Results of Proficiency Test
Metals in dried Paint
April 2016

Organised by: Institute for Interlaboratory Studies
Spijkenisse, the Netherlands

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1 INTRODUCTION

Since the USA Consumer Product Safety Improvement Act (CPSIA) did pass in 2008, iis did receive a number of requests to start a PT scheme for the determination of lead in paint. Among other things, the CPSIA bans lead and phthalates in toys.
This USA legislation reduces the amount of total lead content in the substrates of children's products to 600 ppm by 10 February 2009, to 300 ppm by 14 August 2009 and to 100 ppm by 14 August 2011 and the total lead content in surface coatings or paint to 90 mg/kg by 14 August 2009.

Since 2008 the Institute for Interlaboratory Studies (iis) organizes every year a proficiency test on total Lead in dried Paint. In the 2016 PT, it was decided to extend the scope with other metals on request of a number of participants.
In this interlaboratory study, 158 laboratories in 33 different countries registered for participation. See appendix 2 for the number of participants per country. In this report, the results of the 2016 proficiency test are presented and discussed. This report is also electronically available through the iis internet site www.iisnl.com.

2 SET UP

The Institute for Interlaboratory Studies in Spijkenisse was the organiser of this proficiency test. In this proficiency test, it was decided to use two different dried paint samples (labelled #16550 and #16551). Sample #16550 was spiked with Antimony, Cadmium, Chromium and Lead. Sample #16551 was spiked with Cadmium, Cobalt, Mercury and Nickel. Sample analyses for fit-for-use and homogeneity testing were subcontracted to an accredited laboratory.
The participants were asked to report the rounded and unrounded test results. The unrounded test results were preferably used for statistical evaluation.

2.1 ACCREDITATION

The Institute for Interlaboratory Studies in Spijkenisse, the Netherlands, is accredited in agreement with ISO/IEC 17043:2010 (R007), since January 2000, by the Dutch Accreditation Council (Raad voor Accreditatie). This PT falls under the accreditation scope. This ensures strict adherence to protocols for sample preparation and statistical evaluation and 100% confidentiality of participant's data. Feedback from the participants on the reported data is encouraged and customer's satisfaction is measured on regular basis by sending out questionnaires**.**

2.2 PROTOCOL

The protocol followed in the organisation of this proficiency test was the one as described for proficiency testing in the report 'iis Interlaboratory Studies: Protocol for the Organisation, Statistics and Evaluation' of April 2014 (iis-protocol, version 3.3). This protocol can be downloaded via the FAQ page of the iis internet site www.iisnl.com.

2.3 CONFIDENTIALITY STATEMENT

All data presented in this report must be regarded as confidential and for use by the participating companies only. Disclosure of the information in this report is only allowed by means of the entire report. Use of the contents of this report for third parties is only allowed by written permission of the Institute for Interlaboratory Studies. Disclosure of the identity of one or more of the participating companies will be done only after receipt of a written agreement of the companies involved**.**

2.4 SAMPLES

Two different dried paint samples were used in this proficiency test. Both samples #16550 and #16551 were made from water based paint. Sample #16550 was spiked with antimony, cadmium, chromium and lead and sample #16551 with cadmium, cobalt, mercury and nickel to create samples that were positive for these metals.

After thorough mixing, both paint samples were applied to plastic sheets. After drying, the paint was scraped off the sheets. The dried paint was milled until the particles passed through a 0.5 mm sieve. The two dried and sieved paint samples, labelled #16550 and #16551 were each divided over 175 subsamples of 0.5 gram each.

Homogeneity on samples #16550 was performed by the determination of total cadmium and total lead on 6 randomly selected samples each. The analytical testing was performed by a subcontracted laboratory. See the following tables for the homogeneity test results.

	Total Cadmium in mg/kg	Total Lead in mg/kg
Sample #16550-1	291	411
Sample #16550-2	276	391
Sample #16550-3	288	406
Sample #16550-4	277	394
Sample #16550-5	282	402
Sample #16550-6	280	396

table 1: homogeneity test results of subsamples #16550

From the homogeneity test results of table 1, the repeatabilities were calculated and compared with 0.3 times the corresponding target reproducibility in agreement with the procedure of ISO 13528, Annex B2 in the next table:

	Total Cadmium in mg/kg	Total Lead in mg/kg
r (observed)	16.9	21.5
reference method	Horwitz	Horwitz
0.3 * R (ref. method)	16.2	21.8

table 2: evaluation of repeatabilities of subsamples #16550

Homogeneity on samples #16551 was performed by the determination of total cadmium and nickel on 7 randomly selected samples each. The analytical testing was performed by a subcontracted laboratory. See the following tables for the homogeneity test results.

	Total Cadmium in mg/kg	Total Nickel in mg/kg
Sample #16551-1	77.6	1544.0
Sample #16551-2	77.6	1553.5
Sample #16551-3	77.2	1541.0
Sample #16551-4	77.3	1558.5
Sample #16551-5	80.6	1590.0
Sample #16551-6	74.3	1541.5
Sample #16551-7	76.1	1557.5

table 3: homogeneity test results of subsamples #16551

From the homogeneity test results of table 3, the repeatabilities were calculated and compared with 0.3 times the corresponding target reproducibility in agreement with the procedure of ISO 13528, Annex B2 in the next table:

	Total Cadmium in mg/kg	Total Nickel in mg/kg
r (observed)	5.3	47.7
reference method	Horwitz	Horwitz
0.3 * R (ref. method)	5.4	69.1

table 4: evaluation of repeatabilities of subsamples #16551

The calculated repeatabilities for samples #16550 and #16551 are both in agreement with 0.3 times the estimated target reproducibilities, calculated using the Horwitz equation. Therefore, homogeneity of the subsamples #16550 and #16551 was assumed.

Approx. 0.5 grams of each of the samples #16550 and #16551 were sent to the participating laboratories on April 6, 2016.

2.5 ANALYSES

The participants were asked, applying the analysis procedure that is routinely used in the laboratory, to determine on both samples #16550 and #16551 the concentration of total Antimony, total Cadmium, total Chromium, total Cobalt, total Copper, total Lead, total Mercury, total Nickel and total Selenium.

To get comparable results, a detailed report form, on which the units were prescribed as well as the reference test methods and a letter of instructions were prepared and made available on the data entry portal www.kpmd.co.uk/sgs-iis-cts/. A form to confirm receipt of the samples and a letter of instructions were added to the sample package.

3 RESULTS

During five weeks after sample despatch, the results of the individual laboratories were gathered via the data entry portal www.kpmd.co.uk/sgs-iis-cts/. The reported test results are tabulated in appendix 1 of this report. The laboratories are presented by their code numbers.

Directly after the deadline, a reminder was sent to those laboratories that had not reported test results at that moment. Shortly after the deadline, the available test results were screened for suspect data. A test result was called suspect in case the Huber Elimination Rule (a robust outlier test) found it to be an outlier. The laboratories that produced these suspect data were asked to check the reported test results. Additional or corrected test results are used for data analysis and original test results are placed under 'Remarks' in the result tables in appendix 1. Test results that came in after the deadline were not taken into account in this screening for suspect data and thus these participants were not requested for checks.
A list of abbreviations used in the tables can be found in appendix 5.

3.1 STATISTICS

The protocol followed in the organisation of this proficiency test was the one as described in the report 'iis Interlaboratory Studies: Protocol for the Organization, Statistics and Evaluation' of April 2014 (iis-protocol, version 3.3).

For the statistical evaluation the *unrounded* (when available) figures were used instead of the rounded test results. Test results reported as '<…' or '>…" were in general not used in the statistical evaluation.

First, the normality of the distribution of the various data sets per determination was checked by means of the Lilliefors-test a variant of the Kolmogorov-Smirnov test and by the calculation of skewness and kurtosis. Evaluation of the three normality indicators in combination with the visual evaluation of the graphic Kernel density plot, lead to judgement of the normality being either 'unknown', 'OK', 'suspect' or 'not OK'. After removal of outliers, this check was repeated. Not all data sets proved to have a normal distribution, in which cases the statistical evaluation of the results should be used with due care.

According to ISO 5725 the original test results per determination were submitted to Dixon's and/or Grubbs' and/or Rosner's outlier tests. Outliers are marked by D(0.01) for the Dixon's test, by G(0.01) or DG(0.01) for the Grubbs' test and by R(0.01) for the Rosner's test. Stragglers are marked by D(0.05) for the Dixon's test, by G(0.05) or DG(0.05) for the Grubbs' test and by R(0.05) for the Rosner's test. Both outliers and stragglers were not included in the calculations of the averages and the standard deviations.

For each assigned value, the uncertainty was determined in accordance with ISO13528. Subsequently the calculated uncertainty was evaluated against the respective requirement based on the target reproducibility in accordance with ISO13528. When the uncertainty passed the evaluation, no remarks are made in the report. However, when the uncertainty failed the evaluation it is mentioned in the report and it will have consequences for the evaluation of the test results.

Finally, the reproducibilities were calculated from the standard deviations by multiplying them with a factor of 2.8.

3.2 GRAPHICS

In order to visualise the data against the reproducibilities from literature, Gauss plots were made, using the sorted data for one determination (see appendix 1). On the Y-axis the reported analysis results are plotted. The corresponding laboratory numbers are on the X-axis. The straight horizontal line presents the consensus value (a trimmed mean). The four striped lines, parallel to the consensus value line, are the +3s, +2s, -2s and -3s target reproducibility limits of the selected standard. Outliers and other data, which were excluded from the calculations, are represented as a cross. Accepted data are represented as a triangle. Furthermore, Kernel Density Graphs were made. The Kernel Density Graph is a method for producing a smooth density approximation to a set of data that avoids some problems associated with histograms. Also a normal Gauss curve was projected over the Kernel Density Graph for reference.

3.3 Z-SCORES

To evaluate the performance of the individual participating laboratories the z-scores were calculated. In order to be able to have an objective evaluation of the performance of the individual participants, it was decided to evaluate this performance against the literature requirements. Therefore, the z-scores were calculated using a target standard deviation. This results in an evaluation independent of the spread of this interlaboratory study.

The target standard deviation was calculated from the literature reproducibility by division with 2.8. In case no literature reproducibility was available, other target values were used. In some cases, a reproducibility based on former iis tests could be used.
When a laboratory did use a test method with a reproducibility that is significantly different from the reproducibility of the reference test method used in this report, it is strongly advised to recalculate the z-score, while using the reproducibility of the actual test method used, this in order to evaluate whether the reported test results is fit-for-use.

The $z_{(target)}$-scores were calculated according to:

$z_{(target)}$ = (test result - average of proficiency test) / target standard deviation

The $z_{(target)}$ scores are listed in the result tables in appendix 1.

Absolute values for z<2 are very common and absolute values for z>3 are very rare. The usual interpretation of z-scores is as follows:

|z| < 1 good
1 < |z| < 2 satisfactory
2 < |z| < 3 questionable
3 < |z| unsatisfactory

4 EVALUATION

During the execution of this proficiency test some reporting problems occurred. Of the 158 participants, six participants reported test results after the final reporting date and another six participants reported no test results at all. Finally, the 152 reporting laboratories did report in total 1133 numerical test results. Observed were 33 statistically outlying test results, which is 2.9% of the numerical test results. In proficiency studies, outlier percentages of 3% - 7.5% are quite normal.

Not all original data sets proved to have a normal Gaussian distribution. These are referred to as “not OK” or “suspect”. The statistical evaluation of these data sets should be used with due care, see also paragraph 3.1.

Due to the lack of precision data in the relevant test methods for the determination of metals in paint, the z-scores and the calculated reproducibilities were compared with an estimated reproducibility calculated using the Horwitz equation.

4.1 EVALUATION PER SAMPLE

In this section, the results are discussed per sample. All statistical test results reported on the paint samples are summarised in appendix 1.

Sample #16550

Total Antimony: This sample was spiked with antimony up to a level of 700-750 mg/kg by iis. Looking at the reported test results with the Kernel Density Graph (see page 13), a bimodal distribution can be seen. Twenty-six percent of the participants obviously were not able to determine the antimony in this positive sample. Therefore, the test results of 23 laboratories were excluded.
The total antimony determination on this sample, at a concentration level of 707 mg/kg, may be very problematic. No statistical outliers were observed. In total twenty-three test results were excluded and twelve possibly false negative test results were reported. The calculated reproducibility after rejection of the suspect data is not at all in agreement with the estimated reproducibility calculated using the Horwitz equation.

Total Cadmium: The total cadmium determination on this sample, at a concentration level of 284 mg/kg, may not be problematic. Eight statistical outliers were observed. However, the calculated reproducibility after rejection of the statistical outliers is in agreement with the estimated reproducibility calculated using the Horwitz equation.

Total Chromium: The total chromium determination on this sample, at a concentration level of 886 mg/kg, may be problematic. Four statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is not in agreement with the estimated reproducibility calculated using the Horwitz equation.

Total Lead: The total lead determination on this sample, at a concentration level of 406 mg/kg may be problematic. Four statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is not in agreement with the estimated reproducibility calculated using the Horwitz equation.

Other metals: The majority of participants agreed on a total mercury content of <20 mg/kg and a total cobalt and selenium content of <25 mg/kg and a total copper and nickel content of <50 mg/kg.

Sample #16551

Total Cadmium: The total cadmium determination on this sample, at a concentration level of 73 mg/kg, may not be problematic. Four statistical outliers were observed. However, the calculated reproducibility after rejection of the statistical outliers is in full agreement with the estimated reproducibility calculated using the Horwitz equation.

Total Cobalt: The total cobalt determination on this sample, at a concentration level of 457 mg/kg, may be very problematic. Three statistical outliers were observed and three possibly false negative test results were reported. The calculated reproducibility after rejection of the suspect data is not at all in agreement with the estimated reproducibility calculated using the Horwitz equation.

Total Mercury: The total mercury determination on this sample, at a concentration level of 113 mg/kg, may be very problematic. Four statistical outliers were observed and one possibly false negative test result was reported. The calculated reproducibility after rejection of the suspect data is not at all in agreement with the estimated reproducibility calculated using the Horwitz equation.

Total Nickel: The total nickel determination on this sample, at a concentration level of 1524 mg/kg may not be problematic. Six statistical outliers were observed and two possibly false negative test results were reported. However, the calculated reproducibility after rejection of the statistical outliers is in good agreement with the estimated reproducibility calculated using the Horwitz equation.

Other metals: The majority of participants agreed on a total chromium and lead content of <20 mg/ kg, a total antimony and selenium content of <25 mg/kg and a total copper content of <50 mg/kg.

4.2 PERFORMANCE EVALUATION FOR THE GROUP OF LABORATORIES

A comparison has been made between the target reproducibilities calculated from the Horwitz equation and the reproducibilities as found for the group of participating laboratories. The number of significant results, the average results, the calculated reproducibilities (standard deviation times 2.8) and the target reproducibilities are compared in the next tables.

Parameter	*unit*	*n*	*average*	*2.8 * sd*	*R (target)*
Total Antimony	mg/kg	66	706.9	289.4	118.0
Total Cadmium	mg/kg	128	284.2	58.0	54.4
Total Chromium	mg/kg	121	885.7	221.5	142.9
Total Lead	mg/kg	147	405.6	108.3	73.6

table 5: reproducibilities of tests on antimony, cadmium, chromium and lead in dried paint sample #16550

Parameter	*unit*	*n*	*average*	*2.8 * sd*	*R (target)*
Total Cadmium	mg/kg	131	72.9	17.1	17.1
Total Cobalt	mg/kg	99	457.0	384.2	81.4
Total Mercury	mg/kg	117	112.8	57.2	24.8
Total Nickel	mg/kg	94	1524.0	202.4	226.6

table 6: reproducibilities of tests on cadmium, cobalt, mercury and nickel in dried paint sample #16551

From the above table it can be concluded, without statistical calculations, that the participating laboratories have no difficulties with the analysis of total cadmium and nickel in dried paint but that the analysis of total antimony, cobalt, chromium, lead and mercury is more difficult for the laboratories when compared with the strict target results calculated with the Horwitz equation. See also the discussions in paragraphs 4.1 and 5.

