



INSTRUCTION SHEET

June, 2018

1. Test name

18th UILI Interlaboratory Practice 2018 “Cations and Anions in Natural Water”

Aimed as a global exercise for laboratories in different countries of the world

2. Provider

ILP Committee, Union Internationale des Laboratoires Indépendants (UILI)

3. Time schedule

- a) Application Deadline: June 30, 2018
- b) Payment Deadline: June 15, 2018
- c) Sample Distribution: June 15, 2018
- d) Reporting Deadline: September 1, 2018
- e) Final Report Issue: December, 2018

[NOTE]

- Reports including resubmitting after due date are unacceptable.
- Date of sample distribution differs among participants according to application date and shipping condition.

4. Method of participation

Submit sheet “PARTICIPANT CONTACT DETAILS” attached or include the following information in your e-mail to Ms. Melissa Fernández Valero, UILI secretary at [<secretariat@uili.org>](mailto:secretariat@uili.org) by **June 30, 2018**.

✓ ILP Number / Name	18th / Cations and Anions in Natural Water
✓ Participant	<i>Company name, Contact person, Subscriber e-mail, Phone</i>
✓ Sample delivery	<i>Company name, House name, Street, House number, P.O. Box, Section, Postal code, City, State, Country</i>
✓ Invoicing	<i>Company name, VAT / Tax ID / NIF / CIF number, Contact person, Invoice e-mail</i>
✓ Reporting	<i>Contact person, Report e-mail</i>

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5. Participation fee

a) Participation fee

UILI Member : € 225.00 (for 1 set, not for 1 bottle)
UILI Non-Member : € 325.00 (for 1 set, not for 1 bottle)

b) Method of payment

Invoice will be sent to you by email after your application is completed.

Payment is in bank transfer to UILI account below before June 30, 2018:

ABN AMRO BANK - BIC: ABNANL2A - IBAN: NL79ABNA0533251109

- 1) Participants newly enroll to UILI-ILP will not receive testing samples until the payment.
- 2) Participant who has credit history will not receive the final report until the payment.
- 3) If unexpected additional cost had occurred at custom of participant's location which is beyond UILI's control, we may add to your invoice. The rate will be determined by the custom or sample carrier (FedEx or EMS), not UILI.

c) Participation fee includes:

- 1) Testing sample
- 2) Shipping charge for sample
- 3) Final report in electronic format
- 4) Certificate / diploma

d) Cancel Policy

- 1) UILI require cancellation notice by e-mail to Ms. Melissa Fernández Valero, UILI secretary at <secretariat@uili.org> before 30 June or day prior to the sample shipment, with the "laboratory name" and "reason why the laboratory must cancel".
- 2) If cancellation is received after sample shipment, UILI will charge 100% of the participation fee to the lab.

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6. Samples for analysis

- a) Name of testing sample printed on each label.
 - 1) Sample 1: UILI-ILP 18-2018 natural water-1
 - 2) Sample 2: UILI-ILP 18-2018 natural water-2

- b) Container of testing sample.

Each Solution of Sample 1 and 2 are contained in a 100 ml volume plastic bottle.

- c) Sample shipment
 - 1) Participants will receive sample from your country's UILI member association or from the 18th UILI-ILP provider partner "Japan Environmental Measurement and Chemical Analysis Association (JEMCA)" by FedEx or EMS.
 - 2) UILI will notify tracking number to the association or participating laboratory after sample has been shipped.

7. Targets (11 items)

Calcium ion (Ca^{2+})	Potassium ion (K^+)	Magnesium ion (Mg^{2+})
Sodium ion (Na^+)	Bromide ion (Br^-)	Chloride ion (Cl^-)
Fluoride ion (F^-)	Nitrite ion (NO_2^-)	Nitrate ion (NO_3^-)
Phosphate ion (PO_4^{3-})	Sulfate ion (SO_4^{2-})	

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a) Expected concentration range

Target's concentration ranges expected in the sample are shown in list below.

Target Ions	Concentration Range (mg/L)	
	UILI-ILP-18-2018 natural water-1 (Sample 1)	UILI-ILP-18-2018 natural water -2 (Sample 2)
Calcium ion (Ca ²⁺)	20 - 1000	20 - 1000
Potassium ion (K ⁺)	1 - 50	1 - 50
Magnesium ion (Mg ²⁺)	10 - 500	10 - 500
Sodium ion (Na ⁺)	1 - 50	1 - 50
Bromide ion (Br ⁻)	0.1 - 5	0.1 - 5
Chloride ion (Cl ⁻)	1 - 50	1 - 50
Fluoride ion (F ⁻)	0.1 - 5	0.1 - 5
Nitrite ion (NO ₂ ⁻)	0.1 - 5	0.1 - 5
Nitrate ion (NO ₃ ⁻)	1 - 50	1 - 50
Phosphate ion (PO ₄ ³⁻)	1 - 50	1 - 50
Sulfate ion (SO ₄ ²⁻)	100 - 5000	100 - 5000

b) The sample has no "Certified Value".

