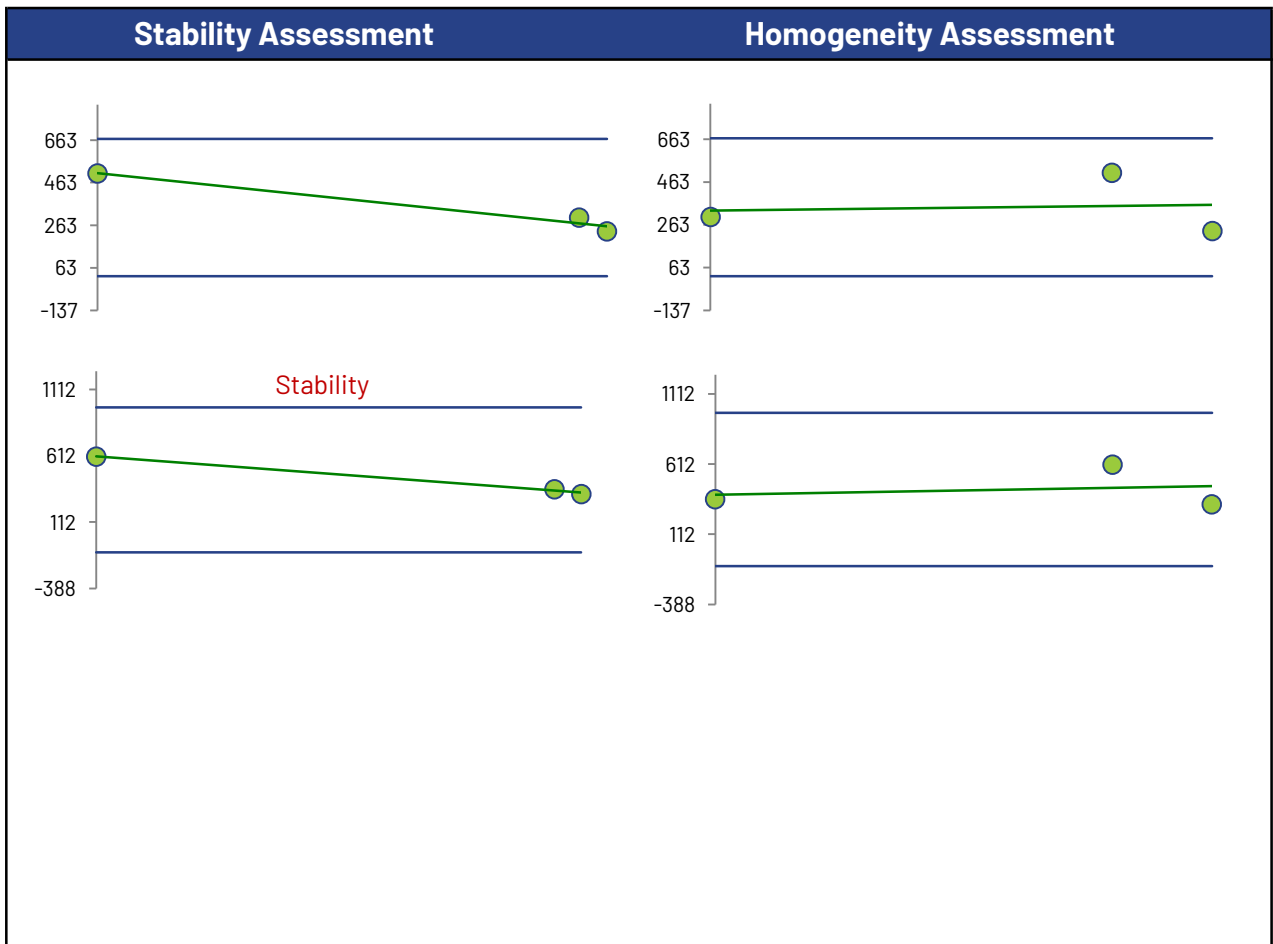
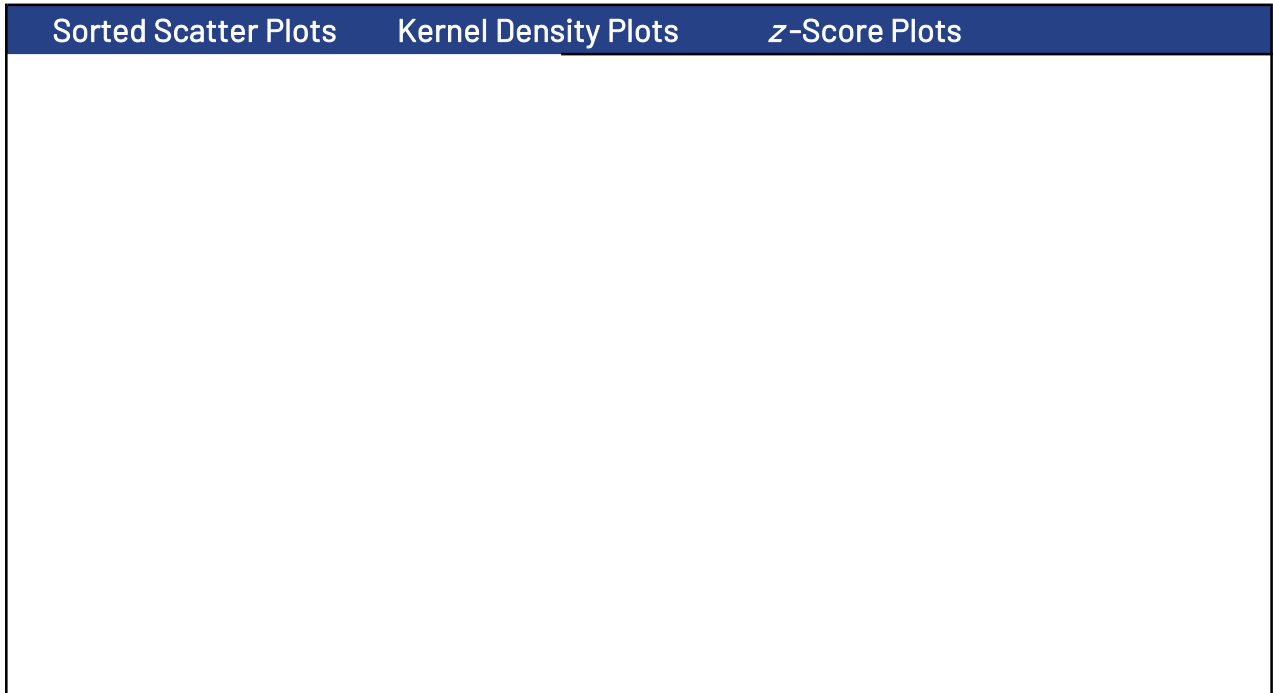
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	2	2	0	0
GC/FID (Red)	1	1	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers

