

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Accredited Laboratory No. 144

Legal Name of Accredited Laboratory: RPC

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SCC File Number:	15213
Accreditation Standard(s):	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
Fields of Testing:	Biological Chemical/Physical DNA Relationship Forensic
Program Specialty Area:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Environmental Testing (ET) Forensic
Initial Accreditation:	1994-02-01
Most Recent Accreditation:	2021-05-06
Accreditation Valid to:	2022-02-01

SCC Group Accreditation:

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

15896 - RPC – Moncton, 115-A Harrisville Blvd, Moncton, NB, E1H 3T3, Accredited Laboratory No. 697

The Medical Gas Piping System inspection portion of RPC's scope of accreditation may be found at: <https://www.scc.ca/en/accreditation/inspection-bodies/directory-of-accredited-clients>

ANIMAL AND PLANTS (AGRICULTURE)

Agricultural products (except food and chemicals):

SOP IAS-M26	MICROWAVE ASSISTED DIGESTION OF PLANT & ANIMAL TISSUE AND DERIVED MATERIALS Total Mercury Trace Elements
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Agricultural Products:

(Cannabis)

SOP OAS-SV19	THE DETERMINATION OF AFLATOXINS AND OCHRATOXINS IN MARIJUANA PLANT MATERIAL AND OIL EXTRACTS BY HPLC-FLD
SOP OAS-SV21	THE DETERMINATION OF CANNABINOIDS IN MARIJUANA PLANT MATERIAL AND OIL EXTRACTS BY HPLC
SOP OAS-SV22	DETERMINATION OF RESIDUAL SOLVENTS IN MARIJUANA EXTRACTS
SOP OAS-SV23	DETERMINATION OF TERPENES IN MARIJUANA PLANT MATERIAL AND OIL EXTRACTS

Foods and Edible Products: (Human and Animal Consumption)

Nutrition Labelling

SOP IAS-M41 / IAS-M29	ANALYSIS OF MINERALS IN FOOD
SOP OAS-FC01	DETERMINATION OF MOISTURE IN FOODS
SOP OAS-FC02	DETERMINATION OF ASH IN FOODS
SOP OAS-FC03	DETERMINATION OF FAT IN FOODS BY SOXTEC EXTRACTION
SOP OAS-FC04	DETERMINATION OF PROTEIN IN FOODS
SOP OAS-FC06	DETERMINATION OF FAT IN FOODS BY ACID HYDROLYSIS

SOP OAS-FC07	DETERMINATION OF FATTY ACIDS IN FOODS Monounsaturates Polyunsaturates Saturates Total Fat Trans Fatty Acids EPA, DHA
SOP OAS-FC08 / SOP OAS-FC14	ANALYSIS OF CHOLESTEROL IN FOOD SAMPLES BY GC-FID
SOP OAS-FC09	DETERMINATION OF SUGARS IN FOODS Fructose, Glucose, Lactose, Maltose, and Sucrose
SOP OAS-FC10	THE DETERMINATION OF TOTAL DIETARY FIBRE IN FOODS
SOP OAS-FC11	DETERMINATION OF β CAROTENE IN FOODS
SOP OAS-FC12 / SOP OAS-FC14	ANALYSIS OF VITAMIN A (RETINOL) IN FOOD SAMPLES BY HPLC-UV

Unprocessed Milk

Chemical Tests

IDF 141:2018 ISO 9622:2013 AOAC 978.26 SOP OAS-FC20	DETERMINATION FAT, PROTEIN, LACTOSE, MUN, AND SOMATIC CELLS IN RAW MILK USING THE COMBIFOSS™
AOAC 961.07 SOP OAS-FC21	FREEZING POINT DETERMINATION FOR ADDED WATER IN MILK BY CRYOSCOPE

Microbiological Tests

AOAC 977.27 SOP FFA34	ENUMERATION OF TOTAL BACTERIA IN RAW MILK USING THE SPIRAL PLATE METHOD
Charm® Trio Test SOP FFA38	ANALYSIS OF MILK SAMPLES FOR THE PRESENCE OF ANTIBIOTIC/DRUG RESIDUES USING THE CHARM® TRIO METHOD

(Microbiology - Food)

