TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Legal Name of Accredited Laboratory:	**Bureau Veritas Canada (2019) Inc.**
Location Name or Operating as (if applicable):	Bureau Veritas (Burnaby)
Contact Name:	Stephanie Chang
Address:	4606 Canada Way Burnaby, British Columbia V5G 1K5
Telephone:	604 734 7276
Website:	www.bvna.com
Email:	Burnaby-QualityAssuranc@bureauveritas.com

SCC File Number:	15188
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:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Environmental Testing (ET)
Initial Accreditation:	1993-06-08
Most Recent Accreditation:	2024-11-04
Accreditation Valid to:	2029-06-08

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 document issued separately.

ANIMAL AND PLANTS (AGRICULTURE)

Foods and Edible Products (Human and Animal Consumption):

Fruits and Vegetables, Processed Foods, Animal Tissue, Meat, Fish, Dairy, Honey, Eggs and Egg Products and Animal Derived Foods

BBY7SOP-00011	Analysis of Metals in Meat, Fruit and Vegetables, Processed Foods and Animal Derived Foods by ICP-MS Aluminum, Antimony, Arsenic, Boron, Beryllium, Cadmium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Selenium, Tin, Titanium, Zinc
BBY7SOP-00021	Digestion of Tissue, Vegetation for Analysis of Heavy Metals CVAFS / ICPMS Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Rubidium, Selenium, Silver, Sodium, Strontium, Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Zinc, Zirconium

ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

Environmental:

Water (Microbiology)

BBY4SOP-00001	Total and Fecal Coliform and *E. coli* in Water by Membrane Filtration
BBY4SOP-00003	Heterotrophic Plate Count in Water
BBY4SOP-00005	*Pseudomonas aeruginosa* Count in Water by Membrane Filtration
BBY4SOP-00006	*Enterrococcus* Count in Water by Membrane Filtration
BBY4SOP-00119	Total and Fecal Coliforms and *E. coli* by Multiple Tube Fermentation

BBY4SOP-00143	Enumeration of Coliforms and *E. coli* by MF using Chromocult

Biological Tissues

BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gold, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Palladium, Phosphorus, Platinum, Potassium, Rubidium, Selenium, Silicon, Silver, Sodium, Strontium, Sulphur (Sulfur), Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Zinc, Zirconium
BBY7SOP-00012	Determination of Hg in Solids, Tissues and Miscellaneous Solids by CVAFS
BBY7SOP-00030	Methyl Mercury in Biota, Sediment and Soil Samples by GC-Pyrolysis-CVAFS

Air

BBY5SOP-00005	Analysis of Total Suspended Particulates (TSP), PM2.5, and PM10 in Air [modified from BC Environmental Laboratory Manual Section G and EPA 600/R-94/038B] Particulate>2.5 microns (gravimetric)
BBY6SOP-00037	Determination of Acidity and Fluoride by PCT Analyzer [modified from Alcan Ingot – Sebree – Analytical Method for Gaseous and Particulate Fluoride in Cassette Samples] Fluoride
BBY7SOP-00016	Preparation of Air Filters for Metals Analysis [modified from NIOSH 7303]
BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020 Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Sodium, Strontium, Sulphur (Sulfur), Tin, Titanium, Uranium, Vanadium, Zinc, Zirconium

BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [EPA 6010] Aluminum, Antimony, Arsenic Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron Lead, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Sodium, Strontium, Sulphur (Sulfur), Tin, Titanium, Vanadium, Zinc, Zirconium
BBY8SOP-00027	Determination of Polycyclic Aromatic Hydrocarbons in Air by GC/MS [modified from BC Environmental Laboratory Manual (Preparation) and EPA 8270 (Analysis)] Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo(a)pyrene Benzo(b,j)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

BBY8SOP-00058	VOCs In Air/vapour Using TD Tubes with Analysis by GC/MS [modified from BC Environmental Laboratory Manual Section H] 1,1-Dichloroethane 1,1-Dichloroethene 1,1-Dichloropropene 1,1,1-Trichloroethane 1,1,1,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1,2,2-Tetrachloroethane 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (Ethylene dibromide) 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,2,3-Trichlorobenzene 1,2,3-Trichloropropane 1,2,3-Trimethylbenzene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,3-Butadiene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,3,5-Trimethylbenzene 1,4-Dichlorobenzene 2-Butanone (Methyl ethyl ketone, MEK) 2-Chlorophenol 2-Chlorotoluene 2-Hexanone (Methyl butyl ketone, MBK) 2-Propanol (Isopropyl alcohol) 4-Chlorotoluene (p-Chlorotoluene) 4-isopropyltoluene (p-Cymene) 4-Methyl-2-pentanone (MIBK) Acetone Benzene Bromobenzene Bromodichloromethane Bromoform Bromomethane Carbon Disulphide Carbon tetrachloride Chlorobenzene Chloroethane (Ethyl Chloride)

