

TEXTE

42/2015

Validierung von Analyseverfahren, die im Rahmen des Projektes HORIZONTAL entwickelt, jedoch nicht validiert wurden

Anhang 2

TEXTE 42/2015

Umweltforschungsplan des
Bundesministeriums für Umwelt,
Naturschutz, Bau und Reaktorsicherheit

Forschungskennzahl 3711 26 325
UBA-FB 002060

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Anhang 2

von

Im Auftrag des Umweltbundesamtes

Impressum

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Durchführung der Studie:

BAM Bundesanstalt für Materialforschung und –prüfung
12200 Berlin

Abschlussdatum:

Dezember 2014

Redaktion:

Fachgebiet III 2.5 Überwachungsverfahren, Abwasserentsorgung
Dr. Andrea Roskosch

Publikationen als pdf:

<http://www.umweltbundesamt.de/publikationen/validierung-von-analyseverfahren-die-im-rahmen-des>

ISSN 1862-4804

Dessau-Roßlau, Mai 2015

Das diesem Bericht zu Grunde liegende Vorhaben wurde mit Mitteln des Bundesministeriums für Umwelt, Naturschutz, Bau und Reaktorsicherheit unter der Forschungskennzahl 3711 26 325 gefördert. Die Verantwortung für den Inhalt dieser Veröffentlichung liegt bei den Autorinnen und Autoren.

Anhang 2: Tabellarische und graphische Darstellungen der von den beteiligten Laboratorien übermittelten Ringversuchsergebnisse - Organische Parameter (in Englisch)

Compilation of Individual Participant Results from the Interlaboratory Study

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1 Explanation of terms used in tables and graphs

Terms used in tables	Explanation
Method	Method applied for statistical evaluation (ISO 5725-2)
Z-Score	For quality control solution QC: $\text{Z-Score} = \frac{(\text{Laboratory mean} - \text{BAM reference})}{\text{Ref.-SD set by BAM}}$ For samples CO, SL and SO: $\text{Z-Score} = \frac{(\text{Laboratory mean} - \text{Overall mean})}{S_R}$ For solid materials Z-Scores are given for information only. They were not relevant for statistical evaluation according to ISO 5725-2.
No. labs	No. of laboratories that submitted results
No. labs w/o outl.	No. of laboratories after elimination of outliers
Mean	Overall mean of evaluated measurement results
SR Reprod. SD	Reproducibility standard deviation; identical with S_R (see Chapter 2.2.3 of the main document)
Sr Repeat. SD	Repeatability standard deviation; identical with S_r (see Chapter 2.2.3 of the main document)
RSD % VR	Relative reproducibility standard deviation; identical with CV_R (see Chapter 2.2.3 of the main document)
RSD % Vr	Relative repeatability standard deviation; identical with CV_r (see Chapter 2.2.3 of the main document)
No. A outliers	Number of outlying single measurement values of a laboratory according to Grubbs-test; these values were excluded from further statistical evaluation
No. B outliers	Number of outlying laboratory means according to Grubbs-test; these datasets were excluded from further statistical evaluation
No. C outliers	Number of outlying laboratory standard deviations (precision) according to Cochran-test; these datasets were excluded from further statistical evaluation
No. sgl. values w/o outl.	No. of single measurement values without outliers

SOPAH	Soil contaminated with PAH
COPAH	Compost contaminated with PAH
SLPAH	Sewage sludge contaminated with PAH
SOPCB	Soil contaminated with PCB
COPCB	Compost contaminated with PCB
SLPCB	Sewage sludge contaminated with PCB
SODIO	Soil contaminated with dioxins, furans and dl-PCB
CODIO	Compost contaminated with dioxins, furans and dl-PCB
SLDIO	Sewage sludge contaminated with dioxins, furans and dl-PCB
NAPHTHA	Naphthaline
ACENYLEN	Acenaphthylene
ACENTHEN	Acenaphthene
FLUOREN	Fluorene
PHENANTH	Phenanthrene
ANTHRAC	Anthracene
FLUORANT	Fluoranthene
PYREN	Pyrene
BENZAANT	Benz[a]anthracene
CHRYSEN	Chrysene
BENZBFLU	Benzo[b]fluoranthene
BENZKFLU	Benzo[k]fluoranthene
SUMBKFLU	Sum Benzo[b+k]fluoranthene
BENZAPYR	Benzo[a]pyrene
BENZGHIP	Benzo[ghi]perylene
DIBENZA	Dibenz[ah]anthracene
IND123CD	Indeno[123cd]pyrene
16 EPA PAH	Sum of the 16 PAH substances selected by US EPA as priority pollutants
15 EPA PAH	Sum 16 EPA PAH excluding acenaphthylene
Sum 7 PCB	sum 6 PCB according to Ballschmiter and PCB 118 added

2 PAH measurements, FprCEN/TS 16181

2.1 Quality control solution PAH: Measurement using HPLC

RSPA HPLC	NAPHTHA	type of outlier	z-score	ACENYLEN	type of outlier	z-score	ACENTHEN	type of outlier	z-score	FLUOREN	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml			µg/ml		
L01B	1.446		-0.10	0.991		-1.35	1.737	C	1.93	0.408		1.13
L03	1.503		0.27				1.520		-1.00	0.353		-0.86
L11A	1.470		0.06	1.183		0.33	1.557		-0.50	0.363		-0.49
L12	1.277		-1.20	0.977		-1.47	1.417	E	-2.39	0.326		-1.83
L13A	1.643		1.19	1.236		0.79	1.709		1.55	0.400		0.83
L17A	1.610		0.97	1.213		0.59	1.637		0.58	0.362		-0.54
L21A	1.546		0.55				1.630		0.49	0.368		-0.31
L25	1.433		-0.18				1.600	A	0.08	0.400	C	0.83
L32	1.248		-1.39	1.222		0.66	1.388	CE	-2.77	0.400		0.82
–	–	–		–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 725-2			ISO 725-2		
No. labs	9			6			9			9		
No. labs w/o outl.	9			6			7			8		
Mean	1.461			1.146			1.594			0.377		
SR Reprod. SD	0.153			0.115			0.074			0.028		
Sr Repeat. SD	0.113			0.027			0.004			0.016		
RSD % VR	10.48 %			9.99 %			4.66 %			7.39 %		
RSD % Vr	7.77 %			2.37 %			0.28 %			4.33 %		
No. A outliers	0			0			1			0		
No. B outliers	0			0			0			0		
No. C outliers	0			0			2			1		
No. sgl. values w/o outl.	21			14			14			18		

RSPA HPLC	PHENANTH	type of outlier	z-score	ANTHRAC	type of outlier	z-score	FLUORANT	type of outlier	z-score	PYREN	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml			µg/ml		
L01B	0.231		-1.41	0.632		-0.86	0.455		-1.64	0.560		-1.47
L03	0.263		-0.08	0.687		0.16	0.568		-0.10	0.612		-0.59
L11A	0.257		-0.34	0.653		-0.47	0.550		-0.34	0.647		0.002
L12	0.235		-1.23	0.607		-1.33	0.499		-1.04	0.568		-1.33
L13A	0.287		0.90	0.747		1.27	0.647		0.98	0.698		0.87
L17A	0.281		0.66	0.723		0.83	0.651		1.03	0.722		1.28
L21A	0.293		1.16	0.747		1.27	0.616		0.56	0.656		0.16
L25	0.920	CE	26.86	0.870	CE	3.56	0.650	C	1.02	0.700	A	0.91
L32	0.267		0.07	0.636		-0.79	0.607		0.44	0.633		-0.24
–	–	–		–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	9			9			9			9		
No. labs w/o outl.	8			8			8			9		
Mean	0.265			0.679			0.575			0.647		
SR Reprod. SD	0.024			0.054			0.074			0.059		
Sr Repeat. SD	0.010			0.010			0.011			0.021		
RSD % VR	9.20 %			7.92 %			12.79 %			9.13 %		
RSD % Vr	3.71 %			1.52 %			1.94 %			3.32 %		
No. A outliers	0			0			0			1		
No. B outliers	0			0			0			0		
No. C outliers	1			1			1			0		
No. sgl. values w/o outl.	18			18			18			20		

RSPAHLPC	BENZAANT	type of outlier	z-score	CHRYSEN	type of outlier	z-score	BENZBFLU	type of outlier	z-score	BENZKFLU	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml			µg/ml		
L01B	0.303		-0.88	0.712		-1.21	0.313		-0.07	0.350		-0.46
L03	0.305		-0.74	0.760		-0.38	0.311		-0.15	0.344		-0.69
L11A	0.320		0.13	0.820		0.65	0.263		-1.63	0.337		-0.97
L12	0.271	E	-2.73	0.718		-1.10	0.276		-1.23	0.312		-1.90
L13A	0.330		0.72	0.832		0.85	0.325		0.29	0.374		0.45
L17A	0.329		0.68	0.862		1.36	0.350		1.08	0.397		1.33
L21A	0.332		0.85	0.810		0.47	0.336		0.64	0.382		0.76
L25	0.467	CE	8.69	0.780		-0.04	0.220	CE	-2.97	0.490	CE	4.84
L32	0.320		0.13	0.722		-1.03	0.327		0.34	0.363		0.04
–	–	–		–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	9			9			9			9		
No. labs w/o outl.	8			9			8			8		
Mean	0.318			0.782			0.316			0.362		
SR Reprod. SD	0.017			0.058			0.032			0.026		
Sr Repeat. SD	0.005			0.020			0.009			0.007		
RSD % VR	5.39 %			7.46 %			10.20 %			7.30 %		
RSD % Vr	1.73 %			2.49 %			2.98 %			1.91 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			0			1			1		
No. sgl. values w/o outl.	18			21			18			18		

PAHRS HPLC	SUMBKFLU	type of outlier	z-score	BENZAPYR	type of outlier	z-score	BENZGHIP	type of outlier	z-score	DIBENZA	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml			µg/ml		
L01B	0.663		-0.26	0.326		-1.33	0.261		-0.34	0.251		-1.07
L03	0.655		-0.40	0.350		-0.69	0.263		-0.28	0.249		-1.17
L11A	0.600		-1.38	0.423		1.30	0.230		-1.44	0.323	CE	2.11
L12	0.588		-1.59	0.338		-1.01	0.333	E	2.18	0.263		-0.56
L13A	0.699		0.38	0.378		0.07	0.284		0.46	0.284		0.37
L17A	0.748		1.24	0.411		0.97	0.291		0.71	0.305		1.29
L21A	0.719		0.72	0.374		-0.05	0.277		0.21	0.269		-0.28
L25	1.570	CE	15.80	0.383		0.21	0.300	A	1.02	0.293		0.79
L32	0.690		0.22	0.355		-0.56	0.254		-0.61	0.269		-0.28
–	–	–		–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	9			9			9			9		
No. labs w/o outl.	8			9			9			8		
Mean	0.678			0.375			0.271			0.276		
SR Reprod. SD	0.056			0.037			0.028			0.023		
Sr Repeat. SD	0.011			0.018			0.009			0.013		
RSD % VR	8.33 %			9.85 %			10.49 %			8.21 %		
RSD % Vr	1.61 %			4.88 %			3.31 %			4.74 %		
No. A outliers	0			0			1			0		
No. B outliers	0			0			0			0		
No. C outliers	1			0			0			1		
No. sgl. values w/o outl.	18			21			20			18		

PAHRS HPLC	IND123CD	type of outlier	z-score	16EPASUMME	type of outlier	z-score	15EPASUMME	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml		
L01B	0.311		-0.59	9.288	C	-0.99	8.297	C	-0.71
L03	0.306		-0.79				8.393		-0.60
L11A	0.313		-0.48	9.710		-0.25	8.527		-0.45
L12	0.271	E	-2.26	9.276		-1.01	8.299		-0.71
L13A	0.354		1.23	10.528		1.18	9.292		0.40
L17A	0.325		-0.01	10.469		1.07	9.256		0.36
L21A	0.345		0.84				8.981		0.06
L25	1.300	CE	41.02				10.667		1.94
L32	0.345		0.85	9.356		-0.87	8.134		-0.89
–	–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	9			6			9		
No. labs w/o outl.	8			5			9		
Mean	0.325			9855			8932		
SR Reprod. SD	0.024			0.572			0.894		
Sr Repeat. SD	0.012			0.051			0.283		
RSD % VR	7.32 %			5.81 %			10.01 %		
RSD % Vr	3.64 %			0.52 %			3.17 %		
No. A outliers	0			0			0		
No. B outliers	0			0			0		
No. C outliers	1			1			0		
No. sgl. values w/o outl.	18			11			21		

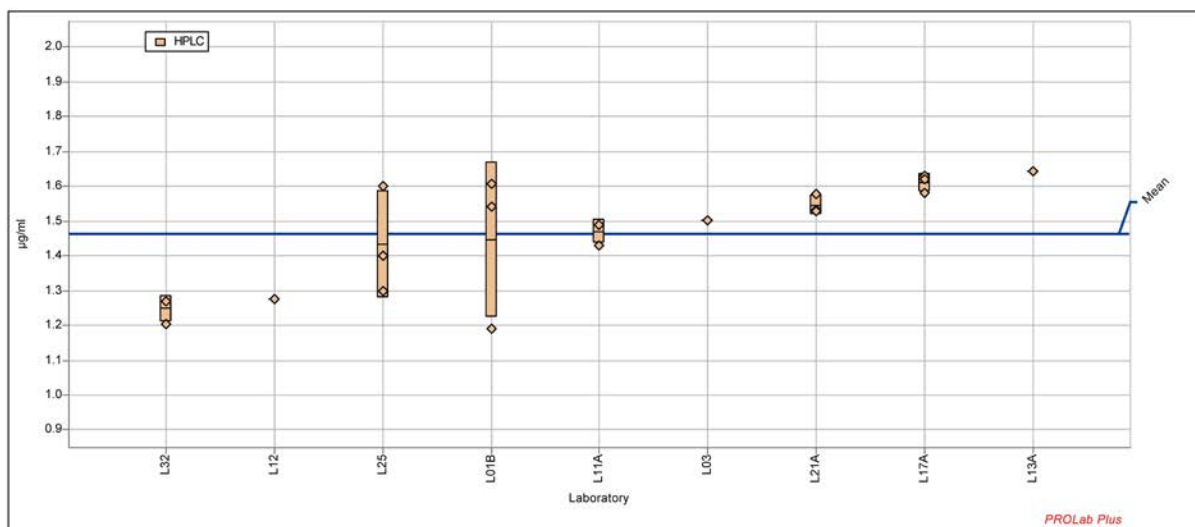
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.153 µg/ml
Measurand:	Naphthalene	Rel. reproducibility s.d.:	10.48%
Mean:	1.461 µg/ml	Repeatability s.d.:	0.113 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.77%
No. of laboratories:	9	No. of outlier values:	0



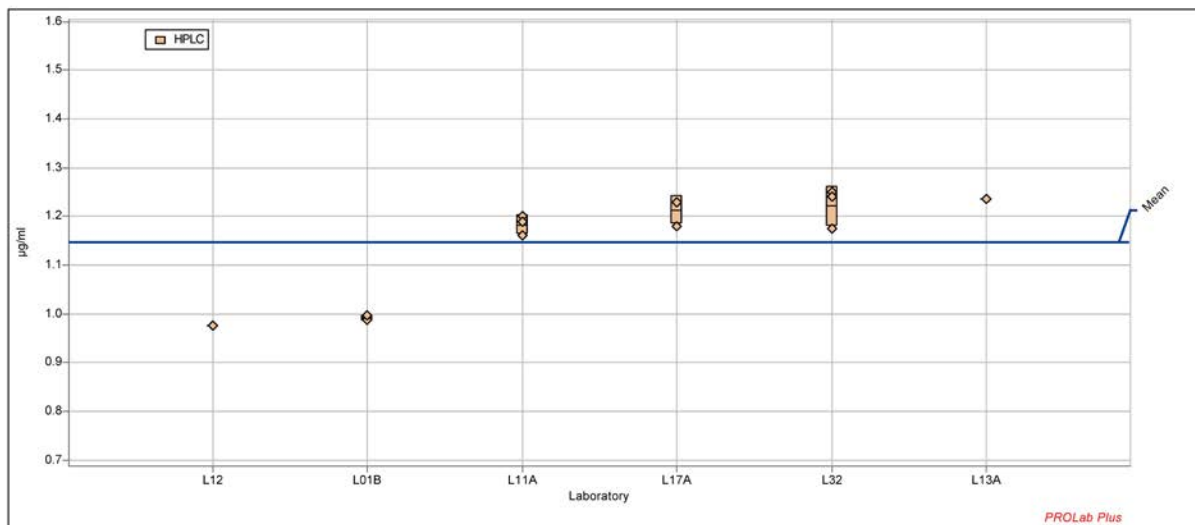
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.115 µg/ml
Measurand:	Acenaphthylene	Rel. reproducibility s.d.:	9.99%
Mean:	1.146 µg/ml	Repeatability s.d.:	0.027 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	2.37%
No. of laboratories:	6	No. of outlier values:	0



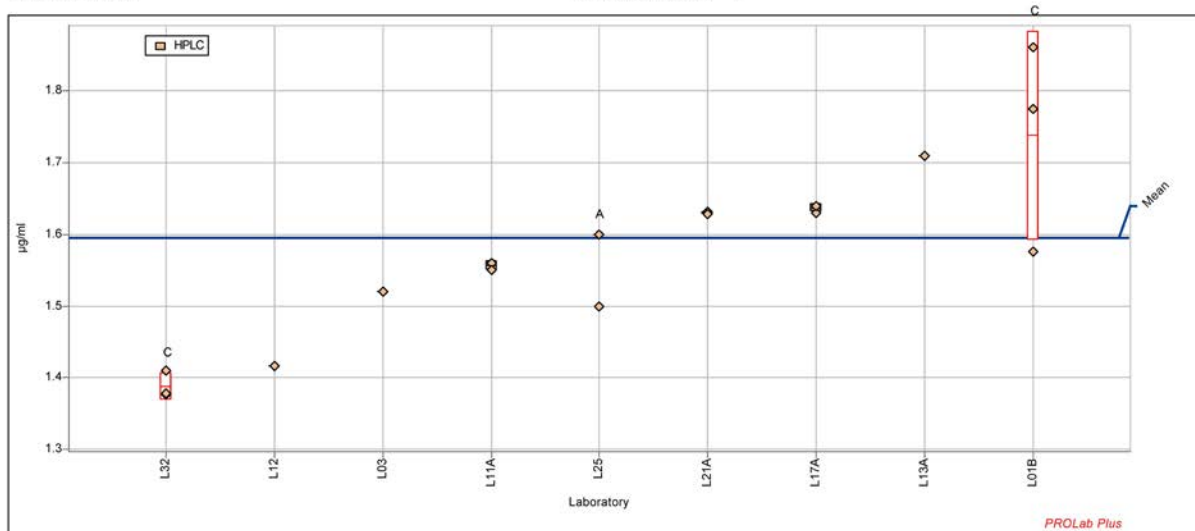
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.074 µg/ml
Measurand:	Acenaphthene	Rel. reproducibility s.d.:	4.66%
Mean:	1.594 µg/ml	Repeatability s.d.:	0.004 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	0.28%
No. of laboratories:	7	No. of outlier values:	7



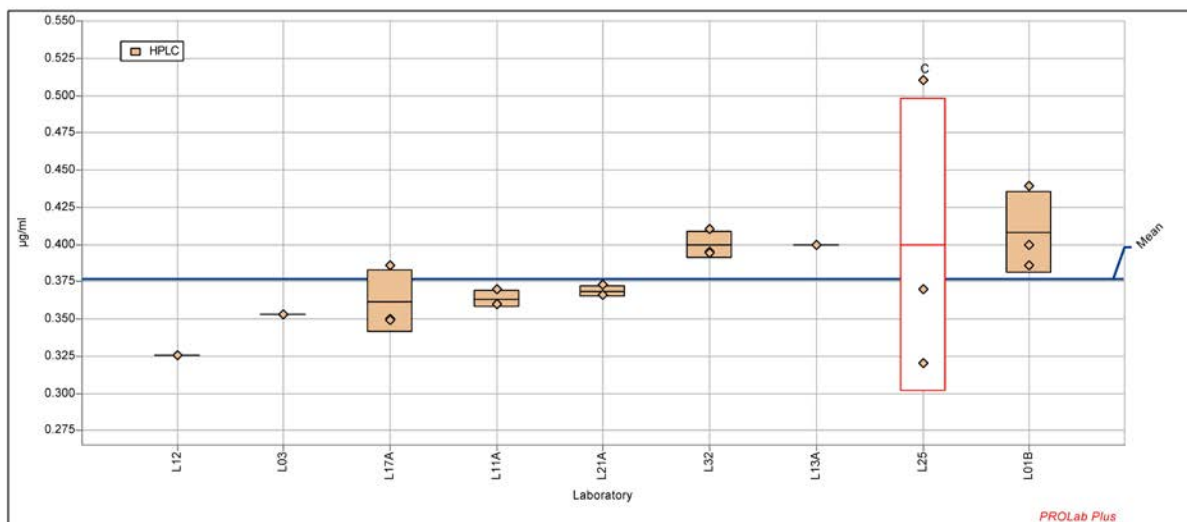
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.028 µg/ml
Measurand:	Fluorene	Rel. reproducibility s.d.:	7.39%
Mean:	0.377 µg/ml	Repeatability s.d.:	0.016 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.33%
No. of laboratories:	8	No. of outlier values:	3



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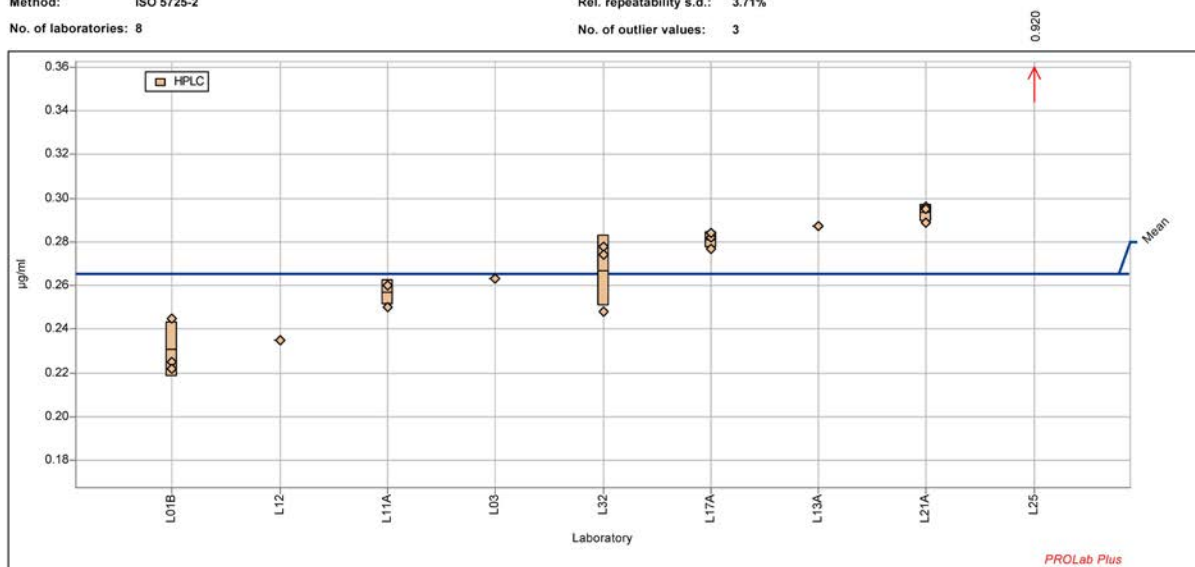
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Summary results - PAH



Sample: Reference solution
Measurand: Phenanthrene
Mean: 0.265 µg/ml
Method: ISO 5725-2
No. of laboratories: 8

Reproducibility s.d.: 0.024 µg/ml
Rel. reproducibility s.d.: 9.20%
Repeatability s.d.: 0.010 µg/ml
Rel. repeatability s.d.: 3.71%
No. of outlier values: 3



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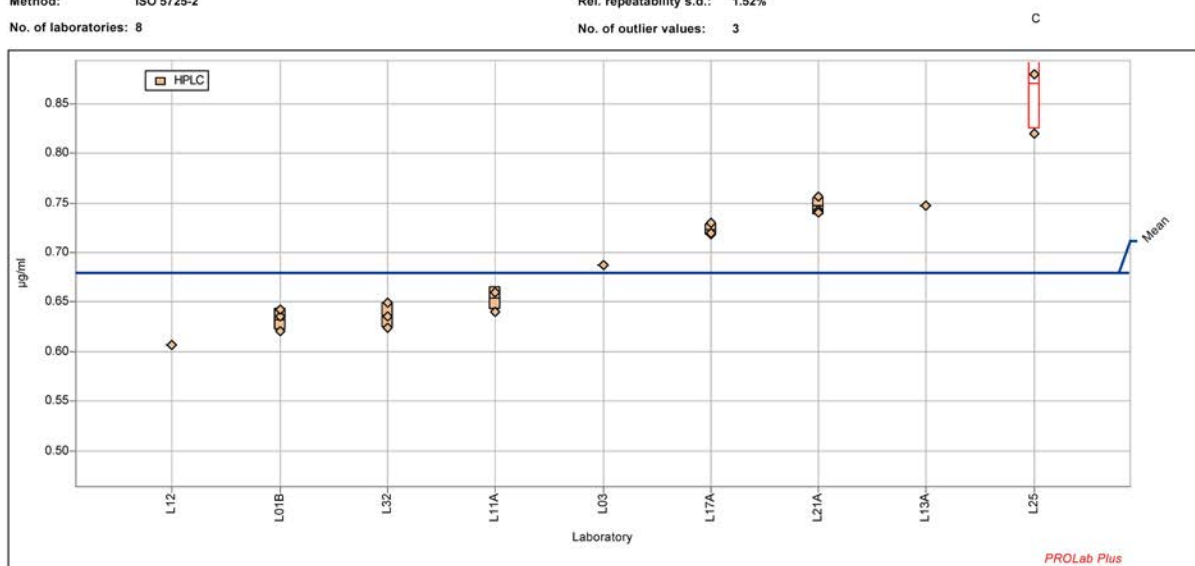
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Summary results - PAH



Sample: Reference solution
Measurand: Anthracene
Mean: 0.679 µg/ml
Method: ISO 5725-2
No. of laboratories: 8

Reproducibility s.d.: 0.054 µg/ml
Rel. reproducibility s.d.: 7.92%
Repeatability s.d.: 0.010 µg/ml
Rel. repeatability s.d.: 1.52%
No. of outlier values: 3



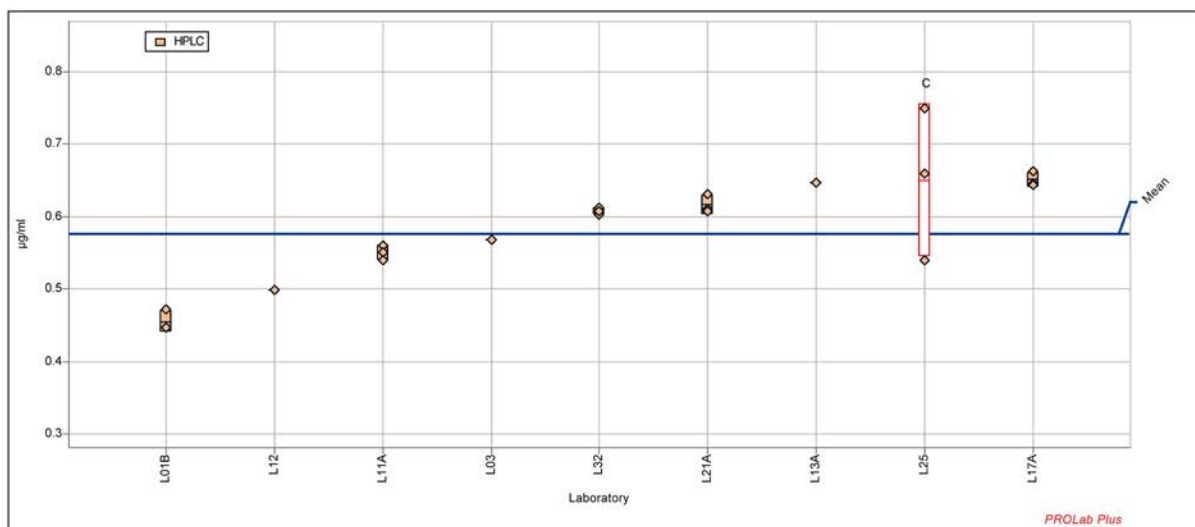
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.074 µg/ml
Measurand:	Fluoranthene	Rel. reproducibility s.d.:	12.79%
Mean:	0.575 µg/ml	Repeatability s.d.:	0.011 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	1.94%
No. of laboratories:	8	No. of outlier values:	3



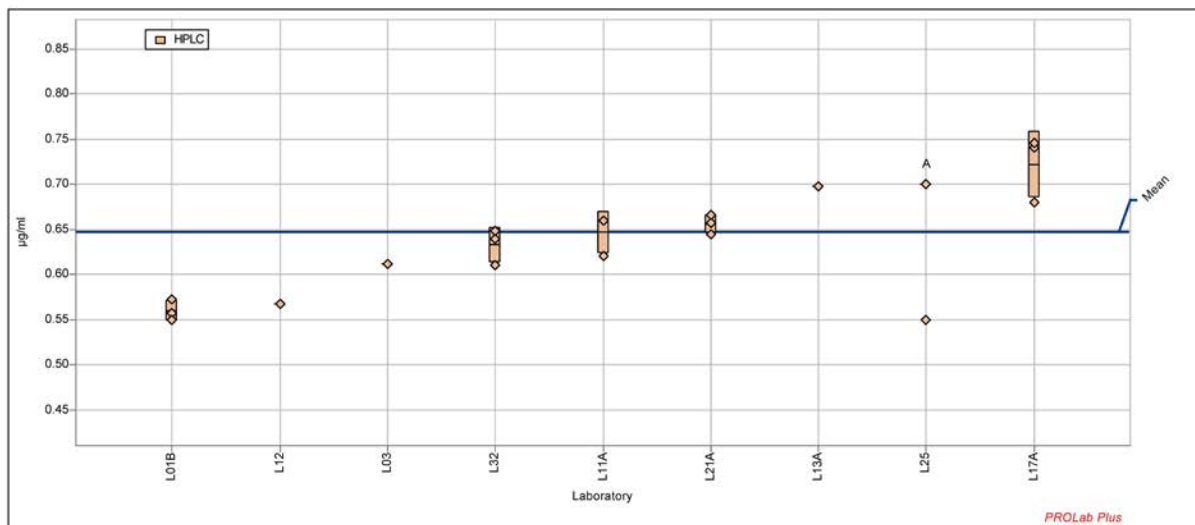
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.059 µg/ml
Measurand:	Pyrene	Rel. reproducibility s.d.:	9.13%
Mean:	0.647 µg/ml	Repeatability s.d.:	0.021 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.32%
No. of laboratories:	9	No. of outlier values:	1



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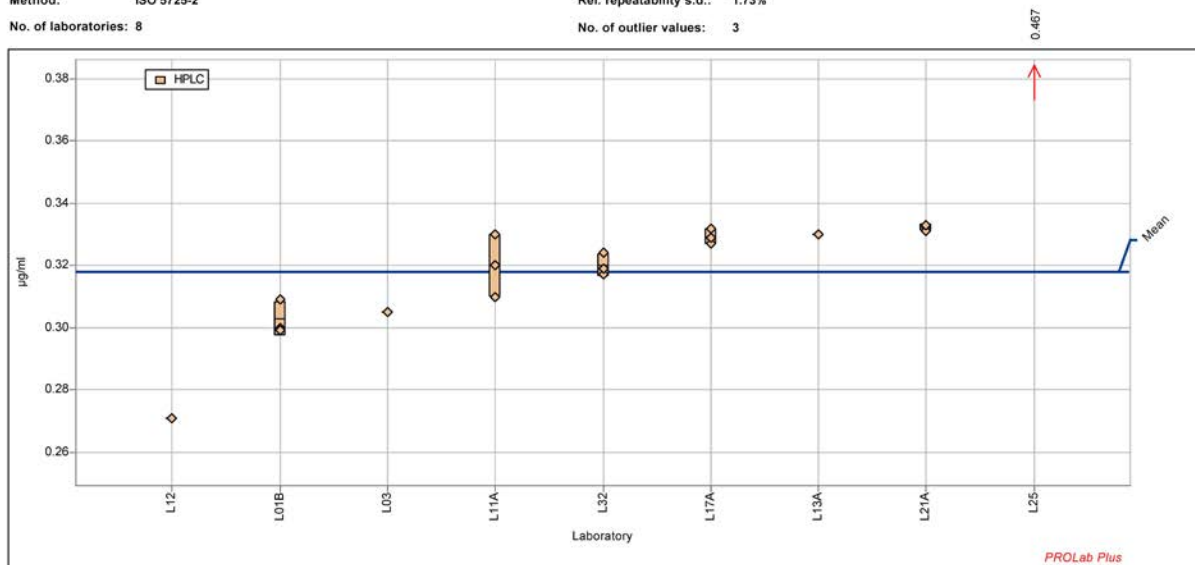
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Summary results - PAH



Sample: Reference solution
Measurand: Benz[a]anthracene
Mean: 0.318 µg/ml
Method: ISO 5725-2
No. of laboratories: 8

Reproducibility s.d.: 0.017 µg/ml
Rel. reproducibility s.d.: 5.39%
Repeatability s.d.: 0.005 µg/ml
Rel. repeatability s.d.: 1.73%
No. of outlier values: 3



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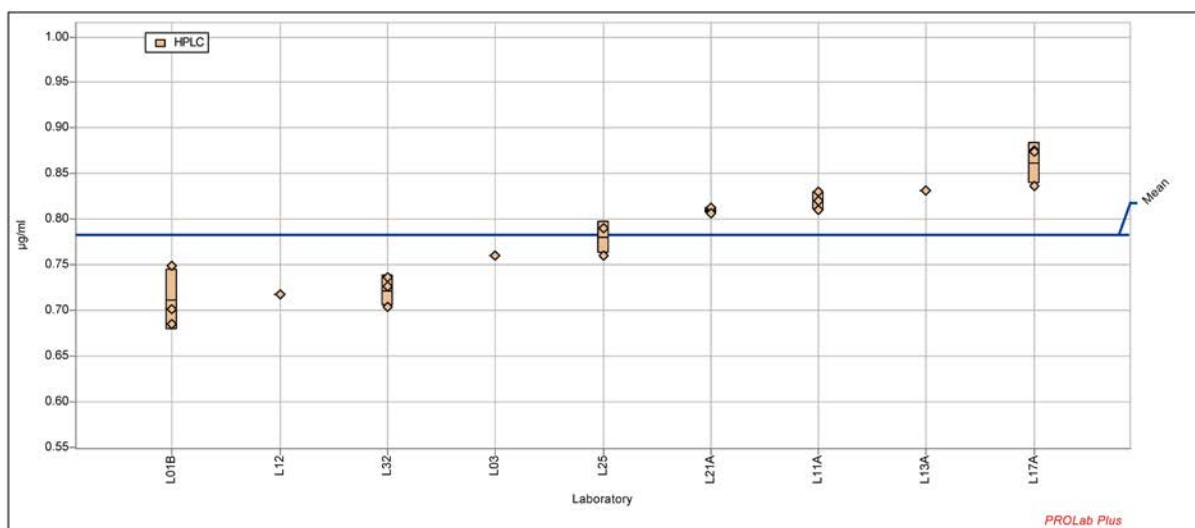
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Summary results - PAH



Sample: Reference solution
Measurand: Chrysene
Mean: 0.782 µg/ml
Method: ISO 5725-2
No. of laboratories: 9

Reproducibility s.d.: 0.058 µg/ml
Rel. reproducibility s.d.: 7.46%
Repeatability s.d.: 0.020 µg/ml
Rel. repeatability s.d.: 2.49%
No. of outlier values: 0



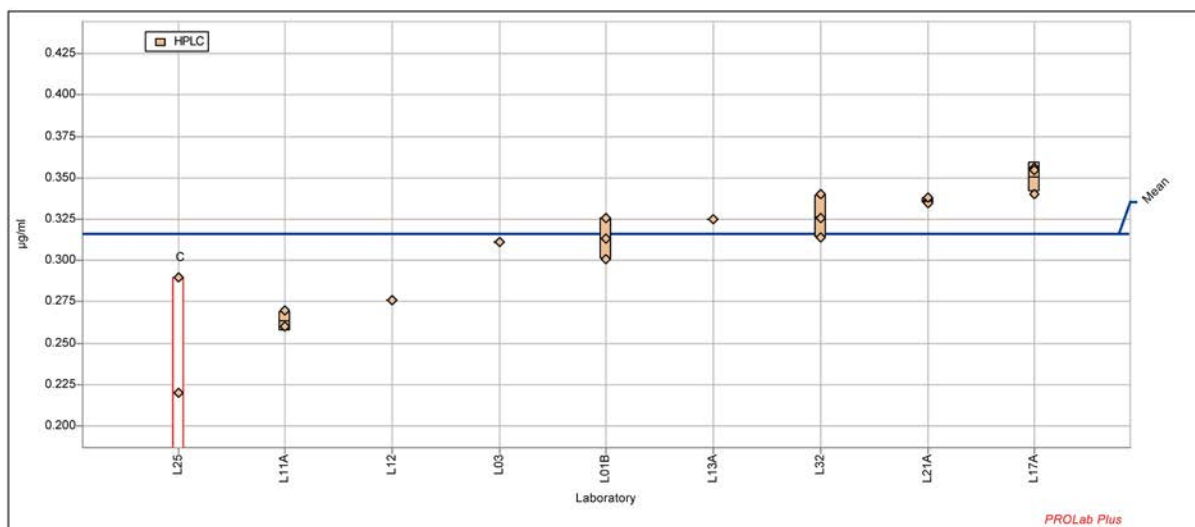
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.032 µg/ml
Measurand:	Benzo[b]fluoranthene	Rel. reproducibility s.d.:	10.20%
Mean:	0.316 µg/ml	Repeatability s.d.:	0.009 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	2.98%
No. of laboratories:	8	No. of outlier values:	3



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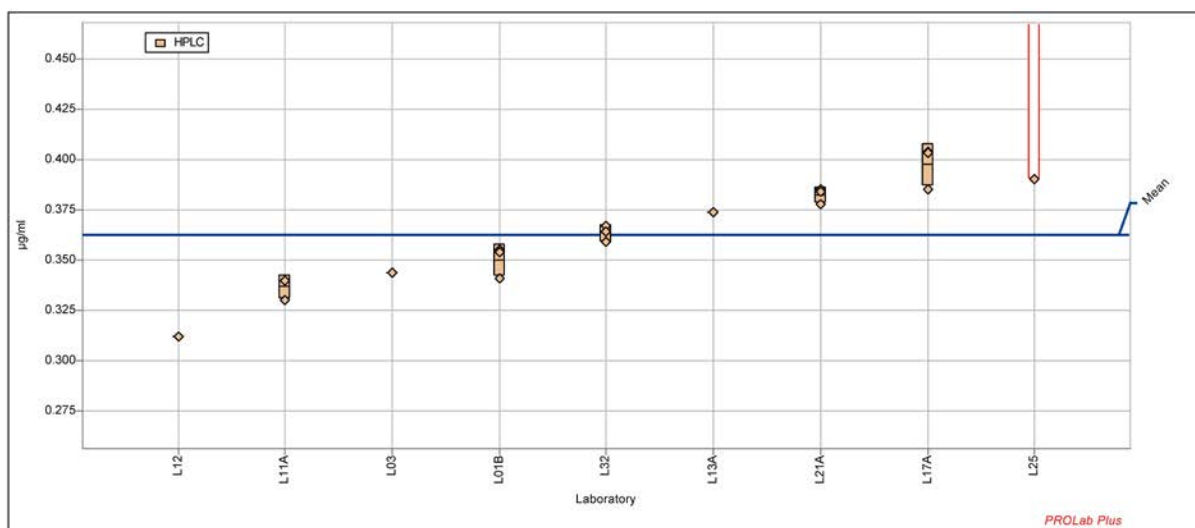
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.026 µg/ml
Measurand:	Benzo[k]fluoranthene	Rel. reproducibility s.d.:	7.30%
Mean:	0.362 µg/ml	Repeatability s.d.:	0.007 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	1.91%
No. of laboratories:	8	No. of outlier values:	3



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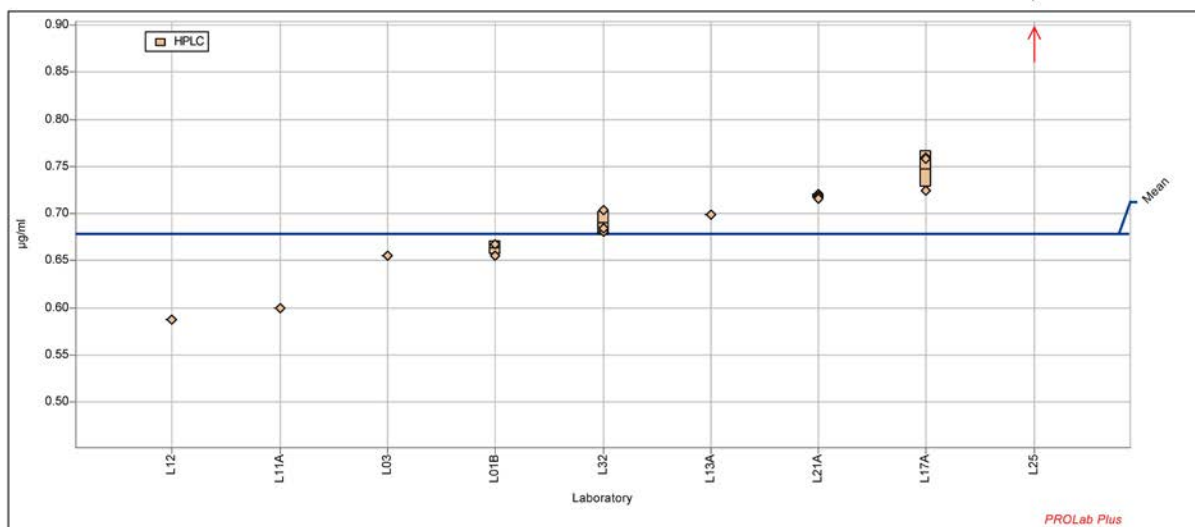
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Summary results - PAH



Sample: Reference solution
 Measurand: Sum Benzo[b+k]fluoranthene
 Mean: 0.678 µg/ml
 Method: ISO 5725-2
 No. of laboratories: 8

Reproducibility s.d.: 0.056 µg/ml
 Rel. reproducibility s.d.: 8.33%
 Repeatability s.d.: 0.011 µg/ml
 Rel. repeatability s.d.: 1.61%
 No. of outlier values: 3



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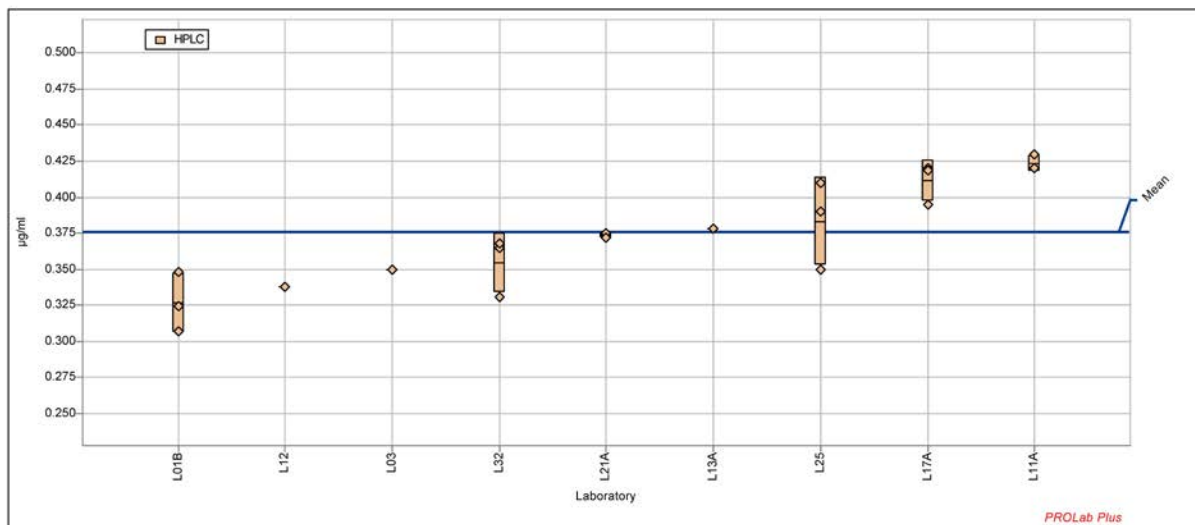
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Summary results - PAH



Sample: Reference solution
 Measurand: Benzo[a]pyrene
 Mean: 0.375 µg/ml
 Method: ISO 5725-2
 No. of laboratories: 9

Reproducibility s.d.: 0.037 µg/ml
 Rel. reproducibility s.d.: 9.85%
 Repeatability s.d.: 0.018 µg/ml
 Rel. repeatability s.d.: 4.88%
 No. of outlier values: 0



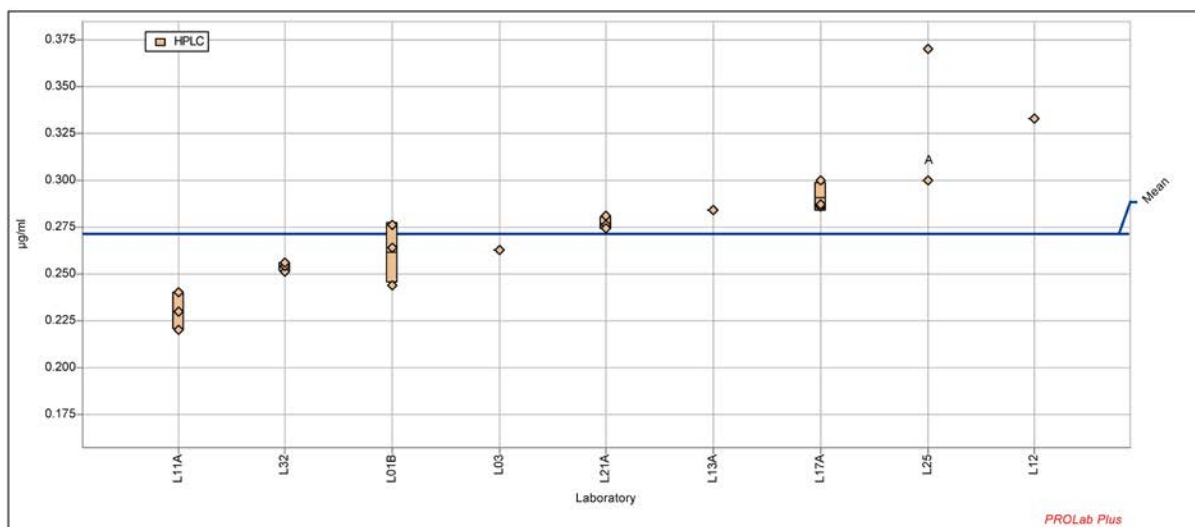
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.028 µg/ml
Measurand:	Benzo[ghi]perylene	Rel. reproducibility s.d.:	10.49%
Mean:	0.271 µg/ml	Repeatability s.d.:	0.009 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.31%
No. of laboratories:	9	No. of outlier values:	1



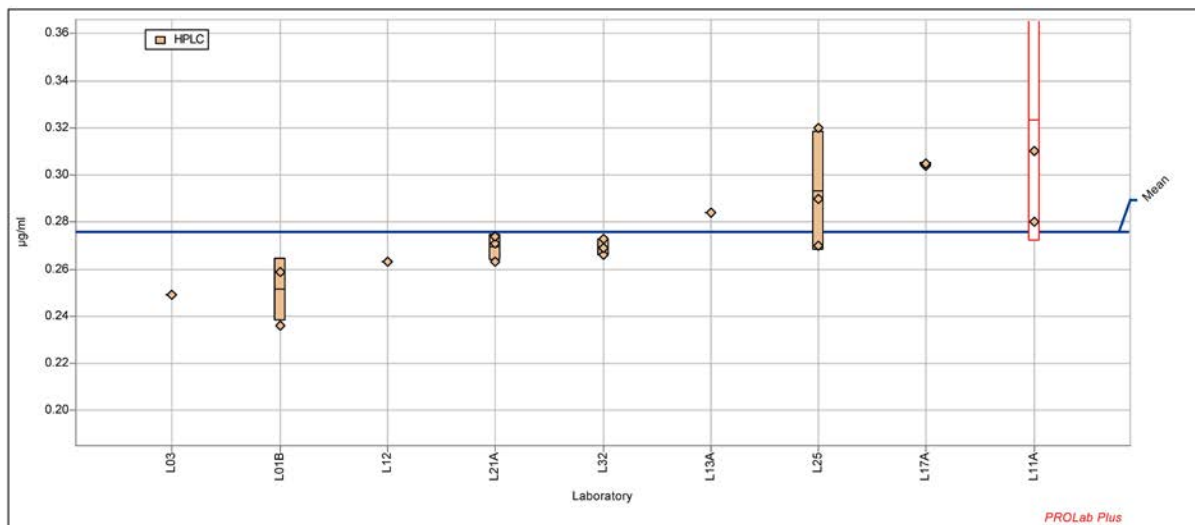
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.023 µg/ml
Measurand:	Dibenz[ah]anthracene	Rel. reproducibility s.d.:	8.21%
Mean:	0.276 µg/ml	Repeatability s.d.:	0.013 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.74%
No. of laboratories:	8	No. of outlier values:	3



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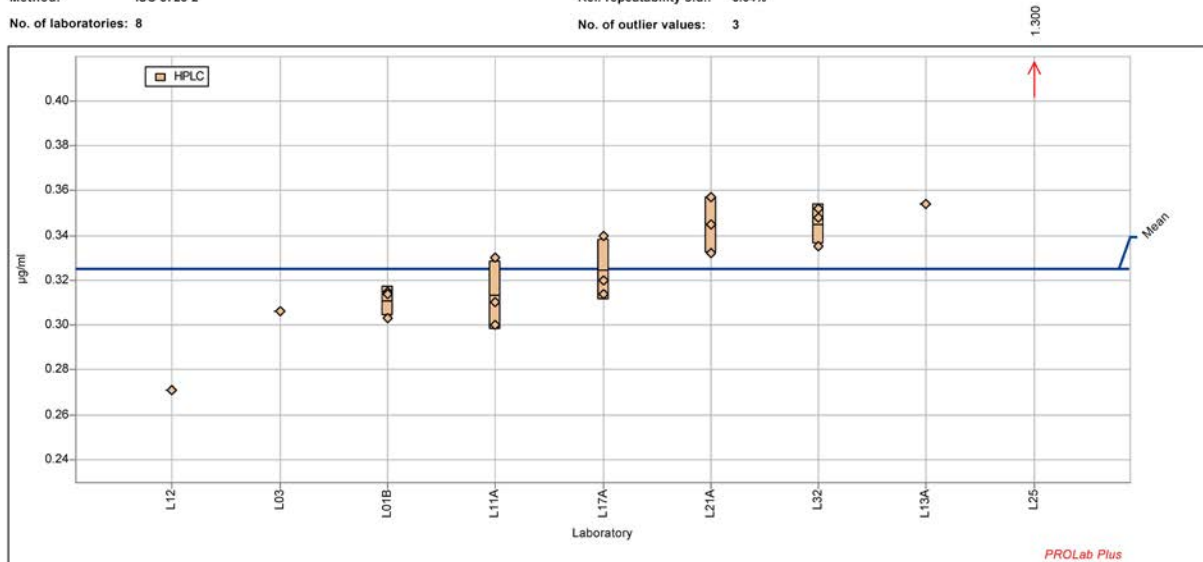
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Summary results - PAH



Sample: Reference solution
 Measurand: Indeno[123cd]pyrene
 Mean: 0.325 µg/ml
 Method: ISO 5725-2
 No. of laboratories: 8

Reproducibility s.d.: 0.024 µg/ml
 Rel. reproducibility s.d.: 7.32%
 Repeatability s.d.: 0.012 µg/ml
 Rel. repeatability s.d.: 3.64%
 No. of outlier values: 3



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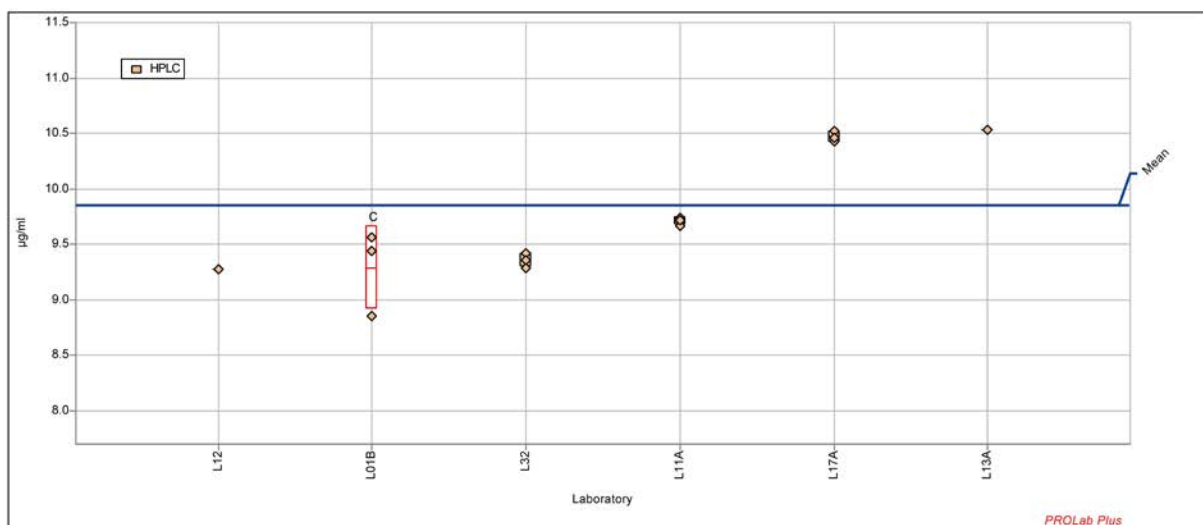
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Summary results - PAH



Sample: Reference solution
 Measurand: Sum 16 EPA PAH
 Mean: 9.855 µg/ml
 Method: ISO 5725-2
 No. of laboratories: 5

Reproducibility s.d.: 0.572 µg/ml
 Rel. reproducibility s.d.: 5.81%
 Repeatability s.d.: 0.051 µg/ml
 Rel. repeatability s.d.: 0.52%
 No. of outlier values: 3



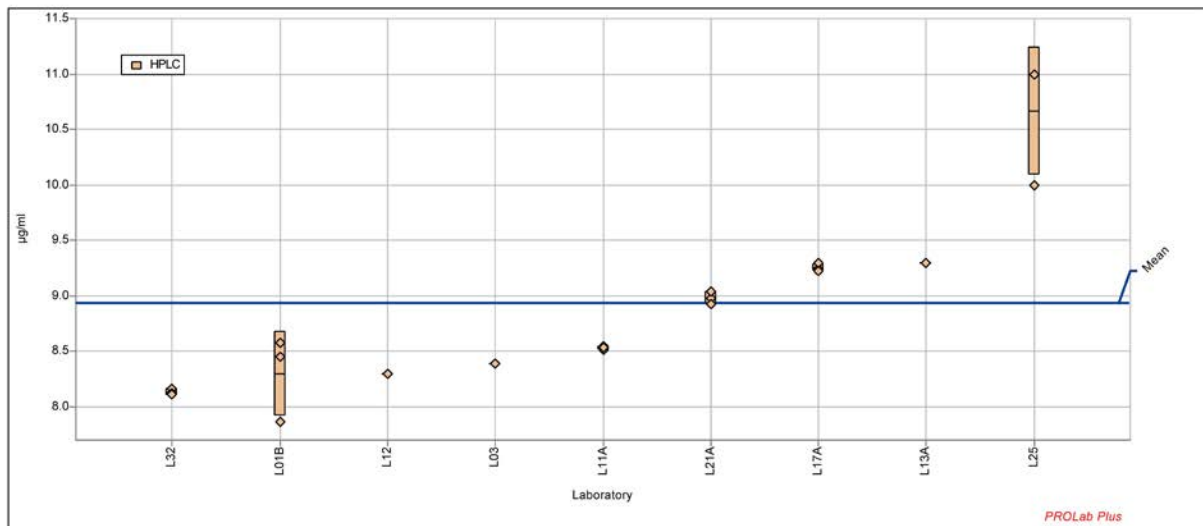
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.894 µg/ml
Measurand:	Sum 15 EPA PAH (excl. Acenaphthylene)	Rel. reproducibility s.d.:	10.01%
Mean:	8.932 µg/ml	Repeatability s.d.:	0.283 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.17%
No. of laboratories:	9	No. of outlier values:	0



2.2 Quality control solution PAH: Measurement using GC-MS

RSPA GCMS	NAPHTHA	type of outlier	z-score	ACENYLEN	type of outlier	z-score	ACENTHEN	type of outlier	z-score	FLUOREN	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml			µg/ml		
L01A	0.520		-1.22	0.278		-0.13	0.245		-0.61	0.354		1.18
L02	0.779		0.53	0.324		0.55	0.327		0.64	0.327		0.63
L04A	0.703		0.02	0.299		0.18	0.294		0.14	0.292		-0.07
L06	0.387	E	-2.12	0.129	E	-2.29	0.148	E	-2.07	0.309		0.27
L07	0.743		0.29	0.303		0.24	0.307		0.33	0.317		0.43
L08	0.719		0.12	0.313		0.39	0.292	C	0.10	0.297		0.04
L09	0.827		0.85	0.337		0.73	0.340		0.83	0.333		0.77
L10	0.758		0.39	0.324		0.55	0.316		0.47	0.316		0.41
L15	0.905		1.38	0.345		0.85	0.365		1.21	0.355		1.20
L17B	0.745		0.30	0.299		0.18	0.310		0.38	0.268		-0.56
L18	0.517		-1.24	0.210		-1.11	0.197		-1.33	0.200		-1.93
L20	0.970		1.82	0.380		1.36	0.380		1.44	0.350		1.10
L21B	0.654		-0.31	0.224		-0.91	0.253		-0.49	0.213		-1.68
L24	0.840	C	0.94	0.370		1.21	0.302	C	0.26	0.287		-0.17
L26	0.654		-0.32	0.262		-0.35	0.272		-0.20	0.265		-0.62
L31A	0.660		-0.27	0.160		-1.84	0.190		-1.43	0.230		-1.33
L31B	0.710		0.06	0.180		-1.55	0.220		-0.98	0.240		-1.12
L34	0.709		0.06	0.294		0.11	0.321		0.55	0.304		0.18
–	–	–		–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 725-2			ISO 725-2		
No. labs	18			18			18			18		
No. labs w/o outl.	17			18			16			18		
Mean	0.701			0.287			0.285			0.296		
SR Reprod. SD	0.148			0.069			0.066			0.049		
Sr Repeat. SD	0.016			0.011			0.007			0.020		
RSD % VR	21.17 %			24.02 %			23.24 %			16.72 %		
RSD % Vr	2.27 %			3.69 %			2.41 %			6.66 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			0			2			0		
No. sgl. values w/o outl.	44			47			41			47		

RSPA GCMS	PHENANTH	type of outlier	z-score	ANTHRAC	type of outlier	z-score	FLUORANT	type of outlier	z-score	PYREN	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml			µg/ml		
L01A	0.337		0.71	0.536		0.47	0.589		1.30	0.350		0.83
L02	0.319		0.38	0.506		0.23	0.490		0.20	0.320		0.34
L04A	0.291		-0.18	0.453		-0.21	0.444		-0.32	0.292		-0.12
L06	0.385		1.66	0.705		1.87	0.590		1.31	0.430	E	2.14
L07	0.300		0.00	0.493		0.12	0.500		0.31	0.287		-0.21
L08	0.281		-0.38	0.399		-0.65	0.404		-0.76	0.278		-0.35
L09	0.363		1.23	0.510		0.26	0.533		0.68	0.333		0.55
L10	0.312		0.24	0.488		0.08	0.500		0.31	0.320		0.33
L15	0.355	C	1.07	0.720		1.99	0.585		1.26	0.380		1.32
L17B	0.290		-0.20	0.476		-0.02	0.481		0.09	0.309		0.15
L18	0.220		-1.56	0.297		-1.50	0.323		-1.67	0.200		-1.63
L20	0.280		-0.39	0.470		-0.07	0.520		0.53	0.330		0.50
L21B	0.237		-1.24	0.299		-1.48	0.304		-1.88	0.192		-1.75
L24	0.367		1.30	0.526		0.39	0.513		0.46	0.276		-0.38
L26	0.259		-0.81	0.390		-0.73	0.394		-0.88	0.252		-0.78
L31A	0.220		-1.56	0.340		-1.14	0.370		-1.14	0.260		-0.65
L31B	0.230		-1.37	0.270		-1.72	0.380		-1.03	0.230		-1.14
L34	0.305		0.10	0.566		0.72	0.470		-0.03	0.300		0.01
–	–	–		–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	18			18			18			18		
No. labs w/o outl.	17			18			18			18		
Mean	0.300			0.478			0.472			0.300		
SR Reprod. SD	0.051			0.122			0.089			0.061		
Sr Repeat. SD	0.017			0.035			0.022			0.011		
RSD % VR	17.08 %			25.40 %			18.94 %			20.41 %		
RSD % Vr	5.67 %			7.31 %			4.76 %			3.59 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			0			0			0		
No. sgl. values w/o outl.	45			47			47			47		

RSPA GCMS	BENZAANT	type of outlier	z-score	CHRYSEN	type of outlier	z-score	BENZBFLU	type of outlier	z-score	BENZKFLU	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml			µg/ml		
L01A	0.646	BE	5.62	0.489	CE	2.77	0.907	BE	9.44	0.434		1.43
L02	0.326		0.47	0.327		0.29	0.353		0.49	0.330		0.11
L04A	0.297		0.01	0.308		-0.01	0.339		0.26	0.326		0.06
L06	0.454	E	2.53	0.462	E	2.34	0.432		1.77	0.424		1.29
L07	0.307		0.16	0.303		-0.08	0.340		0.28	0.303		-0.22
L08	0.229		-1.08	0.281		-0.41	0.284		-0.63	0.233		-1.10
L09	0.313		0.27	0.340		0.48	0.380		0.93	0.377		0.70
L10	0.317		0.33	0.320		0.17	0.352		0.47	0.341		0.25
L15	0.340		0.70	0.400		1.40	0.345		0.36	0.430		1.37
L17B	0.284		-0.21	0.301		-0.11	0.316		-0.11	0.316		-0.06
L18	0.227		-1.13	0.200		-1.65	0.233		-1.44	0.227		-1.19
L20	0.260		-0.59	0.330		0.33	0.300		-0.37	0.340		0.24
L21B	0.220		-1.23	0.217		-1.40	0.195	E	-2.06	0.142	E	-2.25
L24	0.315		0.29	0.263		-0.69	0.311		-0.18	0.294		-0.34
L26	0.242		-0.88	0.260		-0.74	0.284		-0.62	0.275		-0.58
L31A	0.340		0.70	0.350		0.64	0.370		0.77	0.370		0.62
L31B	0.360		1.02	0.360		0.79	0.390		1.09	0.370		0.62
L34	0.300		0.05	0.311		0.04	0.355		0.53	0.352		0.39
–	–	–		–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	18			18			18			18		
No. labs w/o outl.	17			17			17			18		
Mean	0.297			0.308			0.323			0.321		
SR Reprod. SD	0.062			0.065			0.062			0.079		
Sr Repeat. SD	0.020			0.011			0.021			0.019		
RSD % VR	20.94 %			21.24 %			19.19 %			24.74 %		
RSD % Vr	6.78 %			3.55 %			6.40 %			5.91 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			1			0		
No. C outliers	0			1			0			0		
No. sgl. values w/o outl.	44			44			44			47		

RSPA GCMS	SUMBKFLU	type of outlier	z-score	BENZAPYR	type of outlier	z-score	BENZGHIP	type of outlier	z-score	DIBENZA	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml			µg/ml		
L01A	1.341	BE	5.25	0.779	CE	4.59	0.582	E	2.65	0.734	BE	6.12
L02	0.683		0.35	0.394		0.21	0.331		0.24	0.311		0.44
L04A	0.665		0.22	0.386		0.13	0.312		0.06	0.314		0.48
L06	0.856		1.64	0.518		1.63	0.134		-1.64	0.110	E	-2.25
L07	0.643		0.06	0.393		0.21	0.293		-0.12	0.303		0.34
L08	0.517		-0.89	0.349		-0.29	0.280		-0.25	0.249		-0.39
L09	0.757		0.90	0.453		0.89	0.360		0.52	0.343		0.88
L10	0.693		0.43	0.386		0.13	0.311		0.05	0.309		0.42
L15	0.775		1.04	0.515		1.59	0.395		0.86	0.350		0.97
L17B	0.632		-0.03	0.367		-0.09	0.283		-0.22	0.285		0.10
L18	0.460		-1.31	0.280		-1.08	0.220		-0.82	0.220		-0.78
L20	0.640		0.03	0.410		0.40	0.290		-0.15	0.260		-0.24
L21B	0.337	E	-2.22	0.160	E	-2.44	0.133		-1.65	0.146		-1.77
L24	0.605		-0.23	0.344		-0.35	0.325		0.19	0.346		0.92
L26	0.559		-0.57	0.334		-0.47	0.317		0.11	0.291		0.17
L31A	0.740		0.78	0.440		0.74	0.340		0.33	0.340		0.83
L31B	0.760		0.92	0.320		-0.62	0.350		0.43	0.320		0.56
L34	0.707		0.53	0.385		0.12	0.331		0.25	0.344		0.88
–	–	–	–	–	–	–	–	–	–	–	–	–
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	18			18			18			18		
No. labs w/o outl.	17			17			18			17		
Mean	0.636			0.375			0.306			0.278		
SR Reprod. SD	0.134			0.088			0.104			0.075		
Sr Repeat. SD	0.036			0.020			0.022			0.023		
RSD % VR	21.13 %			23.45 %			34.14 %			26.84 %		
RSD % Vr	5.72 %			5.21 %			7.32 %			8.12 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			0			1		
No. C outliers	0			1			0			0		
No. sgl. values w/o outl.	44			44			47			44		

RSPA GCMS	IND123CD	type of outlier	z-score	16EPASUMME	type of outlier	z-score	15EPASUMME	type of outlier	z-score
Unit	µg/ml			µg/ml			µg/ml		
L01A	0.723	BE	7.02	8.503	E	2.32			
L02	0.320		0.39	6.083		0.22			
L04A	0.325		0.47	5.675		-0.14			
L06	0.271		-0.42	6.745		0.79			
L07	0.297		0.00	5.790		-0.04			
L08	0.274		-0.37	5.163		-0.58			
L09	0.347		0.83	6.433		0.52			
L10	0.336		0.66	6.007		0.15			
L15	0.375		1.29	7.160		1.15		E	
L17B	0.290		-0.11	5.620		-0.19			
L18	0.230		-1.10	4.000		-1.59			
L20	0.290		-0.11	6.200		0.32			
L21B	0.139	E	-2.59	3.727		-1.83			
L24	0.350		0.87	6.027		0.17			
L26	0.290		-0.12	4.939		-0.78			
L31A	0.330		0.55	5.310		-0.46			
L31B	0.380		1.37	5.310		-0.46			
L34	0.321		0.40	5.969		0.12			
–	–	–		–	–		–	–	
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	18			18					
No. labs w/o outl.	17			18			0		
Mean	0.297			5.835					
SR Reprod. SD	0.061			1.153					
Sr Repeat. SD	0.024			0.234					
RSD % VR	20.48 %			19.75 %					
RSD % Vr	8.22 %			4.01 %					
No. A outliers	0			0					
No. B outliers	1			0					
No. C outliers	0			0					
No. sgl. values w/o outl.	44			47			0		

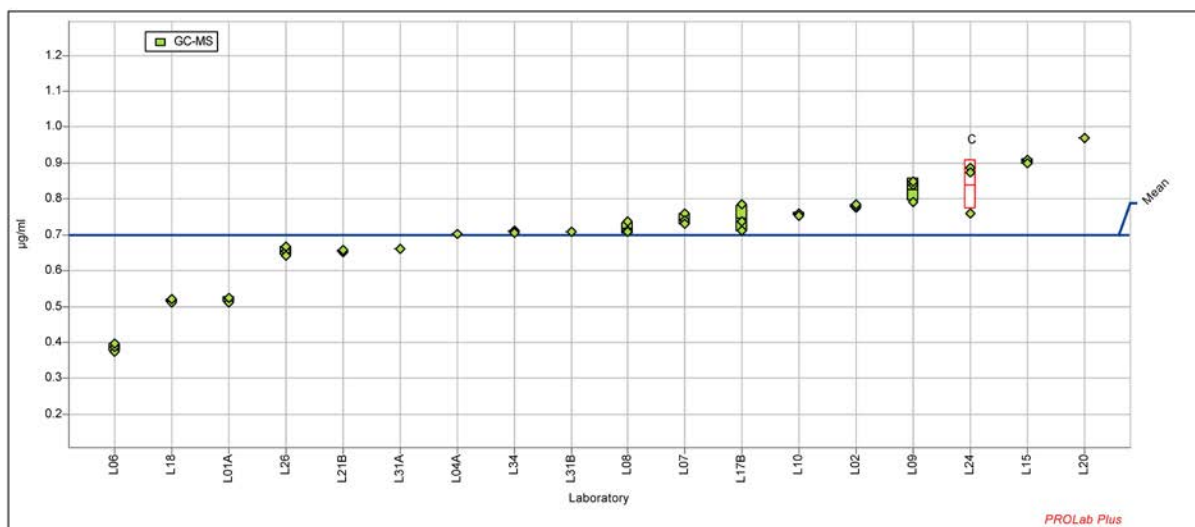
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.148 µg/ml
Measurand:	Naphthalene	Rel. reproducibility s.d.:	21.17%
Mean:	0.701 µg/ml	Repeatability s.d.:	0.016 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	2.27%
No. of laboratories:	17	No. of outlier values:	3



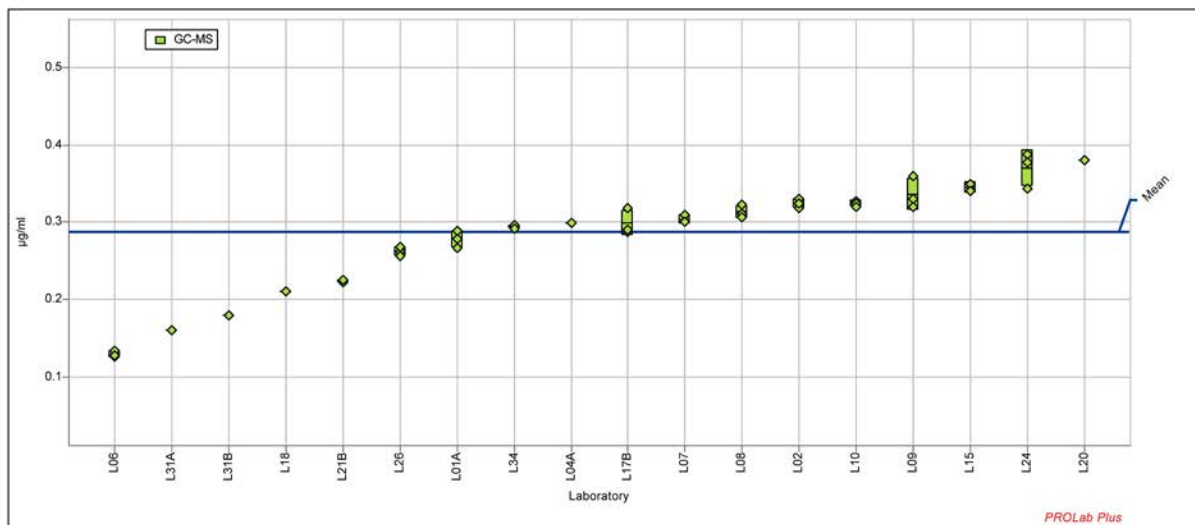
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.069 µg/ml
Measurand:	Acenaphthylene	Rel. reproducibility s.d.:	24.02%
Mean:	0.287 µg/ml	Repeatability s.d.:	0.011 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.69%
No. of laboratories:	18	No. of outlier values:	0



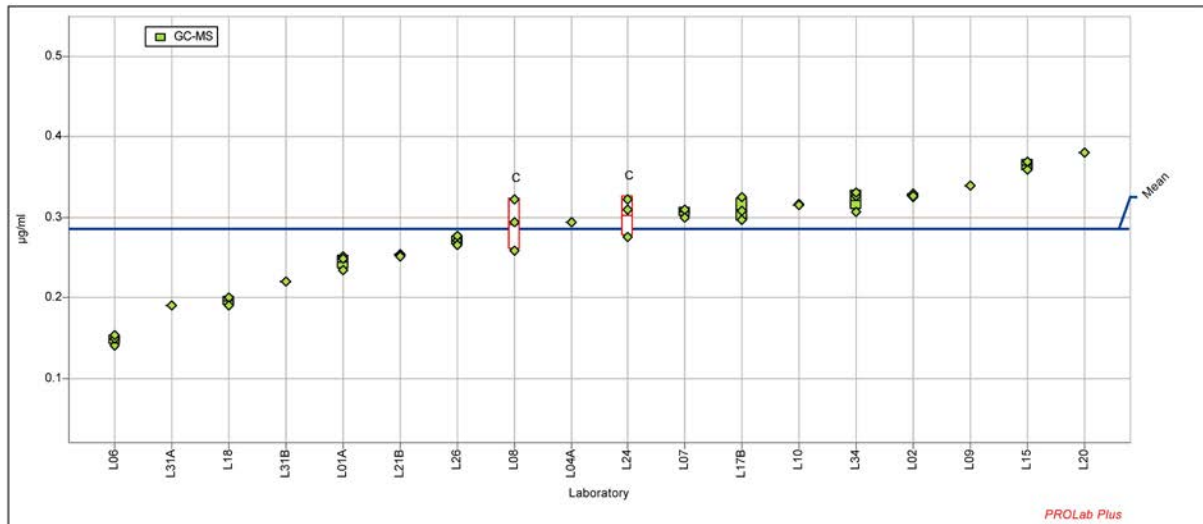
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.066 µg/ml
Measurand:	Acenaphthene	Rel. reproducibility s.d.:	23.24%
Mean:	0.285 µg/ml	Repeatability s.d.:	0.007 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	2.41%
No. of laboratories:	16	No. of outlier values:	6



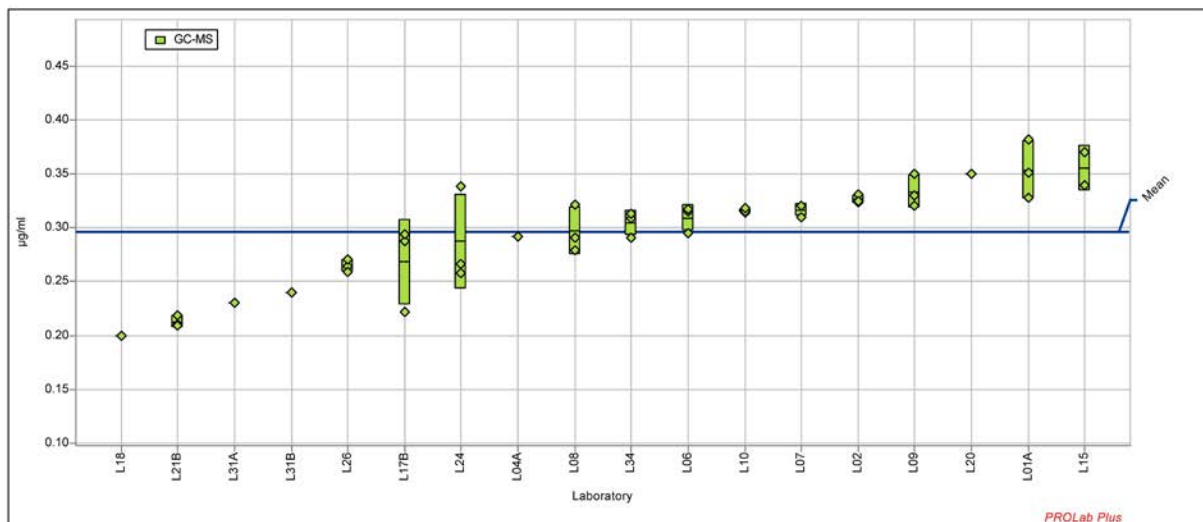
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.049 µg/ml
Measurand:	Fluorene	Rel. reproducibility s.d.:	16.72%
Mean:	0.296 µg/ml	Repeatability s.d.:	0.020 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.66%
No. of laboratories:	18	No. of outlier values:	0



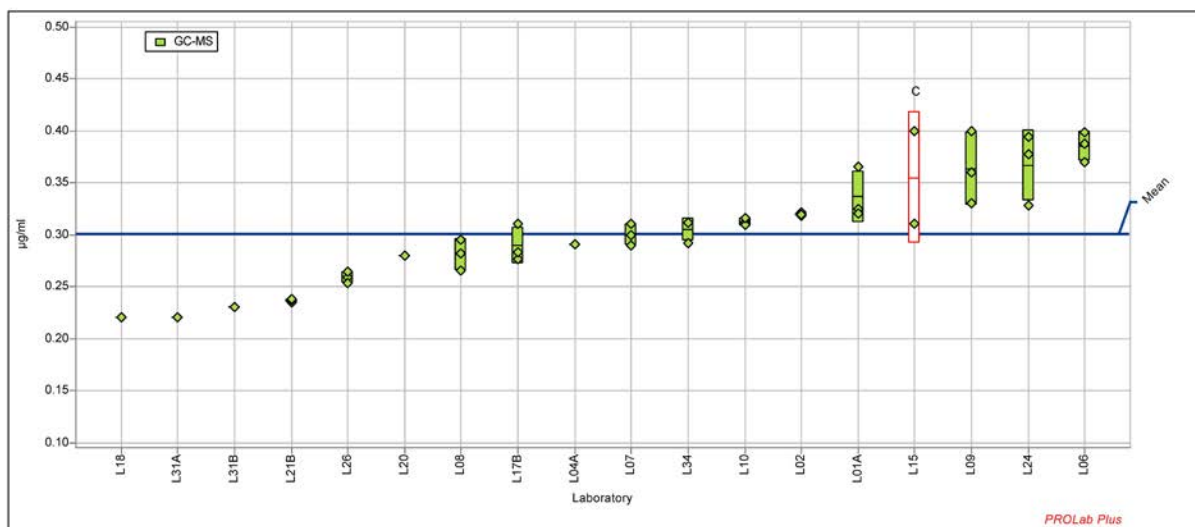
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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.051 µg/ml
Measurand:	Phenanthrene	Rel. reproducibility s.d.:	17.08%
Mean:	0.300 µg/ml	Repeatability s.d.:	0.017 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.67%
No. of laboratories:	17	No. of outlier values:	2



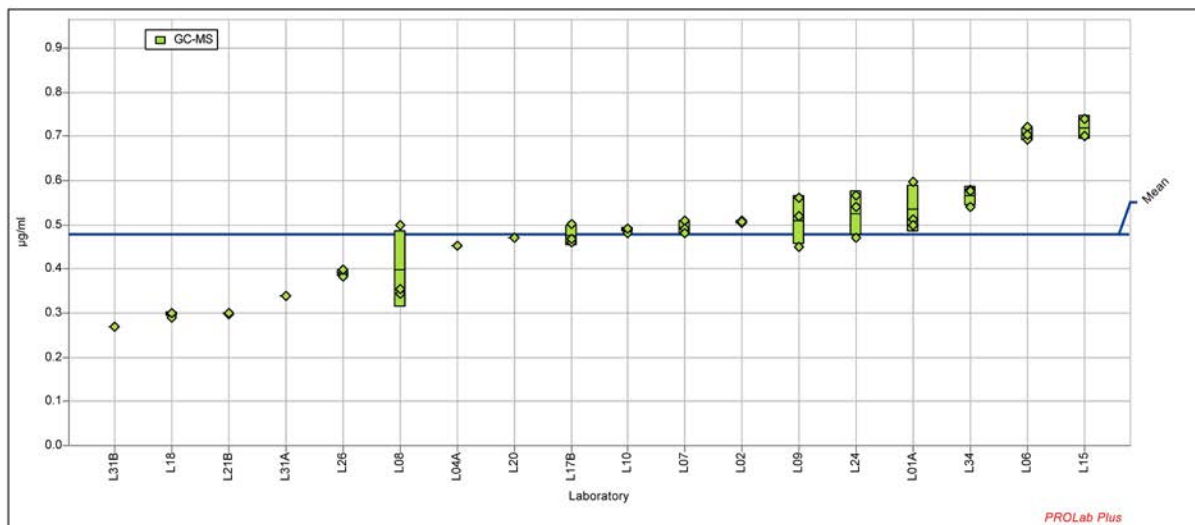
HORIZONTAL 2013

BAM Federal Institute for Materials Research and Testing

Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.122 µg/ml
Measurand:	Anthracene	Rel. reproducibility s.d.:	25.40%
Mean:	0.478 µg/ml	Repeatability s.d.:	0.035 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.31%
No. of laboratories:	18	No. of outlier values:	0



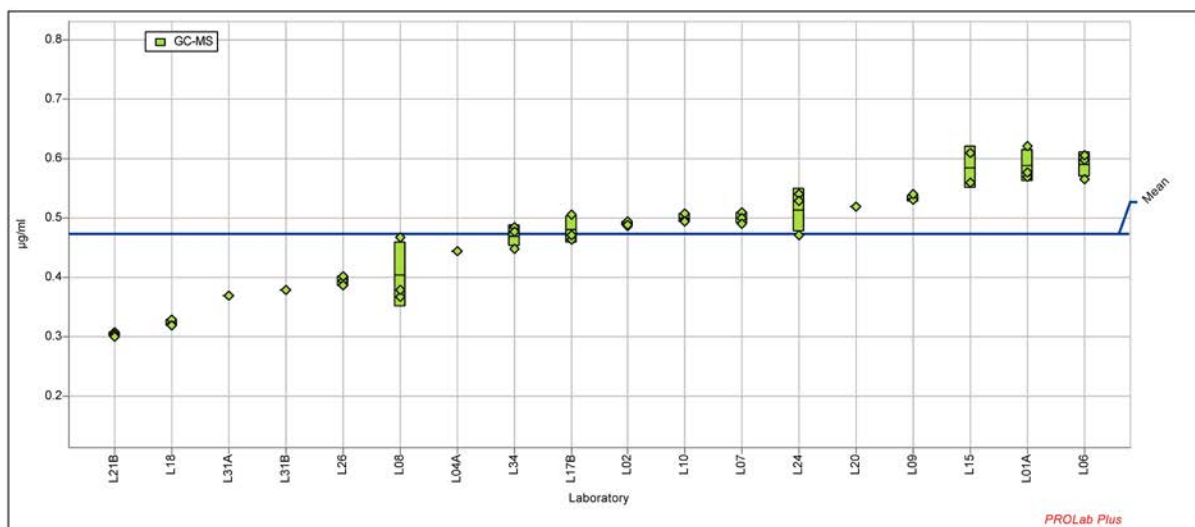
HORIZONTAL 2013

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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.089 µg/ml
Measurand:	Fluoranthene	Rel. reproducibility s.d.:	18.94%
Mean:	0.472 µg/ml	Repeatability s.d.:	0.022 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.76%
No. of laboratories:	18	No. of outlier values:	0



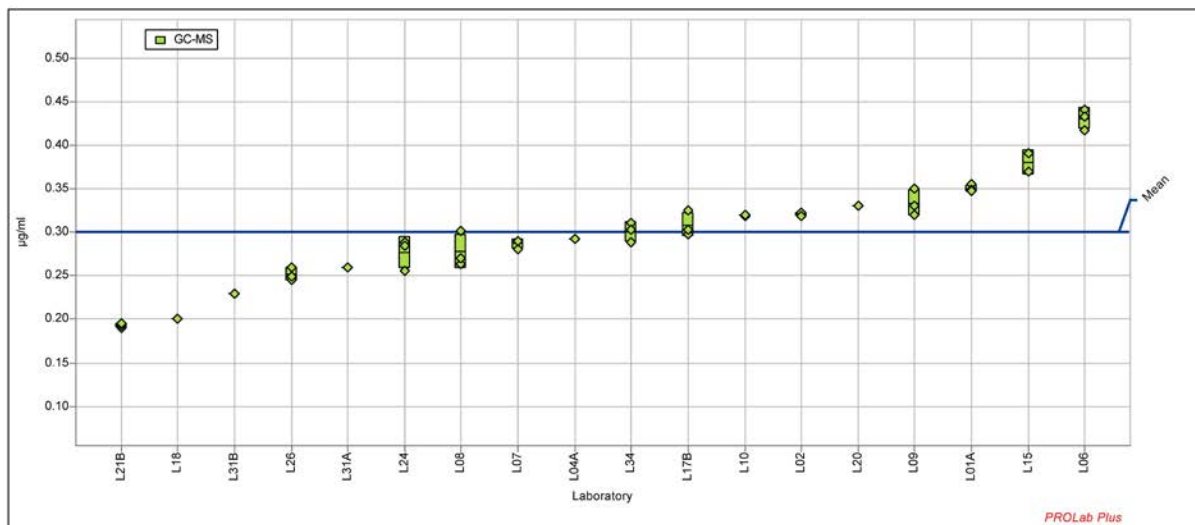
HORIZONTAL 2013

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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.061 µg/ml
Measurand:	Pyrene	Rel. reproducibility s.d.:	20.41%
Mean:	0.300 µg/ml	Repeatability s.d.:	0.011 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.59%
No. of laboratories:	18	No. of outlier values:	0



HORIZONTAL 2013

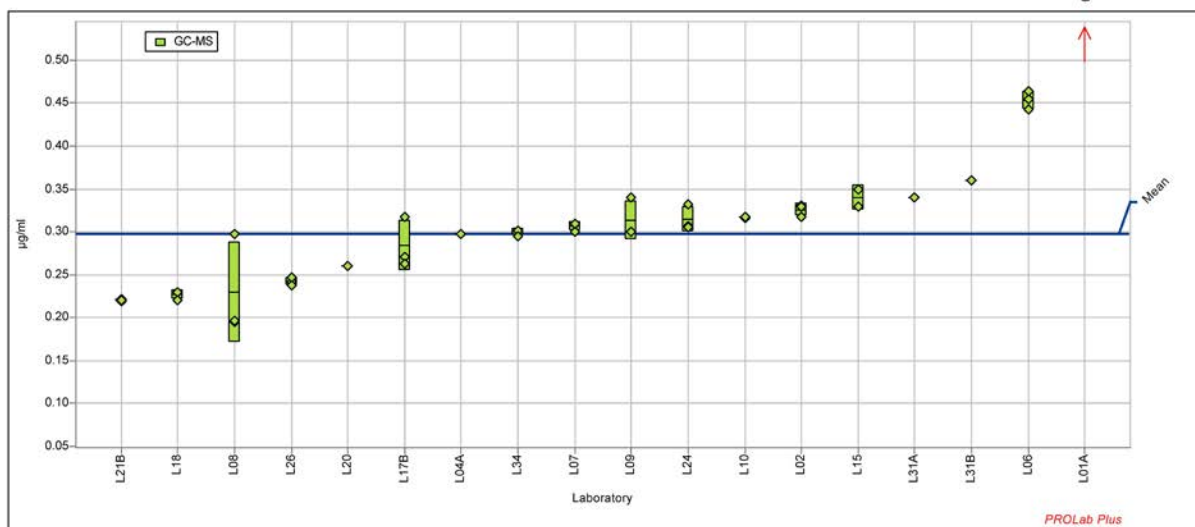
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Summary results - PAH



Sample: Reference solution
Measurand: Benz[a]anthracene
Mean: 0.297 µg/ml
Method: ISO 5725-2
No. of laboratories: 17

Reproducibility s.d.: 0.062 µg/ml
Rel. reproducibility s.d.: 20.94%
Repeatability s.d.: 0.020 µg/ml
Rel. repeatability s.d.: 6.78%
No. of outlier values: 3



HORIZONTAL 2013

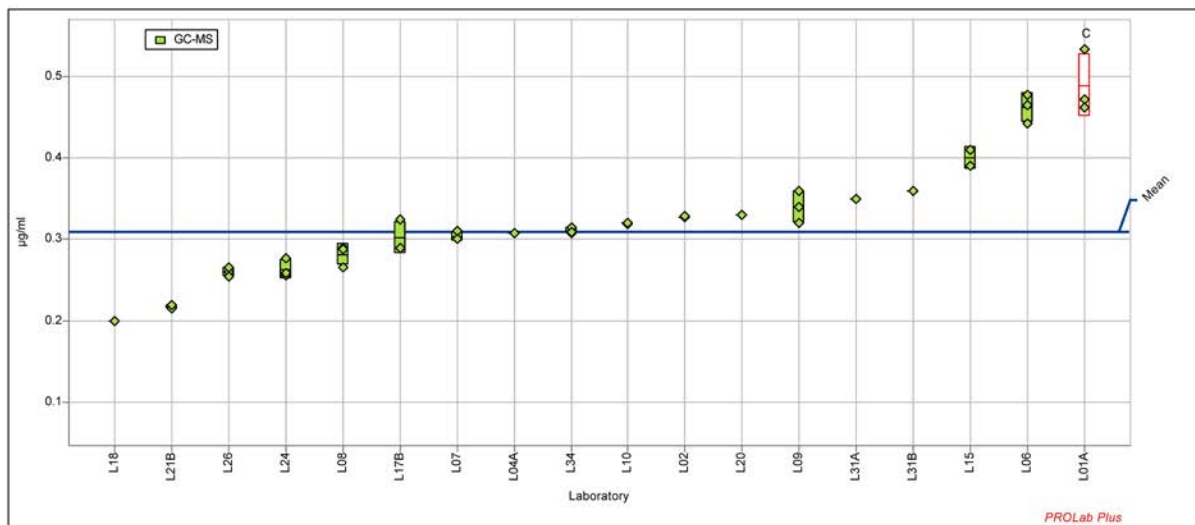
BAM Federal Institute for Materials Research and Testing

Summary results - PAH



Sample: Reference solution
Measurand: Chrysene
Mean: 0.308 µg/ml
Method: ISO 5725-2
No. of laboratories: 17

Reproducibility s.d.: 0.065 µg/ml
Rel. reproducibility s.d.: 21.24%
Repeatability s.d.: 0.011 µg/ml
Rel. repeatability s.d.: 3.55%
No. of outlier values: 3



