



SCOPE OF ACCREDITATION

Labstat International Inc.
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Accredited Laboratory No. 368
(Conforms with requirements of ISO/IEC 17025:2005)

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CLIENTS SERVED:	All interested parties
FIELDS OF TESTING:	Biological, Chemical/Physical
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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 separately issued document.

Other Laboratory Locations:

270 Manitou Drive, Kitchener, ON N2C 1L3
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ANIMAL AND PLANTS (AGRICULTURE)

Agricultural products: (except food and chemicals)

Tobacco

(1. Health Canada Tobacco Reporting Regulations Official Methods - Chemistry)

T-101	Determination of Ammonia in Mainstream Tobacco Smoke
T-102	Determination of 1- and 2- Aminonaphthalene and 3- and 4- Aminobiphenyl in Mainstream Tobacco Smoke
T-103	Determination of Benzo[a]pyrene in Mainstream Tobacco Smoke
T-104	Determination of Selected Carbonyls in Mainstream Tobacco Smoke
T-105	Determination of Eugenol in Mainstream Tobacco Smoke
T-106	Determination of Filter Efficiency in Mainstream Tobacco Smoke
T-107	Determination of Hydrogen Cyanide in Mainstream Tobacco Smoke
T-108	Determination of Mercury in Mainstream Tobacco Smoke
T-109	Determination of Ni, Pb, Cd, Cr, As and Se in Mainstream Tobacco Smoke
T-110	Determination of Oxides of Nitrogen in Mainstream Tobacco Smoke
T-111	Determination of Nitrosamines in Mainstream Tobacco Smoke
T-112	Determination of Pyridine, Quinoline and Styrene in Mainstream Tobacco Smoke
T-113	Determination of Mainstream Tobacco Smoke pH
T-114	Determination of Phenolic Compounds in Mainstream Tobacco Smoke
T-115	Determination of "Tar", Nicotine and Carbon Monoxide in Mainstream Tobacco Smoke
T-116	Determination of 1,3- Butadiene, Isoprene, Acrylonitrile, Benzene and Toluene in Mainstream Tobacco Smoke
T-201	Determination of Ammonia in Sidestream Tobacco Smoke
T-202	Determination of 1- and 2- Aminonaphthalene and 3- and 4- Aminobiphenyl in Sidestream Tobacco Smoke
T-203	Determination of Benzo[a]pyrene in Sidestream Tobacco Smoke
T-203B	Determination of Benzo[a]pyrene in Sidestream Tobacco Smoke (GC/MS)
T-204	Determination of Selected Carbonyls in Sidestream Tobacco Smoke
T-205	Determination of Hydrogen Cyanide in Sidestream Tobacco Smoke
T-206	Determination of Mercury in Sidestream Tobacco Smoke
T-207	Determination of Toxic Trace Metals in Sidestream Smoke
T-208	Determination of Oxides of Nitrogen in Sidestream Tobacco Smoke
T-209	Determination of Nitrosamines in Sidestream Tobacco Smoke
T-210	Determination of Pyridine and Quinoline in Sidestream Tobacco Smoke
T-211	Determination of Phenolic Compounds in Sidestream Tobacco Smoke



T-212	Determination of “Tar” and Nicotine in Sidestream Tobacco Smoke
T-213	Determination of 1,3-Butadiene, Isoprene, Acrylonitrile, Benzene, Toluene and Styrene in Sidestream Tobacco Smoke
T-214	Determination of Carbon Monoxide (CO) in Sidestream Tobacco Smoke
T-301	Determination of Alkaloids in Whole Tobacco
T-302	Determination of Ammonia in Whole Tobacco
T-304	Determination of Humectants in Whole Tobacco
T-306	Determination of Ni, Pb, Cd, Cr, As, Se and Hg in Whole Tobacco
T-307	Determination of Benzo[a]pyrene in Whole Tobacco
T-308	Determination of Nitrate from Whole Tobacco
T-309	Determination of Nitrosamines in Whole Tobacco
T-310	Determination of Whole Tobacco pH
T-311	Determination of Triacetin in Whole Tobacco
T-312	Determination of Sodium Propionate in Whole Tobacco
T-313	Determination of Sorbic Acid in Whole Tobacco
T-314	Determination of Eugenol in Whole Tobacco
T-401	Preparation of Cigarettes from Packaged Leaf Tobacco for Testing
T-402	Preparation of Cigarettes, Cigarette Tobacco, Cigars, Kreteks, Bidis, Packaged Leaf Tobacco, Pipe Tobacco and Smokeless Tobacco for Testing