	Chloroethene (Vinyl chloride) Chloroform cis-1,2-Dichloroethylene cis-1,3-Dichloropropene Dibromochloromethane Dibromomethane Dichlorodifluoromethane (Freon12) Dichloromethane Ethyl Acetate Ethylbenzene Hexachlorobutadiene Isopropanol Isopropylbenzene (Cumene) m,p-Xylene Methyl tert-butyl ether (MTBE) Methylcyclohexane n-Butylbenzene n-Decane n-Hexane n-Propylbenzene Naphthalene o-Xylene sec-Butylbenzene Styrene tert-Butylbenzene Tetrachloroethylene Toluene trans-1,3-Dichloropropene Trichloroethene Trichlorofluoromethane Trichlorotrifluoroethane Volatile Hydrocarbons (VH): C6-C13

Soil/Solid/Water/Wastewater

BBY6SOP-00010	Nitrite and Nitrite Plus Nitrate by Automated Colourimetric Method [modified from SM 4500-NO3- I] Nitrate + Nitrite Nitrogen Nitrite
BBY6SOP-00017	Determination of Sulfate by Konelab [modified from SM 4500-SO4 2-] Sulphate

BBY8SOP-00010	Determination of BTEX in Soil and Waters by Headspace-GC-MS [modified from EPA 5021 and EPA 5035 and EPA 8260] Benzene Ethylbenzene m,p-Xylene Methyl t-butyl ether o-Xylene Styrene Toluene
BBY8SOP-00011	VH Analysis in Soils and Waters by Headspace GC/FID [modified from BC Environmental Laboratory Manual Section D] VH: C6-C10 VPH: C6-C10 – BTEX
BBY8SOP-00029	Extractable Hydrocarbons (Water, Soils, Product, TPH) [modified from BC Environmental Laboratory Manual Section D] Extractable Petroleum Hydrocarbons (EPH): C10-C19 Extractable Petroleum Hydrocarbons (EPH): C19-C32 Total Extractable Hydrocarbons (TEH): C10-C30
BBY8SOP-00030	Determination of CCME (F2-F4) in Water and Soil [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD] F2: C10-C16 F3: C16-C34 F4: C34-C50
BBY8SOP-00012	F1 and LH Analysis for Soils and Waters by Headspace GC/FID [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD] F1: C6-C10 F1-BTEX: C6-C10 – BTEX

BBY8SOP-00054	CP, NCP, HydroxyPhenol in water (MTBE extraction) and soil by GC/MS [modified from BC Environmental Laboratory Manual Section D] 2-Chlorophenol 2-Hydroxyphenol (Catechol) 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-o-cresol, DNOC) 2-Methylphenol (o-Cresol) 2-Nitrophenol 2,3-Dichlorophenol 2,3,4-Trichlorophenol 2,3,4,5-Tetrachlorophenol 2,3,4,6-Tetrachlorophenol 2,3,5-Trichlorophenol 2,3,5,6-Tetrachlorophenol 2,3,6-Trichlorophenol 2,4 + 2,5-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,6-Dichlorophenol 2,6-Dimethylphenol 3 + 4-Chlorophenol 3 + 4-Methylphenol 3-Hydroxyphenol (Resorcinol) 3,4-Dichlorophenol 3,4-Dimethylphenol 3,4,5-Trichlorophenol 3,5-Dichlorophenol 4-Chloro-3-methylphenol 4-Hydroxyphenol (Hydroquinone) 4-Nitrophenol Pentachlorophenol Phenol
BBY8SOP-00060	Determination of Tetraethyllead in Soil and Water by GC/MS [modified from BC Environmental Laboratory Manual Section D and EPA 8000, EPA 8270] Tetraethyl lead