HORIZONTAL 2013

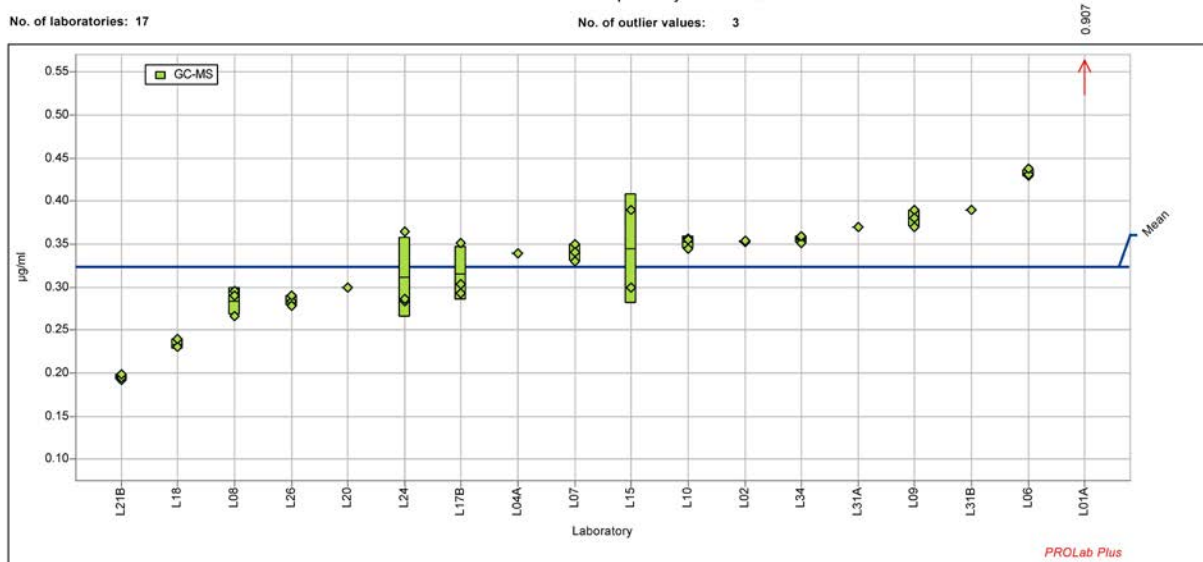
BAM Federal Institute for Materials Research and Testing

Summary results - PAH



Sample: Reference solution
Measurand: Benzo[b]fluoranthene
Mean: 0.323 µg/ml
Method: ISO 5725-2
No. of laboratories: 17

Reproducibility s.d.: 0.062 µg/ml
Rel. reproducibility s.d.: 19.19%
Repeatability s.d.: 0.021 µg/ml
Rel. repeatability s.d.: 6.40%
No. of outlier values: 3



HORIZONTAL 2013

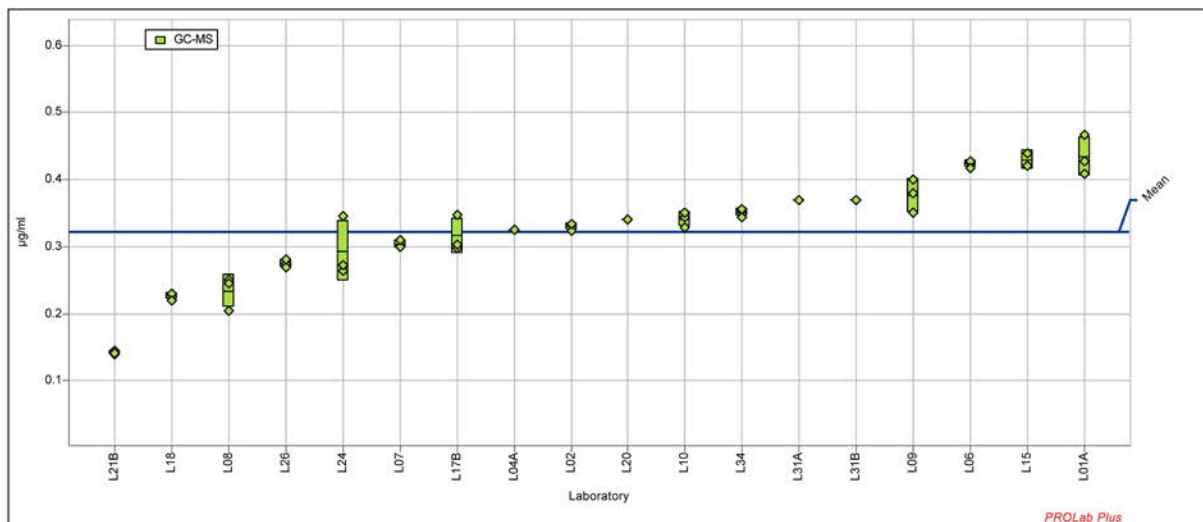
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Summary results - PAH



Sample: Reference solution
Measurand: Benzo[k]fluoranthene
Mean: 0.321 µg/ml
Method: ISO 5725-2
No. of laboratories: 18

Reproducibility s.d.: 0.079 µg/ml
Rel. reproducibility s.d.: 24.74%
Repeatability s.d.: 0.019 µg/ml
Rel. repeatability s.d.: 5.91%
No. of outlier values: 0



HORIZONTAL 2013

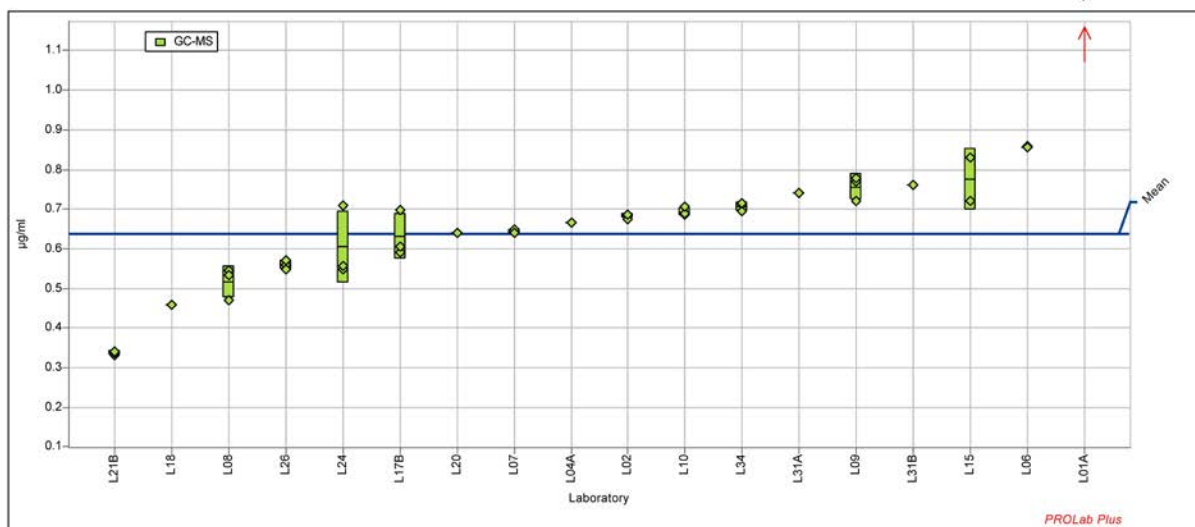
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Summary results - PAH



Sample: Reference solution
Measurand: Sum Benzo[b+k]fluoranthene
Mean: 0.636 µg/ml
Method: ISO 5725-2
No. of laboratories: 17

Reproducibility s.d.: 0.134 µg/ml
Rel. reproducibility s.d.: 21.13%
Repeatability s.d.: 0.036 µg/ml
Rel. repeatability s.d.: 5.72%
No. of outlier values: 3



HORIZONTAL 2013

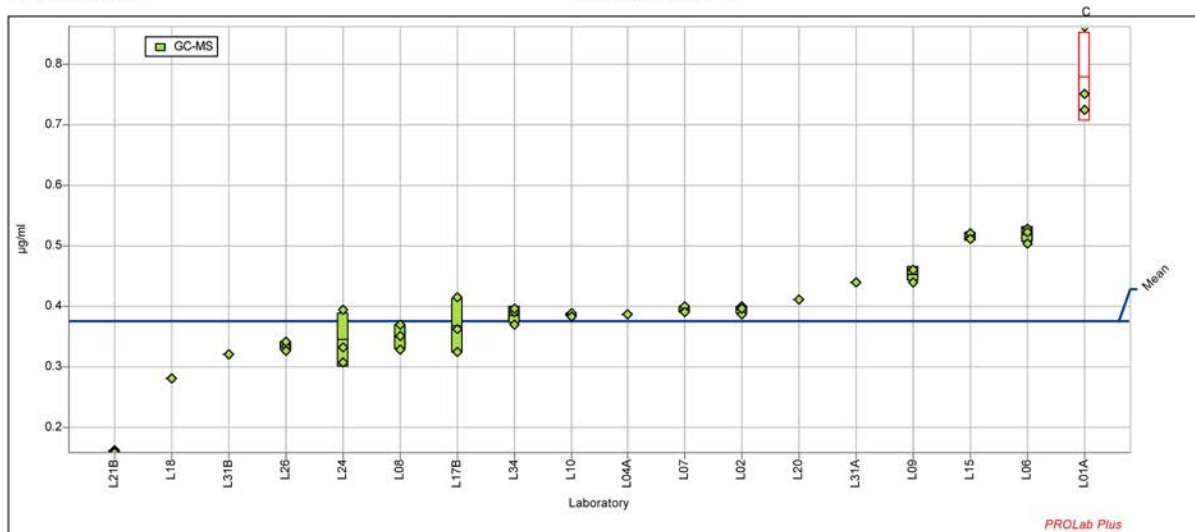
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Summary results - PAH



Sample: Reference solution
Measurand: Benzo[a]pyrene
Mean: 0.375 µg/ml
Method: ISO 5725-2
No. of laboratories: 17

Reproducibility s.d.: 0.088 µg/ml
Rel. reproducibility s.d.: 23.45%
Repeatability s.d.: 0.020 µg/ml
Rel. repeatability s.d.: 5.21%
No. of outlier values: 3



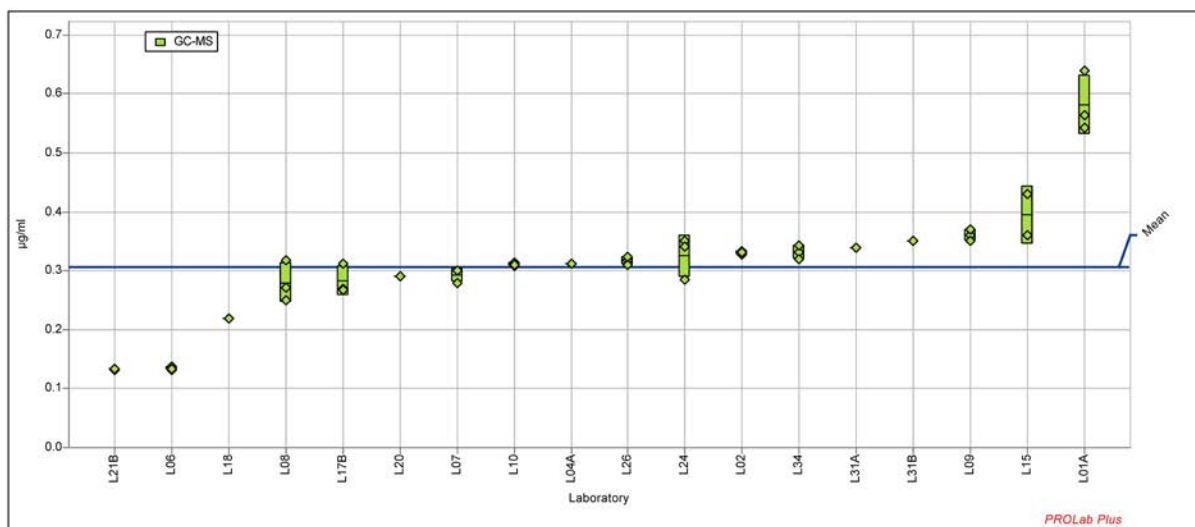
HORIZONTAL 2013

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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.104 µg/ml
Measurand:	Benzo[ghi]perylene	Rel. reproducibility s.d.:	34.14%
Mean:	0.306 µg/ml	Repeatability s.d.:	0.022 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.32%
No. of laboratories:	18	No. of outlier values:	0



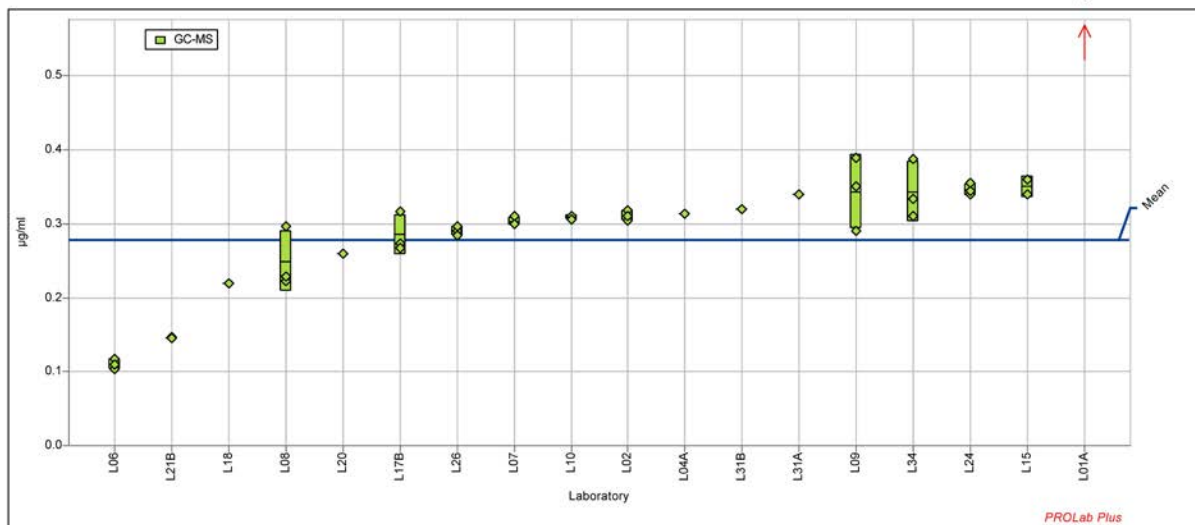
HORIZONTAL 2013

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Summary results - PAH



Sample:	Reference solution	Reproducibility s.d.:	0.075 µg/ml
Measurand:	Dibenz[ah]anthracene	Rel. reproducibility s.d.:	26.84%
Mean:	0.278 µg/ml	Repeatability s.d.:	0.023 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.12%
No. of laboratories:	17	No. of outlier values:	3



HORIZONTAL 2013

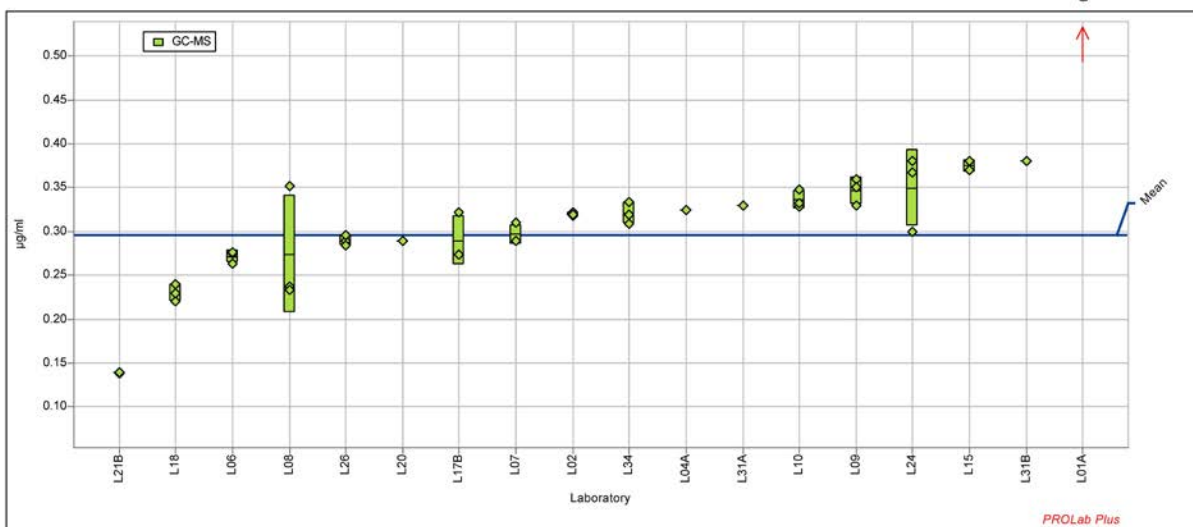
BAM Federal Institute for Materials Research and Testing

Summary results - PAH



Sample: Reference solution
 Measurand: Indeno[123cd]pyrene
 Mean: 0.297 µg/ml
 Method: ISO 5725-2
 No. of laboratories: 17

Reproducibility s.d.: 0.061 µg/ml
 Rel. reproducibility s.d.: 20.48%
 Repeatability s.d.: 0.024 µg/ml
 Rel. repeatability s.d.: 8.22%
 No. of outlier values: 3



HORIZONTAL 2013

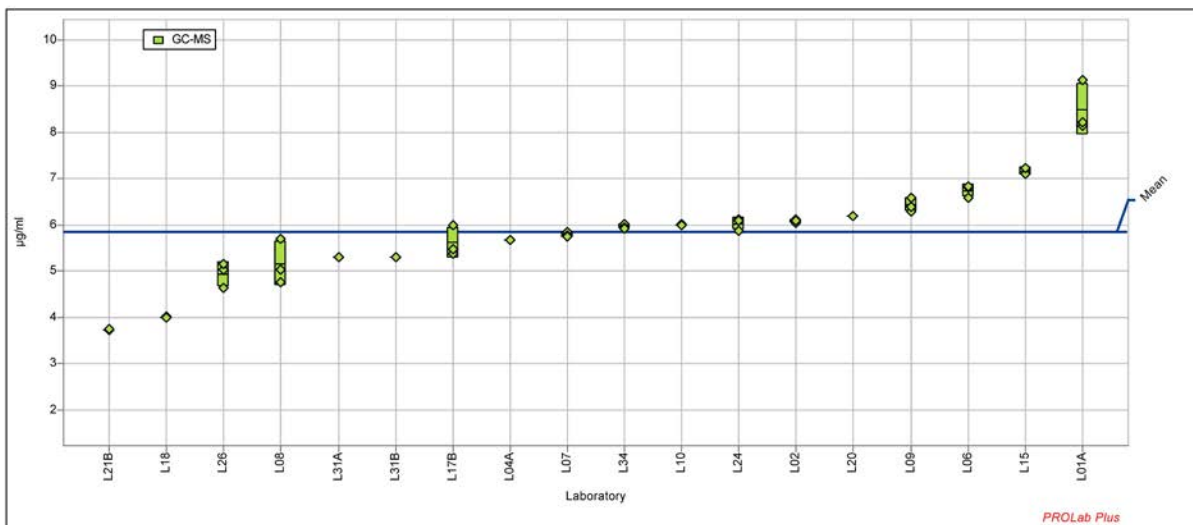
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Summary results - PAH



Sample: Reference solution
 Measurand: Sum 16 EPA PAH
 Mean: 5.835 µg/ml
 Method: ISO 5725-2
 No. of laboratories: 18

Reproducibility s.d.: 1.153 µg/ml
 Rel. reproducibility s.d.: 19.75%
 Repeatability s.d.: 0.234 µg/ml
 Rel. repeatability s.d.: 4.01%
 No. of outlier values: 0



2.3 Validation results for SO PAH

SOPAH	NAPHTHA	type of outlier	z-score	ACENYLEN	type of outlier	z-score	ACENTHEN	type of outlier	z-score	FLUOREN	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.018		-1.97	0.023		2.62	0.046		-1.64	0.209		1.05
L01B	0.039		-1.29	0.013		0.85	0.082		-0.44	0.120		-0.60
L02	0.073		-0.20	0.005		-0.74	0.096		0.03	0.149		-0.07
L03	0.045		-1.09				0.064		-1.02	0.104		-0.91
L04A	0.105		0.83	0.013		0.74	0.103		0.26	0.157		0.08
L04B	0.102		0.74	0.011		0.39	0.101		0.20	0.153		0.01
L06	0.077		-0.07	< 0.010			0.091		-0.14	0.142		-0.20
L07	0.081		0.07	0.005		-0.67	0.106		0.35	0.155		0.05
L08	0.144	C	2.08	0.012	C	0.53	0.114	C	0.61	0.360	C	3.87
L09	0.088		0.27	0.010		0.25	0.123		0.93	0.183		0.57
L10	0.120		1.29	0.003		-1.12	0.120		0.81	0.177		0.45
L11A	0.100		0.66	0.010		0.21	0.023		-2.38	0.023		-2.41
L11B	0.077		-0.09				0.117		0.71	0.260		2.00
L12	0.045		-1.12	0.003		-1.12	0.068		-0.91	0.105		-0.88
L13A	0.053		-0.86	< 0.050			0.094		-0.03	0.124		-0.53
L15	0.093		0.45	0.015		1.10	0.131		1.18	0.217		1.20
L17A	0.084		0.16	< 0.050			0.122		0.88	0.145		-0.14
L17B	0.104		0.80	0.012		0.66	0.115		0.67	0.195		0.79
L18	0.078		-0.04	< 0.010			0.096		0.03	0.150		-0.05
L20	0.163		2.69	< 0.020			0.173		2.59	0.290		2.56
L21A	0.056		-0.74				0.071		-0.81	0.133		-0.37
L21B	0.068		-0.38	0.003		-1.02	0.075		-0.66	0.115		-0.70
L24	0.100		0.66	0.046	C	7.04	0.083		-0.42	0.167		0.26
L25	0.280	C	6.44				0.117		0.71	0.125	C	-0.52
L26	0.067		-0.40	0.005		-0.74	0.092		-0.10	0.128		-0.46
L31A	0.084		0.15	0.009		-0.01	0.092		-0.12	0.133		-0.36
L31B	0.105		0.83	0.008		-0.08	0.103		0.27	0.140		-0.24
L32	0.034		-1.46	0.004		-0.97	0.057		-1.27	0.094		-1.09
L34	0.082		0.08	0.008		-0.11	0.105		0.32	0.151		-0.03
Method	ISO 5725-2			ISO 5725-2			ISO 725-2			ISO 725-2		
Z-score	$ Z \leq 2.0$			$ Z \leq 2.0$			$ Z \leq 2.0$			$ Z \leq 2.0$		
No. labs	29			25			29			29		
No. labs w/o outl.	27			18			28			27		
Mean	0.079			0.009			0.095			0.153		
SR Reprod. SD	0.031			0.005			0.030			0.054		
Sr Repeat. SD	0.009			0.001			0.008			0.015		
RSD % VR	39.25 %			59.28 %			31.68 %			35.16 %		
RSD % Vr	11.85 %			15.84 %			8.74 %			9.76 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	2			2			1			2		
No. sgl. values w/o outl.	81			53			84			81		

SOPAH	PHENANTH	type of outlier	z-score	ANTHRAC	type of outlier	z-score	FLUORANT	type of outlier	z-score	PYREN	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.609	C	1.18	0.310		0.19	0.605	C	2.06	0.334	C	1.32
L01B	0.458		-0.84	0.236		-0.68	0.423		-1.01	0.252		-0.43
L02	0.532		0.14	0.261		-0.39	0.505		0.37	0.302		0.63
L03	0.437		-1.12	0.200		-1.10	0.394		-1.50	0.258		-0.30
L04A	0.556		0.47	0.313		0.22	0.505		0.38	0.298		0.55
L04B	0.540		0.26	0.313		0.21	0.490		0.13	0.290		0.37
L06	0.499		-0.29	0.342		0.55	0.449		-0.57	0.263		-0.21
L07	0.528		0.09	0.287		-0.09	0.481		-0.03	0.285		0.27
L08	0.709	C	2.53	1.292	C	11.65	0.672	C	3.20	0.370	C	2.09
L09	0.643		1.64	0.393		1.16	0.577		1.59	0.353		1.73
L10	0.608		1.17	0.341		0.55	0.518		0.59	0.298		0.54
L11A	0.433		-1.18	0.277		-0.21	0.510		0.46	0.217		-1.19
L11B	0.567		0.61	0.387		1.08	0.510		0.46	0.270		-0.05
L12	0.443		-1.05	0.238		-0.66	0.490		0.12	0.301		0.61
L13A	0.540		0.25	0.226		-0.79	0.196	B	-4.84	0.234		-0.82
L15	0.638		1.57	0.387		1.09	0.527		0.75	0.303		0.65
L17A	0.563		0.57	0.288		-0.08	0.553		1.18	0.308		0.76
L17B	0.746	C	3.01	0.379		0.99	0.670	C	3.17	0.367	C	2.02
L18	0.553		0.43	0.540	C	2.87	0.487		0.07	0.267		-0.12
L20	1.043	B	7.01	0.470		2.05	0.910	B	7.21	0.530	B	5.51
L21A	0.532		0.14	0.259		-0.41	0.469		-0.23	0.307		0.73
L21B	0.397		-1.66	0.198		-1.13	0.355		-2.15	0.212		-1.30
L24	0.628		1.44	0.369		0.87	0.535		0.89	0.310		0.81
L25	0.290	C	-3.10	0.183		-1.30	0.430	C	-0.89	0.243		-0.62
L26	0.464		-0.76	0.212		-0.96				0.226		-1.00
L31A	0.507		-0.19	0.277		-0.21	0.463		-0.33	0.273		0.02
L31B	0.490		-0.42	0.290		-0.05	0.453		-0.50	0.270		-0.05
L32	0.410		-1.49	0.152		-1.66	0.408		-1.25	0.155		-2.51
L34	0.538		0.22	0.358		0.74	0.516		0.57	0.316		0.92
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			28			29		
No. labs w/o outl.	24			27			22			25		
Mean	0.521			0.294			0.483			0.272		
SR Reprod. SD	0.075			0.086			0.059			0.047		
Sr Repeat. SD	0.032			0.047			0.032			0.025		
RSD % VR	14.30 %			29.11 %			12.28 %			17.17 %		
RSD % Vr	6.10 %			16.11 %			6.69 %			9.19 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			2			1		
No. C outliers	4			2			4			3		
No. sgl. values w/o outl.	72			81			66			75		

SOPAH	BENZAANT	type of outlier	z-score	CHRYSEN	type of outlier	z-score	BENZBFLU	type of outlier	z-score	BENZKFLU	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.081		1.19	0.063		0.04	0.086	A	2.67	0.025		1.20
L01B	0.079		1.08	0.047		-0.74	0.042		-0.26	0.015		-0.48
L02	0.060		0.02	0.070		0.41	0.055		0.59	0.018		-0.05
L03	0.056		-0.18	0.096		1.71	0.037		-0.60	0.012		-0.91
L04A	0.064		0.24	0.075		0.66	0.060		0.92	0.020		0.37
L04B	0.059		-0.02	0.071		0.46	0.056		0.66	0.018		-0.01
L06	0.048		-0.65	0.055		-0.38	0.030		-1.09	0.015		-0.48
L07	0.058		-0.07	0.068		0.28						
L08	0.059		-0.05	0.064		0.09	0.058		0.77	0.013		-0.75
L09	0.078		1.04	0.085		1.16	0.051		0.34	0.034		2.66
L10	0.056		-0.20	0.060		-0.13	0.042		-0.28	0.015		-0.48
L11A	0.020	A	-2.24	0.060		-0.11	0.033		-0.87	0.020		0.33
L11B	0.047		-0.73	0.030		-1.61	0.037		-0.64	0.010		-1.29
L12	0.061		0.08	0.057		-0.26	0.035		-0.73	0.014		-0.64
L13A	< 0.050			< 0.050			< 0.050			< 0.050		
L15	0.061		0.10	0.079		0.86	0.040		-0.40	0.012		-0.97
L17A	0.063		0.19	0.071		0.46	0.042		-0.31	0.020		0.39
L17B	0.062		0.14	0.075		0.64	0.045		-0.08	0.031		2.18
L18	0.061		0.10	0.052		-0.53	0.039		-0.46	0.018		0.06
L20	0.110		2.85	0.107		2.22	0.080		2.27	< 0.020		
L21A	0.077		1.00	0.056		-0.29	0.036		-0.66	0.016		-0.26
L21B	0.038		-1.24	0.047		-0.75	0.029		-1.13	0.017		-0.20
L24	0.051		-0.49	0.045		-0.85	0.049		0.20	0.017		-0.08
L25	0.061		0.06	0.039		-1.16	0.380	C	22.39	0.420	C	65.31
L26	0.046		-0.77	0.065		0.14	0.034		-0.81	0.020	C	0.35
L31A	0.054		-0.32	0.063		0.06	0.053		0.48	0.019		0.23
L31B	0.056		-0.22	0.049		-0.68	0.056		0.66	< 0.020		
L32	0.025		-1.97	0.014		-2.42	0.024		-1.47	0.010		-1.23
L34	0.065		0.28	0.076		0.72	0.063		1.14	0.018		0.07
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			28			28		
No. labs w/o outl.	28			28			26			23		
Mean	0.060			0.062			0.046			0.018		
SR Reprod. SD	0.018			0.020			0.015			0.006		
Sr Repeat. SD	0.007			0.007			0.005			0.002		
RSD % VR	29.69 %			32.19 %			32.24 %			34.31 %		
RSD % Vr	11.96 %			11.62 %			11.57 %			11.28 %		
No. A outliers	1			0			1			0		
No. B outliers	0			0			0			0		
No. C outliers	0			0			1			2		
No. sgl. values w/o outl.	83			84			77			68		

SOPAH	SUMBKFLU	type of outlier	z-score	BENZAPYR	type of outlier	z-score	BENZGHIP	type of outlier	z-score	DIBENZAH	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.121	C	3.71	0.025		1.07	0.020		1.23	0.010		1.13
L01B	0.057		-0.31	0.020		-0.02	0.021		1.31	0.001		-0.93
L02	0.068		0.39	0.021		0.30	0.016		0.23	0.005		-0.06
L03	0.049		-0.81	0.015		-0.98	0.011		-0.84	0.024	C	4.45
L04A	0.080		1.14	0.022		0.41	0.017		0.40	< 0.010		
L04B	0.074		0.74	0.020		-0.01	0.014		-0.12	< 0.010		
L06	0.045		-1.09	0.017		-0.47	0.013		-0.38	< 0.010		
L07	0.066		0.23	0.018		-0.40	0.013		-0.51	0.003		-0.44
L08	0.071		0.56	0.018		-0.34	0.015		0.00	0.004		-0.21
L09	0.086		1.48	0.027		1.46	0.019		1.00	0.005		0.06
L10	0.057		-0.33	0.020		0.04	0.015		0.08	0.004		-0.14
L11A	0.053		-0.56	0.020		0.04	0.010	A	-1.15	0.010		1.21
L11B	0.047		-0.98	0.013		-1.24	0.010		-1.15			
L12	0.049		-0.81	0.021		0.30	0.022		1.54	0.002		-0.80
L13A	< 0.050			< 0.050			< 0.050			< 0.050		
L15	0.048		-0.87	0.017		-0.47	0.013		-0.38	< 0.010		
L17A	0.062		-0.01	0.028		1.52	0.014	C	-0.11	< 0.010		
L17B	0.076		0.89	0.022		0.37	0.015		0.08	< 0.010		
L18	0.058		-0.29	0.022		0.37	0.015		0.08	< 0.010		
L20	0.097		2.18	0.030	C	1.97	0.060	B	10.35	< 0.030		
L21A	0.053		-0.60	0.022		0.37	0.022		1.54	0.002		-0.77
L21B	0.046		-1.02	0.013		-1.23	0.011		-1.01	0.001		-0.83
L24	0.067		0.28	0.029		1.80	0.014		-0.20	< 0.010		
L25	0.800	C	46.58	0.017		-0.53	0.035	C	4.60	0.017		2.79
L26	0.054	C	-0.50	0.013		-1.31						
L31A	0.073		0.66	0.020		0.04	0.014		-0.15	0.004		-0.18
L31B	0.056		-0.39	< 0.020			< 0.020			0.004		-0.29
L32	0.034		-1.76	0.011		-1.70	0.005		-2.41	0.001		-0.97
L34	0.082		1.27	0.023		0.61	0.017		0.44	0.006		0.15
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			28			27		
No. labs w/o outl.	25			26			23			16		
Mean	0.062			0.020			0.015			0.005		
SR Reprod. SD	0.016			0.005			0.004			0.004		
Sr Repeat. SD	0.006			0.003			0.002			0.001		
RSD % VR	25.47 %			26.26 %			29.01 %			86.02 %		
RSD % Vr	9.74 %			14.69 %			10.71 %			14.57 %		
No. A outliers	0			0			1			0		
No. B outliers	0			0			1			0		
No. C outliers	3			1			2			1		
No. sgl. values w/o outl.	75			77			68			47		

SOPAH	IND123CD	type of outlier	z-score	16EPASUMME	type of outlier	z-score	15EPASUMME	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg		
L01A	0.018		0.33	2.491		0.36	2.466		0.33
L01B	0.013		-0.82	1.863		-0.58	1.843		-0.59
L02	0.017		0.18	2.185		-0.10	2.180		-0.09
L03	0.012		-1.05	1.767		-0.72	1.767		-0.71
L04A	0.020		0.87	2.324		0.11	2.315		0.11
L04B	0.018		0.41	2.251		0.00	2.192		-0.08
L06	0.012		-0.98	2.060		-0.28	2.060		-0.27
L07	0.015		-0.29	2.168		-0.12	2.163		-0.12
L08	0.020		0.79	3.925	C	2.49	3.913	C	2.49
L09	0.021		1.03	2.700		0.67	2.690		0.67
L10	0.011		-1.28	2.406		0.23	2.403		0.24
L11A	0.017		0.03	1.787		-0.69	1.777		-0.69
L11B	0.017		0.03	2.347		0.14	2.347		0.16
L12	0.015		-0.36	1.919		-0.49	1.916		-0.49
L13A	< 0.050			1.467		-1.17	1.467		-1.15
L15	0.011		-1.36	2.541		0.43	2.527		0.42
L17A	0.021		0.95	2.317		0.10	2.317		0.11
L17B	0.016		-0.05	2.855	C	0.90	2.855	C	0.91
L18	0.020		0.72	2.400		0.22	2.400		0.24
L20	< 0.030			4.033		2.65	4.033		2.66
L21A	0.023		1.49	2.081		-0.25	2.081		-0.24
L21B	0.036	C	4.46	1.614		-0.95	1.611		-0.94
L24	0.017		0.10	2.466		0.32	2.421		0.27
L25	1.700	C	388.45	4.333		3.09	4.326		3.10
L26				1.373		-1.30	1.368		-1.30
L31A	0.019		0.49	2.085		-0.25	2.076		-0.25
L31B	0.021		1.03	2.038		-0.32	2.030		-0.32
L32	0.009		-1.80	1.411		-1.25	1.407		-1.24
L34	0.016		-0.09	2.358		0.16	2.350		0.16
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	28			29			29		
No. labs w/o outl.	24			27			27		
Mean	0.017			2.251			2.242		
SR Reprod. SD	0.004			0.673			0.672		
Sr Repeat. SD	0.003			0.162			0.160		
RSD % VR	26.17 %			29.91 %			29.99 %		
RSD % Vr	16.10 %			7.21 %			7.16 %		
No. A outliers	0			0			0		
No. B outliers	0			0			0		
No. C outliers	2			2			2		
No. sgl. values w/o outl.	71			81			81		

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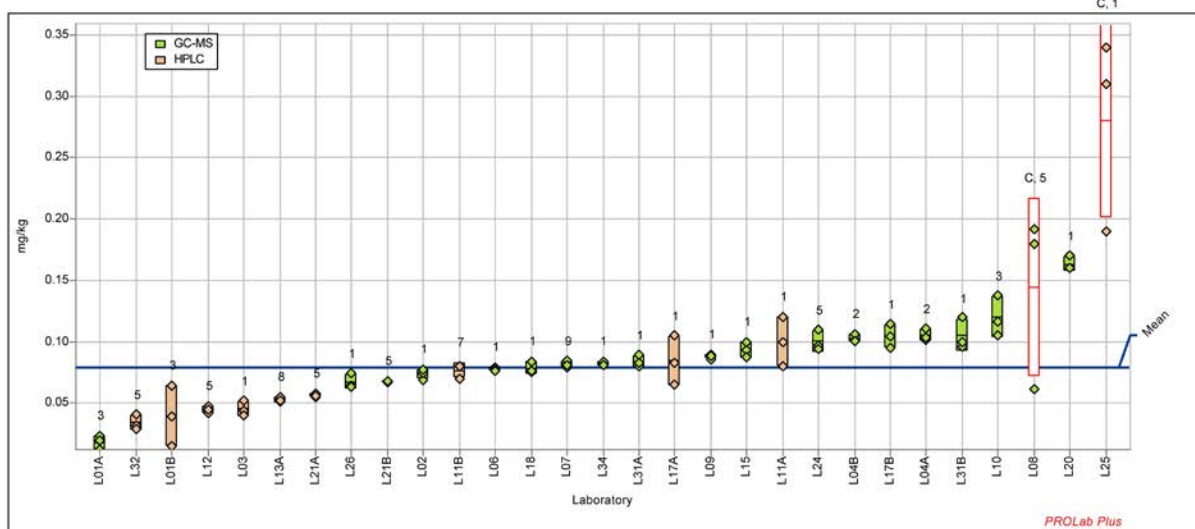
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Summary results - PAH



Sample: Soil
Measurand: Naphthalene
Mean: 0.079 mg/kg
Method: ISO 5725-2
No. of laboratories: 27

Reproducibility s.d.: 0.031 mg/kg
Rel. reproducibility s.d.: 39.25%
Repeatability s.d.: 0.009 mg/kg
Rel. repeatability s.d.: 11.85%
No. of outlier values: 6



HORIZONTAL 2013

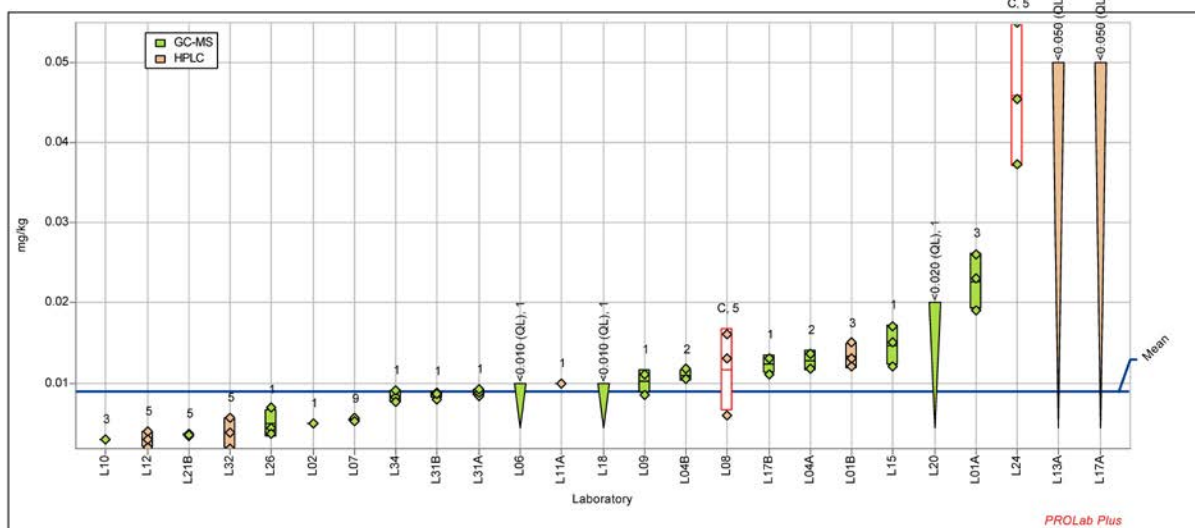
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Summary results - PAH



Sample: Soil
Measurand: Acenaphthylene
Mean: 0.009 mg/kg
Method: ISO 5725-2
No. of laboratories: 18

Reproducibility s.d.: 0.005 mg/kg
Rel. reproducibility s.d.: 59.28%
Repeatability s.d.: 0.001 mg/kg
Rel. repeatability s.d.: 15.84%
No. of outlier values: 6



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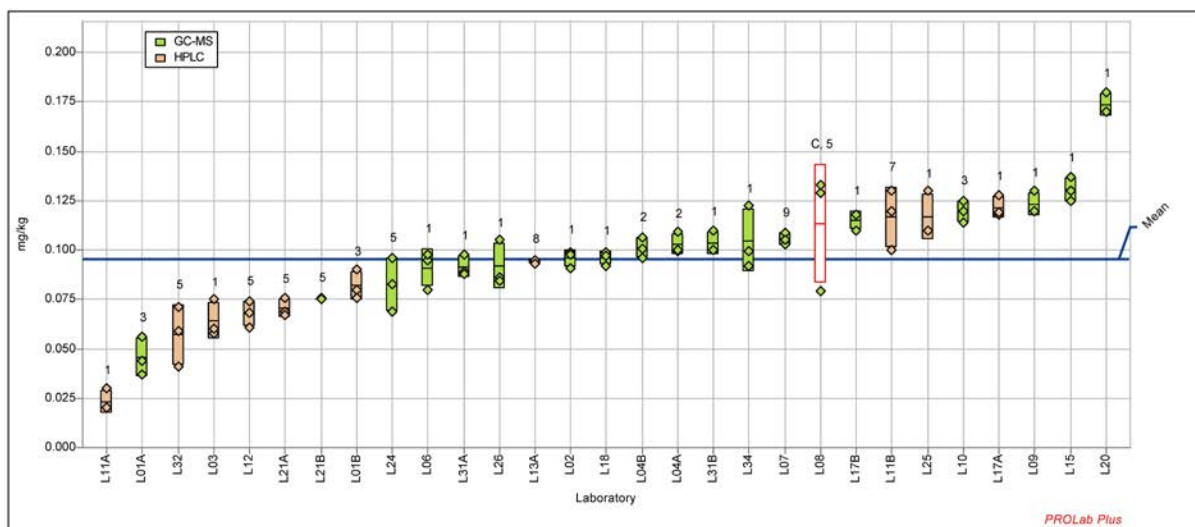
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Summary results - PAH



Sample: Soil
Measurand: Acenaphthene
Mean: 0.095 mg/kg
Method: ISO 5725-2
No. of laboratories: 28

Reproducibility s.d.: 0.030 mg/kg
Rel. reproducibility s.d.: 31.68%
Repeatability s.d.: 0.008 mg/kg
Rel. repeatability s.d.: 8.74%
No. of outlier values: 3



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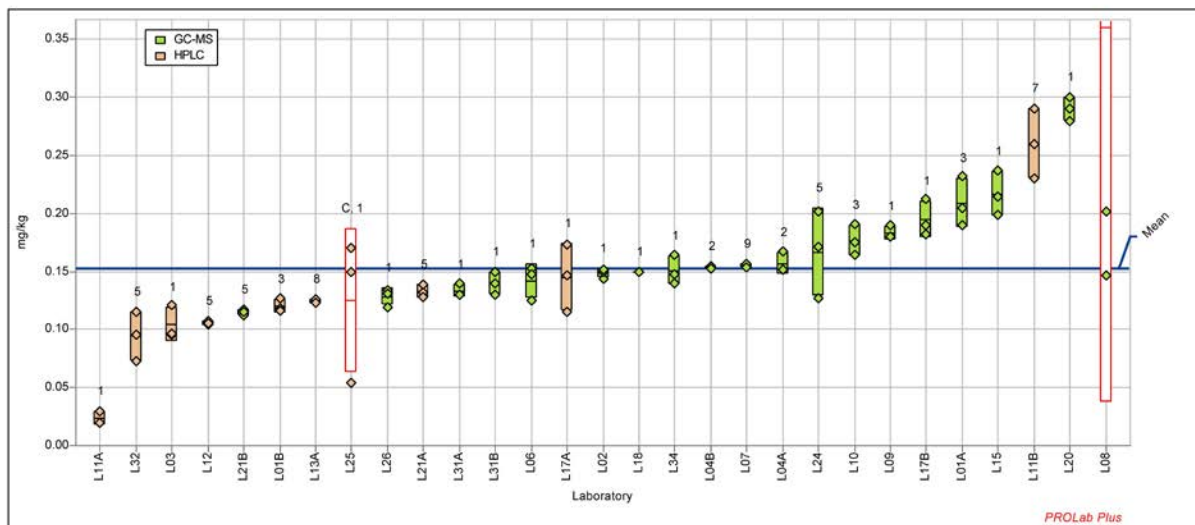
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Summary results - PAH



Sample: Soil
Measurand: Fluorene
Mean: 0.153 mg/kg
Method: ISO 5725-2
No. of laboratories: 27

Reproducibility s.d.: 0.054 mg/kg
Rel. reproducibility s.d.: 35.16%
Repeatability s.d.: 0.015 mg/kg
Rel. repeatability s.d.: 9.76%
No. of outlier values: 6



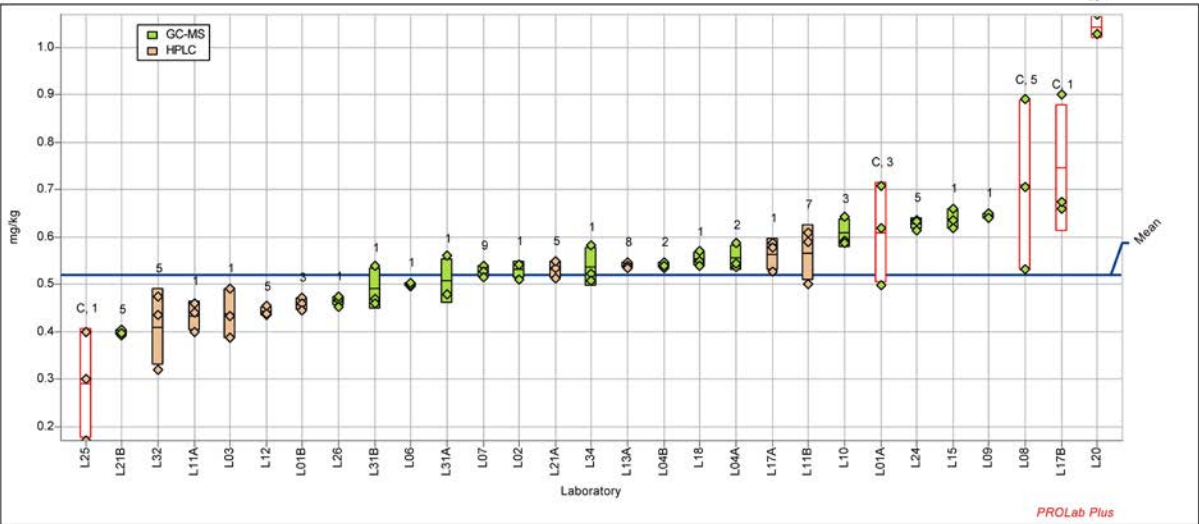
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.075 mg/kg
Measurand:	Phenanthrene	Rel. reproducibility s.d.:	14.30%
Mean:	0.521 mg/kg	Repeatability s.d.:	0.032 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.10%
No. of laboratories:	24	No. of outlier values:	15



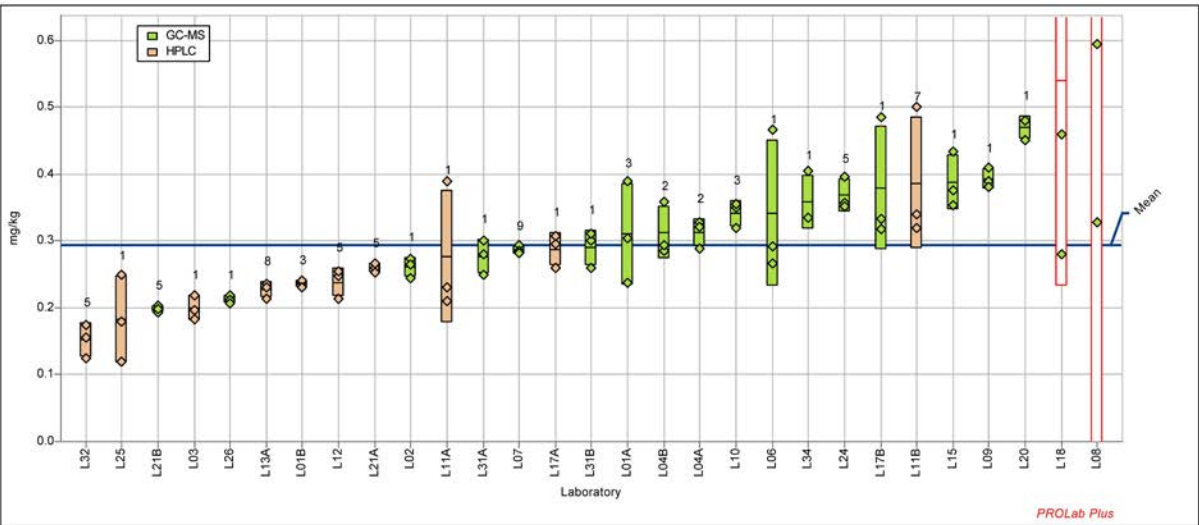
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.086 mg/kg
Measurand:	Anthracene	Rel. reproducibility s.d.:	29.11%
Mean:	0.294 mg/kg	Repeatability s.d.:	0.047 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	16.11%
No. of laboratories:	27	No. of outlier values:	6



HORIZONTAL 2013

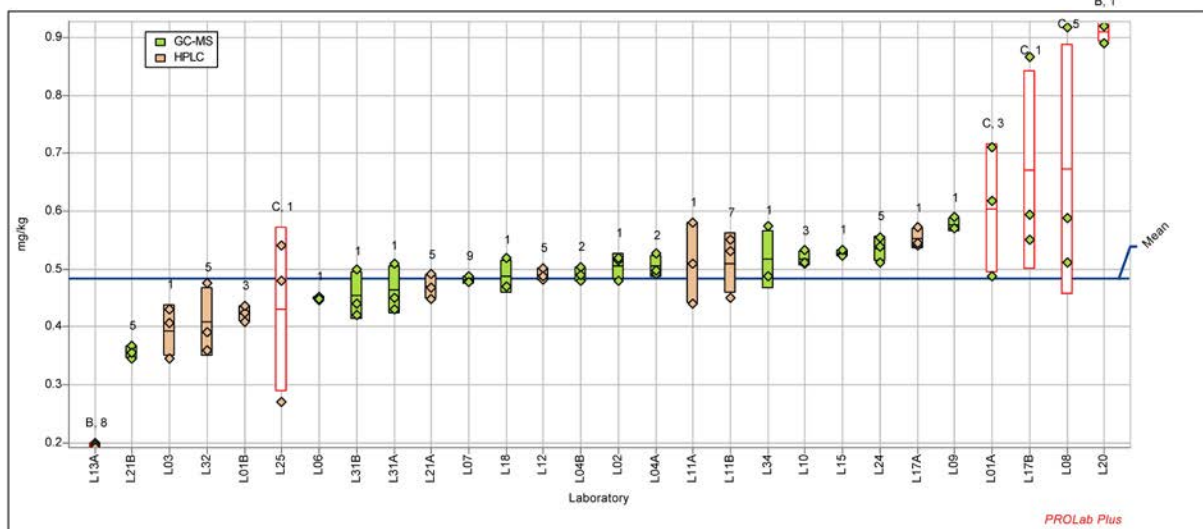
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Summary results - PAH



Sample: Soil
Measurand: Fluoranthene
Mean: 0.483 mg/kg
Method: ISO 5725-2
No. of laboratories: 22

Reproducibility s.d.: 0.059 mg/kg
Rel. reproducibility s.d.: 12.28%
Repeatability s.d.: 0.032 mg/kg
Rel. repeatability s.d.: 6.69%
No. of outlier values: 18



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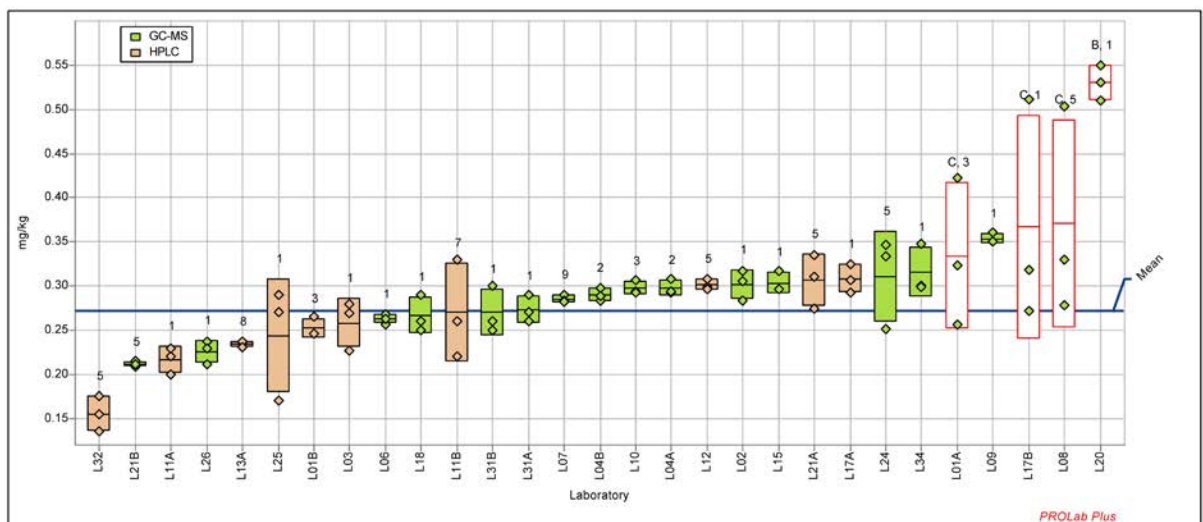
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Summary results - PAH



Sample: Soil
Measurand: Pyrene
Mean: 0.272 mg/kg
Method: ISO 5725-2
No. of laboratories: 25

Reproducibility s.d.: 0.047 mg/kg
Rel. reproducibility s.d.: 17.17%
Repeatability s.d.: 0.025 mg/kg
Rel. repeatability s.d.: 9.19%
No. of outlier values: 12



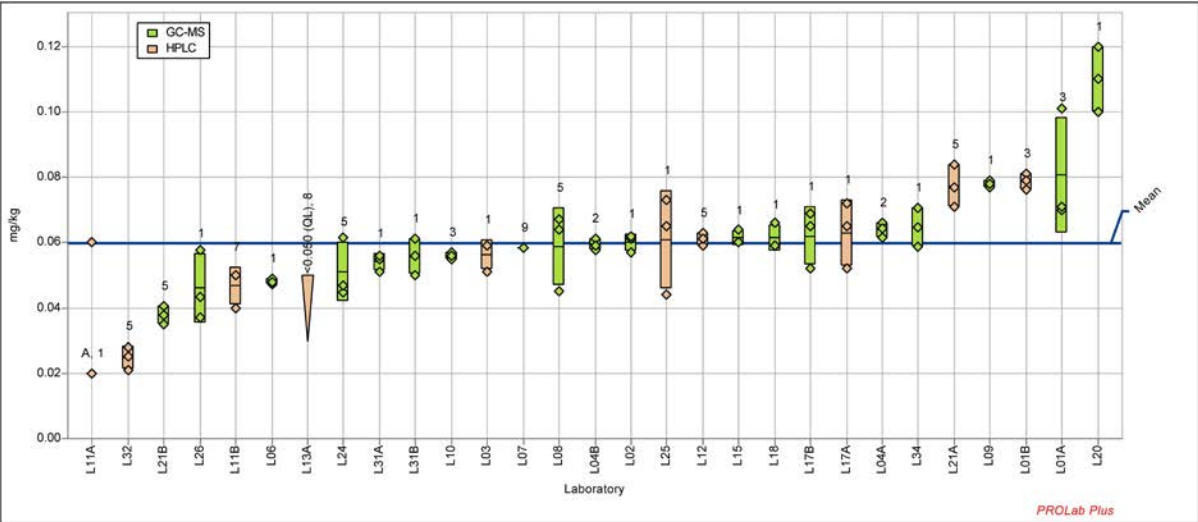
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.018 mg/kg
Measurand:	Benz[a]anthracene	Rel. reproducibility s.d.:	29.69%
Mean:	0.060 mg/kg	Repeatability s.d.:	0.007 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	11.96%
No. of laboratories:	28	No. of outlier values:	1



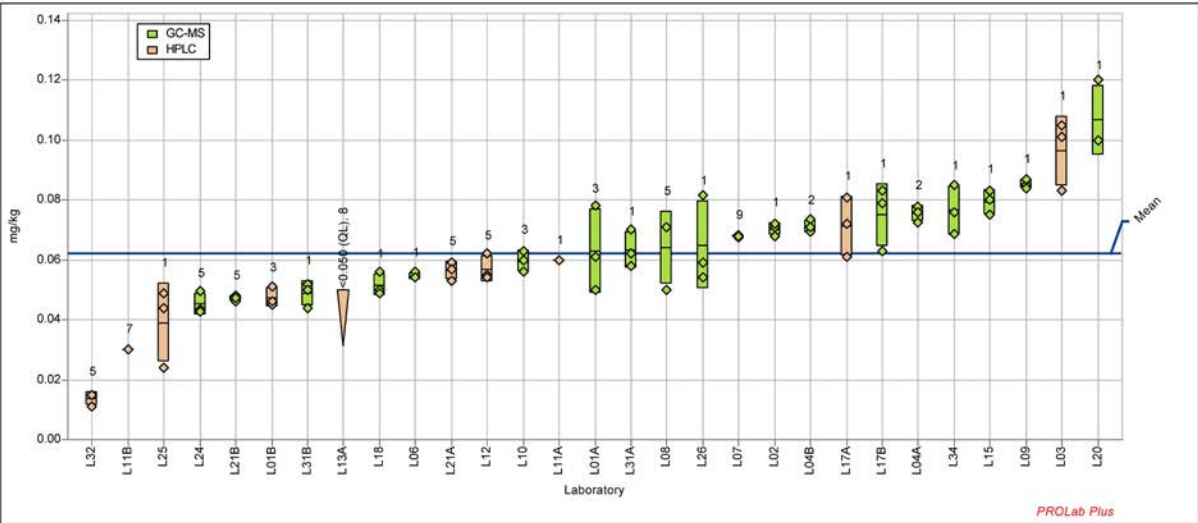
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.020 mg/kg
Measurand:	Chrysene	Rel. reproducibility s.d.:	32.19%
Mean:	0.062 mg/kg	Repeatability s.d.:	0.007 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	11.62%
No. of laboratories:	28	No. of outlier values:	0



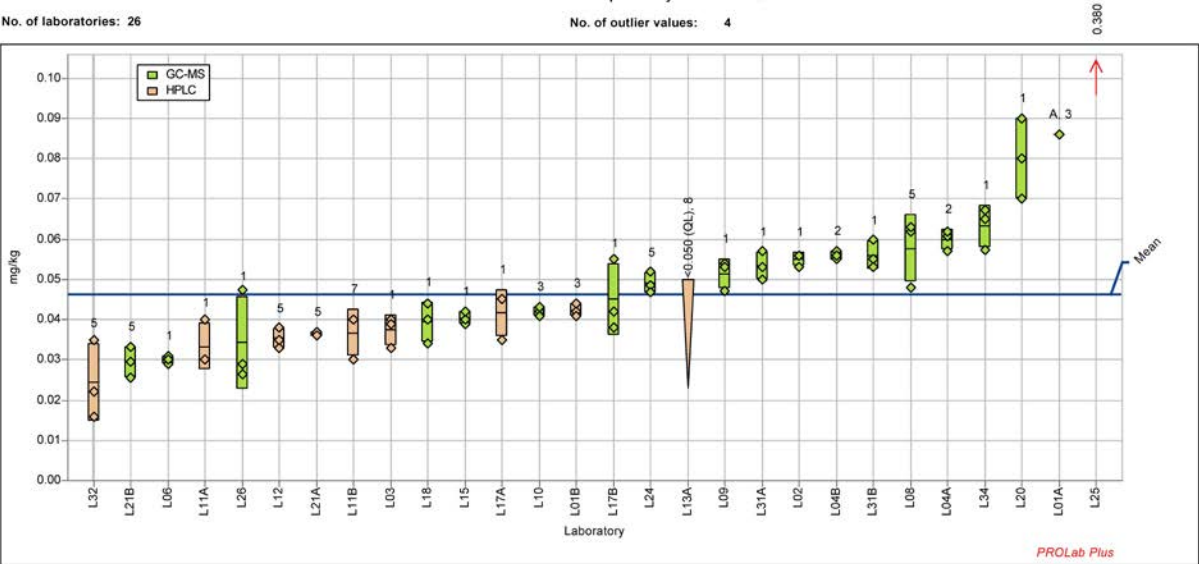
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Summary results - PAH



Sample: Soil
Reproducibility s.d.: 0.015 mg/kg
Measurand: Benzo[b]fluoranthene
Rel. reproducibility s.d.: 32.24%
Mean: 0.046 mg/kg
Repeatability s.d.: 0.005 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 11.57%
No. of laboratories: 26
No. of outlier values: 4



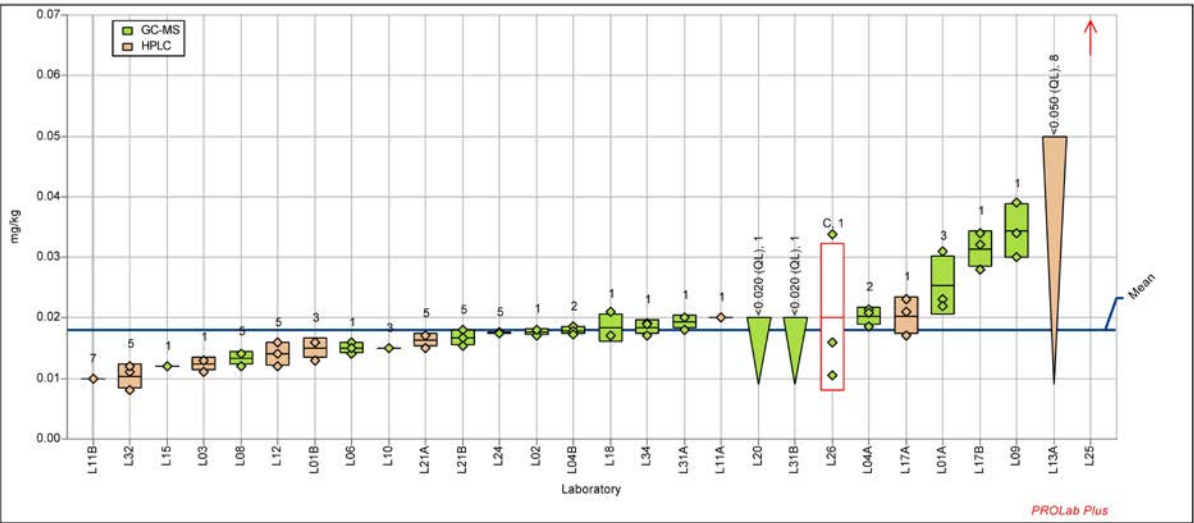
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Summary results - PAH



Sample: Soil
Reproducibility s.d.: 0.006 mg/kg
Measurand: Benzo[k]fluoranthene
Rel. reproducibility s.d.: 34.31%
Mean: 0.018 mg/kg
Repeatability s.d.: 0.002 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 11.28%
No. of laboratories: 23
No. of outlier values: 6



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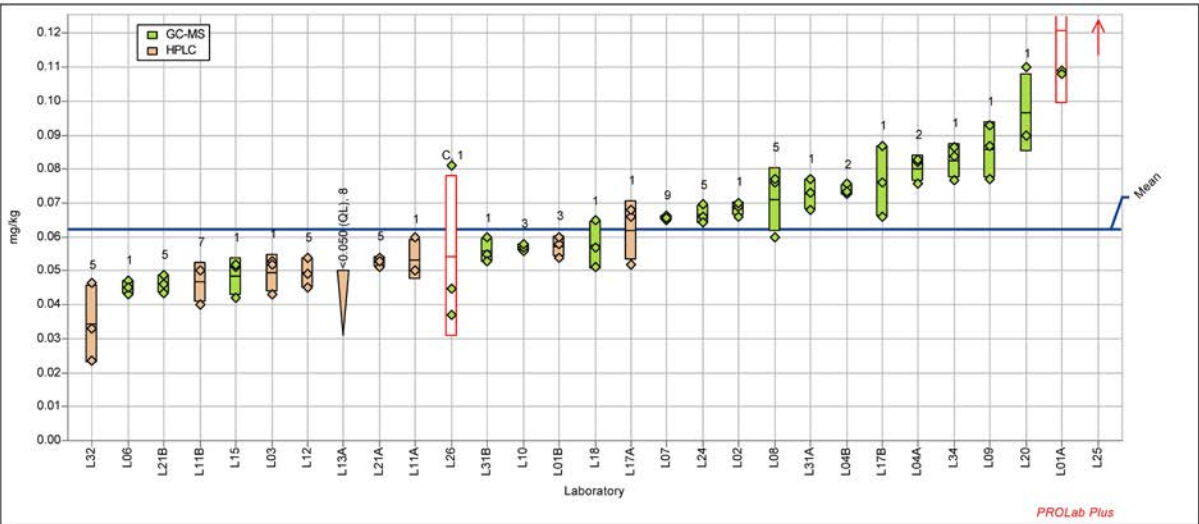
Summary results - PAH



Sample: Soil
Measurand: Sum Benzo[b+k]fluoranthene
Mean: 0.062 mg/kg
Method: ISO 5725-2
No. of laboratories: 25

Reproducibility s.d.: 0.016 mg/kg
Rel. reproducibility s.d.: 25.47%
Repeatability s.d.: 0.006 mg/kg
Rel. repeatability s.d.: 9.74%
No. of outlier values: 9

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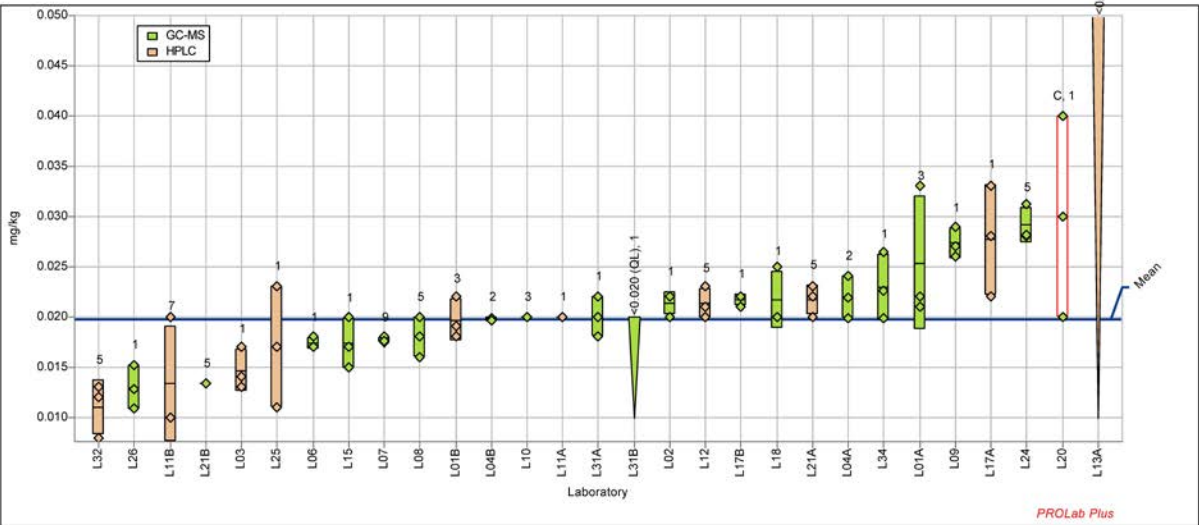
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Summary results - PAH



Sample: Soil
Measurand: Benzo[a]pyrene
Mean: 0.020 mg/kg
Method: ISO 5725-2
No. of laboratories: 26

Reproducibility s.d.: 0.005 mg/kg
Rel. reproducibility s.d.: 26.26%
Repeatability s.d.: 0.003 mg/kg
Rel. repeatability s.d.: 14.69%
No. of outlier values: 3



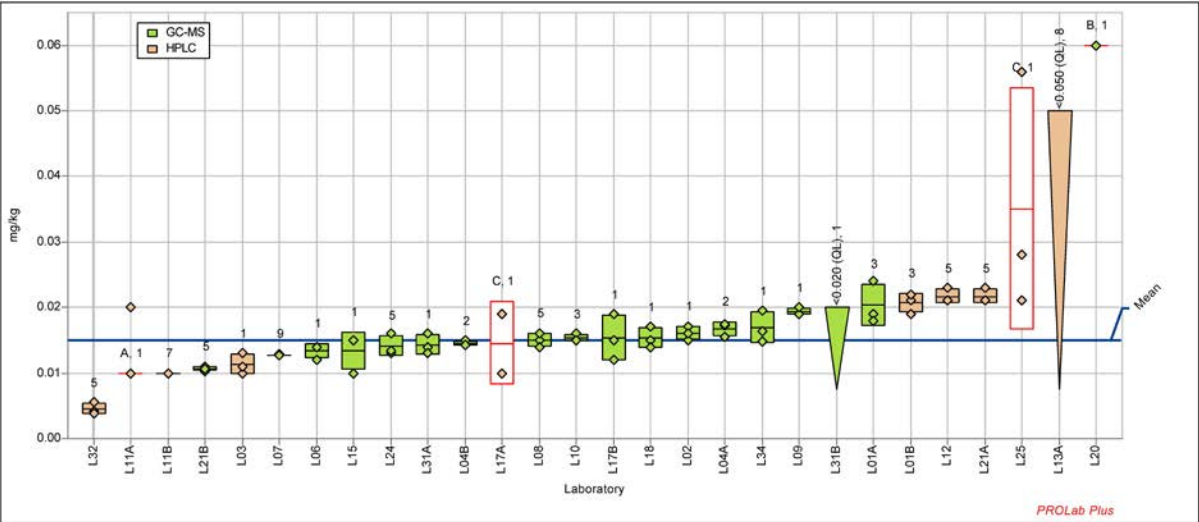
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.004 mg/kg
Measurand:	Benzo[ghi]perylene	Rel. reproducibility s.d.:	29.01%
Mean:	0.015 mg/kg	Repeatability s.d.:	0.002 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	10.71%
No. of laboratories:	23	No. of outlier values:	9



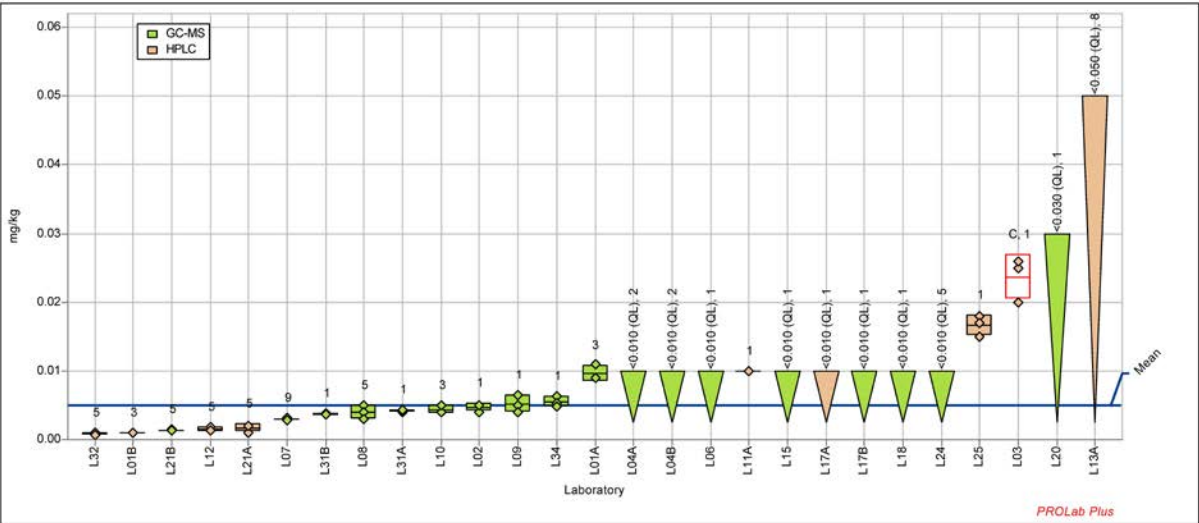
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.004 mg/kg
Measurand:	Dibenz[ah]anthracene	Rel. reproducibility s.d.:	86.02%
Mean:	0.005 mg/kg	Repeatability s.d.:	0.001 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	14.57%
No. of laboratories:	16	No. of outlier values:	3



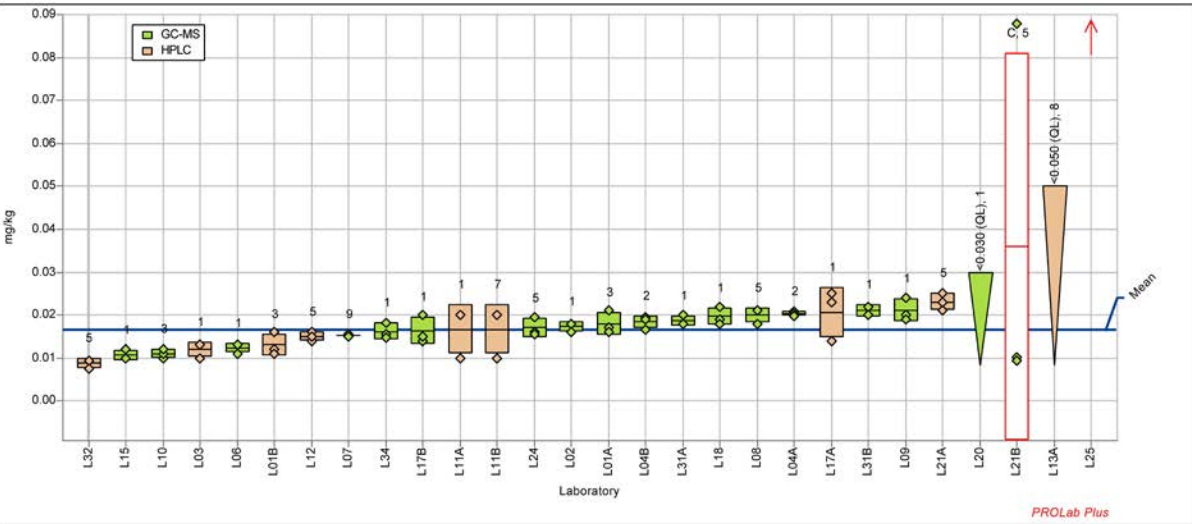
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.004 mg/kg
Measurand:	Indeno[123cd]pyrene	Rel. reproducibility s.d.:	26.17%
Mean:	0.017 mg/kg	Repeatability s.d.:	0.003 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	16.10%
No. of laboratories:	24	No. of outlier values:	6



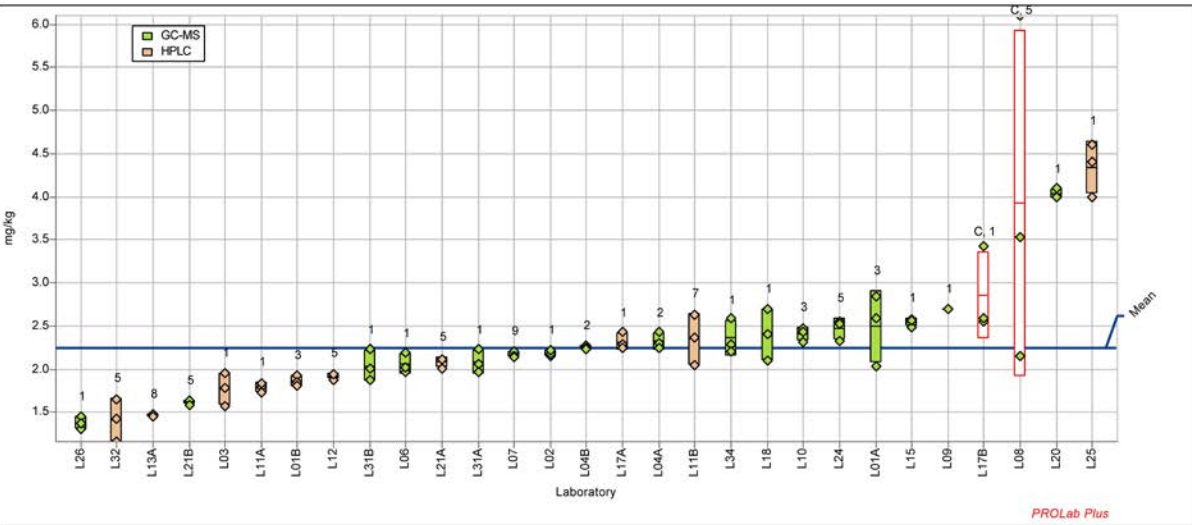
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.673 mg/kg
Measurand:	Sum 16 EPA PAH	Rel. reproducibility s.d.:	29.91%
Mean:	2.251 mg/kg	Repeatability s.d.:	0.162 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.21%
No. of laboratories:	27	No. of outlier values:	6



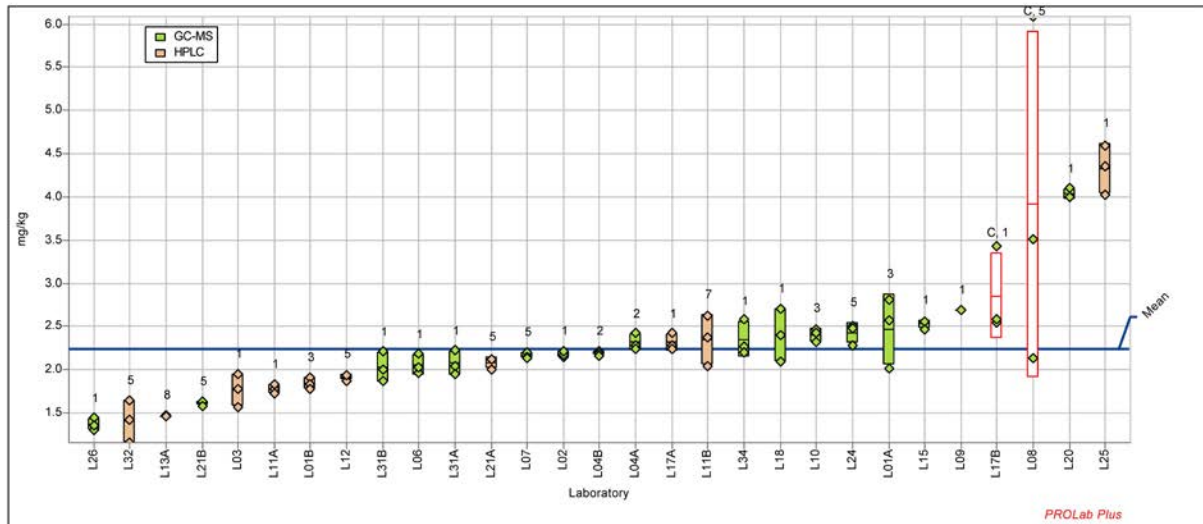
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Summary results - PAH



Sample:	Soil	Reproducibility s.d.:	0.672 mg/kg
Measurand:	Sum 15 EPA PAH (excl. Acenaphthylene)	Rel. reproducibility s.d.:	29.99%
Mean:	2.242 mg/kg	Repeatability s.d.:	0.160 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.16%
No. of laboratories:	27	No. of outlier values:	6



2.4 Validation results for CO PAH

COPAH	NAPHTHA	type of outlier	z-score	ACENYLEN	type of outlier	z-score	ACENTHEN	type of outlier	z-score	FLUOREN	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.018		-1.63	0.018		-0.18	0.015		-0.94	0.045		-0.33
L01B	< 0.080			0.216	CE	23.61	0.030		0.50	0.054		0.14
L02	0.034		-0.68	0.026		0.78	0.019		-0.58	0.038		-0.67
L03	0.051		0.39				0.050	E	2.51	0.084	C	1.68
L04A	0.067		1.33	0.030		1.23	0.030		0.51	0.056		0.24
L04B	0.067		1.36	0.029		1.06	0.030		0.51	0.053		0.08
L06	0.041		-0.22	< 0.010			0.020		-0.42	0.049		-0.10
L07	0.038		-0.39	0.016		-0.46	0.020		-0.46	0.044		-0.36
L08	0.046		0.04	0.020		-0.04	0.025		0.08	0.057		0.29
L09	0.054		0.53	0.014		-0.67	0.036		1.13	0.072		1.07
L10	0.080	E	2.14	0.026		0.74	0.039		1.39	0.109	E	2.94
L11A	0.210	CE	9.98	0.087	CE	8.06	0.020	A	-0.45	0.083	C	1.63
L11B	0.040		-0.30				0.040		1.52	0.030		-1.07
L12	0.014		-1.87	0.004		-1.95	0.013		-1.14	0.026		-1.26
L13A	< 0.100			< 0.100			< 0.100			< 0.100		
L15	0.049		0.23	0.030		1.18	0.023		-0.19	0.081		1.49
L17A	0.060		0.93	< 0.050			< 0.050			< 0.050		
L17B	0.056		0.65	0.026		0.74	0.029		0.44	0.059		0.41
L18	0.064		1.17	< 0.020			0.026		0.11	0.054		0.12
L20	0.040		-0.30	< 0.020			0.020		-0.45	0.050		-0.06
L21A	0.041		-0.24				0.005		-1.90	0.029		-1.13
L21B	0.033		-0.73	0.012		-0.94	0.012		-1.21	0.039		-0.63
L24	0.056		0.69	0.021		0.13	0.026		0.18	0.073		1.08
L25	0.757	CE	43.01				0.084	BE	5.89	0.130	CE	4.01
L26	0.038		-0.39	0.050	CE	3.65	0.033	C	0.82	0.052	C	0.03
L31A	0.041		-0.24	0.022		0.30	0.023		-0.12	0.044		-0.37
L31B	0.024		-1.27	0.017		-0.30	0.025		0.08	0.046		-0.25
L32	0.023		-1.33	0.005		-1.80	0.012		-1.27	0.019		-1.63
L34	0.047		0.12	0.021		0.16	0.025		0.06	0.051		-0.02
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
Z-score	$ Z \leq 2.0$			$ Z \leq 2.0$			$ Z \leq 2.0$			$ Z \leq 2.0$		
No. labs	29			25			29			29		
No. labs w/o outl.	25			17			25			23		
Mean	0.045			0.020			0.025			0.051		
SR Reprod. SD	0.017			0.008			0.010			0.020		
Sr Repeat. SD	0.004			0.003			0.002			0.004		
RSD % VR	36.82 %			41.77 %			41.26 %			38.56 %		
RSD % Vr	9.30 %			13.46 %			9.65 %			7.04 %		
No. A outliers	0			0			1			0		
No. B outliers	0			0			1			0		
No. C outliers	2			3			1			4		
No. sgl. values w/o outl.	75			50			74			69		

COPAH	PHENANTH	type of outlier	z-score	ANTHRAC	type of outlier	z-score	FLUORANT	type of outlier	z-score	PYREN	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.285		0.03	0.062		0.87	0.598		0.61	0.413		0.34
L01B	0.367		0.91	0.069		1.22	0.613		0.73	0.480		0.97
L02	0.251		-0.33	0.040		-0.30	0.538		0.11	0.425		0.45
L03	0.228		-0.57	0.020		-1.37	0.311		-1.77	0.239		-1.30
L04A	0.288		0.07	0.059		0.69	0.556		0.26	0.430		0.50
L04B	0.286		0.05	0.054		0.47	0.552		0.23	0.428		0.48
L06	0.293		0.12	0.045		-0.05	0.555		0.25	0.417		0.38
L07	0.250		-0.33	0.040		-0.28	0.525		0.00	0.394		0.16
L08	0.333		0.54	0.054	C	0.44	0.595		0.58	0.412		0.33
L09	0.440		1.67	0.073		1.46	0.817	E	2.42	0.637	E	2.45
L10	0.435		1.62	0.065		1.02	0.706		1.50	0.538		1.52
L11A	0.190		-0.97	0.030		-0.82	0.490		-0.29	0.180	A	-1.86
L11B	0.073	E	-2.20	0.023		-1.18	0.397		-1.06	0.240		-1.29
L12	0.190		-0.97	0.012		-1.77	0.419		-0.88	0.330		-0.44
L13A	0.266		-0.16	< 0.050			0.290		-1.95	0.296		-0.77
L15	0.486	E	2.16	0.080		1.80	0.592		0.56	0.409		0.30
L17A	0.213		-0.72	0.039		-0.35	0.470		-0.46	0.347		-0.28
L17B	0.328		0.49	0.066		1.08	0.605		0.67	0.450		0.69
L18	0.347		0.69	0.055		0.48	0.583		0.49	0.427		0.47
L20	0.320		0.41	0.040		-0.30	0.557		0.27	0.427		0.47
L21A	0.201		-0.86	0.030		-0.82	0.396		-1.07	0.411		0.32
L21B	0.170		-1.18	0.025		-1.06	0.343		-1.51	0.272		-0.99
L24	0.410		1.36	0.058		0.64	0.652		1.05	0.495	C	1.11
L25	1.400	CE	11.82	0.113	CE	3.58	0.617		0.76	0.243		-1.26
L26	0.305		0.25	0.052		0.34	0.422		-0.85	0.335		-0.40
L31A	0.247		-0.37	0.045		-0.05	0.480		-0.37	0.363		-0.13
L31B	0.257		-0.26	0.037		-0.44	0.463		-0.51	0.367		-0.10
L32	0.140		-1.50	0.013		-1.73	0.292	C	-1.93	0.148	E	-2.16
L34	0.288		0.07	0.054		0.47	0.554		0.24	0.432		0.52
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			29			29		
No. labs w/o outl.	28			26			28			28		
Mean	0.282			0.046			0.525			0.377		
SR Reprod. SD	0.095			0.019			0.121			0.106		
Sr Repeat. SD	0.018			0.005			0.028			0.026		
RSD % VR	33.61 %			41.53 %			22.96 %			28.17 %		
RSD % Vr	6.25 %			10.48 %			5.24 %			6.98 %		
No. A outliers	0			0			0			1		
No. B outliers	0			0			0			0		
No. C outliers	1			2			1			1		
No. sgl. values w/o outl.	84			78			84			83		

COPAH	BENZAANT	type of outlier	z-score	CHRYSEN	type of outlier	z-score	BENZBFLU	type of outlier	z-score	BENZKFLU	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.323		1.71	0.286		0.52	0.580	E	2.49	0.136		0.55
L01B	0.246		0.39	0.200		-0.61	0.177		-0.87	0.098		-0.48
L02	0.245		0.38	0.296		0.66	0.362		0.67	0.124		0.24
L03	0.128		-1.60	0.322	C	1.01	0.151		-1.09	0.061		-1.48
L04A	0.232		0.17	0.298		0.68	0.358		0.64	0.123		0.22
L04B	0.231		0.14	0.296		0.66	0.358		0.64	0.122		0.19
L06	0.213		-0.16	0.251		0.06	0.217		-0.53	0.108		-0.19
L07	0.237		0.25	0.270		0.31						
L08	0.308		1.46	0.267		0.28	0.319		0.32	0.105		-0.27
L09	0.340		1.99	0.447	E	2.65	0.303		0.18	0.287	BE	4.65
L10	0.273		0.86	0.313		0.88	0.272		-0.08	0.145		0.81
L11A	0.127	C	-1.63	0.113		-1.76	0.160		-1.01	0.050		-1.77
L11B	0.107		-1.97	0.057	E	-2.51	0.107		-1.46	0.057		-1.59
L12	0.179		-0.74	0.184		-0.82	0.187		-0.79	0.097		-0.49
L13A	< 0.100			< 0.100			0.149		-1.11	0.096		-0.52
L15	0.279		0.96	0.286		0.52	0.279		-0.02	0.108		-0.19
L17A	0.179		-0.75	0.258		0.15	0.170		-0.93	0.107		-0.24
L17B	0.269	C	0.79	0.297		0.67	0.249		-0.27	0.199	E	2.28
L18	0.247		0.41	0.260		0.18	0.247		-0.29	0.147		0.85
L20	0.217		-0.10	0.260		0.18	0.367		0.71	0.153		1.03
L21A	0.241		0.32	0.240		-0.08	0.206		-0.63	0.108		-0.21
L21B	0.170		-0.90	0.182		-0.85	0.325		0.36	0.077		-1.05
L24	0.241	C	0.31	0.226		-0.27	0.266		-0.13	0.161		1.25
L25	0.180		-0.72	0.177		-0.92	0.620	E	2.83	1.240	CE	30.52
L26	0.171		-0.87	0.205		-0.54	0.244		-0.31	0.173		1.56
L31A	0.180		-0.72	0.240		-0.09	0.267		-0.12	0.110		-0.15
L31B	0.173		-0.84	0.187		-0.79	0.290		0.07	0.097		-0.50
L32	0.080	CE	-2.42	0.074	CE	-2.28	0.100	C	-1.51	0.049	C	-1.79
L34	0.241		0.32	0.311		0.85	0.368		0.72	0.120		0.13
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			28			28		
No. labs w/o outl.	24			26			27			25		
Mean	0.223			0.246			0.281			0.115		
SR Reprod. SD	0.059			0.076			0.120			0.037		
Sr Repeat. SD	0.013			0.017			0.020			0.012		
RSD % VR	26.47 %			30.65 %			42.61 %			31.96 %		
RSD % Vr	5.66 %			6.83 %			7.12 %			10.29 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			1		
No. C outliers	4			2			1			2		
No. sgl. values w/o outl.	72			78			81			75		

