



SCOPE OF ACCREDITATION

RPC
921 College Hill Road
Fredericton, NB
E3B 6Z9

Accredited Laboratory No. 144

(Conforms with requirements of ISO/IEC 17025:2005, RG-PT, RG-FORENSIC)

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URL:	http://rpc.ca
CLIENTS SERVED:	All interested parties
FIELDS OF TESTING:	Biological, Chemical/Physical, DNA Relationship, Forensic
FORENSICS DISCIPLINE(S):	Forensic Biology / DNA
PROGRAM SPECIALTY AREA:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP), Environmental Testing (ET), Forensic
INITIAL ACCREDITATION:	1994-02-01
MOST RECENT ACCREDITATION:	2019-07-12
ACCREDITATION VALID TO:	2022-02-01

This laboratory is a party to a SCC Group Accreditation with the following facilities, with each facility having its own accreditation scope:
RPC Moncton (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)

SOP 4.M26 MICROWAVE ASSISTED DIGESTION OF PLANT & ANIMAL TISSUE
AND DERIVED MATERIALS
Total Mercury
Trace Elements

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 4.M41//4.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 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 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
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



MFHPB-30 (qualitative) MFLP-74 (quantitative) SOP FFA08	ISOLATION OF <i>Listeria MONOCYTOGENES</i> AND OTHER <i>Listeria</i> SPP FROM FOODS AND ENVIRONMENTAL SAMPLES
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 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

(Total PCBs - Oil)

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

(Mercury - Soil)

SOP 4.M52/
SOP 4.M53 TOTAL MERCURY ANALYSIS BY COLD VAPOUR ATOMIC ABSORPTION
SPECTROMETRY

(Metals - Soil)

SOP 4.M29/
SOP 4.M19 ANALYSIS OF TRACE ELEMENTS BY INDUCTIVELY COUPLED PLASMA
EMISSION SPECTROMETRY

Aluminum
Antimony
Arsenic
Barium
Beryllium
Bismuth
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Lithium
Magnesium
Manganese
Molybdenum
Nickel
Potassium
Rubidium
Selenium
Silver
Sodium
Strontium
Tellurium
Thallium
Uranium
Vanadium
Zinc

SOP 4.M01/
SOP 4.M19 ANALYSIS OF TRACE ELEMENTS BY INDUCTIVELY COUPLED PLASMA-
MASS SPECTROMETRY
Aluminum
Antimony



Arsenic
Barium
Beryllium
Bismuth
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Lithium
Magnesium
Manganese
Molybdenum
Nickel
Potassium
Rubidium
Selenium
Silver
Sodium
Strontium
Tellurium
Thallium
Uranium
Vanadium
Zinc

(Petroleum Hydrocarbons - Soil)

SOP OAS-HC03 DETERMINATION OF PETROLEUM HYDROCARBONS (ATLANTIC MUST) IN SOIL

- Aliphatic > C8-C10
- Aliphatic >C10-C12
- Aliphatic >C12-C16
- Aliphatic >C16-C21
- Aliphatic >C21-32
- Aliphatic C6-C8
- Aromatic > C10-C12
- Aromatic > C12-C16
- Aromatic > C16-C21
- Aromatic > C21-C32
- Aromatic > C8-C10
- Benzene
- Ethylbenzene



Extractable Petroleum Hydrocarbons (>C10-C16)
Extractable Petroleum Hydrocarbons (>C16-C21)
Extractable Petroleum Hydrocarbons (>C21-C32)
F1: C6-C10
F2: C10-C16
F3: C16-C34
m/p-xylene
Methyl Tert butyl Ether (MTBE)
o-xylene
Toluene
Volatile Petroleum hydrocarbons (C6-C10) (less BTEX)

(Polycyclic Aromatic Hydrocarbons (PAH) - Soil)

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

Water (Inorganic)

(Alkalinity - Water)

SOP 4.M43 THE MEASUREMENT OF ALKALINITY USING THE AQUAKEM 250
Alkalinity (pH 4.5)

(Ammonia - Water)

SOP 4.M47 THE MEASUREMENT OF AMMONIA USING THE AQUAKEM 250

(Biochemical Oxygen Demand (BOD) - Water)



SOP 4.M07 THE MEASUREMENT OF BIOCHEMICAL OXYGEN DEMAND (BOD-5 day, BOD₅)

(Chemical Oxygen Demand (COD) - Water)

SOP 4.M40 THE MEASUREMENT OF CHEMICAL OXYGEN DEMAND BY CLOSED REFLUX COLORIMETRIC METHOD

(Chloride - Water)

SOP 4.M44 THE MEASUREMENT OF CHLORIDE USING THE AQUAKEM 250

(Colour - Water)

SOP 4.M55 THE MEASUREMENT OF COLOR USING THE AQUAKEM 250

(Conductivity - Water)