(2. Health Canada Tobacco Reporting Regulations Official Methods - Toxicology)

T-501	Bacterial Reverse Mutation Assay for Mainstream Tobacco Smoke
T-502	Neutral Red Uptake Assay for Mainstream Tobacco Smoke
T-503	In Vitro Micronucleus Assay for Mainstream Tobacco Smoke

(3. Other Official Methods)

AOAC 963.05	Chlorides in Tobacco
AOAC 966.02	Moisture in Tobacco
ASTM E2187	Standard Test Method for Measuring the Ignition Strength of Cigarettes
ISO 10315	Cigarettes - Determination of nicotine in smoke condensates gas-chromatographic method
ISO 10362-1	Cigarettes - Determination of water in smoke condensates - Part 1: Gas-chromatographic method
ISO 15592-2	Fine-cut tobacco and smoking articles made from it - Methods of sampling, conditioning and analysis-Part 2: Atmosphere for conditioning and testing
ISO 15592-3	Fine-cut tobacco and smoking articles made from it - Methods of sampling, conditioning and analysis-Part 3: Determination of total particulate matter of smoking articles using a routine analytical smoking machine, preparation for the determination of water and nicotine, and calculation of nicotine-free dry particulate matter



ISO 3308	Routine analytical cigarette-smoking machine - Definitions and standard conditions
ISO 3402	Tobacco and tobacco products - Atmosphere for conditioning and testing
ISO 4387	Cigarettes - Determination of total and nicotine-free dry particulate matter using a routine analytical smoking machine
ISO 6488	Tobacco and tobacco products - Determination of water content - Karl Fischer method
ISO 6565	Tobacco and tobacco products - Draw resistance of cigarettes and pressure drop of filter rods - Standard conditions and measurement
ISO 8454	Cigarettes - Determination of carbon monoxide in the vapour phase of cigarette smoke - NDIR method
ISO 9512	Cigarettes-Determination of ventilation-Definitions and measurement principles

(4. Other Methods: Chemistry)

TMG-00605	Determination of air permeability (Modified ISO 2965)
TMS-00101 Appendix E	Determination of Ammonia in E-Cigarette Aerosols and Liquids by Ion Chromatography
TMS-00101 Appendix F	Determination of Ammonia in Cannabis Smoke Emissions
TMS-00102 Appendix F	Determination of Aromatic Amines in Cannabis Smoke Emissions
TMS-00104 Appendix G	Determination of Carbonyls in E-Cigarette Aerosol and E-liquids by HPLC-UV
TMS-00104 Appendix H	Determination of Carbonyls in Cannabis Smoke Emissions
TMS-00107 Appendix C	Determination of Hydrogen Cyanide in E-Cigarette Aerosols and Liquids
TMS-00107 Appendix D	Determination of Hydrogen Cyanide in Cannabis Smoke Emissions
TMS-00108 Appendix F	Determination of Mercury in E-Cigarette Aerosol and Heat-not-Burn products
TMS-00108 Appendix G	Determination of Mercury in Cannabis Smoke Emissions
TMS-00109 Appendices and G	Determination of Copper (Cu) and Molybdenum (Mo) in Mainstream Particulate and Vapour Phase Emissions by ICP-AES (modified T-109) and Determination of Titanium (Ti), Copper (Cu), Beryllium (Be), Cobalt (Co) and Molybdenum (Mo) in Mainstream Particulate and Vapour Phase Emissions by ICP-MS (modified T-109)
TMS-00109 Appendix H	Determination of 21 elements (Cd, Cr, Ni, Pb, As, Se, Be, Co, Ti, Cu, Mo, W, Sn, Al, Mn, Zn, Fe, Sr, Ag Zr and Au) in E-Cigarette Aerosol, E-Liquids and Heat-not-Burn products
TMS-00109 Appendix I	Determination of Mercury in E-liquid
TMS-00109 Appendix K	Determination of Metals in Cannabis Smoke Emissions
TMS-00110 Appendix H	Oxides of Nitrogen in E-Cigarette Aerosols
TMS-00110 Appendix I	Determination of Oxides of Nitrogen in Cannabis Smoke Emissions
TMS-00111 Appendix I	Determination of Nitrosamines in Cannabis Smoke Emissions