COPAH	SUMBKFLU	type of outlier	z-score	BENZAPYR	type of outlier	z-score	BENZGHIP	type of outlier	z-score	DIBENZA	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.715	E	2.60	0.380	E	2.71	0.213		1.18	0.083		1.39
L01B	0.274		-0.95	0.182		-0.14	0.188		0.69	< 0.080		
L02	0.486		0.75	0.214		0.31	0.168		0.29	0.040		-0.15
L03	0.212		-1.45	0.100		-1.34	0.082		-1.45	0.126	CE	2.94
L04A	0.481		0.71	0.235		0.62	0.154		0.01	0.037		-0.24
L04B	0.480		0.71	0.233		0.59	0.156		0.05	0.037		-0.27
L06	0.326		-0.54	0.194		0.02	0.166		0.25	0.039		-0.18
L07	0.455		0.51	0.276		1.21	0.102		-1.03	0.024		-0.71
L08	0.425		0.26	0.229		0.53	0.176		0.45	0.053		0.33
L09	0.583		1.54	0.287		1.36	0.210		1.13	0.053		0.33
L10	0.417		0.20	0.236		0.64	0.192		0.77	0.045		0.02
L11A	0.210		-1.46	0.087		-1.52	0.070		-1.68	0.010		-1.23
L11B	0.163		-1.84	0.073		-1.72	0.050	E	-2.08	0.010		-1.23
L12	0.284		-0.87	0.181		-0.16	0.193		0.79	0.018		-0.94
L13A	0.245		-1.18	0.153		-0.57	< 0.100			< 0.100		
L15	0.387		-0.04	0.224	C	0.45	0.192		0.76	0.055		0.41
L17A	0.276		-0.93	0.170		-0.33	0.080		-1.49	0.034		-0.35
L17B	0.448		0.45	0.210		0.25	0.135		-0.38	0.053		0.33
L18	0.393		0.01	0.237		0.64	0.190		0.73	0.056		0.44
L20	0.517		1.00	0.210		0.26	0.177		0.46	0.117	E	2.61
L21A	0.314		-0.63	0.189		-0.05	0.175		0.42	0.033		-0.40
L21B	0.401		0.07	0.134		-0.84	0.107		-0.94	0.032		-0.44
L24	0.427		0.28	0.267		1.08	0.163		0.19	0.050		0.21
L25	1.860	CE	11.80	0.110		-1.19	0.240		1.73	0.110	E	2.37
L26	0.417		0.20	0.113		-1.14	0.053	CE	-2.01	0.049	C	0.18
L31A	0.377		-0.13	0.153		-0.56	0.130		-0.48	0.034		-0.35
L31B	0.387		-0.04	0.143		-0.71	0.137		-0.34	0.028		-0.59
L32	0.150	C	-1.95	0.080	C	-1.63	0.048	CE	-2.12	0.005		-1.40
L34	0.488		0.77	0.195		0.03	< 0.200			< 0.050		
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			29			29		
No. labs w/o outl.	27			27			25			24		
Mean	0.392			0.192			0.154			0.044		
SR Reprod. SD	0.124			0.069			0.050			0.028		
Sr Repeat. SD	0.027			0.011			0.012			0.004		
RSD % VR	31.73 %			36.06 %			32.43 %			63.08 %		
RSD % Vr	6.78 %			5.53 %			7.68 %			10.21 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	2			2			2			2		
No. sgl. values w/o outl.	81			81			75			72		

COPAH	IND123CD	type of outlier	z-score	16EPASUMME	type of outlier	z-score	15EPASUMME	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg		
L01A	0.193		0.97	3.646		1.14	3.628		1.17
L01B	1.299	CE	26.15	4.218		1.91	4.002		1.69
L02	0.178		0.63	3.007		0.27	2.980		0.28
L03	0.073		-1.77	2.023		-1.06	2.023		-1.05
L04A	0.171		0.48	3.124		0.43	3.094		0.43
L04B	0.178		0.63	3.111		0.41	3.082		0.42
L06	0.142		-0.20	2.758		-0.07	2.758		-0.03
L07	0.147		-0.08	2.839		0.04	2.823		0.06
L08	0.235		1.94	3.229		0.57	3.216		0.60
L09	0.200		1.13	4.267		1.98	4.252	E	2.04
L10	0.171		0.48	3.645		1.14	3.619		1.16
L11A	0.060	E	-2.06	2.050		-1.03	1.963		-1.13
L11B	0.160		0.22	1.473		-1.81	1.470		-1.82
L12	0.119		-0.72	2.167		-0.87	2.163		-0.86
L13A	0.103		-1.07	1.353		-1.97	1.353		-1.98
L15	0.170		0.45	3.342		0.73	3.312		0.73
L17A	0.090		-1.37	2.216		-0.80	2.216		-0.78
L17B	0.161		0.25	3.192		0.52	3.166		0.53
L18	0.193		0.98	3.133		0.44	3.133		0.49
L20	0.143		-0.16	3.100		0.40	3.107		0.45
L21A	0.195		1.03	2.500		-0.42	2.500		-0.39
L21B	0.118		-0.74	2.050		-1.03	2.038		-1.03
L24	0.180		0.67	3.347		0.73	3.326		0.75
L25	1.500	CE	30.73	7.100	BE	5.82	6.948	CE	5.77
L26	0.113		-0.84	2.351		-0.62	2.301		-0.67
L31A	0.130		-0.46	2.510		-0.40	2.487		-0.41
L31B	0.133		-0.39	2.425		-0.52	2.408		-0.52
L32	0.054	CE	-2.19	1.140	CE	-2.26	1.135	CE	-2.28
L34	< 0.200			2.708		-0.13	2.686		-0.13
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			29		
No. labs w/o outl.	25			27			27		
Mean	0.150			2.807			2.782		
SR Reprod. SD	0.044			0.738			0.723		
Sr Repeat. SD	0.013			0.140			0.138		
RSD % VR	29.22 %			26.29 %			25.98 %		
RSD % Vr	8.77 %			4.98 %			4.96 %		
No. A outliers	0			0			0		
No. B outliers	0			1			0		
No. C outliers	3			1			2		
No. sgl. values w/o outl.	75			81			81		

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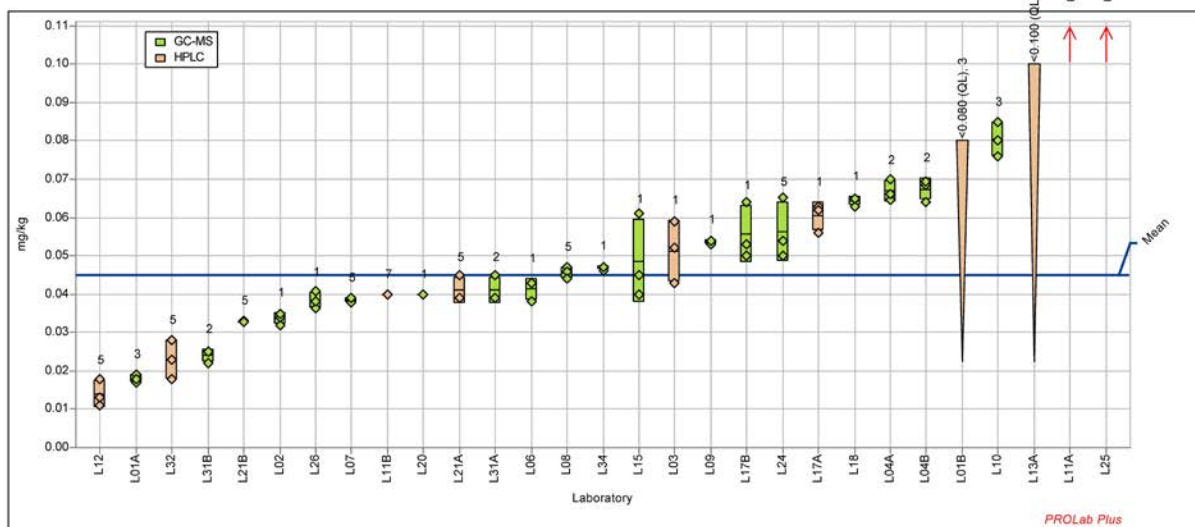
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Summary results - PAH



Sample: Treated biowaste (compost)
Measurand: Naphthalene
Mean: 0.045 mg/kg
Method: ISO 5725-2
No. of laboratories: 25

Reproducibility s.d.: 0.017 mg/kg
Rel. reproducibility s.d.: 36.82%
Repeatability s.d.: 0.004 mg/kg
Rel. repeatability s.d.: 9.30%
No. of outlier values: 6



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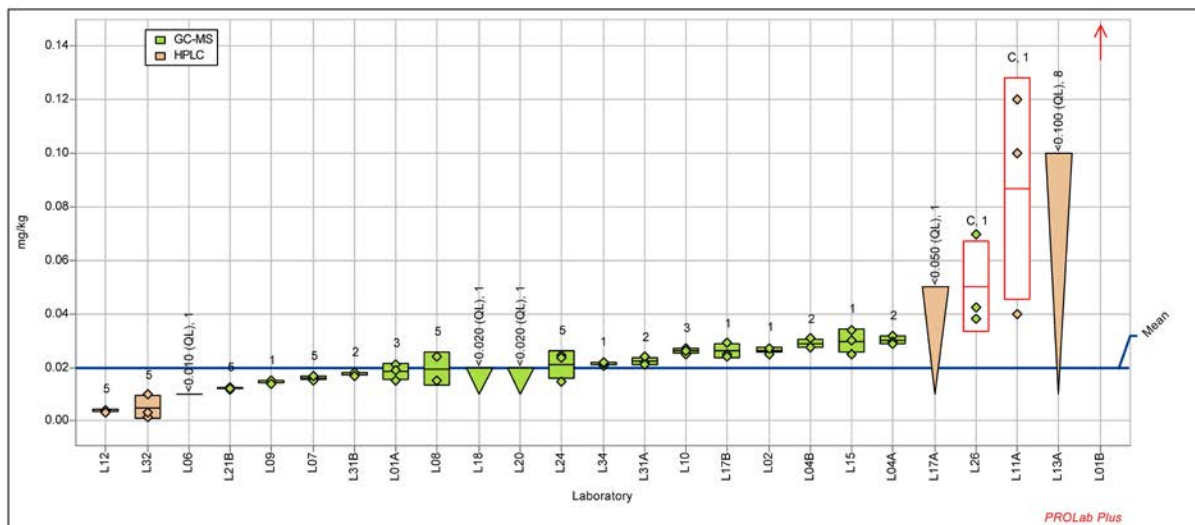
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Summary results - PAH



Sample: Treated biowaste (compost)
Measurand: Acenaphthylene
Mean: 0.020 mg/kg
Method: ISO 5725-2
No. of laboratories: 17

Reproducibility s.d.: 0.008 mg/kg
Rel. reproducibility s.d.: 41.77%
Repeatability s.d.: 0.003 mg/kg
Rel. repeatability s.d.: 13.46%
No. of outlier values: 9



Reproducibility s.d.: 0.010 mg/kg

Rel. reproducibility s.d.: 41.26%

Repeatability s.d.: 0.002 mg/kg

Rel. repeatability s.d.: 9.65%

No. of outlier values: 7



Reproducibility s.d.: 0.020 mg/kg

Rel. reproducibility s.d.: 38.56%

Repeatability s.d.: 0.004 mg/kg

Rel. repeatability s.d.: 7.04%

No. of outlier values: 12



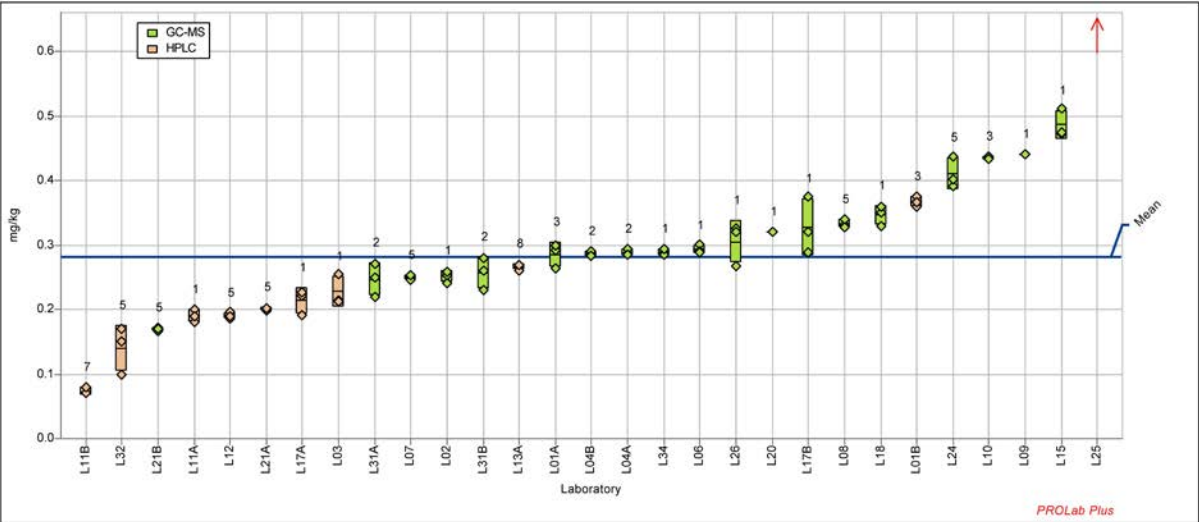
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Summary results - PAH



Sample: Treated biowaste (compost)
Reproducibility s.d.: 0.095 mg/kg
Measurand: Phenanthrene
Rel. reproducibility s.d.: 33.61%
Mean: 0.282 mg/kg
Repeatability s.d.: 0.018 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 6.25%
No. of laboratories: 28
No. of outlier values: 3



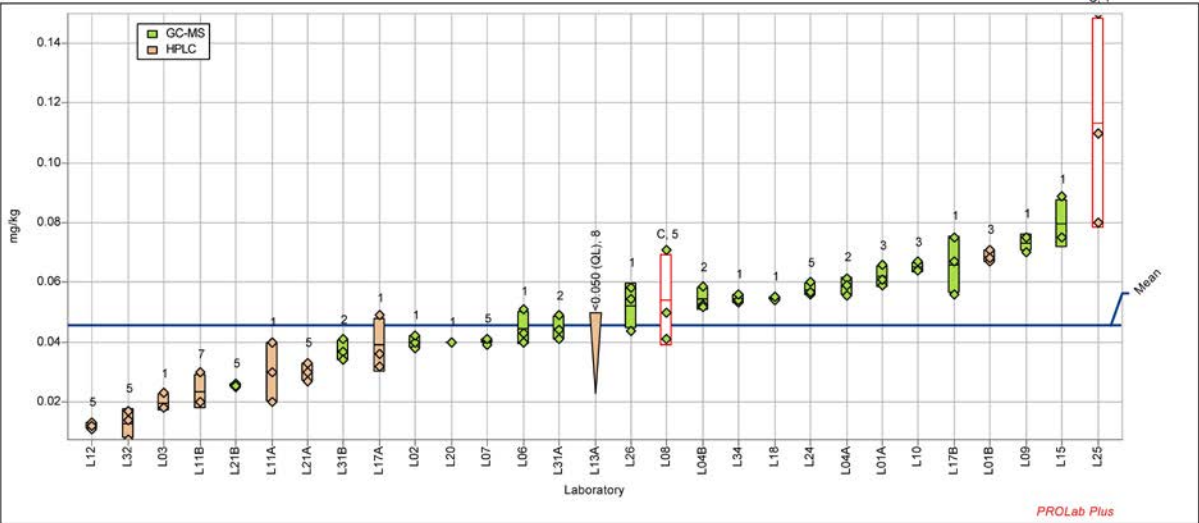
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Summary results - PAH



Sample: Treated biowaste (compost)
Reproducibility s.d.: 0.019 mg/kg
Measurand: Anthracene
Rel. reproducibility s.d.: 41.53%
Mean: 0.046 mg/kg
Repeatability s.d.: 0.005 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 10.48%
No. of laboratories: 26
No. of outlier values: 6



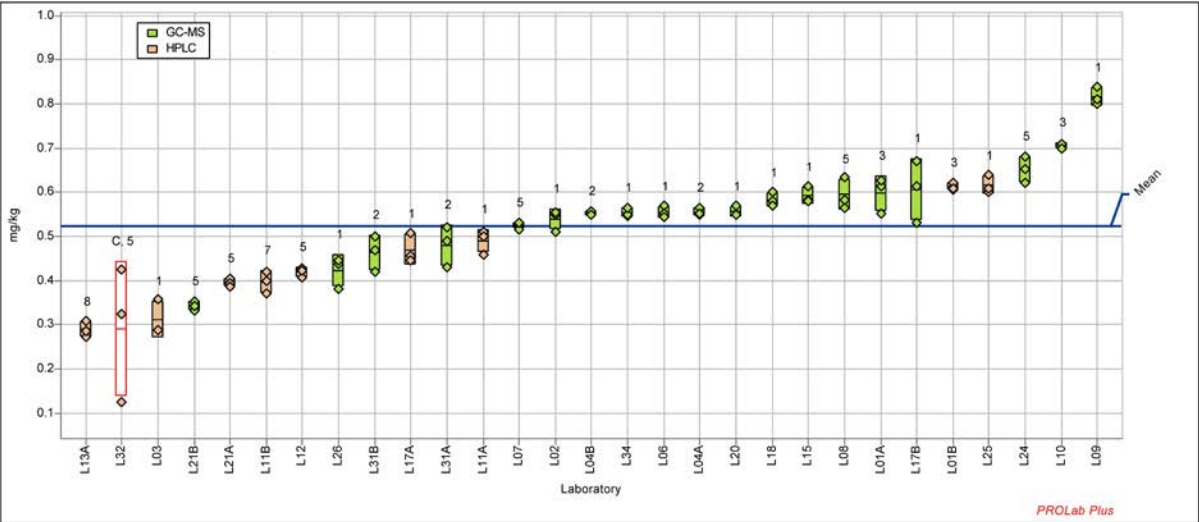
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Summary results - PAH



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.121 mg/kg
Measurand:	Fluoranthene	Rel. reproducibility s.d.:	22.96%
Mean:	0.525 mg/kg	Repeatability s.d.:	0.028 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.24%
No. of laboratories:	28	No. of outlier values:	3



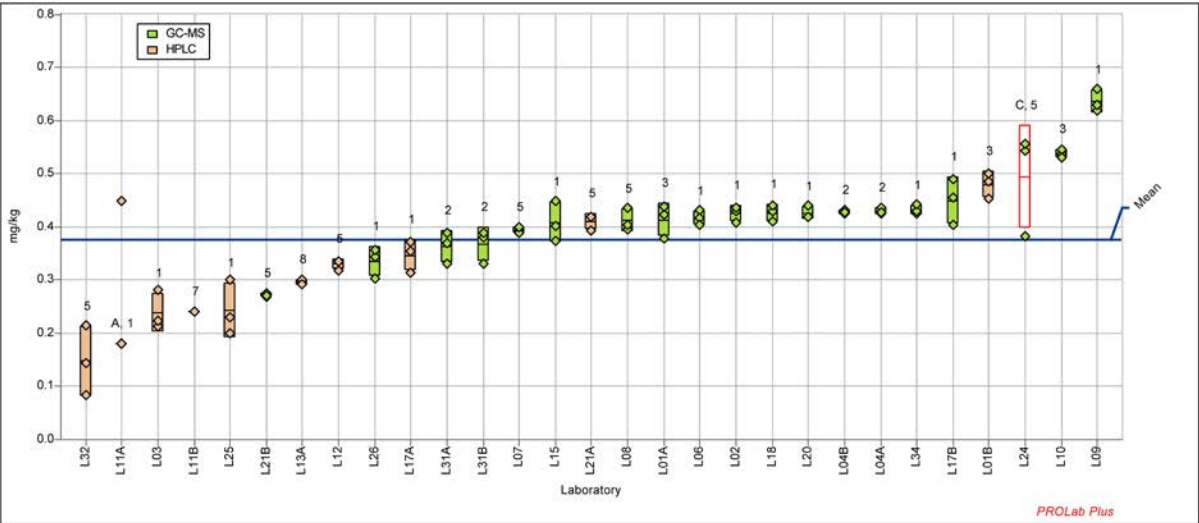
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Summary results - PAH



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.106 mg/kg
Measurand:	Pyrene	Rel. reproducibility s.d.:	28.17%
Mean:	0.377 mg/kg	Repeatability s.d.:	0.026 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.98%
No. of laboratories:	28	No. of outlier values:	4



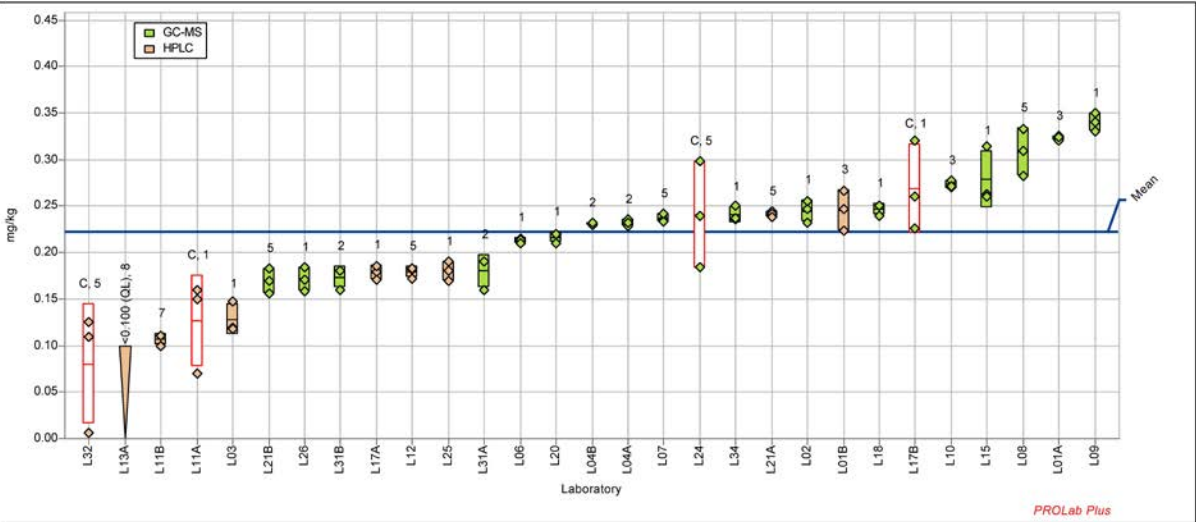
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Summary results - PAH



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.059 mg/kg
Measurand:	Benz[a]anthracene	Rel. reproducibility s.d.:	26.47%
Mean:	0.223 mg/kg	Repeatability s.d.:	0.013 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.66%
No. of laboratories:	24	No. of outlier values:	12



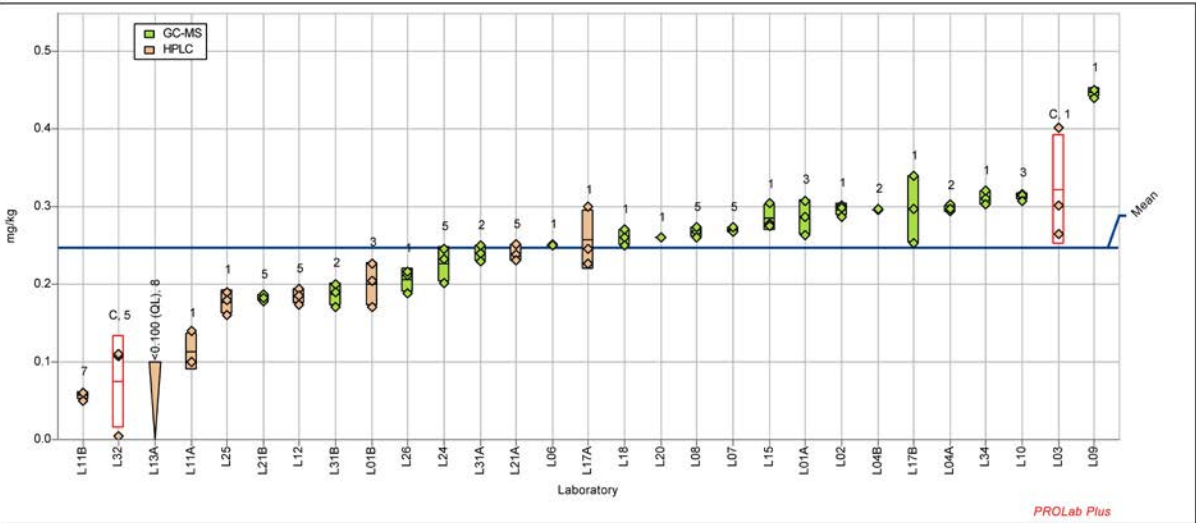
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Summary results - PAH



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.076 mg/kg
Measurand:	Chrysene	Rel. reproducibility s.d.:	30.65%
Mean:	0.246 mg/kg	Repeatability s.d.:	0.017 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.83%
No. of laboratories:	26	No. of outlier values:	6



HORIZONTAL 2013

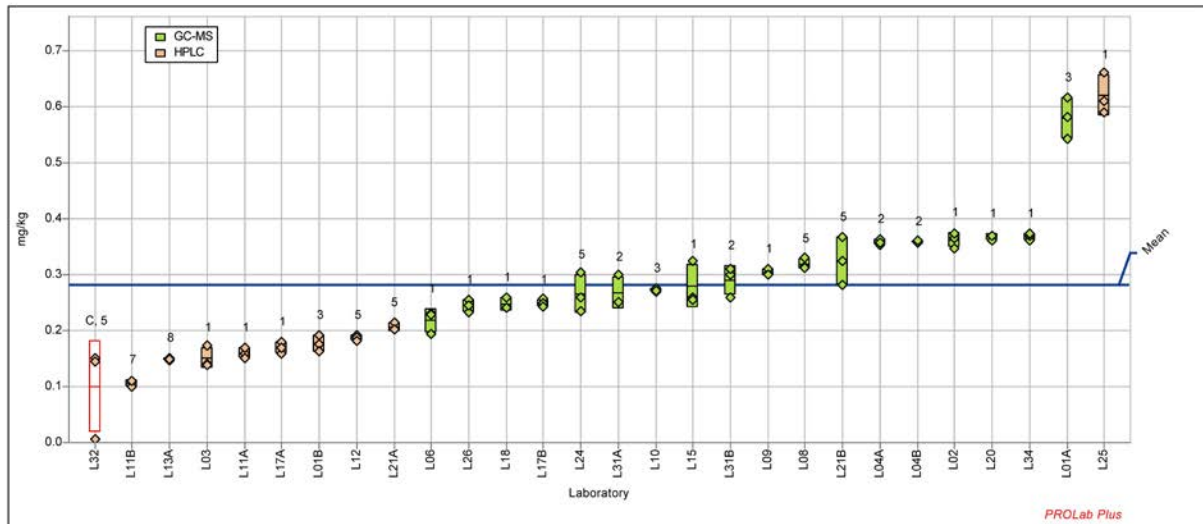
BAM Federal Institute for Materials Research and Testing

Summary results - PAH



Sample: Treated biowaste (compost)
 Measurand: Benzo[b]fluoranthene
 Mean: 0.281 mg/kg
 Method: ISO 5725-2
 No. of laboratories: 27

Reproducibility s.d.: 0.120 mg/kg
 Rel. reproducibility s.d.: 42.61%
 Repeatability s.d.: 0.020 mg/kg
 Rel. repeatability s.d.: 7.12%
 No. of outlier values: 3



HORIZONTAL 2013

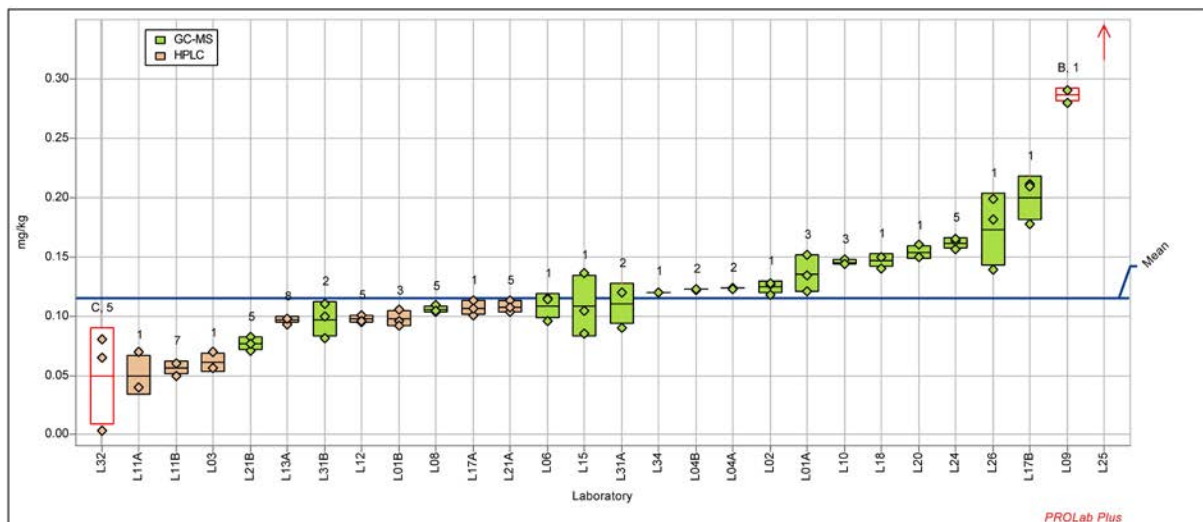
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Summary results - PAH



Sample: Treated biowaste (compost)
 Measurand: Benzo[k]fluoranthene
 Mean: 0.115 mg/kg
 Method: ISO 5725-2
 No. of laboratories: 25

Reproducibility s.d.: 0.037 mg/kg
 Rel. reproducibility s.d.: 31.96%
 Repeatability s.d.: 0.012 mg/kg
 Rel. repeatability s.d.: 10.29%
 No. of outlier values: 9



HORIZONTAL 2013

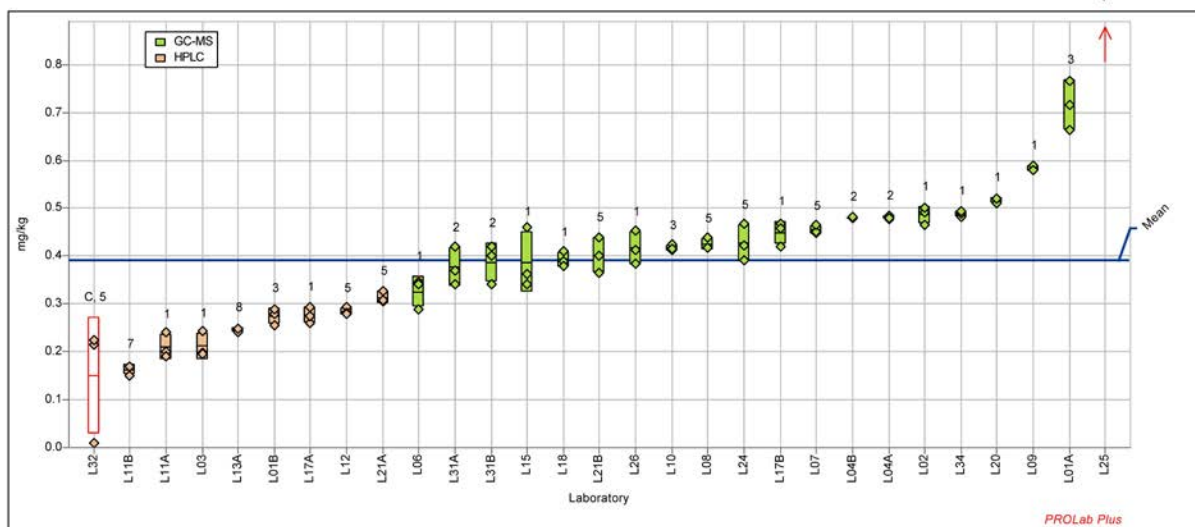
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Summary results - PAH



Sample: Treated biowaste (compost)
 Measurand: Sum Benzo[b+k]fluoranthene
 Mean: 0.392 mg/kg
 Method: ISO 5725-2
 No. of laboratories: 27

Reproducibility s.d.: 0.124 mg/kg
 Rel. reproducibility s.d.: 31.73%
 Repeatability s.d.: 0.027 mg/kg
 Rel. repeatability s.d.: 6.78%
 No. of outlier values: 6



HORIZONTAL 2013

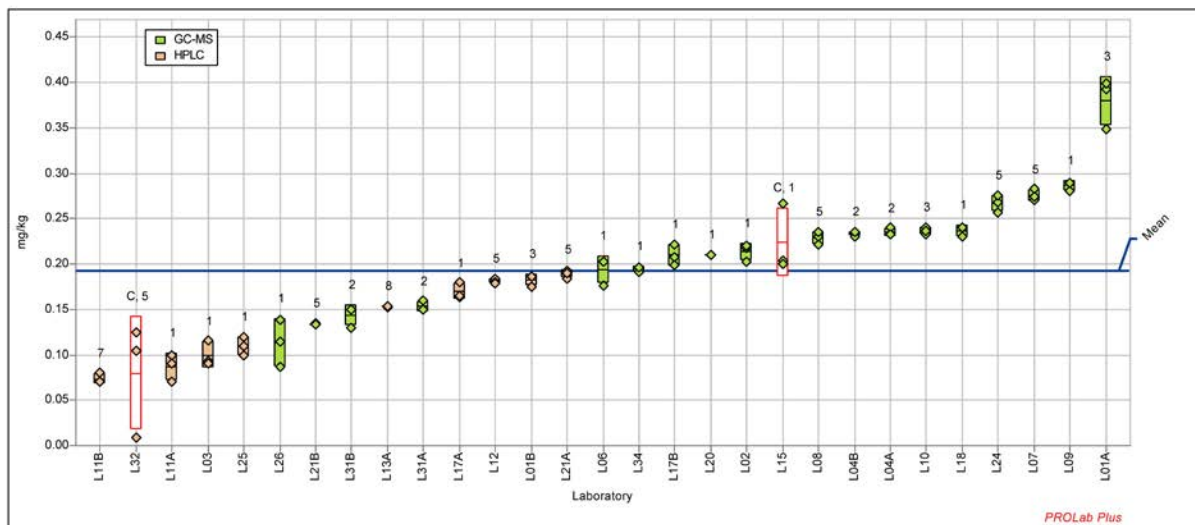
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Summary results - PAH



Sample: Treated biowaste (compost)
 Measurand: Benzo[a]pyrene
 Mean: 0.192 mg/kg
 Method: ISO 5725-2
 No. of laboratories: 27

Reproducibility s.d.: 0.069 mg/kg
 Rel. reproducibility s.d.: 36.06%
 Repeatability s.d.: 0.011 mg/kg
 Rel. repeatability s.d.: 5.53%
 No. of outlier values: 6



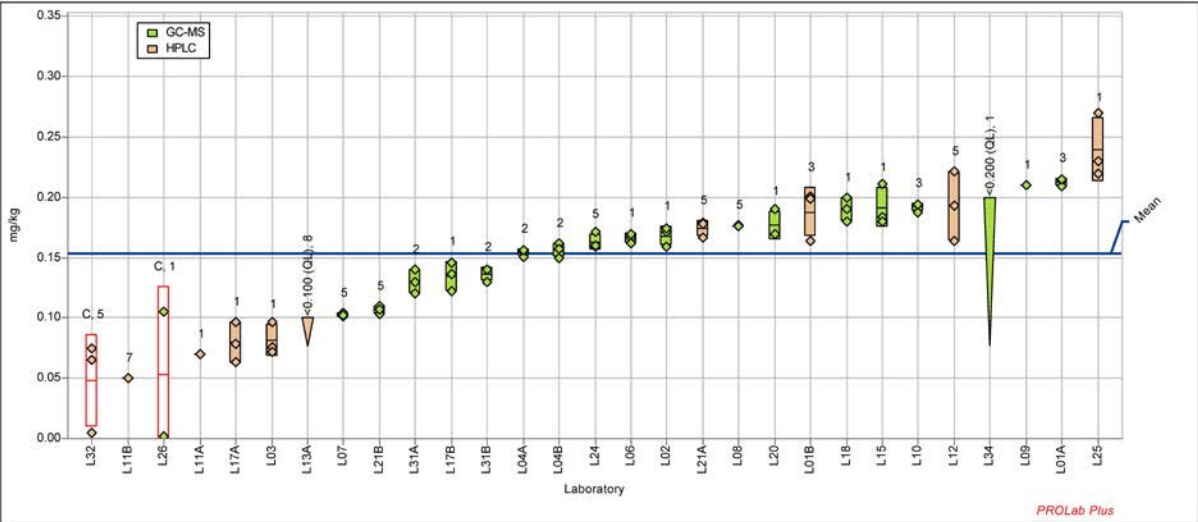
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Summary results - PAH



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.050 mg/kg
Measurand:	Benzo[ghi]perylene	Rel. reproducibility s.d.:	32.43%
Mean:	0.154 mg/kg	Repeatability s.d.:	0.012 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.68%
No. of laboratories:	25	No. of outlier values:	5



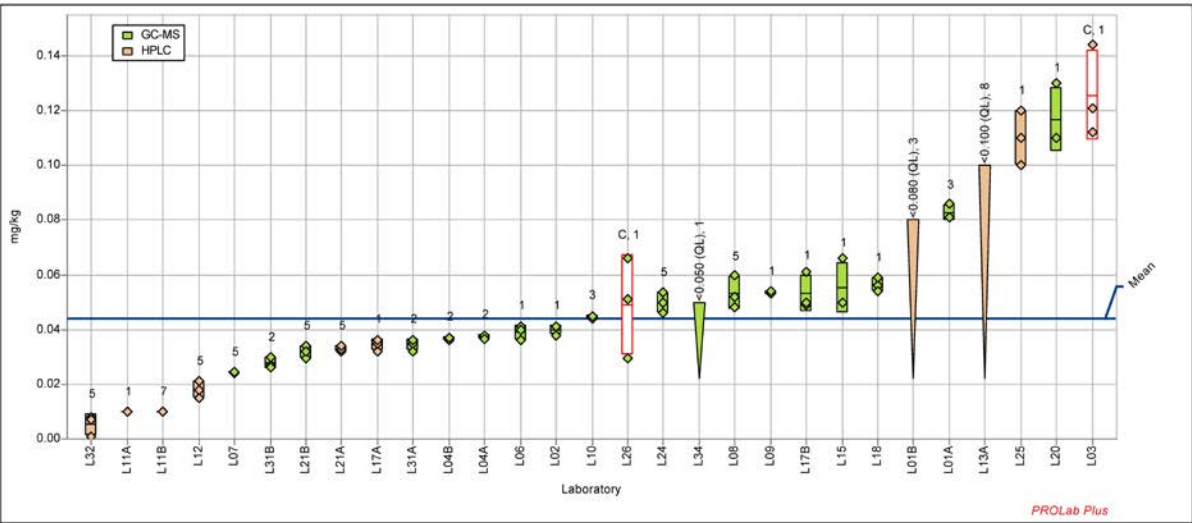
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Summary results - PAH



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.028 mg/kg
Measurand:	Dibenz[ah]anthracene	Rel. reproducibility s.d.:	63.08%
Mean:	0.044 mg/kg	Repeatability s.d.:	0.004 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	10.21%
No. of laboratories:	24	No. of outlier values:	6



HORIZONTAL 2013

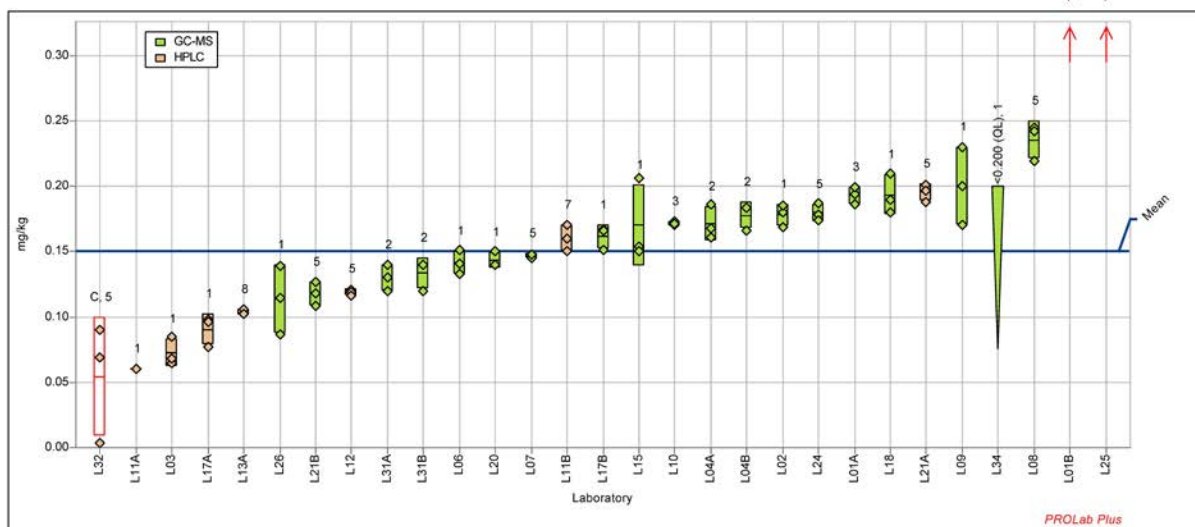
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Summary results - PAH



Sample: Treated biowaste (compost)
Measurand: Indeno[123cd]pyrene
Mean: 0.150 mg/kg
Method: ISO 5725-2
No. of laboratories: 25

Reproducibility s.d.: 0.044 mg/kg
Rel. reproducibility s.d.: 29.22%
Repeatability s.d.: 0.013 mg/kg
Rel. repeatability s.d.: 8.77%
No. of outlier values: 9



HORIZONTAL 2013

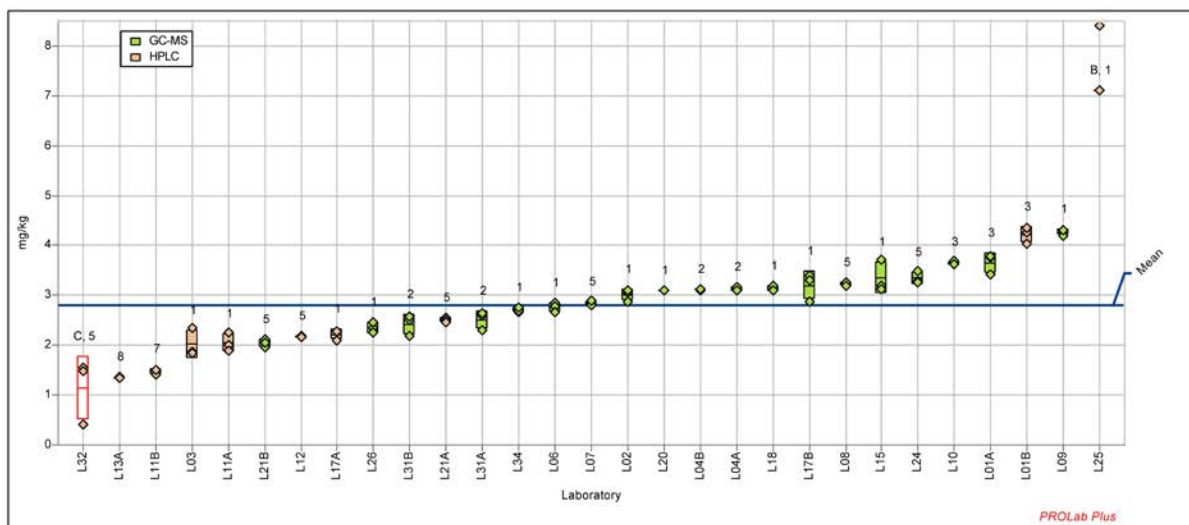
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Summary results - PAH



Sample: Treated biowaste (compost)
Measurand: Sum 16 EPA PAH
Mean: 2.807 mg/kg
Method: ISO 5725-2
No. of laboratories: 27

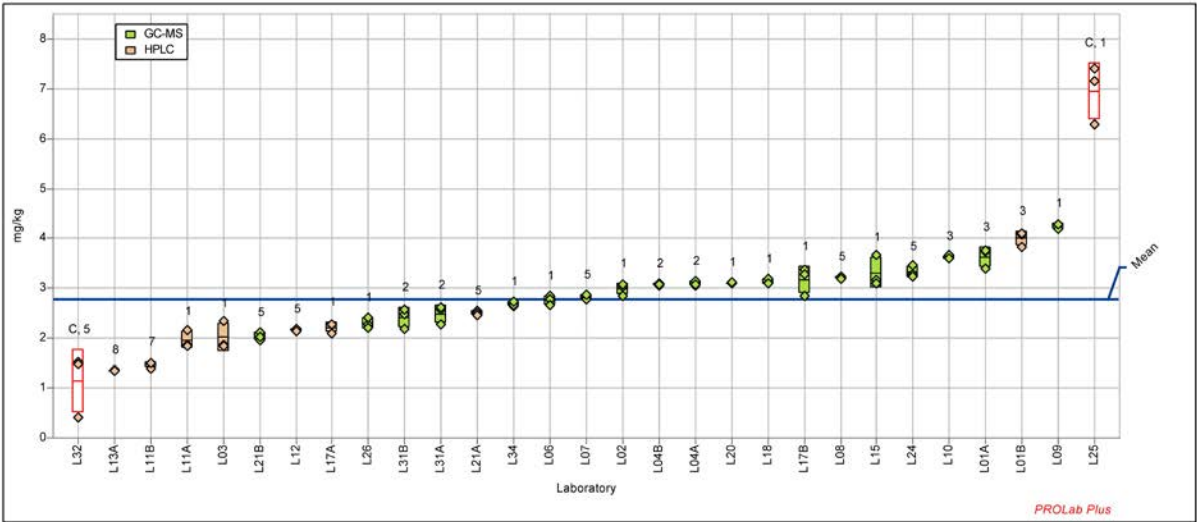
Reproducibility s.d.: 0.738 mg/kg
Rel. reproducibility s.d.: 26.29%
Repeatability s.d.: 0.140 mg/kg
Rel. repeatability s.d.: 4.98%
No. of outlier values: 6



Summary results - PAH



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.723 mg/kg
Measurand:	Sum 15 EPA PAH (excl. Acenaphthylene)	Rel. reproducibility s.d.:	25.98%
Mean:	2.782 mg/kg	Repeatability s.d.:	0.138 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.96%
No. of laboratories:	27	No. of outlier values:	6



2.5 Validation results for SL PAH

SLPAH	NAPHTHA	type of outlier	z-score	ACENYLEN	type of outlier	z-score	ACENTHEN	type of outlier	z-score	FLUOREN	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.002		-2.17	0.005		-1.68	0.002		-1.26	0.006		-2.57
L01B	0.061		0.64	< 0.120			0.083		2.66	0.083		0.73
L02	0.041		-0.29	0.025		-0.31	0.028		0.00	0.062		-0.15
L03	1.056	B	47.65				0.443	B	20.17	0.076		0.45
L04A	0.071		1.12	0.029		-0.05	0.015		-0.62	0.075		0.38
L04B	0.065		0.80	0.025		-0.31	0.016		-0.59	0.074		0.35
L06	0.037		-0.50	0.031		0.07	0.014		-0.66	0.056		-0.41
L07	0.033		-0.71	< 0.100			< 0.100			< 0.100		
L08	0.066		0.86	0.026		-0.28	0.023		-0.24	0.092		1.13
L09	0.041		-0.31	0.032		0.14	0.015		-0.63	0.075		0.38
L10	0.079		1.50	0.040		0.73	0.037		0.46	0.088		0.96
L11A	0.170	C	5.79	0.023		-0.42	0.027		-0.06	0.137	C	3.06
L11B	0.060		0.59				0.057	C	1.40	0.070	C	0.18
L12	0.022		-1.21	0.004		-1.73	0.015		-0.63	0.047		-0.83
L13A	< 0.100			< 0.100			< 0.100			< 0.100		
L15	0.050		0.10	0.035		0.39	0.029		0.04	0.108		1.83
L17A	0.043		-0.21	< 5.000			< 0.050			< 0.050		
L17B	0.057		0.43	0.055		1.69	0.059	C	1.51	0.081		0.64
L18	0.057		0.45	< 0.020			< 0.020			0.059		-0.29
L20	0.050		0.12	0.033		0.25	0.033		0.26	0.067		0.04
L21A	0.036		-0.56				0.041		0.64	0.072		0.25
L21B	0.068		0.97	< 0.010			< 0.010			0.064		-0.08
L24	0.069		1.03	0.030		0.03	0.026		-0.10	0.087		0.91
L25	0.015		-1.54				0.082		2.61	0.085		0.83
L26	0.025		-1.06	0.012		-1.20	0.018		-0.49	0.027		-1.66
L31A	0.043		-0.23	0.024		-0.35	0.022		-0.27	0.063		-0.11
L31B	0.078		1.46	0.043		0.88	0.033		0.26	0.055		-0.48
L32	0.023		-1.18	0.061		2.14	0.011		-0.82	0.036		-1.29
L34	0.045		-0.11	0.028		-0.09	0.017		-0.55	0.042		-1.01
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			25			29			29		
No. labs w/o outl.	26			19			21			24		
Mean	0.048			0.030			0.028			0.066		
SR Reprod. SD	0.021			0.015			0.021			0.023		
Sr Repeat. SD	0.008			0.004			0.004			0.006		
RSD % VR	44.53 %			50.10 %			73.65 %			35.23 %		
RSD % Vr	17.06 %			13.66 %			13.32 %			9.35 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			1			0		
No. C outliers	1			0			2			2		
No. sgl. values w/o outl.	78			56			63			72		

SLPAH	PHENANTH	type of outlier	z-score	ANTHRAC	type of outlier	z-score	FLUORANT	type of outlier	z-score	PYREN	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.046		-2.31	0.026		-1.46	0.059		-2.56	0.045		-2.45
L01B	0.292		-0.55	0.051		-0.65	0.418		-0.20	0.286		-0.51
L02	0.379		0.08	0.069		-0.07	0.565		0.76	0.437		0.71
L03	0.266		-0.73	0.035		-1.17	0.286		-1.07	0.274		-0.61
L04A	0.356		-0.09	0.086		0.47	0.508		0.39	0.413		0.52
L04B	0.335		-0.24	0.084		0.41	0.477		0.18	0.391		0.33
L06	0.348		-0.14	0.065		-0.20	0.470		0.13	0.383		0.27
L07	0.376		0.06	0.052		-0.62	0.485		0.24	0.383		0.27
L08	0.466		0.71	0.114		1.40	0.616		1.10	0.473		0.99
L09	0.413		0.33	0.085		0.45	0.597		0.97	0.497		1.19
L10	0.601		1.68	0.106		1.14	0.752		1.99	0.588		1.92
L11A	0.223		-1.04	0.023		-1.56	0.183		-1.75	0.173		-1.42
L11B	0.240	C	-0.92	0.047	C	-0.80	0.383	C	-0.43	0.273		-0.61
L12	0.332		-0.26	0.050		-0.68	0.447		-0.02	0.343		-0.05
L13A	0.302		-0.48	< 0.100			0.247		-1.33	0.332		-0.14
L15	0.609		1.73	0.118		1.53	0.527		0.51	0.401		0.42
L17A	0.679		2.24	0.050		-0.68	0.426		-0.15	0.324		-0.21
L17B	0.412		0.32	0.079		0.25	0.507		0.38	0.358		0.07
L18	0.383		0.11	0.137		2.13	0.500		0.33	0.387		0.30
L20	0.447		0.57	0.107		1.16	0.493		0.29	0.453		0.84
L21A	0.464		0.69	0.076		0.15	0.517		0.45	0.566		1.75
L21B	0.361		-0.05	0.082		0.36	0.471		0.15	0.369		0.15
L24	0.551		1.32	0.095		0.79	0.648		1.30	0.501	C	1.22
L25	1.900	C	11.02	0.280	C	6.80	0.170		-1.83	0.120		-1.85
L26	0.174		-1.39	0.025		-1.49	0.397		-0.34	0.313		-0.29
L31A	0.310		-0.42	0.068		-0.11	0.453		0.03	0.360		0.09
L31B	0.297		-0.51	0.055		-0.52	0.440		-0.06	0.357		0.06
L32	0.255		-0.81	0.037		-1.12	0.528		0.52	0.168		-1.46
L34	0.255		-0.81	0.075		0.11	0.389		-0.39	0.318		-0.26
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			29			29		
No. labs w/o outl.	27			26			28			28		
Mean	0.368			0.071			0.449			0.349		
SR Reprod. SD	0.139			0.031			0.152			0.124		
Sr Repeat. SD	0.025			0.006			0.037			0.030		
RSD % VR	37.80 %			43.14 %			33.89 %			35.49 %		
RSD % Vr	6.90 %			8.54 %			8.18 %			8.53 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	2			2			1			1		
No. sgl. values w/o outl.	81			78			84			84		

SLPAH	BENZAANT	type of outlier	z-score	CHRYSEN	type of outlier	z-score	BENZBFLU	type of outlier	z-score	BENZKFLU	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.087		-1.46	0.066		-1.57	0.077		-1.56	0.040		-1.36
L01B	0.156		-0.49	0.155		-0.71	0.107		-1.23	0.054		-1.02
L02	0.233		0.58	0.275		0.45	0.303		0.93	0.100		0.10
L03	0.077		-1.60	0.527		2.89	0.119		-1.10	0.048		-1.17
L04A	0.215		0.34	0.264		0.34	0.278		0.66	0.091		-0.11
L04B	0.203		0.16	0.252		0.23	0.266		0.53	0.088		-0.18
L06	0.185		-0.09	0.203		-0.24	0.169		-0.54	0.086		-0.24
L07	0.219		0.39	0.264		0.34						
L08	0.316		1.75	0.258		0.29	0.314		1.05	0.105		0.23
L09	0.270		1.10	0.343		1.11	0.317		1.08	0.207		2.69
L10	0.300		1.52	0.307		0.76	0.161		-0.64	0.143		1.15
L11A	0.087		-1.47	0.103		-1.21	0.140		-0.87	0.050		-1.12
L11B	0.100		-1.28	0.053		-1.69	0.093		-1.38	0.047		-1.20
L12	0.153		-0.54	0.215		-0.13	0.155		-0.70	0.083		-0.31
L13A	< 0.100			< 0.100			0.134		-0.93	< 0.100		
L15	0.290		1.38	0.439		2.04	0.284		0.72	0.087		-0.22
L17A	0.153		-0.54	0.254		0.25	0.151		-0.74	0.095		-0.02
L17B	0.196		0.07	0.214		-0.14	0.209		-0.10	0.157		1.49
L18	0.230		0.54	0.213		-0.15	0.180		-0.43	0.099		0.08
L20	0.197		0.07	0.250		0.21	0.277		0.64	0.167		1.72
L21A	0.272		1.13	0.271		0.41	0.215		-0.04	0.105		0.21
L21B	0.263		1.01	0.183		-0.44	0.429		2.31	0.055		-0.99
L24	0.254		0.87	0.234		0.05	0.265		0.51	0.134		0.92
L25	0.110		-1.14	0.123		-1.02	0.630	B	4.53	0.447	C	8.53
L26	0.175		-0.23	0.216		-0.12	0.293		0.82	0.105		0.23
L31A	0.187		-0.07	0.237		0.08	0.250		0.35	0.098		0.04
L31B	0.177		-0.21	0.190		-0.37	0.343		1.37	0.087		-0.22
L32	0.076		-1.62	0.068		-1.55	0.118		-1.10	0.055		-1.00
L34	0.179		-0.18	0.217		-0.11	0.255		0.40	0.109		0.31
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			28			28		
No. labs w/o outl.	28			28			27			26		
Mean	0.191			0.228			0.219			0.096		
SR Reprod. SD	0.071			0.103			0.091			0.041		
Sr Repeat. SD	0.018			0.019			0.021			0.010		
RSD % VR	37.30 %			45.26 %			41.56 %			42.89 %		
RSD % Vr	9.52 %			8.38 %			9.80 %			9.97 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			1			0		
No. C outliers	0			0			0			1		
No. sgl. values w/o outl.	84			84			81			78		

SLPAH	SUMBKFLU	type of outlier	z-score	BENZAPYR	type of outlier	z-score	BENZGHIP	type of outlier	z-score	DIBENZA	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.117		-1.69	0.052		-1.62	0.008		-1.95	0.004		-1.31
L01B	0.161		-1.30	0.108		-0.69	0.062		-0.98	0.012		-0.94
L02	0.403		0.77	0.177		0.48	0.131		0.27	0.037		0.13
L03	0.166		-1.26	0.077		-1.21	0.048		-1.23	0.070		1.52
L04A	0.370		0.49	0.201		0.88	0.128		0.21	0.054		0.83
L04B	0.355		0.36	0.192		0.73	0.121		0.09	0.050		0.65
L06	0.254		-0.51	0.153		0.06	0.145		0.51	0.027		-0.32
L07	0.364		0.44	0.260		1.86	0.142		0.47	< 0.100		
L08	0.420		0.92	0.235		1.44	0.180		1.16	0.043		0.35
L09	0.523		1.81	0.220		1.19	0.150		0.61	0.050		0.67
L10	0.304		-0.08	0.242		1.57	0.191		1.34	0.037		0.10
L11A	0.190		-1.06	0.040		-1.83	0.020		-1.73	0.010		-1.04
L11B	0.140		-1.49	0.063		-1.44	0.027		-1.61	0.010		-1.04
L12	0.238		-0.65	0.156		0.12	0.181		1.17	0.008		-1.14
L13A	0.134		-1.54	0.113		-0.60	0.099		-0.32	< 0.100		
L15	0.371		0.50	0.121		-0.47	0.099		-0.30	0.024		-0.43
L17A	0.246		-0.58	0.160		0.19	0.101		-0.27	0.019		-0.67
L17B	0.367		0.46	0.163		0.24	0.080		-0.65	< 0.010		
L18	0.279		-0.29	0.163		0.24	0.157		0.73	0.066		1.35
L20	0.447		1.15	0.180		0.52	0.143		0.49	0.090		2.37
L21A	0.320		0.06	0.183		0.57	0.213		1.74	0.023		-0.49
L21B	0.484		1.47	0.134		-0.25	< 0.010			< 0.010		
L24	0.398		0.74	0.213		1.08	0.177		1.10	0.051		0.70
L25	1.077	C	6.57	0.076		-1.23	0.120		0.07	0.027		-0.33
L26	0.398		0.73	0.176		0.45	0.140	C	0.43	0.048	C	0.57
L31A	0.348		0.30	0.150		0.02	0.117		0.01	0.032		-0.09
L31B	0.430		1.01	0.120		-0.49	0.130		0.25			
L32	0.173		-1.20	0.075		-1.24	0.052		-1.16	0.006		-1.20
L34	0.364		0.44	0.116		-0.55						
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	29			29			28			27		
No. labs w/o outl.	28			29			26			22		
Mean	0.313			0.149			0.116			0.034		
SR Reprod. SD	0.116			0.060			0.056			0.023		
Sr Repeat. SD	0.028			0.012			0.010			0.005		
RSD % VR	37.15 %			39.97 %			47.81 %			68.18 %		
RSD % Vr	8.83 %			8.02 %			8.92 %			13.43 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			0			1			1		
No. sgl. values w/o outl.	84			87			78			65		

SLPAH	IND123CD	type of outlier	z-score	16EPASUMME	type of outlier	z-score	15EPASUMME	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg		
L01A	0.040		-0.66	0.565		-2.30	0.560		-2.28
L01B	< 0.040			1.929		-0.86	1.929		-0.84
L02	0.119		-0.34	2.982		0.25	2.957		0.24
L03	0.052		-0.61	3.454		0.75	3.454		0.77
L04A	0.865		2.64	3.649		0.95	3.620		0.94
L04B	0.759		2.22	3.398		0.69	3.373		0.68
L06	0.111		-0.37	2.481		-0.28	2.451		-0.29
L07	0.099		-0.42	2.676		-0.07	2.676		-0.05
L08	0.218		0.06	3.537		0.83	3.520		0.84
L09	0.150		-0.22	3.461		0.75	3.453		0.77
L10	0.170		-0.14	3.841		1.15	3.800		1.13
L11A	0.013		-0.76	1.407		-1.41	1.383		-1.41
L11B	0.090		-0.46	1.613	C	-1.19	1.613	C	-1.17
L12	0.141		-0.25	2.351		-0.42	2.347		-0.40
L13A	< 0.100			1.226		-1.60	1.226		-1.58
L15	0.094		-0.44	3.316		0.60	3.280		0.58
L17A	< 0.010			2.462		-0.30	2.455		-0.29
L17B	0.016		-0.75	2.632		-0.12	2.578		-0.16
L18	0.147		-0.23	2.800		0.06	2.800		0.08
L20	0.097		-0.43	3.100		0.37	3.067		0.36
L21A	0.178		-0.10	3.231		0.51	3.231		0.53
L21B	< 0.010			2.480		-0.28	2.480		-0.26
L24	0.183		-0.09	3.513		0.81	3.483		0.80
L25	1.000	A	3.18	5.300		2.69	5.300		2.71
L26	0.193		-0.05	2.338		-0.43	2.326		-0.42
L31A	0.107		-0.39	2.520		-0.24	2.496		-0.24
L31B	0.147		-0.23	2.551		-0.20	2.509		-0.23
L32	0.055		-0.60	1.622		-1.18	1.560		-1.23
L34				2.044		-0.74	2.016		-0.75
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	28			29			29		
No. labs w/o outl.	24			28			28		
Mean	0.204			2.745			2.726		
SR Reprod. SD	0.250			0.950			0.950		
Sr Repeat. SD	0.015			0.164			0.163		
RSD % VR	122.55 %			34.60 %			34.84 %		
RSD % Vr	7.43 %			5.97 %			5.98 %		
No. A outliers	1			0			0		
No. B outliers	0			0			0		
No. C outliers	0			1			1		
No. sgl. values w/o outl.	69			84			84		

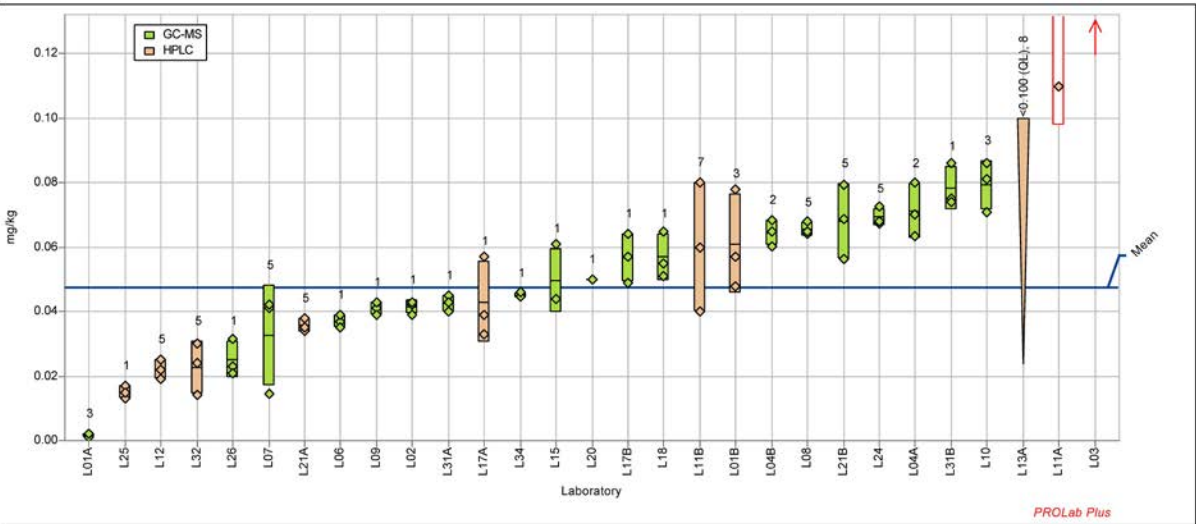
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Summary results - PAH



Sample: Sewage sludge
Reproducibility s.d.: 0.021 mg/kg
Measurand: Naphthalene
Rel. reproducibility s.d.: 44.53%
Mean: 0.048 mg/kg
Repeatability s.d.: 0.008 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 17.06%
No. of laboratories: 26
No. of outlier values: 6



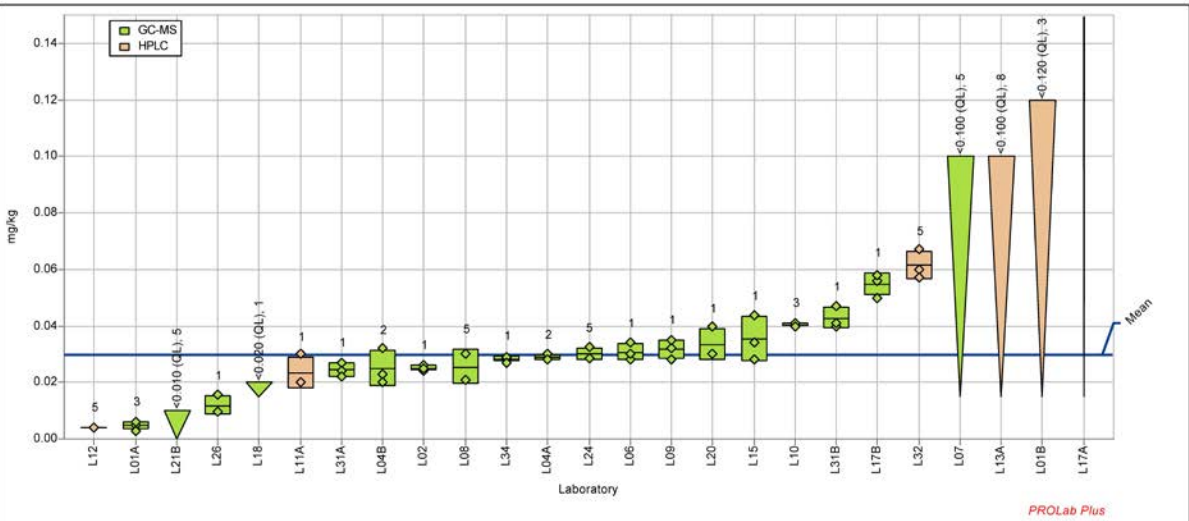
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Summary results - PAH



Sample: Sewage sludge
Reproducibility s.d.: 0.015 mg/kg
Measurand: Acenaphthylene
Rel. reproducibility s.d.: 50.10%
Mean: 0.030 mg/kg
Repeatability s.d.: 0.004 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 13.66%
No. of laboratories: 19
No. of outlier values: 0



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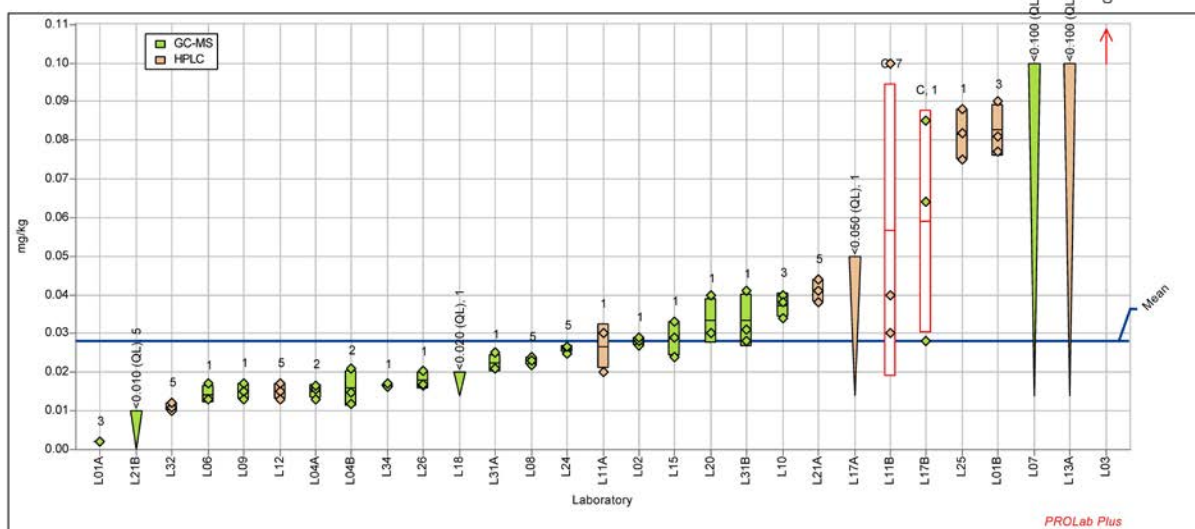
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Summary results - PAH



Sample: Sewage sludge
Measurand: Acenaphthene
Mean: 0.028 mg/kg
Method: ISO 5725-2
No. of laboratories: 21

Reproducibility s.d.: 0.021 mg/kg
Rel. reproducibility s.d.: 73.65%
Repeatability s.d.: 0.004 mg/kg
Rel. repeatability s.d.: 13.32%
No. of outlier values: 9



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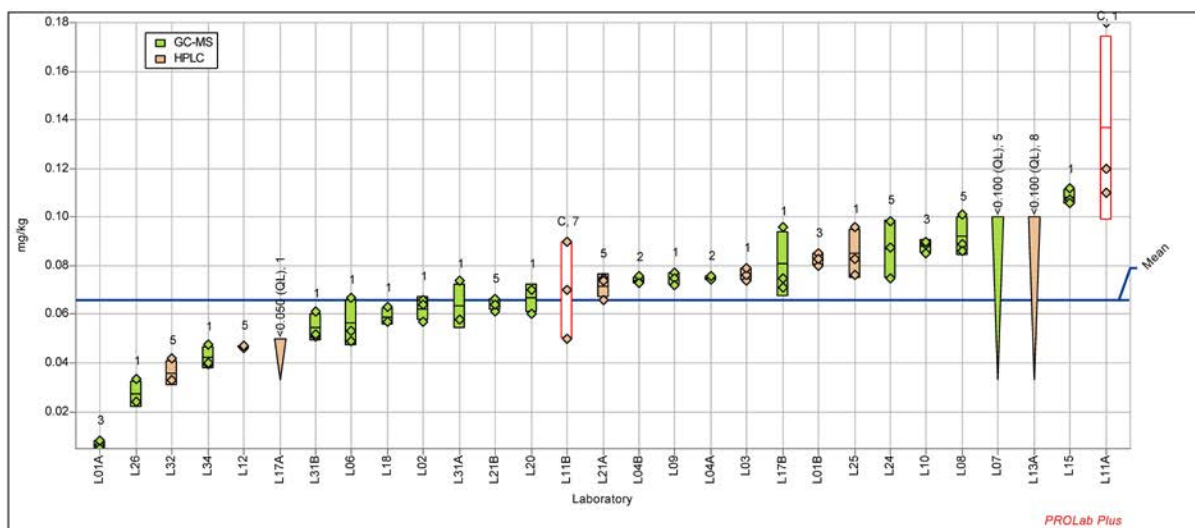
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Summary results - PAH



Sample: Sewage sludge
Measurand: Fluorene
Mean: 0.066 mg/kg
Method: ISO 5725-2
No. of laboratories: 24

Reproducibility s.d.: 0.023 mg/kg
Rel. reproducibility s.d.: 35.23%
Repeatability s.d.: 0.006 mg/kg
Rel. repeatability s.d.: 9.35%
No. of outlier values: 6



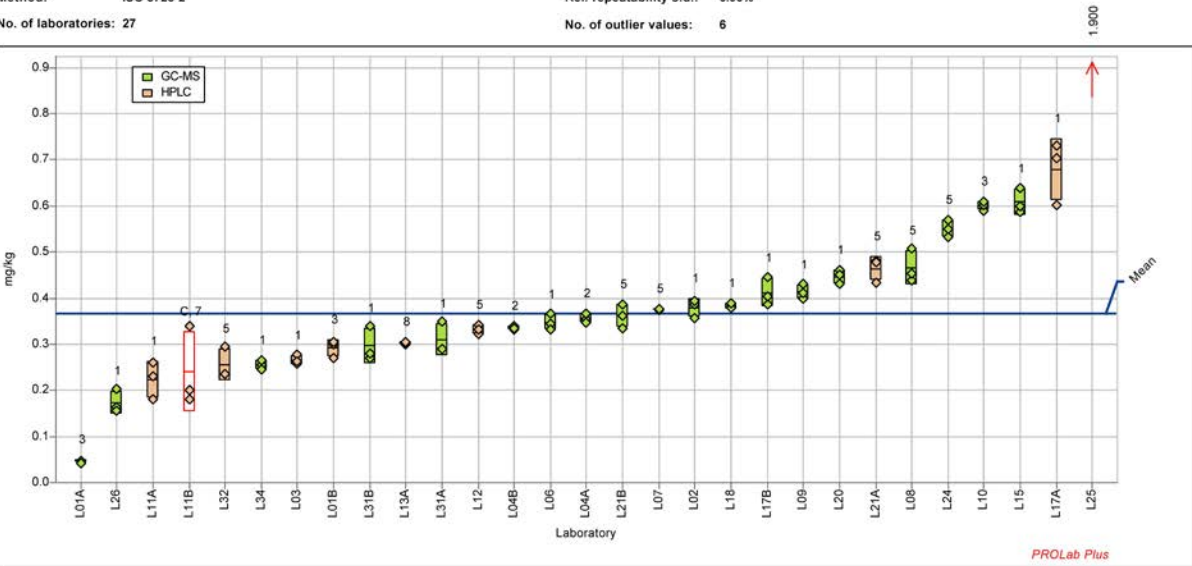
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Summary results - PAH



Sample: Sewage sludge
Reproducibility s.d.: 0.139 mg/kg
Measurand: Phenanthrene
Rel. reproducibility s.d.: 37.80%
Mean: 0.368 mg/kg
Repeatability s.d.: 0.025 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 6.90%
No. of laboratories: 27
No. of outlier values: 6



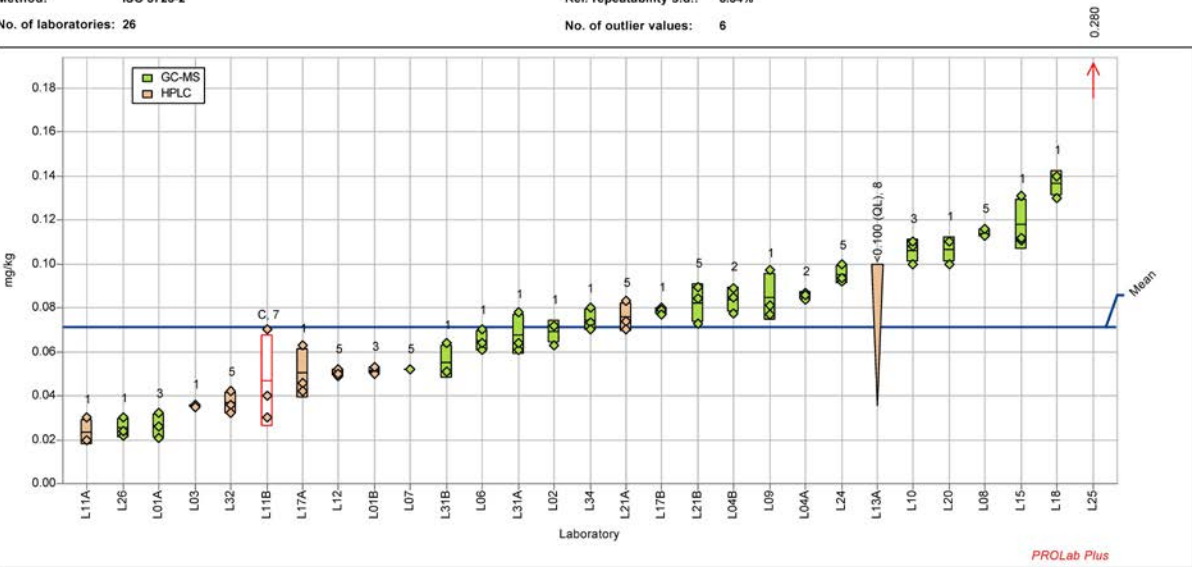
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Summary results - PAH



Sample: Sewage sludge
Reproducibility s.d.: 0.031 mg/kg
Measurand: Anthracene
Rel. reproducibility s.d.: 43.14%
Mean: 0.071 mg/kg
Repeatability s.d.: 0.006 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 8.54%
No. of laboratories: 26
No. of outlier values: 6



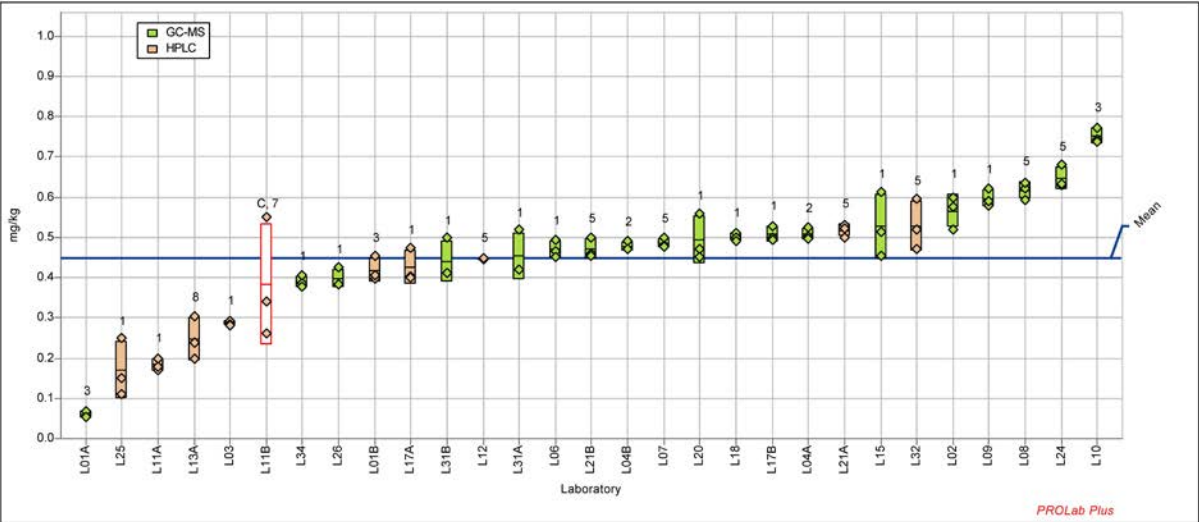
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.152 mg/kg
Measurand:	Fluoranthene	Rel. reproducibility s.d.:	33.89%
Mean:	0.449 mg/kg	Repeatability s.d.:	0.037 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.18%
No. of laboratories:	28	No. of outlier values:	3



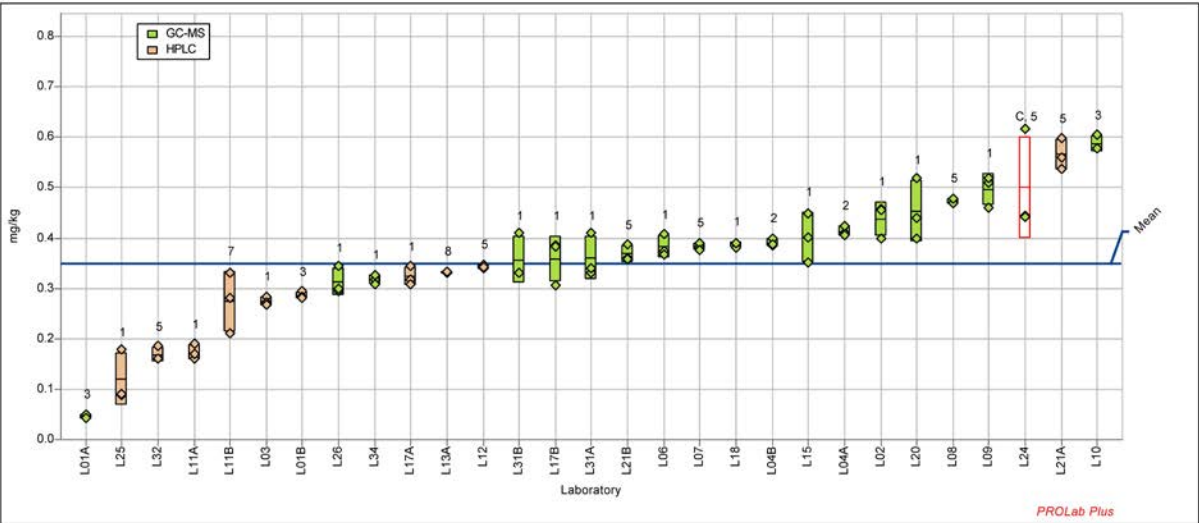
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.124 mg/kg
Measurand:	Pyrene	Rel. reproducibility s.d.:	35.49%
Mean:	0.349 mg/kg	Repeatability s.d.:	0.030 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.53%
No. of laboratories:	28	No. of outlier values:	3



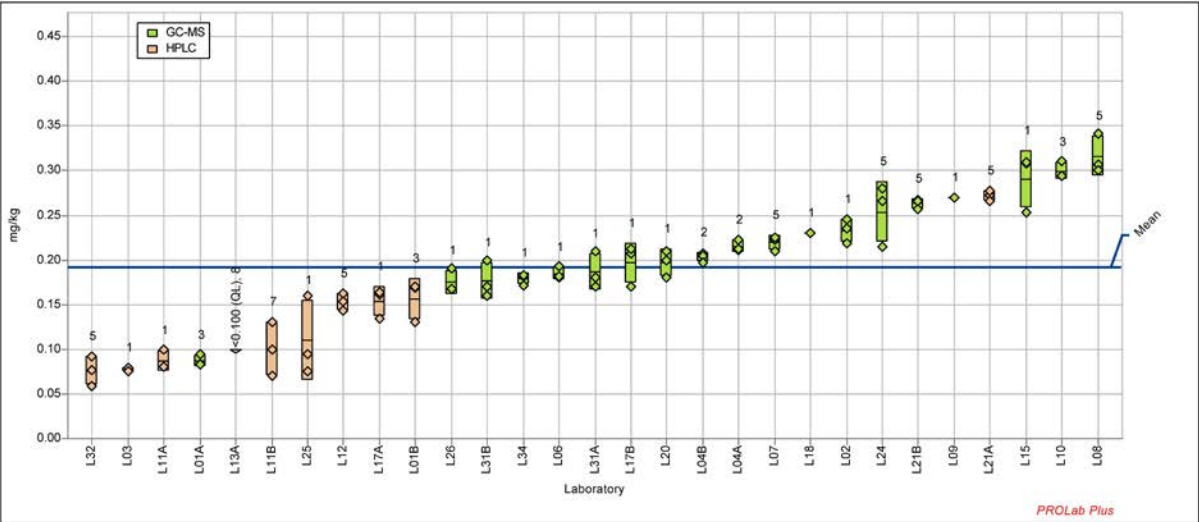
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.071 mg/kg
Measurand:	Benz[a]anthracene	Rel. reproducibility s.d.:	37.30%
Mean:	0.191 mg/kg	Repeatability s.d.:	0.018 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.52%
No. of laboratories:	28	No. of outlier values:	0



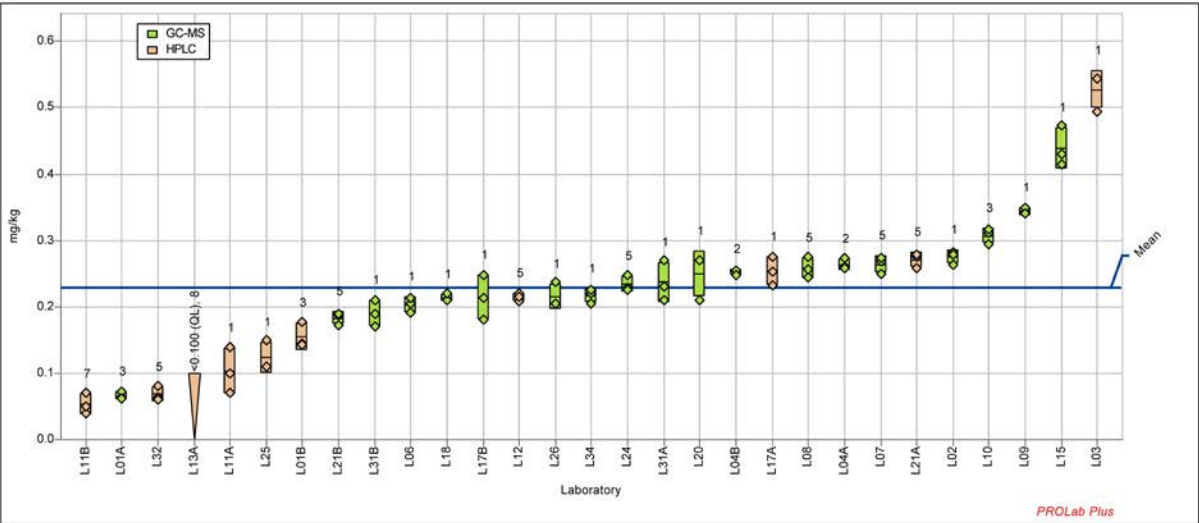
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.103 mg/kg
Measurand:	Chrysene	Rel. reproducibility s.d.:	45.26%
Mean:	0.228 mg/kg	Repeatability s.d.:	0.019 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.38%
No. of laboratories:	28	No. of outlier values:	0



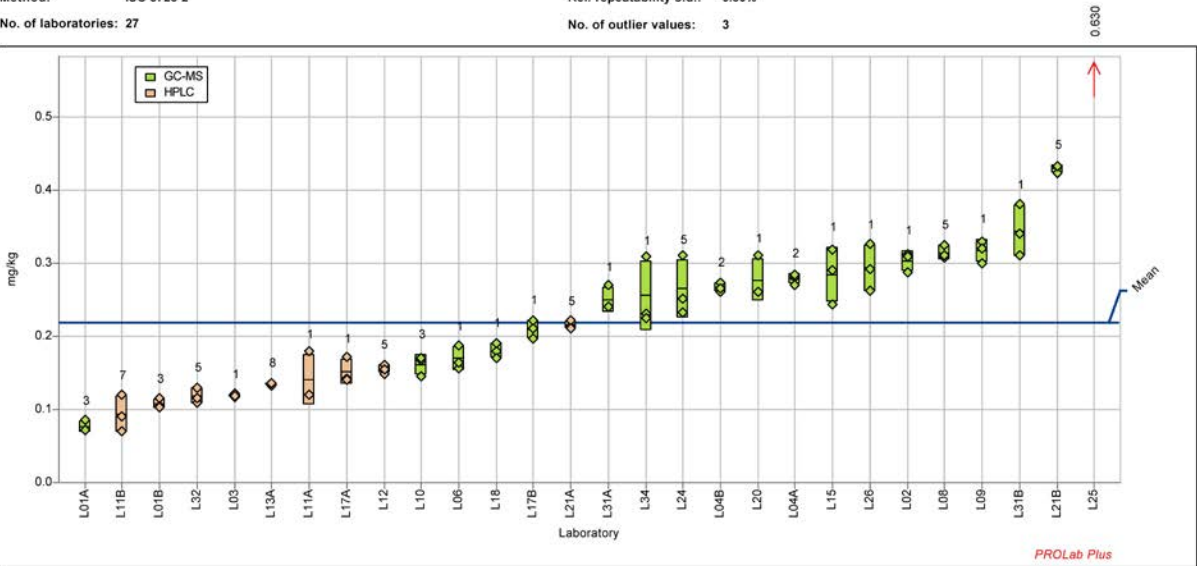
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Summary results - PAH



Sample: Sewage sludge
Reproducibility s.d.: 0.091 mg/kg
Measurand: Benzo[b]fluoranthene
Rel. reproducibility s.d.: 41.56%
Mean: 0.219 mg/kg
Repeatability s.d.: 0.021 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 9.80%
No. of laboratories: 27
No. of outlier values: 3



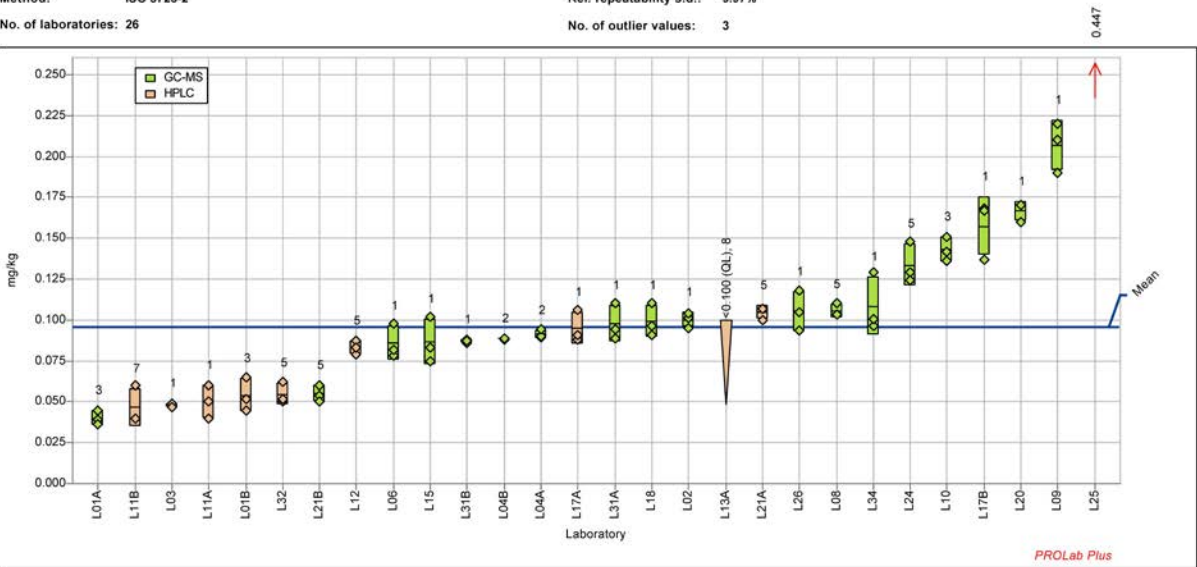
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Summary results - PAH



Sample: Sewage sludge
Reproducibility s.d.: 0.041 mg/kg
Measurand: Benzo[k]fluoranthene
Rel. reproducibility s.d.: 42.89%
Mean: 0.096 mg/kg
Repeatability s.d.: 0.010 mg/kg
Method: ISO 5725-2
Rel. repeatability s.d.: 9.97%
No. of laboratories: 26
No. of outlier values: 3



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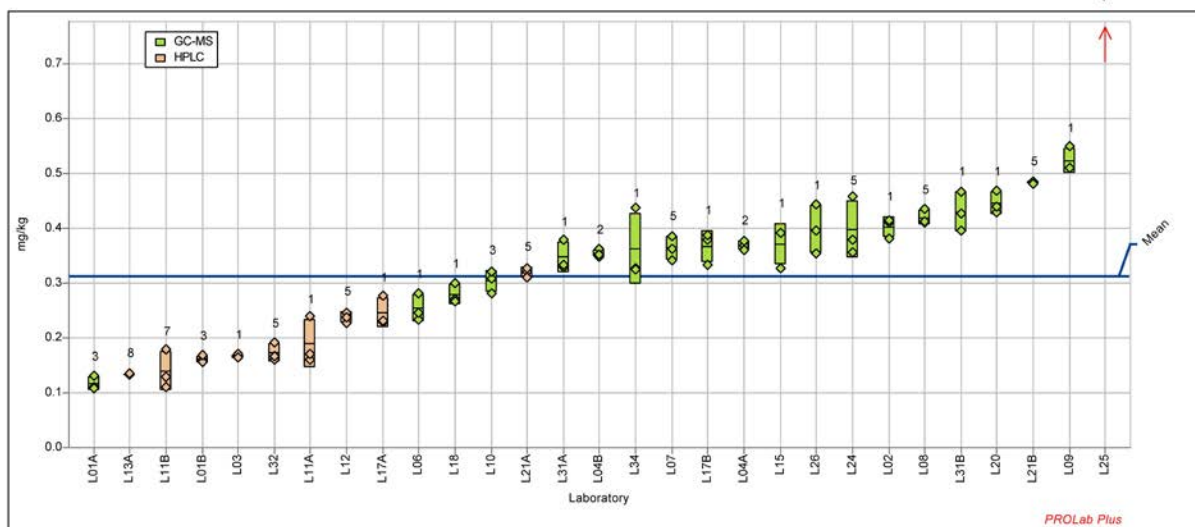
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Summary results - PAH



Sample: Sewage sludge
Measurand: Sum Benzo[b+k]fluoranthene
Mean: 0.313 mg/kg
Method: ISO 5725-2
No. of laboratories: 28

Reproducibility s.d.: 0.116 mg/kg
Rel. reproducibility s.d.: 37.15%
Repeatability s.d.: 0.028 mg/kg
Rel. repeatability s.d.: 8.83%
No. of outlier values: 3



