

ANNOUNCEMENT

7th UILI Inter Laboratory Practice 2013

22 February, 2013

1. Name of the proficiency test

7th UILI Inter-Laboratory Practice 2013 – “Metals in drinking water and saline water”

Sample 1: 'Metals in drinking water'

Sample 2: 'Metals in saline water'

(Salinity: approximately 30 ‰ seawater composition)

2. Provider

Union Internationale des Laboratoires Indépendants (UILI), ILP Committee.

3. Time schedule

- a) Deadline of application : January 31, 2013
- b) Distribution of test samples : Mid-February, 2013
- c) Deadline of reporting : April 7, 2013
- d) Issue of final report : September, 2013

[NOTE]

- ⊃ No reports, including resubmitting, after due date are accepted.
- ⊃ Date of sample distribution differs among participants according to application date and shipping condition.

4. Method of participation

Send E-mail to Ms. Francine Fortier (UILI secretary).

E-mail: uili@magma.ca or register on the UILI website www.uili.org.

Please notify the information below in your email:

- a) Full name of your company/organization/institution and laboratory
- b) Postal address of your laboratory (including country name and zip code)

- c) Full name of contact person
- d) Phone number of contact person (including country code)
- e) E-mail address of contact person
- f) UILI Member or non-member

5. Participation fee

- a) Participation fee

UILI Member : € 200.00 (for 1 set, not for 1 bottle)
UILI Non-Member : € 300.00 (for 1 set, not for 1 bottle)

- b) Method of payment

Invoice will be sent to you by e-mail after your application is completed.

- c) Participation fee includes:

- 1) Testing samples
- 2) Shipping charge for samples
- 3) Final report (electronic media; issued by UILI)
- 4) Certification / diploma (printed paper; issued by UILI)
- 5) Shipping charge for 'Certification/ diploma'

6. Samples for analysis

- a) Name of test sample (printed on each label):

- 1) Sample 1: UILI-ILP-7-2013 drinking water-1
- 2) Sample 2: UILI-ILP-7-2013 saline water-2

- b) Container of testing sample et al.

- c) 100mL of sample is contained in 100mL volume plastic bottle.

- d) Participants are requested to measure and report 100ml of original sample solution, both Sample 1 and 2, diluted to 10% by water. An enough solution for measuring 100ml of original sample will be prepared.

- e) **Report concentration of the 10 times diluted sample solution.**

7. Target compounds for analysis

a) Metals (10 items)

Cadmium (Cd)	Zinc (Zn)	Chromium (Cr)
Mercury (Hg)	Manganese (Mn)	Arsenic (As)
Lead (Pb)	Antimony (Sb)	Copper (Cu)
Nickel (Ni)		

b) Expected concentration range

Target Compounds	Concentration Range ($\mu\text{g/L}$) ¹	
	UILI-ILP-7-2013 drinking water-1 (Sample 1)	UILI-ILP-7-2013 saline water-2 (Sample 2)
Cadmium (Cd)	5 – 500	5 – 500
Zinc (Zn)	5 – 500	5 – 500
Total Chromium (T-Cr)	5 – 500	5 – 500
Mercury (Hg)	0.5 – 50	0.5 – 50
Manganese (Mn)	5 – 500	5 – 500
Arsenic (As)	0.5 – 50	0.5 – 50
Lead (Pb)	5 – 500	5 – 500
Antimony (Sb)	0.5 – 50	0.5 – 50
Copper (Cu)	10 - 1000	10 - 1000
Nickel (Ni)	5 – 500	5 – 500

Concentration range of 10 times diluted sample solution.

c) Samples have no “Assigned Value” such as “Reference Value” and/or “Certified Value” related for “True Value”.

8. Pretreatment and analytical procedure

Pretreatment and analytical method is not limited (provider do not instruct). Participating laboratory can select the method for pre-treatment and instrumental measurement. Report a selected method No. from a table in "ATTACHMENT" which is attached at the end of this announcement.

[NOTE] The original solution of Sample 2 (saline water) is prepared by procedure shown below.

- 1) Reagent was dissolved into purified water to prepare saturated artificial seawater. After undissolved salt settled down upper solution was separated.
- 2) Metal standard solution was then added into the upper solution until concentration became that of proposed range (see table in page 3).

9. Reporting analytical results

- a) Independent analyses are requested to be carried out twice from sample preparation. Report the "mean value" of these 2 data (Original data before the calculation of "mean value" is not needed. Statistical values such as "standard deviation" are not needed). If you cannot analyze twice (e.g. in case of sample lack), reporting one data is acceptable.
- b) Pretreatment for both Sample 1 and 2 are required in this test.
- c) Round reporting values in significant 3 figures, according to ISO31-0:1992, Quantities and units - Part 0: General principles, Annex B (Guide to the rounding of numbers). Report should be done by a data set of Sample 1 and 2.
- d) A "non-full set result" is acceptable (e.g. In case that your laboratory prefers to report only on "Cadmium", report only the result of "Cadmium").
- e) Method of Reporting
 - 1) Report Method No. ("Pre-treatment" and "Measurement by Instrument") referring to "ATTACHMENT" (table (A) and (B)) which is attached at the end of this announcement.
 - 2) For participants selected pretreatment method "others", indicate detail of the method. **No indication is unacceptable. In the case "others" were selected with no detail, UILI will require resubmitting of the report.**
 - 3) Use unit "µg/L" for reporting value for both Sample 1 and 2.
 - 4) Report the value of 10 times diluted sample solution.
 - 5) Reporting are requested to use format "Result of Analysis" for 7th UILI-ILP attached at the end of this announcement, including resubmitting report. **Reporting in different format is unacceptable. In the case non-UILI format is submitted, UILI**

will require resubmitting of the report.

