Results of Proficiency Test
AZO dyes in textile
March 2019

Organised by: Institute for Interlaboratory Studies
Spijkenisse, the Netherlands

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Report: iis19A04 == Revised ==

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SUMMARY OF CHANGES

This revised report replaces the original report iis19A04 of May 2019.

It was discovered that the laboratory codes in the Summary in appendix 2, of the original report pages 23-25 for sample #19521 were copied incorrectly by a number of participants.
After investigation, it turns out that only the labcodes were copied incorrectly and no other changes were needed.

The following pages in this report have been revised:

- Appendix 2: page 24-26: Order in labcodes.

CONTENTS

1 INTRODUCTION

Since 1997, the Institute for Interlaboratory Studies (iis) organizes a proficiency test for banned AZO dyes in textile. During the annual proficiency testing program 2018/2019, it was decided to continue the proficiency test for the analysis of banned AZO dyes in textile. In this interlaboratory study, 173 laboratories in 34 different countries registered for participation. See appendix 4 for the number of participants per country. In this report, the results of the 2019 proficiency test are presented and discussed. This report is also electronically available through the iis website www.iisnl.com.

2 SET UP

The Institute for Interlaboratory Studies (iis) in Spijkenisse, the Netherlands, was the organizer of this proficiency test (PT). Sample analyses for fit-for-use and homogeneity testing were subcontracted to an ISO/IEC 17025 accredited laboratory. It was decided to send 2 different textile samples of approximately 3 grams each. A cotton sample labelled #19520 and a polyester sample labelled #19521 which were both artificially fortified with different AZO dyes. The participants were requested to report rounded and unrounded test results. The unrounded test results were preferably used for statistical evaluation.

2.1 ACCREDITATION

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

2.2 PROTOCOL

The protocol followed in the organisation of this proficiency test was the one as described for proficiency testing in the report 'iis Interlaboratory Studies: Protocol for the Organization, Statistics and Evaluation' of June 2018 (iis-protocol, version 3.5). This protocol can be downloaded from 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

Two different textile batches were obtained from a third party laboratory. The first textile batch was a blue cotton, fortified with an AZO dye to detect 3,3'-Dimethoxybenzidine. The second batch was an orange colored polyester, which was fortified with an AZO dye to detect 2,4-Xylidine.
Both batches were each cut finely, well mixed and divided over 200 subsamples of 3 grams each and respectively labelled #19520 and #19521. The homogeneity of subsamples #19520 was checked by the determination of 3,3'-Dimethoxybenzidine and for sample #19521 by the determination of 2,4-Xylidine, both according to ISO14362 on 8 stratified randomly selected subsamples of each set. See the following table for the test results.

	3,3'-Dimethoxybenzidine in mg/kg, #19520	2,4-Xylidine in mg/kg, #19521
sample 1	89.2	62.8
sample 2	93.7	68.6
sample 3	89.4	67.1
sample 4	90.9	59.2
sample 5	84.3	62.1
sample 6	92.0	63.9
sample 7	90.4	60.3
sample 8	86.6	65.5

Table 1: homogeneity test results of subsamples #19520 and #19521

From the above test results the repeatabilities were calculated and compared with 0.3 times the reproducibilities of the reference test method in agreement with the procedure of ISO13528, Annex B2, in the next table.

	3,3'-Dimethoxybenzidine in mg/kg, #19520	2,4-Xylidine in mg/kg, #19521
r (observed)	8.4	9.1
reference test method	ISO14362-1:2017	ISO14362-1:2017
0.3 * R (ref. test method)	9.4	8.7

Table 2: evaluation of the repeatability of subsamples #19520 and #19521

The calculated repeatabilities of samples #19520 and #19521 are in agreement with 0.3 times the respective reproducibility of the reference test method. Therefore, homogeneity of the subsamples #19520 and #19521 was assumed.

To each of the participating laboratories was sent 1 sample labelled #19520 and 1 sample labelled #19521 on March 6, 2019.

2.5 ANALYSES

The participants were requested to determine the concentrations of 23 forbidden aromatic amines and *o*-anisidine, applying the analysis procedure that is routinely used in the laboratory. Furthermore, the participants were instructed not to analyse for 4-Aminoazobenzene in both samples, #19520 and #19521, as the sample amounts were limited and the samples will not release 4-Aminoazobenzene. It was also requested to report if the laboratory was accredited for the requested components that were determined and to report some analytical details.

It was explicitly requested to treat the samples as if they were routine samples and to report the test results using the indicated units on the report form and not to round the results, but report as much significant figures as possible. It was also requested not to report ‘less than’ results, which are above the detection limit, because such results cannot be used for meaningful statistical evaluations.

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 appropriate reference test method 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 are also requested to confirm the 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 dispatch, the test results of the individual laboratories were gathered via the data entry portal www.kpmd.co.uk/sgs-iis-cts/. The reported test results are tabulated per determination in appendix 1 of this report. The laboratories are presented by their code numbers.

Directly after the deadline, a reminder was sent to those laboratories that had not reported test results at that moment. Shortly after the deadline, the available test results were screened for suspect data. A test result was called suspect in case the Huber Elimination Rule (a robust outlier test) found it to be an outlier. The laboratories that produced these suspect data were asked to check the reported test results (no reanalysis). Additional or corrected test results are used for data analysis and original test results are placed under 'Remarks' in the test 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 organization of this proficiency test was the one as described for proficiency testing in the report ‘iis Interlaboratory Studies: Protocol for the Organization, Statistics and Evaluation’ of June 2018 (iis-protocol, version 3.5).

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 dataset 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 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' test and by R(0.01) for the Rosner's test. Stragglers are marked by D(0.05) for the Dixon's test, by G(0.05) or DG(0.05) for the Grubbs' test and by R(0.05) for the Rosner's test. Both outliers and stragglers were not included in the calculations of 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. In this PT, the criterion of ISO13528, paragraph 9.2.1 was met for all evaluated tests, therefore, the uncertainty of all assigned values may be negligible and need not be included in the PT report.

Finally, the reproducibilities were calculated from the standard deviations by multiplying these 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 test 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 reference test method. 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. This 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 of this interlaboratory study.

The target standard deviation was calculated from the literature reproducibility by division with 2.8. In case no literature reproducibility was available, other target values were used. In some cases, a reproducibility based on former iis proficiency tests could be used.

When a laboratory did use a test method with a reproducibility that is significantly different from the reproducibility of the reference test method used in this report, it is strongly advised to recalculate the z-score, while using the reproducibility of the actual test method used, this in order to evaluate whether the reported test result is fit-for-use.

The z-scores were calculated according to:

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

The $z_{(target)}$ scores are listed in the test result tables in 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

In this proficiency test no problems were encountered with the dispatch of the samples. Four participants reported the test results after the deadline and eight participants did not report any test results. The 165 participants reported 299 numerical test results. Observed were 11 outlying test results, which is 3.7% of the numerical test results. In proficiency studies, outlier percentages of 3% - 7.5% are quite normal.

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

4.1 EVALUATION PER SAMPLE AND PER COMPONENT

In this section, the test results are discussed per sample and per component. The test methods, which were used by the various laboratories were taken into account for explaining the observed differences when possible and applicable. These test methods are also in the tables in appendix 1 together with the original data. The abbreviations used in these tables are listed in appendix 5.

