

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

La présente portée d'accréditation existe également en français et est publiée séparément.

Legal Name of Accredited Laboratory: AGAT Laboratories Ltd.

Location Name or Operating as (if applicable): AGAT Environmental, Calgary

Contact Name: Maria Raymundo

Address: 2910 12 Street NE
Calgary Alberta
T2E 7P7

Telephone: 403 735-2016

Website: www.agatlabs.com

Email: raymundo@agatlabs.com
vhill@agatlabs.com

To ensure compliance with the *Official Languages Act*, the Standards Council of Canada (SCC) translated proprietary content from English to French when it was not available in French. In case of discrepancies between the English and French versions, the original version prevails.

SCC File Number:	151336
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:	2024-12-03
Most Recent Accreditation:	2024-12-03
Accreditation Valid to:	2028-12-03

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental:

Air

TO-4006	<p>Volatile Organic Compounds (VOC) - Air [Soil Vapour] by GC/MS Thermal Desorption Modified BC MOE LABORATORY MANUAL SECTION H Modified EPA TO-17</p> <p>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 1,2:3,4-Diepoxybutane 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (Ethylene dibromide) 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloroethene 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Butadiene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,4-Dichlorobenzene 1-Chlorobutane 1-Chlorohexane 2,2-Dichloropropane 2-Butanone (Methyl ethyl ketone, MEK) 2-Chlorotoluene 2-Nitropropane 4-Chlorotoluene (p-Chlorotoluene) 4-Isopropyltoluene (p-Cymene) 4-Methyl-2-pentanone (MIBK) Acetone (2-Propanone) Acetonitrile Acrylonitrile Allyl chloride (3-chloropropene) Benzene Benzyl chloride (a-Chlorotoluene) Bromobenzene Bromochloromethane Bromoform</p>
---------	--

	<p> Bromomethane Butylbenzene (n-Butylbenzene) Carbon disulfide Carbon tetrachloride Chlorobenzene Chlorodibromomethane Chloroethane (Ethyl chloride) Chloroform Chloromethane (Methyl chloride) cis-1,3-Dichloropropene cis-1,4-Dichloro-2-butene Decane (n-Decane) Dibromofluoromethane Dibromomethane Dichlorodifluoromethane (CFC-12, Freon 12) Dichloromethane Dodecane (n-Dodecane) Epichlorohydrin Ethyl acetate Ethyl ether Ethyl methacrylate (Ethyl-2-Methyl-2-Propenoate) Ethylbenzene Hexachlorobutadiene (1,1,2,3,4,4-Hexachloro-1,3-butadiene) Hexachloroethane Hexane (n-Hexane) Isobutanol (2-Methyl-1-propanol) Isopropylbenzene (Cumene) m,p-Xylene Methacrylonitrile Methyl acrylate Methyl methacrylate Methyl tert-butyl ether (MTBE) Methylcyclohexane Naphthalene Nitrobenzene n-Propylbenzene n-Tridecane o-Xylene p-Dioxane Pentachloroethane Pentafluorobenzene Propionitrile Pyridine sec-Butylbenzene ((1-Methylpropyl)benzene) Styrene tert-Butylbenzene Tetrachloroethene Toluene trans-1,2-Dichloroethylene (trans-1,2-Dichloroethene) trans-1,3-Dichloropropene trans-1,4-Dichloro-2-butene Trichloroethene </p>
--	---

	Trichlorofluoromethane Vinyl chloride Volatile Hydrocarbons (VH): C6-C13
--	--

Leachate/Waste

TO-0050	BTEX in Solids by GC/MS PURGE AND TRAP – Leachate (EPA 1311, 8260D) Modified EPA 5030B Benzene Ethylbenzene m,p-Xylene o-Xylene Toluene
TO-0050	BTEX in Solids by GC/MS HEADSPACE – Leachate (EPA 1311, 8260D) Modified EPA 5021A Benzene Ethylbenzene m,p-Xylene o-Xylene Toluene
INST-0140, SOIL-0420, INST-0142	Metals in Waste by ICP/OES – Leachate in-house / Modified SM 3120B Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Mercury Nickel Selenium Silver Thallium Uranium Vanadium Zinc Zirconium
INST-0140, SOIL-0650, INST-0142	Metals in Waste by ICP/OES – Modified SWEP Extraction Modified SCHED 4, BC HAZARDOUS WASTE REGULATIONS Modified SM 3120 B Arsenic Barium Boron Cadmium Chromium Copper Lead

