TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Legal Name of Accredited Laboratory:	**Ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs**
Location Name or Operating as (if applicable):	Centre d'expertise en analyse environnementale du Québec
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SCC File Number:	15386
Provider:	BNQ-EL
Provider File Number:	45814-1
Accreditation Standard(s):	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
Fields of Testing:	Biological Chemical/Physical
Program Specialty Area:	Environmental Testing (ET)
Initial Accreditation:	1999-12-17
Most Recent Accreditation:	2024-05-06
Accreditation Valid to:	2027-12-17

SCC Group Accreditation
This laboratory is a part of a Group Accreditation with the following facility in accordance with SCC's policy on Group Accreditation documented in the Accreditation Services Accreditation Program Overview.

- Centre d'expertise en analyse environnementale du Québec, 850, boulevard Vanier, porte Sud, Laval (Québec) H7C 2M7

Remarque : La présente portée d'accréditation existe également en français, sous la forme d'un document distinct.
Note: This scope of accreditation is also available in French as a separately issued document.

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental

Inorganic chemistry

MA. 103 - Col. 2.0	Determination of true colour in water: UV-visible spectrophotometry method with platino-cobalt
MA. 104 - S.S. 2.0	Determination of total suspended solids: gravimetric method
MA. 203 - Mercure	Determination of trace mercury in water: argon plasma emission spectrometry method and detection by tandem mass spectrometry
MA. 203 - Mét. ICP-MSMS	Determination of metals in water: tandem mass spectrometry method and argon plasma ionizing source (ICP-MS/MS) Ag, Al, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Si, Sr, V, Zn
MA. 203 - Mét.T. rares	Determination of rare earths in water: tandem mass spectrometry method and argon plasma ionizing source (ICP-MS/MS) Ce, Dy, Eu, Er, Gd, Ho, La, Li, Lu, Nb, Nd, Pr, Sc, Sm, Tb, Tm, Yb, Y, Th, U
MA. 203 - Mét.Trace	Determination of trace metals in water under suitable conditions: tandem mass spectrometry method Ag, Al, As, B, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Sb, Se, Sr, Ti, Tl, U, V, Zn
MA. 207 - Hg 2.1	Determination of mercury in biological tissues by thermal decomposition: quantification by UV photometry
MA. 207 - Mét.T.rares TB	Determination of rare earth metals in biological tissues: tandem mass spectrometry method and argon plasma ionizing source (ICP-MS/MS) Ce, Dy, Eu, Er, Gd, Ho, La, Li, Lu, Nb, Nd, Pr, Sc, Sm, Tb, Tm, Yb, Y, Th, U
MA. 300 - C1.0	Determination of dissolved inorganic carbon, dissolved organic carbon and total organic carbon: infrared detection method (water)
MA. 303 - Anions 1.1	Determination of fluoride, chloride, nitrate and sulfate anions in water: quantification by ion chromatography with conductivity detector
MA. 303 - ClO_4 1.1	Determination of perchlorate in water: quantification by ion chromatography with conductivity detector
MA. 303 - Ions 3.2	Determination of anions in small concentrations in drinking water: ion chromatography method Bromate Bromide Chlorate Chlorite Nitrite

MA. 303 - Nutriments	Determination of total nitrogen, nitrites and nitrates and ammoniacal nitrogen in water: automated colorimetric method
MA. 303 - Orthophosphates	Determination of orthophosphates in water : quantification by ion chromatography with conductivity detector
MA. 303 – P-ICP-MSMS	Determination of total phosphorus in natural water by persulfate digestion and quantification by tandem mass spectrometry method and argon plasma ionizing source (ICP-MS-MS)
MA. 303 - pH-con-tur	Determination of pH, conductivity and turbidity in water: robotic titrator method
MA. 403 - SABM	Determination of the methylene blue active substances – anionic surfactants (water)
MA. 603 - Alpha-bêta brute	Determination of gross alpha and gross beta activities in drinking water, natural waters and waste water: proportional counter method
MA. 603 – Pb-210	Determination of lead-210 : coprecipitation method, purification on Sr resin and count by proportional counter (water)
MA. 603 - Radium-226	Determination of radium-226 in drinking water, natural water and waste water: coprecipitation method, purification on cationic resin and quantification by tandem ICP-MS
MA.303 - Tritium 1.0	Determination of tritium in drinking water, surface water and ground water: liquid scintillation method