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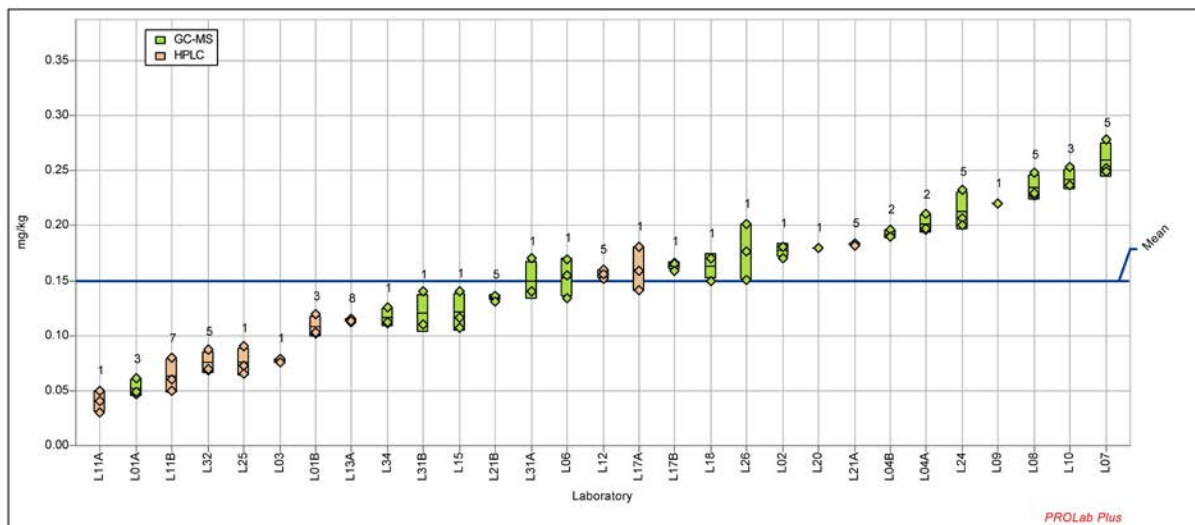
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Summary results - PAH



Sample: Sewage sludge
Measurand: Benzo[a]pyrene
Mean: 0.149 mg/kg
Method: ISO 5725-2
No. of laboratories: 29

Reproducibility s.d.: 0.060 mg/kg
Rel. reproducibility s.d.: 39.97%
Repeatability s.d.: 0.012 mg/kg
Rel. repeatability s.d.: 8.02%
No. of outlier values: 0



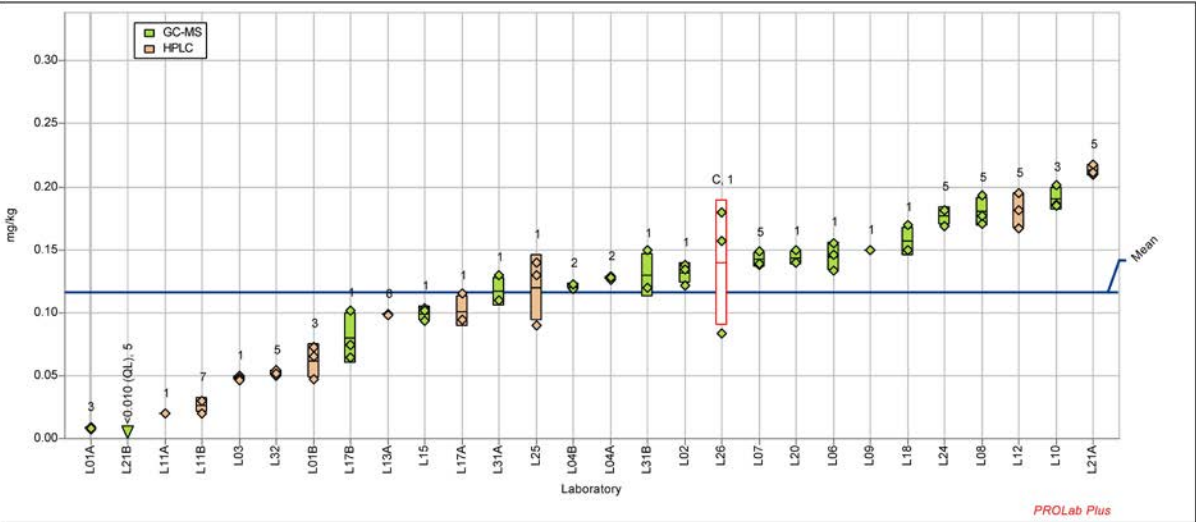
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.056 mg/kg
Measurand:	Benzo[ghi]perylene	Rel. reproducibility s.d.:	47.81%
Mean:	0.116 mg/kg	Repeatability s.d.:	0.010 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.92%
No. of laboratories:	26	No. of outlier values:	3



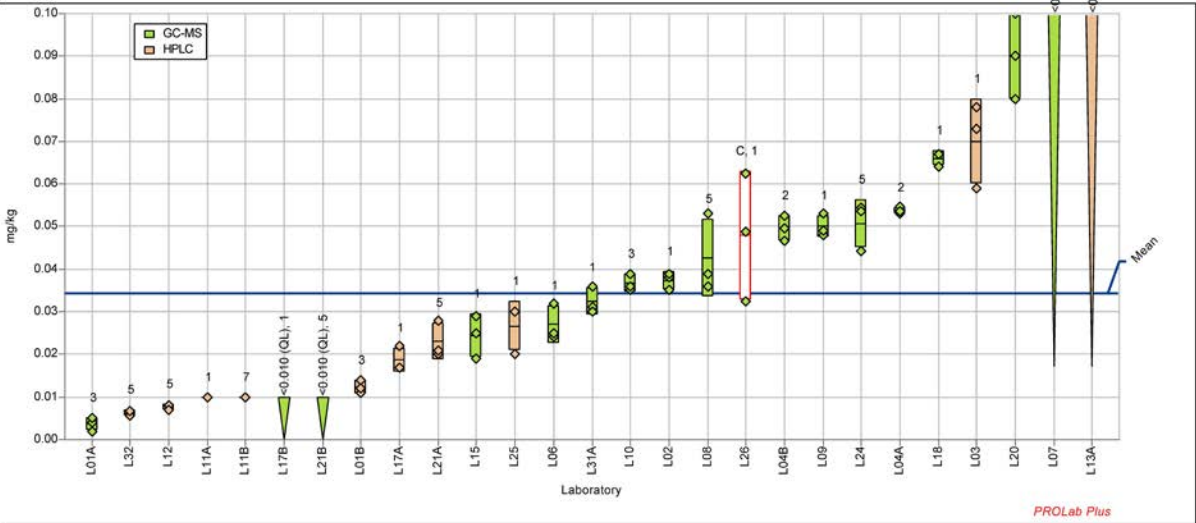
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.023 mg/kg
Measurand:	Dibenz[ah]anthracene	Rel. reproducibility s.d.:	68.18%
Mean:	0.034 mg/kg	Repeatability s.d.:	0.005 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	13.43%
No. of laboratories:	22	No. of outlier values:	3



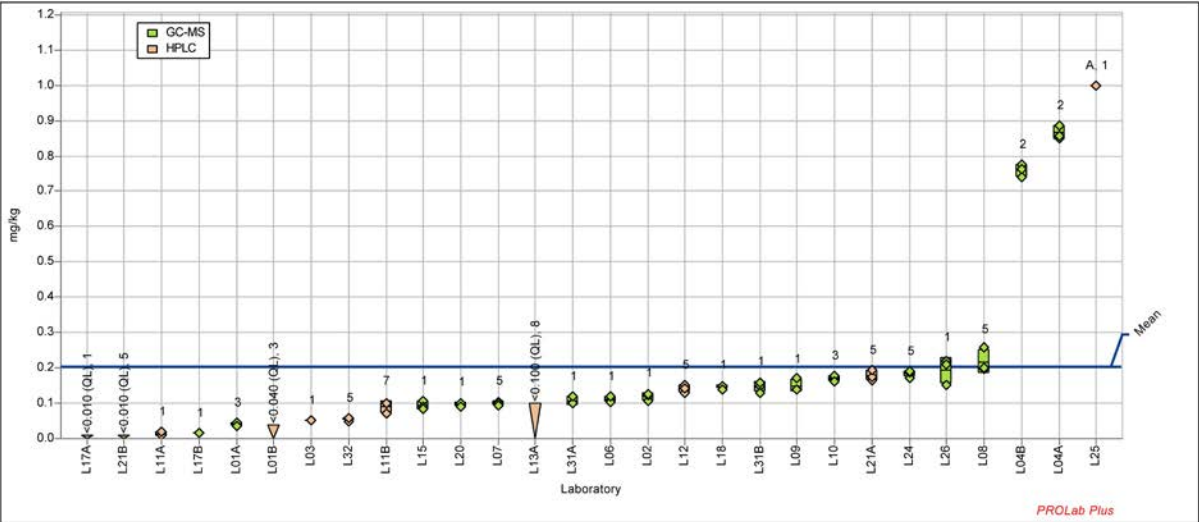
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.250 mg/kg
Measurand:	Indeno[123cd]pyrene	Rel. reproducibility s.d.:	122.55%
Mean:	0.204 mg/kg	Repeatability s.d.:	0.015 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.43%
No. of laboratories:	24	No. of outlier values:	1



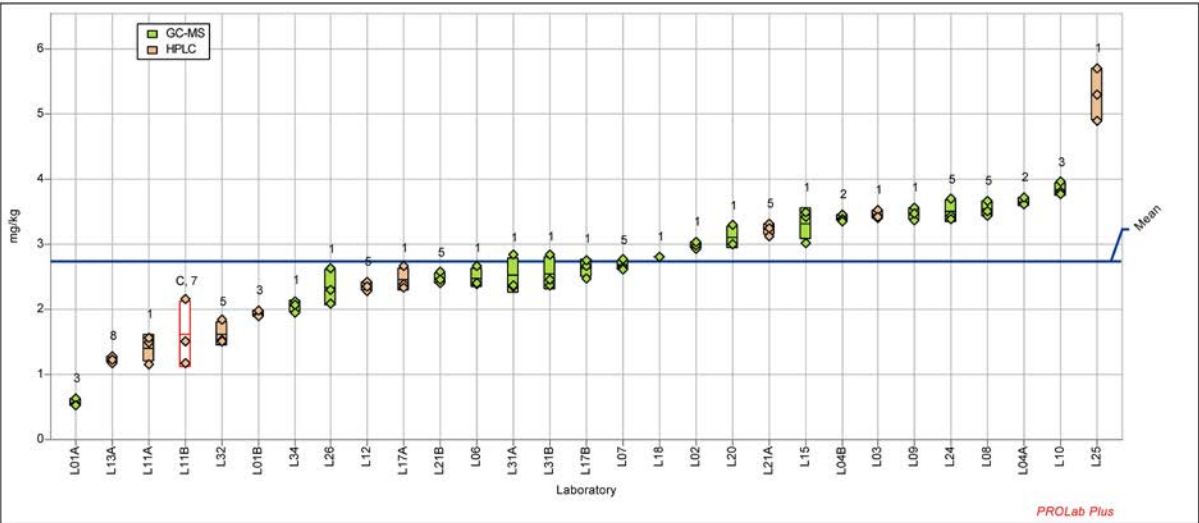
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.950 mg/kg
Measurand:	Sum 16 EPA PAH	Rel. reproducibility s.d.:	34.60%
Mean:	2.745 mg/kg	Repeatability s.d.:	0.164 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.97%
No. of laboratories:	28	No. of outlier values:	3



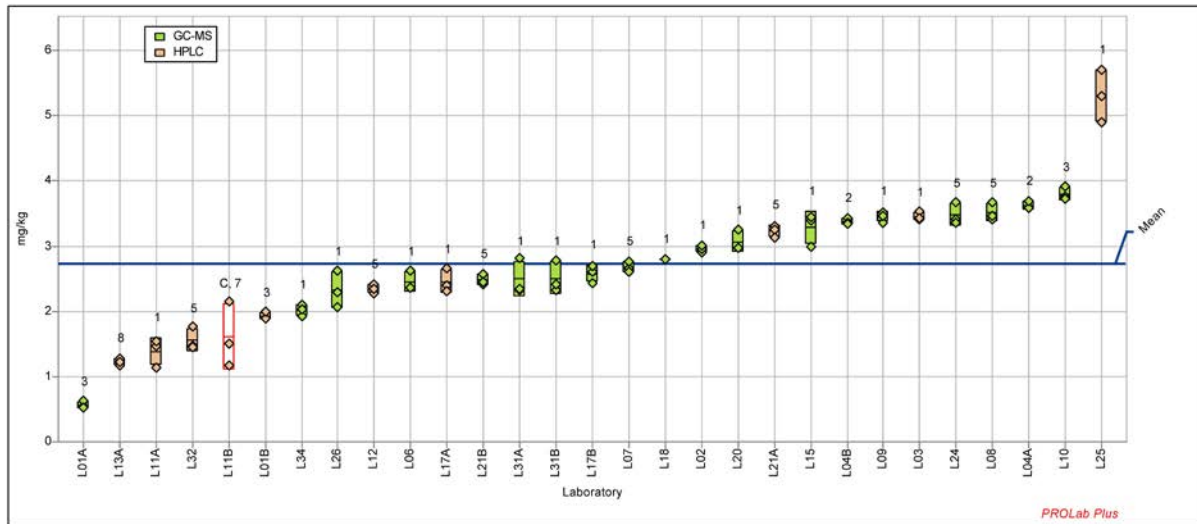
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Summary results - PAH



Sample:	Sewage sludge	Reproducibility s.d.:	0.950 mg/kg
Measurand:	Sum 15 EPA PAH (excl. Acenaphthylene)	Rel. reproducibility s.d.:	34.84%
Mean:	2.726 mg/kg	Repeatability s.d.:	0.163 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.98%
No. of laboratories:	28	No. of outlier values:	3



3 PCB measurements, EN 16167

3.1 Quality control solution PCB

RSPCB	PCB 28	type of outlier	z-score	PCB 52	type of outlier	z-score	PCB 101	type of outlier	z-score	PCB 118	type of outlier	z-score
Unit	µg/l			µg/l			µg/l			µg/l		
L01A	1.233	E	0.74	0.053	E	-2.41	0.412		0.76	0.162		-0.59
L01B	0.712		-0.92	0.215		-0.20	0.286		1.16	0.183		-0.78
L02	0.766		-0.40	0.405		0.12	0.462		0.45	0.204		-0.02
L03	0.637		-0.66	0.377		-0.15	0.393		-0.68	0.241		-1.03
L04A	0.654		-0.41	0.336		0.34	0.354		0.47	0.209		-0.07
L04B	0.672		1.63	0.349		0.16	0.367		-0.77	0.224		-0.58
L06	1.297	CE	-0.89	0.388		-0.48	0.283		-1.86	0.190		-1.46
L08	0.719		-0.29	0.402		0.23	0.372		-0.29	0.228		0.49
L09	0.910		-0.55	0.560	C	0.18	0.497		0.52	0.293		0.23
L10	0.948		0.27	0.587		0.44	0.471		1.30	0.318		0.93
L12	0.591		-0.56	0.421		0.21	0.387		0.12	0.220		-1.16
L13A	0.810		-0.68	0.463		-0.11	0.480		-1.31	0.281		-1.23
L13B	0.759		0.74	0.462		1.42	0.495		3.13	0.202		2.16
L15	0.308	E	-0.03	0.113		-0.01	0.141	E	-1.80	0.141		-0.25
L17A	0.623		-0.23	0.336		0.01	0.492		-0.33	0.374	E	-0.53
L17B	0.792		0.14	0.373		0.11	0.443		-0.17	0.214		-0.11
L18	0.803		-1.52	0.413		-0.83	0.410		-0.21	0.253		-0.01
L20	1.100		-0.58	0.647	E	-0.35	0.617	E	-1.50	0.380	E	-1.17
L21A	0.547		2.99	0.304		2.23	0.332		1.23	0.229		2.49
L25	0.713		1.11	0.200		-1.72	0.190		0.21	0.310		-0.05
L28	0.863		-0.39	0.087		-0.12	0.279		-0.57	0.324		-0.41
L29	0.723		1.47	0.413		0.23	0.393		0.16	0.247		0.44
L31A	1.100		-0.76	0.413		-0.24	0.390		0.53	0.217		1.19
L31B	0.577		1.06	0.313		-0.36	0.330		-1.43	0.160		-0.91
L31C	1.067		-0.13	0.300		1.06	0.273		1.10	0.130		0.81
L32	0.589		-0.22	0.329		0.41	0.429		0.76	0.189		0.94
L34	0.560		0.74	0.322		-2.41	0.320		0.76	0.198		-0.59
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	27			27			27			27		
No. labs w/o outl.	26			26			27			27		
Mean	0.761			0.347			0.381			0.234		
SR Reprod. SD	0.213			0.137			0.105			0.067		
Sr Repeat. SD	0.065			0.027			0.030			0.020		
RSD % VR	28.02 %			39.49 %			27.54 %			28.63 %		
RSD % Vr	8.59 %			7.81 %			7.89 %			8.62 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			1			0			0		
No. sgl. values w/o outl.	78			78			81			81		

RSPCB	PCB 138	type of outlier	z-score	PCB 153	type of outlier	z-score	PCB 180	type of outlier	z-score	SUM7 PCB	type of outlier	z-score
Unit	µg/l			µg/l			µg/l			µg/l		
L01A	0.424		-0.93	0.341		-1.44	0.149		-0.43	2.775		-0.17
L01B	0.431		-1.12	0.373		-1.03	0.267		-0.75	2.466		-0.67
L02	0.609		0.06	0.457		0.01	0.292		0.10	3.196		0.03
L03	0.386		-0.39	0.447		-0.48	0.300		-0.92	2.780		-0.83
L04A	0.375		0.03	0.404		-0.18	0.254		0.07	2.584		-0.06
L04B	0.380		-0.16	0.418		-0.26	0.261		0.53	2.670		-0.17
L06	0.145		-0.86	0.385		-0.73	0.232		-1.63	2.921		-1.11
L08	0.417		0.82	0.573		0.56	0.265		0.34	2.977		0.16
L09	0.737	C	0.31	0.587		0.15	0.367	C	0.15	3.967		0.00
L10	0.535		1.17	0.595		0.64	0.407		1.33	3.861		0.79
L12	0.575		-0.87	0.563		-0.55	0.296		-0.81	3.053		-1.09
L13A	0.670		-0.50	0.515		-0.97	0.405		-1.21	3.627		-0.90
L13B	0.347		1.81	0.348		1.40	0.224		2.85	2.840		1.62
L15	0.254		-0.26	0.201		-0.69	0.129		-0.64	1.287		-0.55
L17A	0.773	C	-0.16	0.358		-0.39	0.206		-0.35	3.163		-0.42
L17B	0.622	C	0.26	0.464		-0.20	0.326	C	0.16	3.234		-0.19
L18	0.483		-1.18	0.510		-1.22	0.343		-1.17	3.200		-0.13
L20	0.890	E	-0.54	0.750	E	-0.75	0.530	E	-1.10	4.933		-0.50
L21A	0.634		2.70	0.601		2.77	0.325		4.34	2.973		2.52
L25	0.317		-1.08	0.227		0.46	0.187		0.94	2.143		2.35
L28	0.372		-0.24	0.285		-0.20	0.180		-0.51	2.389		-0.59
L29	0.637		-0.24	0.473		2.02	0.293		1.23	3.180		-0.13
L31A	0.367		-0.06	0.410	A	-0.41	0.300		-0.24	3.233		-0.73
L31B	0.367		-0.06	0.380		0.24	0.173		-0.27	2.300		-1.16
L31C	0.307		0.76	0.340		0.56	0.140		1.06	2.557		0.50
L32	0.418		0.97	0.490		0.81	0.224		0.82	2.668		0.28
L34	0.524		-0.93	0.472		-1.44	0.262		-0.43	2.657		-0.17
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	27			27			27			27		
No. labs w/o outl.	24			27			25			26		
Mean	0.453			0.444			0.266			2.910		
SR Reprod. SD	0.161			0.126			0.093			0.666		
Sr Repeat. SD	0.026			0.032			0.017			0.178		
RSD % VR	35.49 %			28.42 %			34.92 %			22.89 %		
RSD % Vr	5.66 %			7.19 %			6.27 %			6.13 %		
No. A outliers	0			1			0			0		
No. B outliers	0			0			0			0		
No. C outliers	3			0			2			1		
No. sgl. values w/o outl.	72			80			75			78		

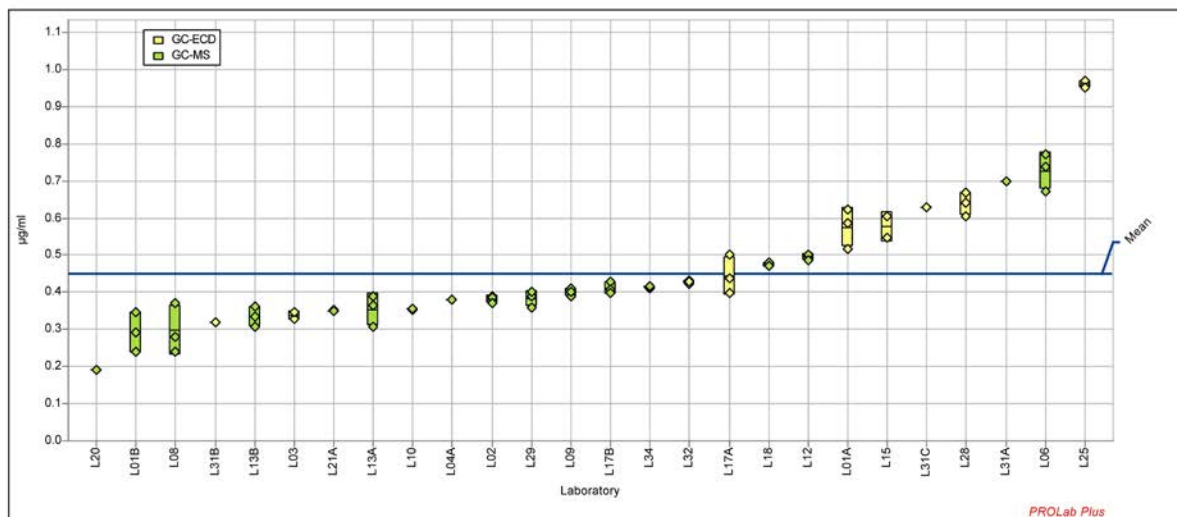
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Summary results - PCB



Sample:	Reference solution	Reproducibility s.d.:	0.171 µg/ml
Measurand:	PCB 28	Rel. reproducibility s.d.:	38.05%
Mean:	0.449 µg/ml	Repeatability s.d.:	0.032 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.05%
No. of laboratories:	26	No. of outlier values:	0



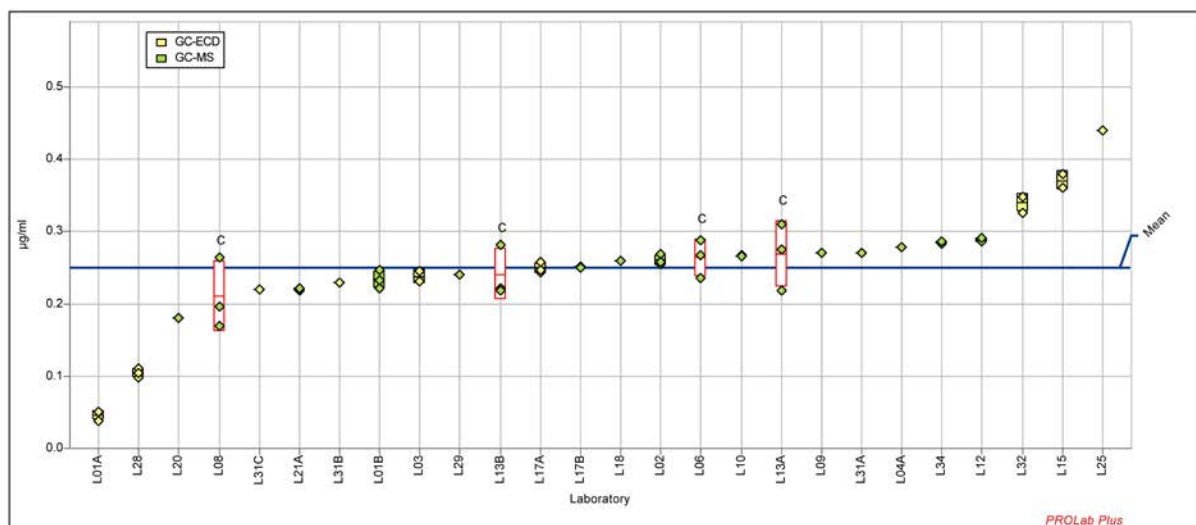
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Summary results - PCB



Sample:	Reference solution	Reproducibility s.d.:	0.085 µg/ml
Measurand:	PCB 52	Rel. reproducibility s.d.:	33.91%
Mean:	0.250 µg/ml	Repeatability s.d.:	0.006 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	2.49%
No. of laboratories:	22	No. of outlier values:	12



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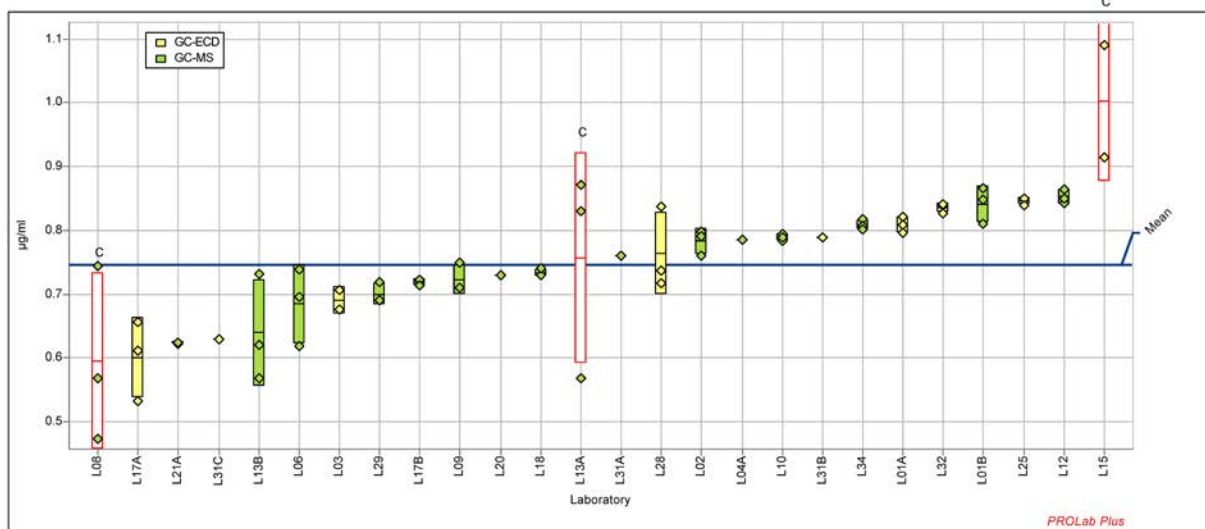
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Summary results - PCB



Sample: Reference solution
Measurand: PCB 101
Mean: 0.747 µg/ml
Method: ISO 5725-2
No. of laboratories: 23

Reproducibility s.d.: 0.082 µg/ml
Rel. reproducibility s.d.: 10.92%
Repeatability s.d.: 0.034 µg/ml
Rel. repeatability s.d.: 4.57%
No. of outlier values: 8



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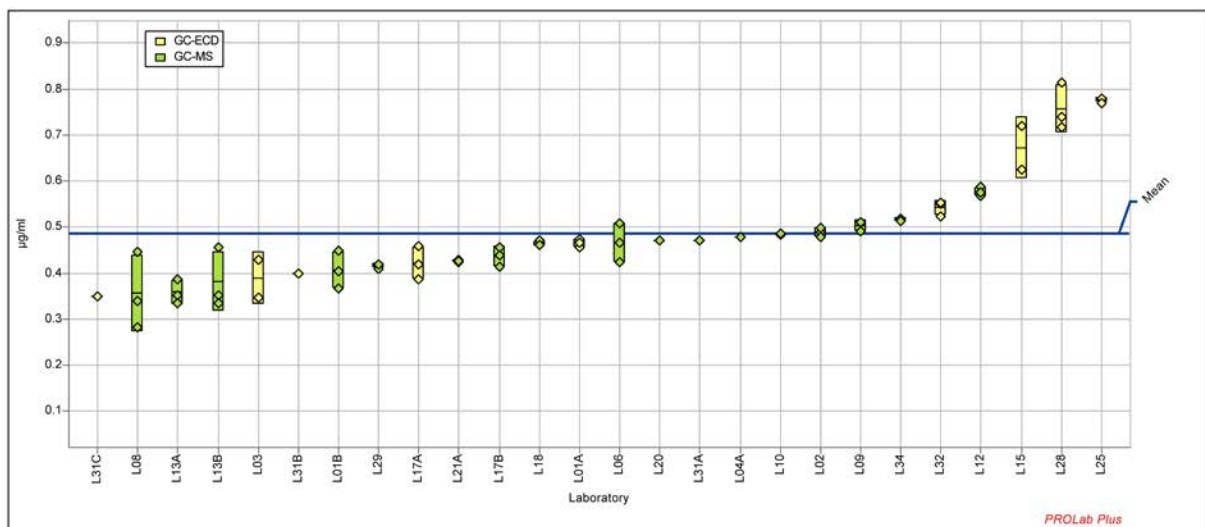
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Summary results - PCB



Sample: Reference solution
Measurand: PCB 118
Mean: 0.485 µg/ml
Method: ISO 5725-2
No. of laboratories: 26

Reproducibility s.d.: 0.116 µg/ml
Rel. reproducibility s.d.: 23.89%
Repeatability s.d.: 0.034 µg/ml
Rel. repeatability s.d.: 7.03%
No. of outlier values: 0



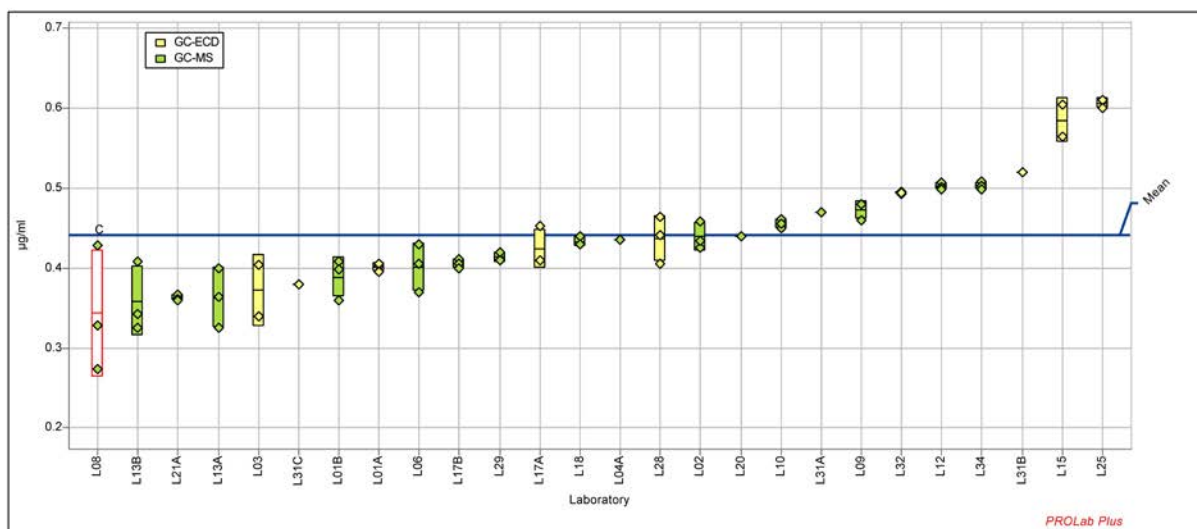
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Summary results - PCB



Sample:	Reference solution	Reproducibility s.d.:	0.067 µg/ml
Measurand:	PCB 138	Rel. reproducibility s.d.:	15.16%
Mean:	0.441 µg/ml	Repeatability s.d.:	0.021 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.66%
No. of laboratories:	25	No. of outlier values:	3



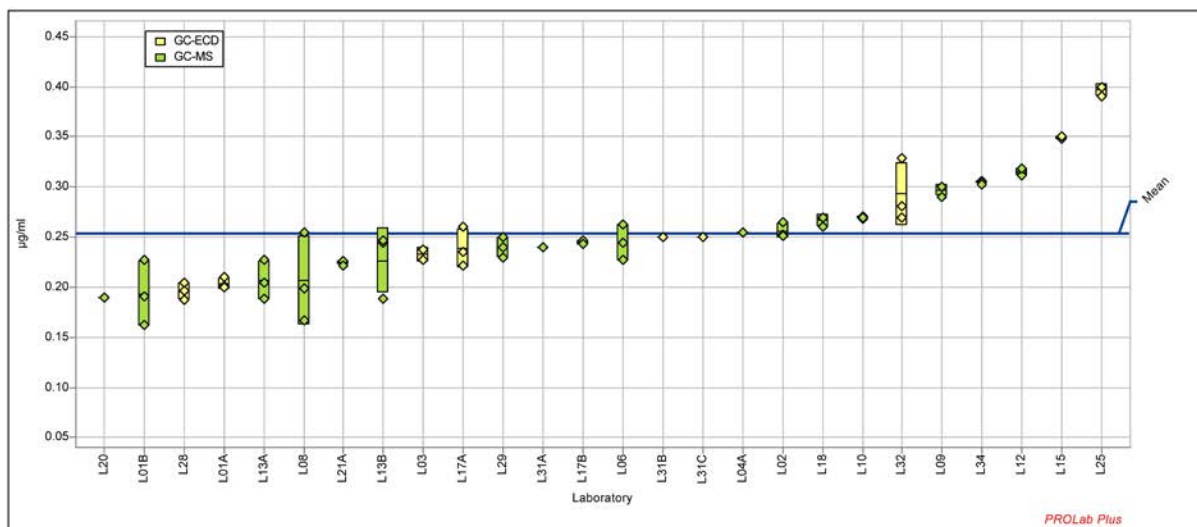
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Summary results - PCB



Sample:	Reference solution	Reproducibility s.d.:	0.053 µg/ml
Measurand:	PCB 153	Rel. reproducibility s.d.:	21.02%
Mean:	0.253 µg/ml	Repeatability s.d.:	0.018 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.00%
No. of laboratories:	26	No. of outlier values:	0



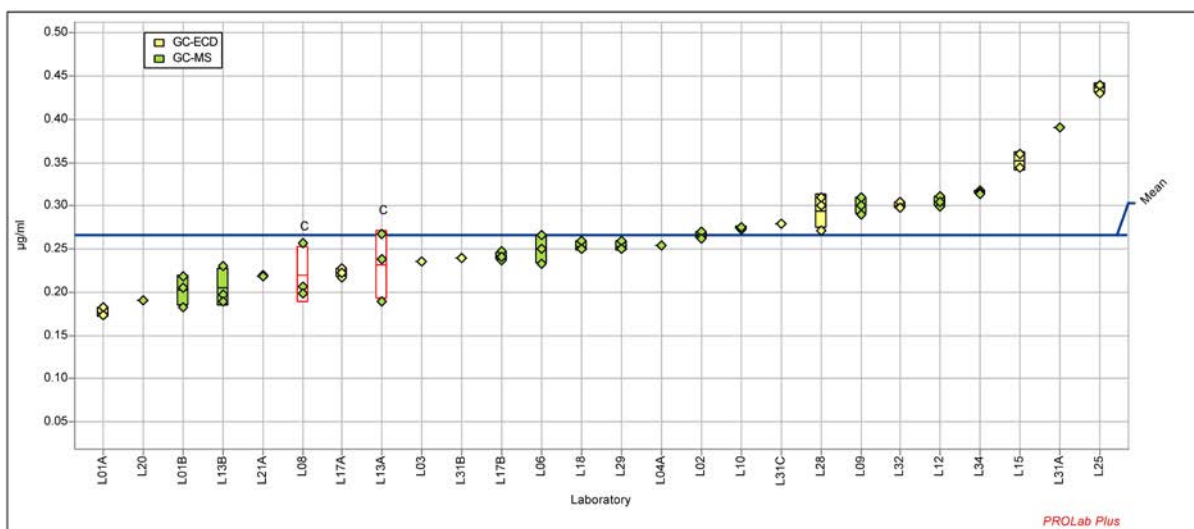
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Summary results - PCB



Sample:	Reference solution	Reproducibility s.d.:	0.062 µg/ml
Measurand:	PCB 180	Rel. reproducibility s.d.:	23.26%
Mean:	0.265 µg/ml	Repeatability s.d.:	0.010 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.76%
No. of laboratories:	24	No. of outlier values:	6



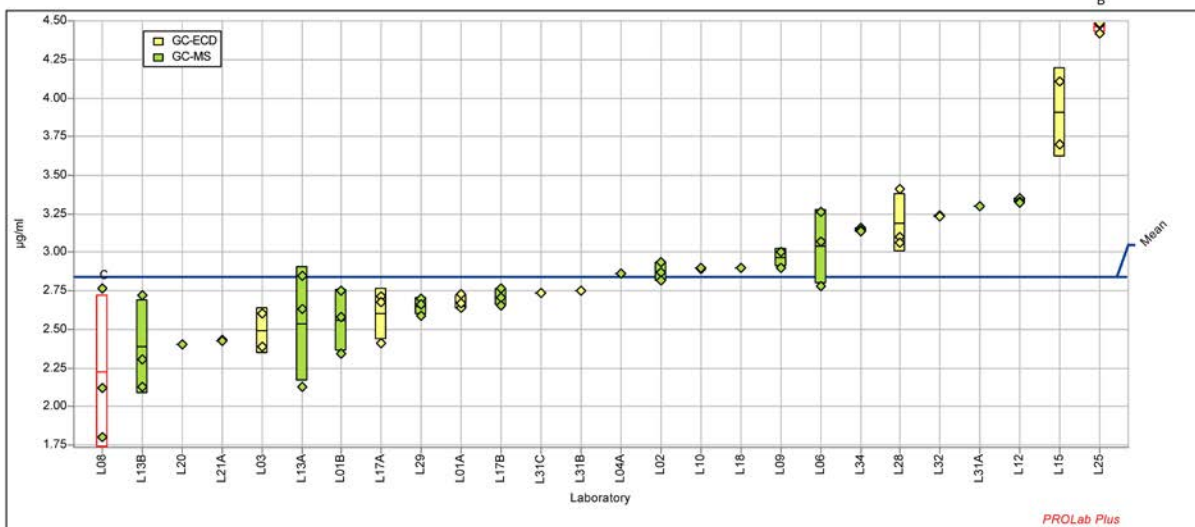
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Summary results - PCB



Sample:	Reference solution	Reproducibility s.d.:	0.374 µg/ml
Measurand:	SUM7 PCB	Rel. reproducibility s.d.:	13.19%
Mean:	2.840 µg/ml	Repeatability s.d.:	0.156 µg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.48%
No. of laboratories:	24	No. of outlier values:	6



3.2 Validation results for SO PCB

SOPCB	PCB 28	type of outlier	z-score	PCB 52	type of outlier	z-score	PCB 101	type of outlier	z-score	PCB 118	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.112	CE	2.50	0.652		-0.43	0.528		-1.23	0.209	E	-1.73
L01B	0.065	C	-0.52	0.630		-0.54	0.833		0.36	0.609		-0.08
L02	0.066		-0.46	0.753		0.11	0.849		0.44	0.685		0.39
L03	0.054		-1.27	0.489		-1.30	0.442		-1.67	0.437		-1.40
L04A	0.053		-1.28	0.669		-0.34	0.646		-0.61	0.645		-0.70
L04B	0.050		-1.51	0.643		-0.48	0.596		-0.87	0.592		-1.02
L06	0.077	C	0.24	0.827		0.50	0.696		-0.35	0.648		0.11
L08	0.077		0.25	0.809		0.40	0.725		-0.20	0.730		-0.28
L09	0.075		0.09	0.813		0.43	0.873		0.57	0.697		1.01
L10	0.080		0.45	0.811		0.42	0.809		0.24	0.755		-0.12
L12	0.081		0.50	0.766		0.18	0.672		-0.48	0.698		-0.28
L13A	0.083		0.63	0.914		0.96	1.087		1.68	0.550		-0.22
L13B	0.088		0.97	1.163	E	2.29	1.157	E	2.04	0.701		0.13
L15	0.066		-0.47	0.868		0.72	0.845		0.42	0.787		1.41
L17A	0.068		-0.34	0.569		-0.87	0.732		-0.16	0.644		2.40
L17B	0.064		-0.58	0.734		0.01	0.882		0.62	0.623		0.45
L18	0.066		-0.49	0.760		0.14	0.797		0.17	0.677		-0.27
L20	0.120	E	3.02	1.123	E	2.07	1.120		1.85	1.063	E	2.39
L21A	0.068		-0.34	0.812		0.42	0.783		0.10	0.777		1.37
L25	0.093		1.27	0.400		-1.77	0.397		-1.91	0.440	C	-1.04
L28	0.076		0.20	0.282	E	-2.40	1.028		1.37	0.920		0.79
L29	0.068		-0.37	0.750		0.09	0.707		-0.30	0.663		0.59
L31A	0.078		0.32	0.677		-0.30	0.703		-0.31	0.620		-0.46
L31B	0.085		0.78	0.670		-0.33	0.590		-0.90	0.437		-0.99
L31C	0.059		-0.95	0.653		-0.42	0.620		-0.75	0.460		-0.96
L32	0.062		-0.74	0.671		-0.33	0.691		-0.38	0.558		-0.39
L34	0.078		0.33	0.877		0.76	0.817		0.28	0.713		1.28
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	27			27			27			27		
No. labs w/o outl.	24			27			27			26		
Mean	0.073			0.733			0.764			0.650		
SR Reprod. SD	0.015			0.188			0.192			0.164		
Sr Repeat. SD	0.004			0.041			0.048			0.034		
RSD % VR	21.12 %			25.70 %			25.18 %			25.29 %		
RSD % Vr	6.04 %			5.62 %			6.33 %			5.30 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	3			0			0			1		
No. sgl. values w/o outl.	72			81			81			78		

SOPCB	PCB 138	type of outlier	z-score	PCB 153	type of outlier	z-score	PCB 180	type of outlier	z-score	SUM7 PCB	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.263		-1.19	0.252		-1.67	0.061		-1.66	2.078		-2.68
L01B	0.462		0.08	0.348		1.31	0.127		-0.10	3.076		-0.25
L02	0.519		-0.25	0.323		-0.38	0.090		0.22	3.285		0.21
L03	0.304		-1.01	0.266		-0.74	0.082		-1.67	2.073		-1.29
L04A	0.388		-0.30	0.320		-0.41	0.089		-0.52	2.810		-0.03
L04B	0.349		-0.59	0.298		-0.75	0.082		-0.83	2.610		-0.35
L06	0.485		0.03	0.345		0.13	0.101		0.06	3.178		-0.01
L08	0.438		1.99	0.492	C	0.17	0.102		0.36	3.373		0.49
L09	0.593		0.64	0.390		0.53	0.110		0.66	3.567		0.28
L10	0.458		0.50	0.380		0.91	0.118		0.42	3.411		0.64
L12	0.439		0.08	0.348		0.22	0.103		-0.05	3.107		0.29
L13A	0.446		0.01	0.343		0.16	0.102		0.60	3.523		-0.61
L13B	0.488		0.49	0.379		-0.14	0.095		1.45	4.070		0.31
L15	0.642		0.58	0.386		-0.59	0.085		0.84	3.678		0.84
L17A	0.760	CE	-1.09	0.260		-0.43	0.088		-0.03	3.122		-0.04
L17B	0.527		-0.25	0.323		-0.13	0.095		0.17	3.249		-0.17
L18	0.440		0.10	0.350		0.08	0.100		0.04	3.167		0.16
L20	0.760	E	1.79	0.477		2.63	0.157	E	2.59	4.800	E	2.52
L21A	0.636		2.95	0.564	E	0.58	0.111		0.95	3.753		0.77
L25	0.347		-1.71	0.213		0.02	0.099		-1.80	1.987		-1.28
L28	0.567		-0.11	0.334		-0.16	0.095		0.25	3.301		1.65
L29	0.543		-0.07	0.337		-0.19	0.094		0.03	3.157		0.08
L31A	0.417		-0.16	0.330		0.08	0.100		-0.32	2.933		-0.18
L31B	0.353		-1.09	0.260		-1.20	0.071		-1.05	2.467		-1.30
L31C	0.357		-0.34	0.317		-1.85	0.057		-0.97	2.522		-1.16
L32	0.425		-0.45	0.309		-0.31	0.091		-0.52	2.808		-0.56
L34	0.626		1.36	0.444		2.11	0.145	E	0.87	3.700		0.38
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	27			27			27			27		
No. labs w/o outl.	26			26			27			27		
Mean	0.472			0.342			0.098			3.141		
SR Reprod. SD	0.120			0.075			0.022			0.641		
Sr Repeat. SD	0.034			0.021			0.007			0.185		
RSD % VR	25.51 %			22.01 %			22.68 %			20.41 %		
RSD % Vr	7.15 %			6.25 %			6.81 %			5.89 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			1			0			0		
No. sgl. values w/o outl.	78			78			81			81		

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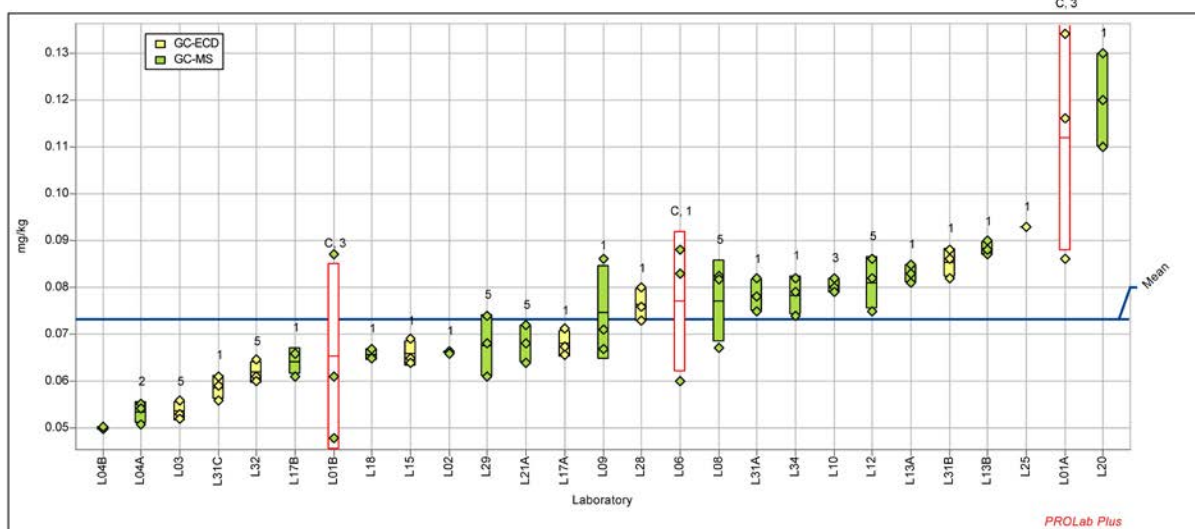
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Summary results - PCB



Sample: Soil
Measurand: PCB 28
Mean: 0.073 mg/kg
Method: ISO 5725-2
No. of laboratories: 24

Reproducibility s.d.: 0.015 mg/kg
Rel. reproducibility s.d.: 21.12%
Repeatability s.d.: 0.004 mg/kg
Rel. repeatability s.d.: 6.04%
No. of outlier values: 9



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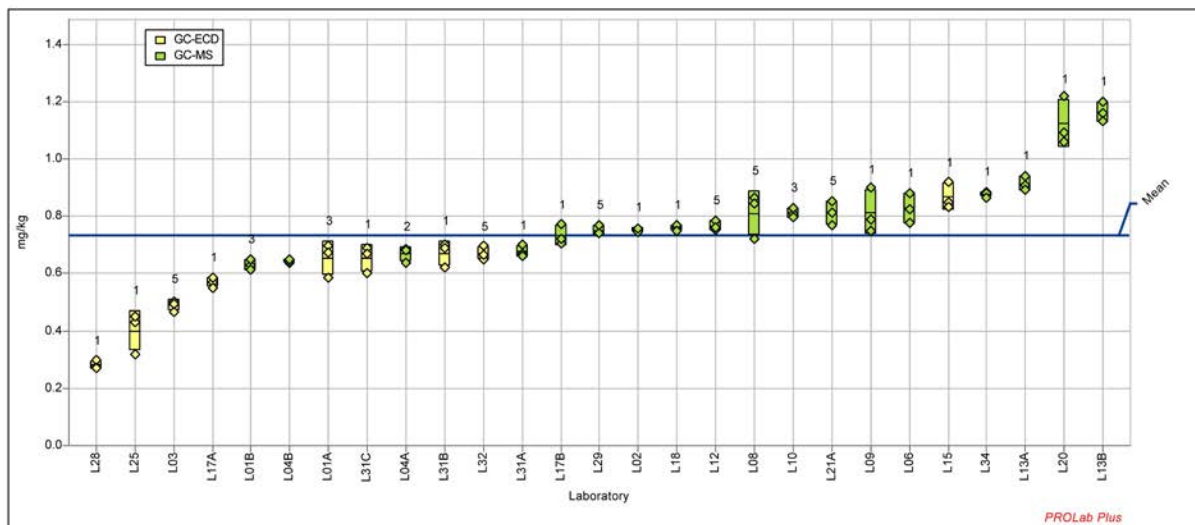
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Summary results - PCB



Sample: Soil
Measurand: PCB 52
Mean: 0.733 mg/kg
Method: ISO 5725-2
No. of laboratories: 27

Reproducibility s.d.: 0.188 mg/kg
Rel. reproducibility s.d.: 25.70%
Repeatability s.d.: 0.041 mg/kg
Rel. repeatability s.d.: 5.62%
No. of outlier values: 0



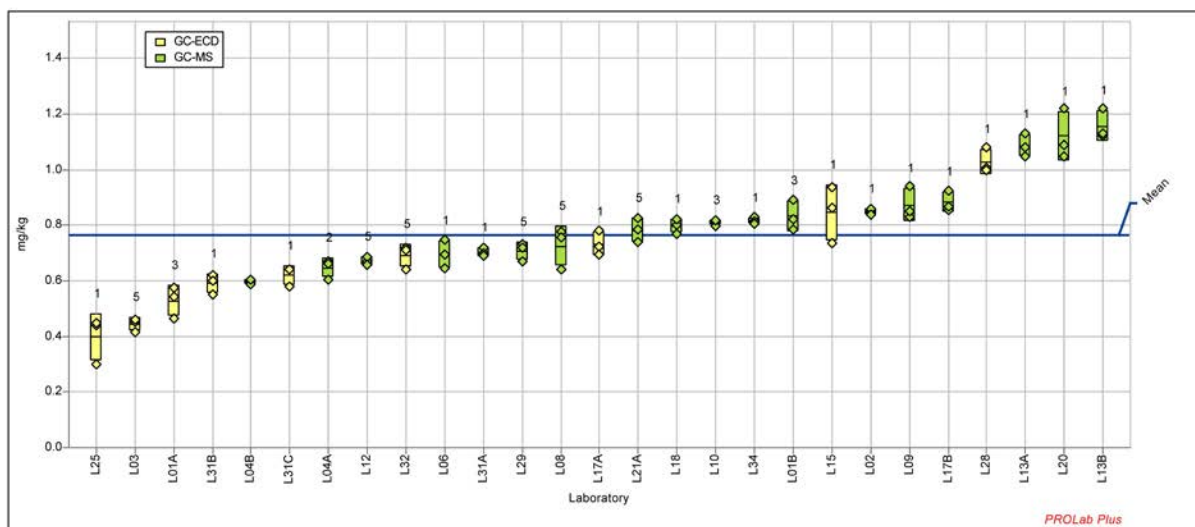
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Summary results - PCB



Sample:	Soil	Reproducibility s.d.:	0.192 mg/kg
Measurand:	PCB 101	Rel. reproducibility s.d.:	25.18%
Mean:	0.764 mg/kg	Repeatability s.d.:	0.048 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.33%
No. of laboratories:	27	No. of outlier values:	0



PROLab Plus

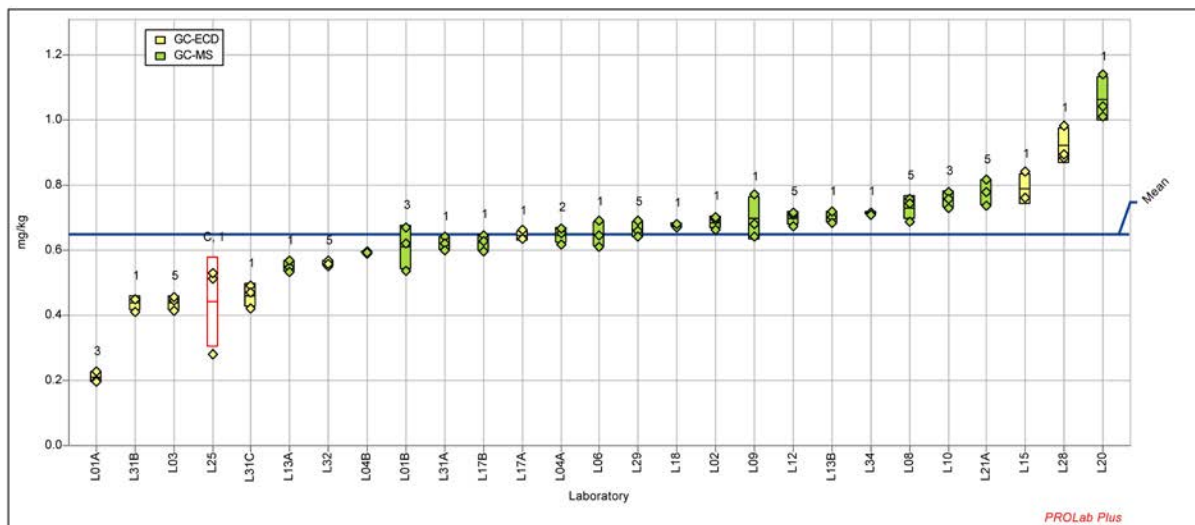
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Summary results - PCB



Sample:	Soil	Reproducibility s.d.:	0.164 mg/kg
Measurand:	PCB 118	Rel. reproducibility s.d.:	25.29%
Mean:	0.650 mg/kg	Repeatability s.d.:	0.034 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.30%
No. of laboratories:	26	No. of outlier values:	3



PROLab Plus

HORIZONTAL 2013

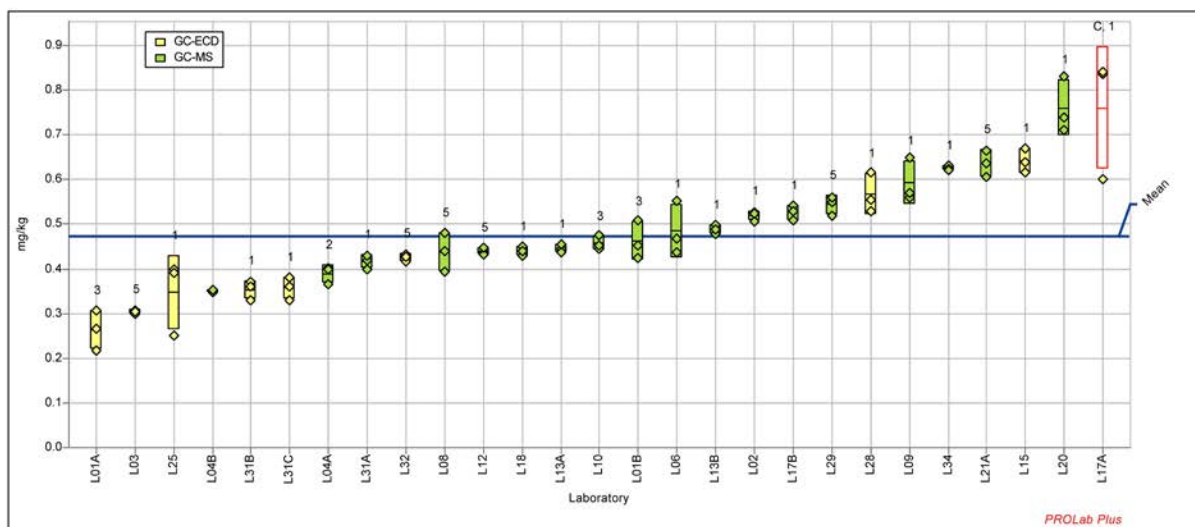
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Summary results - PCB



Sample: Soil
Measurand: PCB 138
Mean: 0.472 mg/kg
Method: ISO 5725-2
No. of laboratories: 26

Reproducibility s.d.: 0.120 mg/kg
Rel. reproducibility s.d.: 25.51%
Repeatability s.d.: 0.034 mg/kg
Rel. repeatability s.d.: 7.15%
No. of outlier values: 3



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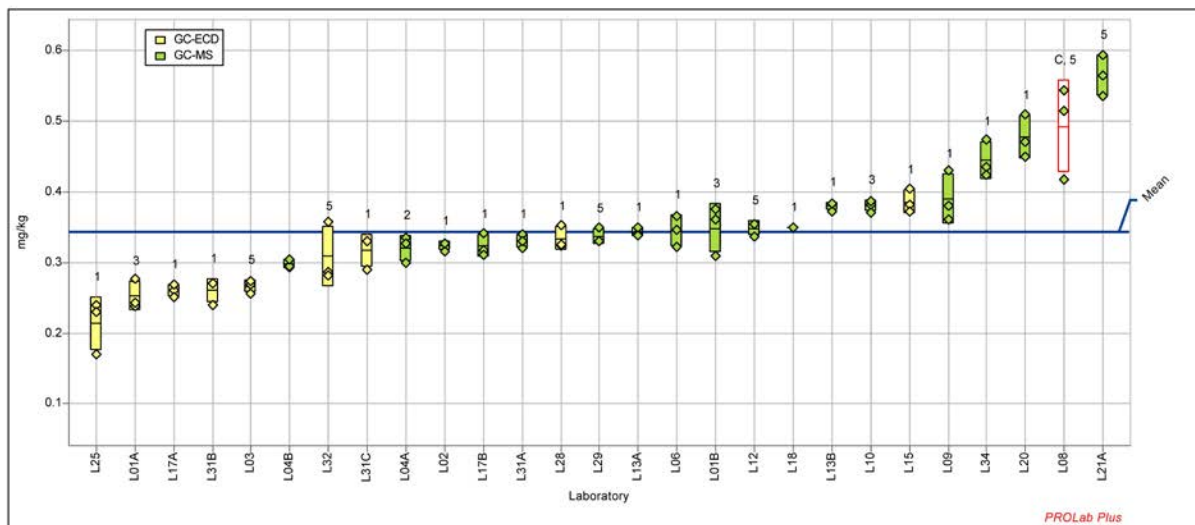
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Summary results - PCB



Sample: Soil
Measurand: PCB 153
Mean: 0.342 mg/kg
Method: ISO 5725-2
No. of laboratories: 26

Reproducibility s.d.: 0.075 mg/kg
Rel. reproducibility s.d.: 22.01%
Repeatability s.d.: 0.021 mg/kg
Rel. repeatability s.d.: 6.25%
No. of outlier values: 3



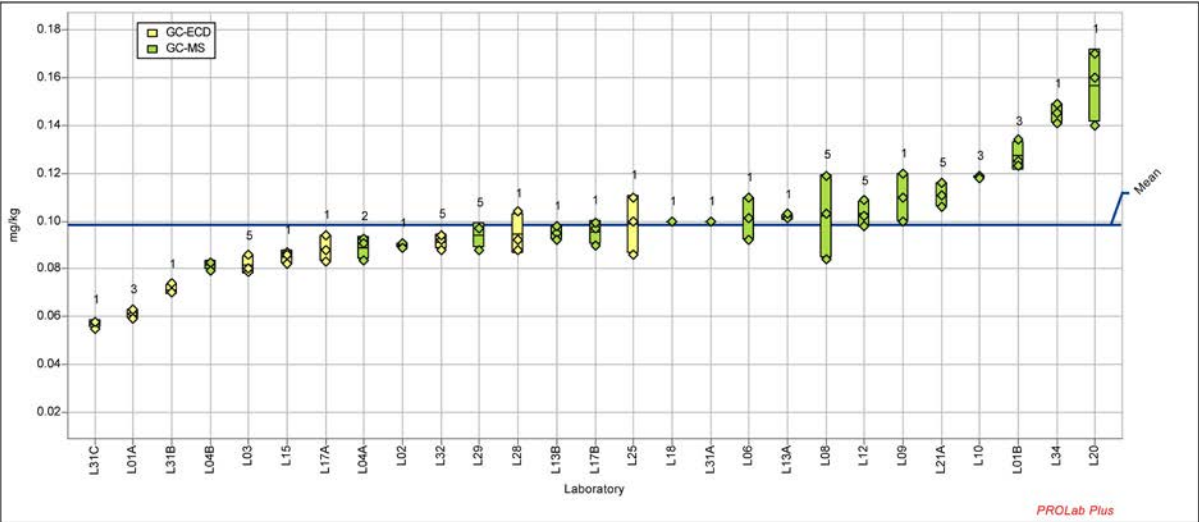
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Summary results - PCB



Sample:	Soil	Reproducibility s.d.:	0.022 mg/kg
Measurand:	PCB 180	Rel. reproducibility s.d.:	22.68%
Mean:	0.098 mg/kg	Repeatability s.d.:	0.007 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.81%
No. of laboratories:	27	No. of outlier values:	0



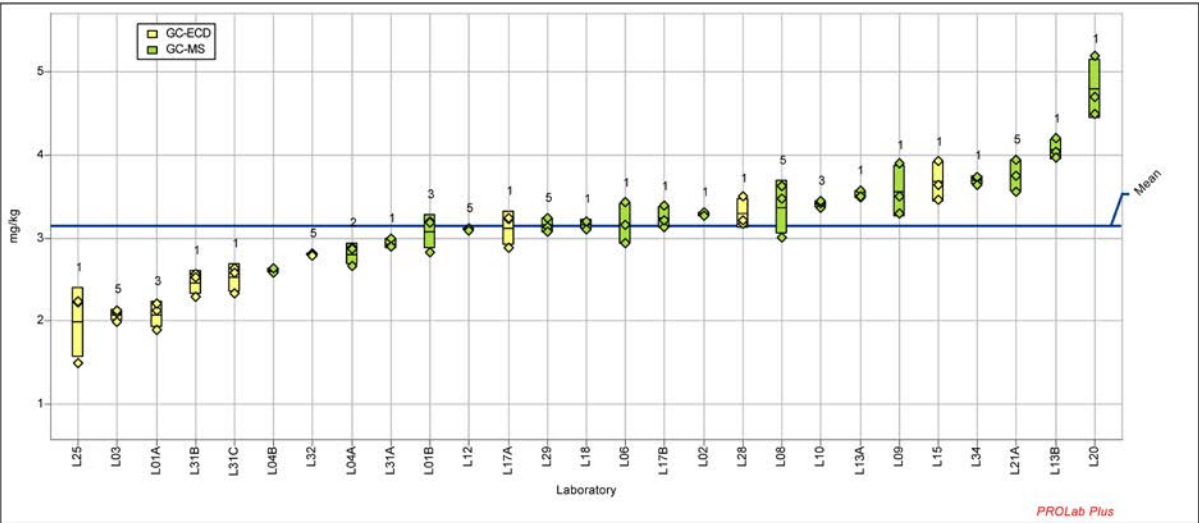
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Summary results - PCB



Sample:	Soil	Reproducibility s.d.:	0.641 mg/kg
Measurand:	SUM7 PCB	Rel. reproducibility s.d.:	20.41%
Mean:	3.141 mg/kg	Repeatability s.d.:	0.185 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.89%
No. of laboratories:	27	No. of outlier values:	0



3.3 Validation results for CO PCB

COPCB	PCB 28	type of outlier	z-score	PCB 52	type of outlier	z-score	PCB 101	type of outlier	z-score	PCB 118	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	1.041		1.18	0.413		0.62	0.473		1.56	0.201		-0.44
L01B	0.770		0.07	0.316		-0.36	0.342		-0.52	0.244		0.64
L02	0.785		0.13	0.418		0.67	0.483		1.71	0.214		2.02
L03	0.552		-0.84	0.324		-0.27	0.304		-1.13	0.197		-1.18
L04A	0.653		-0.42	0.344		-0.08	0.363		-0.19	0.222		-0.62
L04B	0.705		-0.21	0.344		-0.07	0.390		0.24	0.234		-0.29
L06	0.983	C	0.94	0.379	C	0.27	0.305	C	-1.12	0.155		-1.20
L08	0.593		-0.67	0.338		-0.14	0.321		-0.86	0.199		-0.38
L09	0.947	C	0.79	0.580	CE	2.29	0.513	CE	2.20	0.300	C	3.07
L10	0.929		0.72	0.554	E	2.03	0.441		1.04	0.293		0.65
L12	0.654		-0.41	0.414		0.62	0.382		0.11	0.230		0.99
L13A	0.703		-0.21	0.414		0.62	0.425		0.79	0.161		-0.23
L13B	0.780		0.11	0.414		0.62	0.408		0.52	0.183		-0.99
L15	0.269	E	-2.01	0.118	E	-2.34	0.104	BE	-4.31	0.113		-1.78
L17A	0.705	C	-0.20	0.378		0.27	0.542	CE	2.65	0.429	E	5.37
L17B	0.801		0.19	0.378		0.26	0.430		0.88	0.207		1.24
L18	0.797		0.17	0.450		0.99	0.410		0.55	0.247		0.34
L20	0.883	C	0.53	0.510	C	1.59	0.497	C	1.93	0.300	C	2.60
L21A	0.595		-0.66	0.318		-0.34	0.335		-0.64	0.215		1.82
L25	0.787	C	0.13	0.273		-0.79	0.233	E	-2.25	0.317	C	-0.81
L28	0.950		0.81	0.080	E	-2.73	0.307		-1.08	0.372	E	-0.13
L29	0.663		-0.38	0.370		0.18	0.350		-0.40	0.220		1.39
L31A	1.300	E	2.25	0.433		0.82	0.430		0.87	0.253		-0.11
L31B	0.703		-0.21	0.383		0.32	0.387		0.18	0.187		0.02
L31C	1.300	E	2.25	0.370		0.18	0.350		-0.40	0.157		-0.27
L32	0.483		-1.12	0.269		-0.83	0.274	C	-1.61	0.140		-0.82
L34	0.575		-0.74	0.327		-0.25	0.312		-1.00	0.175		0.15
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	27			27			27			27		
No. labs w/o outl.	22			24			21			24		
Mean	0.755			0.352			0.375			0.219		
SR Reprod. SD	0.242			0.100			0.063			0.070		
Sr Repeat. SD	0.027			0.013			0.011			0.008		
RSD % VR	32.10 %			28.33 %			16.77 %			31.84 %		
RSD % Vr	3.52 %			3.75 %			3.03 %			3.80 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			1			0		
No. C outliers	5			3			5			3		
No. sgl. values w/o outl.	66			72			63			72		

COPCB	PCB 138	type of outlier	z-score	PCB 153	type of outlier	z-score	PCB 180	type of outlier	z-score	SUM7 PCB	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.379		-0.89	0.328		-1.48	0.156		0.34	2.991		-0.25
L01B	0.492		0.07	0.421		1.23	0.327		0.19	2.912		0.36
L02	0.636	E	0.70	0.482		0.81	0.300		0.94	3.318		-0.06
L03	0.302		-0.57	0.359		-0.11	0.242		-0.96	2.283		-0.31
L04A	0.360		-0.17	0.397		-0.13	0.241		-0.41	2.581		0.05
L04B	0.394		0.25	0.438		0.36	0.272		-0.05	2.777		0.22
L06	0.299		-0.39	0.377		-0.42	0.223		-0.16	2.719		-0.92
L08	0.385		1.03	0.514		0.50	0.281	C	-0.32	2.631		-0.28
L09	0.747	CE	1.41	0.550	A	1.28	0.330	A	2.31	4.067	CE	1.17
L10	0.493		1.48	0.557		1.88	0.368		1.52	3.635		1.07
L12	0.528		1.21	0.531		1.09	0.318		0.46	3.057		0.16
L13A	0.401		-0.98	0.319		0.01	0.250		-0.25	2.670		-0.82
L13B	0.321		-0.67	0.349	C	-0.37	0.226		-0.23	2.680		-0.51
L15	0.239		-2.35	0.187	E	-2.08	0.118	E	-3.04	1.148	E	-1.52
L17A	0.987	BE	-0.16	0.398		-0.03	0.247		1.61	3.686		3.02
L17B	0.555		0.10	0.423		0.28	0.267		0.47	3.061		-0.16
L18	0.460		0.82	0.493		0.81	0.300		0.66	3.167		0.40
L20	0.697	CE	1.69	0.577	C	2.34	0.397	CE	1.95	3.867	C	1.17
L21A	0.615		1.74	0.582		1.23	0.326		0.33	2.986		-0.05
L25	0.340		-1.83	0.237		-0.83	0.197		-0.78	2.383		1.41
L28	0.411		-0.93	0.324		-0.93	0.191		-0.32	2.635		2.21
L29	0.570		0.10	0.423		0.07	0.253		0.07	2.847		0.02
L31A	0.413		0.48	0.460		0.70	0.293		1.46	3.600		0.50
L31B	0.427		0.20	0.433		-0.31	0.230		-0.10	2.750		-0.46
L31C	0.397		0.17	0.430		-1.42	0.160		0.66	3.163		-0.89
L32	0.339		-0.61	0.355		-1.16	0.176		-1.42	2.035		-1.14
L34	0.440		-0.42	0.373		-0.03	0.247		-0.66	2.449		-0.62
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	27			27			27			27		
No. labs w/o outl.	24			25			25			25		
Mean	0.425			0.414			0.249			2.807		
SR Reprod. SD	0.105			0.097			0.063			0.545		
Sr Repeat. SD	0.026			0.017			0.015			0.120		
RSD % VR	24.66 %			23.34 %			25.26 %			19.42 %		
RSD % Vr	6.16 %			4.14 %			6.10 %			4.28 %		
No. A outliers	0			1			1			0		
No. B outliers	1			0			0			0		
No. C outliers	2			2			2			2		
No. sgl. values w/o outl.	72			74			74			75		

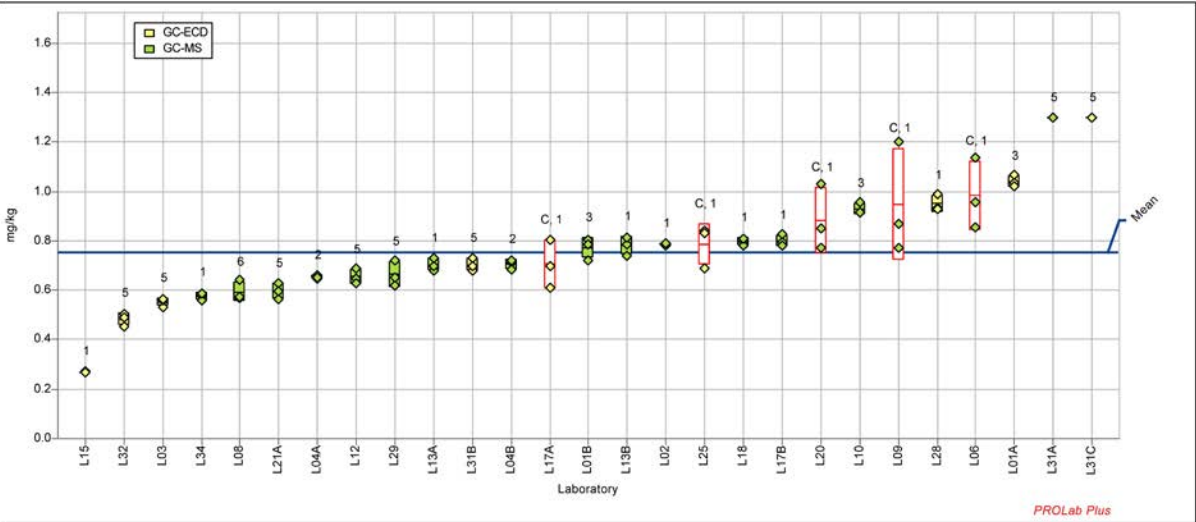
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Summary results - PCB



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.242 mg/kg
Measurand:	PCB 28	Rel. reproducibility s.d.:	32.10%
Mean:	0.755 mg/kg	Repeatability s.d.:	0.027 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.52%
No. of laboratories:	22	No. of outlier values:	15



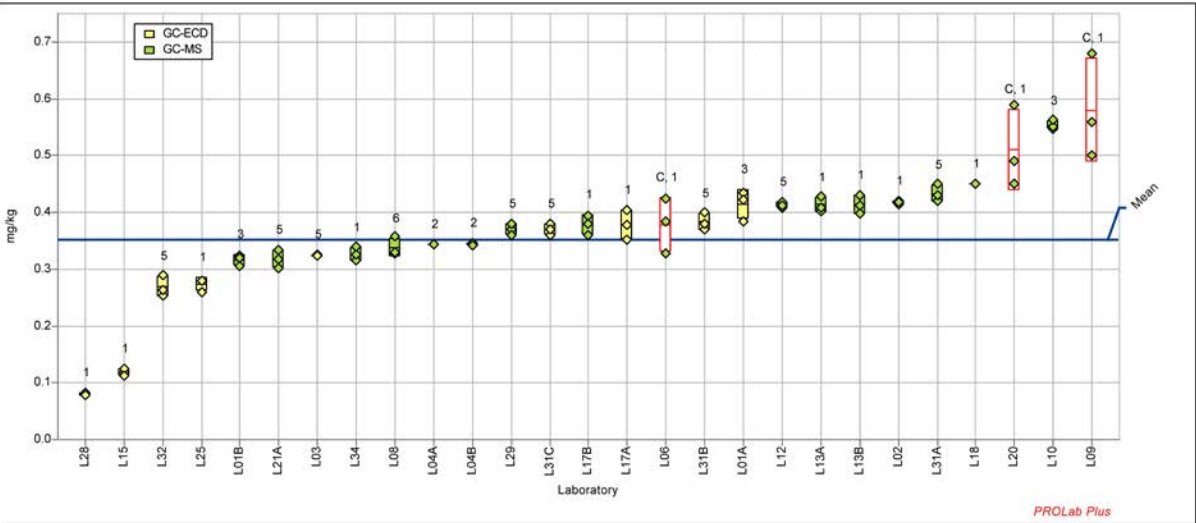
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Summary results - PCB



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.100 mg/kg
Measurand:	PCB 52	Rel. reproducibility s.d.:	28.33%
Mean:	0.352 mg/kg	Repeatability s.d.:	0.013 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.75%
No. of laboratories:	24	No. of outlier values:	9



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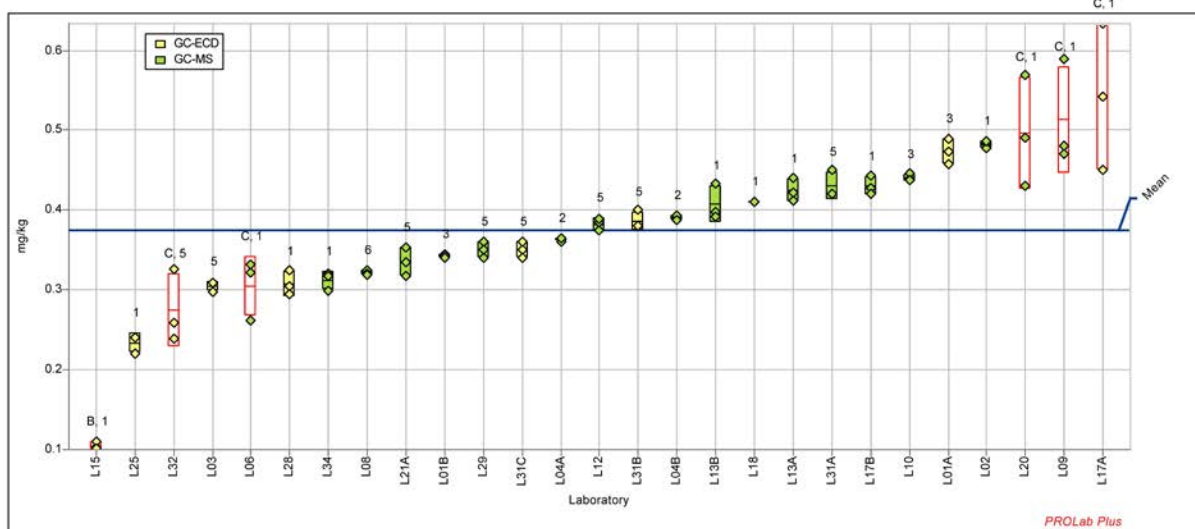
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Summary results - PCB



Sample: Treated biowaste (compost)
Measurand: PCB 101
Mean: 0.375 mg/kg
Method: ISO 5725-2
No. of laboratories: 21

Reproducibility s.d.: 0.063 mg/kg
Rel. reproducibility s.d.: 16.77%
Repeatability s.d.: 0.011 mg/kg
Rel. repeatability s.d.: 3.03%
No. of outlier values: 18



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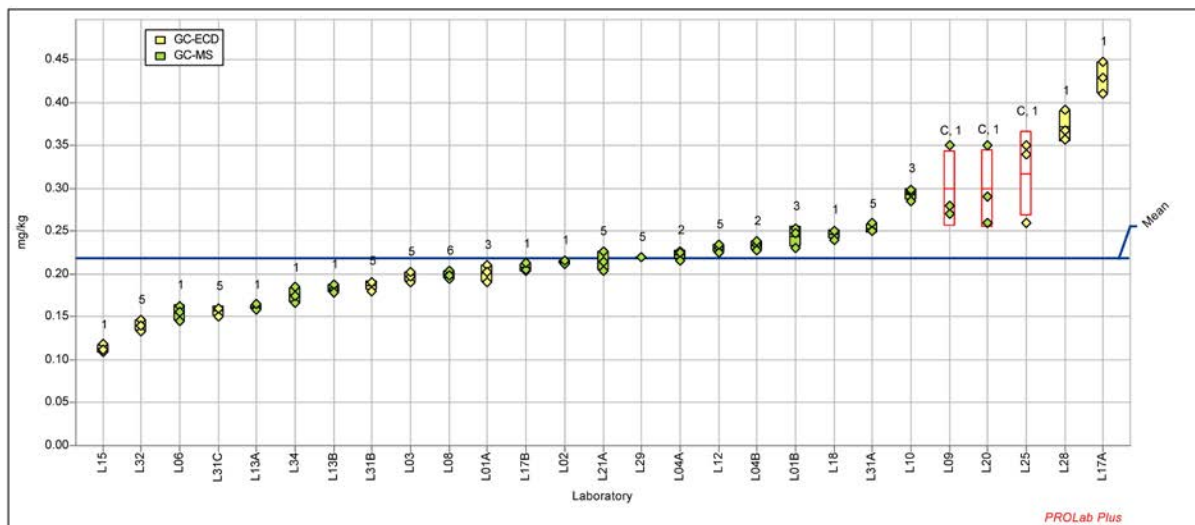
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Summary results - PCB



Sample: Treated biowaste (compost)
Measurand: PCB 118
Mean: 0.219 mg/kg
Method: ISO 5725-2
No. of laboratories: 24

Reproducibility s.d.: 0.070 mg/kg
Rel. reproducibility s.d.: 31.84%
Repeatability s.d.: 0.008 mg/kg
Rel. repeatability s.d.: 3.80%
No. of outlier values: 9



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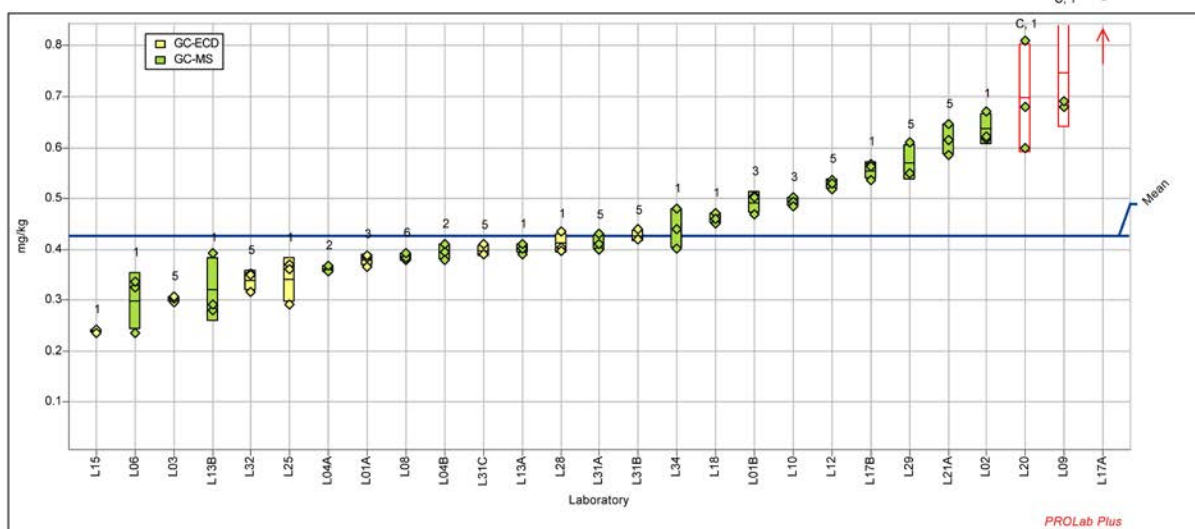
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Summary results - PCB



Sample: Treated biowaste (compost)
Measurand: PCB 138
Mean: 0.425 mg/kg
Method: ISO 5725-2
No. of laboratories: 24

Reproducibility s.d.: 0.105 mg/kg
Rel. reproducibility s.d.: 24.66%
Repeatability s.d.: 0.026 mg/kg
Rel. repeatability s.d.: 6.16%
No. of outlier values: 9



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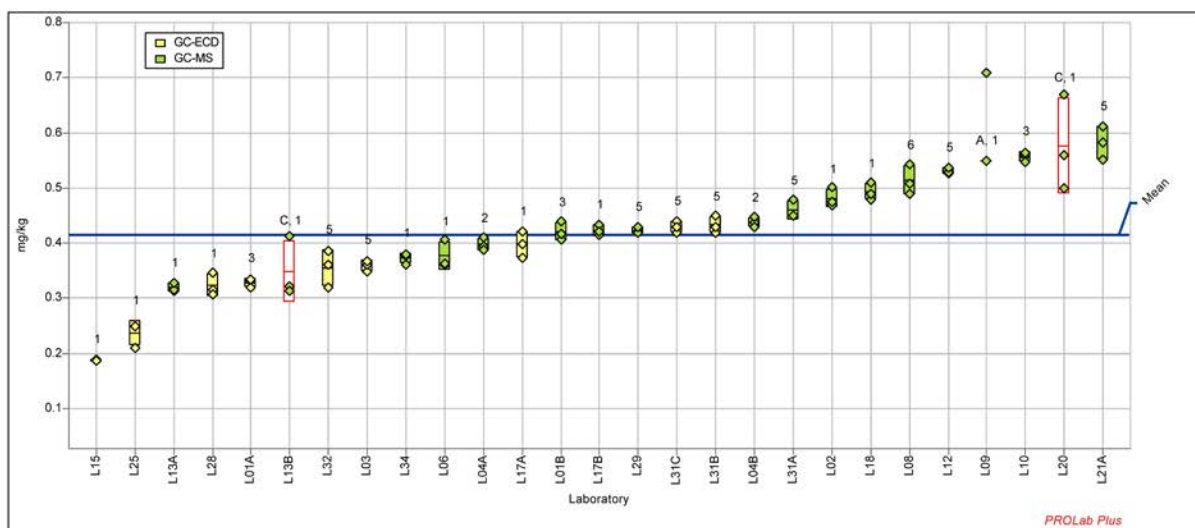
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Summary results - PCB



Sample: Treated biowaste (compost)
Measurand: PCB 153
Mean: 0.414 mg/kg
Method: ISO 5725-2
No. of laboratories: 25

Reproducibility s.d.: 0.097 mg/kg
Rel. reproducibility s.d.: 23.34%
Repeatability s.d.: 0.017 mg/kg
Rel. repeatability s.d.: 4.14%
No. of outlier values: 7



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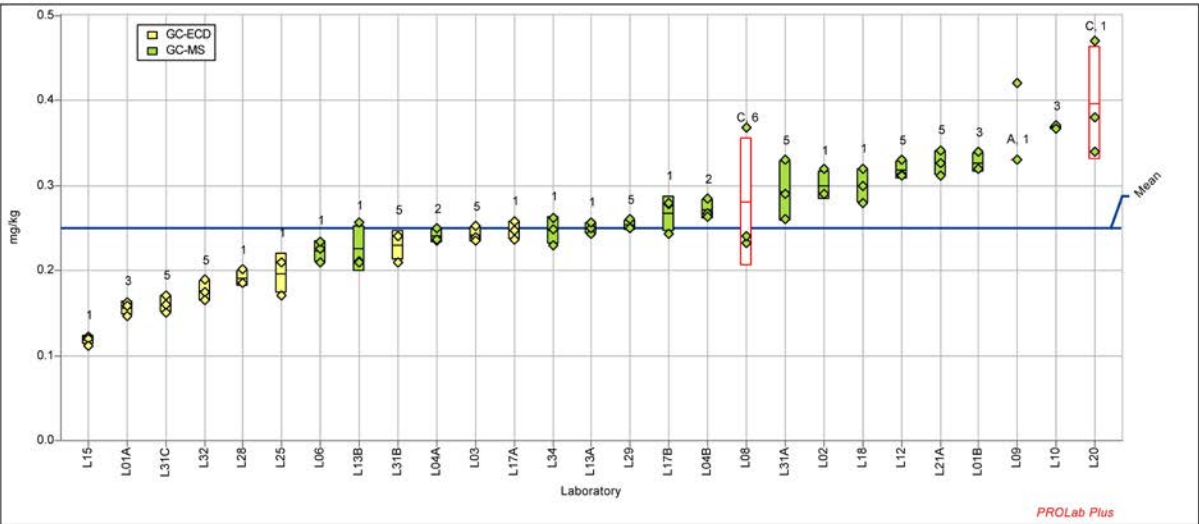
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Summary results - PCB



Sample: Treated biowaste (compost)
Measurand: PCB 180
Mean: 0.249 mg/kg
Method: ISO 5725-2
No. of laboratories: 25

Reproducibility s.d.: 0.063 mg/kg
Rel. reproducibility s.d.: 25.26%
Repeatability s.d.: 0.015 mg/kg
Rel. repeatability s.d.: 6.10%
No. of outlier values: 7



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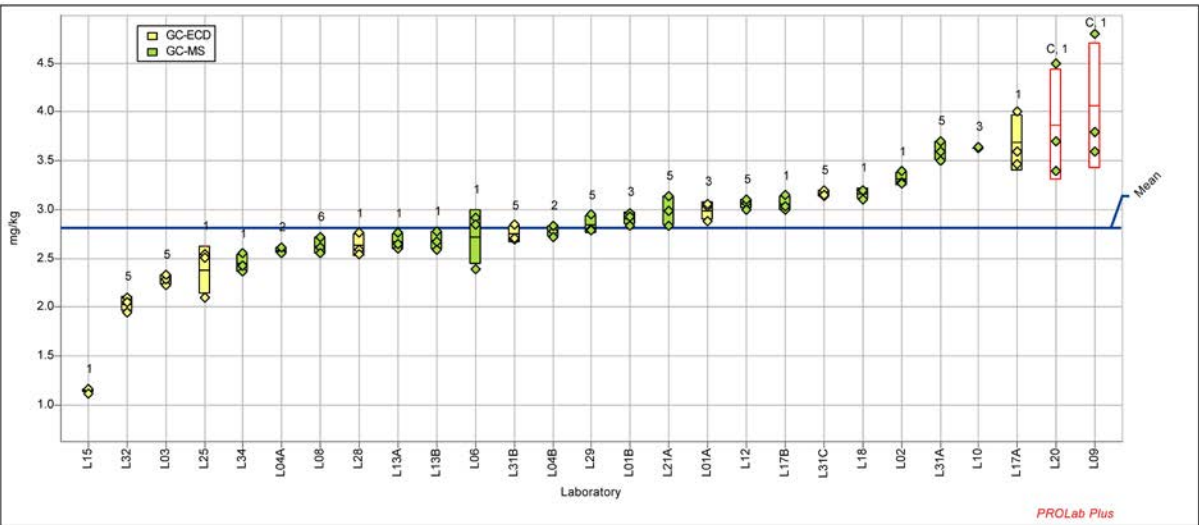
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Summary results - PCB



Sample: Treated biowaste (compost)
Measurand: SUM7 PCB
Mean: 2.807 mg/kg
Method: ISO 5725-2
No. of laboratories: 25

Reproducibility s.d.: 0.545 mg/kg
Rel. reproducibility s.d.: 19.42%
Repeatability s.d.: 0.120 mg/kg
Rel. repeatability s.d.: 4.28%
No. of outlier values: 6



3.4 Validation results for SL PCB

SLPCB	PCB 28	type of outlier	z-score	PCB 52	type of outlier	z-score	PCB 101	type of outlier	z-score	PCB 118	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	1.233	E	2.22	0.053	E	-2.15	0.412		0.29	0.162		-0.18
L01B	0.712		-0.23	0.215		-0.96	0.286		-0.91	0.183		-0.14
L02	0.766		0.03	0.405		0.42	0.462		0.77	0.204		0.98
L03	0.637		-0.58	0.377		0.22	0.393		0.11	0.241		-0.42
L04A	0.654		-0.50	0.336		-0.08	0.354		-0.26	0.209		-0.49
L04B	0.672		-0.42	0.349		0.01	0.367		-0.14	0.224		-0.45
L06	1.297	CE	2.52	0.388		0.30	0.283		-0.93	0.190		-1.91
L08	0.719		-0.20	0.402		0.40	0.372		-0.09	0.228		-0.22
L09	0.910		0.70	0.560	C	1.56	0.497		1.10	0.293		1.77
L10	0.948		0.88	0.587		1.75	0.471		0.85	0.318		0.51
L12	0.591		-0.80	0.421		0.54	0.387		0.05	0.220		0.76
L13A	0.810		0.23	0.463		0.85	0.480		0.94	0.281		1.35
L13B	0.759		-0.01	0.462		0.84	0.495		1.08	0.202		-0.66
L15	0.308	E	-2.12	0.113		-1.71	0.141	E	-2.29	0.141		-1.24
L17A	0.623		-0.64	0.336		-0.08	0.492		1.05	0.374	E	2.00
L17B	0.792		0.15	0.373		0.19	0.443		0.58	0.214		1.06
L18	0.803		0.20	0.413		0.48	0.410		0.27	0.253		0.19
L20	1.100		1.59	0.647	E	2.19	0.617	E	2.24	0.380	E	2.72
L21A	0.547		-1.00	0.304		-0.31	0.332		-0.47	0.229		1.13
L25	0.713		-0.22	0.200		-1.07	0.190		-1.82	0.310		-0.85
L28	0.863		0.48	0.087		-1.90	0.279		-0.98	0.324		-0.50
L29	0.723		-0.18	0.413		0.48	0.393		0.11	0.247		1.15
L31A	1.100		1.59	0.413		0.48	0.390		0.08	0.217		-0.54
L31B	0.577		-0.86	0.313		-0.25	0.330		-0.49	0.160		-0.54
L31C	1.067		1.44	0.300		-0.34	0.273		-1.03	0.130		-0.91
L32	0.589		-0.81	0.329		-0.13	0.429		0.45	0.189		-0.21
L34	0.560		-0.94	0.322		-0.18	0.320		-0.58	0.198		0.44
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	27			27			27			27		
No. labs w/o outl.	26			26			27			27		
Mean	0.761			0.347			0.381			0.234		
SR Reprod. SD	0.213			0.137			0.105			0.067		
Sr Repeat. SD	0.065			0.027			0.030			0.020		
RSD % VR	28.02 %			39.49 %			27.54 %			28.63 %		
RSD % Vr	8.59 %			7.81 %			7.89 %			8.62 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			1			0			0		
No. sgl. values w/o outl.	78			78			81			81		

