Results of Proficiency Test
PAH in Polymers
February 2017

Organised by: Institute for Interlaboratory Studies
Spijkenisse, the Netherlands

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1 INTRODUCTION

Polycyclic Aromatic Hydrocarbons (PAH) are often, not intentionally, introduced in plastic and rubber with processing additives of plastics and rubber. As essential raw materials of consumer components in articles under REACH, the PAH risk of plastics and rubbers shall be identified. Enterprises shall strictly monitor PAH in high-risk materials, to ensure that the products comply with regulation requirements and with trust of consumers. As early as 2008, the Board of Technical Work Equipment and Consumer Products (AtAV) of Germany includes 16 types of PAH in GS certification. On December 7, 2013, Regulation (EU) 1272/2013 was published and new PAH requirements have been added under entry 50 of ANNEX XVII of REACH. On August 4th, 2014, the committee for product safety amended the PAH testing requirements under GS-Mark in accordance with § 21, subsection no.3 of the German Product Safety Act.
Only a few reference materials (RMs) for PAH in polymers are available to optimise the determination of PAH. As an alternative, participation in a proficiency test may enable the laboratories to check their performance and thus to increase this comparability.
Since 2015, the Institute for Interlaboratory Studies organizes a proficiency test scheme for PAH. During the annual testing program 2016/2017, it was decided to continue the PT on PAH.
In this interlaboratory study 94 laboratories from 24 different countries registered for participation. See appendix 3 for the number of participants per country. In this report, the results of the 2017 PAH proficiency test are presented and discussed. This report is also electronically available through the iis website ww.iisnl.com.

2 SET UP

The Institute for Interlaboratory Studies in Spijkenisse was the organizer of this proficiency test (PT). It was decided to send 2 different polymer samples both positive on PAH of approx. 3 grams each and labelled respectively #17505 and #17506. Sample analyses for fit-for-use and homogeneity testing were performed by two ISO/IEC 17025 accredited laboratoriess. Participants were requested to report rounded and unrounded test results. The unrounded test results were preferably used for statistical evaluation.

2.1 QUALITY SYSTEM

The Institute for Interlaboratory Studies in Spijkenisse, the Netherlands, has implemented a quality system based on ISO/IEC 17043:2010. 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 a 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 March 2017 (iis-protocol, version 3.4). This protocol is electronically available through the iis website www.iisnl.com, from the FAQ page.

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

The first batch, a milled and sieved polymer (black) powder (originally a rubber bath mat), positive on PAH, was obtained from the market. Samples of approx. 3 gram each were prepared. Eight stratified randomly selected samples were tested using an in house test method to check the homogeneity of the batch.

	Phenanthrene in mg/kg	*Pyrene in mg/kg*
Sample #17505-1	0.175	0.188
Sample #17505-2	0.162	0.173
Sample #17505-3	0.174	0.175
Sample #17505-4	0.175	0.172
Sample #17505-5	0.189	0.181
Sample #17505-6	0.184	0.181
Sample #17505-7	0.179	0.178
Sample #17505-8	0.199	0.186

Table 1: homogeneity test results of subsamples #17505

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

	Phenanthrene in mg/kg	*Pyrene in mg/kg*
r (observed)	0.03	0.02
reference	Horwitz	Horwitz
0.3 x R (reference)	0.03	0.03

Table 2: repeatabilities of subsamples #17505

The calculated repeatabilities of the test results were in agreement with 0.3 times the estimated reproducibility using the Horwitz equation. Therefore, homogeneity of the subsamples was assumed.

The second batch, small (ivory) ABS pieces, artificially fortified with eight PAH to a level of approx 10 mg/kg for each PAH, was obtained from a third party laboratory, which used this batch before in an interlaboratory study. Therefore, the samples were considered homogeneous. For each participant a sample of approx. 1.5 gram each was prepared.

One sample of approx. 3 grams labelled #17505 and one sample of approx. 1.5 grams labelled #17506 was sent to each of the participating laboratories on January 18, 2017.
A letter of instructions was added to the sample package.

2.5 ANALYSES

The participants were asked to determine all or any of 20 PAH, applying the analysis procedure that is routinely used in the laboratory. Also some method details were requested to be reported.
To get comparable results a detailed report form and a letter of instructions are prepared. On the report form the reporting units are given as well as the reference test methods that will be used during the evaluation. The detailed report form and the letter of instructions are both made available on the data entry portal www.kpmd.co.uk/sgs-iis-cts/. The participating laboratories were also requested to confirm sample receipt on this data entry portal. The letter of instructions can also be downloaded from the iis website www.iisnl.com.

3 RESULTS

During five weeks after sample despatch, the results of the individual laboratories were gathered via the data entry portal www.kmpd.co.uk/sgs-iis-cts/. The reported test results are tabulated per sample and determination in appendix 1 of this report. The laboratories are presented by the 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 (no reanalyses). Additional or corrected test results are used for the data analysis and the original 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.

3.1 STATISTICS

The protocol followed in the organisation of this proficiency test wast the one as described for proficiency testing in the report 'iis Interlaboratory Studies: Protocol for the Organisation, Statistics and Evaluation' of March 2017 (iis-protocol, version 3.4).

For the statistical evaluation the *unrounded* (when available) figures were used instead of the rounded test results. Test results reported as ‘<...’ or ‘>...’ were 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. If a data set does not have a normal distribution, the (results of the) statistical evaluation should be used with due care.

According to ISO 5725 the original test results per determination were submitted subsequently to Dixon’s, 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’s test and by R(0.01) for the Rosner’s. 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 averages and 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 participating laboratories the z-scores were calculated. As it was decided to evaluate the performance of the participants in this proficiency test (PT) against the literature requirements, the z-scores were calculated using a target standard deviation. This results in an evaluation independent of the variation in this interlaboratory study.

The target standard deviation was calculated from the target reproducibility by division with 2.8. In case no literature reproducibility was available, other target values are 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 should be done in order to evaluate whether the reported test results are fit-for-purpose.

The z-scores were calculated according to:

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

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

Absolute values for z<2 are very common and absolute values for z>3 are very rare. Therefore 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 no reporting problems occurred. Two participants reported the test results after the final reporting date. Three other participants did not report any test results. Not all laboratories were able to report all analyses requested. Finally, 91 participants did report 957 numerical results. Observed were 61 outlying results, which is 6.4% of the numerical 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.

4.1 EVALUATION PER SAMPLE AND PER COMPONENT

In this section, the reported results are discussed per sample and per component. All statistical results reported on the samples are summarised in appendix 1 and analytical details are summarised in appendix 2.

Regretfully, in the common test method ZEK01.4-08 (and AfPS GS 2014:01) no precision data are mentioned. Neither in any other relevant standard test method for the determination of PAH. Therefore, it was decided to use for comparison the Horwitz equation to estimate a target reproducibility.

Sample #17505 was a polymer in which Naphthalene, Phenanthrene and Pyrene were present in concentrations close to the rejection limits for PAH.
Sample #17506 was positive for Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene and Benzo(a)pyrene.

More than half of the test results of laboratories 2223, 2561, 3163 and 2766 were statistical outliers, therefore the other test results of these laboratories were excluded.
Test results of laboratory 2272 were excluded because this laboratory noticed that the hexane that was used according to method ISO 16190 did not dissolve the sample completely and requested to withdraw its test results. Since laboratory 2561 also used ISO 16190, this might be the cause for the outliers for this laboratory. Furthermore, laboratory 2658 used ISO16190 and all reported results were statistical outliers.
Laboratory 2223 and 3163 used deviating techniques to extract the PAH, resp. mechanical shaking (and resting the sample for 12 hrs at ambient temperature, 2223) and thermal desorption (3163), thus leading to deviating test results.

Sample #17505 – Black rubber powder

Naphthalene: The determination of Naphthalene may be very problematic. Seven statistical outliers were observed and three test results were excluded. The observed reproducibility after rejection of the suspect data is not at all in agreement with the estimated target reproducibility using the Horwitz equation. The high volatility of Naphthalene may be the cause of the large variation that is observed.

Phenanthrene: The determination of Phenanthrene may be problematic for a concentration of 0.24 mg/kg, which may be close to or below the detection limit. Forty-four participants reported <1 mg/kg or not detected, while twenty-three participants reported a numerical test result. Six statistical outliers were observed and two test results were excluded. The observed reproducibility after rejection of the suspect data is not in agreement with the estimated target reproducibility using the Horwitz equation.

Pyrene: The determination of Pyrene may be problematic for a concentration of 0.15 mg/kg, which may be close to or below the detection limit. Thirty-seven participants reported <1 mg/kg or not detected, while thirty-one participants reported a numerical test result. Five statistical outliers were observed and two test results were excluded. The observed reproducibility after rejection of the suspect data is not in agreement with the estimated target reproducibility using the Horwitz equation.

Other PAHs: The majority of laboratories agreed on a concentration <1 mg/kg for all other determined PAHs.

Sample #17506 – Ivory ABS granulate

Acenaphthene: The determination of Acenaphthene may be problematic for a number of laboratories. Seven statistical outliers were observed and one test result was excluded. The observed reproducibility after rejection of the suspect data is almost in agreement with the estimated target reproducibility using the Horwitz equation.

Fluorene: The determination of Fluorene may be problematic. Five statistical outliers were observed and two test results were excluded. The observed reproducibility after rejection of the suspect data is not in agreement with the estimated target reproducibility using the Horwitz equation.

Phenanthrene: The determination of Phenanthrene may be problematic for a number of laboratories. Six statistical outliers were observed and one test result was excluded. However, the observed reproducibility after rejection of the suspect data is in full agreement with the estimated target reproducibility using the Horwitz equation.

Anthracene: The determination of Anthracene may be problematic. Six statistical outliers were observed and one test result was excluded. The observed reproducibility after rejection of the suspect data is not in agreement with the estimated target reproducibility using the Horwitz equation.

Fluoranthene: The determination of Fluoranthene may be problematic for a number of laboratories. Eight statistical outliers were observed and two test results were excluded. However, the observed reproducibility after rejection of the suspect data is in full agreement with the estimated target reproducibility using the Horwitz equation.

Pyrene: The determination of Pyrene may be problematic. Five statistical outliers were observed and four test results were excluded. The observed reproducibility after rejection of the suspect data is not in agreement with the estimated target reproducibility using the Horwitz equation.

Benzo[a]anthracene: The determination of Benzo[a]anthracene may be problematic. Three statistical outliers were observed and four test results were excluded. The observed reproducibility after rejection of the suspect data is not in agreement with the estimated target reproducibility using the Horwitz equation.

Benzo[a]pyrene: The determination of Benzo[a]pyrene may be problematic. Three statistical outliers were observed and three test results were excluded. The observed reproducibility after rejection of the suspect data is not in agreement with the estimated target reproducibility using the Horwitz equation.

Other PAHs: The majority of laboratories agreed on a concentration <1 mg/kg for all other determined PAHs.

4.2 PERFORMANCE EVALUATION FOR THE GROUP OF LABORATORIES

A comparison has been made between the reproducibility as declared by the estimated target reproducibility using the Horwitz equation and the reproducibility as found for the group of participating laboratories.

The number of significant test results, the average result, the calculated reproducibility (standard deviation*2.8) and the estimated target reproducibility are presented in the next tables.

Parameter	unit	n	Average	2.8 * sd	R(target)
Naphthalene	mg/kg	75	0.68	0.81	0.32
Phenanthrene	mg/kg	15	0.24	0.28	0.13
Pyrene	mg/kg	24	0.15	0.14	0.09

Table 3: reproducibilities of PAH in sample #17505

Parameter	unit	n	Average	2.8 * sd	R(target)
Acenaphthene	mg/kg	66	8.16	3.00	2.67
Fluorene	mg/kg	70	7.73	3.24	2.55
Phenanthrene	mg/kg	69	8.54	3.04	2.77
Anthracene	mg/kg	70	8.62	3.67	2.79
Fluoranthene	mg/kg	66	9.07	3.09	2.92
Pyrene	mg/kg	69	8.51	3.45	2.76
Benzo[a]anthracene	mg/kg	67	8.45	4.07	2.75
Benzo[a]pyrene	mg/kg	63	8.20	3.99	2.68

Table 4: reproducibilities of PAH in sample #17506

Without further statistical calculations, it can be concluded that the group of participating laboratories may have problems with the analysis of PAH in polymer at the evaluated concentration levels. See also the discussion in paragraphs 4.1 and 5.

4.3 COMPARISON OF THE PROFICIENCY TEST OF FEBRUARY 2017 WITH THE PREVIOUS PT

	February 2017	February 2016	February 2015
Number of reporting labs	91	73	78
Number of results reported	957	1527	1365
Number of statistical outliers	61	79	57
Percentage outliers	6.4%	5.2%	4.2%

Table 5: Comparison with previous proficiency test

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

The uncertainty in the test results of PAH in the iis17P02 PT for the majority of the parameters appears to be improved somewhat compared to the previous PT, except for Naphthalene.

Parameter	February 2017	February 2016	February 2015
Naphthalene	43%	23%	55%
Acenaphthylene	n.e.	n.e.	32%
Acenaphthene	13%	13-22%	26%
Fluorene	15%	19%	18%
Phenanthrene	13-41%	14%	12%
Anthracene	15%	13-25%	16%
Fluoranthene	12%	17%	11%
Pyrene	14-33%	14-18%	11%
Benzo[a]anthracene	17%	23%	18%
Chrysene	n.e.	23%	15%
Sum of Chrysene and Triphenylene	n.e.	21%	n.e.
Benzo[b]fluoranthene	n.e.	26%	14%
Benzo[j]fluoranthene	n.e.	21%	22%
Benzo[k]fluoranthene	n.e.	27%	21%
Sum of [b],[j],[k] benzofluoranthene	n.e.	28%	28%
Benzo[e]pyrene	n.e.	23%	18%
Benzo[a]pyrene	17%	24%	13%
Indeno[1,2,3-c,d]pyrene	n.e.	29%	19%
Benzo[g,h,i]perylene	n.e.	25%	17%
Dibenzo[a,h]anthracene	n.e.	n.e.	17%
Cyclopenta(c,d)pyrene	n.e.	n.e.	n.e.

Table 6: Development of relative uncertainties over the years

5 DISCUSSION

A number of different test methods were reported to have been used. Most often the obsolete method ZEK01.4-08 or its replacement AfPS GS 2014:01 (72 laboratories) was mentioned as test method used, followed by ‘in house’ (14 laboratories). Three laboratories used ISO/TS16190 with hexane as extraction solvent, but as one laboratory remarked, it is clear that hexane was not able to dissolve all polymer. All three laboratories had many deviating, outlying results. Therefore, the choice of extraction solvent may be significant. One laboratory (330) used a mixture of dichloromethane and methanol at ambient temperature, but submitted only two numerical test results and 11 ‘less than’ results, which is not enough data to draw any conclusions.
All laboratories except two used an ultrasonic technique to extract the PAH, for 60 minutes at 60°C. One laboratory used only mechanical shaking at ambient temperature and one laboratory used thermal desorption. Most laboratories did use toluene as a solvent.

However, it is clear that a number of laboratories would judge both samples different when decisions of rejection or acceptance have to be made according the latest GS-Mark certification on PAH (4 August 2014, see table below).

Parameter	Category 1	Category 2		Category 3	
	Materials, that are intended to be put into the mouth or materials in toys with intended and prolonged skin-contact (longer than 30 s)	Materials, not covered by category 1, with foreseeable skin-contact of > 30 s (prolonged skin-contact) or short-term repetitive contact with the human skin [4]		Materials, not covered by category 1 or 2, with foreseeable skin-contact of up to 30 s (short-term skin contact)	
[mg/kg]		Toys according to Toy Directive 2009/48/EU	Other products according to Product Safety Act	Toys according to Toy Directive 2009/48/EU	Other products according to Product Safety Act
Benzo[a]pyrene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Benzo[e]pyrene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Benzo[a]anthracene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Benzo[b]fluoroanthene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Benzo[j]fluoroanthene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Benzo[k]fluoroanthene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Chrysene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Dibenzo[a,h]anthracene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Benzo[g,h,i]perylene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Indeno[1,2,3-cd]pyrene	< 0,2	< 0,2	< 0,5	< 0,5	< 1
Acenaphthylene, Acenaphthen, Fluorene, Phenanthrene, Pyrene, Anthracene, Fluoranthene	Sum < 1	Sum < 5	Sum < 10	Sum < 20	Sum < 50
Naphthalene	< 1	< 2		< 10	
Sum 18 PAH	< 1	< 5	< 10	< 20	< 50

Table 7: Category limits from German GS-Mark per July 2015

It can be concluded that the observed variation in this interlaboratory study may not be caused by just one critical point in the analysis. Each participating laboratory will have to evaluate its performance in this study and decide about any corrective actions if necessary. Therefore, participation on a regular basis in this scheme could be helpful to improve the performance and the quality of the analytical results.