	Mercury Selenium Silver Uranium Zinc
INST-0150, SOIL-0650	Anions in Waste by Ion Chromatography (IC) – Modified SWEP Extraction Modified SCHED 4, BC HAZARDOUS WASTE REGULATIONS Modified SM 4110B Fluoride Nitrate (NO3) Nitrite (NO2)
INST-0310, SOIL-0650	Cyanide in Waste by Colourimetry – Modified SWEP Extraction Modified SCHED 4, BC HAZARDOUS WASTE REGULATIONS Cyanide
SOIL-0580	Free Liquid - Waste – Visual (Paint Filter) Modified EPA 9095 Free Liquids
TO-3500	Oil and Grease – Special Waste Oil and Grease (SWOG) by Gravimetric (in-house) Total Oil and Grease

Oil

TO-0420	Polychlorinated Biphenyls (PCB) – Oil by GC/ECD Modified AEC M106.0 Modified ASTM D4059-00 Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1262 Aroclor 1268 Total PCB
---------	---

Sediments, Soils (Inorganic)

INST-0140, SOIL-390, INST-0142	Metals in Solids by ICP/OES Modified BC MOE LABORATORY MANUAL SECTION C Modified EPA 3050B Modified SM 3120 Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium
--------------------------------------	---

	<p>Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Phosphorus Potassium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Thallium Tin Titanium Tungsten Uranium Vanadium Zinc Zirconium</p>
<p>INST-0141, SOIL-390, INST-0143</p>	<p>Metals in Solids by ICP/MS Modified BC MOE LABORATORY MANUAL SECTION C Modified EPA 3050B Modified SM 3125</p> <p>Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Cesium Chromium Cobalt Copper Gallium Iron Lanthanum</p>

	<p>Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Phosphorus Potassium Rubidium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Tellurium Thallium Thorium Tin Titanium Tungsten Uranium Vanadium Zinc Zirconium</p>
INST-0140, SOIL-0140, INST-0142	<p>Soluble Cations in Solids by ICP/OES Modified SM 3120 B Modified SOIL SAMPLING & METHODS OF ANALYSIS CHAPTER 15 Boron Calcium Magnesium Potassium Sodium Sulphur (Sulfur)</p>
INST-0140, SOIL-0610, INST-0142	<p>Extractable Barium in Solids by ICP/OES Modified ALBERTA ENVIRONMENT SOIL QUALITY GUIDELINES Modified BC MOE LABORATORY MANUAL METHOD 9 Modified SM 3120 B Extractable Barium (0.1M CaCl₂) Extractable Barium (1.0M CaCl₂)</p>
INST-0140, SOIL-0620, INST-0142	<p>Total Barium in Solids by ICP/OES (Fusion) Modified ASTM D4503 Modified SM 3120 B Total Barium</p>
INST-0140, SOIL-0131, SOIL-0132, INST-0142	<p>Available Nutrients in Solids by ICP/OES (SM 3120 B) (Modified Recommend Methods for Soil Analysis, Alberta Agriculture (RMSA) Potassium Sulphur (Sulfur)</p>
SOIL-0130, INST-0530	<p>Available Nutrients in Solids by Automated Colourimetry (Modified EPA 600/R-93/100)</p>