SLPCB	PCB 138	type of outlier	z-score	PCB 153	type of outlier	z-score	PCB 180	type of outlier	z-score	SUM7 PCB	type of outlier	z-score
Unit	mg/kg			mg/kg			mg/kg			mg/kg		
L01A	0.424		-0.81	0.341		-1.26	0.149		-0.20	2.775		-1.08
L01B	0.431		-0.56	0.373		0.01	0.267		-0.67	2.466		-0.76
L02	0.609		0.11	0.457		0.28	0.292		0.43	3.196		-0.45
L03	0.386		0.03	0.447		0.37	0.300		-0.20	2.780		0.11
L04A	0.375		-0.31	0.404		-0.13	0.254		-0.49	2.584		-0.38
L04B	0.380		-0.21	0.418		-0.06	0.261		-0.36	2.670		-0.15
L06	0.145		-0.47	0.385		-0.36	0.232		0.02	2.921		-0.65
L08	0.417		1.02	0.573		-0.01	0.265		0.10	2.977		-0.09
L09	0.737	C	1.13	0.587		1.09	0.367	C	1.59	3.967		0.88
L10	0.535		1.20	0.595		1.53	0.407		1.43	3.861		1.26
L12	0.575		0.95	0.563		0.33	0.296		0.22	3.053		-0.22
L13A	0.670		0.57	0.515		1.50	0.405		1.08	3.627		0.70
L13B	0.347		-0.76	0.348		-0.45	0.224		-0.11	2.840		-0.48
L15	0.254		-1.92	0.201		-1.48	0.129		-2.44	1.287		-1.39
L17A	0.773	C	-0.68	0.358		-0.64	0.206		0.38	3.163		2.09
L17B	0.622	C	0.16	0.464		0.65	0.326	C	0.49	3.234		-0.30
L18	0.483		0.53	0.510		0.84	0.343		0.44	3.200		0.29
L20	0.890	E	2.43	0.750	E	2.85	0.530	E	3.04	4.933		2.17
L21A	0.634		1.25	0.601		0.64	0.325		0.09	2.973		-0.08
L25	0.317		-1.72	0.227		-0.85	0.187		-1.15	2.143		1.13
L28	0.372		-1.26	0.285		-0.93	0.180		-0.78	2.389		1.34
L29	0.637		0.24	0.473		0.30	0.293		0.41	3.180		0.19
L31A	0.367		-0.27	0.410	A	0.37	0.300		0.49	3.233		-0.26
L31B	0.367		-0.51	0.380		-1.00	0.173		-0.92	2.300		-1.11
L31C	0.307		-0.82	0.340		-1.36	0.140		-0.53	2.557		-1.55
L32	0.418		0.37	0.490		-0.45	0.224		-0.36	2.668		-0.67
L34	0.524		0.22	0.472		-0.05	0.262		-0.38	2.657		-0.55
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	27			27			27			27		
No. labs w/o outl.	24			27			25			26		
Mean	0.453			0.444			0.266			2.910		
SR Reprod. SD	0.161			0.126			0.093			0.666		
Sr Repeat. SD	0.026			0.032			0.017			0.178		
RSD % VR	35.49 %			28.42 %			34.92 %			22.89 %		
RSD % Vr	5.66 %			7.19 %			6.27 %			6.13 %		
No. A outliers	0			1			0			0		
No. B outliers	0			0			0			0		
No. C outliers	3			0			2			1		
No. sgl. values w/o outl.	72			80			75			78		

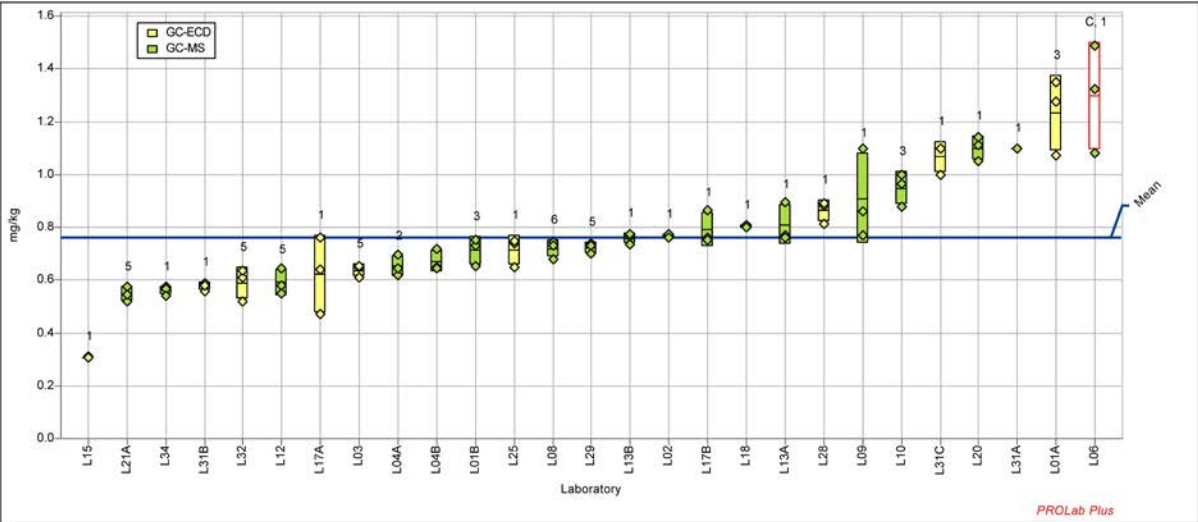
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Summary results - PCB



Sample:	Sewage sludge	Reproducibility s.d.:	0.213 mg/kg
Measurand:	PCB 28	Rel. reproducibility s.d.:	28.02%
Mean:	0.761 mg/kg	Repeatability s.d.:	0.065 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.59%
No. of laboratories:	26	No. of outlier values:	3



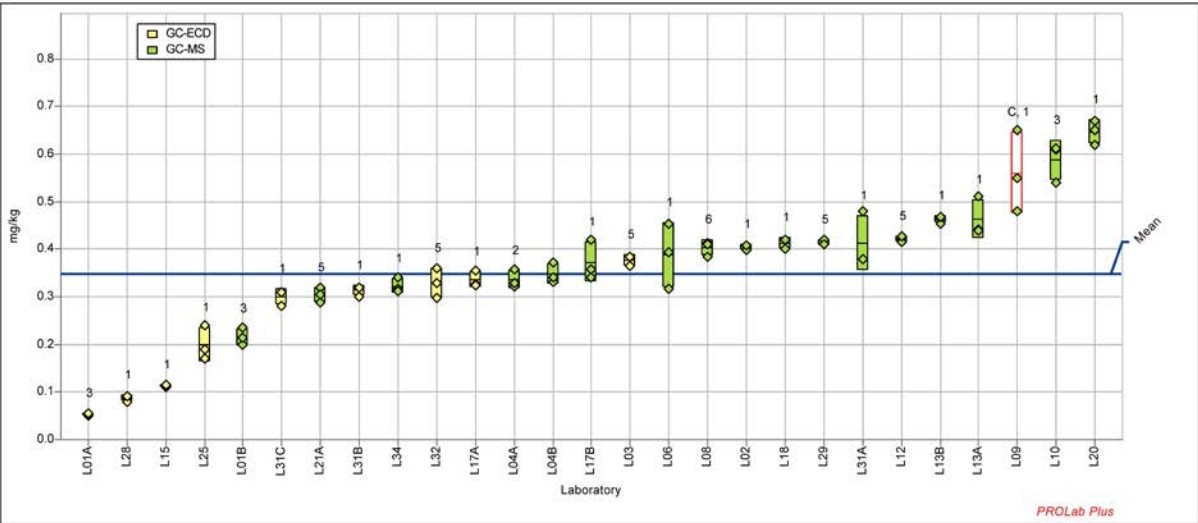
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Summary results - PCB



Sample:	Sewage sludge	Reproducibility s.d.:	0.137 mg/kg
Measurand:	PCB 52	Rel. reproducibility s.d.:	39.49%
Mean:	0.347 mg/kg	Repeatability s.d.:	0.027 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.81%
No. of laboratories:	26	No. of outlier values:	3



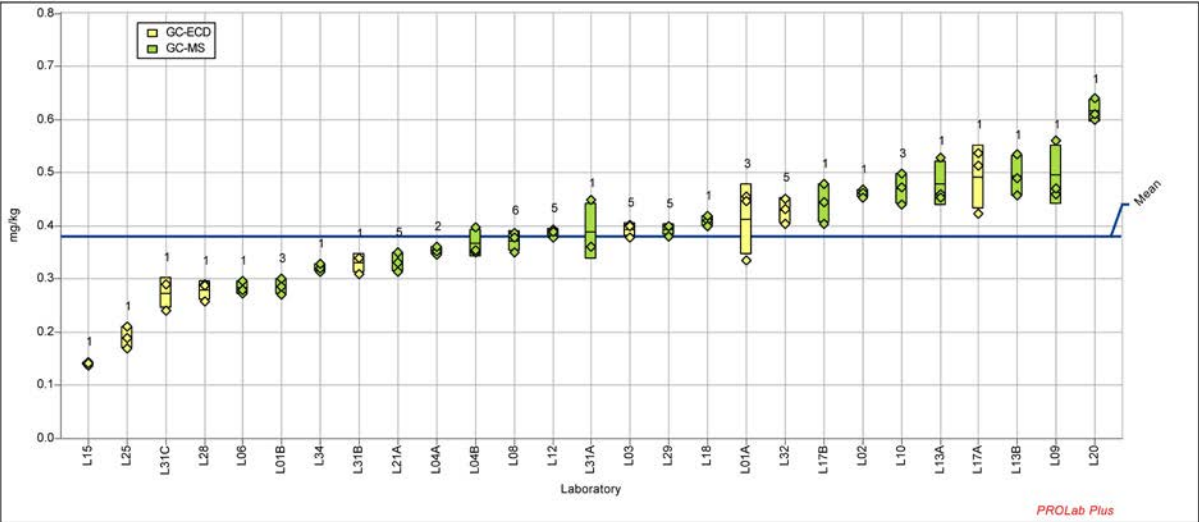
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Summary results - PCB



Sample:	Sewage sludge	Reproducibility s.d.:	0.105 mg/kg
Measurand:	PCB 101	Rel. reproducibility s.d.:	27.54%
Mean:	0.381 mg/kg	Repeatability s.d.:	0.030 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.89%
No. of laboratories:	27	No. of outlier values:	0



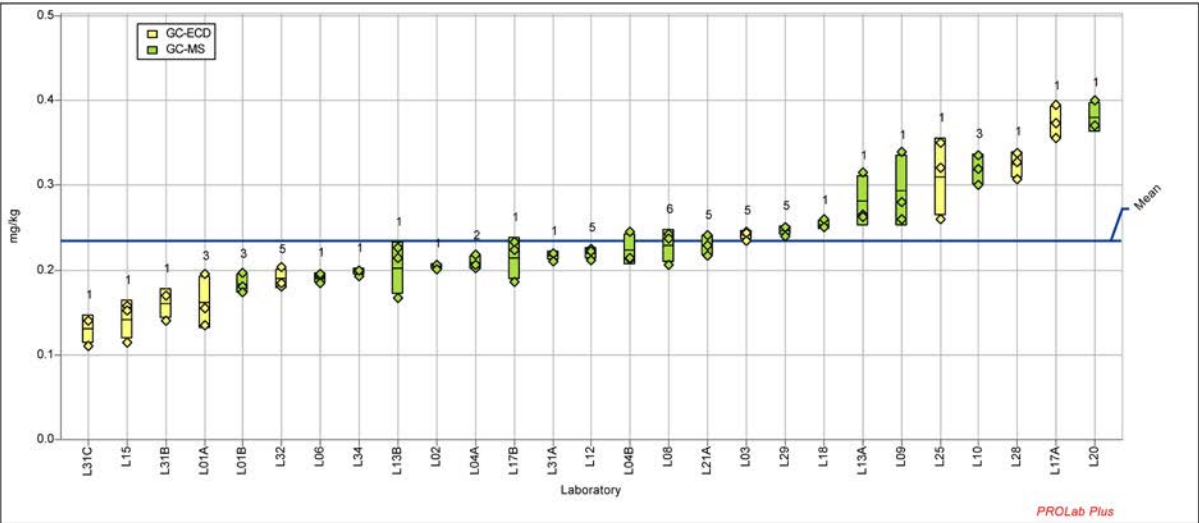
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Summary results - PCB



Sample:	Sewage sludge	Reproducibility s.d.:	0.067 mg/kg
Measurand:	PCB 118	Rel. reproducibility s.d.:	28.63%
Mean:	0.234 mg/kg	Repeatability s.d.:	0.020 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.62%
No. of laboratories:	27	No. of outlier values:	0



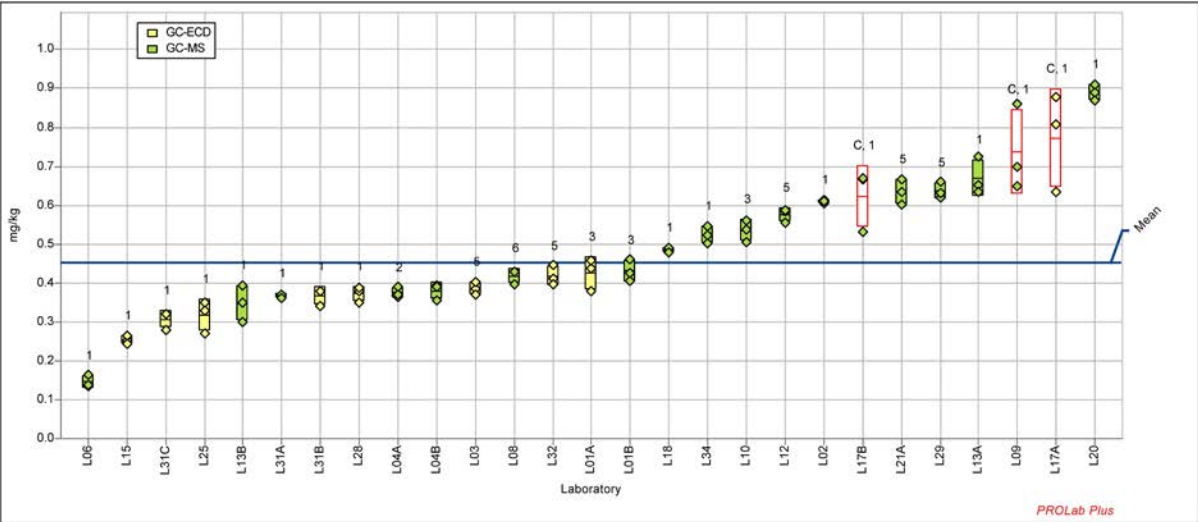
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Summary results - PCB



Sample:	Sewage sludge	Reproducibility s.d.:	0.161 mg/kg
Measurand:	PCB 138	Rel. reproducibility s.d.:	35.49%
Mean:	0.453 mg/kg	Repeatability s.d.:	0.026 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.66%
No. of laboratories:	24	No. of outlier values:	9



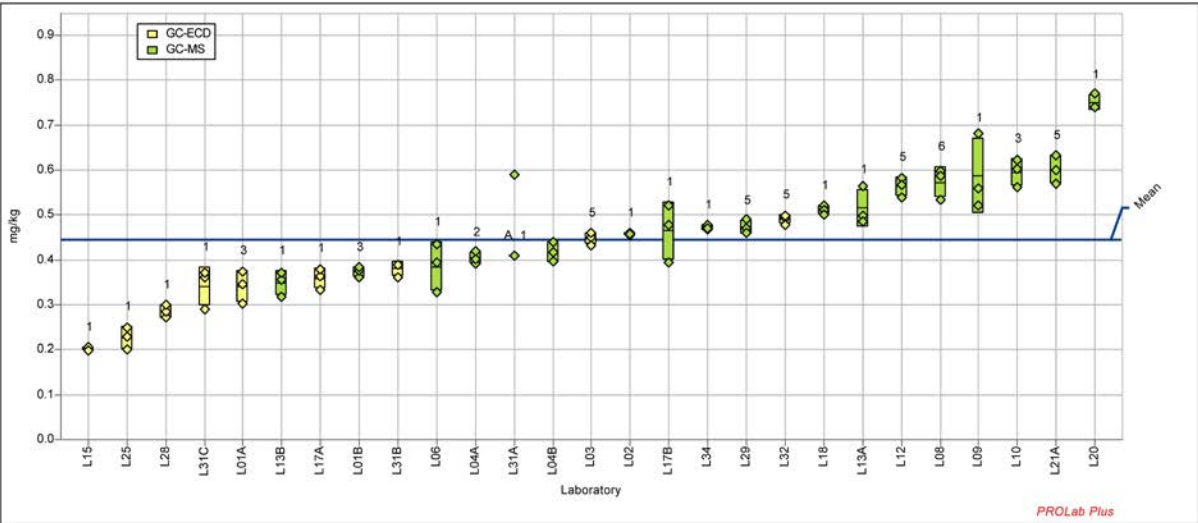
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Summary results - PCB



Sample:	Sewage sludge	Reproducibility s.d.:	0.126 mg/kg
Measurand:	PCB 153	Rel. reproducibility s.d.:	28.42%
Mean:	0.444 mg/kg	Repeatability s.d.:	0.032 mg/kg
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.19%
No. of laboratories:	27	No. of outlier values:	1



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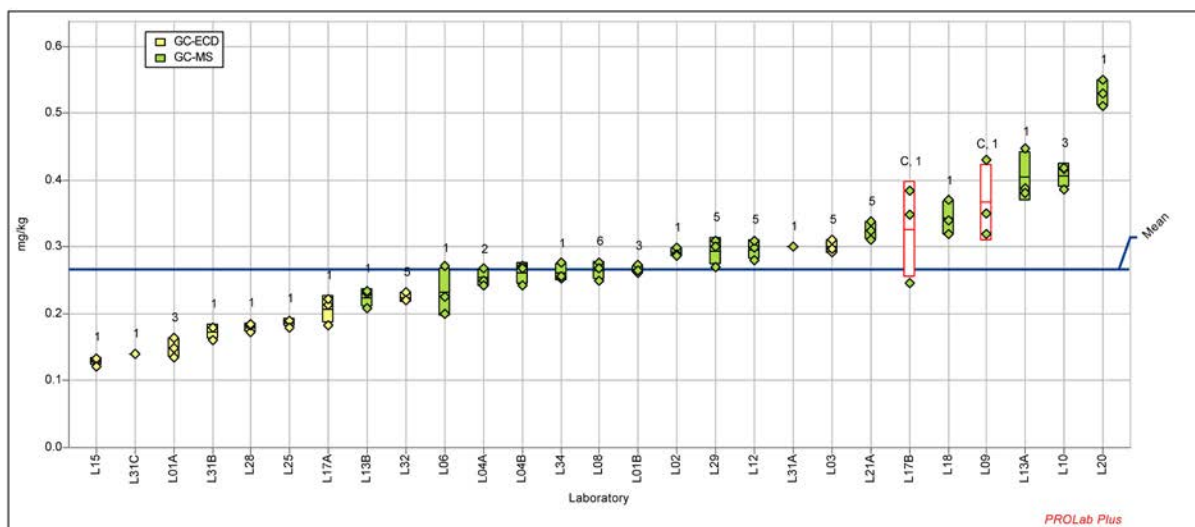
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Summary results - PCB



Sample: Sewage sludge
Measurand: PCB 180
Mean: 0.266 mg/kg
Method: ISO 5725-2
No. of laboratories: 25

Reproducibility s.d.: 0.093 mg/kg
Rel. reproducibility s.d.: 34.92%
Repeatability s.d.: 0.017 mg/kg
Rel. repeatability s.d.: 6.27%
No. of outlier values: 6



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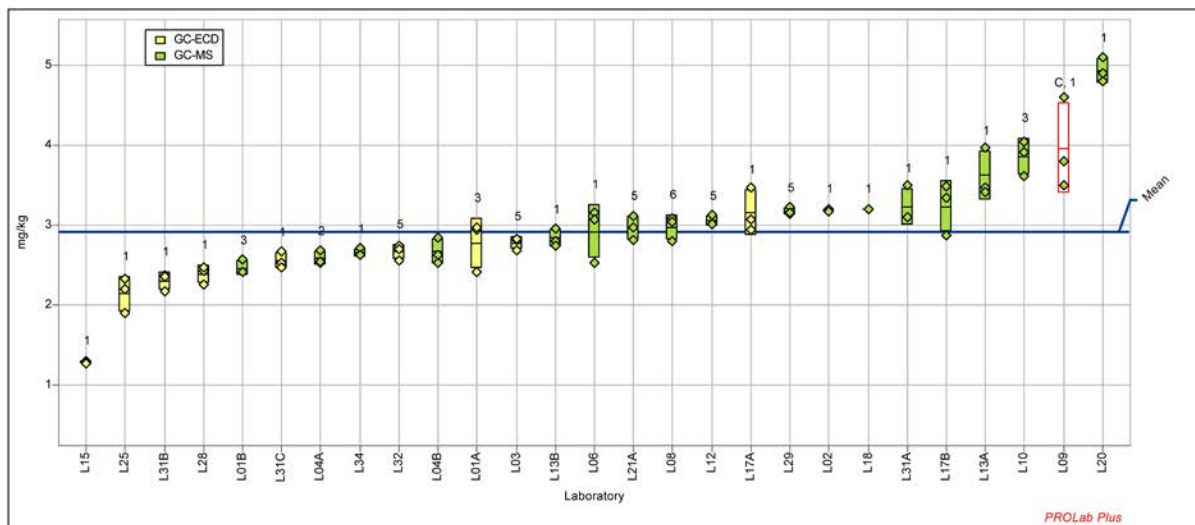
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Summary results - PCB



Sample: Sewage sludge
Measurand: SUM7 PCB
Mean: 2.910 mg/kg
Method: ISO 5725-2
No. of laboratories: 26

Reproducibility s.d.: 0.666 mg/kg
Rel. reproducibility s.d.: 22.89%
Repeatability s.d.: 0.178 mg/kg
Rel. repeatability s.d.: 6.13%
No. of outlier values: 3



4 Dioxins, Furans and dl-PCB measurements, CEN/TS 16190

4.1 Quality control solution DIO

RSDIO	2.3.7.8-TCDD	type of outlier	z-score	1.2.3.7.8-PeCDD	type of outlier	z-score	1.2.3.4.7.8-HxCDD	type of outlier	z-score	1.2.3.6.7.8-HxCDD	type of outlier	z-score
Unit	pg/ml			pg/ml			pg/ml			pg/ml		
L01A	178.000	BE	39.74	388.000	BE	98.76	521.000	BE	181.97	348.000	BE	12.70
L02	11.850		-1.16	10.450		-1.19	11.350		-0.94	55.900		-1.71
L05A	9.200		-1.82	11.100		-1.02	14.000		0.01	74.000		-0.82
L08	20.000	A	0.84	10.000		-1.31	10.000		-1.42	70.000		-1.01
L12	16.000		-0.14	19.667	C	1.25	15.333		0.49	115.667		1.24
L14	12.000		-1.13	13.633		-0.35	11.167		-1.01	72.800		-0.88
L18	< 70.000			< 200.000			< 200.000			< 200.000		
L19				25.033	CE	2.67	20.033	CE	2.18	109.333		0.93
L27	21.100		1.11	18.433		0.92	15.333		0.49	111.333		1.03
L29	18.333		0.43	17.000		0.54	16.333		0.85	96.333		0.29
L31A	15.000		-0.39	15.333		0.10	13.667		-0.11	86.333		-0.21
L33	20.333		0.93	19.667		1.25	17.667		1.33	91.333		0.04
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			12			12			12		
No. labs w/o outl.	9			8			9			10		
Mean	16.574			14.962			13.967			90.563		
SR Re-prod. SD	4.062			3.777			2.786			20.272		
Sr Re-peat. SD	1.498			0.913			0.896			6.471		
RSD % VR	24.51 %			25.25 %			19.95 %			22.38 %		
RSD % Vr	9.04 %			6.10 %			6.42 %			7.15 %		
No. A outliers	1			0			0			0		
No. B outliers	1			1			1			1		
No. C outliers	0			2			1			0		
No. sgl. values w/o outl.	23			21			24			27		

RSDIO	1.2.3.7.8.9- HxCDD	type of outlier	z-score	1.2.3.4.6.7.8- HpCDD	type of outlier	z-score	OCDD	type of outlier	z-score	2.3.7.8-TCDF	type of outlier	z-score
Unit	pg/ml			pg/ml			pg/ml			pg/ml		
L01A	422.000	B E	88.53	511.000	BE	33.67	2315.000	BE	60.71	182.000	BE	40.52
L02	9.815		-0.98	53.700		-1.31	107.000		0.40	11.800		-0.74
L05A	19.800		1.19	76.400		0.42	214.000	E	3.32	10.000		-1.17
L08	10.000		-0.94	60.000		-0.83	53.333		-1.07	10.000		-1.17
L12	8.333		-1.30	81.333		0.80	102.000		0.26	17.000		0.52
L14	9.893		-0.96	53.400		-1.34	85.500		-0.19	9.673		-1.25
L18	< 200.000			< 200.000			< 700.000			< 70.000		
L19	17.967		0.80	69.667		-0.09	84.667		-0.21	22.233	C	1.79
L27	16.733		0.53	88.167		1.32	79.633		-0.35	17.200		0.57
L29	17.333		0.66	82.000		0.85	78.000		-0.40	20.000		1.25
L31A	15.000		0.15	65.000		-0.45	63.333		-0.80	16.000		0.28
L33	20.333		1.31	77.000		0.47	143.333		1.39	17.667		0.69
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	10			10			10			9		
Mean	14.304			70.870			92.496			14.843		
SR Re- prod. SD	4.605			13.071			36.610			4.125		
Sr Re- peat. SD	1.278			5.251			6.011			1.492		
RSD % VR	32.19 %			18.44 %			39.58 %			27.79 %		
RSD % Vr	8.93 %			7.41 %			6.50 %			10.05 %		
No. A outliers	0			0			0			0		
No. B outliers	1			1			1			1		
No. C outliers	0			0			0			1		
No. sgl. values w/o outl.	27			27			27			24		

RSDIO	1.2.3.7.8-PeCDF	type of outlier	z-score	2.3.4.7.8-PeCDF	type of outlier	z-score	1.2.3.4.7.8-HxCDF	type of outlier	z-score	1.2.3.6.7.8-HxCDF	type of outlier	z-score
Unit	pg/ml			pg/ml			pg/ml			pg/ml		
L01A	385.000	BE	86.23	434.000	BE	110.94	146.000	BE	37.87	285.000	BE	62.19
L02	12.700		-0.62	11.350		-0.95	10.900		-1.22	9.370		-1.38
L05A	12.200		-0.74	15.700		0.20	20.600		1.59	11.400		-0.91
L08	10.000		-1.25	10.000		-1.31	10.000		-1.48	10.000		-1.24
L12	18.667		0.77	16.667		0.46	16.333		0.35	17.667		0.53
L14	9.627		-1.34	8.937		-1.59	10.780		-1.25	10.347		-1.16
L18	< 200.000			< 200.000			< 200.000			< 200.000		
L19	19.767	C	1.03	18.433		0.93	17.467		0.68	20.867		1.27
L27	20.167		1.12	16.533		0.42	16.933		0.53	17.633		0.53
L29	16.667		0.30	17.000		0.55	17.000		0.55	16.667		0.30
L31A	15.667		0.07	15.333		0.11	15.000		-0.03	15.333		-0.01
L33	19.667		1.00	18.667		0.99	18.333		0.93	19.667		0.99
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	9			10			10			10		
Mean	15.374			14.930			15.109			15.359		
SR Re- prod. SD	4.287			3.777			3.457			4.336		
Sr Re- peat. SD	1.130			1.380			1.005			1.197		
RSD % VR	27.88 %			25.30 %			22.88 %			28.23 %		
RSD % Vr	7.35 %			9.25 %			6.65 %			7.79 %		
No. A outliers	0			0			0			0		
No. B outliers	1			1			1			1		
No. C outliers	1			0			0			0		
No. sgl. values w/o outl.	24			27			27			27		

RSDIO	1.2.3.7.8.9-HxCDF	type of outlier	z-score	2.3.4.6.7.8-HxCDF	type of outlier	z-score	1.2.3.4.6.7.8-HpCDF	type of outlier	z-score	1.2.3.4.7.8.9-HpCDF	type of outlier	z-score
Unit	pg/ml			pg/ml			pg/ml			pg/ml		
L01A	324.000	BE	59.03	344.000	BE	72.36	477.000	BE	8.91	579.000	BE	101.35
L02	8.260		-1.35	6.155		-1.99	139.000		-1.18	6.875		-1.64
L05A	19.800		0.86	14.900		-0.06	177.000		-0.05	15.800		-0.03
L08	13.333		-0.38	10.000		-1.14	153.333		-0.75	10.000		-1.08
L12	11.667		-0.69	16.667		0.33	221.000		1.27	25.333		1.68
L14	10.143		-0.99	10.113	C	-1.12	122.333		-1.68	10.797		-0.93
L18	< 200.000			< 200.000			< 200.000			< 200.000		
L19	23.500		1.57	18.567	C	0.74	204.667		0.78	16.333		0.06
L27	15.267		-0.01	17.567		0.52	190.333		0.35	15.900		-0.02
L29	16.333		0.20	19.333		0.91	210.333		0.95	19.667		0.66
L31A	15.333		0.01	14.333		-0.19	176.667		-0.06	15.667		-0.06
L33	20.000		0.90	19.333		0.91	176.333		-0.07	20.333		0.78
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	10			8			10			10		
Mean	15.298			15.186			178.519			15.987		
SR Re-prod. SD	5.229			4.544			33.506			5.555		
Sr Repeat. SD	3.027			0.501			10.484			1.424		
RSD % VR	34.18 %			29.92 %			18.77 %			34.75 %		
RSD % Vr	19.79 %			3.30 %			5.87 %			8.91 %		
No. A outliers	0			0			0			0		
No. B outliers	1			1			1			1		
No. C outliers	0			2			0			0		
No. sgl. values w/o outl.	27			21			27			27		

RSDIO	OCDF	type of outlier	z-score	PCB 77	type of outlier	z-score	PCB 81	type of outlier	z-score	PCB 118	type of outlier	z-score
Unit	pg/ml			pg/ml			pg/ml			pg/ml		
L01A	2759.000	BE	91.84									
L02	107.500		-1.80	1200.000		1.96	258.667		1.80	3380.000		1.57
L05A	160.000		0.05	792.000		-0.22	183.000		-0.21	2470.000		-0.10
L08	146.667		-0.42	763.333		-0.37	183.333		-0.20	2366.667		-0.29
L12	185.000		0.94	960.667		0.68	199.333		0.22	2490.000		-0.06
L14	205.333		1.66	995.333		0.87	231.000		1.07	3373.333		1.56
L18	< 700.000			551.667		-1.50	129.667		-1.63	1690.000		-1.53
L19	156.333		-0.08	674.667		-0.84	149.667		-1.10	1867.000		-1.20
L27	135.000		-0.83	651.000		-0.97	162.333		-0.76	2396.667		-0.23
L29	173.333		0.53	845.667		0.07	192.667		0.05	2680.000		0.29
L31A	140.000		-0.65	853.333		0.11	206.667		0.42	2700.000		0.32
L33	159.667		0.04	844.000		0.06	198.667		0.21	2306.667		-0.40
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			11			11			11		
No. labs w/o outl.	10			11			11			11		
Mean	158.481			832.613			190.935			2523.258		
SR Re-prod. SD	28.316			187.181			37.544			545.280		
Sr Re-peat. SD	10.560			34.033			6.557			95.143		
RSD % VR	17.87 %			22.48 %			19.66 %			21.61 %		
RSD % Vr	6.66 %			4.09 %			3.43 %			3.77 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			0			0		
No. C outliers	0			0			0			0		
No. sgl. values w/o outl.	27			31			31			31		

RSDIO	PCB 126	type of outlier	Z-score	PCB 169	type of outlier	Z-score	PCB 105	type of outlier	Z-score	PCB 114	type of outlier	Z-score
Unit	pg/ml			pg/ml			pg/ml			pg/ml		
L01A			1.76			1.72						
L02	274.667		0.13	265.000		0.12	703.000	E	2.10	254.000		1.39
L05A	206.000		0.06	198.000		-0.24	459.000		-0.28	181.000		-0.14
L08	203.333		0.09	183.333		0.39	420.000		-0.66	166.667		-0.44
L12	204.667		1.04	209.333		1.28	500.667		0.12	203.667		0.34
L14	244.333		-1.61	246.667		-1.57	590.333		1.00	250.667		1.32
L18	133.333		-1.07	127.667		-1.10	327.000		-1.57	89.000	E	-2.07
L19	155.667		-0.58	147.333		-0.47	405.667		-0.80	151.667		-0.75
L27	176.333		-0.30	173.333		-0.48	440.000		-0.47	185.667		-0.04
L29	188.333		0.78	173.000		0.16	515.333		0.27	200.667		0.28
L31A	233.333		-0.22	200.000		0.27	490.000		0.02	193.333		0.12
L33	191.667		1.76	204.333		1.72	497.000		0.09	182.667		-0.10
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			11			11			11		
No. labs w/o outl.	11			11			11			11		
Mean	200.742			193.161			487.935			187.581		
SR Re-prod. SD	41.968			41.829			102.562			47.639		
Sr Repeat. SD	10.066			10.126			11.564			12.148		
RSD % VR	20.91 %			21.65 %			21.02 %			25.40 %		
RSD % Vr	5.01 %			5.24 %			2.37 %			6.48 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	0			0			0			0		
No. sgl. values w/o outl.	31			31			31			31		

RSDIO	PCB 123	type of outlier	z-score	PCB 156	type of outlier	z-score	PCB 157	type of outlier	z-score	PCB 167	type of outlier	z-score
Unit	pg/ml			pg/ml			pg/ml			pg/ml		
L01A												
L02	337.000	CE	3.86	767.000	E	2.01	264.667		1.53	115.667		-1.64
L05A	183.000		-0.23	569.000		0.15	193.000		-0.06	188.000		0.30
L08	176.667		-0.40	496.667		-0.54	183.333		-0.27	173.333		-0.10
L12	203.333		0.31	533.333		-0.19	197.667		0.04	201.000		0.65
L14	260.000		1.82	659.000		0.99	275.333		1.76	236.333		1.59
L18	124.333		-1.79	387.667		-1.56	135.667		-1.33	137.000		-1.07
L19	155.667		-0.95	437.333		-1.09	142.333		-1.18	145.667		-0.84
L27	201.000		0.25	534.333		-0.18	170.333		-0.56	176.000		-0.02
L29	204.000		0.33	588.000		0.32	182.667		-0.29	200.000		0.62
L31A	203.333		0.31	583.333		0.28	203.333		0.17	216.667		1.07
L33	199.000		0.20	543.333		-0.10	202.333		0.15	163.333		-0.36
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			11			11			11		
No. labs w/o outl.	10			11			11			11		
Mean	191.607			553.516			195.677			176.871		
SR Re-prod. SD	37.669			106.356			45.151			37.330		
Sr Repeat. SD	10.076			17.494			8.604			6.473		
RSD % VR	19.66 %			19.21 %			23.07 %			21.11 %		
RSD % Vr	5.26 %			3.16 %			4.40 %			3.66 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			0			0			0		
No. sgl. values w/o outl.	28			31			31			31		

RSDIO	PCB 189	type of outlier	z-score	NATO/CCMS-TEQ	type of outlier	z-score	WHO-TEQ 1998	type of outlier	z-score	WHO-TEQ 2005	type of outlier	z-score
Unit	pg/ml			pg/ml			pg/ml			pg/ml		
L01A												
L02	253.667	C	1.87									
L05A	184.000		0.24									
L08	163.333		-0.24									
L12	199.000		0.59									
L14	223.000		1.15									
L18	130.333		-1.01									
L19	80.700	E	-2.17									
L27	185.667		0.28									
L29	187.667		0.33									
L31A	193.333		0.46									
L33	197.000		0.54									
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11											
No. labs w/o outl.	10											
Mean	173.718											
SR Re- prod. SD	42.793											
Sr Re- peat. SD	7.413											
RSD % VR	24.63 %											
RSD % Vr	4.27 %											
No. A outliers	0											
No. B outliers	0											
No. C outliers	1											
No. sgl. values w/o outl.	28											

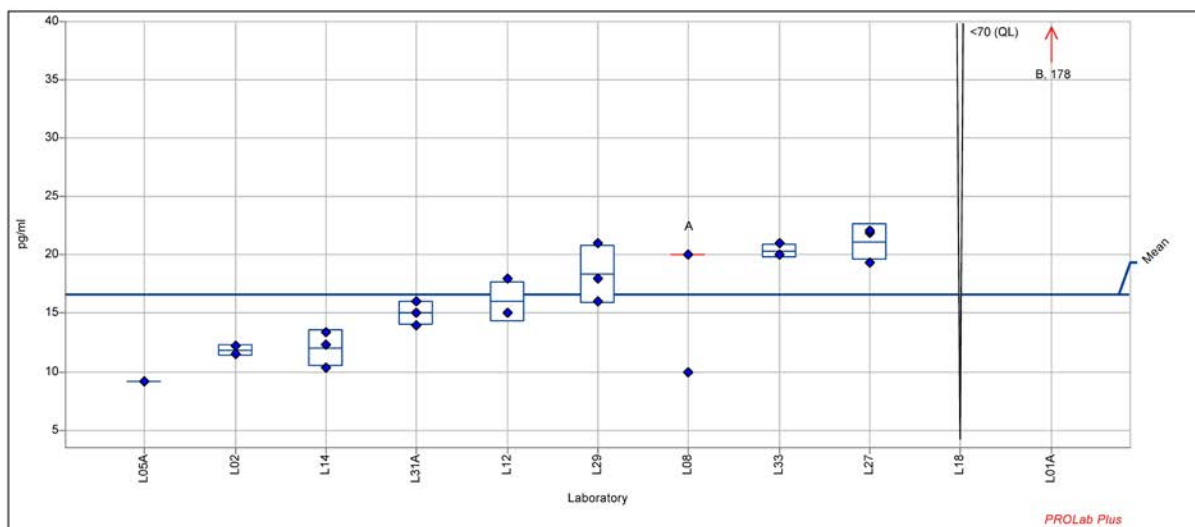
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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	4.06 pg/ml
Measurand:	2,3,7,8-TCDD	Rel. reproducibility s.d.:	24.51%
Mean:	16.57 pg/ml	Repeatability s.d.:	1.50 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.04%
No. of laboratories:	9	No. of outlier values:	2



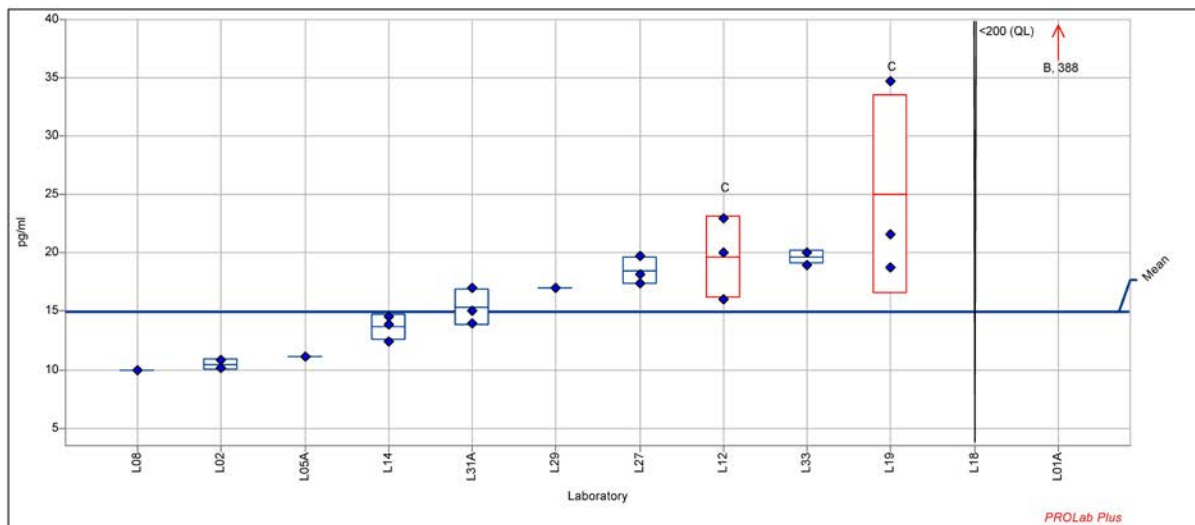
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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	3.78 pg/ml
Measurand:	1,2,3,7,8-PeCDD	Rel. reproducibility s.d.:	25.25%
Mean:	14.96 pg/ml	Repeatability s.d.:	0.91 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.10%
No. of laboratories:	8	No. of outlier values:	7



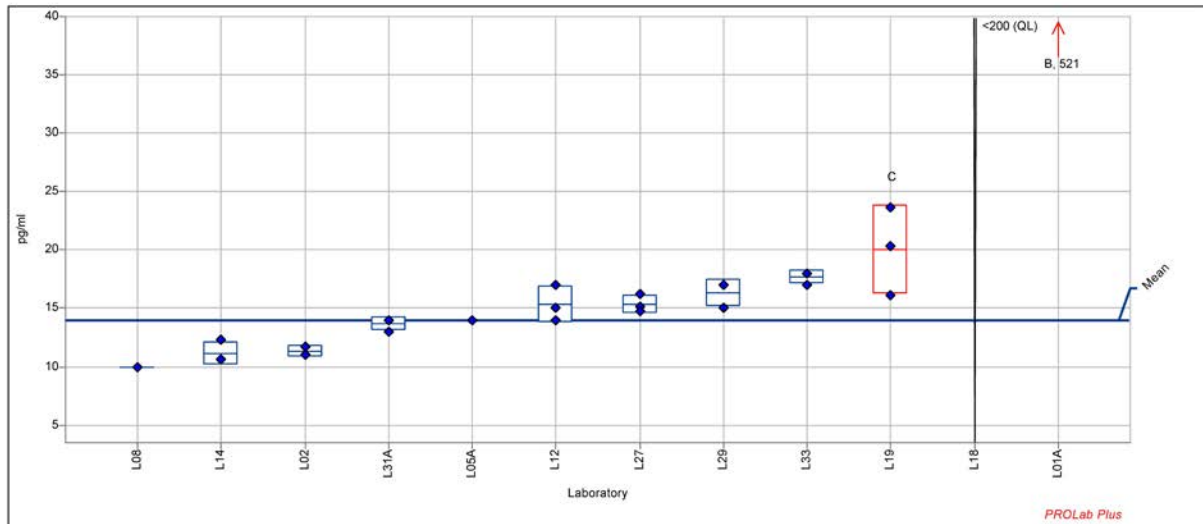
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	2.79 pg/ml
Measurand:	1,2,3,4,7,8-HxCDD	Rel. reproducibility s.d.:	19.95%
Mean:	13.97 pg/ml	Repeatability s.d.:	0.90 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.42%
No. of laboratories:	9	No. of outlier values:	4



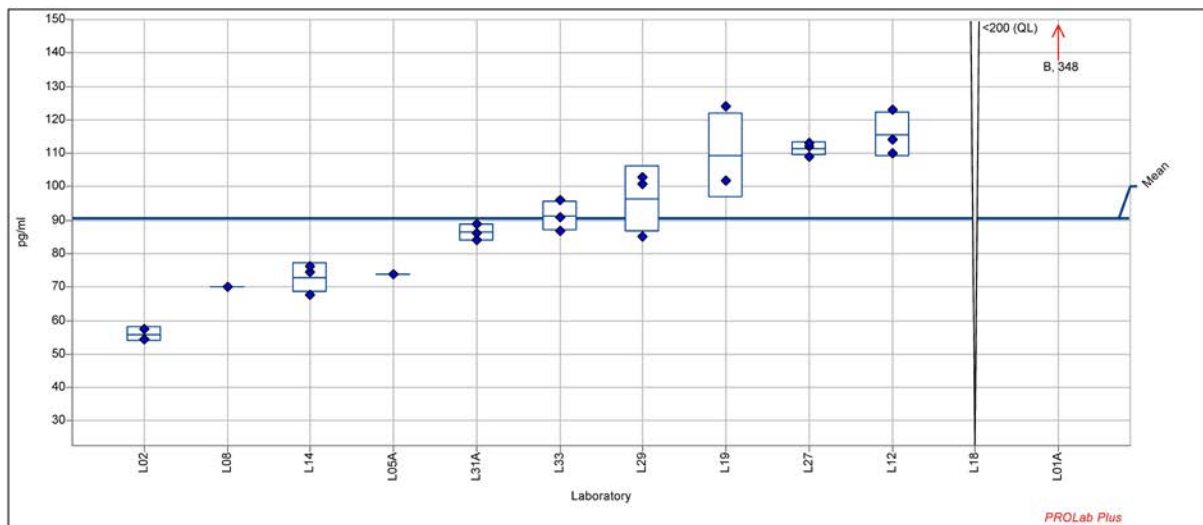
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	20.27 pg/ml
Measurand:	1,2,3,6,7,8-HxCDD	Rel. reproducibility s.d.:	22.38%
Mean:	90.56 pg/ml	Repeatability s.d.:	6.47 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.15%
No. of laboratories:	10	No. of outlier values:	1



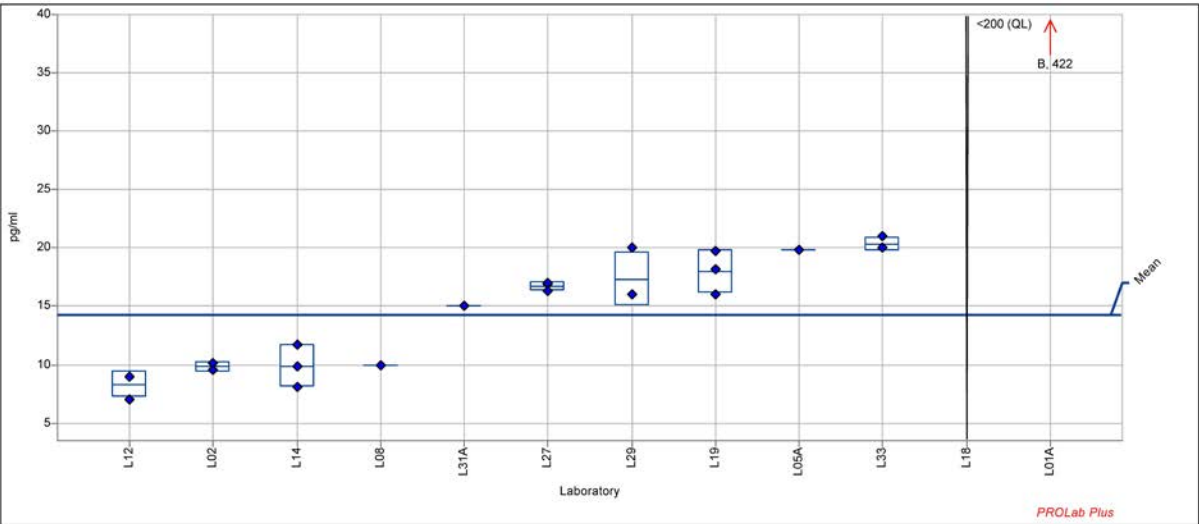
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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	4.61 pg/ml
Measurand:	1,2,3,7,8,9-HxCDD	Rel. reproducibility s.d.:	32.19%
Mean:	14.30 pg/ml	Repeatability s.d.:	1.28 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.93%
No. of laboratories:	10	No. of outlier values:	1



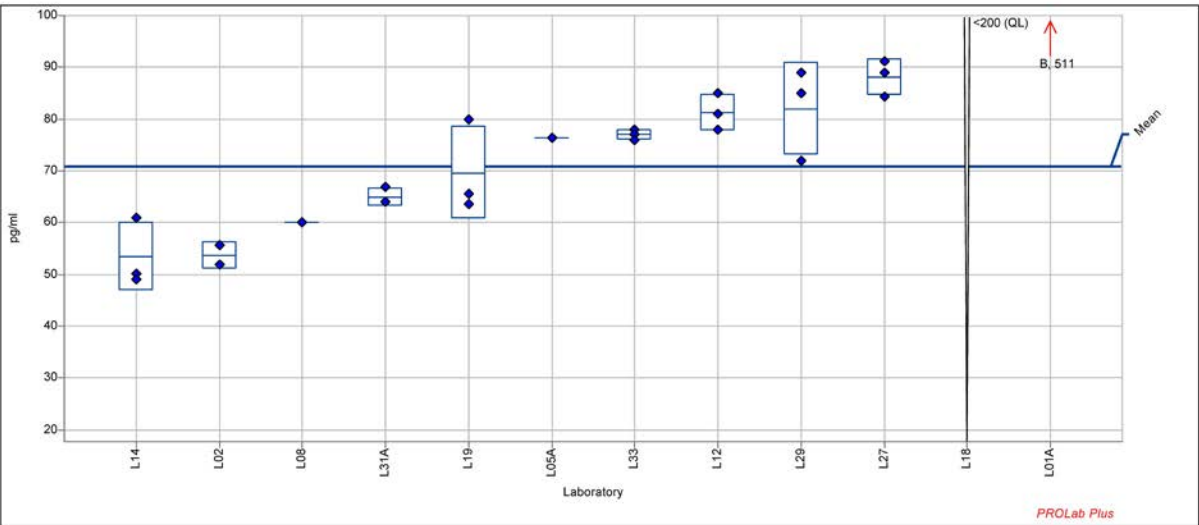
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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	13.07 pg/ml
Measurand:	1,2,3,4,6,7,8-HpCDD	Rel. reproducibility s.d.:	18.44%
Mean:	70.87 pg/ml	Repeatability s.d.:	5.25 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.41%
No. of laboratories:	10	No. of outlier values:	1



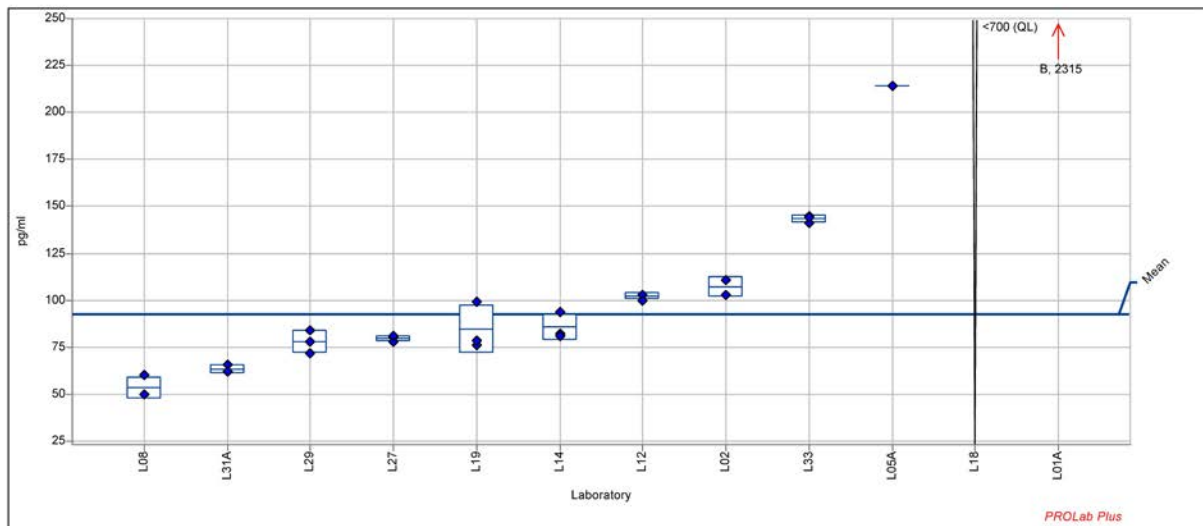
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	36.61 pg/ml
Measurand:	OCDD	Rel. reproducibility s.d.:	39.58%
Mean:	92.50 pg/ml	Repeatability s.d.:	6.01 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.50%
No. of laboratories:	10	No. of outlier values:	1



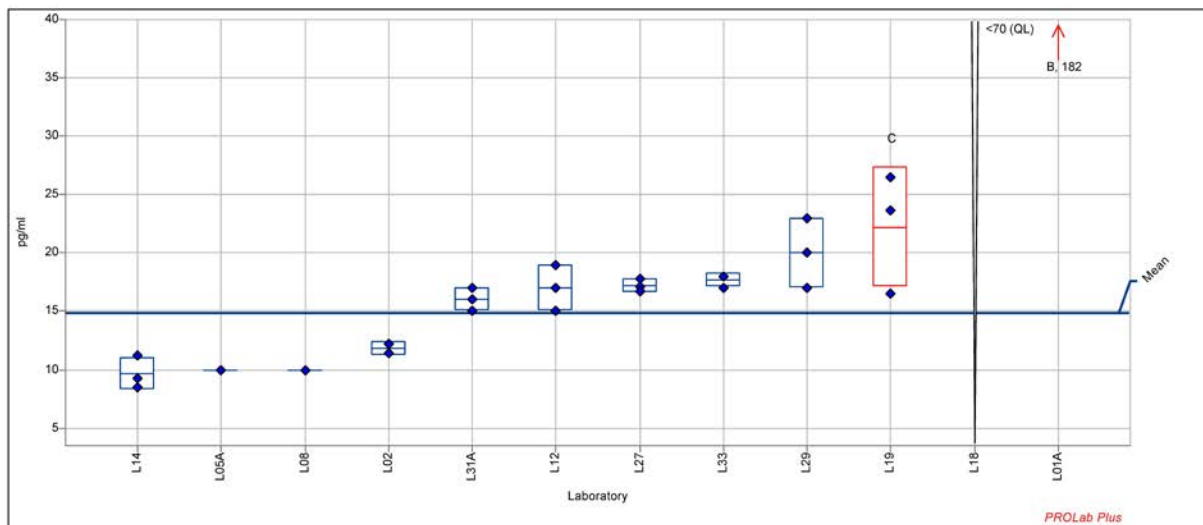
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	4.13 pg/ml
Measurand:	2,3,7,8-TCDF	Rel. reproducibility s.d.:	27.79%
Mean:	14.84 pg/ml	Repeatability s.d.:	1.49 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	10.05%
No. of laboratories:	9	No. of outlier values:	4



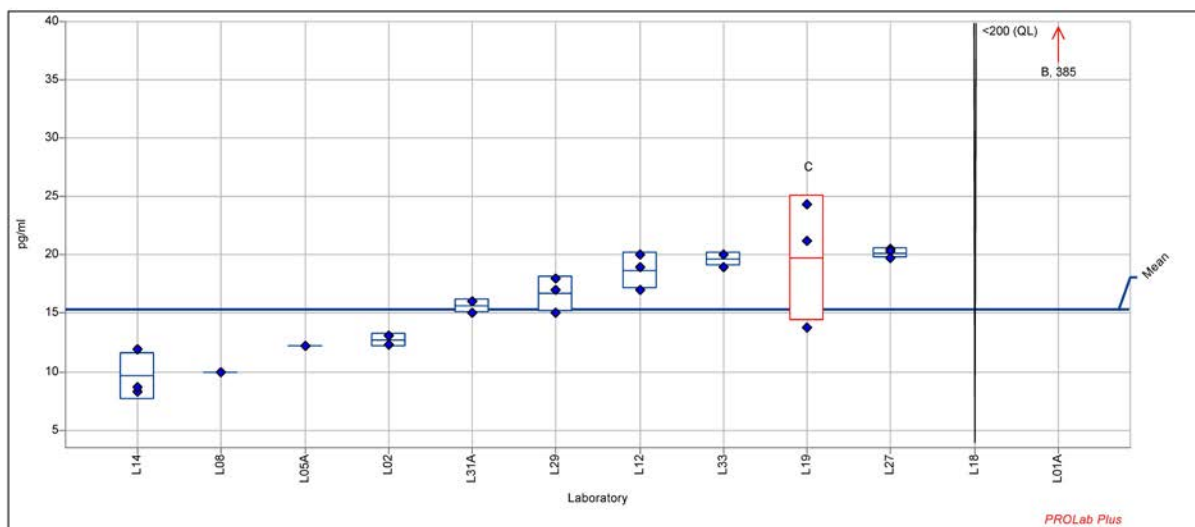
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	4.29 pg/ml
Measurand:	1,2,3,7,8-PeCDF	Rel. reproducibility s.d.:	27.88%
Mean:	15.37 pg/ml	Repeatability s.d.:	1.13 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.35%
No. of laboratories:	9	No. of outlier values:	4



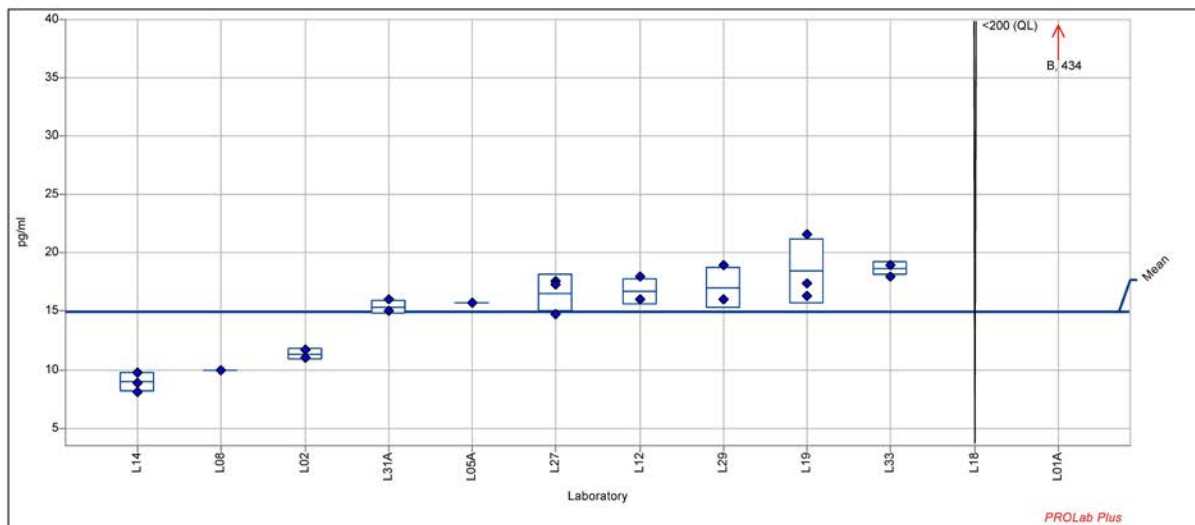
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	3.78 pg/ml
Measurand:	2,3,4,7,8-PeCDF	Rel. reproducibility s.d.:	25.30%
Mean:	14.93 pg/ml	Repeatability s.d.:	1.38 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.25%
No. of laboratories:	10	No. of outlier values:	1



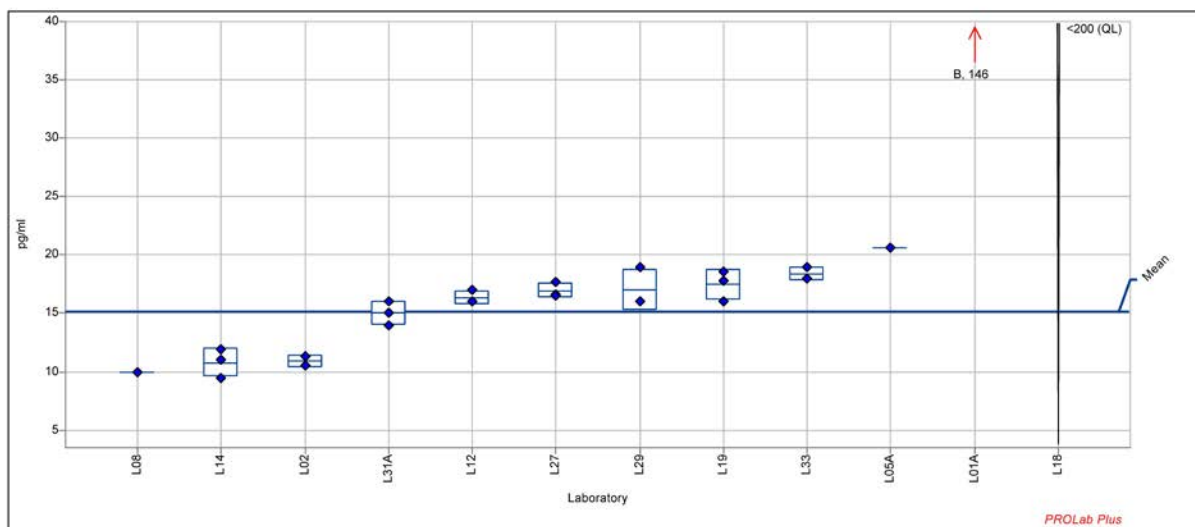
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	3.46 pg/ml
Measurand:	1,2,3,4,7,8-HxCDF	Rel. reproducibility s.d.:	22.88%
Mean:	15.11 pg/ml	Repeatability s.d.:	1.01 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.65%
No. of laboratories:	10	No. of outlier values:	1



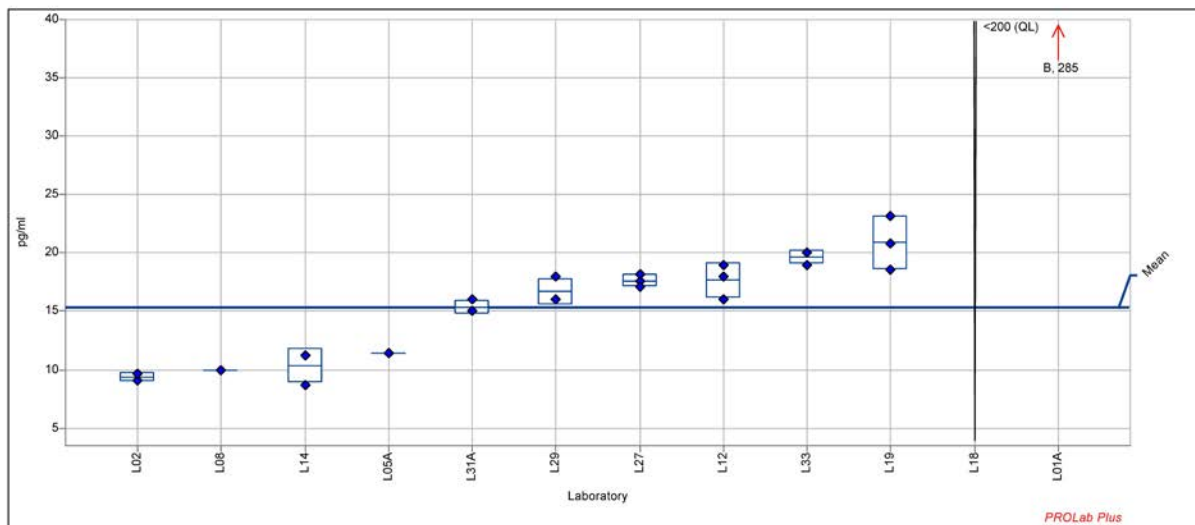
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	4.34 pg/ml
Measurand:	1,2,3,6,7,8-HxCDF	Rel. reproducibility s.d.:	28.23%
Mean:	15.36 pg/ml	Repeatability s.d.:	1.20 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.79%
No. of laboratories:	10	No. of outlier values:	1



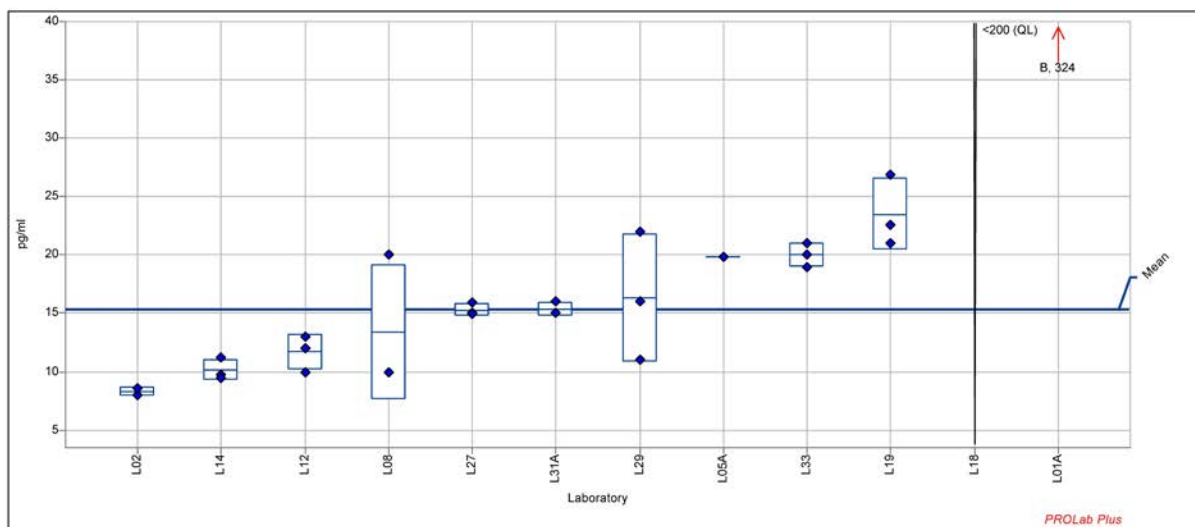
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	5.23 pg/ml
Measurand:	1,2,3,7,8,9-HxCDF	Rel. reproducibility s.d.:	34.18%
Mean:	15.30 pg/ml	Repeatability s.d.:	3.03 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	19.79%
No. of laboratories:	10	No. of outlier values:	1



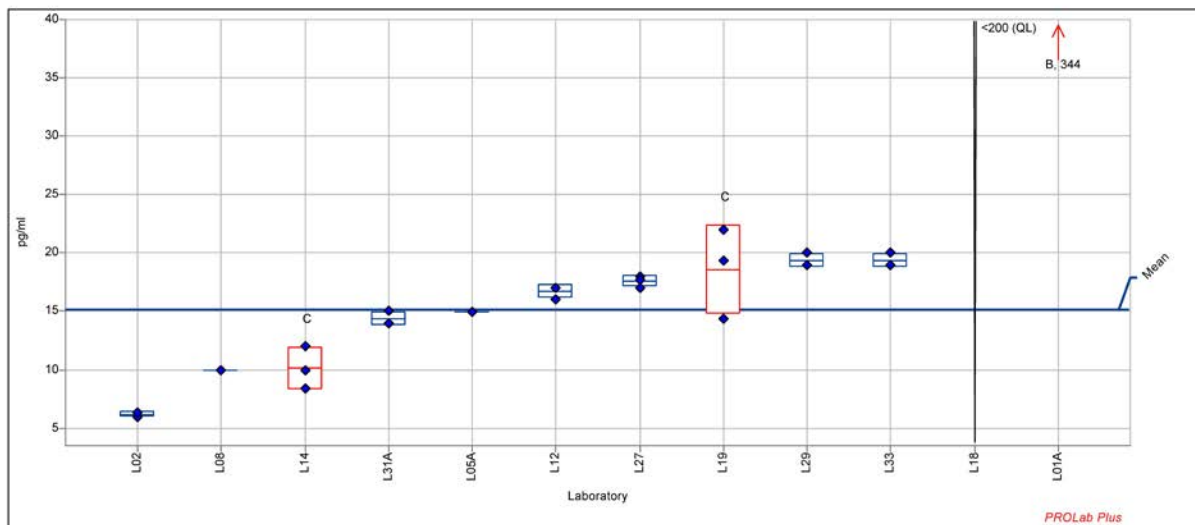
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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	4.54 pg/ml
Measurand:	2,3,4,6,7,8-HxCDF	Rel. reproducibility s.d.:	29.92%
Mean:	15.19 pg/ml	Repeatability s.d.:	0.50 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.30%
No. of laboratories:	8	No. of outlier values:	7



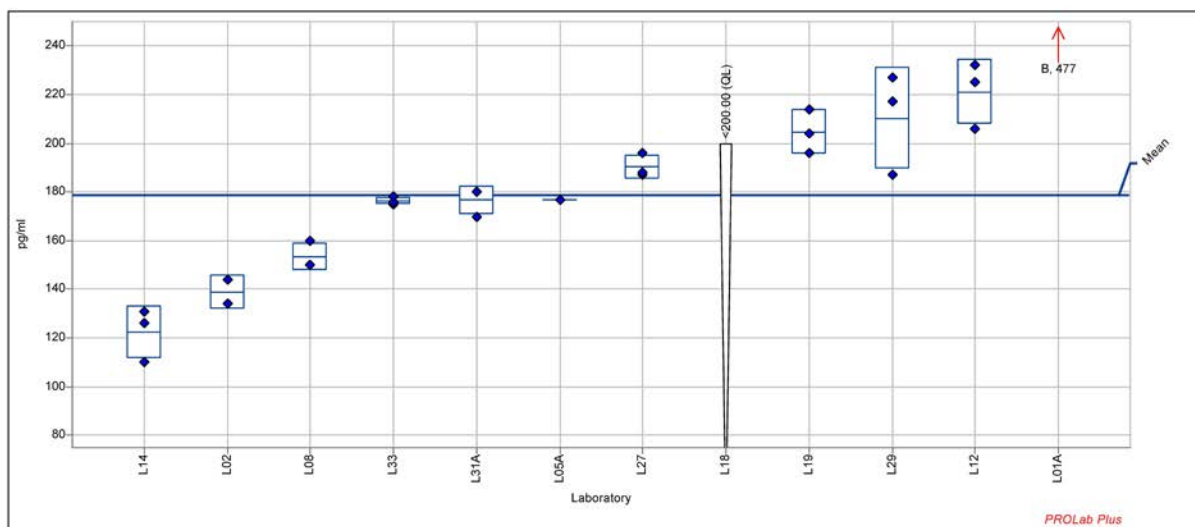
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	33.51 pg/ml
Measurand:	1,2,3,4,6,7,8-HpCDF	Rel. reproducibility s.d.:	18.77%
Mean:	178.52 pg/ml	Repeatability s.d.:	10.48 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.87%
No. of laboratories:	10	No. of outlier values:	1



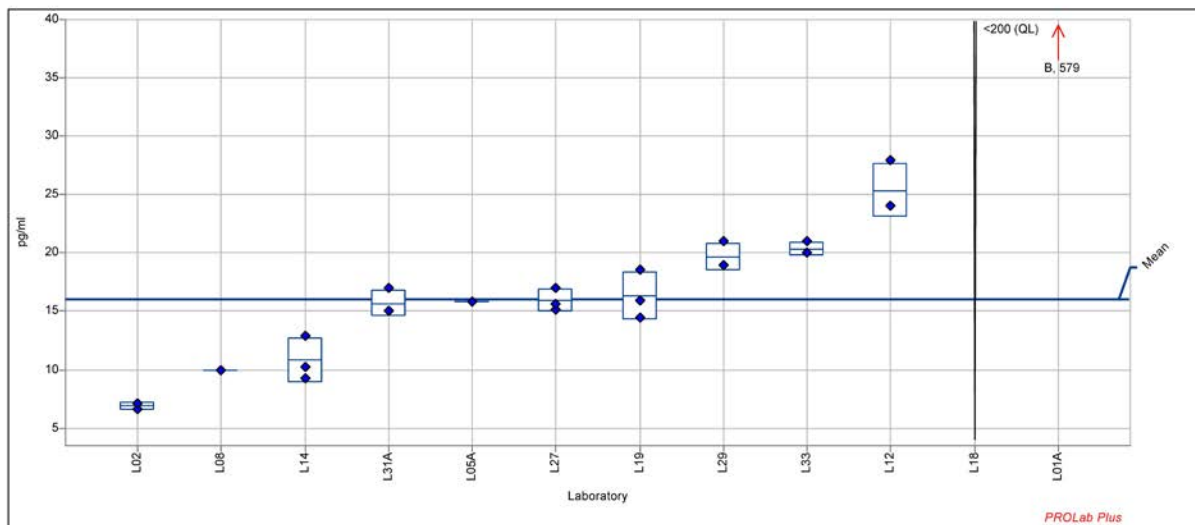
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	5.56 pg/ml
Measurand:	1,2,3,4,7,8,9-HpCDF	Rel. reproducibility s.d.:	34.75%
Mean:	15.99 pg/ml	Repeatability s.d.:	1.42 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.91%
No. of laboratories:	10	No. of outlier values:	1



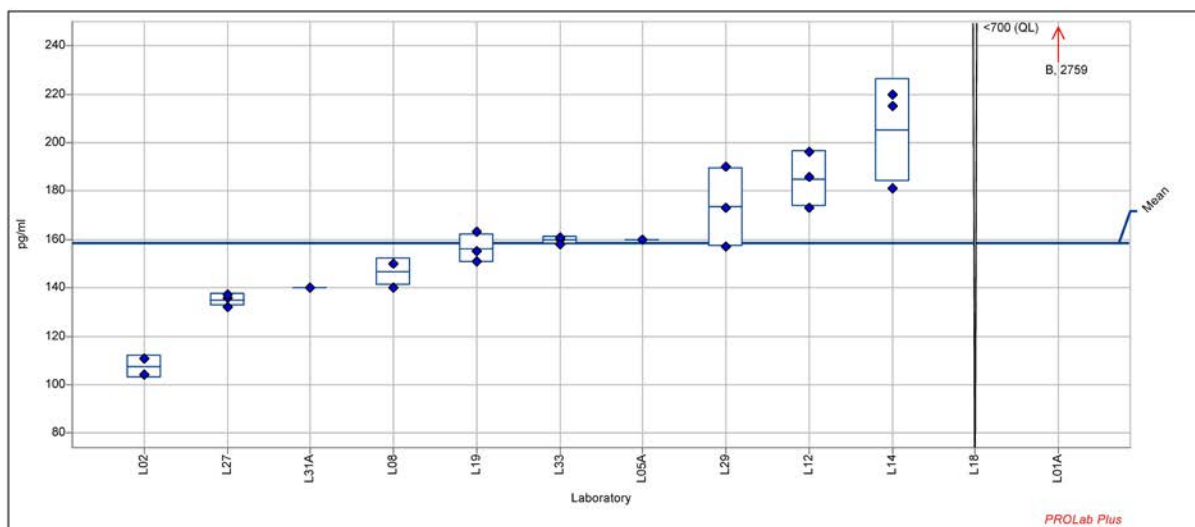
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	28.3 pg/ml
Measurand:	OCDF	Rel. reproducibility s.d.:	17.87%
Mean:	158.5 pg/ml	Repeatability s.d.:	10.6 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.66%
No. of laboratories:	10	No. of outlier values:	1



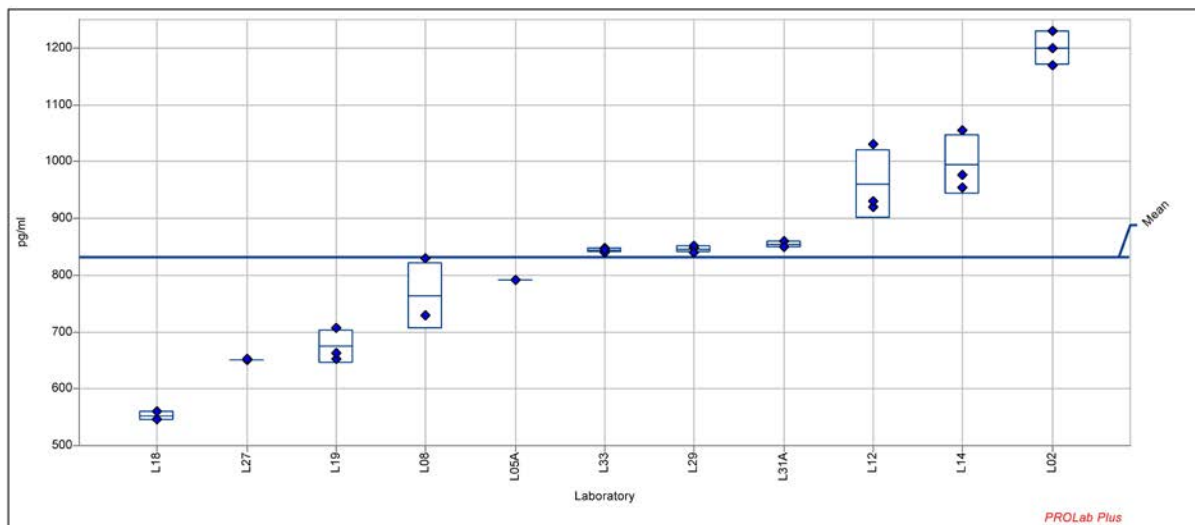
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	187 pg/ml
Measurand:	PCB 77	Rel. reproducibility s.d.:	22.48%
Mean:	833 pg/ml	Repeatability s.d.:	34 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.09%
No. of laboratories:	11	No. of outlier values:	0



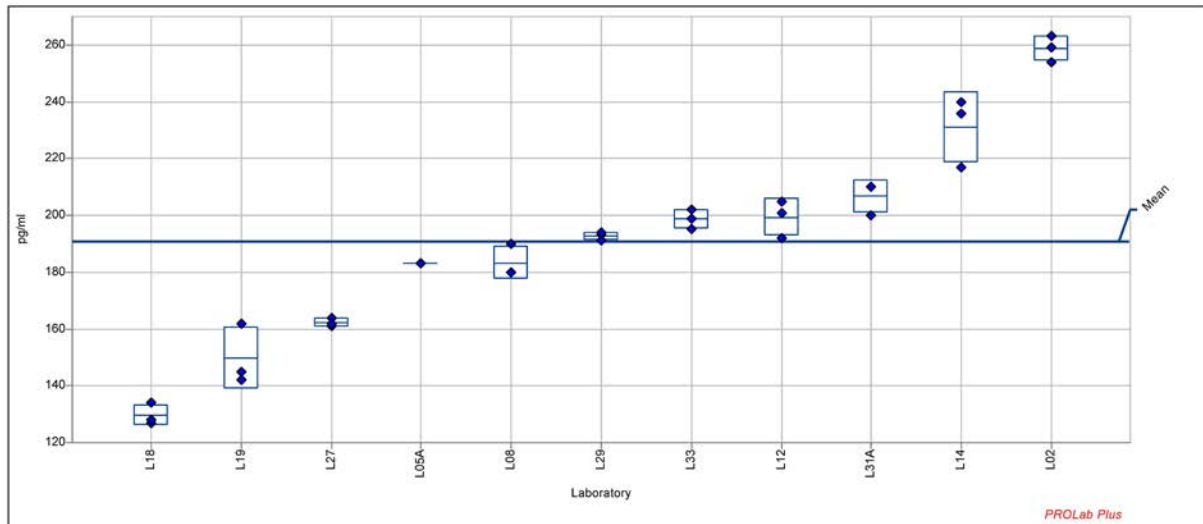
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	38 pg/ml
Measurand:	PCB 81	Rel. reproducibility s.d.:	19.66%
Mean:	191 pg/ml	Repeatability s.d.:	7 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.43%
No. of laboratories:	11	No. of outlier values:	0



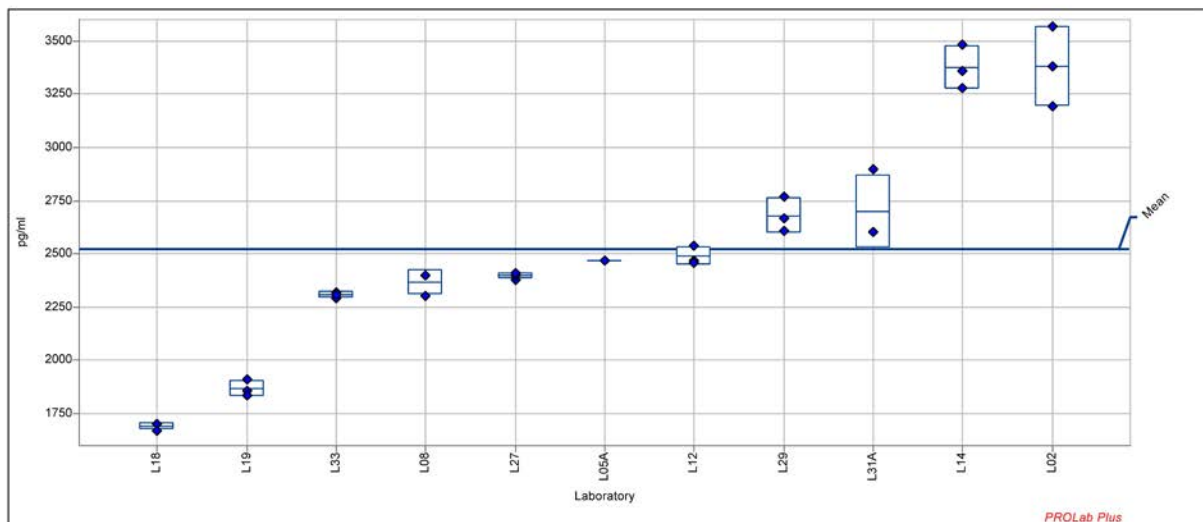
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	545 pg/ml
Measurand:	PCB 118	Rel. reproducibility s.d.:	21.61%
Mean:	2523 pg/ml	Repeatability s.d.:	95 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.77%
No. of laboratories:	11	No. of outlier values:	0



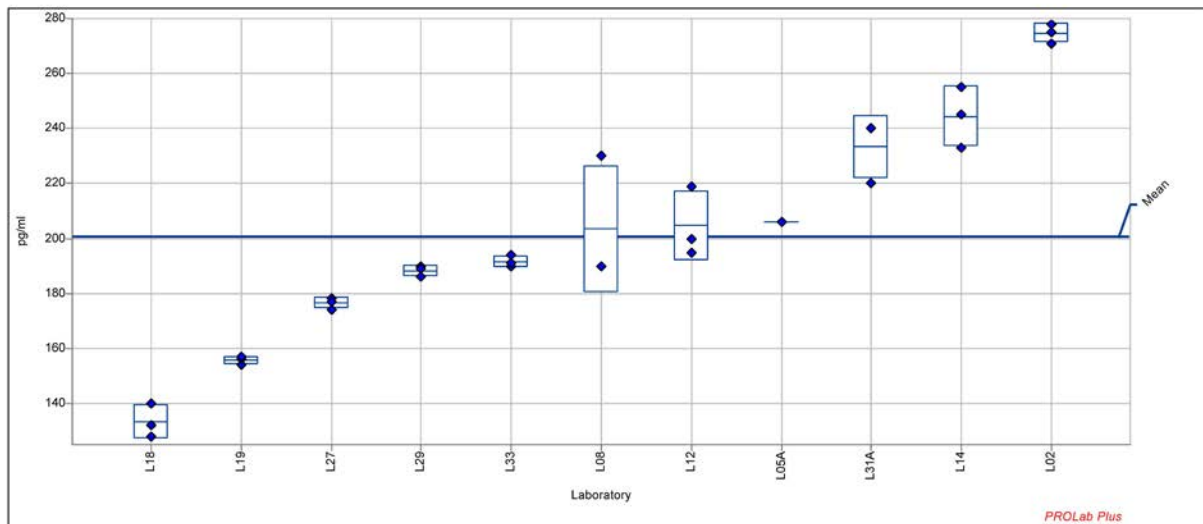
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	42 pg/ml
Measurand:	PCB 126	Rel. reproducibility s.d.:	20.91%
Mean:	201 pg/ml	Repeatability s.d.:	10 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.01%
No. of laboratories:	11	No. of outlier values:	0



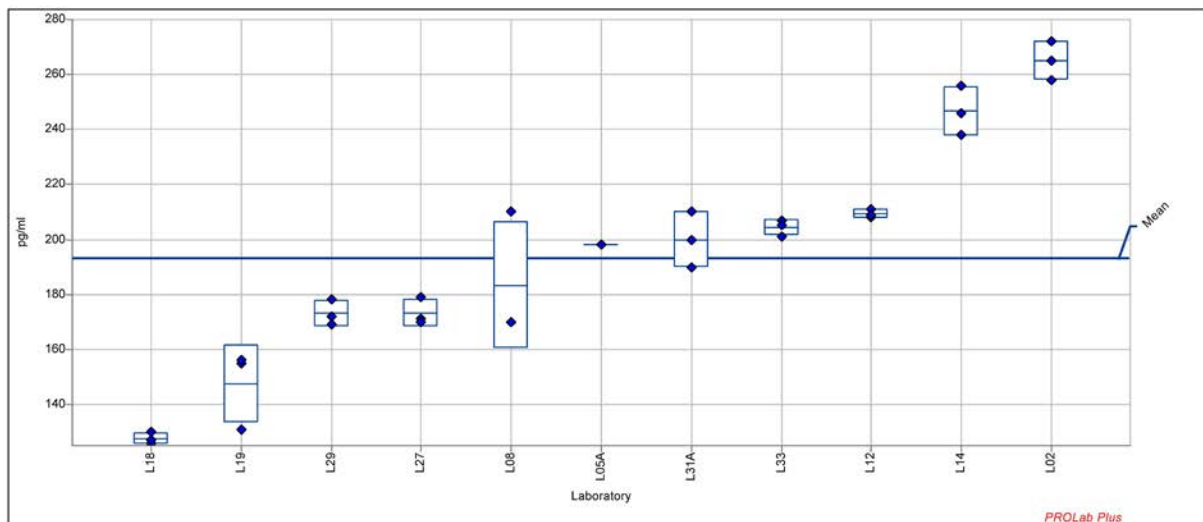
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	42 pg/ml
Measurand:	PCB 169	Rel. reproducibility s.d.:	21.65%
Mean:	193 pg/ml	Repeatability s.d.:	10 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.24%
No. of laboratories:	11	No. of outlier values:	0



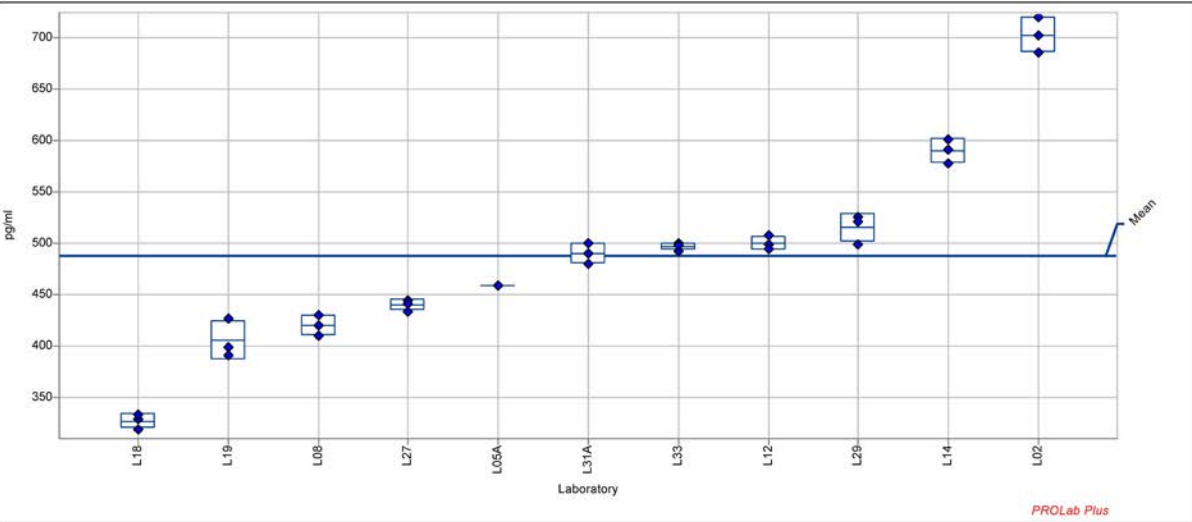
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	103 pg/ml
Measurand:	PCB 105	Rel. reproducibility s.d.:	21.02%
Mean:	488 pg/ml	Repeatability s.d.:	12 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	2.37%
No. of laboratories:	11	No. of outlier values:	0



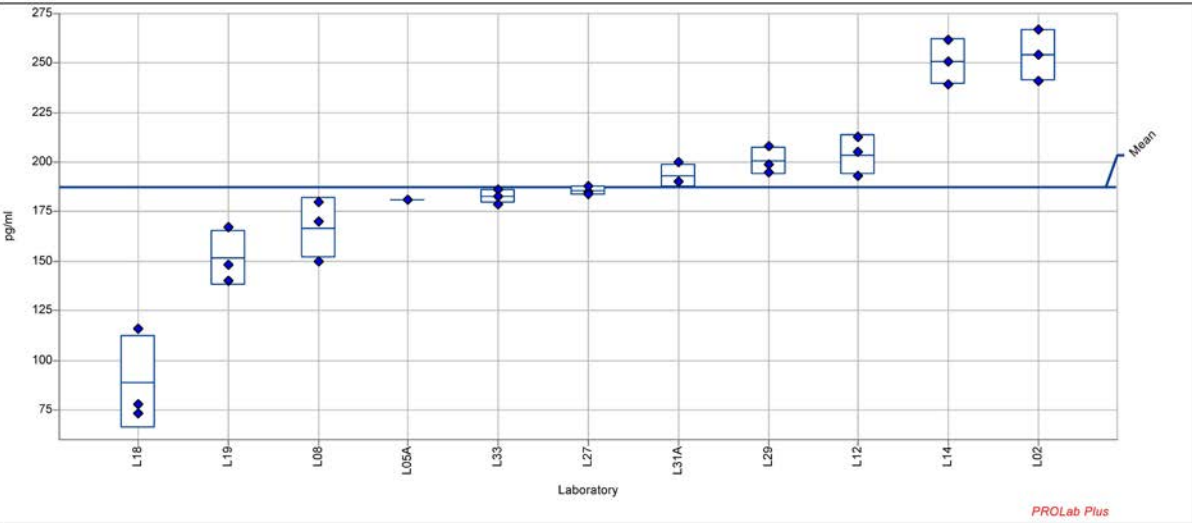
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	48 pg/ml
Measurand:	PCB 114	Rel. reproducibility s.d.:	25.40%
Mean:	188 pg/ml	Repeatability s.d.:	12 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.48%
No. of laboratories:	11	No. of outlier values:	0