For the determination of Aromatic Amines derived from AZO colorants the ISO14362 method is considered to be the official test method. Two versions of ISO14362 were published in 2017. Part 1 of ISO14362 describes a method to detect the use of certain azo colorants that are banned. Part 3 of ISO14362 describes a method to detect AZO colorants that are able to form 4-aminoazobenzene. In both samples, 4-Aminoazobenzene was not present.

Regretfully, not for all listed Aromatic Amines precision data are available in ISO14362-1:17. Fortunately, for the component 3,3'-Dimethoxybenzidine, which is present in sample #19520 a precision statement is mentioned. For 2,4-Xylidine no reproducibility requirements are mentioned in EN14362-1:17. Therefore, the average reproducibility of all aromatic amine compounds mentioned in EN14362-1:2017 was used to evaluate 2,4-Xylidine.

Sample #19520:

3,3'-Dimethoxybenzidine (CASno. 119-90-4): The determination of this aromatic amine at a concentration level of 95 mg/kg was problematic for a number of laboratories. Seven statistical outliers were observed. However, the calculated reproducibility after rejection of the statistical outliers is in full agreement with the reproducibility requirement of ISO14362-1:2017.

Sample #19521:

2,4-Xylidine (CASno. 95-68-1): The determination of this aromatic amine at a concentration level of 39 mg/kg may be problematic. Four statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is not in agreement with the reproducibility requirement estimated from the test method ISO14362-1:2017.
A number of laboratories did not report the 2,4-Xylidine as 2,4-Xylidine, but as the total concentration of Xylidines. It was decided to evaluate these reported concentrations for Total Xylidine as 2,4-Xylidine because only 2,4-Xylidine was present in this sample. These test values are marked with a capital C in appendix 1.

Some participants reported to have difficulties to detect Aromatic Amines in sample #19521, due to several reasons.

4.2 PERFORMANCE EVALUATION FOR THE GROUP OF LABORATORIES

A comparison has been made between the reproducibility as declared by the relevant reference test method and reproducibility as found for the group of participating laboratories. The number of significant test results, the average result, the calculated reproducibility (2.8*standard deviation) and the target reproducibility, derived (or estimated) from the official test method ISO14362-1 are compared in the next two tables.

Component	unit	n	average	2.8 * sd	R(lit)
3,3'-Dimethoxybenzidine	mg/kg	158	94.7	29.3	33.2

Table 3: reproducibility of the aromatic amine in textile sample #19520

Component	unit	n	average	2.8 * sd	R(lit)
2,4-Xylidine	mg/kg	130	38.6	27.6	17.5

Table 4: reproducibility of the aromatic amine in textile sample #19521

Without further statistical calculations, it can be concluded that the group of participating laboratories has no difficulties with the analyses of 3,3'-Dimethoxybenzidine but have somee difficulties with the analyses of 2,4-Xylidine at the investigated concentration levels. See also the discussion in paragraphs 4.1 and 5.

4.3 COMPARISON OF THE PROFICIENCY TEST OF MARH 2019 WITH PREVIOUS PTS

	March 2019	March 2018	February 2017	February 2016	March 2015
Number of reporting labs	165	171	164	161	180
Number of results reported	299	496	770	486	619
Number of statistical outliers	11	3	18	15	18
Percentage outliers	3.7%	0.6%	2.3%	3.1%	2.9%

Table 5: comparison to previous proficiency tests

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

The performance of the determinations of the proficiency test was compared against the requirements of the respective reference test methods as relative standard deviations (uncertainties). The conclusions are given the following table.

Parameter	March 2019	March 2018	Feb. 2017	Feb. 2016	March 2015	2004 - 2014	target
4-Aminodiphenyl	n.e.	n.e.	n.e.	n.e.	n.e.	18-36%	28%
Benzidine	n.e.	12%	n.e.	17-18%	20%	15-35%	14%
4-Chloro-o-toluidine	n.e.	n.e.	n.e.	n.e.	n.e.	24%	16%
2-Naphtylamine	n.e.	n.e.	n.e.	n.e.	n.e.	27-41%	18%
o-Aminoazotoluene	n.e.	n.e.	n.e.	n.e.	(48%)*	n.e.	28%
4-Chloroaniline	n.e.	n.e.	n.e.	n.e.	n.e.	27%	16%
2,4-Diaminoanisol	n.e.	n.e.	n.e.	n.e.	n.e.	24-52%	16%
4,4'-Diaminodiphenylmethane	n.e.	n.e.	n.e.	n.e.	n.e.	21%	15%
3,3'-Dimethoxybenzidine	11%	12%	17%	16%	n.e.	16-31%	13%
3,3'-Dimethylbenzidine	n.e.	n.e.	36%	n.e.	15%	17-32%	18%
4,4'-Diamino-3,3'-dichlorodiphenylmethane	n.e.	n.e.	n.e.	n.e.	n.e.	20-35%	16%
4,4'-Diaminodiphenylether	n.e.	n.e.	n.e.	n.e.	n.e.	15%	16%
4,4'-Diaminodiphenylsulfide	n.e.	n.e.	n.e.	n.e.	n.e.	18-26%	16%
4,4'-Methyl-bis(2-chloro- aniline)	n.e.	n.e.	n.e.	n.e.	n.e.	43%	22%
o-Toluidine	n.e.	n.e.	n.e.	n.e.	(70%)*	19-38%	22%
Sum of *o*-aminoazotoluene and *o*-Toluidine	n.e.	n.e.	n.e.	n.e.	34%	n.e.	36%
2,4-Xylidine	26%	n.e.	19%	n.e.	n.e.	n.e.	16%
4-Aminoazobenzene	n.e.	30%	n.e.	n.e.	n.e.	n.e.	27%

Table 6: long term development of uncertainties of aromatic amines in textile samples

*) Concentration of this component was near or below detection limit or otherwise arbitrary

Aromatic amines not mentioned in table 6 are not determined in a PT of iis yet.

In this PT, the observed variation expressed as the relative standard deviation RSD of the test results for 3,3'-Dimethoxybenzidine is in line with the previous PTs, but the RSD of the test results for 2,4-Xylidine is not in agreement with the previous PTs.

4.4 EVALUATION OF THE ANALYTICAL DETAILS

For this PT, only two questions were asked; one about accreditation and the other about the use of diatomaceous earth column.
One hundred and forty-two participants (90%) mentioned that they are accredited for determination of banned AZO-dyes in textile. Sixteen participants mentioned that the laboratory is not accredited for the determination of aromatic amines in textiles.
About the use of diatomaceous earth column as prescribed in ISO14362-1 the majority of the participants (75%) reported to have used this column. Thirty-three participants did not use this column and five participants reported to have used a different test method. No effect was observed on the averages or variation between reported test results.

5 DISCUSSION

All reporting participants were able to detect in 3,3'-Dimethoxybenzidine in sample #19520. No other aromatic amines were detected.
As mentioned also in paragraph 4.1 a number of participants reported to have problems with detecting 2,4-Xylidine in sample #19521. Some laboratories reported that they were possibly not able to detect 2,4-Xylidine and reported a total Xylidine content.