	RECOMMENDED METHODS FOR SOIL ANALYSIS, ALBERTA AGRICULTURE (RMSA) Phosphate
TO-3502	Sulphur in Solids by HPLC (in-house) Elemental Sulphur (Elemental Sulfur)
SOIL-0500, INST-0520	Total Kjeldahl Nitrogen (TKN) in Solids (Modified EPA 351.2) Kjeldahl Nitrogen
INST-0150, SOIL-140	Anions in Solids by Ion Chromatography (IC) – Saturated Paste Modified SM 4110 B Chloride Nitrate-N Nitrite (NO ₂) Sulphate
INST-0500	Chloride in Solids by Automated Colourimetry Modified SM 4500-CL- E Chloride
INST-0150, SOIL-0630	Available Nitrate and Nitrite in Solids by Ion Chromatography (IC) Modified SM 4110 B SOIL SAMPLING & METHOD OF ANALYSIS, CHAPTER 15, SECTION 15.2.1 Available Nitrate
INOR-401-0120, INST-0104, SOIL-0110, SOIL-0140	pH in Solids by pH Meter – Saturated Paste Modified METHODS OF SOIL ANALYSIS 15.2 Modified SM 4500-H+ pH (saturated paste)
INOR-401-0120, INST-0104, SOIL-0110, SOIL-0260	pH in Solids by pH Meter Modified METHODS OF SOIL ANALYSIS 15.2 Modified SM 4500-H+ pH (1:1) soil:water pH (1:2) soil:CaCl ₂ pH (1:2) soil:water
SOIL-0260, INOR-401-0120, SOIL-0110, INST-0101	pH in Solids by pH Meter by Auto Titration SM 4500-H+ SOIL SAMPLING & METHODS OF ANALYSIS, CARTER, 2ND EDITION pH (1:1) soil:water pH (1:2) soil:CaCl ₂ pH (1:2) soil:water
INOR-401-0120, SOIL-0480, SOIL-110	Organic Carbon in Solids by Spectrophotometer Modified METHODS OF SOIL ANALYSIS (2ND ED., 1982) Modified MSA PART 3 CH. 34 Organic Carbon Organic Matter
SOIL-0470	Organic Matter in Solids by Gravimetric Modified SSSA LOSS ON IGNITION METHOD, 1996 Organic Matter
INOR-401-0120, INST-0340, SOIL-0110, SOIL-0630	Ammonia in Solids by Colourimetry Modified SM 4500-NH ₃ G SOIL SAMPLING & METHODS OF ANALYSIS, CARTER Ammonia-N
SOIL-0520	Particle Size Analysis (PSA) in Solids by 2 Point Hydrometer Modified JONES J. 2001 LAB GUIDE FOR CONDUCTING SOIL TEST & PLANT ANALYSIS Percent Clay

	Percent Sand Percent Silt
SOIL-0540	Particle Size Analysis (PSA) in Solids by Gravimetric Modified SHELDRIK, B.H. & WANG, C, CARTER MO ED. 2007 Particle Size
INST-0140, SOIL-0270, INST-0142	Hot Water Extractable Boron in Solids by ICP-OES Modified SM 3120 B Modified SOIL SAMPLING & METHODS OF ANALYSIS, CARTER 2008 Boron
INST-0120, SOIL-0140, SOIL-0260	Conductivity in Solids by Conductivity Meter - Manual Modified METHODS OF SOIL ANALYSIS 15.2 Modified SM 2510 B Conductivity (1:2 soil:water) Conductivity (saturated paste)
INST-0101, SOIL-0140	Conductivity in Solids by Conductivity Meter – Auto Modified METHODS OF SOIL ANALYSIS 15.2 Modified SM 2510 Conductivity (1:2 soil:water) Conductivity (saturated paste)
SOIL-0600	Hexavalent Chromium in Solids by Spectrophotometer Modified SSSA PART 3 CH 25 Hexavalent Chromium
SOIL-0140	Percent Saturation in Solids by Gravimetric Modified CURTIN, MILLER, SOIL SAMPLING & METHODS OF ANALYSIS, CARTER, 2007 Percent Saturation
SOIL-0220	Bulk Density in Solids by Gravimetric Modified BLAKE, G.R., MSA BULK DENSITY, 1986 Bulk Density
SOIL-0230	Specific Gravity in Solids Procedure for Using the Baroid Mud Balance Specific Gravity
SOIL-0310	Moisture in Solids by Gravimetric Modified SOIL SAMPLING & METHODS OF ANALYSIS, CARTER 2008 Percent Moisture
SOIL-0655	Atterberg Plasticity Index in Solids – Liquid Limit Device Modified ASTM D4318-10E1 Liquid Limit Plastic Limit Plasticity Index
SOIL-0660	Hydraulic Conductivity in Solids - Falling Head Modified SOIL SCIENCE SOCIETY OF AMERICA Hydraulic Conductivity
INST-0300	Phenols in Solids by Automated Colourimetry Modified EPA 420.2 Modified EPA 600/4-79/20 Total Phenolics