Organic chemistry

MA. 400 - AEO	Qualitative determination of polyethoxylated alcohols: method by liquid chromatography coupled with a time-of-flight mass spectrometer (TOF). (waters) Sum of AEO C8 Sum of AEO C9 Sum of AEO C10 Sum of AEO C11 Sum of AEO C12 Sum of AEO C13 Sum of AEO C14 Sum of AEO C15 Sum of AEO C16
MA. 400 - COSV 1.0	Determination of semi-volatile organic compounds in water and soil: quantification by gas chromatography coupled with a mass spectrometer 1,2,4-Trichlorobenzene 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4,6-Trinitrotoluene (TNT) 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol

	2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Chloronaphtalene 2-Chlorophenol 2-Methylnaphtalene 2-Methylphenol 2-Nitroaniline 2-Nitrophenol 3-Nitroaniline 4,6-Dinitro-2-methylphenol 4-Bromophenyle phenyle ether 4-Chloro-3-methylphenol 4-Chloroaniline 4-Chlorophenyle phenyle ether 4-Methylphenol 4-Nitroaniline 4-Nitrophenol Acenaphtene Acenaphtylene Aniline Anthracene Azobenzene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzyl alcool bis(2-Chloroisopropyle) ether bis(2-Chloroethoxy) methane bis(2-Chloroethyle) ether bis(2-Ethylhexyle) phtalate Butylbenzylphtalate Caprolactame Carbazole Chrysene Dibenzo(a,h)anthracene Dibenzofurane Diethyle phtalate Dimethyle phtalate Di-n-butyle phtalate Di-n-octyle phtalate Dioctyl terephthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Hexachloropropene Indeno(1,2,3-c,d)pyrene Isophorone Naphtalene

	Nitrobenzene n-Nitrosodi-n-propylamine n-Nitrosodiphenylamine Pentachloroethane Pentachloronitrobenzene Pentachlorophenol Phenanthrene Phenol Pyrene
MA. 400 - COV. 2.0	Determination of volatile organic compounds in water and soil: quantification by purge and trap coupled with gas chromatography and a mass spectrometer 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene (1,1-Dichloroethylene) 1,1-Dichloropropene 1,2,3-Trichlorobenzene 1,2,3-Trichloropropane 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,4-Dichlorobenzene 2,2-Dichloropropane 2-Chlorotoluene 4-Chlorotoluene Acrylonitrile Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoforme Bromomethane Chlorobenzene Chloroethane Chloroforme Chloromethane cis-1,2-Dichloroethene (cis-1,2-Dichloroethylene) cis-1,3-Dichloropropene Dibromochloromethane Dibromomethane Dichlorodifluoromethane Dichloromethane

	Ethylbenzene Hexachlorobutadiene Hexachloroethane Isopropylbenzene m+p-Xylenes Naphtalene n-Butylbenzene n-Propylbenzene o-Xylene p-Isopropyltoluene sec-Butyl benzene Styrene ter-Butyl benzene Tetrachloroethylene (Tetrachloroethene) Tetrachlorure de carbone Toluene Trans-1,2-Dichloroethylene trans-1,3-Dichloropropene Trichloroethene (Trichloroethylene) Trichlorofluoromethane Vinyl chloride (Chloroethene)
MA. 400 - Glyphosate	Determination of glyphosate, AMPA and glufosinate in water, plant tissue and soil: quantification by liquid chromatography coupled with a tandem mass spectrometer and Fmoc derivation
MA. 400 - NPEO 1.1	Determination of polyethoxylated nonylphenol surfactants and their degradation products: quantification by liquid chromatography coupled with a tandem mass spectrometer (waters) NP1EC NP2EC NP1EO NP2EO NP3EO NP4EO NP5EO NP6EO NP7EO NP8EO NP9EO NP10EO NP11EO NP12EO NP13EO NP14EO NP15EO NP16EO NP17EO
MA. 400 – P. Chlp 1.0	Determination of aryloxyacid pesticides by tandem mass spectrometry in water, soil, sediment and plant tissues 2,4,5-T 2,4-D