4.3 EVALUATION OF THE PROFICIENCY TEST OF APRIL 2016 WITH PREVIOUS PTS

	April 2016	*April 2015*	*April 2014*	*April 2013*	*Febr. 2012*
Number of reporting labs	152	156	132	139	110
Number of results reported	1133	558	264	276	215
Number of statistical outliers	33	16	10	6	9
Percentage outliers	2.9%	2.9%	3.8%	2.2%	4.2%

table 7: comparison with previous proficiency tests

In proficiency tests, outlier percentages of 3% - 7.5% are quite normal.

The performance of the determinations of the proficiency tests was compared against the calculated requirements of Horwitz. The conclusions are given in the following table by means of the uncertainties found in the PTs.

Parameter	*April 2016*	*April 2015*	*April 2014*	*April 2013*	*February 2012*	*February 2011*	*February 2010*	*February 2009*
Total Antimony	15%	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Total Cadmium	7-8%	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Total Chromium	9%	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Total Cobalt	30%	7%	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Total Lead	10%	9%	6 - 8%	10%	10%	8-9%	7-8%	7-8%
Total Mercury	18%	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.
Total Nickel	5%	13%	n.e.	n.e.	n.e.	n.e.	n.e.	n.e.

table 8: comparison of the uncertainties (in %) in the previous and present PTs

5 DISCUSSION

It was the first time that the total contents of the metals antimony, cadmium, chromium and mercury were determined in dried paint in an iis PT. No significant problems were encountered with total cadmium and chromium. The determination of antimony and mercury were more problematic. It was remarkable that antimony was not detected by twelve laboratories and that twenty-three laboratories did not find the amount of antimony, with which the sample was spiked. It is to be expected that the performance will improve in future PTs due to the corrective actions taken by a number of participating laboratories.

This is the second year that cobalt and nickel were determined. For the determination of nickel a much smaller uncertainty is observed, which is in line with the corrective actions taken from the last PT by a number of participating laboratories. However, the uncertainty for cobalt is much higher than it was in the last PT, even though the amount of cobalt in sample #16551 is similar to last year's PT. The reason for this is unknown, but the possible variation in the digestion methods could be an influence on this.

Therefore, it can be concluded that the participants appeared to have less difficulty determining cadmium, chromium, lead and nickel than determining antimony, cobalt and mercury.

A large number of different test methods were used. The American CPSC-CH-E1003-09 method ("For determining Lead (Pb) in Paint and Other Similar Surface Coatings) was used by the majority of laboratories. Sometimes another version of CPSC were used. About 15-18% of the laboratory used an 'in house' method. Other methods, which were used (depending on the metal to be determined) were EPA 3052, EPA 3051, EN 16711, ASTM F963-11, IEC62321, ISO17072-2 and ISO8124-5. Surprisingly not all of these methods are designed to determine metals in dried paint. For example ISO17072-5 is a test method to determine metals in leather, EN16711 is for metals in textile and IEC62321 for metals in electro technical products. Furthermore, a large group of participants reported to have used an 'in house' method (which may also be based on methods that are not applicable to paint), this may be a reason that a large variation is found in the determination of metals in dried paint.
iis will request more details on the digestion of the dried paint in next year's PT.

Another development in modern paints is a tendency to have more organic material in the formulation for reasons of surface enhancement (matte), easy cleaning/scrubbing, better processing of the paint on the wall, etc. This might also complicate the determination of the metals, for it could be more difficult to digest the organic matrix completely.

APPENDIX 1

Determination of Total Antimony as Sb on sample #16550; results in mg/kg

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110	CPSC-CH-E1003-09	9.0109	ex	-16.56	2390	CPSC-CH-E1003-09	N.D	false neg?	-----
213	CPSC-CH-E1003-09	385.0	ex,C	-7.64	2401		767.1	C	1.43
310	In house	0.796	ex	-16.76	2410	EPA3052	757		1.19
330		-----		-----	2412	EPA3051	667.6		-0.93
339	In house	820.90		2.71	2413	In house	592	C	-2.73
348	In house	248.752	ex	-10.87	2415		-----		-----
362	In house	248	ex	-10.89	2425	EPA3051	746.98		0.95
452	In house	0.33	ex	-16.77	2426		-----		-----
551	IEC62321	564.13		-3.39	2429	CPSC-CH-E1003-09	667.34		-0.94
622	In house	46.2918	ex	-15.68	2431	CPSC-CH-E1003-09	28.11	ex	-16.11
623		-----	W	-----	2453		-----		-----
840		-----		-----	2459		-----		-----
1051		-----		-----	2460		-----		-----
1179	In house	325	ex	-9.06	2465	CPSC-CH-E1003-09	712.1	C	0.12
2115	EN16711-1	0.2	ex	-16.77	2471	In house	638.054		-1.63
2118	CPSC-CH-E1002-08	0	ex	-16.78	2480		-----		-----
2120		-----		-----	2489	EPA3051	750		1.02
2131	In house	2.8575	ex	-16.71	2492		-----		-----
2132	F963-11	ND	false neg?	-----	2495		-----	W	-----
2139	IEC62321	708	C	0.03	2497	CPSC-CH-E1003-09	0.98	ex,C	-16.76
2156	IEC62321	686.5	C	-0.48	2500		-----		-----
2159	EPA3052	Not Det.	false neg?	-----	2508		-----		-----
2165		-----		-----	2511		-----		-----
2170		-----		-----	2529		-----		-----
2172		-----		-----	2532	EPA3051	751		1.05
2184		-----		-----	2549	CPSC-CH-E1003-09	815.78		2.58
2201	EPA3052	734.9		0.66	2553	CPSC-CH-E1003-09	ND	false neg?	-----
2213	CPSC-CH-E1003-09	670		-0.88	2560	CPSC-CH-E1003-09	630.3		-1.82
2215	EPA3052	818.14		2.64	2563		-----		-----
2225	ISO8124-5	690.5		-0.39	2564		-----		-----
2226		-----		-----	2567		-----	W	-----
2232	CPSC-CH-E1003-09	844	C	3.25	2572	CPSC-CH-E1003-09	880	C	4.11
2234	CPSC-CH-E1003-09	683.2		-0.56	2589	CPSC-CH-E1003-09	648.9		-1.38
2236	F963-11	<20	false neg?	<-16.30	2590	CPSC-CH-E1003-09	228.7	ex,C	-11.35
2240	CPSC-CH-E1003-09	648.8	C	-1.38	2612	EPA3052	764.5		1.37
2243	EPA3052	505.384		-4.78	2615	EPA3052	451.40		-6.06
2245	In house	639.000		-1.61	2629	EPA3051	ND	false neg?	-----
2246	CPSC-CH-E1003-09	<10	false neg?	<-16.54	2645		-----		-----
2247	CPSC-CH-E1003-09	702.48		-0.10	2667	CPSC-CH-E1003-09	676.2		-0.73
2253	CPSC-CH-E1003-09	636.21		-1.68	2668	In house	740.6		0.80
2254	In house	462.761		-5.79	2669		-----		-----
2255	CPSC-CH-E1003-09	609.78		-2.30	2674		-----		-----
2256		-----		-----	2678		-----		-----
2258	CPSC-CH-E1003-09	NA	C	-----	2680	CPSC-CH-E1003-09	592.203		-2.72
2269		-----	W	-----	2684		-----		-----
2271	IEC62321	710.0		0.07	2690	EPA3052	653.350		-1.27
2278		-----		-----	2691		-----		-----
2279	CPSC-CH-E1003-09	664.72		-1.00	2692	In house	606.258		-2.39
2280	CPSC-CH-E1003-09	650.3		-1.34	2697	CPSC-CH-E1003-09	503		-4.84
2284	EPA3052	775	C	1.62	2698	EPA3052	643.059		-1.52
2286		-----		-----	2701	EPA3052	761.79		1.30
2287	EPA3052	12.9	ex	-16.47	2719	CPSC-CH-E1003-09	741.1	C	0.81
2290	CPSC-CH-E1003-09	860.7	C	3.65	2720	CPSC-CH-E1003-09	750.1		1.03
2293		-----		-----	2732	CPSC-CH-E1003-09	350.14	ex	-8.47
2294		-----		-----	2736	In house	64.900	ex	-15.24
2295		-----		-----	2739		-----		-----
2296		-----		-----	2741	CPSC-CH-E1003-09	12	ex,C	-16.49
2297	EPA3052	810.6		2.46	2745	CPSC-CH-E1003-09	ND	false neg?	-----
2301		-----		-----	3100	CPSC-CH-E1003-09	861.682		3.67
2303	In house	489.63	C	-5.16	3110		-----		-----
2309	EPA3052	750.24		1.03	3117	CPSC-CH-E1003-09	24.6	ex,C	-16.19
2310	EPA3052	738.2		0.74	3118		-----		-----
2311	CPSC-CH-E1003-09	801.1		2.24	3124	EPA3052	825.4		2.81
2314		-----		-----	3146	CPSC-CH-E1003-09	65.2	ex,C	-15.23
2320		-----		-----	3154	ISO17072-2	225.2	ex	-11.43
2358	CPSC-CH-E1003-09	704.5	C	-0.06	3160	CPSC-CH-E1003-09	2.15	ex,C	-16.73
2367		-----		-----	3172		-----		-----
2370	CPSC-CH-E1003-09	872.0		3.92	3176	In house	865.643		3.77
2372	IEC62321	815		2.57	3182	CPSC-CH-E1003-09	927	C	5.22
2375		-----		-----	3185	CPSC-CH-E1003-09	765.2		1.38
2379		-----		-----	3197	EPA3052	693.1		-0.33
2380		-----		-----	3200	CPSC-CH-E1002-08	653.23		-1.27
2384	CPSC-CH-E1003-09	78.27	ex,C	-14.92	3209	F963-11	609.1		-2.32
2385	CPSC-CH-E1003-09	<5	false neg?	<-16.66	3210		-----		-----
2389		-----		-----	3214	EPA3052	737.0		0.71

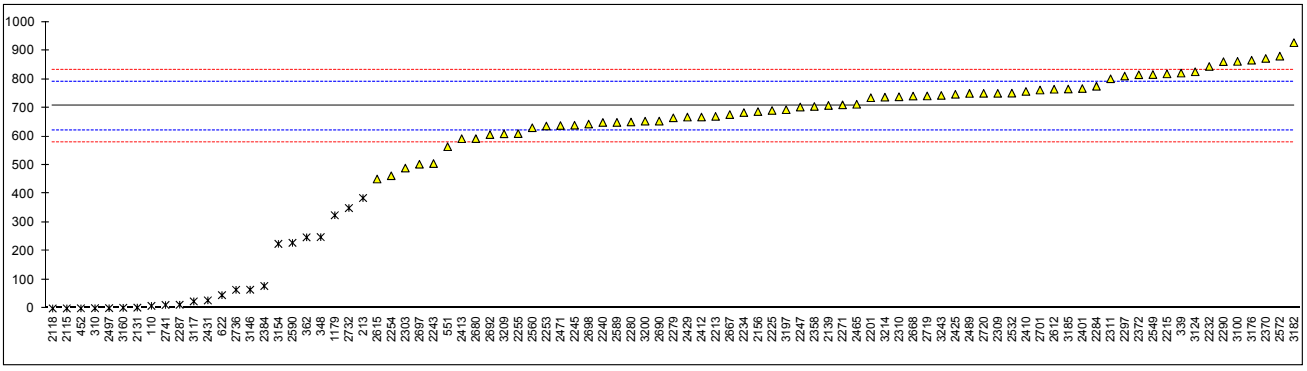
3220	EPA3052	not det.	false neg?	-----	3233	In house	<1	false neg?	<-16.75
3222		-----		-----	3237		-----		-----
3225		-----		-----	3243	CPSC-CH-E1003-09	743.0		0.86
3228		-----		-----	3248	CPSC-CH-E1003-09	<10	false neg?	<-16.54

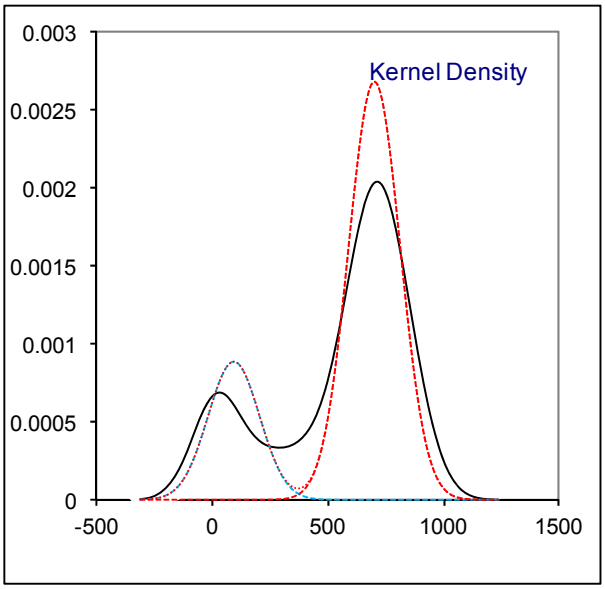
normality	OK
n	66
outliers	0 (+23ex)
mean (n)	706.890
st.dev. (n)	103.3740
R(calc.)	289.447
R(Horwitz)	117.967

Lab 213 first reported: 1540
Lab 623 first reported: n.d.
Lab 2139 first reported: 299
Lab 2156 first reported: 34.81
Lab 2232 first reported: n.d.
Lab 2240 first reported: 19.15
Lab 2258 first reported: <10
Lab 2269 first reported: <12.5
Lab 2284 first reported: n.d.
Lab 2290 first reported: <20
Lab 2303 first reported: <10
Lab 2358 first reported: <20
Lab 2384 first reported: 94.0032
Lab 2401 first reported 167.1
Lab 2413 first reported <10
Lab 2465 first reported: <25
Lab 2495 first reported: <5 (not tested)
Lab 2497 first reported: 11.21
Lab 2567 first reported: <20
Lab 2572 first reported: <20
Lab 2590 first reported: 2229.701
Lab 2719 first reported: <10
Lab 2741 first reported: <10
Lab 3117 first reported: 19.54
Lab 3146 first reported: n.d.
Lab 3160 first reported: n.d.
Lab 3182 first reported:1103.5

Lab 3233 found Sb=12.4354 mg/kg, but concluded to an interference (when interpreting the spectrum), resulting in <1 mg/kg

A bimodal distribution was found in this positive sample, therefore 26% of the lower test results (<400 mg/kg) were excluded (23 labs)





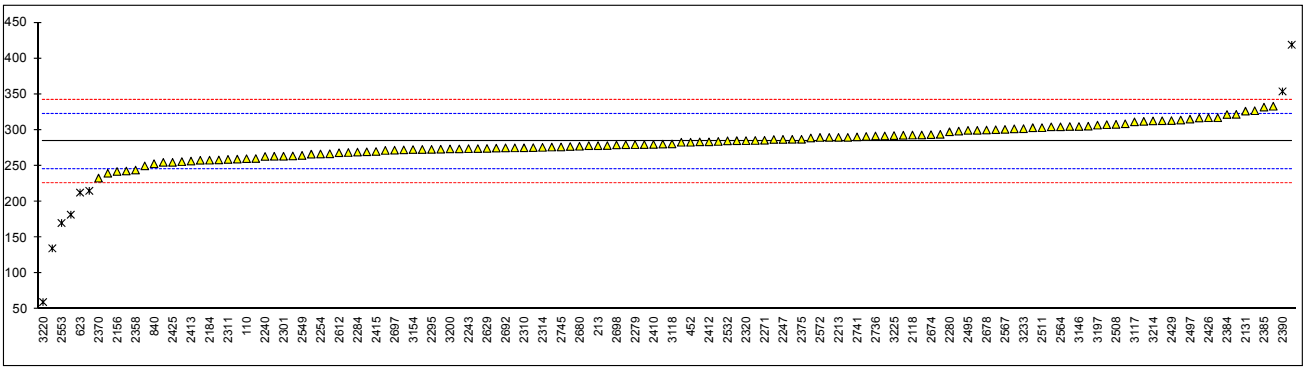
Determination of Total Cadmium as Cd on sample #16550; results in mg/kg