Sediments, Soils (Organic)

TO-1200	<p>Phenols in Solids by HPLC/UV Modified EPA 8321B</p> <ul style="list-style-type: none"> 2,3,4,5-Tetrachlorophenol 2,3,4,6-Tetrachlorophenol 2,3,4-Trichlorophenol 2,3,5,6-Tetrachlorophenol 2,3,5-Trichlorophenol 2,3,6-Trichlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-o-cresol, DNOC) 2-Nitrophenol 3,4,5-Trichlorophenol 3-Methylphenol + 4-Methylphenol (m-Cresol + p-Cresol) 4-Chloro-3-methylphenol Dinoseb Pentachlorophenol Phenol
TO-0210	<p>Polycyclic Aromatic Hydrocarbons (PAH) in Solids by GC/MS Modified EPA 3540C, EPA 3570, EPA 8270E</p> <ul style="list-style-type: none"> 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(k)fluoranthene <hr/> <ul style="list-style-type: none"> Chrysene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3 - cd)pyrene Naphthalene Perylene Phenanthrene Pyrene Quinoline
TO-0570	<p>Total Purgeable Hydrocarbons (TPH) in Solids by GC/FID Modified BC MOE LABORATORY MANUAL</p>

	<p>Modified CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD Total Purgable Hydrocarbons (TPgH): (C5-C10) VH: C6-C10</p>
TO-0510	<p>Total Extractable Hydrocarbons (TEH) in Solids by GC/FID Modified AEC V92-M2 Modified BC MOE CONTAMINATED SITES REGULATION (CSR) Modified EPA 8015D Extractable Petroleum Hydrocarbons (EPH): C10-C19 Extractable Petroleum Hydrocarbons (EPH): C19-C32 SASK (C11-C22) SASK (C23-C60) Total Extractable Hydrocarbons (TEH): C10-C32</p>
TO-0410	<p>Polychlorinated Biphenyls (PCB) in Solids by GC/ECD Modified AEC G106.0 Modified EPA 8082 Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1262 Aroclor 1268 Total PCB</p>
TO-0330	<p>Volatile Organic Compounds (VOC) in Solids by GC/MS-PURGE AND TRAP Modified EPA 5030C Modified EPA 8260D 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethylene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Butadiene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 2-Hexanone (Methyl butyl ketone, MBK) Acetone (2-Propanone) Benzene Bromodichloromethane Bromoform Bromomethane Butylbenzene (n-Butylbenzene) Carbon tetrachloride Chlorobenzene</p>

	<p> Chlorodibromomethane Chloroethane (Ethyl chloride) Chloroethene (Vinyl chloride) Chloroform Chloromethane (Methyl chloride) cis-1,2-Dichloroethylene cis-1,3-Dichloropropene Cyclohexene Decane Dichloromethane Dicyclopentadiene Ethylbenzene Ethylene Dibromide Hexane (n-Hexane) Isopropylbenzene (Cumene) m,p-Xylene Methyl ethyl ketone Methyl isobutyl ketone (MIBK) Methyl t-butyl ether Naphthalene Nonane n-Propylbenzene o-Xylene sec-Butylbenzene (1-Methylpropyl)benzene) Styrene tert-Butylbenzene Tetrachloroethylene Toluene trans-1,2-Dichloroethylene trans-1,2-Dichloroethylene (trans-1,2-Dichloroethene) trans-1,3-Dichloropropene Trichloroethylene Trichlorofluoromethane </p>
TO-0570	<p> Petroleum Hydrocarbons (PHC) in Solids by GC/MS-PURGE AND TRAP CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD F1: C6-C10 </p>
TO-0560	<p> Petroleum Hydrocarbons (PHC) in Solids by GC/FID Cold Shake Extraction CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD F2: C10-C16 F3: C16-C34 F4: C34-C50 </p>
TO-0560	<p> Petroleum Hydrocarbons (PHC) in Solids by Gravimetric CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD F4: Gravimetric </p>
TO-0543	<p> Petroleum Hydrocarbons (PHC) in Solids by GC/MS-HEADSPACE CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD F1: C6-C10 </p>
TO-0543	<p> Total Purgeable Hydrocarbons (TPH) in Solids by GC/FID-HEADSPACE CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD Modified BC MOE LABORATORY MANUAL Total Purgable Hydrocarbons (TPgH): (C5-C10) VH: C6-C10 </p>