BBY8SOP-00009	Analysis of VOC's in Soils and Waters by Static Headspace GC/MS [modified from EPA 5021 and EPA 8260] 1,1-Dichloroethane 1,1-dichloroethylene 1,1-Dichloropropene 1,1,1-Trichloroethane 1,1,1,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1,2-Trichloropropane 1,1,2-Trichloro-1,2,2-Triflouroethane (Freon 113) 1,1,2,2-Tetrachloroethane 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dibromoethane (Ethylene dibromide) 1,2-dichlorobenzene 1,2-dichloroethane 1,2-Dichloropropane 1,2,3-Trichlorobenzene 1,2,3-Trichloropropane 1,2,3-Trichloropropene 1,2,3-Trimethylbenzene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,3-Butadiene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,3,5-Trichlorobenzene 1,3,5-Trimethylbenzene 1,4-dichlorobenzene 2-Butanone 2-Chlorotoluene 4-Methyl-2Pentanone 4-Chlorotoluene (p-Chlorotoluene) 4-isopropyltoluene (p-Cymene) Acetone Benzene Bromobenzene Bromodichloromethane Bromoform Bromomethane Carbon tetrachloride Chlorobenzene Chlorodibromomethane

	Chloroethane (Ethyl Chloride) Chloroethene (Vinyl Chloride) Chloroform Chloromethane (Methyl chloride) cis-1,2-Dichloroethylene cis-1,3-Dichloropropene Dibromomethane Dichlorodifluoromethane Dichloromethane Ethylbenzene Ethyl acetate Ethylene Dibromide Hexachlorobutadiene Hexane Isopropylbenzene (Cumene) m,p-Xylene Methyl t-butyl ether Methylcyclohexane n-Butylbenzene n-Decane n-Propylbenzene Naphthalene o-Xylene Pentachloroethane sec-Butylbenzene Styrene tert-Butylbenzene Tetrachloroethylene Toluene trans-1,2-Dichloroethylene trans-1,3-Dichloropropene Trichloroethylene Trichlorofluoromethane

BBY8SOP-00040	VOC Extra Compounds in Soil and Water by Headspace-GC-MS [BC Environmental Laboratory Manual Section D] 1-Butanol (n-Butanol) 1-Chlorobutane 1,4-Dioxane (p-dioxane) 2-Hexanone (Methyl butyl ketone, MBK) 2-Propanol (Isopropyl alcohol) Acrolein (Propenal) Acrylonitrile Allyl chloride (3-chloropropene) Alpha-Diisobutylene Beta-Diisobutylene Butylated hydroxytoluene (BHT) Carbon disulfide Chloroprene (2-Chloro-1,3-butadiene) Cyclohexanone Cyclohexene Dicyclopentadiene Ethyl acrylate Ethyl ether Hexachloroethane Isobutanol (2-Methyl-1-propanol) Methyl methacrylate Methylacrylonitrile Tetrabromomethane Tetrahydrofuran (THF) Vinyl acetate
BBY8SOP-00062	Determination of Perchlorate in Water and Soil by LCMSMS [modified from EPA 6850] Perchlorate

Soil/Solid/Waste

BBY6SOP-00036	Particle Size Analysis (Six-Size and Size Pack) [modified from SSMA 55.4] Particle size by sieve
BBY6SOP-00039	Determination of Weight Fractions of Greater/Less than 200 Mesh in Soil [modified from SSMA 55.4] Particulate mesh 200
BBY6SOP-00040	Determination of Loss on Ignition in Soil at 550°C [modified from SSMA 28.3] Loss on ignition

BBY6SOP-00041	Determination of Foreign Matter in Soils, Vegetation and Solid Waste [modified from CCME 1340] Foreign matter
BBY6SOP-00050	Determination of Fixed and Volatile Solids in Solid Samples [modified from SM 2540 G] Total solids (fixed and volatile)
BBY6SOP-00051	PSA by Hydrometer - Texture (Sand, Silt, Clay and Gravel) Analysis [modified from SSMA 55.3] % sand % silt % clay % gravel
BBY7SOP-00004	Digestion of Soil, Sediment and Sludge for Total Recoverable Metals [modified from BC Environmental Laboratory Manual Section C]
BBY7SOP-00012	Determination of Hg in Solids, Tissues and Miscellaneous Solids by CVAFS [modified from EPA 245.7 and BC Environmental Laboratory Manual Section C] Mercury
BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [modified from EPA 6010 and BC Environmental Laboratory Manual Section B] Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Tin, Titanium, Vanadium, Zinc, Zirconium
BBY7SOP-00030	Methyl Mercury in Biota, Sediment and Soil Samples by GC-Pyrolysis-CVAFS [BC Environmental Laboratory Manual Section C] Methylmercury
BBY8SOP-00003	Gravimetric Heavy Hydrocarbon-CCME F4G in Soils by AME [CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD] F4: Gravimetric