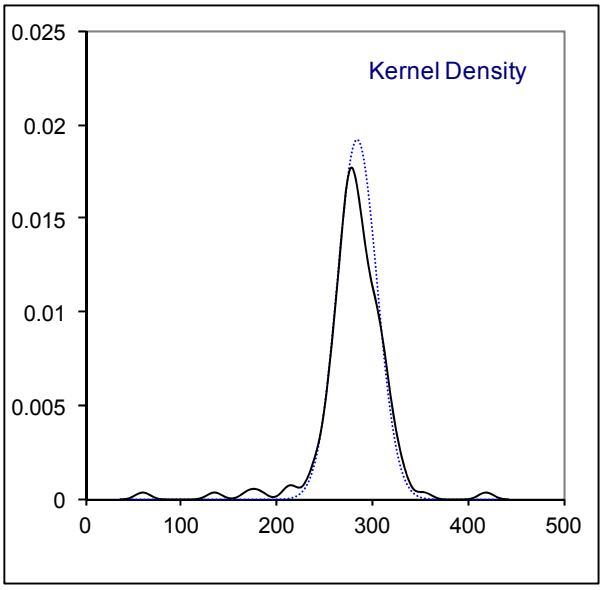
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110	CPSC-CH-E1003-09	260.0837		-1.24	2390	CPSC-CH-E1003-09	353.97	R(0.05)	3.59
213	CPSC-CH-E1003-09	278.3	C	-0.30	2401		258.3		-1.33
310	In house	419	R(0.01)	6.94	2410	IEC62321	280		-0.21
330	In house	327		2.21	2412	CPSC-CH-E1003-09	283.6		-0.03
339	In house	268.72		-0.79	2413	In house	256.80		-1.41
348	In house	292.802		0.45	2415	In house	270.1		-0.72
362	In house	135	R(0.01)	-7.68	2425	EPA3051	255.01		-1.50
452	In house	283.0		-0.06	2426	CPSC-CH-E1003-09	317.19		1.70
551	IEC62321	293.2		0.47	2429	CPSC-CH-E1003-09	313.23		1.50
622	In house	242.9279		-2.12	2431	CPSC-CH-E1003-09	300.51		0.84
623	In house	212.81	R(0.05)	-3.67	2453		-----		-----
840	CPSC-CH-E1003-09	253.1		-1.60	2459		-----		-----
1051		-----		-----	2460		-----		-----
1179	In house	314		1.54	2465	CPSC-CH-E1003-09	275.2		-0.46
2115	EN16711-1	305		1.07	2471	In house	279.803		-0.22
2118	CPSC-CH-E1002-08	293.0440		0.46	2480		-----		-----
2120		-----		-----	2489	EPA3051	333.28		2.53
2131	In house	326.417		2.18	2492	In house	303.3		0.99
2132	F963-11	289.80		0.29	2495	CPSC-CH-E1003-09	299.63		0.80
2139	IEC62321	283		-0.06	2497	CPSC-CH-E1003-09	315.32		1.60
2156	IEC62321	242.3	C	-2.15	2500		-----		-----
2159	EPA3052	301.7402		0.91	2508	CPSC-CH-E1003-09	308		1.23
2165	IEC62321	283.51		-0.03	2511	CPSC-CH-E1003-09	303.35		0.99
2170		-----		-----	2529	CPSC-CH-E1003-09	307.5794		1.21
2172	CPSC-CH-E1003-09	272.4		-0.61	2532	EPA3051	285		0.04
2184	CPSC-CH-E1003-09	257.99		-1.35	2549	CPSC-CH-E1003-09	264.67		-1.00
2201	EPA3052	298.6		0.74	2553	CPSC-CH-E1003-09	170.3	R(0.01)	-5.86
2213	CPSC-CH-E1003-09	289.8		0.29	2560	CPSC-CH-E1003-09	294.1		0.51
2215	EPA3052	280.37		-0.19	2563	IEC62321	312.2	C	1.44
2225	ISO8124-5	275.5		-0.45	2564	CPSC-CH-E1003-09	304.59		1.05
2226		-----		-----	2567	CPSC-CH-E1003-09	300.96		0.87
2232	CPSC-CH-E1003-09	255		-1.50	2572	CPSC-CH-E1003-09	289.7		0.29
2234	CPSC-CH-E1003-09	274.2		-0.51	2589	CPSC-CH-E1003-09	285.22		0.05
2236	F963-11	304.5		1.05	2590	CPSC-CH-E1003-09	266.902		-0.89
2240	CPSC-CH-E1003-09	263.2		-1.08	2612	EPA3052	268.4		-0.81
2243	EPA3052	274.077		-0.52	2615	EPA3052	278.29		-0.30
2245	In house	279.521		-0.24	2629	EPA3051	274.4		-0.50
2246	CPSC-CH-E1003-09	289.80		0.29	2645		-----		-----
2247	CPSC-CH-E1003-09	287		0.15	2667	CPSC-CH-E1003-09	276.3		-0.40
2253	CPSC-CH-E1003-09	263.52		-1.06	2668	In house	257.85		-1.35
2254	In house	266.667		-0.90	2669		-----		-----
2255	CPSC-CH-E1003-09	239.81		-2.28	2674	CPSC-CH-E1003-09	293.63		0.49
2256	EPA3051	260.33		-1.23	2678	CPSC-CH-E1003-09	300.13		0.82
2258	CPSC-CH-E1003-09	271.6111	C	-0.65	2680	CPSC-CH-E1003-09	277.436		-0.35
2269	CPSC-CH-E1003-09	272.926		-0.58	2684		-----		-----
2271	IEC62321	285.8		0.08	2690	EPA3052	278.367		-0.30
2278	EPA3052	269.6824		-0.74	2691		-----		-----
2279	CPSC-CH-E1003-09	279.66		-0.23	2692	In house	275.165		-0.46
2280	CPSC-CH-E1003-09	297.6		0.69	2697	CPSC-CH-E1003-09	272		-0.63
2284	EPA3052	269.31		-0.76	2698	IEC62321	279.358		-0.25
2286		-----		-----	2701	EPA3052	291.12		0.36
2287	EPA3052	274.8		-0.48	2719	CPSC-CH-E1003-09	277.1		-0.36
2290	CPSC-CH-E1003-09	286.9		0.14	2720	CPSC-CH-E1003-09	317.2		1.70
2293		-----		-----	2732	CPSC-CH-E1003-09	284.12		0.00
2294		-----		-----	2736	In house	291.787		0.39
2295	CPSC-CH-E1003-09	273		-0.57	2739		-----		-----
2296		-----		-----	2741	CPSC-CH-E1003-09	290.51		0.33
2297	EPA3052	287.1		0.15	2745	CPSC-CH-E1003-09	276.4881		-0.39
2301	In house	263.54		-1.06	3100	CPSC-CH-E1003-09	308.804		1.27
2303	In house	263.93		-1.04	3110		-----		-----
2309	EPA3052	291.86		0.40	3117	CPSC-CH-E1003-09	311.50		1.41
2310	EPA3052	275.3		-0.46	3118	CPSC-CH-E1003-09	280.7		-0.18
2311	CPSC-CH-E1003-09	259.1		-1.29	3124	EPA3052	305.4		1.09
2314	CPSC-CH-E1003-09	275.88		-0.43	3146	CPSC-CH-E1003-09	305		1.07
2320	EPA3051	285.243	C	0.06	3154	ISO17072-2	272.8		-0.58
2358	CPSC-CH-E1003-09	244.2		-2.06	3160	CPSC-CH-E1003-09	273.35		-0.56
2367		-----		-----	3172	In house	313		1.48
2370	CPSC-CH-E1003-09	233.0		-2.63	3176	In house	316.872		1.68
2372	IEC62321	289		0.25	3182	CPSC-CH-E1003-09	259.5		-1.27
2375	In house	287.11		0.15	3185	CPSC-CH-E1003-09	321.9		1.94
2379	EPA3052	181.9320	C,R(0.01)	-5.26	3197	EPA3052	306.9		1.17
2380	CPSC-CH-E1003-09	215.2420	R(0.05)	-3.55	3200	CPSC-CH-E1002-08	273.71		-0.54
2384	CPSC-CH-E1003-09	321.7772		1.94	3209	F963-11	285.5		0.07
2385	CPSC-CH-E1003-09	332		2.46	3210		-----		-----
2389	CPSC-CH-E1003-09	273.74		-0.54	3214	EPA3052	312.8		1.47

3220	EPA3052	60	C,R(0.01)	-11.54	3233	In house	301.9681	0.92
3222		-----		-----	3237	CPSC-CH-E1003-09	299.63	0.80
3225	CPSC-CH-E1003-09	292.33		0.42	3243	CPSC-CH-E1003-09	266.429	-0.91
3228	IEC62321	256.0		-1.45	3248	CPSC-CH-E1003-09	250	-1.76

normality	OK
n	128
outliers	8
mean (n)	284.153
st.dev. (n)	20.7233
R(calc.)	58.025
R(Horwitz)	54.392

Lab 213 first reported: 1113.1
Lab 2156 first reported: 263.9
Lab 2258 first reported: 188.4008
Lab 2320 first reported: 418.032
Lab 2379 first reported: 182
Lab 2563 first reported: 365.3
Lab 3220 first reported: 119





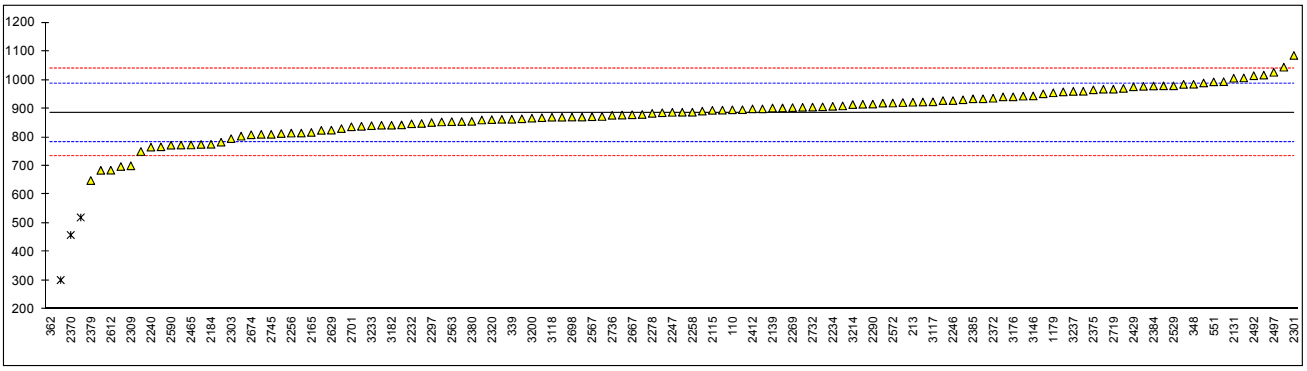
Determination of Total Chromium as Cr on sample #16550; results in mg/kg

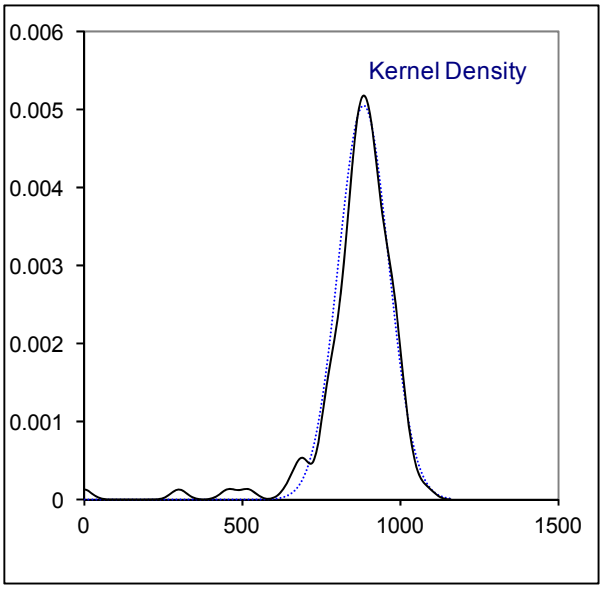
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110	CPSC-CH-E1003-09	895.7446		0.20	2390	CPSC-CH-E1003-09	894.6	C	0.17
213	CPSC-CH-E1003-09	922.1	C	0.71	2401		853.5		-0.63
310	In house	1016.65		2.57	2410	EPA3052	919		0.65
330		-----		-----	2412	CPSC-CH-E1003-09	899		0.26
339	In house	862.81		-0.45	2413	In house	823.99		-1.21
348	In house	984.785		1.94	2415	IEC62321	1007		2.38
362	In house	2.41	R(0.01)	-17.31	2425	EPA3051	921.03		0.69
452	In house	843.0		-0.84	2426		-----		-----
551	IEC62321	993.15		2.11	2429	CPSC-CH-E1003-09	975.77		1.77
622	In house	782.7928		-2.02	2431	CPSC-CH-E1003-09	943.38		1.13
623		-----	W	-----	2453		-----		-----
840	EPA3052	864.3		-0.42	2459		-----		-----
1051		-----		-----	2460		-----		-----
1179	In house	955		1.36	2465	CPSC-CH-E1003-09	773.0		-2.21
2115	EN16711-1	894		0.16	2471	In house	814.543		-1.39
2118	CPSC-CH-E1002-08	979.2437		1.83	2480		-----		-----
2120		-----		-----	2489	EPA3051	1044.38		3.11
2131	In house	1005.78		2.35	2492	In house	1014.7		2.53
2132	F963-11	927.89		0.83	2495	CPSC-CH-E1003-09	960.40		1.46
2139	IEC62321	902	C	0.32	2497	CPSC-CH-E1003-09	1026.52		2.76
2156	IEC62321	803.7	C	-1.61	2500		-----		-----
2159	EPA3052	967.4024		1.60	2508		-----		-----
2165	IEC62321	816.93		-1.35	2511		-----		-----
2170		-----		-----	2529	CPSC-CH-E1003-09	979.3		1.83
2172	CPSC-CH-E1003-09	848.1		-0.74	2532	EPA3051	915		0.57
2184	CPSC-CH-E1003-09	775.36		-2.16	2549	CPSC-CH-E1003-09	993.8		2.12
2201	EPA3052	909.3		0.46	2553	CPSC-CH-E1003-09	520.2	R(0.01)	-7.16
2213	CPSC-CH-E1003-09	813		-1.42	2560	CPSC-CH-E1003-09	906.1		0.40
2215	EPA3052	838.21		-0.93	2563	IEC62321	854.4		-0.61
2225	ISO8124-5	891.1		0.11	2564		-----		-----
2226		-----		-----	2567	CPSC-CH-E1003-09	871.75		-0.27
2232	CPSC-CH-E1003-09	847		-0.76	2572	CPSC-CH-E1003-09	919.3		0.66
2234	CPSC-CH-E1003-09	907.8		0.43	2589	CPSC-CH-E1003-09	869.86		-0.31
2236	F963-11	887.3		0.03	2590	CPSC-CH-E1003-09	772.304		-2.22
2240	CPSC-CH-E1003-09	765.5		-2.36	2612	EPA3052	685.1		-3.93
2243	EPA3052	872.488		-0.26	2615	EPA3052	902.35		0.33
2245	In house	809.986		-1.48	2629	EPA3051	824.8		-1.19
2246	CPSC-CH-E1003-09	927.89		0.83	2645		-----		-----
2247	CPSC-CH-E1003-09	886.98		0.02	2667	CPSC-CH-E1003-09	878.4		-0.14
2253	CPSC-CH-E1003-09	841.94		-0.86	2668	In house	970.36		1.66
2254	In house	684.582		-3.94	2669		-----		-----
2255	CPSC-CH-E1003-09	830.23		-1.09	2674	CPSC-CH-E1003-09	808.66		-1.51
2256	EPA3051	814.42		-1.40	2678		-----		-----
2258	CPSC-CH-E1003-09	887.3611	C	0.03	2680	CPSC-CH-E1003-09	895.997		0.20
2269	CPSC-CH-E1003-09	903.463		0.35	2684		-----		-----
2271	IEC62321	870.4		-0.30	2690	EPA3052	868.210		-0.34
2278	EPA3052	883.3886		-0.05	2691		-----		-----
2279	CPSC-CH-E1003-09	885.58		0.00	2692	In house	862.454		-0.46
2280	CPSC-CH-E1003-09	930.8		0.88	2697	CPSC-CH-E1003-09	899		0.26
2284	EPA3052	860.16		-0.50	2698	IEC62321	870.389		-0.30
2286		-----		-----	2701	EPA3052	836.57		-0.96
2287	EPA3052	854.8		-0.61	2719	CPSC-CH-E1003-09	967.7		1.61
2290	CPSC-CH-E1003-09	915.6		0.59	2720	CPSC-CH-E1003-09	989.4		2.03
2293		-----		-----	2732	CPSC-CH-E1003-09	905.21		0.38
2294		-----		-----	2736	In house	876.524		-0.18
2295		-----		-----	2739		-----		-----
2296		-----		-----	2741	CPSC-CH-E1003-09	940.88		1.08
2297	EPA3052	851.4		-0.67	2745	CPSC-CH-E1003-09	809.9950		-1.48
2301	In house	1085.42		3.91	3100	CPSC-CH-E1003-09	934.183		0.95
2303	In house	794.99		-1.78	3110		-----		-----
2309	EPA3052	700.41		-3.63	3117	CPSC-CH-E1003-09	923.42		0.74
2310	EPA3052	750.2		-2.66	3118	CPSC-CH-E1003-09	869.8		-0.31
2311	CPSC-CH-E1003-09	698.0		-3.68	3124	EPA3052	984.5		1.94
2314		-----		-----	3146	CPSC-CH-E1003-09	944		1.14
2320	EPA3051	861.5580		-0.47	3154	ISO17072-2	879.5		-0.12
2358	CPSC-CH-E1003-09	977.65		1.80	3160	CPSC-CH-E1003-09	904.40		0.37
2367		-----		-----	3172		-----		-----
2370	CPSC-CH-E1003-09	459.0	R(0.01)	-8.36	3176	In house	940.912		1.08
2372	IEC62321	936		0.99	3182	CPSC-CH-E1003-09	842.0		-0.86
2375	In house	965.22		1.56	3185	CPSC-CH-E1003-09	923.0		0.73
2379	EPA3052	649		-4.64	3197	EPA3052	958.3		1.42
2380	CPSC-CH-E1003-09	855.4334		-0.59	3200	CPSC-CH-E1002-08	866.46		-0.38
2384	CPSC-CH-E1003-09	978.8249		1.82	3209	F963-11	877.3		-0.16
2385	CPSC-CH-E1003-09	934		0.95	3210		-----		-----
2389		-----		-----	3214	EPA3052	914.1		0.56