TO-0332	<p>Volatile Organic Compounds (VOC) in Solids by GC/MS-HEADSPACE Modified EPA 5021A Modified EPA 8260D</p> <ul style="list-style-type: none"> 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethylene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Butadiene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 2-Hexanone (Methyl butyl ketone, MBK) Acetone (2-Propanone) Benzene Bromodichloromethane Bromoform Bromomethane Butylbenzene (n-Butylbenzene) Carbon tetrachloride Chlorobenzene Chlorodibromomethane Chloroethane (Ethyl chloride) Chloroethene (Vinyl chloride) Chloroform Chloromethane (Methyl chloride) cis-1,2-Dichloroethylene cis-1,3-Dichloropropene Cyclohexene Decane Dichloromethane Dicyclopentadiene Ethylbenzene Ethylene Dibromide Hexane (n-Hexane) Isopropylbenzene (Cumene) m,p-Xylene Methyl ethyl ketone Methyl isobutyl ketone (MIBK) Methyl t-butyl ether Naphthalene Nonane n-Propylbenzene o-Xylene sec-Butylbenzene ((1-Methylpropyl)benzene) Styrene tert-Butylbenzene
---------	--

	<p>Tetrachloroethylene Toluene trans-1,2-Dichloroethylene trans-1,3-Dichloropropene Trichloroethylene Trichlorofluoromethane</p>
TO-1410	<p>Glycols in Solids by GC/FID (EPA 8015D) Diethylene glycol Ethylene glycol Propylene glycol Tetraethylene glycol Triethylene glycol</p>
TO-1420	<p>Alcohols in Solids by GC/FID Modified EPA 5021, EPA 8015C 1-Butanol (n-Butanol) 1-Propanol (Propanol) 2-Butanol (sec-Butanol) 2-Methyl-1-propanol (Isobutanol) Allyl alcohol Ethanol Methanol Pentanol tert-Butanol (2-Methyl-2-propanol)</p>
TO-1320	<p>Glyphosate in Solids by HPLC (in-house) Glyphosate</p>
TO-2200	<p>Oil and Grease in Solids by FTIR Modified SM 5220 C Total Oil and Grease</p>
TO-2210	<p>Flashpoint in Solids by Pensky-Martens Closed Cup Modified ASTM D93-02A Flashpoint</p>
TO-1315	<p>Sterilant Herbicides in Solids by HPLC (in-house) Atrazine Bromacil Diuron (DCPMU) Linuron Simazine Tebuthiuron</p>
TO-2240	<p>Ethanolamines in Solids by HPLC (in-house) Diethanolamine (DEA) Diisopropanolamine (DIPA) Monoethanolamine (MEA) Monoisopropanolamine (MIPA)</p>
TO-3501	<p>Sulfolane in Solids by GC/MS (in-house) Sulfolane</p>

Water Quality (Inorganics)