BBY8SOP-00006	Total Oil and Grease in Soils by Sonification Extraction-Dichloromethane [modified from BC Environmental Laboratory Manual Section D] Total Oil and Grease
BBY8SOP-00007	Mineral Oil and Grease in Solid Samples by Sonification Extraction [modified from BC Environmental Laboratory Manual Section D] Mineral Oil and Grease
BBY8SOP-00008	Waste Oil Quantification in Solids, Liquids by Petroleum Ether Extraction [BC Environmental Laboratory Manual Section D] Waste Oil Content
BBY8SOP-00017	Determination of Moisture Content in Solid Samples [modified from BC Environment Laboratory Manual] Percent Moisture

BBY8SOP-00022	Determination of Polycyclic Aromatic Hydrocarbons in Soil by GC/MS [modified from BC Environmental Laboratory Manual Section D] 1-Methylnaphthalene 2-Chloronaphthalene 2-Methylnaphthalene 3-Methylcholanthrene 4-Nitropyrene 7,12-Dimethylbenz(a)anthracene 9,10-Anthraquinone Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(c)phenanthrene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(j)fluoranthene Benzo(k)fluoranthene Chrysene Dibenzo(a,e)pyrene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3 - cd)pyrene N-Methylaniline Naphthalene Perylene Phenanthrene Pyrene Quinoline
BBY8SOP-00050	Determination of Tributyltin in Soil and Sediment by GC-MS [modified from RESTEK CORP APPLICATION NOTE# 59550] Tributyltin Dibutyltin

BBY8SOP-00063	Determination of Selected Pesticides in Soil by LC/MS/MS [modified from EPA 8321B] Atrazine Desethyl-atrazine Bromacil Diuron Linuron Simazine Tebuthiuron

Water/Wastewater/Soil Extract/Soil Leachate

BBY0SOP-00003	Determination of pH in Waters, Leachates and Extracts by pH Meter [modified from SM 4500-H+ B] pH
BBY0SOP-00006	Determination of Conductivity in Waters, Leachates and Extracts by Meter [modified from SM 2510 B] Conductivity (25˚C)
AB SOP-00007	Ammonia-Nitrogen by Automated Phenate Colorimetric method [modified from EPA 350.1] Ammonia
BBY6SOP-00011	Determination of Chloride by Konelab [modified from SM 4500-CL- E and BC Environmental Laboratory Manual Section B] Chloride
BBY6SOP-00013	Ortho-, Total Dissolved, and Total Phosphate by Automated Method [modified from SM 4500-P E] Phosphate Total Dissolved Phosphorus Total Phosphorus
BBY6SOP-00016	Determination of Total and Total Dissolved Nitrogen by Automated Method [modified from SM 4500-N C] Total Dissolved Nitrogen Total Nitrogen
BBY6SOP-00024	Chemical Oxygen Demand (COD) by Closed Reflux, Colorimetric Method [modified from SM 5220 D] COD
BBY6SOP-00025	Determination of pH in Saturated Paste Extract [modified from SM 4500-H+ B] pH

BBY6SOP-00026	pH, Conductivity, Salinity, Alkalinity (Total, Phenolphthalein) in Water [modified from SM 2320 B, SM 2510 B, SM 4500-H+ B] Alkalinity (pH 4.5) Conductivity (25˚C) pH
BBY6SOP-00027	Determination of Turbidity in Water Samples [modified from SM 2130 B] Turbidity
BBY6SOP-00028	Determination of pH in Soil Leachate [modified from BC Environmental Laboratory Manual Section B] pH
BBY6SOP-00029	Specific Conductance in Satpaste and 1:5 DI Leach by Conductivity Cell [modified from SM 2510 B] Conductivity
BBY6SOP-00030	Satpaste Extract Preparation for Saturation Percent, Salinity Analyses [modified from BC Environmental Laboratory Manual Section B] Percent Saturation Saturated Paste
BBY6SOP-00033	Determination of Total Dissolved Solids in Waters and Wastewaters [modified from SM 2540 C] Total Dissolved Solids
BBY6SOP-00034	Determination of Total Suspended Solids in Waters and Wastewaters [modified from SM 2540 D] Total Suspended Solids
BBY6SOP-00035	Determination of Total Solids and Total Solids Fixed in Waters [modified from SM 2540 A] Fixed Solids Total Solids (TS)
BBY6SOP-00037	Determination of Acidity in Waters [modified from SM 2310 B] and Fluoride in Waters, Soil Extracts and Leachates by ISE [modified from BC MOE ENVIRONMENTAL MANAGEMENT ACT HAZARDOUS WASTE REGULATION (EMA/HWR) SCHEDULE 4, PART 2 (Preparation) and SM 4500-F- C (Analysis)] Acidity Fluoride

