

# TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

# **Scope of Accreditation**

Legal Name of Accredited Laboratory: Bureau Veritas

Location Name or Operating as (if applicable): Burnaby Laboratory

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 Forensic
Program Specialty Area:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Environmental Testing (ET) Forensic Test Method Development and Non-routine Testing (TMDNRT)
Initial Accreditation:	1993-06-08
Most Recent Accreditation:	2024-06-27
Accreditation Valid to:	2025-06-08

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.

#### TEST METHOD DEVELOPMENT AND NON ROUTINE TESTING





Note: The laboratory accredited under this PSA has demonstrated that it meets ISO/IEC 17025 requirements for non-routine testing under the following product classification.

#### **Description of activities – chemical analysis:**

- 1. Development and validation of new testing methodology for the screening and determination of chemical compounds in food samples.
- 2. Development and validation of mass spectral techniques in food samples.

#### **Description of techniques – chemical analysis:**

- 1. GC, GC-MS and GC-MS-MS
- 2. HPLC, LC-MS and LC-MS-MS

# **FORENSICS**

#### Description of activities- forensic equine drug testing

- 1. Screening and confirmatory analysis for drugs and metabolites in equine body fluids, including quantification where required.
- 2.Testing of known and unknown substances including powders, liquids, dosage forms, feeds, drug administration paraphernalia and other materials for the presence of drugs in horse hair, urine and blood.

#### **Description of techniques** - forensic equine drug testing

- a. High-performance liquid chromatography (HPLC)
- b. Immunoassay
- c. Mass spectrometry
- d. Sample preparation, extraction and general chemical tests

#### ANIMAL AND PLANTS (AGRICULTURE)

# Foods and Edible Products (Human and Animal Consumption):

**Food Methods: Proximate Analysis** 

- 1	mothodor i rozumato i marjoro	
	BBY4SOP-00104	Determination Histamine in Fish

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

BBY4SOP-00048	Determination of Tetracyclines in Tissue and
	Animal Derived Foods
BBY4SOP-00052	Determination of Phenol in Honey
BBY4SOP-00066	Determination of Pesticides in Animal Derived
	Foods
BBY4SOP-00118	Determination of Herbicides in Food



BBY7SOP-00011	Analysis of Metals in Meat, Fruit and Vegetables,
	Processed Foods and Animal Derived Foods by
	ICP-MS
BBY7SOP-00021	Digestion of Tissue, Vegetation for Analysis of
	Heavy Metals

Microbiological

biological	
AOAC 2014.05	Enumeration of Yeast and Moulds in Food using 3M <sup>TM</sup> Petrifilm <sup>TM</sup> Rapid Yeast And Mold Count
	(RYM) Plate
Assurance GDS® MPX Top 7 STEC Assay	BioControl Assurance GDS® MPX Top 7 STEC
COR1SOP-00019	Enumeration of Coliforms, Faecal Coliforms and
	E.coli in Foods by using the MPN
	Method(Modified MFHPB-19; option of standard
	3-tube and 10-tube MPN Method)
FDA BAM Chapter 5	BAM FDA Isolation and Identification of
	Salmonella in Food and Environment Samples
MFHPB-10	Isolation of Escherichia coli O157:H7/NM from
	foods and environmental surface samples
MFHPB-18	Determination of Aerobic Colony Count in Foods
MFHPB-19	Enumeration of Coliforms, Faecal Coliforms and
	E. coli in Foods by using the MPN Method
MFHPB-20	Isolation and Identification of Salmonella from
	Foods and Environmental Samples
MFHPB-21	Enumeration of Staphylococcus aureus in Foods
MFHPB-22	Enumeration of Yeasts and Molds in Foods
MFHPB-23	Enumeration of Clostridium perfringens in Foods
MFHPB-24	Detection of Salmonella spp. in Foods by the
	VIDAS® SLMTM Method
MFHPB-29	VIDAS Detection of Listeria spp. in Food,
	Environmental Samples
MFHPB-30	Isolation of Listeria monocytogenes and Listeria
	spp. from Foods and Environmental Samples
MFHPB-33	Enumeration of Total Aerobic Bacteria in food
	Products and Food Ingredients Using 3M <sup>™</sup>
	Petrifilm <sup>™</sup> Aerobic Count Plates
MFHPB-34	Enumeration of <i>E. coli</i> and Coliforms in Food
	Products and Food Ingredients using 3M <sup>™</sup>
	Petrifilm <sup>™</sup> E. coli Count Plates
MFHPB-35	Enumeration of Coliforms in Food Products
	and Food Ingredients using 3M <sup>™</sup> Petrifilm <sup>™</sup>
	Coliform Count Plates