INST-0100	Alkalinity in Water by Manual Titration Modified SM 2320 B Alkalinity (pH 4.5)
INST-0101	Alkalinity in Water by Auto Titration Modified SM 2320 B Alkalinity (pH 4.5)
INST-0104	pH – Water by pH Meter – Manual Modified SM 4500-H+ B pH
INST-0101	pH – Water by pH Meter by Auto Titration Modified SM 4500-H+ pH
INST-0150, WATR-0200	Anions in Water by Ion Chromatography (IC) Modified SM 4110 B Bromate (BrO ₃) Bromide Chlorate Chloride Chlorite Fluoride Iodide Nitrate Nitrite Sulfate
INST-0120	Conductivity in Water by Conductivity Meter – Manual Modified SM 2510 B Conductivity (25°C)
INST-0101	Conductivity in Water by Conductivity Meter – Auto Modified SM 2510 Conductivity (25°C)
INST-0140, WATR-0200, INST-0142	Dissolved Metals in Water by ICP/OES in-house / modified SM 3120 B Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel

	<p>Phosphorus Potassium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Thallium Tin Titanium Tungsten Uranium Vanadium Zinc Zirconium</p>
<p>INST-0141, WATR-0200, INST-0143</p>	<p>Dissolved Metals in Water by ICP/MS Modified SM 3125 Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Cesium Chromium Cobalt Copper Gallium Iron Lanthanum Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Phosphorus Potassium Rhenium Rubidium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Tellurium</p>

	<p>Thorium Tin Titanium Uranium Vanadium Zinc Zirconium</p>
<p>INST-0140, WATR-0200, INST-0142</p>	<p>Total Metals in Water by ICP/OES Modified SM 3120 Antimony Arsenic Barium Beryllium Bismuth Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Phosphorus Potassium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Thallium Tin Titanium Tungsten Uranium Vanadium Zinc Zirconium</p>
<p>INST-0141, WATR-0200, INST-0143</p>	<p>Total Metals in Water by ICP/MS Modified SM 3125 Aluminum Antimony Arsenic Barium Beryllium Bismuth Boron</p>

	<p>Cadmium Calcium Cesium Chromium Cobalt Copper Gallium Iron Lanthanium Lead Lithium Magnesium Manganese Mercury Molybdenum Nickel Phosphorus Potassium Rhenium Rubidium Selenium Silicon Silver Sodium Strontium Sulphur (Sulfur) Tellurium Thallium Thorium Tin Titanium Tungsten Uranium Vanadium Zinc Zirconium</p>
INST-0163	<p>Total and Dissolved Mercury in Water by Cold Vapour Atomic Fluorescence Spectroscopy (CVAFS) EPA 1631 Dissolved Mercury Total Mercury</p>
INST-0520	<p>Total Kjeldahl Nitrogen (TKN) and Dissolved Kjeldahl Nitrogen (DKN) in Water by Automated Colourimetry Modified EPA 351.2 Dissolved Kjeldahl Nitrogen Total Kjeldahl Nitrogen</p>
INST-0170	<p>Total and Dissolved Nitrogen in Water by Combustion/Chemiluminescence SM 4500-N E Dissolved Nitrogen Total Nitrogen</p>
MIC-1500	<p>Biochemical Oxygen Demand (BOD) in Water by Dissolved Oxygen Meter (DO) Modified SM 4500-O C</p>

	Modified SM 5210 B BOD (5 day) CBOD (5 day)
WATR-0600, WATR-0610	Solids in Water by Gravimetric Modified SM 2540 C SM 2540 D Total Dissolved Solids Total Suspended Solids
TOX-0100	Microtox in Water by Bioluminescence Modified EPS 1/RM/24 Microtox IC50 (15 min)
INST-0280	Chemical Oxygen Demand (COD) in Water by Spectrophotometry Modified EPA 410.4 COD
INST-0170	Carbon in Water by Infrared Spectroscopy (IR) Combustion Modified SM 5310 B Inorganic Carbon Organic Carbon
INST-0340	Ammonia in Water by Automated Colourimetry Modified SM 4500-P F Ammonia
INST-0530	Phosphate in Water by Automated Colourimetry SM 4500-P F Phosphate
INST-0530	Phosphorus in Water by Automated Colourimetry SM 4500-P F Total Dissolved Phosphorus Total Phosphorus
WATR-0100	Sulphide in Water by Automated Colourimetry Modified SM 4500-S2- D Sulphide
WATR-0500	Turbidity in Water – Nephelometric Modified SM 2130 B Turbidity
INST-0300	Phenols in Water by Automated Colourimetry Modified EPA 420.2 Total Phenolics
WATR-0300	Total Hexavalent Chromium in Water by Colourimetry Modified SM 3500-CR Hexavalent Chromium
WATR-0700	Residual Chlorine in Water by Iodometric Titration SM 4500-CL Total Residual Chlorine
WATR-0710	Colour in Water by Colorimetric-UV/Visible SM 2120 C Apparent Colour True Colour