BBY6SOP-00045	Total and Carbonaceous BOD, DO, and pH Analysis [modified from SM 5210 B] BOD (5 day) CBOD (5 day)
BBY6SOP-00046	Determination of Free and Total Chlorine in Water [modified from SM 4500-Cl G] Free Chlorine Total Chlorine
BBY6SOP-00053	Determination of TOC and DOC in Water and Wastewater [modified from SM 5310B] Total Organic Carbon Dissolved Organic Carbon
BBY6SOP-00054	Hexavalent Chromium by Discrete Autoanalyzer [modified from SM 3500-Cr B] Hexavalent Chromium
BBY6SOP-00057	Determination of True Colour in Water Samples by Konelab [modified from SM 2120 C] True Colour
BBY7SOP-00001	Determination of Metals in Solids by ICPMS [modified from EPA 6020] Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Tin, Vanadium, Uranium, Zinc, Zirconium
BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020 and BC Environmental Laboratory Manual Section C] Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromine, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gold, Iron, Lanthanum, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Palladium, Phosphorus, Platinum, Potassium, Rubidium, Selenium, Silicon, Silver, Sodium, Strontium, Sulphur (Sulfur), Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Zinc, Zirconium

BBY7SOP-00003	Digestion of Aqueous Samples for Metals by ICPMS or ICP-OES [modified from EPA 6020 and BC Environmental Laboratory Manual Section C]
BBY7SOP-00005	Procedure for the Preparation of Solids and Soil using TCLP [EPA 1311]
BBY7SOP-00009	Procedure for the Preparation of Leachates Using BC MLEP [modified from BC MOE ENVIRONMENTAL MANAGEMENT ACT HAZARDOUS WASTE REGULATION (EMA/HWR) SCHEDULE 4, PART 2]
BBY7SOP-00018	Analysis of Various Sample Types by ICP-OES [modified from EPA 6010] Aluminum, 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), Tin, Titanium, Vanadium, Zinc, Zirconium
BBY7SOP-00022	Determination of Ultra-Low Level Mercury in Water by CVAFS [modified from EPA 1631] Mercury
BBY7SOP-00028	Methyl Mercury in Water by GC-Pyrolysis-CVAFS [modified from EPA 1630] Methylmercury

BBY7SOP-00029	Determination of Metals in Environmental Samples Using ICP-QQQ [modified from EPA 6020 and BC Environmental Laboratory Manual Section C] Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Cesium, Chromium, Cobalt, Copper, Gold, Iron, Lanthanum, Lead, Lithium, Magnesium Manganese, Mercury, Molybdenum, Nickel, Palladium, Phosphorus, Platinum, Potassium, Ruthenium, Rubidium, Selenium, Silicon, Silver, Sodium, Strontium, Sulphur (Sulfur), Tellurium, Thallium, Thorium, Tin, Titanium, Tungsten, Uranium, Vanadium, Yttrium, Zinc, Zirconium
BBY7SOP-00032	Determination of Mercury in Environmental Samples by CVAFS [modified from BC Environmental Laboratory Manual Section C) Mercury
BBY8SOP-00004	Oil and Grease in Water Samples by Hexane Extraction and Gravimetry [modified from BC Environmental Laboratory Manual Section D] Mineral Oil and Grease Total Oil and Grease