SOP 4.M04 THE MEASUREMENT OF CONDUCTIVITY OF AQUEOUS SAMPLES
Conductivity (25 °C)

(Dissolved and Extractable Metals - Water)

SOP 4.M01 ANALYSIS OF TRACE ELEMENTS BY INDUCTIVELY COUPLED PLASMA-MASS SPECTROMETRY

Aluminum
Antimony
Arsenic
Barium
Beryllium
Bismuth
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Lithium
Magnesium
Manganese
Molybdenum
Nickel
Potassium
Rubidium



Selenium
Silver
Sodium
Strontium
Tellurium
Thallium
Uranium
Vanadium
Zinc

SOP 4.M29

**ANALYSIS OF TRACE ELEMENTS BY INDUCTIVELY COUPLED PLASMA
EMISSION SPECTROMETRY**

Aluminum
Antimony
Arsenic
Barium
Beryllium
Bismuth
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Lithium
Magnesium
Manganese
Molybdenum
Nickel
Potassium
Rubidium
Selenium
Silicon
Sodium
Strontium
Sulphur
Tellurium
Thallium
Tin
Titanium
Vanadium
Zinc

(Fluoride - Water)



SOP 4.M30 THE MEASUREMENT OF FLUORIDE BY COLORIMETRIC DETERMINATION

(Major Ions - Water)

SOP 4.M39 THE ANALYSIS OF ANIONS BY ION CHROMATOGRAPHY

Bromide
Chloride
Fluoride
Nitrate
Nitrite
Sulfate

(Mercury - Water)

SOP 4.M52/
SOP 4.M53 TOTAL MERCURY ANALYSIS BY COLD VAPOUR ATOMIC ABSORPTION
SPECTROMETRY

(Nitrate plus Nitrite - Water)

SOP 4.M48 THE MEASUREMENT OF NITRATE PLUS NITRITE USING THE AQUAKEM 250

(Nitrite - Water)

SOP 4.M49 THE MEASUREMENT OF NITRITE USING THE AQUAKEM 250

(Organic Carbon - Water)

SOP 4.M38 THE MEASUREMENT OF TOTAL ORGANIC CARBON USING THE
DOHRMANN PHOENIX 8000 TOC ANALYZER
DOC
Total Organic Carbon (TOC)

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)

(pH - Water)

SOP 4.M03 THE MEASUREMENT OF pH OF AQUEOUS SAMPLES

(Phosphate - Water)



SOP 4.M50 THE MEASUREMENT OF PHOSPHATE USING THE AQUAKEM 250

(Silica (Reactive) - Water)

SOP 4.M46 THE MEASUREMENT OF SILICA USING THE AQUAKEM 250

(Sulfate - Water)

SOP 4.M45 THE MEASUREMENT OF SULFATE USING THE AQUAKEM 250

(Total Kjeldahl Nitrogen (TKN) - Water)

SOP 4.M16 THE MEASUREMENT OF TOTAL KJELDAHL NITROGEN (TKN)

(Total Phosphorus - Water)

SOP 4.M17 THE MEASUREMENT OF TOTAL PHOSPHORUS IN AQUEOUS
SAMPLES

(Total Suspended Solids (TSS) - Water)

SOP 4.M05 THE DETERMINATION OF TOTAL SUSPENDED SOLIDS IN AQUEOUS
SAMPLES

(Turbidity - Water)

SOP 4.M06 THE MEASUREMENT OF TURBIDITY BY NEPHELOMETRY

Water (Microbiology)

(Coliforms - Water)

SOP FFA01 ANALYSIS OF *Coliforms* IN WATER
Escherichia coli (*E. coli*)
Total *Coliforms*
Fecal *Coliforms*

SOP FFA10 THE DETECTION OF *Coliforms* AND *E. Coli* IN WATER USING
COLILERT® TEST KITS
Escherichia coli (*E. coli*)
Total *Coliforms*
Escherichia coli (*E. coli*) Presence/Absence
Total *Coliforms* Presence/Absence

(Enterococci - Water)



SOP FFA35 DETERMINATION OF ENTEROCOCCI IN WATER BY THE IDEXX
ENTEROLERT METHOD
Enterococci

(Heterotrophic Plate Count - Water)

SOP FFA11 PERFORMING HETEROTROPHIC PLATE COUNT IN WATER
Heterotrophic Plate Count (HPC)

Water (Organic)

(BAP & Pentachlorophenol - Water)

SOP OAS-HC08 THE DETERMINATION OF BENZO (a) PYRENE AND
PENTACHLOROPHENOL IN WATER

(Dissolved Methane/Ethane/Propane - Water)

SOP AQS90 DETERMINATION OF DISSOLVED METHANE AND/OR
ETHANE AND/OR PROPANE IN WATER BY GC/FID

(Haloacetic Acids - Water)