Water Quality (Organics)

TO-0200	<p>Polycyclic Aromatic Hydrocarbons (PAH) in Water by GC/MS Modified EPA 3510B, EPA 3511, EPA 8270E</p> <p>1-Methylnaphthalene 2-Methylnaphthalene Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,h) anthracene Fluoranthene Fluorene Indeno(1,2,3 – cd) pyrene Naphthalene Perylene Phenanthrene Pyrene Quinoline</p>
TO-0540	<p>Total Purgeable Hydrocarbons (TPH) in Water by GC/FID-Purge And Trap Modified BC MOE Laboratory Manual Modified EPA 5030C Modified EPA EPA 8260D</p> <p>F1: C6-C10 Total Purgable Hydrocarbons (TPgH): (C5-C10) VH: C6-C10</p>
TO-0542	<p>Total Purgeable Hydrocarbons (TPH) in Water by GC/FID-Headspace Modified BC MOE Laboratory Manual Modified EPA 5021A Modified EPA 8260D</p> <p>F1: C6-C10 Total Purgable Hydrocarbons (TPgH): (C5-C10) VH: C6-C10</p>
TO-0511	<p>Total Extractable Hydrocarbons (TEH) in Water by GC/FID Modified AEC V92-M2 Modified BC MOE Contaminated Sites Regulation (CSR) Modified EPA 3510</p> <p>Extractable Petroleum Hydrocarbons (EPH): C10-C19 Extractable Petroleum Hydrocarbons (EPH): C19-C32 F2: C10-C16 F3: C16-C34 F4: C34-C50 Hydrocarbons: C10-C32 SASK (C11-C22) SASK (C23-C60)</p>
TO-0330	<p>Volatile Organic Compounds (VOC) in Water by GC/MS-Purge And Trap</p>

	<p>Modified EPA 503C Modified EPA 8260D</p> <ul style="list-style-type: none"> 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethylene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Butadiene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 2-Hexanone (Methyl butyl ketone, MBK) Acetone (2-Propanone) Benzene Bromodichloromethane Bromoform Bromomethane Butylbenzene (n-Butylbenzene) Carbon tetrachloride Chlorobenzene Chlorodibromomethane Chloroethane (Ethyl chloride) Chloroform Chloromethane (Methyl chloride) cis-1,2-Dichloroethylene cis-1,3-Dichloropropene Cyclohexene Decane Dibromochloromethane Dichloromethane Dicyclopentadiene Ethylbenzene Ethylene Dibromide Hexane (n-Hexane) Isopropylbenzene (Cumene) m,p-Xylene Methyl ethyl ketone Methyl isobutyl ketone (MIBK) Methyl tert-butyl ether (MTBE) Naphthalene Nonane n-Propylbenzene o-Xylene sec-Butylbenzene ((1-Methylpropyl)benzene) Styrene tert-Butylbenzene
--	--

	<p>Tetrachloroethylene Toluene trans-1,2-Dichloroethylene trans-1,3-Dichloropropene Trichloroethene Trichloroethylene Trichlorofluoromethane Vinyl chloride</p>
<p>TO-0332</p>	<p>Volatile Organic Compounds (VOC) in Water by GC/MS-Headspace Modified EPA 5021A Modified EPA 8260D</p> <p>1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethylene 1,2,4-Trichlorobenzene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Butadiene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 2-Hexanone (Methyl butyl ketone, MBK) Acetone (2-Propanone) Benzene Bromodichloromethane Bromoform Bromomethane Butylbenzene (n-Butylbenzene) Carbon tetrachloride Chlorobenzene Chlorodibromomethane Chloroethane (Ethyl chloride) Chloroform Chloromethane (Methyl chloride) cis-1,2-Dichloroethylene cis-1,3-Dichloropropene Cyclohexene Decane Dichloromethane Dicyclopentadiene Ethylbenzene Ethylene Dibromide Hexane (n-Hexane) Isopropylbenzene (Cumene) m,p-Xylene Methyl ethyl ketone Methyl isobutyl ketone (MIBK) Methyl tert-butyl ether (MTBE) Naphthalene Nonane</p>