MFHPB-18 SOP FFA04	DETERMINATION OF THE AEROBIC COLONY COUNT IN FOODS
SOP FFA05	THE ANALYSIS OF COLIFORMS, FAECAL COLIFORMS AND <i>E. Coli</i> IN FOODS
MFHPB-20 SOP FFA06	ISOLATION AND IDENTIFICATION OF <i>Salmonella</i> FROM FOODS AND ENVIRONMENTAL SAMPLES
MFHPB-21 SOP FFA07	ENUMERATION OF <i>STAPHYLOCOCCUS AUREUS</i> IN FOODS
SOP FFA08	ISOLATION OF <i>Listeria monocytogenes</i> AND OTHER <i>Listeria spp</i> FROM FOODS AND ENVIRONMENTAL SAMPLES (MFHPB-30 (qualitative), MFLP-74 (quantitative))

MLG 4 SOP FFA12	ISOLATION AND IDENTIFICATION OF <i>Salmonella</i> FROM MEAT, POULTRY, PASTEURIZED EGG, AND SILURIFORMES (FISH) PRODUCTS AND CARCASS AND ENVIRONMENTAL SPONGES Except for: Section 4.6 – Rapid Screening Salmonella Test Procedure
MLG41 SOP FFA27	ISOLATION, IDENTIFICATION, AND ENUMERATION OF <i>Campylobacter jejuni/Coli/lari</i> FROM POULTRY RINSE, SPONGE AND RAW PRODUCT SAMPLES
US FDA BAM Chapter 5 SOP FFA25	MICROBIOLOGICAL METHOD FOR PERFORMING <i>Salmonella</i> ANALYSIS US FOOD AND DRUG ADMINISTRATION - BACTERIOLOGICAL ANALYTICAL MANUAL CHAPTER 5

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental

Air

For air analysis, please see Occupational Health & Safety section.

(Petroleum Hydrocarbons - Air)

SOP OAS-HC01	DETERMINATION OF AIR-PHASE PETROLEUM HYDROCARBONS ON SORBENT TUBES Benzene EPH >C10-C21 Ethylbenzene m,p-xylene o-xylene Toluene VPH C6-C10 (less BTEX)
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Oil

SOP OAS-SV03	DETERMINATION OF POLYCHLORINATED BIPHENYLS IN OIL Total PCBs (as Aroclor)
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Soil/Sediment (Mercury)

SOP IAS-M52 / SOP IAS-M53	TOTAL MERCURY ANALYSIS BY COLD VAPOUR ATOMIC ABSORPTION SPECTROMETRY
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Soil/Sediment (Metals)

SOP IAS-M29	See Water (Organic) Section
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SOP IAS-M01	See Water Organic Section
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Soil/Sediment (Petroleum Hydrocarbons)

SOP OAS-HC03	DETERMINATION OF PETROLEUM HYDROCARBONS (ATLANTIC MUST) IN SOIL	
	Aliphatic > C8-C10	Ethylbenzene
	Aliphatic >C10-C12	Extractable Petroleum Hydrocarbons (>C10-C16)
	Aliphatic >C12-C16	Extractable Petroleum Hydrocarbons (>C16-C21)
	Aliphatic >C16-C21	Extractable Petroleum Hydrocarbons (>C21-C32)
	Aliphatic >C21-32	F1: C6-C10
	Aliphatic C6-C8	F2: C10-C16
	Aromatic > C10-C12	F3: C16-C34
	Aromatic > C12-C16	m/p-xylene
	Aromatic > C16-C21	Methyl Tert butyl Ether (MTBE)
	Aromatic > C21-C32	o-xylene
	Aromatic > C8-C10	Toluene
	Benzene	Volatile Petroleum hydrocarbons (C6-C10) (less BTEX)

Soil/Sediment (Polycyclic Aromatic Hydrocarbons (PAH))

SOP OAS-HC06	THE DETERMINATION OF POLYNUCLEAR AROMATIC HYDROCARBONS IN SOIL	
	Acenaphthene	Chrysene
	Acenaphthylene	Dibenzo (a,h) anthracene
	Anthracene	Fluoranthene
	Benzo (a) anthracene	Fluorene
	Benzo (a) pyrene	Indeno (1,2,3 - cd) pyrene
	Benzo (b) fluoranthene	Naphthalene
	Benzo (g,h,i) perylene	Phenanthrene
	Benzo (k) fluoranthene	Pyrene
	Benzo (e) pyrene	