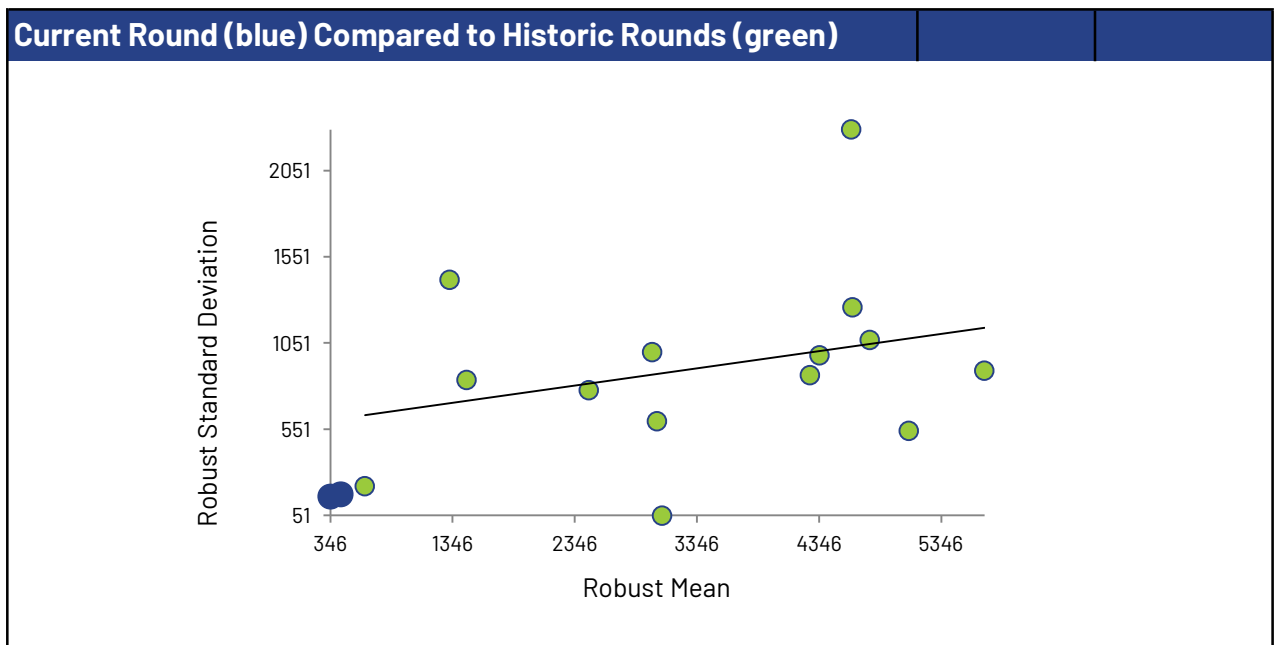
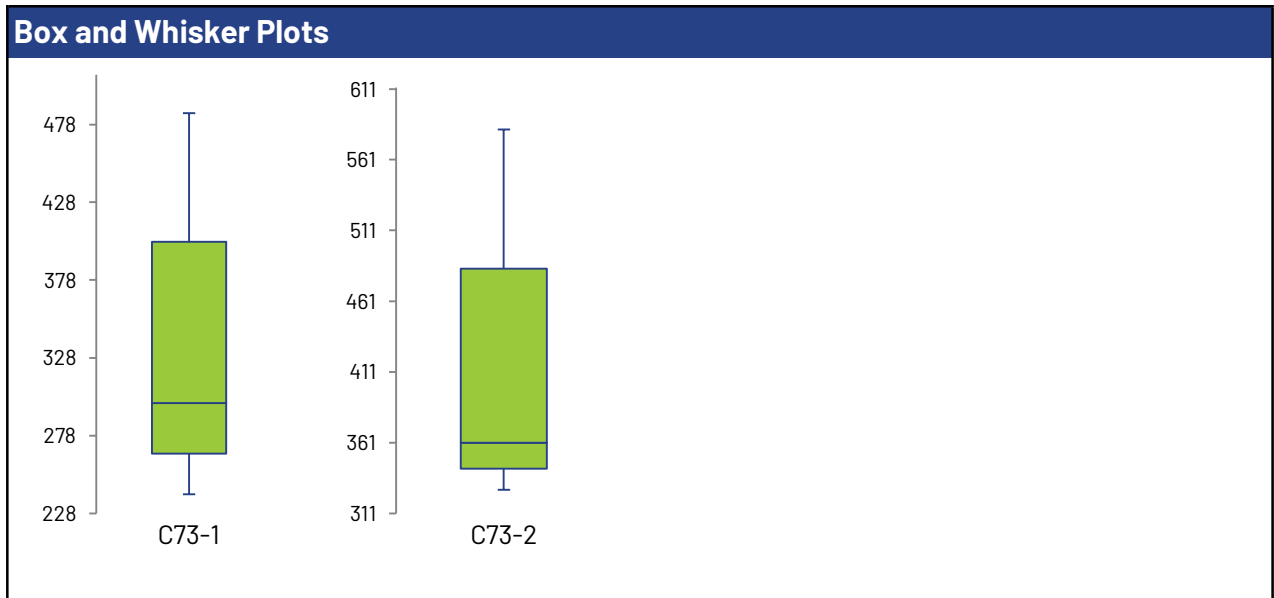