3220	EPA3052	301.8	C,R(0.01)	-11.44	3233	In house	840.3817	-0.89
3222		-----		-----	3237	CPSC-CH-E1003-09	959.95	1.45
3225	CPSC-CH-E1003-09	951.20		1.28	3243	CPSC-CH-E1003-09	772.857	-2.21
3228	IEC62321	766.5		-2.34	3248	CPSC-CH-E1003-09	775	-2.17

normality	OK
n	121
outliers	4
mean (n)	885.707
st.dev. (n)	79.1188
R(calc.)	221.533
R(Horwitz)	142.875

Lab 213 first reported: 3990
Lab 623 first reported: 616.19
Lab 2139 first reported: 498
Lab 2156 first reported: 882.2
Lab 2258 first reported: 606.8401
Lab 2390 first reported: 1268.75
Lab 3220 first reported: 603.7





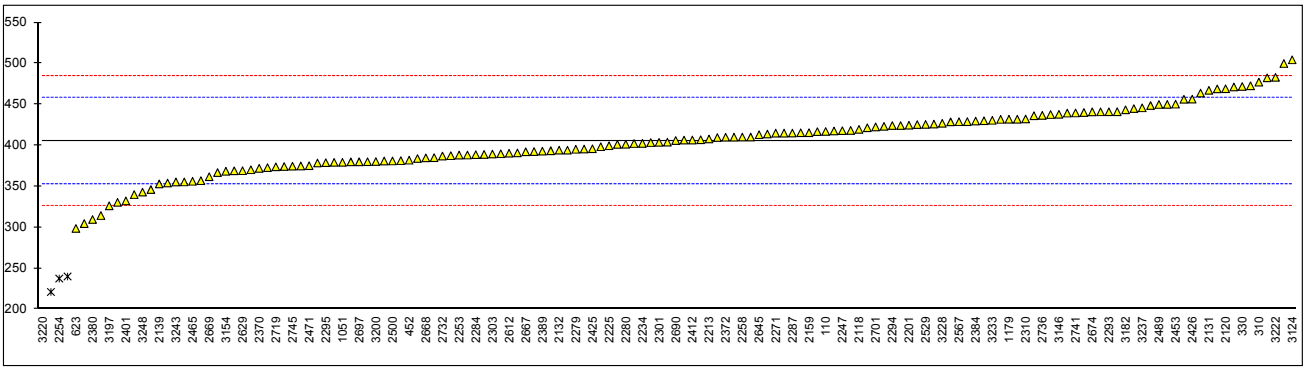
Determination of Total Lead as Pb on sample #16550; results in mg/kg

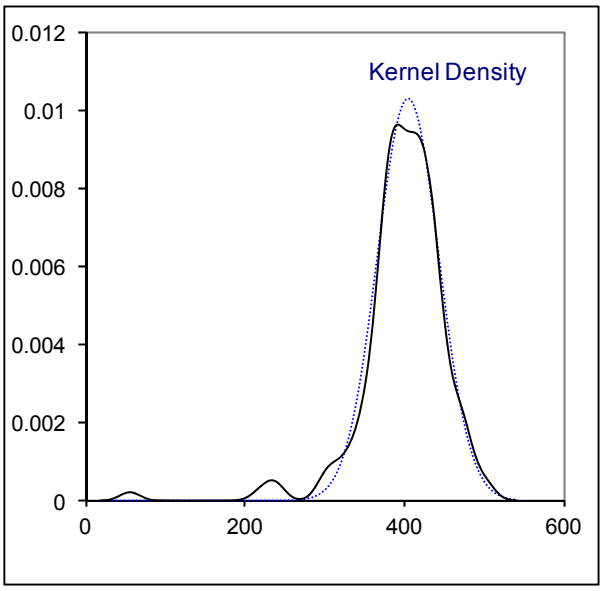
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110	CPSC-CH-E1003-09	417.0100		0.43	2390	CPSC-CH-E1003-09	500.00		3.59
213	CPSC-CH-E1003-09	456.3	C	1.93	2401		332.3		-2.79
310	In house	477.3		2.73	2410	CPSC-CH-E1003-09	445		1.50
330	In house	472		2.53	2412	CPSC-CH-E1003-09	406.6		0.04
339	In house	369.05		-1.39	2413	In house	355.43		-1.91
348	CPSC-CH-E1003-09	450.124		1.69	2415	CPSC-CH-E1003-09	366.9		-1.47
362		-----		-----	2425	EPA3051	395.97		-0.37
452	In house	382.0		-0.90	2426	CPSC-CH-E1003-09	456.52		1.94
551	CPSC-CH-E1003-09	403.5	C	-0.08	2429	CPSC-CH-E1003-09	424.28		0.71
622	In house	314.4130		-3.47	2431	CPSC-CH-E1003-09	416.81		0.43
623	In house	298.66		-4.07	2453	CPSC-CH-E1003-09	450.4		1.70
840	CPSC-CH-E1003-09	354.1		-1.96	2459		-----		-----
1051	CPSC-CH-E1003-09	379.38		-1.00	2460	CPSC-CH-E1003-09	417.6676		0.46
1179	In house	432		1.00	2465	CPSC-CH-E1003-09	356.2		-1.88
2115	EN16711-1	441		1.35	2471	CPSC-CH-E1003-09	375.276		-1.15
2118	CPSC-CH-E1002-08	419.6351		0.53	2480		-----		-----
2120	CPSC-CH-E1003-09	469.2		2.42	2489	EPA3051	450		1.69
2131	In house	467.2765		2.35	2492	In house	395.6		-0.38
2132	F963-11	394.21		-0.43	2495	CPSC-CH-E1003-09	415.50		0.38
2139	IEC62321	353		-2.00	2497	CPSC-CH-E1003-09	441.18		1.35
2156	IEC62321	304.6	C	-3.84	2500	CPSC-CH-E1003-09	381.054		-0.93
2159	EPA3052	415.56		0.38	2508	CPSC-CH-E1003-09	404		-0.06
2165	IEC62321	431.81		1.00	2511	CPSC-CH-E1003-09	426.0		0.78
2170	CPSC-CH-E1003-09	429.07		0.89	2529	CPSC-CH-E1003-09	425.6900		0.76
2172	CPSC-CH-E1003-09	390.9		-0.56	2532	EPA3051	389		-0.63
2184	CPSC-CH-E1003-09	406.97		0.05	2549	CPSC-CH-E1003-09	379.94		-0.98
2201	EPA3052	424.7		0.73	2553	CPSC-CH-E1003-09	240	R(0.01)	-6.30
2213	CPSC-CH-E1003-09	407.9		0.09	2560	CPSC-CH-E1003-09	330.5		-2.86
2215	EPA3052	374.95		-1.17	2563	IEC62321	482.5		2.93
2225	ISO8124-5	399.6		-0.23	2564	CPSC-CH-E1003-09	448.68		1.64
2226		-----		-----	2567	CPSC-CH-E1003-09	428.89		0.89
2232	CPSC-CH-E1003-09	381		-0.94	2572	CPSC-CH-E1003-09	430.1		0.93
2234	CPSC-CH-E1003-09	402.5		-0.12	2589	CPSC-CH-E1003-09	385.08		-0.78
2236	F963-11	436.3		1.17	2590	CPSC-CH-E1003-09	463.924		2.22
2240	CPSC-CH-E1003-09	357.0		-1.85	2612	EPA3052	390.5		-0.58
2243	EPA3052	379.329		-1.00	2615	EPA3052	384.03		-0.82
2245	CPSC-CH-E1003-09	374.321		-1.19	2629	EPA3051	369.1		-1.39
2246	CPSC-CH-E1003-09	394.21		-0.43	2645	CPSC-CH-E1003-09	413.07		0.28
2247	CPSC-CH-E1003-09	418		0.47	2667	CPSC-CH-E1003-09	392.3		-0.51
2253	CPSC-CH-E1003-09	388.23		-0.66	2668	In house	384.86		-0.79
2254	In house	237.513	R(0.01)	-6.40	2669	CPSC-CH-E1003-09	361.83		-1.67
2255	CPSC-CH-E1003-09	410.12		0.17	2674	CPSC-CH-E1003-09	440.99		1.35
2256	EPA3051	372.94		-1.24	2678	CPSC-CH-E1003-09	410.20		0.17
2258	CPSC-CH-E1003-09	410.1944	C	0.17	2680	CPSC-CH-E1003-09	381.427		-0.92
2269	CPSC-CH-E1003-09	402.348		-0.12	2684	CPSC-CH-E1003-09	346.165		-2.26
2271	IEC62321	415.0		0.36	2690	EPA3052	406.0		0.01
2278	EPA3052	389.8242		-0.60	2691		-----		-----
2279	CPSC-CH-E1003-09	395.29		-0.39	2692	In house	380.081		-0.97
2280	CPSC-CH-E1003-09	401.4		-0.16	2697	CPSC-CH-E1003-09	380		-0.97
2284	EPA3052	388.73		-0.64	2698	CPSC-CH-E1003-09	398.41		-0.27
2286	CPSC-CH-E1003-09	472.8		2.56	2701	CPSC-CH-E1003-09	422.61		0.65
2287	EPA3052	415.1		0.36	2719	CPSC-CH-E1003-09	373.9		-1.21
2290	CPSC-CH-E1003-09	428.8		0.88	2720	CPSC-CH-E1003-09	421.6		0.61
2293	CPSC-CH-E1003-09	441.100		1.35	2732	CPSC-CH-E1003-09	387.03		-0.71
2294	CPSC-CH-E1003-09	424.248		0.71	2736	In house	436.681		1.18
2295	CPSC-CH-E1003-09	379		-1.01	2739		-----		-----
2296		-----		-----	2741	CPSC-CH-E1003-09	439.66		1.30
2297	EPA3052	378.6		-1.03	2745	CPSC-CH-E1003-09	374.6528		-1.18
2301	In house	403.77		-0.07	3100	CPSC-CH-E1003-09	401.290		-0.16
2303	In house	389.50		-0.61	3110	CPSC-CH-E1003-09	392.51		-0.50
2309	EPA3052	440.20		1.32	3117	CPSC-CH-E1003-09	406.51		0.03
2310	EPA3052	432.3		1.02	3118	CPSC-CH-E1003-09	413.9		0.32
2311	CPSC-CH-E1003-09	425.5		0.76	3124	EPA3052	504.5		3.76
2314	CPSC-CH-E1003-09	439.44		1.29	3146	CPSC-CH-E1003-09	438		1.23
2320	EPA3051	388.277	C	-0.66	3154	ISO17072-2	368.5		-1.41
2358	CPSC-CH-E1003-09	370.3		-1.34	3160	CPSC-CH-E1003-09	423.26		0.67
2367	CPSC-CH-E1002-08	393.5		-0.46	3172	CPSC-CH-E1003-09	432		1.00
2370	CPSC-CH-E1003-09	372.0		-1.28	3176	In house	471.399		2.50
2372	IEC62321	410		0.17	3182	CPSC-CH-E1003-09	443.5		1.44
2375	In house	437.71		1.22	3185	CPSC-CH-E1003-09	418.3		0.48
2379	CPSC-CH-E1003-09	221.1485	C,R(0.01)	-7.02	3197	CPSC-CH-E1003-09	326.3		-3.02
2380	CPSC-CH-E1003-09	309.5880		-3.65	3200	CPSC-CH-E1002-08	380.32		-0.96
2384	CPSC-CH-E1003-09	429.7055		0.92	3209	F963-11	387.5		-0.69
2385	CPSC-CH-E1003-09	469		2.41	3210	CPSC-CH-E1003-09	340		-2.50
2389	CPSC-CH-E1003-09	393		-0.48	3214	CPSC-CH-E1003-09	415.0		0.36

3220	EPA3052	57	C,R(0.01)	-13.26	3233	In house	430.6449	0.95
3222	CPSC-CH-E1003-09	483.1		2.95	3237	CPSC-CH-E1003-09	445.92	1.53
3225	CPSC-CH-E1003-09	409.61		0.15	3243	CPSC-CH-E1003-09	355.4	-1.91
3228	IEC62321	427.0		0.81	3248	CPSC-CH-E1003-09	343	-2.38

normality	OK
n	147
outliers	4
mean (n)	405.619
st.dev. (n)	38.6637
R(calc.)	108.258
R(Horwitz)	73.593

Lab 213 first reported: 1825
Lab 551 first reported: 553.43
Lab 2156 first reported: 364.8
Lab 2258 first reported: 284.5279
Lab 2320 first reported: 279.787
Lab 2379 first reported: 221
Lab 3220 first reported: 113.75