Water (Inorganic)

SOP IAS-M43	THE MEASUREMENT OF ALKALINITY BY AUTOMATED DISCRETE ANALYZER Alkalinity (pH 4.5)
SOP IAS-M47	THE MEASUREMENT OF AMMONIA BY AUTOMATED DISCRETE ANALYZER

SOP IAS-M07	THE MEASUREMENT OF BIOCHEMICAL OXYGEN DEMAND (BOD-5 day, BOD ₅)
SOP IAS-M40	THE MEASUREMENT OF CHEMICAL OXYGEN DEMAND BY CLOSED REFLUX COLORIMETRIC METHOD
SOP IAS-M44	THE MEASUREMENT OF CHLORIDE BY AUTOMATED DISCRETE ANALYZER
SOP IAS-M55	THE MEASUREMENT OF COLOUR BY AUTOMATED DISCRETE ANALYZER
SOP IAS-M04	THE MEASUREMENT OF CONDUCTIVITY OF AQUEOUS SAMPLES Electrolytic conductivity (25 °C)
SOP IAS-M01	ANALYSIS OF TRACE ELEMENTS BY INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETRY Dissolved and Extractable Metals: Ag (water only), Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Rb, Sb, Se, Sn, Sr, Te, Tl, U, V, Zn
SOP IAS-M29	ANALYSIS OF TRACE ELEMENTS BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY Dissolved and Extractable Metals: Al, Sb, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Rb, Se, Si (Water only), S (Water only), Sr, Te, Ti (Water only), Tl, V, Zn
SOP IAS-M30	THE MEASUREMENT OF FLUORIDE BY COLOURIMETRIC DETERMINATION
SOP IAS-M39	THE ANALYSIS OF ANIONS BY ION CHROMATOGRAPHY Bromide, Chloride, Fluoride, Nitrate, Nitrite, and Sulfate
SOP IAS-M52 / SOP IAS-M53	TOTAL MERCURY ANALYSIS BY COLD VAPOUR ATOMIC ABSORPTION SPECTROMETRY
SOP IAS-M48	THE MEASUREMENT OF NITRATE PLUS NITRITE BY AUTOMATED DISCRETE ANALYZER
SOP IAS-M49	THE MEASUREMENT OF NITRITE BY AUTOMATED DISCRETE ANALYZER
SOP IAS-M03	THE MEASUREMENT OF pH OF AQUEOUS SAMPLES
SOP IAS-M50	THE MEASUREMENT OF PHOSPHATE BY AUTOMATED DISCRETE ANALYZER
SOP IAS-M46	THE MEASUREMENT OF SILICA BY AUTOMATED DISCRETE ANALYZER
SOP IAS-M45	THE MEASUREMENT OF SULFATE BY AUTOMATED DISCRETE ANALYZER
SOP IAS-M16	THE MEASUREMENT OF TOTAL KJELDAHL NITROGEN (TKN)
SOP IAS-M17	THE MEASUREMENT OF TOTAL PHOSPHORUS IN AQUEOUS SAMPLES

SOP IAS-M05	THE DETERMINATION OF TOTAL SUSPENDED SOLIDS (TSS) IN AQUEOUS SAMPLES
SOP IAS-M06	THE MEASUREMENT OF TURBIDITY BY NEPHELOMETRY

Water (Microbiology)

SOP FFA01	ANALYSIS OF <i>Coliforms</i> IN WATER <i>Escherichia coli</i> (<i>E. coli</i>) Total <i>Coliforms</i> Fecal <i>Coliforms</i>
SOP FFA10	THE DETECTION OF <i>Coliforms</i> AND <i>E. Coli</i> IN WATER USING COLILERT® TEST KITS <i>Escherichia coli</i> (<i>E. coli</i>) Total <i>Coliforms</i> <i>Escherichia coli</i> (<i>E. coli</i>) Presence/Absence Total <i>Coliforms</i> Presence/Absence
SOP FFA35	DETERMINATION OF ENTEROCOCCI IN WATER BY THE IDEXX ENTEROLERT METHOD <i>Enterococci</i>
SOP FFA11	PERFORMING HETEROTROPHIC PLATE COUNT IN WATER Heterotrophic Plate Count (HPC)

