



Secretariat of ISO/TC 147/SC 2/WG 61

Document ISO/TC 147/SC 2/WG 61 N #####

Date: 2010-02-05

***FURTHER INFORMATION***  
***for the participation at the***  
**Interlaboratory Trial for the validation of the ISO/DIS 12846:**

**Water quality — Determination of mercury — Method using atomic absorption spectrometry (AAS) with and without enrichment**

Dear colleagues,

thank you very much again for your kind willingness to participate in the interlaboratory trial for the validation of the new ISO standard ISO 12846. Today, we like to give you some further information on the design and the timetable of the trial which will be carried out in April 2010.

A second item I like to mention again is that our trial is a **validation exercise** and not a kind of proficiency testing trial. Therefore, **it is crucial that you strictly stick to the procedure described in the ISO/DIS 12846.**

Please find in the following table some further technical information for your kind attention and consideration when preparing your measurements.

Item	Information
<u>Number of expected participants:</u>	(DE: 12 / F: 3 / IL: 02 / IT: 01 / MX : 01 / NO : 01 / AT 01 / RO: 01 / RU: 02 HU: 03)
<u>Relevant document:</u>	<b>ISO/DIS 12846</b> (see enclosed file Draft_ISO_DIS_12846_(E)_rev_clear.pdf)
<u>Dispatch of samples:</u>	<b>Tuesday, 16<sup>th</sup> March 2010</b>
<u>Deadline for submission of results:</u>	<b>Friday, 23<sup>rd</sup> April 2010 (deadline)</b>
<u>Participation fee:</u>	<b>The participation is free of charge!</b>
<u>Matrices:</u>	<p><b>Sample A:</b> Drinking water (Public Water Supply of Muelheim)</p> <p><b>Sample B:</b> Filtered surface water (no digestion necessary) (River Ruhr, near Muelheim)</p> <p><b>Sample C:</b> Municipal Wastewater with low COD (effluent of a plant in Duisburg)</p> <p><b>Sample D:</b> Municipal Wastewater with high COD (industrial waste)</p>

Item	Information
	water at the inlet of a plant)
<u>Preservation:</u>	The samples will be acidified by adding 1,0 ml of hydrochloric acid ( $w(\text{HCl}) = 360 \text{ g/kg}$ ( $\rho(\text{HCl}) = 1,19 \text{ g/ml}$ ) per 100 ml of the sample (see clause 5 and 7.4)
	<b>On the arrival of the samples in the laboratory the potassium bromide -potassium bromate reagent (6.1.4) has to be added.</b>
<u>Reporting of results:</u>	An electronic record sheet (EXCEL file) will be sent out by e-mail to all participants. All results shall be recorded in this file.
	<p>Sheet: <b>Sample A (DW)</b> = results for drinking water sample</p> <p>Sheet: <b>Sample B (SW)</b> = results for surface water sample</p> <p>Sheet: <b>Sample C (WW low COD)</b> = results for wastewater sample with low COD</p> <p>Sheet: <b>Sample D (WW high COD)</b> = results for wastewater sample with high COD</p>
	The file shall be e-mailed to the organiser. In addition to that the results shall be printed out, signed and sent back to the organiser by postal mail.
	Finally, participants are requested to give some "General Information" about the measurements. In some cases a choice between pre-set options will be offered by tick-boxes.
<u>Elements to be determined:</u>	Mercury
<u>Replicates</u>	<b>Three independent replicates</b> per element are required
<u>Concentration range(s):</u>	<p>near to the LOQ for drinking water (but not below <math>0,050 \mu\text{g/l}</math>) to be measured with the enrichment method in clause 6</p> <p>in typical ranges for surface water and waste water (suitable for measurement with or without enrichment)</p>
<u>Performance criteria:</u>	Limits of Quantification ( <b>LOQ</b> )
<u>Reduction:</u>	with Tin(II) chloride according to clause 6.4
<u>Evaluation:</u>	according to ISO 5725-2
<u>Report/certificate:</u>	<p>The results of the trial will be reported in detail to all participants in an anonymous form. The participants can identify their own data via the laboratory code. Detailed tables and graphs will be delivered (mail with pdf files).</p> <p>A signed certificate with the results of the lab will be forwarded by postal mail.</p>
<u>Date of delivery of the results:</u>	<b>June 2010</b>

**Contact details of the Interlab organiser:**


ULRICH BORCHERS  
c/o IWW Water Research Centre  
Department Water Quality  
Moritzstrasse 26  
D – 45476 Muelheim an der Ruhr  
GERMANY  
Phone: +49 208 40303 210  
Fax: +49 208 40303-80  
e-mail: [u.borchers@iww-online.de](mailto:u.borchers@iww-online.de)

Finally, I like to express my warm thanks on behalf of the members of the WG 61 “Mercury by AAS” for your kind willingness to help us to validate the revised standard ISO 12846.

I wish you good success!

In the case of any questions, please don't hesitate to contact me by e-mail or phone.

Best regards



Ulrich Borchers  
(Chairman of ISO / TC 147 / SC 2 / WG 61)