MFLP-09	Enumeration of <i>Enterobacteriaceae</i> Species in
	Food and Environmental Samples Using 3M
	Petrifilm Enterobacteriaceae Count Plates
MFLP-16	Detection of Escherichia coli O157:H7 in Foods -
	Assurance GDS® for <i>E. coli</i> O157:H7 Gene
	Detection System
MFLP-21	Enumeration of Staphylococcus aureus in Foods
	and Environmental Samples Using 3M™
	Petrifilm™ Staph Express Count (STX) Plates
MFLP-25	Isolation and Identification of Shigella spp. From
	Foods
MFLP-28	The Qualicon BAX ®System Method for the
	Detection of Listeria monocytogenes in a Variety
	of Food
MFLP-29	The Qualicon BAX® System for the Detection of
	Salmonella in Foods and Environmental Surface
	Samples
MFLP-30	Detection of E. coli O157:H7 in select foods using
	the BAX® system E. coli O157:H7 MP
MFLP-33	Detection of <i>Listeria monocytogenes</i> in Foods by
	the VIDAS LMO 2 <sup>TM</sup> Method
MFLP-37	Part 1: Detection of Halophilic Vibrio Species in
	Seafood Part 2: Detection of Vibrio cholerae
MFLP-38	Detection of Salmonella spp. from All Foods and
	Selected Environmental Surfaces using IQ-
	Check™ Salmonella Real-time PCR Test Kit
MFLP-39	Detection of Listeria spp. from Environmental
	Surfaces and heat processed RTE Meat and
	Poultry Using iQ-Check™ <i>Listeria spp</i> . Real-Time
	PCR Test Kit
MFLP-42	Isolation and Enumeration of Bacillus cereus
	Group in Foods
MFLP-46	Isolation of Thermophilic Campylobacter from
	Food
MFLP-49	Detection of Salmonella spp in Food Products and
	environmental surfaces by the VIDAS® UP
	Salmonella (SPT) Method
MFLP-54	Detection of Listeria monocytogenes from
	selected foods using iQ-Check™ <i>Listeria</i>
	monocytogenes Real-Time PCR Test Kit
MFLP-59	Detection of <i>Listeria spp.</i> in food products and
	environmental surface samples with VIDAS® UP
	Listeria (LPT)





MFLP-74	Enumeration of <i>Listeria monocytogenes</i> in Food
MFLP-77	Detection of Listeria spp. in food products and
	environmental samples by the VIDAS® Listeria
	species Xpress (LSX) method
MFLP-79	Detection of <i>Listeria</i> spp. in Environmental
	Surface Samples Using the BAX® System Real-
	Time PCR Assay for <i>Listeria</i> Genus
MLG4	FSIS Procedure for the Isolation and Identification
	of Salmonella from Meat, Poultry, Pasteurized egg
	and Siluriformes (Fish) products and Carcass and
	Environmental Sponge samples
MLG41	Isolation, Identification of Campylobacter
	jejuni/coli/lari from Poultry Rinse and Sponge and
	Raw Product Samples
COR1SOP-00089	USP: Enterobacterial Count in NHP by MPN
	Method
COR1SOP-00093	USP: Detection and Enumeration for
	Pseudomonas aeruginosa in NHP
MICCLSOP-00020	Japanese Method - Coliform Bacilli Test Method
	for Frozen Foods with Desoxycholate Agar