Determination of Cobalt, Copper, Mercury, Nickel and Selenium on sample #16550; results in mg/kg

lab	method	Co	Cu	Hg	Ni	Se
110	CPSC-CH-E1003-09	<20	<20	<1	<10	<10
213	CPSC-CH-E1003-09	0	3.9 C	0.1 C	2.5 C	0
310	In house	0.111	2.527	0.0545	1.3105	0.0185
330		-----	-----	-----	-----	-----
339	In house	<5	5.84	<5	<5	<5
348	In house	n.d.	n.d.	n.d.	n.d.	-----
362		-----	-----	-----	-----	-----
452	In house	0.94	7.0	0.59	2.85	4.26
551	IEC62321	ND	66.03 C, f+?	ND	ND	ND
622	In house	0.5095	8.6398	0.5208	4.9096	0.0049
623	In house	n.d.	n.d.	n.d.	n.d.	n.d.
840		-----	ND	ND	ND	ND
1051		-----	-----	-----	-----	-----
1179	In house	0.11	4.63	0.070	2.167	0.389
2115		-----	7.1	0.09	1.9	-----
2118	CPSC-CH-E1002-08	0.1676	27.5116	0	4.0611	0
2120		-----	-----	-----	-----	-----
2131	In house	nd	15.9485	nd	9.4015	-----
2132		-----	-----	ND	-----	ND
2139	IEC62321	< 10	19	< 10	< 10	< 10
2156	IEC62321	0.975 C	4.559 C	0.1 C	1.921 C	0.1
2159	EPA3052	Not Determ.	3.65	3.0	1.9879	ND C
2165		-----	-----	n.d.	-----	-----
2170		-----	-----	-----	-----	-----
2172		-----	-----	ND	-----	-----
2184		-----	-----	< 10	-----	-----
2201	EPA3052	<10	<10	<10	<10	<10
2213	CPSC-CH-E1003-09	<10	22	<10	<10	<10
2215	EPA3052	<10	<50	<10	<10	<10
2225	ISO8124-5	<25	<25	<10	<25	<25
2226		-----	-----	-----	-----	-----
2232	CPSC-CH-E1003-09	nd	nd	nd	nd	nd
2234		-----	-----	-----	-----	-----
2236		-----	-----	<10	-----	<20
2240	CPSC-CH-E1003-09	<25	<25	<8	<50	<25
2243	EPA3052	<25	<1250 f+?	<3	<50	<25
2245	In house	<10	<10	<5	<5	<5
2246		-----	-----	<10	-----	<10
2247	CPSC-CH-E1003-09	ND	ND	ND	ND	ND
2253	CPSC-CH-E1003-09	ND	ND	ND	ND	ND
2254	In house	<2	3.720	<2	<2	<2
2255	CPSC-CH-E1003-09	nd	nd	nd	nd	nd
2256		-----	-----	ND	-----	ND
2258		-----	-----	<10	-----	<10
2269	CPSC-CH-E1003-09	<25	<25	<7.5	<25	<25
2271	IEC62321	N.D.	N.D.	N.D.	N.D.	N.D.
2278		-----	-----	ND(<5)	-----	-----
2279	CPSC-CH-E1003-09	<25.0	<25.0	<10.0	<25.0	<25.0
2280	CPSC-CH-E1003-09	ND	ND	ND	ND	ND
2284	EPA3052	nd	nd	nd	nd	nd
2286		-----	-----	-----	-----	-----
2287	EPA3052	≦5	≦5	≦5	≦5	≦5
2290	CPSC-CH-E1003-09	<20	<20	<20	<20	<20
2293		-----	-----	-----	-----	-----
2294		-----	-----	-----	-----	-----
2295		-----	-----	-----	-----	-----
2296		-----	-----	-----	-----	-----
2297	EPA3052	<10	<50	<10	<10	<10
2301		-----	-----	-----	-----	-----
2303	In house	<10	<10	<10	<10	<10
2309	EPA3052	ND	ND	ND	ND	ND
2310	EPA3052	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.
2311	CPSC-CH-E1003-09	Not Detect.	Not Detect.	Not Detect.	Not Detect.	Not Detect.
2314		-----	-----	-----	-----	-----
2320	EPA3051	NOT DET.	4.5370	NOT DET.	4.3377	-----
2358	CPSC-CH-E1003-09	<20	<20	<20	<20	<20
2367		-----	-----	-----	-----	-----
2370	CPSC-CH-E1003-09	<2	<2	<2	7.7	<2
2372	IEC62321	n.d	10.8	n.d	n.d	n.d
2375		-----	-----	-----	-----	-----
2379		-----	-----	<2	-----	-----
2380		-----	-----	-----	-----	-----
2384	CPSC-CH-E1003-09	<10	<50	<5	<50	<10
2385	CPSC-CH-E1003-09	<1	7.6	<0,5	1.8	<5
2389		-----	-----	-----	-----	-----
2390	CPSC-CH-E1003-09	N.D	N.D	ND	20.42	30.61 f+?

2401		ND		ND		ND		ND		ND
2410	EPA3052	< 2		< 2		< 2		< 2		< 2
2412	CPSC-CH-E1003-09	less than 10		less than 10		less than 10		less than 10		less than 10
2413	In house	<10		<10		<10		<10		<10 C
2415	In house	ND		ND		ND		ND		ND
2425	EPA3051	ND		ND		ND		ND		ND
2426		-----		-----		-----		-----		-----
2429	CPSC-CH-E1003-09	<10		<10		<10		<10		<10
2431		-----		-----		-----		-----		-----
2453		-----		-----		-----		-----		-----
2459		-----		-----		-----		-----		-----
2460		-----		-----		-----		-----		-----
2465	CPSC-CH-E1003-09	<25		<25		<8		<50		<25
2471	In house	<10		<10		<5		<10		<5
2480		-----		-----		-----		-----		-----
2489	EPA3051	ND		ND		ND		ND		ND
2492		-----		-----		-----		-----		-----
2495	CPSC-CH-E1003-09	<5		-----		<5		<5		<5
2497	CPSC-CH-E1003-09	0.351		24.38		0.001		5.63		1.87
2500		-----		-----		-----		-----		-----
2508		-----		-----		-----		-----		-----
2511		-----		-----		-----		-----		-----
2529		-----		-----		-----		-----		-----
2532	EPA3051	Not Detect.		Not Detect.		Not Detect.		Not Detect.		Not Detect.
2549	CPSC-CH-E1003-09	<10		<10		<10		<10		<10
2553	CPSC-CH-E1003-09	ND		ND		ND		ND		ND
2560	CPSC-CH-E1003-09	<10		<10		<10		<10		<10
2563	IEC62321	n.d.		n.d.		-----		n. d.		-----
2564		-----		-----		-----		-----		-----
2567	CPSC-CH-E1003-09	<20		<20		<20		<20		<20
2572	CPSC-CH-E1003-09	<20		<20		<20		<20		<20
2589	CPSC-CH-E1003-09	<5		<5		<5		<5		<10
2590	CPSC-CH-E1003-09	< L.O.Q.		7.002		< L.O.Q.		2.122		< L.O.Q.
2612	EPA3052	0.268	C	14.8	C	1.035		7.211		< 0,5
2615	EPA3052	<5		<10		<5		<10		<10
2629	EPA3051	ND		ND		ND		ND		ND
2645		-----		-----		-----		-----		-----
2667	CPSC-CH-E1003-09	<5		<5		<5		<5		<5
2668	In house	ND		ND		ND		ND		ND
2669		-----		-----		-----		-----		-----
2674		-----		-----		<10		-----		-----
2678		-----		-----		nd		-----		-----
2680	CPSC-CH-E1003-09	<5		<5		<5		<5		<5
2684		-----		-----		-----		-----		-----
2690	EPA3052	<10		<10		<10		<10		<10
2691		-----		-----		-----		-----		-----
2692		-----		-----		-----		-----		-----
2697	CPSC-CH-E1003-09	ND		ND		ND		ND		ND
2698	EPA3052	<5		-----		<5		-----		-----
2701	EPA3052	<10		-----		<10		-----		-----
2719	CPSC-CH-E1003-09	<10		-----		<10		-----		-----
2720	CPSC-CH-E1003-09	ND		ND		ND		ND		ND
2732	CPSC-CH-E1003-09	<5		<5		<5		<5		<5
2736	In house	<18.15		<18.15		0.122653		<18.15		<18.15
2739		-----		-----		-----		-----		-----
2741	CPSC-CH-E1003-09	<10		<10		<10		<10		<10
2745	CPSC-CH-E1003-09	ND		ND		ND		ND		ND
3100	CPSC-CH-E1003-09	< 10		< 10		< 10		< 10		< 10
3110		-----		-----		-----		-----		-----
3117		-----		-----		-----		-----		-----
3118	CPSC-CH-E1003-09	<20		<20		<20		-----		<20
3124	EPA3052	0.1696		-----		0.04109		-----		-----
3146	CPSC-CH-E1003-09	n.d.		n.d.		n.d.		n.d.		n.d.
3154		-----		-----		-----		5.580		-----
3160	CPSC-CH-E1003-09	n.d.		n.d.		n.d.		n.d.		-----
3172		-----		-----		-----		-----		-----
3176	In house	1.658		14.945		15.604		4.221		-----
3182	CPSC-CH-E1003-09	<5		<5		-----		<5		<13
3185		-----		-----		-----		-----		-----
3197	EPA3052	nd	C	ND		ND		ND		ND
3200	CPSC-CH-E1002-08	<20.0		<20.0		<20.0		<20.0		<20.0
3209	F963-11	<10		<10		<10		<10		<10
3210		-----		-----		-----		-----		-----
3214	EPA3052	<20		<20		<20		<20		<20
3220	EPA3052	not detect.		3.65		1.75		not detect.		not detect.
3222		-----		-----		-----		-----		-----
3225		-----		-----		<15.0		-----		-----
3228		-----		-----		<10		-----		-----
3233	In house	<1		7.3711		<1		2.8249		<1
3237		-----		-----		ND		-----		-----

3243	CPSC-CH-E1003-09	0.4487	C	< LOQ	0.517	5.31	< LOQ
3248	CPSC-CH-E1003-09	<10		<10	<10	<10	<10
	normality	n.a.		n.a.	n.a.	n.a.	n.a.
	n	97		92	113	96	93
	outliers	n.a.		n.a.	n.a.	n.a.	n.a.
	mean (n)	<25		<50	<20	<50	<25
	st.dev. (n)	n.a.		n.a.	n.a.	n.a.	n.a.
	R(calc.)	n.a.		n.a.	n.a.	n.a.	n.a.
	R(Horwitz)	n.a.		n.a.	n.a.	n.a.	n.a.

f+? = possible false positive

Lab 213 first reported for Copper 15.5, for Mercury 0.6 and for Nickel 10
Lab 551 first reported for Copper 55.43
Lab 2156 first reported for Cobalt 0.520, for Copper 3.144, for Mercury 0.847 and for Nickel 12.52
Lab 2159 first reported for Selenium 38.935
Lab 2413 first reported for Selenium 94.7
Lab 2612 first reported for Cobalt 301.3 and for Copper 56.54
Lab 3197 first reported for Cobalt 302.5
Lab 3243 first reported for Cobalt 301.75
Lab 2309 remarked DL10mg/kg

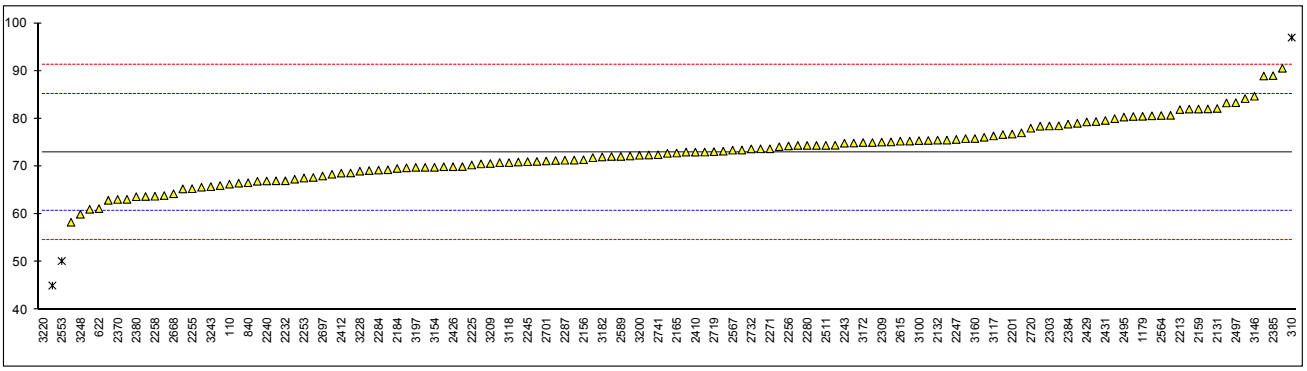
Determination of Total Cadmium as Cd on sample #16551; results in mg/kg