BBY8SOP-00021	Determination of Polycyclic Aromatic Hydrocarbons in Waters by GC/MS [modified from BC Environmental Laboratory Manual Section D] 1-Methylnaphthalene 2-Chloronaphthalene 2-Methylnaphthalene 3-Methylcholanthrene 4-Nitropyrene 7,12-Dimethylbenz(a)anthracene 9,10-Anthraquinone Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b,j)fluoranthene Benzo(c)phenanthrene Benzo(e)pyrene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,e)pyrene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene N-Methylaniline Naphthalene Perylene Phenanthrene Pyrene Quinoline
BBY8SOP-00059	Determination of Tributyltin in Water by GC-MS [modified from RESTEK CORP LIT. CAT#59550] Dibutyltin Tributyltin

BBY8SOP-00024	Analysis of ABN in Liquid Samples by SIM GC/MS [modified from EPA 8270E] 1,2-diphenylhydrazine 2-Chloronaphthalene 2-Chlorophenol 2-Methylnapthalene 2-Nitrophenol 4-Bromophenylphenylether 4-Chloro-3-methylphenol 4-Chlorophenylphenylether 4-Nitrophenol 2,4 + 2,5-Dichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4-Dinitrotoluene 2,6-Dinitrotoluene 1,2,4-Trichlorobenzene 2,4,6-Trichlorophenol 3,3'-Dichlorobenzidine 4, 6-Dinitro-2-methylphenol Acenaphthene Acenaphthylene Alpha-Terpineol Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b&j)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Bis(2-chloroethoxy)methane Bis(2-chloroethyl)ether Bis(2-chloroisopropyl)ether Bis(2-ethylhexyl)phthalate Chrysene Dibenz(a,h)anthracene Diethyl phthalate Dimethyl phthalate Di-n-butylphthalate Di-n-octylphthalate Fluoranthene Fluorene Hexachlorobutadiene Hexachlorocyclopentadiene

	Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone Naphthalene N-butylbenzylphthalate Nitrobenzene N-Nitrosodimethylamine N-Nitrosodiphenylamine N-Nitrosodi-n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 2,3,5,6-Tetrachlorophenol 2,3,4,5-Tetrachlorophenol 2,3,4,6-Tetrachlorophenol
BBY8SOP-00025	Chlorinated Phenols in Water (DCM extraction) by GC/MS [modified from BC Environmental Laboratory Manual Section D] 2-Chlorophenol 2,3-Dichlorophenol 2,3,4-Trichlorophenol 2,3,4,5-Tetrachlorophenol 2,3,4,6-tetrachlorophenol 2,3,5-Trichlorophenol 2,3,5,6-Tetrachlorophenol 2,3,6-Trichlorophenol 2,4 + 2,5-Dichlorophenol 2,4,5-Trichlorophenol 2,4,6-trichlorophenol 2,6-Dichlorophenol 3 + 4-Chlorophenol 3,4-Dichlorophenol 3,4,5-Trichlorophenol 3,5-Dichlorophenol 4-Chloro-3-Methylphenol Pentachlorophenol
BBY8SOP-00065	Determination of 6PPD-Quinone in Aqueous Matrices Using LC/MS/MS [modified from EPA 1634 DRAFT] 6PPD-Quinone

Seawater

BBY7SOP-00002	Determination of Metals in Environmental Samples Using CRC ICPMS [modified from EPA 6020] Aluminum, 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), Tellurium, Tin, Thallium, Titanium, Uranium, Vanadium, Zinc, Zirconium

Soil/Solid (Toxicology)

BBY2SOP-00010	*Chironomids dilutus* 10-Day Survival and Growth Test [EPS 1/RM/32] *Chironomids* (10d)
BBY2SOP-00011	*Hyalella azteca* 14-Day Survival and Growth Test [EPS 1/RM/33] *Hyalella azteca* (14d)
BBY2SOP-00012	Marine or Estuarine Amphipod 10 Day Survival and Reburial Test [EPS 1/RM/26 and EPS 1/RM/35] Marine Amphipods (10d)
BBY2SOP-00014	Microtox - Acute Solid Phase Analysis [EPS 1/RM/42] Microtox IC50
BBY2SOP-00030	*Neanthes arenaceodentata* Survival and Growth Test *Neanthes* (20d)
BBY2SOP-00032	Bivalve Larval Development Sediment Test [PUGET SOUND ESTUARY PROGRAM 1995 B] Bivalves (48hr)
BBY2SOP-00062	Echinoderm Embryo / Larval Development Test [EPS 1/RM/58] Echinoid Larval Development (48hr)

