

# PROFICIENCY TESTING PROVIDER (PTP) ACCREDITATION PROGRAM

# **Scope of Accreditation**

Legal Name of Accredited Laboratory: Institut national de santé publique

du Québec, Centre de toxicologie

du Québec

Location Name or Operating as (if applicable): Laboratoire de toxicologie

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SCC File Number:	15777
Provider:	BNQ-EL
Provider File Number:	35270-1
Accreditation Standard(s):	ISO/IEC 17043:2023
Proficiency Testing Scheme/Field of Testing:	Toxicology
Program Specialty Area:	Proficiency Testing Provider
Initial Accreditation:	2007-01-30
Most Recent Accreditation:	2024-08-18
Accreditation Valid to:	2027-01-30

Remarque: La présente portée d'accréditation existe également en français. La version française est publiée séparément.

Note: This scope of accreditation is also available in French as a separately issued document.





## PROFICIENCY TESTING PARAMETERS FOR WHICH THE PROVIDER IS ACCREDITED

### Metals:

Programme de comparaisons interlaboratoires pour les métaux en milieu biologique/ Interlaboratory Comparison Program for Metals in Biological Matrices (PCI)

Analyte / Biological matrix	Concentration range (lower-upper)
Serum Aluminum	0,40-10 μmol/L
Urine Arsenic (Inorganic)	0.0027-20 μmol/L
Urine Arsenic (Total)	0,10-20 μmol/L
Urine Arsenic (As+3)	0.0027 – 13.3 μmol/L
Urine Arsenic (As+5)	0.0027 – 13.3 μmol/L
Urine Arsenic (DMAA)	0.0027 – 20 μmol/L
Urine Arsenic (MAA)	0.0027 – 13.3 μmol/L
Urine Arsenic (Arsenobetaine)	0.0027 – 20 μmol/L
Blood Cadmium	5,0-150 nmol/L
Urine Cadmium	5,0-150 nmol/L
Urine Chromium	20-1500 nmol/L
Serum Copper	1,0-50 µmol/L
Urine Copper	0,10-20 μmol/L
Urine Fluoride	10-1500 μmol/L
Urine Iodide	0,10-3,1 μmol/L
Blood Lead	0,050-5,0 μmol/L
Urine Lead	0,010-5,0 μmol/L
Serum Manganese	5,0-125 nmol/L
Blood Mercury (inorganic)	5,0-500 nmol/L
Blood Mercury (organic)	5,0-250 nmol/L



Urine Mercury	2,0-1500 nmol/L
Serum Selenium	0,50-5,0 μmol/L
Urine Selenium	0,30-5,0 μmol/L
Serum Zinc	2,0-50 μmol/L
Urine Zinc	1,0-25 µmol/L

#### Metals:

## Programme d'assurance qualité externe multiélément QMEQAS/ Quebec Multielement External Quality Assessment Scheme (QMEQAS)

Analyte	Concentration range (lower-upper) Hair (SI units)	Concentration range (lower-upper) Blood (SI units)	Concentration range (lower-upper) Serum (SI units)	Concentration range (lower-upper) Urine (SI units)
Aluminum	0,29-7,5 μmol/g	2,0-11 µmol/L	0,40-10 µmol/L	2,0-11 μmol/L
Antimony	1,6-21 nmol/g	2,0-160 nmol/L	1,0-65 nmol/L	1,0-65 nmol/L
Arsenic	0,80-54 nmol/g	20-530 nmol/L	30-530 nmol/L	0,10-20 μmol/L
Arsenic (As+3)				0.0027-13.3 µmol/L
Arsenic (As+5)				0.0027-13.3 µmol/L
Arsenic (DMAA)				0.0027-20 µmol/L
Arsenic (MAA)				0.0027-13.3 µmol/L
Arsenic (inorganic)				0.0027-20 µmol/L
Arsenic (arsenobetaine)				0.0027-20 μmol/L
Barium	0,35-185 nmol/g	2,0-70 nmol/L	10-210 nmol/L	5,0-300 nmol/L
Beryllium	0,0040-0,12 μmol/g	0,30-2,2 µmol/L	0,20-3,3 µmol/L	0,20-1,6 µmol/L
Bismuth	0,47-24 nmol/g	0,50-140 nmol/L	0,50-140 nmol/L	2,0-235 nmol/L
Cadmium	0,53-90 nmol/g	5,0-150 nmol/L	2,0-150 nmol/L	5,0-150 nmol/L
Chromium	7,6-290 nmol/g	10-190 nmol/L	10-190 nmol/L	20-1500 nmol/L