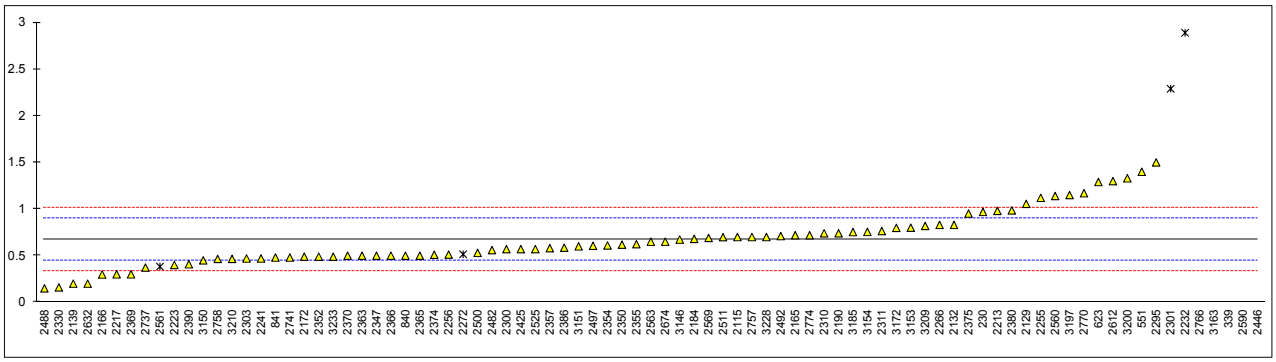
APPENDIX 1

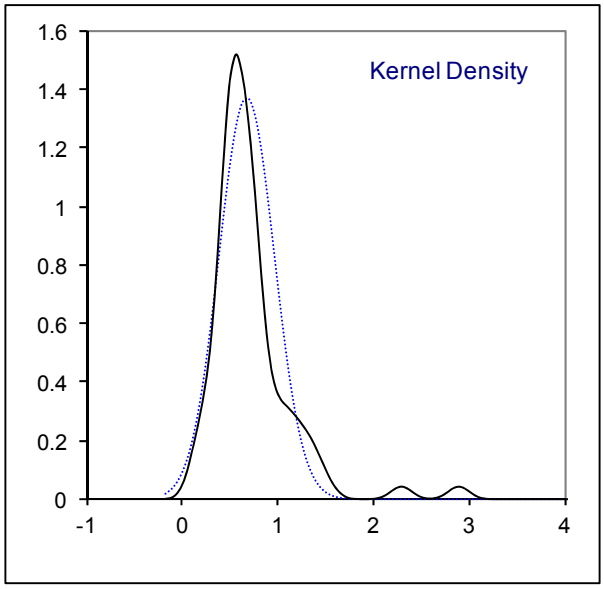
Determination of Naphthalene in sample #17505; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	0.969		2.56	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	13.05	R(0.01)	107.95	
551	In house	1.40		6.32	
623	AfPS GS 2014	1.29		5.36	
840	AfPS GS 2014	0.50		-1.53	
841	ZEK01.4-08	0.48		-1.70	
2102		-----		-----	
2115	AfPS GS 2014	0.7		0.22	
2129	AfPS GS 2014	1.056		3.32	
2132	In house	0.83		1.35	
2139	AfPS GS 2014	0.2		-4.15	
2165	AfPS GS 2014	0.72		0.39	
2166	AfPS GS 2014	0.298		-3.29	
2172	AfPS GS 2014	0.49		-1.62	
2184	AfPS GS 2014	0.68		0.04	
2190	AfPS GS 2014	0.74		0.56	
2213	AfPS GS 2014	0.98		2.66	
2217	AfPS GS 2014	0.30		-3.27	
2223	In house	0.4	ex	-2.40	test result excluded, see §4.1
2232	In house	2.89	C,R(0.01)	19.32	first reported: 2.981
2241	AfPS GS 2014	0.47		-1.79	
2255	AfPS GS 2014	1.12		3.88	
2256	ZEK01.4-08	0.512	C	-1.42	first reported: 1.92
2266	ZEK01.4-08	0.83		1.35	
2272	ISO16190	0.515	ex	-1.40	test result excluded, see §4.1
2295	AfPS GS 2014	1.5		7.19	
2300	ZEK01.4-08	0.57		-0.92	
2301	In house	2.29	R(0.01)	14.09	
2303	AfPS GS 2014	0.470		-1.79	
2310	AfPS GS 2014	0.74		0.56	
2311	AfPS GS 2014	0.764		0.77	
2320	In house	N.D.		-----	possible false negative test result?
2330	AfPS GS 2014	0.16		-4.50	
2347	AfPS GS 2014	0.5		-1.53	
2350	AfPS GS 2014	0.618657		-0.49	
2352	AfPS GS 2014	0.49		-1.62	
2354	AfPS GS 2014	0.61		-0.57	
2355	AfPS GS 2014	0.6230		-0.46	
2357	AfPS GS 2014	0.58		-0.83	
2363	AfPS GS 2014	0.5		-1.53	
2365	AfPS GS 2014	0.50		-1.53	
2366	AfPS GS 2014	0.50		-1.53	
2369	AfPS GS 2014	0.3		-3.27	
2370	AfPS GS 2014	0.500		-1.53	
2374	AfPS GS 2014	0.51		-1.44	
2375	AfPS GS 2014	0.952		2.41	
2380	AfPS GS 2014	0.986		2.71	
2384	AfPS GS 2014	NOT DET.		-----	possible false negative test result?
2386	AfPS GS 2014	0.586		-0.78	
2390	AfPS GS 2014	0.408		-2.33	
2425	In house	0.57		-0.92	
2446	In house	16.57	R(0.01)	138.66	
2481		-----		-----	
2482	AfPS GS 2014	0.560		-1.01	
2488	AfPS GS 2014	0.15		-4.58	
2492	In house	0.710		0.30	
2497	AfPS GS 2014	0.606		-0.60	
2500	AfPS GS 2014	0.53	C	-1.27	first reported: 1.53
2511	AfPS GS 2014	0.699		0.21	
2525	AfPS GS 2014	0.57		-0.92	
2560	ZEK01.4-08	1.14		4.05	
2561	ISO/TS16190	0.38297	ex	-2.55	test result excluded, see §4.1
2563	AfPS GS 2014	0.65		-0.22	
2569	ZEK01.4-08	0.69		0.13	
2590	AfPS GS 2014	13.9	C,R(0.01)	115.37	first reported: 19.211
2612	AfPS GS 2014	1.30	C	5.45	first reported: 1.67
2632	AfPS GS 2014	0.2		-4.15	
2658		-----		-----	
2674	AfPS GS 2014	0.65		-0.22	
2723	AfPS GS 2014	< 1		-----	
2737	AfPS GS 2014	0.373		-2.64	
2741	ZEK01.4-08	0.48		-1.70	
2744		-----		-----	
2757	AfPS GS 2014	0.7		0.22	

2758	In house	0.465		-1.83
2766	AfPS GS 2014	5.73	R(0.01)	44.10
2770	GB/T29616	1.17		4.32
2774	AfPS GS 2014	0.72		0.39
3146	AfPS GS 2014	0.6724		-0.03
3150	AfPS GS 2014	0.450		-1.97
3151	AfPS GS 2014	0.60		-0.66
3153	AfPS GS 2014	0.80		1.09
3154	ZEK01.4-08	0.755		0.70
3163	In house	11.9	R(0.01)	97.92
3172	AfPS GS 2014	0.798		1.07
3185	AfPS GS 2014	0.753		0.68
3197	AfPS GS 2014	1.15		4.14
3200	AfPS GS 2014	1.33		5.71
3209	AfPS GS 2014	0.819		1.25
3210	In house	0.466		-1.83
3228	AfPS GS 2014	0.7		0.22
3233	In house	0.49		-1.62

normality	OK
n	75
outliers	7 (+3ex)
mean (n)	0.6753
st.dev. (n)	0.29053
R(calc.)	0.8135
R(Horwitz)	0.3210



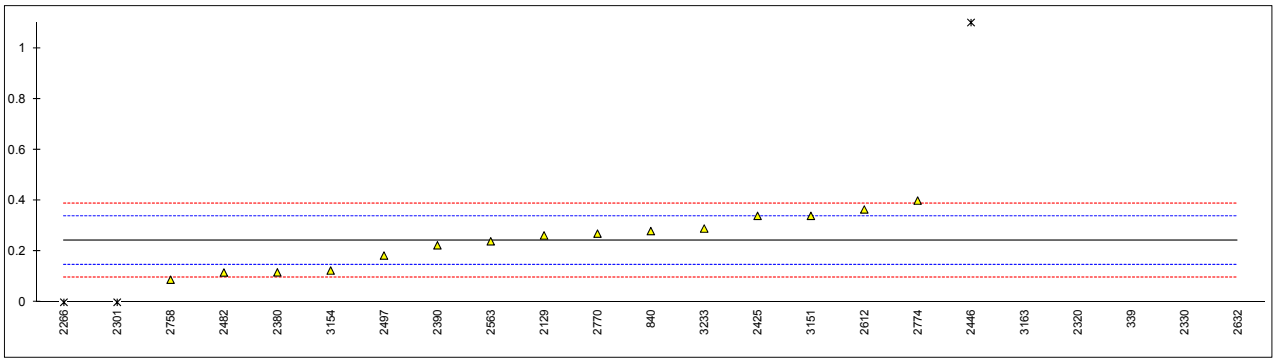


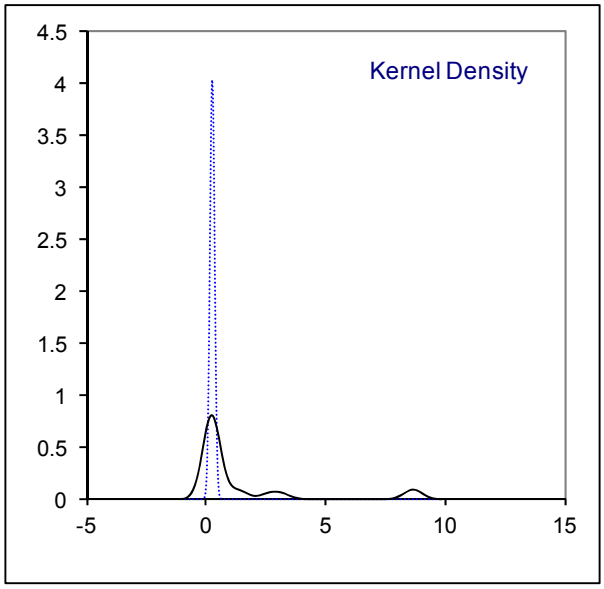
Determination of Phenanthrene in sample #17505; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230		-----		-----	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	3.16	R(0.05)	60.64	
551	In house	ND		-----	
623	AfPS GS 2014	ND		-----	
840	AfPS GS 2014	0.28		0.77	
841	ZEK01.4-08	n.d		-----	
2102		-----		-----	
2115		-----		-----	
2129	AfPS GS 2014	0.263		0.42	
2132	In house	<0.2		-----	
2139		-----		-----	
2165	AfPS GS 2014	ND		-----	
2166	AfPS GS 2014	<0,1		-----	
2172		-----		-----	
2184	AfPS GS 2014	ND		-----	
2190	AfPS GS 2014	<0.2		-----	
2213	AfPS GS 2014	<0.2		-----	
2217		-----		-----	
2223	In house	<0.1		-----	
2232		-----		-----	
2241	AfPS GS 2014	<0.1		-----	
2255	AfPS GS 2014	ND		-----	
2256		-----		-----	
2266	ZEK01.4-08	0	ex	-5.05	test result excluded, for zero is not a real value
2272		-----		-----	
2295		-----		-----	
2300	ZEK01.4-08	n.d		-----	
2301	In house	0	ex	-5.05	test result excluded, for zero is not a real value
2303	AfPS GS 2014	<0.2		-----	
2310	AfPS GS 2014	NOT DET.		-----	
2311	AfPS GS 2014	Not Detected		-----	
2320	In house	2.591	C,R(0.01)	48.81	first reported: 2.164
2330	AfPS GS 2014	8.519	R(0.01)	172.04	
2347	AfPS GS 2014	<0.1		-----	
2350	AfPS GS 2014	< 0.2		-----	
2352		-----		-----	
2354	AfPS GS 2014	N.D.[<0.1]		-----	
2355	AfPS GS 2014	<0.1		-----	
2357	AfPS GS 2014	N.D.		-----	
2363	AfPS GS 2014	N.D.		-----	
2365	AfPS GS 2014	ND		-----	
2366	AfPS GS 2014	<0.1		-----	
2369	AfPS GS 2014	<0.1		-----	
2370	AfPS GS 2014	n.d.		-----	
2374		-----		-----	
2375		-----		-----	
2380	AfPS GS 2014	0.118		-2.60	
2384	AfPS GS 2014	NOT DET.		-----	
2386		-----		-----	
2390	AfPS GS 2014	0.224		-0.39	
2425	In house	0.34		2.02	
2446	In house	1.10	R(0.01)	17.81	
2481		-----		-----	
2482	AfPS GS 2014	0.117		-2.62	
2488		-----		-----	
2492		-----		-----	
2497	AfPS GS 2014	0.184		-1.23	
2500	AfPS GS 2014	N.A.		-----	
2511		-----		-----	
2525	AfPS GS 2014	<0.2		-----	
2560	ZEK01.4-08	ND		-----	
2561	ISO/TS16190	<0.2		-----	
2563	AfPS GS 2014	0.24		-0.06	
2569		-----		-----	
2590	AfPS GS 2014	< L.O.Q.		-----	
2612	AfPS GS 2014	0.365		2.54	
2632	AfPS GS 2014	8.8	R(0.01)	177.88	
2658		-----		-----	
2674	AfPS GS 2014	n.d.		-----	
2723	AfPS GS 2014	< 1		-----	
2737		-----		-----	
2741	ZEK01.4-08	<0.2		-----	
2744		-----		-----	
2757		-----		-----	

2758	In house	0.089		-3.20
2766	AfPS GS 2014	Not detected		-----
2770	GB/T29616	0.27		0.56
2774	AfPS GS 2014	0.40		3.26
3146	AfPS GS 2014	<0,2		-----
3150		-----		-----
3151	AfPS GS 2014	0.34		2.02
3153	AfPS GS 2014	<0.20		-----
3154	ZEK01.4-08	0.125		-2.45
3163	In house	1.5	R(0.01)	26.13
3172	AfPS GS 2014	< 0.1		-----
3185	AfPS GS 2014	ND		-----
3197	AfPS GS 2014	ND		-----
3200	AfPS GS 2014	<0.2		-----
3209	AfPS GS 2014	Not detected		-----
3210	In house	<0.2		-----
3228	AfPS GS 2014	ND		-----
3233	In house	0.29		0.98

normality	OK
n	15
outliers	6 (+2ex)
mean (n)	0.2430
st.dev. (n)	0.09858
R(calc.)	0.2760
R(Horwitz)	0.1347



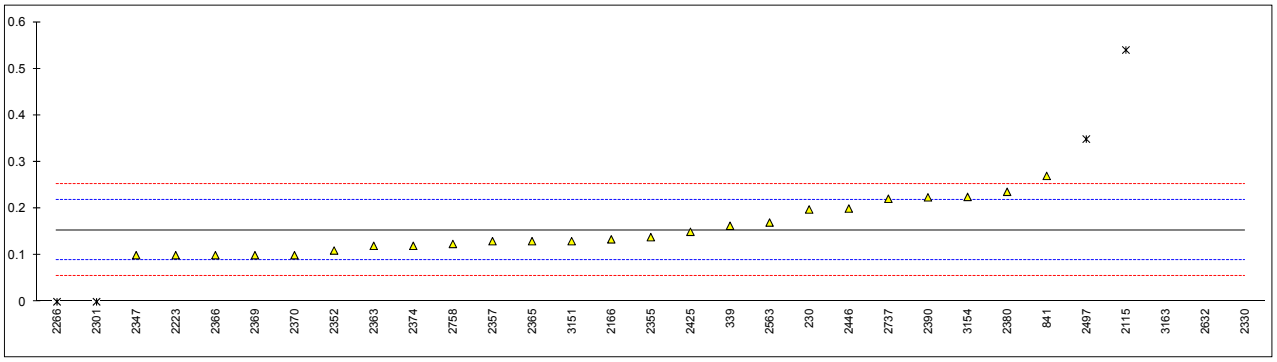


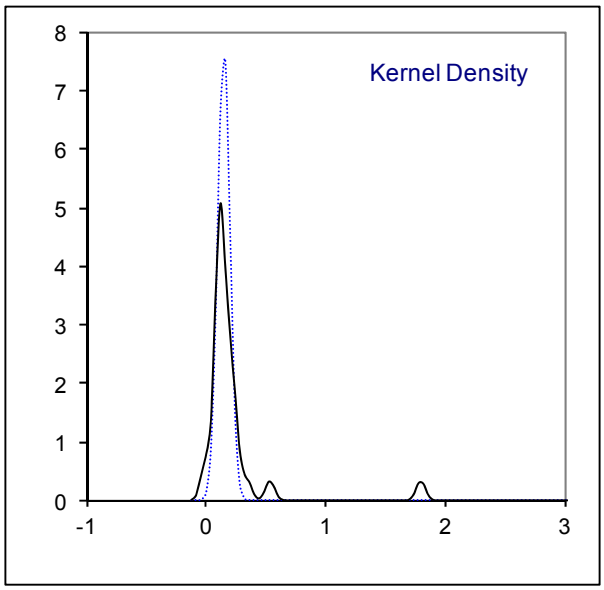
Determination of Pyrene in sample #17505; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	0.198		1.35	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	0.163		0.28	
551	In house	ND		-----	
623	AfPS GS 2014	ND		-----	
840	AfPS GS 2014	ND		-----	
841	ZEK01.4-08	0.27		3.56	
2102		-----		-----	
2115	AfPS GS 2014	0.54	C,R(0.01)	11.83	first reported: 1.60
2129		-----		-----	
2132	In house	<0.2		-----	
2139		-----		-----	
2165	AfPS GS 2014	ND		-----	
2166	AfPS GS 2014	0.134		-0.61	
2172		-----		-----	
2184	AfPS GS 2014	ND		-----	
2190	AfPS GS 2014	<0.2		-----	
2213	AfPS GS 2014	<0.2		-----	
2217		-----		-----	
2223	In house	0.1		-1.65	
2232		-----		-----	
2241	AfPS GS 2014	<0.1		-----	
2255	AfPS GS 2014	ND		-----	
2256		-----		-----	
2266	ZEK01.4-08	0	ex	-4.72	test result excluded, for zero is not a real value
2272		-----		-----	
2295		-----		-----	
2300	ZEK01.4-08	n.d		-----	
2301	In house	0	ex	-4.72	test result excluded, for zero is not a real value
2303	AfPS GS 2014	<0.2		-----	
2310	AfPS GS 2014	NOT DET.		-----	
2311	AfPS GS 2014	Not Detected		-----	
2320	In house	N.D.		-----	
2330	AfPS GS 2014	10.066	R(0.01)	303.72	
2347	AfPS GS 2014	0.1		-1.65	
2350	AfPS GS 2014	< 0.2		-----	
2352	AfPS GS 2014	0.11		-1.35	
2354	AfPS GS 2014	N.D.[<0.1]		-----	
2355	AfPS GS 2014	0.1386		-0.47	
2357	AfPS GS 2014	0.13		-0.73	
2363	AfPS GS 2014	0.12		-1.04	
2365	AfPS GS 2014	0.13		-0.73	
2366	AfPS GS 2014	0.10		-1.65	
2369	AfPS GS 2014	0.1		-1.65	
2370	AfPS GS 2014	0.100		-1.65	
2374	AfPS GS 2014	0.12		-1.04	
2375		-----		-----	
2380	AfPS GS 2014	0.236		2.52	
2384	AfPS GS 2014	NOT DETECTED		-----	
2386		-----		-----	
2390	AfPS GS 2014	0.224		2.15	
2425	In house	0.15		-0.12	
2446	In house	0.20		1.41	
2481		-----		-----	
2482		-----		-----	
2488		-----		-----	
2492		-----		-----	
2497	AfPS GS 2014	0.349	R(0.05)	5.98	
2500	AfPS GS 2014	N.A.		-----	
2511		-----		-----	
2525	AfPS GS 2014	<0.2		-----	
2560	ZEK01.4-08	ND		-----	
2561	ISO/TS16190	<0.2		-----	
2563	AfPS GS 2014	0.17		0.49	
2569		-----		-----	
2590	AfPS GS 2014	< L.O.Q.		-----	
2612	AfPS GS 2014	< 0,2		-----	
2632	AfPS GS 2014	9.1	R(0.01)	274.12	
2658		-----		-----	
2674	AfPS GS 2014	n.d.		-----	
2723	AfPS GS 2014	< 1		-----	
2737	AfPS GS 2014	0.221		2.06	
2741	ZEK01.4-08	<0.2		-----	
2744		-----		-----	