	2,4-DB 4-Hydroxychlorothalonil Bentazone Bromoxynil Clopyralide Dicamba Dichlorprop Diclofop (ep) Diclofop-methyle (ep) Dinosebe Fenoprop (Silvex) Fluazifop-P MCPA MCPB Mecoprop Piclorame Triclopyr
MA. 400 – Pest. 1.0	Determination of organophosphate pesticides, triazine, carbamate, substituted urea, phthalimide and pyrethroid in water, soil and sediment: liquid-liquid extraction; quantification by gas chromatography coupled with a tandem mass spectrometer 1-Naphtol 2,6-Dichlorobenzamide Aldrine Atrazine Azinphos-methyle Azoxystrobine Bendiocarb Boscalid Bromacil Busan Butilate Captafol Captane Carbaryle Carbofurane Carfentrazone Ethyle Chlorfenvinphos Chloroneb Chlorothalonil Chloroxuron Chlorpropham Chlorpyriphos Cyanazine Cyhalothrine Cypermethrine Deethyle atrazine Deisopropyl atrazine Deltamethrine Diazinon Dichlobenil Dichlorvos

	Dieldrine Difenoconazole Dimethazone Dimethenamide Dimethoate Dimetomorphe Disulfoton Diuron EPTC Fenitrothion Fluazinam Fludioxonil Fonofos Iprodion Linuron Malaoxon Malathion Metalaxyl Metconazole Methidathion Methoxychlore Metolachlore Metribuzine Mevinphos Myclobutanil Napropamide Parathion Parathion-methyl Pendimethaline Penthiopyrad Permethrine Phorate Phosalone Phosmet Pirimicarb Propiconazole Propoxur Propyzamide Pyraclostrobine Quintozene Simazine Tebuconazol Tebuthiuron Terbacil Terbufos Tetraconazole Trifloxystrobine Trifluraline Trinexapac-ethyl Triticonazole

MA. 400 – PFC 1.0	Determination of perfluorinated compounds: quantification by liquid chromatography coupled with a tandem mass spectrometer (waters, soils, sediments, animal tissues and biosolids) 11-chloroicosafluoro-3-oxaundecane-1-sulfonic acid 11Cl-PF3OudS 1H,1H,2H,2H-perfluorohexane sulfonate 4:2 FTS 1H,1H,2H,2H-perfluorooctane sulfonate 6:2 FTS 1H,1H,2H,2H-perfluorodecane sulfonate 8:2 FTS 2H-perfluoro-octenoic acid FHUEA 2H-perfluoro-decenoic acid FOUEA 3-perfluoroheptyl propanoic acid 7:3 FTCA 3-perfluoropentyl propanoic acid 5:3 FTCA 4,8-dioxa-3H-perfluorononanoic acid ADONA 9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid 9Cl-PF3ONS Hexafluoropropylene oxie-dimer acid HFPO-DA N-ethylperfluorooctane sulfonamidoacetic acid NEtFOSAA N-methylperfluorooctane sulfonamidoacetic acid NMeFOSAA Nonafluoro-3,6-dioxaheptanoic acid NFDHA Perfluoro-1-heptane sulfonate L-PFHpS Perfluoro-1-nonane sulfonate L-PFNS Perfluoro-1-pentane sulfonate L-PFPeS Perfluoro-1-propane sulfonate L-PFPrS Perfluoro(2-ethoxyethane)sulfonic acid PFEESA Perfluoro-3-methoxypropanoic acid PFMPA Perfluoro-4-ethylcyclohexane sulfonate PFECHS Perfluoro-4-methoxybutanoic acid PFMBA Perfluorodecane sulfonate PFDS Perfluorodecanoic acid PFDA Perfluorohexanesulfonate PFHxS Perfluoro-n-butanoic acid PFBA Perfluoro-n-butane sulfonate L-PFBS Perfluoro-n-dodecanoic acid PFDoA Perfluoro-n-heptanoic acid PFHpA Perfluoro-n-hexanoic acid PFHxA Perfluorononanoic acid PFNA Perfluoro-n-pentanoic acid PFPeA Perfluoro-n-tetradecanoic acid PFTeDA Perfluoro-n-tridecanoic acid PFTrDA Perfluorooctane sulfonate PFOS Perfluorooctanoic acid PFOA Perfluoroundecanoic acid PFUdA
MA. 400 – Pharma CL-SM 1.0	Determination of pharmaceutical compounds and antibiotics in water: quantification by liquid chromatography coupled with a mass spectrometer Acetaminophen Capecitabine Carbamazepine Chlortetracycline Ciprofloxacin Cyclophosphamide Diclofenac Erlotinib Erythromycine