When the results of this interlaboratory study were compared to the Ecolabelling Standards and Requirements for Textiles in EU and with the similar Bluesign® BSSL (Table 7), it was noticed that not all participants would make identical decisions about the acceptability of the textiles for the determined components.

Ecolabel	baby clothes	in direct skin contact	no direct skin contact
Bluesign® BSSL	<20 mg/kg	<20 mg/kg	<20 mg/kg
Oeko-Tex 103	<20 mg/kg	<20 mg/kg	<20 mg/kg

Table 7: Bluesign® BSSL and Ecolabelling Standards and Requirements for Textiles in EU

For sample #19520, all reporting laboratories would have reject the sample for all categories, except one. For sample #19521, almost all reporting laboratories would have reject the sample for all categories. Eleven laboratories would have accepted the sample.

6 CONCLUSION

It can be concluded that the majority of the participants has no problem with the determination of 3,3'-Dimethoxybenzidine, but have problems with the determination of 2,4-Xylidine in the samples of this PT.

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 thus increase of the quality of the analytical results.

APPENDIX 1

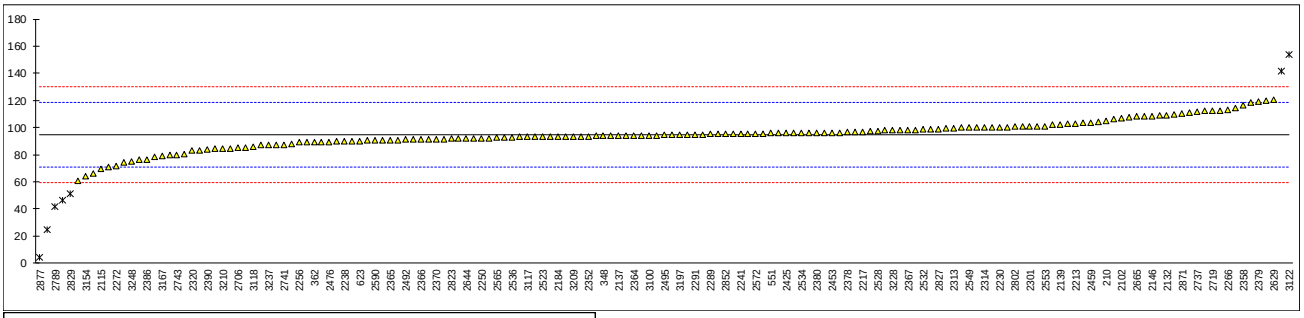
Determination of 3,3'-Dimethoxybenzidine (CASno. 119-90-4) in sample #19520; results in mg/kg

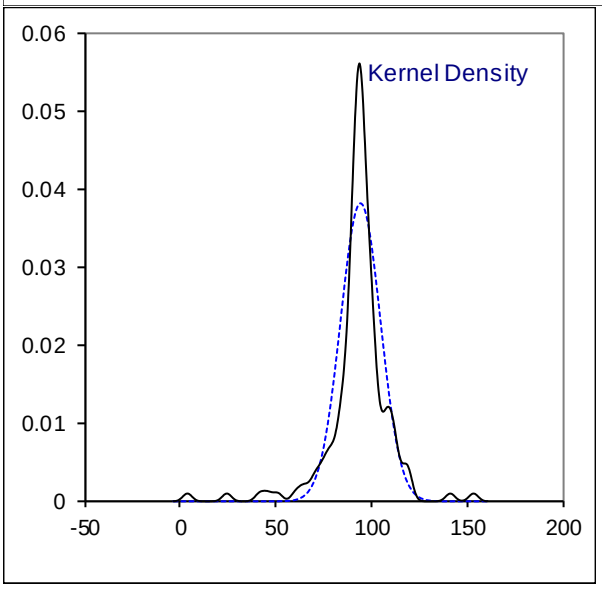
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210	ISO14362-1	104.53		0.83	2426	ISO14362-1	84.6		-0.85
230	EN14362-1	106.3		0.98	2442	ISO14362-1	91.68		-0.26
339	EN14362-1	118.5		2.00	2449	ISO14362-1	103.717		0.76
348	In house	93.67		-0.09	2453	ISO14362-1	96.34		0.14
362	EN14362-1	89.2		-0.46	2456	ISO14362-1	90.6		-0.35
551	In house	95.7008		0.08	2459	ISO14362-1	103.760		0.76
623	ISO14362-1	90.16		-0.38	2467		-----		-----
840	ISO14362-1	96.80		0.18	2472	ISO14362-1	92.72		-0.17
1213	ISO14362-1	85.28		-0.79	2475	EN14362-1	79.804		-1.26
2102	EN14362-1	107.02		1.04	2476	EN14362-1	89.34		-0.45
2115	ISO14362-1	69.73		-2.10	2489	ISO14362-1	101.0		0.53
2121	EN14362-1	97.05		0.20	2492	EN14362-1	91	C	-0.31
2129	EN14362-1	119.6		2.10	2495	ISO14362-1	94.33		-0.03
2132	EN14362-1	109.14		1.22	2496	ISO14362-1	92.11		-0.22
2137	EN ISO 14362-1	93.7		-0.09	2497	ISO14362-1	80.52	C	-1.20
2138	EN14362-1	93.643		-0.09	2500	EN14362-1	96.34		0.14
2139	ISO14362-1	101.86		0.60	2508		93.38		-0.11
2146	EN14362-1	108.41		1.15	2511	ISO14362-1	112.51		1.50
2165	EN14362-1	93.6		-0.09	2521	In house	71.09		-1.99
2166	EN14362-1	87.2		-0.63	2523	ISO14362-1	93.344		-0.12
2170	EN14362-1	91.88		-0.24	2528	EN14362-1	97.16		0.21
2184	EN14362-1	93.4		-0.11	2532	ISO14362-1	98.5		0.32
2213	ISO14362-1	102.8		0.68	2534	EN14362-1	96.0		0.11
2217	EN14362-1	96.88		0.18	2536	EN14362-1	92.79		-0.16
2230	EN14362-1	100		0.45	2549	ISO14362-1	99.88		0.44
2232		96.059360		0.11	2553	In house	101.00		0.53
2238	ISO14362-1	89.7		-0.42	2565	ISO14362-1	92.50		-0.19
2241	EN14362-1	95.2		0.04	2567	EN14362-1	91		-0.31
2247	ISO14362-1	107.24		1.06	2569	ISO14362-1	104		0.78
2250	ISO14362-1	92		-0.23	2572	ISO14362-1	95.3		0.05
2255	EN14362-1	97.75		0.26	2582	ISO14362-1	83.29		-0.96
2256	EN14362-1	89.01		-0.48	2590	ISO14362-1	90.303		-0.37
2258		-----		-----	2591	EN14362-1	95.60		0.07
2265	EN14362-1	89.3	C	-0.46	2605	ISO14362-1	102.60		0.66
2266	EN14362-1	113		1.54	2609	EN14362-1	94.1		-0.05
2272		71.82		-1.93	2622		90.302	C	-0.37
2284	EN14362-1	93.24		-0.12	2629	ISO14362-1	120.2		2.15
2286	EN14362-1	94.47		-0.02	2638	EN14362-1	60.663		-2.87
2287	ISO14362-1	89.11		-0.47	2643	ISO14362-1	101.810		0.60
2289	ISO14362-1	95		0.02	2644	ISO14362-1	91.82		-0.24
2290	ISO14362-1	91.1		-0.30	2665	ISO14362-1	107.97	C	1.12
2291	ISO14362-1	94.7		0.00	2668	EN14362-1	99.76		0.43
2293	EN14362-1	91.254		-0.29	2674	EN14362-1	94.2		-0.04
2295	EN14362-1	109		1.20	2678		-----		-----
2301	EN14362-1	101.0		0.53	2706	ISO14362-1	84.9		-0.83
2310	ISO14362-1	98.21		0.29	2719	EN14362-1	112.5		1.50
2311	ISO14362-1	100.78		0.51	2730	ISO14362-1	96.231		0.13
2313	ISO14362-1	99.64		0.42	2737	ISO14362-1	111.5		1.41
2314	EN14362-1	99.93		0.44	2741	EN14362-1	87.3		-0.62
2320	ISO14362-1	82.84		-1.00	2743	ISO14362-1	79.9234		-1.25
2330	ISO14362-1	90.83		-0.33	2789	ISO14362-1	41.94	R(0.01)	-4.44
2347		96		0.11	2802	ISO14362-1	100.5		0.49
2350	ISO14362-1	92.9729		-0.15	2804	EN14362-1	112		1.46
2352	ISO14362-1	93.6		-0.09	2815	ISO14362-1	74.05		-1.74
2357	ISO14362-1	98.3		0.30	2823	ISO17234-1	91.625		-0.26
2358	ISO14362-1	116.7363		1.86	2827	EN14362-1	98.8		0.34
2364	ISO14362-1	94.06		-0.05	2829	EN14362-1	51.44	R(0.01)	-3.64
2365	GB/T 17592	90.70		-0.34	2849		46.29	R(0.01)	-4.08
2366	ISO14362-1	91.1		-0.30	2852	ISO14362-1	95.131		0.04
2367	ISO14362-1	98.26		0.30	2858	EN14362-1	89.59		-0.43
2369	ISO14362-1	100		0.45	2862	EN14362-1	87.55		-0.60
2370	EN14362-1	91.2		-0.30	2866	EN14362-1	100.35		0.47
2373	ISO14362-1	95.8		0.09	2867	EN14362-1	94.9		0.02
2375	EN14362-1	90		-0.40	2869		-----		-----
2378	ISO14362-1	96.4		0.14	2870	EN14362-1	95		0.02
2379	ISO14362-1	119.170		2.06	2871	ISO14362-1	110.309		1.31
2380	ISO14362-1	96.185		0.12	2874		-----		-----
2381	ISO14362-1	93.50		-0.10	2876		-----		-----
2382	ISO14362-1	94.0		-0.06	2877	EN14362-1	4.0873	R(0.01)	-7.63
2386	EN14362-1	76.4		-1.54	2880		-----		-----
2390	ISO14362-1	84.01		-0.90	3100	ISO14362-1	94.16		-0.05
2410	ISO14362-1	94.6		-0.01	3116	EN14362-1	108.18		1.13
2415		-----		-----	3117	ISO14362-1	93.17		-0.13
2425	ISO14362-1	95.93		0.10	3118	ISO14362-1	86.02		-0.73