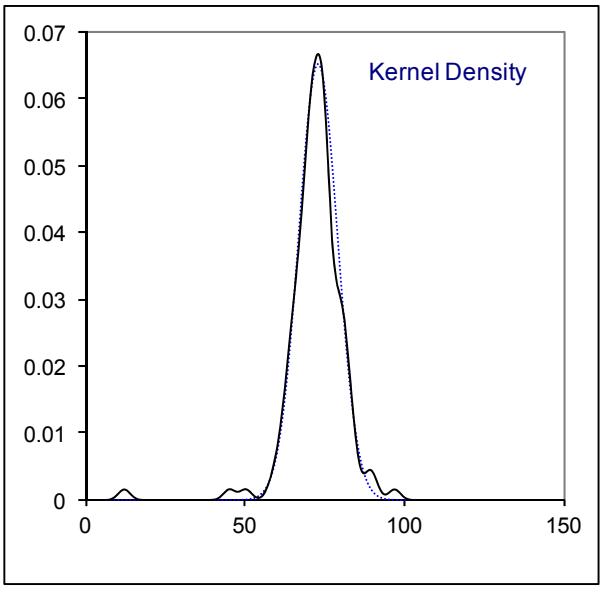
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110	CPSC-CH-E1003-09	66.2930		-1.09	2390	CPSC-CH-E1003-09	82.00		1.48
213	CPSC-CH-E1003-09	84.2	C	1.84	2401		68.64		-0.70
310	In house	96.975	R(0.05)	3.93	2410	IEC62321	73		0.01
330	In house	73		0.01	2412	CPSC-CH-E1003-09	68.6		-0.71
339	In house	63.72		-1.51	2413	In house	65.66		-1.19
348	In house	88.929		2.61	2415	In house	66.9		-0.99
362	In house	79.4		1.06	2425	EPA3051	61.03		-1.95
452	In house	80.6		1.25	2426	CPSC-CH-E1003-09	69.95		-0.49
551	IEC62321	63.12		-1.60	2429	CPSC-CH-E1003-09	79.32		1.04
622	In house	61.1582		-1.92	2431	CPSC-CH-E1003-09	79.62		1.09
623	In house	58.32		-2.39	2453		-----		-----
840	CPSC-CH-E1003-09	66.6		-1.04	2459		-----		-----
1051		-----		-----	2460		-----		-----
1179	In house	80.5		1.24	2465	CPSC-CH-E1003-09	68.36		-0.75
2115	EN16711-1	73.2		0.04	2471	In house	72.1999		-0.12
2118	CPSC-CH-E1002-08	74.1313		0.20	2480		-----		-----
2120		-----		-----	2489	EPA3051	80		1.15
2131	In house	82.125		1.50	2492	In house	78.5		0.91
2132	F963-11	75.513		0.42	2495	CPSC-CH-E1003-09	80.32		1.21
2139	IEC62321	66		-1.13	2497	CPSC-CH-E1003-09	83.34		1.70
2156	IEC62321	71.41		-0.25	2500		-----		-----
2159	EPA3052	82.0155		1.48	2508	CPSC-CH-E1003-09	79.03		1.00
2165	IEC62321	72.81		-0.02	2511	CPSC-CH-E1003-09	74.41		0.24
2170		-----		-----	2529	CPSC-CH-E1003-09	78.4264		0.90
2172	CPSC-CH-E1003-09	69.72		-0.53	2532	EPA3051	65.3		-1.25
2184	CPSC-CH-E1003-09	69.58		-0.55	2549	CPSC-CH-E1003-09	69.97		-0.48
2201	EPA3052	76.77		0.63	2553	CPSC-CH-E1003-09	50.2	R(0.05)	-3.72
2213	CPSC-CH-E1003-09	81.9		1.47	2560	CPSC-CH-E1003-09	70.8		-0.35
2215	EPA3052	74.39		0.24	2563	IEC62321	75.3		0.39
2225	ISO8124-5	70.3		-0.43	2564	CPSC-CH-E1003-09	80.66		1.26
2226		-----		-----	2567	CPSC-CH-E1003-09	73.41		0.08
2232	CPSC-CH-E1003-09	67		-0.97	2572	CPSC-CH-E1003-09	74.4		0.24
2234		-----		-----	2589	CPSC-CH-E1003-09	72.1		-0.14
2236	F963-11	80.70		1.27	2590	CPSC-CH-E1003-09	67.322		-0.92
2240	CPSC-CH-E1003-09	66.96		-0.98	2612	EPA3052	63.91		-1.48
2243	EPA3052	74.874		0.32	2615	EPA3052	75.29		0.38
2245	In house	71.001		-0.32	2629	EPA3051	66.5		-1.05
2246	CPSC-CH-E1003-09	75.513		0.42	2645		-----		-----
2247	CPSC-CH-E1003-09	75.65		0.44	2667	CPSC-CH-E1003-09	69.3		-0.59
2253	CPSC-CH-E1003-09	67.58		-0.88	2668	In house	64.29		-1.41
2254	In house	71.056		-0.31	2669		-----		-----
2255	CPSC-CH-E1003-09	65.34		-1.24	2674	CPSC-CH-E1003-09	75.14		0.36
2256	EPA3051	74.30		0.22	2678	CPSC-CH-E1003-09	72.09		-0.14
2258	CPSC-CH-E1003-09	63.7692	C	-1.50	2680	CPSC-CH-E1003-09	69.1376		-0.62
2269	CPSC-CH-E1003-09	67.707		-0.85	2684		-----		-----
2271	IEC62321	73.7		0.12	2690	EPA3052	73.012		0.01
2278	EPA3052	73.4410		0.08	2691		-----		-----
2279	CPSC-CH-E1003-09	71.84		-0.18	2692	In house	69.810		-0.51
2280	CPSC-CH-E1003-09	74.4		0.24	2697	CPSC-CH-E1003-09	68		-0.81
2284	EPA3052	69.23		-0.61	2698	IEC62321	70.5321		-0.39
2286		-----		-----	2701	EPA3052	71.14		-0.29
2287	EPA3052	71.3		-0.27	2719	CPSC-CH-E1003-09	73.1		0.03
2290	CPSC-CH-E1003-09	73.68		0.12	2720	CPSC-CH-E1003-09	78.0		0.83
2293		-----		-----	2732	IEC62321	73.67		0.12
2294		-----		-----	2736	In house	75.825		0.47
2295	CPSC-CH-E1003-09	67		-0.97	2739		-----		-----
2296		-----		-----	2741	CPSC-CH-E1003-09	72.45		-0.08
2297	EPA3052	74.9		0.32	2745	CPSC-CH-E1003-09	74.4227		0.24
2301	In house	82.04		1.49	3100	CPSC-CH-E1003-09	75.3939		0.40
2303	In house	78.47		0.90	3110		-----		-----
2309	EPA3052	75.1		0.35	3117	CPSC-CH-E1003-09	76.39		0.56
2310	EPA3052	72.74		-0.03	3118	CPSC-CH-E1003-09	70.8		-0.35
2311	CPSC-CH-E1003-09	69.95		-0.49	3124	EPA3052	75.43		0.41
2314	CPSC-CH-E1003-09	71.33		-0.26	3146	CPSC-CH-E1003-09	84.7		1.92
2320	EPA3051	90.549		2.88	3154	ISO17072-2	69.82		-0.51
2358	CPSC-CH-E1003-09	70.925		-0.33	3160	CPSC-CH-E1003-09	75.83		0.47
2367		-----		-----	3172	In house	75		0.34
2370	CPSC-CH-E1003-09	63.1		-1.61	3176	In house	83.29		1.69
2372	IEC62321	72.4		-0.09	3182	CPSC-CH-E1003-09	72		-0.15
2375	In house	71.24		-0.28	3185	CPSC-CH-E1003-09	76.1		0.52
2379	EPA3052	45.0717	C,R(0.01)	-4.55	3197	EPA3052	69.8		-0.51
2380	CPSC-CH-E1003-09	63.6652		-1.52	3200	CPSC-CH-E1002-08	72.34		-0.10
2384	CPSC-CH-E1003-09	78.8451		0.97	3209	F963-11	70.61		-0.38
2385	CPSC-CH-E1003-09	89		2.63	3210		-----		-----
2389	CPSC-CH-E1003-09	62.9		-1.64	3214	EPA3052	75.0		0.34

3220	EPA3052	12.02	C,R(0.01)	-9.96	3233	In house	76.6741	0.61
3222		-----		-----	3237	CPSC-CH-E1003-09	80.45	1.23
3225	CPSC-CH-E1003-09	77.03		0.67	3243	CPSC-CH-E1003-09	65.775	-1.17
3228	IEC62321	69.0		-0.64	3248	CPSC-CH-E1003-09	60	-2.11

normality	OK
n	131
outliers	4
mean (n)	72.935
st.dev. (n)	6.1177
R(calc.)	17.130
R(Horwitz)	17.132

Lab 213 first reported: 336.7
Lab 2258 first reported: 50.7551
Lab 2379 first reported: 45
Lab 3220 first reported: 24.04





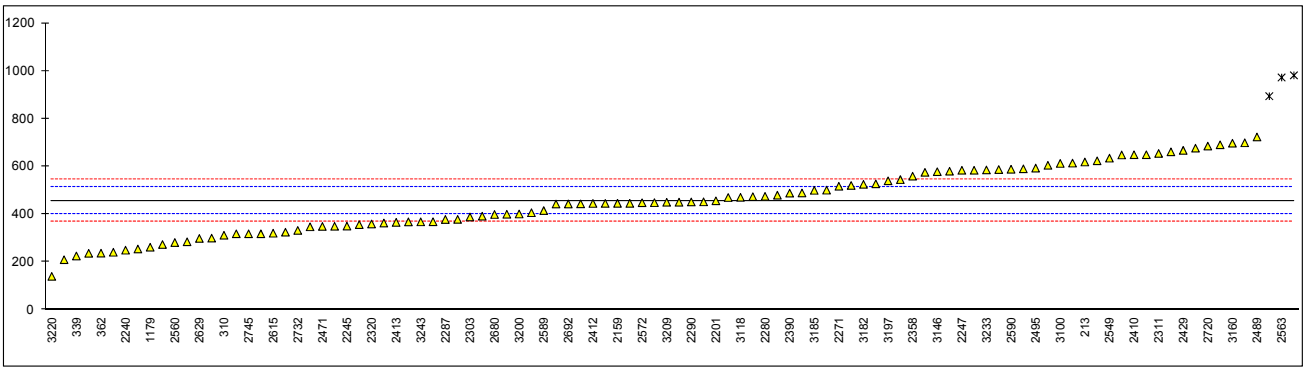
Determination of Total Cobalt as Co on sample #16551; results in mg/kg

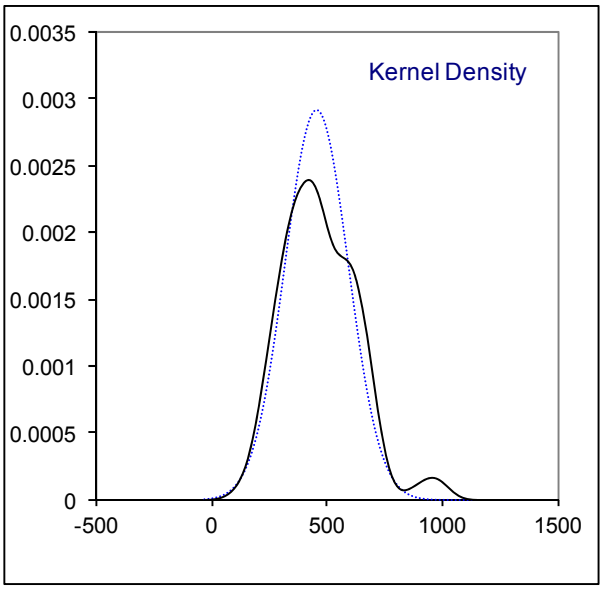
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110	CPSC-CH-E1003-09	236.5043		-7.58	2390	CPSC-CH-E1003-09	488.21		1.07
213	CPSC-CH-E1003-09	618.6	C	5.55	2401		448.6		-0.29
310	In house	312.3		-4.98	2410	EPA3052	649		6.60
330		-----		-----	2412	CPSC-CH-E1003-09	445.2		-0.41
339	In house	225.28		-7.97	2413	In house	366.04		-3.13
348	In house	473.605		0.57	2415		-----		-----
362	In house	237		-7.56	2425	EPA3051	544.98		3.02
452	In house	318.0		-4.78	2426		-----		-----
551	IEC62321	ND	false neg?	-----	2429	CPSC-CH-E1003-09	667.36		7.23
622	In house	209.6481		-8.51	2431	CPSC-CH-E1003-09	363.26		-3.22
623	In house	273.4		-6.31	2453		-----		-----
840		-----		-----	2459		-----		-----
1051		-----		-----	2460		-----		-----
1179	In house	262		-6.71	2465	CPSC-CH-E1003-09	254.4		-6.97
2115	EN16711-1	649		6.60	2471	In house	349.138		-3.71
2118	CPSC-CH-E1002-08	520.3731		2.18	2480		-----		-----
2120		-----		-----	2489	EPA3051	723.3		9.15
2131	In house	443.344		-0.47	2492	In house	479.8		0.78
2132		-----		-----	2495	CPSC-CH-E1003-09	593.09		4.68
2139	IEC62321	894	R(0.05)	15.02	2497	CPSC-CH-E1003-09	347.34		-3.77
2156	IEC62321	240.9		-7.43	2500		-----		-----
2159	EPA3052	445.6977		-0.39	2508		-----		-----
2165		-----		-----	2511		-----		-----
2170		-----		-----	2529		-----		-----
2172		-----		-----	2532	EPA3051	614		5.40
2184		-----		-----	2549	CPSC-CH-E1003-09	634.75		6.11
2201	EPA3052	456.2		-0.03	2553	CPSC-CH-E1003-09	ND	false neg?	-----
2213	CPSC-CH-E1003-09	470		0.45	2560	CPSC-CH-E1003-09	281.6		-6.03
2215	EPA3052	580.06		4.23	2563	IEC62321	972.3	R(0.05)	17.71
2225	ISO8124-5	451.9		-0.18	2564		-----		-----
2226		-----		-----	2567	CPSC-CH-E1003-09	500.84		1.51
2232	CPSC-CH-E1003-09	nd	false neg?	-----	2572	CPSC-CH-E1003-09	448.2		-0.30
2234		-----		-----	2589	CPSC-CH-E1003-09	415.4		-1.43
2236		-----		-----	2590	CPSC-CH-E1003-09	588.344		4.51
2240	CPSC-CH-E1003-09	249.6		-7.13	2612	EPA3052	981.2	R(0.05)	18.02
2243	EPA3052	318.162		-4.77	2615	EPA3052	320.60		-4.69
2245	In house	350.419		-3.67	2629	EPA3051	298.9		-5.44
2246		-----		-----	2645		-----		-----
2247	CPSC-CH-E1003-09	584		4.36	2667	CPSC-CH-E1003-09	445.3		-0.40
2253	CPSC-CH-E1003-09	368.62		-3.04	2668	In house	589.97		4.57
2254	In house	356.459		-3.46	2669		-----		-----
2255	CPSC-CH-E1003-09	527.21		2.41	2674		-----		-----
2256		-----		-----	2678		-----		-----
2258		-----		-----	2680	CPSC-CH-E1003-09	398.989		-2.00
2269	CPSC-CH-E1003-09	442.763		-0.49	2684		-----		-----
2271	IEC62321	517.2		2.07	2690	EPA3052	349.501		-3.70
2278		-----		-----	2691		-----		-----
2279	CPSC-CH-E1003-09	445.7		-0.39	2692	In house	443.054		-0.48
2280	CPSC-CH-E1003-09	474.9		0.61	2697	CPSC-CH-E1003-09	300		-5.40
2284	EPA3052	400.04		-1.96	2698	EPA3052	450.401		-0.23
2286		-----		-----	2701	EPA3052	587.02		4.47
2287	EPA3052	378.1		-2.71	2719	CPSC-CH-E1003-09	324.7		-4.55
2290	CPSC-CH-E1003-09	451.3		-0.20	2720	CPSC-CH-E1003-09	685.2		7.84
2293		-----		-----	2732	IEC62321	332.32		-4.29
2294		-----		-----	2736	In house	391.874		-2.24
2295		-----		-----	2739		-----		-----
2296		-----		-----	2741	CPSC-CH-E1003-09	406.34		-1.74
2297	EPA3052	575.3		4.07	2745	CPSC-CH-E1003-09	318.1476		-4.78
2301		-----		-----	3100	CPSC-CH-E1003-09	612.660		5.35
2303	In house	388.68		-2.35	3110		-----		-----
2309	EPA3052	690.77		8.04	3117	CPSC-CH-E1003-09	378.29		-2.71
2310	EPA3052	661.3		7.02	3118	CPSC-CH-E1003-09	471		0.48
2311	CPSC-CH-E1003-09	654.6		6.79	3124	EPA3052	676.6		7.55
2314		-----		-----	3146	CPSC-CH-E1003-09	578		4.16
2320	EPA3051	359.2670		-3.36	3154		-----		-----
2358	CPSC-CH-E1003-09	559.25		3.51	3160	CPSC-CH-E1003-09	697.22		8.26
2367		-----		-----	3172		-----		-----
2370	CPSC-CH-E1003-09	605.0		5.09	3176	In house	648.109		6.57
2372	IEC62321	584		4.36	3182	CPSC-CH-E1003-09	525	C	2.34
2375	In house	623.63		5.73	3185	CPSC-CH-E1003-09	500.1		1.48
2379		-----		-----	3197	EPA3052	539.9	C	2.85
2380	CPSC-CH-E1003-09	284.7660		-5.92	3200	CPSC-CH-E1002-08	401.03		-1.93
2384	CPSC-CH-E1003-09	368.0138		-3.06	3209	F963-11	450.0		-0.24
2385	CPSC-CH-E1003-09	699		8.32	3210		-----		-----
2389		-----		-----	3214	EPA3052	489.0		1.10

3220	EPA3052	140	-10.90	3233	In house	585.3246		4.41
3222		-----	-----	3237		-----		-----
3225		-----	-----	3243	CPSC-CH-E1003-09	368.111	C	-3.06
3228		-----	-----	3248		-----		-----

normality	OK
n	99
outliers	3
mean (n)	457.044
st.dev. (n)	137.2170
R(calc.)	384.208
R(Horwitz)	81.447

Lab 213 first reported: 6375
Lab 3182 first reported: 1059.5
Lab 3197 first reported: 1039.9
Lab 3243 first reported: 1103.3





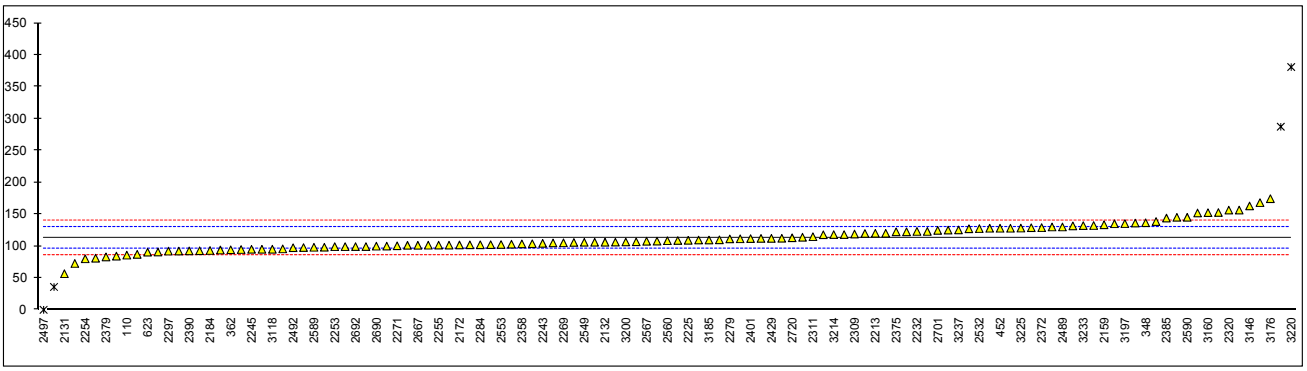
Determination of Total Mercury as Hg on sample #16551; results in mg/kg