TMS-00112 Appendices D, E and F	Determination of Vinylpyridines: 2-vinylpyridine, 3-vinylpyridine and 4-vinylpyridine in Mainstream Particulate and Vapour Phase Emissions (modified T-112), Determination of Benzo(b)furan in Mainstream Particulate and Vapour Phase Emissions (modified T-112) and Determination of Nitrobenzene in Mainstream Particulate and Vapour Phase Emissions (modified T-112)
TMS-00112 Appendix G	Determination of Semivolatiles in Heat-not-Burn products
TMS-00112 Appendix H	Determination of Pyridine, Quinoline, Styrene, Acetamide, Acrylamide and Nitrobenzene in E-Cigarette Aerosol and E-Liquids
TMS-00112 Appendix I	Determination of Semi Volatile Organics in Cannabis Smoke Emissions
TMS-00113 Appendix J	Determination of pH in E-Cigarette Aerosols
TMS-00113 Appendix K	Determination of pH in Cannabis Smoke Emissions
TMS-00114 Appendix D	Determination of Phenolics in Cannabis Smoke Emissions
TMS-00115a Appendix D	Determination of Nicotine, Water, Propylene Glycol, Menthol, Diethylene Glycol, Triacetin and Glycerol in Mainstream Particulate Phase Emissions - Gas-Chromatographic Method (modified T-115)
TMS-00115a Appendix E	Determination of Nicotine, Water, Propylene Glycol, Menthol, Ethylene Glycol, Diethylene Glycol, Triacetin, Glycidol and Glycerol in E-Cigarette Aerosol and E-Liquids
TMS-00115a Appendix F	Determination of Benzoic Acid in E-Cigarette Aerosol
TMS-00115a Appendix H	Determination of Organic Acids by HPLC-UV in E-Cigarette Aerosol
TMS-00115a Appendix I	Determination of Glycidol in E-Cigarette Aerosol and E-liquids by GC-MS
TMS-00115a Appendix J	Determination of Ethanol in E-cigarette Aerosol and E-liquid
TMS-00115a Appendix K	Determination of Tar, Nicotine, Carbon Monoxide in Cannabis Smoke Emissions
TMS-00116 Appendix E	Determination of Volatile Organics in Cannabis Smoke Emissions
TMS-00120	Determination of Selected Polynuclear Aromatic Hydrocarbons (PAHs) in Mainstream Particulate Phase Emissions
TMS-00120 Appendix H	Determination of Polycyclic Aromatic Hydrocarbons in E-Cigarette Aerosols E- Liquids and Heat-not-Burn products
TMS-00120 Appendix J	Determination of Selected Polynuclear Aromatic Hydrocarbons (PAHs) in Cannabis Smoke Emissions
TMS-00124	Determination of Vinyl Chloride, Ethylene Oxide, 1,3-butadiene, Propylene Oxide, Isoprene, Acrylonitrile, Nitromethane, Benzene, Furan, Vinyl Acetate, Toluene, Styrene, Ethylbenzene and Acetamide in Mainstream Particulate and Vapour Phase Emissions (Expanded List)
TMS-00124 Appendix G	Determination of 1,3-butadiene, Isoprene, Acrylonitrile, Benzene, Toluene, Ethylene oxide, Vinyl chloride and Propylene oxide in E-Cigarette Aerosol and E-Liquids
TMS-00126	Determination of 2-nitropropane in Mainstream Particulate and Vapour Phase Emissions
TMS-00127	Determination of Selected Polynuclear Aromatic Hydrocarbons (PAHs) and Aza-Arenes in Mainstream Particulate Phase Emissions