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
3122	EN14362-1	153.885	R(0.01)	4.98	3209	EN14362-1	93.54		-0.10
3146	ISO14362-1	93.68		-0.09	3210	EN14362-1	84.41		-0.87
3150	EN14362-1	141.7	R(0.01)	3.96	3216	EN14362-1	24.75	R(0.01)	-5.89
3153	EN14362-1	86.9		-0.66	3220	EN14362-1	76.34		-1.55
3154	EN14362-1	64.07		-2.58	3222	EN14362-1	110.87		1.36
3160	ISO14362-1	78.32		-1.38	3225	EN14362-1	95.26		0.05
3167	ISO14362-1	78.836		-1.34	3228	EN14362-1	98.2		0.29
3172	ISO14362-1	109.71		1.26	3237	EN14362-1	86.95		-0.65
3176	ISO14362-1	114.15		1.64	3243	EN14362-1	99.9		0.44
3182	EN14362-1	84.26		-0.88	3248	EN14362-1	75		-1.66
3185	EN14362-1	95.19		0.04	3250	ISO14362-1	98.66		0.33
3190	EN14362-1	99.6		0.41	6191	In house	66.2		-2.40
3197	ISO14362-1	94.5		-0.02					

normality	suspect	
n	158	
outliers	7	
mean (n)	94.711	RSD = 11%
st.dev. (n)	10.4499	
R(calc.)	29.260	
st.dev.(ISO14362-1:17)	11.8727	
R(ISO14362-1:17)	33.244	

Lab 2265: first reported < 10
Lab 2492: first reported 54
Lab 2497: first reported 136.89
Lab 2622: reported test result for sample #19521
Lab 2665: first reported 170.97





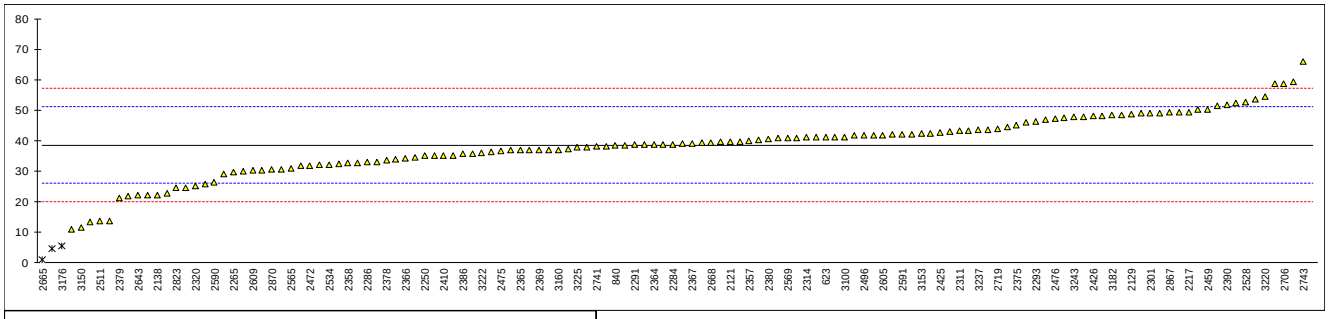
Determination of 2,4-Xylidine (CASno. 95-68-1) in sample #19521; results in mg/kg