- f) Send the report to uili@magma.ca (Ms. Francine Fortier) by **April 7, 2013 – including resubmitting reports.** No reports after due date are accepted.

10. Issue of the final report by UILI

- a) In the case Pretreatment and Analytical Method differs between Sample 1 (drinking water) and 2 (saline water), methods selected for Sample 2 will be indicated on the 7th UILI-ILP Report.
- b) Final report will be issued on September 2013 by electronic media for participants.
- c) Following methods will be adopted for statistical analysis. The report will include these statistics.
- 1) z-score: by ISO/IEC 17043 and related standards
 - 2) Quartile Method (robust statistics method): by APLAC “T001”
 - 3) Confidence Ellipse for Youden Plot” by ISO 13528
- d) As far as analytical methods were not designated for this test and median value is not always equal to “true value”, evaluation by statistic will be inadequate.
- e) A list of participating laboratories will be included in the report. The result of each laboratory will be shown by “laboratory identification numbers”. However, the relationship between the “laboratory identification numbers” and the “names of participating laboratories” will not be indicated. Your identification number will be informed in the letter attached, separated with the report.

11. Others

- a) This test or the final reports on the test results is not aimed to assess the performance of the laboratories or relating personnel by the organizer of the test or third person.
- b) Participants to this test will be issued a Certificate by UILI for its participation.
- c) This announcement is not the final version until sample distribution. We encourage applicants to check the latest version.

UIII-ILP Committee Member

UIII position	Name	Representing country	Name of association
President	Dr. Manahan Fernández Alonso	Spain	Asociación Española de Laboratorios Independientes (AELI)
Past President	Dr. Hideo Tabata	Japan	Japan Environmental Measurement and Chemical Analysis Association (JEMCA)
Vice President	Ir. Jan Soers	Belgium	Union Professionnelle des Laboratoires d'Essais, d'Analyses et de Recherches (UPLEAR)
Treasurer	Mr. Gib G. McIntee	Canada	Canadian Council of Independent Laboratories (CCIL)
Secretary General	Drs Luc H A Scholtis	Netherlands	Vereniging van Raadgevend Scheikundige Laboratoria (VRS)
Governing Board Representative	Dr. Álvaro Silva Ribeiro	Portugal	Associação de Laboratórios Acreditados de Portugal (RELACRE)
Governing Board Alternate	Mr. Jorge Oliver-Rodés	Spain	Asociación Española de Laboratorios Independientes (AELI)
Governing Board Alternate	Mr. Tsuneo Hashiba	Japan	Japan Environmental Measurement and Chemical Analysis Association (JEMCA)
	Dr. Toru Matsumura	Japan	Japan Environmental Measurement and Chemical Analysis Association (JEMCA)

ATTACHMENT

(A) Pre-treatment

No.	Method	Abbreviation
1	Liquid-liquid extraction	LLE
2	Solid phase extraction	SPE
3	Co-precipitation	CP
4	Only dilution	Dil
5	Acid decomposition	AD
6	Others	Others

(B) Measurement by Instrument

No.	Instrument	Abbreviation
1	Atomic absorption spectrophotometry (flame)	AAS
2	Atomic absorption spectrophotometry (furnace)	ETAAS
3	Hydride-generation atomic absorption spectrophotometry	HG-AAS
4	Cold vapor atomic absorption spectrophotometry	CVAAS
5	ICP-AES	ICP-AES
6	Hydride-generation ICP-AES	HG-ICP-AES
7	ICP-MS	ICP-MS
8	Ion-chromatography	IC
9	Ion-selective electrode	IE
10	Polarography	Pol
11	Stripping voltammetry (anodic/cathodic/adsorptive)	SVE
12	Neutron activation analysis	NAA
13	Colorimetry (absorptiometry)	Col
14	Spectrofluorometry (Fluorescence analysis)	FPA
15	Others	Others

Result of Analysis for 7th UILI-ILP

Target Compounds	Pretreatment No.				Measurement by Instrument No.		Result of Analysis (µg /L)	
	Sample 1		Sample 2		Sample 1	Sample 2	Sample 1	Sample 2
	No.	notes	No.	notes				
Cd								
Zn								
T-Cr								
Hg								
Mn								
As								
Pb								
Sb								
Cu								
Ni								

- 1) Report the value of 10 times diluted sample solution.
- 2) Pretreatment for both Sample 1 and 2 are required in this test.
- 3) For participants selected pretreatment method “others”, indicate detail of the method in column “notes” of the format. **No indication is unacceptable. In the case “others” were selected with no detail, UILI will require resubmitting of the report.**
- 4) Round reporting values in significant 3 figures for both Sample 1 and 2.
- 5) Send the report to uili@magma.ca (Ms. Francine Fortier) by **Aril 7, 2013**. **No reports after due date are accepted.**
- 6) Reporting is requested to use format “Result of Analysis for 7th UILI-ILP” above (see page 8), including resubmitting report. **Reporting in different format is unacceptable. In the case non-UILI format is submitted, UILI will require resubmitting of the report.**