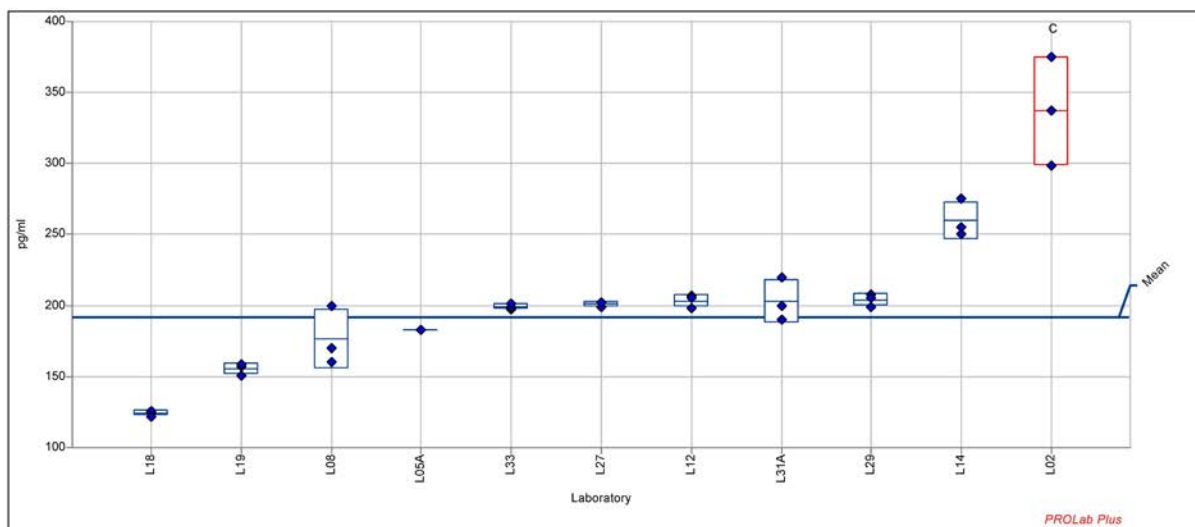
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	38 pg/ml
Measurand:	PCB 123	Rel. reproducibility s.d.:	19.66%
Mean:	192 pg/ml	Repeatability s.d.:	10 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.26%
No. of laboratories:	10	No. of outlier values:	3



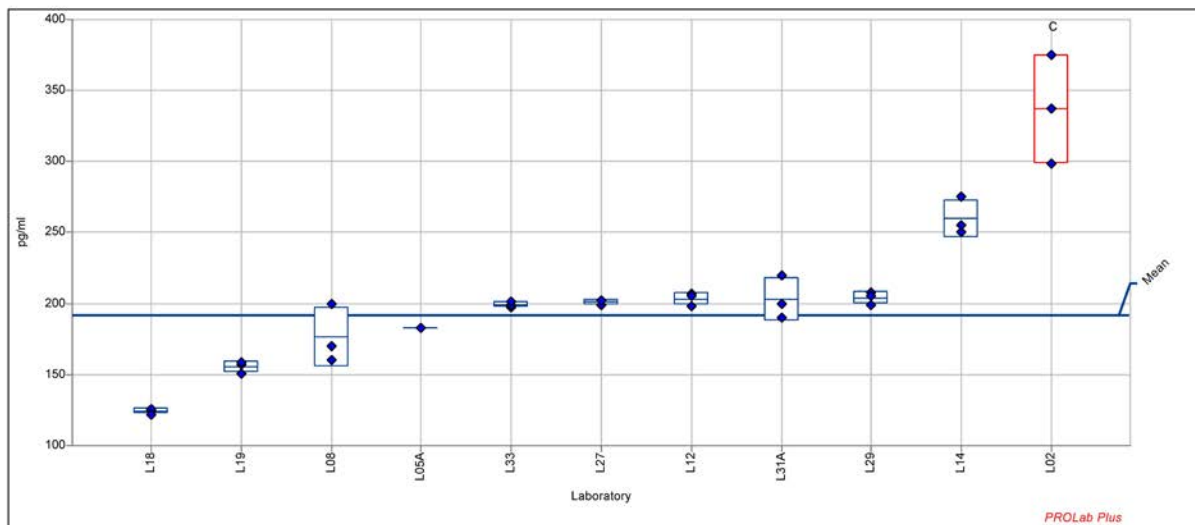
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	38 pg/ml
Measurand:	PCB 123	Rel. reproducibility s.d.:	19.66%
Mean:	192 pg/ml	Repeatability s.d.:	10 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.26%
No. of laboratories:	10	No. of outlier values:	3



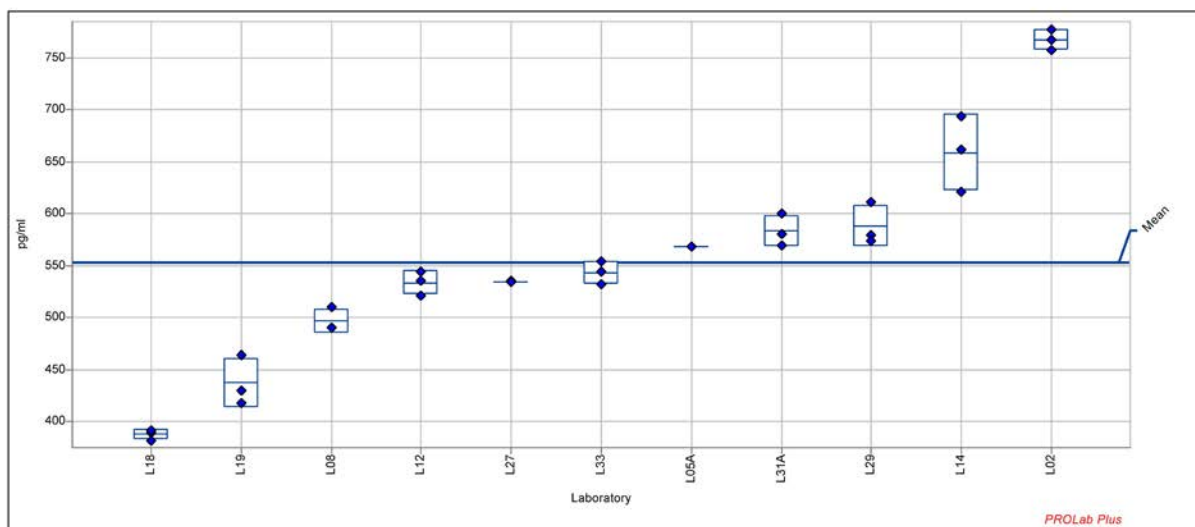
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	106 pg/ml
Measurand:	PCB 156	Rel. reproducibility s.d.:	19.21%
Mean:	554 pg/ml	Repeatability s.d.:	17 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.16%
No. of laboratories:	11	No. of outlier values:	0



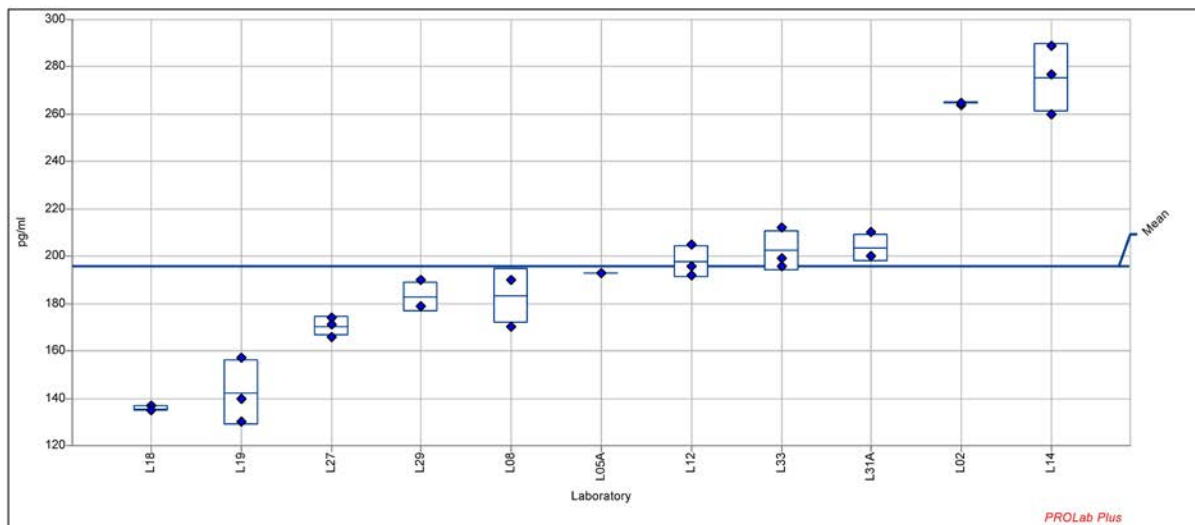
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	45 pg/ml
Measurand:	PCB 157	Rel. reproducibility s.d.:	23.07%
Mean:	196 pg/ml	Repeatability s.d.:	9 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.40%
No. of laboratories:	11	No. of outlier values:	0



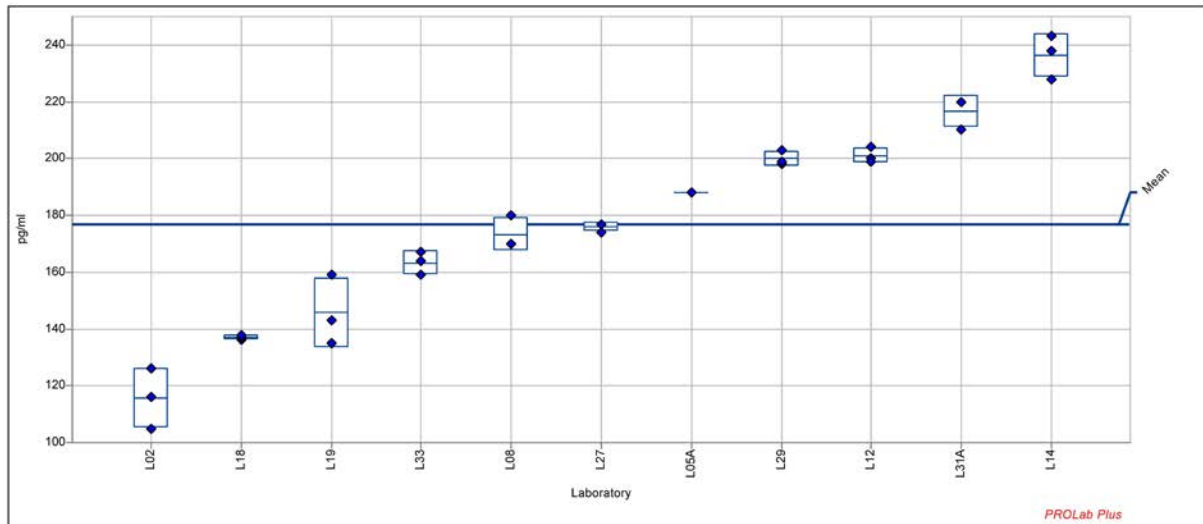
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	37 pg/ml
Measurand:	PCB 167	Rel. reproducibility s.d.:	21.11%
Mean:	177 pg/ml	Repeatability s.d.:	6 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.66%
No. of laboratories:	11	No. of outlier values:	0



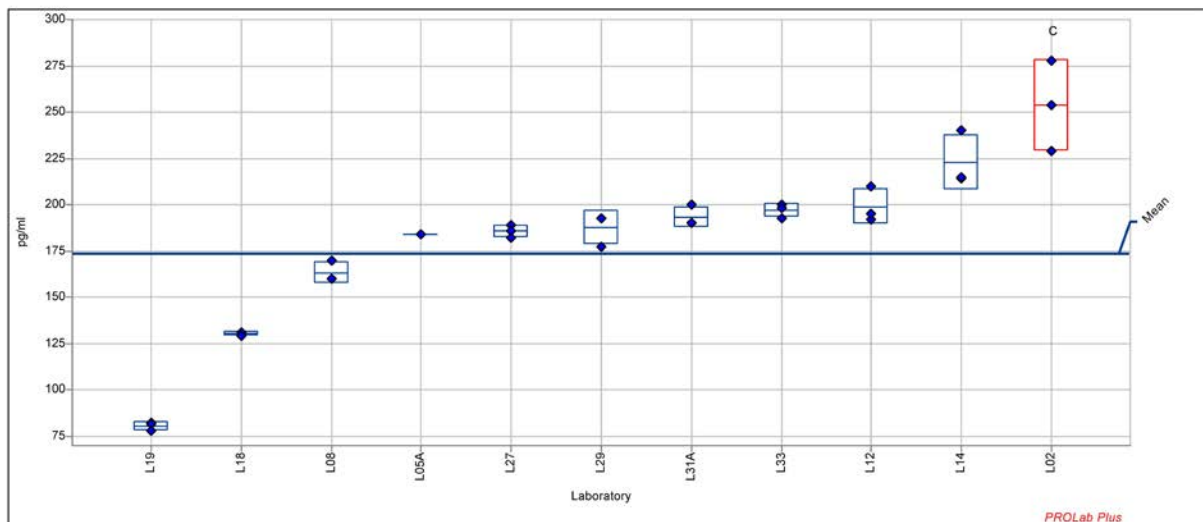
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Reference solution	Reproducibility s.d.:	43 pg/ml
Measurand:	PCB 189	Rel. reproducibility s.d.:	24.63%
Mean:	174 pg/ml	Repeatability s.d.:	7 pg/ml
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.27%
No. of laboratories:	10	No. of outlier values:	3



4.2 Validation results for SO DIO

SODIO	2.3.7.8-TCDD	type of outlier	z-score	1.2.3.7.8-PeCDD	type of outlier	z-score	1.2.3.4.7.8-HxCDD	type of outlier	z-score	1.2.3.6.7.8-HxCDD	type of outlier	z-score
Unit	ng/kg dm	DD	-0.00	ng/kg dm	DD	-0.00	ng/kg dm	DD	-0.00	ng/kg dm	DD	-0.00
L01A	< 4.000			< 6.000			< 8.000			< 8.000		
L02	< 0.100			< 0.100			< 0.200			< 0.200		
L05A	< 1.500			< 2.000			< 5.000			< 5.000		
L08	0.293		-0.65	0.450		-0.96	0.687		-0.44	3.313		-1.30
L12	< 0.200			3.020		1.34	0.564		-0.52	5.653		0.38
L14	< 1.000			< 1.000			< 2.000			4.587		-0.39
L18	< 0.500			4.467	CE	2.64	5.000	E	2.38	5.800		0.48
L19	5.550		0.65	< 1.850			< 2.020			6.157		0.74
L27	< 0.160			1.187		-0.30	< 0.460			4.690		-0.32
L29	< 0.850			< 2.200			1.633		0.18	5.333		0.15
L31A				1.067		-0.41				4.000		-0.81
L33	< 2.000			< 2.000			< 2.000			6.633		1.08
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			12			11			12		
No. labs w/o outl.	2			4			4			9		
Mean	2.922			1.520			1.365			5.130		
SR Reprod. SD	4.039			1.116			1.528			1.394		
Sr Repeat. SD	1.937			0.198			0.144			1.095		
RSD % VR	138.26 %			73.43 %			111.96 %			27.17 %		
RSD % Vr	66.29 %			13.02 %			10.53 %			21.35 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	0			1			0			0		
No. sgl. values w/o outl.	6			11			10			27		

SODIO	1.2.3.7.8.9-HxCDD	type of outlier	z-score	1.2.3.4.6.7.8-HpCDD	type of outlier	z-score	OCDD	type of outlier	z-score	2.3.7.8-TCDF	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	< 8.000			14.667	E	-2.43	189.333		-1.14	642.667	C	0.34
L02	< 0.200			50.250		0.31	253.000		-0.05	735.000		1.31
L05A	< 5.000			46.633		0.03	253.000		-0.05	537.667		-0.77
L08	1.300		-1.15	38.367		-0.61	200.333		-0.95	594.667		-0.17
L12	1.393		-1.02	44.933		-0.10	255.000		-0.01	643.667		0.35
L14	2.693		0.88	52.867		0.51	271.667		0.28	704.667		0.99
L18	3.633	CE	2.26	43.000		-0.25	220.333		-0.60	458.333		-1.60
L19	2.440		0.51	65.267		1.46	396.000	E	2.40	640.000		0.31
L27	1.760		-0.48	49.500		0.25	240.000		-0.27	538.000		-0.76
L29	1.900		-0.28	50.667		0.34	293.333		0.65	740.000		1.36
L31A	2.000		-0.13	44.000		-0.17	220.000		-0.61	553.333		-0.60
L33	3.100		1.48	56.233		0.77	274.333		0.32	612.000		0.02
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	8			12			12			11		
Mean	2.089			46.254			255.600			610.531		
SR Reprod. SD	0.684			13.022			58.408			95.195		
Sr Repeat. SD	0.238			5.189			25.312			44.550		
RSD % VR	32.72 %			28.15 %			22.85 %			15.59 %		
RSD % Vr	11.41 %			11.22 %			9.90 %			7.30 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			0			0			1		
No. sgl. values w/o outl.	22			35			35			32		

SODIO	1.2.3.7.8-PeCDF	type of outlier	z-score	2.3.4.7.8-PeCDF	type of outlier	z-score	1.2.3.4.7.8-HxCDF	type of outlier	z-score	1.2.3.6.7.8-HxCDF	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	706.667		-0.11	449.333		-0.19	820.000		-0.92	197.333		-1.09
L02	789.000		0.69	486.000		0.36	1205.000		1.45	212.500		-0.65
L05A	672.667		-0.44	396.000		-0.99	967.333		-0.02	272.667		1.09
L08	639.000		-0.76	449.000		-0.19	900.333		-0.43	201.333		-0.97
L12	794.000		0.74	509.000		0.71	1078.333		0.67	247.000		0.35
L14	875.000		1.52	559.333		1.46	1216.667		1.53	269.667		1.00
L18	540.333		-1.71	367.000		-1.42	805.333		-1.02	227.000		-0.23
L19	789.000		0.69	504.000		0.63	1033.667		0.40	261.333		0.76
L27	663.000		-0.53	406.667		-0.83	753.333		-1.34	191.000		-1.27
L29	1233.333	BE	4.98	510.000		0.72	1033.333		0.39	263.333		0.82
L31A	706.667		-0.11	426.667		-0.53	923.333		-0.29	230.000		-0.15
L33	745.000		0.26	486.333		0.37	978.333		0.05	239.667		0.13
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	11			12			12			12		
Mean	717.875			461.771			969.714			235.029		
SR Reprod. SD	103.604			66.746			161.981			34.605		
Sr Repeat. SD	57.877			42.802			91.872			22.644		
RSD % VR	14.43 %			14.45 %			16.70 %			14.72 %		
RSD % Vr	8.06 %			9.27 %			9.47 %			9.63 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			0			0		
No. C outliers	0			0			0			0		
No. sgl. values w/o outl.	32			35			35			35		

SODIO	1.2.3.7.8.9-HxCDF	type of outlier	z-score	2.3.4.6.7.8-HxCDF	type of outlier	z-score	1.2.3.4.6.7.8-HpCDF	type of outlier	z-score	1.2.3.4.7.8.9-HpCDF	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	213.333		1.70	92.000		0.31	201.333		-1.10	110.667		0.78
L02	184.500		1.31	1145.000	CE	47.32	262.500		0.10	103.000		0.38
L05A	108.800		0.29	109.933		1.11	255.000		-0.04	91.467		-0.21
L08	31.067		-0.75	59.000		-1.16	217.000		-0.79	74.367		-1.09
L12	195.333		1.46	131.000	E	2.05	310.333		1.04	101.533		0.31
L14	25.300		-0.83	85.167		0.01	317.000		1.17	102.100		0.34
L18	142.667		0.75	60.000		-1.12	222.000		-0.69	85.333		-0.52
L19	48.900		-0.51	81.300		-0.17	271.000		0.27	93.767		-0.09
L27	46.233		-0.55	86.367		0.06	186.000		-1.40	66.533		-1.49
L29	34.667		-0.71	88.333		0.15	330.000		1.43	135.000	E	2.02
L31A	21.000		-0.89	66.667		-0.82	236.667		-0.40	82.000		-0.69
L33	25.200		-0.83	75.600		-0.42	279.667		0.44	116.333		1.07
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	12			11			12			12		
Mean	87.043			85.033			257.229			95.538		
SR Reprod. SD	74.335			22.399			51.064			19.509		
Sr Repeat. SD	8.224			8.472			23.806			8.938		
RSD % VR	85.40 %			26.34 %			19.85 %			20.42 %		
RSD % Vr	9.45 %			9.96 %			9.25 %			9.36 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	0			1			0			0		
No. sgl. values w/o outl.	35			33			35			34		

SODIO	OCDF	type of outlier	z-score	PCB 77	type of outlier	z-score	PCB 81	type of outlier	z-score	PCB 118	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	190.667		0.52									
L02	157.500		-0.34	< 200.000			< 200.000			200666.667	BE	56.30
L05A	154.333		-0.42	3073.333		-0.81	313.333	E	2.22	18766.667		-1.28
L08	135.333		-0.91	3676.667		0.35	194.333		-0.36	20900.000		-0.60
L12	173.333		0.07	3810.000		0.60	193.667		-0.38	22000.000		-0.25
L14	167.333		-0.08	3823.333		0.63	239.000		0.61	27666.667		1.54
L18	164.667		-0.15	3554.000		0.11	166.667	C	-0.96	22882.333		0.03
L19	189.000		0.48	3036.667		-0.89	185.667		-0.55	22928.000		0.04
L27	103.267		-1.73	2586.667		-1.75	154.333		-1.23	19600.000		-1.01
L29	220.000		1.28	4333.333		1.61	220.000		0.19	26666.667		1.23
L31A	146.667		-0.61	3766.667		0.52	213.333		0.05	25666.667		0.91
L33	239.333		1.78	3303.333		-0.37	185.667		-0.55	20876.667		-0.61
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			11			11			11		
No. labs w/o outl.	12			10			9			10		
Mean	170.480			3496.400			211.037			22795.367		
SR Reprod. SD	38.791			519.590			46.124			3159.300		
Sr Repeat. SD	14.076			163.302			10.642			1190.223		
RSD % VR	22.75 %			14.86 %			21.86 %			13.86 %		
RSD % Vr	8.26 %			4.67 %			5.04 %			5.22 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			1		
No. C outliers	0			0			1			0		
No. sgl. values w/o outl.	35			30			27			30		

SODIO	PCB 126	type of outlier	z-score	PCB 169	type of outlier	z-score	PCB 105	type of outlier	z-score	PCB 114	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A												
L02	< 200.000			< 200.000			85166.667	CE	63.49	5390.000	CE	36.96
L05A	45.133		-0.84	< 20.000			7086.667		-1.45	461.333		-1.43
L08	52.167		-0.24	< 12.000			8720.000		-0.09	585.333		-0.46
L12	57.067		0.18	4.930		0.44	8600.000		-0.19	861.000		1.68
L14	43.867		-0.95	3.740		-0.83	9870.000		0.86	541.000		-0.81
L18	80.000	CE	2.14	24.000	BE	20.88	8866.000		0.03	725.333		0.63
L19	47.033		-0.68	3.667		-0.91	8849.667		0.02	752.667		0.84
L27	45.533		-0.81	4.123		-0.42	7520.000		-1.09	532.333		-0.88
L29	76.333		1.83	18.667	CE	15.17	11000.000		1.80	760.000		0.90
L31A	68.000		1.11	4.667		0.16	9666.667		0.70	636.667		-0.06
L33	59.700		0.40	5.967		1.56	8126.667		-0.59	593.000		-0.40
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			11			11			11		
No. labs w/o outl.	9			6			10			10		
Mean	54.981			4.516			8830.567			644.867		
SR Reprod. SD	11.698			0.933			1202.400			128.373		
Sr Repeat. SD	3.404			0.416			448.073			33.697		
RSD % VR	21.28 %			20.67 %			13.62 %			19.91 %		
RSD % Vr	6.19 %			9.22 %			5.07 %			5.23 %		
No. A outliers	0			0			0			0		
No. B outliers	0			1			0			0		
No. C outliers	1			1			1			1		
No. sgl. values w/o outl.	27			18			30			30		

SODIO	PCB 123	type of outlier	z-score	PCB 156	type of outlier	z-score	PCB 157	type of outlier	z-score	PCB 167	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A												
L02	12466.667	CE	110.78	51400.000	CE	67.60	8910.000	CE	73.19	16566.667	CE	44.99
L05A	277.667		-0.88	4383.333		-1.56	651.667		-1.12	1926.667		-0.90
L08	262.667		-1.02	4910.000		-0.79	680.000		-0.86	1976.667		-0.75
L12	306.667		-0.61	5376.667		-0.10	774.000		-0.02	1830.000		-1.21
L14	463.000		0.82	6016.667		0.84	919.000		1.29	2646.667		1.35
L18	1591.333	BE	11.16	5555.333		0.16	851.333		0.68	2350.667		0.43
L19	1017.000	CE	5.89	5947.333		0.74	793.667		0.16	2718.667	C	1.58
L27	339.333		-0.32	4810.000		-0.93	634.667		-1.27	1950.000		-0.83
L29	1633.333	CE	11.54	6233.333		1.16	883.333		0.97	2600.000		1.21
L31A	410.000		0.33	5900.000		0.67	876.667		0.91	2466.667		0.79
L33	556.333		1.67	5313.333		-0.19	696.000		-0.72	2186.667		-0.09
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			11			11			11		
No. labs w/o outl.	7			10			10			9		
Mean	373.667			5444.600			776.033			2214.889		
SR Re-prod. SD	109.161			679.860			111.132			319.030		
Sr Repeat. SD	20.148			387.620			44.738			85.219		
RSD % VR	29.21 %			12.49 %			14.32 %			14.40 %		
RSD % Vr	5.39 %			7.12 %			5.76 %			3.85 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			0			0		
No. C outliers	3			1			1			2		
No. sgl. values w/o outl.	21			30			30			27		

SODIO	PCB 189	type of outlier	z-score	NATO/CCMS-TEQ	type of outlier	z-score	WHO-TEQ 1998	type of outlier	z-score	WHO-TEQ 2005	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A				460.180		-0.27						
L02	6570.000	CE	61.87	635.220	E	2.08	698.315	E	2.36	533.515	E	2.37
L05A	589.667		-0.98	435.610		-0.60	445.533		-0.62	348.613		-0.52
L08	548.000		-1.42	439.697		-0.54	451.297		-0.55	343.833		-0.60
L12	719.333		0.39	531.000		0.69	544.967		0.55	422.040		0.63
L14	757.000		0.78	559.450		1.07	571.527		0.87	436.193		0.85
L18	804.667		1.28	387.080		-1.25	404.660		-1.10	315.503		-1.04
L19	879.667	CE	2.07	509.263		0.39	520.943		0.27	398.763		0.26
L27	676.333		-0.07	402.580		-1.04	413.557		-1.00	314.403		-1.06
L29	820.000	C	1.44	538.613		0.79	554.400		0.67	421.797		0.62
L31A	756.667		0.78	433.227		-0.63	448.053		-0.59	342.807		-0.61
L33	610.000		-0.76	479.507		-0.01	491.763		-0.07	374.683		-0.11
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			12			11			11		
No. labs w/o outl.	8			12			11			11		
Mean	682.708			479.973			498.023			381.967		
SR Reprod. SD	95.162			74.510			84.775			63.863		
Sr Repeat. SD	29.482			36.309			36.014			27.049		
RSD % VR	13.94 %			15.52 %			17.02 %			16.72 %		
RSD % Vr	4.32 %			7.56 %			7.23 %			7.08 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	3			0			0			0		
No. sgl. values w/o outl.	24			35			32			32		

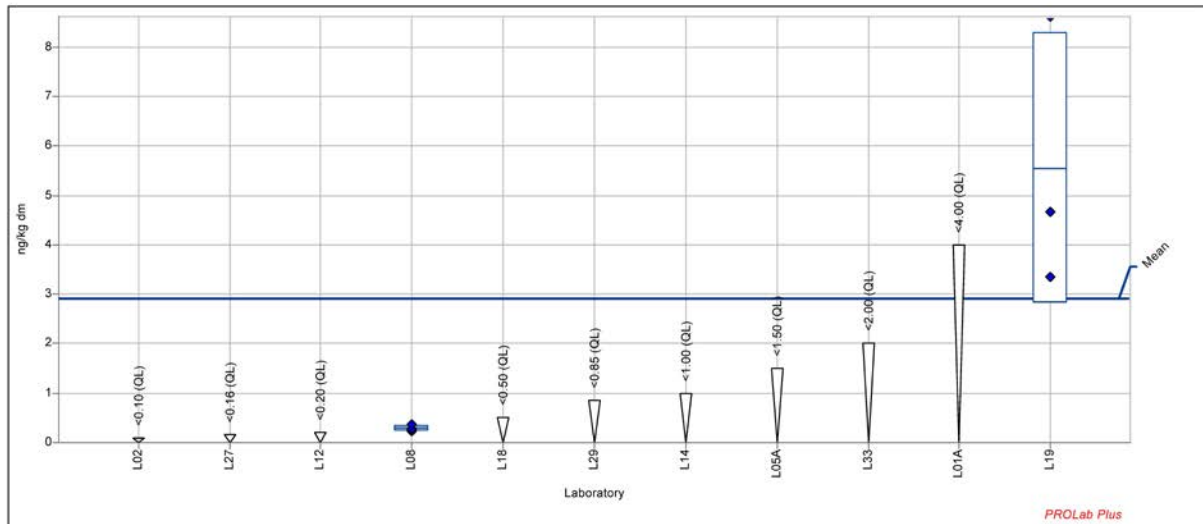
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	4.04 ng/kg dm
Measurand:	2,3,7,8-TCDD	Rel. reproducibility s.d.:	138.26%
Mean:	2.92 ng/kg dm	Repeatability s.d.:	1.94 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	66.29%
No. of laboratories:	2	No. of outlier values:	0



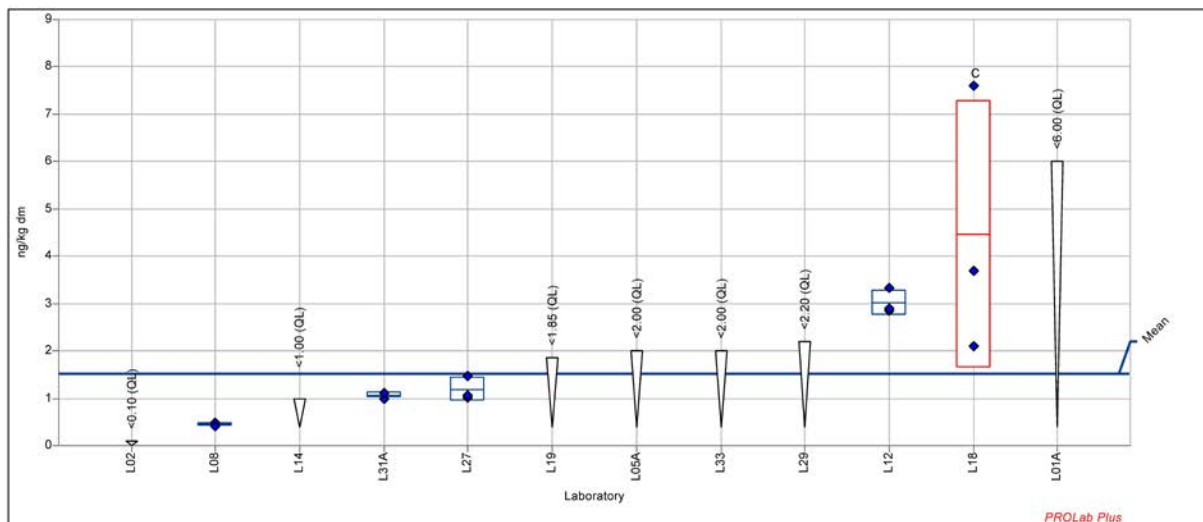
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	1.12 ng/kg dm
Measurand:	1,2,3,7,8-PeCDD	Rel. reproducibility s.d.:	73.43%
Mean:	1.52 ng/kg dm	Repeatability s.d.:	0.20 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	13.02%
No. of laboratories:	4	No. of outlier values:	3



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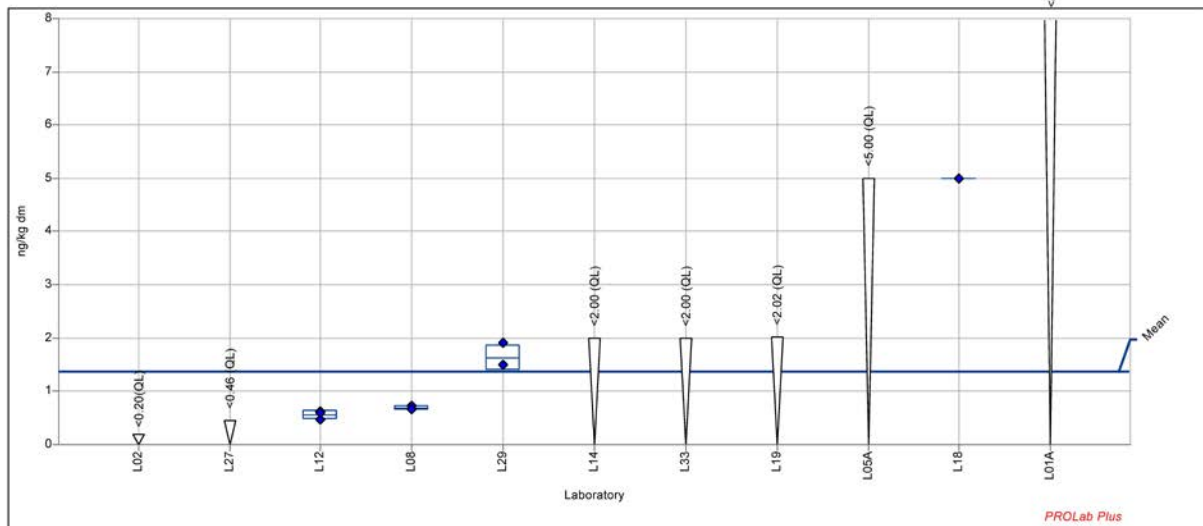
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Summary results - DIOXINS



Sample: Soil
Measurand: 1,2,3,4,7,8-HxCDD
Mean: 1.37 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 4

Reproducibility s.d.: 1.53 ng/kg dm
Rel. reproducibility s.d.: 111.96%
Repeatability s.d.: 0.14 ng/kg dm
Rel. repeatability s.d.: 10.53%
No. of outlier values: 0



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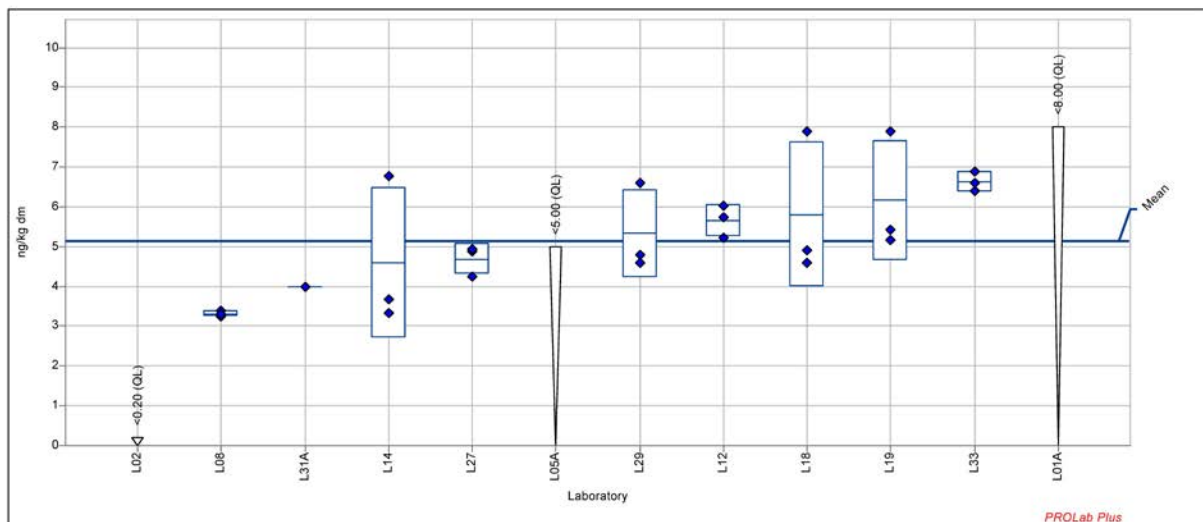
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Summary results - DIOXINS



Sample: Soil
Measurand: 1,2,3,6,7,8-HxCDD
Mean: 5.13 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 9

Reproducibility s.d.: 1.39 ng/kg dm
Rel. reproducibility s.d.: 27.17%
Repeatability s.d.: 1.10 ng/kg dm
Rel. repeatability s.d.: 21.35%
No. of outlier values: 0



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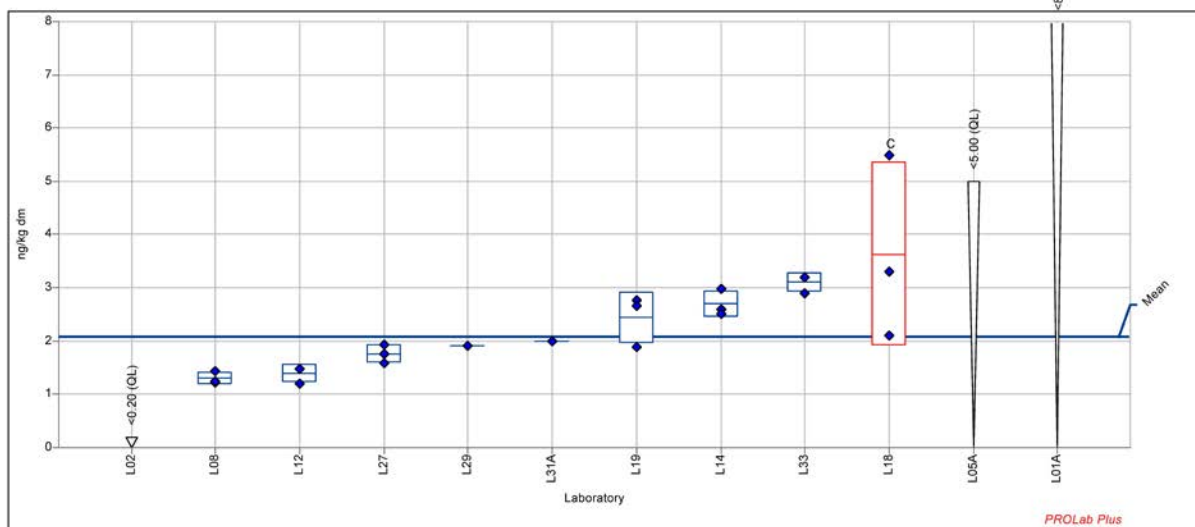
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Summary results - DIOXINS



Sample: Soil
Measurand: 1,2,3,7,8,9-HxCDD
Mean: 2.09 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 8

Reproducibility s.d.: 0.68 ng/kg dm
Rel. reproducibility s.d.: 32.72%
Repeatability s.d.: 0.24 ng/kg dm
Rel. repeatability s.d.: 11.41%
No. of outlier values: 3



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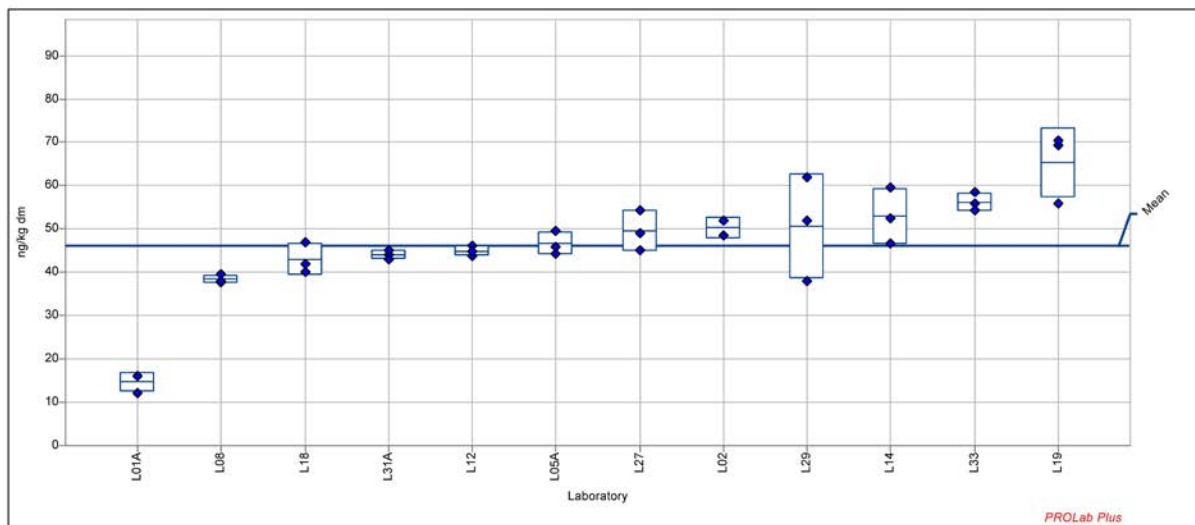
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Summary results - DIOXINS



Sample: Soil
Measurand: 1,2,3,4,6,7,8-HpCDD
Mean: 46.3 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 12

Reproducibility s.d.: 13.0 ng/kg dm
Rel. reproducibility s.d.: 28.15%
Repeatability s.d.: 5.2 ng/kg dm
Rel. repeatability s.d.: 11.22%
No. of outlier values: 0



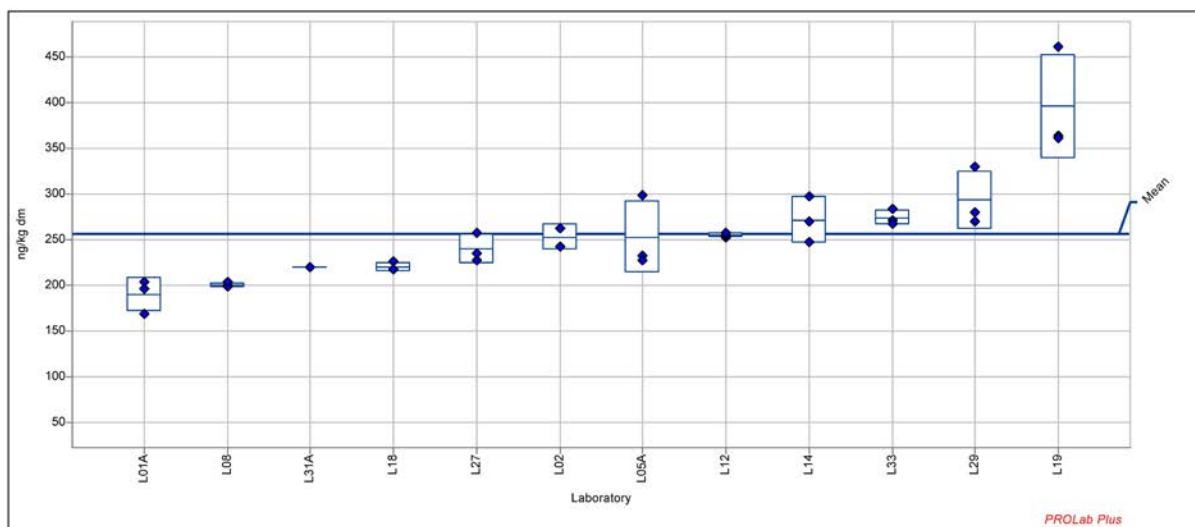
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	58.4 ng/kg dm
Measurand:	OCDD	Rel. reproducibility s.d.:	22.85%
Mean:	255.6 ng/kg dm	Repeatability s.d.:	25.3 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.90%
No. of laboratories:	12	No. of outlier values:	0



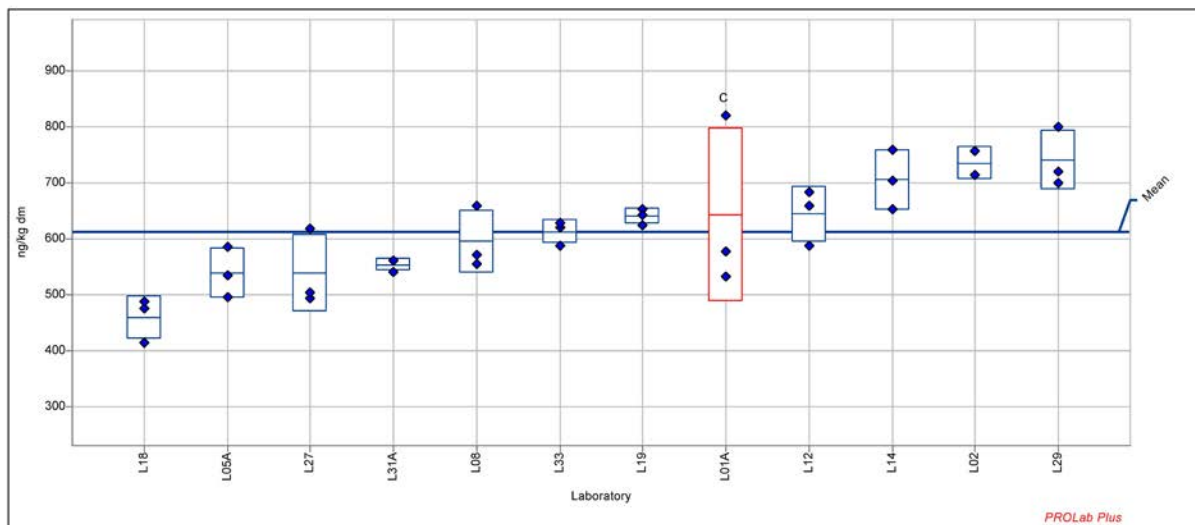
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	95.2 ng/kg dm
Measurand:	2,3,7,8-TCDF	Rel. reproducibility s.d.:	15.59%
Mean:	610.5 ng/kg dm	Repeatability s.d.:	44.5 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.30%
No. of laboratories:	11	No. of outlier values:	3



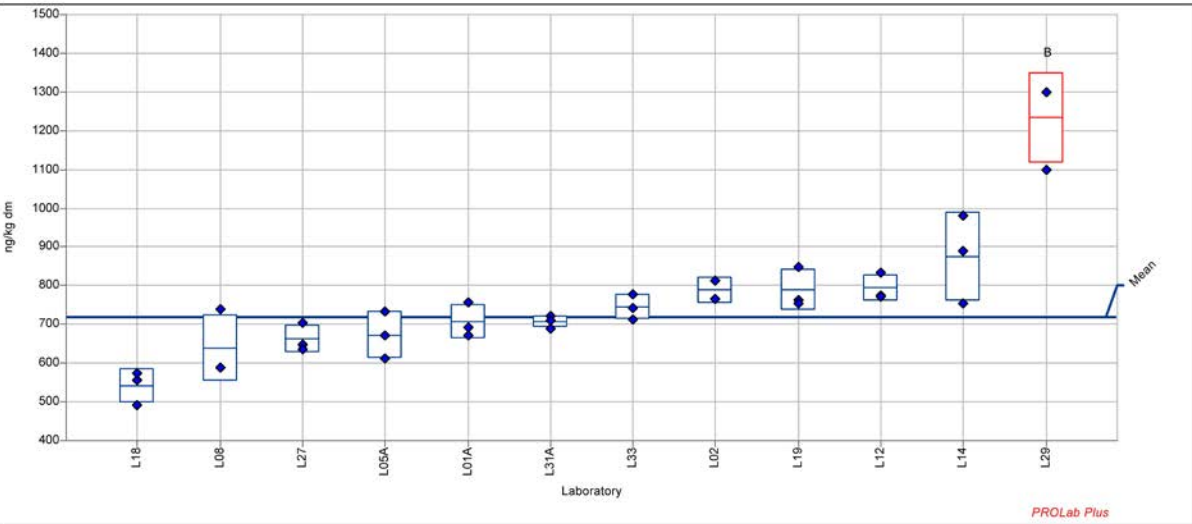
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	103.6 ng/kg dm
Measurand:	1,2,3,7,8-PeCDF	Rel. reproducibility s.d.:	14.43%
Mean:	717.9 ng/kg dm	Repeatability s.d.:	57.9 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.06%
No. of laboratories:	11	No. of outlier values:	3



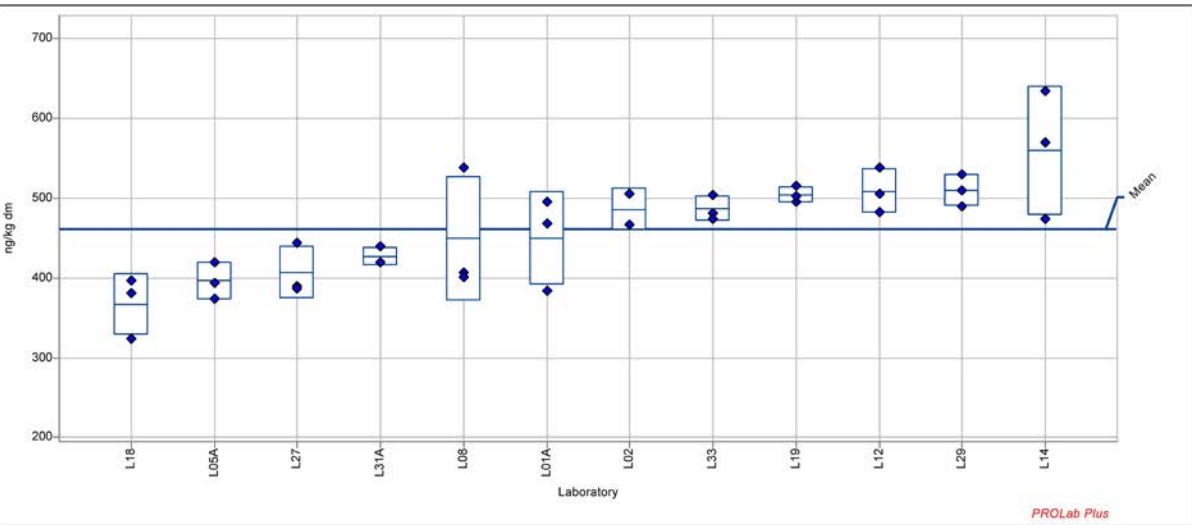
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	66.7 ng/kg dm
Measurand:	2,3,4,7,8-PeCDF	Rel. reproducibility s.d.:	14.45%
Mean:	461.8 ng/kg dm	Repeatability s.d.:	42.8 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.27%
No. of laboratories:	12	No. of outlier values:	0



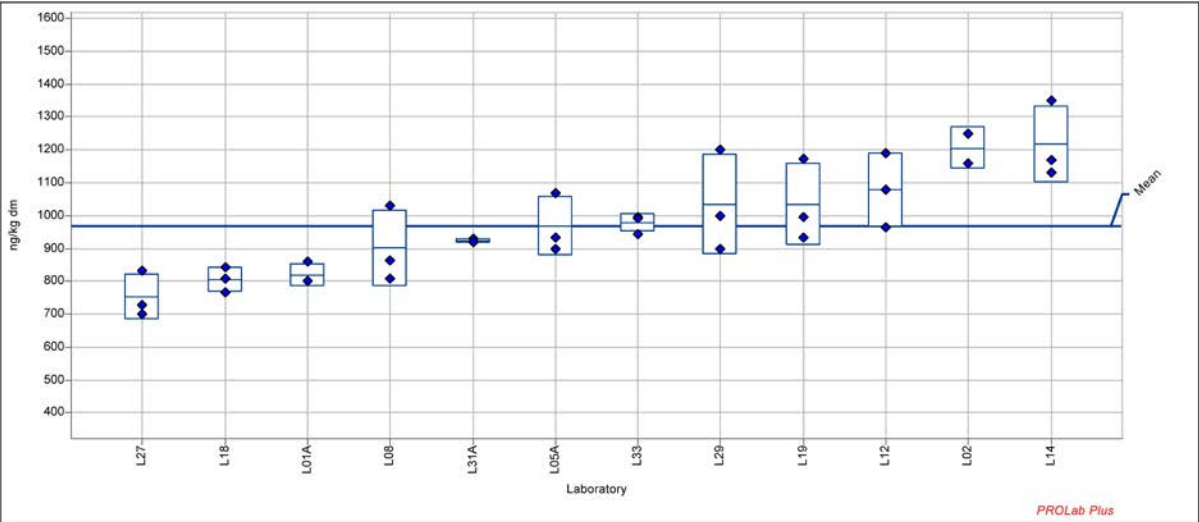
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	162.0 ng/kg dm
Measurand:	1,2,3,4,7,8-HxCDF	Rel. reproducibility s.d.:	16.70%
Mean:	969.7 ng/kg dm	Repeatability s.d.:	91.9 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.47%
No. of laboratories:	12	No. of outlier values:	0



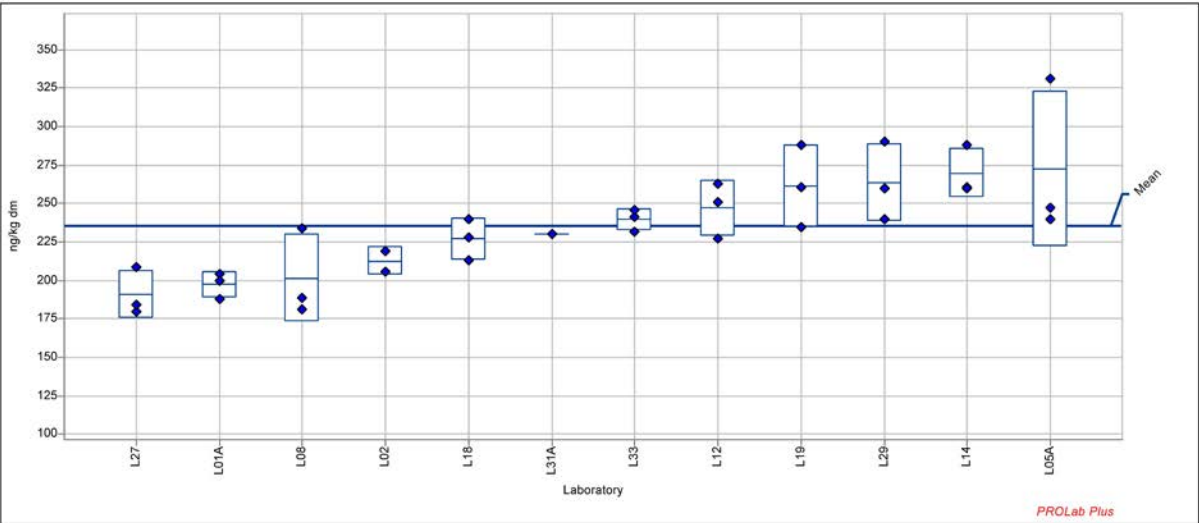
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	34.6 ng/kg dm
Measurand:	1,2,3,6,7,8-HxCDF	Rel. reproducibility s.d.:	14.72%
Mean:	235.0 ng/kg dm	Repeatability s.d.:	22.6 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.63%
No. of laboratories:	12	No. of outlier values:	0



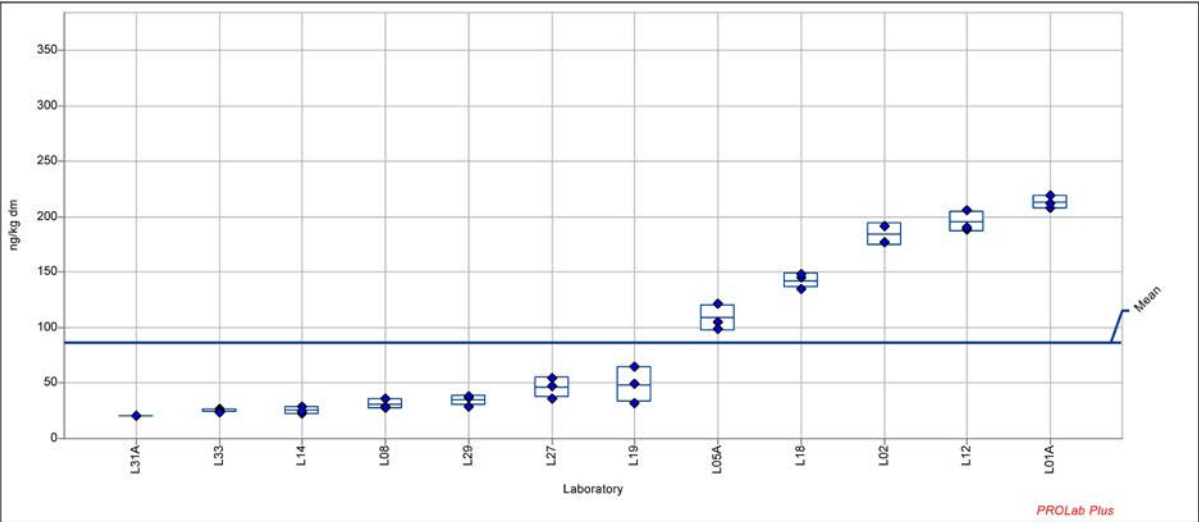
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	74.33 ng/kg dm
Measurand:	1,2,3,7,8,9-HxCDF	Rel. reproducibility s.d.:	85.40%
Mean:	87.04 ng/kg dm	Repeatability s.d.:	8.22 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.45%
No. of laboratories:	12	No. of outlier values:	0



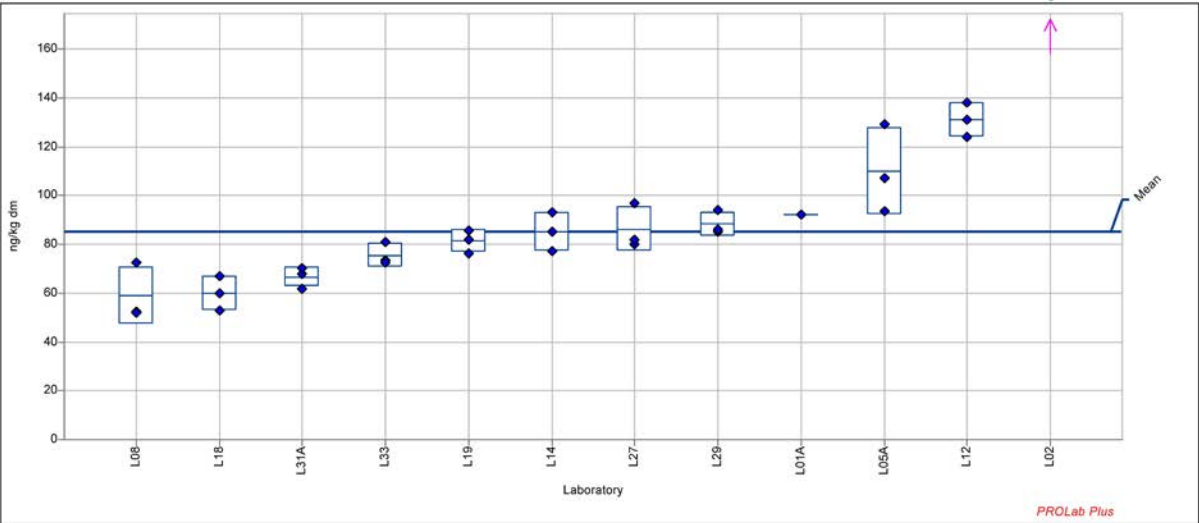
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	22.40 ng/kg dm
Measurand:	2,3,4,6,7,8-HxCDF	Rel. reproducibility s.d.:	26.34%
Mean:	85.03 ng/kg dm	Repeatability s.d.:	8.47 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.96%
No. of laboratories:	11	No. of outlier values:	2



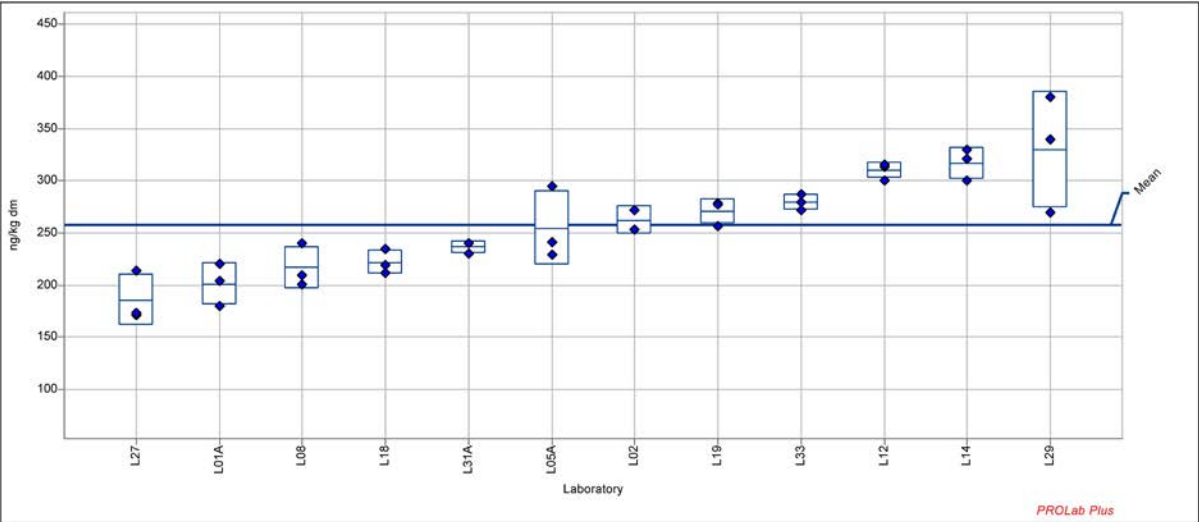
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	51.1 ng/kg dm
Measurand:	1,2,3,4,6,7,8-HpCDF	Rel. reproducibility s.d.:	19.85%
Mean:	257.2 ng/kg dm	Repeatability s.d.:	23.8 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.25%
No. of laboratories:	12	No. of outlier values:	0



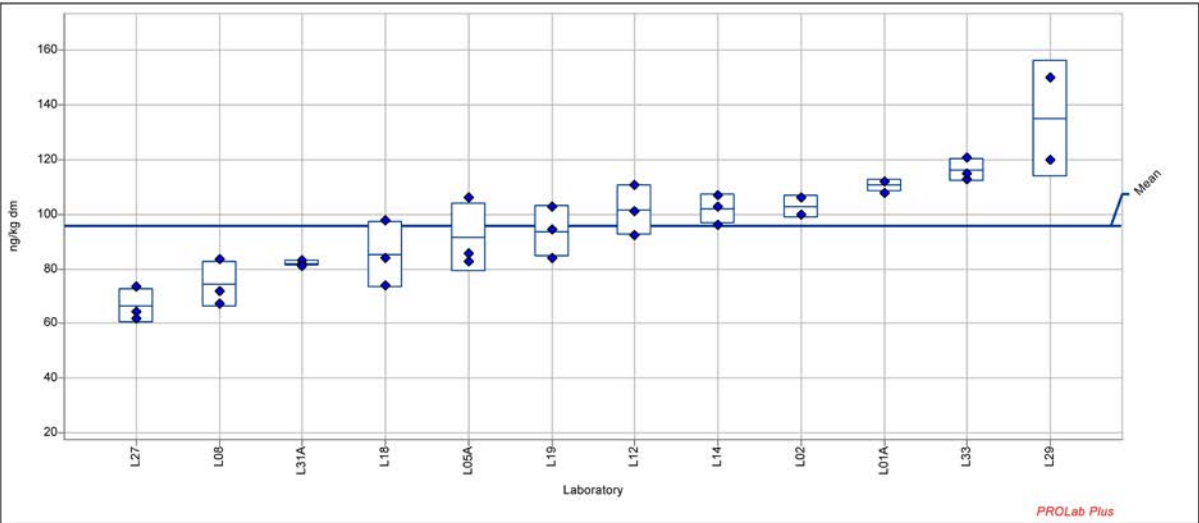
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	19.51 ng/kg dm
Measurand:	1,2,3,4,7,8,9-HpCDF	Rel. reproducibility s.d.:	20.42%
Mean:	95.54 ng/kg dm	Repeatability s.d.:	8.94 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.36%
No. of laboratories:	12	No. of outlier values:	0



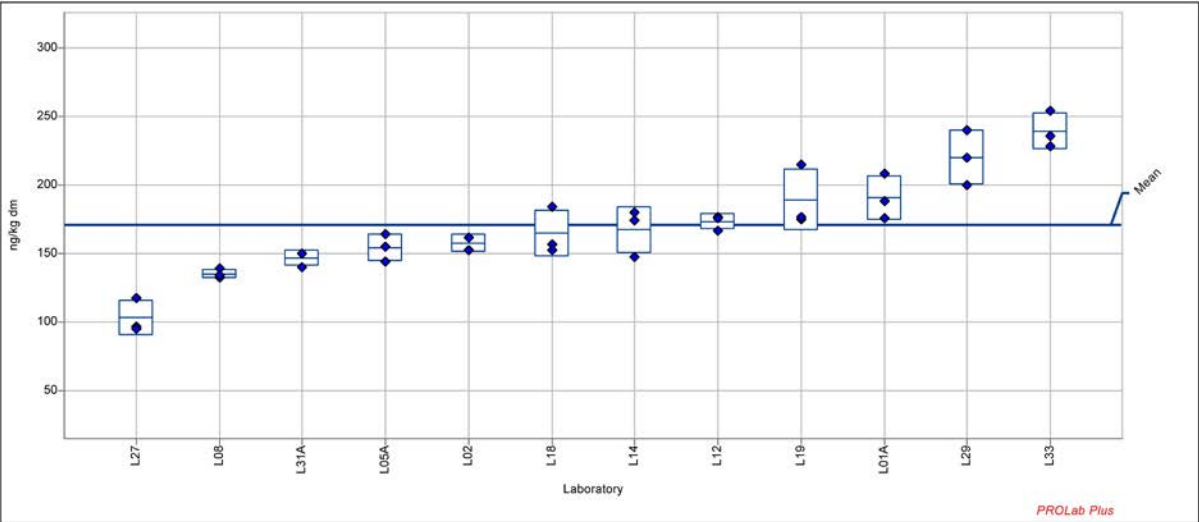
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	38.8 ng/kg dm
Measurand:	OCDF	Rel. reproducibility s.d.:	22.75%
Mean:	170.5 ng/kg dm	Repeatability s.d.:	14.1 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.26%
No. of laboratories:	12	No. of outlier values:	0



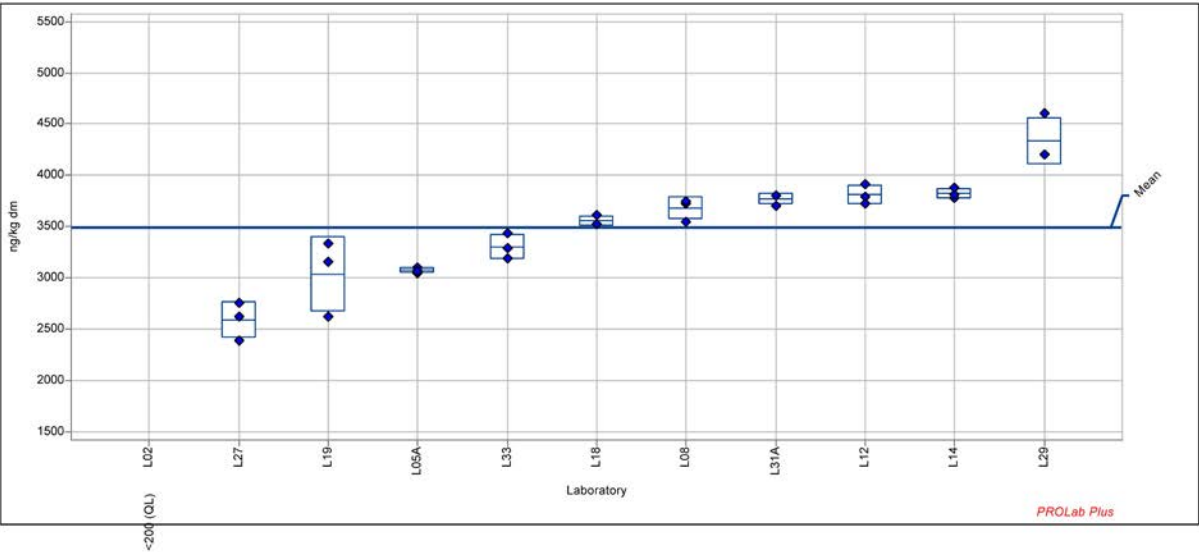
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	520 ng/kg dm
Measurand:	PCB 77	Rel. reproducibility s.d.:	14.86%
Mean:	3496 ng/kg dm	Repeatability s.d.:	163 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.67%
No. of laboratories:	10	No. of outlier values:	0



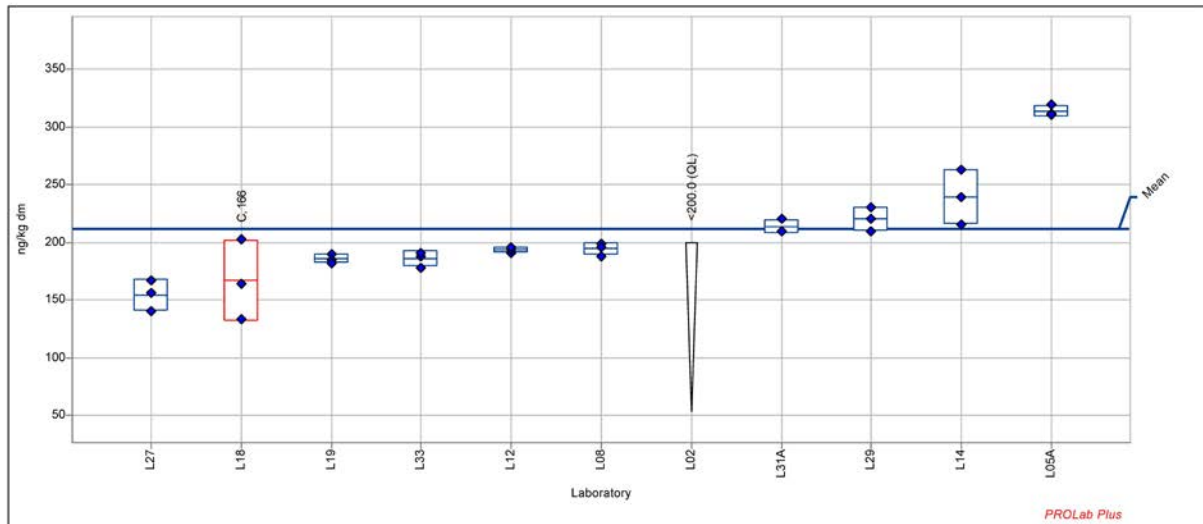
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	46.1 ng/kg dm
Measurand:	PCB 81	Rel. reproducibility s.d.:	21.86%
Mean:	211.0 ng/kg dm	Repeatability s.d.:	10.6 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.04%
No. of laboratories:	9	No. of outlier values:	3



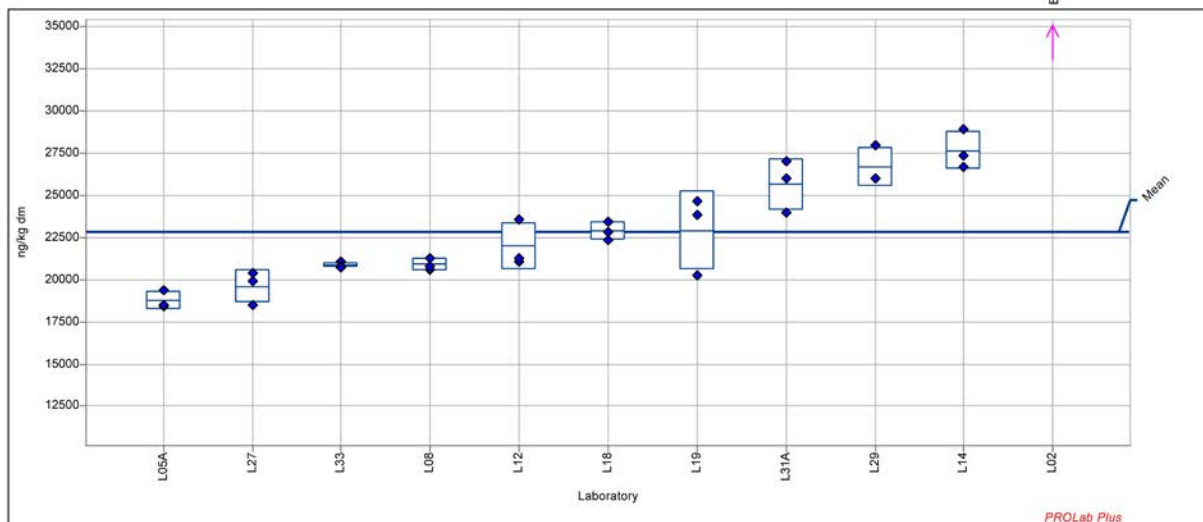
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	3159 ng/kg dm
Measurand:	PCB 118	Rel. reproducibility s.d.:	13.86%
Mean:	22795 ng/kg dm	Repeatability s.d.:	1190 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.22%
No. of laboratories:	10	No. of outlier values:	3



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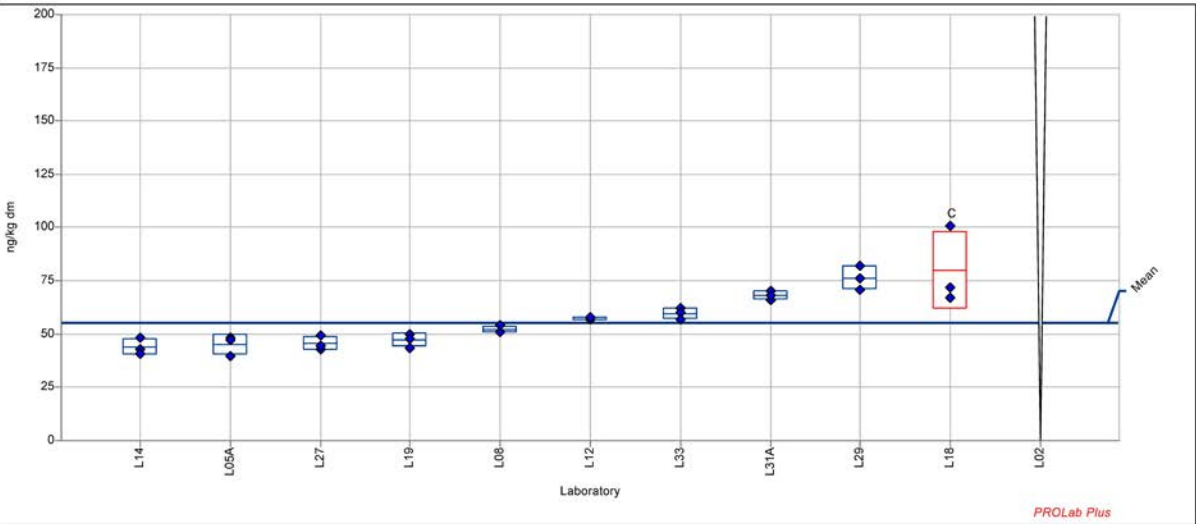
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Summary results - DIOXINS



Sample: Soil
Measurand: PCB 126
Mean: 54.98 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 9

Reproducibility s.d.: 11.70 ng/kg dm
Rel. reproducibility s.d.: 21.28%
Repeatability s.d.: 3.40 ng/kg dm
Rel. repeatability s.d.: 6.19%
No. of outlier values: 3



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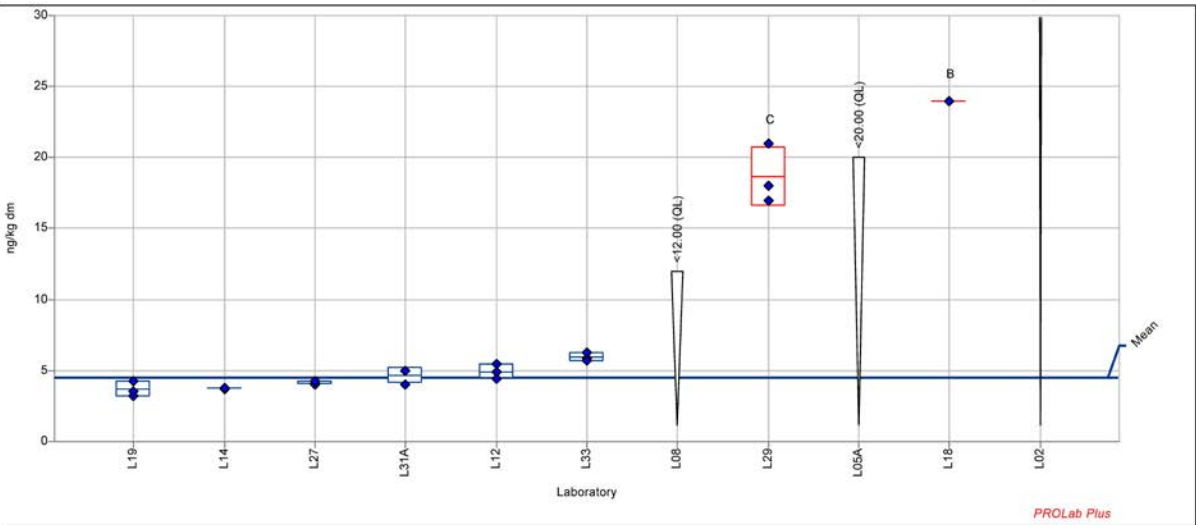
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Summary results - DIOXINS



Sample: Soil
Measurand: PCB 169
Mean: 4.52 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 6

Reproducibility s.d.: 0.93 ng/kg dm
Rel. reproducibility s.d.: 20.67%
Repeatability s.d.: 0.42 ng/kg dm
Rel. repeatability s.d.: 9.22%
No. of outlier values: 6



HORIZONTAL 2013

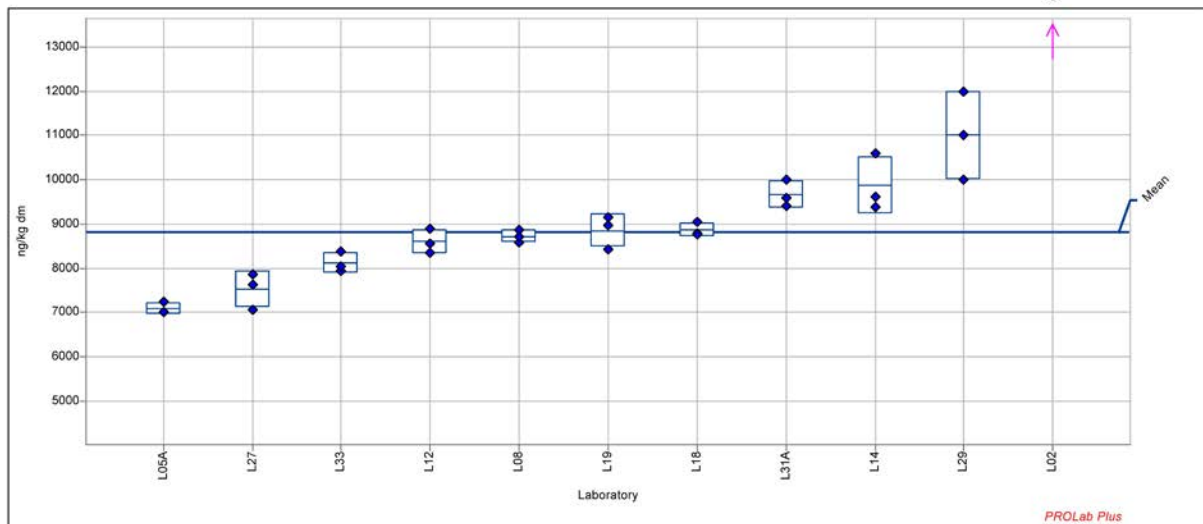
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Summary results - DIOXINS



Sample: Soil
 Measurand: PCB 105
 Mean: 8831 ng/kg dm
 Method: ISO 5725-2
 No. of laboratories: 10

Reproducibility s.d.: 1202 ng/kg dm
 Rel. reproducibility s.d.: 13.62%
 Repeatability s.d.: 448 ng/kg dm
 Rel. repeatability s.d.: 5.07%
 No. of outlier values: 3



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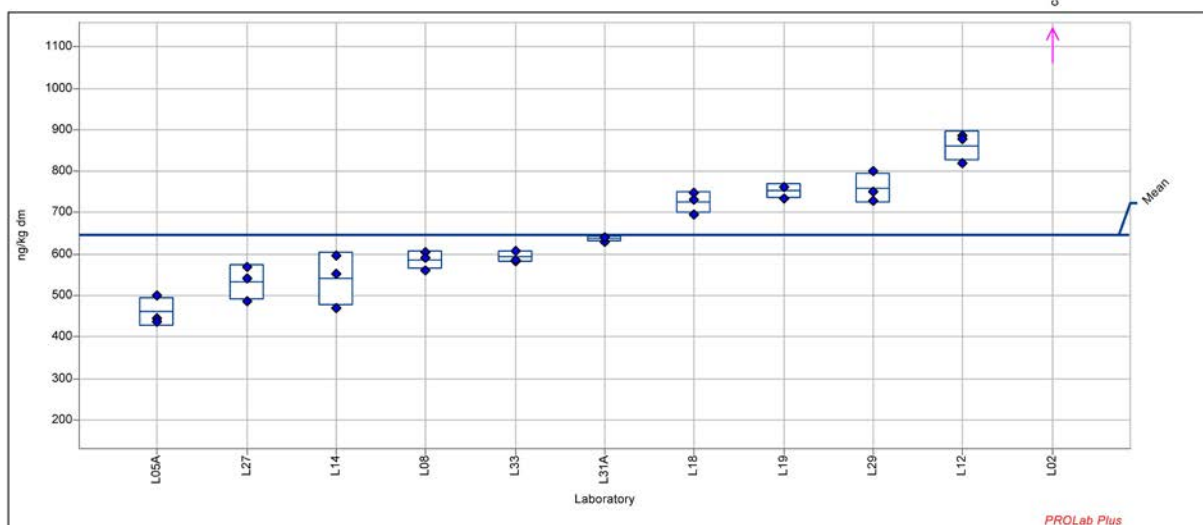
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Summary results - DIOXINS



Sample: Soil
 Measurand: PCB 114
 Mean: 644.9 ng/kg dm
 Method: ISO 5725-2
 No. of laboratories: 10

Reproducibility s.d.: 128.4 ng/kg dm
 Rel. reproducibility s.d.: 19.91%
 Repeatability s.d.: 33.7 ng/kg dm
 Rel. repeatability s.d.: 5.23%
 No. of outlier values: 3



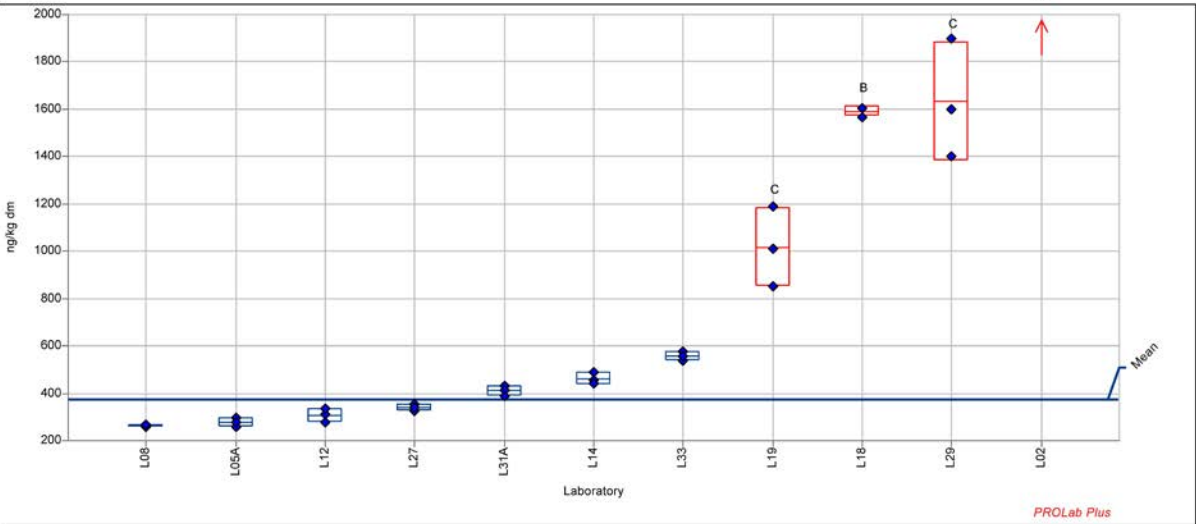
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	109 ng/kg dm
Measurand:	PCB 123	Rel. reproducibility s.d.:	29.21%
Mean:	374 ng/kg dm	Repeatability s.d.:	20 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.39%
No. of laboratories:	7	No. of outlier values:	12



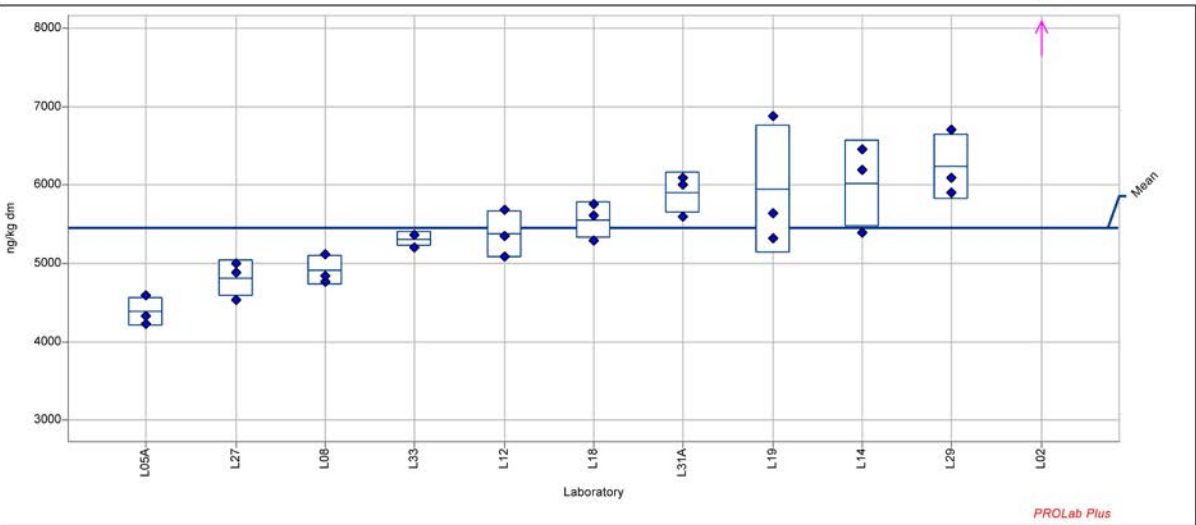
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	680 ng/kg dm
Measurand:	PCB 156	Rel. reproducibility s.d.:	12.49%
Mean:	5445 ng/kg dm	Repeatability s.d.:	388 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.12%
No. of laboratories:	10	No. of outlier values:	3



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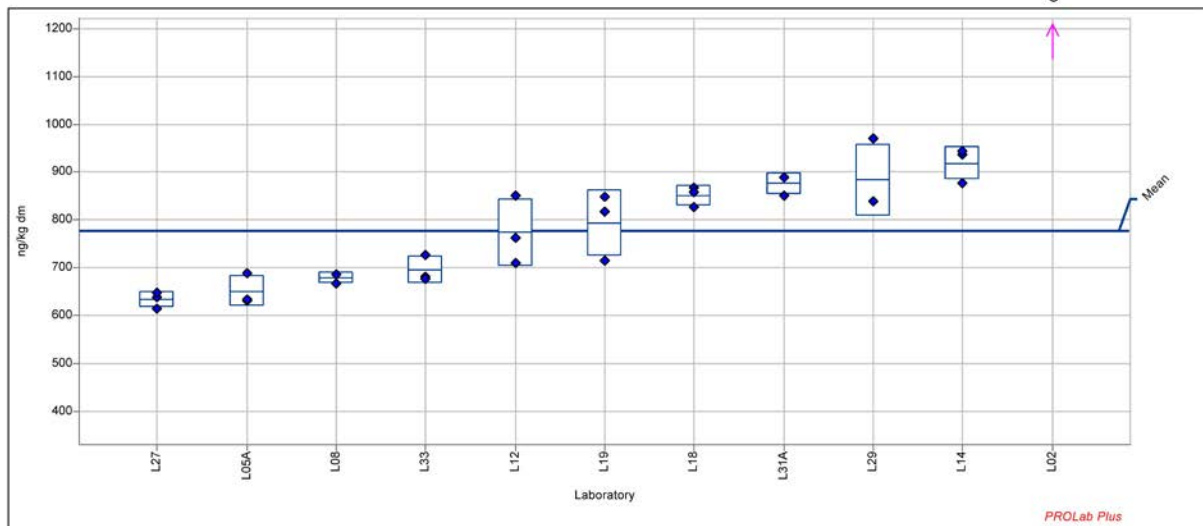
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Summary results - DIOXINS



Sample: Soil
 Measurand: PCB 157
 Mean: 776.0 ng/kg dm
 Method: ISO 5725-2
 No. of laboratories: 10

Reproducibility s.d.: 111.1 ng/kg dm
 Rel. reproducibility s.d.: 14.32%
 Repeatability s.d.: 44.7 ng/kg dm
 Rel. repeatability s.d.: 5.76%
 No. of outlier values: 3



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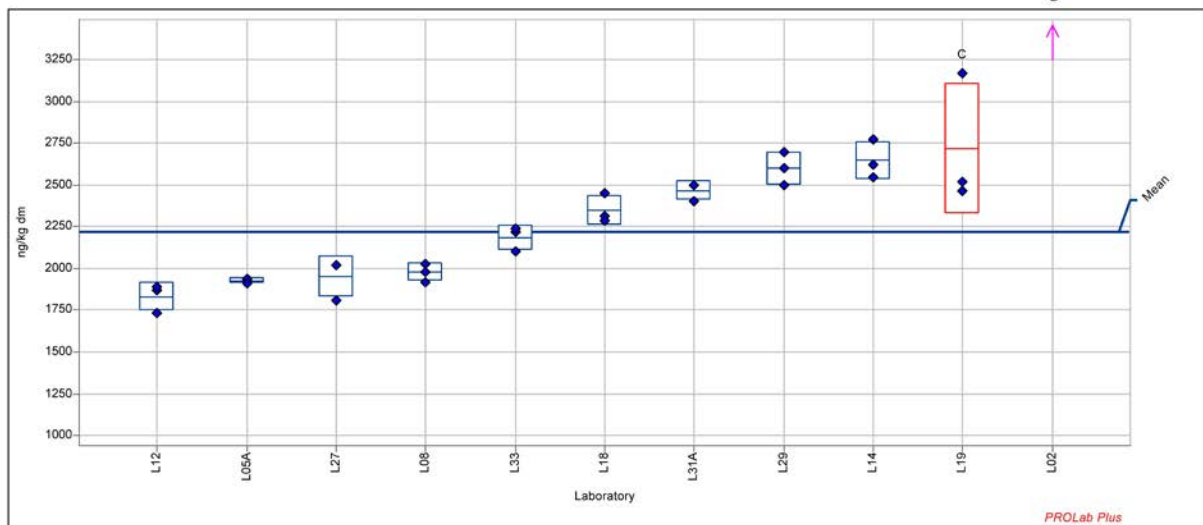
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Summary results - DIOXINS