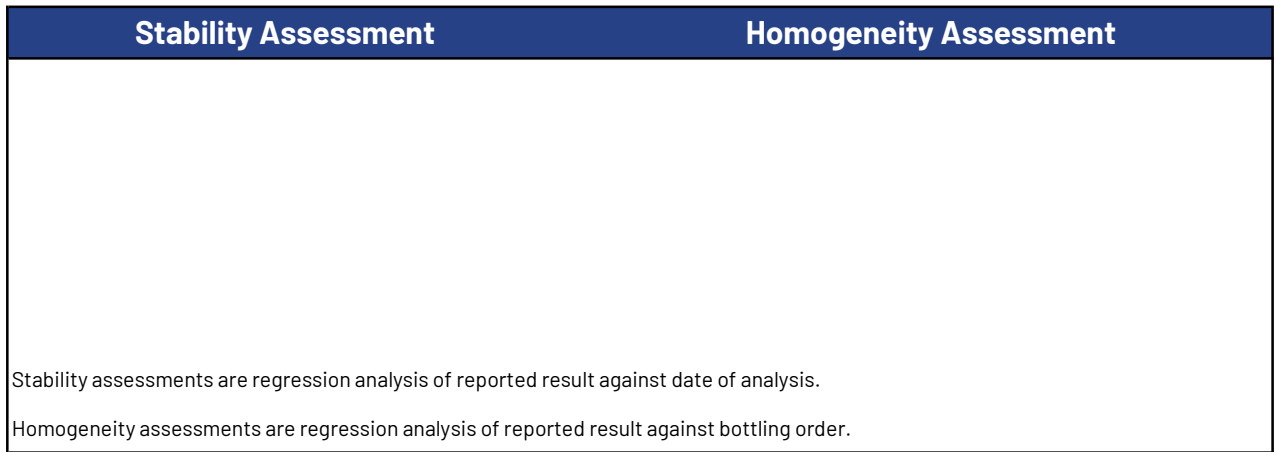