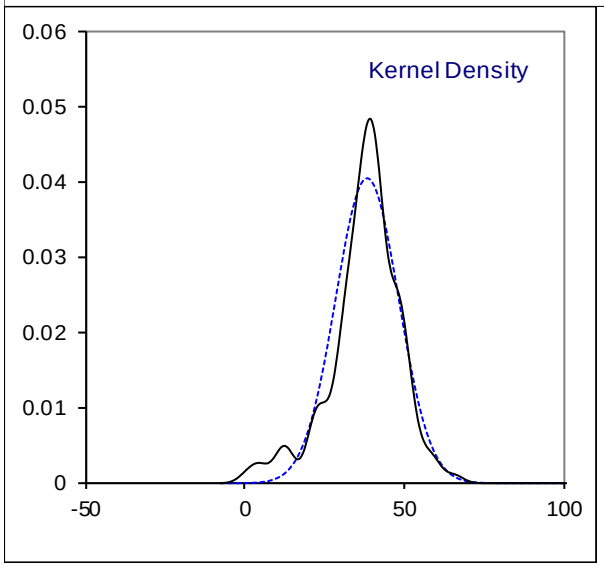
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210		-----		-----	2426	ISO14362-1	47.98		1.51
230		-----		-----	2442	ISO14362-1	38.73		0.03
339		-----		-----	2449	ISO14362-2	49.066		1.68
348	In house	32.81		-0.92	2453	ISO14362-1	22.22		-2.62
362		-----		-----	2456		40.2	C	0.26
551	In house	<5	False neg?	<-5.38	2459	ISO14362-1	50.330		1.89
623	ISO14362-1	41.16		0.42	2467		-----		-----
840	ISO14362-1	38.54		0.00	2472	ISO14362-1	31.88		-1.07
1213	ISO14362-1	47.91		1.50	2475	EN14362-1	36.680		-0.30
2102	EN14362-1	39.73	C	0.19	2476	EN14362-1	47.22		1.39
2115	ISO14362-1	4.48	R(0.05)	-5.47	2489	ISO14362-1	41.0		0.39
2121	EN14362-1	39.65	C	0.17	2492	EN14362-1	37	C	-0.25
2129	EN14362-1	48.7		1.63	2495		-----		-----
2132		-----		-----	2496	ISO14362-1	41.75		0.51
2137	EN ISO14362-1	22.6		-2.56	2497	ISO14362-1	13.29		-4.05
2138	EN14362-1	22.246		-2.62	2500	EN14362-1	52.22		2.19
2139	ISO14362-1	24.5	C	-2.26	2508		33.13		-0.87
2146	EN14362-1	47.42		1.42	2511	ISO14362-1	13.61		-4.00
2165		-----		-----	2521		-----		-----
2166		-----		-----	2523		-----		-----
2170	EN14362-1	49.39		1.74	2528	EN14362-1	52.69		2.26
2184		-----		-----	2532	ISO14362-1	43.25		0.75
2213	ISO14362-1	32		-1.05	2534	EN14362-1	32.0	C	-1.05
2217	EN14362-1	49.46		1.75	2536	EN14362-1	36.99		-0.25
2230	EN14362-1	ND		-----	2549	ISO14362-1	38.58	C	0.00
2232		-----		-----	2553	In house	46.00		1.19
2238	ISO14362-1	39.2		0.10	2565		30.84		-1.24
2241	EN14362-1	43		0.71	2567	EN14362-1	41.7		0.50
2247	ISO14362-1	41.12		0.41	2569	ISO14362-1	41		0.39
2250	ISO14362-1	35		-0.57	2572	ISO14362-1	41.2		0.42
2255	EN14362-1	48.03		1.52	2582	ISO14362-1	30	C	-1.37
2256	EN14362-1	59.34		3.33	2590	ISO14362-1	26.216		-1.98
2258		-----		-----	2591	EN14362-1	42.12		0.57
2265	EN14362-1	29.6	C	-1.44	2605	ISO14362-1	41.86		0.53
2266	EN14362-1	30.4		-1.31	2609		30.3		-1.33
2272		11	C	-4.42	2622		58.546		3.20
2284	EN14362-1	38.79		0.04	2629	ISO14362-1	50.1		1.85
2286	EN14362-1	32.99		-0.89	2638	EN14362-1	31.813		-1.08
2287	ISO14362-1	34.54	C	-0.65	2643	ISO14362-1	22.081		-2.64
2289	ISO14362-1	39		0.07	2644	ISO14362-1	51.42		2.06
2290	ISO14362-1	44.4		0.94	2665	ISO14362-1	0.98	C,R(0.05)	-6.03
2291	ISO14362-1	38.6		0.01	2668	EN14362-1	39.22		0.10
2293	EN14362-1	46.433		1.26	2674		-----		-----
2295		-----		-----	2678		-----		-----
2301		49.0		1.67	2706	ISO14362-1	58.7	C	3.23
2310	ISO14362-1	43.51		0.79	2719	EN14362-1	43.8		0.84
2311	ISO17234-1	43.17		0.74	2730		-----		-----
2313	ISO14362-1	39.62		0.17	2737	ISO14362-1	35.83		-0.44
2314	EN14362-1	41.12		0.41	2741	EN14362-1	38.1	C	-0.07
2320	ISO14362-1	25.04		-2.17	2743	ISO14362-1	65.8321		4.37
2330	ISO14362-1	ND	False neg?	-----	2789	ISO14362-1	155.79	R(0.01)	18.80
2347		-----		-----	2802	ISO14362-1	25.7		-2.06
2350	ISO14362-1	21.7067		-2.70	2804		-----		-----
2352	ISO14362-1	32.4		-0.99	2815	ISO14362-1	29.15		-1.51
2357	ISO14362-1	40		0.23	2823	ISO14362-1	24.482		-2.26
2358	ISO14362-1	32.6459		-0.95	2827	EN14362-1	37.2		-0.22
2364	ISO14362-1	38.62		0.01	2829	EN14362-1	53.68		2.42
2365	ISO14362-1	37.00		-0.25	2849		n.d.		-----
2366	ISO14362-1	34.3		-0.68	2852		-----		-----
2367	ISO14362-1	39.14		0.09	2858	EN14362-1	42.19		0.58
2369	ISO14362-1	37		-0.25	2862	EN14362-1	38.23		-0.05
2370	EN14362-1	35.2		-0.54	2866		-----		-----
2373	ISO14362-1	35.1		-0.56	2867	EN14362-1	49.2		1.71
2375	EN14362-1	45		1.03	2869		-----		-----
2378	ISO14362-1	33.5		-0.81	2870	EN14362-1	30.5		-1.29
2379	ISO14362-1	21.230		-2.78	2871	ISO14362-1	36.315	C	-0.36
2380	ISO14362-1	40.449		0.30	2874		-----		-----
2381	ISO14362-1	42.0		0.55	2876		-----		-----
2382	ISO14362-1	37.0		-0.25	2877		-----		-----
2386	EN14362-1	35.6		-0.48	2880		-----		-----
2390	ISO14362-1	51.61		2.09	3100	ISO14362-1	41.22		0.43
2410	ISO14362-1	35.1		-0.56	3116	EN14362-1	41.84		0.53
2415		-----		-----	3117	ISO14362-1	37.91		-0.11
2425	ISO14362-1	42.68		0.66	3118	EN14362-1	46.82		1.32

