

Standards Council of Canada

600-55 Metcalfe Street
Ottawa, ON K1P 6L5
Canada

Conseil canadien des normes

55, rue Metcalfe, bureau 600
Ottawa, ON K1P 6L5
Canada

SCOPE OF ACCREDITATION

RPC
921 College Hill Road
Fredericton, NB
E3B 6Z9

Accredited Laboratory No. 144
(Conforms with requirements of CAN-P-1578 , CAN-P-1585, CAN-P-1587 , CAN-P-4E (ISO/IEC 17025:2005))

CONTACT: Geri Tees
TEL: +1 506 460 5612
FAX: +1 506 452 1395
EMAIL: geri.tees@rpc.ca
URL: <http://rpcgenetics.com>

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 (PSA-AFAP) , Environmental, Forensic

SCOPE ISSUED ON: 2017-05-15

ACCREDITATION VALID TO: 2018-02-01

Note: Dairy tests are performed at Bldg. 700B, Top Floor 850 Lincoln Road, Fredericton, NB, E3B 8B7

ANIMAL AND PLANTS (AGRICULTURE)

Foods and Edible Products: (Human and Animal Consumption)

(Food General)

4.M26	MICROWAVE ASSISTED DIGESTION OF PLANT & ANIMAL TISSUE AND DERIVED MATERIALS Total Mercury Trace Elements
4.M29/4.M41	ANALYSIS OF MINERALS IN FOOD
AOAC 978.26	SOMATIC CELL COUNTS IN MILK (INSTRUMENTAL METHOD)
AOAC 980.15	FREEZING POINT DETERMINATION FOR ADDED WATER
DX08/DX09	ANALYSIS OF PCDDs, PCDFs, PCBs & PBDEs By GC/HRMS
ISO 9622:2013	MILK AND LIQUID MILK PRODUCTS GUIDELINES FOR THE APPLICATION OF MID INFRARED SPECTROMETRY
OAS-FC01	DETERMINATION OF MOISTURE IN FOODS
OAS-FC02	DETERMINATION OF ASH IN FOODS
OAS-FC03	DETERMINATION OF FAT IN FOODS BY SOXTEC EXTRACTION
OAS-FC04	DETERMINATION OF PROTEIN IN FOODS
OAS-FC06	DETERMINATION OF FAT IN FOODS BY ACID HYDROLYSIS
OAS-FC07	DETERMINATION OF FATTY ACIDS IN FOODS EPA, DHA Monounsaturates Polyunsaturates Saturates Total Fat Trans Fatty Acids
OAS-FC08	THE DETERMINATION OF CHOLESTEROL IN FOODS
OAS-FC09	DETERMINATION OF SUGARS IN FOODS Fructose Glucose Lactose Maltose Sucrose
OAS-FC10	THE DETERMINATION OF TOTAL DIETARY FIBRE
OAS-FC11	DETERMINATION OF β CAROTENE IN FOODS
OAS-FC12	DETERMINATION OF VITAMIN A (RETINOL) IN FOODS

(Microbiology)

AOAC 977.27	Standard Plate Count (Spiral plate method)
AOAC Performance Tested	Certificate No. 071002 Charm 3 SL3 β -lactam Test for Drug Residue
FFA05	The Analysis of Coliforms, Faecal Coliforms and <i>E.coli</i> in Foods Only for: Meat and Edible Meat Offal, Dairy Produce
MFHPB-18	Determination of the Aerobic Colony Count in Foods (FFA04) Only for: Meat and Edible Meat Offal
MFHPB-20	Isolation and Identification of <i>Salmonella</i> from Foods and Environmental Samples (FFA06)
MFHPB-21	<i>Enumeration of Staphylococcus aureus</i> in Foods (FFA07) Only for: Meat and Edible Meat Offal, Dairy Produce
MFHPB-30	Isolation of <i>Listeria monocytogenes</i> and other <i>Listeria</i> spp from Foods and Environmental Samples (FFA08) Only for: Meat and Edible Meat Offal, Dairy Produce
MFLP-74	Enumeration of <i>Listeria monocytogenes</i> in Food (FFA08) Only for: Meat and Edible Meat Offal
MLG 4	Isolation and Identification of <i>Salmonella</i> from meat, Poultry, Pasteurized Egg and Catfish Products (FFA12) Only for: Meat, Poultry and Egg Products
MLG41	Isolation, Identification, and Enumeration of <i>Camylobacter jejuni/coli/lari</i> from Poultry Rinse and Sponge Samples (FFA27)
US FDA BAM Chapter 5	Microbiological Method for Performing Salmonella Analysis US Food and Drug Administration - Bacteriological Analytical Manual Chapter 5 (FFA25)