\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

# Propyl acetate



## Propyl acetate



## Triethylamine

### Summary Statistics

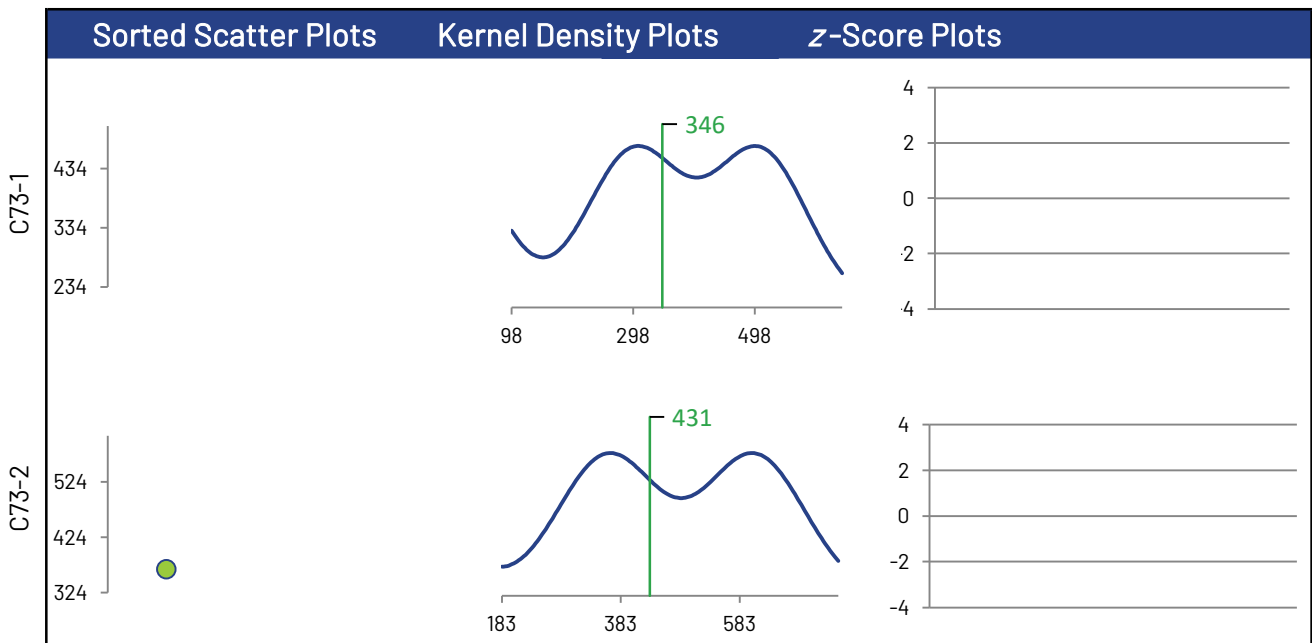
Excluded

Statistic	C73-1	C73-2	C73-3	C73-4
No. of results used for summary statistics	0	1	0	0
Median µg/g		366		
Robust Mean µg/g		366		
Uncertainty of the Assigned Value µg/g				
Robust Standard Deviation µg/g				
Regression Standard Deviation µg/g				
Stability Flag				
Homogeneity Flag				
Standard Deviation Used (SDPA) µg/g				
Flagged Outliers	1	0	0	0
z >3.0	0	0	0	0
2< z <3	0	0	0	0
Failure Rate %*				