8. Analytical procedure

Pretreatment and analytical method is not designated in the test. Participants are requested to select analysis methods from "METHODS FOR PRE-TREATMENT AND INSTRUMENTAL MEASUREMENT" attached, and indicate the number for each target in reporting sheet "RESULT OF ANALYSIS FOR 18TH UILI-ILP" attached as well.

9. Data reporting

- Conduct 2 independent analyses from sample preparation including weighing, and report the "mean value" of those 2 data. In case that analysis was not able to be conducted twice, reporting 1 data is acceptable.
- Conduct pretreatment to Sample 1 and 2 as needed.
- Report a data set of Sample 1 and 2 (No reporting only either of them). The data is requested to be rounded in **3 significant figures**. Report also the date of analysis.

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- d) Participants can select reporting targets among the 11 ions listed above. For instance, reporting only result of Ca^{2+} is acceptable.
- e) Reporting rules.
- i. Participants are requested to indicate method No. of “Pre-treatment” and “Measurement by Instrument” referring to table (A) and (B) of “METHODS FOR PRE-TREATMENT AND INSTRUMENTAL MEASUREMENT” attached. If you selected more than 2 methods combined, report all method numbers in the same column.
 - ii. Participants selected method “others” are requested to indicate name of the method in column “notes”. If method was selected “others” and column “notes” was left blank, UILI will require resubmitting of the report.
 - iii. Use unit “mg/L” for reporting data of Sample 1 and 2.
 - iv. Use format “RESULT OF ANALYSIS FOR 18TH UILI-ILP” when reporting and resubmitting. Reporting in different format is unacceptable. If non-UILI format is submitted, UILI will require resubmitting of the report.
- f) Submit the report to Ms. Melissa Fernández Valero (UILI secretary) at <secretariat@uili.org> by **September 1, 2018**. Reports after due date are unacceptable which is the same in the case of resubmitting.

10. Final report

- a) Final report will be issued on December 2018.
- b) Final report will be issued in an electronic format and will be sent to participants via email.
- c) Statistical analysis and corresponding standards expected to be used in the final report are as follows.
 - i. z-score: ISO/IEC 17043
 - ii. Quartile Method (robust statistics method): APLAC T002
 - iii. Confidence Ellipse for “Youden Plot”: ISO/FDIS 13528
- d) As far as analytical method is not designated for this test and median value is not always equal to “true value”, evaluation by statistic will be inadequate.



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- e) Final report includes a list of participating laboratories. There is also a list of results, however reporting laboratories here are indicated in identification numbers for confidential reason. Each participants will be informed its number in a separate letter attached to the final report.

11. Others

- a) The test or test results (final report) is not aimed to evaluate the performance of laboratories or its personnel by the test organizer nor third party.
- b) Participants will receive a certificate issued by UILI for its participation.
- c) This announcement is not the final version until sample distribution. We encourage applicants to check the latest information.

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UILI GOVERNING BOARD

UILI position	Name	Country	Member Association
President	Drs. Luc H A Scholtis	The Netherlands	Vereniging van Raadgevend Scheikundige Laboratoria (VRS)
Past President	Dr. Manahén	Spain	
Honorary Member	Fernandez-Alonso		
Vice President	Dr. Alvaro Silva Ribeiro	Portugal	Associação de Laboratórios Acreditados de Portugal (RELACRE)
Vice President	Mr. Jorge Oliver-Rodés	Spain	Asociación Española de Laboratorios Independientes (AELI)
Treasurer	Dr. Toru Matsumura	Japan	Japan Environmental Measurement and Chemical Analysis Association (JEMCA)
Secretary General	Ms. Mary-Anne Adeeko	Nigeria	Institute of Public Analysts of Nigeria (IPAN)
Unaffiliated Representative S-Hemisphere	Dr. Alfredo Montes-Nino	Brazil	
Unaffiliated Representative N-Hemisphere	Ir. Jan Soers	Belgium	
Governing Board Representative of Canada	Mr. Gib G McIntee	Canada	Canadian Council of Independent Laboratories (CCIL)
Governing Board Representative of Colombia	Mr. Gabriel Fonseca	Colombia	Asociación Colombiana de Laboratorios (ASOCOLAB)
Governing Board Representative of Argentina	Dr. J. Horacio Denari	Argentina	Cámara Argentina de Laboratorios Independientes Bromatológicos, Ambientales y Afines (CALIBA)
Secretariat	Ms. Melissa M. Fernández Valero	Spain	



METHODS FOR PRE-TREATMENT AND INSTRUMENTAL MEASUREMENT

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(A) Pre-treatment

No.	Method	Abbreviation
1	Non pre-treatment	NON
2	Distillation	D
99	Others	Others

(B) Measurement by Instrument

No.	Instrument	Abbreviation
1	Titration	Tit
2	Absorption photometry	AS
3	Atomic absorption spectrophotometry (flame)	AAS
4	Atomic absorption spectrophotometry (furnace)	ETAAS
5	ICP-AES	ICP-AES
6	ICP-MS	ICP-MS
7	Ion-chromatography	IC
8	Ion-selective electrode	IE
9	Flow injection analysis	FIA
10	Continuous flow analysis	CFA
99	Others (Indicate name of the method briefly in column "notes")	Others