

Scope of Accreditation For Liquor Control Board of Ontario Quality Assurance Department Laboratory

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In recognition of a successful assessment to ISO/IEC 17025:2005, accreditation is granted to **Liquor Control Board of Ontario** to perform the following tests:

Accreditation granted through: **July 13, 2016**

Testing – Chemical

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Spectroscopy	> 30 mg/L	A10	Determination of Sorbic Acid in Beverage Alcohol Excluding Spirits and Liquors by Segmented Continuous Flow Analysis	Skalar, Colorimetry
Spectroscopy	> 0.1 g/L	A11	Determination of Volatile Acidity in Beverage Alcohol Excluding Spirits and Liquors by Segmented Continuous Flow Analysis	Skalar, Colorimetry
Spectroscopy	> 2.0 g/L	A12	Determination of Total Reducing Sugar in Beverage Alcohol by Segmented Continuous Flow Analysis	Skalar, Colorimetry
Spectroscopy	> 6 mg/L	A14	Determination of Free SO ₂ in Beverage Alcohol Excluding Spirits and Liquors by Segmented Continuous Flow Analysis	Skalar, Colorimetry
Spectroscopy	> 20 mg/L	A15	Determination of Total SO ₂ in Beverage Alcohol Excluding Spirits and Liquors by Segmented Continuous Flow Analysis	Skalar, Colorimetry
Spectroscopy	> 1.0 % v/v	A16	Determination of Ethanol in Beverage Alcohol Excluding Spirits and Liquors by Segmented Continuous Flow Analysis	Skalar, Colorimetry

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Spectroscopy	0.5 – 17% v/v	A55	Measurement of Alcohol Concentration in Wines and Other Beverage Alcohol by Near Infrared Spectroscopy	NIR
Chromatography	1-21 % v/v	A18	Determination of Ethanol in Beverage Alcohol below 21% alc./vol. by Gas Chromatography-Flame Ionization Detection	GC-FID
Chromatography	(12 to 80) % v/v	A43	Determination of Ethanol in Liquors and Spirits by Gas Chromatography-Flame Ionization Detection	GC-FID
Chromatography	> 240 mg/L	A19	Determination of Methanol in Liquors and Spirits by Gas Chromatography-Flame Ionization Detection	GC-FID
Chromatography	> 40 mg/L	A35	Determination of Methanol in Wine by Gas Chromatography-Flame Ionization Detection	GC-FID
Chromatography	> 5 µg/L	A20	Determination of Ethyl Carbamate in Beverage Alcohol by Gas Chromatography-Mass Selective Detection	GC-MSD
Chromatography	> 30 µg/L	A22	Determination of Pesticide Residues in Wines and Beer by Gas Chromatography-Mass Selective Detection	GC-MSD
Chromatography	> 1.0 µg/L	A24	Determination of 2,4,6-Trichloroanisole and 2,4,6-Trichlorophenol in Corks, Wines and Spirits by Gas Chromatography-Mass Selective Detection	GC-MSD
Chromatography	> 25 µg/L	A53	Determination of Coumarin in Beverage Alcohol by Gas Chromatography-Mass Selective Detection	GC-MSD
Chromatography	> 30 µg/L	A54	Determination of Thujone in Beverage Alcohol by Gas Chromatography-Mass Selective Detection	GC-MSD
Chromatography	> 2 mg/L	A27	Determination of Synthetic Dyes in Alcoholic Beverages by HPLC-PDA	HPLC-PDA
Chromatography	> 0.5 µg/L	A51	Detection of Ochratoxin A in Wine and Beer by HPLC-Fluorescence Detector	HPLC-FD

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Chromatography	> 0.3 µg/L	A52	Determination of Ochratoxin A in Wine and Beer by HPLC-Fluorescence Detector with Immunoaffinity Column Clean-up	HPLC-FD
Physical Property	> 0.5 % v/v	A17	Determination of Real Alcoholic Strength of Beverage Alcohol using Distillation and Electronic Densimetry	Densimeter
Physical Property		A32	Determination of Apparent Density and Specific Gravity at 20°C by Density Meter	Densimeter
Physical Property	> 0.95 % v/v	A49	Measurement of Apparent Alcoholic Strength by Volume Using Electronic Densimetry	Densimeter
Physical Property	(0.1 to 4000) NTU	A33	Determination of Turbidity in Beverage Alcohol by Nephelometry	Turbidimeter
Physical Property	(1 to 14) pH	A34	Determination of pH in Alcoholic Beverages by pH Meter	pH Meter
Physical Property	> 1.0 g/L	A26	Determination of Total Acidity in Wines by Titration to pH 8.2	pH Meter - Volumetric
Wet Chemistry	> 130 mg/L	A36	Determination of Volatile Acidity in Alcoholic Beverages Excluding Spirits and Liqueurs by Cash Still	Volumetric
Wet Chemistry	> 9 mg/L	A41	Determination of Free and Total SO ₂ in Wine by Titration (Ripper Method)	Volumetric
ICP-MS	> 2 µg/L (Cd) > 20 µg/L (Pb)	A46	Determination of Lead and Cadmium Leached from Storage and Drinking Vessels	ICP-MS
ICP-MS	>2 µg/L (Cd, Co, Sb) >10 µg/L (As) >20 µg/L (Pb, Cu) >40 µg/L Al, Zn	A45	Determination of Metals in Beverage Alcohol	ICP-MS



Technology	Range, when necessary	Methods Used	Product Types	Remarks
ICP-MS	> 2 µg/L (Cd, Co) >10 µg/L (As) >20 µg/L (Pb)	A47	Determination of Metals (As, Cd, Co, Pb) in Beverage Alcohol Requiring Acid Digestion	ICP-MS
ICP-MS	> 0.1% NaCl	A48	Determination of Sodium Chloride in Cooking Wines and Spirits by ICP-MS	ICP-MS

Notes:

- 1) This laboratory offers commercial testing service.

Approved by: 
R. Douglas Leonard
Chief Technical Officer

Date: July 10, 2013

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