Analyte	Concentration range (lower-upper) Hair (SI units)	Concentration range (lower-upper) Blood (SI units)	Concentration range (lower-upper) Serum (SI units)	Concentration range (lower-upper) Urine (SI units)
Cobalt	1,6-170 nmol/g	4,0-165 nmol/L	5,0-130 nmol/L	5,0-250 nmol/L
Copper	0,0030-6,3 µmol/g	2,0-75 µmol/L	1,0-50 µmol/L	0,10-20 µmol/L
lodine	0,0075-0,080 µmol/g	0,30-1,1 µmol/L	0,010-1,1 μmol/L	0,10-3,1 μmol/L
Lead	0,00020-0,15 µmol/g	0,050-5,0 μmol/L	0,050-1,2 μmol/L	0,010-5,0 μmol/L
Lithium				0.36-144 μmol/L
Manganese	1,8-275 nmol/g	50-900 nmol/L	5,0-125 nmol/L	5,0-180 nmol/L
Mercury	2,4-50 nmol/g	5,0- 500 nmol/L	5,0-50 nmol/L	2,0-1500 nmol/L
Molybdenum	0,52-21 nmol/g	11-150 nmol/L	3,2-150 nmol/L	100-10400 nmol/L
Nickel	1,7-260 nmol/g	30-200 nmol/L	26-500 nmol/L	10-1000 nmol/L
Platinum	0,25-2,6 nmol/g	0,50-25 nmol/L	0,50-5,0 nmol/L	3,0-25 nmol/L
Selenium	0,0075-0,13 μmol/g	0,70-10 μmol/L	0,50-5,0 µmol/L	0,30-5,0 μmol/L
Silver	0,46-38 nmol/g	3,0-70 nmol/L	5,0-45 nmol/L	10-100 nmol/L
Tellurium	0,78-16 nmol/g	16-90 nmol/L	20-90 nmol/L	4,0-390 nmol/L
Thallium	0,095-2,5 nmol/g	1,0-70 nmol/L	0,20-48 nmol/L	1,0-390 nmol/L
Thorium	8,5-44 nmol/g	1,0-21 nmol/L	0,10-21 nmol/L	0,050-2,1 nmol/L
Tin	25-130 nmol/g	5,0-250 nmol/L	20-80 nmol/L	2,0-1500 nmol/L
Uranium	0,12-8,4 nmol/g	0,22-4,2 nmol/L	0,45-4,2 nmol/L	0,30-20 nmol/L
Vanadium	3,9-40 nmol/g	1,0-98 nmol/L	1,0-39 nmol/L	10-580 nmol/L
Zinc	0,030-23 µmol/g	20-220 µmol/L	2,0-50 µmol/L	1,0-25 µmol/L

## **Organic Contaminants:**

Programme de comparaisons interlaboratoires "AMAP Ring Test" pour les polluants organiques persistants dans le sérum humain/ AMAP Ring Test for Persistent Organic Pollutants in Human Serum





# CONGENERS OF POLYCHLORINATED BIPHENYLS (microgram/L)

Analyte	Concentration range (lower-upper)
PCB IUPAC # 28	0,20 - 1,0
PCB IUPAC # 52	0.20-1.0
PCB IUPAC # 74	0,10 - 0,80
PCB IUPAC # 99	0,10 - 1,0
PCB IUPAC # 101	0.10-5.0
PCB IUPAC # 105	0,050 - 0,50
PCB IUPAC # 118	0,10 - 1,0
PCB IUPAC # 138	0,10 - 2,0
PCB IUPAC # 153	0,10 - 2,0
PCB IUPAC # 170	0,10 - 1,0
PCB IUPAC # 180	0,10 - 2,0
PCB IUPAC # 183	0.10-5.0
PCB IUPAC # 187	0.10-5.0

## **BROMINATED FLAME RETARDANTS (microgram/L)**

Analyte	Concentration range (lower-upper)
PBDE IUPAC # 28	0,050 - 1,0
PBDE IUPAC # 47	0,10 - 2,0
PBDE IUPAC # 99	0,050 - 1,0
PBDE IUPAC # 100	0,050 - 1,0
PBDE IUPAC # 153	0,050 - 1,0
PBDE IUPAC # 154	0,050 - 1,0
PBDE IUPAC # 183	0,10 - 1,0
PBDE IUPAC # 209	0,10 - 2,0



# **CHLORINATED PESTICIDES (microgram/L)**

Analyte	Concentration range (lower-upper)
Beta-HCH	0,10 - 2,0
Dieldrin	0,050 - 2,0
Gamma-HCH	0,050 - 2,0
Heptachlor	0,050 - 2,0
Heptachlor epoxide	0,050 - 2,0
Hexachlorobenzene (HCB)	0,10 - 2,0
Oxychlordane	0,10 - 2,0
p,p'-DDE	0,50 - 10
p,p'-DDT	0,10 - 2,0
Toxaphene Parlar # 26	0,020 - 0,50
Toxaphene Parlar # 50	0,020 - 0,50
Trans-nonachlor	0,10 - 5,0
cis-Nonachlor	0.10-5.0

# PERFLUORINATED COMPOUNDS (microgram/L)

<u>Analyte</u>	Concentration range (lower-upper)
PFHxA	0,50 - 10
PFHxS	0,50 - 25
PFNA	0,20 - 5,0
PFOA	0,50 - 30
PFOS	1,0 - 200
PFUdA	0,20 - 5,0

## Creatinine



Analyte	Concentration range Serum (lower-upper)
Creatinine	50-500 μmol/L

### Notes:

ISO/IEC 17043:2023: Conformity assessment-General requirements for proficiency testing

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at <a href="https://www.scc.ca">www.scc.ca</a>.

Elias Rafoul Vice-President, Accreditation Services Publication on: 2024-08-19