TMS-00127 Appendix I	Determination of Polycyclic Aromatic Hydrocarbons and Aza-arenes in E-Cigarette Aerosols and E-Liquids
TMS-00127 Appendix K	Determination of Polycyclic Aromatic Hydrocarbons and Aza-arenes in Cannabis Smoke Emissions
TMS-00128	Determination of Aromatic Amines in Mainstream Particulate Phase Emissions (Expanded list: Aniline, o-toluidine, m-toluidine, p-toluidine, o-anisidine, 2,6-dimethylaniline, 2,5-dimethylaniline, 1- and 2-aminonaphthalene, 3- and 4-aminobiphenyl and Benzidine)
TMS-00128 Appendix G	Determination of Aromatic Amines in E-Cigarette Aerosols, E-Liquids and Heat not Burn Emissions by NCI GC-MS (SIM)
TMS-00133	Determination of Selected Heterocyclic Aromatic Amines (HAAs) in Mainstream Particulate Phase Emissions
TMS-00134	Determination of Selected Cannabinoids in Cannabis Smoke Emissions
TMS-00135	Determination of Tobacco Specific Nitrosamines in Mainstream Particulate Phase Emissions by Liquid Chromatography-Tandem Mass Spectrometry
TMS-00135 Appendix I	Determination of Tobacco Specific Nitrosamines in E-Cigarette Aerosols and Liquids by LC-MS/MS
TMS-00137	Determination of Acetamide and Acrylamide in Mainstream Particulate and Vapour Phase Emissions
TMS-00138	Determination of Free-Base Nicotine in Mainstream Particulate Phase Emissions
TMS-00139	Determination of Phenolic Compounds in Mainstream Particulate Phase Emissions by a Modified High Performance Liquid Chromatography Method
TMS-00139 Appendix E	Determination of Phenolic Compounds in E-Cigarette Aerosols and E-Liquids
TMS-00140	Determination of Yield in Use (YIU): Part Filter Analysis Methodology
TMS-00143	Determination of Caffeic Acid in Mainstream Particulate Phase Emissions
TMS-00145	Determination of Ethyl Carbamate (Urethane) in Mainstream Particulate and Vapour Phase Emissions
TMS-00145 Appendix D	Determination of Ethyl Carbamate in E-liquids, E-cigarette Aerosols and Heat Not Burn Emissions
TMS-00146	Determination of Heterocyclic Aromatic Amines (HAAs) in Mainstream Particulate Phase Emissions by Liquid-Chromatography-Tandem Mass Spectrometry
TMS-00146 Appendix H	Determination of HAA in E-Cigarette Aerosol and E-Liquids
TMS-00147	Determination of Hydrazine in Mainstream Particulate and Vapour Phase Emissions
TMS-00147 Appendix D	Determination of Hydrazine in E-cigarette Aerosols, E-liquids and Heat not Burn Emissions
TMS-00148	Determination of Volatile Nitrosamines (VNAs) and N-nitrosodiethanolamine (NDELA) in Mainstream Particulate and Vapour Phase Emissions by Liquid Chromatography-Tandem Mass Spectrometry



TMS-00148 Appendix D	Determination of Volatile Nitrosamines in E-cigarette Aerosol, E-liquids and Heat not Burn Emissions
TMS-00149	Determination of Solanesol in Mainstream Particulate Phase Emissions
TMS-00150	Determination of Terpene and Sesquiterpene Hydrocarbons in Mainstream Tobacco Smoke
TMS-00150 Appendix F	Determination of Selected Carboxamides (WS-3 and WS-23) in Mainstream Tobacco Smoke, Heat not Burn Emissions and E-Cigarette Aerosol
TMS-00153	Determination of Nicotine and Nicotine Related Impurities by LC-MS/MS in Electronic Cigarette Refill Solution and Aerosol
TMS-00155	Determination of Selected Carbonyls in E-Liquids and E-Aerosols using PFBHA Derivatization and Gas Chromatography/ Mass Spectrometry Analysis
TMS-00156	Determination of Allyl Alcohol in E-Cigarette Aerosol and E-Liquid
TMS-00156 Appendix F	Determination of Allyl Alcohol in Mainstream Smoke
TMS-00158	Determination of Organic Acids and Benzoic Acid in E-Liquids
TMS-00160	Determination of Metals in E-Cigarette Aerosol with Linear Puffing and Quartz Filter Pad
TMV-00165	Determination of pH in E-Cigarette Aerosol by Electrode with Liquid Trap
TSS-00219	Determination of Selected Polynuclear Aromatic Hydrocarbons (PAHs) in Sidestream Particulate and Vapour Phase Emissions
TSS-00222	Determination of Sidestream Particulate and Vapour Phase Emissions pH
TSS-00223	Determination of Tobacco Specific Nitrosamines in Sidestream Particulate and Vapour Phase Emissions by Liquid-Chromatography-Tandem Mass Spectrometry
TSS-00225	Determination of Phenolic Compounds in Sidestream Particulate and Vapour Phase Emissions by a Modified High Performance Liquid Chromatography Method
TWT-00300a	Moisture in Tobacco Products-110 Degrees Celsius
TWT-00301 Appendix E	Determination of Alkaloids in Liquid Tobacco Samples and E-Liquids
TWT-00303	Determination of Carbonyls in Tobacco Products
TWT-00304 Appendix D	Determination of Menthol in Tobacco and Other Components from Tobacco Products (modified T-304)
TWT-00304 Appendix E	Determination of Nicotine in E-liquids
TWT-00306 Appendix F	Determination of Cobalt (Co) and Beryllium (Be) in Tobacco Products (modified T-306)
TWT-00308 Appendix C	Determination of Nitrate in E-Liquids
TWT-00310 Appendix A	Determination of pH in E-Liquids
TWT-00320	Determination of 1- and 2- aminonaphthalene and 3- and 4- aminobiphenyl in Tobacco Products
TWT-00321	Determination of Nicotine Alkaloids and Reducing Sugars in Tobacco Products