# **Natural Health Products**

DDV4COD 00450	Determination of Destinides in Natural Health
BBY4SOP-00150	Determination of Pesticides in Natural Health
	Products
USP40-NF35 S1. Dietary Supplements Chapters:	Microbial Enumeration Tests-Nutritional and
2021	Dietary Supplements.
	Total Aerobic Microbial Count by Plate Method
USP40-NF35 S1. Dietary Supplements Chapters:	Microbial Enumeration Tests-Nutritional and
2021	Dietary Supplements
	Total Combined Molds and Yeast Count by Plate
	Method
USP40-NF35 S1. Dietary Supplements Chapters:	Microbiological Procedures for absence of
2022	specified microorganisms - Nutritional and Dietary
	Supplements
	Test for Absence of Staphylococcus aureus
USP40-NF35 S1. Dietary Supplements Chapters:	Microbiological Procedures for absence of
2022	specified microorganisms - Nutritional and Dietary
	Supplements
	Test for Absence of Salmonella species
USP40-NF35 S1. Dietary Supplements Chapters:	Microbiological Procedures for absence of
2022	specified microorganisms - Nutritional and Dietary
	Supplements
	Test for Absence of Escherichia coli





# Other

Determination of Aminoglycocides in Tissue and
Animal Derived Foods
Determination of Dithiocarbamates (EBDC) in
Fruits and Vegetables, Processed Foods and
Animal Derived Foods by CS2 Evolution
Determination of Chlorinated Phenols in Tissue
and Animal Derived Foods
Determination of Fluoroquinolones and
Quinolones in Tissue and Animal Derived Food
Determination of Synthetic Pyrethrins in Animal
Tissue and Animal Derived Foods
Determination of Carbamates in Tissue and
Animal Derived Foods
Determination of Ethylenebisdithiocarbamate
(EBDC) in Fruits and Vegetables, Processed
Foods and Animal Derived Foods
Determination of Daminozide (ALAR) in Fruits and
Vegetables, Processed Foods and Animal
Derived Foods
Determination of Ethylenethiourea in Fruits and
Vegetables, Processed Foods and Animal
Derived Foods
Determination of Coccidiostats in Tissue and
Animal Derived Foods
Determination of Gestagens in Animal Tissue and
Dairy
Determination of Sulfonamides in Tissue and
Animal Derived Foods
Determination of Amitraz and Metabolites in Fruits
and Vegetables, Processed Foods and Animal
Derived Foods
Determination of Dipyrone Related Residues in
Tissue and Animal Derived Foods
Determination of Free and Total Residues of Beta
Agonists in Tissue and Animal Derived Foods
Determination of Virginiamycin in Tissue and
Animal Derived Foods
Determination of Ceftiofur-Related Residues in
Tissue and Animal Derived Foods