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental

Air

(Mould - Air)

AQS85	PROCEDURE FOR THE COLLECTION AND IDENTIFICATION OF SPORES IN AIR USING SPORE TRAP Fungal Spore ID-GENUS
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(Petroleum Hydrocarbons - Air)

OAS-HC01 THE 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)

Air (Occupational Health)

(Asbestos by PCM Fibre Counting - Air)

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

Oil

(Total PCBs - Oil)

OAS-SV03 THE DETERMINATION OF POLYCHLORINATED
BIPHENYLS IN OIL
Total PCB (as aroclor)

Soil/Sediment

(Dioxins/Furans (PCDD/PCDF) - Ash, Sludge and Soil/Sediment)

DX06 EXTRACTION AND CONCENTRATION OF PCDDs,
PCDFs, PCBs & PBDEs FROM ASH, SLUDGE, SOIL,
AND SEDIMENT SAMPLES
DX08 ANALYSIS OF PCDDs, PCDFs, PCBs & PBDEs By
GC/HRMS

(Mercury - Soil)

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

(Metals - Soil)

4.M19 / 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
Silver
Sodium
Strontium
Tellurium
Thallium
Uranium
Vanadium
Zinc

4.M19, 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

(Petroleum Hydrocarbons - Soil)

OAS-HC03

THE 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)

OAS-SV01 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)

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

(Ammonia - Water)

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

(Biochemical Oxygen Demand (BOD) - Water)

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

(Chemical Oxygen Demand (COD) - Water)

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

(Chloride - Water)

4.M44 THE MEASUREMENT OF CHLORIDE USING THE AQUAKEM 250

(Colour - Water)

4.M55 THE MEASUREMENT OF COLOR USING THE AQUAKEM

(Conductivity - Water)

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

(Dissolved and Extractable Metals - Water)

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

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)

4.M30 THE MEASUREMENT OF FLUORIDE BY
COLORIMETRIC DETERMINATION

(Major Ions - Water)

4.M39 THE ANALYSIS OF ANIONS BY ION
CHROMATOGRAPHY
Bromide
Chloride
Fluoride
Nitrate
Nitrite
Sulfate

(Mercury - Water)

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

(Nitrate plus Nitrite - Water)

4.M48 THE MEASUREMENT OF NITRATE + NITRITE USING
THE AQUAKEM 250

(Nitrite - Water)

4.M49 THE MEASUREMENT OF NITRITE USING THE
AQUAKEM 250

(Organic Carbon - Water)

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

(pH - Water)

4.M03 THE MEASUREMENT OF pH OF AQUEOUS SAMPLES

(Phosphate - Water)

4.M50 THE MEASUREMENT OF PHOSPHATE USING THE
AQUAKEM 250

(Silica (Reactive) - Water)

4.M46 THE MEASUREMENT OF SILICA USING THE
AQUAKEM 250

(Sulfate - Water)

4.M45 THE MEASUREMENT OF SULFATE USING THE
AQUAKEM 250

(Total Kjeldahl Nitrogen (TKN) - Water)

4.M16 THE MEASUREMENT OF TOTAL KJELDAHL
NITROGEN

(Total Phosphorus - Water)

4.M17 THE MEASUREMENT OF TOTAL PHOSPHORUS IN
AQUEOUS SAMPLES

(Total Suspended Solids (TSS) - Water)

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

(Turbidity - Water)

4.M06 THE MEASUREMENT OF TURBIDITY BY
NEPHELOMETRY

Water (Microbiology)

(Coliforms - Water)

FFA01 ANALYSIS OF COLIFORMS IN WATER
Escherichia coli (E. coli)
Total Coliforms

(Coliforms - Water)

FFA10 DETERMINATION OF COLIFORMS AND E. COLI IN WATER BY THE IDEXX COLILERT-18 METHOD
Escherichia coli (E. coli)
Total Coliforms

(Enterococci - Water)

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

(Fecal Coliforms - Water)

FFA01 ANALYSIS OF COLIFORMS IN WATER

(Heterotrophic Plate Count - Water)

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

Water (Organic)

(BAP & Pentachlorophenol - Water)

OAS-SV09 THE DETERMINATION OF BENZO (a) PYRENE AND PENTACHLOROPHENOL IN WATER

(Dioxins/Furans (PCDD/PCDF) - Water)

DX08 ANALYSIS OF PCDDs, PCDFs, PCBs & PBDEs By GC/HRMS

DX10 EXTRACTION AND CONCENTRATION OF PCDDs AND PCDFs FROM WATER SAMPLES

(Dissolved Methane/Ethane/Propane - Water)

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

(Haloacetic Acids - Water)