2757		-----		-----
2758	In house	0.124		-0.92
2766	AfPS GS 2014	Not detected		-----
2770	GB/T29616	N.D.		-----
2774		-----		-----
3146	AfPS GS 2014	<0,2		-----
3150		-----		-----
3151	AfPS GS 2014	0.13		-0.73
3153	AfPS GS 2014	<0.20		-----
3154	ZEK01.4-08	0.225		2.18
3163	In house	1.8	R(0.01)	50.44
3172	AfPS GS 2014	< 0.1		-----
3185	AfPS GS 2014	ND		-----
3197	AfPS GS 2014	ND		-----
3200	AfPS GS 2014	<0.2		-----
3209	AfPS GS 2014	Not detected		-----
3210	In house	<0.2		-----
3228	AfPS GS 2014	ND		-----
3233		-----		-----

normality	OK
n	24
outliers	5 (+2ex)
mean (n)	0.1539
st.dev. (n)	0.05154
R(calc.)	0.1443
R(Horwitz)	0.0914





Determination of other PAH in sample #17505; results in mg/kg

lab	method	Acenaphthylene	Acenaphthene	Fluorene	Anthracene	Fluoranthene	Benzo(a) anthracene
230	AfPS GS 2014	-----	-----	-----	-----	-----	-----
310		-----	-----	-----	-----	-----	-----
330		-----	-----	-----	-----	-----	<0,02
339	AfPS GS 2014	less than 0.1	less than 0.1	1.28 f+?	less than 0.1	less than 0.1	less than 0.1
551	In house	ND	ND	ND	ND	ND	ND
623	AfPS GS 2014	ND	ND	ND	ND	ND	ND
840	AfPS GS 2014	ND	ND	ND	ND	ND	ND
841	ZEK01.4-08	n.d	n.d	n.d	n.d	n.d	n.d
2102		-----	-----	-----	-----	-----	-----
2115	AfPS GS 2014	-----	-----	-----	-----	-----	-----
2129	AfPS GS 2014	-----	-----	-----	-----	-----	-----
2132	In house	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2139		-----	-----	-----	-----	-----	-----
2165	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2166	AfPS GS 2014	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1
2172		-----	-----	-----	-----	-----	-----
2184	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2190	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2213	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2217		-----	-----	-----	-----	-----	-----
2223	In house	<0.1	<0.1	0.2	<0.1	<0.1	<0.1
2232		-----	-----	-----	-----	-----	-----
2241	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2255	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2256		-----	-----	-----	-----	-----	-----
2266	ZEK01.4-08	0	0	0	0	0	0
2272		-----	-----	-----	-----	-----	-----
2295		-----	-----	-----	-----	-----	-----
2300	ZEK01.4-08	n.d	n.d	n.d	n.d	n.d	n.d
2301	In house	0	0	0	0	0	0
2303	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2310	AfPS GS 2014	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.
2311	AfPS GS 2014	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
2320	In house	N.D.	N.D.	1.072 f+?	N.D.	N.D.	N.D. 10.623
2330	AfPS GS 2014	ND	8.902 f+?	8.197 f+?	10.111 f+?	10.372 f+?	f+?
2347	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2350	AfPS GS 2014	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2352	AfPS GS 2014	-----	-----	-----	-----	-----	-----
2354	AfPS GS 2014	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]
2355	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2357	AfPS GS 2014	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2363	AfPS GS 2014	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2365	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2366	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2369	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2370	AfPS GS 2014	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2374	AfPS GS 2014	-----	-----	-----	-----	-----	-----
2375		-----	-----	-----	-----	-----	-----
2380	AfPS GS 2014	-----	-----	-----	-----	-----	-----
2384	AfPS GS 2014	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.
2386		-----	-----	-----	-----	-----	-----
2390	AfPS GS 2014	0.183	ND	0.326	ND	ND	ND
2425	In house	-----	-----	-----	-----	-----	-----
2446	In house	<0,1	<0,1	1.64 f+?	0.50	0.19	<0,1
2481		-----	-----	-----	-----	-----	-----
2482	AfPS GS 2014	-----	-----	-----	-----	-----	0.183
2488		-----	-----	-----	-----	-----	-----
2492		-----	-----	-----	-----	-----	-----
2497	AfPS GS 2014	-----	-----	0.712	-----	0.186	-----
2500	AfPS GS 2014	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
2511		-----	-----	-----	-----	-----	-----
2525	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2560	ZEK01.4-08	ND	ND	ND	ND	ND	ND
2561	ISO/TS16190	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2563	AfPS GS 2014	-----	-----	-----	-----	-----	-----
2569		-----	-----	-----	-----	-----	-----
2590	AfPS GS 2014	< L.O.Q.	< L.O.Q.	< L.O.Q.	< L.O.Q.	< L.O.Q.	< L.O.Q.
2612	AfPS GS 2014	< 0,2	< 0,2	0.305	< 0,2	< 0,2	< 0,2 9.1
2632	AfPS GS 2014	N.D.[<0.2]	10.1 f+?	7.4 f+?	9.5 f+?	9.5 f+?	f+?
2658		-----	-----	-----	-----	-----	<0,2
2674	AfPS GS 2014	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2723	AfPS GS 2014	< 1	< 1	< 1	< 1	< 1	< 1
2737	AfPS GS 2014	-----	-----	-----	-----	-----	-----

2741	ZEK01.4-08	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2744		-----	-----	-----	-----	-----	-----
2757		-----	-----	-----	-----	-----	-----
2758	In house	0	0	0	0	0	0
2766	AfPS GS 2014	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
2770	GB/T29616	0.12	0.12	0.33	N.D.	N.D.	N.D.
2774	AfPS GS 2014	-----	-----	-----	-----	-----	-----
3146	AfPS GS 2014	<0,2	<0,2	<0,2	<0,2	<0,2	<0,2
3150		-----	-----	-----	-----	-----	-----
3151	AfPS GS 2014	0	0	0	0	0	0
3153	AfPS GS 2014	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
3154	ZEK01.4-08	-----	-----	0.105	-----	-----	-----
							20.5
3163	In house	1.2 f+?	0.5	2.9 f+?	20.2 f+?	1.6 f+?	f+?
3172	AfPS GS 2014	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3185	AfPS GS 2014	ND	ND	ND	ND	ND	ND
3197	AfPS GS 2014	ND	ND	ND	ND	ND	ND
3200	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
3209	AfPS GS 2014	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
3210	In house	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
3228	AfPS GS 2014	ND	ND	ND	ND	ND	ND
3233	In house	-----	-----	-----	-----	-----	-----
	n	55	56	54	55	56	58
	mean (n)	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.

Lab 2115 first reported for Pyrene: 1.60
Lab 2320 first reported for Phenanthrene: 2.164

Determination of other PAH in sample #17505; results in mg/kg -- continued --

lab	method	Chrysene	Chrysene + Triphenylene	Benzo(b) fluoranthene	Benzo(j) fluoranthene	Benzo(k) fluoranthene	Sum benzo (b,j,k)fluoran
230		-----	-----	-----	-----	-----	-----
310		-----	-----	-----	-----	-----	-----
330	In house	<0,02	-----	<0,04	<0,04	<0,02	-----
339	AfPS GS 2014	0.46	-----	-----	-----	-----	less than 0.1
551	In house	ND	ND	ND	ND	ND	ND
623	AfPS GS 2014	ND	ND	ND	ND	ND	ND
840	AfPS GS 2014	ND	ND	ND	ND	ND	ND
841	ZEK01.4-08	n.d	n.d	n.d	n.d	n.d	n.d
2102		-----	-----	-----	-----	-----	-----
2115		-----	-----	-----	-----	-----	-----
2129		-----	-----	-----	-----	-----	-----
2132	In house	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2139		-----	-----	-----	-----	-----	-----
2165	AfPS GS 2014	ND	-----	ND	ND	ND	ND
2166	AfPS GS 2014	<0,1	-----	<0,1	<0,1	<0,1	-----
2172		-----	-----	-----	-----	-----	-----
2184	AfPS GS 2014	ND	-----	ND	ND	ND	ND
2190	AfPS GS 2014	<0.2	-----	-----	-----	-----	<0.2
2213	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2217		-----	-----	-----	-----	-----	-----
2223	In house	<0.1	<0.1	<0.1	<0.1	<0.1	-----
2232		-----	-----	-----	-----	-----	-----
2241	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2255	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2256		-----	-----	-----	-----	-----	-----
2266	ZEK01.4-08	0	0	0	0	0	0
2272		-----	-----	-----	-----	-----	-----
2295		-----	-----	-----	-----	-----	-----
2300	ZEK01.4-08	n.d	n.d	n.d	n.d	n.d	n.d
2301	In house	0	0	0	0	0	0
2303	AfPS GS 2014	<0.2	-----	<0.2	<0.2	<0.2	-----
2310	AfPS GS 2014	NOT. DET.	-----	NOT DET.	NOT DET.	NOT DET.	NOT DET.
2311	AfPS GS 2014	Not Detected	-----	Not Detected	Not Detected	Not Detected	Not Detected
2320	In house	N.D.	-----	N.D.	-----	N.D.	-----
2330	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2347	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2350	AfPS GS 2014	< 0.2	N.A.	< 0.2	< 0.2	< 0.2	< 0.2
2352		-----	-----	-----	-----	-----	-----
2354	AfPS GS 2014	N.D.[<0.1]	N.A.	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]
2355	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2357	AfPS GS 2014	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2363	AfPS GS 2014	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2365	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2366	AfPS GS 2014	<0.1	Out Cap	<0.1	<0.1	<0.1	<0.1
2369	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2370	AfPS GS 2014	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2374		-----	-----	-----	-----	-----	-----
2375		-----	-----	-----	-----	-----	-----
2380		-----	-----	-----	-----	-----	-----
2384	AfPS GS 2014	NOT DET.	-----	NOT DET.	NOT DET.	NOT DET.	-----
2386		-----	-----	-----	-----	-----	-----
2390	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2425		-----	-----	-----	-----	-----	-----
2446	In house	-----	0.25	<0,1	<0,1	<0,1	<0,1
2481		-----	-----	-----	-----	-----	
2482	AfPS GS 2014	-----	-----	-----	-----	-----	-----
2488		-----	-----	-----	-----	-----	-----
2492		-----	-----	-----	-----	-----	-----
2497		-----	-----	-----	-----	-----	-----
2500	AfPS GS 2014	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
2511		-----	-----	-----	-----	-----	-----
2525	AfPS GS 2014	<0.2	-----	<0.2	<0.2	<0.2	<0.2
2560	ZEK01.4-08	ND	ND	ND	ND	ND	ND
2561	ISO/TS16190	<0.2	-----	<0.2	<0.2	<0.2	<0.2
2563		-----	-----	-----	-----	-----	-----
2569		-----	-----	-----	-----	-----	-----
2590	AfPS GS 2014	< L.O.Q.	-----	< L.O.Q.	< L.O.Q.	< L.O.Q.	< L.O.Q.
2612	AfPS GS 2014	< 0,2	-----	< 0,2	< 0,2	< 0,2	< 0,2
2632	AfPS GS 2014	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]
2658	ISO/TS16190	<0,2	-----	<0,2	<0,2	<0,2	<0,2
2674	AfPS GS 2014	n.d.	-----	n.d.	n.d.	n.d.	n.d.
2723	AfPS GS 2014	< 1	< 1	< 1	< 1	< 1	< 1
2737		-----	-----	-----	-----	-----	-----
2741	ZEK01.4-08	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2744		-----	-----	-----	-----	-----	-----

2757		-----	-----	-----	-----	-----	-----
2758	In house	0	-----	0	0	0	-----
2766	AfPS GS 2014	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
2770	GB/T29616	N.D.	-----	N.D.	N.D.	N.D.	N.D.
2774		-----	-----	-----	-----	-----	-----
3146	AfPS GS 2014	<0,2	<0,2	<0,2	<0,2	<0,2	-----
3150		-----	-----	-----	-----	-----	-----
3151	AfPS GS 2014	0	0	0	0	0	0
3153	AfPS GS 2014	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
3154		-----	-----	-----	-----	-----	-----
3163	In house	18.6 f+?	-----	0.8	0.8	0.8	2.4 f+?
3172	AfPS GS 2014	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3185	AfPS GS 2014	ND	ND	ND	ND	ND	ND
3197	AfPS GS 2014	ND	ND	ND	ND	ND	ND
3200	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
3209	AfPS GS 2014	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
3210	In house	<0.2	-----	<0.2	-----	-----	<0.6
3228	AfPS GS 2014	ND	NA	ND	ND	ND	ND
3233		-----	-----	-----	-----	-----	-----
	n	58	36	58	56	57	51
	mean (n)	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	N1 or n.d.

Determination of other PAH in sample #17505; results in mg/kg -- continued --

lab	method	Benzo(e) pyrene	Benzo(a) pyrene	Indeno(1.2.3-c.d)pyrene	Dibenzo(ah) anthracene	Benzo(ghi) perylene	Cyclopenta (c,d)pyrene
230		-----	-----	-----	-----	-----	-----
310		-----	-----	-----	-----	-----	-----
330	In house	<0,02	<0,02	-----	<0,02	-----	-----
339	AfPS GS 2014	less than 0.1	less than 0.1	less than 0.1	less than 0.1	less than 0.1	-----
551	In house	ND	ND	ND	ND	ND	ND
623	AfPS GS 2014	ND	ND	ND	ND	ND	ND
840	AfPS GS 2014	ND	ND	ND	ND	ND	ND
841	ZEK01.4-08	n.d	n.d	n.d	n.d	n.d	n.d
2102		-----	-----	-----	-----	-----	-----
2115		-----	-----	-----	-----	-----	-----
2129		-----	-----	-----	-----	-----	-----
2132	In house	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2139		-----	-----	-----	-----	-----	-----
2165	AfPS GS 2014	ND	ND	ND	ND	ND	-----
2166	AfPS GS 2014	<0,1	<0,1	<0,1	<0,1	0.061	0.053
2172		-----	-----	-----	-----	-----	-----
2184	AfPS GS 2014	ND	ND	ND	ND	ND	-----
2190	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	-----
2213	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2217	AfPS GS 2014	BDL	0.21	-----	-----	-----	-----
2223	In house	<0.1	<0.1	<0.1	<0.1	<0.1	-----
2232		-----	-----	-----	-----	-----	-----
2241	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2255	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2256		-----	-----	-----	-----	-----	-----
2266	ZEK01.4-08	0	0	0	0	0	0
2272		-----	-----	-----	-----	-----	-----
2295		-----	-----	-----	-----	-----	-----
2300	ZEK01.4-08	n.d	n.d	n.d	n.d	n.d	n.d
2301	In house	0	0	0	0	0	0
2303	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	-----
2310	AfPS GS 2014	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.
2311	AfPS GS 2014	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
2320	In house	-----	N.D.	N.D.	N.D.	N.D.	-----
2330	AfPS GS 2014	ND	9.849 f+?	ND	ND	ND	N/A
2347	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2350	AfPS GS 2014	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
2352		-----	-----	-----	-----	-----	-----
2354	AfPS GS 2014	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]
2355	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2357	AfPS GS 2014	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2363	AfPS GS 2014	N.D.	N.D.	N.D.	N.D.	N.D.	-----
2365	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2366	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	Out Cap
2369	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2370	AfPS GS 2014	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2374		-----	-----	-----	-----	-----	-----
2375		-----	-----	-----	-----	-----	-----
2380		-----	-----	-----	-----	-----	-----
2384	AfPS GS 2014	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.	-----
2386		-----	-----	-----	-----	-----	-----
2390	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2425		-----	-----	-----	-----	-----	-----
2446	In house	0.10	<0,1	0.20	0.21	0.15	-----
2481		-----	-----	-----	-----	-----	-----
2482		-----	-----	-----	-----	-----	-----
2488		-----	-----	-----	-----	-----	-----
2492		-----	-----	-----	-----	-----	-----
2497		-----	-----	-----	-----	-----	-----
2500	AfPS GS 2014	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
2511		-----	-----	-----	-----	-----	-----
2525	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	-----
2560	ZEK01.4-08	ND	ND	ND	ND	ND	ND
2561	ISO/TS16190	<0.2	<0.2	<0.2	<0.2	<0.2	-----
2563		-----	-----	-----	-----	-----	-----
2569		-----	-----	-----	-----	-----	-----
2590	AfPS GS 2014	< L.O.Q.	< L.O.Q.	< L.O.Q.	< L.O.Q.	< L.O.Q.	-----
2612	AfPS GS 2014	< 0,2	< 0,2	< 0,2	< 0,2	< 0,2	-----
2632	AfPS GS 2014	N.D.[<0.2]	7.2 f+?	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.
2658	ISO/TS16190	0.25	7.97 f+?	-----	0.87	-----	-----
2674	AfPS GS 2014	n.d.	n.d.	n.d.	n.d.	n.d.	-----
2723	AfPS GS 2014	< 1	< 1	< 1	< 1	< 1	not analyzed
2737		-----	-----	-----	-----	-----	-----
2741	ZEK01.4-08	<0.2	<0.2	<0.2	<0.2	<0.2	-----
2744		-----	-----	-----	-----	-----	-----