Sample: Soil
 Measurand: PCB 167
 Mean: 2215 ng/kg dm
 Method: ISO 5725-2
 No. of laboratories: 9

Reproducibility s.d.: 319 ng/kg dm
 Rel. reproducibility s.d.: 14.40%
 Repeatability s.d.: 85 ng/kg dm
 Rel. repeatability s.d.: 3.85%
 No. of outlier values: 6



HORIZONTAL 2013

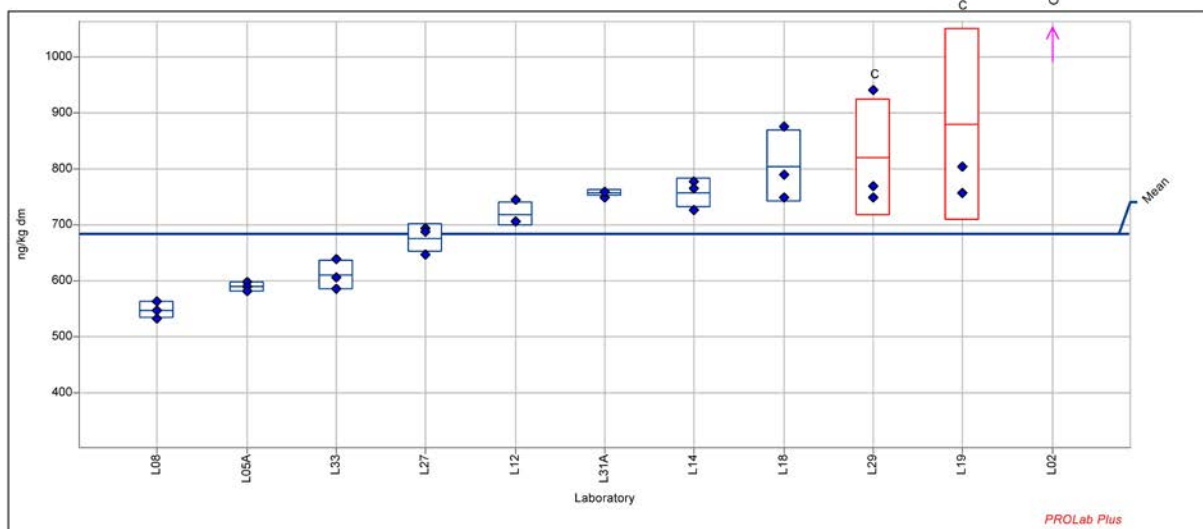
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Summary results - DIOXINS



Sample: Soil
 Measurand: PCB 189
 Mean: 682.7 ng/kg dm
 Method: ISO 5725-2
 No. of laboratories: 8

Reproducibility s.d.: 95.2 ng/kg dm
 Rel. reproducibility s.d.: 13.94%
 Repeatability s.d.: 29.5 ng/kg dm
 Rel. repeatability s.d.: 4.32%
 No. of outlier values: 9



HORIZONTAL 2013

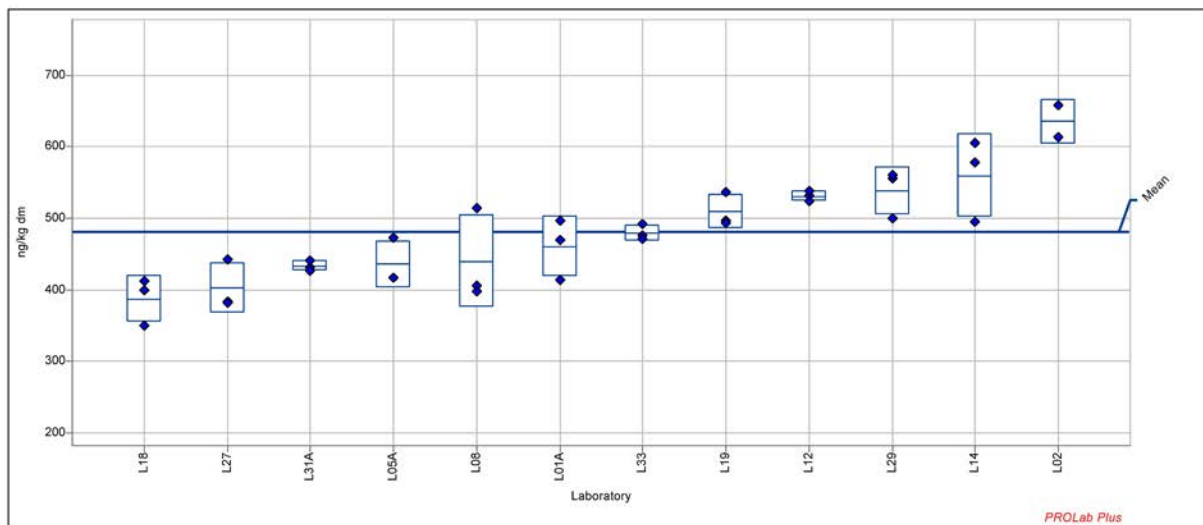
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Summary results - DIOXINS



Sample: Soil
 Measurand: NATO/CCMS-TEQ
 Mean: 480.0 ng/kg dm
 Method: ISO 5725-2
 No. of laboratories: 12

Reproducibility s.d.: 74.5 ng/kg dm
 Rel. reproducibility s.d.: 15.52%
 Repeatability s.d.: 36.3 ng/kg dm
 Rel. repeatability s.d.: 7.56%
 No. of outlier values: 0



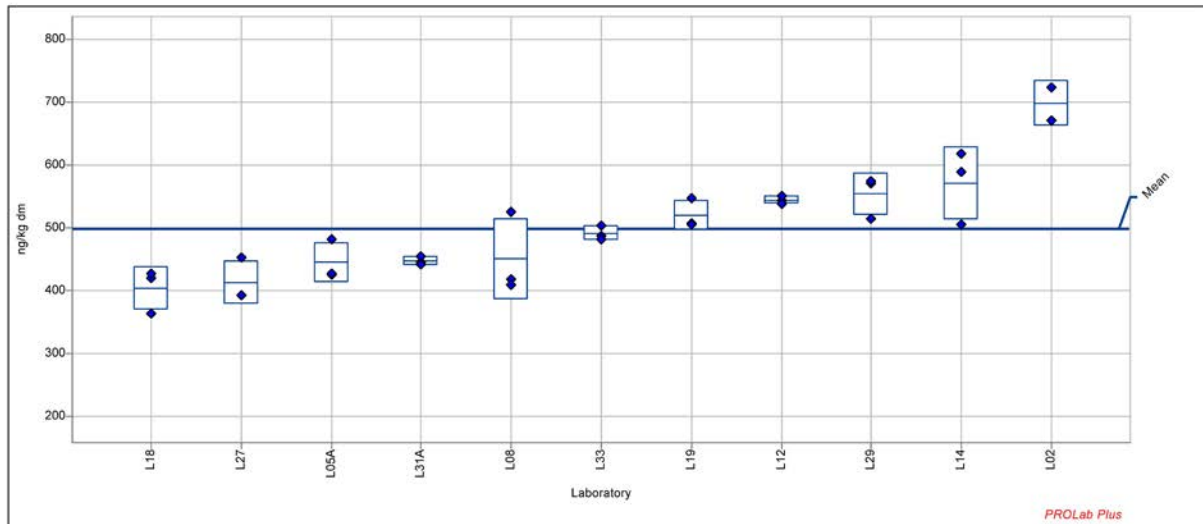
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	84.8 ng/kg dm
Measurand:	WHO-TEQ 1998	Rel. reproducibility s.d.:	17.02%
Mean:	498.0 ng/kg dm	Repeatability s.d.:	36.0 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.23%
No. of laboratories:	11	No. of outlier values:	0



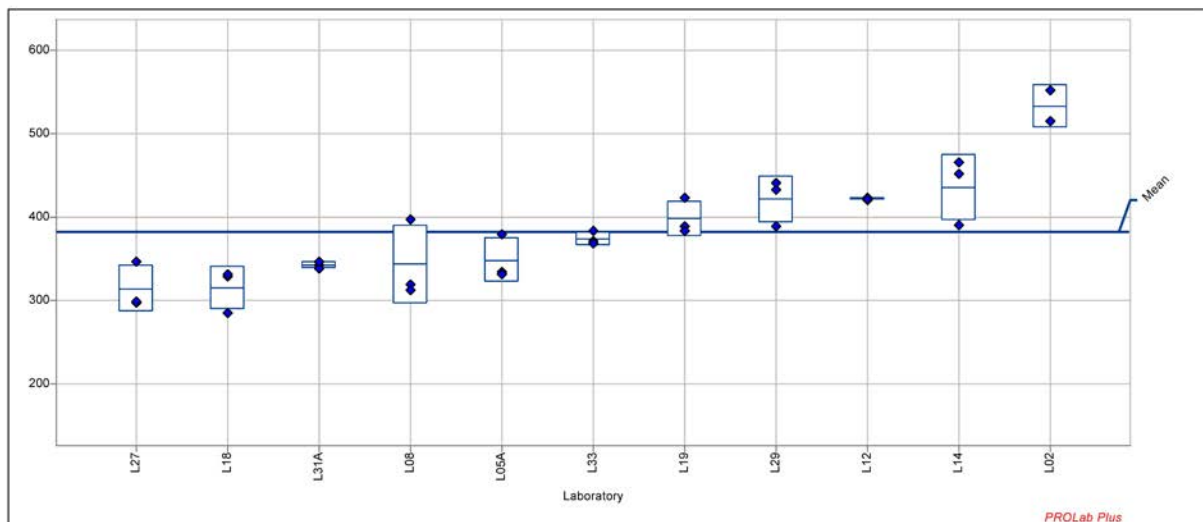
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Summary results - DIOXINS



Sample:	Soil	Reproducibility s.d.:	63.9 ng/kg dm
Measurand:	WHO-TEQ 2005	Rel. reproducibility s.d.:	16.72%
Mean:	382.0 ng/kg dm	Repeatability s.d.:	27.0 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.08%
No. of laboratories:	11	No. of outlier values:	0



4.3 Validation results for CO DIO

CODIO	2.3.7.8-TCDD	type of outlier	z-score	1.2.3.7.8-PeCDD	type of outlier	z-score	1.2.3.4.7.8-HxCDD	type of outlier	z-score	1.2.3.6.7.8-HxCDD	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	50.000		-1.75	50.000		-1.59	100.000		-2.00	66.667	E	-2.34
L02	< 0.100			< 0.100			< 0.200			< 0.200		
L05A	58.333		-1.04	57.150		-1.00	145.000		0.65	140.000		0.00
L08	65.867		-0.39	57.933		-0.94	125.333		-0.51	120.667		-0.62
L12	72.167		0.15	81.933		1.04	130.000		-0.23	172.000		1.03
L14	71.233		0.07	80.933		0.96	152.333		1.08	172.333		1.04
L18	69.000		-0.13	62.000		-0.60	123.667		-0.61	118.667		-0.68
L19	87.267		1.43	75.200		0.48	139.333		0.32	151.667		0.38
L27	80.267		0.84	81.667		1.02	136.333		0.14	162.333		0.72
L29	68.667		-0.15	79.333		0.82	150.000		0.94	153.333		0.43
L31A	82.667		1.04	72.667		0.28	146.667		0.75	143.333		0.11
L33	69.700		-0.07	59.567		-0.80	125.000		-0.53	138.333		-0.05
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			12			11			11		
No. labs w/o outl.	12			12			12			12		
Mean	11			11			11			11		
SR Reprod. SD	70.470			69.312			133.970			139.939		
Sr Repeat. SD	11.727			12.171			17.018			31.268		
RSD % VR	6.140			3.811			9.115			10.059		
RSD % Vr	16.64 %			17.56 %			12.70 %			22.34 %		
No. A outliers	8.71 %			5.50 %			6.80 %			7.19 %		
No. B outliers	0			0			0			0		
No. C outliers	0			0			0			0		
No. sgl. values w/o outl.	0			0			0			0		

CODIO	1.2.3.7.8.9-HxCDD	type of outlier	z-score	1.2.3.4.6.7.8-HpCDD	type of outlier	z-score	OCDD	type of outlier	z-score	2.3.7.8-TCDF	type of outlier	z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	100.000		-1.83	83.333	BE	-4.87	543.333		-1.91	1546.667		-1.34
L02	< 0.200			< 0.200			< 0.400			2590.000	E	2.08
L05A	163.000	C	1.29	298.000	CE	4.63	1916.667	CE	9.71	1746.667		-0.69
L08	118.000		-0.94	161.000		-1.43	631.667		-1.16	2003.333		0.16
L12	134.667		-0.12	194.667		0.06	828.333		0.50	2040.000		0.28
L14	165.667		1.42	212.000		0.83	855.000		0.73	2140.000		0.60
L18	119.667		-0.86	170.000		-1.04	704.667		-0.54	1629.333		-1.07
L19	150.000		0.64	199.000		0.25	873.667		0.89	1817.000		-0.46
L27	142.000		0.25	219.667		1.17	842.000		0.62	1876.667		-0.26
L29	150.000		0.64	213.333		0.88	856.667		0.74	2300.000		1.13
L31A	150.000		0.64	193.333		0.00	780.000		0.10	2066.667		0.36
L33	140.000		0.15	177.333		-0.71	772.000		0.03	1926.667		-0.10
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	10			9			10			12		
Mean	137.000			193.370			768.733			1955.971		
SR Reprod. SD	20.228			22.577			118.277			305.120		
Sr Repeat. SD	6.878			11.905			53.175			172.377		
RSD % VR	14.76 %			11.68 %			15.39 %			15.60 %		
RSD % Vr	5.02 %			6.16 %			6.92 %			8.81 %		
No. A outliers	0			0			0			0		
No. B outliers	0			1			0			0		
No. C outliers	1			1			1			0		
No. sgl. values w/o outl.	30			27			30			35		

CODIO	1.2.3.7.8-PeCDF	type of outlier	Z-score	2.3.4.7.8-PeCDF	type of outlier	Z-score	1.2.3.4.7.8-HxCDF	type of outlier	Z-score	1.2.3.6.7.8-HxCDF	type of outlier	Z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	1653.333		-0.18	753.333		-0.69	2773.333		-1.13	623.333		-1.62
L02	1775.000		0.38	941.500		0.85	3315.000		0.15	785.500		0.05
L05A	1513.333		-0.83	634.000		-1.66	3140.000	C	-0.27	834.333		0.55
L08	1626.667		-0.30	886.667		0.41	3286.667		0.08	731.333		-0.51
L12	1843.333		0.70	916.333		0.65	4150.000	E	2.11	906.333		1.29
L14	1883.333		0.89	927.000		0.74	3356.667		0.24	664.667		-1.19
L18	1394.667		-1.38	703.333		-1.10	2832.333		-0.99	790.333		0.10
L19	1683.333		-0.04	852.333		0.13	2854.000		-0.94	786.667		0.06
L27	1923.333		1.07	919.000		0.67	3266.667		0.03	788.667		0.08
L29	2633.333	BE	4.36	896.667		0.49	3433.333		0.42	823.333		0.44
L31A	1866.667		0.81	856.667		0.16	3366.667		0.27	796.667		0.17
L33	1480.000		-0.98	793.333		-0.36	3170.000		-0.20	837.667		0.59
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	11			12			11			12		
Mean	1692.313			837.114			3253.094			780.600		
SR Reprod. SD	215.710			122.219			424.910			97.330		
Sr Repeat. SD	143.881			89.790			221.329			71.990		
RSD % VR	12.75 %			14.60 %			13.06 %			12.47 %		
RSD % Vr	8.50 %			10.73 %			6.80 %			9.22 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			0			0		
No. C outliers	0			0			1			0		
No. sgl. values w/o outl.	32			35			32			35		

CODIO	1.2.3.7.8.9-HxCDF	type of outlier	Z-score	2.3.4.6.7.8-HxCDF	type of outlier	Z-score	1.2.3.4.6.7.8-HpCDF	type of outlier	Z-score	1.2.3.4.7.8.9-HpCDF	type of outlier	Z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	463.333	C	1.28	253.333		-0.49	766.667		-1.54	540.000		0.65
L02	293.500		0.04	324.500		0.86	983.500		-0.07	512.500		0.01
L05A	388.000		0.73	307.000	C	0.53	957.667		-0.25	453.000		-1.38
L08	159.333		-0.94	240.000		-0.74	919.000		-0.51	521.333		0.21
L12	583.000	E	2.16	381.333		1.94	1156.667		1.10	529.000		0.39
L14	206.667		-0.59	261.000		-0.34	1143.000		1.01	504.000		-0.19
L18	447.000		1.16	226.000		-1.00	863.333		-0.89	470.000		-0.98
L19	248.667		-0.29	259.333		-0.37	1007.000		0.09	526.333		0.33
L27	169.000		-0.87	353.667		1.41	999.000		0.03	518.333		0.14
L29	283.333		-0.03	283.333		0.08	1166.667		1.17	516.667		0.11
L31A	196.667		-0.67	263.333		-0.30	1033.333		0.27	536.667		0.57
L33	193.667		-0.69	238.000		-0.78	928.667		-0.44	518.333		0.14
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	11			11			12			12		
Mean	287.906			278.969			994.000			512.171		
SR Reprod. SD	136.692			52.853			147.353			42.858		
Sr Repeat. SD	19.996			17.694			101.112			41.764		
RSD % VR	47.48 %			18.95 %			14.82 %			8.37 %		
RSD % Vr	6.95 %			6.34 %			10.17 %			8.15 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			1			0			0		
No. sgl. values w/o outl.	32			32			35			35		

CODIO	OCDF	type of outlier	Z-score	PCB 77	type of outlier	Z-score	PCB 81	type of outlier	Z-score	PCB 118	type of outlier	Z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	1390.000		-0.99									
L02	1480.000		-0.60	< 200.000			< 200.000			8956.667	BE	28.61
L05A	1476.667		-0.62	60.567		-0.27	25.667		1.99	1346.667		0.73
L08	1646.667		0.12	59.000		-0.34	11.450		-0.47	961.333		-0.68
L12	1690.000		0.31	36.200		-1.42	6.667		-1.30	759.000		-1.42
L14	1870.000		1.09	66.933		0.03	20.500		1.10	1346.667		0.73
L18	1555.000		-0.28	58.333		-0.38	12.333		-0.32	1085.000		-0.23
L19	1777.667		0.69	60.133		-0.29	10.823		-0.58	1127.667		-0.07
L27	1486.667		-0.58	55.533		-0.51	9.940		-0.73	933.667		-0.78
L29	1866.667		1.07	106.667		1.91	17.667		0.61	1600.000		1.66
L31A	1600.000		-0.08	97.000		1.45	13.667		-0.09	1400.000		0.93
L33	1543.333		-0.33	62.567		-0.18	12.967		-0.21	903.667		-0.89
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			11			11			11		
No. labs w/o outl.	12			10			10			10		
Mean	1619.086			66.293			14.168			1146.367		
SR Reprod. SD	230.460			21.194			5.784			273.040		
Sr Repeat. SD	206.378			6.412			1.767			68.362		
RSD % VR	14.23 %			31.97 %			40.82 %			23.82 %		
RSD % Vr	12.75 %			9.67 %			12.47 %			5.96 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			1		
No. C outliers	0			0			0			0		
No. sgl. values w/o outl.	35			30			30			30		

CODIO	PCB 126	type of outlier	Z-score	PCB 169	type of outlier	Z-score	PCB 105	type of outlier	Z-score	PCB 114	type of outlier	Z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A												
L02	< 200.000			< 200.000			3380.000	BE	28.49	578.000	BE	23.53
L05A	16.233		0.54	< 5.000			360.333		-0.16	76.167		-0.47
L08	14.200		-0.18	< 12.000			333.333		-0.42	91.600		0.27
L12	10.700		-1.43	2.437		-0.47	224.000		-1.46	92.067		0.29
L14	14.233		-0.17	< 2.500			354.667		-0.22	41.767	E	-2.12
L18	18.333		1.28	7.233	CE	5.02	369.333		-0.08	78.000		-0.39
L19	15.300		0.21	2.007		-0.96	479.333		0.97	92.700		0.32
L27	11.100		-1.28	2.543		-0.34	305.000		-0.69	95.167		0.44
L29	35.333	BE	7.32	24.333	CE	24.58	546.667		1.60	112.667		1.27
L31A	17.667		1.05	3.000		0.18	473.333		0.91	94.333		0.40
L33	14.667		-0.02	4.233		1.59	330.000		-0.45	< 30.000		
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			11			11			11		
No. labs w/o outl.	9			5			10			9		
Mean	14.715			2.844			377.600			86.052		
SR Reprod. SD	2.818			0.874			105.402			20.910		
Sr Repeat. SD	1.328			0.233			54.631			8.692		
RSD % VR	19.15 %			30.74 %			27.91 %			24.30 %		
RSD % Vr	9.03 %			8.20 %			14.47 %			10.10 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			1			1		
No. C outliers	0			2			0			0		
No. sgl. values w/o outl.	27			15			30			27		

CODIO	PCB 123	type of outlier	Z-score	PCB 156	type of outlier	Z-score	PCB 157	type of outlier	Z-score	PCB 167	type of outlier	Z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A												
L02	709.000	CE	18.82	2745.000	CE	30.00	593.000	CE	44.30	3750.000	BE	89.75
L05A	16.400		-0.68	465.333		1.54	63.500		0.85	231.667		1.48
L08	15.200		-0.71	299.333		-0.53	43.767		-0.77	137.333		-0.89
L12	16.133		-0.69	216.333		-1.57	32.600		-1.68	102.367		-1.77
L14	28.100		-0.35	315.333		-0.33	55.967		0.24	181.333		0.22
L18	90.000		1.40	307.000		-0.43	59.000		0.48	163.667		-0.23
L19	43.433		0.08	378.000		0.45	53.967		0.07	188.667		0.40
L27	21.467		-0.53	281.000		-0.76	44.500		-0.71	136.667		-0.91
L29	110.000		1.96	443.333		1.27	62.000		0.73	206.667		0.85
L31A	23.333		-0.48	390.000		0.60	62.667		0.78	206.667		0.85
L33	< 30.000			322.000		-0.25	< 30.000			172.667		-0.003
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			11			11			11		
No. labs w/o outl.	9			10			9			10		
Mean	40.452			341.767			53.107			172.770		
SR Reprod. SD	35.521			80.100			12.186			39.856		
Sr Repeat. SD	5.802			28.856			7.298			10.041		
RSD % VR	87.81 %			23.44 %			22.95 %			23.07 %		
RSD % Vr	14.34 %			8.44 %			13.74 %			5.81 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			1		
No. C outliers	1			1			1			0		
No. sgl. values w/o outl.	27			30			27			30		

CODIO	PCB 189	type of outlier	Z-score	NATO/CCMS-TEQ	type of outlier	Z-score	WHO-TEQ 1998	type of outlier	Z-score	WHO-TEQ 2005	type of outlier	Z-score
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A				1142.833		-1.24						
L02	520.000	BE	22.87	1306.800		-0.10	1308.800		-0.43	1082.600		-0.68
L05A	83.367		0.89	1183.597		-0.96	1195.067		-1.24	1038.257		-1.06
L08	42.833		-1.16	1315.267		-0.04	1344.933		-0.17	1134.907		-0.23
L12	43.967		-1.10	1534.500		1.50	1574.600		1.47	1354.767		1.66
L14	63.533		-0.11	1402.600		0.57	1442.467		0.53	1219.600		0.50
L18	59.000		-0.34	1167.367		-1.07	1198.633		-1.22	1030.360		-1.13
L19	108.333	E	2.14	1295.667		-0.17	1333.033		-0.26	1129.133		-0.28
L27	57.000		-0.44	1386.167		0.46	1426.367		0.41	1204.367		0.37
L29	72.667		0.35	1467.700		1.03	1509.233		1.00	1277.867		1.00
L31A	69.000		0.16	1373.700		0.37	1410.133		0.30	1168.300		0.06
L33	58.067		-0.39	1265.633		-0.38	1295.167		-0.53	1110.200		-0.44
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			12			11			11		
No. labs w/o outl.	10			12			11			11		
Mean	65.777			1320.534			1368.953			1161.515		
SR Reprod. SD	19.863			142.920			139.770			116.140		
Sr Repeat. SD	5.524			91.990			86.833			72.715		
RSD % VR	30.20 %			10.82 %			10.21 %			10.00 %		
RSD % Vr	8.40 %			6.97 %			6.34 %			6.26 %		
No. A outliers	0			0			0			0		
No. B outliers	1			0			0			0		
No. C outliers	0			0			0			0		
No. sgl. values w/o outl.	30			35			32			32		

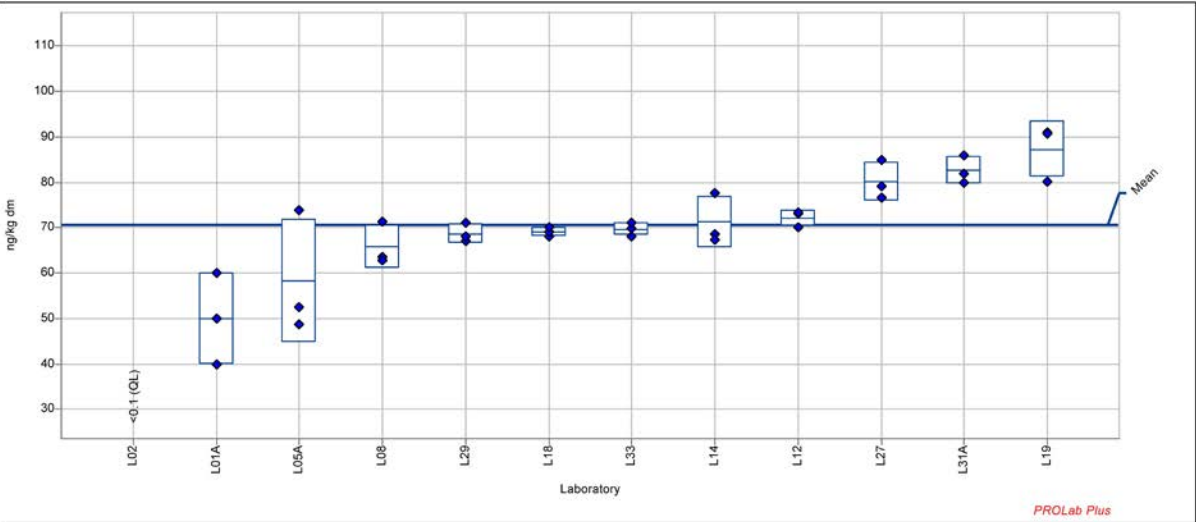
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	11.73 ng/kg dm
Measurand:	2,3,7,8-TCDD	Rel. reproducibility s.d.:	16.64%
Mean:	70.47 ng/kg dm	Repeatability s.d.:	6.14 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.71%
No. of laboratories:	11	No. of outlier values:	0



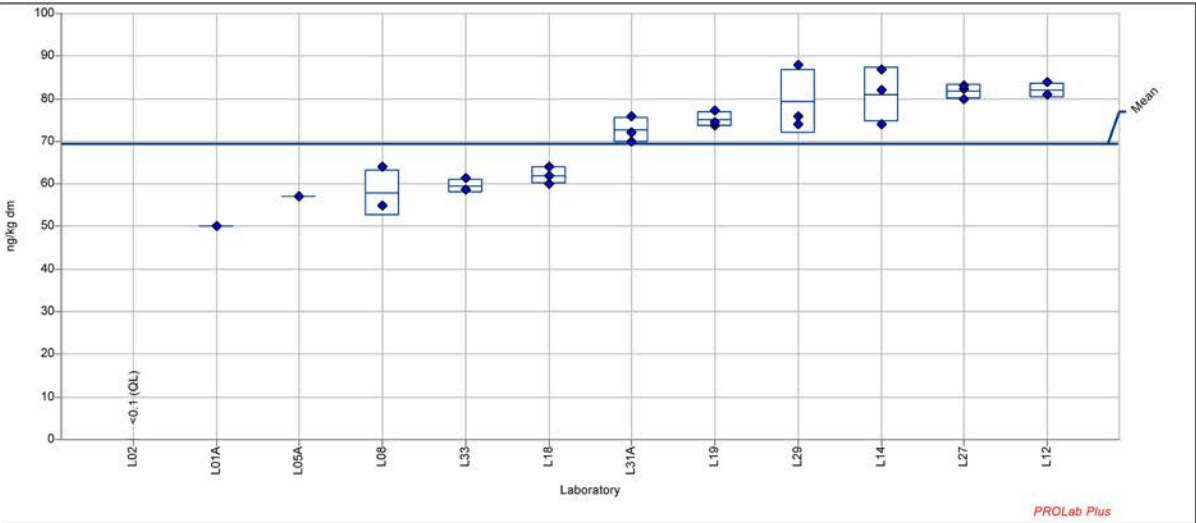
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	12.2 ng/kg dm
Measurand:	1,2,3,7,8-PeCDD	Rel. reproducibility s.d.:	17.56%
Mean:	69.3 ng/kg dm	Repeatability s.d.:	3.8 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.50%
No. of laboratories:	11	No. of outlier values:	0



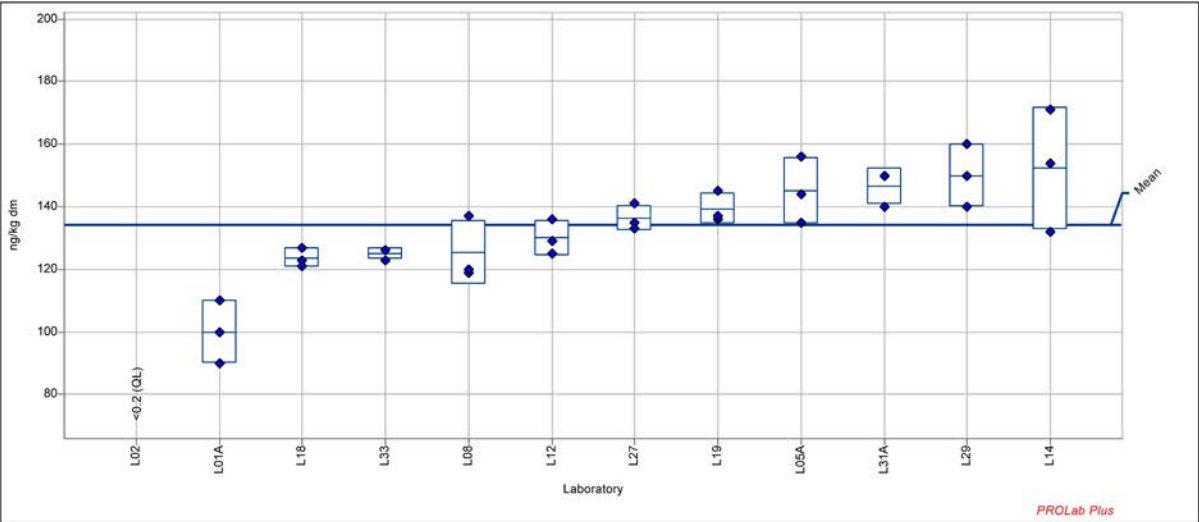
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	17.0 ng/kg dm
Measurand:	1,2,3,4,7,8-HxCDD	Rel. reproducibility s.d.:	12.70%
Mean:	134.0 ng/kg dm	Repeatability s.d.:	9.1 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.80%
No. of laboratories:	11	No. of outlier values:	0



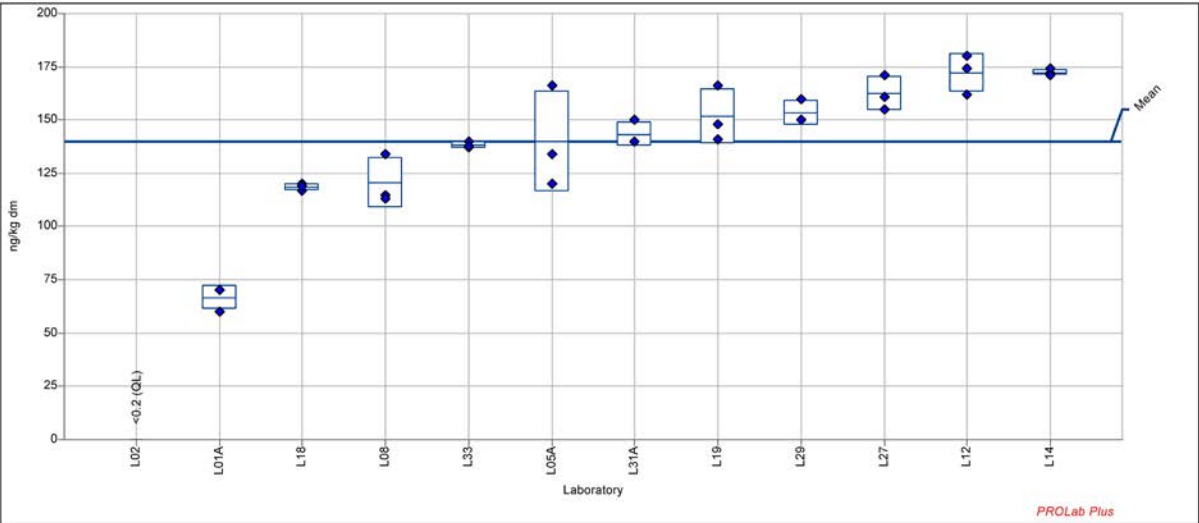
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Summary results - DIOXINS

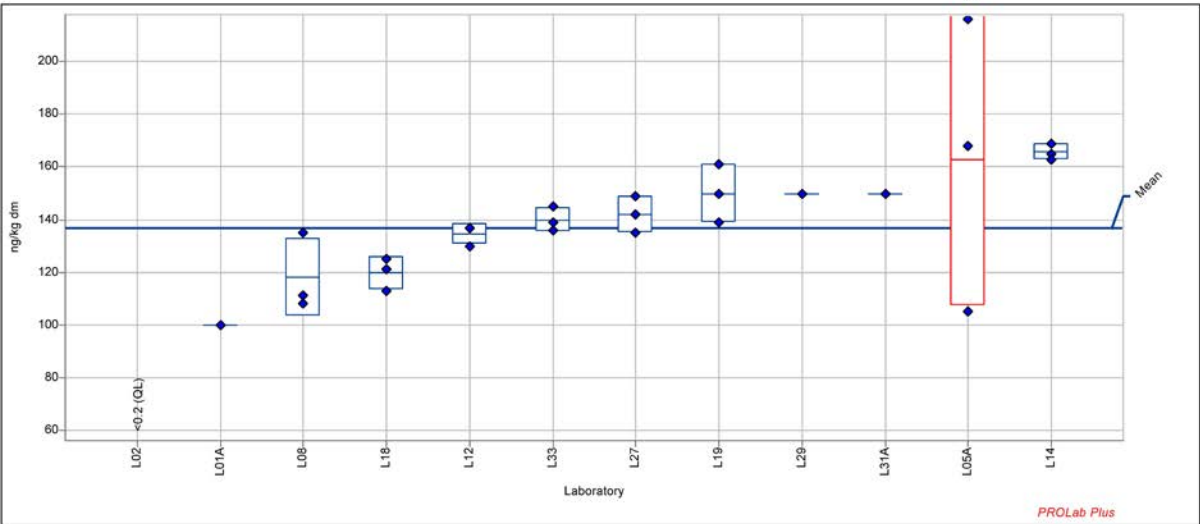


Sample:	Treated biowaste (compost)	Reproducibility s.d.:	31.3 ng/kg dm
Measurand:	1,2,3,6,7,8-HxCDD	Rel. reproducibility s.d.:	22.34%
Mean:	139.9 ng/kg dm	Repeatability s.d.:	10.1 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.19%
No. of laboratories:	11	No. of outlier values:	0



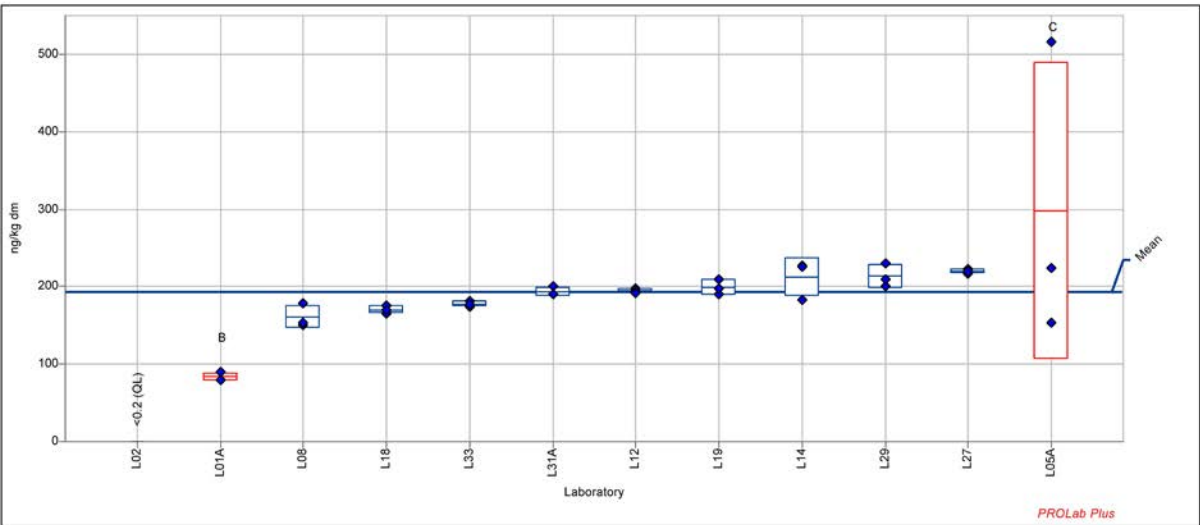
Summary results - DIOXINS

Sample:	Treated biowaste (compost)	Reproducibility s.d.:	20.2 ng/kg dm
Measurand:	1,2,3,7,8,9-HxCDD	Rel. reproducibility s.d.:	14.76%
Mean:	137.0 ng/kg dm	Repeatability s.d.:	6.9 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.02%
No. of laboratories:	10	No. of outlier values:	3



Summary results - DIOXINS

Sample:	Treated biowaste (compost)	Reproducibility s.d.:	22.6 ng/kg dm
Measurand:	1,2,3,4,6,7,8-HpCDD	Rel. reproducibility s.d.:	11.68%
Mean:	193.4 ng/kg dm	Repeatability s.d.:	11.9 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.16%
No. of laboratories:	9	No. of outlier values:	6



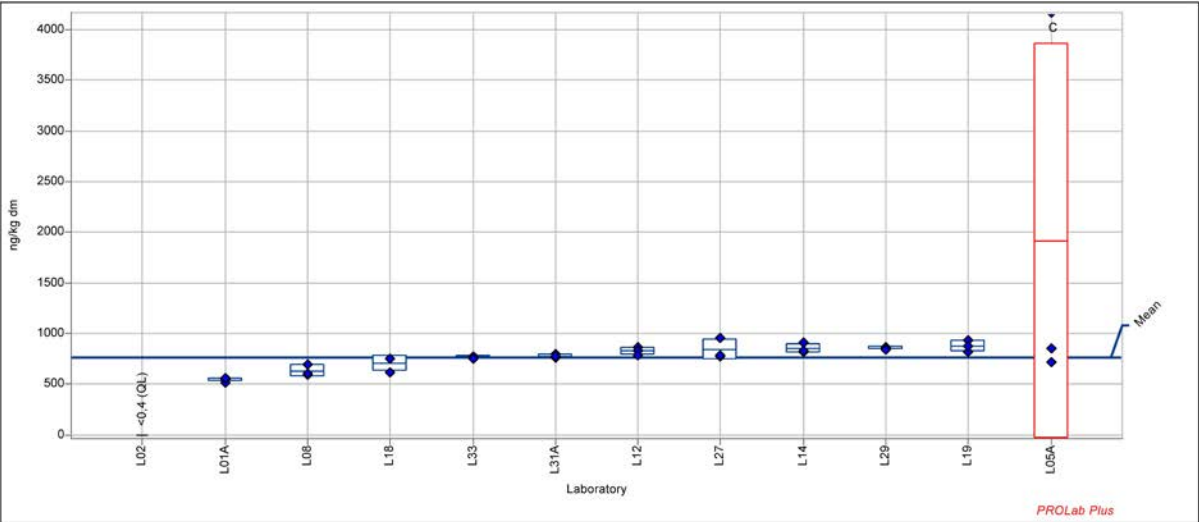
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	118 ng/kg dm
Measurand:	OCDD	Rel. reproducibility s.d.:	15.39%
Mean:	769 ng/kg dm	Repeatability s.d.:	53 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.92%
No. of laboratories:	10	No. of outlier values:	3



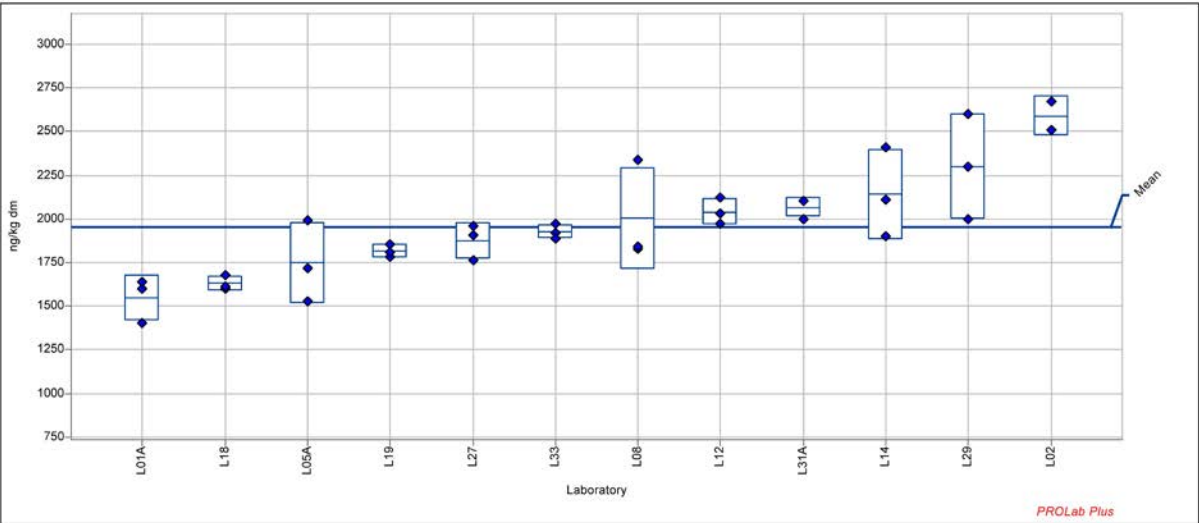
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	305 ng/kg dm
Measurand:	2,3,7,8-TCDF	Rel. reproducibility s.d.:	15.60%
Mean:	1956 ng/kg dm	Repeatability s.d.:	172 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.81%
No. of laboratories:	12	No. of outlier values:	0



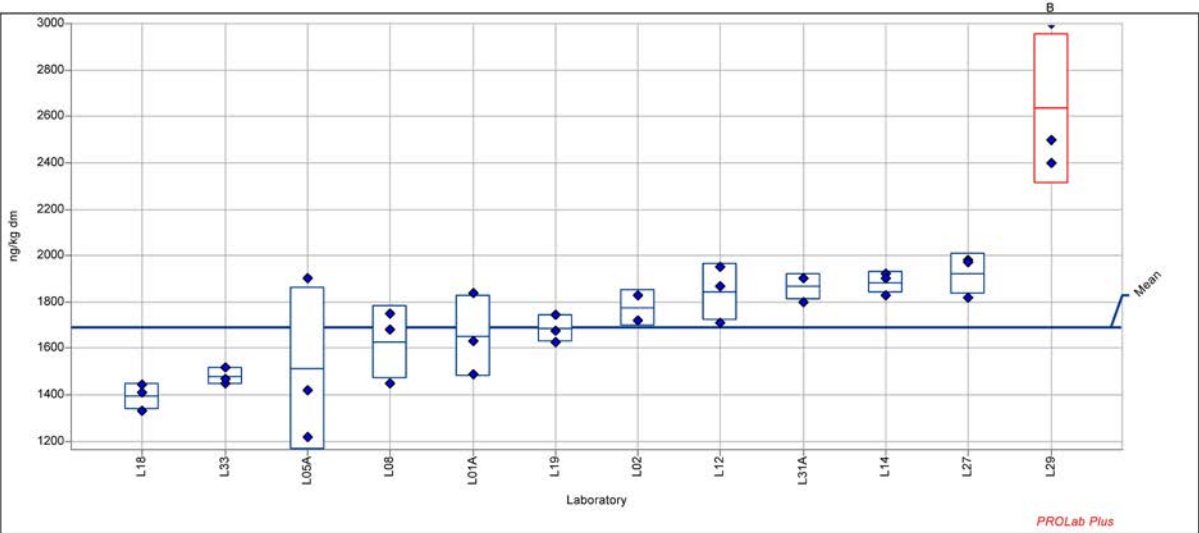
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	216 ng/kg dm
Measurand:	1,2,3,7,8-PeCDF	Rel. reproducibility s.d.:	12.75%
Mean:	1692 ng/kg dm	Repeatability s.d.:	144 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.50%
No. of laboratories:	11	No. of outlier values:	3



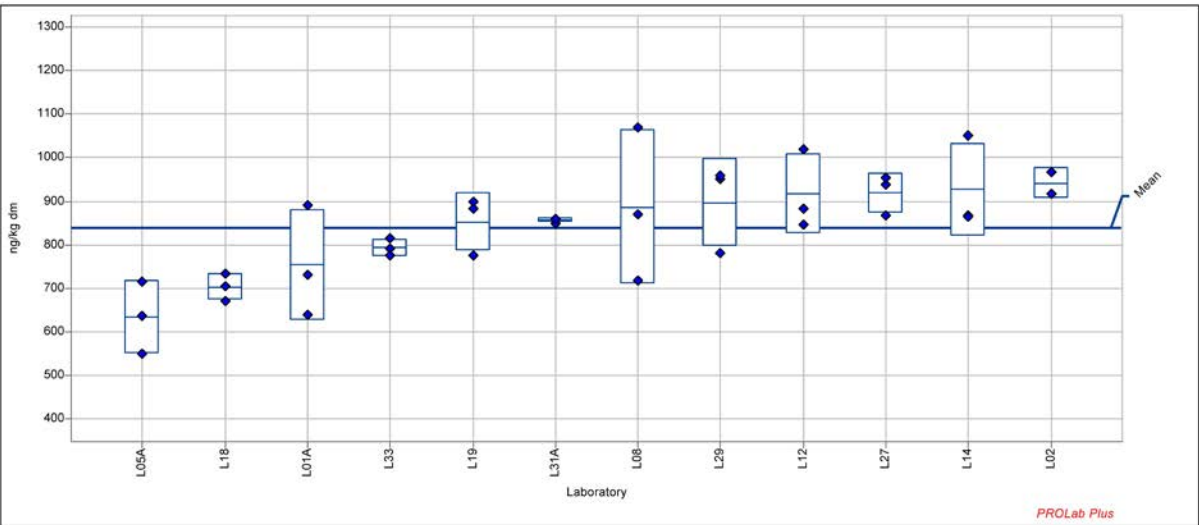
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	122.2 ng/kg dm
Measurand:	2,3,4,7,8-PeCDF	Rel. reproducibility s.d.:	14.60%
Mean:	837.1 ng/kg dm	Repeatability s.d.:	89.8 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	10.73%
No. of laboratories:	12	No. of outlier values:	0



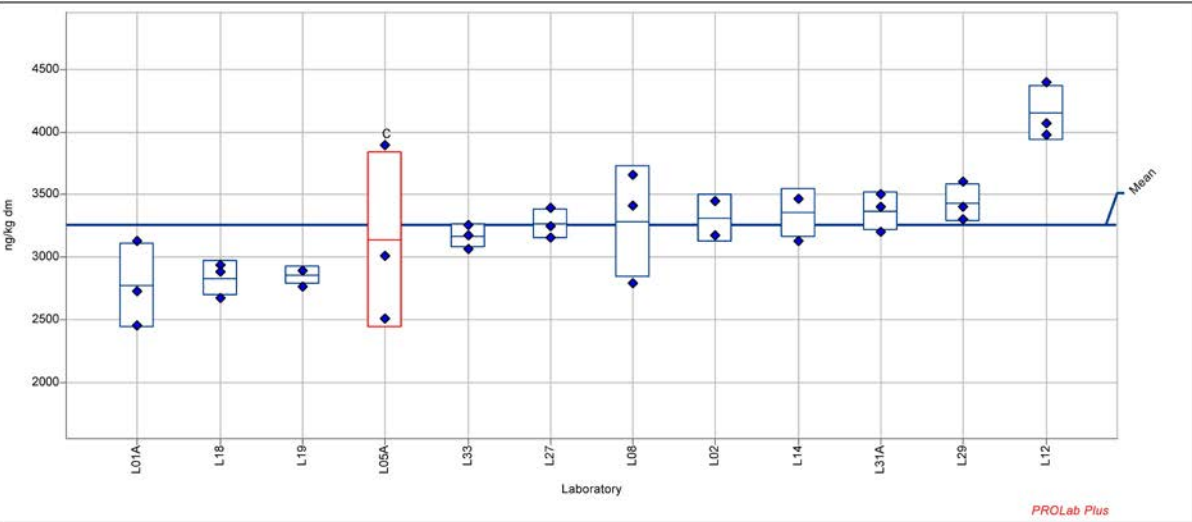
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	425 ng/kg dm
Measurand:	1,2,3,4,7,8-HxCDF	Rel. reproducibility s.d.:	13.06%
Mean:	3253 ng/kg dm	Repeatability s.d.:	221 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.80%
No. of laboratories:	11	No. of outlier values:	3



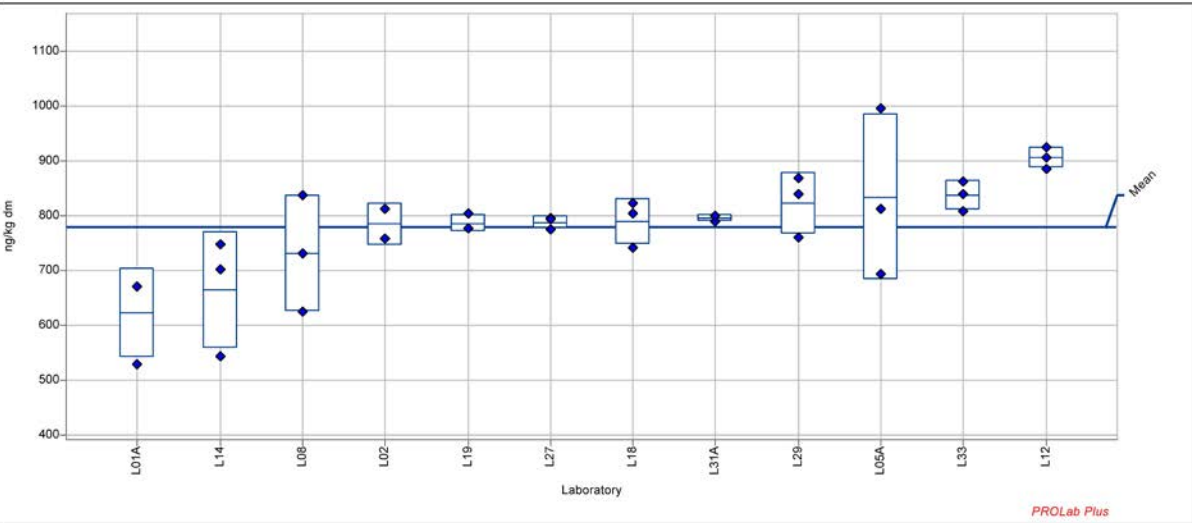
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	97.3 ng/kg dm
Measurand:	1,2,3,6,7,8-HxCDF	Rel. reproducibility s.d.:	12.47%
Mean:	780.6 ng/kg dm	Repeatability s.d.:	72.0 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.22%
No. of laboratories:	12	No. of outlier values:	0



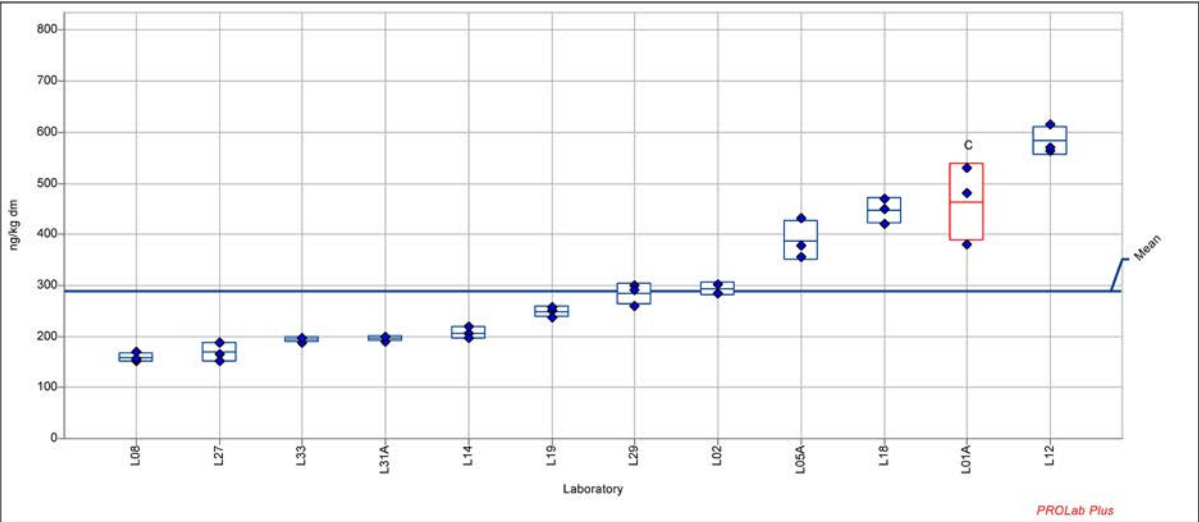
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	136.7 ng/kg dm
Measurand:	1,2,3,7,8,9-HxCDF	Rel. reproducibility s.d.:	47.48%
Mean:	287.9 ng/kg dm	Repeatability s.d.:	20.0 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.95%
No. of laboratories:	11	No. of outlier values:	3



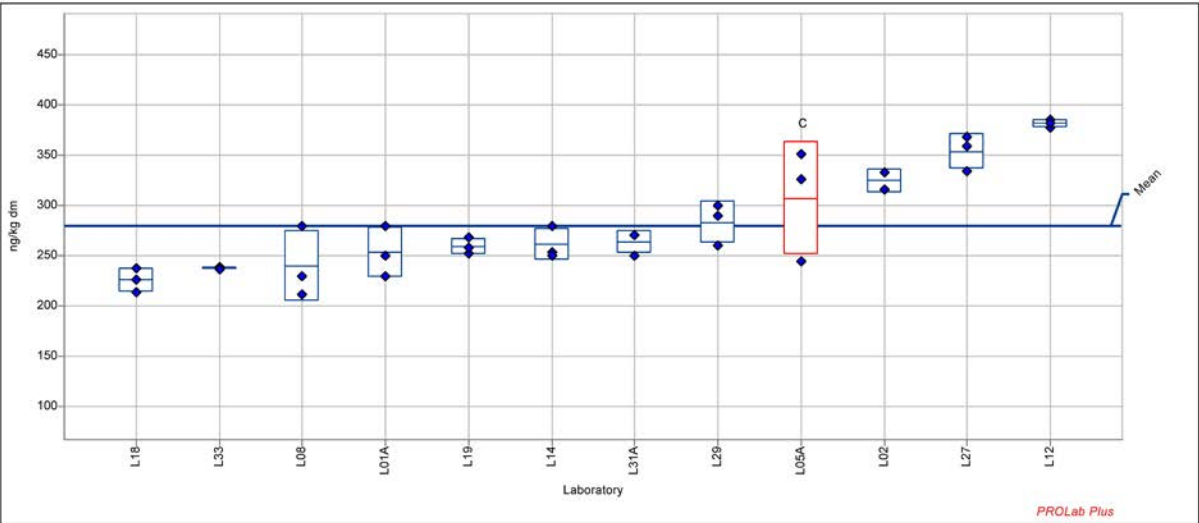
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	52.9 ng/kg dm
Measurand:	2,3,4,6,7,8-HxCDF	Rel. reproducibility s.d.:	18.95%
Mean:	279.0 ng/kg dm	Repeatability s.d.:	17.7 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.34%
No. of laboratories:	11	No. of outlier values:	3



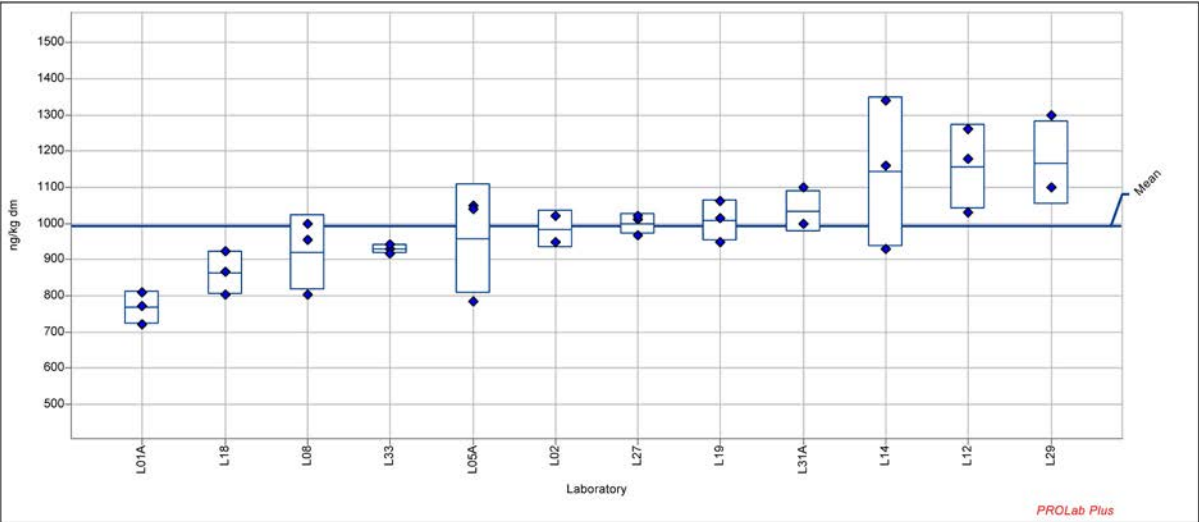
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	147.4 ng/kg dm
Measurand:	1,2,3,4,6,7,8-HpCDF	Rel. reproducibility s.d.:	14.82%
Mean:	994.0 ng/kg dm	Repeatability s.d.:	101.1 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	10.17%
No. of laboratories:	12	No. of outlier values:	0



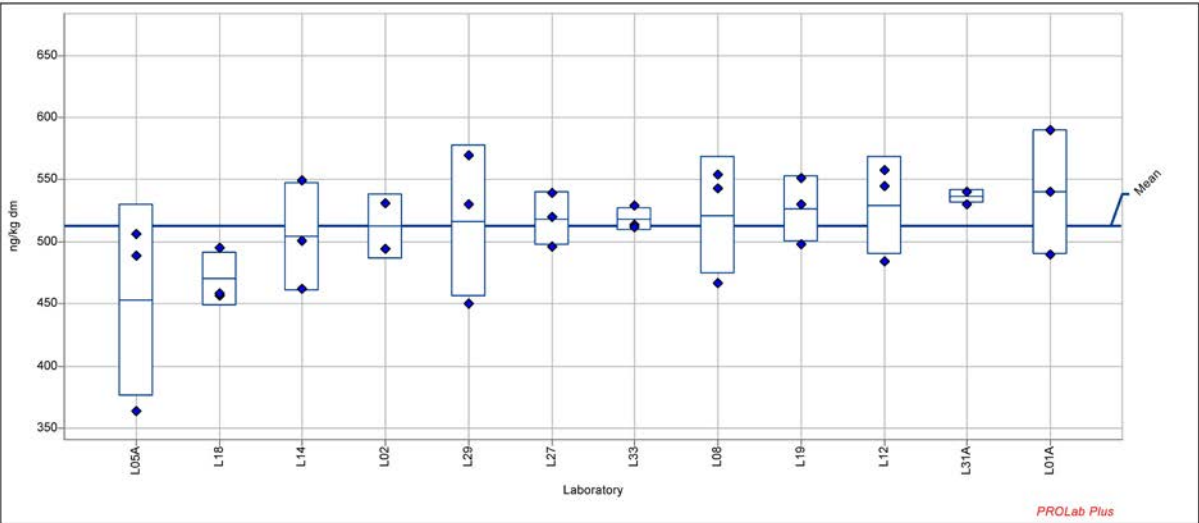
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	42.9 ng/kg dm
Measurand:	1,2,3,4,7,8,9-HpCDF	Rel. reproducibility s.d.:	8.37%
Mean:	512.2 ng/kg dm	Repeatability s.d.:	41.8 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.15%
No. of laboratories:	12	No. of outlier values:	0



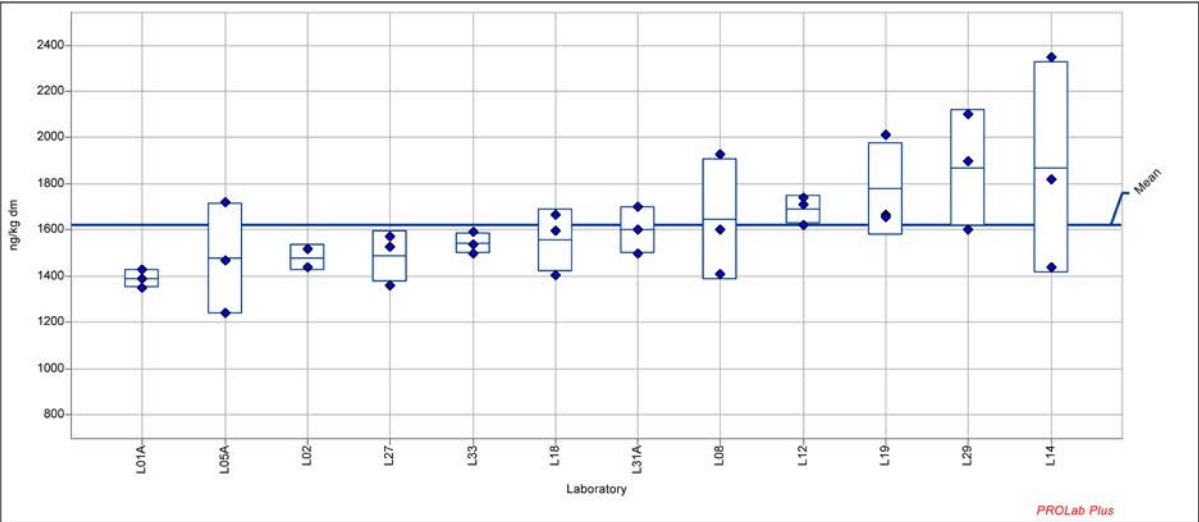
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	230 ng/kg dm
Measurand:	OCDF	Rel. reproducibility s.d.:	14.23%
Mean:	1619 ng/kg dm	Repeatability s.d.:	206 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	12.75%
No. of laboratories:	12	No. of outlier values:	0



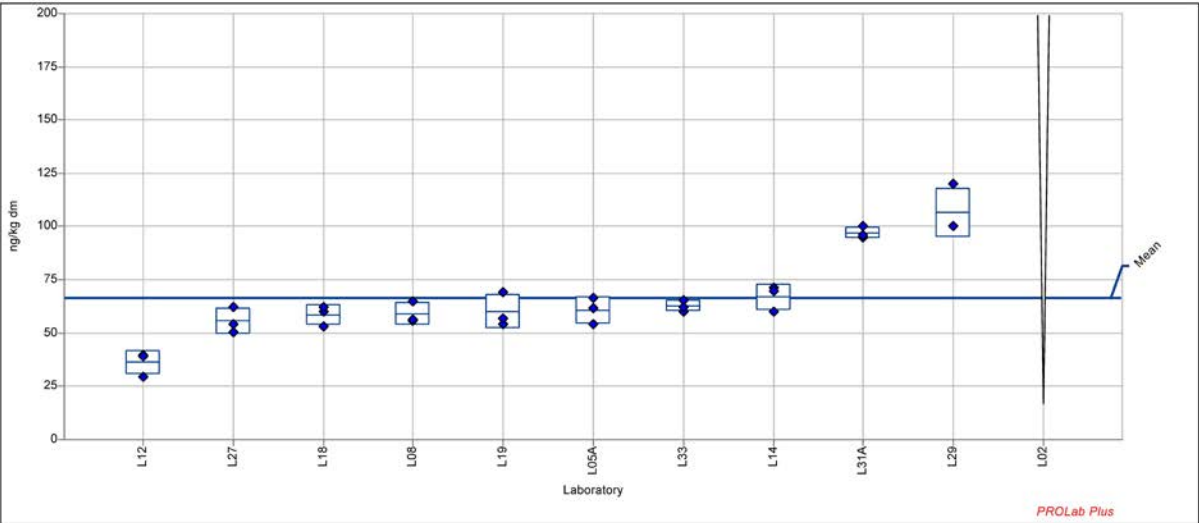
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	21.2 ng/kg dm
Measurand:	PCB 77	Rel. reproducibility s.d.:	31.97%
Mean:	66.3 ng/kg dm	Repeatability s.d.:	6.4 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.67%
No. of laboratories:	10	No. of outlier values:	0



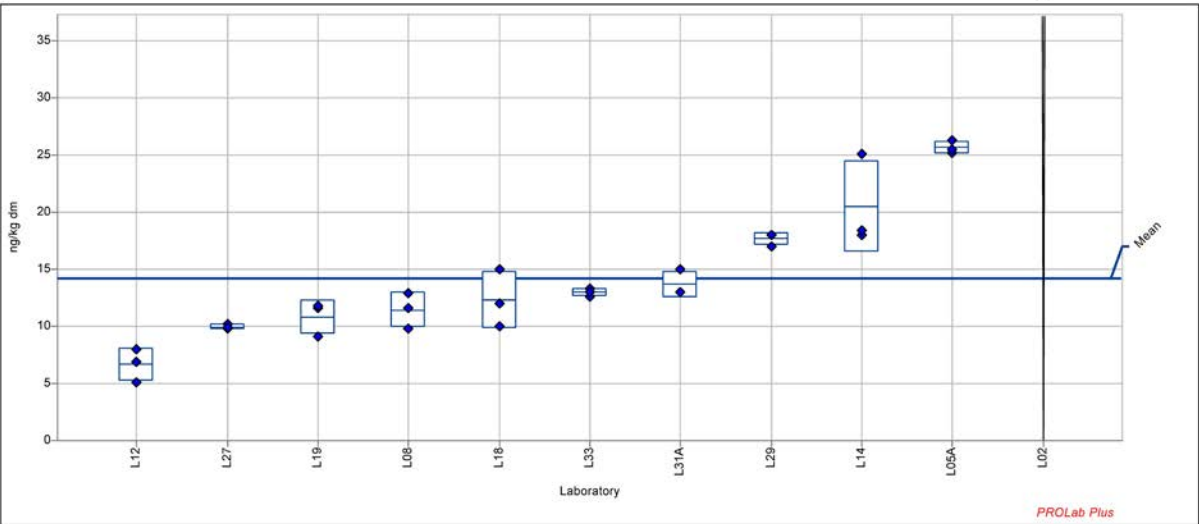
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	5.78 ng/kg dm
Measurand:	PCB 81	Rel. reproducibility s.d.:	40.82%
Mean:	14.17 ng/kg dm	Repeatability s.d.:	1.77 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	12.47%
No. of laboratories:	10	No. of outlier values:	0



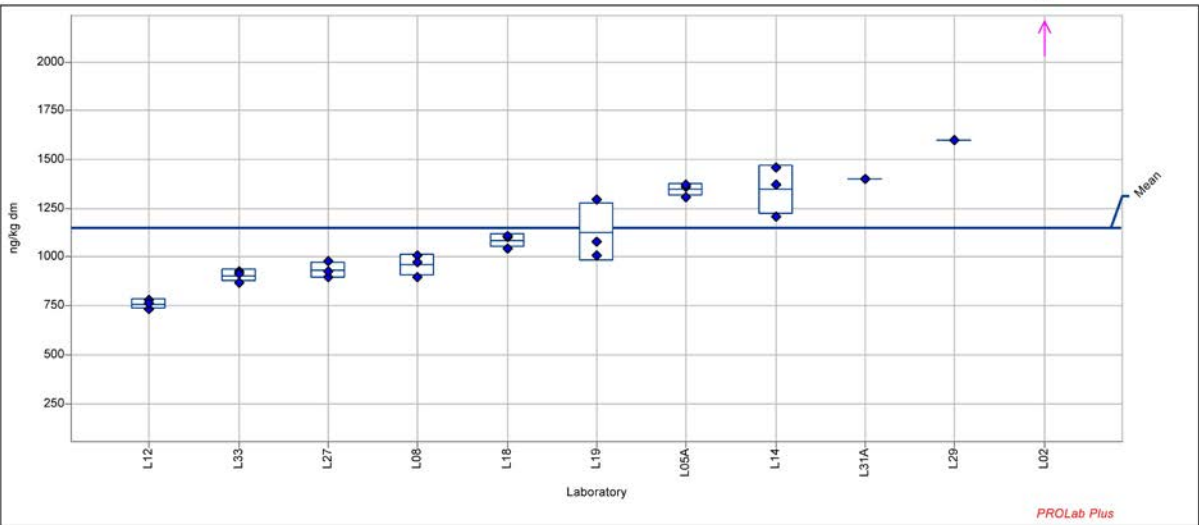
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Summary results - DIOXINS

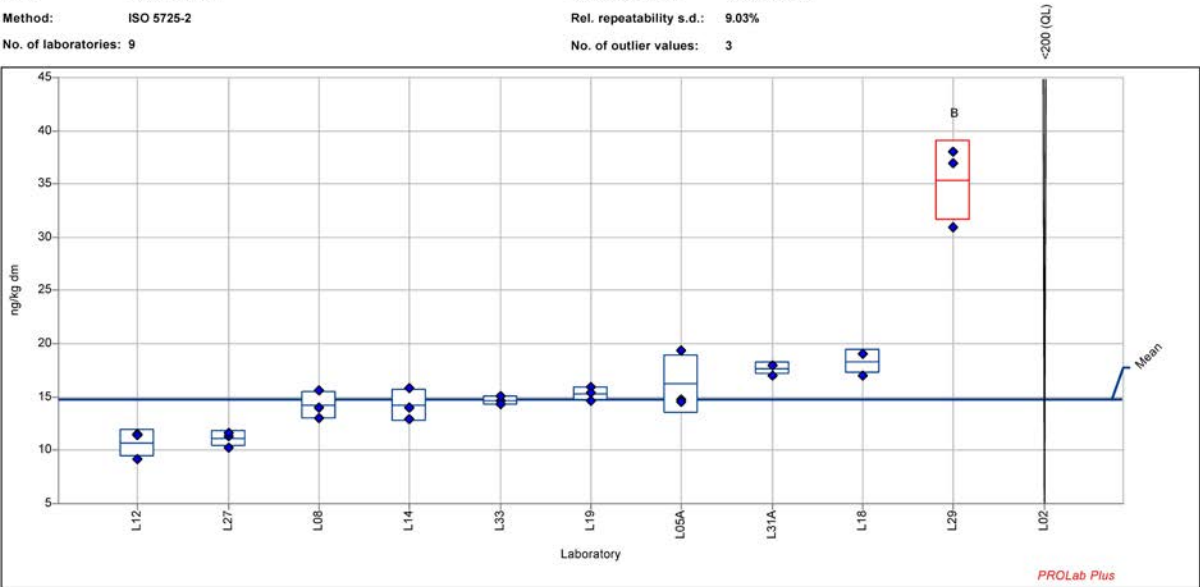


Sample:	Treated biowaste (compost)	Reproducibility s.d.:	273 ng/kg dm
Measurand:	PCB 118	Rel. reproducibility s.d.:	23.82%
Mean:	1146 ng/kg dm	Repeatability s.d.:	68 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.96%
No. of laboratories:	10	No. of outlier values:	3



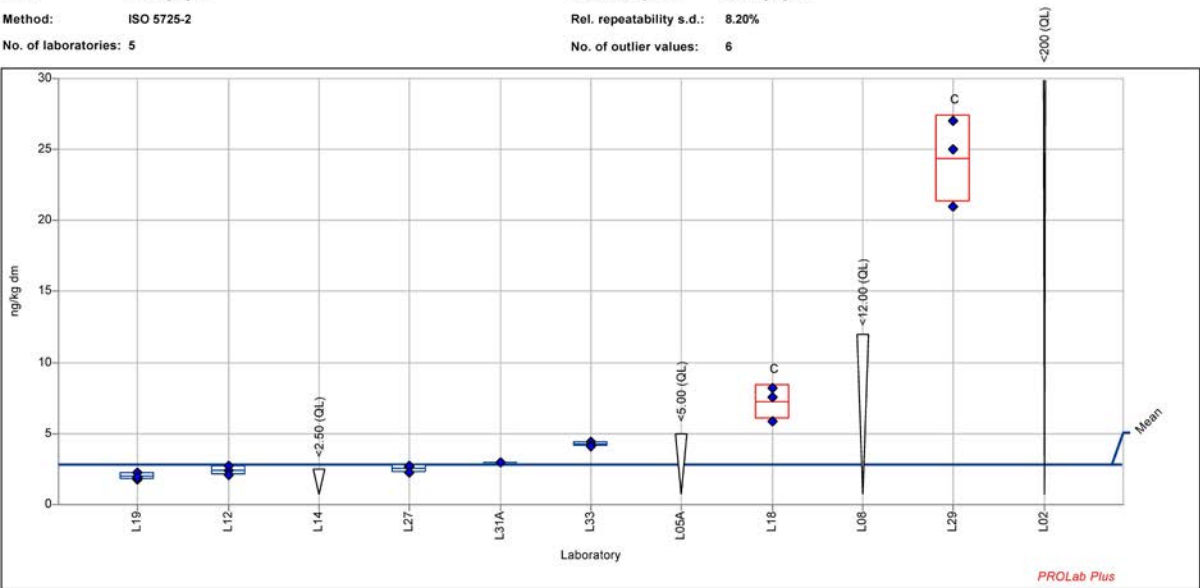
Summary results - DIOXINS

Sample:	Treated biowaste (compost)	Reproducibility s.d.:	2.82 ng/kg dm
Measurand:	PCB 126	Rel. reproducibility s.d.:	19.15%
Mean:	14.71 ng/kg dm	Repeatability s.d.:	1.33 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.03%
No. of laboratories:	9	No. of outlier values:	3



Summary results - DIOXINS

Sample:	Treated biowaste (compost)	Reproducibility s.d.:	0.87 ng/kg dm
Measurand:	PCB 169	Rel. reproducibility s.d.:	30.74%
Mean:	2.84 ng/kg dm	Repeatability s.d.:	0.23 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.20%
No. of laboratories:	5	No. of outlier values:	6



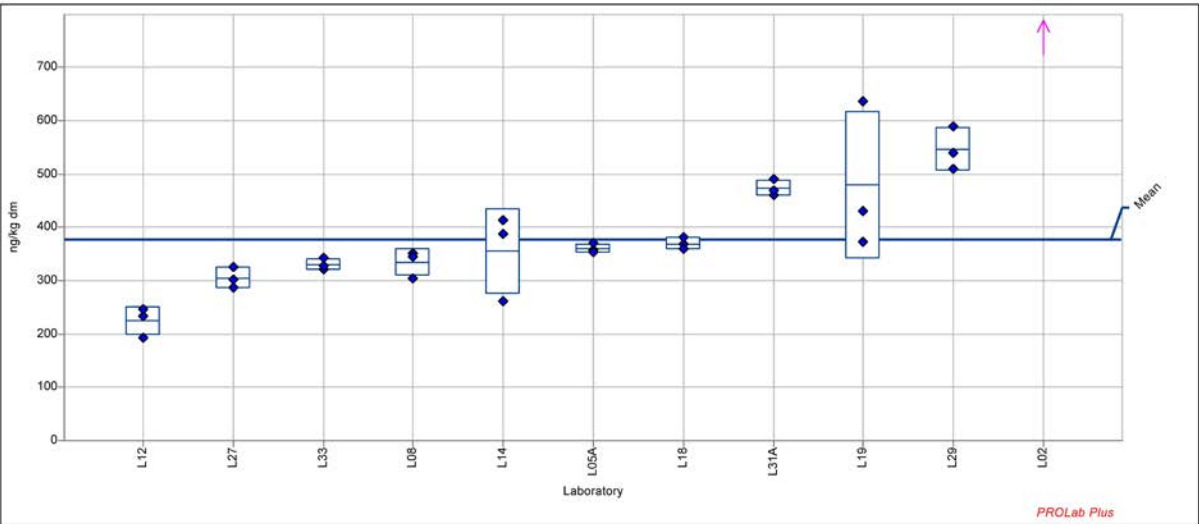
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	105.4 ng/kg dm
Measurand:	PCB 105	Rel. reproducibility s.d.:	27.91%
Mean:	377.6 ng/kg dm	Repeatability s.d.:	54.6 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	14.47%
No. of laboratories:	10	No. of outlier values:	3



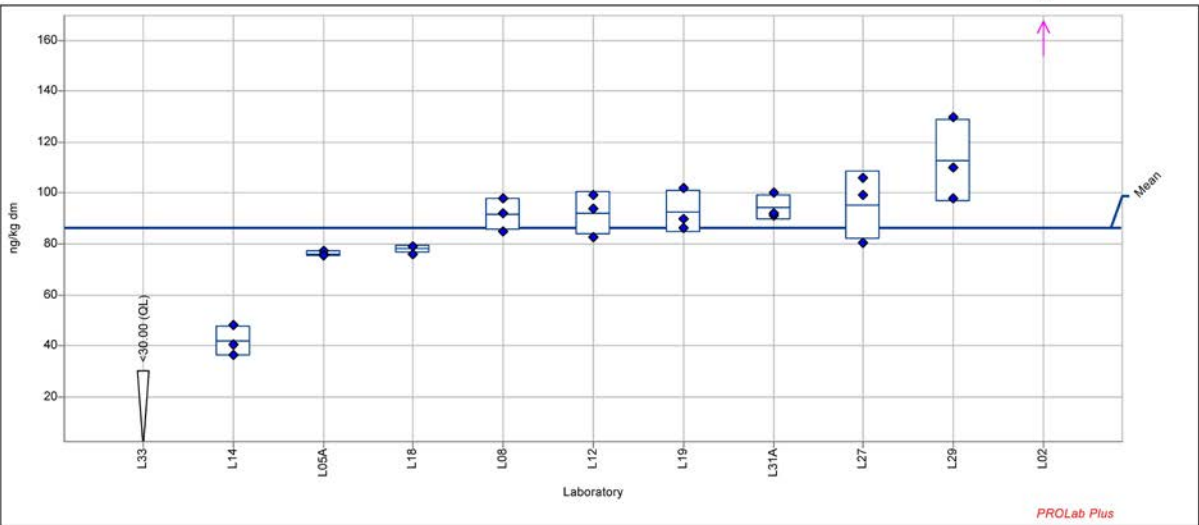
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	20.91 ng/kg dm
Measurand:	PCB 114	Rel. reproducibility s.d.:	24.30%
Mean:	86.05 ng/kg dm	Repeatability s.d.:	8.69 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	10.10%
No. of laboratories:	9	No. of outlier values:	3



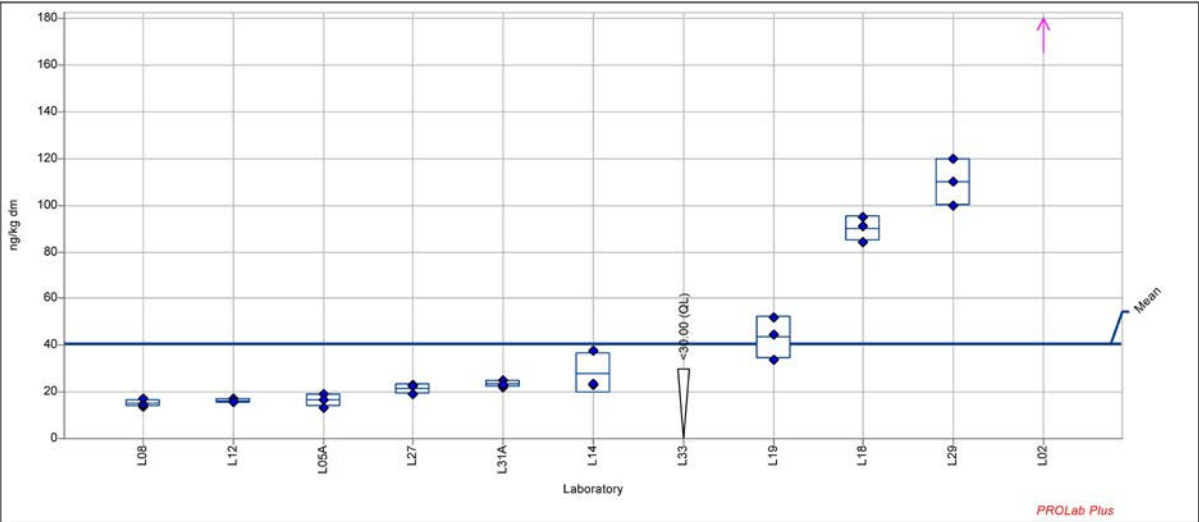
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	35.52 ng/kg dm
Measurand:	PCB 123	Rel. reproducibility s.d.:	87.81%
Mean:	40.45 ng/kg dm	Repeatability s.d.:	5.80 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	14.34%
No. of laboratories:	9	No. of outlier values:	3



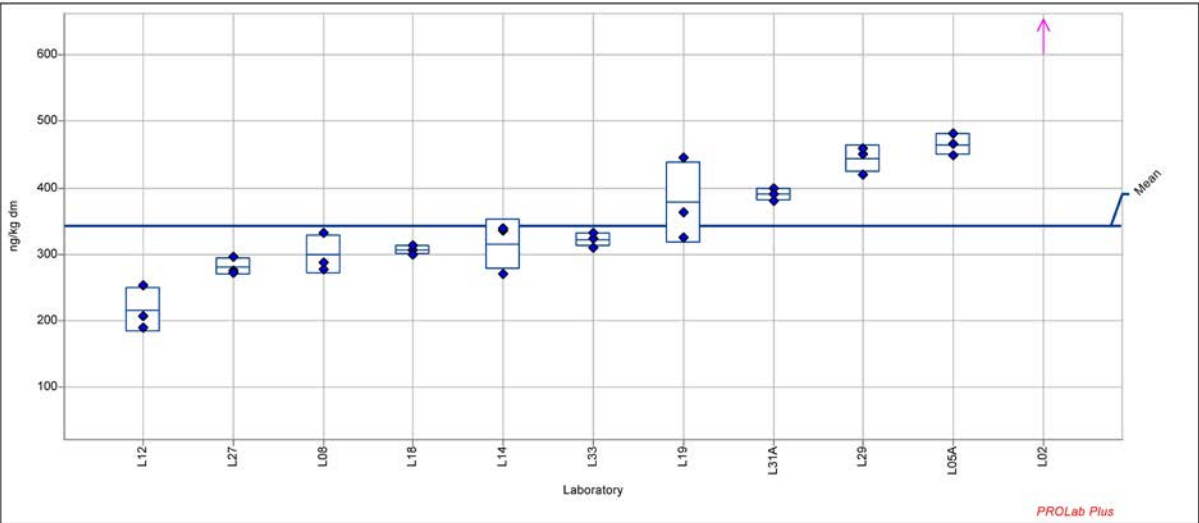
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	80.1 ng/kg dm
Measurand:	PCB 156	Rel. reproducibility s.d.:	23.44%
Mean:	341.8 ng/kg dm	Repeatability s.d.:	28.9 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.44%
No. of laboratories:	10	No. of outlier values:	3



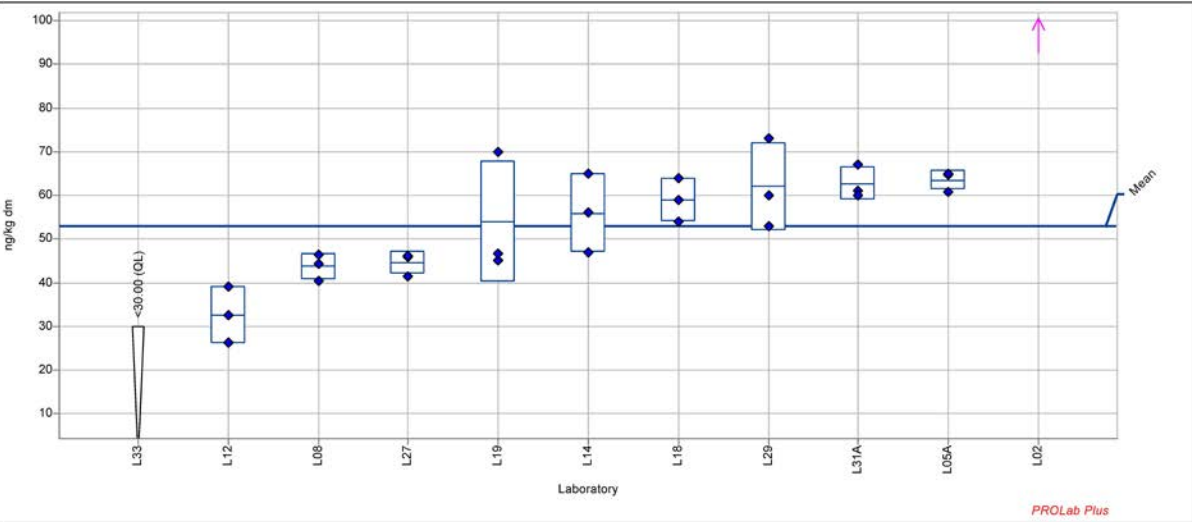
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	12.19 ng/kg dm
Measurand:	PCB 157	Rel. reproducibility s.d.:	22.95%
Mean:	53.11 ng/kg dm	Repeatability s.d.:	7.30 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	13.74%
No. of laboratories:	9	No. of outlier values:	3



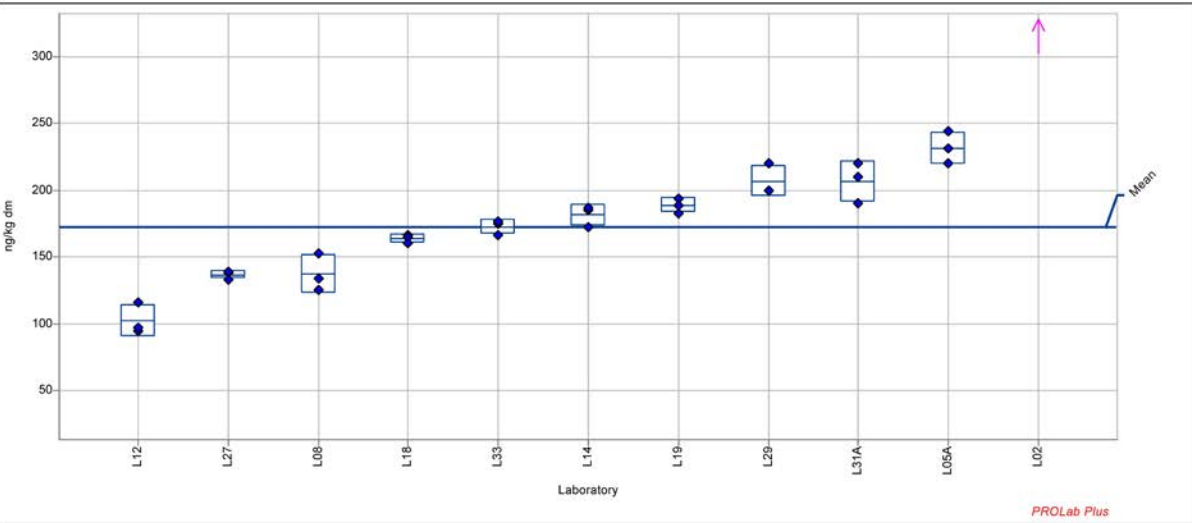
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	39.9 ng/kg dm
Measurand:	PCB 167	Rel. reproducibility s.d.:	23.07%
Mean:	172.8 ng/kg dm	Repeatability s.d.:	10.0 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.81%
No. of laboratories:	10	No. of outlier values:	3



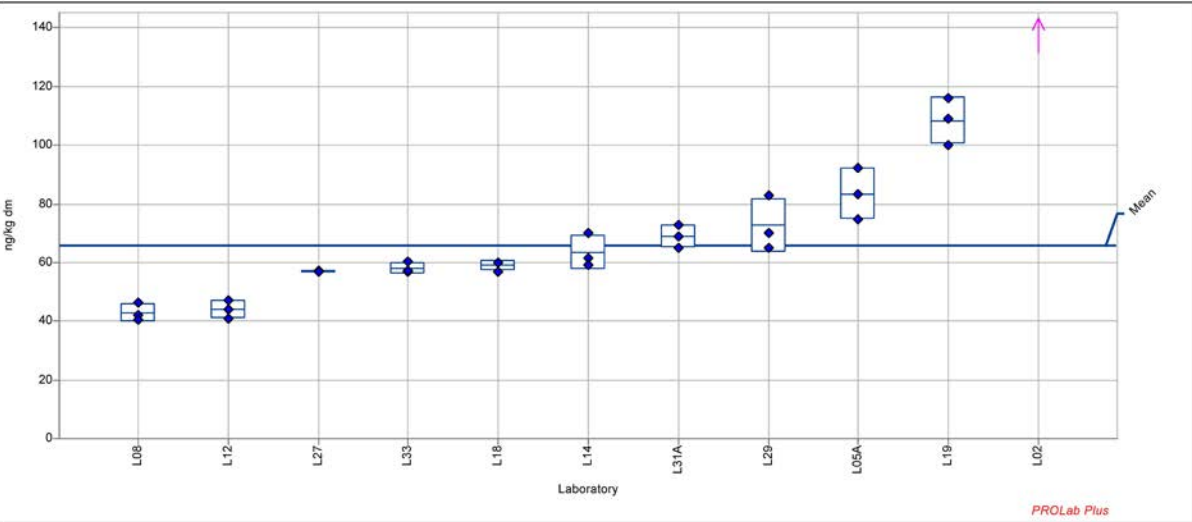
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	19.86 ng/kg dm
Measurand:	PCB 189	Rel. reproducibility s.d.:	30.20%
Mean:	65.78 ng/kg dm	Repeatability s.d.:	5.52 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.40%
No. of laboratories:	10	No. of outlier values:	3