SOP OAS-HC05 THE DETERMINATION OF HALOACETIC ACIDS IN DRINKING WATER
Bromoacetic acid
Bromochloroacetic acid
Chloroacetic acid
Dibromoacetic acid
Dichloroacetic acid
Trichloroacetic acid

(Organochlorine Pesticides - Water)

SOP OAS-SV05 THE DETERMINATION OF ORGANOCHLORINE PESTICIDES IN WATER
A -BHC
Endosulfan I
Endosulfan II
Endrin
Heptachlor Epoxide
Lindane (gamme-BHC)
Mirex
o,p' - DDT
p,p' - DDT
p,p' Methoxychlor



(PCB - Water)

SOP OAS-SV04 DETERMINATION OF POLYCHLORINATED BIPHENYLS IN WATER
Total PCBs (as Aroclor)

(Petroleum Hydrocarbons-Water)

SOP OAS-HC04 DETERMINATION OF PETROLEUM HYDROCARBONS (ATLANTIC
MUST) IN WATER SAMPLES
Aliphatic > C8-C10
Aliphatic >C10-C12
Aliphatic >C12-C16
Aliphatic >C16-C21
Aliphatic >C21-C32
Aliphatic C6-C8
Aromatic > C8-C10
Aromatic >C10-C12
Aromatic >C12-C16
Aromatic >C16-C21
Aromatic >C21-C32
Benzene
Ethylbenzene
Extractable Petroleum Hydrocarbons (>C10-C16)
Extractable Petroleum Hydrocarbons (>C16-C21)
Extractable Petroleum Hydrocarbons (>C21-C32)
m/p-xylene
Methyl Tert butyl Ether (MTBE)
o-xylene
Toluene
Volatile Petroleum hydrocarbons (C6-C10) (less BTEX)

(Polycyclic Aromatic Hydrocarbons (PAH) - Water)

SOP OAS-HC07 THE DETERMINATION OF POLYNUCLEAR AROMATIC
HYDROCARBONS IN WATER
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) pyrene
Benzo (a)-anthracene
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Benzo(e)pyrene
Chrysene
Dibenzo (a,h) anthracene



Fluoranthene
Fluorene
Indeno (1,2,3 - cd) pyrene
Naphthalene
Phenanthrene
Pyrene

(Volatile Organic Compounds (VOC) - Water)

SOP OAS-HC02 THE DETERMINATION OF VOLATILE ORGANIC COMPOUNDS IN WATER

1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-dichloroethylene
1,2-dichlorobenzene
1,2-dichloroethane
1,2-Dichloroethylene (E)
1,2-Dichloroethylene (Z)
1,2-Dichloropropane
1,3-Dichlorobenzene
1,3-Dichloropropylene (E)
1,3-Dichloropropylene (Z)
1,4-dichlorobenzene
Benzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Carbon Tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
Chloroform
Chloromethane
Dichloromethane
Ethylbenzene
Ethylene Dibromide
m/p-xylene
o-xylene
Styrene
Tetrachloroethylene
Toluene
Trichloroethylene
Trichlorofluoromethane



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 are applicable to the SOPs listed above (Air Monitoring):

- Compressed Breathing Air Analysis: CAN/CSA Z180.1-19
- Compressed Diving Air/Gas Analysis: CAN/CSA Z275.2-15
- Medical Gas Analysis: CAN/CSA Z7396.1-06
 - CAN/CSA Z7396.1-09
 - CAN/CSA Z7396.1-12
 - CAN/CSA Z7396.1-17

Asbestos

(Asbestos Identification - Bulk Samples)

SOP AQS16	PROCEDURE FOR THE IDENTIFICATION OF ASBESTOS IN BULK SAMPLES
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(Asbestos by PCM Fibre Counting - Air)



SOP AQS32 PROCEDURE FOR THE COLLECTION AND FIBER COUNTING OF AIR
SAMPLES FOR TOTAL FIBERS
Asbestos-Ms. Karla McLellan
Asbestos-Mr. Darren Tarr

(Mould - Air)

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

(Mould - Wallboard)

SOP AQS97 PROCEDURE FOR MEASURING RESISTANCE TO GROWTH OF
MOULD ON THE SURFACE OF INTERIOR COATINGS USING AN
ENVIRONMENTAL CHAMBER

(Radon - Water)

SOP AQS93 PROCEDURE FOR THE DETERMINATION OF RADON IN WATER

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.



Notes:

ISO/IEC 17025: 2005: General Requirements for the Competence of Testing and Calibration Laboratories

RG-PT: SCC Requirements & Guidance – Proficiency Testing for Testing and Medical Laboratories

RG-FORENSIC: SCC Requirements and Guidance for the Accreditation for Forensic Testing 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

Elias Rafoul, Vice President
Accreditation Services

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Number of Forensic Techniques: 8
SCC 1003-15/213