Water (Organic)

SOP IAS-M57	THE MEASUREMENT OF ORGANIC CARBON (OC) BY COMBUSTION/INFRARED AND TOTAL NITROGEN (TN) BY COMBUSTION/CHEMILUMINESCENCE IN WATER AND WASTEWATER Total Nitrogen (TN) Organic Carbon (OC)	
SOP OAS-HC08	THE DETERMINATION OF BENZO (a) PYRENE (BAP) AND PENTACHLOROPHENOL IN WATER	
SOP AQS90	DETERMINATION OF DISSOLVED METHANE AND/OR ETHANE AND/OR PROPANE IN WATER BY GC-FID	
SOP OAS-HC05	THE DETERMINATION OF HALOACETIC ACIDS IN DRINKING WATER	
	Bromoacetic acid	Dibromoacetic acid
	Bromochloroacetic acid	Dichloroacetic acid
	Chloroacetic acid	Trichloroacetic acid
SOP OAS-SV05	THE DETERMINATION OF ORGANOCHLORINE PESTICIDES IN WATER	
	A -BHC	Lindane (gamme-BHC)
	Endosulfan I	Mirex
	Endosulfan II	o,p' - DDT
	Endrin	p,p' - DDT
	Heptachlor Epoxide	p,p' Methoxychlor
SOP OAS-SV04	DETERMINATION OF POLYCHLORINATED BIPHENYLS IN WATER Total PCBs (as Aroclor)	

SOP OAS-HC04	DETERMINATION OF PETROLEUM HYDROCARBONS (ATLANTIC MUST) IN WATER SAMPLES	
	Aliphatic > C8-C10	Benzene
	Aliphatic >C10-C12	Ethylbenzene
	Aliphatic >C12-C16	Extractable Petroleum Hydrocarbons (>C10-C16)
	Aliphatic >C16-C21	Extractable Petroleum Hydrocarbons (>C16-C21)
	Aliphatic >C21-C32	Extractable Petroleum Hydrocarbons (>C21-C32)
	Aliphatic C6-C8	m/p-xylene
	Aromatic > C8-C10	Methyl Tert butyl Ether (MTBE)
	Aromatic >C10-C12	o-xylene
	Aromatic >C12-C16	Toluene
	Aromatic >C16-C21	Volatile Petroleum hydrocarbons (C6-C10) (less BTEX)
	Aromatic >C21-C32	
SOP OAS-HC07	THE DETERMINATION OF POLYNUCLEAR AROMATIC HYDROCARBONS (PAH) IN WATER	
	Acenaphthene	Chrysene
	Acenaphthylene	Dibenzo (a,h) anthracene
	Anthracene	Fluoranthene
	Benzo (a) pyrene	Fluorene
	Benzo (a)-anthracene	Indeno (1,2,3 - cd) pyrene
	Benzo (b) fluoranthene	Naphthalene
	Benzo (g,h,i) perylene	Phenanthrene
	Benzo (k) fluoranthene	Pyrene
	Benzo (e) pyrene	
SOP OAS-HC02	THE DETERMINATION OF VOLATILE ORGANIC COMPOUNDS (VOC) IN WATER	
	1,1,1-Trichloroethane	Bromomethane
	1,1,2,2-Tetrachloroethane	Carbon Tetrachloride
	1,1,2-Trichloroethane	Chlorobenzene
	1,1-Dichloroethane	Chlorodibromomethane
	1,1-dichloroethylene	Chloroethane
	1,2-dichlorobenzene	Chloroform
	1,2-dichloroethane	Chloromethane
	1,2-Dichloroethylene (E)	Dichloromethane
	1,2-Dichloroethylene (Z)	Ethylbenzene
	1,2-Dichloropropane	Ethylene Dibromide
	1,3-Dichlorobenzene	m/p-xylene
	1,3-Dichloropropylene (E)	o-xylene
	1,3-Dichloropropylene (Z)	Styrene
	1,4-dichlorobenzene	Tetrachloroethylene

	Benzene	Toluene
	Bromochloromethane	Trichloroethylene
	Bromodichloromethane	Trichlorofluoromethane
	Bromoform	Vinyl Chloride

Occupational Health and Safety:

Air Monitoring[#]