### Methods Used

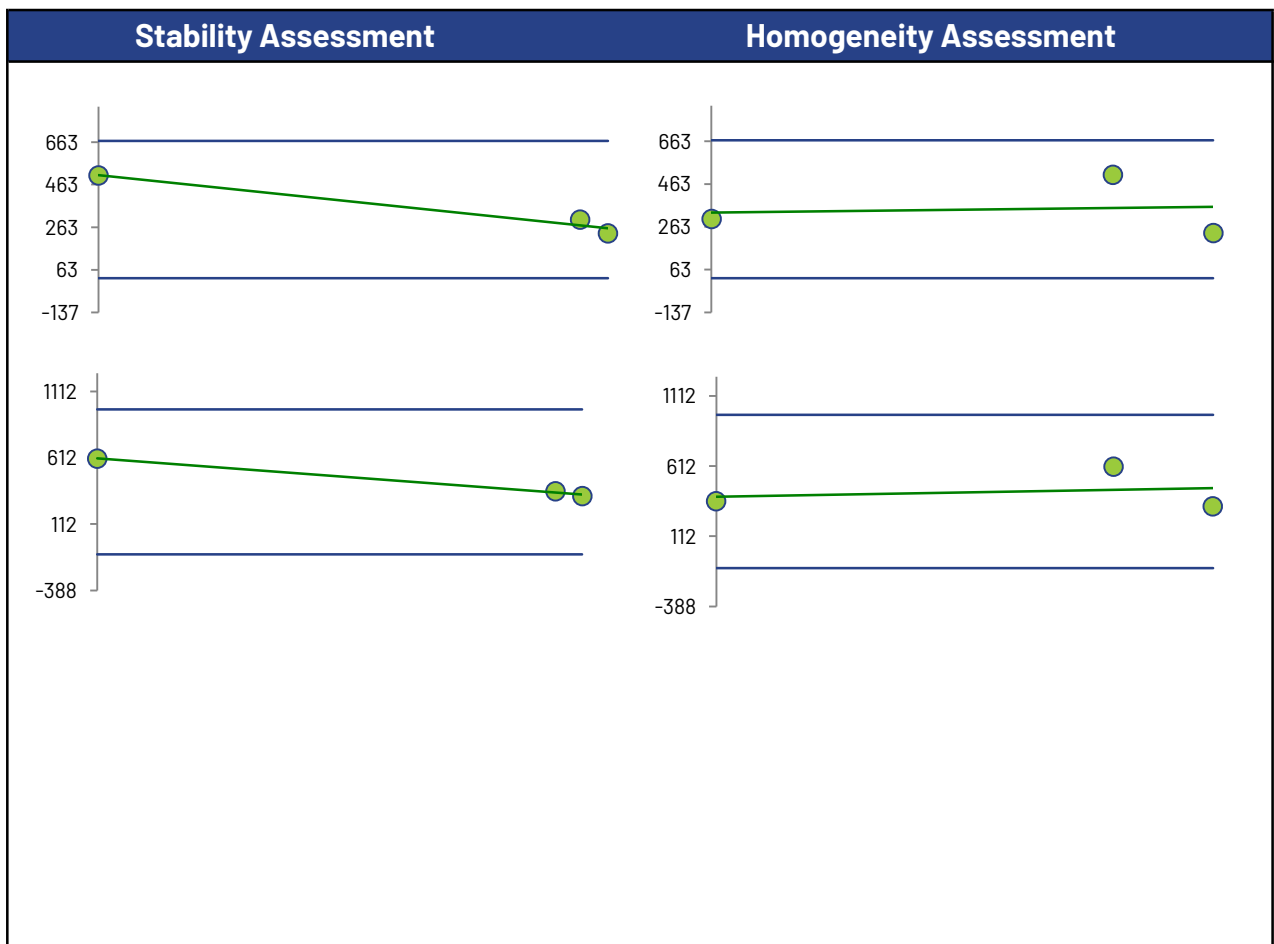
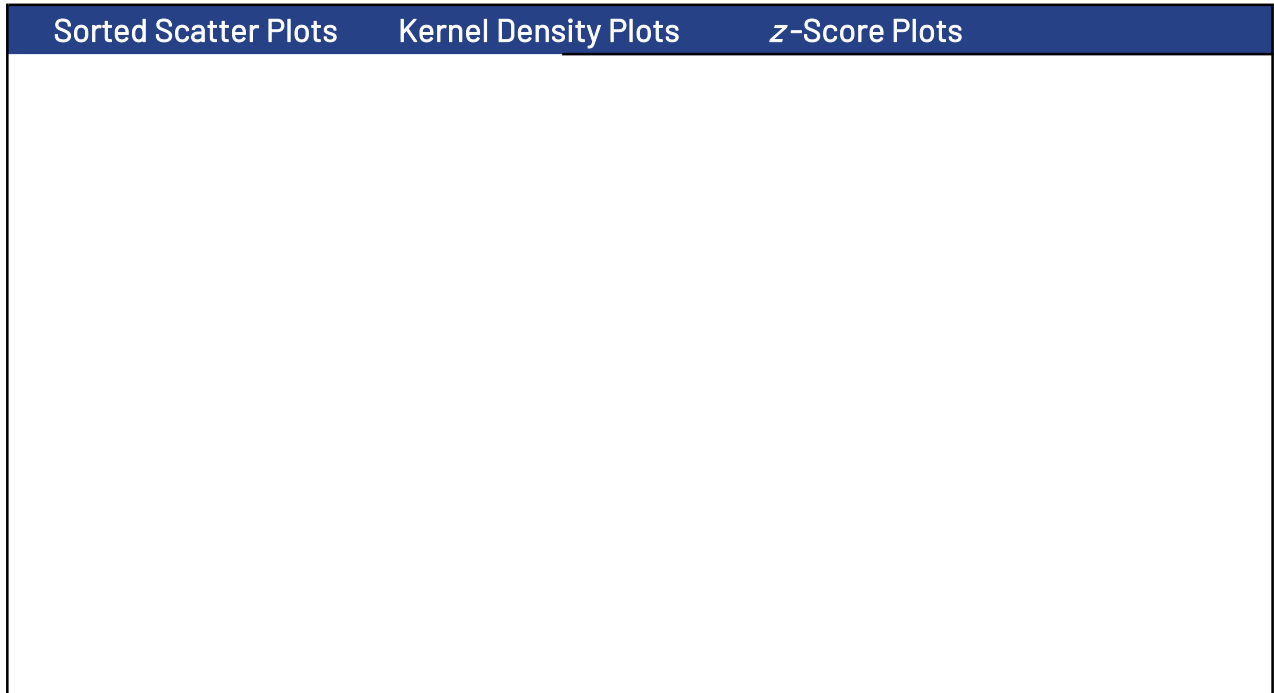
Method	C73-1	C73-2	C73-3	C73-4
GC/MS (Blue)	0	1	0	0
GC/FID (Red)	0	0	0	0

All summary stats, except the failure rate, and the plots below are based on the data excluding any flagged outliers



\* Displayed failure rate does not account for the RDL modified z-Scores or inaccurately reported non-detects.

# Triethylamine



## Triethylamine