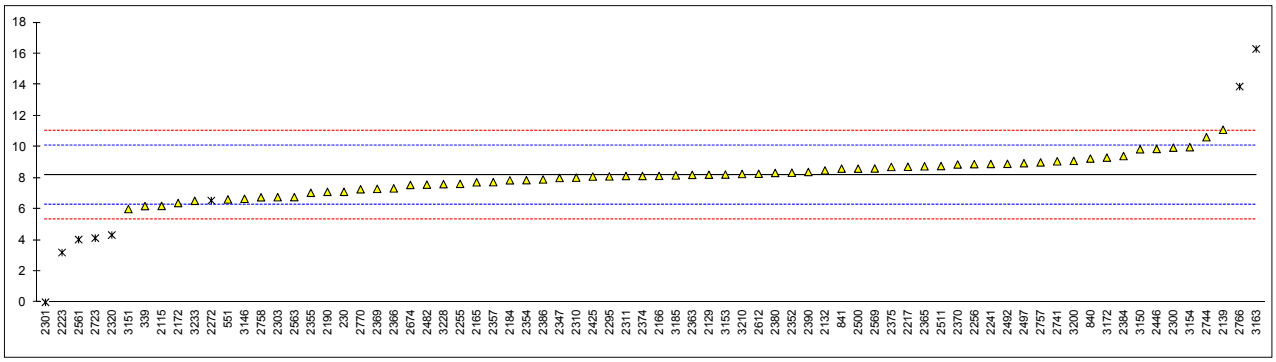
2757		-----	-----	-----	-----	-----	-----
2758	In house	0	0	0	0	0	-----
2766	AfPS GS 2014	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
2770	GB/T29616	N.D.	N.D.	N.D.	N.D.	N.D.	-----
2774		-----	-----	-----	-----	-----	-----
3146	AfPS GS 2014	<0,2	<0,2	<0,2	<0,2	<0,2	-----
3150		-----	-----	-----	-----	-----	-----
3151	AfPS GS 2014	0	0	0	0	0	0
3153	AfPS GS 2014	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
3154		-----	-----	-----	-----	-----	-----
3163	In house	0.3	0.8	0.4	1.0	1.1	-----
3172	AfPS GS 2014	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3185	AfPS GS 2014	ND	ND	ND	ND	ND	ND
3197	AfPS GS 2014	ND	ND	ND	ND	ND	ND
3200	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
3209	AfPS GS 2014	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
3210	In house	<0.2	<0.2	<0.2	<0.2	<0.2	-----
3228	AfPS GS 2014	ND	ND	ND	ND	ND	NA
3233		-----	-----	-----	-----	-----	-----
	n	60	58	58	60	58	35
	mean (n)	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.

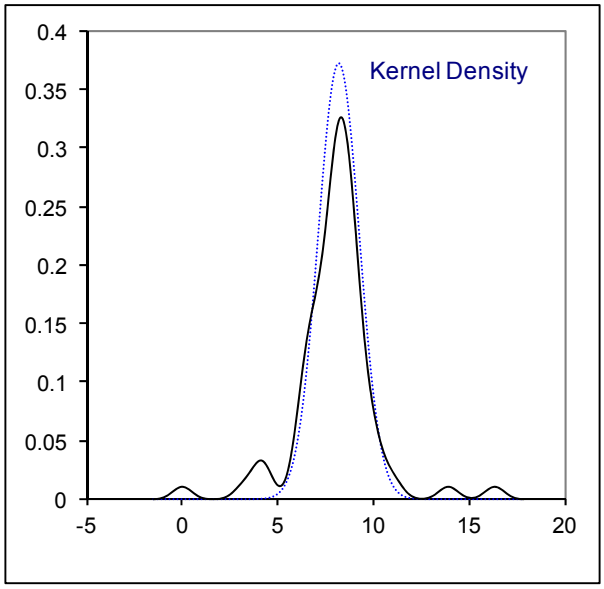
Determination of Acenaphthene in sample #17506; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	7.11		-1.11	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	6.19		-2.07	
551	In house	6.62		-1.62	
623		-----		-----	
840	AfPS GS 2014	9.25		1.14	
841	ZEK01.4-08	8.60		0.46	
2102		-----		-----	
2115	AfPS GS 2014	6.20		-2.06	
2129	AfPS GS 2014	8.207		0.05	
2132	In house	8.49		0.34	
2139	AfPS GS 2014	11.1		3.09	
2165	AfPS GS 2014	7.72		-0.46	
2166	AfPS GS 2014	8.132		-0.03	
2172	AfPS GS 2014	6.39		-1.86	
2184	AfPS GS 2014	7.85		-0.33	
2190	AfPS GS 2014	7.11		-1.11	
2213		-----		-----	
2217	AfPS GS 2014	8.72		0.59	
2223	In house	3.2	R(0.05)	-5.21	
2232		-----		-----	
2241	AfPS GS 2014	8.90		0.78	
2255	AfPS GS 2014	7.62		-0.57	
2256	ZEK01.4-08	8.89		0.76	
2266		-----		-----	
2272	ISO16190	6.545	ex	-1.70	test result excluded, see §4.1
2295	AfPS GS 2014	8.1		-0.07	
2300	ZEK01.4-08	9.95		1.88	
2301	In house	0	R(0.01)	-8.57	
2303	AfPS GS 2014	6.762		-1.47	
2310	AfPS GS 2014	8.02		-0.15	
2311	AfPS GS 2014	8.13		-0.03	
2320	In house	4.327	C,R(0.05)	-4.03	first reported: 4.219
2330	AfPS GS 2014	ND		-----	possible false negative test result?
2347	AfPS GS 2014	8.0		-0.17	
2350		-----		-----	
2352	AfPS GS 2014	8.34		0.19	
2354	AfPS GS 2014	7.86		-0.32	
2355	AfPS GS 2014	7.0447		-1.17	
2357	AfPS GS 2014	7.73		-0.45	
2363	AfPS GS 2014	8.2		0.04	
2365	AfPS GS 2014	8.75		0.62	
2366	AfPS GS 2014	7.33		-0.87	
2369	AfPS GS 2014	7.3		-0.91	
2370	AfPS GS 2014	8.87		0.74	
2374	AfPS GS 2014	8.13		-0.03	
2375	AfPS GS 2014	8.71		0.58	
2380	AfPS GS 2014	8.32		0.17	
2384	AfPS GS 2014	9.41		1.31	
2386	AfPS GS 2014	7.904		-0.27	
2390	AfPS GS 2014	8.383		0.23	
2425	In house	8.09		-0.08	
2446	In house	9.87		1.79	
2481		-----		-----	
2482	AfPS GS 2014	7.57		-0.62	
2488		-----		-----	
2492	In house	8.913		0.79	
2497	AfPS GS 2014	8.950	C	0.83	first reported: 2.248
2500	AfPS GS 2014	8.60		0.46	
2511	AfPS GS 2014	8.768		0.64	
2525		-----		-----	
2560		-----		-----	
2561	ISO/TS16190	4.035	R(0.05)	-4.33	
2563	AfPS GS 2014	6.77		-1.46	
2569	ZEK01.4-08	8.61		0.47	
2590	AfPS GS 2014	< L.O.Q.		-----	possible false negative test result?
2612	AfPS GS 2014	8.27		0.11	
2632	AfPS GS 2014	N.D.[<0.2]		<-8.36	possible false negative test result?
2658		-----		-----	
2674	AfPS GS 2014	7.55		-0.64	
2723	AfPS GS 2014	4.13	R(0.05)	-4.23	
2737		-----		-----	
2741	ZEK01.4-08	9.07		0.95	
2744	ZEK01.4-08	10.624		2.59	
2757	AfPS GS 2014	9.0		0.88	

2758	In house	6.756		-1.48	
2766	AfPS GS 2014	13.88	R(0.01)	6.01	
2770	GB/T29616	7.27		-0.94	
2774		-----		-----	
3146	AfPS GS 2014	6.6618		-1.58	
3150	AfPS GS 2014	9.85		1.77	
3151	AfPS GS 2014	6.00		-2.27	
3153	AfPS GS 2014	8.22		0.06	
3154	ZEK01.4-08	9.98		1.91	
3163	In house	16.3	R(0.01)	8.55	
3172	AfPS GS 2014	9.312		1.21	
3185	AfPS GS 2014	8.164		0.00	
3197	AfPS GS 2014	ND		-----	possible false negative test result?
3200	AfPS GS 2014	9.10		0.99	
3209		-----		-----	
3210	In house	8.256		0.10	
3228	AfPS GS 2014	7.6		-0.59	
3233	In house	6.53		-1.71	

normality	OK
n	66
outliers	7 (+1ex)
mean (n)	8.1621
st.dev. (n)	1.07263
R(calc.)	3.0034
R(Horwitz)	2.6659



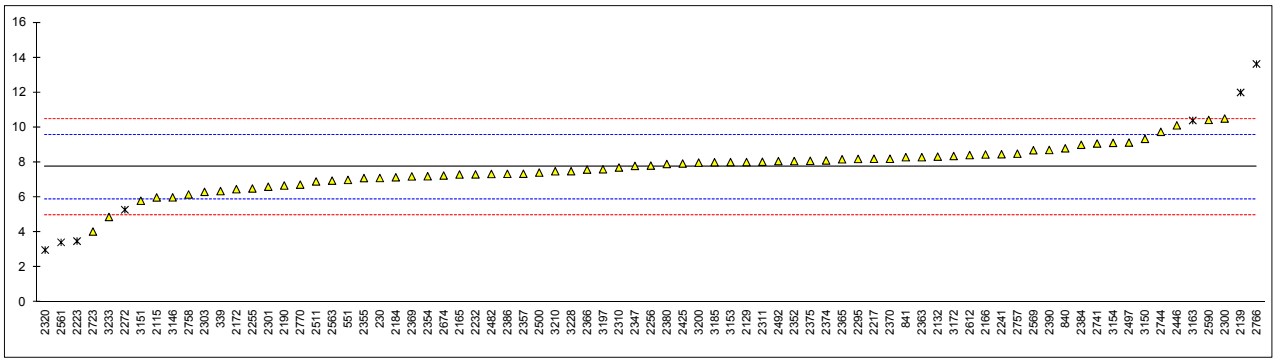


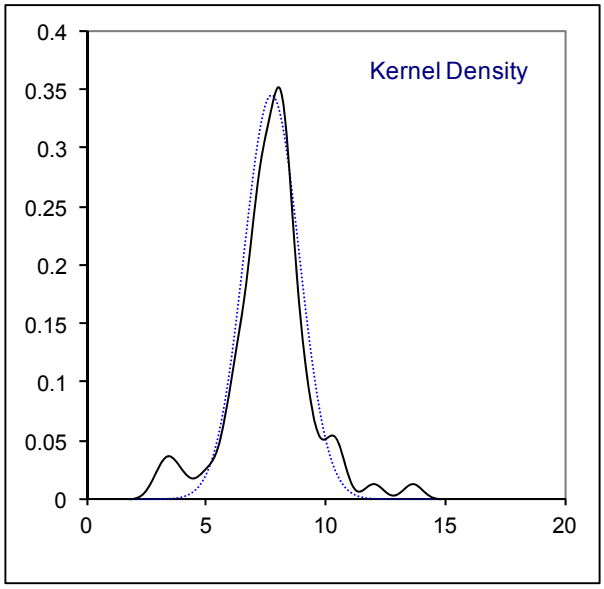
Determination of Fluorene in sample #17506; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	7.11		-0.68	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	6.36		-1.51	
551	In house	7.00		-0.80	
623		-----		-----	
840	AfPS GS 2014	8.81		1.19	
841	ZEK01.4-08	8.30		0.63	
2102		-----		-----	
2115	AfPS GS 2014	6.0		-1.90	
2129	AfPS GS 2014	8.021		0.32	
2132	In house	8.33		0.66	
2139	AfPS GS 2014	12.0	C,R(0.05)	4.70	first reported:11.5
2165	AfPS GS 2014	7.31		-0.46	
2166	AfPS GS 2014	8.454		0.80	
2172	AfPS GS 2014	6.47		-1.39	
2184	AfPS GS 2014	7.15		-0.64	
2190	AfPS GS 2014	6.68		-1.15	
2213		-----		-----	
2217	AfPS GS 2014	8.21		0.53	
2223	In house	3.5	R(0.05)	-4.65	
2232	In house	7.315		-0.46	
2241	AfPS GS 2014	8.47		0.81	
2255	AfPS GS 2014	6.51		-1.34	
2256	ZEK01.4-08	7.82		0.10	
2266		-----		-----	
2272	ISO16190	5.293	ex	-2.68	test result excluded, see §4.1
2295	AfPS GS 2014	8.2		0.52	
2300	ZEK01.4-08	10.51		3.06	
2301	In house	6.61		-1.23	
2303	AfPS GS 2014	6.317		-1.55	
2310	AfPS GS 2014	7.71		-0.02	
2311	AfPS GS 2014	8.04		0.34	
2320	In house	2.990	C,R(0.05)	-5.21	first reported: 3.616
2330	AfPS GS 2014	ND		-----	possible false negative test result?
2347	AfPS GS 2014	7.8		0.08	
2350		-----		-----	
2352	AfPS GS 2014	8.08		0.39	
2354	AfPS GS 2014	7.21		-0.57	
2355	AfPS GS 2014	7.1078		-0.68	
2357	AfPS GS 2014	7.35		-0.42	
2363	AfPS GS 2014	8.3		0.63	
2365	AfPS GS 2014	8.18		0.50	
2366	AfPS GS 2014	7.59		-0.15	
2369	AfPS GS 2014	7.2		-0.58	
2370	AfPS GS 2014	8.21		0.53	
2374	AfPS GS 2014	8.11		0.42	
2375	AfPS GS 2014	8.09		0.40	
2380	AfPS GS 2014	7.91		0.20	
2384	AfPS GS 2014	9.01		1.41	
2386	AfPS GS 2014	7.348		-0.42	
2390	AfPS GS 2014	8.712		1.08	
2425	In house	7.94		0.23	
2446	In house	10.12		2.63	
2481		-----		-----	
2482	AfPS GS 2014	7.34		-0.43	
2488		-----		-----	
2492	In house	8.073		0.38	
2497	AfPS GS 2014	9.135	C	1.55	first reported: 1.981
2500	AfPS GS 2014	7.42		-0.34	
2511	AfPS GS 2014	6.912		-0.90	
2525		-----		-----	
2560		-----		-----	
2561	ISO/TS16190	3.429	R(0.05)	-4.73	
2563	AfPS GS 2014	6.96		-0.85	
2569	ZEK01.4-08	8.7		1.07	
2590	AfPS GS 2014	10.431		2.97	
2612	AfPS GS 2014	8.42		0.76	
2632	AfPS GS 2014	N.D.[<0.2]		<-8.28	possible false negative test result?
2658		-----		-----	
2674	AfPS GS 2014	7.25		-0.53	
2723	AfPS GS 2014	4.05		-4.05	
2737		-----		-----	
2741	ZEK01.4-08	9.08		1.49	
2744	ZEK01.4-08	9.752		2.23	
2757	AfPS GS 2014	8.5		0.85	

2758	In house	6.166		-1.72	
2766	AfPS GS 2014	13.63	R(0.05)	6.49	
2770	GB/T29616	6.73		-1.10	
2774		-----		-----	
3146	AfPS GS 2014	6.0013		-1.90	
3150	AfPS GS 2014	9.35		1.78	
3151	AfPS GS 2014	5.81		-2.11	
3153	AfPS GS 2014	8.02		0.32	
3154	ZEK01.4-08	9.12		1.53	
3163	In house	10.4	ex	2.94	test result excluded, see §4.1
3172	AfPS GS 2014	8.367		0.70	
3185	AfPS GS 2014	8.009		0.31	
3197	AfPS GS 2014	7.61		-0.13	
3200	AfPS GS 2014	7.99		0.29	
3209		-----		-----	
3210	In house	7.496		-0.26	
3228	AfPS GS 2014	7.5		-0.25	
3233	In house	4.88		-3.13	

normality	suspect
n	70
outliers	5 (+2ex)
mean (n)	7.7292
st.dev. (n)	1.15558
R(calc.)	3.2356
R(Horwitz)	2.5453