TWT-00324	Determination of Nicotine in Tobacco Products (CDC method)
TWT-00330	Determination of Selected Cannabinoids in Cannabis Plant Extracts by LC-MS/MS
TWT-00333	Determination of Tobacco Specific Nitrosamines in Tobacco Products by Liquid Chromatography-Tandem Mass Spectrometry
TWT-00335	Determination of Selected Polycyclic Aromatic Hydrocarbons (PAHs) in Tobacco Products
TWT-00336	Determination of Acrylamide in Tobacco Products by Liquid Chromatography - Tandem Mass Spectrometry
TWT-00337	Determination of 1,3-butadiene, Isoprene, Acrylonitrile, Benzene, Toluene and Styrene in Tobacco Products
TWT-00338	Determination of Nitrite (NO ₂) in Tobacco Products by Spectrophotometry (Enhanced)
TWT-00338 Appendix D	Determination of Nitrite in E-Liquids
TWT-00340	Determination of Phenolic Compounds in Tobacco Products
TWT-00341	Determination of Total Sugars in Tobacco Products
TWT-00342	Determination of Polyphenols in Tobacco Products
TWT-00343	Determination of N-nitrosodibenzylamine (NDBzA) in Tobacco Products
TWT-00344	Determination of Ethyl Carbamate (Urethane) in Tobacco Products
TWT-00350	Determination of Aflatoxins in Tobacco Products by Liquid Chromatography-Tandem Mass Spectrometry
TWT-00351	Determination of Coumarin in Tobacco Products by Liquid Chromatography-Tandem Mass Spectrometry
TWT-00353	Determination of Volatile N-nitrosoalkanolamines (Hydroxynitrosamines) in Tobacco Products by Liquid Chromatography-Tandem Mass Spectrometry
TWT-00355	Determination of Selected Carbonyls in Tobacco Products by Gas Chromatography - Mass Spectrometry (GC-MS)
TWT-00356	Determination of Volatile Nitrosamines in Tobacco Products by Liquid Chromatography-Tandem Mass Spectrometry
TWT-00357	Determination of Benzo[a]pyrene in Tobacco Products by Gas Chromatography - Mass Spectrometry (GC-MS)
TWT-00359	Determination of Ammonia in Tobacco Products by Continuous Flow Analysis (CFA)
TWT-00361	Determination of Percent Expanded Cut Tobacco
TWT-00363	Semi-quantitative Method for the Evaluation of Flavourants in Processed Tobacco using Solid Phase Micro Extraction Gas Chromatography/ Mass Spectrometry
TWT-00363 Appendix C	Profiling and Semi-Quantification of Flavourants in E-Cigarette Aerosol and E-Liquids

(5. Other Methods: Measures of Exposure)



TME-00001	Determination of Nicotine, Cotinine and Caffeine in Physiological Fluid Samples
TME-00002	Determination of Creatinine in Urine
TME-00003	Determination of 3-Hydroxycotinine in Physiological Fluid Samples
TME-00005	Determination of Nicotine and its Major Metabolites in Urine by Liquid Chromatography-Tandem Mass Spectrometry
TME-00016	Determination of Nicotine and Nine Major Metabolites in Urine by Ultra-Performance Liquid Chromatography (UPLC)-Tandem Mass Spectrometry

(6. Other Methods: Toxicology)

TBA-00504	<i>In vitro</i> Sister Chromatid Exchange (SCE) Assay for Mainstream Particulate and Vapour Phase Emissions
TBA-00505	Mouse Lymphoma Thymidine Kinase Gene Mutation Assay for Mainstream Tobacco Smoke
TME-00004	<i>Salmonella Typhimurium</i> Reverse Mutation Assay: Microsuspension Method for Testing Urine Mutagenicity

Notes:

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

AOAC: AOAC International, previously Association of Official Analytical Chemists

ASTM: American Society for Testing and Materials

CDC: Centers for Disease Control and Prevention

ISO: International Organization for Standardization

T: Health Canada Tobacco Reporting Regulations Official Methods

TBA: Labstat In-house Test Method, Biological Activity

TME: Labstat In-house Test Method, Measures of Exposure

TMS: Labstat In-house Test Method, Mainstream Particulate and Vapour Phase Emissions

TSS: Labstat In-house Test Method, Sidestream Particulate and Vapour Phase Emissions

TWT: Labstat In-house Test Method, Whole Tobacco

Elias Rafoul, Vice-President
Accreditation Services

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Partner File #0

Partner: None