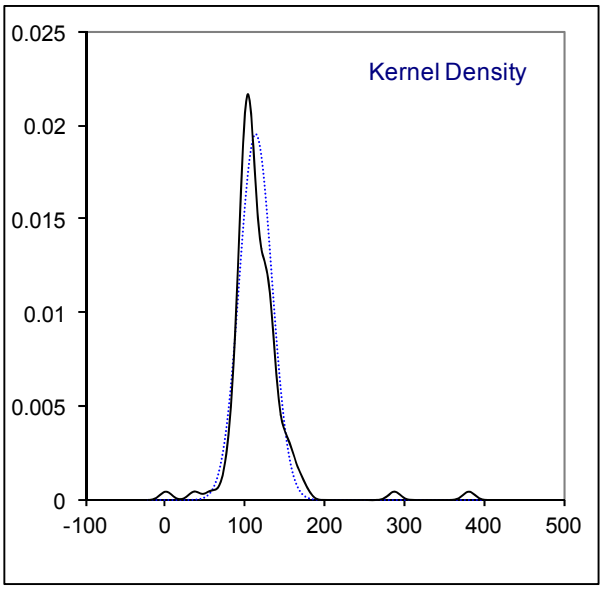
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110	CPSC-CH-E1003-09	85.8086		-3.05	2390	CPSC-CH-E1003-09	92.49		-2.29
213	CPSC-CH-E1003-09	168.2	C	6.25	2401		111.8		-0.11
310	In house	152.7		4.50	2410	IEC62321	123		1.15
330		-----		-----	2412	CPSC-CH-E1003-09	107.7		-0.58
339	In house	101.4		-1.29	2413	In house	127.22		1.63
348	In house	136.620		2.69	2415	IEC62321	93.82		-2.14
362	In house	94.2		-2.10	2425	EPA3051	102.04		-1.22
452	In house	128.0		1.71	2426		-----		-----
551	IEC62321	108.79	C	-0.45	2429	CPSC-CH-E1003-09	112.14		-0.08
622	In house	99.2841		-1.53	2431	CPSC-CH-E1003-09	125.04		1.38
623	In house	90.42		-2.53	2453		-----		-----
840	EPA3052	119.8		0.79	2459		-----		-----
1051		-----		-----	2460		-----		-----
1179	In house	128		1.71	2465	CPSC-CH-E1003-09	105.7		-0.80
2115	EN16711-1	128		1.71	2471	In house	94.59		-2.06
2118	CPSC-CH-E1002-08	35.8271	R(0.05)	-8.69	2480		-----		-----
2120		-----		-----	2489	EPA3051	130		1.94
2131	In house	56.651		-6.34	2492	In house	97.4		-1.74
2132	F963-11	106.10		-0.76	2495	CPSC-CH-E1003-09	156.57		4.94
2139	IEC62321	81		-3.59	2497	CPSC-CH-E1003-09	0.015	C,R(0.01)	-12.73
2156	IEC62321	98.17		-1.65	2500		-----		-----
2159	EPA3052	133.4884		2.33	2508		-----		-----
2165	IEC62321	102.19		-1.20	2511		-----		-----
2170		-----		-----	2529		-----		-----
2172	CPSC-CH-E1003-09	101.8		-1.24	2532	EPA3051	127.5		1.66
2184	CPSC-CH-E1003-09	93.08		-2.23	2549	CPSC-CH-E1003-09	105.98		-0.77
2201	EPA3052	120.1		0.82	2553	CPSC-CH-E1003-09	102.5		-1.16
2213	CPSC-CH-E1003-09	120		0.81	2560	CPSC-CH-E1003-09	108.4		-0.50
2215	EPA3052	90.72		-2.49	2563		-----		-----
2225	ISO8124-5	109.1		-0.42	2564		-----		-----
2226		-----		-----	2567	CPSC-CH-E1003-09	107.63		-0.58
2232	CPSC-CH-E1003-09	123		1.15	2572	CPSC-CH-E1003-09	112.1		-0.08
2234		-----		-----	2589	CPSC-CH-E1003-09	98.13		-1.66
2236	F963-11	136.1		2.63	2590	CPSC-CH-E1003-09	145.133		3.65
2240	CPSC-CH-E1003-09	92.17		-2.33	2612	EPA3052	128.8		1.80
2243	EPA3052	104.316		-0.96	2615	EPA3052	101.18		-1.31
2245	In house	95.000		-2.01	2629	EPA3051	ND	false neg?	-----
2246	CPSC-CH-E1003-09	106.10		-0.76	2645		-----		-----
2247	CPSC-CH-E1003-09	106.22		-0.74	2667	CPSC-CH-E1003-09	101.3		-1.30
2253	CPSC-CH-E1003-09	99.12		-1.55	2668	In house	103.75		-1.02
2254	In house	80.038		-3.70	2669		-----		-----
2255	CPSC-CH-E1003-09	101.42		-1.29	2674	CPSC-CH-E1003-09	109.49		-0.38
2256	EPA3051	84.26		-3.22	2678	CPSC-CH-E1003-09	118.04		0.59
2258	CPSC-CH-E1003-09	117.8367		0.57	2680	CPSC-CH-E1003-09	95.0381		-2.01
2269	CPSC-CH-E1003-09	105.151		-0.86	2684		-----		-----
2271	IEC62321	100.5		-1.39	2690	EPA3052	99.895		-1.46
2278	EPA3052	99.1360		-1.54	2691		-----		-----
2279	CPSC-CH-E1003-09	111.3		-0.17	2692	In house	99.169		-1.54
2280	CPSC-CH-E1003-09	97.7		-1.71	2697	CPSC-CH-E1003-09	87		-2.91
2284	EPA3052	102.07		-1.21	2698	IEC62321	103.028		-1.10
2286		-----		-----	2701	EPA3052	124.70		1.34
2287	EPA3052	132.3		2.20	2719	CPSC-CH-E1003-09	111.4		-0.16
2290	CPSC-CH-E1003-09	113.9		0.12	2720	CPSC-CH-E1003-09	113.0		0.02
2293		-----		-----	2732	IEC62321	95.61		-1.94
2294		-----		-----	2736		-----		-----
2295		-----		-----	2739		-----		-----
2296		-----		-----	2741	CPSC-CH-E1003-09	122.42		1.08
2297	EPA3052	92.1		-2.34	2745	CPSC-CH-E1003-09	129.9950		1.94
2301	In house	145.12		3.65	3100	CPSC-CH-E1003-09	109.842		-0.34
2303	In house	135.03		2.51	3110		-----		-----
2309	EPA3052	118.92		0.69	3117	CPSC-CH-E1003-09	92.64		-2.28
2310	EPA3052	112.3		-0.06	3118	CPSC-CH-E1003-09	95.05		-2.00
2311	CPSC-CH-E1003-09	114.7		0.21	3124	EPA3052	131.7		2.13
2314		-----		-----	3146	CPSC-CH-E1003-09	163		5.66
2320	EPA3051	156.499		4.93	3154	ISO17072-2	287.3	R(0.01)	19.69
2358	CPSC-CH-E1003-09	103.515		-1.05	3160	CPSC-CH-E1003-09	152.41		4.47
2367		-----		-----	3172		-----		-----
2370	CPSC-CH-E1003-09	152.0		4.42	3176	In house	174.41	C	6.95
2372	IEC62321	129		1.83	3182		-----		-----
2375	In house	122.41		1.08	3185	CPSC-CH-E1003-09	109.5		-0.37
2379	EPA3052	83		-3.36	3197	EPA3052	135.3		2.54
2380	CPSC-CH-E1003-09	72.7347		-4.52	3200	CPSC-CH-E1002-08	106.54		-0.71
2384	CPSC-CH-E1003-09	138.5269		2.90	3209	F963-11	105.0		-0.88
2385	CPSC-CH-E1003-09	144		3.52	3210		-----		-----
2389		-----		-----	3214	EPA3052	118.0		0.59

3220	EPA3052	381	R(0.01)	30.26	3233	In house	132.1600	2.18
3222		-----		-----	3237	CPSC-CH-E1003-09	125.35	1.41
3225	CPSC-CH-E1003-09	128.26		1.74	3243	CPSC-CH-E1003-09	106.725	-0.69
3228	IEC62321	101.5		-1.28	3248	CPSC-CH-E1003-09	100	-1.45

normality	OK
n	117
outliers	4
mean (n)	112.814
st.dev. (n)	20.4227
R(calc.)	57.184
R(Horwitz)	24.816

Lab 213 first reported: 672.9
Lab 551 first reported: 192.54
Lab 2497 first reported: 0.151
Lab 3176 first reported: 202.641





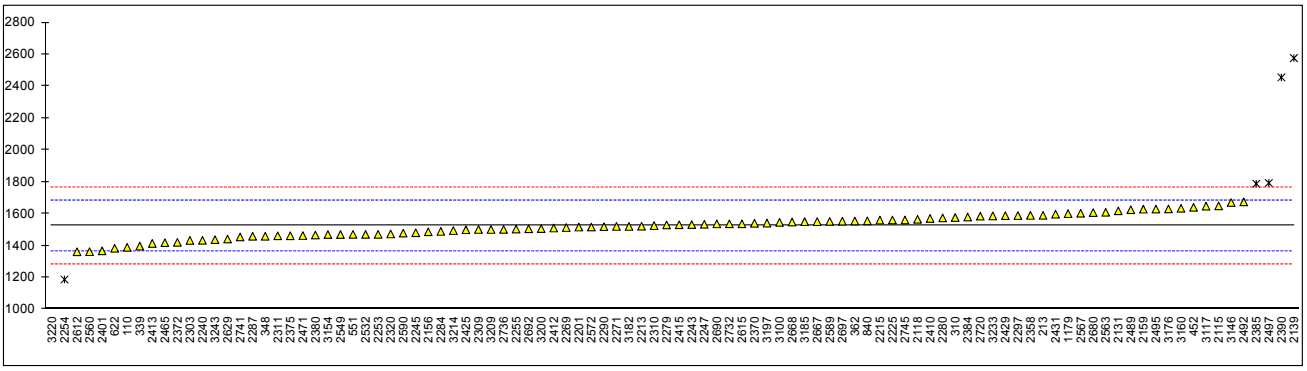
Determination of Total Nickel as Ni on sample #16551; results in mg/kg

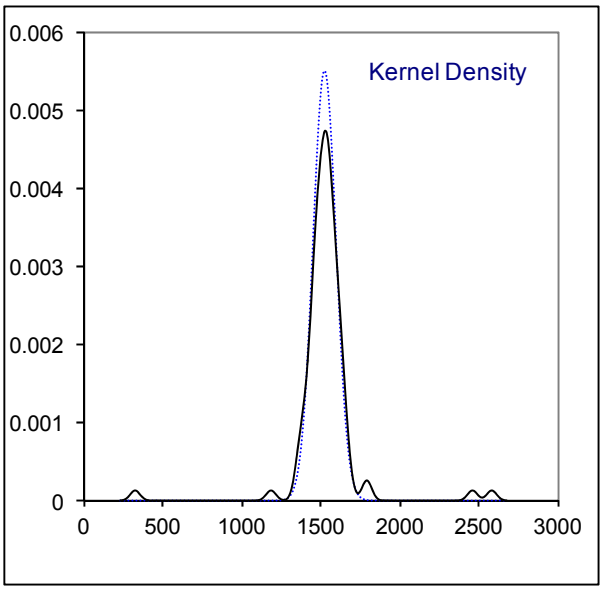
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110	CPSC-CH-E1003-09	1388.5851		-1.67	2390	CPSC-CH-E1003-09	2455.63	R(0.01)	11.51
213	CPSC-CH-E1003-09	1590.0	C	0.82	2401		1367		-1.94
310	In house	1576		0.64	2410	EPA3052	1570		0.57
330		-----		-----	2412	CPSC-CH-E1003-09	1510		-0.17
339	In house	1396.42		-1.58	2413	In house	1413.3		-1.37
348	In house	1458.584		-0.81	2415	In house	1530.5		0.08
362	In house	1554		0.37	2425	EPA3051	1498.99		-0.31
452	In house	1640		1.43	2426		-----		-----
551	IEC62321	1470		-0.67	2429	CPSC-CH-E1003-09	1587.76		0.79
622	In house	1382.7532		-1.75	2431	CPSC-CH-E1003-09	1597		0.90
623		-----	W	-----	2453		-----		-----
840	EPA3052	1555		0.38	2459		-----		-----
1051		-----		-----	2460		-----		-----
1179	In house	1600.36		0.94	2465	CPSC-CH-E1003-09	1418		-1.31
2115	EN16711-1	1649		1.54	2471	In house	1462.84		-0.76
2118	CPSC-CH-E1002-08	1564.7578		0.50	2480		-----		-----
2120		-----		-----	2489	EPA3051	1625		1.25
2131	In house	1618.11		1.16	2492	In house	1674.0		1.85
2132		-----		-----	2495	CPSC-CH-E1003-09	1629.10		1.30
2139	IEC62321	2577	C,R(0.01)	13.01	2497	CPSC-CH-E1003-09	1792.71	R(0.05)	3.32
2156	IEC62321	1486.5	C	-0.46	2500		-----		-----
2159	EPA3052	1628.4884		1.29	2508		-----		-----
2165		-----		-----	2511		-----		-----
2170		-----		-----	2529		-----		-----
2172		-----		-----	2532	EPA3051	1470		-0.67
2184		-----		-----	2549	CPSC-CH-E1003-09	1469.51		-0.67
2201	EPA3052	1516		-0.10	2553	CPSC-CH-E1003-09	ND	false neg?	-----
2213	CPSC-CH-E1003-09	1521.2		-0.03	2560	CPSC-CH-E1003-09	1361.4		-2.01
2215	EPA3052	1560.23		0.45	2563	IEC62321	1608.8	C	1.05
2225	ISO8124-5	1560.5		0.45	2564		-----		-----
2226		-----		-----	2567	CPSC-CH-E1003-09	1602.72		0.97
2232	CPSC-CH-E1003-09	nd	false neg?	-----	2572	CPSC-CH-E1003-09	1516.3		-0.10
2234		-----		-----	2589	CPSC-CH-E1003-09	1551.43		0.34
2236		-----		-----	2590	CPSC-CH-E1003-09	1478.022		-0.57
2240	CPSC-CH-E1003-09	1433.0		-1.12	2612	EPA3052	1361		-2.01
2243	EPA3052	1531.610		0.09	2615	EPA3052	1536.37		0.15
2245	In house	1480.00		-0.54	2629	EPA3051	1441.0		-1.03
2246		-----		-----	2645		-----		-----
2247	CPSC-CH-E1003-09	1533.4		0.12	2667	CPSC-CH-E1003-09	1550.3		0.33
2253	CPSC-CH-E1003-09	1470.26		-0.66	2668	In house	1547.33		0.29
2254	In house	1187.215	R(0.01)	-4.16	2669		-----		-----
2255	CPSC-CH-E1003-09	1503.3		-0.26	2674		-----		-----
2256		-----		-----	2678		-----		-----
2258		-----		-----	2680	CPSC-CH-E1003-09	1607.08		1.03
2269	CPSC-CH-E1003-09	1513.076		-0.14	2684		-----		-----
2271	IEC62321	1520.0		-0.05	2690	EPA3052	1536.121		0.15
2278		-----		-----	2691		-----		-----
2279	CPSC-CH-E1003-09	1529.55		0.07	2692	In house	1505.505		-0.23
2280	CPSC-CH-E1003-09	1573.9		0.62	2697	CPSC-CH-E1003-09	1553		0.36
2284	EPA3052	1488.82		-0.43	2698		-----		-----
2286		-----		-----	2701		-----		-----
2287	EPA3052	1458.5		-0.81	2719		-----		-----
2290	CPSC-CH-E1003-09	1518.6		-0.07	2720	CPSC-CH-E1003-09	1585		0.75
2293		-----		-----	2732	IEC62321	1536.3		0.15
2294		-----		-----	2736	In house	1501.150		-0.28
2295		-----		-----	2739		-----		-----
2296		-----		-----	2741	CPSC-CH-E1003-09	1453.89		-0.87
2297	EPA3052	1588.3		0.79	2745	CPSC-CH-E1003-09	1560.9187		0.46
2301		-----		-----	3100	CPSC-CH-E1003-09	1545.81		0.27
2303	In house	1432.46		-1.13	3110		-----		-----
2309	EPA3052	1501.0		-0.28	3117	CPSC-CH-E1003-09	1647.48		1.53
2310	EPA3052	1525		0.01	3118		-----		-----
2311	CPSC-CH-E1003-09	1461.1		-0.78	3124		-----		-----
2314		-----		-----	3146	CPSC-CH-E1003-09	1670		1.80
2320	EPA3051	1472.871		-0.63	3154	ISO17072-2	1469		-0.68
2358	CPSC-CH-E1003-09	1589.5		0.81	3160	CPSC-CH-E1003-09	1633.86		1.36
2367		-----		-----	3172		-----		-----
2370	CPSC-CH-E1003-09	1540.0		0.20	3176	In house	1629.786		1.31
2372	IEC62321	1420		-1.29	3182	CPSC-CH-E1003-09	1520.0		-0.05
2375	In house	1461.62		-0.77	3185	CPSC-CH-E1003-09	1550.1		0.32
2379		-----		-----	3197	EPA3052	1541.0		0.21
2380	CPSC-CH-E1003-09	1466.0138		-0.72	3200	CPSC-CH-E1002-08	1506.51		-0.22
2384	CPSC-CH-E1003-09	1579.17	C	0.68	3209	F963-11	1501.0		-0.28
2385	CPSC-CH-E1003-09	1788	R(0.05)	3.26	3210		-----		-----
2389		-----		-----	3214	EPA3052	1494.0		-0.37