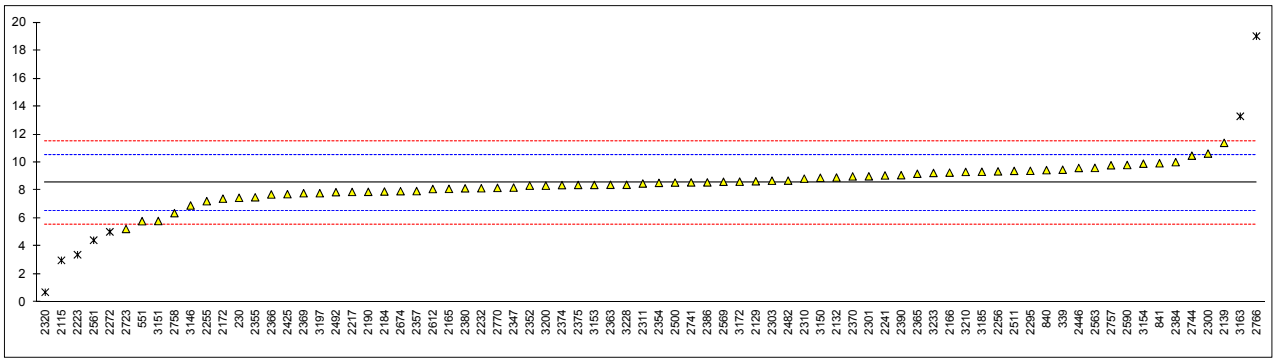


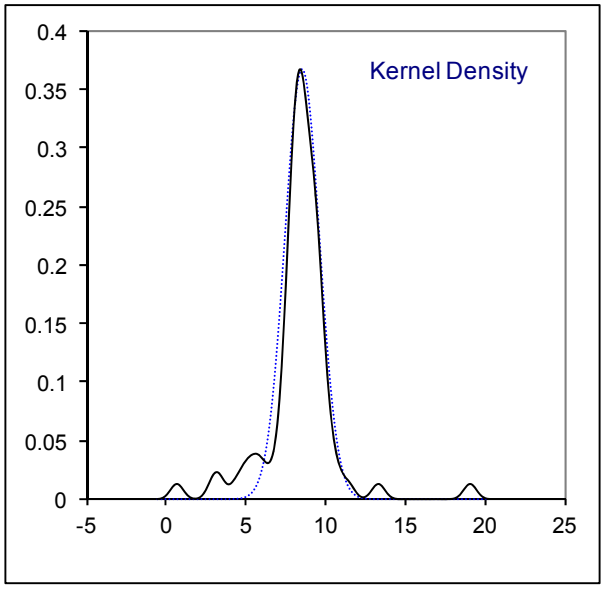
Determination of Phenanthrene in sample #17506; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	7.47		-1.08	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	9.48		0.95	
551	In house	5.80	C	-2.77	first reported: 5.03
623		-----		-----	
840	AfPS GS 2014	9.45		0.92	
841	ZEK01.4-08	9.94		1.41	
2102		-----		-----	
2115	AfPS GS 2014	3.0	C,R(0.01)	-5.60	first reported: 3.3
2129	AfPS GS 2014	8.656		0.12	
2132	In house	8.92		0.38	
2139	AfPS GS 2014	11.4		2.89	
2165	AfPS GS 2014	8.11		-0.44	
2166	AfPS GS 2014	9.273		0.74	
2172	AfPS GS 2014	7.41		-1.14	
2184	AfPS GS 2014	7.92		-0.63	
2190	AfPS GS 2014	7.90		-0.65	
2213		-----		-----	
2217	AfPS GS 2014	7.89		-0.66	
2223	In house	3.4	R(0.01)	-5.20	
2232	In house	8.153		-0.39	
2241	AfPS GS 2014	9.07		0.53	
2255	AfPS GS 2014	7.23		-1.33	
2256	ZEK01.4-08	9.36		0.83	
2266		-----		-----	
2272	ISO16190	5.035	ex	-3.54	test result excluded, see §4.1
2295	AfPS GS 2014	9.4		0.87	
2300	ZEK01.4-08	10.63		2.11	
2301	In house	9.01		0.47	
2303	AfPS GS 2014	8.695		0.16	
2310	AfPS GS 2014	8.84		0.30	
2311	AfPS GS 2014	8.49		-0.05	
2320	In house	0.721	C,R(0.01)	-7.90	first reported: 0.603
2330	AfPS GS 2014	ND		-----	possible false negative test result?
2347	AfPS GS 2014	8.2		-0.34	
2350		-----		-----	
2352	AfPS GS 2014	8.34		-0.20	
2354	AfPS GS 2014	8.54		0.00	
2355	AfPS GS 2014	7.5073		-1.04	
2357	AfPS GS 2014	7.95		-0.60	
2363	AfPS GS 2014	8.4		-0.14	
2365	AfPS GS 2014	9.19		0.66	
2366	AfPS GS 2014	7.71		-0.84	
2369	AfPS GS 2014	7.8		-0.75	
2370	AfPS GS 2014	9.00		0.46	
2374	AfPS GS 2014	8.38		-0.16	
2375	AfPS GS 2014	8.39		-0.15	
2380	AfPS GS 2014	8.15		-0.40	
2384	AfPS GS 2014	10.02	C	1.49	first reported: 13.14
2386	AfPS GS 2014	8.572		0.03	
2390	AfPS GS 2014	9.091		0.56	
2425	In house	7.73		-0.82	
2446	In house	9.60		1.07	
2481		-----		-----	
2482	AfPS GS 2014	8.70		0.16	
2488		-----		-----	
2492	In house	7.875		-0.67	
2497		-----		-----	
2500	AfPS GS 2014	8.56		0.02	
2511	AfPS GS 2014	9.399		0.87	
2525		-----		-----	
2560		-----		-----	
2561	ISO/TS16190	4.438	R(0.05)	-4.15	
2563	AfPS GS 2014	9.61		1.08	
2569		8.62		0.08	
2590	AfPS GS 2014	9.815		1.29	
2612	AfPS GS 2014	8.10		-0.45	
2632	AfPS GS 2014	N.D.[<0.2]		<-7.60	possible false negative test result?
2658		-----		-----	
2674	AfPS GS 2014	7.94		-0.61	
2723	AfPS GS 2014	5.24		-3.34	
2737		-----		-----	
2741	ZEK01.4-08	8.57		0.03	
2744	ZEK01.4-08	10.486		1.97	
2757	AfPS GS 2014	9.8		1.27	

2758	In house	6.376		-2.19
2766	AfPS GS 2014	19.03	R(0.01)	10.60
2770	GB/T29616	8.18		-0.36
2774		-----		-----
3146	AfPS GS 2014	6.9206		-1.64
3150	AfPS GS 2014	8.90		0.36
3151	AfPS GS 2014	5.81		-2.76
3153	AfPS GS 2014	8.39		-0.15
3154	ZEK01.4-08	9.91		1.38
3163	In house	13.3	R(0.01)	4.81
3172	AfPS GS 2014	8.625		0.08
3185	AfPS GS 2014	9.333		0.80
3197	AfPS GS 2014	7.80		-0.75
3200	AfPS GS 2014	8.34		-0.20
3209		-----		-----
3210	In house	9.322		0.79
3228	AfPS GS 2014	8.4		-0.14
3233	In house	9.25		0.72

normality	suspect
n	69
outliers	6 (+1ex)
mean (n)	8.5411
st.dev. (n)	1.08570
R(calc.)	3.0400
R(Horwitz)	2.7707



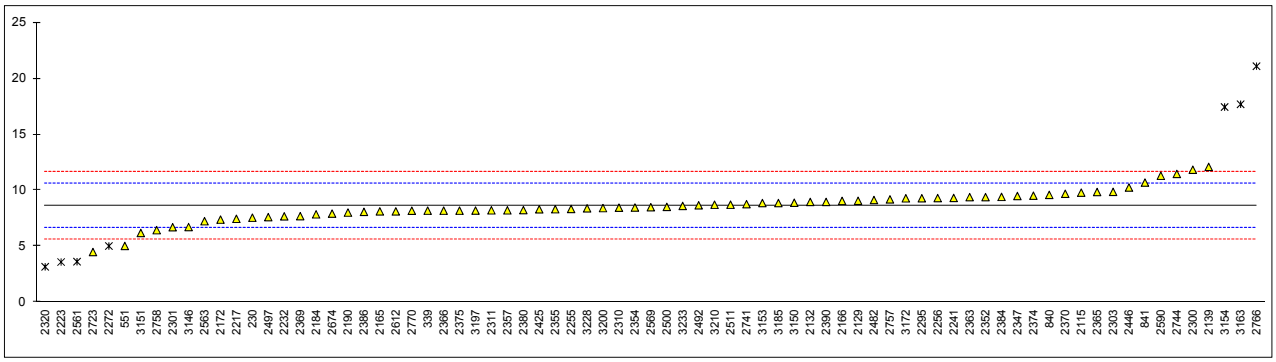


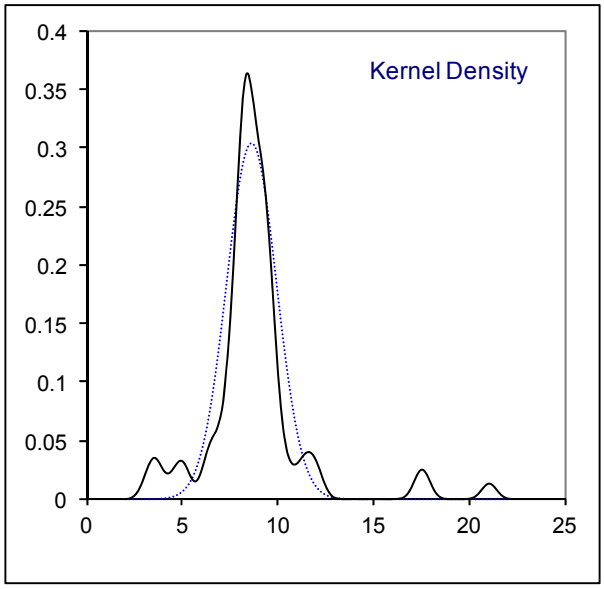
Determination of Anthracene in sample #17506; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	7.56		-1.06	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	8.19		-0.43	
551	In house	5.04		-3.59	
623		-----		-----	
840	AfPS GS 2014	9.60		0.98	
841	ZEK01.4-08	10.70		2.09	
2102		-----		-----	
2115	AfPS GS 2014	9.8		1.18	
2129	AfPS GS 2014	9.069		0.45	
2132	In house	8.97		0.35	
2139	AfPS GS 2014	12.1		3.49	
2165	AfPS GS 2014	8.13		-0.49	
2166	AfPS GS 2014	9.063		0.44	
2172	AfPS GS 2014	7.39		-1.23	
2184	AfPS GS 2014	7.86		-0.76	
2190	AfPS GS 2014	8.02		-0.60	
2213		-----		-----	
2217	AfPS GS 2014	7.46		-1.16	
2223	In house	3.6	R(0.05)	-5.03	
2232	In house	7.687		-0.93	
2241	AfPS GS 2014	9.33		0.71	
2255	AfPS GS 2014	8.34		-0.28	
2256	ZEK01.4-08	9.31		0.69	
2266		-----		-----	
2272	ISO16190	5.029	ex	-3.60	test result excluded, see §4.1
2295	AfPS GS 2014	9.3		0.68	
2300	ZEK01.4-08	11.85		3.24	
2301	In house	6.71		-1.91	
2303	AfPS GS 2014	9.869		1.25	
2310	AfPS GS 2014	8.46		-0.16	
2311	AfPS GS 2014	8.22		-0.40	
2320	In house	3.172	C,R(0.05)	-5.46	first reported: 4.219
2330	AfPS GS 2014	ND		-----	possible false negative test result?
2347	AfPS GS 2014	9.5		0.88	
2350		-----		-----	
2352	AfPS GS 2014	9.40		0.78	
2354	AfPS GS 2014	8.47		-0.15	
2355	AfPS GS 2014	8.3186		-0.30	
2357	AfPS GS 2014	8.22		-0.40	
2363	AfPS GS 2014	9.4		0.78	
2365	AfPS GS 2014	9.86		1.24	
2366	AfPS GS 2014	8.19		-0.43	
2369	AfPS GS 2014	7.7		-0.92	
2370	AfPS GS 2014	9.70		1.08	
2374	AfPS GS 2014	9.53		0.91	
2375	AfPS GS 2014	8.19		-0.43	
2380	AfPS GS 2014	8.24		-0.38	
2384	AfPS GS 2014	9.42		0.80	
2386	AfPS GS 2014	8.088		-0.53	
2390	AfPS GS 2014	8.972		0.35	
2425	In house	8.31		-0.31	
2446	In house	10.26		1.65	
2481		-----		-----	
2482	AfPS GS 2014	9.14		0.52	
2488		-----		-----	
2492	In house	8.670		0.05	
2497	AfPS GS 2014	7.610	C	-1.01	first reported: 2.643
2500	AfPS GS 2014	8.53		-0.09	
2511	AfPS GS 2014	8.721		0.10	
2525		-----		-----	
2560		-----		-----	
2561	ISO/TS16190	3.631	R(0.05)	-5.00	
2563	AfPS GS 2014	7.25		-1.37	
2569	ZEK01.4-08	8.5		-0.12	
2590	AfPS GS 2014	11.308		2.70	
2612	AfPS GS 2014	8.13		-0.49	
2632	AfPS GS 2014	N.D.[<0.2]		<-8.44	possible false negative test result?
2658		-----		-----	
2674	AfPS GS 2014	7.93		-0.69	
2723	AfPS GS 2014	4.49		-4.14	
2737		-----		-----	
2741	ZEK01.4-08	8.77		0.15	
2744	ZEK01.4-08	11.470		2.86	
2757	AfPS GS 2014	9.2		0.58	

2758	In house	6.447		-2.18
2766	AfPS GS 2014	21.10	R(0.01)	12.52
2770	GB/T29616	8.18		-0.44
2774		-----		-----
3146	AfPS GS 2014	6.7250		-1.90
3150	AfPS GS 2014	8.90		0.28
3151	AfPS GS 2014	6.20		-2.43
3153	AfPS GS 2014	8.87		0.25
3154	ZEK01.4-08	17.45	R(0.01)	8.86
3163	In house	17.7	R(0.01)	9.11
3172	AfPS GS 2014	9.295		0.68
3185	AfPS GS 2014	8.871		0.25
3197	AfPS GS 2014	8.20		-0.42
3200	AfPS GS 2014	8.42		-0.20
3209		-----		-----
3210	In house	8.719		0.10
3228	AfPS GS 2014	8.4		-0.22
3233	In house	8.61		-0.01

normality	not OK
n	70
outliers	6 (+1ex)
mean (n)	8.6193
st.dev. (n)	1.31137
R(calc.)	3.6718
R(Horwitz)	2.7922