SOP AQS02	PROCEDURE FOR THE MEASUREMENT OF DEWPOINT IN BREATHING AIR AND MEDICAL GASES
SOP AQS03	PROCEDURE FOR MEASURING NITROGEN OXIDES AND SULPHUR DIOXIDE IN GAS SAMPLES
SOP AQS04	PROCEDURE FOR THE MEASUREMENT OF OIL, PARTICULATE, AND CONDENSATES IN BREATHING AIR AND MEDICAL GASES
SOP AQS80	PROCEDURE FOR MEASURING ODOUR IN COMPRESSED BREATHING AIR, DIVING AIR, PURE GASES AND MEDICAL AIR SAMPLES
SOP AQS82	DETERMINATION OF NITROGEN, OXYGEN, METHANE, CARBON MONOXIDE, CARBON DIOXIDE, NITROUS OXIDE, HALOGENATED HYDROCARBONS AND NON-METHANE HYDROCARBONS IN COMPRESSED BREATHING AIR AND MEDICAL GASES BY GC WITH TCD, ECD AND FID DETECTORS
SOP AQS92	DETERMINATION OF NITROGEN, OXYGEN, HELIUM, METHANE, CARBON MONOXIDE, CARBON DIOXIDE, NITROUS OXIDE, HALOGENATED HYDROCARBONS AND NON-METHANE HYDROCARBONS IN COMPRESSED MIXED DIVING GASES BY GAS CHROMATOGRAPHY WITH TCD, ECD AND FID DETECTORS

The following CAN/CSA Standards apply to the SOPs listed above for Air Monitoring:

- Compressed Breathing Air Analysis: CAN/CSA Z180.1-19
- Compressed Diving Air/Gas Analysis: CAN/CSA Z275.2-20
- Medical Gas Analysis: CAN/CSA Z7396.1-17

Asbestos

SOP AQS16	PROCEDURE FOR THE IDENTIFICATION OF ASBESTOS IN BULK SAMPLES
SOP AQS32	PROCEDURE FOR THE COLLECTION AND FIBER COUNTING OF AIR SAMPLES FOR TOTAL FIBERS By: PCM Fibre Counting

(Mould)

SOP AQS85	PROCEDURE FOR THE COLLECTION AND IDENTIFICATION OF (MOULD) SPORES IN AIR USING SPORE TRAP Fungal Spore ID-GENUS
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(Radon)

FORENSICS

Forensic Biology / DNA

Techniques for which laboratory is accredited:

- a. Forensic Testing of Human Samples by:
 1. SOP FFA-FBL07 Human DNA Genotyping
 2. SOP FFA-FBL08 Human Relationship Probability Calculations
 3. SOP FFA-FBL09 Presumptive Testing of Human Blood & Semen
 4. SOP FFA-FBL10 DNA Extraction from Forensic Samples

- b. Forensic Testing of Wildlife Samples by:
 1. SOP FFA-FBL03 Species Identification Using Mt-DNA Sequencing
 - Moose
 - Deer
 - Bear
 2. SOP FFA-FBL04 DNA Genotyping of Moose
 3. SOP FFA-FBL05 Gender Typing of Mammals
 - Moose
 - Deer
 - Bear
 4. SOP FFA-FBL06 DNA Genotyping of Deer

The following techniques are incorporated: sample handling, sample preparation, DNA purification, DNA extraction, PCR amplification, gel/capillary electrophoresis, sequencing (mtDNA), genotyping (STRs), interpretation (mtDNA and STRs) and reporting.

Other (specify):

Number of Scope Listings: 80 plus 8 Forensic techniques

Notes:

ISO/IEC 17025: 2017: General Requirements for the Competence of Testing and Calibration Laboratories

MFHPB: Health Protection Branch Compendium Method (Health Canada)

MFLP: Microbiology Food Laboratory Procedure (Health Canada)

AOAC: Official Methods of Analysis of the Association of Official Analytical Chemists (USA)

CAN/CSA: Standards from Canadian Standards Association

MLG: United States Department of Agriculture; Microbiology Laboratory Guidebook

US FDA BAM: US Food and Drug Administration Microbiological Methods & Bacteriological Analytical Manual

ISO: International Organization for Standardization



IDF: International Dairy Federation

SOP: Standard Operating Procedure

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 www.scc.ca.

Elias Rafoul
Vice-President, Accreditation Services
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