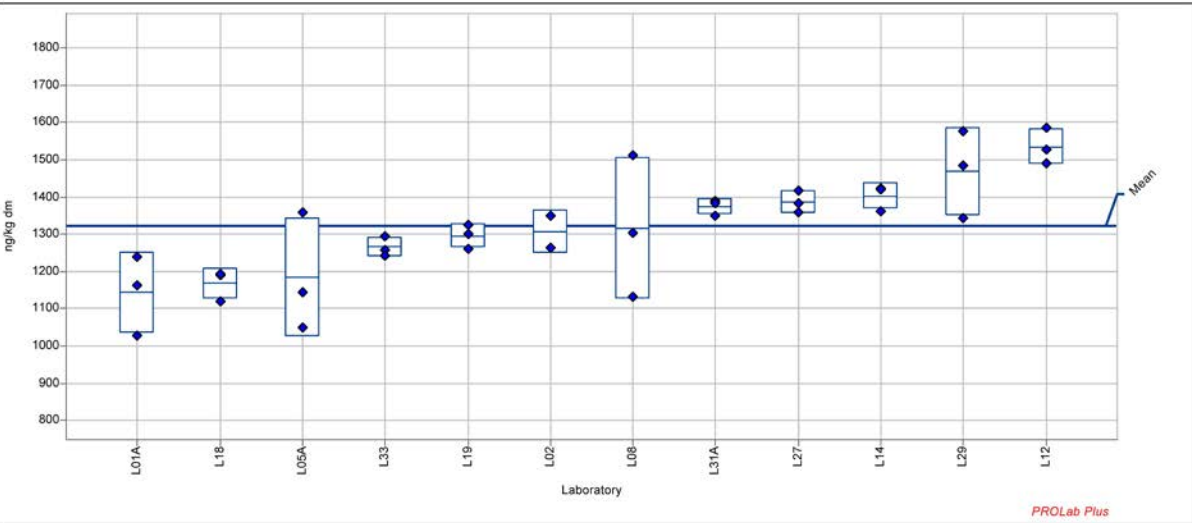
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	143 ng/kg dm
Measurand:	NATO/CCMS-TEQ	Rel. reproducibility s.d.:	10.82%
Mean:	1321 ng/kg dm	Repeatability s.d.:	92 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.97%
No. of laboratories:	12	No. of outlier values:	0



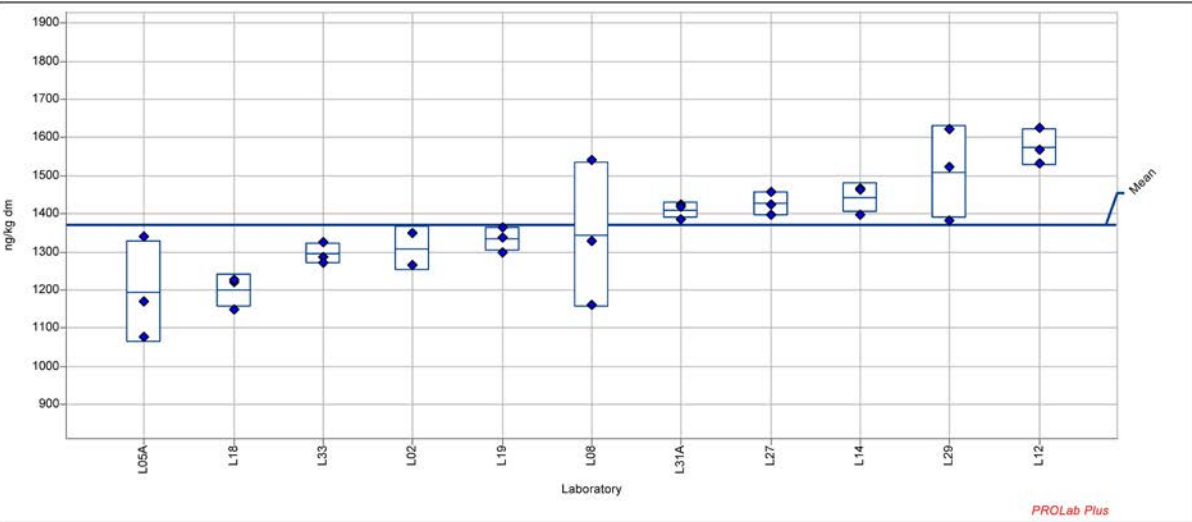
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	140 ng/kg dm
Measurand:	WHO-TEQ 1998	Rel. reproducibility s.d.:	10.21%
Mean:	1369 ng/kg dm	Repeatability s.d.:	87 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.34%
No. of laboratories:	11	No. of outlier values:	0



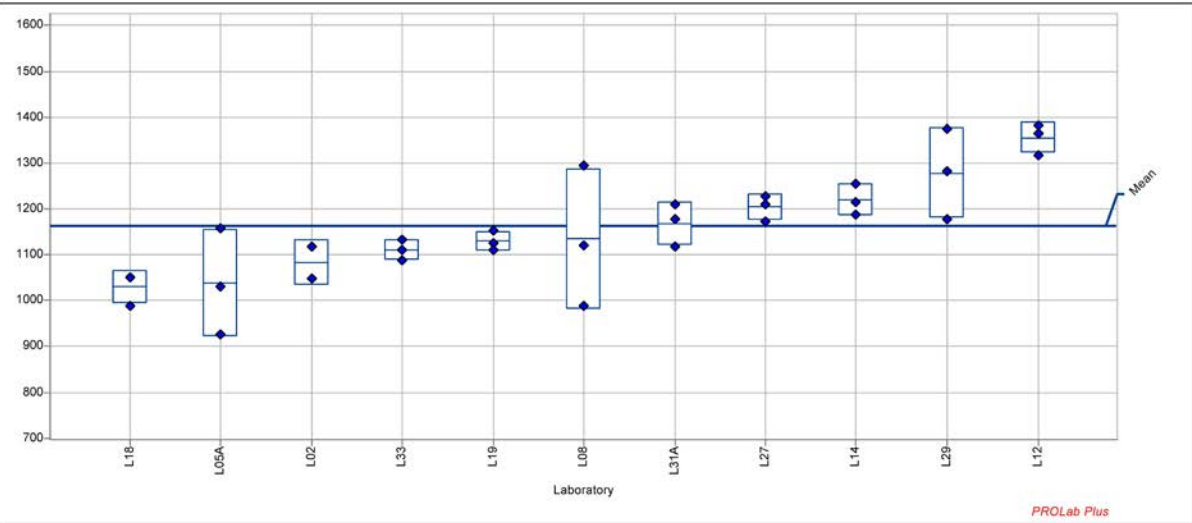
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Summary results - DIOXINS



Sample:	Treated biowaste (compost)	Reproducibility s.d.:	116 ng/kg dm
Measurand:	WHO-TEQ 2005	Rel. reproducibility s.d.:	10.00%
Mean:	1162 ng/kg dm	Repeatability s.d.:	73 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.26%
No. of laboratories:	11	No. of outlier values:	0



4.4 Validation results for SL DIO

SLDIO	2,3,7,8-TCDD	TYPE OF OUTLIER	Z-SCORE	1,2,3,7,8-PECDD	TYPE OF OUTLIER	Z-SCORE	1,2,3,4,7,8-HxCDD	TYPE OF OUTLIER	Z-SCORE	1,2,3,6,7,8-HxCDD	TYPE OF OUTLIER	Z-SCORE
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	< 10.000			< 15.000			< 20.000			56.667	E	-2.17
L02	< 100.000			< 0.100			< 0.200			129.500		0.51
L05A	7.467		-0.57	13.000		0.08	< 45.000			88.867		-0.99
L08	7.300		-0.62	9.967		-0.72	14.867		-0.61	100.900		-0.54
L12	8.933		-0.15	12.167		-0.14	15.233		-0.51	129.000		0.49
L14	6.790		-0.76	8.143		-1.21	15.900		-0.32	180.333	CE	2.38
L18	16.600	CE	2.03	16.000		0.88	16.000		-0.29	116.333		0.02
L19	17.033	E	2.16	16.133		0.92	20.400		0.96	134.333		0.69
L27	11.533		0.59	13.400		0.19	17.067		0.02	151.333		1.31
L29	11.000		0.44	16.000		0.88	22.333		1.51	140.000	A	0.89
L31A	8.667		-0.23	13.000		0.08	16.333		-0.19	123.333		0.28
L33	7.533		-0.55	9.233		-0.92	15.000		-0.57	115.000		-0.03
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	9			10			9			11		
Mean	9.471			12.683			17.015			115.687		
SR Reprod. SD	3.507			3.755			3.516			27.201		
Sr Repeat. SD	1.280			2.837			2.891			4.807		
RSD % VR	37.03 %			29.61 %			20.67 %			23.51 %		
RSD % Vr	13.51 %			22.37 %			16.99 %			4.16 %		
No. A outliers	0			0			0			1		
No. B outliers	0			0			0			0		
No. C outliers	1			0			0			1		
No. sgl. values w/o outl.	25			28			27			31		

SLDIO	1.2.3.7.8.9-HxCDD	TYPE OF OUTLIER	Z-SCORE	1.2.3.4.6.7.8-HpCDD	TYPE OF OUTLIER	Z-SCORE	OCDD	TYPE OF OUTLIER	Z-SCORE	2.3.7.8-TCDF	TYPE OF OUTLIER	Z-SCORE
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
Lo1A	26.667	E	-2.04	1100.000		-1.50	6286.667		-1.15	113.333		-1.30
Lo2	< 0.200			1855.000		1.93	11900.000	E	2.46	321.500	BE	8.06
Lo5A	49.700		0.31	1343.333		-0.40	7090.000		-0.64	118.000		-1.09
Lo8	37.967		-0.89	1333.333		-0.44	7180.000		-0.58	135.000		-0.33
L12	46.567		-0.01	1276.667		-0.70	7536.667		-0.35	141.333		-0.04
L14	57.167		1.08	1620.000	C	0.86	7733.333		-0.22	145.000		0.12
L18	42.000		-0.47	1236.667		-0.88	6646.667		-0.92	118.333		-1.08
L19	56.333		0.99	1484.000		0.24	8772.667		0.45	164.000		0.98
L27	52.533		0.60	1740.000		1.40	8480.000		0.26	153.333		0.50
L29	54.000		0.75	1566.667		0.62	8066.667		-0.01	170.000		1.25
L31A	46.667		0.00	1400.000		-0.14	7800.000		-0.18	136.667		-0.25
L33	45.333		-0.13	1546.667		0.53	10700.000		1.69	170.333		1.26
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	11			11			12			11		
Mean	46.626			1431.000			8076.514			142.303		
SR Reprod. SD	9.776			220.100			1552.410			22.236		
Sr Repeat. SD	4.073			68.751			370.860			10.256		
RSD % VR	20.97 %			15.38 %			19.22 %			15.63 %		
RSD % Vr	8.74 %			4.80 %			4.59 %			7.21 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			1		
No. C outliers	0			1			0			0		
No. sgl. values w/o outl.	31			32			35			33		

SLDIO	1.2.3.7.8-PECDF	TYPE OF OUTLIER	Z-SCORE	2.3.4.7.8-PECDF	TYPE OF OUTLIER	Z-SCORE	1.2.3.4.7.8-HxCDF	TYPE OF OUTLIER	Z-SCORE	1.2.3.6.7.8-HxCDF	TYPE OF OUTLIER	Z-SCORE
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	53.333		1.64	103.333		-0.86	80.000		-1.94	20.000		-1.73
L02	47.450		0.96	158.000		1.54	288.500	BE	10.02	52.400		0.68
L05A	28.467		-1.24	98.233		-1.09	116.667		0.16	42.000		-0.09
L08	30.100		-1.06	113.000		-0.44	106.033		-0.45	36.533		-0.50
L12	37.500		-0.20	130.333		0.33	126.667		0.73	44.733		0.11
L14	37.000		-0.25	130.000		0.31	124.333		0.60	68.167		1.85
L18	32.000		-0.83	85.000		-1.67	92.667		-1.22	33.667		-0.71
L19	47.567		0.97	149.667		1.18	124.333		0.60	46.933		0.27
L27	46.467		0.85	141.667		0.83	121.667		0.45	43.500		0.02
L29	95.000	CE	6.48	136.667		0.61	133.333		1.12	53.667		0.77
L31A	36.333		-0.33	116.667		-0.27	110.000		-0.22	40.333		-0.22
L33	37.533		-0.19	124.000		0.05	117.000		0.18	39.867		-0.25
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	11			12			11			12		
Mean	39.181			122.906			113.882			43.265		
SR Reprod. SD	8.611			22.733			17.434			13.456		
Sr Repeat. SD	3.587			10.482			8.886			7.513		
RSD % VR	21.98 %			18.50 %			15.31 %			31.10 %		
RSD % Vr	9.15 %			8.53 %			7.80 %			17.37 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			1			0		
No. C outliers	1			0			0			0		
No. sgl. values w/o outl.	32			35			33			34		

SLDIO	1.2.3.7.8.9-HxCDF	TYPE OF OUTLIER	Z-SCORE	2.3.4.6.7.8-HxCDF	TYPE OF OUTLIER	Z-SCORE	1.2.3.4.6.7.8-HpCDF	TYPE OF OUTLIER	Z-SCORE	1.2.3.4.7.8.9-HpCDF	TYPE OF OUTLIER	Z-SCORE
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
Lo1A	33.333		1.88	33.333		-1.05	710.000		-1.46	86.667		1.99
Lo2	24.300		1.08	45.300		0.02	1270.000	E	2.13	56.800		-0.22
Lo5A	< 30.000			46.800		0.15	918.667		-0.12	54.400		-0.39
Lo8	4.337		-0.69	36.233		-0.79	868.333		-0.45	49.533		-0.75
L12	22.367		0.91	63.300		1.62	903.667		-0.22	52.867		-0.51
L14	3.763		-0.74	45.667		0.05	1075.333		0.88	62.600		0.21
L18	19.000		0.61	31.333		-1.23	776.333		-1.04	45.333		-1.06
L19	6.713		-0.48	47.567		0.22	962.000		0.16	62.500		0.20
L27	3.097		-0.80	63.867		1.67	904.000		-0.22	55.167		-0.34
L29	58.667	CE	4.13	65.667	C	1.83	1166.667		1.47	81.000		1.57
L31A	4.000		-0.72	44.000		-0.10	890.000		-0.31	54.333		-0.40
L33	4.367		-0.69	39.000		-0.54	920.000		-0.12	54.667		-0.38
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			12			12			12		
No. labs w/o outl.	10			11			12			12		
Mean	12.122			45.122			937.857			59.737		
SR Reprod. SD	11.278			11.244			155.926			13.534		
Sr Repeat. SD	2.550			3.703			61.193			6.485		
RSD % VR	93.04 %			24.92 %			16.63 %			22.66 %		
RSD % Vr	21.03 %			8.21 %			6.52 %			10.86 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			1			0			0		
No. sgl. values w/o outl.	29			32			35			35		

SLDIO	OCDF	TYPE OF OUTLIER	Z-SCORE	PCB 77	TYPE OF OUTLIER	Z-SCORE	PCB 81	TYPE OF OUTLIER	Z-SCORE	PCB 118	TYPE OF OUTLIER	Z-SCORE
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A	1420.000		-0.68									
L02	1700.000		0.91	67866.667	BE	-5.43	27400.000	E	2.54	7016666.667	CE	57.35
L05A	1446.667		-0.53	234666.667		0.32	19066.667		1.15	1056666.667		1.17
L08	1633.333		0.53	199666.667		-0.89	7146.667		-0.85	884000.000		-0.45
L12	1540.000		0.00	241000.000		0.54	9880.000		-0.39	823000.000		-1.03
L14	1413.333		-0.71	270666.667		1.56	12800.000		0.10	1233333.333	CE	2.84
L18	1420.333		-0.67	205733.000		-0.68	8040.667		-0.70	844097.000		-0.83
L19	1761.000		1.26	225801.333		0.01	9506.333		-0.45	1006986.000		0.71
L27	1333.333		-1.17	185000.000		-1.39	8873.333		-0.56	896666.667		-0.33
L29	1833.333		1.67	253333.333		0.96	10333.333		-0.31	1033333.333		0.95
L31A	1433.333		-0.60	233333.333		0.27	10333.333		-0.31	1033333.333		0.95
L33	1590.000		0.29	205333.333		-0.69	10900.000		-0.22	811000.000		-1.14
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	12			11			11			11		
No. labs w/o outl.	12			10			11			9		
Mean	1539.257			225453.433			12207.303			932120.333		
SR Re-prod. SD	176.380			29045.000			5984.400			106089.000		
Sr Repeat. SD	93.778			14646.380			811.028			44446.620		
RSD % VR	11.46 %			12.88 %			49.02 %			11.38 %		
RSD % Vr	6.09 %			6.50 %			6.64 %			4.77 %		
No. A outliers	0			0			0			0		
No. B outliers	0			1			0			0		
No. C outliers	0			0			0			2		
No. sgl. values w/o outl.	35			30			33			27		

SLDIO	PCB 126	TYPE OF OUTLIER	Z-SCORE	PCB 169	TYPE OF OUTLIER	Z-SCORE	PCB 105	TYPE OF OUTLIER	Z-SCORE	PCB 114	TYPE OF OUTLIER	Z-SCORE
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A												
L02	< 200.000			< 200.000			2193666.667	CE	47.15	163333.333	CE	32.88
L05A	3126.667		0.27	618.333		1.87	350666.667		0.11	19600.000		-0.58
L08	3083.333		0.15	< 1200.000			322000.000		-0.62	18466.667		-0.85
L12	3086.667		0.16	263.333		-0.42	320000.000		-0.67	30966.667	E	2.06
L14	2810.000		-0.62	245.333		-0.53	412333.333		1.69	25133.333		0.70
L18	2653.333		-1.06	567.000		1.54	325853.667		-0.52	21725.667		-0.09
L19	2596.000		-1.23	201.000		-0.82	341874.333		-0.11	30050.667	C	1.85
L27	2876.667		-0.44	282.000		-0.30	323866.667		-0.57	19700.000		-0.56
L29	3133.333		0.29	276.667		-0.33	386666.667		1.03	24333.333		0.52
L31A	3833.333	E	2.26	240.000		-0.57	380000.000		0.86	21666.667		-0.10
L33	3116.667		0.24	258.000		-0.45	300000.000		-1.18	17400.000		-1.10
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			11			11			11		
No. labs w/o outl.	10			9			10			9		
Mean	3031.600			327.963			346326.133			22110.259		
SR Re-prod. SD	355.450			154.931			39177.000			4295.800		
Sr Repeat. SD	96.651			33.753			19588.660			1161.873		
RSD % VR	11.72 %			47.24 %			11.31 %			19.43 %		
RSD % Vr	3.19 %			10.29 %			5.66 %			5.25 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	0			0			1			2		
No. sgl. values w/o outl.	30			27			30			27		

SLDIO	PCB 123	TYPE OF OUTLIER	Z-SCORE	PCB 156	TYPE OF OUTLIER	Z-SCORE	PCB 157	TYPE OF OUTLIER	Z-SCORE	PCB 167	TYPE OF OUTLIER	Z-SCORE
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
L01A												
L02	497000.000	CE	19.55	1766666.667	CE	69.21	278000.000	CE	60.57	603333.333	CE	50.67
L05A	16033.333		-0.57	244333.333		0.27	34666.667		0.04	109666.667		-0.05
L08	12933.333		-0.70	219333.333		-0.86	32300.000		-0.55	104333.333		-0.60
L12	14400.000		-0.64	229000.000		-0.43	32533.333		-0.50	91633.333		-1.91
L14	23533.333		-0.26	276000.000		1.70	42833.333	E	2.07	160333.333	CE	5.15
L18	64368.667		1.45	209776.000		-1.30	32848.000		-0.42	109646.000		-0.06
L19	32120.000		0.10	222873.667		-0.70	34183.333		-0.09	111284.667		0.11
L27	17366.667		-0.51	239666.667		0.06	31333.333		-0.79	110500.000		0.03
L29	81666.667	E	2.18	260000.000		0.98	37666.667		0.78	120000.000		1.01
L31A	18333.333		-0.47	256666.667		0.83	37000.000		0.62	123333.333		1.35
L33	15800.000		-0.58	226333.333		-0.55	29900.000		-1.15	111266.667		0.111
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			11			11			11		
No. labs w/o outl.	10			10			10			9		
Mean	29655.533			238398.300			34526.467			110184.889		
SR Re-prod. SD	23902.200			22083.000			4019.900			9732.000		
Sr Repeat. SD	1779.883			8947.400			1681.528			4479.540		
RSD % VR	80.60 %			9.26 %			11.64 %			8.83 %		
RSD % Vr	6.00 %			3.75 %			4.87 %			4.07 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	1			1			1			2		
No. sgl. values w/o outl.	30			30			30			27		

SLDIO	PCB 189	TYPE OF OUTLIER	Z-SCORE	NATO/CCMS-TEQ	TYPE OF OUTLIER	Z-SCORE	WHO-TEQ 1998	TYPE OF OUTLIER	Z-SCORE	WHO-TEQ 2005	TYPE OF OUTLIER	Z-SCORE
Unit	ng/kg dm			ng/kg dm			ng/kg dm			ng/kg dm		
Lo1A				118.007		-1.71						
Lo2	282333.333	CE	73.71	213.000		1.63	581.000	E	-2.45	2377.500	CE	47.17
Lo5A	37250.000		-0.25	133.363		-1.17	773.635		0.06	509.165		-0.61
Lo8	33066.667		-1.51	148.803		-0.63	736.163		-0.43	503.653		-0.75
L12	38300.000		0.07	172.390		0.20	773.400		0.05	536.327		0.09
L14	51066.667	CE	3.92	178.473		0.42	831.727		0.81	535.303		0.06
L18	35922.333		-0.65	144.283		-0.79	697.700		-0.93	483.653		-1.26
L19	35994.667		-0.62	197.993		1.10	768.083		-0.02	513.323		-0.50
L27	41116.667		0.92	188.840		0.78	770.937		0.02	527.100		-0.15
L29	43333.333		1.59	191.560		0.88	849.817		1.05	573.073		1.03
L31A	39666.667		0.48	160.127		-0.23	874.450		1.37	610.370		1.98
L33	37633.333		-0.13	168.120		0.05	743.307		-0.34	528.273		-0.12
Method	ISO 5725-2			ISO 5725-2			ISO 5725-2			ISO 5725-2		
No. labs	11			12			11			11		
No. labs w/o outl.	9			12			11			10		
Mean	38061.577			166.625			769.226			532.812		
SR Re-prod. SD	3314.200			28.452			76.932			39.111		
Sr Repeat. SD	1432.663			9.339			24.018			16.585		
RSD % VR	8.71 %			17.08 %			10.00 %			7.34 %		
RSD % Vr	3.76 %			5.60 %			3.12 %			3.11 %		
No. A outliers	0			0			0			0		
No. B outliers	0			0			0			0		
No. C outliers	2			0			0			1		
No. sgl. values w/o outl.	26			35			31			29		

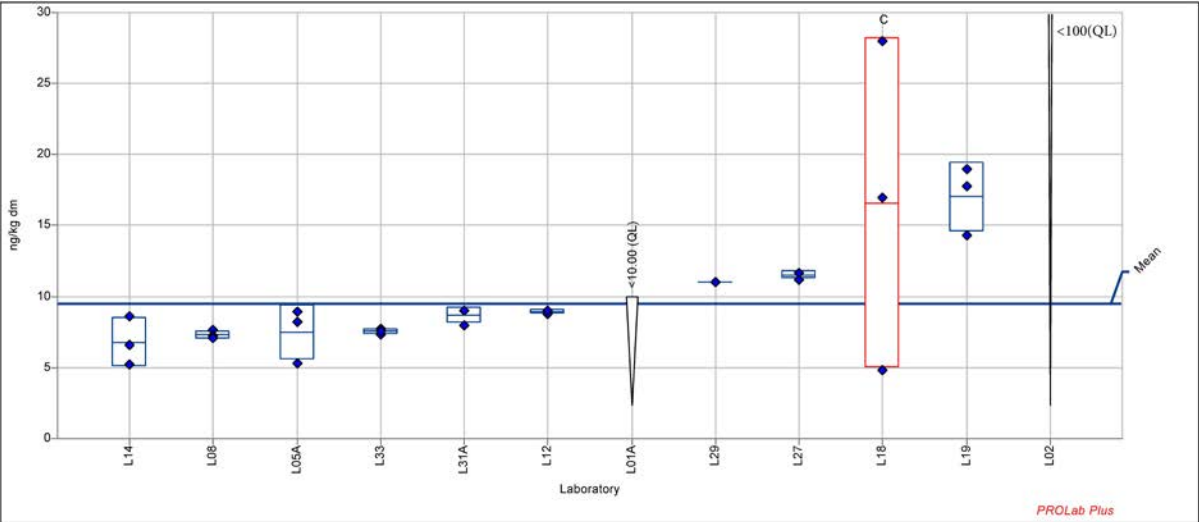
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	3.51 ng/kg dm
Measurand:	2,3,7,8-TCDD	Rel. reproducibility s.d.:	37.03%
Mean:	9.47 ng/kg dm	Repeatability s.d.:	1.28 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	13.51%
No. of laboratories:	9	No. of outlier values:	3



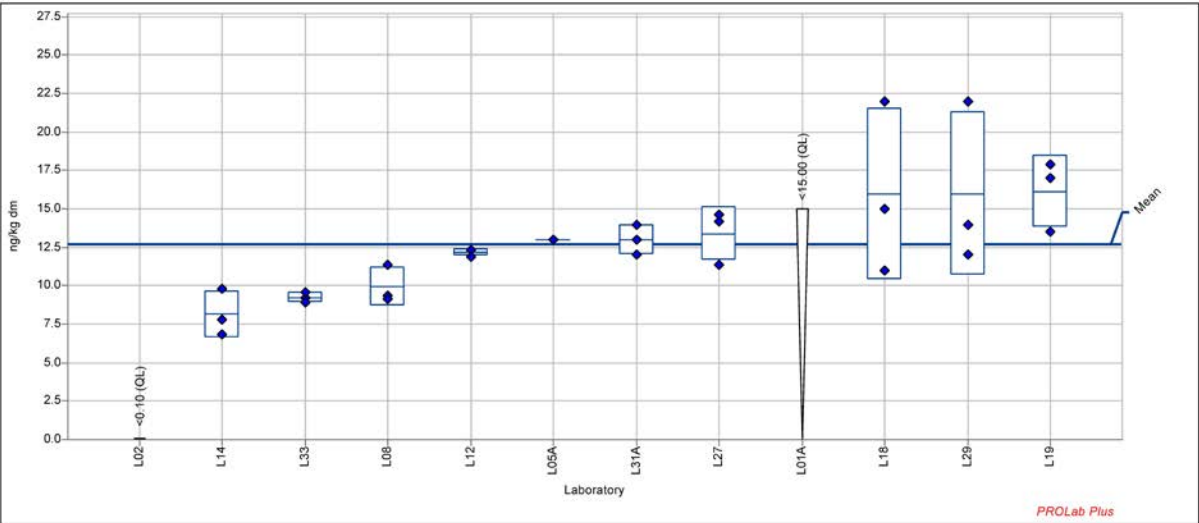
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	3.75 ng/kg dm
Measurand:	1,2,3,7,8-PeCDD	Rel. reproducibility s.d.:	29.61%
Mean:	12.68 ng/kg dm	Repeatability s.d.:	2.84 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	22.37%
No. of laboratories:	10	No. of outlier values:	0



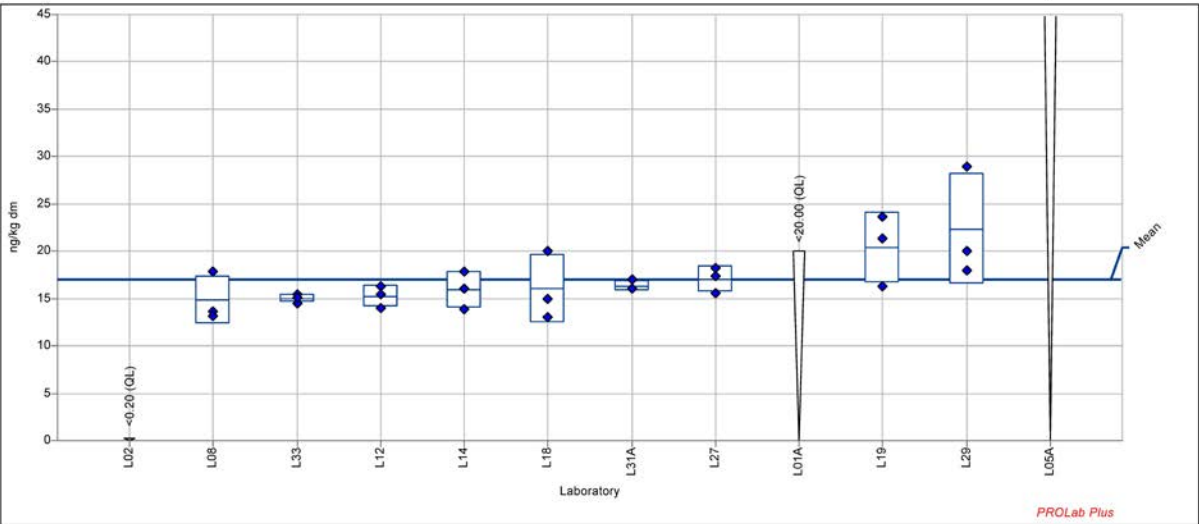
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	3.52 ng/kg dm
Measurand:	1,2,3,4,7,8-HxCDD	Rel. reproducibility s.d.:	20.67%
Mean:	17.01 ng/kg dm	Repeatability s.d.:	2.89 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	16.99%
No. of laboratories:	9	No. of outlier values:	0



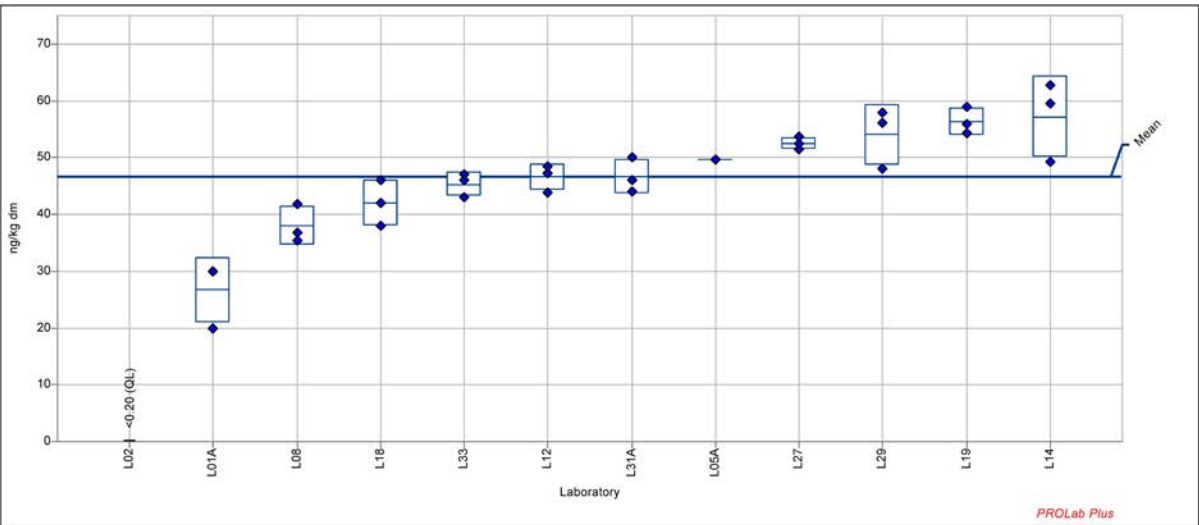
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	9.78 ng/kg dm
Measurand:	1,2,3,7,8,9-HxCDD	Rel. reproducibility s.d.:	20.97%
Mean:	46.63 ng/kg dm	Repeatability s.d.:	4.07 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.74%
No. of laboratories:	11	No. of outlier values:	0



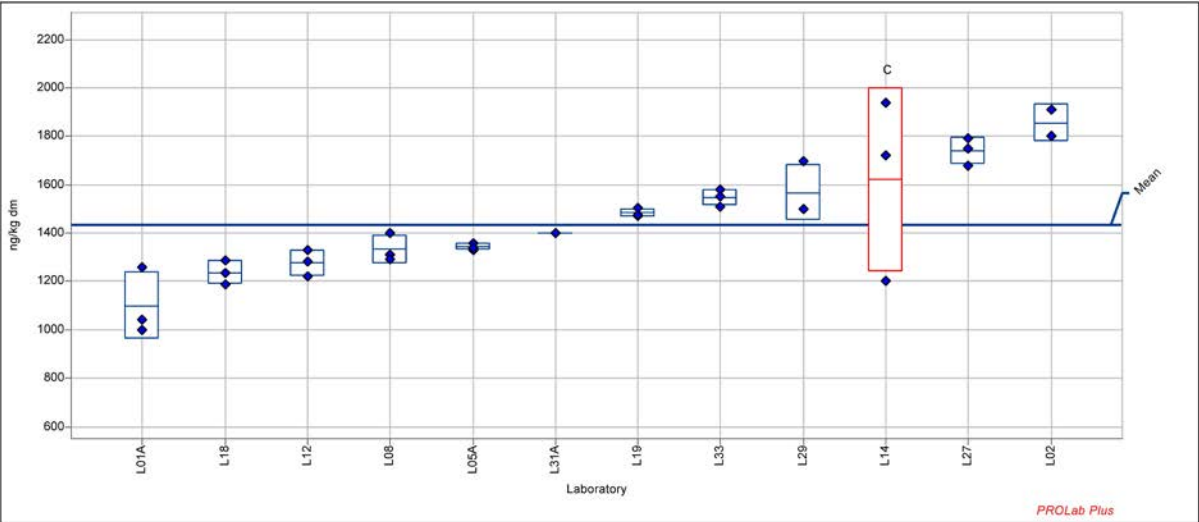
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	220 ng/kg dm
Measurand:	1,2,3,4,6,7,8-HpCDD	Rel. reproducibility s.d.:	15.38%
Mean:	1431 ng/kg dm	Repeatability s.d.:	69 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.80%
No. of laboratories:	11	No. of outlier values:	3



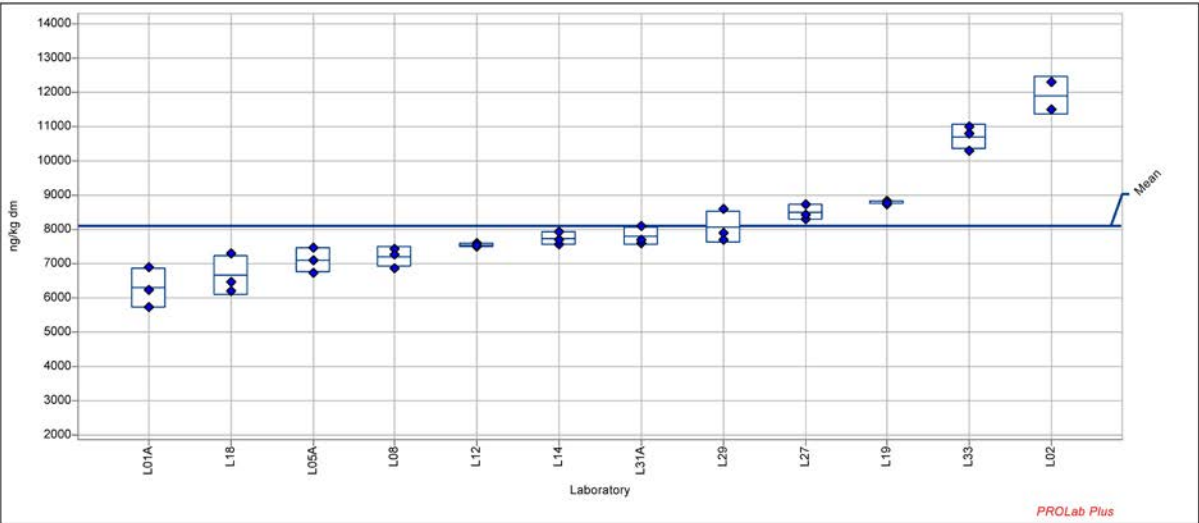
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	1552 ng/kg dm
Measurand:	OCDD	Rel. reproducibility s.d.:	19.22%
Mean:	8077 ng/kg dm	Repeatability s.d.:	371 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.59%
No. of laboratories:	12	No. of outlier values:	0



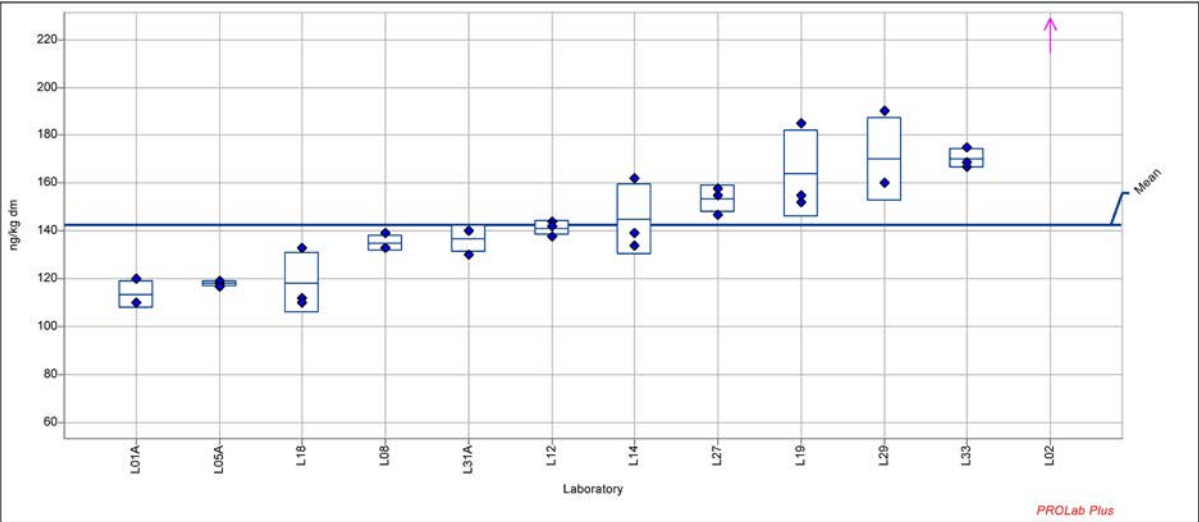
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	22.2 ng/kg dm
Measurand:	2,3,7,8-TCDF	Rel. reproducibility s.d.:	15.63%
Mean:	142.3 ng/kg dm	Repeatability s.d.:	10.3 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.21%
No. of laboratories:	11	No. of outlier values:	2



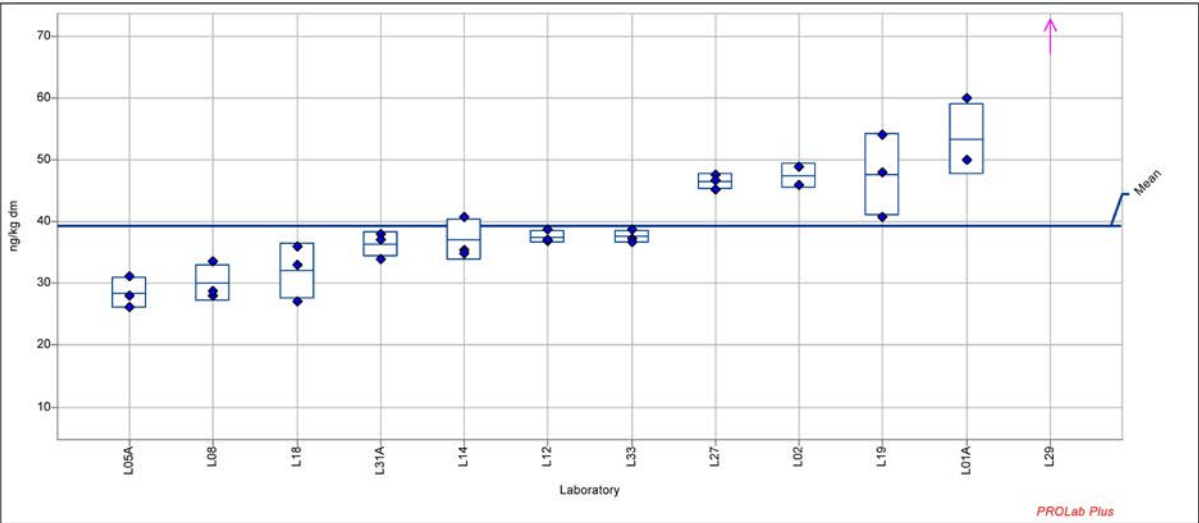
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	8.61 ng/kg dm
Measurand:	1,2,3,7,8-PeCDF	Rel. reproducibility s.d.:	21.98%
Mean:	39.18 ng/kg dm	Repeatability s.d.:	3.59 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	9.15%
No. of laboratories:	11	No. of outlier values:	3



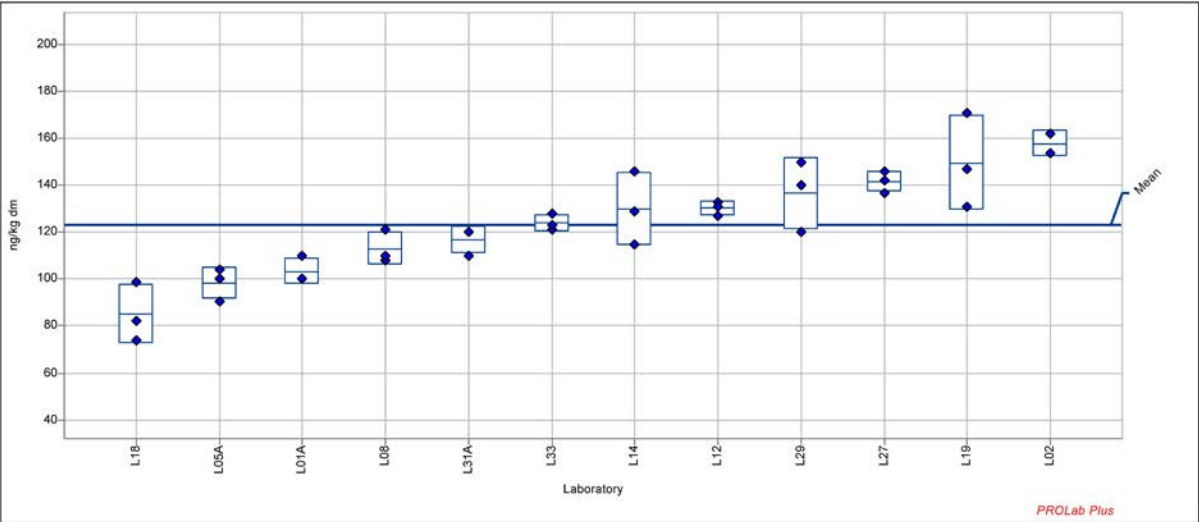
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	22.7 ng/kg dm
Measurand:	2,3,4,7,8-PeCDF	Rel. reproducibility s.d.:	18.50%
Mean:	122.9 ng/kg dm	Repeatability s.d.:	10.5 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.53%
No. of laboratories:	12	No. of outlier values:	0



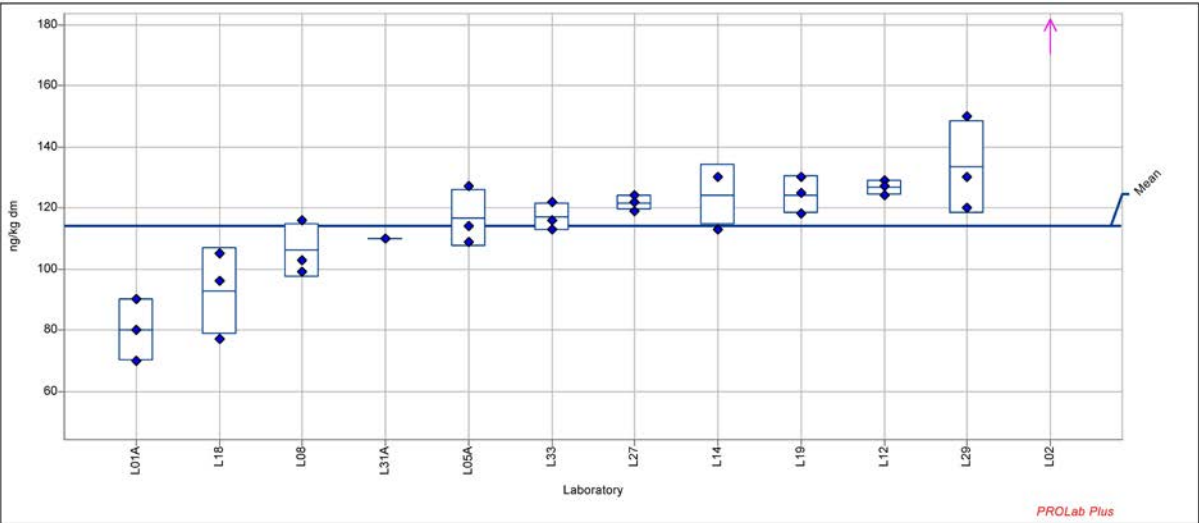
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	17.4 ng/kg dm
Measurand:	1,2,3,4,7,8-HxCDF	Rel. reproducibility s.d.:	15.31%
Mean:	113.9 ng/kg dm	Repeatability s.d.:	8.9 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	7.80%
No. of laboratories:	11	No. of outlier values:	2



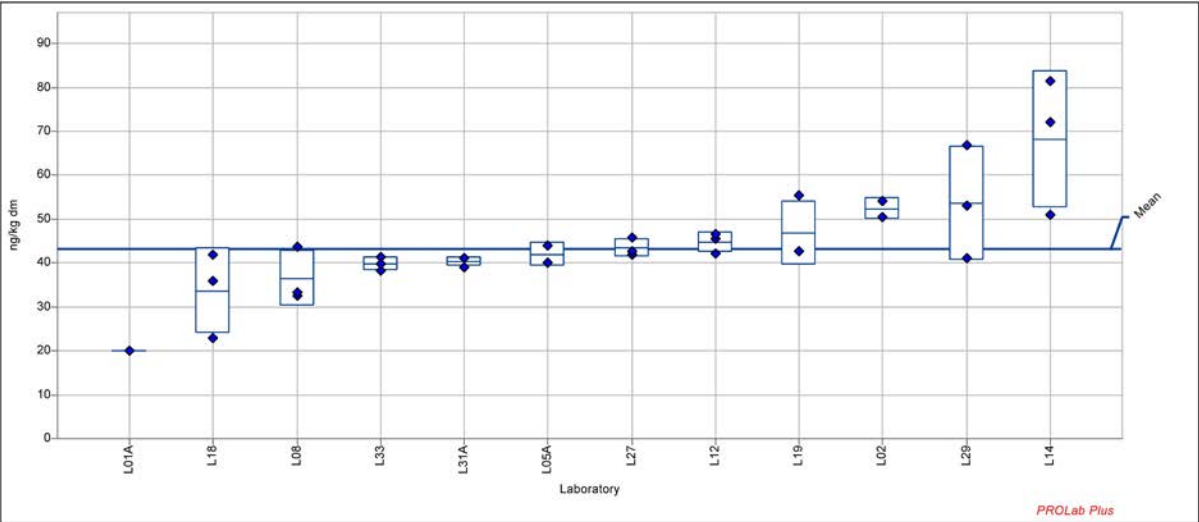
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	13.46 ng/kg dm
Measurand:	1,2,3,6,7,8-HxCDF	Rel. reproducibility s.d.:	31.10%
Mean:	43.26 ng/kg dm	Repeatability s.d.:	7.51 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	17.37%
No. of laboratories:	12	No. of outlier values:	0



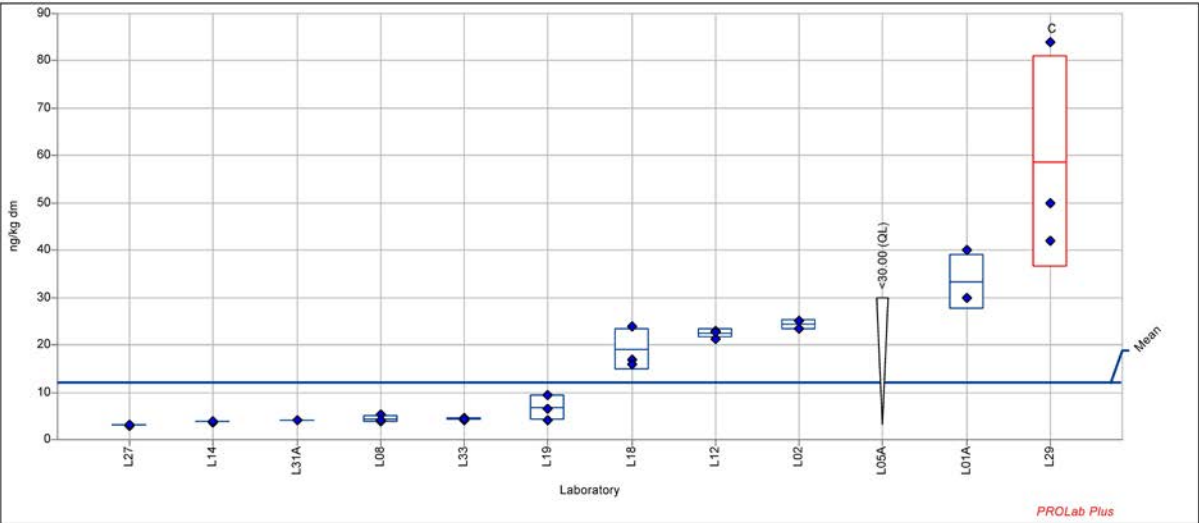
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	11.28 ng/kg dm
Measurand:	1,2,3,7,8,9-HxCDF	Rel. reproducibility s.d.:	93.04%
Mean:	12.12 ng/kg dm	Repeatability s.d.:	2.55 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	21.03%
No. of laboratories:	10	No. of outlier values:	3



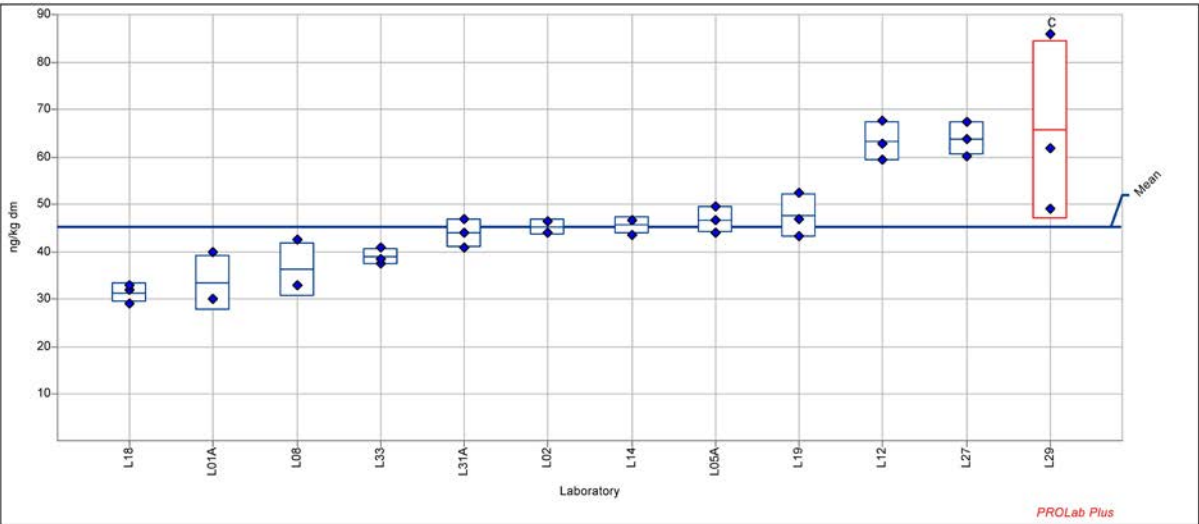
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	11.24 ng/kg dm
Measurand:	2,3,4,6,7,8-HxCDF	Rel. reproducibility s.d.:	24.92%
Mean:	45.12 ng/kg dm	Repeatability s.d.:	3.70 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	8.21%
No. of laboratories:	11	No. of outlier values:	3



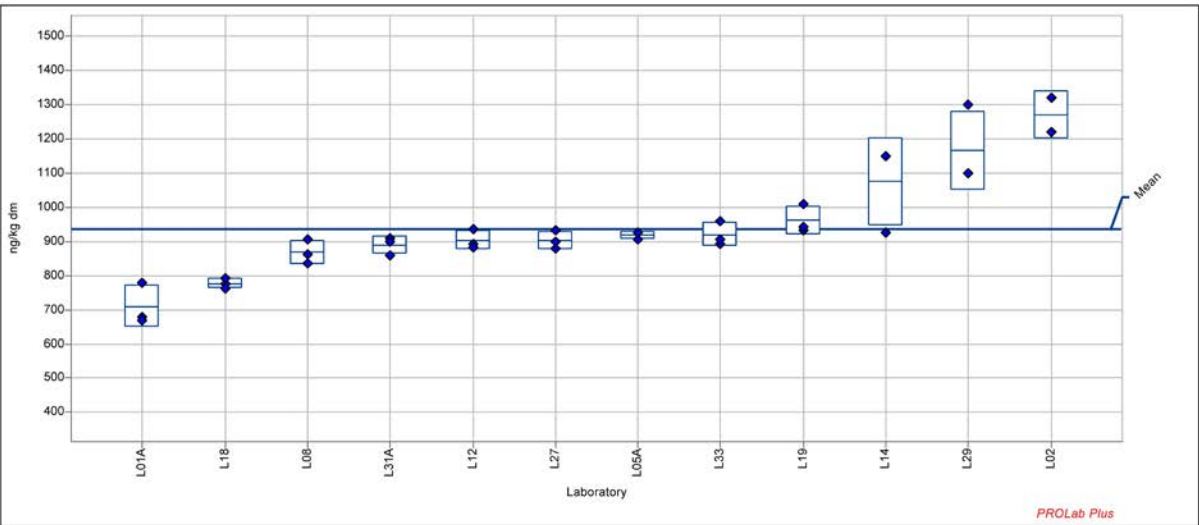
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	155.9 ng/kg dm
Measurand:	1,2,3,4,6,7,8-HpCDF	Rel. reproducibility s.d.:	16.63%
Mean:	937.9 ng/kg dm	Repeatability s.d.:	61.2 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.52%
No. of laboratories:	12	No. of outlier values:	0



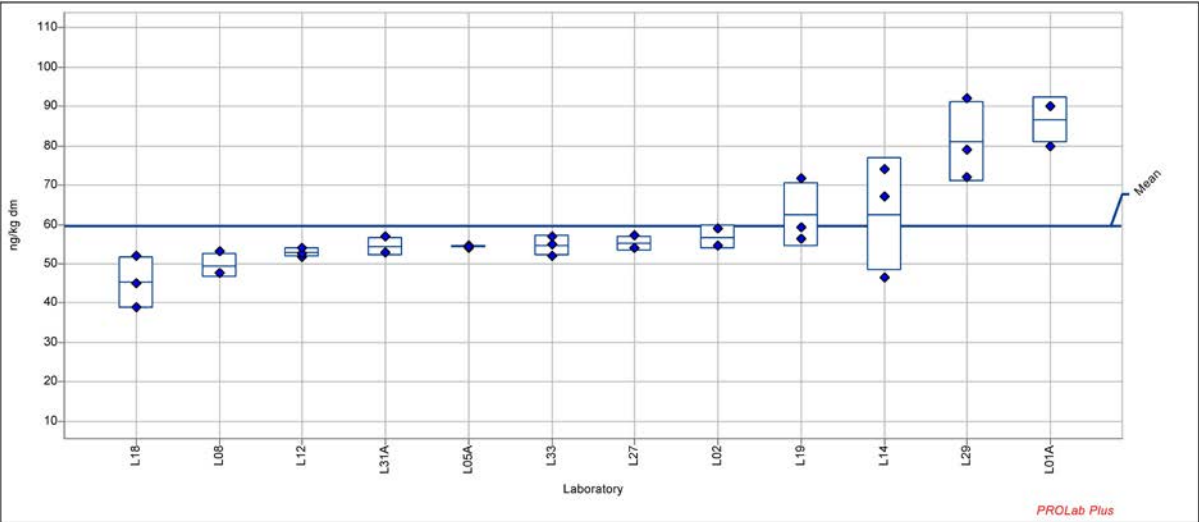
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	13.53 ng/kg dm
Measurand:	1,2,3,4,7,8,9-HpCDF	Rel. reproducibility s.d.:	22.66%
Mean:	59.74 ng/kg dm	Repeatability s.d.:	6.49 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	10.86%
No. of laboratories:	12	No. of outlier values:	0



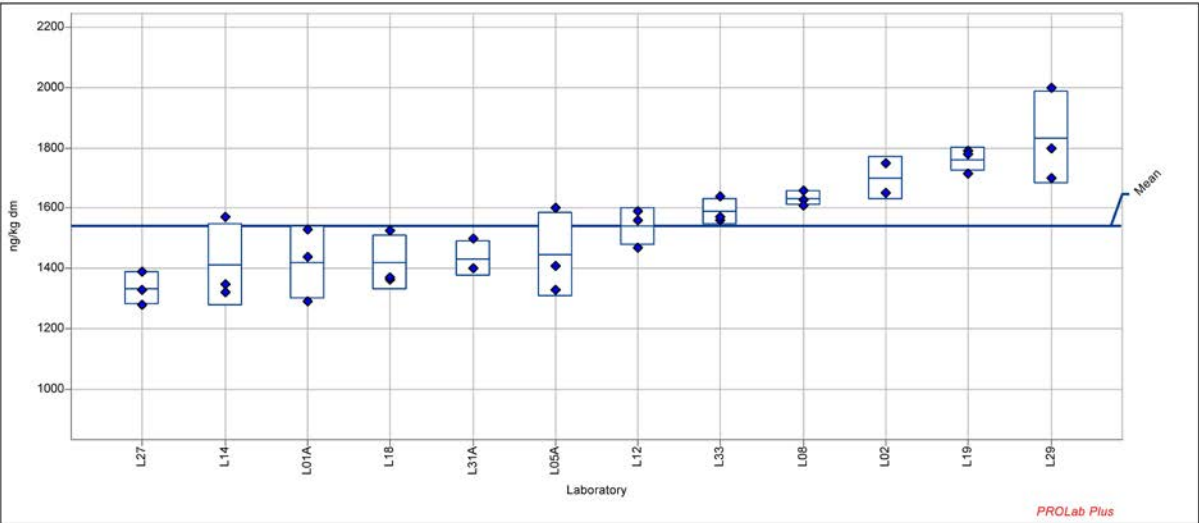
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	176 ng/kg dm
Measurand:	OCDF	Rel. reproducibility s.d.:	11.46%
Mean:	1539 ng/kg dm	Repeatability s.d.:	94 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.09%
No. of laboratories:	12	No. of outlier values:	0



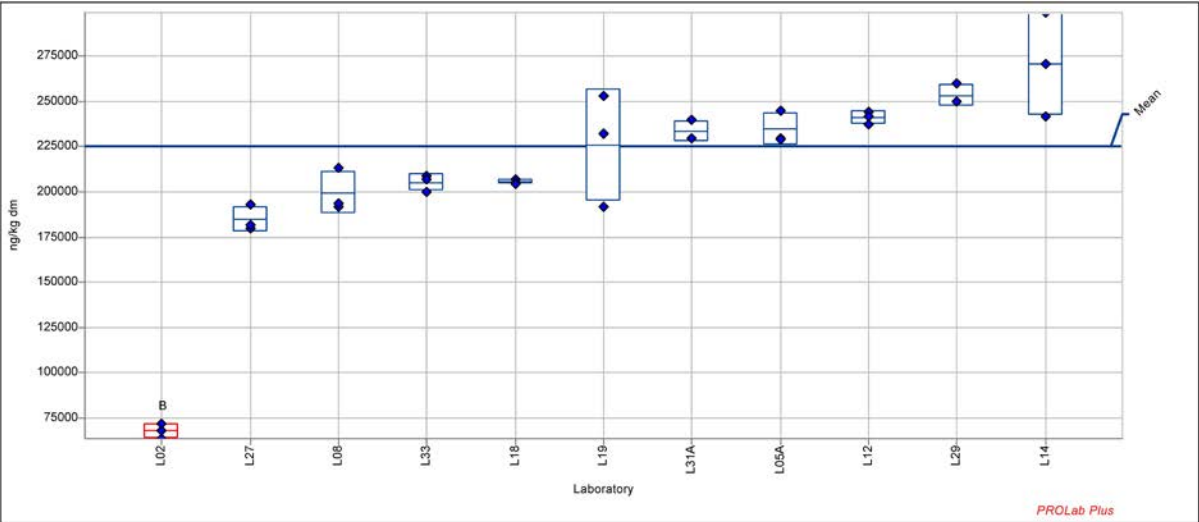
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	29045 ng/kg dm
Measurand:	PCB 77	Rel. reproducibility s.d.:	12.88%
Mean:	225453 ng/kg dm	Repeatability s.d.:	14646 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.50%
No. of laboratories:	10	No. of outlier values:	3



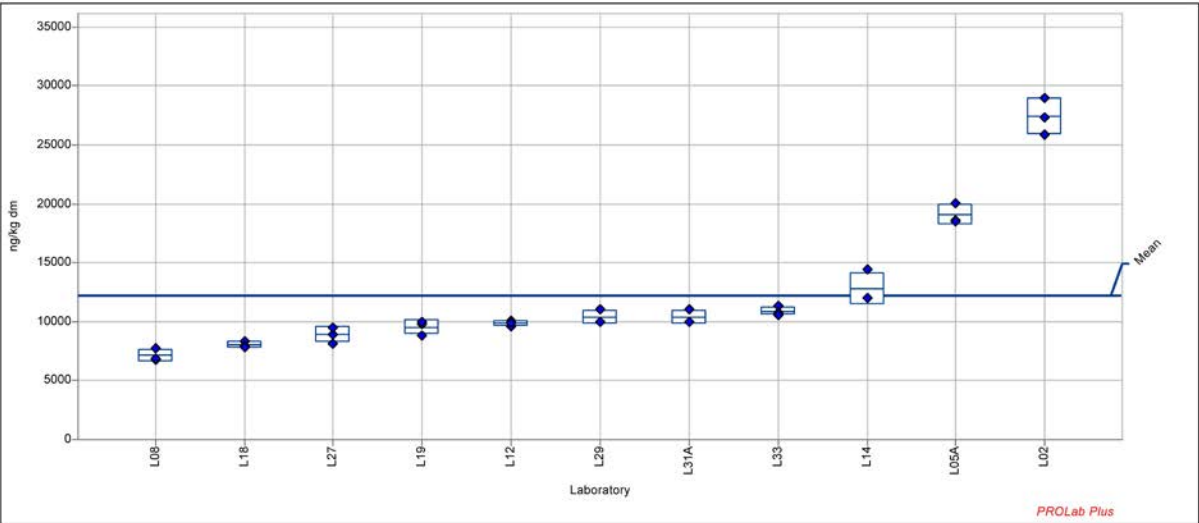
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	5984 ng/kg dm
Measurand:	PCB 81	Rel. reproducibility s.d.:	49.02%
Mean:	12207 ng/kg dm	Repeatability s.d.:	811 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	6.64%
No. of laboratories:	11	No. of outlier values:	0



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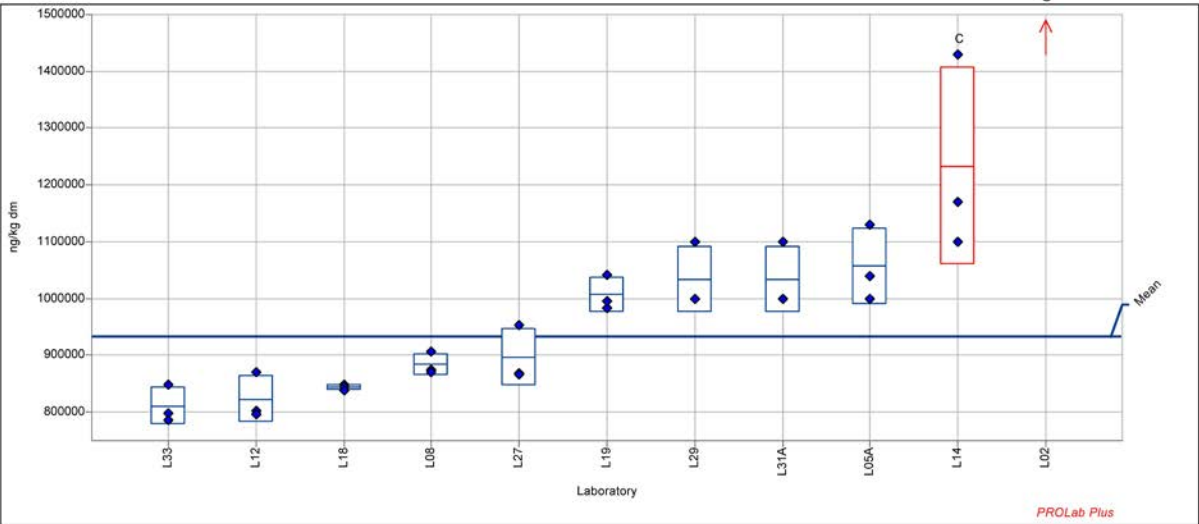
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Summary results - DIOXINS



Sample: Sewage sludge
Measurand: PCB 118
Mean: 932120 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 9

Reproducibility s.d.: 106089 ng/kg dm
Rel. reproducibility s.d.: 11.38%
Repeatability s.d.: 44447 ng/kg dm
Rel. repeatability s.d.: 4.77%
No. of outlier values: 6



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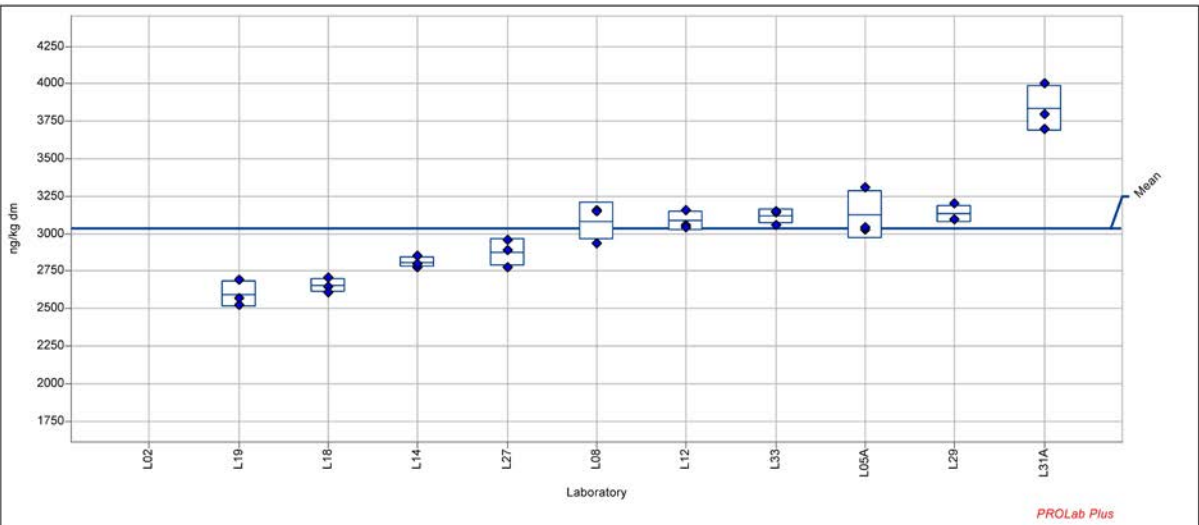
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Summary results - DIOXINS



Sample: Sewage sludge
Measurand: PCB 126
Mean: 3032 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 10

Reproducibility s.d.: 355 ng/kg dm
Rel. reproducibility s.d.: 11.72%
Repeatability s.d.: 97 ng/kg dm
Rel. repeatability s.d.: 3.19%
No. of outlier values: 0



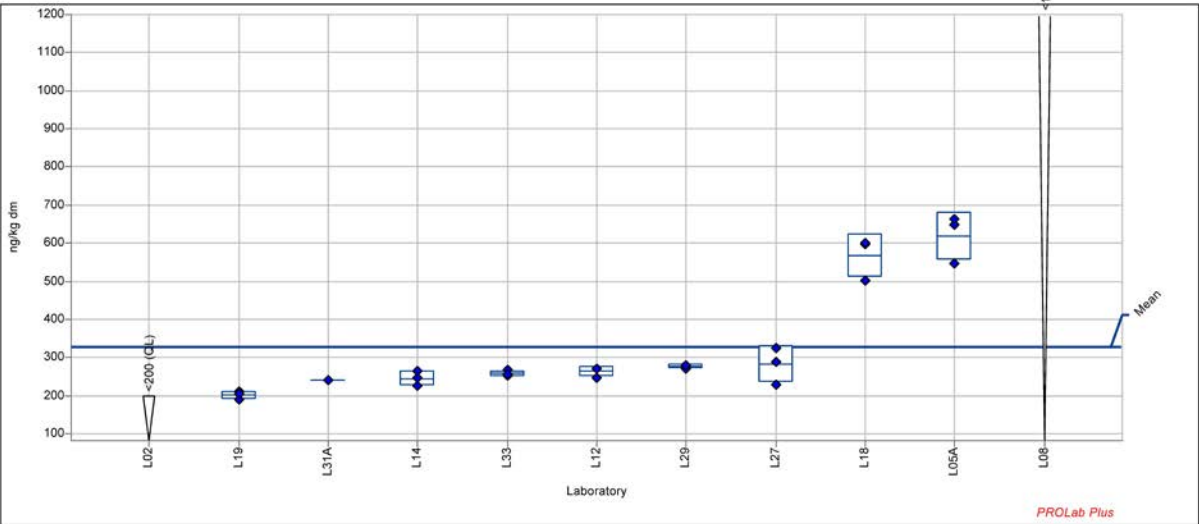
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	154.9 ng/kg dm
Measurand:	PCB 169	Rel. reproducibility s.d.:	47.24%
Mean:	328.0 ng/kg dm	Repeatability s.d.:	33.8 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	10.29%
No. of laboratories:	9	No. of outlier values:	0



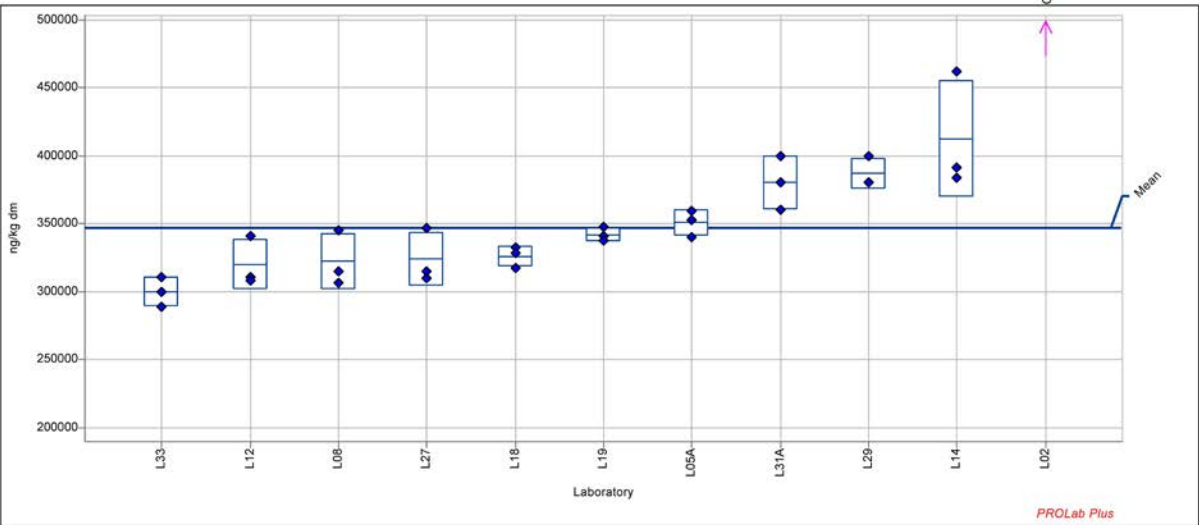
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	39177 ng/kg dm
Measurand:	PCB 105	Rel. reproducibility s.d.:	11.31%
Mean:	346326 ng/kg dm	Repeatability s.d.:	19589 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.66%
No. of laboratories:	10	No. of outlier values:	3



HORIZONTAL 2013

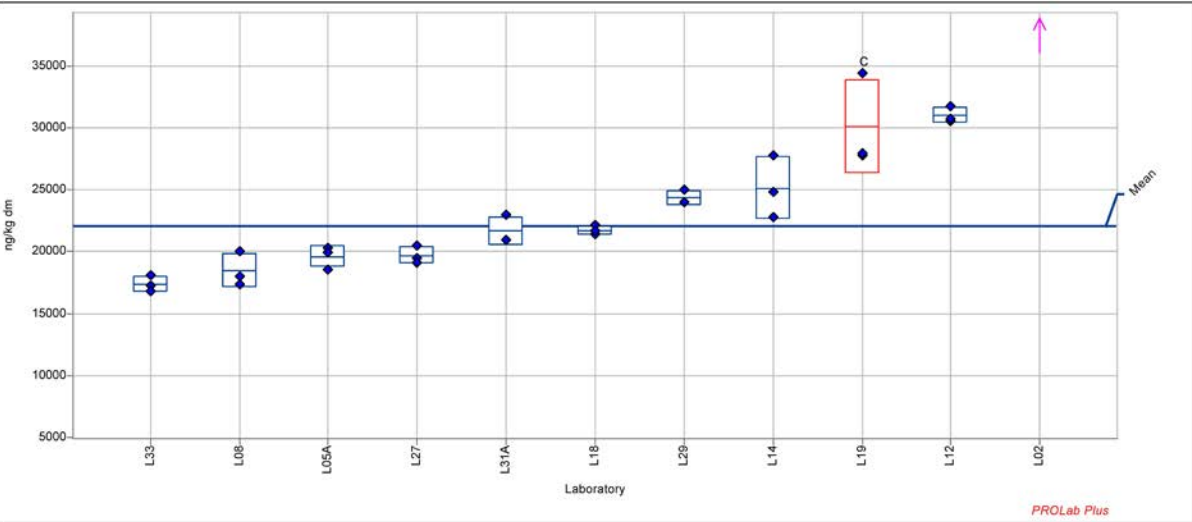
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Summary results - DIOXINS



Sample: Sewage sludge
Measurand: PCB 114
Mean: 22110 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 9

Reproducibility s.d.: 4296 ng/kg dm
Rel. reproducibility s.d.: 19.43%
Repeatability s.d.: 1162 ng/kg dm
Rel. repeatability s.d.: 5.25%
No. of outlier values: 6



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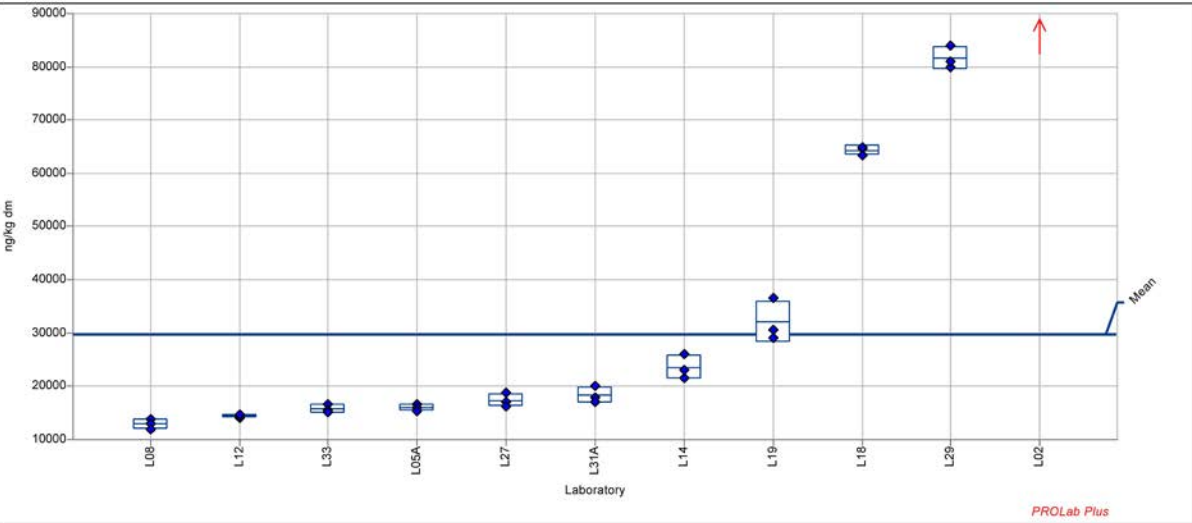
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Summary results - DIOXINS



Sample: Sewage sludge
Measurand: PCB 123
Mean: 29656 ng/kg dm
Method: ISO 5725-2
No. of laboratories: 10

Reproducibility s.d.: 23902 ng/kg dm
Rel. reproducibility s.d.: 80.60%
Repeatability s.d.: 1780 ng/kg dm
Rel. repeatability s.d.: 6.00%
No. of outlier values: 3



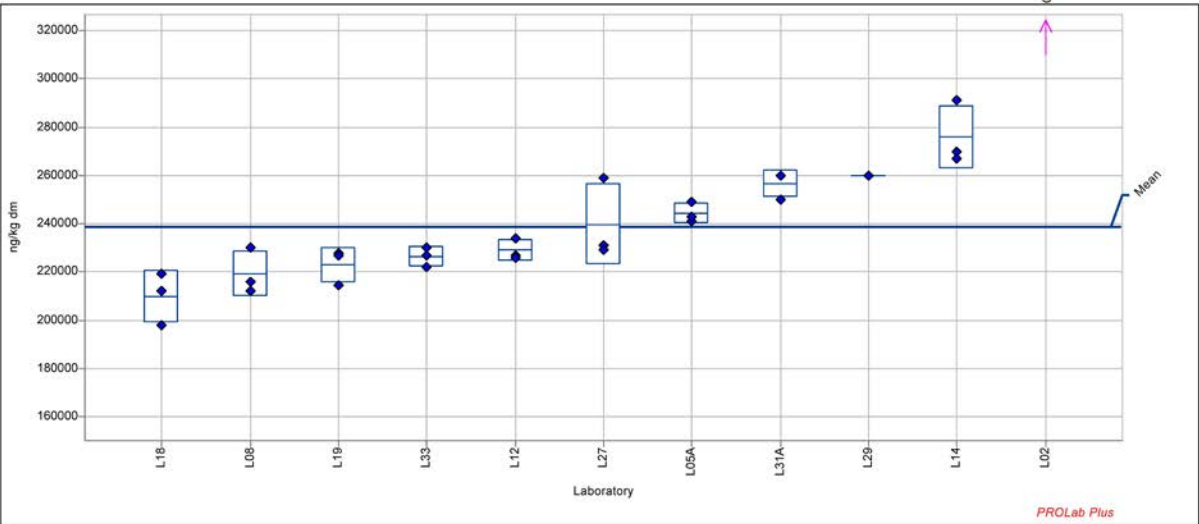
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	22083 ng/kg dm
Measurand:	PCB 156	Rel. reproducibility s.d.:	9.26%
Mean:	238398 ng/kg dm	Repeatability s.d.:	8947 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.75%
No. of laboratories:	10	No. of outlier values:	3



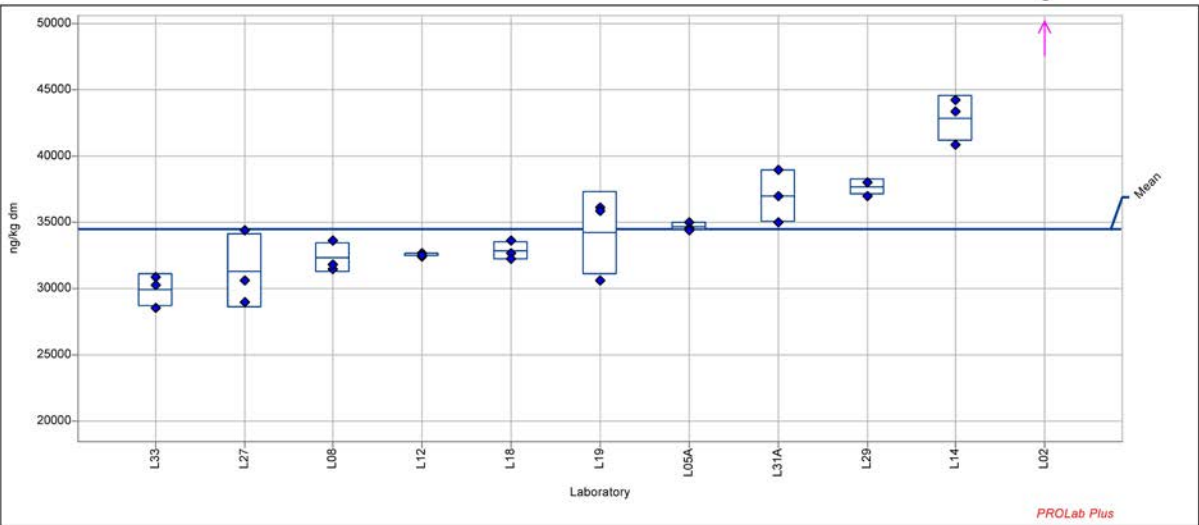
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	4020 ng/kg dm
Measurand:	PCB 157	Rel. reproducibility s.d.:	11.64%
Mean:	34526 ng/kg dm	Repeatability s.d.:	1682 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.87%
No. of laboratories:	10	No. of outlier values:	3



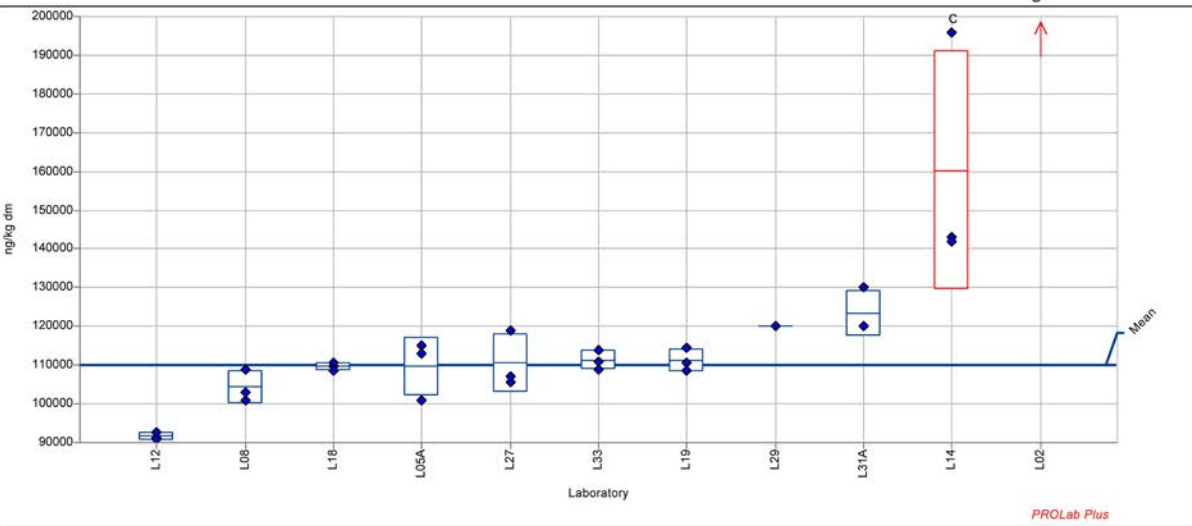
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	9732 ng/kg dm
Measurand:	PCB 167	Rel. reproducibility s.d.:	8.83%
Mean:	110185 ng/kg dm	Repeatability s.d.:	4480 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	4.07%
No. of laboratories:	9	No. of outlier values:	6



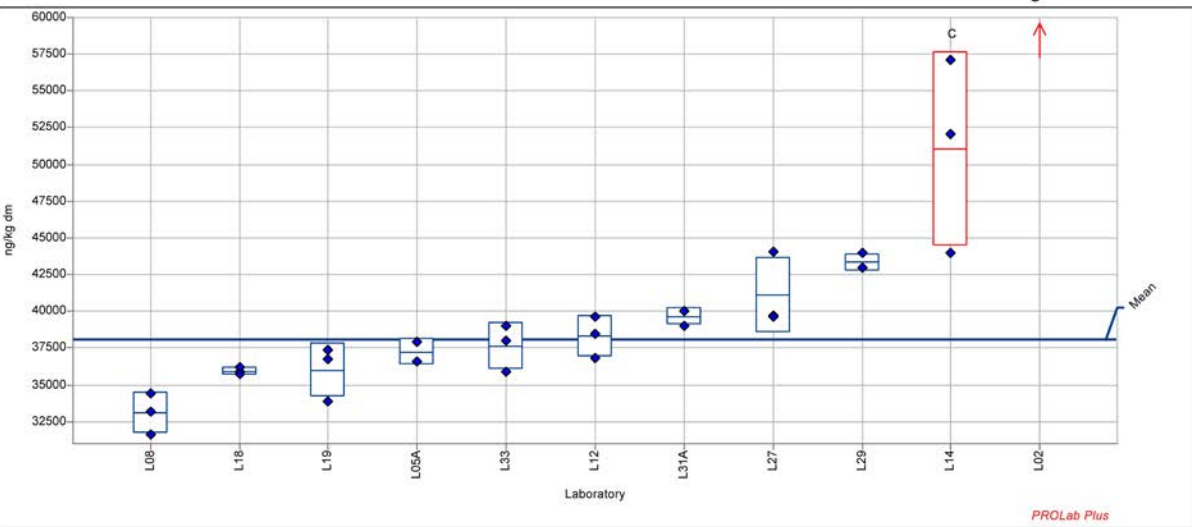
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	3314 ng/kg dm
Measurand:	PCB 189	Rel. reproducibility s.d.:	8.71%
Mean:	38062 ng/kg dm	Repeatability s.d.:	1433 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.76%
No. of laboratories:	9	No. of outlier values:	6



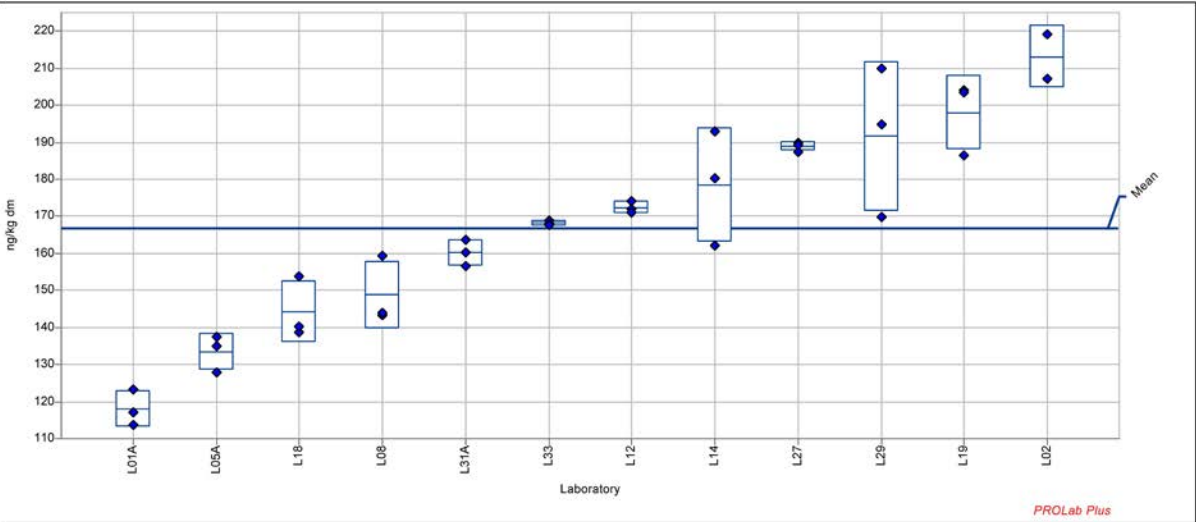
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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	28.452 ng/kg dm
Measurand:	NATO/CCMS-TEQ	Rel. reproducibility s.d.:	17.08%
Mean:	166.625 ng/kg dm	Repeatability s.d.:	9.339 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	5.60%
No. of laboratories:	12	No. of outlier values:	0



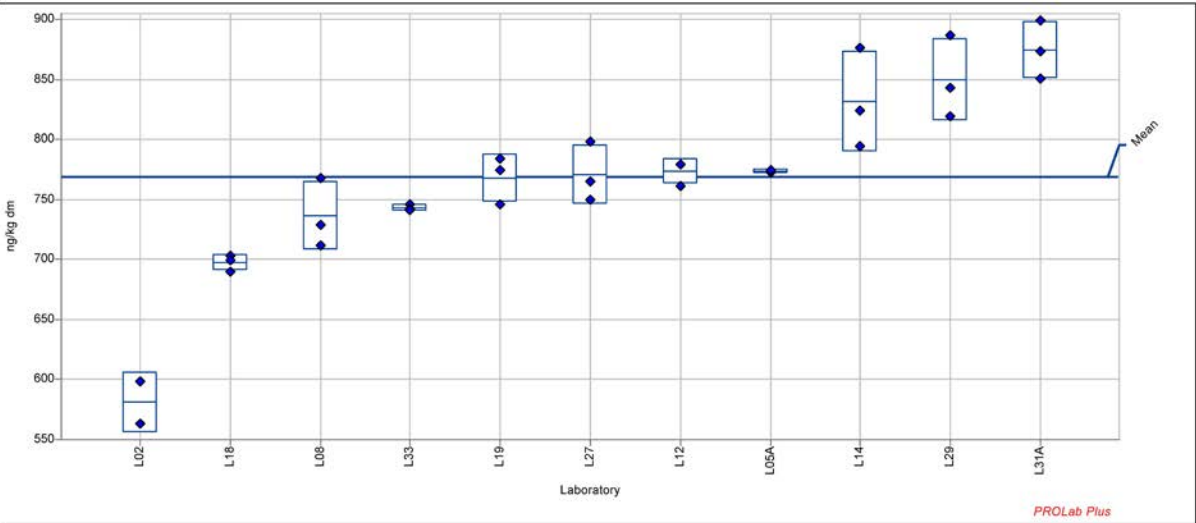
HORIZONTAL 2013

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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	76.932 ng/kg dm
Measurand:	WHO-TEQ 1998	Rel. reproducibility s.d.:	10.00%
Mean:	769.226 ng/kg dm	Repeatability s.d.:	24.018 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.12%
No. of laboratories:	11	No. of outlier values:	0



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Summary results - DIOXINS



Sample:	Sewage sludge	Reproducibility s.d.:	39.111 ng/kg dm
Measurand:	WHO-TEQ 2005	Rel. reproducibility s.d.:	7.34%
Mean:	532.812 ng/kg dm	Repeatability s.d.:	16.585 ng/kg dm
Method:	ISO 5725-2	Rel. repeatability s.d.:	3.11%
No. of laboratories:	10	No. of outlier values:	2