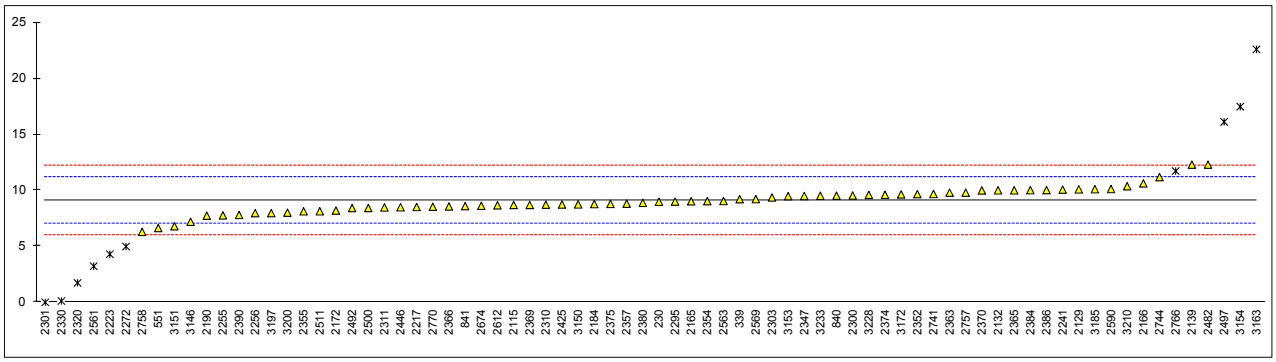


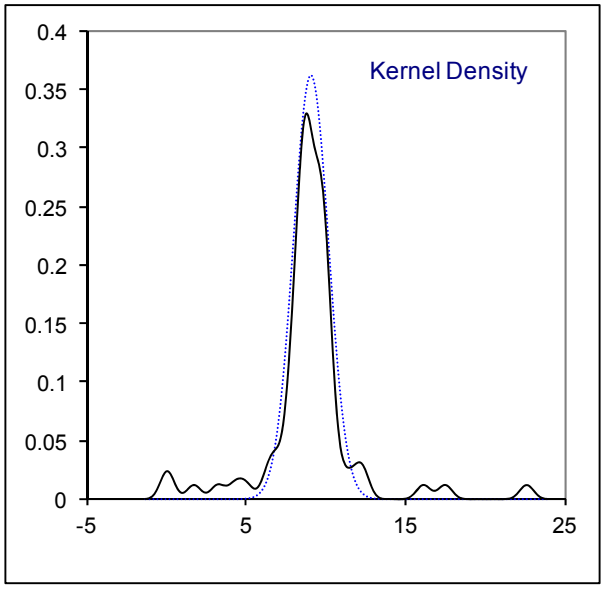
Determination of Fluoranthene in sample #17506; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	8.99		-0.07	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	9.21		0.14	
551	In house	6.64		-2.33	
623		-----		-----	
840	AfPS GS 2014	9.53		0.44	
841	ZEK01.4-08	8.60		-0.45	
2102		-----		-----	
2115	AfPS GS 2014	8.7		-0.35	
2129	AfPS GS 2014	10.093		0.98	
2132	In house	10.01		0.91	
2139	AfPS GS 2014	12.3		3.10	
2165	AfPS GS 2014	9.03		-0.04	
2166	AfPS GS 2014	10.632		1.50	
2172	AfPS GS 2014	8.20		-0.83	
2184	AfPS GS 2014	8.78		-0.28	
2190	AfPS GS 2014	7.74		-1.28	
2213		-----		-----	
2217	AfPS GS 2014	8.52		-0.53	
2223	In house	4.3	R(0.01)	-4.58	
2232		-----		-----	
2241	AfPS GS 2014	10.07		0.96	
2255	AfPS GS 2014	7.77		-1.25	
2256	ZEK01.4-08	7.97		-1.05	
2266		-----		-----	
2272	ISO16190	4.987	ex	-3.92	test result excluded, see §4.1
2295	AfPS GS 2014	9.0		-0.07	
2300	ZEK01.4-08	9.54		0.45	
2301	In house	0	R(0.01)	-8.71	
2303	AfPS GS 2014	9.374		0.29	
2310	AfPS GS 2014	8.73		-0.32	
2311	AfPS GS 2014	8.48		-0.56	
2320	In house	1.734	C,R(0.01)	-7.04	first reported: 2.411
2330	AfPS GS 2014	0.119	R(0.01)	-8.60	
2347	AfPS GS 2014	9.5		0.42	
2350		-----		-----	
2352	AfPS GS 2014	9.67		0.58	
2354	AfPS GS 2014	9.04		-0.03	
2355	AfPS GS 2014	8.1318		-0.90	
2357	AfPS GS 2014	8.81		-0.25	
2363	AfPS GS 2014	9.8		0.70	
2365	AfPS GS 2014	10.01		0.91	
2366	AfPS GS 2014	8.57		-0.48	
2369	AfPS GS 2014	8.7		-0.35	
2370	AfPS GS 2014	10.0		0.90	
2374	AfPS GS 2014	9.61		0.52	
2375	AfPS GS 2014	8.79		-0.27	
2380	AfPS GS 2014	8.89		-0.17	
2384	AfPS GS 2014	10.02		0.91	
2386	AfPS GS 2014	10.03		0.92	
2390	AfPS GS 2014	7.804		-1.21	
2425	In house	8.74		-0.31	
2446	In house	8.49		-0.55	
2481		-----		-----	
2482	AfPS GS 2014	12.3		3.10	
2488		-----		-----	
2492	In house	8.428		-0.61	
2497	In house	16.125	C,R(0.01)	6.78	first reported: 4.287
2500	AfPS GS 2014	8.43		-0.61	
2511	AfPS GS 2014	8.136		-0.89	
2525		-----		-----	
2560		-----		-----	
2561	ISO/TS16190	3.228	R(0.01)	-5.61	
2563	AfPS GS 2014	9.05		-0.02	
2569	ZEK01.4-08	9.22		0.15	
2590	AfPS GS 2014	10.122		1.01	
2612	AfPS GS 2014	8.67		-0.38	
2632	AfPS GS 2014	N.D.[<0.2]		<-8.52	possible false negative test result?
2658		-----		-----	
2674	AfPS GS 2014	8.63		-0.42	
2723	AfPS GS 2014	<1.0	C	<-7.75	first reported: 4.55, possible false negative test result?
2737		-----		-----	
2741	ZEK01.4-08	9.68		0.59	
2744	ZEK01.4-08	11.186		2.03	
2757	AfPS GS 2014	9.8		0.70	

2758	In house	6.298		-2.66	
2766	AfPS GS 2014	11.73	ex	2.56	test result excluded, see §4.1
2770	GB/T29616	8.54		-0.51	
2774		-----		-----	
3146	AfPS GS 2014	7.2004		-1.79	
3150	AfPS GS 2014	8.75		-0.31	
3151	AfPS GS 2014	6.80		-2.18	
3153	AfPS GS 2014	9.49		0.41	
3154	ZEK01.4-08	17.485	R(0.01)	8.08	
3163	In house	22.6	R(0.01)	13.00	
3172	AfPS GS 2014	9.646		0.56	
3185	AfPS GS 2014	10.106		1.00	
3197	AfPS GS 2014	7.97		-1.05	
3200	AfPS GS 2014	8.01		-1.02	
3209		-----		-----	
3210	In house	10.372		1.25	
3228	AfPS GS 2014	9.6		0.51	
3233	In house	9.52		0.43	

normality	suspect
n	66
outliers	8 (+2ex)
mean (n)	9.0677
st.dev. (n)	1.10340
R(calc.)	3.0895
R(Horwitz)	2.9151



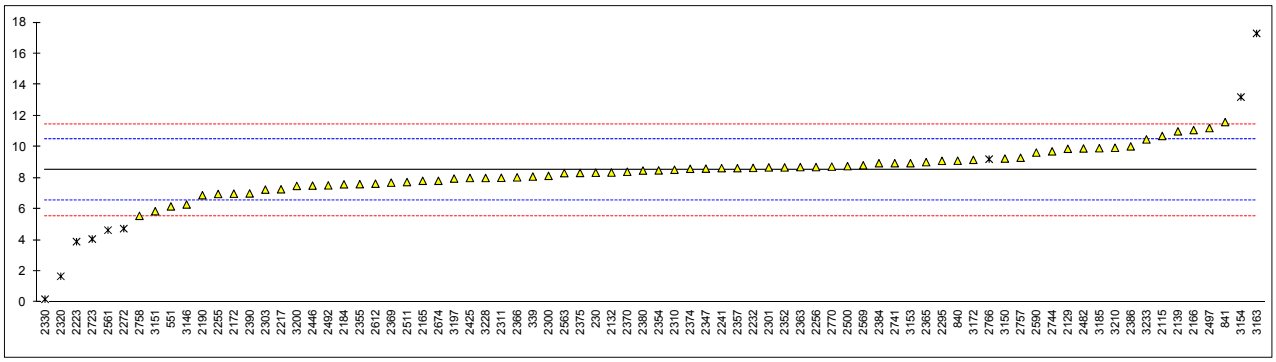


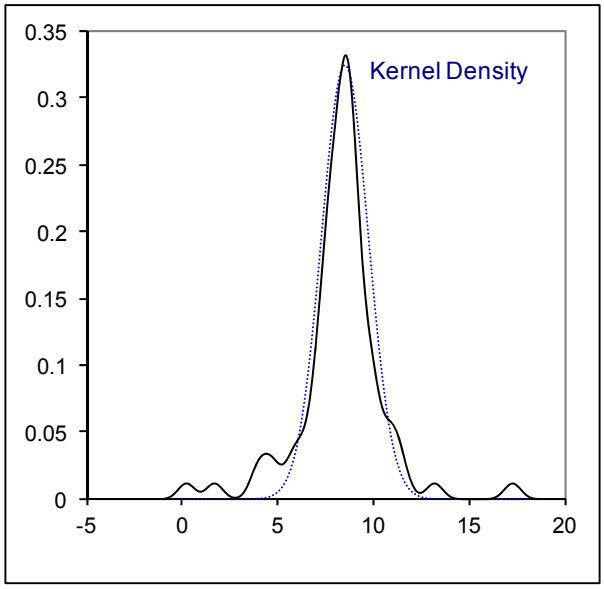
Determination of Pyrene in sample #17506; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	8.34		-0.17	
310		-----		-----	
330		-----		-----	
339	AfPS GS 2014	8.09		-0.43	
551	In house	6.17		-2.37	
623		-----		-----	
840	AfPS GS 2014	9.11		0.61	
841	ZEK01.4-08	11.60		3.13	
2102		-----		-----	
2115	AfPS GS 2014	10.7		2.22	
2129	AfPS GS 2014	9.881		1.39	
2132	In house	8.35		-0.16	
2139	AfPS GS 2014	11.0		2.52	
2165	AfPS GS 2014	7.82		-0.70	
2166	AfPS GS 2014	11.083		2.61	
2172	AfPS GS 2014	6.99		-1.54	
2184	AfPS GS 2014	7.59		-0.93	
2190	AfPS GS 2014	6.89		-1.64	
2213		-----		-----	
2217	AfPS GS 2014	7.27		-1.26	
2223	In house	3.9	ex	-4.67	test result excluded, see §4.1
2232	In house	8.649		0.14	
2241	AfPS GS 2014	8.63		0.12	
2255	AfPS GS 2014	6.97		-1.56	
2256	ZEK01.4-08	8.70		0.19	
2266		-----		-----	
2272	ISO16190	4.740	ex	-3.82	test result excluded, see §4.1
2295	AfPS GS 2014	9.1		0.60	
2300	ZEK01.4-08	8.14		-0.38	
2301	In house	8.68		0.17	
2303	AfPS GS 2014	7.250		-1.28	
2310	AfPS GS 2014	8.53		0.02	
2311	AfPS GS 2014	8.01		-0.51	
2320	In house	1.674	C,R(0.01)	-6.93	first reported: 2.410
2330	AfPS GS 2014	0.199	R(0.01)	-8.43	
2347	AfPS GS 2014	8.6		0.09	
2350		-----		-----	
2352	AfPS GS 2014	8.68		0.17	
2354	AfPS GS 2014	8.49		-0.02	
2355	AfPS GS 2014	7.6014		-0.92	
2357	AfPS GS 2014	8.63		0.12	
2363	AfPS GS 2014	8.7		0.19	
2365	AfPS GS 2014	9.02		0.52	
2366	AfPS GS 2014	8.04		-0.48	
2369	AfPS GS 2014	7.7		-0.82	
2370	AfPS GS 2014	8.40		-0.11	
2374	AfPS GS 2014	8.59		0.08	
2375	AfPS GS 2014	8.32		-0.19	
2380	AfPS GS 2014	8.48		-0.03	
2384	AfPS GS 2014	8.95		0.45	
2386	AfPS GS 2014	10.03		1.54	
2390	AfPS GS 2014	7.002		-1.53	
2425	In house	8.0		-0.52	
2446	In house	7.51		-1.01	
2481		-----		-----	
2482	AfPS GS 2014	9.90		1.41	
2488		-----		-----	
2492	In house	7.523		-1.00	
2497	AfPS GS 2014	11.211	C	2.74	first reported: 3.127
2500	AfPS GS 2014	8.76		0.25	
2511	AfPS GS 2014	7.734		-0.79	
2525		-----		-----	
2560		-----		-----	
2561	ISO/TS16190	4.640	ex	-3.92	test result excluded, see §4.1
2563	AfPS GS 2014	8.31		-0.20	
2569	ZEK01.4-08	8.82		0.31	
2590	AfPS GS 2014	9.634		1.14	
2612	AfPS GS 2014	7.63		-0.89	
2632	AfPS GS 2014	N.D.[<0.2]		<-8.42	possible false negative test result?
2658		-----		-----	
2674	AfPS GS 2014	7.82		-0.70	
2723	AfPS GS 2014	4.07	R(0.05)	-4.50	
2737		-----		-----	
2741	ZEK01.4-08	8.95		0.45	
2744	ZEK01.4-08	9.712		1.22	
2757	AfPS GS 2014	9.3		0.80	

2758	In house	5.562		-2.99	
2766	AfPS GS 2014	9.21	ex	0.71	test result excluded, see §4.1
2770	GB/T29616	8.73		0.22	
2774		-----		-----	
3146	AfPS GS 2014	6.2935		-2.25	
3150	AfPS GS 2014	9.25		0.75	
3151	AfPS GS 2014	5.86		-2.69	
3153	AfPS GS 2014	8.95		0.45	
3154	ZEK01.4-08	13.205	R(0.05)	4.76	
3163	In house	17.3	R(0.01)	8.91	
3172	AfPS GS 2014	9.168		0.67	
3185	AfPS GS 2014	9.916		1.43	
3197	AfPS GS 2014	7.96		-0.56	
3200	AfPS GS 2014	7.49		-1.03	
3209		-----		-----	
3210	In house	9.945		1.45	
3228	AfPS GS 2014	8.0		-0.52	
3233	In house	10.48		2.00	

normality	OK
n	69
outliers	5 (+4ex)
mean (n)	8.5101
st.dev. (n)	1.23068
R(calc.)	3.4459
R(Horwitz)	2.7621



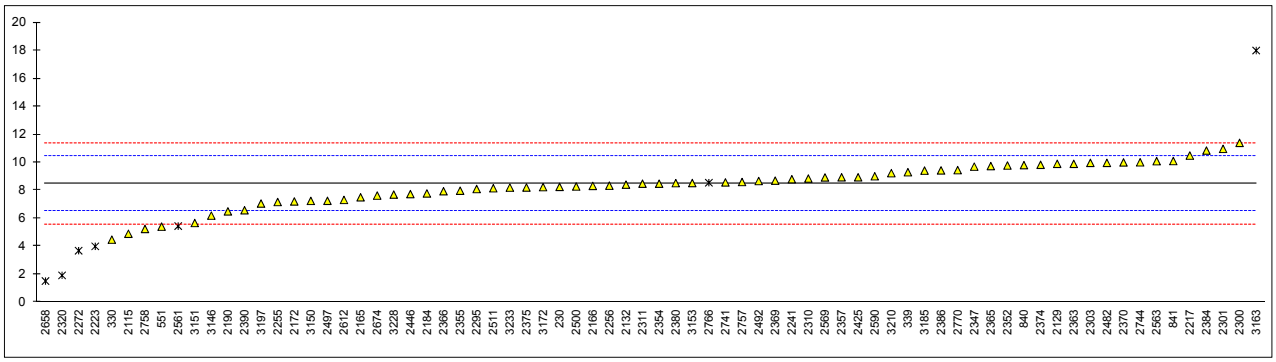


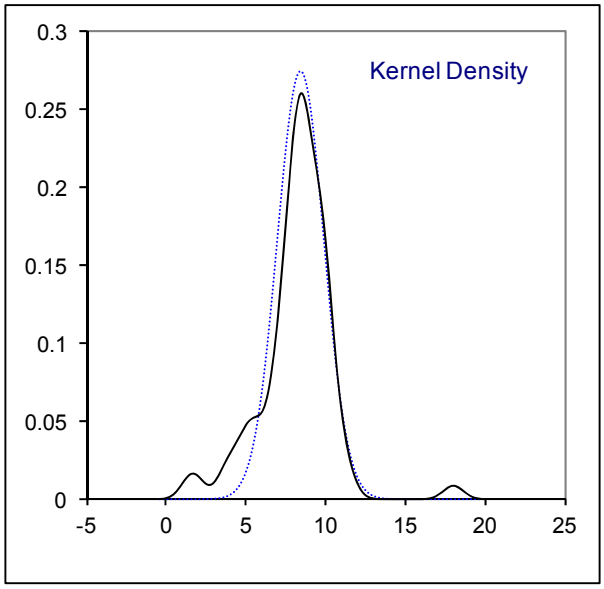
Determination of Benzo[a]anthracene in sample #17506; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	8.25		-0.21	
310		-----		-----	
330	In house	4.48		-4.05	
339	AfPS GS 2014	9.30		0.86	
551	In house	5.41		-3.10	
623		-----		-----	
840	AfPS GS 2014	9.81		1.38	
841	ZEK01.4-08	10.10		1.68	
2102		-----		-----	
2115	AfPS GS 2014	4.9		-3.62	
2129	AfPS GS 2014	9.898		1.47	
2132	In house	8.41		-0.04	
2139		-----		-----	
2165	AfPS GS 2014	7.51		-0.96	
2166	AfPS GS 2014	8.320		-0.14	
2172	AfPS GS 2014	7.21		-1.27	
2184	AfPS GS 2014	7.78		-0.69	
2190	AfPS GS 2014	6.50		-1.99	
2213		-----		-----	
2217	AfPS GS 2014	10.49		2.08	
2223	In house	4.0	ex	-4.54	test result excluded, see §4.1
2232		-----		-----	
2241	AfPS GS 2014	8.80		0.35	
2255	AfPS GS 2014	7.17		-1.31	
2256	ZEK01.4-08	8.34		-0.12	
2266		-----		-----	
2272	ISO16190	3.689	ex	-4.86	test result excluded, see §4.1
2295	AfPS GS 2014	8.1		-0.36	
2300	ZEK01.4-08	11.4		3.00	
2301	In house	10.97		2.57	
2303	AfPS GS 2014	9.970		1.55	
2310	AfPS GS 2014	8.85		0.40	
2311	AfPS GS 2014	8.48		0.03	
2320	In house	1.926	C,R(0.01)	-6.65	first reported: 2.927
2330	AfPS GS 2014	ND		-----	possible false negative test result?
2347	AfPS GS 2014	9.7		1.27	
2350		-----		-----	
2352	AfPS GS 2014	9.78		1.35	
2354	AfPS GS 2014	8.48		0.03	
2355	AfPS GS 2014	7.9798		-0.48	
2357	AfPS GS 2014	8.94		0.50	
2363	AfPS GS 2014	9.9		1.47	
2365	AfPS GS 2014	9.74		1.31	
2366	AfPS GS 2014	7.94		-0.52	
2369	AfPS GS 2014	8.7		0.25	
2370	AfPS GS 2014	10.0		1.58	
2374	AfPS GS 2014	9.83		1.40	
2375	AfPS GS 2014	8.21		-0.25	
2380	AfPS GS 2014	8.52		0.07	
2384	AfPS GS 2014	10.85		2.44	
2386	AfPS GS 2014	9.432		1.00	
2390	AfPS GS 2014	6.582		-1.91	
2425	In house	8.94		0.50	
2446	In house	7.74		-0.73	
2481		-----		-----	
2482	AfPS GS 2014	9.97		1.55	
2488		-----		-----	
2492	In house	8.670		0.22	
2497	AfPS GS 2014	7.256		-1.22	
2500	AfPS GS 2014	8.28		-0.18	
2511	AfPS GS 2014	8.155		-0.30	
2525		-----		-----	
2560		-----		-----	
2561	ISO/TS16190	5.447	ex	-3.07	test result excluded, see §4.1
2563	AfPS GS 2014	10.09		1.67	
2569	ZEK01.4-08	8.93		0.49	
2590	AfPS GS 2014	9.011		0.57	
2612	AfPS GS 2014	7.32		-1.16	
2632	AfPS GS 2014	N.D.[<0.2]		<-8.41	possible false negative test result?
2658	ISO/TS16190	1.52	C,R(0.01)	-7.07	first reported: 2.92
2674	AfPS GS 2014	7.63		-0.84	
2723	AfPS GS 2014	< 1		<-7.60	possible false negative test result?
2737		-----		-----	
2741	ZEK01.4-08	8.57		0.12	
2744	ZEK01.4-08	10.007		1.58	
2757	AfPS GS 2014	8.6		0.15	