	Etoposide Fenofibrate Fluoxetine Ifosfamide Indomethacine Ketoprofen Methotrexate Narasin Norfloxacine Oxytetracycline Pentoxifylline Roxythromycine Sulfadimethoxine Sulfamethazine Sulfamethizole Sulfamethoxazole Sulfathiazole Tamoxifen Tetracycline Trimethoprime Tylosine Venlafaxine
MA. 400 - Pharma-GCMS 1.0	Determination of pharmaceutical compounds in water: quantification by gas chromatography coupled with a tandem mass spectrometer Bezafibrate Caffeine Chlorophene Clofibric acid Fenoprofene Gemfibrozil Ibuprofen Mestranol Naproxen Salicylic acid Triclosan
MA. 403 - Carbamates	Determination of carbamate type pesticides: quantification by liquid chromatography coupled with a tandem mass spectrometer (waters) Aldicarb Aldicarb sulfone Aldicarb sulfoxide Methomyl.
MA. 403 - Cyanotoxines 1.0	Determination of cyanotoxins in surface water and drinking water: quantification by liquid chromatography coupled with a tandem mass spectrometer Anatoxine-A [D-Asp3]Microcystin-LR [D-Asp3]Microcystin-RR Microcystin-HilR Microcystin-HtyR Microcystin-LA

	Microcystin-LF Microcystin-LR Microcystin-LW Microcystin-LY Microcystin-RR Microcystin-WR Microcystin-YR
MA. 403 - D.P. 1.3	Determination of diquat and paraquat: quantification by liquid chromatography (water)
MA. 403 - HAA 1.1	Determination of halogenated acetic acids: quantification by gas chromatography coupled with a mass spectrometer (water) Chloroacetic acid Bromoacetic Bromochloroacetic Dibromoacetic Dichloroacetic Trichloroacetic
MA. 403 - Méthane 1.0	Determination of methane, ethane and dissolved propane in water: quantification by purge and trap coupled with a gas chromatography and a flame ionization detector
MA. 403 - NTA 1.0	Determination of nitrilotriacetic acid: quantification by gas chromatography coupled with a mass spectrometer (water)
MA. 400 - P. Ocl.	Determination of organochlorine pesticides in water, soil and sediment. Quantification by gas chromatography coupled with a mass spectrometer Aldrin Alpha-BHC Alpha-chlordane Bêta-BHC Chlorthal-dimethyle Delta-BHC Dieldrin Endosulfan-I Endosulfan-II Endrin Endrine aldehyde Gamma-chlordane Heptachlor Heptachlor epoxyde Hexachlorobenzene Isodrine Lindane Methoxychlore Mirex o,p'-DDE o,p'-DDD o,p'-DDT p,p'-DDE p,p'-DDT p,p'-TDE