OAS-SV06 THE DETERMINATION OF HALOACETIC ACIDS IN DRINKING WATER
Bromoacetic acid
Bromochloroacetic acid
Chloroacetic acid
Dibromoacetic acid
Dichloroacetic acid
Trichloroacetic acid

(N-Nitrosodimethylamine (NDMA) - Water)

NDMA01 ANALYSIS OF N-NITROSODIMETHYLAMINE (NDMA) IN WATER BY GC/HRMS
N-Nitrosodimethylamine (NDMA)

(OC Pesticides/PCB - Water)

OAS-SV05 / OAS-SV04 THE DETERMINATION OF ORGANOCHLORINE PESTICIDES IN WATER / DETERMINATION OF POLYCHLORINATED BIPHENYLS IN WATER
A -BHC
Endosulfan I
Endosulfan II
Endrin
Heptachlor Epoxide
Lindane (gamme-BHC)
Mirex
o,p' - DDT
p,p' - DDT
p,p' Methoxychlor
Total PCB (as aroclor)

(Petroleum Hydrocarbons-Water)

OAS-HC04 DETERMINATION OF PETROLEUM HYDROCARBONS (ATLANTC 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)

OAS-SV02 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)

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

Water (Toxicology)

FFA-TOX4.1	ACUTE LETHALITY TOXICITY TESTING WITH RAINBOW TROUT Trout LC50 (96 h) Trout Single Concentration (96 h)
FFA-TOX4.2	ACUTE LETHALITY TESTING WITH DAPHNIA MAGNA Daphnia LC50 (48 h) Daphnia Single Concentration (48 h)
FFA-TOX4.5	TOXICITY TESTING WITH CERIODAPHNIA DUBIA

	Ceriodaphnia dubia IC25
	Ceriodaphnia dubia LC50
FFA-TOX4.6	FOR pH STABILIZED ACUTE LETHALITY TOXICITY TESTING WITH RAINBOW TROUT
	Trout LC 50 (96 h) pH Stabilization
	Trout single concentration (96 h) pH Stabilization

Occupational Health and Safety:

Asbestos

(Asbestos Identification - Bulk Samples)

AQS16	PROCEDURE FOR THE IDENTIFICATION OF ASBESTOS IN BULK SAMPLES
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MEDICAL

**(Compressed Breathing Air Analysis: CAN/CSA Z180.1-13, CAN/CSA Z275.2-15)
(Medical Gas Analysis: CAN/CSA Z7396.1-06 & CAN/CSA Z7396.1-09 CAN/CSA Z7396.1-12))**

AQS02	Procedure for the Measurement of Dewpoint in Breathing Air and Medical Gases
AQS03	Procedure for Measuring Nitrogen Dioxide in Breathing Air Samples
AQS04	Procedure for the Measurement of Oil, Particulate, and Condensates in Breathing Air and Medical Gases
AQS80	Procedure for Measuring Odour in Compressed Breathing Air and Medical Gas Samples
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
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

FORENSICS

Forensic Biology / DNA

Techniques for which laboratory is accredited:

- a. Forensic Testing of Human Samples by:
 - 1. FFA-FBL07 Human DNA Genotyping
 - 2. FFA-FBL08 Human Relationship Probability Calculations
 - 3. FFA-FBL09 Presumptive Testing of Human Blood & Semen
- b. Forensic Testing Of Wildlife Samples by:
 - 1. FFA-FBL03 Species Identification Using Mt-DNA Sequencing
 - 2. FFA-FBL04 DNA Genotyping of Moose
 - 3. FFA-FBL05 Gender Typing of Mammals
 - 4. 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:

(Medical Gas Piping Systems)

The Medical Gas Piping System inspection portion of RPC's scope of accreditation has recently been transferred to SCC's Inspection Body program. A scope listing may be found at:

http://www.scc.ca/en/programs/inspec_bodies/accredited_clients.shtml

CAN-P-4E (ISO/IEC 17025): General Requirements for the Competence of Testing and Calibration Laboratories (ISO/IEC 17025-2005)

CAN-P-1587: Requirements for the Accreditation of Agriculture Inputs, Food, Animal Health and Plant Protection Testing Laboratories

CAN-P-1585: Guidelines for Accreditation of Environmental Testing Laboratories

CANP-1578: Guidelines for the Accreditation of Forensic Testing Laboratories

MFHPB: Health Protection Branch Method

AOAC: Official Methods of Analysis of the Association of Official Analytical Chemists (USA), 17th Edition, 2002

Chantal Guay, ing., P. Eng.
Vice President, Accreditation
Services

Date: 2017-05-15

Number of Scope Listings: 88

Number of Forensic Techniques: 7

SCC 1003-15/213

Partner File #0

Partner: None