3220	EPA3052	331.7	C,R(0.01)	-14.74	3233	In house	1586.0685	0.77
3222		-----		-----	3237		-----	-----
3225		-----		-----	3243	CPSC-CH-E1003-09	1437.2727	-1.07
3228		-----		-----	3248		-----	-----

normality	OK
n	94
outliers	6
mean (n)	1524.000
st.dev. (n)	72.2993
R(calc.)	202.438
R(Horwitz)	226.556

Lab 213 first reported: 2605
Lab 623 first reported: 1234.84
Lab 2139 first reported: 1824
Lab 2156 first reported: 906.4
Lab 2384 first reported: 1895.004
Lab 2563 first reported: 2368.2
Lab 3220 first reported: 663.36





Determination of Antimony, Chromium, Copper, Lead and Selenium on sample #16551; results in mg/kg

lab	method	Sb		Cr		Cu		Pb		Se
110	CPSC-CH-E1003-09	-----		<10		<20		<10		<10
213	CPSC-CH-E1003-09	0.6	C	3.5	C	3.0	C	0.6	C	0
310	In house	0		3.5565		2.645		0.641		0
330		-----		-----		-----		< 20		-----
339	In house	<5		2.94		2.43		<1		<5
348	In house	n.d.		5.329		n.d.		n.d.		-----
362		-----		-----		-----		-----		-----
452	In house	1.5		8.28		5.6		3.76		2.69
551	IEC62321	ND		7.59	C	46.07		21.04		ND
622	In house	0.1019		2.3944		8.0138		0.3263		0.0356
623	In house	n.d.		n.d.		n.d.		n.d.		n.d.
840	EPA3052	-----		ND		ND		ND		ND
1051		-----		-----		-----		-----		-----
1179	In house	<2.0		3.6		3.76		0.85		<1
2115	EN16711-1	-----		4.4		4.6		0.8		-----
2118	CPSC-CH-E1002-08	0		3.8369		15.2876		1.7550		0
2120		-----		-----		-----		10.4		-----
2131	In house	nd		5.368		14.3085		0.834		-----
2132	F963-11	ND		ND		-----		ND		ND
2139	IEC62321	< 10		11		< 10		< 10		< 10
2156	IEC62321	0.1		9.393		12.77		1.149		7.00
2159	EPA3052	Not Determ.		7.3643		Not Determ.		Not Determ.		15.09
2165	IEC62321	-----		n.d.		-----		n.d.		-----
2170		-----		-----		-----		<20		-----
2172	CPSC-CH-E1003-09	-----		ND		-----		ND		-----
2184	CPSC-CH-E1003-09	-----		18.80		-----		< 10		-----
2201	EPA3052	<10		<10		<10		<10		<10
2213	CPSC-CH-E1003-09	<10		<10		<10		<10		<10
2215	EPA3052	<10		<10		<50		<10		<10
2225	ISO8124-5	<25		<10		<25		<10		<25
2226		-----		-----		-----		-----		-----
2232	CPSC-CH-E1003-09	nd		nd		nd		nd		nd
2234		-----		-----		-----		-----		-----
2236	F963-11	<20		<10		-----		<10		<20
2240	CPSC-CH-E1003-09	<25		<10		<25		<10		<25
2243	EPA3052	<25		<10		<1250	f+?	<10		<25
2245	In house	<10		<5		<10		<5		<5
2246	CPSC-CH-E1003-09	<10		<10		-----		<10		<10
2247	CPSC-CH-E1003-09	ND		ND		ND		ND		ND
2253	CPSC-CH-E1003-09	ND		ND		ND		ND		ND
2254	In house	<2		2.589		2.390		<2		<2
2255	CPSC-CH-E1003-09	nd		nd		nd		nd		nd
2256	EPA3051	-----		ND		-----		ND		ND
2258	CPSC-CH-E1003-09	<10		<10		-----		<10		<10
2269	CPSC-CH-E1003-09	<12.5		<2.5		<25		<7.5		<25
2271	IEC62321	N.D.		N.D.		N.D.		N.D.		N.D.
2278	EPA3052	-----		ND(<5)		-----		ND(<5)		-----
2279	CPSC-CH-E1003-09	<25.0		<10.0		<25.0		<10.0		<25.0
2280	CPSC-CH-E1003-09	ND		ND		ND		ND		ND
2284	EPA3052	nd		nd		nd		nd		nd
2286		-----		-----		-----		≦10		-----
2287	EPA3052	≦5		≦5		≦5		≦5		≦5
2290	CPSC-CH-E1003-09	<20		<20		<20		<20		<20
2293		-----		-----		-----		n.d.		-----
2294		-----		-----		-----		10.736		-----
2295		-----		-----		-----		-----		-----
2296		-----		-----		-----		-----		-----
2297	EPA3052	<10		<10		<50		<10		<10
2301		-----		-----		-----		-----		-----
2303	In house	<10		<10		<10		<10		<10
2309	EPA3052	ND		ND		ND		ND		ND
2310	EPA3052	NOT DET.		NOT DET.		NOT DET.		NOT DET.		NOT DET.
2311	CPSC-CH-E1003-09	Not Detect.		Not Detect.		Not Detect.		Not Detect.		Not Detect.
2314		-----		-----		-----		Not detect.		-----
2320	EPA3051	-----		8.664		5.37		NOT DET.		-----
2358	CPSC-CH-E1003-09	<20		<20		<20		<20		<20
2367		-----		-----		-----		nd	C	-----
2370	CPSC-CH-E1003-09	<2		5.2		<2		<2		<2
2372	IEC62321	n.d		10.2		n.d		n.d		n.d
2375		-----		-----		-----		-----		-----
2379	EPA3052	-----		<2		-----		<2		-----
2380		-----		-----		-----		-----		-----
2384	CPSC-CH-E1003-09	<5		<5		<50		<10		<10
2385	CPSC-CH-E1003-09	<5		4.1		4.2		<1		<5
2389		-----		-----		-----		n.d		-----
2390	CPSC-CH-E1003-09	N.D		ND		N.D		ND		N.D

2401		ND		6.444		ND		ND		ND	
2410	EPA3052	< 2		< 2		< 2		< 2		< 2	
2412	CPSC-CH-E1003-09	less than 10		less than 10		less than 10		less than 10		less than 10	
2413	In house	<10		<10		<10		<10		<10	
2415	IEC62321	ND		ND		ND		ND		ND	
2425	EPA3051	ND		ND		ND		ND		ND	
2426		-----		-----		-----		<20		-----	
2429	CPSC-CH-E1003-09	<10		<10		<10		<10		<10	
2431		-----		-----		6.22		-----		-----	
2453		-----		-----		-----		-----		-----	
2459		-----		-----		-----		-----		-----	
2460		-----		-----		-----		-----		-----	
2465	CPSC-CH-E1003-09	<25		<10		<25		<10		<25	
2471	In house	<10		<5		<10		<5		<5	
2480		-----		-----		-----		-----		-----	
2489	EPA3051	ND		ND		ND		ND		ND	
2492		-----		-----		-----		-----		-----	
2495	CPSC-CH-E1003-09	-----	W	5.50		-----		<5		<5	
2497	CPSC-CH-E1003-09	0.112		4.12		26.39		1.59		0.702	
2500		-----		-----		-----		ND		-----	
2508		-----		-----		-----		0.74		-----	
2511		-----		-----		-----		-----		-----	
2529		-----		-----		-----		-----		-----	
2532	EPA3051	Not Detect.		3.9		9		Not Detect.		Not Detect.	
2549	CPSC-CH-E1003-09	<10		<10		<10		<10		<10	
2553	CPSC-CH-E1003-09	ND		ND		ND		ND		ND	
2560	CPSC-CH-E1003-09	<10		<10		<10		<10		<10	
2563	IEC62321	-----		n. d.		n. d.		n. d.		-----	
2564		-----		-----		-----		ND (<20)		-----	
2567	CPSC-CH-E1003-09	<20		<20		<20		<20		<20	
2572	CPSC-CH-E1003-09	<20		<20		<20		<20		<20	
2589	CPSC-CH-E1003-09	<5		<5		<5		<5		<10	
2590	CPSC-CH-E1003-09	< L.O.Q.		4.623		4.102		1.100		< L.O.Q.	
2612	EPA3052	0.6539		10.82		10.1	C	18.10		2.412	
2615	EPA3052	<5		<5		<10		<5		<5	
2629	EPA3051	ND		ND		ND		ND		ND	
2645		-----		-----		-----		<10		-----	
2667	CPSC-CH-E1003-09	<5		<10		<5		<5		<5	
2668	In house	ND		ND		ND		ND		ND	
2669		-----		-----		-----		<5		-----	
2674	CPSC-CH-E1003-09	-----		<10		-----		<10		-----	
2678		-----		-----		-----		nd		-----	
2680	CPSC-CH-E1003-09	<5		<5		<5		<5		<5	
2684		-----		-----		-----		<5		-----	
2690	EPA3052	<10		<10		<10		<10		<10	
2691		-----		-----		-----		-----		-----	
2692		-----		-----		-----		-----		-----	
2697	CPSC-CH-E1003-09	ND		ND		ND		ND		ND	
2698	IEC62321	<5		<5		-----		<5		-----	
2701	EPA3052	<10		<10		-----		<10		-----	
2719	CPSC-CH-E1003-09	<10		<10		-----		<10		-----	
2720	CPSC-CH-E1003-09	ND		ND		ND		ND		ND	
2732	IEC62321	<5		<5		<5		<5		<5	
2736	In house	<14.55		<14.55		<14.55		<14.55		<14.55	
2739		-----		-----		-----		-----		-----	
2741	CPSC-CH-E1003-09	<10		<10		<10		<10		<10	
2745	CPSC-CH-E1003-09	ND		ND		ND		ND		ND	
3100	CPSC-CH-E1003-09	< 10		< 10		< 10		< 10		< 10	
3110		-----		-----		-----		<15		-----	
3117		-----		-----		-----		-----		-----	
3118	CPSC-CH-E1003-09	-----		<20		<20		<20		<20	
3124	EPA3052	0.2297		4.366		-----		0.9515		-----	
3146	CPSC-CH-E1003-09	n.d.		n.d.		n.d.		n.d.		n.d.	
3154	ISO17072-2	-----		3.150		-----		-----		-----	
3160	CPSC-CH-E1003-09	n.d.		n.d.		n.d.		n.d.		-----	
3172		-----		-----		-----		< 10		-----	
3176	In house	3.496		9.285		8.323		1.778		-----	
3182	CPSC-CH-E1003-09	<13		<5		<5		<13		<13	
3185		-----		-----		-----		-----		-----	
3197	EPA3052	ND		ND		ND		ND		ND	
3200	CPSC-CH-E1002-08	<20.0		<20.0		<20.0		<20.0		<20.0	
3209	F963-11	<10		<10		<10		<10		<10	
3210		-----		-----		-----		<90	f+?	-----	
3214	EPA3052	<20		<20		<20		<20		<20	
3220	EPA3052	Not detect.		4.0		11.18		10		Not detect.	
3222		-----		-----		-----		-----		-----	
3225	CPSC-CH-E1003-09	-----		<15.0		-----		<15.0		-----	
3228	IEC62321	-----		<10		-----		<10		-----	
3233	In house	<1		5.0866		6.0599		<1		<1	
3237	CPSC-CH-E1003-09	-----		ND		-----		ND		-----	

3243	CPSC-CH-E1003-09	< LOQ	6.75	< LOQ	< LOQ	< LOQ
3248	CPSC-CH-E1003-09	<10	<10	<10	<10	<10
	normality	n.a.	n.a.	n.a.	n.a.	n.a.
	n	96	115	94	132	94
	outliers	n.a.	n.a.	n.a.	n.a.	n.a.
	mean (n)	<25	<20	<50	<20	<25
	st.dev. (n)	n.a.	n.a.	n.a.	n.a.	n.a.
	R(calc.)	n.a.	n.a.	n.a.	n.a.	n.a.
	R(Horwitz)	n.a.	n.a.	n.a.	n.a.	n.a.

f+? = possible false positive

Lab 213 first reported for Antimony 2.3, for Chromium 14, for Copper 12 and for Lead 0
Lab 551 first reported for Chromium 50.45
Lab 2367 first reported for Lead 31.5
Lab 2495 first reported for Antimony <5
Lab 2612 first reported for Copper 37.64
Lab 2309 remarked DL10mg/kg

APPENDIX 2

Number of participants per country

4 labs in BANGLADESH
1 lab in BELGIUM
1 lab in BRAZIL
1 lab in BULGARIA
1 lab in CAMBODIA
1 lab in DENMARK
5 labs in FRANCE
7 labs in GERMANY
2 labs in GUATEMALA
11 labs in HONG KONG
11 labs in INDIA
6 labs in INDONESIA
6 labs in ITALY
2 labs in JAPAN
3 labs in KOREA
3 labs in MALAYSIA
3 labs in MEXICO
1 lab in MOROCCO
44 labs in P.R. of CHINA
4 labs in PAKISTAN
2 labs in PORTUGAL
2 labs in SINGAPORE
2 labs in SPAIN
2 labs in SRI LANKA
1 lab in SWITZERLAND
3 labs in TAIWAN R.O.C.
3 labs in THAILAND
2 labs in THE NETHERLANDS
2 labs in TUNISIA
6 labs in TURKEY
6 labs in U.S.A.
3 labs in UNITED KINGDOM
7 labs in VIETNAM

APPENDIX 3

Abbreviations:

C	= final result after checking of first reported suspect result
D(0.01)	= outlier in Dixon's outlier test
D(0.05)	= straggler in Dixon's outlier test
G(0.01)	= outlier in Grubbs' outlier test
G(0.05)	= straggler in Grubbs' outlier test
DG(0.01)	= outlier in Double Grubbs' outlier test
DG(0.05)	= straggler in Double Grubbs' outlier test
R(0.01)	= outlier in Rosner' outlier test
R(0.05)	= straggler in Rosner' outlier test
W	= test result withdrawn on request of participant
ex	= test result excluded from calculations
f+?	= possible false positive test result
n.a.	= not applicable
n.d.	= not detected
n.r.	= not reported

Literature:

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