	<p>n-Propylbenzene o-Xylene sec-Butylbenzene ((1-Methylpropyl)benzene) Styrene tert-Butylbenzene Tetrachloroethylene Toluene trans-1,2-Dichloroethylene trans-1,3-Dichloropropene Trichloroethylene Trichlorofluoromethane Vinyl chloride</p>
TO-0400	<p>Polychlorinated Biphenyls (PCB) in Water by GC/ECD Modified EPA 8082 Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1262 Aroclor 1268 Total PCB</p>
TO-1410	<p>Glycols in Water by GC/FID Modified EPA 8015D Diethylene glycol Ethylene glycol Propylene glycol Tetraethylene glycol Triethylene glycol</p>
TO-1420	<p>Alcohols in Water by GC/FID Modified EPA 5021 EPA 8015C 1-Butanol (n-Butanol) 1-Propanol (Propanol) 2-Butanol (sec-Butanol) 2-Methyl-1-propanol (Isobutanol) 2-Propanol (Isopropyl alcohol) Allyl alcohol Ethanol Methanol Pentanol tert-Butanol (2-Methyl-2-propanol)</p>
TO-1320	<p>Glyphosate in Water by HPLC (in-house) Glyphosate</p>
TO-1315	<p>Sterilant Herbicides in Water by HPLC (in-house) Atrazine Bromacil Diuron Linuron Simazine</p>

	Tebuthiuron
TO-1200	Phenols in Water by HPLC/UV (in-house) 2,3,4,5-Tetrachlorophenol 2,3,4,6-Tetrachlorophenol 2,3,4-Trichlorophenol 2,3,5,6-Tetrachlorophenol 2,3,5-Trichlorophenol 2,3,6-Trichlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,6-Dichlorophenol 2-Chlorophenol 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-o-cresol, DNOC) 2-Methylphenol (o-Cresol) 2-Nitrophenol 3,4,5-Trichlorophenol 3-Methylphenol + 4-Methylphenol (m-Cresol + p-Cresol) 4-Chloro-3-methylphenol 4-Nitrophenol Dinoseb Pentachlorophenol Phenol
TO-2240	Ethanolamines in Water by HPLC (in-house) Diethanolamine (DEA) Diisopropanolamine (DIPA) Monoethanolamine (MEA) Monoisopropanolamine (MIPA)
TO-2230	Volatile Organic Acids in Water by Ion Chromatography (IC) (In-house) Acetic acid Butyric acid Caproic Acid (Hexanoic Acid) Formic acid Isobutyric acid Isovaleric acid Propionic acid Valeric acid
TO-2220	Naphthenic Acids in Water by FTIR (in-house) Naphthenic Acids
TO-2200	Oil and Grease in Water by FTIR Modified SM 5220 C Total Oil and Grease
TO-3501	Sulfolane in Water by GC/MS (in-house) Sulfolane

Water (Microbiology)

MIC-0205	Coliforms in Water by QUANTI-TRAY (COLILERT) (SM 9223) Escherichia coli Fecal (Thermotolerant) Coliforms Total Coliforms
MIC-0300	Heterotrophic Plate Count (HPC) in Water - SPREAD PLATE (Modified SM 9215 C) Heterotrophic Plate Count (HPC)

Number of Scope Listings: 111

Notes:

ASTM: ASTM International, formerly called American Society for Testing and Materials.

EPA: Environmental Protection Agency.

SM: Standard Methods for Examination of Water and Wastewater, American Public Health Association (APHA).

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 scc-ccn.ca.

Elias Rafoul
Vice-President, Accreditation Services
Publication on: 2024-12-04