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
3122		-----		-----	3209	EN14362-1	30.52		-1.29
3146		-----		-----	3210	EN14362-1	<5	False neg?	<-5.38
3150	EN14362-1	11.47	C	-4.34	3216		-----		-----
3153	EN14362-1	42.4		0.61	3220	EN14362-1	54.53		2.56
3154		-----		-----	3222	EN14362-1	36.03	C	-0.41
3160	ISO14362-1	37.01		-0.25	3225	EN14362-1	37.72		-0.14
3167	ISO14362-1	13.657		-3.99	3228		-----		-----
3172		33.98		-0.74	3237	EN14362-1	43.44		0.78
3176	ISO14362-1	5.36	R(0.05)	-5.32	3243	EN14362-1	47.7		1.46
3182	EN14362-1	48.39		1.58	3248	EN14362-1	41		0.39
3185	EN14362-1	38.60		0.01	3250	ISO14362-1	48.93		1.66
3190	EN14362-1	48.5		1.59	6191	In house *)	------		-----
3197	ISO14362-1	42.4		0.61					

	normality	OK
	n	130
	outliers	4
	mean (n)	38.565 RSD = 26%
	st.dev. (n)	9.8547
	R(calc.)	27.593
	st.dev. (ISO14362-1:17)	6.2366
	R(ISO14362-1:17)	17.462

Lab 2102: test result was reported as total Xylidines
Lab 2121; test result was reported as total Xylidines
Lab 2139: First reported 9.9
Lab 2265: First reported <10
Lab 2272: First reported <5
Lab 2287: First reported ND
Lab 2456: test result was reported as total Xylidines
Lab 2492: First reported 54
Lab 2534: test result was reported as total Xylidines
Lab 2549: First reported 35.88
Lab 2582: First reported ND
Lab 2665: First reported n.d.
Lab 2706: First reported 83.9
Lab 2741: First reported <5
Lab 2871: test result was reported as total Xylidines
Lab 3150: test result was reported as total Xylidines
Lab 3222: test result was reported as total Xylidines
*) Lab 6191: reported positive for Xylidine, but was not able to quantify the component





APPENDIX 2

Summary of other reported aromatic amines in sample #19520

Abbreviations of amine names as used in appendix 2:

4AD = 4-Aminodiphenyl (CASNo. 92-67-1)
BD = Benzidine (CASNo. 92-87-5)
4CoT = 4-Chloro-o-toluidine (CASNo. 95-69-2)
2NA = 2-Naphtylamine (CASNo. 91-59-8)
oAAT = o-Aminoazotoluene (CASNo. 97-56-3)
ANT = 2-Amino-4-nitrotoluene (CASNo. 99-55-8)
4CA = 4-Chloraniline (CASNo. 106-47-8)
DAA = 2,4-Diaminoanisol (CASNo. 615-05-4)
DADM = 4,4'-Diaminodiphenyl methane (CASNo. 101-77-9)
DCB = 3,3'-Dichlorobenzidine (CASNo. 91-94-1)
DMoxB = 3,3'-Dimethoxybenzidine (CASNo. 119-90-4)
DMB = 3,3'-Dimethylbenzidine (CASNo. 119-93-7)
DDDM = 3,3'-Dimethyl-4,4'-Diaminodiphenyl methane (CASNo. 838-88-0)
pC = p-Cresidine (CASno. 120-71-8)
DDM = 4,4'-Diamino-3,3'-dichlorodiphenyl methane (CASno. 101-14-4)
DDE = 4,4'-Diaminodiphenyl ether (CASno. 101-80-4)
DDS = 4,4'-Diaminodiphenyl sulphide (CASno. 139-65-1)
oT = o-Toluidine (CASno. 95-53-4)
24DAT = 2,4-Diaminotoluene (CASno. 95-80-7)
TMA = 2,4,5-Trimethylaniline (CASno. 137-17-7)
oA = o-Anisidine (CASno. 90-04-0)
24X = 2,4-Xylidine (CASno. 95-68-1)
25X = 2,5Xylidine (CASno. 95-78-3)
26X = 2,6-Xylidine (CASno. 87-62-7)
TX = Total of Xylidine

Summary of other reported aromatic amines in sample #19520, see abbreviations on page 16

Lab	4AD	BD	4CoT	2NA	oAAT	ANT	4CA	DAA	DADM	DCB	DMB	DDDM
210	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
230	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
339	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
348	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
362	-----	-----	-----	-----	n	n	-----	-----	-----	-----	-----	-----
551	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
623	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
840	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1213	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2102	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2115	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2121	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ
2129	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2132	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2137	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2138	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2139	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2146	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2165	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2166	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2170	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2184	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2213	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2217	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2230	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2232	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2241	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2247	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2250	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2255	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2256	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2258	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2265	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2266	0	0	0	0	0	0	0	0	0	0	0	0
2272	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2284	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2286	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2287	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2289	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2290	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2291	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2293	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2295	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2301	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2310	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2311	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2313	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2314	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2320	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
2330	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2347	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2352	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2357	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2358	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2364	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2365	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2366	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2367	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2369	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2370	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2373	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2375	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2378	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2379	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2380	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2381	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2382	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2386	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2390	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2410	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2415	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2425	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2426	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lab	4AD	BD	4CoT	2NA	oAAT	ANT	4CA	DAA	DADM	DCB	DMB	DDDM
2442	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2449	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2453	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2456	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2459	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2467	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2472	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2475	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2476	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2489	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2492	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2495	<5	<5	<5	<5	-----	-----	<5	<5	<5	<5	<5	<5
2496	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2497	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2500	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2508	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2511	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2521	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2523	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2528	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2532	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2534	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2536	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2549	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2553	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2565	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2567	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2569	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2572	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2582	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2590	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2591	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2605	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2609	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2622	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2629	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2638	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
2643	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2644	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2665	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2668	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2674	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2678	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2706	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2719	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2730	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2737	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2741	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2743	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2789	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2802	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2804	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2815	0.22	0.36	0.90	0.26	-----	-----	0.36	0.60	0.40	0.52	0.98	0.38
2823	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2827	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2829	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2849	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2852	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2858	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
2862	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2866	0	0	0	0	0	0	0	0	0	0	0	0
2867	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2869	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2870	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2871	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2874	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2876	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2877	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2880	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3100	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3116	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3117	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3118	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3122	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3146	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3150	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3153	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3154	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lab	4AD	BD	4CoT	2NA	oAAT	ANT	4CA	DAA	DADM	DCB	DMB	DDDM
3160	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3167	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3172	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
3176	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3182	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3185	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3190	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3197	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3209	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3210	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3216	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3222	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3225	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3228	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
3237	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3243	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
3248	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3250	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
6191	0	0	0	0	0	0	0	0	0	0	4.4	0