Water (Toxicology)

BBY2SOP-00001	*Ceriodaphnia dubia* Chronic Survival and Reproduction Test [EPS 1/RM/21] *Ceriodaphnia dubia* (7d)

BBY2SOP-00002	Fathead Minnow 7 Day Survival and Growth Test [EPS 1/RM/22] Fathead Minnow (7d)
BBY2SOP-00004	Rainbow Trout Acute Survival Test (Environment Canada) [EPS 1/RM/13 and EPS 1/RM/9] Single Concentration (96hr) Trout LC50 (96hr)
BBY2SOP-00006	*Pseudokirchneriella Subcapitata* 72H Growth Inhibition Test [EPS 1/RM/25] *Pseudokirchneriella subcapitata* (72hr)
BBY2SOP-00007	*Daphnia magna* 48 Hour Acute Test [EPS 1/RM/11 and EPS 1/RM/14] *Daphnia* LC50 (48hr) *Daphnia* Single Concentration (48hr)
BBY2SOP-00009	Echinoid 20 Minute Fertilization Test [EPS 1/RM/27] Echinoderm Fertilization (20 min)
BBY2SOP-00053	*Lemna minor* 7 Day Growth Inhibition Test [EPS 1/RM/37] *Lemna minor* (7d)
BBY2SOP-00061	Rainbow Trout Acute Survival Test with pH Stabilization [EPS 1/RM/50] Single Concentration (96hr) - pH Stabilization Trout LC50 (96hr) - pH Stabilization
BBY2SOP-00069	Marine Copepod 48 Hour Acute Test [EPS 1/RM/60] Marine Copepod LC50 (48hr) Marine Copepod Single Concentration (48hr)

Number of Scope Listings: 103

Notes:

All laboratory standard operating procedures are developed in-house.

ISO/IEC: International Organization for Standardization/International Electrotechnical Commission
GC: Gas Chromatography
GC-MS or GC/MS: Gas Chromatography-Mass Spectrometry
GC-MS-MS or GCMSMS: Gas Chromatography-High Resolution Mass Spectrometry
HPLC: High Pressure Liquid Chromatography
LC-MS: Liquid Chromatography
LCMSMS: Liquid Chromatography-High Resolution Mass Spectrometry
AFAP: Agriculture Inputs, Food, Animal Health and Plant Protection
ET: Environmental Testing
PSA: Program Speciality Area

ICP-MS or ICPMS: Inductively Coupled Mass Spectrometry

E.coli: Escherichia coli
spp.: species, plural form
EBDC: ethylenebisdithiocarbamates
GC/LC: Gas Chromatography/Liquid Chromatography
CRC: collision reaction cell
CVAFS: cold vapour atomic fluorescence spectroscopy
TSP: total solid particulates
PM2.5: particulate matter, 2.5 microns or less
PM10: particulate matter, 10 microns or less
BC: British-Columbia
EPA: US Environmental Protection Agency
NIOSH: National Institute for Occupational Safety and Health
ICP-OES: Inductively coupled plasma-optical emission spectroscopy
VOCs: Volatile Organic Compounds
TD: Thermal Desorption
SM: Standard Method
BTEX: Benzene, Toluene, Ethylbenzene, Xylenes
GC/FID: Gas Chromatography/Flame Ionization Detection
CCME: Canadian Council of Ministers of the Environment
CWS: Canada Wide Standards
F1: fraction 1
F2: fraction 2
F3: fraction 3
F4: fraction 4
LH: Light Hydrocarbons
CP: Chlorinated phenolic
NCP: Non-chlorinated phenolic
MTBE: Methyl tert-Butyl Ether
COD: Chemical oxygen demand
DI: De-ionized Water
BOD: Biological Oxygen Demand
CBOD: Carbonaceous Biological Oxygen Demand
MOE: Ministry of the Environment
TCLP: Toxicity Characteristic Leaching Procedure
MLEP: Modified Leachate Extraction process
ICP-QQQ: Inductively Coupled Plasma-Triple Quadrupole Mass Spectrometer
EPS: Environmental Protection Service
RM: Reference Method
10d: 10-days
14d: 14-days
IC50: concentration of an inhibitor at which the response is decreased by half
20d: 20-days

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-ccn.ca

Elias Rafoul
Vice-President, Accreditation Services
Publication on: 2025-01-02