BBY4SOP-00060	Determination of Benzimidazoles in Tissue and
BB1450P-00060	
PDV/400D 00000	Animal Derived Foods
BBY4SOP-00062	Determination of Endectocides in Tissue, Feed
PDV4400D 00000	and Animal Derived Foods
BBY4SOP-00063	Determination of Phenylbutazone in Tissue and
	Animal Derived Foods
BBY4SOP-00064	Determination of Protein Bound Metabolites of
	Nitrofurans in Tissue and Animal Derived Foods
BBY4SOP-00068	Determination of Tranquilizers and Carazolol in
	Tissue and Animal Derived Foods
BBY4SOP-00069	Determination of Morantel and Pyrantel Drug
	Related Metabolites in Tissue and Animal Derived
	Foods
BBY4SOP-00070	Determination of Zeranol and Stilbenes in Tissue
	and Animal Derived Foods
BBY4SOP-00079	Determination of Volatile Pesticides in Tissue
BBY4SOP-00080	Detection of Thyreostats in Animal Tissue, Eggs
	and Dairy
BBY4SOP-00082	Determination of Triphenylmethane Dyes in
	Tissue
BBY4SOP-00083	Determination of Carbadox and Olaquindox-
	Related Metabolites in Tissue
BBY4SOP-00084	Determination of Amphenicols in Tissue and
	Animal Derived Foods
BBY4SOP-00085	Determination of Bacitracin A in Tissue and
	Animal Derived Foods
BBY4SOP-00086	Determination of Nitroimidazoles in Tissue and
	Animal Derived Foods
BBY4SOP-00087	Determination of Aflatoxin in Dairy
BBY4SOP-00089	Determination of Beta Lactams in Animal Tissue
	and Animal Derived Foods
BBY4SOP-00091	Determination of Non-Steroidal Anti-Inflammatory
	Drugs (NSAIDS), Hormones and Corticosteroids
	in Animal Tissue, Eggs and Dairy
BBY4SOP-00092	Determination of Melamine in Eggs, Dairy and
	Processed Foods
BBY4SOP-00093	Determination of Bisphenol A in Dairy and
	Processed Foods
BBY4SOP-00094	Determination of Ochratoxin A in Cereals and
	Processed Foods
BBY4SOP-00099	Determination of Macrolides in Tissue and Animal
	Derived Foods
BBY4SOP-00111	Aflatoxins in Food and Animal Feed
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BBY4SOP-00123	Determination of Pesticides in Process Foods by
BB14001-00123	GCMSMS and LCMSMS
BBY4SOP-00128	Determination of Pesticides in FV Products and
BB14001 00120	Honey by GC/LC
BBY4SOP-00129	Determination of Pesticides in Tissue by
5511661 66126	GCMSMS and LCMSMS
BBY4SOP-00130	Determination of Tiamulin in Animal Tissue
BBY4SOP-00131	Determination of 3-monochloropropane-1,2-diol
	(3-MCPD) in Food and Food Ingredients
BBY4SOP-00132	Multi-Residue Determination of Multi-Class Drugs
32.133. 33.32	in Urine
BBY4SOP-00134	Determination of Ethyl Carbamate in Beverages
	and Processed Food
BBY4SOP-00135	Determination of Diquat and Paraquat in Fruit,
	Vegetables and Processed Foods
BBY4SOP-00136	Determination of Glyphosate and Metabolites in
	Fruit, Vegetables and Processed Foods
BBY4SOP-00137	Determination of Alternaria Mycotoxins in
	Beverages and Honey
BBY4SOP-00138	Multi-Residue Determination of Multi-Class Drugs
	in Animal Tissue and Animal Derived Foods
BBY4SOP-00139	Multi-Residue Determination of Multi-Class
	Antibiotics in Honey
BBY4SOP-00142	Determination of Steroids and Stilbenes in Fish
BBY4SOP-00144	Multi-Residue Determination of Multi-Class Drugs
	in Animal Feed and Pre-Feed
BBY4SOP-00146	Determination of T-2 and HT2 Mycotoxins in
	Processed Foods
BBY4SOP-00147	Determination of Zearalenone and Related
	Mycotoxins in Processed Foods
BBY4SOP-00149	Multi-residue determination of Mycotoxins in
	Processed Foods
BBY4SOP-00152	Determination of Polar Pesticides in Food



# **ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY**

# **Environmental:**

Water (Microbiology)

(Microbiology)	
BBY4SOP-00001	Total and Fecal Coliform and <i>E. coli</i> 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 <i>E. coli</i> by Multiple
	Tube Fermentation
BBY4SOP-00143	Enumeration of Coliforms and E. coli by MF using
	Chromocult

**Biological Tissues** 

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BBY4SOP-00108	Determination of Polycyclic Aromatic
	Hydrocarbons in Tissue by GC/MS
BBY7SOP-00002	Determination of Metals in Environmental
	Samples Using CRC ICPMS
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)
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
DD 10001 -00000	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)
	Oniorostriane (Etriyi Onionue)





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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



DD\(000D\00040	D. C. C. CRIEV. C. II. LIV.
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