Summary of aromatic amines in sample #19520 continued

Lab	pC	DDM	DDE	DDS	oT	24DAT	TMA	oA	24X	25X	26X	TX
210	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
230	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
339	<5	<5	<5	<5	<5	<5	<5	<5	-----	-----	-----	-----
348	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
362	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
551	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----	N.D.	-----
623	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
840	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----
1213	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----
2102	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2115	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2121	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ
2129	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2132	<5	<5	<5	<5	<5	<5	<5	<5	-----	-----	-----	-----
2137	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2138	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2139	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2146	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2165	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----	-----
2166	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2170	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2184	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----	-----
2213	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2217	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2230	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2232	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2241	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2247	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2250	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2255	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2256	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2258	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2265	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-----	-----	-----	<10
2266	0	0	0	0	0	0	0	0.2	0.2	0	0	0
2272	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2284	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2286	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2287	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	ND	-----
2289	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2290	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2291	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2293	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	ND	ND
2295	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2301	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2310	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----	N.D.	-----
2311	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2313	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2314	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2320	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	-----	N.D	N.D
2330	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	-----
2347	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2352	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2357	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2358	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	N/A	n.d.	N/A
2364	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2365	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2366	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2367	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2369	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	<5
2370	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2373	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2375	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2378	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2379	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2380	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2381	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2382	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2386	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2390	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2410	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2415	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2425	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2426	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lab	pC	DDM	DDE	DDS	oT	24DAT	TMA	oA	24X	25X	26X	TX
2442	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	-----	-----
2449	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2453	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2456	-----	-----	-----	-----	-----	-----	-----	<5	-----	-----	-----	-----
2459	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2467	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2472	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2475	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2476	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2489	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2492	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2495	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2496	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2497	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2500	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2508	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2511	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2521	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2523	-----	-----	-----	-----	-----	-----	-----	0.648	-----	-----	-----	-----
2528	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2532	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2534	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2536	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----	N.D.	N.D.
2549	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2553	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2565	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2567	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2569	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	ND	-----
2572	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2582	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2590	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2591	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	-----	<5.0	-----
2605	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	ND	ND
2609	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2622	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2629	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2638	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
2643	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2644	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2665	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	0.46	n.d.	n.d.	n.d.	n.d.
2668	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----	N.D.	N.D.
2674	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----	-----
2678	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2706	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2719	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2730	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2737	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2741	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	<5
2743	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2789	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2802	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2804	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----	-----
2815	0.20	0.66	0.28	0.48	0.24	1.00	0.24	0.80	-----	-----	-----	0.24
2823	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2827	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2829	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2849	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2852	ND	ND	ND	ND	ND	ND	ND	ND	-----	-----	-----	-----
2858	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
2862	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2866	0	0	0	0	0	0	0	0	-----	-----	-----	-----
2867	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2869	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2870	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2871	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	< 5	-----	-----	-----	N.D.
2874	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2876	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2877	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2880	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3100	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
3116	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3117	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3118	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3122	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3146	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3150	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3153	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3154	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lab	pC	DDM	DDE	DDS	oT	24DAT	TMA	oA	24X	25X	26X	TX
3160	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3167	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3172	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
3176	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3182	ND	ND	ND	-----	ND	ND	ND	ND	ND	-----	ND	ND
3185	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
3190	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	<5
3197	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3209	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3210	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3216	-----	0.31	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3222	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3225	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3228	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----	-----
3237	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3243	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
3248	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3250	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
6191	0	0	2.4	0	0	0	0	0	0	0	0	0

Summary of other reported aromatic amines in sample #19521, see abbreviations on page 16

Lab	4AD	BD	4CoT	2NA	oAAT	ANT	4CA	DAA	DADM	DCB	DMoxB	DMB
210	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
230	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
339	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
348	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
362	-----	-----	-----	<5.0	42.1	-----	-----	-----	-----	-----	-----	-----
551	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
623	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
840	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1213	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2102	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2115	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2121	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ
2129	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2132	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2137	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2138	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2139	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2146	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2165	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2166	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2170	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2184	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2213	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2217	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2230	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2232	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2241	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2247	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2250	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2255	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2256	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2258	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2265	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	<10	< 10
2266	0	0	0	0	0	0	0	0	0	0	0	0
2272	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2284	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2286	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2287	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2289	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2290	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2291	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2293	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2295	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2301	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2310	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2311	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2313	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2314	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2320	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
2330	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2347	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2352	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2357	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2358	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2364	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2365	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2366	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2367	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2369	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2370	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2373	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2375	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2378	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2379	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2380	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2381	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2382	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2386	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2390	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2410	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2415	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2425	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2426	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lab	4AD	BD	4CoT	2NA	oAAT	ANT	4CA	DAA	DADM	DCB	DMoxB	DMB
2442	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2449	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2453	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2456	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2459	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2467	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2472	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2475	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2476	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2489	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2492	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2495	-----	-----	-----	-----	-----	-----	<5	-----	-----	-----	-----	-----
2496	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2497	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2500	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2508	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2511	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2521	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2523	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2528	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2532	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2534	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2536	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2549	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2553	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2565	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2567	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2569	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2572	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2582	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2590	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2591	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2605	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2609	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2622	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2629	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2638	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
2643	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2644	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2665	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2668	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2674	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2678	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2706	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2719	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2730	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2737	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2741	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2743	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2789	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2802	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2804	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2815	0.14	0.12	0.16	0.20	0.20	0.20	0.36	0.63	0.08	0.24	1.17	0.96
2823	N/A	N/A	N/A	1.560	1.560	1.560	N/A	N/A	17.232	N/A	N/A	N/A
2827	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2829	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2849	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2852	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2858	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d
2862	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2866	0	0	0	0	0	0	0	0	0	0	0	0
2867	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
2869	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2870	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2871	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2874	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2876	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2877	-----	-----	6.0116	-----	-----	-----	-----	-----	-----	-----	-----	-----
2880	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3100	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3116	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3117	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3118	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3122	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3146	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	<10	-----
3150	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3153	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3154	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lab	4AD	BD	4CoT	2NA	oAAT	ANT	4CA	DAA	DADM	DCB	DMoxB	DMB
3160	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3167	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3172	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
3176	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3182	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3185	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3190	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3197	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3209	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3210	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3216	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3222	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3225	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3228	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
3237	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3243	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
3248	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3250	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
6191	0	0	0	0	0	0	0	0	0	0	0	0