2758	In house	5.242		-3.27	
2766	AfPS GS 2014	8.55	ex	0.10	test result excluded, see §4.1
2770	GB/T29616	9.45		1.02	
2774		-----		-----	
3146	AfPS GS 2014	6.1967		-2.30	
3150	AfPS GS 2014	7.25		-1.23	
3151	AfPS GS 2014	5.67		-2.84	
3153	AfPS GS 2014	8.53		0.08	
3154		-----		-----	
3163	In house	18.0	R(0.01)	9.73	
3172	AfPS GS 2014	8.235		-0.22	
3185	AfPS GS 2014	9.415		0.98	
3197	AfPS GS 2014	7.06		-1.42	
3200	AfPS GS 2014	<0.2		<-8.41	possible false negative test result?
3209		-----		-----	
3210	In house	9.232		0.79	
3228	AfPS GS 2014	7.7		-0.77	
3233	In house	8.20		-0.26	

normality	OK
n	67
outliers	3 (+4ex)
mean (n)	8.4535
st.dev. (n)	1.45515
R(calc.)	4.0744
R(Horwitz)	2.7465



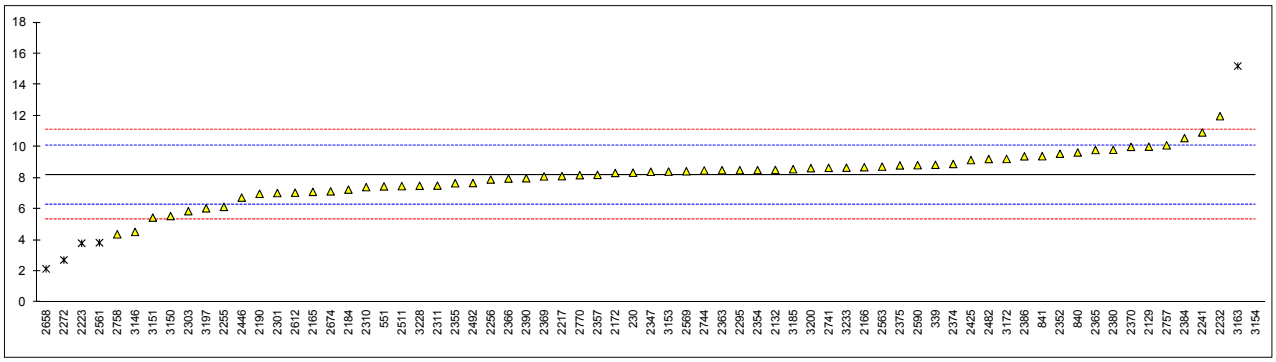


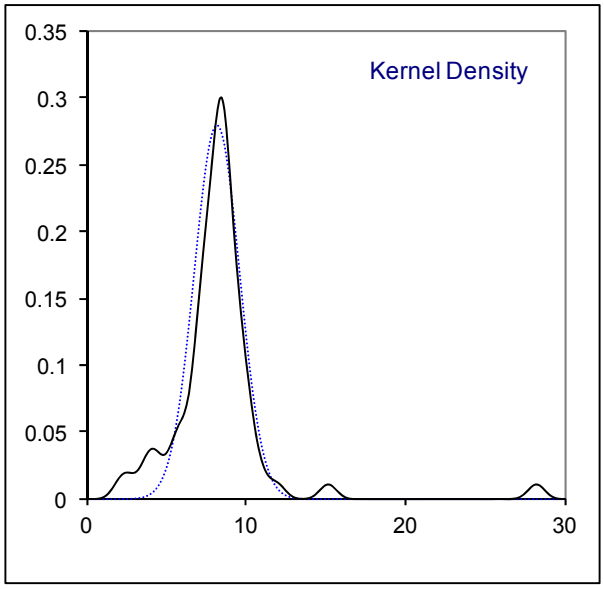
Determination of Benzo[a]pyrene in sample #17506; results in mg/kg

lab	method	value	mark	z(targ)	remarks
230	AfPS GS 2014	8.34		0.14	
310		-----		-----	
330	In house	<0,02		<-8.56	possible false negative test result?
339	AfPS GS 2014	8.85		0.67	
551	In house	7.46		-0.78	
623		-----		-----	
840	AfPS GS 2014	9.64		1.50	
841	ZEK01.4-08	9.40		1.25	
2102		-----		-----	
2115		-----		-----	
2129	AfPS GS 2014	10.010		1.89	
2132	In house	8.52		0.33	
2139		-----		-----	
2165	AfPS GS 2014	7.11		-1.14	
2166	AfPS GS 2014	8.691		0.51	
2172	AfPS GS 2014	8.32		0.12	
2184	AfPS GS 2014	7.25		-1.00	
2190	AfPS GS 2014	6.98		-1.28	
2213		-----		-----	
2217	AfPS GS 2014	8.12		-0.09	
2223	In house	3.8	ex	-4.61	test result excluded, see §4.1
2232	In house	11.973		3.94	
2241	AfPS GS 2014	10.93		2.85	
2255	AfPS GS 2014	6.14		-2.16	
2256	ZEK01.4-08	7.90		-0.32	
2266		-----		-----	
2272	ISO16190	2.720	ex	-5.74	first reported: 2.72, test result excluded, see §4.1
2295	AfPS GS 2014	8.5		0.31	
2300	ZEK01.4-08	n.d		-----	possible false negative test result?
2301	In house	7.03		-1.23	
2303	AfPS GS 2014	5.8616		-2.45	
2310	AfPS GS 2014	7.41		-0.83	
2311	AfPS GS 2014	7.51		-0.73	
2320	In house	N.D.		-----	possible false negative test result?
2330	AfPS GS 2014	ND		-----	possible false negative test result?
2347	AfPS GS 2014	8.4		0.20	
2350		-----		-----	
2352	AfPS GS 2014	9.56		1.42	
2354	AfPS GS 2014	8.51		0.32	
2355	AfPS GS 2014	7.6598		-0.57	
2357	AfPS GS 2014	8.20		0.00	
2363	AfPS GS 2014	8.5		0.31	
2365	AfPS GS 2014	9.80		1.67	
2366	AfPS GS 2014	7.96		-0.26	
2369	AfPS GS 2014	8.1		-0.11	
2370	AfPS GS 2014	10.0		1.88	
2374	AfPS GS 2014	8.90		0.73	
2375	AfPS GS 2014	8.81		0.63	
2380	AfPS GS 2014	9.81		1.68	
2384	AfPS GS 2014	10.57		2.47	
2386	AfPS GS 2014	9.392		1.24	
2390	AfPS GS 2014	7.983		-0.23	
2425	In house	9.15		0.99	
2446	In house	6.74		-1.53	
2481		-----		-----	
2482	AfPS GS 2014	9.22		1.06	
2488		-----		-----	
2492	In house	7.675		-0.55	
2497		-----		-----	
2500	AfPS GS 2014	N.A.		-----	
2511	AfPS GS 2014	7.473		-0.77	
2525		-----		-----	
2560		-----		-----	
2561	ISO/TS16190	3.833	ex	-4.57	test result excluded, see §4.1
2563	AfPS GS 2014	8.73		0.55	
2569	ZEK01.4-08	8.43		0.24	
2590	AfPS GS 2014	8.823		0.65	
2612	AfPS GS 2014	7.05		-1.21	
2632	AfPS GS 2014	N.D.[<0.2]		<-8.37	possible false negative test result?
2658	ISO/TS16190	2.15	C,R(0.05)	-6.33	first reported: 2.85
2674	AfPS GS 2014	7.14		-1.11	
2723	AfPS GS 2014	< 1		<-7.53	possible false negative test result?
2737		-----		-----	
2741	ZEK01.4-08	8.65		0.47	
2744	ZEK01.4-08	8.484		0.29	
2757	AfPS GS 2014	10.1		1.98	

2758	In house	4.375		-4.00	
2766	AfPS GS 2014	Not detetected		-----	possible false negative test result?
2770	GB/T29616	8.18		-0.03	
2774		-----		-----	
3146	AfPS GS 2014	4.5269		-3.85	
3150	AfPS GS 2014	5.55		-2.78	
3151	AfPS GS 2014	5.45		-2.88	
3153	AfPS GS 2014	8.41		0.21	
3154	ZEK01.4-08	28.285	R(0.01)	21.00	
3163	In house	15.2	R(0.01)	7.32	
3172	AfPS GS 2014	9.226		1.07	
3185	AfPS GS 2014	8.565		0.38	
3197	AfPS GS 2014	6.05		-2.25	
3200	AfPS GS 2014	8.63		0.44	
3209		-----		-----	
3210	In house	<0.2		<-8.37	possible false negative test result?
3228	AfPS GS 2014	7.5		-0.74	
3233	In house	8.66		0.48	

normality	OK
n	63
outliers	3 (+3ex)
mean (n)	8.2046
st.dev. (n)	1.42518
R(calc.)	3.9905
R(Horwitz)	2.6777





Determination of other PAH in sample #17506; results in mg/kg

lab	method	Naphthalene	Acenapthylene	Chrysene	Chrysene + Triphenylene	Benzo(b) fluoranthene	Benzo(j) fluoranthene	Benzo(k) fluoranthene
230		-----	-----	-----	-----	-----	-----	-----
310		-----	-----	-----	-----	-----	-----	-----
330	In house	-----	-----	<0,02	-----	<0,04	<0,04	<0,02
339	AfPS GS 2014	less than 0.1	less than 0.1	less than 0.1	-----	-----	-----	-----
551	In house	1.05 f+?	ND	ND	-----	0.12	ND	0.02
623		-----	-----	-----	-----	-----	-----	-----
840	AfPS GS 2014	0.27	ND	ND	ND	ND	ND	ND
841	ZEK01.4-08	0.18	n.d	n.d	n.d	n.d	n.d	n.d
2102		-----	-----	-----	-----	-----	-----	-----
2115		-----	-----	-----	-----	-----	-----	-----
2129		-----	-----	-----	-----	-----	-----	-----
2132	In house	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2139	AfPS GS 2014	-----	-----	11.3 f+?	-----	-----	-----	11.6 f+?
2165	AfPS GS 2014	ND	ND	ND	-----	ND	ND	ND
2166	AfPS GS 2014	<0,2	<0,2	<0,2	-----	<0,2	<0,2	<0,2
2172	AfPS GS 2014	0.23	-----	-----	-----	-----	-----	-----
2184	AfPS GS 2014	ND	ND	ND	-----	ND	ND	ND
2190	AfPS GS 2014	<0.2	<0.2	5.60 f+?	-----	-----	-----	-----
2213		-----	-----	-----	-----	-----	-----	-----
2217	AfPS GS 2014	-----	-----	8.0 f+?	-----	-----	-----	-----
2223	In house	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2232	In house	0.322	-----	-----	-----	-----	-----	-----
2241	AfPS GS 2014	0.15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2255	AfPS GS 2014	ND	ND	ND	ND	ND	ND	ND
2256		-----	-----	-----	-----	-----	-----	-----
2266		-----	-----	-----	-----	-----	-----	-----
2272	ISO16190	0.167	-----	-----	-----	-----	-----	-----
2295	AfPS GS 2014	0.18	-----	-----	-----	-----	-----	-----
2300	ZEK01.4-08	n.d	n.d	n.d	n.d	n.d	n.d	n.d
2301	In house	0	0	0	0	0	0	0
2303	AfPS GS 2014	<0.2	<0.2	<0.2	-----	<0.2	<0.2	<0.2
2310	AfPS GS 2014	NOT DET.	NOT DET.	NOT DET.	-----	NOT DET.	NOT DET.	NOT DET.
2311	AfPS GS 2014	Not Detected	Not Detected	Not Detected	-----	Not Detected	Not Detected	Not Detected
2320	In house	N.D.	N.D.	N.D.	-----	N.D.	-----	N.D.
2330	AfPS GS 2014	0.553	ND	ND	ND	ND	ND	ND
2347	AfPS GS 2014	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2350		-----	-----	-----	-----	-----	-----	-----
2352	AfPS GS 2014	0.28	-----	-----	-----	-----	-----	-----
2354	AfPS GS 2014	0.20	N.D.[<0.1]	N.D.[<0.1]	N.A.	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]
2355	AfPS GS 2014	0.1350	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2357	AfPS GS 2014	0.15	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2363	AfPS GS 2014	0.2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2365	AfPS GS 2014	0.34	ND	ND	ND	ND	ND	ND
2366	AfPS GS 2014	0.20	<0.1	<0.1	Out Cap	<0.1	<0.1	<0.1
2369	AfPS GS 2014	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2370	AfPS GS 2014	0.250	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2374	AfPS GS 2014	0.28	-----	-----	-----	-----	-----	-----
2375	AfPS GS 2014	0.112	-----	-----	-----	-----	-----	-----
2380		-----	-----	-----	-----	-----	-----	-----
2384	AfPS GS 2014	NOT DET.	NOT DET.	NOT DET.	-----	NOT DET.	NOT DET.	NOT DET.
2386		-----	-----	-----	-----	-----	-----	-----
2390	AfPS GS 2014	0.330	ND	ND	ND	ND	ND	ND
2425		-----	-----	-----	-----	-----	-----	-----
2446	In house	0.73	<0,1	-----	<0,1	<0,1	<0,1	<0,1
2481		-----	-----	-----	-----	-----	-----	-----
2482	AfPS GS 2014	0.180	-----	-----	-----	-----	-----	-----
2488		-----	-----	-----	-----	-----	-----	-----
2492	In house	0.338	-----	-----	-----	-----	-----	-----
2497	AfPS GS 2014	0.211	-----	-----	-----	-----	-----	-----
2500	AfPS GS 2014	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
2511		-----	-----	-----	-----	-----	-----	-----
2525		-----	-----	-----	-----	-----	-----	-----
2560		-----	-----	-----	-----	-----	-----	-----
2561	ISO/TS16190	<0.2	<0.2	<0.2	-----	<0.2	<0.2	<0.2
2563	AfPS GS 2014	0.17	-----	-----	-----	-----	-----	-----
2569		-----	-----	-----	-----	-----	-----	-----
2590	AfPS GS 2014	19.1 f+?	< L.O.Q.	< L.O.Q.	-----	< L.O.Q.	< L.O.Q.	< L.O.Q.
2612	AfPS GS 2014	< 0,2	< 0,2	< 0,2	-----	< 0,2	< 0,2	< 0,2
2632	AfPS GS 2014	0.7	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]
2658	ISO/TS16190	-----	-----	<0,2	-----	<0,2	<0,2	<0,2
2674	AfPS GS 2014	n.d.	n.d.	n.d.	-----	n.d.	n.d.	n.d.
2723	AfPS GS 2014	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2737		-----	-----	-----	-----	-----	-----	-----
2741	ZEK01.4-08	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2744		-----	-----	-----	-----	-----	-----	-----

2757	AfPS GS 2014	-----	3.1	9.8 f+?	-----	-----	-----	-----
2758	In house	0	0	0	-----	0	0	0
2766	AfPS GS 2014	0.93	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
2770	GB/T29616	0.18	N.D.	N.D.	-----	N.D.	N.D.	N.D.
2774		-----	-----	-----	-----	-----	-----	-----
3146	AfPS GS 2014	<0,4	<0,2	<0,2	<0,2	<0,2	<0,2	<0,2
3150		-----	-----	-----	-----	-----	-----	-----
3151	AfPS GS 2014	0.10	0	0	0	0	0	0
3153	AfPS GS 2014	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
3154	ZEK01.4-08	0.335	-----	24.555 f+?	-----	-----	-----	-----
3163	In house	nd	nd	18.8 f+?	-----	nd	nd	nd
3172	AfPS GS 2014	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3185	AfPS GS 2014	ND	ND	ND	ND	ND	ND	ND
3197	AfPS GS 2014	ND	8.23	ND	-----	ND	ND	ND
3200	AfPS GS 2014	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
3209		-----	-----	-----	-----	-----	-----	-----
3210	In house	<0.2	<0.2	<0.2	-----	-----	-----	-----
3228	AfPS GS 2014	ND	ND	ND	NA	ND	ND	ND
3233	In house	0.21	-----	-----	-----	-----	-----	-----
	n	62	52	50	29	50	49	50
	mean (n)	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.

