

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

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

## **SCOPE OF ACCREDITATION**

**LABSTAT INTERNATIONAL ULC**  
**262 Manitou Drive**  
**Kitchener, ON**  
**N2C 1L3**

Accredited Laboratory No. 368  
(Conforms with requirements of CAN-P-4E (ISO/IEC 17025:2005))

**CONTACT:** Violeta Vidican  
**TEL:** +1 519 748 5409 ext.339  
**FAX:** +1 519 748 1654  
**EMAIL:** vvidican@labstat.com  
**URL:** <http://www.labstat.com>

**CLIENTS SERVED:** All interested parties

**FIELDS OF TESTING:** Biological, Chemical/Physical

**SCOPE ISSUED ON:** 2016-08-19

**ACCREDITATION** 2020-01-22  
**VALID TO:**

**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

280 Manitou Drive  
Kitchener, ON N2C 1L3

300 Manitou Drive

Kitchener, ON N2C 1L3

50 Groff Place

Kitchener ON N2E 2L6

## **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	

Standards Council of Canada Accredited Laboratory No. 368

	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
-------	---

Standards Council of Canada Accredited Laboratory No. 368

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-00104 Appendix G	Determination of Carbonyls in E-Cigarette Liquids and E-Aerosols by HPLC-UV
TMS-00107 Appendix C	

	Determination of Hydrogen Cyanide in E-Cigarette Aerosols and Liquids
TMS-00109 Appendices F 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 20 elements (Cd, Cr, Ni, Pb, As, Se, Be, Co, Ti, Cu, Mo, W, Sn, Al, Mn, Zn, Fe, Sr, Ag and Zr) in Propylene glycol/glycerol based E-liquids and E-aerosols from E-cigarettes
TMS-00110 Appendix H	Oxides of Nitrogen in E-Cigarette Aerosols
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 H	Determination of Pyridine, Quinoline, Styrene, Acetamide, Acrylamide and Nitrobenzene in Propylene glycol/glycerol based E-liquids and Aerosols generated from e-cigarettes
TMS-00113 Appendix J	Determination of pH in E-Cigarette Aerosols
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 Liquids and Aerosols
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 and Liquids
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 Propylene glycol/glycerol based E-liquids and Aerosols generated from E-cigarettes
TMS-00126	Determination of 2-nitropropane in Mainstream Particulate and Vapour Phase Emissions
TMS-00127	Determination of Selected Polynuclear Aromatic

Standards Council of Canada Accredited Laboratory No. 368

	Hydrocarbons (PAHs) And Aza-Arenes in Mainstream Particulate Phase 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 and Liquids by NCI GC-MS (SIM)
TMS-00133	Determination of Selected Heterocyclic Aromatic Amines (HAAs) in Mainstream Particulate Phase 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-00146	Determination of Heterocyclic Aromatic Amines (HAAs) in Mainstream Particulate Phase Emissions by Liquid-Chromatography-Tandem Mass Spectrometry
TMS-00147	Determination of Hydrazine in Mainstream Particulate and Vapour Phase 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-00149	Determination of Solanesol in Mainstream Particulate Phase Emissions
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

Standards Council of Canada Accredited Laboratory No. 368

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-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-00306 Appendix F	Determination of Cobalt (Co) and Beryllium (Be) in Tobacco Products (modified T-306)
TWT-00310 Appendix A	Determination of pH in E-Cigarette 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-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 <sub>2</sub> ) in Tobacco Products by Spectrophotometry (Enhanced)
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 Flavorants in Processed Tobacco using Solid Phase Micro Extraction Gas Chromatography/ Mass Spectrometry

**(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	<i>In vitro</i> Sister Chromatid Exchange (SCE) Assay for Mainstream Particulate and Vapour Phase Emissions
TME-00004	<i>Salmonella Typhimurium</i> Reverse Mutation Assay: Microsuspension Method For Testing Urine Mutagenicity

**Notes:**

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

**AOAC:** Association of Official Analytical Chemists

**ASTM:** American Society for Testing and Materials

**CDC:** Centers for Disease Control and Prevention

**ISO:** International Organization for Standardization



Standards Council of Canada Accredited Laboratory No. 368

**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

---

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

Date: 2016-08-19

Number of Scope Listings: 137

SCC 1003-15/420

Partner File #0

Partner: None