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
	Dibutyİtin



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

/wastewater/Soil Extract/Soil Leachate	
BBY0SOP-00003	Determination of pH in Waters, Leachates and
	Extracts by pH Meter [modified from SM 4500-H+
	B]
	рН
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
BB10001 00010	Automated Method [modified from SM 4500-P E]
	Phosphate
	Total Dissolved Phosphorus
	Total Phosphorus
BBY6SOP-00016	Determination of Total and Total Dissolved
BB1030F-00010	
	Nitrogen by Automated Method [modified from SM
	4500-N C]
	Total Nitrogen
BB\(000B\00004	Total Nitrogen
BBY6SOP-00021	Determination of Apparent Colour in Water
	Samples [modified from SM 2120 B]
	Apparent Colour
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)
	рН





PDV660D 00007	Determination of Trubidity in Water Complete
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]
	рН
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-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-00005	Procedure for the Preparation of Solids and Soil
BB17601-00003	using TCLP [EPA 1311]
BBY7SOP-00009	Procedure for the Preparation of Leachates Using
1730L-00009	BC MLEP [modified from BC MOE
	ENVIRONMENTAL MANAGEMENT ACT
	HAZARDOUS WASTE REGULATION
	(EMA/HWR) SCHEDULE 4, PART 2]



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-Anthraguinone
	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



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-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



	T:4 :
	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-00022	Determination of Ultra-Low Level Mercury in
	Water by CVAFS [modified from EPA 1631]
	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-00059	Determination of Tributyltin in Water by GC-MS
	[modified from RESTEK CORP LIT. CAT#59550]
	Dibutyltin
	Tributyltin
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



BBY6SOP-00053	Determination of TOC and DOC in Water and
	Wastewater [modified from SM 5310B]
	Total Organic Carbon
	Dissolved Organic Carbon
BBY7SOP-00028	Methyl Mercury in Water by GC-Pyrolysis-CVAFS [modified from EPA 1630] Methylmercury



BBY7SOP-00029	Determination of Metals in Environmental
BB 1750P-00029	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
	1111



	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



# 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)

Ceriodaphnia dubia Chronic Survival and
Reproduction Test [EPS 1/RM/21]
Ceriodaphnia dubia (7d)
Fathead Minnow 7 Day Survival and Growth Test
[EPS 1/RM/22]
Fathead Minnow (7d)
Rainbow Trout Acute Survival Test (Environment
Canada) [EPS 1/RM/13 and EPS 1/RM/9]
Single Concentration (96hr)
Trout LC50 (96hr)
Pseudokirchneriella Subcapitata 72H Growth
Inhibition Test [EPS 1/RM/25]
Pseudokirchneriella subcapitata (72hr)
Daphnia magna 48 Hour Acute Test [EPS
1/RM/11 and EPS 1/RM/14]
Daphnia LC50 (48hr)
Daphnia Single Concentration (48hr)
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: 200 Number of TMDNRT Techniques: 2 Number of Forensic Techniques: 4

# Notes:

#### **DOCUMENT / ACRONYM**

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

LC-MS-MS or LCMSMS: Liquid Chromatography-High Resolution Mass Spectrometry

AFAP: Agriculture Inputs, Food, Animal Health and Plant Protection

ET: Environmental Testing

TMDNRT: Test Method Development and Non-routine Testing

PSA: Program Speciality Area

ICP-MS or ICPMS: Inductively Coupled Mass Spectrometry

RYM: Rapid yeast and mild count

STEC: Shiga toxin-producing escherichia coli

MPN: Most Probable Number

BAM: Bacteriological Analytical Manual

FDA: United States Food and Drug Administration

H7: flagellar antigen NM: non-motile

E.coli: Escherichia coli spp.: species, plural form LMO: listeria monocytogenes PCR: polymerize chain reaction SPT: salmonella phage protein LSX: listeria species express LPT: listeria phage protein

FSIS: USDA Food Safety and Inspection Services USDA: United States Department of Agriculture





USP: US Pharmacopeia NHP: Natural Health Products EBDC: ethylenebisdithiocarbamates

NSAIDS: Non-Steroidal Anti-Inflammatory Drugs GC/LC: Gas Chromatography/Liquid Chromatography

FV: fruit and vegetables 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

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

Laboratories

All laboratory standard operating procedures are developed in house.



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: 2024-06-28