Summary of aromatic amines in sample #19521 continued

Lab	DDDM	pC	DDM	DDE	DDS	oT	24DAT	TMA	oA	25X	26X	TX
210	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
230	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
339	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	-----	-----
348	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	32.81
362	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
551	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----	N.D.	-----
623	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	41.16
840	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----
1213	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----
2102	-----	-----	-----	-----	-----	0.67	-----	-----	-----	-----	-----	39.72
2115	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2121	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	<LQ	-----	-----	39.65
2129	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2132	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	-----	-----
2137	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2138	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22.246
2139	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	24.5
2146	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2165	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----
2166	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2170	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2184	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----
2213	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	32
2217	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2230	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2232	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2238	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2241	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	43
2247	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	41.1
2250	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2255	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	48
2256	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2258	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2265	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	-----	-----	29.6
2266	0	0	0	0	0	0	0	0	0	0	0	0.2
2272	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2284	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2286	ƒ5	ƒ5	ƒ5	ƒ5	ƒ5	ƒ5	ƒ5	ƒ5	ƒ5	ƒ5	ƒ5	32.99
2287	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	ND	-----
2289	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	39
2290	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	44.4
2291	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	38.6
2293	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	ND	46.433
2295	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2301	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	49.0
2310	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	48.3
2311	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	43.17
2313	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	39.62
2314	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2320	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	-----	N.D	25.04
2330	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	2.57	-----
2347	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2350	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2352	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2357	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40
2358	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	N/A	n.d.	N/A
2364	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2365	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2366	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2367	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2369	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	37
2370	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	35.2
2373	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2375	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2378	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2379	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2380	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	40.5
2381	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2382	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2386	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	35.6
2390	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2410	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2415	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2425	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	42.68
2426	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lab	DDDM	pC	DDM	DDE	DDS	oT	24DAT	TMA	oA	25X	26X	TX
2442	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	-----	-----
2449	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2453	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2456	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	40.2
2459	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50.330
2467	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2472	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2475	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2476	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2489	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	41.0
2492	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2495	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2496	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2497	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2500	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	52.22
2508	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2511	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2521	-----	-----	-----	-----	-----	40.15	-----	-----	-----	-----	-----	-----
2523	-----	-----	-----	-----	-----	-----	-----	-----	0.458	-----	1.188	-----
2528	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2532	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	43.25
2534	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	32.0
2536	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----	N.D.	36.99
2549	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2553	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	46
2565	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2567	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2569	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	ND	-----
2572	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	41.2
2582	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30
2590	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2591	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	-----	<5.0	-----
2605	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	ND	41.86
2609	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	30.3
2622	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2629	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
2638	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	31.813
2643	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2644	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2665	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	0.03	n.d.	n.d.	0.98
2668	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	39.22
2674	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----
2678	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2706	-----	-----	-----	-----	-----	-----	-----	-----	3.21	-----	-----	-----
2719	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2730	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2737	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2741	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	38.1
2743	-----	-----	-----	-----	-----	-----	-----	-----	3.4828	-----	-----	65.832
2789	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2802	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2804	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----
2815	0.16	0.14	0.30	0.22	0.34	1.24	1.25	0.08	1.46	-----	0.24	-----
2823	N/A	N/A	50.013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.482
2827	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	37.2
2829	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	49.57	-----
2849	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	15.72	n.d.	n.d.	n.d.
2852	ND	ND	ND	ND	ND	ND	ND	ND	ND	-----	-----	-----
2858	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	n.d	42.19
2862	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	38.23
2866	0	0	0	0	0	0	0	0	0	-----	-----	-----
2867	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	n.d.	-----
2869	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2870	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2871	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	-----	-----	36.315
2874	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2876	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2877	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2880	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3100	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
3116	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3117	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3118	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	46.82
3122	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3146	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3150	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	11.47
3153	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	42.4
3154	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lab	DDDM	pC	DDM	DDE	DDS	oT	24DAT	TMA	oA	25X	26X	TX
3160	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	37.01
3167	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3172	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	33.98
3176	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3182	ND	ND	ND	ND	-----	ND	ND	ND	ND	-----	ND	48.39
3185	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	-----
3190	<5	<5	<5	<5	<5	<5	<5	<5	<5	-----	<5	48.5
3197	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	42.4
3209	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3210	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
3216	-----	-----	1.76	-----	-----	-----	-----	-----	-----	-----	-----	-----
3220	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	54.53
3222	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	36.03
3225	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	37.72
3228	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	-----	-----
3237	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3243	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	-----	n.d.	47.7
3248	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3250	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
6191	0	0	0	0	0	0	0	0	0	-----	-----	0

APPENDIX 3
Analytical details

lab	Laboratory accredited	What test method followed
210	Yes	---
230	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
339	No	I followed a differtent test method
348	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
362	---	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
551	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
623	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
840	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
1213	Yes	---
2102	Yes	---
2115	Yes	I followed a differtent test method
2121	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2129	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2132	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2137	Yes	---
2138	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2139	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2146	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2165	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2166	Yes	I followed a differtent test method
2170	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2184	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2213	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2217	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2230	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2232	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2238	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2241	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2247	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2250	Yes	I followed a differtent test method
2255	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2256	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2258	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2265	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2266	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2272	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2284	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2286	No	I followed a differtent test method
2287	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2289	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2290	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2291	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2293	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2295	Yes	---
2301	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2310	Yes	---
2311	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2313	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2314	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2320	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2330	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2347	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2350	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2352	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2357	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2358	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2364	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2365	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2366	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2367	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2369	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2370	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2373	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2375	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2378	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2379	Yes	---
2380	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2381	Yes	I followed a differtent test method
2382	Yes	---
2386	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2390	Yes	I followed a differtent test method
2410	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2415		I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column

lab	Laboratory accredited	What test method followed
2425	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2426	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2442	Yes	---
2449	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2453	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2456	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2459	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2467	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2472	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2475	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2476	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2489	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2492	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2495	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2496	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2497	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2500	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2508	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2511	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2521	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2523	Yes	I followed a differtent test method
2528	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2532	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2534	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2536	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2549	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2553	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2565	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2567	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2569	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2572	---	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2582	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2590	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2591	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2605	Yes	I followed a differtent test method
2609	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2622	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2629	Yes	---
2638	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2643	Yes	---
2644	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2665	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2668	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2674	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2678	---	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2706	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2719	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2730	No	---
2737	Yes	---
2741	Yes	---
2743	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2789	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2802	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2804	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2815	Yes	---
2823	Yes	I followed a differtent test method
2827	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2829	No	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2849	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2852	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2858	Yes	I followed a differtent test method
2862	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2866	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2867	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2869	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2870	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2871	No	---
2874	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2876	---	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
2877	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
2880	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3100	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3116	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3117	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3118	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3122	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column

lab	Laboratory accredited	What test method followed
3146	Yes	---
3150	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3153	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
3154	---	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3160	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3167	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3172	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3176	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3182	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3185	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3190	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3197	Yes	---
3209	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3210	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
3216	Yes	---
3220	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3222	Yes	I followed a differtent test method
3225	Yes	I followed a differtent test method
3228	Yes	I followed ISO14362-1 Annex E and did NOT use the diatomaceous earth column
3237	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3243	Yes	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column
3248	Yes	I followed a differtent test method
3250	Yes	---
6191	No	I followed ISO14362-1 chapter 10.4 and used the diatomaceous earth column

APPENDIX 4

Number of participants per country

7 labs in BANGLADESH
1 lab in BRAZIL
1 lab in BULGARIA
3 labs in CAMBODIA
1 lab in EGYPT
1 lab in FINLAND
7 labs in FRANCE
13 labs in GERMANY
2 labs in GUATEMALA
9 labs in HONG KONG
1 lab in HUNGARY
18 labs in INDIA
3 labs in INDONESIA
13 labs in ITALY
3 labs in JAPAN
7 labs in KOREA
1 lab in MAURITIUS
2 labs in MOROCCO
35 labs in P.R. of CHINA
5 labs in PAKISTAN
1 lab in POLAND
1 lab in PORTUGAL
1 lab in ROMANIA
2 labs in SINGAPORE
6 labs in SPAIN
3 labs in SRI LANKA
2 labs in SWITZERLAND
3 labs in TAIWAN R.O.C.
2 labs in THAILAND
1 lab in THE NETHERLANDS
2 labs in TUNISIA
6 labs in TURKEY
1 lab in UNITED KINGDOM
9 labs in VIETNAM

APPENDIX 5

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) = outlier 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
ex = test result excluded from statistical evaluation
n.a. = not applicable
n.e. = not evaluated
n.d. = not determined

Literature:

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