	Endosulfane sulfate
MA. 403 - Pesticides émergents	Determination of insecticides, herbicides and fungicides by liquid chromatography coupled with a tandem mass spectrometry in surface water, drinking water and ground water Acetamiprid Azoxystrobin Chlorantraniliprole Chlorimuron Ethyl Clothianidin Cyantraniliprole Fenamidone Fenamidone metabolite Flumetsulam Flupyradifurone Imazapyr Imazethapyr Imidachloprid Imidachloprid - guanidine Imidachloprid - uree Isoxaflutole Mesotrione Nicosulfuron Omethoate Pyrimethanil Rimsulfuron Sulfosulfuron Thiaclopride Thiamethoxam
MA. 403 - SP.O_3 1.2	Determination of ozonation by-products: quantification by gas chromatography coupled with a mass spectrometer (drinking water) Acetaldehyde Benzaldehyde Butyraldehyde (butanal) Chloroacetaldehyde Formaldehyde Glyoxal (glycoldial) Hexanal Propionaldehyde (propanal) Pyruvic aldehyde (methylglyoxal) Valeraldehyde (pentanal)
MA. 404 - Stéroïdes 1.0	Determination of steroids, alkylphenols, sterols, and bisphenol A in waste water: liquid-solid extraction, derivation and quantification by gas chromatography coupled with a mass spectrometer 4-ter-octylphenol 17α-Ethynylestradiol 17ß-Estradiol Bisphenol A Cholesterol Coprostan Coprostan-3-ol

	Coprostan-3-one Estriol Estrone Nonylphenol technic quality p-n-nonylphenol Testosterone
MA. 400 - Hydrocarbures C_6-C_{10}	Determination of C_6 to C_{10} petroleum hydrocarbons in water, soil and sediment: quantification by purge and trap coupled with a gas chromatography and flame ionization detector

Microbiology

MA. 700 - BHA35 1.0	Detection and enumeration of aerobic and facultative anaerobic heterotrophic bacteria: pour plate method
MA. 700 - Col 1.0	Detection and enumeration of total coliforms: membrane filter method
MA. 700 - Colph 1.0	Detection of F-specific coliphages: presence/absence method
MA. 700 - Ec.BCIG 1.0	Detection and enumeration of thermotolerant *Escherichia coli* in water: membrane filter method using the mFC-BCIG medium
MA. 700 - Ecct 1.0	Detection of total coliforms and *Escherichia coli* with the Colilert ® culture medium: presence/absence method
MA. 700 - Ecctmi 1.0	Simultaneous detection and enumeration of total coliforms and *Escherichia coli* in drinking water with the MI culture medium: membrane filter method
MA. 700 – Ent 1.0	Detection and enumeration of enterococci: membrane filter method
MA. 700 – Ent-mEI	Detection and enumeration of enterococci: membrane filter method on mEI medium
MA. 700 – Ent P/A	Detection of enterococci with the Enterlolert culture medium: presence/absence method
MA. 700 - Fec.Ec 1.0	Detection and enumeration of thermotolerant (fecal) coliforms and confirmation of the species *Escherichia coli*: membrane filter method
MA. 700 - Leg 1.0	Detection and enumeration of *Legionella*: culture method
MA. 700 - PSE 1.0	Detection and enumeration of *Pseudomonas aeruginosa*: membrane filter method
MA. 700 - Sal-PA 1.0	Detection of *Salmonella*: presence/absence method
MA. 700 - STA 1.0	Detection and enumeration of *Staphylococcus aureus*: membrane filter method
MA. 705 - Ec.-BCIG 1.0	Detection and enumeration of thermotolerant *Escherichia coli* in solid or semisolid samples: membrane filter method using the mFC-BCIG medium

Toxicology

MA. 500 - D. mag 1.1	Determination of lethal toxicity LC_{50} 48h *Daphnia magna*

MA. 500 - P. sub. 1.0	Determination of toxicity: growth inhibition of the algae *Pseudokirchneriella subcapitata (Raphidocelis subcapitata).*

Number of Scope Listings: 59

Notes

MA: CEAEQ internal analysis method.

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