Determination of other PAH in sample #17506; results in mg/kg -- continued --

lab	method	Sum benzo (b,j,k)fluoran	Benzo(e) pyrene	Indeno(1.2.3-c.d)pyrene	Dibenzo(ah) anthracene	Benzo(ghi) perylene	Cyclopenta (c,d)pyrene
230		-----	-----	-----	-----	-----	-----
310		-----	-----	-----	-----	-----	-----
330	In house	-----	4.826 f+?	-----	-----	-----	-----
339	AfPS GS 2014	less than 0.1	less than 0.1	less than 0.1	less than 0.1	less than 0.1	-----
551	In house	-----	ND	ND	ND	ND	ND
623		-----	-----	-----	-----	-----	-----
840	AfPS GS 2014	ND	ND	ND	ND	ND	ND
841	ZEK01.4-08	n.d	n.d	n.d	n.d	n.d	n.d
2102		-----	-----	-----	-----	-----	-----
2115	AfPS GS 2014	-----	6.0 f+?	-----	-----	-----	-----
2129		-----	-----	-----	-----	-----	-----
2132	In house	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2139		-----	-----	-----	-----	-----	-----
2165	AfPS GS 2014	ND	ND	ND	ND	ND	-----
2166	AfPS GS 2014	-----	<0,2	<0,2	<0,2	<0,2	<0,2
2172		-----	-----	-----	-----	-----	-----
2184	AfPS GS 2014	ND	ND	ND	ND	ND	-----
2190	AfPS GS 2014	<0.2	7.26 f+?	<0.2	<0.2	<0.2	-----
2213		-----	-----	-----	-----	-----	-----
2217	AfPS GS 2014	-----	9.95 f+?	-----	-----	-----	-----
2223	In house	-----	<0.1	<0.1	<0.1	<0.1	-----
2232	In house	-----	-----	-----	-----	-----	2.130 f+?
2241	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2255	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2256		-----	-----	-----	-----	-----	-----
2266		-----	-----	-----	-----	-----	-----
2272		-----	-----	-----	-----	-----	-----
2295		-----	-----	-----	-----	-----	-----
2300	ZEK01.4-08	n.d	8.09 f+?	n.d	n.d	n.d	n.d
2301	In house	0	0	0	0	0	0
2303	AfPS GS 2014	-----	<0.2	<0.2	<0.2	<0.2	-----
2310	AfPS GS 2014	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.	NOT DET.
2311	AfPS GS 2014	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
2320	In house	-----	-----	N.D.	N.D.	N.D.	-----
2330	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2347	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2350		-----	-----	-----	-----	-----	-----
2352		-----	-----	-----	-----	-----	-----
2354	AfPS GS 2014	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]	N.D.[<0.1]
2355	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2357	AfPS GS 2014	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2363	AfPS GS 2014	N.D.	N.D.	N.D.	N.D.	N.D.	-----
2365	AfPS GS 2014	ND	ND	ND	ND	ND	ND
2366	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	Out Cap
2369	AfPS GS 2014	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2370	AfPS GS 2014	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2374		-----	-----	-----	-----	-----	-----
2375		-----	-----	-----	-----	-----	-----
2380		-----	-----	-----	-----	-----	-----
2384	AfPS GS 2014	-----	NOT DET.	NOT DET.	NOT DET.	NOT DET.	-----
2386		-----	-----	-----	-----	-----	-----
2390	AfPS GS 2014	ND	ND	ND	ND	ND	1.876 f+?
2425		-----	-----	-----	-----	-----	-----
2446	In house	<0,1	<0,1	<0,1	<0,1	<0,1	-----
2481		-----	-----	-----	-----	-----	-----
2482		-----	-----	-----	-----	-----	-----
2488		-----	-----	-----	-----	-----	-----
2492		-----	-----	-----	-----	-----	-----
2497	AfPS GS 2014	-----	4.761 f+?	-----	-----	-----	-----
2500	AfPS GS 2014	N.A.	8.04 f+?	N.A.	N.A.	N.A.	N.A.
2511		-----	-----	-----	-----	-----	-----
2525		-----	-----	-----	-----	-----	-----
2560		-----	-----	-----	-----	-----	-----
2561	ISO/TS16190	<0.2	<0.2	<0.2	<0.2	<0.2	-----
2563		-----	-----	-----	-----	-----	-----
2569		-----	-----	-----	-----	-----	-----
2590	AfPS GS 2014	< L.O.Q.	< L.O.Q.	< L.O.Q.	< L.O.Q.	< L.O.Q.	-----
2612	AfPS GS 2014	< 0,2	< 0,2	< 0,2	< 0,2	< 0,2	-----
2632	AfPS GS 2014	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.[<0.2]	N.D.
2658	ISO/TS16190	<0,2	<0,2	-----	<0,2	-----	-----
2674	AfPS GS 2014	n.d.	n.d.	n.d.	n.d.	n.d.	-----
2723	AfPS GS 2014	< 1	< 1	< 1	< 1	< 1	Not analyzed
2737		-----	-----	-----	-----	-----	-----
2741	ZEK01.4-08	<0.2	<0.2	<0.2	<0.2	<0.2	-----
2744		-----	-----	-----	-----	-----	-----

2757		-----	-----		-----	-----	-----	-----
2758	In house	-----	0		0	0	0	-----
2766	AfPS GS 2014	Not detected	4.68	f+?	Not detected	Not detected	Not detected	Not detected
2770	GB/T29616	N.D.	N.D.		N.D.	N.D.	N.D.	-----
2774		-----	-----		-----	-----	-----	-----
3146	AfPS GS 2014	-----	<0,2		<0,2	<0,2	<0,2	-----
3150		-----	-----		-----	-----	-----	-----
3151	AfPS GS 2014	0	0		0	0	0	0
3153	AfPS GS 2014	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20
3154		-----	-----		-----	-----	-----	-----
3163	In house	nd	15.1	f+?	nd	nd	nd	-----
3172	AfPS GS 2014	< 0.1	< 0.1		< 0.1	< 0.1	< 0.1	< 0.1
3185	AfPS GS 2014	ND	ND		ND	ND	ND	ND
3197	AfPS GS 2014	-----	ND		ND	ND	ND	ND
3200	AfPS GS 2014	<0.2	<0.2		<0.2	<0.2	<0.2	<0.2
3209		-----	-----		-----	-----	-----	-----
3210	In house	<0.6	<0.2		<0.2	<0.2	<0.2	-----
3228	AfPS GS 2014	ND	ND		ND	ND	ND	NA
3233		-----	-----		-----	-----	-----	-----
	n	43	47		51	52	51	30
	mean (n)	<1 or n.d.	<1 or n.d.		<1 or n.d.	<1 or n.d.	<1 or n.d.	<1 or n.d.

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APPENDIX 2 Summary of reported analytical details

labnrs	ISO/IEC17025 accredited?	Sample preparation?	Final particle size?	Release/Extraction technique?	Extraction solvent?	extraction time and temperature?	Remarks on Additional Questions:
230	Yes	Used as received		Ultrasonic	Toluene	60 min / 60 degrees C	
310	---	---		---			
330	No	Used as received	5mmx5mmx5mm	Ultrasonic	CHCL2\MeOH [1:1]	1 hour ambient	
339	No	Used as received		Ultrasonic	toluene	60 minutes at 60°C	
551	Yes	Used as received		Ultrasonic	Toluene and Hexane	1 hour 60°C	
623	Yes	Used as received		Ultrasonic	Toluene	1 hour, 60°C	
840	Yes	Cut	3mm x 3mm	Ultrasonic	Toluene	60min and 60°C	
841	Yes	Used as received		Ultrasonic	Toluene	1 hour, 60 oC	
2102	---	---		---			
2115	Yes	Used as received		Ultrasonic	Toluene	1h at 60°C	
2129	Yes	Used as received	not estimated	Ultrasonic	toluene	60 min / 60 °C	
2132	No	Cut	#17505: powder; #7506: less than 3mm x 3mm	Ultrasonic	Toluene	1 hour, 60C	
2139	Yes	Grinded	< 1mm	Ultrasonic	toluene	1 h	
2165	Yes	Used as received	3mm*3mm	Ultrasonic	Toluene	60minutes, 60°C	
2166	Yes	Used as received	#17505 < 1mm; #17506 = 2-3 mm	Ultrasonic	toluene	60 min, 60 °C	
2172	Yes	Used as received		Ultrasonic	Toluene	60 min 60℃	
2184	Yes	Used as received	3mm X 3mm	Ultrasonic	Toluene	60 min, 60 deg C	
2190	No	Used as received	Not determined	Ultrasonic	Toluene	1 hour / 60°C	
2213	Yes	Used as received	NA	Ultrasonic	Toluene extraction	1H at 60°C	
2217	Yes	Used as received	1-2 mm	Ultrasonic	toluene	30 minutes, 70 °C	
2223	Yes	Grinded		Mechanical Shaking	Toluene	12h, ambient temperature	
2232	No	Used as received	3mm*3mm*3mm	Ultrasonic	Toluene	60 minutes; 60°C	
2241	Yes	Used as received	as received	Ultrasonic	toluene	60min at 60 Ž	
2255	Yes	Used as received	N/A	Ultrasonic	Toluene	60 minutes and 60 °C	
2256	Yes	Cut		Ultrasonic	toluene	60 mins, 60 C	
2266	Yes	Used as received	0.45 µm	Ultrasonic	toluene	60	
2272	Yes	Used as received	powder	Ultrasonic	hexane	1h£¬ 60¡æ	
2295	No	Cut		Ultrasonic	Toluene	60 min and 60C	
2300	Yes	Cut	1 mm	Ultrasonic	Toluene	60 min., 60 Degrees C	17505 as received 7506 is cut (1 mm)
2301	Yes	Used as received	2 mm x 2 mm x 2 mm	Ultrasonic	Toluene	60 minutes and 60 oC	

labnrs	ISO/IEC17025 accredited?	Sample preparation?	Final particle size?	Release/Extraction technique?	Extraction solvent?	extraction time and temperature?	Remarks on Additional Questions:
2303	No	Cut	2mm	Ultrasonic	Toluene	1 hour @60C	
2310	Yes	Cut		Ultrasonic	toluene	1 hr & 60°C	17505 used as such, 17506 cut into small pieces.
2311	Yes	Cut	<1 mm	Ultrasonic	Toluene	1 hour at 60 degree C	
2320	Yes	Used as received		Ultrasonic	TOLUENE	1 h at 60 °C	
2330	No	Used as received	2mmX2mm	Ultrasonic	Tolvene	60 oC 60min	
2347	Yes	Cut	2mm*2mm	Ultrasonic	toluene	60¡æ£¬60minutes	
2350	No	Used as received		Ultrasonic	Toluene	1hr / 60¡É	
2352	Yes	Cut	2mm¡Á2mm¡Á2mm	Ultrasonic	Toluene	60minutes, 60 degree C	
2354	Yes	Used as received		Ultrasonic	Toluene	60 mins, 60 degreee C	
2355	Yes	Cut	2mm*2mm	Ultrasonic	toluene	60¡æ£»60min	
2357	Yes	Used as received		Ultrasonic	Toluene	60ï¿½ï¿½	
2363	Yes	Cut	2mm*2mm*2mm	Ultrasonic	Tolune	60min 60¡æ	
2365	Yes	Cut	2mm*2mm	Ultrasonic	Toluene	60min,60¡æ	#17505 was tested as received
2366	Yes	Other (mention below)	#17505 Used as received #17506 2mm*2mm	Ultrasonic	Toluene	60min£¬60¡æ	
2369	Yes	Used as received	1*1mm	Ultrasonic	Toluene	1 hour	
2370	Yes	Used as received	#17505 powder sample ; #17506 size 1.5¡Ñ2(mm)	Ultrasonic	Toluene	60¢XC,1h	
2374	Yes	Cut	2mm¡Á2mm¡Á2mm	Ultrasonic	toluene	60minutes, 60 degree C	
2375	Yes	Used as received	2mmX2mm	Ultrasonic	Toluene	60 min 60 C	
2380	Yes	Used as received	17505-Powder & 17506-3X2 mm	Ultrasonic	Toluene	60 minutes & 60 °C	
2384	Yes	Cut	-	Ultrasonic	toluene	60min, 60°C	
2386	Yes	Used as received	<1mm	Ultrasonic	Toluene	60min, 60 °C	
2390	Yes	Cut	2x3x3 mm	Ultrasonic	Toulene	60 min at 60C	
2425	Yes	Used as received	As received	Ultrasonic	Toluene	60 minutes ; 60° C	
2446	Yes	Used as received		Ultrasonic	Toluol	60 min, 60°C	
2482	Yes	Used as received	< 2-3 mm	Ultrasonic	Toluene	60 minutes, 60°C	
2488	Yes	Used as received		Ultrasonic	Toluene	1 hr / 60°C	
2492	Yes	Cut	0.5cm	Ultrasonic	Toluene	60min at 60¢XC	
2497	Yes	Used as received		Ultrasonic	toluene	60 min - 60°C	method
2500	Yes	Used as received	2 mm x 2 mm x 2 mm	Ultrasonic	toluene	60min	
2511	Yes	Used as received		Ultrasonic	Toluene/Methanol	60min / 60°C	
2525	Yes	Used as received		Ultrasonic	Toluene	60 minutes, 60 °C	
2560	Yes	Used as received	Grinded	Ultrasonic	Toluene	60 minutes and 600 (°C)	We have received grinded sample

labnrs	ISO/IEC17025 accredited?	Sample preparation?	Final particle size?	Release/Extraction technique?	Extraction solvent?	extraction time and temperature?	Remarks on Additional Questions:
2561	No	Used as received	As recieved, fine powder.	Ultrasonic	10ml Hexane	60 minutes at 60oC	
2563	Yes	Cut	approx. 5x5 mm	Ultrasonic	Toluol	1 h at 60°C	
2569	No	Used as received		Ultrasonic	Toluene	1 Hr at 60°C	
2590	No	Used as received	Powder and 2mm x 2mm	Ultrasonic	Toluene	60 minutes at 60 °C	
2612	Yes	Cut	2x2 mm	Ultrasonic	toluene	1h 60 °C	
2632	Yes	Cut	2mm x 2mm	Ultrasonic	Toluene	60 minutes, 60°C	
2658	Yes	Used as received	<3 mm	Ultrasonic	n-HEXANE	60 min 60 °C	
2674	Yes	Cut	3mm*3mm	Ultrasonic	Toluene	60 min 60 Ž	
2723	Yes	Used as received	#17505 : Powder #17506 : Piece of 5mm	Ultrasonic	Toluène	1h at 50°C	
2737	Yes	Used as received	#17505: Powder	Ultrasonic	Toluene	60°C 60 min	
2741	No	Cut	1 mm	Ultrasonic	Toluene	60 min at 60 °C	
2744	Yes	Cut	2x2mm	Ultrasonic	toluene	1 hour and 60C	
2757	No	Used as received		Ultrasonic	Toluene	60 min, 60 °C	
2758	No	Used as received		Ultrasonic	Acetonitrile	60 minutes + 60°C	
2766	Yes	Used as received		Ultrasonic	Toluene	60 minutes at 60°C	
2770	Yes	Used as received	3mm*3mm	Ultrasonic	Toluene	60¡æ£¬60min	
2774	Yes	Used as received	-	Ultrasonic	-	60min and 60°C	
3146	Yes	Used as received	powder = powder, 1mm*2mm	Ultrasonic	Toluol	60min 60°C	
3150	Yes	Used as received	as received	Ultrasonic	Toluene	1 h 60°C	
3151	Yes	Used as received		Ultrasonic	Toluene	60 min, 60°C	
3153	Yes	Used as received	#17505 - powder, #17506 - 2mm x 2mm	Ultrasonic	Toluene	60 minutes at 60oC	
3154	Yes	Used as received		Ultrasonic	toluene	60 min 60 °C	
3163	No	Cut	1mm	Thermal Desorption	none	none	
3172	Yes	Grinded		Ultrasonic	Toluene	1h - 60°	
3185	Yes	Used as received	Sample 17505:Powder; Sample 7506:3mm*3mm	Ultrasonic	Toluene	1hour,60¡æ	
3197	Yes	Cut	>1 mm	Ultrasonic	Toluene	60 minutes and 60C	
3200	Yes	Used as received	2cm*2cm	Ultrasonic	Toluene	60℃ 60min	
3209	Yes	Used as received		Ultrasonic	Toluene	60 minutes @ 60°C	
3210	No	Used as received		Ultrasonic	Hexane	1 hour 60 °C	
3228	Yes	Used as received	3mm*3mm	Ultrasonic	Toluene	60min, 60ºC	
3233	No	Used as received	/	Ultrasonic	toluene	1H - 60°C	

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APPENDIX 3

Number of participants per country

4 labs in	BANGLADESH
1 lab in	BRAZIL
1 lab in	CAMBODIA, Kingdom of
7 labs in	FRANCE
14 labs in	GERMANY
5 labs in	HONG KONG
1 lab in	HUNGARY
6 labs in	INDIA
2 labs in	INDONESIA
4 labs in	ITALY
2 labs in	KOREA
1 lab in	MALAYSIA
1 lab in	MAURITIUS
22 labs in	P.R. of CHINA
1 lab in	PAKISTAN
1 lab in	SINGAPORE
1 lab in	SRI LANKA
3 labs in	SWITZERLAND
2 labs in	TAIWAN R.O.C.
3 labs in	THE NETHERLANDS
1 lab in	TUNISIA
6 labs in	TURKEY
2 labs in	UNITED KINGDOM
3 labs in	VIETNAM

APPENDIX 4

Abbreviations:

C = final test result after checking of first reported suspect test 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) = utlier in Double Grubbs' outlier test
DG(0.05) = straggler in Double Grubbs' outlier test
R(0.01) = outlier in Rosner's outlier test
R(0.05) = straggler in Rosner's outlier test
n.a. = not applicable
n.e. = not evaluated
n.d. = not detected
W = result withdrawn on request of participant
ex = test result excluded from statistical calculations
fr. = first reported result

Literature:

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